September 2002



# **Table of Contents**

Introduction	1
Goals	1
Process	1
Designing a Successful Trail System	1
General Trail Design Criteria	1-3
Overall Trail Maps	4
Individual Trail Maps	

#### Introduction

Greeley is a fast growing community with a strong need to improve and expand its existing trail system. Development activity has created areas that are deficient in trails and other recreational amenities.

Trails provide vital links to community recreation and other facilities, while creating corridors that allow the preservation of wildlife habitat and other special landscapes. The trail will also connect Greeley to existing and future trail systems in other communities, such as Evans, Windsor and Milliken,

The trails outlined in this report are intended to be regional trails. Trails paralleling roads are only shown if they are necessary to complete the regional system. Other local on and off street connecting trails may be necessary to complete the trail system.

#### Goals

This report is intended to provide conceptual trail alignments that will quide the City's decision process as development and infrastructure improvements arise. Alignments shown are conceptual and each area should be evaluated in detail before completing construction documents. Where this trail intersects with the Poudre River Trail, the current plans for the River trail should be consulted to create proper alignments for both trails.

#### Process

Trail locations shown in the report are based on field 'staking' of the alignment with a GPS. Locations shown took into consideration existing wetlands, slopes, mature trees, proximity to existing and proposed developments and future road extensions. Existing wetlands, topography, floodplains and aerial photo bases were provided by the City of Greeley GIS Department and are not guaranteed to be accurate.

For subdivisions currently in the planning process, sugdestions have been made as to how best to accommodate trail alignments and create the best user experience.

For properties that may be subject to future development, it is critical that the connections be made to the general areas shown. The alignments shown are in their preferred locations, but may be deviated from to accommodate future roads and uses. Preferably trails in these developments will be located in open trail corridors and not along streets. Road crossings shown on plans are for current and known future road locations. Additional crossings may be necessary as development occurs.

Designing and Planning a Successful Trail System Several components contribute to the success of a regional trail system:

1. The trail experience should take advantage of landscapes and environments unique to the area, providing opportunities to interpret and experience different ecosystems.

2. Intersections and other areas where users must stop or dismount should be minimized. The regional trail should take precedent as a main transportation feature just like any road system, and pedestrian underpasses should be incorporated into any planned roadway or bridge improvements. Below grade crossings should be used as much as possible, especially at arterial streets, in order to minimize pedestrian-vehicle conflicts.

3. The distance of the trail from edges of drainages and other features should vary throughout the length of the trail.

4. Slopes and directional changes make a more interesting trail experience.

5. Connections to community destination points encourage non-vehicular travel to events.

6. Take advantage of historical features along the trail corridor.

7. Provide for proper drainage under trails to minimize flooding.

8. Trail corridors should be considerate of wildlif and other sensitive areas. Keeping the trail outside the habitat area often creates a better user experience and encourages more abundant wildlife.

9. Utilize existing easements and floodplains to create wider trail corridors.

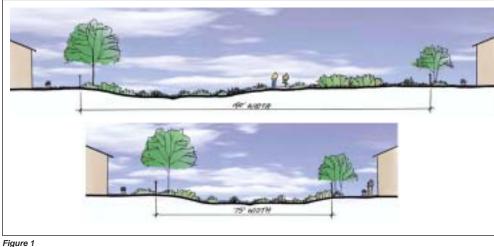
10. Strategically locate trailheads at activity centers.

11. Provide benches, overlooks and interpretive areas at activity centers and other stratgeic locations throughout the corridor.

#### General Trail Design Criteria

Regional trail users include pedestrians, cyclists, runners and others. They are meant to accommodate a large number of daily users and generally are designed for higher speed use than local trails. This intense use requires that substantial signage and other design criteria be met, in order to make the trail a fun and safe experience for all users.

Current AASHTO, ADA and other local agency guidelines for trail designs should be incorporated into final trail designs. These may include horizontal and vertical curve allowances, frequency, size and placement of signage, underpass clearances and design speeds. The following figures demonstrate some of these general concepts that will make the trail experience safe and more enjoyable for all users.



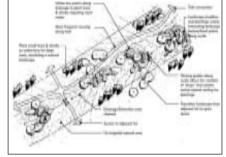
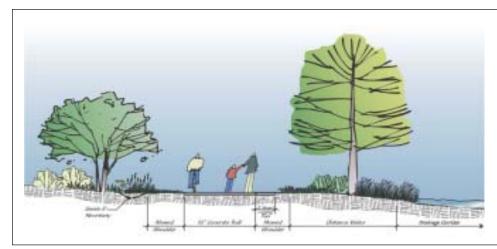


Figure 2

The regional trail corridor can often be located in drainage or detention areas and provide shared connections for nearby developments.

Trail corridor width greatly influences the user experience, especially when enclosed on both sides by development. The minimum Greeley corridor is smaller than both cases above.

### City of Greeley Conceptual Trails Plan



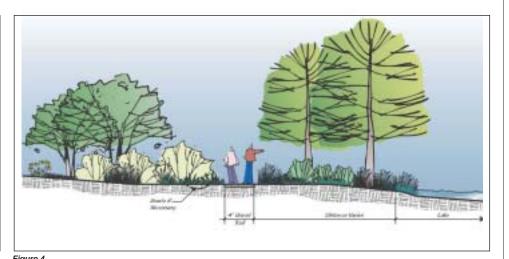
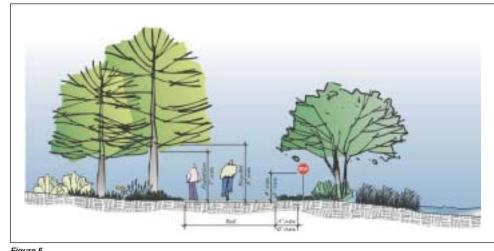


Figure 4 Special Use Trail Section. Special use trails may be provided to access sensitive areas, as jogging paths, or simply provide a differ-ent user experience. These trails are designed for low speed pedestrian only use.

Figure 3 Regional Trail Section.



**Figure 5** Trail Clearance Requirements.



#### Figure 6

Native landscapes can be enhanced along the trail corridor, creating additional habitat and interpretive opportunities.

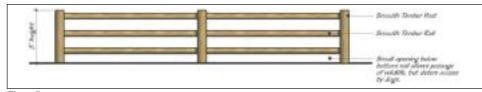
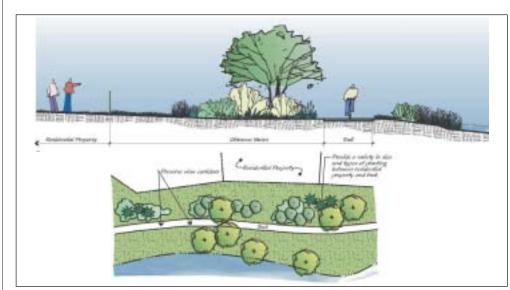
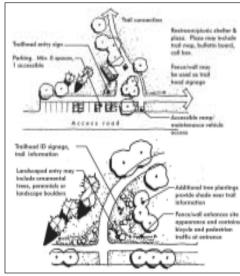


Figure 7 Open rail fencing along the trail corridor provides an alternative to solid 6 foot wood fencing and allows wildlife to pass through.

# City of Greeley Conceptual Trails Plan





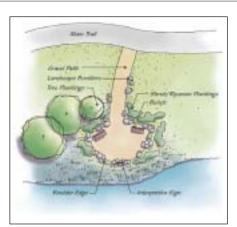
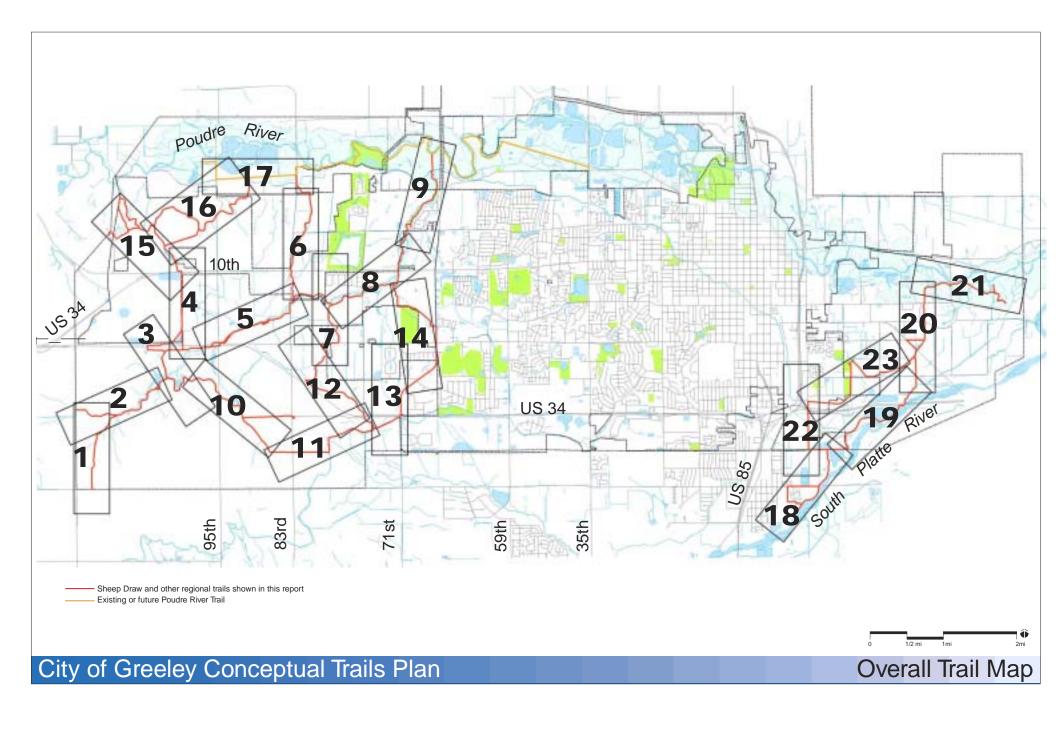


Figure 10 Overlooks and interpretive areas should be located off the main trail and offer amenities such as seating and signage.

Figure 8 Residential lots can co-exist successfully with trail corridors as long as the needs of both uses are met. This includes screening high activity areas from neighbors, while still providing them views of open corridors.

Figure 9 Trailheads can be created with and without parking, and often combined with other use areas such as parks.

### City of Greeley Conceptual Trails Plan







Draw widens and flattens out as it extends towards Hwy 257. Trail location is at the bottom of the channel through this area.

### City of Greeley Conceptual Trails Plan

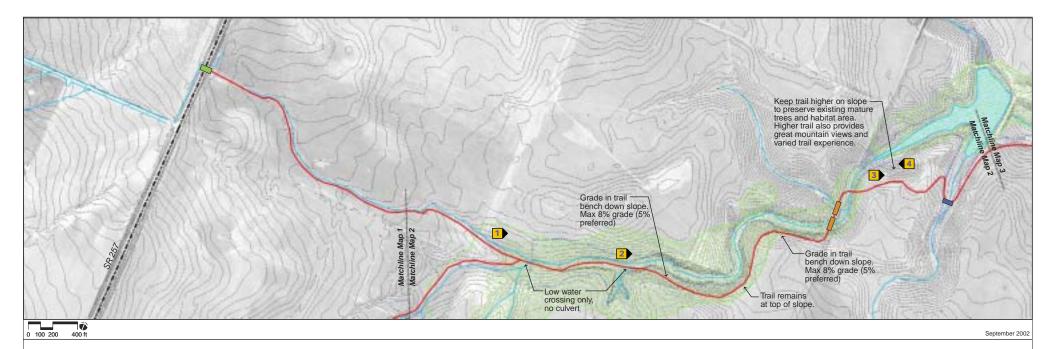


#### Description

Greeley's trail connection to Windsor begins at SH 257. The connection to Milliken begins at County Road 54. Because this area will likely see many development pressures and infrastructure improvements in the future, the alignments shown here will need to coordinate with those plans. Utilizing the major drainage areas should make this task easier, and allow for crossings at rational locations. Future improvements for both these roads should include underpasses for the trail. This area is currently used for agriculture, contains several oil and gas properties, and contains rolling hills with great views of the mountains. Depending on drainage flows and future development, the pedestrian crossing shown may not be necessary.

#### Map Key







Trail alignment.



Trail transitions down slope to flat drainage channel.



View of pond from future trail. Alignment is located along edge of disturbed area in the foreground.



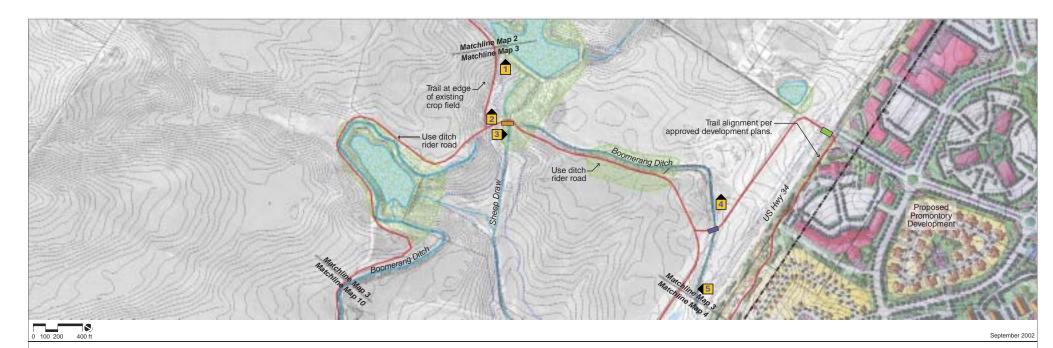
Existing trees and shrubs along pond edge looking southwest. Trail is located along edge of agricultural area.



#### Description

This area contains some valuable wildlife habitat and offers some great potential for creating interpretive and activity centers such as overlooks or secondary loop trails. A gravel wildlife viewing and interpretive trail should be considered around the north side of the reservoir if development allows. The regional trail should be kept at a distance from the channel and reservoir to minimize wildlife impacts. A culvert or pedestrian bridge will be required to cross the major drainage channel.







Looking north along edge of dam from trail alignment.



Existing wetlands viewed from trail. Trail will go around wetlands along edge of existing agricultural lands.



Existing wetlands viewed from trail looking northeast.



West ditch rider road along Boomerang Canal near US 34 looking southeast. Trail will be along east ditch rider road.



Trail alignment along existing ditch rider road if access from 83rd Ave. is required.

### City of Greeley Conceptual Trails Plan



#### Description

This area includes trail spurs that travel on to the north, east and south. Due to existing use and grade constraints, the trail follows the ditch rider road for large portions of this map. Crossing US 34 is perhaps the most challenging task of the entire regional trail system. Since there is an existing traffic signal at the Promontory entrance at 107th Ave., this crossing could be implemented sooner, and at a lower cost than using the Boomerang Ditch box culvert farther to the east. The ideal future condition would be to cross at an underpass. The trail alignment at the south edge of Promontory should be located per the development plans.

### Map Key





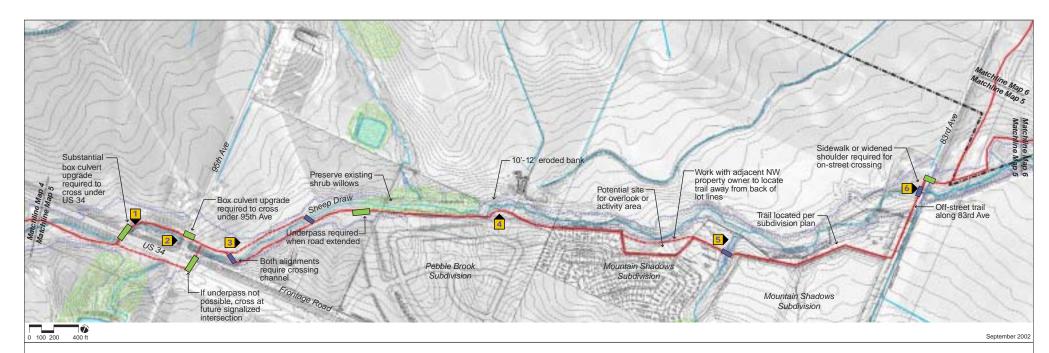


#### Description

In order to turn north, the trail utilized the planned trail at the east edge of Promontory. If a future road is planned along this corridor, the trail should be an off-street path as shown in the development plans. Because the Promotory development is already occurring, and we are relatively certain of development patterns in this area, this alignment was selected over an option for following the Boomerang Ditch, since no developments are currently planned for this area. This also allows for an easier connection to the northwest and Missile Silo Park. The crossing at 10th Street should at a minimum, be a signalized intersection. An underpass is preferred.

#### Map Key











Sheep Draw crossing under 95th Ave. Significant improvements required to accommodate trail underpass.



Gentle slopes along this portion of the draw allow the trail to be located on either side of the draw. Development plans may dictate which side is preferable.



Steep eroded slopes on south side of drainage should be protected. Trail should be kept a minimum distance of 15 feet from top of slope.

Trail crosses side channel along fenceline.

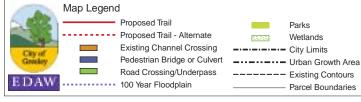
Trail crosses side channel along fenceline. A culvert and upgraded pedestrian crossing will be needed.



Existing bridge at 83rd Ave. Height and width will not accommodate trail underpass. Future road construction plans should accommodate trail on north side of drainage.

Map 5

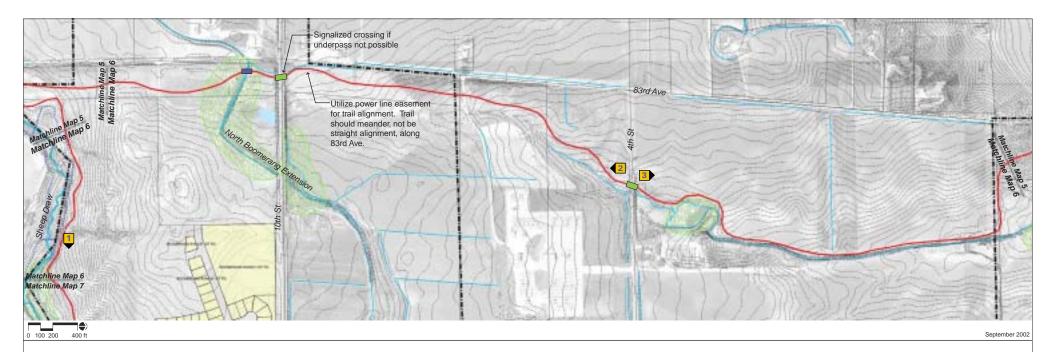
### City of Greeley Conceptual Trails Plan



### Description

Pedestrian underpasses at US 34 would be highly preferred due to the high traffic volume. Short-term solutions can allow pedestrian crossings at signalized intersections. If road improvements are planned for 95th Ave., a pedestrian underpass should be constructed. The trail will follow the locations shown in the Mountain Shadows and Pebble Brook Subdivisions, as long as the designs meet the criteria spelled out in this report. A pedestrian underpass should be included in future improvements to 83rd Ave., with a crossing accommodated on the north side, then crossing over to the north side of Sheep Draw east of 83rd Ave.







Trail alignment looking east toward 71st Ave. Trail should stay at top of slope along north side of the channel to avoid wetlands and mature trees to the south.



Looking south from 4th St. Trail alignment follows along top of bank on west side of drainage. Power substation is on the left.

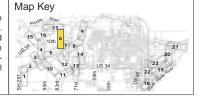


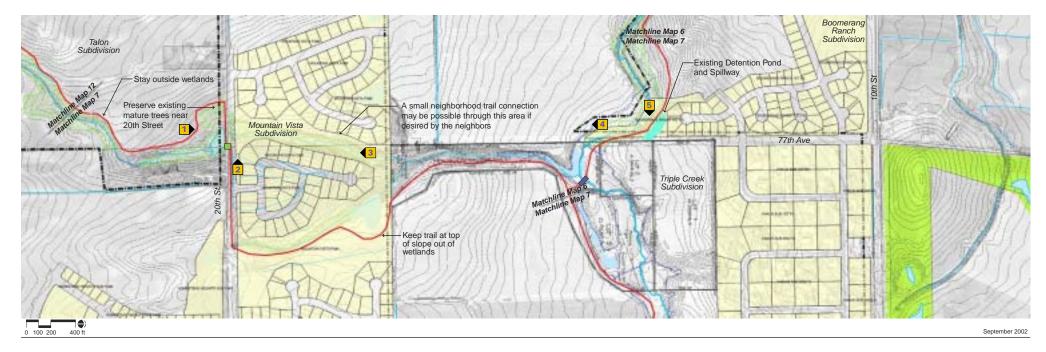
Looking north from 4th St. Trail follows top of slope along west side of drainage heading toward the Poudre River.



### Description

Travelling north the trail should utilize the existing utility easement along 83rd Ave. if possible. This will require coordination with the utility provider and will create more of a true trail experience than just an off-street path. Crossings at 10th and 4th Streets should be underpasses if possible. A pedestrian bridge will be required at the North Boomerang Extension crossing. Near 4th Street, there are nice pockets of wetland and riparian vegetation that should be preserved. Most of the land north of 4th Street is currently agricultural or rural residential. Preserving these corridors as development occurs will create a much nicer trail experience as the trail transitions from the suburban environment to the Poudre River corridor to the north,







Trail alignment runs along edge of mature trees.



Existing wetlands and mature trees south of 20th St. If road improvements are planned to allow drainage to cross 20th St., a pedestrian underpass west of the wetlands should be considered.



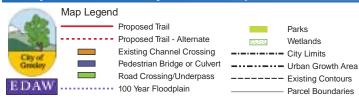
Utility easement bench in Mountain Vista Subdivision is too narrow to provide a nice trail experience. City property within the drainage channel is too steep and contains too many wetland areas to accommodate a regional trail.



Existing drainage channel and wetlands southeast of detention pond have been damaged extensively by construction, but will be a great trail amenity if restored.



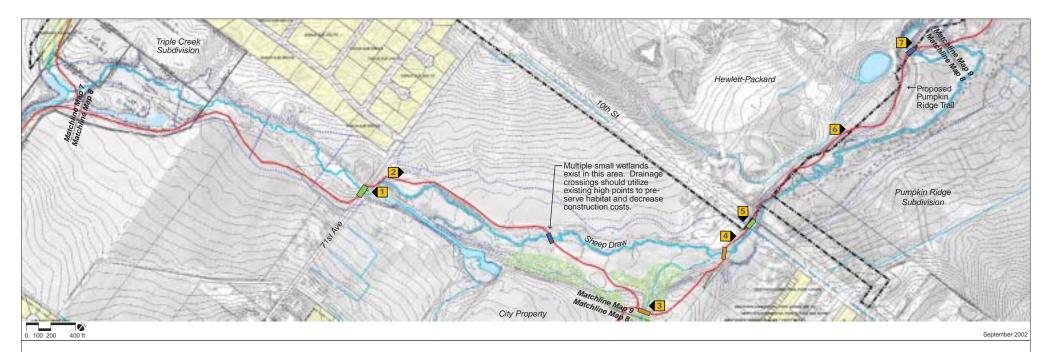
Dam and detention pond at Boomerang Ranch. Wetlands and existing drainage channel on the right. Development plans do not show a trail along north side of detention pond, so trail must cross spillway.



#### Description

The exact alignment of the trail in the Talon Subdivision should be coordinated with the development plans for this property, which were unavailable during the preparation of this document. An off-street trail will be utilized along 20th Street before crossing under to the north. Because of the steep slopes and narrow bench, It is not possible to use the central drainage through the Mountain Vista Subdivision. Instead the trail will pass through a much larger corridor along the eastern channel. Farther to the north, coordination issues also exist with the Boomerang Ranch Subdivision, currently under construction. No area was allotted for a trail anywhere on the north end of the site. Location of the trail through this area needs to be coordinated prior to completion of detention pond construction to ensure that a connection will be possible.







Existing bridge at 71st Ave. looking south. Trail crossing on north side should be provided for in any future road improvement plans.



Existing drainage just east of 71st Ave. To preserve existcrossing to get to the east ing wildlife habitat and vegside of the channel and tie etation, the trail is located on into City's park parcel. If the north edge (behind) of the future detention occurs in trees, on the left side of the this area, drainage crossphoto. ing should still be provided in the same area.



Trail uses existing drainage Existing Sheep Draw pedestrian bridge south of 10th St.

Existing bridge at 10th St. Trail crossing on west

side should be possible with existing structure. Some grading will be necessary to create trail bench. Trail will avoid wetland areas and transition up slope on the right.



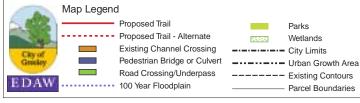
As drainage channel moves farther from Hewlett Packard fence-line, the trail alignment can move lower and meander midway between the fence and channel. The trail should not be located too closely to the channel in this area, as erosion is already occurring along many of the banks. The planned Pumpkin Ridge Subdivision is on the right side of the photo, across the drainage.



the draw at the narrowest point in this area.

Map 8

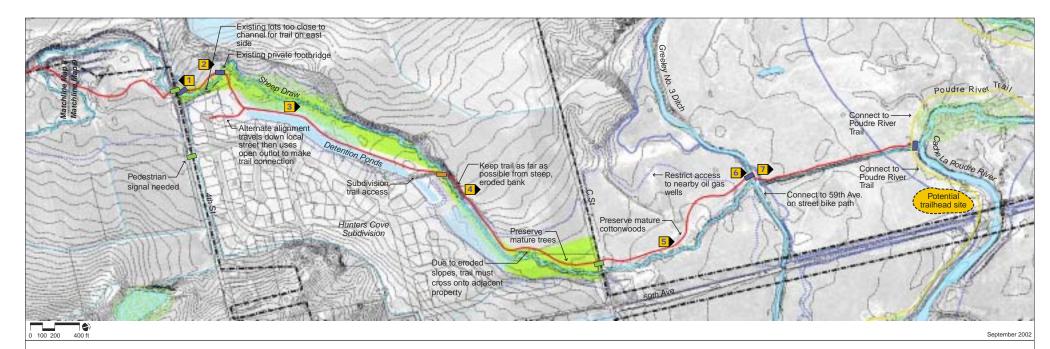
### City of Greeley Conceptual Trails Plan



#### Description

The trail follows along Sheep Draw in many locations. Coming from the Triple Creek Subdivision, the trail stays along the south side of the Draw at the top of the slope until it reaches 71st Ave. The existing bridge crossing at 71st Ave. must be improved to allow for a trail underpass. East of 71st Ave. there is a large area of valuable wildlife habitat. The trail will stay out of this area and use the existing access road on the north side of the Draw. By crossing to the south, multiple connections are possible into the future and existing City Park areas. The trail then utilizes two existing road crossings to cross back to the north side of the channel before crossing under 10th Street. The trail through the Pumpkin Ridge Subdivision needs to be coordinated with the development plans shown. The alignment shown in red is preferred over the development plan.





Existing 4th St bridge does not seem to accommodate a trail bench without re-grading, creating a trail bench and crossing the drainage. The channel has no definite path under the bridge.



crossing. If alternate

alignment is selected to

pass through this area,

this point provides the

easiest crossing.

Trail alignment utilizes existing access road through Hunter's Cove Subdivision.



Looking north along the draw toward C Street. Trail bench should stay at top of slope away from eroded bank.



Trail alignment follows existing oil and gas road. The trail should not pass too closely to existing mature tree stands along drainage, disturbing nesting habitat.



Existing crossing over Greeley no. 3 ditch. Would need to be upgraded to accommodate trail.

Looking north toward the Poudre River along the Sheep Draw ditch.

Trail alignment is on the right.

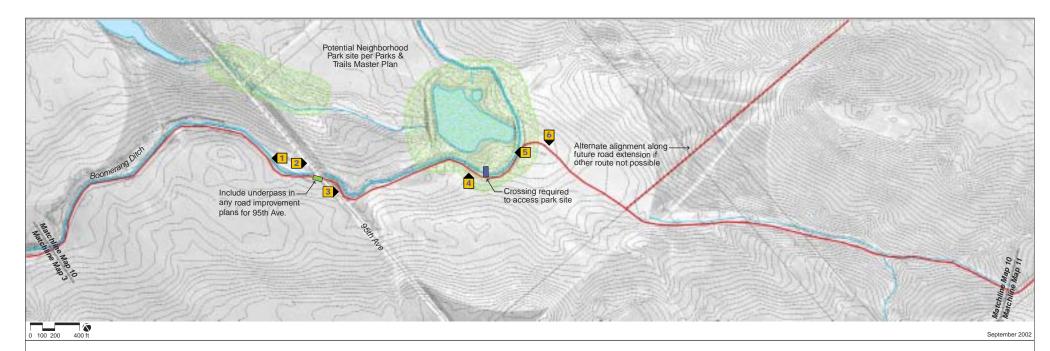
### City of Greeley Conceptual Trails Plan



#### Description

An underpass at 4th Street is preferred after crossing through the Pumpkin Ridge subdivision. Grading and drainage improvements at the bridge are necessary. If the underpass improvements are not possible in the near future, the trail may cross 4th Street at grade and travel on street, entering the trail corridor at the open space lot. An additional pedestrian crossing over Sheep Draw may be needed to get to the west side. Existing houses on the east side are too close to the Draw to accommodate a trail. An underpass will also be needed at C Street as traffic volumes increase. The trail will continue along the existing access road, crossing two additional channels before tying into the Poudre River Trail.







Trail west of 95th Ave. runs along ditch rider road.



tion canal. 95th Ave. is

foreground.

running north-south in the

Small culvert passes drainage under 95th Ave. along south side of irriga-



This area is shown as a potential future neighborhood park as part of the Parks and Trails Master Plan. The regional trail could access the park by crossing the irrigation canal.

Looking west where regional trail turns north from neighborhood park site. Additional connection of park could be provided here, but connection to the Greeley-Loveland Canal. must cross irrigation canal.



Trail will travel along slight drainage to the southeast to make

### City of Greeley Conceptual Trails Plan

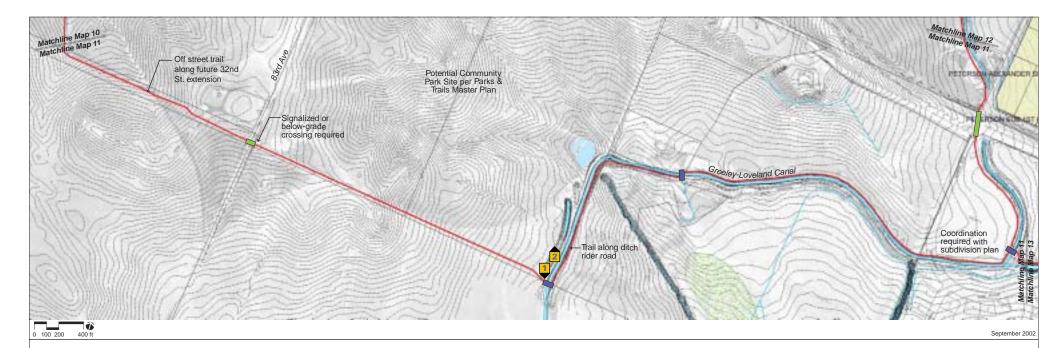


#### Description

The trail follows Boomerang Ditch to 95th Ave. As traffic volumes increase, an underpass will be needed here. The small pond and its surrounding wetlands would be an ideal place for a Neighborhood Park, as identified on the Trails and Parks Master Plan. Continuing southeast, the trail could either follow the drainage channel or the future road extension as an off-street trail, depending on which works better with the future development plans. The drainage is the preferred alignment.

#### Map Key







Greeley-Loveland Canal crossing at 77th Ave.



Looking north along the Greeley-Loveland Canal from 77th Ave. crossing. The trail will be located on the east side ditch rider road.

# City of Greeley Conceptual Trails Plan

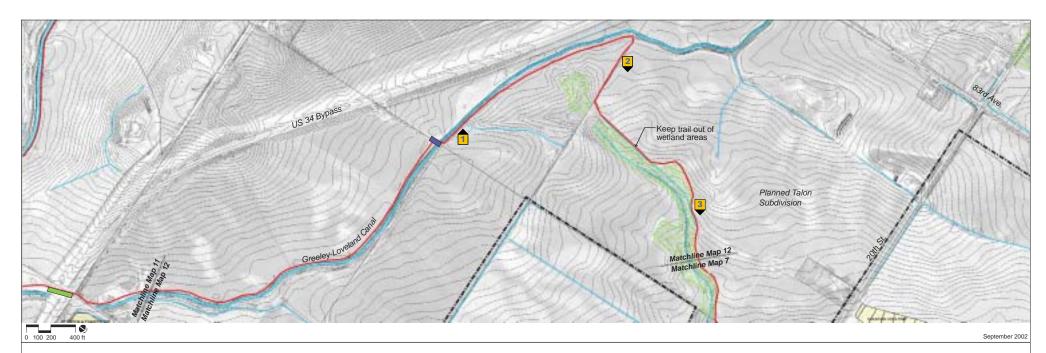


#### Description

If future development plans allow, it would be preferred for the trail not to follow the 32nd Street alignment, and instead pass through an internal trail corridor. The intent is to provide access to the potential Community Park, while also continuing the regional trail to the northeast. An underpass will be needed at 83rd Ave. as traffic volumes increase. The trail will then follow the ditch rider road along the Greeley-Loveland Canal toward US 34. At a minimum, a signalized intersection is needed. Another spur of the trail also continues on to the east.

#### Map Key







Trail alignment along Greeley-Loveland Canal ditch rider road near US 34.

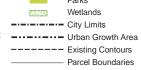


Trail alignment runs along fence-line. Planned Talon subdivision is on the left.



Trail alignment runs along edge of drainage at top of slope. Planned Talon subdivision is on the left.

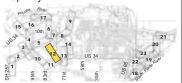




#### Description

The trail continues along the Greeley-Loveland Canal, then turns north, following the drainage channel through the planned Talon Subdivision. The exact location of the trail should be coordinated with the development plans, but should avoid excessive road crossings and existing wetlands.

### Map Key









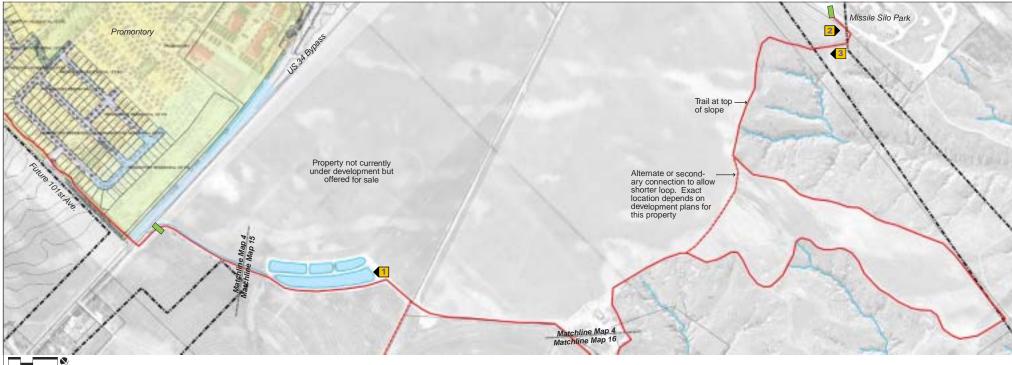


Existing condition of drainage crossing at 18th St.



Existing wetlands near Fox Run Subdivision should be preserved. Trail crossing should occur at point of minimal impact. Library is in the background.

#### City of Greeley Conceptual Trails Plan Map 14 Map Legend Description Map Key The off-street trail turns west at 18th Street, then follows the existing drainage area past the Fox Run subdivi-sion. The alignment in this area needs to find a balance between staying out of the cattail wetlands and not Proposed Trail Parks Proposed Trail - Alternate Wetlands feeling too close to the backs of adjacent lots. Existing Channel Crossing ----- City Limits City of Grants Pedestrian Bridge or Culvert ----- Urban Growth Area Road Crossing/Underpass الله المعن من المعن ا المعن الم ----- Existing Contours 1 1 257 EDAW Parcel Boundaries Ne



0 100 200 400 ft

City of

DAW





Existing irrigation ponds. Trail alignment could be on either side, depending on future development plans. Looking northeast from the trail where it ties into Missile Silo Park. The trail will offer great views of the river valley below.

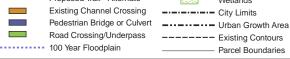
September 2002

Map 15



Looking southeast from the trail where it ties into Missile Silo Park. The trail will be located at the top of the bluffs in the center of the photo.

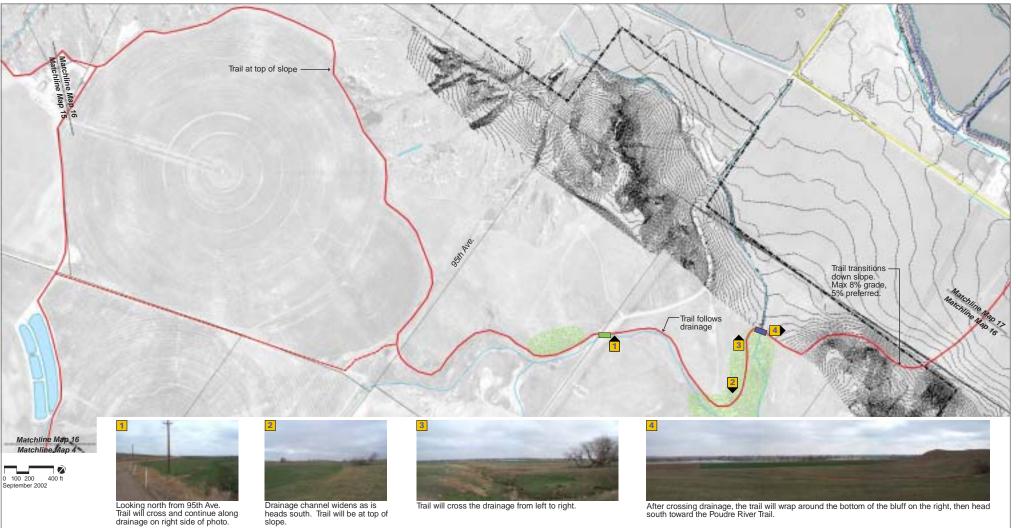
# City of Greeley Conceptual Trails Plan



### Description

Since there are currently no development plans in process for this area, the trail attempts to skirt the perimeter of what is anticipated to be the developable portion of the parcel, the top of the existing bluffs or edge of the existing agricultural fields. The trail in this area will provide great views of the Poudre River valley and Front Range, terminating at the Missile Silo Park.





Looking north from 95th Ave. Trail will cross and continue along drainage on right side of photo.



Map Legend Proposed Trail Parks Proposed Trail - Alternate Wetlands Existing Channel Crossing ----- City Limits City of Pedestrian Bridge or Culvert ----- Urban Growth Area Road Crossing/Underpass ---- Existing Contours EDAW 100 Year Floodplain Parcel Boundaries

Valley.

Trail will cross the drainage from left to right. Description The trail continues at the top of the bluff, then turns south and east, following the natural drainageway. It is

anticipated that additional road crossings (not shown here), will be necessary once this area develops. Cur-

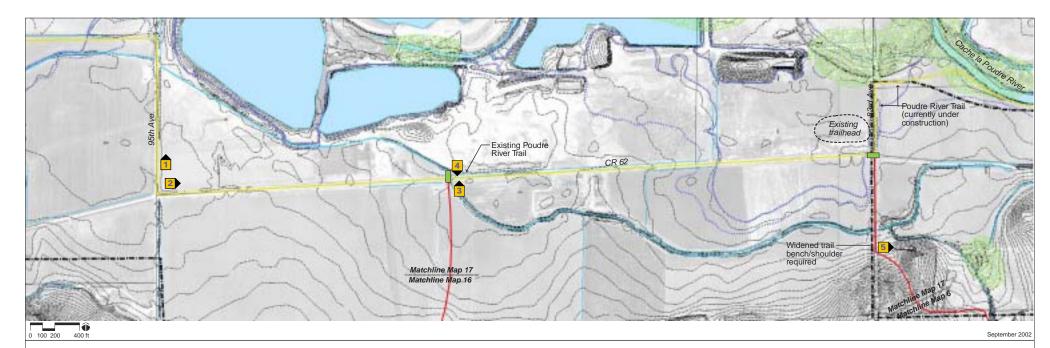
rently the trail only crosses 95th Ave., then continues along the drainage. The drainage channel is quite wide,

allowing some variation in the trail placement. The crossing point occurs where the channel is narrow and

defined. The trail will then follow around the north side of the ridge and transition down the slope into the River

Map Key

5H 257





Looking north on the existing Poudre River Trail along 95th Ave. The River is in the background.



Looking east on the existing Poudre River Trail along County Road 62.



Drainage crossing along the trail. County Road 62 is in the foreground.



The trail will cross County Road 62 near the existing irrigation channel, heading south toward the bluff.



The trail alignment east of 83rd Ave. travels southeast over rolling hills in right side of photo.

### City of Greeley Conceptual Trails Plan

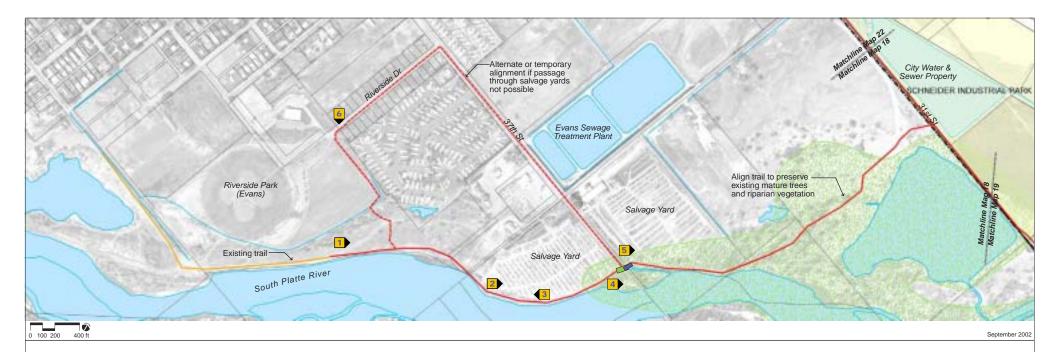


Description

The trail connection going south from the existing Poudre River Trail should begin near the location shown, but may deviate as it heads south, depending on future development plans. A widened shoulder is needed along 83rd Ave. before it turns southeast.

### Map Key







Existing asphalt trail around Riverside Park in Evans. The South Platte trail connection will branch off from the park along the gravel access road in the center of the photo.



Some areas along the existing salvage yards. There may be enough room to fit a trail along the bank of the River, however, this may not be an ideal condition.



Some areas of the existing salvage yards have eroded slopes, and no room exists for a trail unless fill and bank stabilization measures are implemented.



Existing bridge at 37th St. should be able to accommodate a trail underpass with minimal improvements.



After crossing under the 37th St. bridge, culverts or pedestrian bridges will be required to cross side channel that appears to drain from sewage treatment plan. The trail would then transition up the slope on the left.



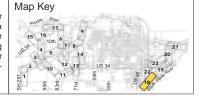
Alternate alignment along Riverside Dr. would lead users back into the existing parking lot at Riverside Park. Signage would be required to accommodate this onstreet trail.

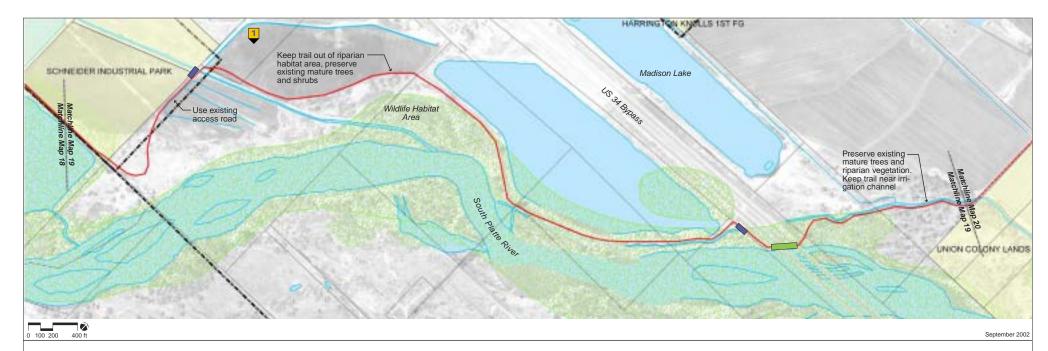
### City of Greeley Conceptual Trails Plan



#### Description

This map shows the connection of the Greeley trail system to the City of Evans. The preferred location for the trail is along the northwest side of the South Platte River. The southernmost salvage yard along this area poses a serious problem to making this alignment happen, due to its close proximity to the top of the River bank. An alternate alignment is shown, accessing the park along a local street, Riverside Drive, then using an on or off-street path along 37th St. The existing bridge at 37th Ave. should accommodate a trail with minor improvements, but an additional culvert may be needed to cross the side channel. The trail turns north to preserve the large riparian habitat along the River and provide varied user experiences.







Looking south towards the South Platte River near 28th St. and US 34. In the distance, the trail will follow the alignment of the road on the right.

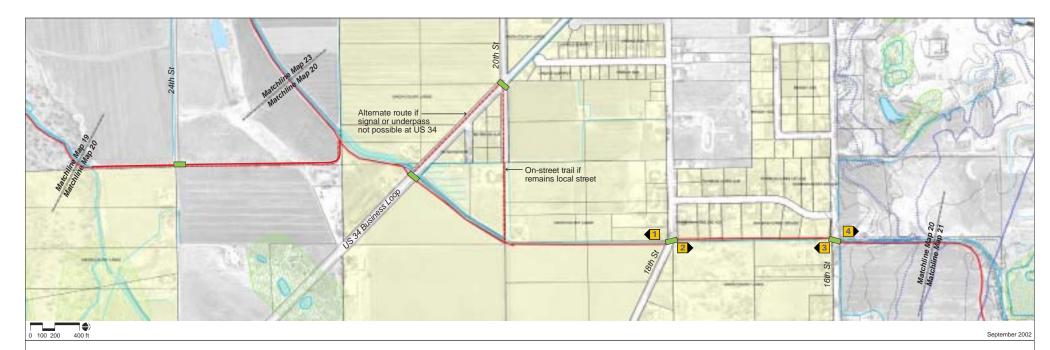
### City of Greeley Conceptual Trails Plan



#### Description

The trail attempts to stay out of sensitive habitat areas along portions of the river, while still letting trail users experience this habitat in some areas. The alignment shown is largely within the 100-year floodplain and is unlikely to develop heavily, minimizing conflicts with the trail corridor. The existing bridge at US 34 should be able to accommodate a trail/pedestrian underpass with minimal improvements.

#### Map Key





Trail along ditch rider road looking southwest.



Trail along ditch rider road at 18th St, looking northeast.



Trail alignment along ditch rider road looking south from 16th St.

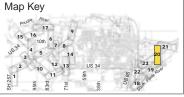


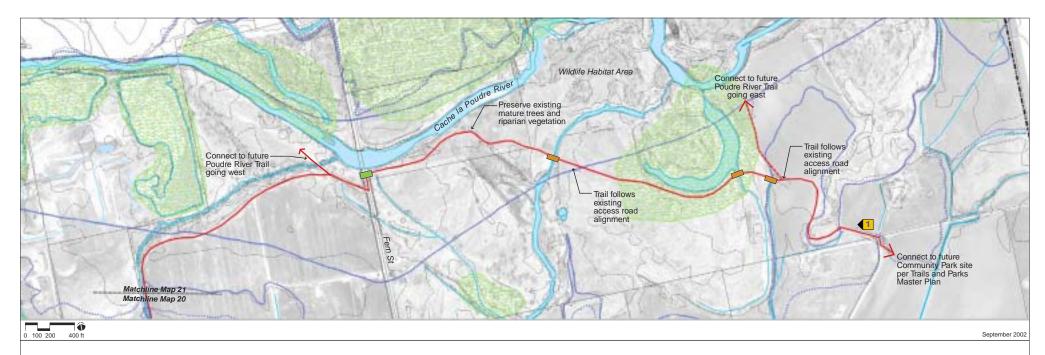
Trail alignment along ditch rider road looking north from 16th St.



#### Description

This portion of the trail creates the spur that ties into the future Poudre River Trail on the east side of Greeley. The trail must cross the US 34 Business Loop in one of two locations, a below grade crossing being preferred. The trail then continues down the ditch rider road, crossing both 18th and 16th Streets. The traffic volumes on these roads may allow for at grade crossings, but visibility is poor in both areas, so an improved pedestrian crossing or signal of some kind would be recommended.







Trail uses existing oil and gas access road to go northeast from community park site (Dill Farm). The Poudre River is in the distance.



#### Description

Much of the land in this area is in the 100-year floodplain and is currently dominated by agriculture. If the trail is constructed prior to any development in this area, many existing oil and gas access roads are available for trail alignments. Currently a road crossing will be needed at Fern Ave., but as development occurs, more will likely be needed. The trail will allow a regional connection to the proposed Community Park Site before heading east towards Kersey.

#### Map Key





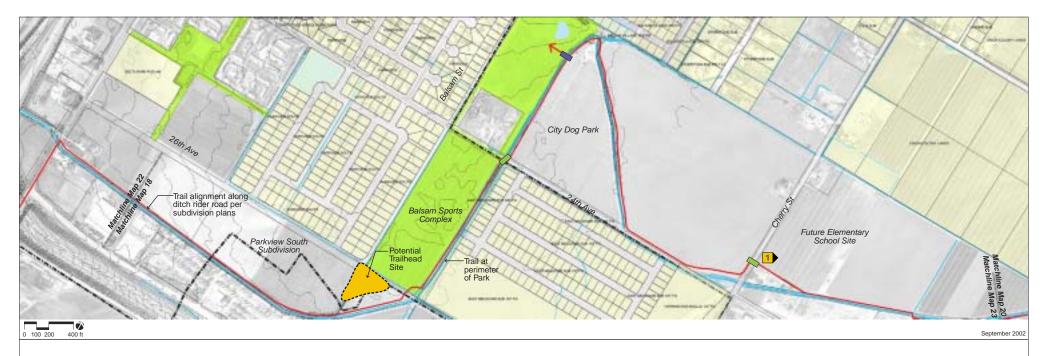


Trail travels along ditch rider road going east toward East Memorial Sports Complex.



Trail ties into attached off-street trail/ sidewalk along 1st St. heading north.

City of Greeley Conceptual Trails Plan		Map 22
Map Legend Proposed Trail Parks   Proposed Trail Parks   Existing Channel Crossing City Limits   Pedestrian Bridge or Culvert City Limits   Road Crossing/Underpass Existing Contours   100 Year Floodplain Parks	Description 1st Street is the logical connection in this area that easily gets users across the US 34 Bypass. The trail then utilizes the irrigation canal to turn east towards Balsam Sports Complex.	$\begin{array}{c} \text{Map Key} \\ & & & \\ & & & \\ & & & \\ 15 & 16 & & \\ & & & 17 & 9 \\ & & & & \\ 15 & 16 & & & \\ & & & & \\ & & & & \\ & & & & & $





Trail along ditch rider road looking east from Cherry Street.

### City of Greeley Conceptual Trails Plan



#### Description

The trail follows the ditch rider road through the Balsam Sports Complex and past the proposed City Dog Park. The alignment should be coordinated with the future elementary school site, and should share a common pedestrian crossing if possible.

#### Map Key

