

# Parkfield Wetland

## Background, Long Term Issues & Trends

- Parkfield Wetland is a designed storm runoff detention pond.
- The 10 acre wetland receives water from a 1600 acre watershed, which makes it a very hard working water body (see Fig 1 below).
- Much of Parkfield is covered with rooted vegetation and often filamentous algae; typical for a wetland of this type.
- Dissolved oxygen and pH have been variable over the past several years, but this is typical for a wetland where photosynthesis (by rooted plants and algae) results in elevated pH, while prolific filamentous algae can block light at the surface, which diminishes photosynthesis and subsequently the oxygen levels.



## Developing Issues

Much of the park surrounding the wetland has been developed over the past decade. This will result in potential impacts of high maintenance landscaping, such as elevated nutrients from fertilizer applications. The combination of extensive areas of turf grass combined with open water will likely increase Canada goose numbers. With this comes additional nutrients and fecal waste impacting wetland quality.

## Fish, Wildlife, & Habitat

**Fish:** The wetland is adequate for a warm water fishery, however, shallow depths, heavy vegetative and algal productivity, and poor quality source water result in conditions not conducive to support trout (i.e., high pH, variable oxygen levels).

**Wildlife:** Wetlands such as Parkfield can provide great habitat for a variety of waterfowl, especially those that prefer a mix of open water and cattail/bulrush stands. Coots, pie-billed grebes, and several duck species are commonly seen at Parkfield. The thick growth supports a rich prey-base for a variety of wildlife, including waterfowl, frogs, the latter of which in turn attract large wading birds (great blue and black crowned night herons, snowy egrets) and other wildlife. A variety of song bird species, such as redwing and yellow-headed blackbirds are also common residents.

**Habitat:** As mentioned above, the wetland provides good quality habitat to a variety of wildlife. The wetland is typically covered with a diverse community of vegetation and encompassed by a band of cattails and bulrush. A 2014 survey by the Colorado Natural Heritage Program found a population of a floating plant species (watermeal) in the wetland that has only been found in two other locations in Colorado. Prolific filamentous algae growth occurs each summer. This is typical for wetlands of this type in this region.

The rich vegetative growth also provides water quality benefits through the settling of suspended materials and up-take of nutrients and other contaminants.

## Recommendations

- Manage Parkfield as a wetland/detention pond rather than a lake (expect and accept algae and vegetation);
- Protect and maintain a healthy naturalized buffer around the wetland perimeter. This provides valuable wildlife habitat and water quality benefits;
- If fishing is a management objective: (1) restrict it to warmwater species (i.e., bass, crappie, bluegill), and (2) consider dredging a portion of the lake, and incorporating aeration to enhance fish habitat.
- As opportunities arise, incorporate water quality enhancements throughout the watershed (prior to discharge to Parkfield).

**Location:** Parkfield Natural Area @ 1555 E 53rd Ave

**Surface Area:** 10 acres

**Max Depth:** ~ 3 ft

**Primary Source Water:**

Storm runoff, groundwater

**Intended Lake Uses:**

Storm runoff detention, wildlife habitat, aesthetics

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

dissolved oxygen, pH

1/ Conditions exceeding state water quality standards.

Updated March 2016; questions to: [alan.polonsky@denvergov.org](mailto:alan.polonsky@denvergov.org)

**Fig 1.** Parkfield Wetland storm runoff watershed encompasses approximately 1600 acres of residential, roadway, and open space land use.

