

COMMON PLANTS

OF THE HIGH LINE CANAL NEAR EISENHOWER PARK: SOME ECOLOGY AND ETHNOBOTANY



PREPARED BY DENVER BOTANIC GARDENS
FOR THE HIGH LINE CANAL CONSERVANCY

TABLE OF CONTENTS

Overview.....	pg. 3
Purpose.....	pg. 4
Wildlife/Pollinator.....	pg. 5
Restoration/Erosion.....	pg. 6
What are Noxious Weeds.....	pg. 7
Trees/Shrubs.....	pg. 8-24
Forbs.....	pg. 25-42
Graminoids.....	pg. 43-53
References/Authorship.....	pg. 54

OVERVIEW

The High Line Canal (hereafter, the Canal) is a 71-mile-long, man-made waterway that passes through 11 governmental jurisdictions in four Colorado counties. Annually, more than 500,000 people use the 66-mile-long urban trail that accompanies the Canal. This greenway is not only of immense social capital, but also provides critical habitat for numerous plant and animal species. As such, the Canal offers an excellent opportunity to connect people with nature.

In 2018, Denver Botanic Gardens (hereafter, the Gardens) completed a botanical survey along the Canal documenting nearly 450 plant species ([Alba, 2019](#)). Those species were collected and archived in the Kathryn Kalmbach Herbarium at the Gardens, for which information is publicly available ([click here](#)).

In 2019, the Gardens partnered with the High Line Canal Conservancy (hereafter, the Conservancy) to host BioBlitzes along the Canal. Through these public outreach events, citizen scientists made over 2,000 iNaturalist observations along the Canal and documented 219 plant species (including 14 species that were not documented in the 2018 botanical survey) and seven fungal species (Schnacke & Alba, 2019). Data gathered from the project can be found [here](#), while a more extensive list of observations (including observations made outside of BioBlitzes) can be found [here](#).

The Conservancy is working with Denver Water, Mile High Flood District and local jurisdictions to integrate green infrastructure systems that improve stormwater quality along the Canal. In 2020, the Gardens has again partnered with the Conservancy to survey vegetation and soils near Mamie D. Eisenhower Park to document the ecology of the system prior to implementation of the stormwater demonstration project ([click here for more info](#)).



Photo: Scott Dressel-Martin

PURPOSE

The following report is supplemental to the completed and ongoing work performed by the Gardens along the Canal. Locality information about the species presented here was collected during the Gardens ecological monitoring near Mamie D. Eisenhower Park in 2020. The biodiversity of plant species and their distributions along the entire reach of the Canal have been assessed by the aforementioned projects. This report is therefore not intended to provide an exhaustive list of plant species nor their occurrence locations.

The goal of this report is to supply the Conservancy and the general public with a list of some of the beneficial or potentially problematic species that occur along the Canal near Mamie D. Eisenhower Park.

The report includes information on 46 species commonly encountered on the High Line Canal. Much of the information listed below is included for each. The designation "n/a" or "not available" is used when information was not readily available from the listed references. An exhaustive search of the primary scientific literature could turn up more information, but was not undertaken here.

- A map of some representative locations of the species near Eisenhower park.
- The species scientific name and some of the common names.
- A description of the plant, including some general remarks about identification characteristics.
- A general description of the resources the plant provides to wildlife and pollinators.
- A general description of the resources the plant provides in restoration and erosion control.
- A general description of some ethnobotanical uses (other than those associated with restoration/erosion control).
- A noxious weed designation if the state of Colorado has determined the plant as such.



Photo: Scott Dressel-Martin

WILDLIFE

Every animal on the planet, from the smallest insect to the smartest human, relies on plants. Through the process of photosynthesis, plants transform solar energy into biomass, which in turn becomes the root of all food webs.

Plants not only provide wildlife with a source of food, but are also integral components of nests, dens, and protection from predators. As plant diversity increases, so does richness and abundance of wildlife species. In urban environments, a more diverse plant and wildlife community not only leads to an increase in the ecosystem health and the services it provides (i.e., water/air filtration, carbon sequestration), but also increases the social capital of the surrounding region. For example, when small mammals and birds prosper in a greenway, bird watchers are more likely to see raptors and other charismatic animals.

POLLINATOR

An ecosystem service is broadly defined as a natural process that in some way benefits humans. Pollination is one of the classic examples of an ecosystem service. However, in some locations we are seeing a dramatic decline in pollinator richness and abundance.

Pollinators are not only valuable players in agriculture, but also in maintaining ecosystem diversity. Without bees and other insects, many flowering plants would not be able to successfully reproduce. Further, a number of charismatic insects (e.g., monarch butterflies, sphinx moths) rely exclusively upon certain host plant species for their larvae. A greater diversity in flowering plants allows for greater diversity in pollinating insects. How would you feel if the only food you could buy from the grocery store was sliced bread and iceberg lettuce!



Photo: Scott Dressel-Martin

RESTORATION

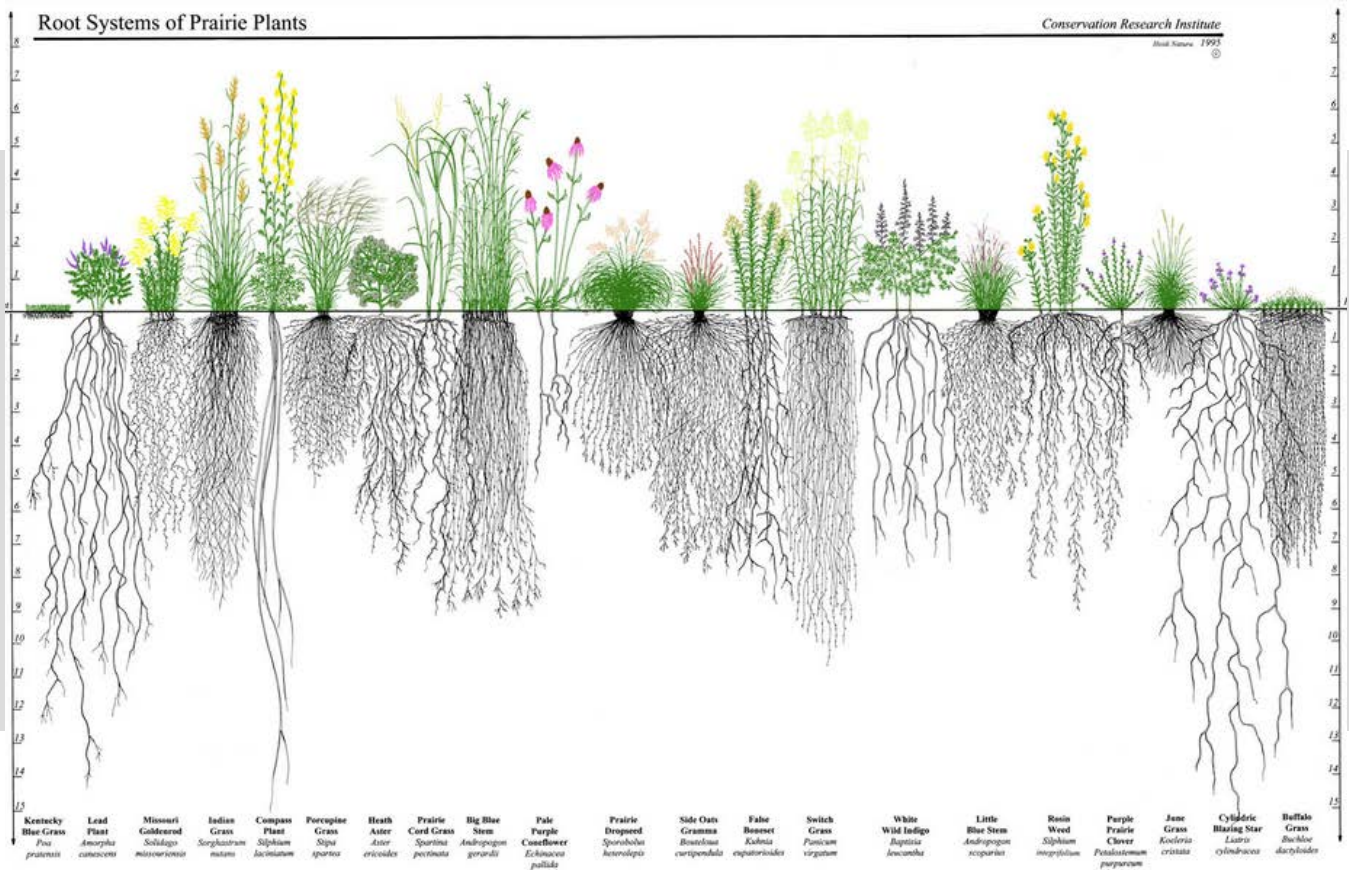
Plants are one of the most important components of an ecological restoration project. Native plant communities help maintain the health and integrity of a restored ecosystem while providing critical habitat and food for wildlife. Some plants have the capacity to absorb and remove heavy metals or pollutants from stormwater and soils, making them valuable for mine reclamation or urban sites.

Properly revegetated areas also provide important services that increase the social capital of the area. Of note are the aesthetics of the landscape. A walk through natural areas has been shown to reduce stress and increase work productivity.

EROSION

Plant roots are significant contributors in maintaining soil stability and preventing erosion. Root systems are intricate and adaptive. They penetrate tough compacted soils and work their way around rocks and large debris in the soil. Different species of plants have various root morphologies and sizes, so when there is a greater diversity in plants, we see greater soil stability.

Plants help prevent soil erosion in multiple ways. The interlocking growth of plants helps hold soil together when stormwater runoff would otherwise flush top soils away. Furthermore, as the roots break through compacted soils, they allow stormwater to penetrate more quickly and deeply into the soils.



NOXIOUS WEED SPECIES

Non-native, introduced plant species can hinder the services ecosystems provide. Once established, some introduced plants can prohibit the growth and establishment of native plants and disturb ecosystem properties such as soil cover, nutrient cycling, and hydrologic regimes. In urban environments, introduced plants can provide ecosystem services such as cultural services (aesthetics) and provisioning services (crop/food production). But they also produce ecosystem disservices such as impacting human health (allergies) and disrupting ecosystem processes.

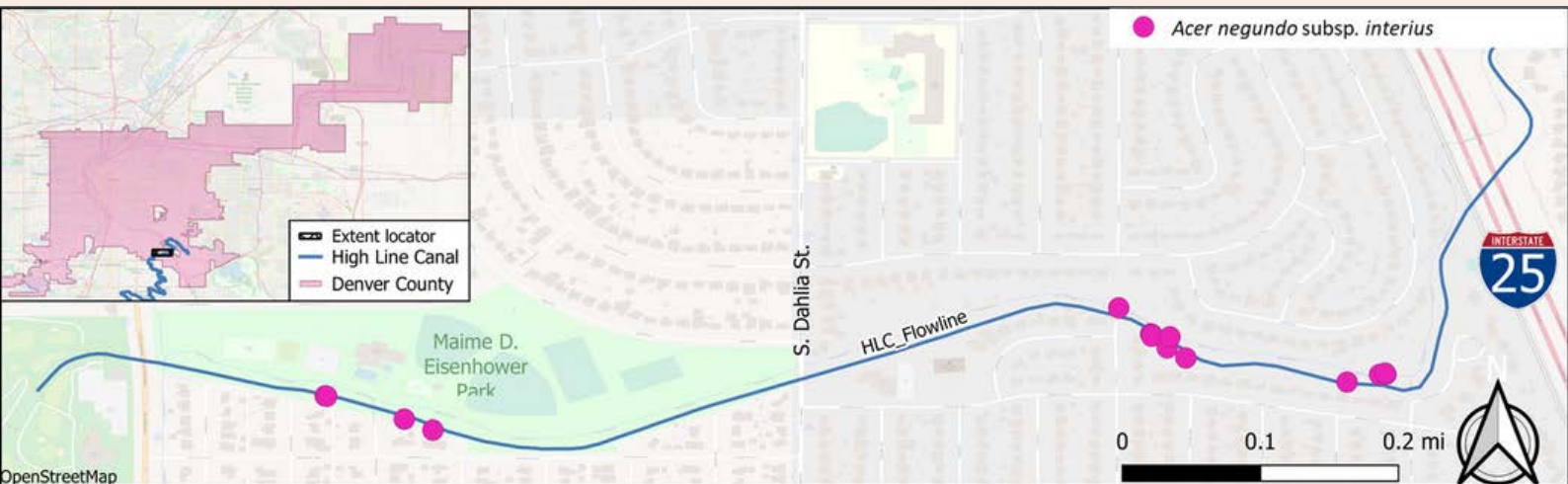
In the following report, all species are described as either native or introduced to Colorado based on Ackerfield 2015. To be labeled as a noxious weed, the species must be introduced and pose some characteristic that is harmful or injurious to human culture or the ecosystem.

Within this report, noxious species fall into one of the four following designations of noxious weed species (for more details please [click here](#)):

- **List B Species:** Species that have developed and implemented management plans designed to stop the continued spread of the species.
- **List C Species:** Species that will have developed and implemented management plans designed to support the efforts of local governing bodies to facilitate more effective integrated weed management on private and public lands. The goals for these already widespread List C species is not necessarily to stop their continued spread, but to provide additional education, research, and biological control resources to jurisdictions that choose to require management of these species.
- **Watch List Species:** Species determined to pose a potential threat to agricultural productivity and environmental values of the lands of the state, for which the Commissioner of Agriculture requires more data.



Photo: Scott Dressel-Martin



Acer negundo var. *interius*



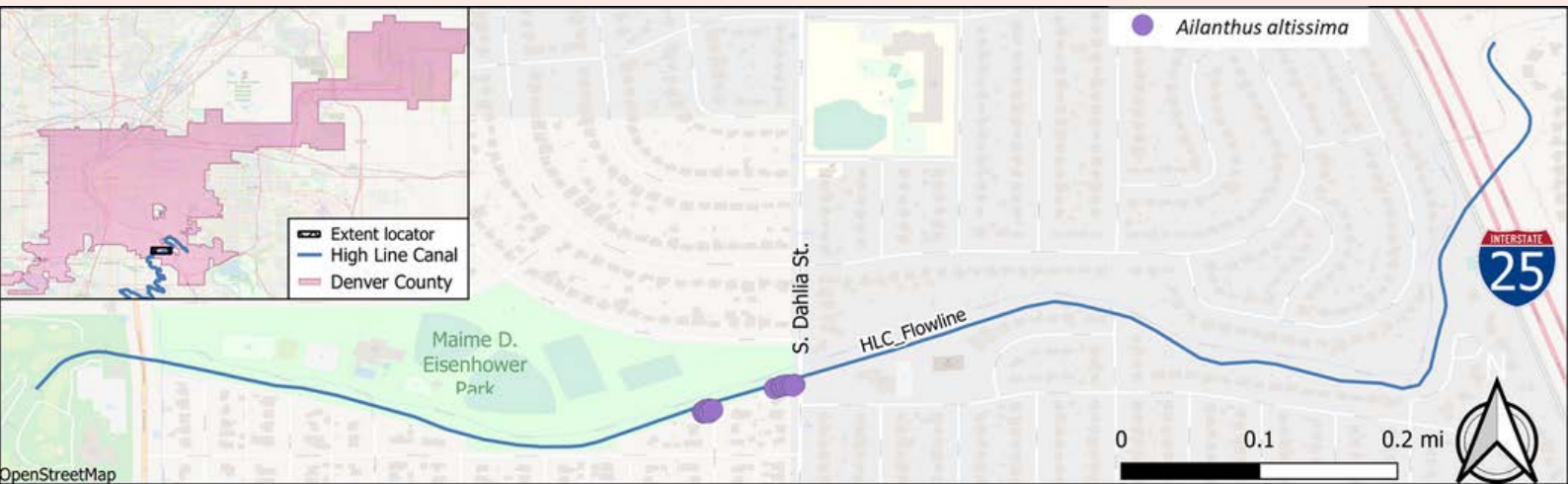
Common Name: Box Elder

Description/Identification: Introduced. Deciduous trees to 12 m. Leaves ternately compound, coarsely toothed. Samaras (dry winged fruit, a.k.a helicopter seeds) paired, 2.5-4 cm long. Common along creeks between 4800 and 7900 ft.

Wildlife/Pollinator: Seeds provide important winter food for birds and small mammals.

Restoration/Erosion Control: Quick-growing trees, yet short-lived and disease-prone. Tolerant to urban conditions, drought, and cold. The tree is valuable in erosion control because of its fibrous root system and prolific seeding. Can be temporarily used until the tree is replaced by slower-growing but longer-lived trees.

Ethnobotanical Uses: The wood of Box Elder trees has been used by Native American tribes to make items such as bowls, drums, pipestems, and incense, while the charcoal was used as a primary ingredient for tribal tattooing. Scrapings from the inner bark can be dried and kept for consumption during the winter or boiled into a tea that was used as an emetic. Numerous tribes used the sap as a sweetener. The Cheyenne made a candy by mixing the sap with shavings from animal hides.



Ailanthus altissima



Common Name: Tree of Heaven

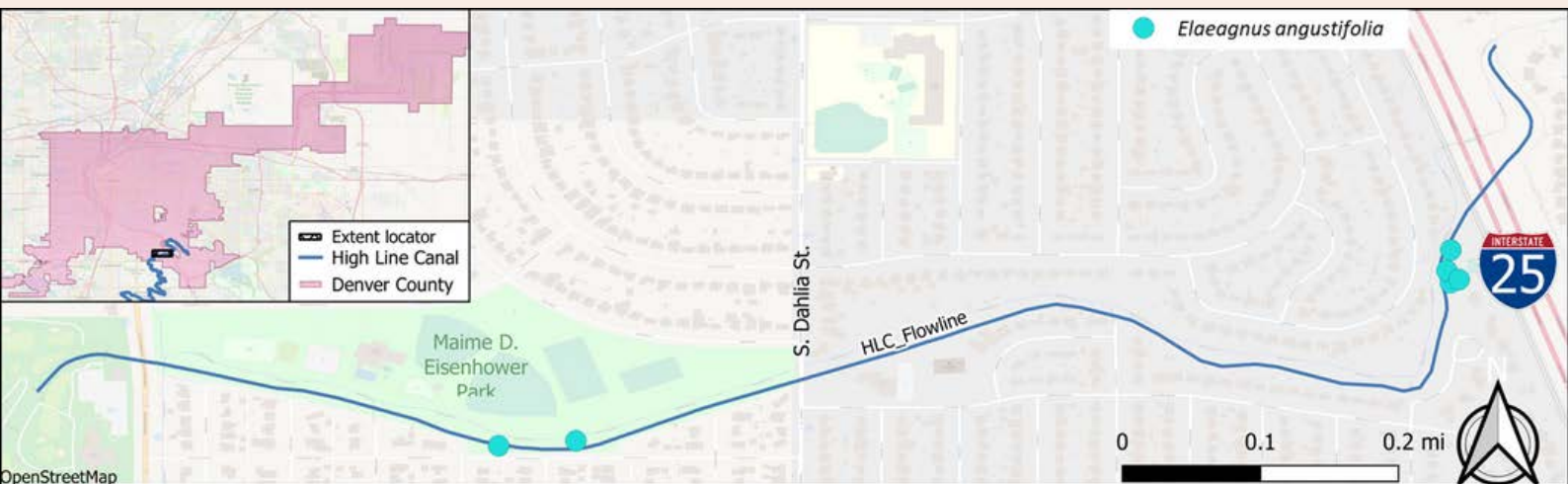
Description/Identification: Introduced. Deciduous trees to 20 m. Can produce clonal thickets via rhizomes. Leaves odd-pinnately compound, to 90 cm in length. Leaflets 9-31, 8-15 cm long, lanceolate.

Wildlife/Pollinator: This tree provides little forage value to animals.

Restoration/Erosion Control: n/a

Ethnobotanical Uses: n/a

Colorado Noxious Weed Watchlist Species



Elaeagnus angustifolia



Common Name: Russian Olive

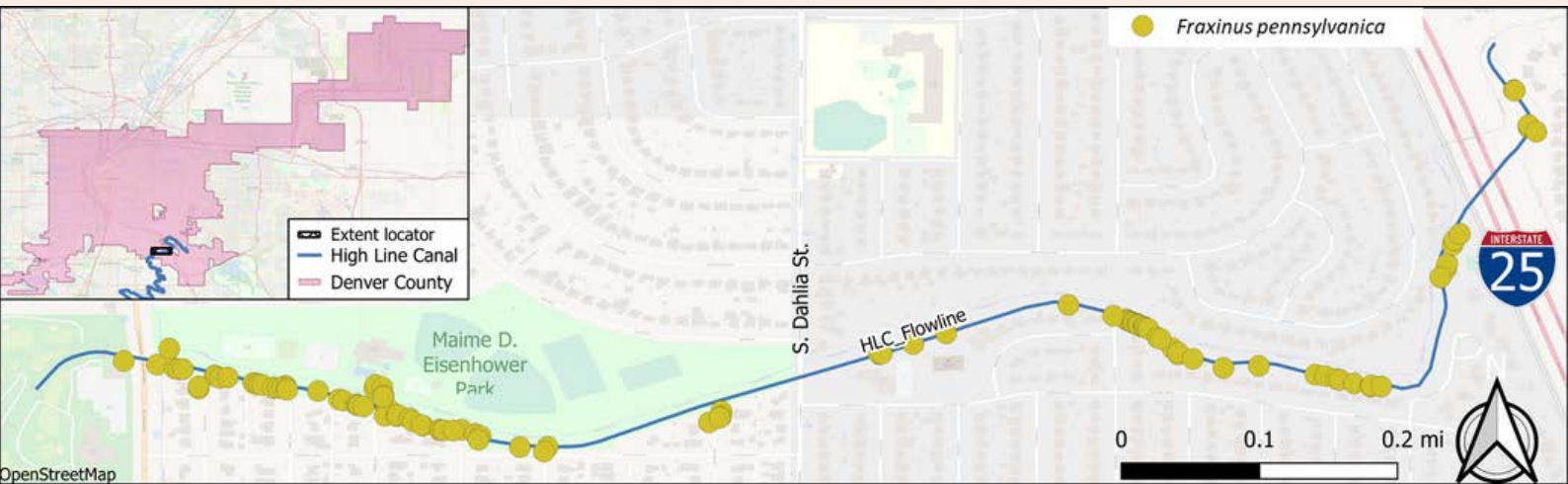
Description/Identification: Introduced. Deciduous trees mostly 5-12 m. Leaves lance-linear to narrowly elliptic, silvery. Often cultivated and escaping where it is found along roadsides, streams, or floodplains.

Wildlife/Pollinator: n/a

Restoration/Erosion Control: This tree was introduced into the US as a windbreak but has readily escaped cultivation and become a serious threat to the ecology of riparian habitats.

Ethnobotanical Uses: n/a

**Colorado Noxious Weed
List B Species**



Fraxinus pennsylvanica



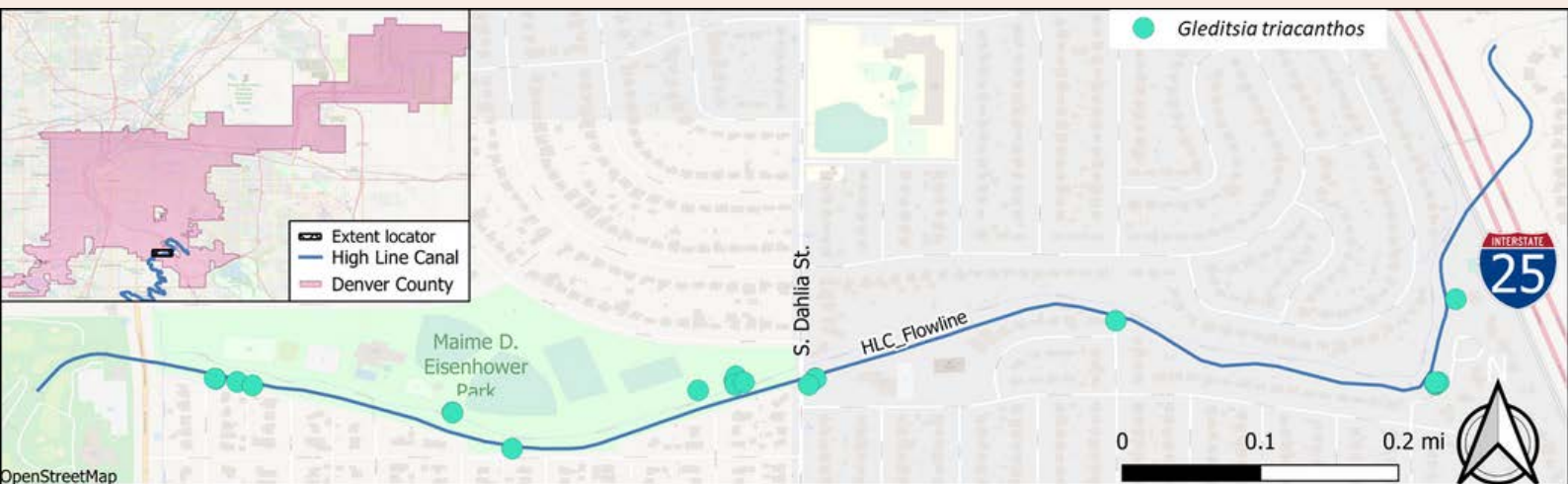
Common Name: Green Ash

Description/Identification: Introduced. Deciduous trees to 20 m. Leaves pinnately compound with 5-7 leaflets. Leaflets 6-15 cm long, serrate to subentire. Samaras (helicopter seeds) 2-5 cm long. Cultivated and escaping along the Front Range, or native on floodplains of rivers or along the margins of lakes on the eastern plains.

Wildlife/Pollinator: The seeds, stems and foliage provide food and cover for game and non-game birds, beavers, and other small mammals. Blackbirds, finches, and grosbeaks are among the non-game birds that feed upon the fruits. Tiger swallowtails, ash sphinxes, waved sphinxes, and Polyphemus moths use green ash trees as host plants. The canopy cover also provides thermal cover for aquatic organisms.

Restoration/Erosion Control: Green ash/chokecherry habitats maintain streambank stability.

Ethnobotanical Uses: Green ash was used by the native people of the Great Plains to construct bows, arrows, drums, tent poles, and meat-drying racks. Many tribes believed the tree had beneficial natural powers and was part of numerous ceremonial objects.



Gleditsia triacanthos



Photo: Paul Rothrock

Common Name: Honey Locust

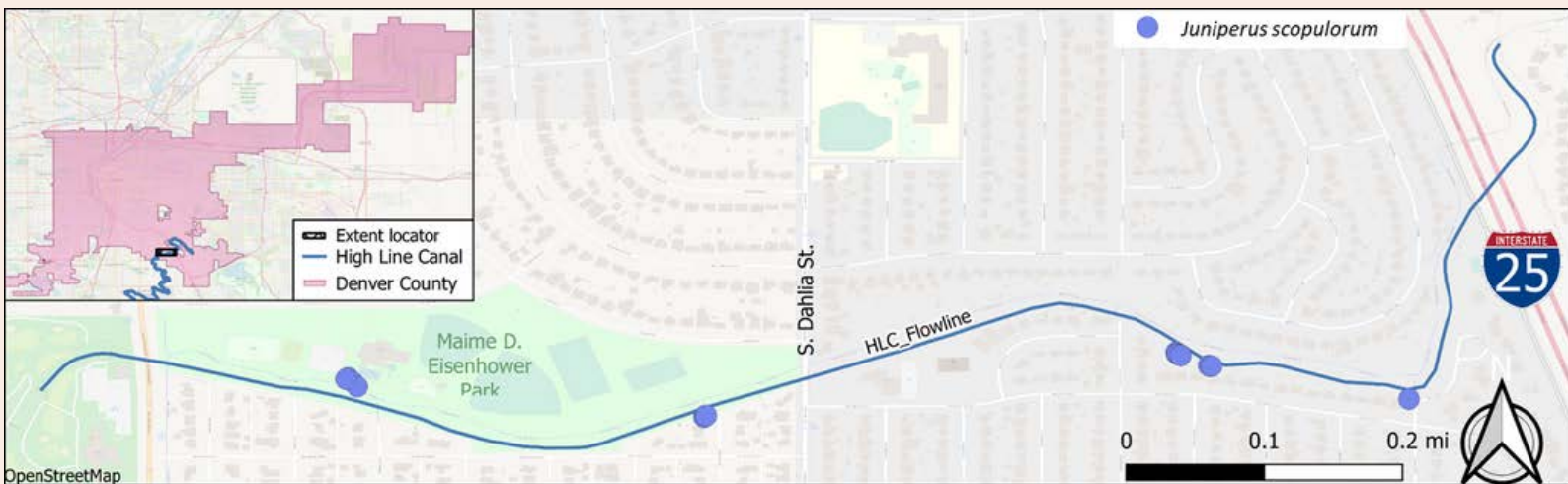
Description/Identification: Introduced. Deciduous trees 20-40 m. Armed or unarmed, thorns to 20 cm. Leaves 1-2 times pinnate, pinnate leaves with 10-14 pairs of leaflets or 4-7 pairs of pinnae. Leaflets elliptic-oblong, 1.3-2.5 cm long. Staminate inflorescence of crowded racemes with numerous flowers. Flowers yellowish-green. Legumes oblong to ovate. Cultivated tree sometimes escaping along roadsides.

Wildlife/Pollinator: Numerous small mammals and non-game birds happily feast upon the seed pods of honey locust. Rabbits are known to consume the bark in winter while the summer blossoms provide a source of pollen and nectar for honey. The plant forms thorny thickets that provide small mammals and birds with excellent protection from predators.

Restoration/Erosion Control: The open canopy of honey locust allows forbs and grasses to prosper.

Ethnobotanical Uses: Widely planted as an ornamental, this tree has been used in windbreaks. Fermented seed pods are being explored for their use as a biomass fuel. The pods are also edible.





Juniperus scopulorum



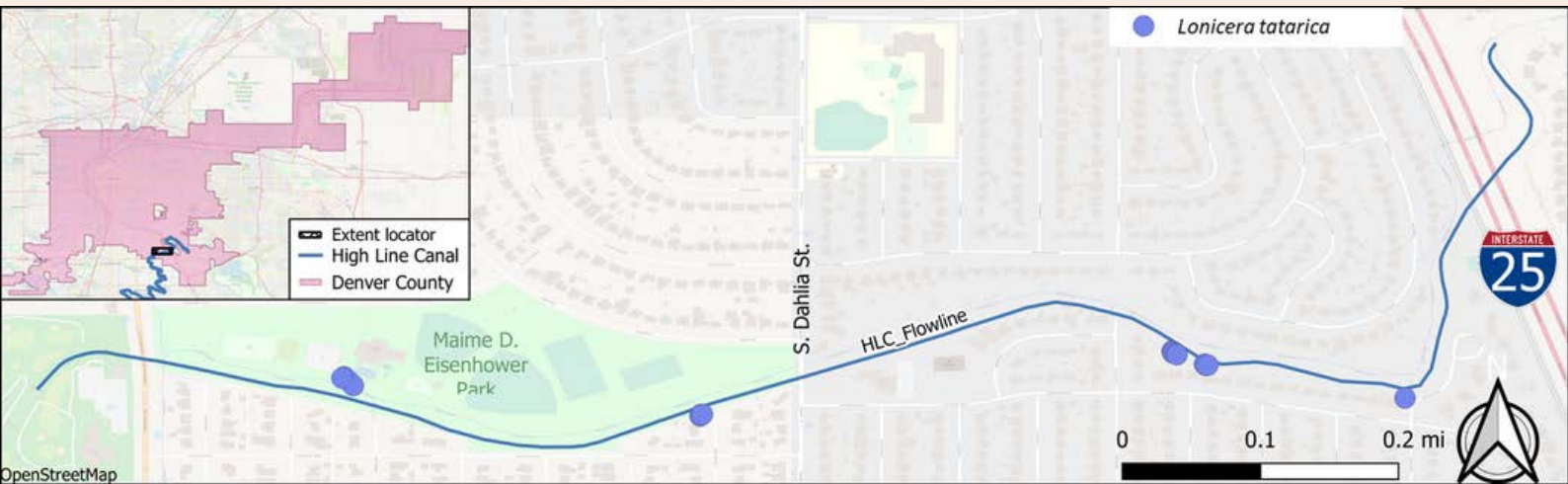
Common Name: Rocky Mountain Juniper

Description/Identification: Native/cultivated. Evergreen trees to 6 m. Leaves green to blue-green, scale-like. Cones (commonly referred to as berries) 4-6 mm diameter, bluish at maturity. Commonly cultivated with numerous varieties.

Wildlife/Pollinator: Numerous birds and mammals depend upon Rocky Mountain juniper as a primary food source. In particular, Waxwings are the primary consumers of the cones ("berries").

Restoration/Erosion Control: As this tree is an evergreen, it has been used on outer rows of multi-row plantings where it will not be out shaded by taller trees.

Ethnobotanical Uses: The seeds, "berries" and foliage are used for incense, teas, or salves. The species is used medicinally to treat a variety of ailments including respiratory problems, backaches, vomiting and diarrhea, dandruff, high fever, arthritis and muscular aches, kidney and urinary ailments, and heart and circulatory problems. The berries of junipers are used to make gin.



Lonicera tatarica



Photo by Jason Cooper, some rights reserved (CC-BY-NC)

Common Name: Twinsisters, Tatarian honeysuckle

Description/Identification: Introduced. Shrubs to 3 m. Leaves ovate to elliptic, 2.5-5 cm long. Flowers rose-pink, 11-20 mm long. Berries orange or reddish-orange. Uncommon in canyons of the foothills and disturbed areas.

Wildlife/Pollinator: Small mammals such as rabbits consume the fruits in late winter and early spring.

Restoration/Erosion Control: The species is tolerant to extreme seasonal weather and allows the species to be recommended as a windbreak, shelterbelt, or hedge species. Additionally, it has been used in range restoration, soil stabilization, and streambank reclamation.

Ethnobotanical Uses: The bright-colored fruits have led to this species being cultivated as an ornamental.



Populus angustifolia



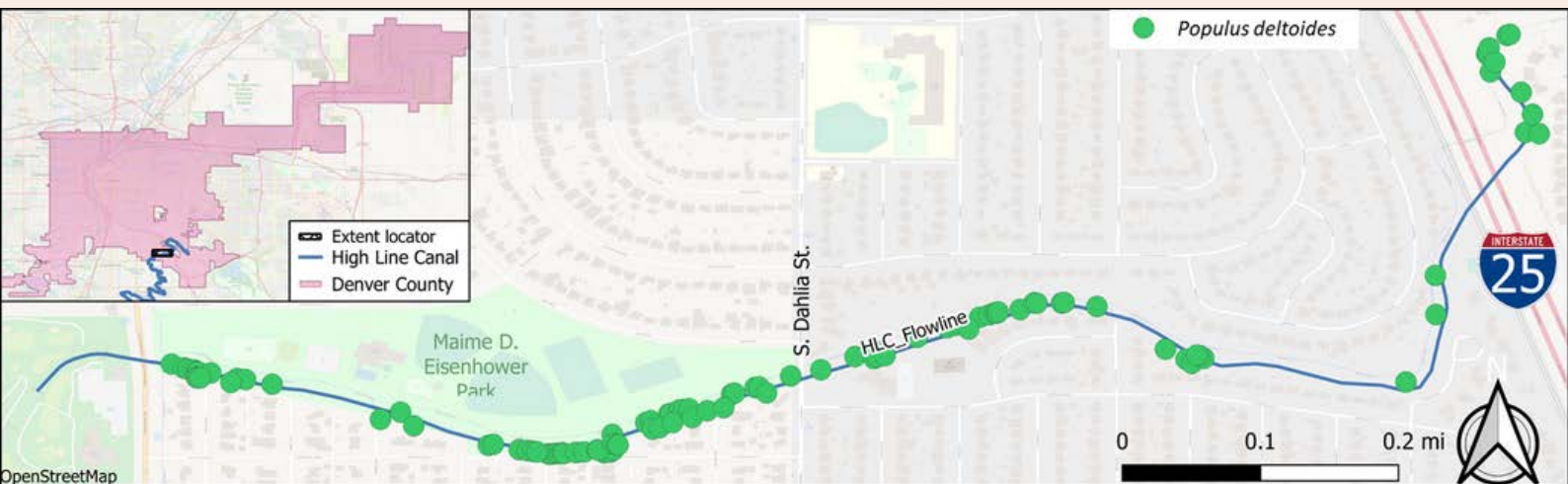
Common Name: Narrowleaf Cottonwood

Description/Identification: Native. Deciduous trees to 20 m. Bark furrowed below and smooth above. Leaves lanceolate to narrowly ovate, 4-10 x 0.8-3 cm, the margins crenate-serrate. Catkins 3-9 cm long.

Wildlife/Pollinator: Cottonwoods are one of the primary components of riparian woodlands in Colorado. Field mice, rabbits, deer, and livestock consume the bark and leaves of cottonwood trees. The trees provide critical habitat for breeding birds, and are sites for roosting and nesting. Furthermore, the trees provide nest materials for several bird species.

Restoration/Erosion Control: Cottonwoods have an extensive root system, which holds streambanks in place. They are effective in shoreline protection, revegetating eroded stream channels, and creating living dam systems that control erosion and flooding. Narrowleaf Cottonwoods are well adapted to plantings on disturbed sites.

Ethnobotanical Uses: The White Mountain Apache, Zuni, and Navajo tribes used buds as a chewing gum/candy. The wood and shoots were used as a building material for baskets, shelters, and cradles while also serving as a fuel source.



Populus deltoides



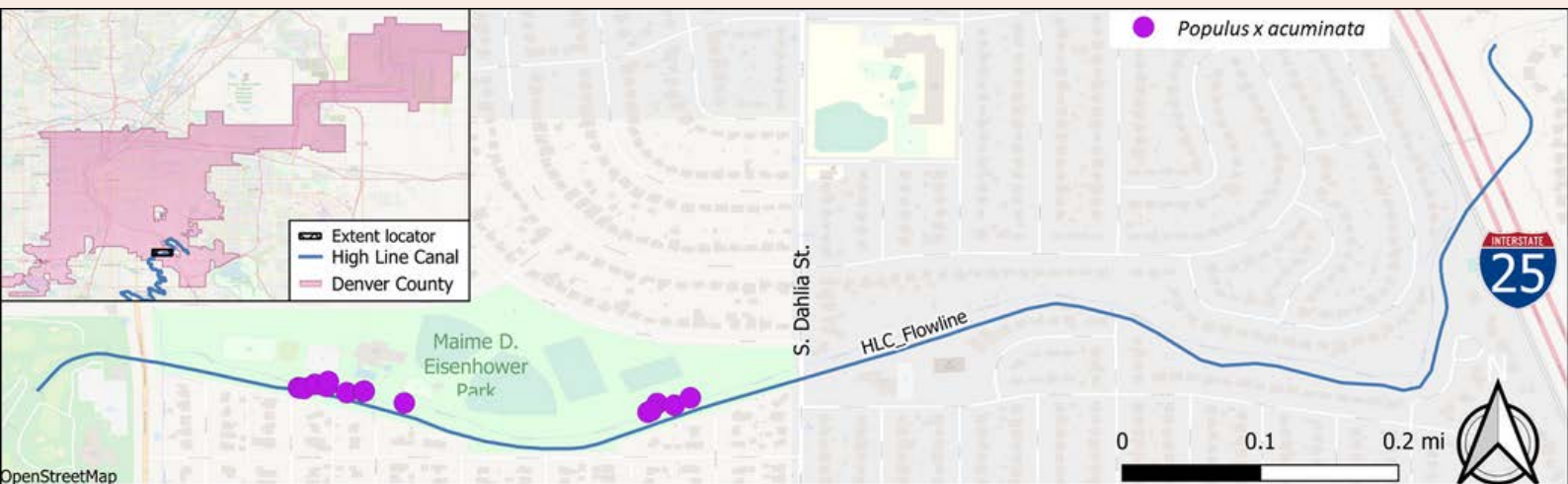
Common Name: Cottonwood

Description/Identification: Native. Deciduous trees to 40 m. Bark deeply furrowed. Leaves triangular-ovate, with acuminate tips and truncate bases, 4-10 cm long, margins crenate-serrate. Catkins 5-13 cm long.

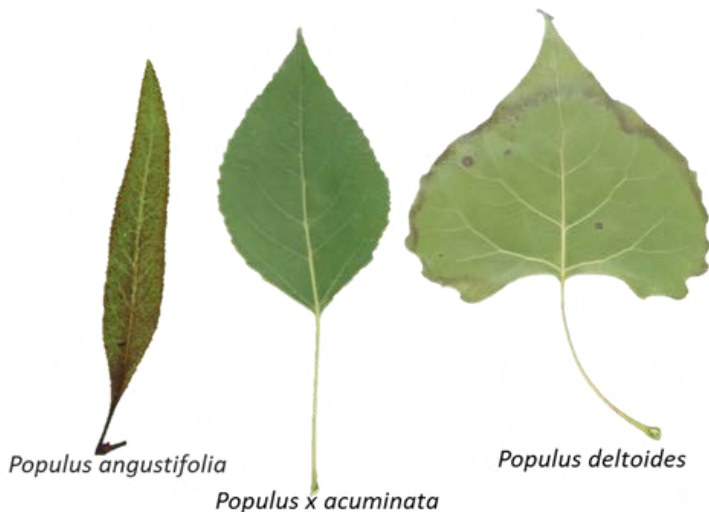
Wildlife/Pollinator: Cottonwoods are one of the primary components of riparian woodlands in Colorado. Field mice, rabbits, deer, and livestock consume the bark and leaves of cottonwood trees. The trees provide critical habitat for breeding birds, and are sites for roosting and nesting. Furthermore, the tree provides nest materials for several bird species.

Restoration/Erosion Control: Cottonwoods have an extensive root system, which holds streambanks in place. They are effective in shoreline protection, revegetating eroded stream channels, and creating living dam systems that control erosion and flooding.

Ethnobotanical Uses: Native Americans used the roots to start fires and used smaller trees for lodge poles and travois. Children made toys with the leaves and play jewelry from the fruits. The bark has been used as a strengthener, cold remedy, dermatological aid, venereal aid, anthelmintic, and orthopedic aid. Various parts of the plant can be used to make green, purple, red, white, and yellow dyes. The tepee pattern is supposedly patterned after the deltoid leaf shape.



Populus x acuminata



Common Name: Lanceleaf cottonwood

Description/Identification: Native. Deciduous trees to 25 m. Leaves lanceolate, 5-10 x 3-7 cm, margins coarsely crenate. Catkins 6.5-9 cm long in flower (to 16.5 cm in fruit). Hybrid between *Populus angustifolia* and *Populus deltoides*.

Wildlife/Pollinator: Cottonwoods are one of the primary components of riparian woodlands in Colorado. Field mice, rabbits, deer, and livestock consume the bark and leaves of cottonwood trees. The trees provide critical habitat for breeding birds, and are sites for roosting and nesting. Furthermore, the tree provides nest materials for several bird species.

Restoration/Erosion Control: Cottonwoods have an extensive root system, which holds streambanks in place. They are effective in shoreline protection, revegetating eroded stream channels, and creating living dam systems that control erosion and flooding.

Ethnobotanical Uses: Lakota horses were fed the boughs and bark during winter. The wood for lanceleaf cottonwoods was a common building material to numerous Native American tribes. The Ramah Navajo made snake figurines from the roots.



Prunus americana



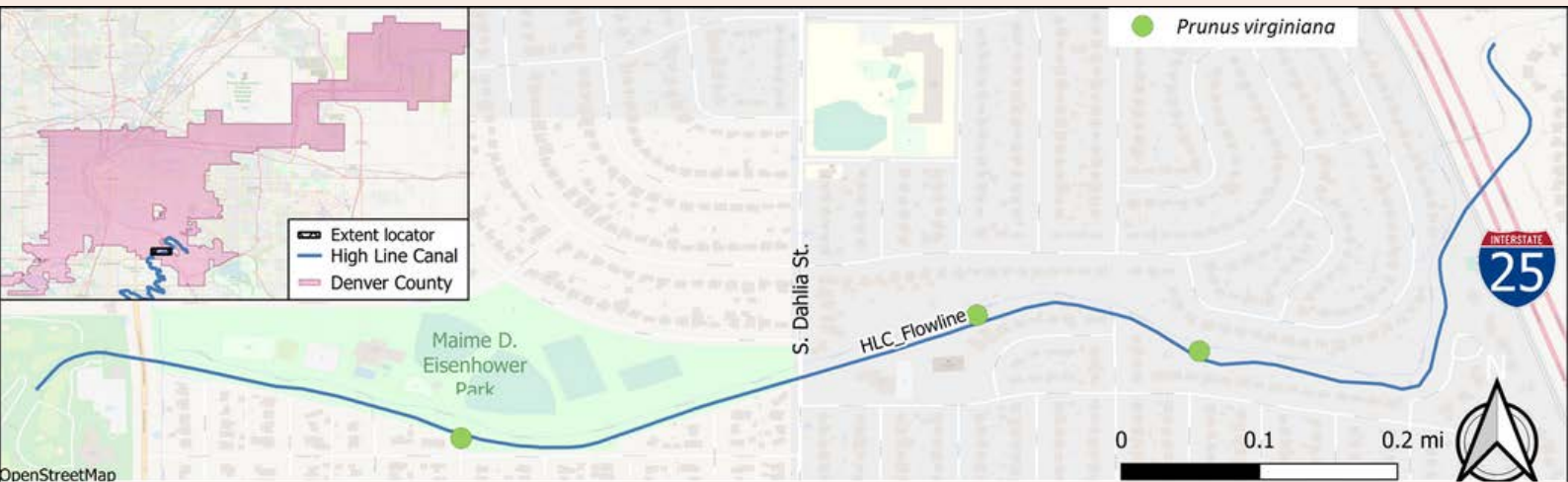
Common Name: Wild plum, American Plum

Description/Identification: Native/cultivated. Shrubs to 8 m, often spinescent. Leaves obovate to lanceolate-ovate, 2.5-7 x 0.5-3 cm, with doubly serrate margins, slightly hairy on underside. Flowers in clusters of 2-5, petals white. Mature drupes reddish-purple or yellowish, 2-3 cm diameter.

Wildlife/Pollinator: This plum tree is a highly valuable food source to numerous animals, while the twigs and foliage are a highly preferred browsing food for deer. Thickets of this species provide protection for bird nesting, loafing and roosting. Small mammals are also known to loaf and bed in thickets of wild plum.

Restoration/Erosion Control: While no information is readily available for this species regarding restoration/erosion control, it may function in a manner similar to that of chokecherries.

Ethnobotanical Uses: The fruit is widely used for making jellies and jams. Native Americans throughout the Midwest and West continue to use wild plum as a source of food and medicine. Parts of the plant can also be used to create red or yellow dyes.



Prunus virginiana



Photo by Garry Heard, some rights reserved (CC-BY-NC)

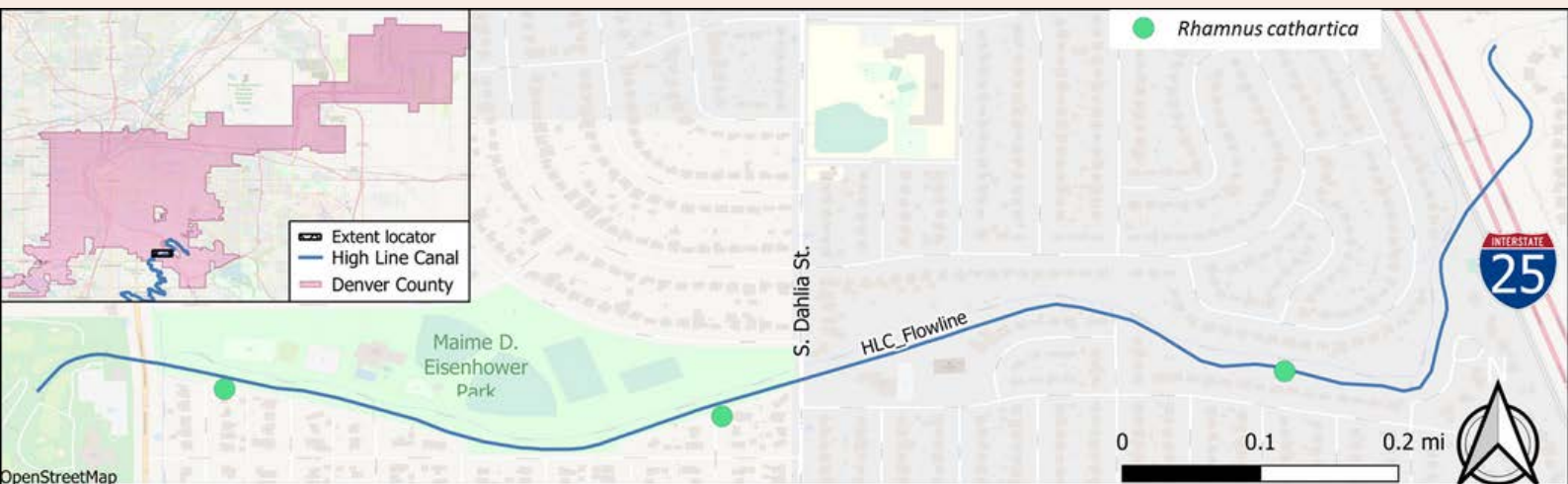
Common Name: Chokecherry

Description/Identification: Native. Shrubs or small trees to 10 m. Leaves ovate to elliptic or obovate, 4-12 x 3-6 cm, margins serrate. Flowers in racemes 4-10 cm long, petals white. Drupes red to dark purple or nearly black, ca. 1 cm diameter.

Wildlife/Pollinator: Prolific chokecherry fruits are a favorite food to humans and wildlife. Wildlife also consume the leaves and twigs, including large mammals such as bears. Small mammals and birds primarily consume the fruits, yet the twigs are also consumed or used for nesting material.

Restoration/Erosion Control: This species is an important member of riparian communities. It provides watershed protection and maintains species diversity. The root system helps maintain bank stability and increases water filtration.

Ethnobotanical Uses: Fine preserves, jellies, jams, syrups, and wines can be produced from chokecherry fruits. Archaeological evidence shows chokecherry harvesting occurred around 4,000 to 5,000 BC. Parts of this plant can be poisonous, however proper preparation will remove harmful compounds. The book Native American Ethnobotany records 337 uses of this plant, many of them either as a food or drug.



Rhamnus cathartica



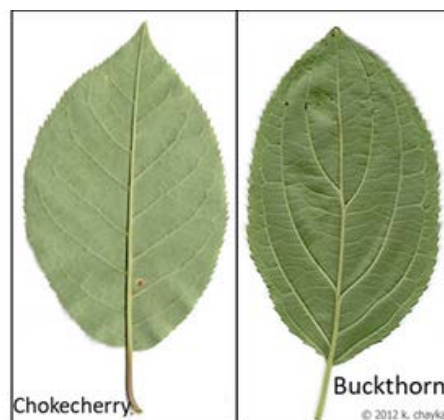
Common Name: Common Buckthorn

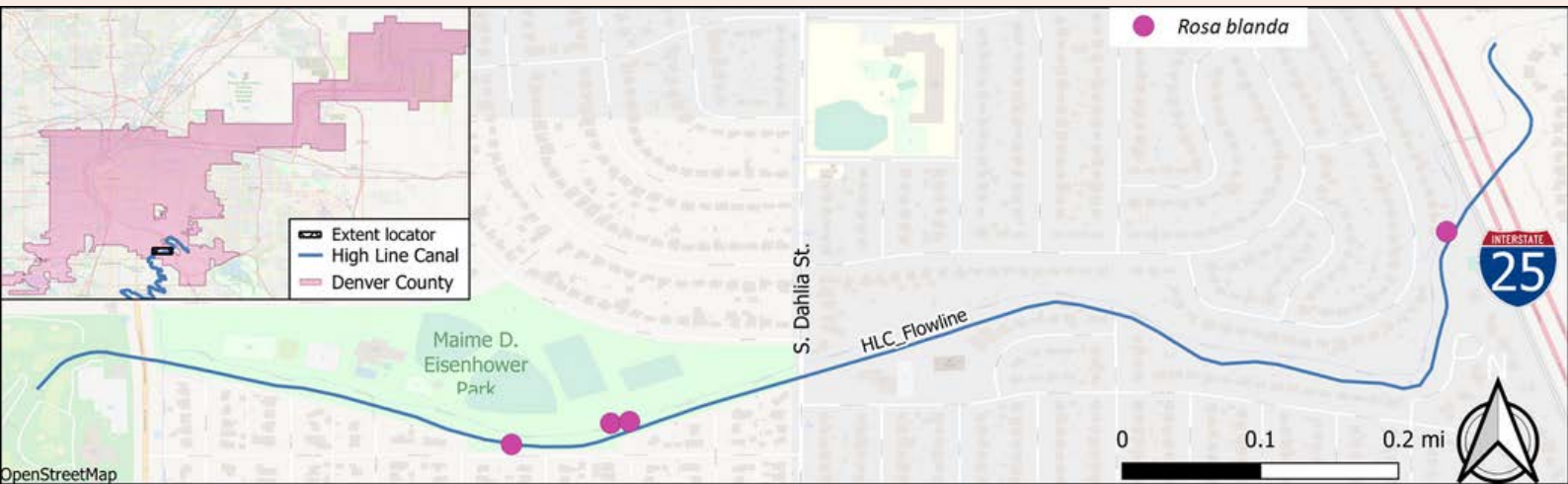
Description/Identification: Introduced. Dioecious shrub 2-6 m. Branches usually ending in short thorns. Leaves opposite or some alternate, elliptic to elliptic-obovate, 2-6 x 1.5-5 cm. Leaves appear similar to that of chokecherries, however the leaf veins of buckthorn curl towards the leaf tip where chokecherry leaf veins remain parallel. Flowers imperfect. Escaping from cultivation into canyons and along streams.

Wildlife/Pollinator: Due to the spine-tipped branches, buckthorn is not a common food for wildlife. Rabbits and beavers are known to avoid this plant, however small mammals and birds are likely to use the plant as cover from predators. Bird species likely consume buckthorn fruits as they persist on stems long into the winter. Numerous insects are also known to feed on the plant, although little evidence suggests that it provides a large resource to pollinators.

Restoration/Erosion Control: This species has been planted in restoration areas that are prone to erosion. However, a positive feedback loop between common buckthorn and nonnative earthworms along with other changes in soil properties may retard restoration efforts.

Ethnobotanical Uses: The Cherokee used the bark and fruit as a cathartic and as a treatment for itches and eye inflammation.





Rosa blanda



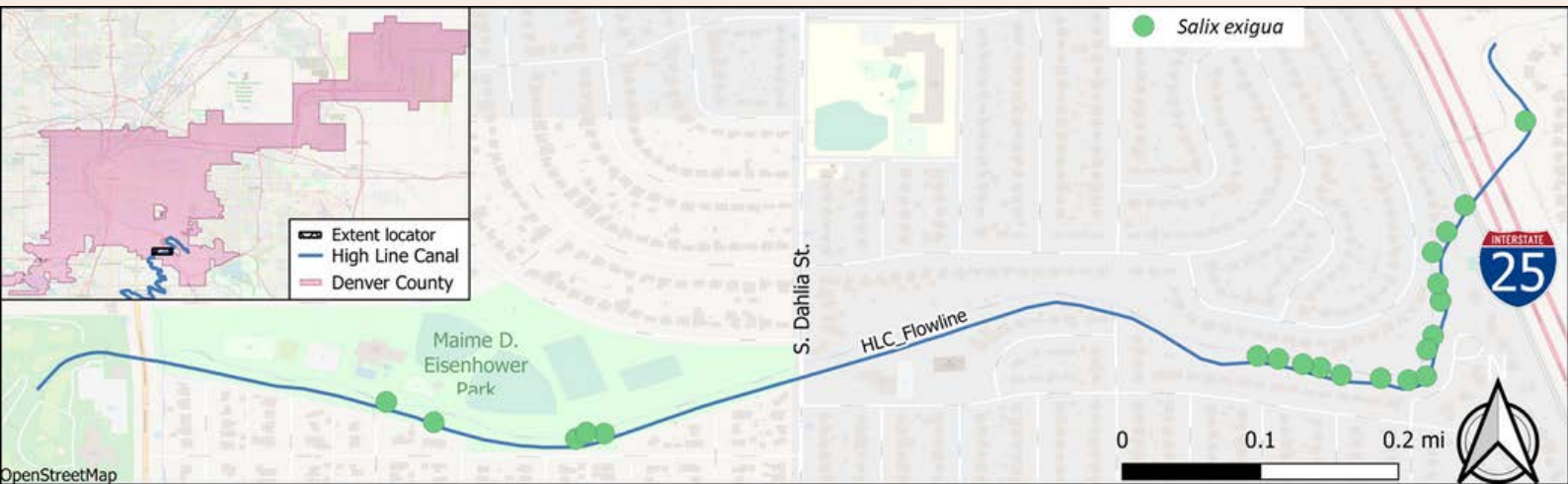
Common Name: Smooth Rose

Description/Identification: Native. Shrub. Stems with stout thorns with an enlarged, flattened base (or absent), slender prickles absent on new growth. Leaflets 5-9, 1.5-5 cm long, serrate. Flowers solitary or in clusters of 2-5, petals pink to rose 1.5-2.5 cm long.

Wildlife/Pollinator: Smooth rose provides valuable food for small mammals, game and non-game birds, but is of little value to waterfowl. The species provides essential cover for numerous nesting birds and small mammals. Roses also provide a major source of nectar for bees.

Restoration/Erosion Control: Smooth rose is an excellent native species for revegetation of disturbed sites. It provides excellent soil stabilization along streambanks and seeps.

Ethnobotanical Uses: Roots, stems, leaves, flowers, and hips have been used for food and therapeutic materials. Native American tribes have used the plant as a dermatological aid, gastrointestinal aid, eye aid, and orthopedic aid. Rose hips are one of the best natural sources of vitamin C. They can be used to flavor teas, jellies, cakes and puddings.



Salix exigua



Photo: Max Licher
Creative Commons Attribution-ShareAlike

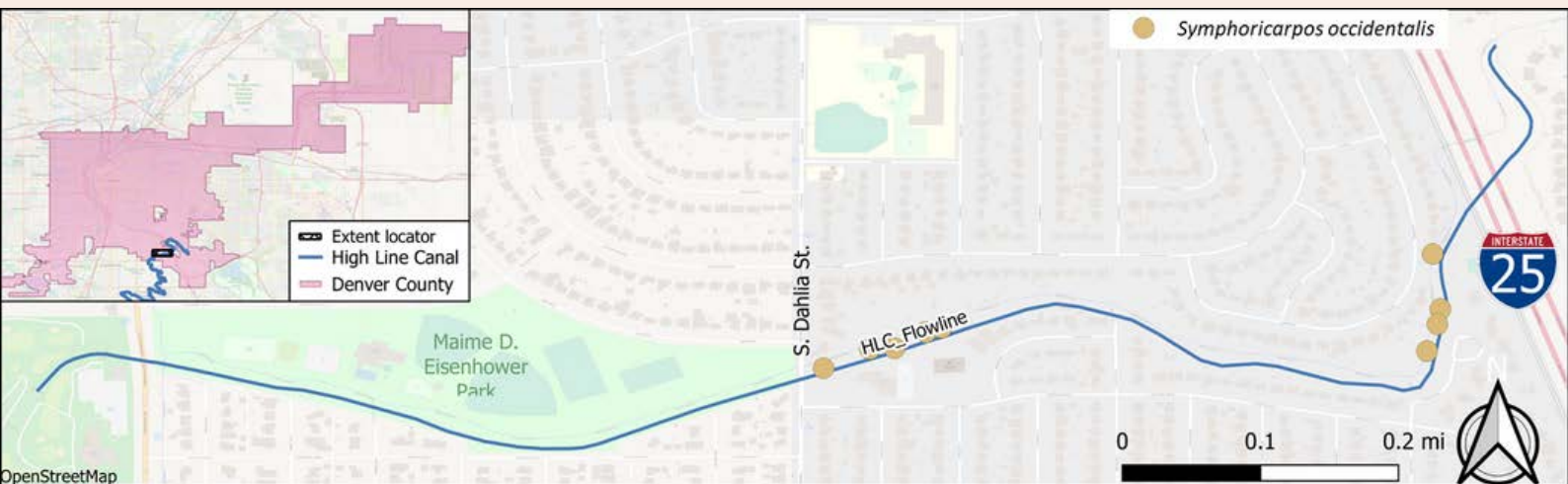
Common Name: Coyote willow

Description/Identification: Native. Shrubs or small trees to 17 m. Stems gray-brown, red-brown, or yellow-brown. Leaves linear or lorate (strap shaped), 30-143 x 5.5-14 mm. Staminate catkins 7-54 x 2-10 mm. Pistillate catkins 14.5-70 x 3-12 mm.

Wildlife/Pollinator: Coyote willow (and all other willows) provide wood and shelter for numerous bird and mammal species.

Restoration/Erosion Control: Willows are one of the most common species used in streambank stabilization efforts. Live staking is a common method in which live stems are cut and inserted directly into the ground where they will regrow. There are numerous excellent examples of the ecological benefits of willow revegetation.

Ethnobotanical Uses: Willow bark contains salicin, which acts in a similar manner to aspirin. As such, the plant continues to be a medicinal resource to numerous cultures. The plant has also been used extensively as a building and basketry material.



Symphoricarpos occidentalis



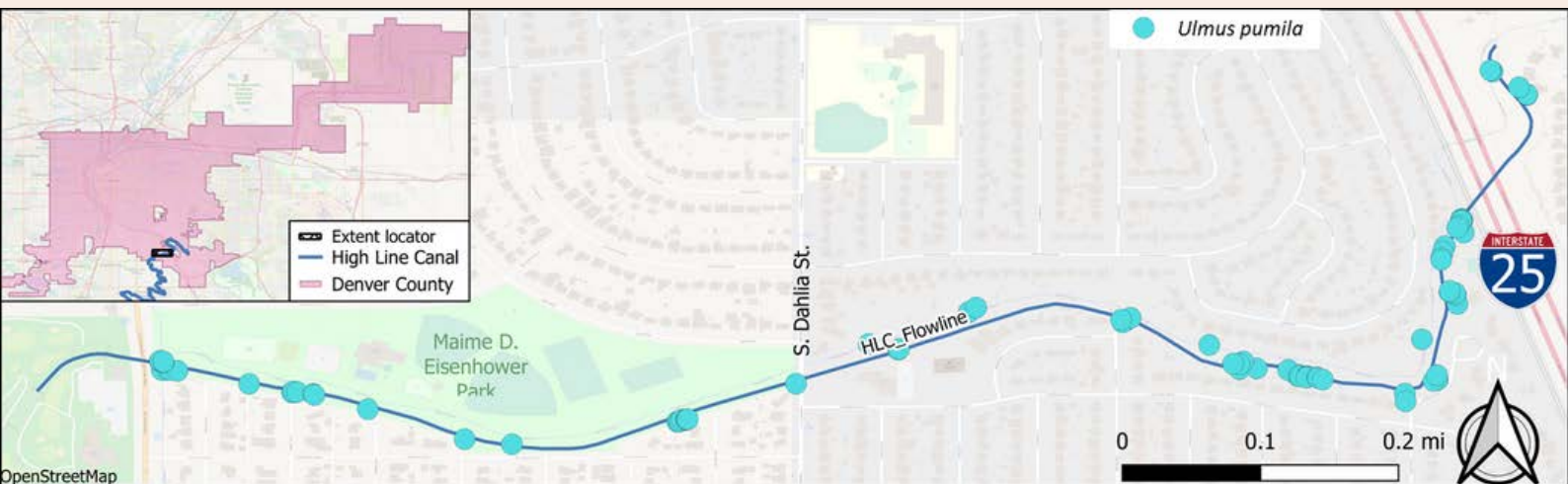
Common Name: Snowberry, Wolfberry

Description/Identification: Native. Subshrub to shrub. Up to 1 m. Leaves ovate to elliptic, mostly 2.5-8 cm long, entire or with a few irregular teeth. Flowers number 6-15 in dense, spicate clusters in the leaf axils.

Wildlife/Pollinator: Snowberry flowers are an important resource to pollinators, especially bees. The fruits are a food resource to some small mammals and birds as they persist on the plant through the winter.

Restoration/Erosion Control: Snowberry has extensive rhizomes/root systems which are excellent at maintaining bank stabilization and preventing soil erosion. This native species is commonly used to restore disturbed sites and rehabilitate eroded areas.

Ethnobotanical Uses: Native Americans used snowberry shrubs as a food source and to make arrow shafts and brooms. It was also used to treat certain eye diseases and as a gynecological aid. Currently, it is a common ornamental.



Ulmus pumila



Common Name: Siberian elm

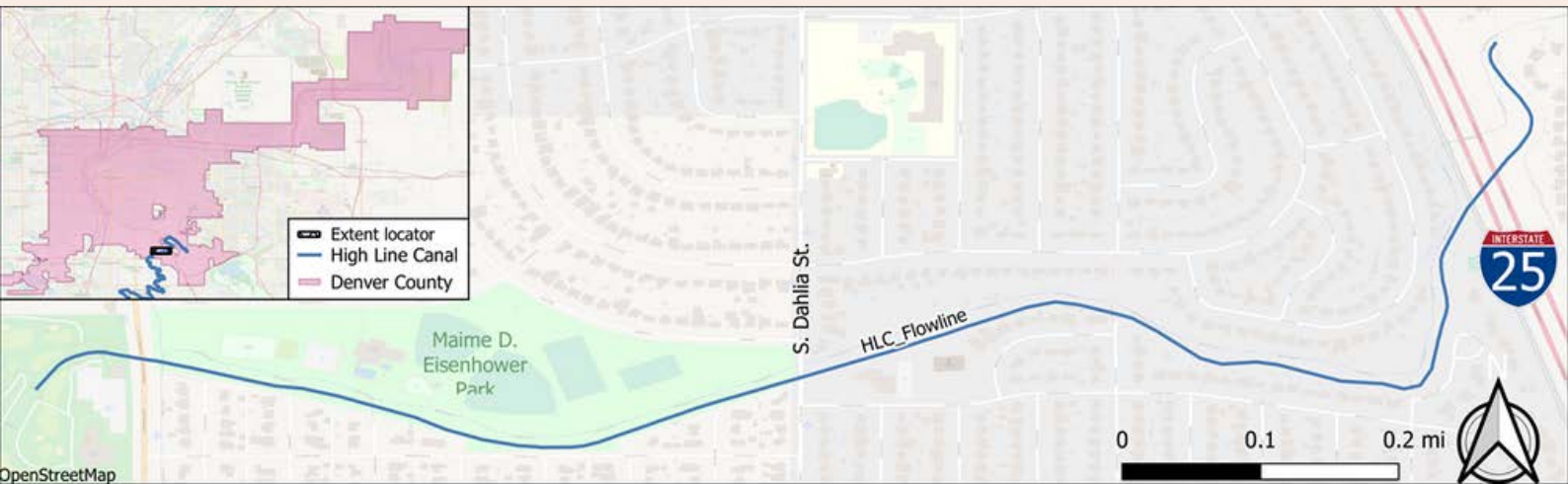
Description/Identification: Introduced. Small trees to 15 m. Leaves lanceolate to narrowly elliptic, 4-7.5 x 1.5-3.5 cm, shortly acuminate, serrate. Samaras 11-15 mm in diameter with a notch at the apex.

Wildlife/Pollinator: n/a

Restoration/Erosion Control: The species has been used to create windbreaks, although it is known to become invasive.

Ethnobotanical Uses: The inner bark was dried and ground into a powder to thicken soups or added in to cereal flours for bread-making in ancient Europe. Immature fruits have been used to make sauce and wine.

**Colorado Noxious Weed
Watchlist Species**



Allium aflatunense was observed in gardens along this reach and was observed to occasionally escape cultivation, but no locations were recorded.

Allium aflatunense



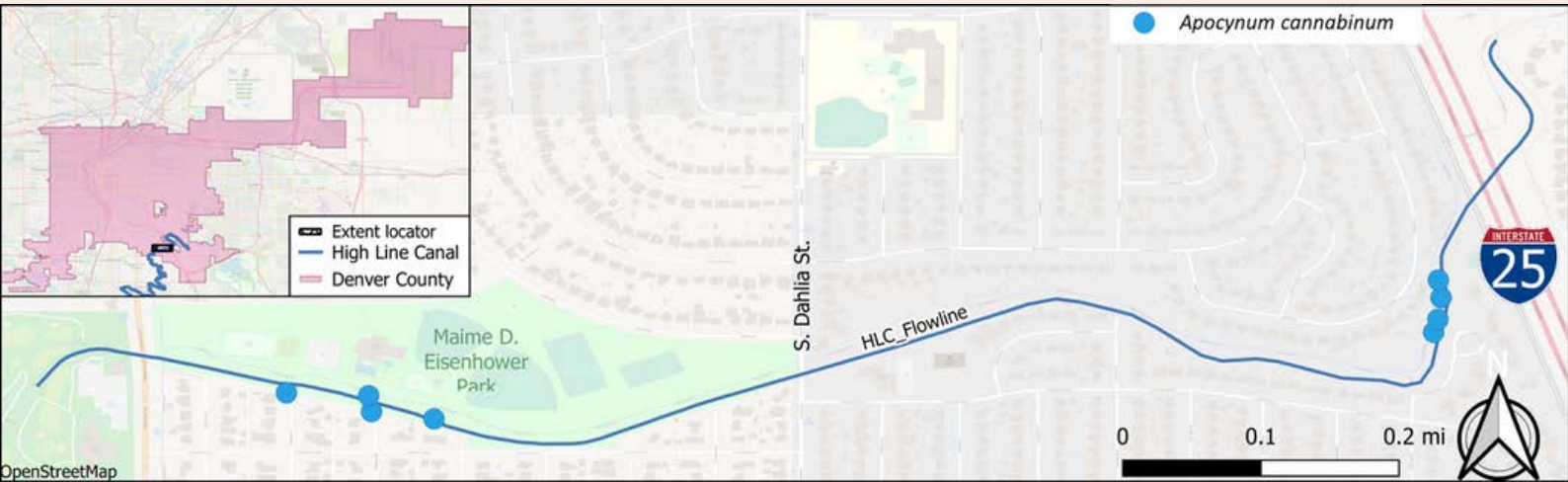
Common Name: Purple sensation

Description/Identification: Introduced/cultivated. Perennial herb to 1 m. Leaves basal, terate or flattened. Inflorescence umbellate, 10 cm across, flowers purple. Escaping from cultivation.

Wildlife/Pollinator: n/a

Restoration/Erosion Control: n/a

Ethnobotanical Uses: Commonly cultivated plant due to its showy flowers.



Apocynum cannabinum



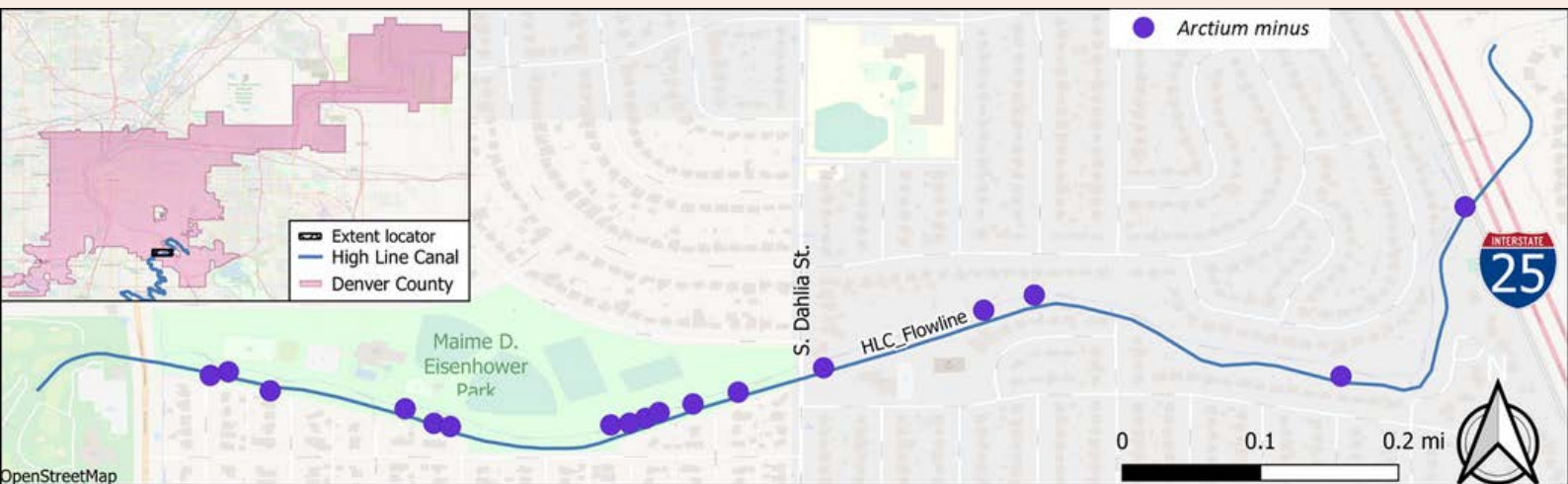
Common Name: Indian Hemp, Dogbane

Description/Identification: Native. Perennial herb to 1.2 m. Leaves ovate to lanceolate-ovate, 2-10 x 1-6 cm, ascending. Flowers white to greenish-white, 3-6 mm long, lobes usually erect. Found on disturbed sites.

Wildlife/Pollinator: Indian hemp flowers are attractive to bees, butterflies, and other insects. Wildlife do not consume the plant as it is toxic and the sap makes it non-palatable. The plant serves as a larval host for the snowberry clearwing (*Hemaris diffinis*) and hummingbird clearwing (*Hemaris thysbe*) moths. These moths are pollinators that resemble small hummingbirds.

Restoration/Erosion Control: The plant produces an extensive root system that maintains streambank stabilization and erosion control. Indian hemp grows in disturbed areas and we observed the plant breaking through pavement along the Canal.

Ethnobotanical Uses: The bast fibers of Indian hemp are silky yet strong, and are used to create cordage, baskets, snares, netting, and clothing. Native American tribes are reported to use this plant as a drug to treat a wide variety of ailments and even as a chewing gum/candy. Yet compounds found in all parts of the plant are toxic and may cause cardiac arrest.



Arctium minus



Common Name: Common Burdock

Description/Identification: Introduced. Biennial herb to 3 m. Basal leaves 30-60 cm long, margins coarsely dentate. Flower heads in racemose clusters.

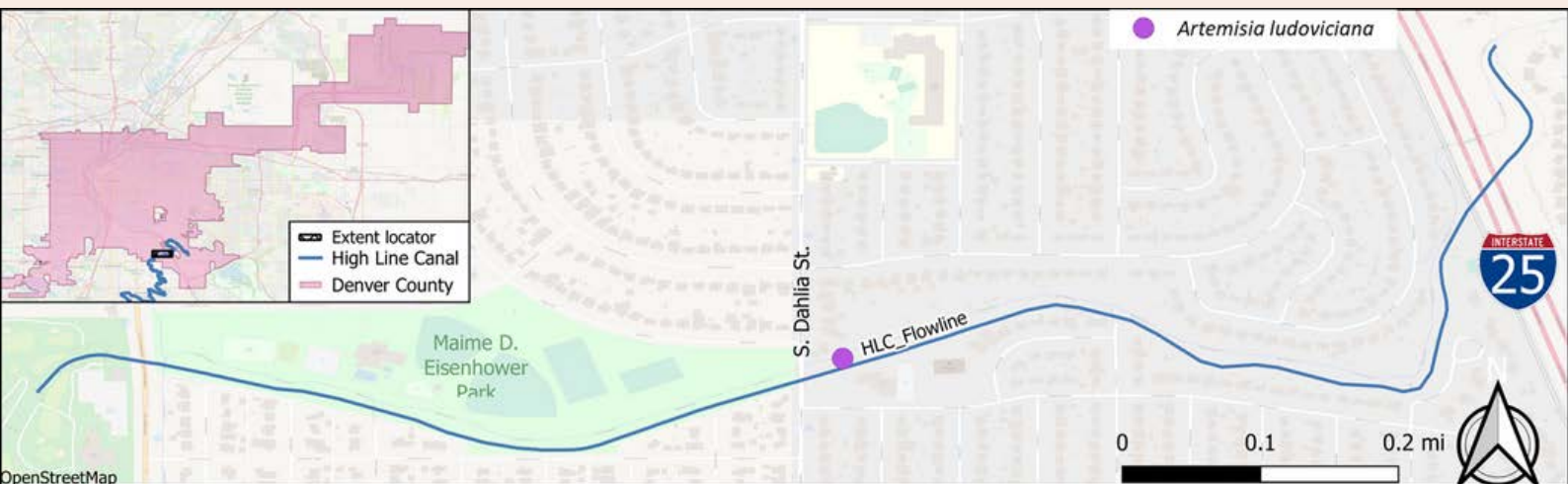


Wildlife/Pollinator: n/a

Restoration/Erosion Control: n/a

Ethnobotanical Uses: Native American tribes used the plant to treat headaches, rheumatism, swelling, boils/abscesses, whooping cough, and as a blood purifier. The Chippewa used the leaves as a head covering.

**Colorado Noxious Weed
List C Species**



Artemisia ludoviciana



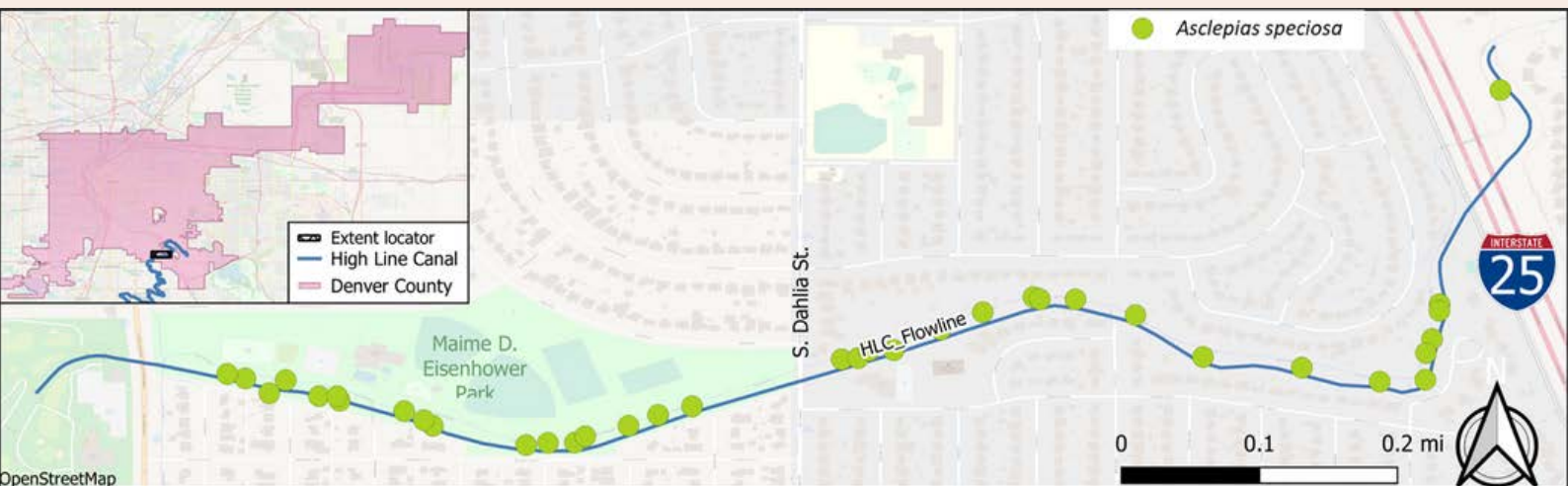
Common Name: Chamizo cenizo, Chicurilla, Estafiate, Ajenjo, White Sagebrush, Louisiana Sagewort

Description/Identification: Native. Perennial herb to 1 m. Leaves entire, lobed, or pinnately incised into lanceolate or linear segments, white-tomentose or sometimes green. Flower heads numerous, arranged in a spike or open panicle.

Wildlife/Pollinator: Many plains animals utilize White Sagebrush for cover and food.

Restoration/Erosion Control: White Sagebrush readily establishes from cuttings, transplants, or direct seeding. It is commonly recommended for revegetating riparian areas. Its dense root mass reduces erosion and encourages other species to establish in the stabilized space.

Ethnobotanical Uses: This plant may be the most important ceremonial plant to the Cheyenne. The plant was commonly made into a salve that would be used as a dermatological aid, pulmonary aid, respiratory aid, and veterinary aid. An infusion was made to aid the throat and respiratory system. Crushed leaves were used as an analgesic and to treat nosebleeds. The smoke from the plant was a common disinfectant and was used to treat ponies that had distemper. It was a common spice among the Chiricahua & Mescalero tribes, while the Blackfoot were known to chew the leaves as a confection. It is also a common ceremonial item, good luck charm, incense, and insecticide.



Asclepias speciosa



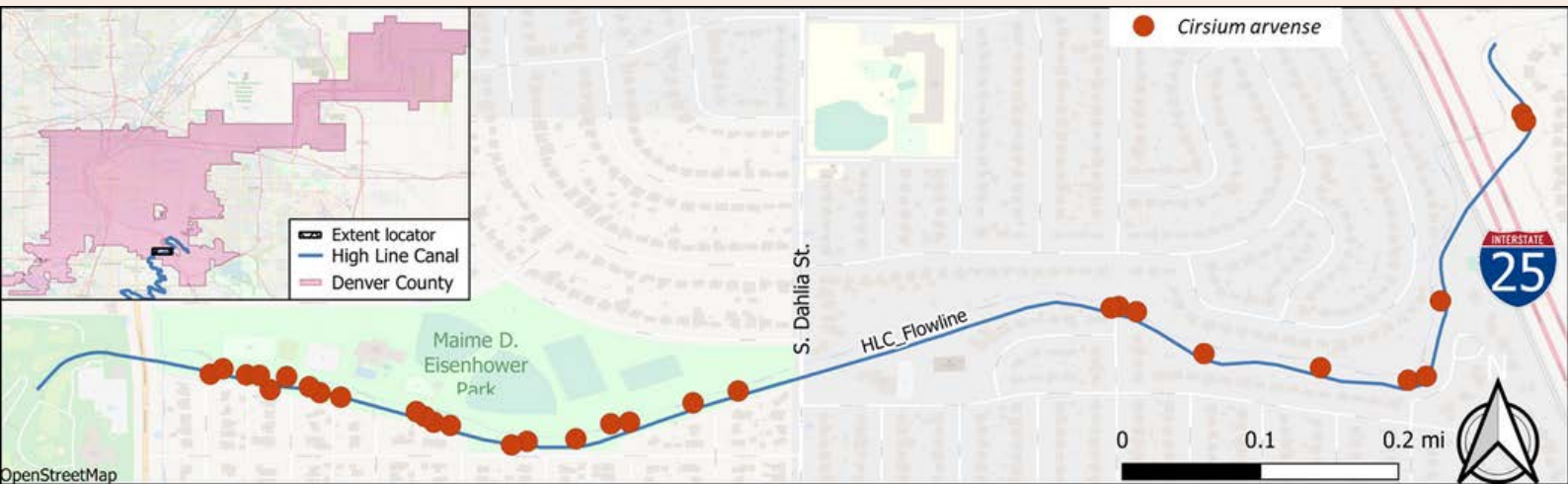
Common Name: Showy Milkweed, Common Milkweed

Description/Identification: Native. Perennial herb to 1.2 m. Tomentulose. Leaves 10-20 x 4-10 cm, usually ovate. Umbel densely white-lanate, corolla 8-15 mm long, purple to pink or rarely white, horns present.

Wildlife/Pollinator: Milkweeds produce an abundant source of nectar that attracts hummingbirds, butterflies, honey bees, native bees, and other beneficial insects. Monarch butterflies (*Danaus plexippus*) exclusively rely upon dense patches of Milkweed plants as a larval (caterpillars) host. Monarch queen (*Danaus gilippus*) and viceroy butterflies (*Limenitis archippus*) get chemicals from the milkweed plant that make them distasteful to predators, and all have similar orange and black patterns to warn predators.

Restoration/Erosion Control: Showy milkweed produces a tough, extensive root system that is drought tolerant and has minimal nutrient requirements. Such characteristics make this a prominent species for stabilizing and restoring degraded or disturbed sites.

Ethnobotanical Uses: The stem fibers can be used to produce cordage. Without sufficient preparation, milkweeds can be toxic when taken internally. However, indigenous groups of Native Americans are known to have consumed parts of the plant. Additionally, it has been used medicinally to treat a number of ailments from snake bites to warts to ringworms.



Cirsium arvense



Common Name: Canada thistle

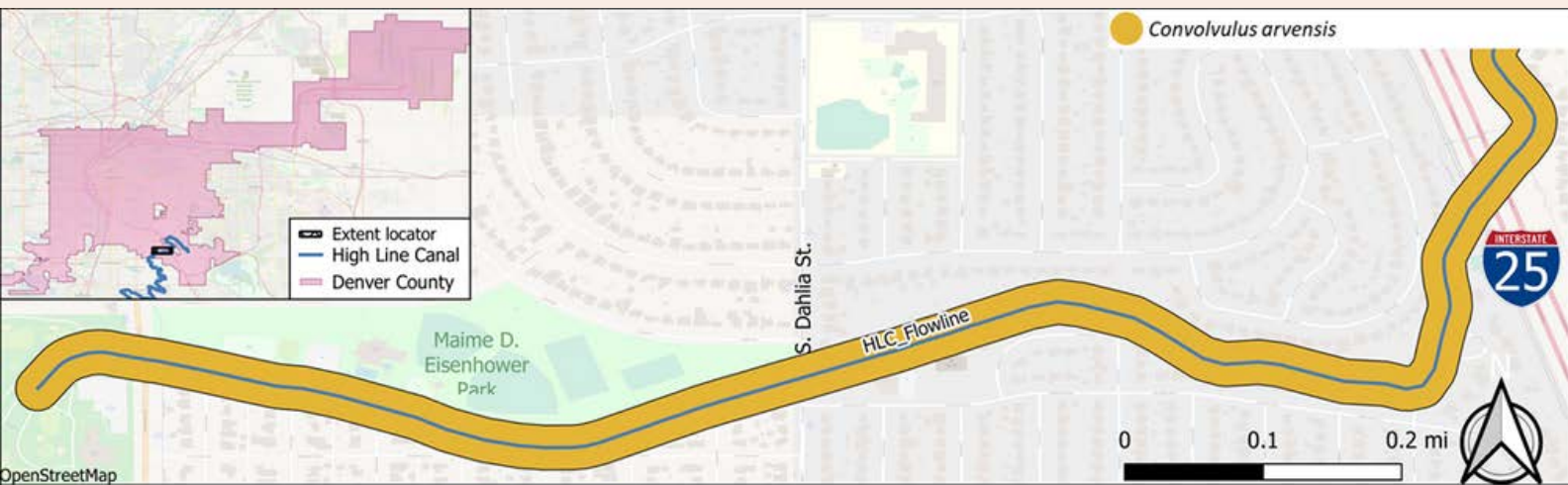
Description/Identification: Introduced. Spiny herb to 2 m. Leaves 5-18 cm long, shallowly to deeply pinnately lobed. Disk flowers pink-purple or rarely white, 12-14 mm long.

Wildlife/Pollinator: n/a

Restoration/Erosion Control: n/a

Ethnobotanical Uses: The Abnaki tribe used the plant as a vermifuge. The Iroquois and Mohegan tribes used the plant as a mouth wash for children. The Ojibwa tribe used the plant as a "bowel tonic."

**Colorado Noxious Weed
List B Species**



***Convolvulus arvensis* is found extensively along this reach of the Canal, as indicated by the gold buffer.**

Wildlife/Pollinator: n/a

Restoration/Erosion Control: n/a

Ethnobotanical Uses: The Ramah Navajo created a cold infusion of the plant to treat spider bites. The Pomo tribes used field bindweed as a gynecological aid. The Okanagan-Colville tribe used the stems as a "pack-rope" for carrying small game home after hunting.

Convolvulus arvensis



Common Name: Field Bindweed

Description/Identification: Introduced. Vine herb. Leaves ovate to elliptic, cordate, hastate, or sagittate at the base, 1-10 x 0.3-6 cm. Corollas campanulate, white or with pink stripes, 1.2-2.5 cm long. Common along roadsides, in fields, and other disturbed places.

**Colorado Noxious Weed
List C Species**



Erodium cicutarium is found extensively along this reach of the Canal, as indicated by the green buffer.

Erodium cicutarium



Photo: Max Licher
Creative Commons Attribution-ShareAlike

Common Name: Stork's Bill, Filaria

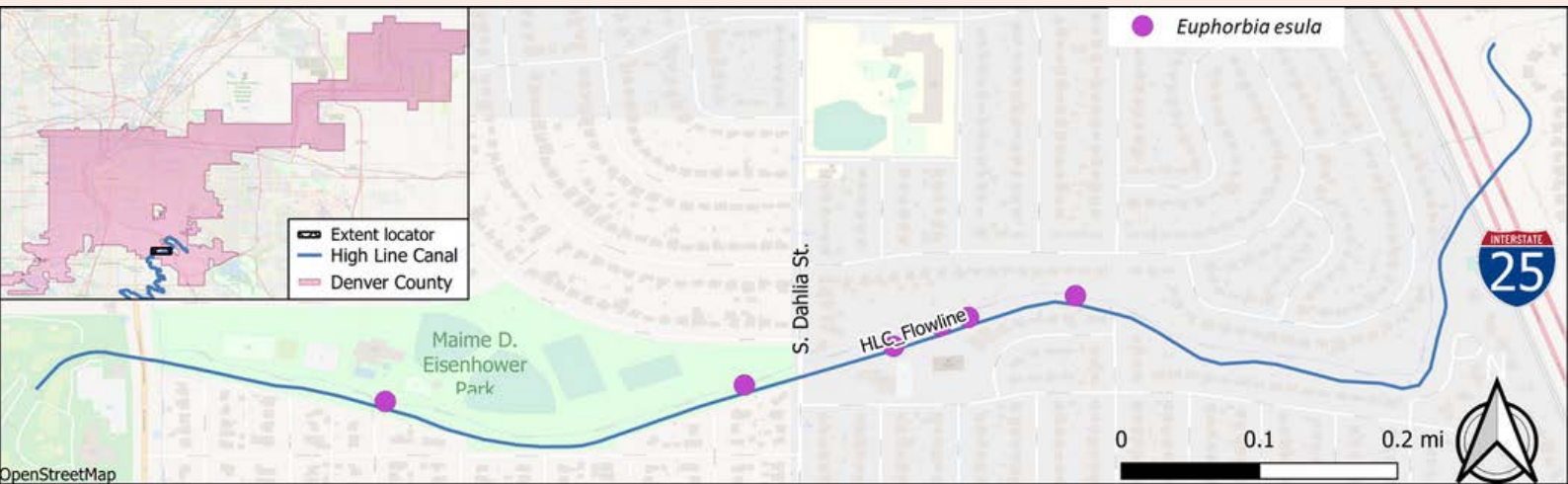
Description/Identification: Introduced.
Annual prostrate herb. Leaves 1-12 cm long. Petals 5-7 mm, pink to light purple, with darker spots. Styler column (i.e., the stork's bill) 20-40 mm long, twisting (and drilling seed into soil) as it dries.

Wildlife/Pollinator: Stork's bill provides seasonal forage for rodents. The seeds are eaten by upland game birds, songbirds, and rodents.

Restoration/Erosion Control: n/a

Ethnobotanical Uses: Costanoan tribes made an infusion from the leaves to treat typhoid fever and also consumed the stems raw for food. Jemez women ate the plant and roots to produce more milk for nurturing children. Additionally, the Jemez dried and powdered the plant to mix with watermelon seeds during storage to prevent watermelon disease. The Kayenta Navajo treated wildcat, bobcat or mountain lion bites with the plant, in addition to other infections. The Zuni chewed the root to create a poultice to apply to sores and rashes. Hopi children chewed the roots as a candy, while the Diegueño tribe picked and cooked the leaves in early spring before the flowers appeared. Numerous tribes used the plant as fodder for animals as the leaves have a high moisture content.

Colorado Noxious Weed List C Species



Euphorbia esula



Photo: Tony Frates
Creative Commons Attribution-ShareAlike

Common Name: Leafy Spurge

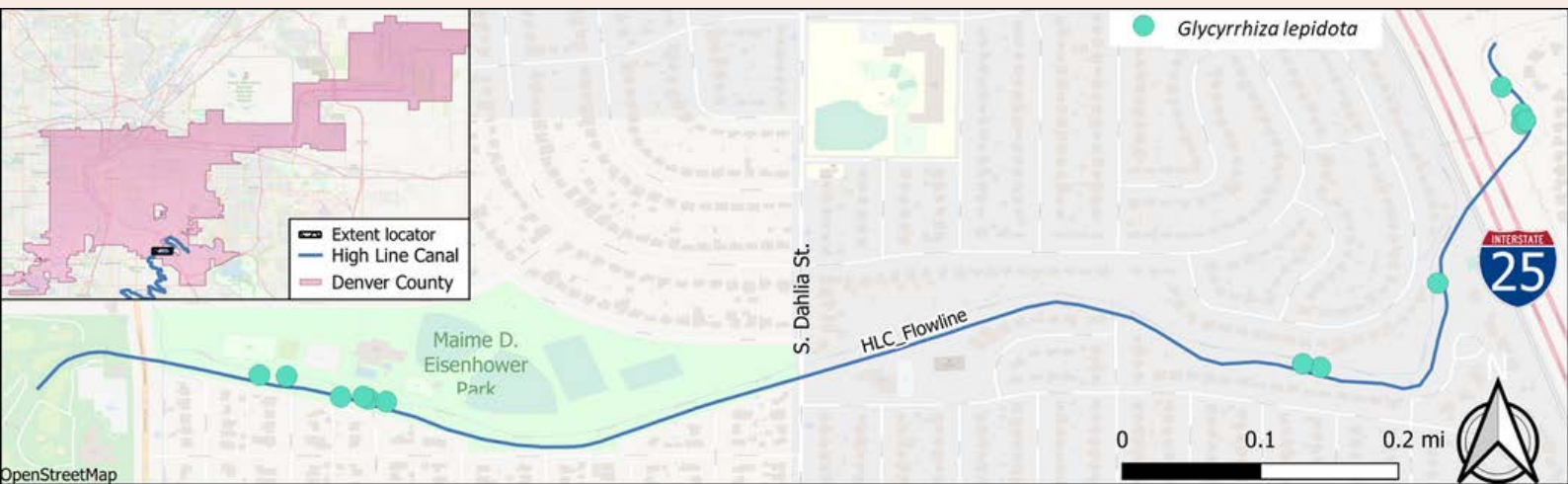
Description/Identification: Introduced. Perennial herb from stout, forking rhizomes, to 1 m. Leaves alternate, oblanceolate to narrowly oblong or linear, 3-10 cm x 3-10 mm, entire. Inflorescence umbellate.

Wildlife/Pollinator: While the milky sap makes the plant unpalatable to cattle and horses, sheep and goats readily graze it. The plant has been found to be consumed by mourning doves, and nesting success of western meadowlarks was positively associated with leafy spurge cover in North Dakota. Bee keepers are known to use leafy spurge as an early-season honeybee food.

Restoration/Erosion Control: n/a

Ethnobotanical Uses: n/a

Colorado Noxious Weed List B Species



Glycyrrhiza lepidota



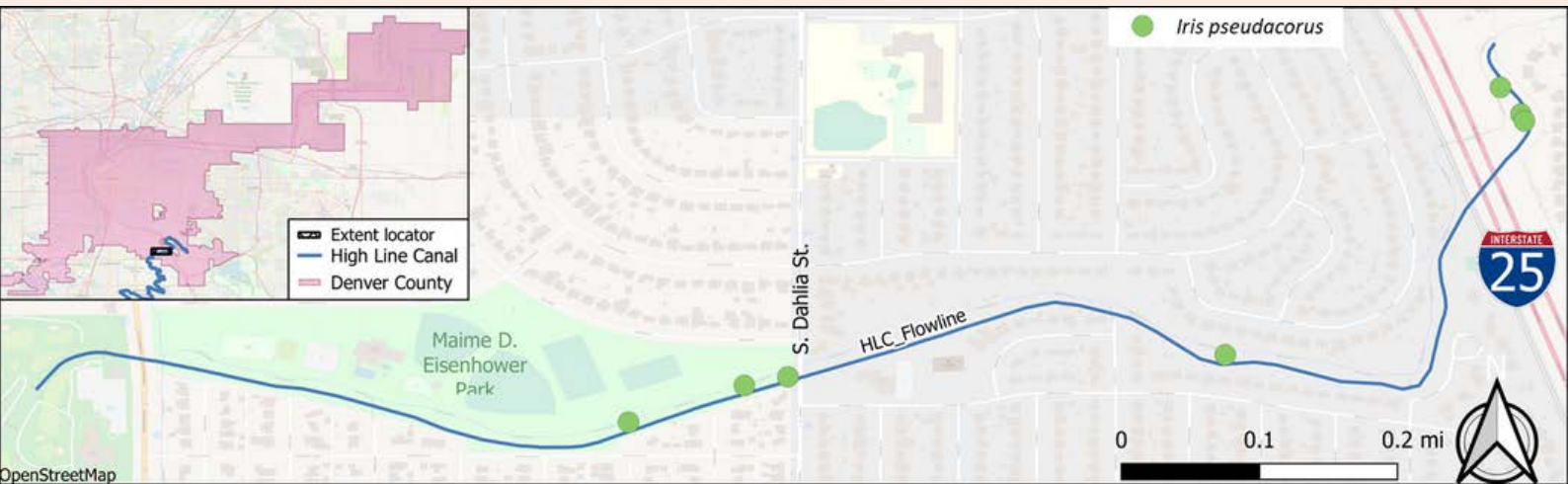
Common Name: Wild Licorice

Description/Identification: Native. Perennial herb to 1 m. Leaflets 9-19, ovate-lanceolate to lanceolate, 2.5-4 cm long. Inflorescence of racemes with 10 to numerous crowded, ascending-spreading flowers. Flowers ochroleucous to greenish-white. Legumes ovate or oblong, densely covered with hooked prickles.

Wildlife/Pollinator: Deer and other large mammals consume wild licorice foliage while birds and small rodents eat the seeds.

Restoration/Erosion Control: Wild licorice grows a deep root system (<12 ft) and is known for its soil-binding capacities. Additionally, it produces extensive rhizomes that stabilize the soil. It has the ability to grow in a wide variety of ecological habitats, including mine sites, making it a good candidate as a species to include in revegetation projects.

Ethnobotanical Uses: The foliage and roots of wild licorice have been used medicinally by tribes of the Great Plains. It has been used to treat upset stomachs, diarrhea, the flu, earaches, and toothaches. The burr-like seed pods can become entangled in animal coat and become a pain for owners. This characteristic led the Dakota to refer to the plant as "wi-nawizi" (jealous woman) as the burrs "take hold of a man." The Blackfoot believed the burrs were shot by ghosts to inflict disease.



Iris pseudacorus



Common Name: Yellow Iris

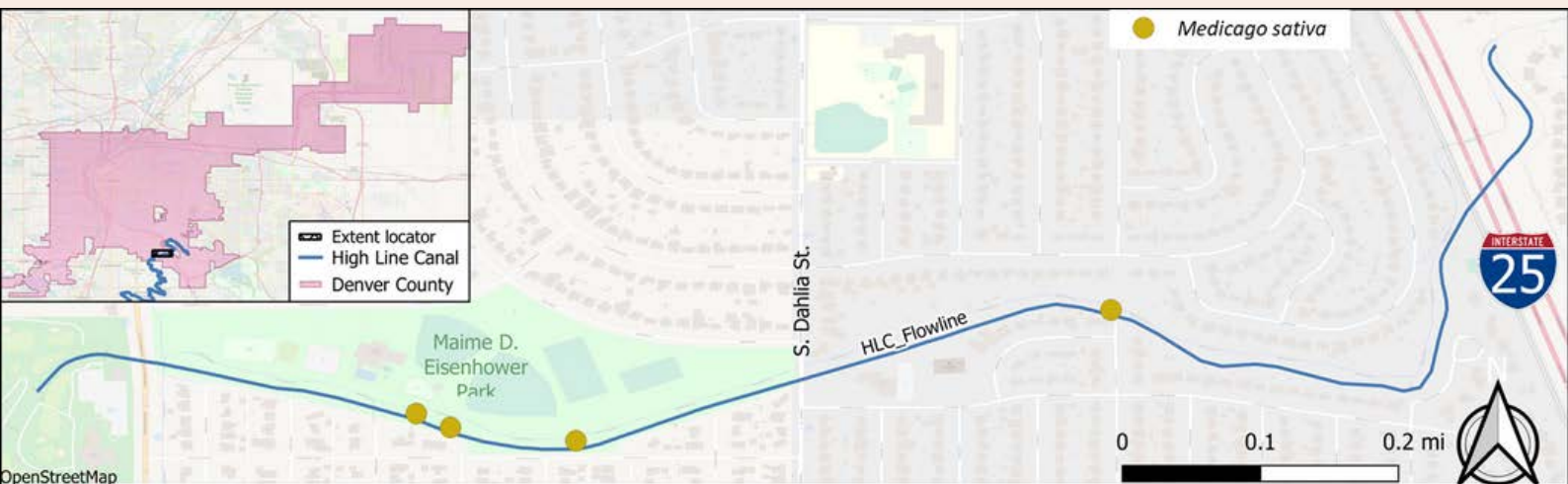
Description/Identification: Introduced/cultivated. Perennial herbs from rhizomes, to 1 m. Leaves mostly basal, linear to lanceolate. Flowers yellow. Uncommon nears streams along the Front Range where it has escaped from cultivation.

Wildlife/Pollinator: n/a

Restoration/Erosion Control: n/a

Ethnobotanical Uses: Yellow iris is a commonly cultivated plant that can escape cultivation and move into nearby waterways, as is happening along the High Line Canal.

**Colorado Noxious Weed
Watchlist Species**



Medicago sativa



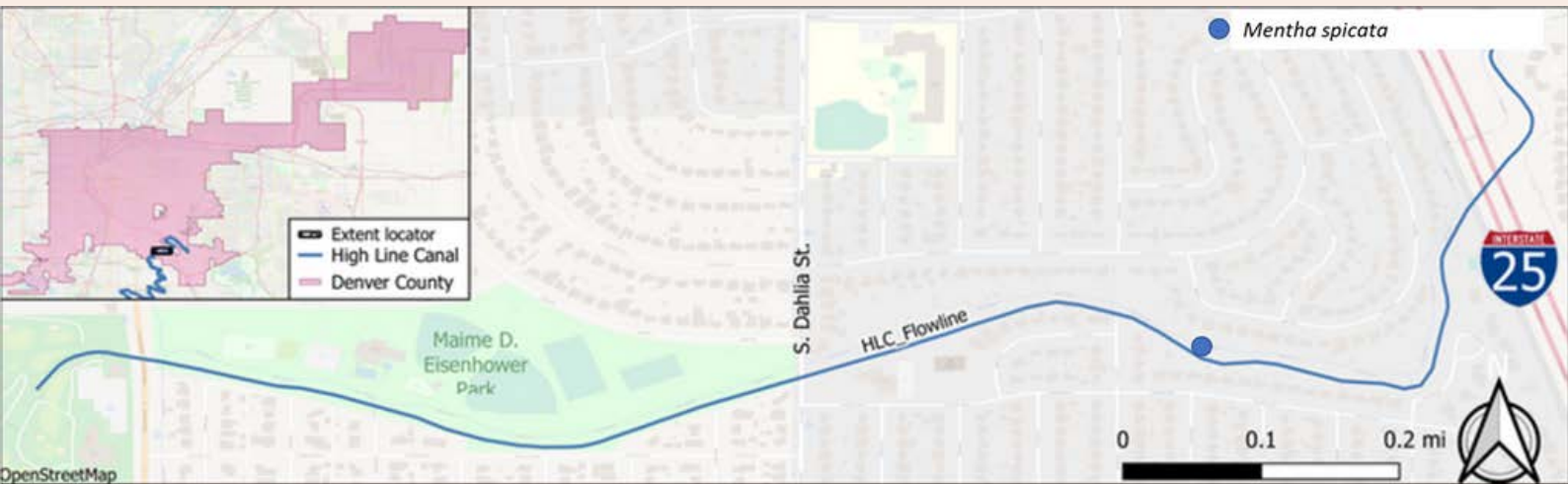
Common Name: Alfalfa

Description/Identification: Introduced. Erect or sometimes decumbent perennial, to 1 m. Leaflets obovate to oblong-ob lanceolate or narrowly lanceolate, 1-2.5 cm long. Inflorescence of axillary racemes with numerous crowded flowers. Flowers purple or rarely white, 8-11 mm long. Legumes coiled with 2-3 turns.

Wildlife/Pollinator: Alfalfa is a highly valuable food source for many wildlife species. Numerous birds and small mammals consume the leaves, flowers, or seeds. Alfalfa flowers provide a source of nectar and pollen for insects.

Restoration/Erosion Control: Because of its rapid growth, alfalfa is widely used for rehabilitation of overgrazed rangelands where it improves habitat for wildlife. Deep-growing roots will grow vigorously in compacted soils.

Ethnobotanical Uses: The Cosanoan made a poultice of heated leaves to apply to earaches. The Okanagan-Colville used the plant in cooking pits with black tree lichen and camas for a sweet flavor. The Ramaha Navajo and Shuswap feed the plant to their livestock. The plant is commonly used in current day as a fodder for livestock and helps break up compacted soils.



Mentha spicata



Photo: Liz Makings
Creative Commons Attribution-ShareAlike

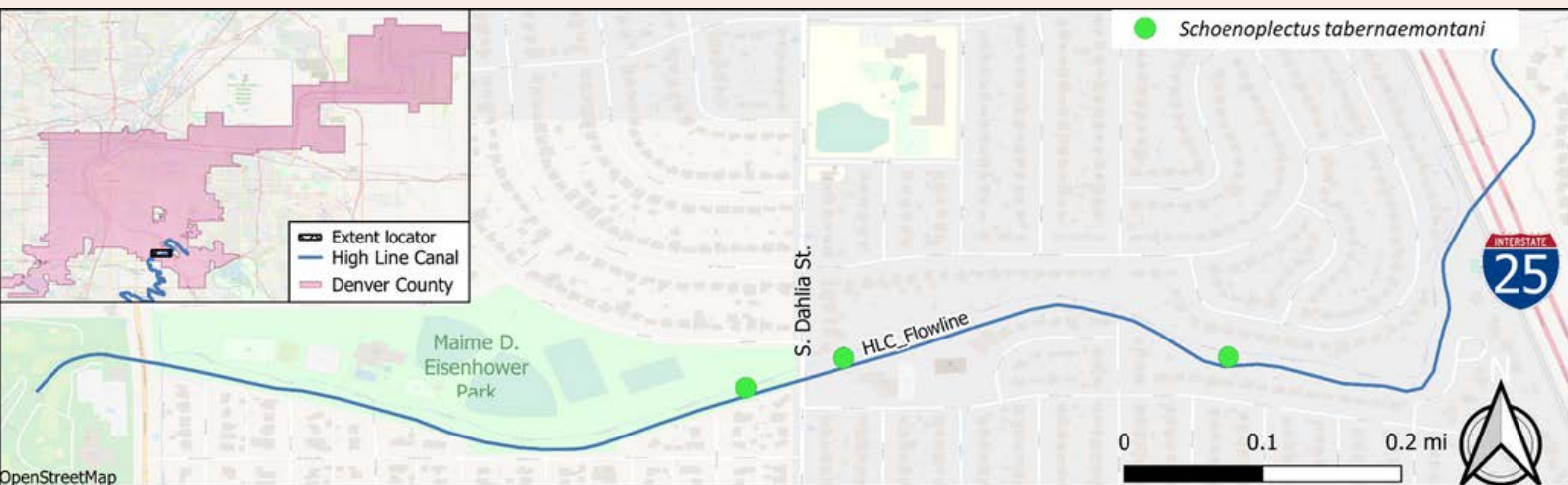
Common Name: Spearmint

Description/Identification: Introduced. Leaves lance-ovate to ovate, 3-9 cm long, serrate. Corolla white to purple. Uncommon in moist places, especially along streams and ditches.

Wildlife/Pollinator: Spearmint is known to attract a variety of bees and butterflies.

Restoration/Erosion Control: n/a

Ethnobotanical Uses: Numerous Native American tribes report using spearmint as a cold remedy. There are also reports of it being used as a sedative, stimulant, respiratory aid, and as a vermifuge. It has widely been used to make a non-medicinal beverage tea by both Native American and European cultures, in addition to being used as a spice for food.



Schoenoplectus tabernaemontani



Photo: Robert Sivinski
Creative Commons Attribution-ShareAlike

Common Name: Softstem Bulrush

Description/Identification: Native. Perennial "forb" (actually a graminoid) to 3 m. Stems terete. Leaves basal. Inflorescence 2-4 times branched. Spikelets often all solitary or in clusters of 2-4, 3-17 mm long. Common along the margins of lakes and ponds, in streams and ditches, and other riparian areas.

Wildlife/Pollinator: As an obligatory wetland species, softstem bulrush provides food and cover for fish, muskrats, raccoons, and other wetland/riparian species. Ducks and other waterfowl consider the hard coated fruits as an important food source. Additionally, water birds and waterfowl use this species for nesting and cover, especially in conjunction with cattails.

Restoration/Erosion Control: Softstem bulrush is a common species used in wetland restoration. It is best planted vegetatively because it can triple its biomass in one growing season. Furthermore, the species is known to reduce pollutant loads carried by storm water runoff in urban wetlands.

Ethnobotanical Uses: Native Americans wove the stems of softstem Bulrush into mats while the dried and beaten rootstocks was occasionally used as bread meal. The young tip of the root stock was edible and was thought to serve as a thirst-quencher. Boiling young roots creates a sweet syrup.



Solidago gigantea



Common Name: Giant Goldenrod

Description/Identification: Native. Perennial herb. Leaves alternate, narrowly elliptic to lanceolate, 6-17 cm long, sharply serrate. Ray flowers bright yellow in radiate heads.

Wildlife/Pollinator: Giant goldenrod is a vital source of pollen and nectar for bees and other insects in the late summer and fall. Its large showy inflorescence and dense growth habit allow the pollinators to expend little energy while gathering large quantities of pollen/nectar.

Restoration/Erosion Control: Goldenrods provide good cover for wetland sites and help maintain soil stability.

Ethnobotanical Uses: This plant can produce several shades of dye while the stem can be made into rough baskets.



Symphyotrichum lanceolatum is found extensively along this reach of the Canal, as indicated by the green buffer.

Symphyotrichum lanceolatum subsp. *hesperium*



Photo: Liz Makings
Creative Commons Attribution-ShareAlike

Common Name: Western Lined Aster

Description/Identification: Native. Perennial herb. Leaves linear, lanceolate-ovate, oblanceolate or obovate, 4-15 cm long. Ray flowers 16-50, white to pinkish or pale purple. Common along streams and ditches.

Wildlife/Pollinator: A wide variety of pollinating insects visit this plant. As it flowers later in the season and often grows in dense clumps, it is a valuable resource to pollinators in late summer.

Restoration/Erosion Control: Western lined aster is a wetland species that produces extensive rhizomes which create large patches of clones. It is therefore likely that this plant helps maintain soil stability.

Ethnobotanical Uses: The Zuni created a decoction of the plant to dress arrow or bullet wounds. Nosebleeds were treated with smoke from crushed blossoms.



Typha latifolia/ *Typha angustifolia*



Photo: Max Licher
Creative Commons Attribution-ShareAlike



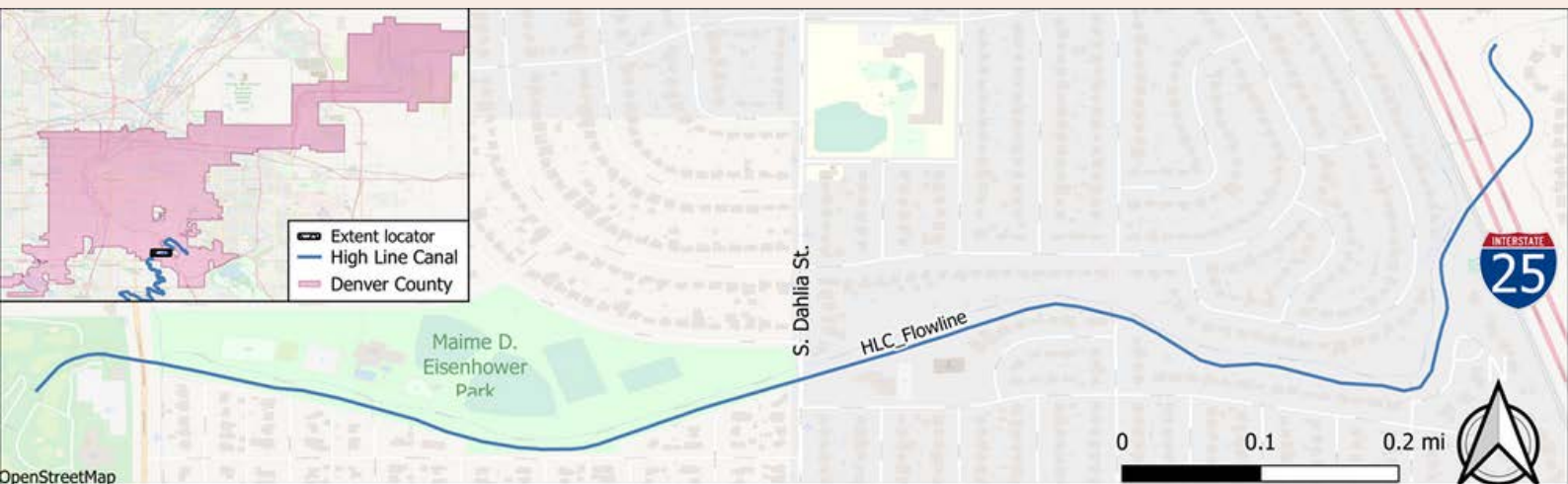
Common Name: Broadleaf Cattail (left) /
Narrowleaf Cattail (right)

Description/Identification: Native.
Wetland plants to 3.5 m. Flowers in a terminal cylindrical spike, the staminate flowers above the pistillate. Staminate and pistillate portions of flowering stalk are more separated in *T. angustifolia*. Leaves linear, 6-15 mm wide for *T. angustifolia*, 10-30 mm wide for *T. latifolia*.

Wildlife/Pollinator: Cattails provide a food source for waterfowl and muskrats. Muskrats construct their lodges with cattails while blackbirds perch on the stalks. Waterfowl and small mammals consume parts of the plant while also using it for building nests, brooding sites, and loafing habitat. However, monotypic stands of cattails are usually considered poor habitat for wildlife.

Restoration/Erosion Control: Cattails are not suggested for immediate use in revegetation projects as they readily out-compete other plants in early stages. After five years of revegetation, cattails are recommended to be used in wetland restoration because of their high wildlife value, potential for erosion control, and tolerance of heavy metals.

Ethnobotanical Uses: All parts of cattails are edible when gathered appropriately. The base of stems can be boiled or roasted like a potato. Young flower stalks can be boiled or steamed like corn. The pollen provides a substitute for flour. It is a bright yellow or green color, and turns pancakes, cookies or biscuits a pretty yellow color (which children love).



Verbascum thapsus was infrequently observed along this reach.

Verbascum thapsus



Photo: danielatha
Creative Commons Attribution-ShareAlike

Common Name: Woolly Mullein, Common Mullein

Description/Identification: Introduced. Biennial herb to 2 m. Leaves oblanceolate to obovate or ovate, the margins entire to shallowly toothed, to 0.5 m long, woolly. Inflorescence a dense spike of yellow flowers.

Wildlife/Pollinator: Small mammals and birds feed upon the seeds of common mullein.

Restoration/Erosion Control: n/a

Ethnobotanical Uses: As early as the 4th century BC, European cultures used the yellow flowers to dye hair. Dried leaves have been smoked by numerous Native American tribes for a variety of medicinal uses (from bronchitis to mental illness). Boiled roots have been used to make a cough syrup. Colonial women rubbed common mullein leaves on their cheeks to redden them. Today, Mullein is one of many plants used in herbal ear drops used to treat earaches in children. In a Northwest floral guide, basal leaves are noted as potential insoles for weary hikers.

**Colorado Noxious Weed
List C Species**



***Agropyron cristatum* is found extensively along this reach of the Canal, as indicated by the purple buffer.**

Agropyron cristatum



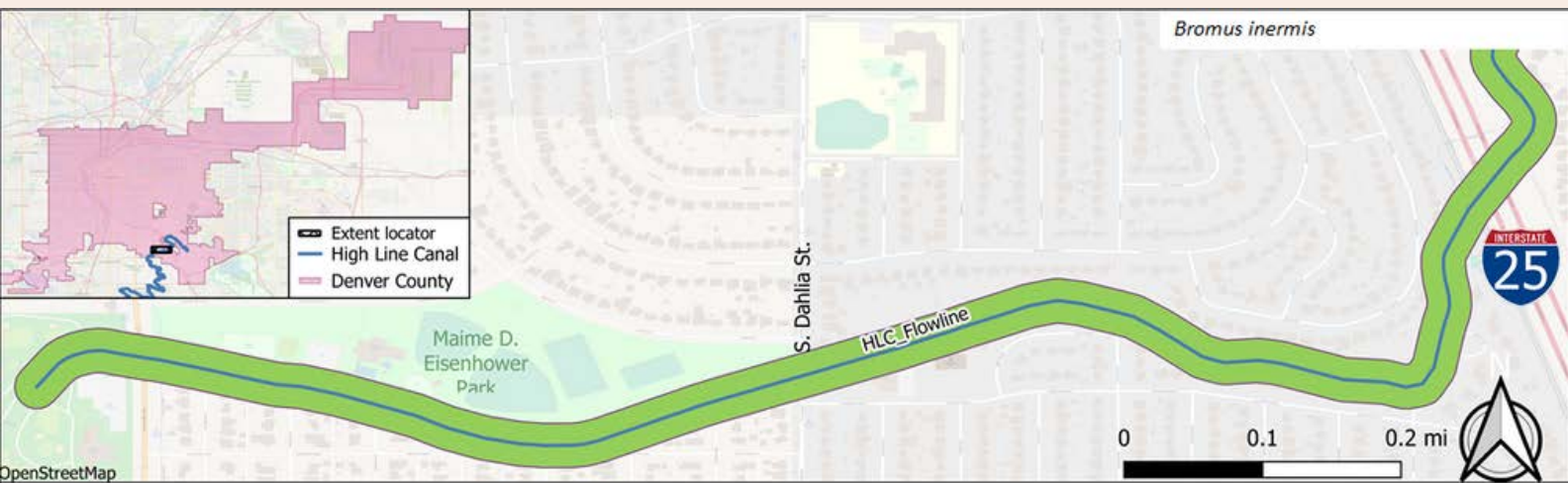
Common Name: Crested Wheatgrass

Description/Identification: Introduced. Perennial grass to 1 m. Leaves flat, to 10 mm wide. Ligules to 1.5 mm long. Spikelets 7-15 mm long, spreading at a right angle to the rachis or nearly so. Glumes 3-6 mm long with a short awn tip. Lemmas 5-9 mm long with a short awn tip to 6 mm long.

Wildlife/Pollinator: Crested wheatgrass seeds provide forage for small rodents and birds. Upland and song birds utilize the stands for nesting.

Restoration/Erosion Control: Crested wheatgrass is commonly used for soil stabilization. They are strong competitors against other aggressive introduced grasses, but are not common in native seed mixes because of this. This species is drought tolerant, has fibrous roots, and has good seedling vigor, which make the species ideal for reclamation sites.

Ethnobotanical Uses: n/a



***Bromus inermis* is found extensively along this reach of the Canal, as indicated by the green buffer.**

Bromus inermis



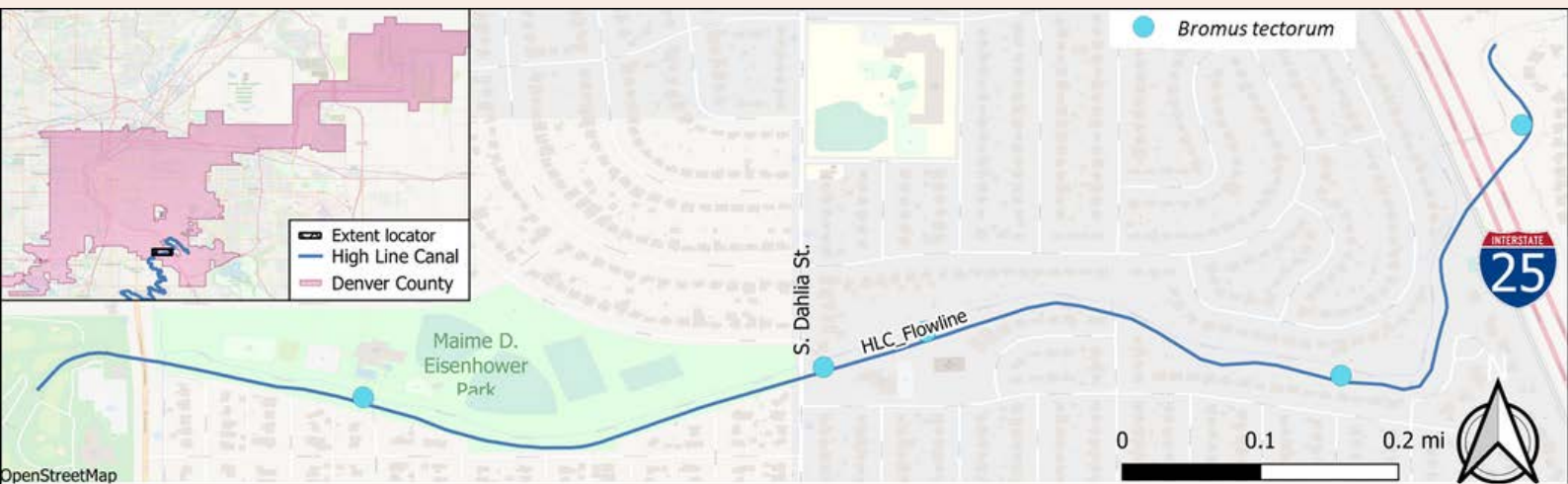
Common Name: Smooth brome

Description/Identification: Introduced. Perennial rhizomatous grass to 1.3 m. Leaves flat, 4-15 mm wide, with a "W" or "M" imprinted on the surface. Ligules 1-2 mm long. Spikelets 15-40 mm long, slightly compressed. Glumes unequal, the lower 5-8 mm and the upper 6-10 mm long. Lemmas 9-13 mm long, unawned or with a short awn tip to 3.5 mm long.

Wildlife/Pollinator: While this species provides a valuable crop, it is no longer recommended for wildlife use because of its aggressive nature.

Restoration/Erosion Control: This species has a massive root system and is a sod former.

Ethnobotanical Uses: n/a



Bromus tectorum



Common Name: Cheatgrass

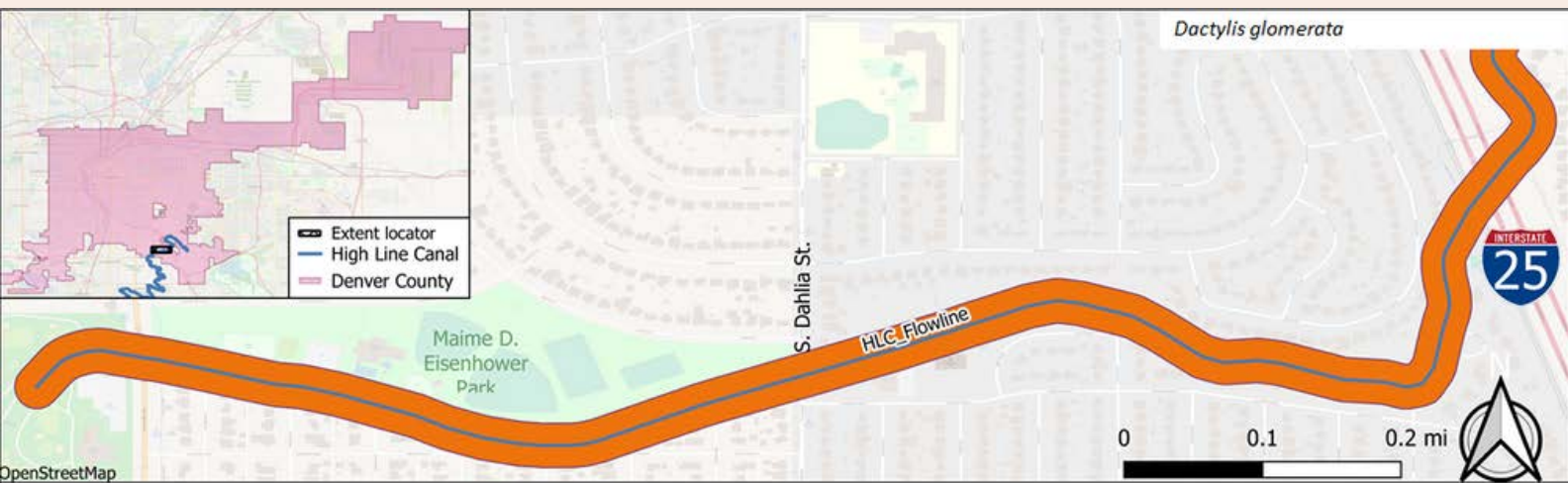
Description/Identification: Introduced. Annual grass to 1 m. Leaves flat or somewhat involute, 2-7 mm wide. Ligules 1-3.5 mm long, erose. Spikelets slightly compressed, 10-24 mm long. Lemmas 9-12 mm long with an awn 10-18 mm long arising from a bifid apex.

Wildlife/Pollinator: n/a

Restoration/Erosion Control: This plant is highly invasive. It is a winter annual with a shallow root system and is therefore considered to have poor erosion control properties.

Ethnobotanical Uses: The Kayenta Navajo made an infusion of the plant to be used as a face wash for "God-Impersonators." The Cahuilla ate the seeds during time of famine by cooking them into a gruel.

**Colorado Noxious Weed
List C Species**



***Dactylis glomerata* is found extensively along this reach of the Canal, as indicated by the orange buffer.**

Dactylis glomerata



Photo: Paul Rothrock
Creative Commons Attribution-ShareAlike

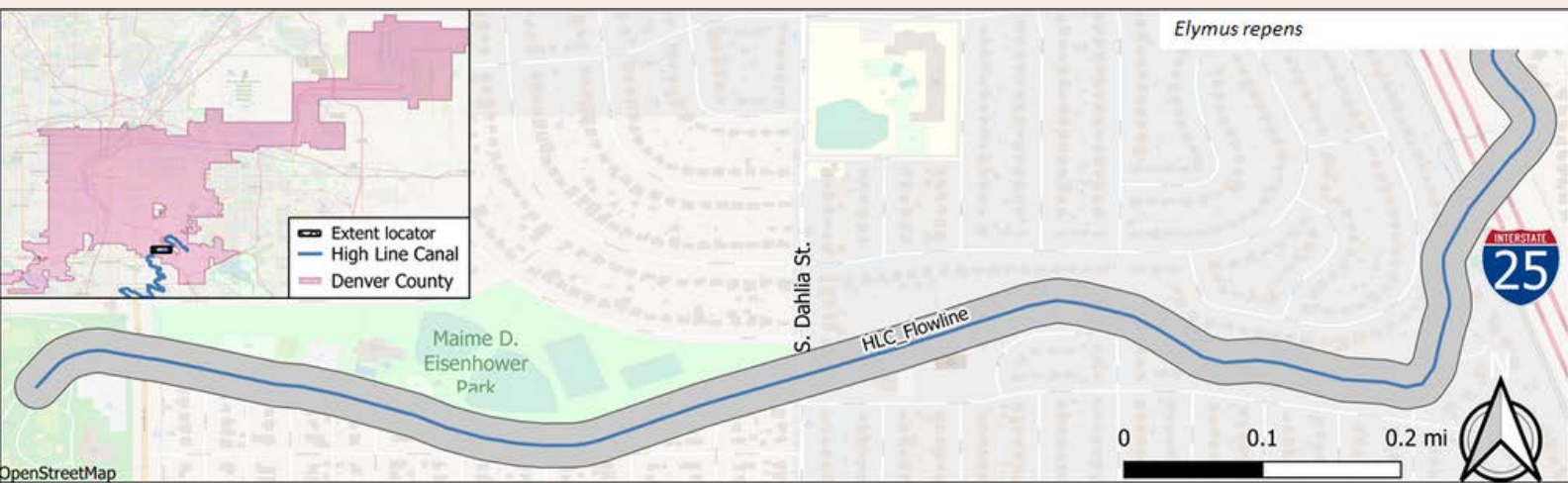
Common Name: Orchard grass

Description/Identification: Introduced. Perennial grass to 1.3 m. Sheaths open. Leaves flat, 2-12 mm wide. Ligules membranous, 2-6 mm long, lacerate. Glumes 3-6 mm long, acute or shortly awn-tipped. Lemmas 4-6.5 mm long, the keel coarsely ciliate, acute or shortly awn-tipped.

Wildlife/Pollinator: Orchard grass habitats are associated with numerous birds and animals including rufous hummingbirds. This suggests that the species is important in nest building and cover. Rabbits are known to eat the foliage and seeds, as are Canada geese.

Restoration/Erosion Control: Orchard grass produces a dense network of roots and provides good erosion control on soils to which it is well adapted. It is commonly recommended and used for a variety of rehabilitation applications.

Ethnobotanical Uses: n/a



***Elymus repens* is found extensively along this reach of the Canal, as indicated by the grey buffer.**

Elymus repens



Photo: Luigi Rignanese

Photo: Mary Barkworth

Creative Commons Attribution-ShareAlike

Common Name: Quack grass

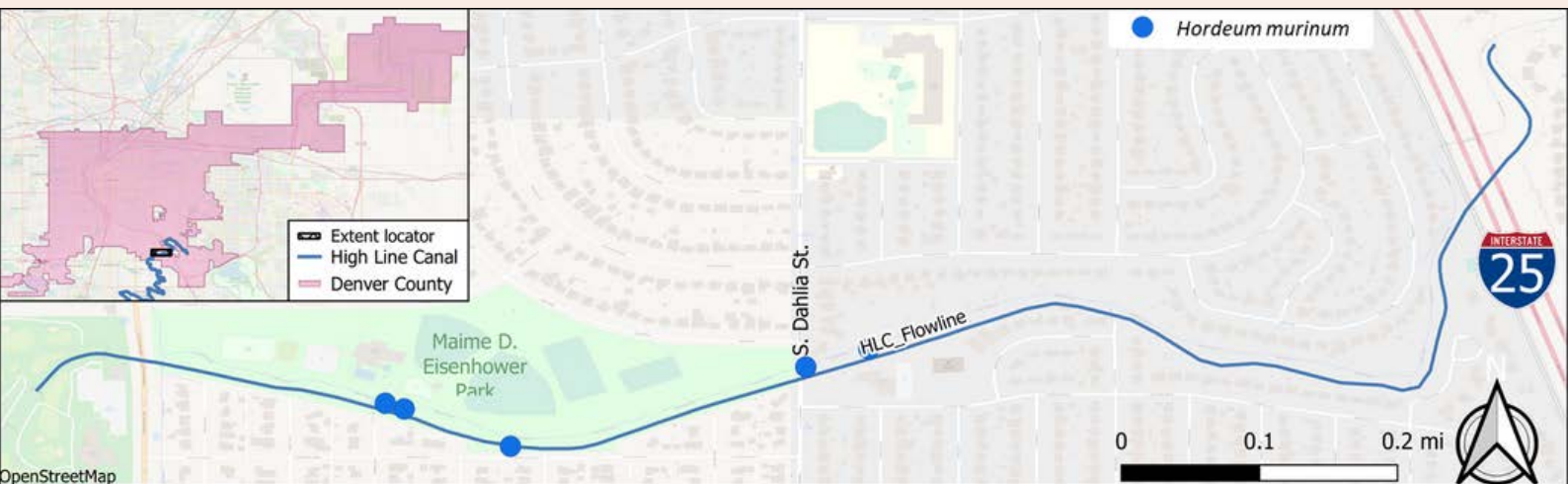
Description/Identification: Introduced Rhizomatous perennials to 1m. Leaves flat, 10-30 cm x 4-10 mm. Sheaths open. Ligules membranous, to 1 mm long. Spikelets to 27 mm long with 3-7 florets. Glumes lanceolate to subulate, subequal, 7-12 mm long, 5-7 nerved, awn-tipped or with an awn to 4 mm long. Lemmas 7-12 mm long, acute or with an awn to 4 mm.

Wildlife/Pollinator: Small rodents, birds, and waterfowl find cover in quack grass.

Restoration/Erosion Control: n/a

Ethnobotanical Uses: The Cherokee and Iroquois used the plant as a urinary aid as well as a worm remedy. White Mountain Apache and Gosiute tribes used the seeds for food and the plant as hay. The Okanagan-Colville placed this grass in cooking pits.

**Colorado Noxious Weed
List C Species**



Hordeum murinum



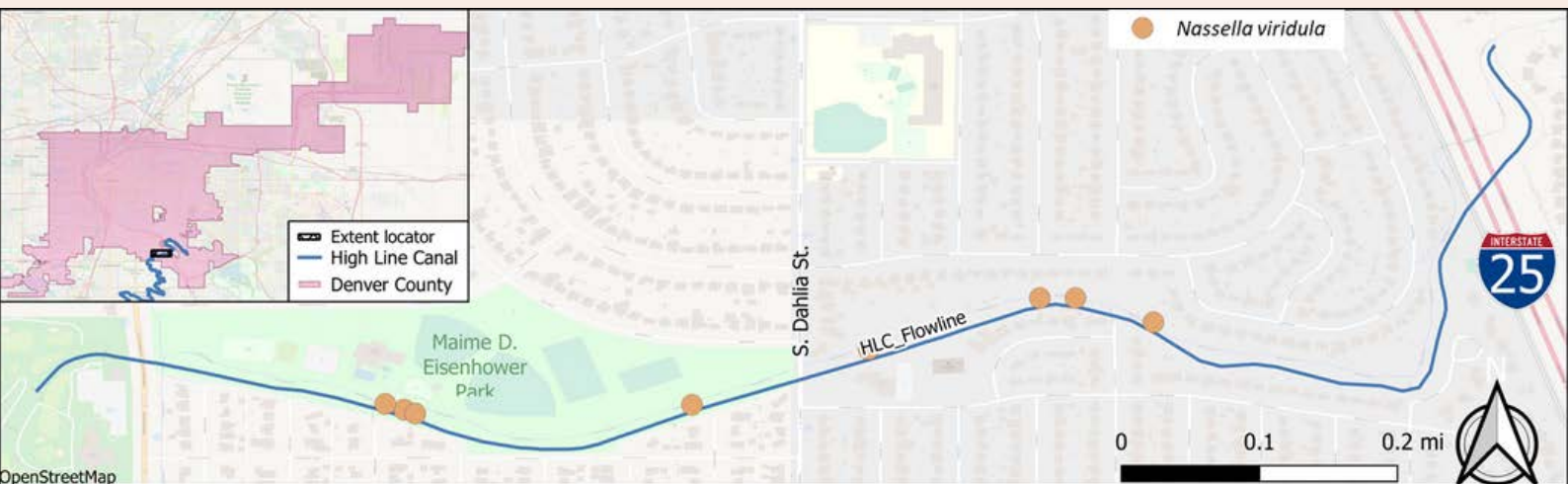
Common Name: Smooth barley

Description/Identification: Introduced. Annual grass to 1 m. Sheaths open. Leaves flat to involute, to 25 cm x 2-10 mm with well developed auricles. Ligules membranous, 1-4 mm long. Spikelets 3 per node, the central sessile and the lateral pedicellate. Glumes 10-30 mm long. Lemmas of the central spikelet 8-14 mm long, terminating in an awn 15-50 mm long.

Wildlife/Pollinator: The seeds and occasionally leaves of barley are consumed by waterfowl.

Restoration/Erosion Control: n/a

Ethnobotanical Uses: The Costanoan and Mendocino Indian tribes used the seeds for pinole, but were primarily used when other food was scarce.



Nassella viridula



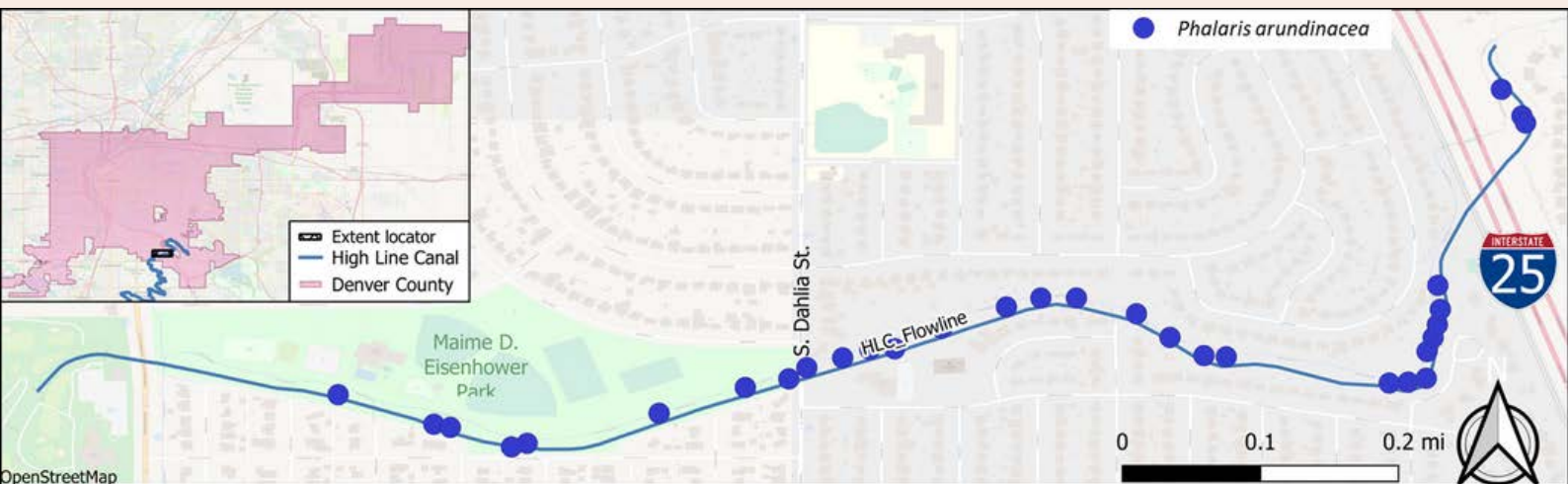
Common Name: Green Needlegrass

Description/Identification: Native. Perennial grass to 1 m. Sheaths open, a tuft of hairs usually present at the junction of sheath and blade. Ligules membranous, 0.5-2 mm long. Spikelets in panicles, with one floret. Glumes longer than the floret, acuminate. 7-10 mm long. Lemmas 4-7 mm, sparsely hairy, with an awn 1.9-3.5 cm long. Uncommon in shortgrass prairie.

Wildlife/Pollinator: Green needlegrass seeds are consumed by small mammals and songbirds. It is considered a good forage species based on palatability, nutritive capacity, and dependability as a forage supply.

Restoration/Erosion Control: Green needlegrass is common in native seed mixes, yet it has a hard seed coat which may delay germination and not allow the species to establish. However, if it does establish then it is a good species for revegetation projects.

Ethnobotanical Uses: n/a



Phalaris arundinacea



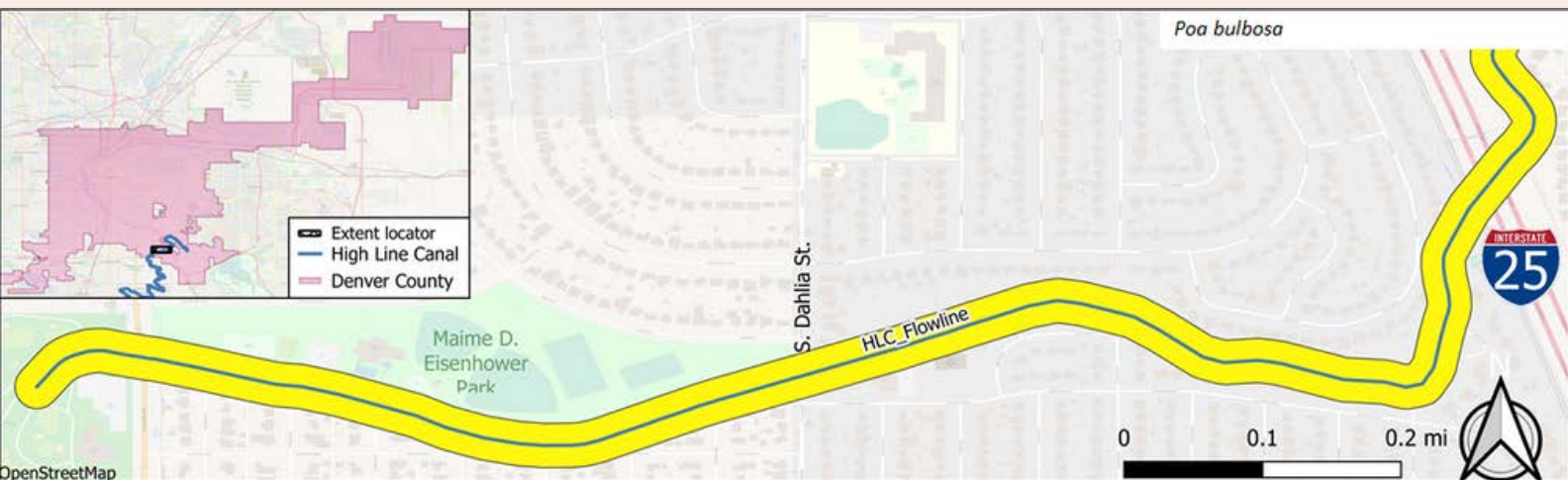
Common Name: Reed Canary Grass

Description/Identification: Native. Perennial grass to 2 m. Sheaths open. Ligules membranous, 2-8 mm long. Leaves flat, 10-30 cm x 6-15 mm. Spikelets (4-8 mm long) in spike-like panicles with 1 well-developed floret and 2 sterile florets reduced to bristles. Glumes 4-6 mm long, wingless. Common along streams, irrigation ditches, and the margins of ponds.

Wildlife/Pollinator: Reed canary grass is an excellent nesting material for numerous wildlife species. Additionally, it provides cover from predators and the seeds are readily eaten by many bird species.

Restoration/Erosion Control: Reed canary grass produces extensive rhizomes and dense growth which is excellent for erosion control. It is a heavy user of fertilizers and actively grows throughout a long season, which allows this species to be excellent in cleaning stormwater in urban wetlands.

Ethnobotanical Uses: The Okanagan-Colville used Reed canary grass to make peaked hats which were worn by doctors. They also used the grass to make eating mats, mats for drying roots and berries, and fishing weirs.



***Poa bulbosa* is found extensively along this reach of the Canal, as indicated by the yellow buffer.**

Poa bulbosa



Photo: Mary Barkworth
Creative Commons Attribution-ShareAlike

Common Name: Bulbous Bluegrass

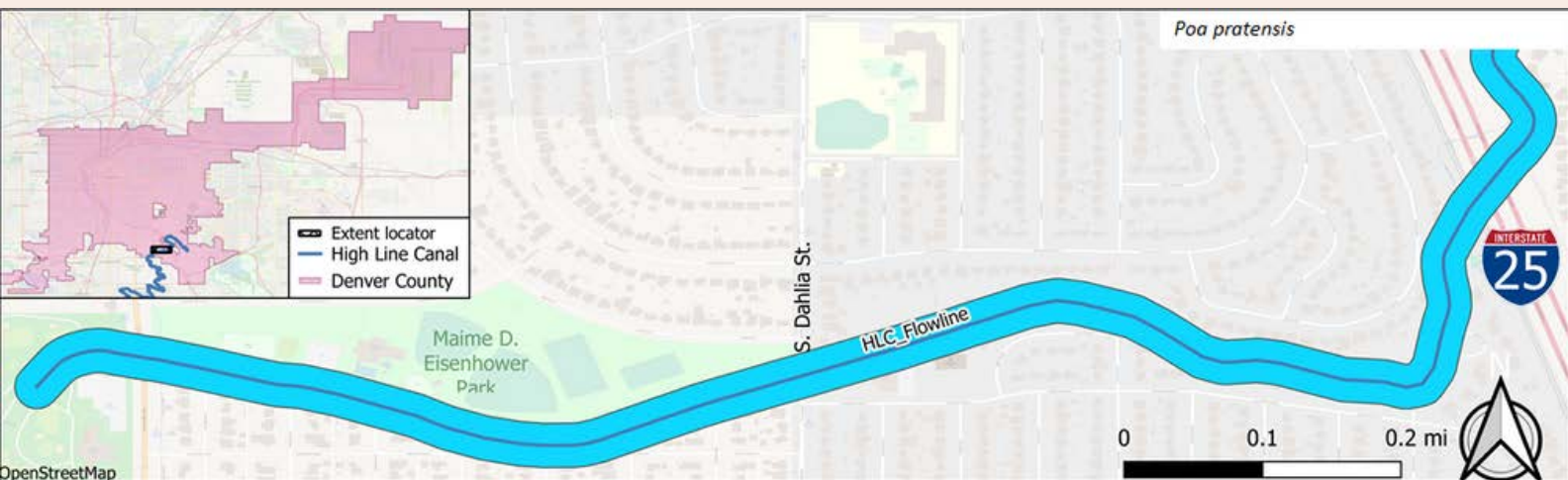
Description/Identification: Introduced. Perennial grass to 0.6 m. Not rhizomatous. Leaves 1-2.5 mm wide, flat, soon withering. Ligules 1-3 mm long, Panicles 3-12 mm long, the nodes with 2-5 branches. Spikelets 3-5 mm long with 3-7 florets (mostly forming bulblets with shiny, dark purple bases and exerted, linear green tips).

Wildlife/Pollinator: The bulblets contain high levels of starch and fat, which are attractive to rodents and birds. However, this species rapidly develops and is not available by late spring/early summer.

Restoration/Erosion Control: Bulbous bluegrass is not highly invasive but it is a good competitor. As it is not a native species, it is not suggested to be used in revegetation or restoration projects.

Ethnobotanical Uses: n/a

**Colorado Noxious Weed
List C Species**



***Poa pratensis* is found extensively along this reach of the Canal, as indicated by the blue buffer.**

Poa pratensis



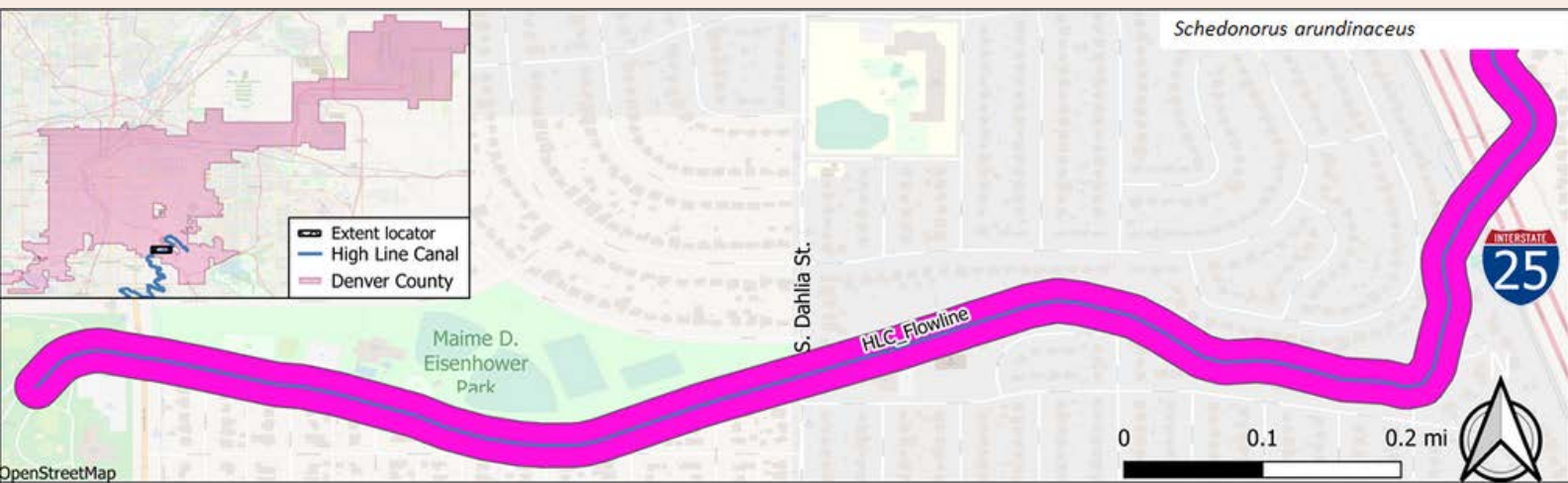
Common Name: Kentucky Bluegrass

Description/Identification: Introduced. Perennial rhizomatous grass to 0.7 m. Leaves 0.4-4.5 mm wide, flat, folded, or involute. Ligules 0.9-2 mm long. Panicles 2-15 cm long, loosely contracted to open, sparsely to moderately congested. Spikelets 3.5-6 mm long, laterally compressed, with 2-5 florets. Cobwebby material present between lemmas.

Wildlife/Pollinator: Several small rodents and birds consume the seeds while the leaves provide forage for rabbits, turkeys, and large mammals such as deer and your dog.

Restoration/Erosion Control: Kentucky bluegrass has a dense, vigorous turf-forming habit. As such, the species provides excellent erosion control. When mixed with legumes or other grasses, it has been successfully used to control erosion in waterways, field borders, heavily used areas, steep banks, and pond edges.

Ethnobotanical Uses: Kentucky bluegrass is commonly used as a turf grass in recreational fields.



***Schedonorus arundinaceus* is found extensively along this reach of the Canal, as indicated by the pink buffer.**

Schedonorus arundinaceus



Photo: Paul Rothrock
Creative Commons Attribution-ShareAlike

Common Name: Tall Fescue

Description/Identification: Introduced. Perennial grass to 1.5 m. Sheaths open. Leaves flat, 5-45 cm x 3-8 mm. Ligules membranous, 0.2-0.69 mm long. Spikes 10-15 mm long, scabrous to hispid, unawned or with awn to 4 mm long.

Wildlife/Pollinator: Tall Fescue seeds are consumed by songbirds while small rodents consume both the seeds and foliage.

Restoration/Erosion Control: This species is useful in rehabilitation work. The tough, coarse roots prevent erosion and decrease soil density. It readily improves soil (especially heavy soils) as its roots open up to soil below six inches. Large amounts of organic matter are left behind in the soil each year as the root system is partially renewed each year. Tall fescue is resistant to disturbance and is commonly used for medium to long-term watershed protection.

Ethnobotanical Uses: n/a

REFERENCES

The information gathered for this report was obtained from the following sources:

Ackerfield J. 2015. *Flora of Colorado*. Botanical Research Institute of Texas, Fort Worth, Texas. 818 pp.

Alba, C. 2019. High Line Canal 2018 Botanical Survey. Prepared by Denver Botanic Gardens for the High Line Canal Conservancy

Moerman, D. 1998. *Native American Ethnobotany*. Timber Press, Inc.

USDA: Fire Effects Information System (FEIS)

USDA: Plants Database

AUTHORSHIP

Research & Conservation Department, Denver Botanic Gardens:

Richard A. Hum, M.S.
Botany Field Assistant

Christina Alba, Ph.D.
Assistant Research Scientist

Report finalized in September, 2020