



NATURAL AREAS & TRAILS

Signature Bluffs Natural Area Ecosystem Restoration Project Update Winter 2019



Project Background

The Cache la Poudre River as it flows through Greeley has been the subject of numerous studies and investigations regarding flooding and environmental improvements since 1948. Most recently, following a major flood in 1999, the City of Greeley and the US Army Corps of Engineers studied flood management and ecosystem needs for the Poudre River from 95th Avenue to the confluence with the South Platte River east of Greeley. A reconnaissance study was completed in 2004 that identified potential actions to address these issues. Eventually, in 2010 work began on a feasibility study to further refine potential projects. That study, completed in 2014 led to a partnership agreement between the City and the Corps to undertake several ecosystem restoration projects aimed at restoring wetlands and other habitats along the riparian corridor from 83rd Avenue to 8th Avenue. Numerous public meetings were held throughout the various phases of these studies.

Several sites were evaluated for ecosystem restoration projects based on the ability to restore significant wetlands and migratory bird habitat. Objectives include increasing riparian wetlands, oxbows and wet swales; increasing and improving the cottonwood/willow community and other riparian vegetation; increase habitat connectivity; increase plant species and vegetation structural



diversity. Prior to designing the projects, the Corps installed numerous monitoring wells to collect data about ground water levels on these sites.

In addition to the ecosystem restoration work, the City felt that opportunities should also be included to provide public access to the restoration areas. This would be done by providing nature trails that would minimize impacts to the restored areas while providing nature enjoyment and education.



Project sign.

Signature Bluffs Natural Area Project

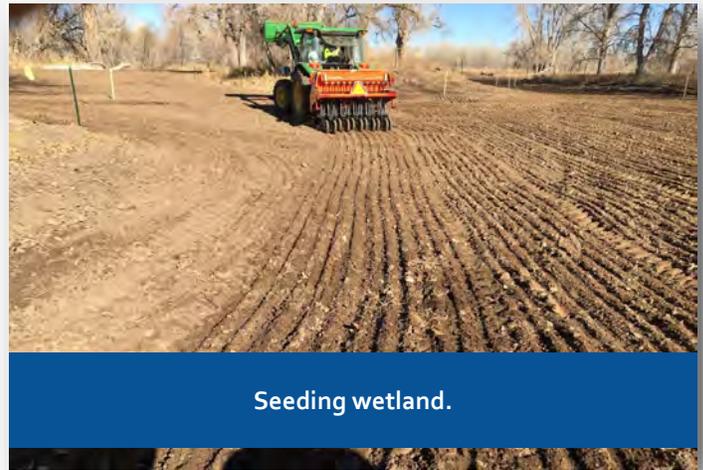
Among the sites that were identified for these projects, Signature Bluffs was selected as Phase 1 of implementation. This property, once used for cattle grazing, was primarily covered with smooth brome, a non-native, introduced pasture grass.

Site design took place from early 2015 through late

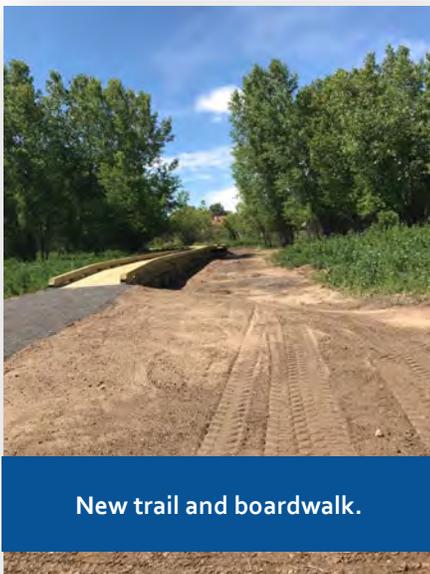


Grading for wetland.

2017. The oil and gas wells on the site were plugged and abandoned in 2017. In May of 2018, a public meeting was held to present project information to neighbors and other interested parties prior to construction. The information provided at that meeting is posted on the City's [PlayGreeley](#) webpage.



Seeding wetland.



New trail and boardwalk.

Construction officially began in July 2018 and was substantially completed in late summer 2019. Work included removal of non-native pasture grass and noxious weeds; grading to create four wetland areas; seeding and planting native species, including wildflowers, grasses, trees and shrubs; and, installing the new crusher fines nature path with benches and interpretive signs and boardwalks across the new wetlands .

Throughout the project, the Poudre River Trail remained open to trail users.

What's Next?

Many folks want to know when the site will “look better.” One of the difficult parts of ecosystem restoration work is the establishment period because it has to rely mostly on nature. Therefore, it takes several years for the newly seeded areas to mature. In the meantime, annual weedy species will persist in the first few years.



Restoration—Year 1

These photos are from another Corps restoration project along the Platte River in Nebraska. The first photo (left), taken in 2012 shows a predominance of horseweed, an annual weedy species. The photo below shows the site three years later. Over 30 different species of native grasses



Restoration—Year 4

and forbs were present with almost no horseweed. Native plants have deeper root systems and focus energy in their first few years on growing down, establishing those roots. Then they grow upwards and outcompete the other plants. The reward is a healthy, diverse habitat with native plants that provide food, shelter, and more for native birds, butterflies and other species that rely on the plant species with which they evolved.

This coming spring, the Corps' contractor will be responsible for ensuring adequate establishment of the planted species. This work may entail targeted mowing, spraying and possibly additional seeding. The City will also be assisting by replacing the smooth brome (non-native pasture grass) under the tree canopies with native species to prevent the brome from re-invading the other newly planted areas.



New interpretive sign.

The good news—once established, native plants do not need pesticides, fertilizers, watering or mowing. This, in turn, helps protect air and water quality. We hope you will spend some time on the nature trail observing the exciting changes to the site over the next few years.

Project updates will be posted periodically to the [Natural Areas & Trails](#) webpage. Questions about this project may be directed to 970-350-9205.