



88th Avenue Open Space Plan

Action Plan

*Prepared For Adams County Parks and Community Resources
Department By:*

U r b a n E d g e s I n c .

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- Adams County Board of County Commissioners
- Rick Anderson, Adams County Parks
- Shaun Deeney, Colorado Division of Wildlife
- Jamie Gaboriau, Mike Refer, Tom Maul, Aggregate Industries
- Thad Gourd, CSU Cooperative Extension
- Crystal Gray, Adams County Parks
- Kurt Gross, Colorado Division of Wildlife
- Mike Hart, Hart Environmental
- Dave Nesler, Colorado Division of Wildlife
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Adams County Open Space Park

View of South Pond Improvements

DHM Design

Urban Edges

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Introduction

Mission Statement and Purpose of This Document

This document is intended to guide the transformation and reclamation of the Aggregate Industries' Thornton Sand and Gravel Mine. It provides land use planning and facility design guidelines, recommended land uses, habitat and recreational improvements. It also discusses implementation and management strategies. This Action Plan is intended to facilitate cooperative action among Adams County Parks, Aggregate Industries, The City of Thornton, The Colorado Division of Wildlife, The Urban Drainage and Flood Control District and other potential partners and stakeholders. It is also intended to form the basis for a more detailed open space park site master plan in the future.



View of Southern Pond

Study Area and Regional Context

The study area is approximately 120 acres located east of Riverdale Road along the west bank of the South Platte River between 88th and 96th Avenues. Commonly known as the Thornton Sand and Gravel Mine, the site was used for gravel extraction and processing. Mining activities were

completed in early 1990's and the owner—Aggregate Industries, Inc.—then moved forward with reclamation of the site. As part of the gravel mining process, large portions of the site were used as settling basins for wash fines, a type of fill suitable for wetland creation. After mining was completed, Keammerer Ecological Services, working with Hart Environmental, prepared a draft reclamation plan completed in May 2001.

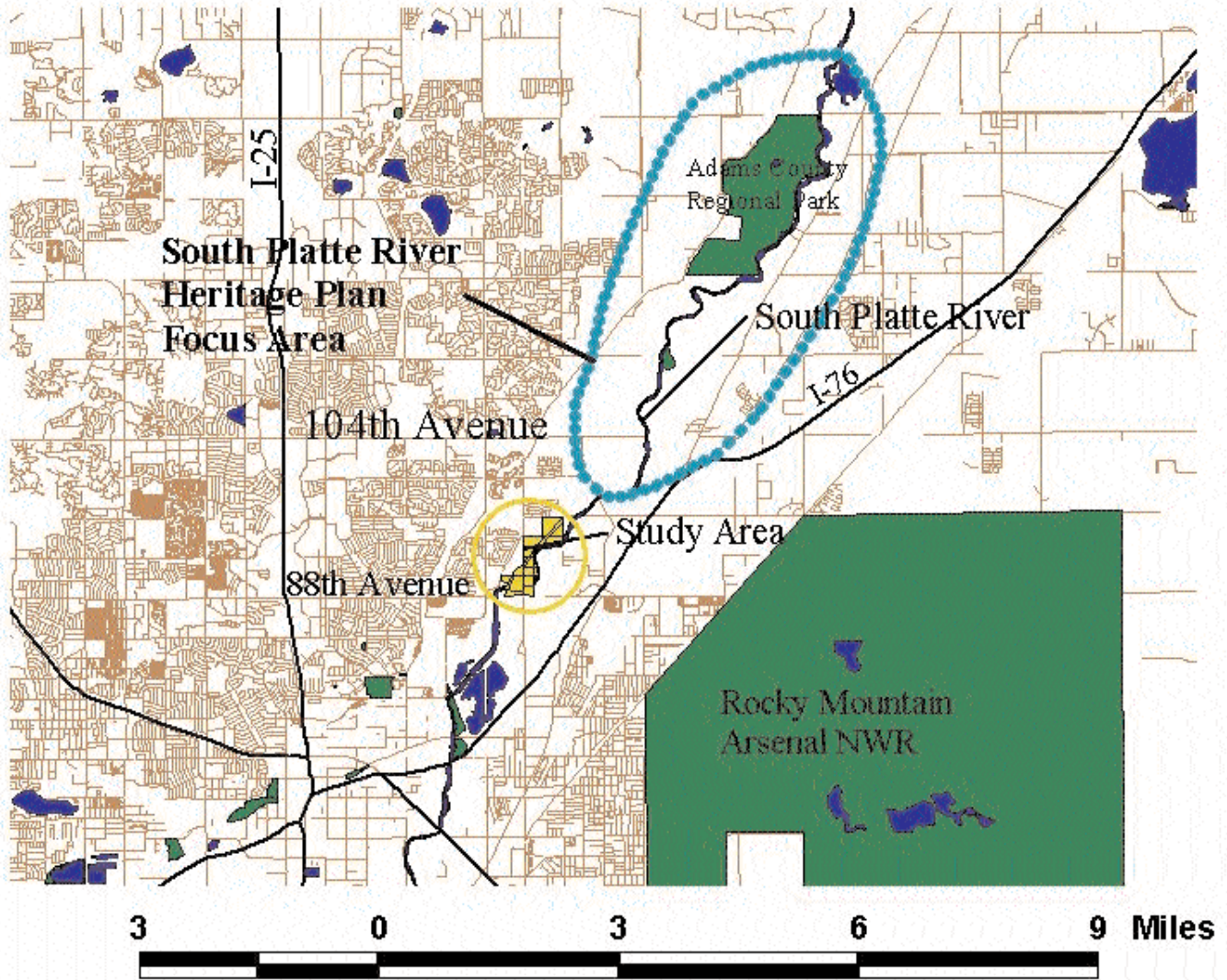


Study Area With Ownership Boundary

The owner received conditional approval from Adams County for a planned unit development on approximately 40 acres at the northwest corner of the site. The concept, called “River Edge” proposes 272 units of residential and 70,000 squarefeet of commercial uses. Terms of site redevelopment also include, after completion of the reclamation process, deeding 120 acres of the site to Adams County Parks and Community Resources Department. Securing evaporative water augmentation to support wetland creation is an item of consideration. In addition to the current site development plans, there are long term plans including *the South Platte River Heritage Corridor Plan* that recommends major conservation and recreational improvements along the river and the *Adams County Transportation Plan* that recommends (long term) extending Colorado



Context Map



Boulevard as a 4-6-lane traffic arterial through the southwest portion of the site. Currently, there are established residential neighborhoods on the west and north sides of the site. There are gravel mining and water storage ponds to the north and east of the site and gravel mine sites in various stages of reclamation to the south. Mixed-use employment and industrial land uses are recommended for to the east of the gravel mining areas along the I-76 corridor. There are several schools in the area including Skyview High School.



Neighborhoods Bordering the Site

Recreational amenities in the area include: the Platte River Greenway multi-use hike/bike path running along the west bank of the South Platte River adjacent to the site; the 88th Avenue Trailhead and Gravel Lakes Fishing Area developed by the City of Thornton; a small neighborhood park and soccer field located near the north

end of the site; and the West Sprat-Platte Pond, purchased by the City of Thornton for passive recreation and fishing immediately north of the site. The existing South Platte River Trail runs southward to Littleton and northward to 104th Avenue.



Existing Bike Path at 88th Avenue



Existing Trailhead Park at 88th Avenue



Environmental features include the surrounding ponds created by gravel mining, riparian habitat along the South Platte River and numerous wetland and cottonwood stand communities. The landscape is known to support a variety of bird species, raptors including wintering eagles, prairie dog colonies, deer and other mammals. The bulk of the site lies in the floodplain of the South Platte. A major environmental concern is the presence of weed growth and the spread of salt cedar (*Tamarisk*) an invasive and environmentally disruptive species.



Tamarisk—An Invasive Species



Arrowhead—A Native Species



G Guiding Principles

The following principals set the benchmark for site planning and future redevelopment.

1. Reclaim and enhance the riparian corridor character of the site per the vision of *the South Platte River Heritage Corridor Plan* adding habitat viability with wetlands, diverse native vegetation, improved river and lake aquatic habitats and natural contours.

2. Promote opportunities for community access to the South Platte River Corridor for passive recreation, fishing, observing nature and participation in restoration and stewardship consistent with the carrying capacity of the site. All facilities should be accessible per the *Americans With Disabilities Act*.

3. Avoid fragmenting and adequately buffer sensitive areas from recreational uses, roadways and utility crossings, surrounding development and minimize adverse visual, acoustical, water quality and habitat impacts.

4. To the maximum extent practical, implement integrated pest management (*IPM*) to control invasive weeds, exotic plant species and nuisance animal species. Promote a diverse and context-appropriate flora and fauna that demonstrates landscape restoration techniques. Wherever feasible, use sustainable, low-water-consumption techniques.

5. Provide educational and interpretive opportunities reflecting the history, culture and ecology of the site including its gravel mining history.

6. Protect the functionality of the floodway and the 100-year floodplain with minimal use and visual impact of built structures.

7. The site should not create nuisances, adversely impact or be adversely impacted by surrounding



homes, places of business, roads, parks and other land uses. Eliminate hidden hazards or attractive nuisances on the site.

8. Improvement and management of the site should be affordable.

9. Create a system of multiple-use trails serving recreation, transportation, floodplain/park management, and fish stocking. Trails should run through pleasant settings offering a variety of experiences and points of interest. Trails should integrate with local and regional trail networks. All trail improvements should meet design standards appropriate to trail uses, with complementary fixtures and furnishings and an integrated information/interpretive system.

10. Site planning should address all of the seasons and allow for flexibility over the long term to optimize the multiple objectives of the plan.





Fishing Lakes Proposed South of Site

Program of Uses and Activities

Heritage Corridor Preservation

- River Corridor “Gateway” Restoration
- Open Space
- Wetlands & Lakes
- Riparian Edge Restoration
- Prairie Restoration and Prairie Dog Habitat
- Wildlife Corridors
- Nesting Sites
- Interpretive Sites/Education
- Outdoor Class Room and Stewardship Projects
- Native Plant Restoration Site
- Wildlife Viewing/Bird-watching
- Tree Nursery and Riparian/Wetland Arboretum
- Sustainable Agriculture Demonstrations

Passive Recreation (All Facilities Accessible per ADA)

- Hiking, Jogging, Walking Paths
- Bike Trail
- Fishing Access
- Informal Picnicking
- Horseback Riding
- Cross County Skiing



88th Avenue Underpass



Recommended Improvements



Site Planning Zones

Zone 1: The Uplands

Existing Conditions

Disturbed terrain with little vegetation

Recommended Actions

1. To be developed with residential and commercial uses.
2. Provide buffer area between future development and the Open Space Park.
3. Direct run-off to west edge and into filtration areas to remove impurities before water enters Open Space Park.
4. Grade and revegetate buffer zone to visually screen development.
5. Provide directed trail access to Open Space Park from development.

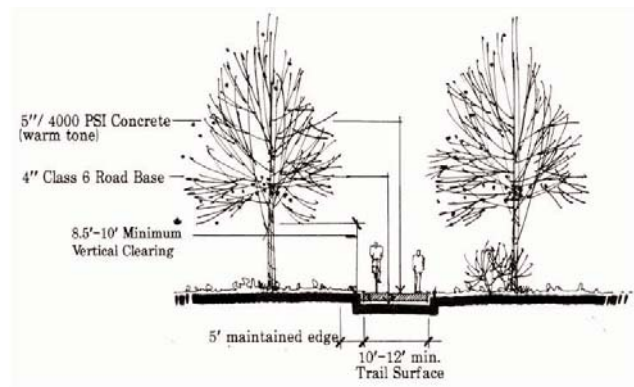
Zone 2: North Pond

Existing Conditions

Partially filled pond, disturbed and weedy areas, open space areas with some tree canopy

Recommended Actions

1. Re-grade to more natural, maintainable contours.
2. Restore uplands with a more natural plant community and institute weed management.
3. Re-grade the north pond with flattened (5:1 +/-) and shaped slopes with cottonwood/willow edge vegetation.
4. Relocate South Platte River Trail away from riverbank to avoid restored upland areas.
5. Provide directed trail access to adjacent neighborhoods.
6. Provide trail access to fishing opportunities on West Sprat-Platte Pond owned and managed by the City of Thornton.
7. Re-grade and restore riverbank.
8. Create interpretive wayside describing upland restoration.



Paved Multi-Use Trail Cross Section





Entry Concept Sketch

Zone 3: Central Pond

Existing Conditions

Mostly filled in pond, disturbed uplands, riverbank with existing trail

Recommended Actions

1. Restore northern portion of filled pond as vegetated upland with trees and native grasses and institute weed management.
2. Create wetlands in southern portion of pond and preserve small remnant pond. Design to discourage access to sensitive areas using contours, thickets, fencing and signage.
3. Relocate river trail to west side of restoration area.
4. Re-grade and lower riverbank, restore and stabilize erosion using natural and natural-appearing techniques.

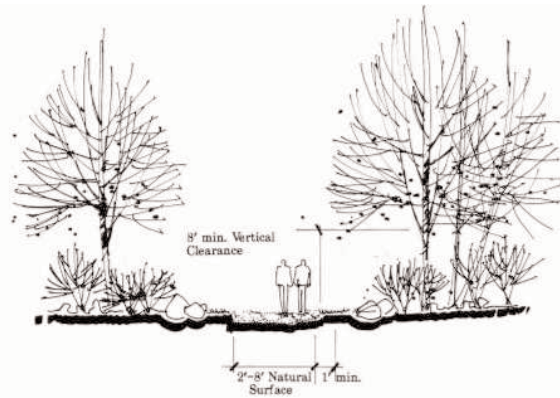
Zone 4: South Pond

Existing Conditions

Partially filled large pond, existing river trail, erosion between pond and river, invasive *Tamarisk*

Recommended Actions

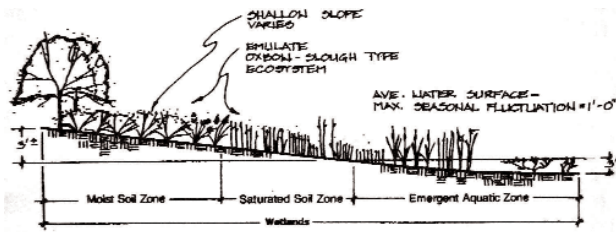
1. Restore northern portion of filled area as vegetated upland with trees and native grasses and institute weed management.
2. Create wetlands on the margin of the pond where opportunities exist. Design to discourage access to sensitive areas using contours, thickets, fencing and signage.



Primitive Trail Concept

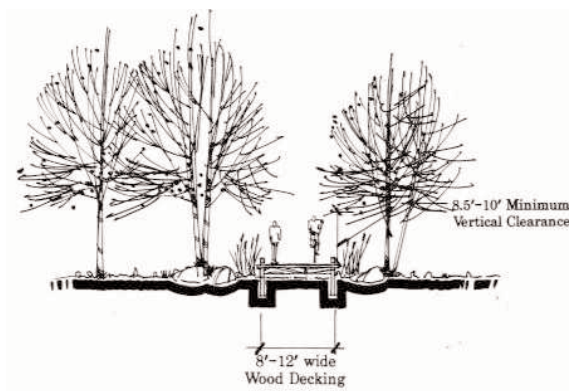
3. Create a wooded/vegetated buffer between Zone 4 and Zone 7.
4. Restore remaining pond with flattened (5:1 +/-) and shaped slopes with cottonwood/willow edge vegetation.
5. Create primitive trail and boardwalk with overlook deck accessing the wetland area.
6. Create primitive loop trail around the pond and wetland for walking, nature study and fishing access.
7. Provide wheelchair-accessible fishing docks on pond edge.
8. Relocate Platte River Trail to west side of the zone.





Wetland Pond Edge Cross Section—Hart Environmental/Mary Rushing

9. Provide rest areas with shelters at the juncture of the paved trail and primitive trail and between the pond and river on the east side of the pond.



Trail on Deck Concept

10. Lower and stabilize the riverbank between the Platte River and the pond.

11. Provide vehicular/boat ramp access for Division of Wildlife fish stocking.



South Platte River Adjacent to Site

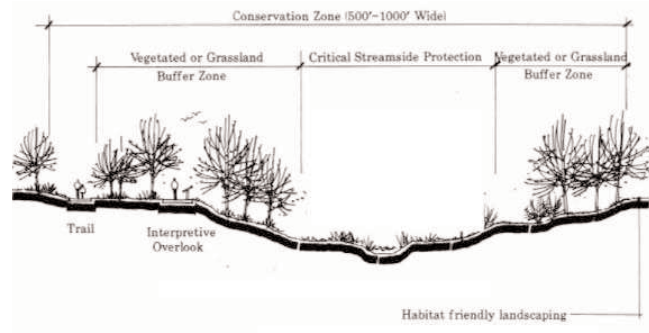
Zone 5: South Gateway

Existing Conditions

Disturbed open space areas along Riverdale Road and 88th Avenue, existing Thornton trailhead with parking, toilets, picnic facilities and boat chute. Proposed future routing of Colorado Boulevard through this area.

Recommended Actions

1. Acquire adjoining properties to the west and restore.
2. Create canoe/kayak dock north of 88th Avenue.
3. Restore and enhance parcel east of the Platte River as prairie dog habitat with prairie dog interpretive wayside along trail on west side of the river overlooking the site.
4. Create wooded buffer areas to east of Riverdale Road.



Riparian Edge Cross Section Concept

5. Assure minimal impact from future Colorado Boulevard with grading to minimize road aesthetic impact and adequate width under the overpass to permit both trail and wildlife circulation.
6. Create trailhead fishing access with parking.





Wildlife Signage South Platte Park Littleton

Zone 6: River Corridor

Existing Conditions

Somewhat natural river with meanders and sand-bars, eroding and disturbed areas, existing paved multi-use trail along river.

Recommended Actions

1. Stabilize eroding areas between/ along riverbanks with naturalistic stabilization and revegetation.
2. Create visual cottonwood/willow buffer zone (at least 150' wide) on both sides of the river to preserve integrity of riparian zone from both a wildlife and visual standpoint.



Zone 7: Adjacent Riverdale Road Property

Existing Conditions

Mostly privately owned parcel with small pond and wooded area along an old canal bed.

Recommended Actions

1. Acquire and develop this area as a more accessible “neighborhood-passive park” with paved and unpaved loop trails, wooded buffer areas, picnic areas and parking.
2. Create a wooded buffer area between this site and the Open Space Park.
3. Capture and “polish” urban run-off passing through the site with wetland and vegetated areas.
4. Provide directed access to the Open Space Park and the Platte River Trail.
5. Create trailhead with parking and gateway kiosk at north end of pond.
6. Implement weed management program.





Adams County Open Space Park Concept

(88th Avenue Sand & Gravel Mine Reclamation)

Adams County Parks & Community Resources
w/ Aggregate Industries

prepared by: Urban Edge Inc. w/ DHM Design Corporation
October 12, 2001

