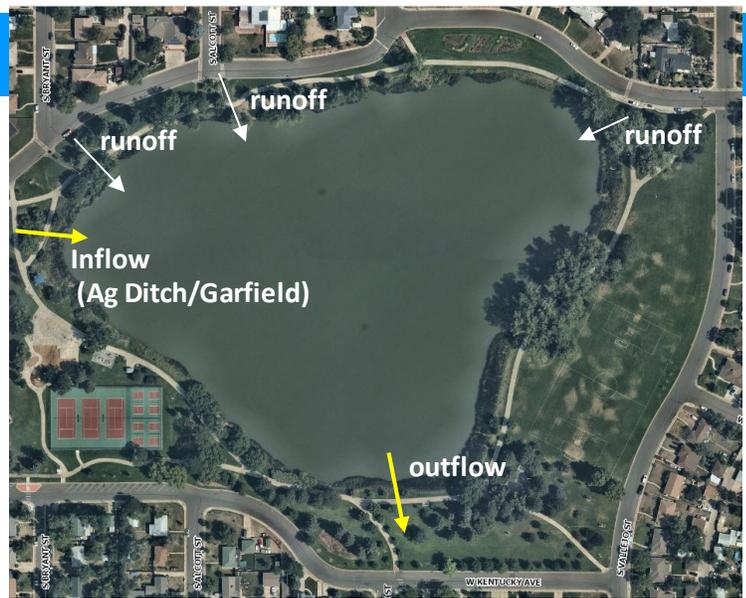


# Huston Lake

## Background, Long Term Issues & Trends

- The low lying area that is now Huston Lake was likely an agricultural irrigation source prior to the 1930's.
- Denver obtained the necessary land and water rights to establish the park and sustain the lake in the 1950's.
- The last significant renovation took place in 2003 and included limited sediment removal and addition of storm water quality filtration along the north side of the lake.
- In addition to the lake receiving stormwater from the Huston Park neighborhoods, it also gets inflows from Clear Creek via the Salisbury Lateral. The Lateral includes discharge from Garfield Lake when it's at bankfull capacity and receiving inflows which also arrives via the Salisbury Lateral.



## Developing Issues

**Pond Ecosystem:** The lake plant/algae community has been dominated by phytoplankton (floating cellular algae) rather than rooted aquatic plants and the larger filamentous (stringy) algae over the past six to seven years. This greatly deters from habitat for aquatic life (insects, frogs, turtles, and fish), which in turn impacts the value of the lake for a variety of waterfowl and wading birds that rely on aquatic life for food. Water quality is also greatly impacted, resulting in lower water clarity due to elevated phytoplankton and suspended solids (Fig 1).

**Urban Runoff Water Quality Mitigation:** The Department of Public Works has built runoff mitigation structures along the north side of the lake in two phases. The first included sand and willow infiltration 'gardens' for the outfalls at Bryant and Alcott Streets (Fig 2). These initially clogged within a couple of years due to excessive growth of the shrubs. After renovating and clearing much of the shrubbery, the structures now provide filtration and settling of contaminants in storm runoff from north of the lake.

The second phase was construction of two systems (gutter detention with swale detention/filtration) that discharge water to the northeast corner of the lake (Fig 3). Water then filters through the permeable turf and ultimately reaches the lake without much of the contaminants and trash that were captured prior to hitting the pond.

## Habitat, Fish, and Wildlife

**Habitat:** As discussed above, Huston Lake had in the past shifted from dominance by rooted plants and filamentous algae to the phytoplankton driven system that it is today. The prior status provided wetland-like habitat which afforded great

**Location:** 850 S Bryant St

**Surface Area:** 13.6 acres

**Max Depth:** 4 ft

**Primary Source Water:** Clear Creek via Agricultural Ditch (Salisbury Lateral)

### Intended Lake Uses:

Aesthetics, wildlife habitat, storm-water detention & mitigation, fishing

### Current Regulatory Issues<sup>1/</sup>:

No current listings

1/ Conditions exceeding state water quality standards.

Updated April 2019; questions to:

[alan.polonsky@denvergov.org](mailto:alan.polonsky@denvergov.org)

## Recommendations

- *Manage Huston as a wetland, which equates to accepting rooted vegetation and filamentous algae as natural and necessary components of the "lake" system and to an extent, positive attributes. Of course too much of anything is not necessarily good, but the objective should not be zero algae and plant growth in the lake.*
- *Huston can provide: (1) some of the best 'non-stream' waterfowl habitat in Denver; (2) excellent bird-watching opportunities; and (3) effective stormwater quality improvement as a component within the City's stormwater system.*
- *Consider longitudinal water mixing so as to minimize phytoplankton growth without need for chemical applications.*
- *Assess the status and effectiveness of the storm-water quality management structures along the north side of the lake.*

# Huston Lake

opportunities for all forms of aquatic life and those that rely on them. There is currently limited inlake habitat diversity.

The perimeter is covered with a healthy cattail community that provides excellent cover and feeding opportunity for waterfowl and other wildlife (red-wing blackbirds, great blue herons, frogs, turtles).

**Fish:** A moderate amount of trout were

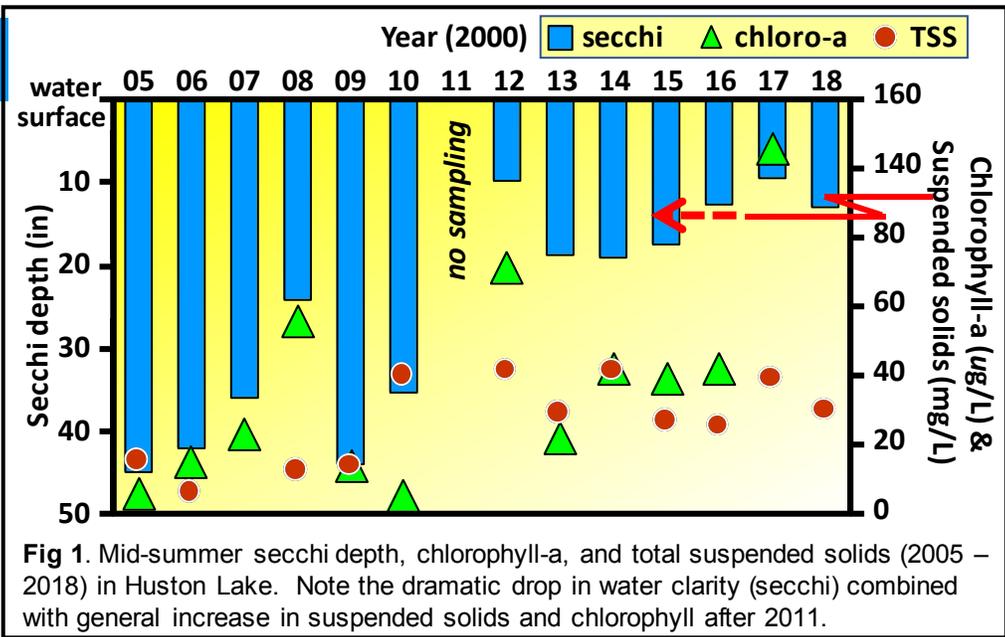
stocked in spring of 2018 by Colorado Parks and Wildlife. Many of these would have been caught and removed by mid-summer when temperatures were too warm (>72°F) and dissolved oxygen levels were too low (<5mg/L-O<sub>2</sub>) for a healthy trout population.

**Wildlife:** As discussed above, Huston provides good habitat for wildlife when the lake is dominated by rooted vegetation and filamentous algae. Wildlife opportunities are more limited in its current phytoplankton driven status. This is not surprising in that wetland habitats tend to support a richer, more diverse wildlife community than does a phytoplankton dominated pond. This is an even more critical distinction in an urban setting where the surrounding upland landscape is often a turf-grass monoculture, limited in taller grasses, shrubs, and trees.

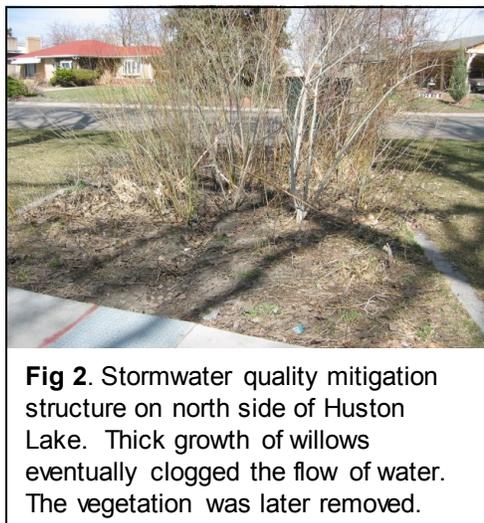
## Issues Summary & Upcoming Actions

Due to the shallow depth of Huston, it has better potential as a wetland than as a lake. Wetlands tend to support rooted plants and filamentous algae which provide diverse habitat for a variety of aquatic life. This equates to creating a great feeding location for waterfowl, which is a critical need during spring and fall migrations (Fig 4). While this isn't ideal for fishing, the fish populations will benefit from the improved habitat and food-base (aquatic insects and seeds).

**Upcoming Actions:** DPHE is not aware of any significant management plans for Huston Lake at this time.



**Fig 1.** Mid-summer secchi depth, chlorophyll-a, and total suspended solids (2005 – 2018) in Huston Lake. Note the dramatic drop in water clarity (secchi) combined with general increase in suspended solids and chlorophyll after 2011.



**Fig 2.** Stormwater quality mitigation structure on north side of Huston Lake. Thick growth of willows eventually clogged the flow of water. The vegetation was later removed.



**Fig 3.** Curb-cut stormwater quality mitigation on northeast corner of Huston Lake. Stormwater is initially slowed and detained in the “gutter” (A), then passes through holes in the curb to the swale south of curb (B). What doesn't permeate into the ground and reach the lake via groundwater path, reaches the lake via the undercut beneath the perimeter sidewalk (C).



**Fig 4.** Ducks feeding in Huston Lake on aquatic insects and seeds (spring 2007).