

Botanical Resources of the Upper Washington Avenue Open Space

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Location

The “Upper Washington Avenue Open Space” is near the intersection Colorado State Highway 93 and Washington Avenue, in the City of Golden, Jefferson County, Colorado. It is an approximate 4 acre parcel between the shopping center containing Cannonball Creek Brewery and North Ford Street.



There is no formal name for this small parcel of open space. Some possibilities could be:

- Upper Washington Avenue Open Space, a physical location name.
- Crownflower Hill, a literal translation of the genus name *Coryphantha*, a species of cactus found in the parcel.
- Canyon Point Open Space, a name which recognizes the development names around the parcel.
- Others ...?

Geology

The geology of the Golden quadrangle was mapped by Van Horn (1972). The hill is mapped as vertically oriented Arapahoe Formation on the western portion of the hill and Denver Formation on the eastern portion of the hill. These are sandstones and claystones with conglomerates, some of which contain andesitic cobbles. The Golden fault zone passes to the west, between Colorado Highway 93 and Mesa View Drive.

History

The open space consists of two City of Golden-owned parcels, totaling about 4 acres.

Tract A was accepted by the City of Golden by Resolution No. 516, adopted December 23, 1993.

I have found no reference to how Tract B became city-owned, so far. (Perhaps it is Resolution 599).

The 7-Eleven / Conoco Station and Cannonball Creek Brewery were constructed between 9/2/2004 and 7/4/2005. These dates were determined by comparing aerial imagery provided by GoogleEarth.

Grading for Joseph Circle first appears in 4/29/2006. Some sort of grading in the parcel also appears at the same time. It is possible that the netting also dates from this time period. Housing construction was underway 10/22/2006. The first landscaping, implying homeowner occupancy, appears 3/30/2008.

It is unclear when the water line was placed across the parcel, but the current vault appears in 7/4/2005 imagery.

A 10-feet easement permitting access to the open space from North Ford Street was approved by the City Council on March 9, 2017 (City of Golden, 2017). A water line and gas line connect to utilities under N. Ford Street through this easement.

Methods

Botanical field trips were made as shown in Table 1.

Observations were made when an easily recognizable plant was not in a condition to make a good quality collection or if there were already collections of the taxon but at other parts of the parcels.

Collections were made when the plants were in a condition that permitted making a good quality collections, such as one containing stem, leaves, flowers, and perhaps seed, and when in sufficient quantity that never more than one-tenth of the extant plant material was collected.

Observations and collections were recorded in a field notebook at the time made. Geographic location was obtained from a Garmin 76CSx GPS receiver, and downloaded using Minnesota Department of Natural Resources DNRGPS. Notebook and GPS data were stored in a Microsoft Access data base and exported to ArcGIS. Collections

Date	Collections	Observations
March 27, 2017	-	1497-1535
May 2, 2017	1591-1596	1538-1550
May 15, 2017	1611-1623	1554
May 30, 2017	1639-1646	1562
Jun 16, 2017	1660-1673	1571
July 14, 2017	1701-1712	1577
July 31, 2017		1579
August 31, 2017	1744-1760	1580

Tabl1 1. Botanic field trips.

were transferred to standard botanical presses from a field press. When dry the collections identified, labelled, and distributed to herbaria.

A list of plants collected or observed is in Appendix A. Plant List.

Results

This study is still in progress. Therefore, reported results are preliminary.

As of December 31, 2017, 71 plant collections have been made. These collections resulted in 163 vouchers sent to herbaria. Sixty-eight vouchers were sent to the Kalmbach Herbarium at Denver Botanic Garden. Twenty-seven vouchers were sent to California Department of Agriculture, Weed Lab (CDA), 17 vouchers were sent to Colorado State University, Fort Collins, with smaller numbers of vouchers sent to other herbaria.

In addition, there are 54 observations of plants that were duplicates of plants already collected, not in sufficient numbers to collect, or not in a condition to make a good collection.

Disturbance

There is substantial disturbance around the edges of the parcel. Disturbance includes grading, water lines or other utilities, construction, landscaping or revegetation, debris disposal, mowing, and social trails and amenities.

The center of the open space is less-disturbed. The primary disturbances are social trails and amenities.

A map of disturbance is shown in Appendix B. Maps and Photos.

Grading

Major episodes of grading have occurred for:

- Washington Avenue ROW, along the southwest sector.
- Canyon Point, LLC, on the west edge.
- Villas at Canyon Point, on the south edge.
- A small section along the north edge.

Water Lines or Other Utilities

There is a city water line that crosses the southern part of the parcel.

Flagging at the east end of the open space suggests there is a high-pressure gas line crossing the east end.

Construction

Construction of condominiums at 414 N. Ford Street has spilled out into the open space, although the vegetation in that area was mostly non-native before construction began.

Landscaping or Re-Vegetation

The plastic netting on the western edge of the open space suggests that the site was landscaped or re-vegetated (GoogleEarth, 4/28/2006). Some sort of scraping or grading can be seen in imagery from 4/28/2006. Perhaps the netting also dates from this time.

Just to the west of the open space, in parcels owned by Canyon Point LLC, there are two irrigation lines, of 1" PVC, and six pop-up sprinklers. Nominally, the sprinklers are supported by $\frac{1}{2}$ "

reinforcing bar. However, most of the supports have failed and the sprinklers have fallen over. Presumably this was part of a revegetation project.

On the southeast corner, there is a near-monoculture of some graminoid that suggests revegetation at that location also.

Debris Disposal

There are several yard waste piles just inside the fence on the north side of the open space.

Mowing

In the northeast corner of the parcels, one or more neighbors have mowed the vegetation continually since 2007. Aerial imagery publically available on GoogleEarth, show that on or before 7/20/2007, there were several mowed paths into the parcels to small cleared areas. The mowing continued, and as observed 6/22/2010, included a fairly large patch inside the parcel. A large patch behind the northeasternmost four parcels can be seen mowed in imagery dated from 10/7/2012. The area mowed was slightly larger in imagery dated 10/6/2013, and slightly larger still a year later on 10/6/2014. The area was still mowed on 10/9/2015, with additional access paths mowed into the center of the parcel.



Wheel marks from a mower observed on May 15, 2017 showed that the mowing was continuous from private property into the city-owned parcels.

The vegetation being mowed is now primarily *Bromus inermis* Leyss “Smooth Brome.” It is unknown whether the vegetation of the area has been altered by ten years of mowing. Mowing has been used as a method of control for Smooth Brome, but its effectiveness, especially as a means of restoring native prairie, is doubtful (Willson and Stubbendieck, 1996).

Within the mowed area, a number of small plants are found. These ranging from the native *Buchloe dactyloides* (Nutt.) Engelm. Buffalo Grass, to common weeds, such as *Malva neglecta* Wallr. Common Mallow, to the Noxious Weed List A *Euphorbia myrsinites* L. Myrtle Spurge.

In the short term, it would seem appropriate to continue mowing, or to encourage the neighbors to continue mowing. The mowing should occur when the inflorescences begin to form within the leaf sheath of the Smooth Brome, with the mower height set as high as possible.

Social Trails and Amenities

There are four easily identifiable social trails crossing all or part of the parcels. The primary social trail crosses the parcels east to west across the top of the hill. This trail is fairly heavily used by hikers, dog walkers, and by a few mountain bikes. I have even encountered a wedding photography party on top to the hill. The trail is eroding on the steepest slope at the eastern slope of the hill.

This trail bisects the area of remnant native vegetation on the top of the hill. The opportunities for rerouting this trail away from the native vegetation, while still permitting access to the top of the hill, seem quite limited.

There is an access trail at the east edge of the parcels connecting North Ford Street to Jackson Drive and an adjacent alley. The city has a 10-foot wide easement connecting to parcels to North Ford Street. (City of Golden, 2017).

The social trail along the southern edge crosses land owned by Villas at Canyon Point LLC, in its eastern portion and then turns northwesterly across City of Golden land.

The social trail on the western edge crosses two parcels owned by Canyon Point LLC, lessor of space occupied by the 7-Eleven and Cannonball Creek Brewery.

There is one social amenity, i.e., a bench near the top of the hill. The bench and associated access trail first appears in 10/7/2012 imagery. The access trail to this bench passes perilously close to several individual plants of Missouri Foxtail Cactus.

Vegetation

A small portion covering the top of the hill, about 1.5 acres in size, could be identified as Western Great Plains Foothill and Piedmont Grassland with mixed tall and short grass species.

Significantly sized other portions, would be identified as Smooth Brome (*Bromus inermis* Leyss) Ruderal Vegetation.

Rare Plants

No Colorado rare plants have been observed in this parcel (Colorado Natural Heritage Program, 1997).

Notable Plants

Coryphantha missouriensis (Sweet) Britton & Rose. Missouri Foxtail Cactus. This is a species of low-growing North American cacti. It is found in along the Missouri River in the tallgrass prairie and shortgrass Great Plains, from Texas to Montana and the Dakotas, and in the Rocky Mountains woodlands of Ponderosa pine (*Pinus ponderosa*), and pinyon-juniper. For most of the year this cactus sits very close to the ground, making it difficult to see and easy to step on. My friends from Texas call it "Horse Crippler" because horses do not see it and often injure themselves stepping on it. One unique characteristic of this cactus is that the fruit in the spring is from flowers of the previous year, so it is commonly seen with both flower and fruit. *Coryphantha missouriensis* has been extirpated from many of its historically known sites by introduced fire ants, suburban



development, brush encroachment following fire suppression, and over-grazing (Wikipedia).

Packera tridenticulata (Rydb.) W.A. Weber & Á. Löve. (Syn: *Senecio tridenticulatus* Rydb.) Three-Tooth Ragwort. This relatively common native ragwort is typically found in sandy or gravelly soils. It has not been previously collected in Golden or immediate vicinity, such as North or South Table Mountains. The closest other collections are along Colorado Highway 93 between 64th and 68th Streets.

Thelesperma megapotamicum (Spreng.) Kuntze. Hopi Tea Greenthread. Hopi Tea Greenthread is much more common around Golden, having also been collected on North and South Table Mountains, in addition to CSM Survey Field. It may have some ethnographic interest from its use in making dyes and medicinal teas.

Mentzelia nuda (Pursh) Torr. & A. Gray. (Syn: *Nuttallia nuda* (Pursh) Greene) Bractless Blazing Star. The aptly named “Blazing Stars” deserve that attention they seem to attract. There are several *Menzelias* found in Golden and vicinity, but the large-flowered plants are all *M. nuda*. This is a plains species also found in the lower foothills.

Mirabilis linearis (Pursh) Heimerl. (Syn: *Oxybaphus linearis* (Pursh) B. L. Robinson) Narrow-Leaf Four O’Clock. One plant of this species was seen July 31, 2017, and it was not collected. It is found just on the east side of the hill, adjacent to some *Thelesperma megapotamicum*. The plant is common in Colorado, and has been collected on North and South Table Mountains, but rarely are more than one or two plants seen.

Echinocereus viridiflorus Engelm. Nylon Hedgehog Cactus. This is a common cactus in Colorado. There are small areas in this parcel that have very dense populations of this cactus. In the photograph there are 27 of this cactus circled in red.



Festuca saximontana Rydb. Rocky Mountain Fescue. My identification of collection number 1167 of Rocky Mountain Fescue has been confirmed by Denver Botanic Garden. Golden is a little lower than the normally expected range of Rocky Mountain Fescue. Nearby, there are two collections of this grass from Rocky Flats, which is a little higher elevation than Golden. Other collections near Golden are in more mountainous terrain and at higher elevations, such as Golden Gate State Park, Idaho Springs, Tolland, etc. Further, the seed head of this collection is quite large and full compared to that typically seen in this grass species. This suggests that this plant is likely a robust cultivar of Rocky Mountain Fescue that was planted here in a previous revegetation project.

The remaining native species of grasses found on this hill are within their usual range and typical appearance.

Noxious Weeds

List A

List A Species in Colorado that are designated by the [Colorado Department of Agriculture] Commissioner for eradication. The most common List A species in the Golden area is *Euphorbia myrsinifolia* L. (Syn: *Tithymalus myrsinifolia* (L.) Hill) Myrtle Spurge.

- *Euphorbia myrsinifolia* L. Myrtle Spurge has been collected in the northeast corner of the Open Space, in the area of mowed Smooth Brome. The mowing keeps the plants small, but the species also spreads by small underground stems called rhizomes, thus allowing the plants to spread even if kept mowed.

List B

List B Species are species for which the Commissioner, in consultation with the state noxious weed advisory committee, local governments, and other interested parties, develops and implements state noxious weed management plans designed to stop the continued spread of these species. The following List B plants are found in the parcel:

- *Carduus nutans* L. (Syn: *Carduus nutans* L. ssp. *macrolepis* (Peterman) Kazmi) Nodding Plumeless Thistle. Primarily found in the western, revegetated part of the open space.
- *Centaurea diffusa* Lam. (Syn: *Acosta diffusa* (Lam.) Soja' k) White Knapweed. It has been seen along the fence in the northwest portion of the Open Space.
- *Cirsium arvense* (L.) Scop. (Syn: *Breea arvensis* (L.) Lessing) Canada Thistle. There is one patch in deep, unmowed Smooth Brome near the eastern edge of the parcel.
- *Saponaria officinalis* L. Bouncingbet. Several plants were found and removed along the social trail on the east side of the hill.



- *Dipsacus fullonum* L. Fuller's Teasel. Seen on the revegetated western slope.
- *Elaeagnus angustifolia* L. Russian Olive. A moderate size mature plant and one small plant along the north boundary.
There are also several plants of this species in the adjacent parcel of the Villas at Canyon Point that appear to be an intentional element of the property landscaping.
- *Linaria dalmatica* (L.) Mill. (Syn: *Linaria dalmatica* (L.) Mill. ssp. *dalmatica*, *Linaria genistifolia* (L.) Mill. ssp. *dalmatica* (L.) Maire & Petitm.) Dalmatian ToadFlax.

List C

List C Species are species for which the Commissioner, in consultation with the state noxious weed advisory committee, local governments, and other interested parties, will develop and implement state noxious weed management plans designed to support the efforts of local governing bodies to facilitate more effective integrated weed management on private and public lands. The goal of such plans will not be to stop the continued spread of these species but to provide additional education, research, and biological control resources to jurisdictions that choose to require management of List C species. The following List C plants are found in the parcel:

- *Convolvulus arvensis* L. Field Bindweed. Very common, ubiquitous weed.
- *Erodium cicutarium* (L.) L'Her. ex Aiton. Redstem Stork's Bill. Also a very common, ubiquitous weed.
- *Verbascum thapsus* L. Common Mullein. Seen mostly on the western, revegetated slope.
- *Bromus tectorum* L. (Syn: *B. tectorum* L. var. *glabratus* Spenn.) Cheat Grass.

Watch List

Watch List Species that have been determined to pose a potential threat to the agricultural productivity and environmental values of the lands of the state. The Watch List is intended to serve advisory and educational purposes only. Its purpose is to encourage the identification and reporting of these species to the Commissioner in order to facilitate the collection of information to assist the Commissioner in determining which species should be designated as noxious weeds.
There is one plant in the Open Space that is on the Watch List:

- *Gypsophila paniculata* L. Baby's Breath. One plant was found in the northwest portion of the Open Space. Baby's breath is an ornamental species that has escaped cultivation. Once established, it can form dense stands and is difficult to control. In pastures and rangeland, it competes with forage species and decreases hay forage quality. There is only one other collection from Jefferson County, Colorado.

Recommendations

1. Develop a plan for city or neighbor mowing of grass in the parcel.
 - a. Mow only when the Smooth Brome begins to form an inflorescence.
 - b. Set mower height to avoid “scalping” the cacti.
2. Demarcate the edges of the social trails on the top of the hill to limit widening of the trails and protect adjacent vegetation.
 - a. Add signage requesting visitors stay on marked trails.
3. Clean out the disposed yard waste and review yard waste disposal options with neighbors.
4. Begin a simple weed abatement program focusing on Myrtle Spurge, Canada Thistle, Baby's Breath, Russian Olive, and Common Mullein.

Literature Cited

- City of Golden, 1993. Resolution No. 516, Final Subdivision Plat of Canyon Point Filing No. 4. December 23, 1993. Recorded in Jefferson County August 30, 1995.
- City of Golden, 2017. Resolution No. 2557, Easement for 414 North Ford Street. Adopted March 9, 2017.
- Colorado Natural Heritage Program. 1997+. Colorado Rare Plant Guide. www.cnhp.colostate.edu. Latest update: June 30, 2014.
- Van Horn, Richard, 1972. Surficial and Bedrock Geologic Map of the Golden Quadrangle, Jefferson County, Colorado. U. S. Geological Survey Map I-761-A.
- Wikipedia contributors, "Escobaria missouriensis," Wikipedia, The Free Encyclopedia, https://en.wikipedia.org/w/index.php?title=Escobaria_missouriensis&oldid=717914652 (accessed May 19, 2017).
- Willson, Gary D., and James Stubbendieck, 1996. Suppression of Smooth Brome by Atrazine, Mowing, and Fire. *The Prairie Naturalist*. 28(1), March 1996.

Appendices

A. Plant List

Anacardiaceae

[] ***Rhus trilobata* Nutt. var. *trilobata***. Skunkbush Sumac.

Apiaceae

[] ***Lomatium orientale* J.M. Coulter & Rose**. Northern Idaho Biscuitroot.

Asclepiadaceae

[] ***Asclepias speciosa* Torr.** Showy Milkweed.

Asteraceae

[] ***Ambrosia psilostachya* DC.** Western Ragweed.

[] ***Artemisia dracunculus* L.** (Syn: *Oligosporus dracunculus* (L.) Poljakov ssp. *glaucis* (Pall. ex Willd.) A. Löve & D. Löve) Tarragon, Dragon Wort.

[] ***Artemisia frigida* Willd.** Prairie Sagewort.

[] ***Artemisia ludoviciana* Nutt.** Silver Wormwood.

[] ***Brickellia eupatorioides* (L.) Shinners.** False Boneset.

[] ***Carduus nutans* L.** (Syn: *Carduus nutans* L. ssp. *macrolepis* (Peterman) Kazmi) Nodding Plumeless Thistle. **Weed:** CO DofA, List: B.

[] ***Centaurea diffusa* Lam.** (Syn: *Acosta diffusa* (Lam.) Soja' k) White Knapweed. **Weed:** CO DofA, List: B.

[] ***Cirsium arvense* (L.) Scop.** (Syn: *Breea arvensis* (L.) Lessing) Canada Thistle. **Weed:** CO DofA, List: B.

[] ***Cirsium undulatum* (Nutt.) Spreng.** Wavy Leaved Thistle.

[] ***Ericameria nauseosa* (Pall. ex Pursh) G.L.Nesom & G.I.Baird var. *graveolens* (Nutt.) Reveal & Schuyler.** (Syn: *Chrysocoma dracunculoides* Pursh [illeg.], *Chrysocoma graveolens* Nutt., *Chrysothamnus graveolens* (Nutt.) Greene, *Chrysothamnus nauseosus* (Pall.) Britton ssp. *graveolens* (Nutt.) Piper, *E. n.* (Pall. ex Pursh) G.L.Nesom & G.I.Baird var. *glabrata* (Gray) G.L. Nesom & Baird)

[] ***Erigeron divergens* Torr. & A. Gray.** Spreading Fleabane.

[] ***Erigeron tracyi* Greene.** (Syn: *Erigeron cinereus* A. Gray, *Erigeron colomexicanus* A. Nelson, *Erigeron divergens* Torrey & A. Gray var. *cinereus* A. Gray) Running Fleabane.

[] ***Gaillardia aristata* Pursh.** Blanketflower.

[] ***Gutierrezia sarothrae* (Pursh) Britton & Rusby.** Broom Snakeweed.

[] ***Helianthus pumilus* Nutt.** Little Sunflower.

[] ***Heterotheca villosa* (Pursh) Shinners.** (Syn: *H. v.* (Pursh) Shinners var. *nana* (A. Gray) Semple, *H. v.* (Pursh) Shinners var. *villosa*) Hairy False Goldenaster.

[] ***Hymenopappus filifolius* Hook. var. *polycephalus* (Osterh.) B.L. Turner.** Many-Headed Fine-Leaved Wooly-White.

[] ***Lactuca serriola* L.** Prickly Lettuce.

[] ***Liatis punctata* Hook.** Dotted Blazing Star.

[] ***Packera tridenticulata* (Rydb.) W.A. Weber & Á. Löve.** (Syn: *Senecio tridenticulatus* Rydb.) Three-Tooth Ragwort.

[] ***Ratibida columnifera* (Nutt.) Woot. & Standl.** (Syn: *Rudbeckia columnifera* Nutt.) Upright Prairie Coneflower.

[] ***Scorzonera laciniata* L.** (Syn: *Podospermum laciniatum* (L.) De Candolle) Cutleaf Vipergrass.

[] ***Senecio spartioides* Torr. & A. Gray.** (Syn: *Senecio multicapitatus* Greenm. ex Rydb.) Broomlike Ragwort.

[] ***Solidago missouriensis* Nutt.** Missouri Goldenrod.

[] ***Solidago nana* Nutt.** Baby Goldenrod.

[] ***Symphyotrichum falcatum* (Lindl.) G.L. Nesom.** (Syn: *Aster falcatus* Lindl.) White Prairie Aster.

[] *Taraxacum officinale* F. H. Wigg. (Syn: *T. laevigatum* (Willd.) DC.) Common Dandelion.

[] *Thelesperma megapotamicum* (Spreng.) Kuntze. Hopi Tea Greenthread.

[] *Tragopogon dubius* Scop. (Syn: *Tragopogon dubius* Scop. ssp. *major* (Jacq.) Vollman) Yellow Salsify.

Boraginaceae

[] *Lithospermum incisum* Lehm. Narrowleaf Stoneseed.

[] *Mertensia lanceolata* (Pursh) DC. Prairie Bluebells.

Brassicaceae

[] *Alyssum simplex* Rudolphi. (Syn: *Alyssum minus* Rothm., *Alyssum parviflorum* Fisch. ex M.Bieb.) European Madwort.

[] *Physaria montana* (A. Gray) Greene. (Syn: *Lesquerella montana* (A. Gray) S. Watson) Mountain Bladderpod.

Cactaceae

[] *Coryphantha missouriensis* (Sweet) Britton & Rose. (Syn: *Escobaria missouriensis* (Sweet) D.R.Hunt) Missouri Foxtail Cactus.

[] *Coryphantha vivipara* (Nutt.) Britton & Rose. (Syn: *Escobaria vivipara* (Nutt.) Buxb., *Escobaria vivipara* (Nutt.) Buxb. var. *deserti* (Engelm.) D. R. Hunt, *Escobaria vivipara* (Nutt.) Buxb. var. *rosea* (Closkey) D. R. Hunt, *Mamillaria vivipara* (Nutt.) Haw.) Beehive Cactus.

[] *Echinocereus viridiflorus* Engelm. (Syn: *Echinocereus chloranthus* (Engelm.) J.N.Haage, *Echinocereus viridiflorus* Engelm. var. *chloranthus* (Engelm.) Backeb.) Nylon Hedgehog Cactus.

[] *Opuntia macrorhiza* Engelm. Twistspine Pricklypear.

[] *Opuntia polyacantha* Haw. Plains Pricklypear.

Caprifoliaceae

[] *Lonicera tatarica* L. Tatarian Honeysuckle.

Caryophyllaceae

[] *Gypsophila paniculata* L. (Syn: *G. paniculata* L. var. *p.*) Baby's Breath. **Weed:** CO DofA, List: Watch.

[] *Saponaria officinalis* L. Bouncingbet. **Weed:** CO DofA, List: B.

[] *Stellaria media* (L.) Vill. (Syn: *Alsine media* L.) Common Chickweed.

Chenopodiaceae

[] *Chenopodium album* L. Lambsquarters.

Convolvulaceae

[] *Convolvulus arvensis* L. Field Bindweed. **Weed:** CO DofA, List: C.

Dipsacaceae

[] *Dipsacus fullonum* L. Fuller's Teasel. **Weed:** CO DofA, List: B.

Elaeagnaceae

[] *Elaeagnus angustifolia* L. Russian Olive. **Weed:** CO DofA, List: B.

Euphorbiaceae

[] *Euphorbia myrsinites* L. (Syn: *Tithymalus myrsinites* (L.) Hill) Myrtle Spurge. **Weed:** CO DofA, List: A.

Fabaceae

[] *Astragalus drummondii* Dougl. ex Hook. Drummond's Milkvetch.

[] *Colutea arborescens* L. Bladder Senna.

[] *Medicago sativa* L. Alfalfa.

[] *Oxytropis lambertii* Pursh. Purple Locoweed.

[] *Psoralidium tenuiflorum* (Pursh) Rydb. (=*Pediomelum tenuiflorum* (Pursh) A. N. Egan) Slimflower Scurfpea.

Geraniaceae

- [] *Erodium cicutarium* (L.) L'Her. ex Aiton. Redstem Stork's Bill. **Weed:** CO DofA, List: C.

Grossulariaceae

- [] *Ribes cereum* Douglas. Wax Currant.

Loasaceae

- [] *Mentzelia nuda* (Pursh) Torr. & A. Gray. (Syn: *Nuttallia nuda* (Pursh) Greene) Bractless Blazing Star.

Malvaceae

- [] *Malva neglecta* Wallr. Common Mallow.

Nyctaginaceae

- [] *Mirabilis linearis* (Pursh) Heimerl. (Syn: *Oxybaphus linearis* (Pursh) B. L. Robinson) Narrowleaf Four O'Clock.

Onagraceae

- [] *Oenothera suffrutescens* (Ser.) W. L. Wagner & Hoch. (Syn: *Gaura coccinea* Pursh, *Gaura glabra* Lehm.) Linda Tardé.

Orobanchaceae

- [] *Castilleja integra* A. Gray. Wholeleaf Indian Paintbrush.

Plantaginaceae

- [] *Linaria dalmatica* (L.) Mill. (Syn: *Linaria dalmatica* (L.) Mill. ssp. *dalmatica*, *Linaria genistifolia* (L.) Mill. ssp. *dalmatica* (L.) Maire & Petitm.) Dalmatian ToadFlax. **Weed:** CO DofA, List: B.

- [] *Penstemon secundiflorus* Benth. Sidebells Penstemon.

- [] *Penstemon virens* Pennell ex Rydb. Front Range Beardtongue.

Polygonaceae

- [] *Eriogonum alatum* Torr. (Syn: *Pterogonum alatum* (Torr.) Gross) Winged Buckwheat.

- [] *Eriogonum arcuatum* Greene. (Syn: *Eriogonum jamesii* Benth var. *flavescens* S. Watson) Baker's Buckwheat.

- [] *Eriogonum effusum* Nutt. Spreading Buckwheat.

- [] *Rumex crispus* L. Curly Dock.

Ranunculaceae

- [] *Delphinium carolinianum* Walter ssp. *virescens* (Nutt.) R.E. Brooks. (Syn: *Delphinium virescens* Nutt.) Carolina Larkspur.

Rosaceae

- [] *Crataegus succulenta* Schrad. ex Link. (Syn: *Crataegus chrysocarpa* Ashe, *Crataegus erythropoda* Ashe, *Crataegus macrantha* Britton var. *occidentalis* (Britton) Eggl.) Fleshy Hawthorn.

- [] *Prunus pensylvanica* L. f. (Syn: *Cerasus pensylvanica* (L. f.) Loiseleur) Pin Cherry.

- [] *Prunus virginiana* L. Chokecherry.

- [] *Rosa arkansana* Porter. Prairie Rose.

Santalaceae

- [] *Comandra umbellata* (L.) Nutt. ssp. *pallida* (A. DC.) Piehl. (Syn: *Comandra umbellata* (L.) Nutt. var. *pallida* (A. DC.) M. E. Jones) Pale Bastard Toadflax.

Scrophulariaceae

- [] *Verbascum thapsus* L. Common Mullein. **Weed:** CO DofA, List: C.

Violaceae

- [] *Viola nuttallii* Pursh. Nuttall's Violet.

Vitaceae

[] ***Parthenocissus vitacea* (Knerr) Hitchcock.** Woodbine, thicket creeper.

Agavaceae

[] ***Yucca glauca* Torr.** Soapweed Yucca.

Anthericaceae

[] ***Leucocrinum montanum* Nutt. ex A. Gray.** Star Lily.

Commelinaceae

[] ***Tradescantia occidentalis* (Britton) Smyth.** Prairie Spiderwort.

Liliaceae

[] ***Muscari botryoides* (L.) Mill.** Common Grape Hyacinth.

Poaceae

[] ***Agropyron cristatum* (L.) Gaertn.** Crested Wheat Grass.

[] ***Andropogon gerardii* Vitman.** Big Bluestem.

[] ***Bouteloua gracilis* (Kunth) Lag. ex Griffiths.** (Syn: *Chondrosum gracile* Kunth) Blue Grama.

[] ***Bromus inermis* Leyss.** (Syn: *B. inermis* Leyss. ssp. *inermis*) Smooth Brome.

[] ***Bromus japonicus* Thunb.** Japanese Cheat Grass.

[] ***Bromus tectorum* L.** (Syn: *B. tectorum* L. var. *glabratus* Spenn.) Cheat Grass. **Weed:** CO DofA, List: C.

[] ***Buchloe dactyloides* (Nutt.) Engelm.** (Syn: *Bouteloua dactyloides* (Nutt.) J.T. Columbus) Buffalo Grass.

[] ***Dactylis glomerata* L.** Orchard Grass.

[] ***Festuca saximontana* Rydb.** (Syn: *Festuca saximontana* Rydb. var. *purpusiana* (St.-Yves) Fred. & Pavlick) Rocky Mountain Fescue.

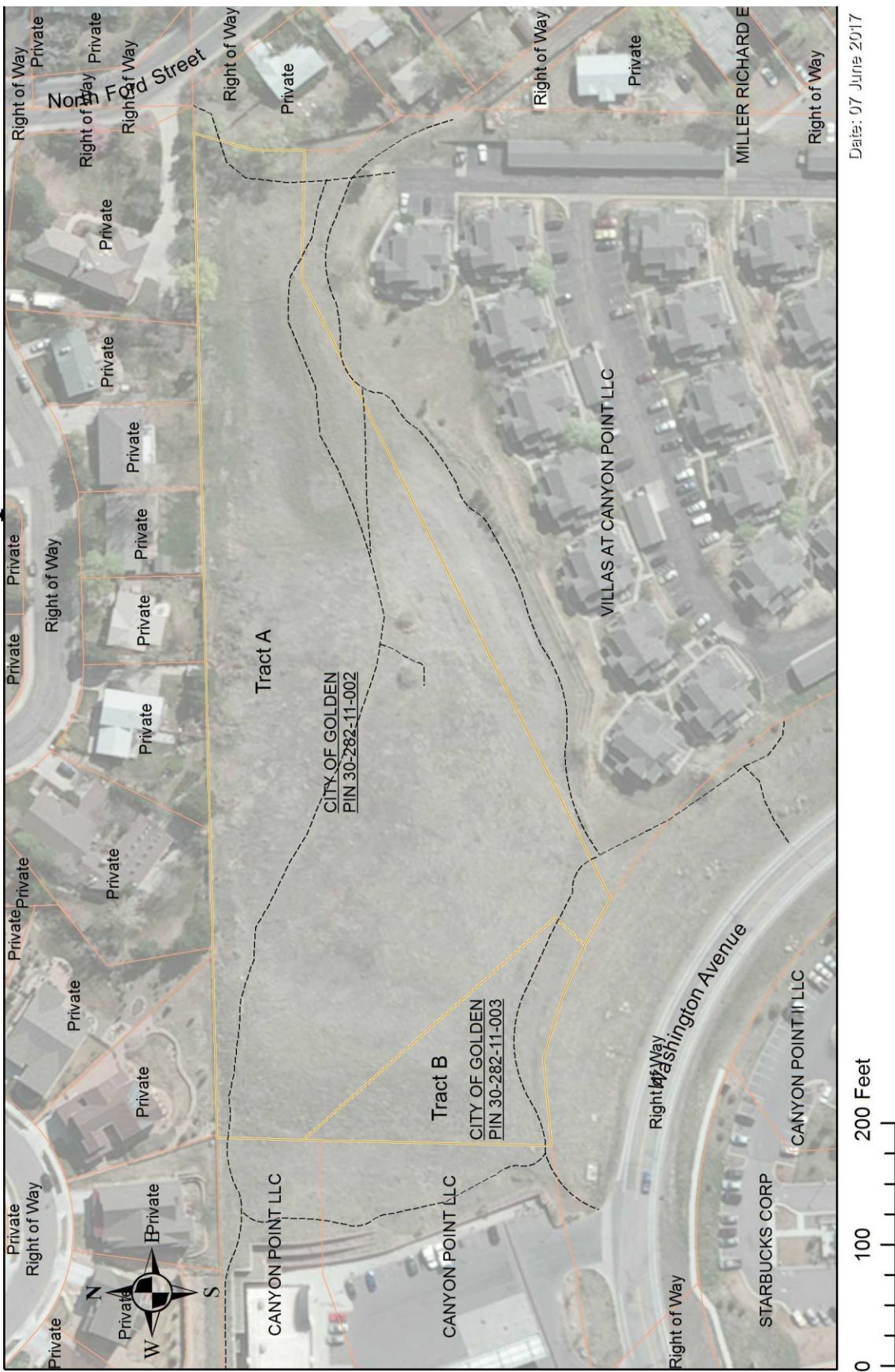
[] ***Schizachyrium scoparium* (Michx.) Nash.** Little Bluestem.

[] ***Sporobolus cryptandrus* (Torr.) A. Gray.** (Syn: *Agrostis cryptandra* Torr.) Sand Drop-seed.

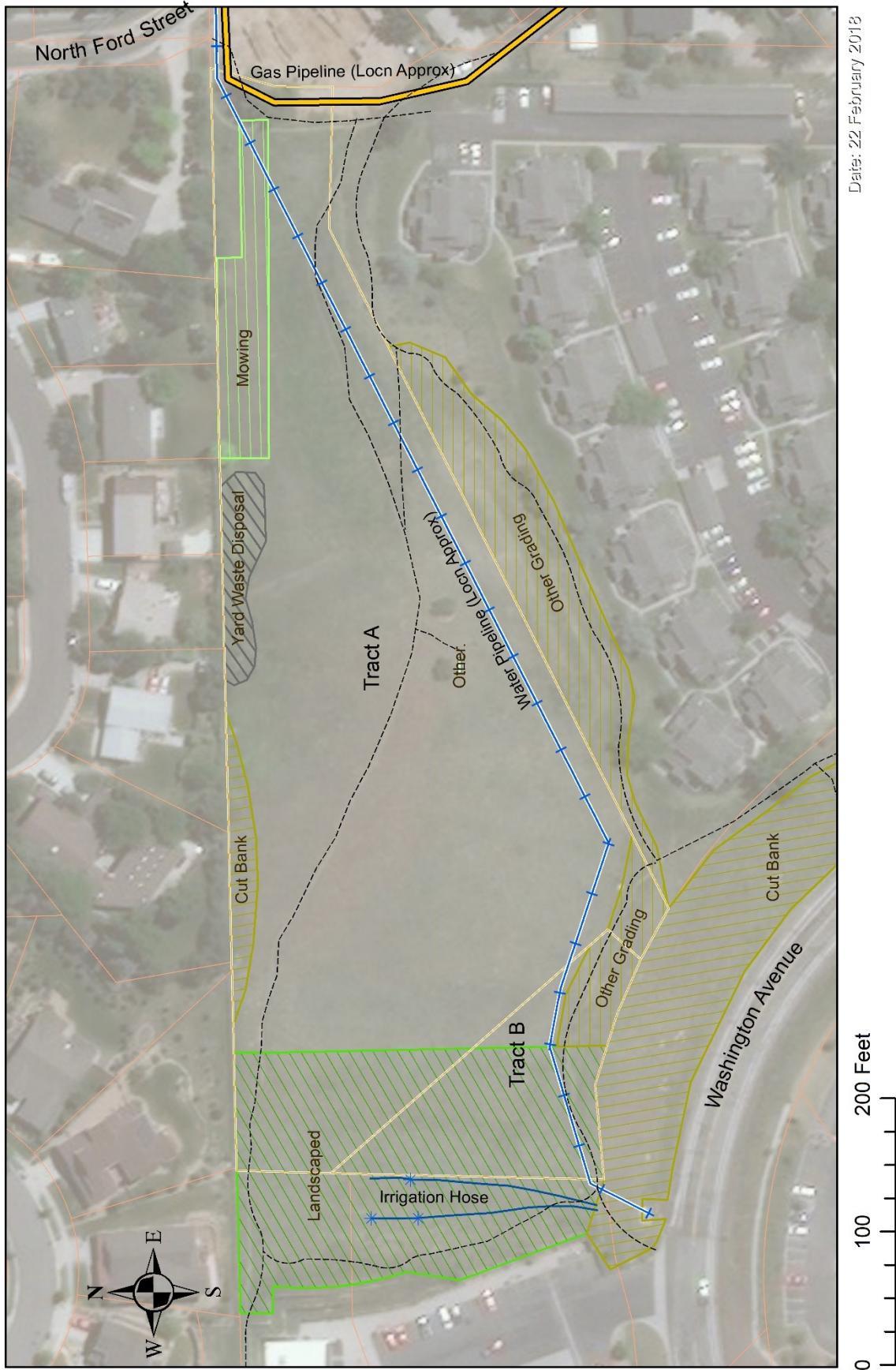
[] ***Thinopyrum intermedium* (Host)** Barkworth & D.R. Dewey. (Syn: *Elymus hispidus* (Opiz) Melderis) Intermediate Wheatgrass.

Total number of taxa:	94
Native Taxa: (serif, italic, bold)	63
Exotic Taxa: (sans-serif, italic)	31
Nativity Undetermined: (default font, italic)	0
Listed Weeds: Indentified as Weed	13

Land Ownership



Site Disturbance





Photograph of Upper Washington Avenue Open Space from North Table Mountain, June 8, 2017.



Photograph of Upper Washington Avenue Open Space from Mount Galbraith, November 24, 2017