

**CITY OF EVANS**

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**OPEN SPACE AND TRAILS MASTER PLAN**

*FEBRUARY 25, 2004*

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**OPEN SPACE AND TRAILS MASTER PLAN**

*EXECUTIVE SUMMARY*

## 1. EXECUTIVE SUMMARY

### A. Overview

#### *Purpose of the Master Plan*

The Evans Open Space and Trails Master Plan is intended to be a comprehensive master plan for the guidance of trail development and open space needs within the current Evans City limits as well as the defined urban growth area as determined by the City Comprehensive Plan, May, 2002. The Trails component will update the Trails Master Plan completed in 2000, prior to the tremendous growth the City has experienced in the past three years. There are currently no open space plans or plans for conservation/preservation within the City. The 2000 Parks, Trails and Recreation Master Plan is used as a basis to update and expand the Open Space and Trails Master Plan.

The City of Evans has a current population of over 15,000 residents within a 6.5 square mile area. It is bordered by the City of Greeley to the north and crosses over the South Platte River with growth areas both to the south and to the east of the river. Evans is facing developmental demand with annexations proposed to expand the City rapidly towards the west and south, encompassing several miles of the South Platte river basin as well as pasture land and current farming operations.

The Open Space and Trails Master Plan will be consistent with the Comprehensive Plan. It will be recommended by the Parks and Recreation Commission and adopted by the Evans City Council. This plan should be reviewed periodically and updated based on implementation accomplishments, and additional information gathered through surveys, community meetings, planning studies and data analysis.

#### *Project Objectives*

- Recognizing the importance of regional planning, acknowledge efforts of neighboring entities and pertinent agencies, and coordinate with transportation and beautification plans.
- Review the 2000 City of Evans Parks, Trails, and Recreation Master Plan to ensure that the elements are internally consistent with, and build upon, this plan.
- Create a digital inventory map using existing mapping and staff input to include parks, recreation facilities, open space and trails owned and/or managed by the City, as well as school sites.
- Develop Trail Development and Construction Standards, Level of Service Standards, mile marker system, and signage prototypes and criteria for placement of signage to

create an identity for the trail system, address interpretation, promote trail safety, help people find their way around the network and provide emergency contacts and rules information.

- Propose a process for identifying desirable trail and open space lands based on values and criteria supported by the Evans community. As a result, propose a land dedication requirement, and possible impact fee, to support this level of service.
- Based on the proposed trail level of service standards create and map a recreational trails system coordinated with the Transportation Master Plan, and emphasizing applicability to the State Recreational Trails Master Plan as well as the American Discovery Trail and the Colorado Front Range Trail.
- Address the Open Space Component of the Plan to include criteria for consideration for preservation and/or acquisition, acquisition techniques, coordination with other entities, prioritization, best management practices, and environmental maintenance and management standards.
- Identify parcels for consideration for the Open Space program, and through information and personal contact, determine the property owners' willingness to sell, preserve or secure through conservation easements, or other methods available.
- Involve the community in the process through stakeholder meetings, particularly including landowners, and update presentations to the Parks and Recreation Commission and City Council with an invitation to the public to participate in the public hearing.
- Based on public input, resources and opportunity, prioritize needs and identify potential and realistic funding sources for adaptation to a capital improvement program for implementation.

### *Mission*

The Mission Statement for the Department was refined through the efforts of the project team and staff.

### **Mission Statement Parks and Recreation Department**

***Through spirited service and a can-do attitude, the City of Evans Department of Parks and Recreation provides quality, fun and diverse recreational opportunities, public facilities, trails, parks, and the preservation of open space for all in a safe, clean, affordable, helpful, caring, and friendly environment.***

## *Looking to the Future*

As the City of Evans continues with its rapid growth, the following open space and trails goals have been developed to address the future challenges:

- To be pro-active in preserving lands in the face of rapid development. By identifying lands now, strategies can be in place to protect them as development occurs, with the goal of having green spaces within future developments as the City grows.
- To be pro-active in reclaiming disturbed lands that will play a role in providing habitat and beautifying the river corridor and other areas.
- To create a system of trails and linked features, including parks and open space, rather than letting these things occur in random fragments.
- To provide community separators between Evans and the communities of Milliken and LaSalle.
- To provide connectivity and adjacency between features and neighboring communities.

## *The Investment: What Funding is Available?*

### Capital Funding

The capital funding currently supporting parks and recreation comes primarily from the:

- Park Development Impact Fund
- Conservation Trust Fund
- General Fund
- 3% Food Tax, and
- Capital Improvement Fund – Buildings and Grounds

Other sources of capital funding could include:

- Great Outdoors Colorado (GOCO) Trust Fund Grants
- Colorado State Trails Grants
- Colorado Division of Wildlife Fishing is Fun Grants
- TEA-21 Funds
- Potential Bonding, and
- Other grants and donations.

Other mechanisms to protect land, such as conservation easements, which could save on potential capital outlay, may be used as well.

Operational funding currently supporting parks and recreation comes primarily from the:

- General Fund
- Culture, Parks and Recreation Fund
- Sponsorships
- Fees and charges, and
- Donations or grants

*The Crucial Element: Public Involvement*

The community has been involved in the development of this plan through stakeholder contacts and through presentations to the Parks and Recreation Commission and the City Council. The community also provided input through its participation in the 2002 Evans Community Services Survey where respondents reported they desired a “small town” feel, an environment that is calm and quiet, and a community that has its own identity. They also indicated that parks and things to do are lacking; traffic and speeders are issues; and they prefer slowed growth and “better planning.”

All of these comments show support and interest in the types of elements this Open Space and Trails planning effort is designed to address. Each comment helps to establish the criteria that are used to develop the plan.

**B. Summary Recommendations**

*OPEN SPACE*

**Implementation**

- A. Potential open space parcels should pass through Tier I, II and III evaluation
- B. Evans should coordinate with Greeley, Milliken, La Salle and Weld County to develop a regional plan and strategies to finance and implement a regional open space and trails system.
- C. The Planning Department may also use this mapping of composite values as an effective tool to guide developers as to the most appropriate locations to place structures on a particular development site.

**Acquisition and Funding Mechanisms**

- A. The City of Evans should investigate and use the most appropriate technique for acquisition and/or protection of open space properties.
- B. A developer land dedication requirement (or fees-in-lieu to acquire or develop open space properties) could be put into place along with the parkland requirement.

- C. Parks and Recreation Staff should meet with Planning Staff to review and evaluate the applicability of regulatory techniques and financial incentives, and determine those appropriate for use.
- D. Evans needs to be prepared to provide funding in order to maximize partnering potential.

## **TRAILS**

### **Trail Routes and Classifications**

- A. Construct a connected network of Primary Trails and Greenways at an approximate spacing of every ½ mile across the city. Utilize drainage ways and other scenic corridors where possible. Utilize rights-of-way for arterial streets when this is not possible.
- B. Provide Secondary Connections to Primary Trails and Greenways.

### **Ancillary Features and Components**

- A. Provide Trailheads at Appropriate Locations
- B. Provide Waysides at Appropriate Locations
- C. Implement an Effective and Consistent System of Signage

### **Trail Development Standards**

- A. Provide appropriate surfacing and dimensions for each type of trail constructed. Meet the requirements of the Americans with Disabilities Act (ADA) and other applicable codes. Whenever possible meet the requirements of the American Association of State Highway and Transportation Officials (AASHTO)

### **Protect and Restore Existing Features**

- A. Inventory and monitor resources so that trail planning is based on actual field conditions.
- B. Ensure that trail routing avoids the most valuable habitat and in general, protects wildlife habitat and plant cover as much as possible.
- C. Practice a knowledge-based, minimal disturbance trail building protocol to avoid disturbing native vegetation and creating an environment for noxious weeds.

- D. Protect and restore existing features affected by trail construction, and improve degraded areas along the trail corridor as part of implementing the trail system.

## **MANAGEMENT**

### **Weed Management and Integrated Pest Management**

- A. Utilize an Integrated Pest Management (IPM) approach to weed management.
- B. Identify and understand the location and characteristics of both non-native invasive plants and native plants. A survey for Purple Loosestrife should be conducted in the wetland areas of the study area as soon as possible.
- C. Develop management strategies to reduce or eliminate non-native invasive species and to support and enhance native species.
- D. Engage in long term monitoring and holistic, adaptive management to protect and restore sustainable plant communities.

### **Wildlife Management and Habitat Maintenance**

- A. Identify and map wetland habitats
- B. Preserve riparian corridors so wildlife and human populations can effectively meet their current and future needs.
- C. Design trails, based upon resource inventory and monitoring knowledge, to avoid specific areas that may be critically important to some species.
- D. Avoid placing human activities and trails in confluence areas where streams or rivers join, as these are often very important habitat areas.
- E. Protect riparian corridors
  - HIGH PRIORITY - Plan extensive restoration in the Ashcroft Draw area below the reservoir
  - Minimize grazing.
  - Plant low native shrubs alongside the existing bike-path in Riverside Park
  - Use purchase, conservation easements, and zoning to reduce or eliminate encroachments.
- F. Protect the remaining prairie habitat within the study area, where possible.

- G. Use interpretive signing along trails to enhance the exposure of the natural history of the area to add to the human enjoyment and understanding of wildlife and habitat and enhance volunteerism and citizen based management strategies.

#### **Low Impact Recreational Use**

- A. The integration of intensive and low impact recreation activities should occur by educating and connecting the citizens with the resource.
- B. Plant low-growing native shrubs alongside paths, primarily aimed at helping connect and shield wildlife utilizing the river corridor.
- C. Use signage on bikeways to instruct citizens of the various benefits of use and limiting the impact of disturbing wildlife.
- D. Dog owners should be encouraged to train and manage pets to minimize negative impacts of their exposure to other humans and wildlife.
- E. Use volunteers and citizen peer pressure whenever possible to accomplish management goals.
- F. Fishing management should occur to minimize the impacts of trash and shoreline erosion by anglers.

#### **Inventory and Monitoring Systems**

- A. Managers should initiate a program to identify, assess, and acquire potential natural resource lands in the planning area.
- B. Management plans should be developed to assess the results of management strategies and human-caused changes and monitor programs in the future.
- C. Adaptive management practices should be adopted to provide a continuous loop of knowledge-based input.

#### **Trail Management and Maintenance**

- A. Develop and implement interpretive and maintenance practices which enhance trail experience and safety for the visitor and preserve the trailside environment in the long term.

#### **Staffing and Management**

- A. Provide focus and training for current employees in natural resource management, and provide information about resources available

- B. Structure recruitment efforts to encourage and select employees who possess, or have the willingness to learn, skills in natural resource management techniques.
- C. Involve the Public Works, Fire and Police Departments in training for them to gain an understanding of natural resource management and how their routines and responses to law enforcement issues can either help or hurt the environment. Employees of these departments can serve as another set of eyes on the watch for harmful actions.
- D. Develop an environmental education program internal to the Parks and Recreation Department.
- E. Provide training, as necessary, for the Parks and Recreation Advisory Commission relative to their advisory role in natural resource management.
- F. Become active participants in the Colorado Open Space Alliance.



## **CITY OF EVANS**

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# **OPEN SPACE AND TRAILS MASTER PLAN**

*PAST, PRESENT AND FUTURE:  
THE PLANNING CONTEXT*

## 2. PAST, PRESENT AND FUTURE: THE PLANNING CONTEXT

### A. Relevant Planning Efforts

Several important City of Evans planning efforts have been completed in the recent past and provide guidance to the development of the Open Space and Trails Master Plan.

#### *Evans Comprehensive Plan*

The following Goal and Policies are identified in the Evans Comprehensive Plan from the section addressing Open Space, Parks, Trails, Recreation and Tourism. Items pertaining to open space and trails are excerpts from that section.

Goal 3: Evans will have a connected system of open space that will contain parks, trails and recreation facilities that provide active and passive recreation opportunities for City residents and visitors....In addition to parks and recreation land, open space should be seen as a means to help direct growth, maintain rural character, and provide opportunities for education, wildlife protection and observation, hiking, and other passive and active recreation activities for Evans' residents and visitors.

Policy 3.1 (a) Implement the strategies contained in the Parks, Trails and Recreation Master Plan

- Establish new trails (i.e., along the Evans Ditch, Ashcroft Draw, Greeley/Loveland Canal, and regional trails)

Policy 3.1 (b) ...Include all land within the Urban Growth Boundary area to be consistent with the Comprehensive Plan and to address open space connections and dedication requirements.

Policy 3.2 Ensure that existing and future residents' needs for... passive open lands and trails...are met in the City.

Policy 3.2 (c) Consider amending the parks and parkland dedication standards to include dedication requirements for open space in all residential areas. Currently the City's residential development standards require a minimum amount of open space only in multifamily areas (45%).

Policy 3.2 (e) To encourage dedication of lands for trail connections by landowners, the City should consider allowing open space credit for dedication of trail easements.

Policy 3.3 Use a variety of methods to develop a system of open space that is connected, continuous, and permanent, as described below. The Big Thompson and South Platte Rivers and tributary drainage channels and

irrigation ditches will be the core element of a network of open space and trails linking throughout the City.

- Policy 3.3 (a) Developing an inventory of potential open space along irrigation ditches and around water bodies would help the City to identify potential acquisition parcels as well as guide development review staff with open space dedication negotiations.
- Policy 3.3 (b) Use methods such as conservation easements, acquisition, and voluntary dedications to conserve open space. Prioritize acquisition of parcels of open space and trails that will have public access and that help to create a network of open space and trails and where other conservation methods would not be as effective.
- Policy 3.3 (c) Seek state and federal funding to leverage local funds, including Great Outdoors Colorado (GOCO) funds, Land and Water Conservation Funds (L&WCF), TEA-21 Recreational Trails funds and private donations and grants to advance the goal of conserving and connecting open space. The City may also wish to seek methods to increase local funding for open space.
- Policy 3.3 (d) Work with private and non-profit partners whenever possible to expand and improve Evans' open space, trails and recreation system. Develop intergovernmental agreements with other government agencies and non-profit organizations to plan for and acquire open space.
- Policy 3.3 (e) The Code should contain open space design criteria, or requirements. Open space in a subdivision should connect with other public or lands, school sites, other dedicated open spaces and adjacent activity centers. In addition, open space should accomplish the following objectives:
- Conserve natural features;
  - Provide visual separation between built areas;
  - Provide outdoor recreation opportunities; and
  - Enhance community gateways or community identity.
- Policy 3.4 (a) Coordinate with Greeley, Milliken, La Salle and Weld County to develop a regional plan and strategies to finance and implement a regional open space and trails system.

### *Evans Parks, Trails and Recreation Master Plan*

Although this plan was not intended to address open space, it did begin the process of developing a trails master plan. It highlighted the opportunity for connecting to outlying regional plans including St. Vrain Valley Trail and Open Space Lands Project, 1995 Northern Colorado Regional Planning Study, and On-Street connections to Greeley. It also proposed trail alignments through a Trails Master Plan Map, and

recommended trail specifications coordinated with those established by Weld County and Urban Drainage.

#### Short-term Actions

- Complete construction of the trail extension under Highway 85
- Trail development and clean up of Tract A
- Construct the concrete trail in northeast section of Riverside Park

#### Long-term Actions

- Construct the Evans Ditch trail
- Landings Trail connection (37<sup>th</sup> Street to 29<sup>th</sup> Avenue along drainage ditch)
- Plan and construct extensions of the American Discovery Trail to the northeast and southeast of Riverside Park. (Connect Tract A to Highway 85 trail)
- Construct trail segments shown in the master plan as development occurs

### *City of Evans Community Services Survey*

During the summer of 2002 a community survey was completed as a cooperative effort between Colorado State University and the State Department of Local Affairs Technical Assistance Program. A total of 346 households responded, yielding a margin of error of +/- 5%. Several responses regarding the perceived "quality of life" in the City of Evans are relative to the development of an open space program.

When asked if the City of Evans had its own unique identity, 45% of those who responded to the question (67 responses) said Evans was a "small town." The second most common response (14 responses) noted the City's "calm and quiet."

When asked what identity the responder would create for the City, one quarter of the people who responded said they wanted an identity in which Evans was clearly differentiated from Greeley.

When asked what they liked the most about living in Evans, 28% (89 responses) said the "calm and quiet." Nineteen percent (61 responses) said the fact that Evans is a "small town."

When asked what they like least about living in Evans, the "lack of stores, *parks* and *things to do*" was ranked second by 10 % of the responders, following the most common response of "traffic and speeders" at 13%.

When asked about improving City services the 4<sup>th</sup> highest response was "slowed growth and/or better planning."

## *Statewide Comprehensive Outdoor Recreation Plan*

Colorado's Statewide Comprehensive Outdoor Recreation Plan (SCORP) was recently updated through federal funding provided through the Land and Water Conservation Fund. The Land and Water Conservation Fund Act was enacted in 1964 to encourage the provision of greater recreation opportunities for American citizens. The Plan has two fundamental purposes:

1. To guide the use of annual congressional LWCF appropriations to the states. Colorado State Parks administers Colorado's share of the funds through a grants program available to State Parks as well as local park and recreation agencies.
2. To identify the state's most pressing outdoor issues and investment priorities.

The Strategic Issues Steering group of stakeholders identified two key themes that emerged during the study process:

1. **The nexus of tourism and outdoor recreation in Colorado** - *"To sustain both tourism business investments and the public land resources on which they depend, the tourism industry and land managers have a responsibility to work closely with community leaders to maintain that infrastructure and community identity so important to residents."*
2. **The importance of regional collaboration** - *"Regional forums should be convened to develop collaborative strategies among communities with common interests, tourism business operators, non-profit organizations, and the public lands managers responsible for delivering the outdoors experiences visitors desire."*

Six issues were identified:

1. Colorado's citizens and visitors need more effective ways to access the wide array of information about recreation sites and their host communities, and outdoor recreation providers need to better integrate outdoor recreation marketing and management to sustain the outstanding recreation attractions, economic vitality, and resulting quality of life.
2. Communities must invest in outdoor infrastructure through well planned, on-going commitments to meeting a growing population's expectations for a wide range of safe, up-to-date sites to enjoy the outdoors.
3. Public recreation agencies faced with tight budgets yet increasing demand for recreation services are considering increased reliance on fees and creative public/private partnerships to enhance public services.
4. The sustainability of natural and cultural landscapes and our capability to be stewards of those resources must be considered when agencies and communities plan for and manage the location and scope of outdoor recreation activities.
5. Public access to outdoor sites and management of travel on public lands is challenged by the capacity of our statewide transportation infrastructure and of our natural resources sites to accommodate the volume of demand.

6. Recreation agencies can more effectively engage Colorado’s citizens and visitors in resource stewardship responsibilities through youth outreach and volunteer programs.

Although the Evans Open Space and Trails Master Plan is not focused on tourism, several of these issues are pertinent, and it is important for Evans to position itself so that it aligns with the State areas of focus when considering the potential of seeking funding through the State in the future.

- It is important to invest in the open space and trails system through a well thought out effort and ongoing commitment to care for the investment.
- Creative public/private partnerships to enhance the provision of facilities and services is highly valued in grant seeking processes and makes sense in terms of the pooling of resources toward common goals.
- Public access to and through public lands continually surfaces as a high priority issue in local communities. This desire for access is expressed through the desire for more trails and walking/biking paths as well as a desire for programs that connect people and their natural surroundings.

### *2003 Evans Transportation Master Plan*

The City of Evans has completed its 2003 Transportation Master Plan, This plan highlights the need for a system of trails and pedestrian access that links existing trail segments and connects to the regional system. The Open Space and Trails Master Plan will be compatible with the Transportation Master Plan in consideration of routing and appropriate design elements. It also references particular street types from the Transportation Master Plan and discusses their potential for use as designated trail routes.

### *Mission*

The City of Evans has revised the Mission of the Department of Parks and Recreation through the efforts of the staff to include the open space program. The new mission statement reads:

#### **Mission Statement Parks and Recreation Department**

*Through spirited service and a can-do attitude, the City of Evans Department of Parks and Recreation provides quality, fun and diverse recreational opportunities, public facilities, trails, parks, and the preservation of open space for all in a safe, clean, affordable, helpful, caring, and friendly environment.*

## **B. Open Space and Trails Goals**

As the City of Evans continues with its rapid growth, the following open space and trails goals have been developed to address future challenges:

- To be pro-active in preserving lands in the face of rapid development. By identifying lands now, strategies can be in place to protect them as development occurs, with the goal of having green spaces within future developments as the City grows.
- To be pro-active in reclaiming disturbed lands that will play a role in providing habitat and beautifying the river corridor and other areas.
- To create a system of trails and linked features, including parks and open space, rather than letting these things occur in random fragments.
- To provide community separators between Evans and the communities of Milliken and LaSalle.
- To provide connectivity and adjacency between features and neighboring communities.



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# **OPEN SPACE AND TRAILS MASTER PLAN**

### ***EXISTING CONDITIONS AND RESOURCE INVENTORY***

### 3. EXISTING CONDITIONS AND RESOURCE INVENTORY

#### A. Community Profile/Demographic Study

##### *Service Area and Population*

The primary service area for the Evans Parks and Recreation Department, based on the 80620 zip code, encompasses the entire community of Evans, as well as northern areas towards Greeley and southern areas to La Salle. According to the 2000 Census, the population of this primary service area was 9,773. The population of the City of Evans alone was 9,514.

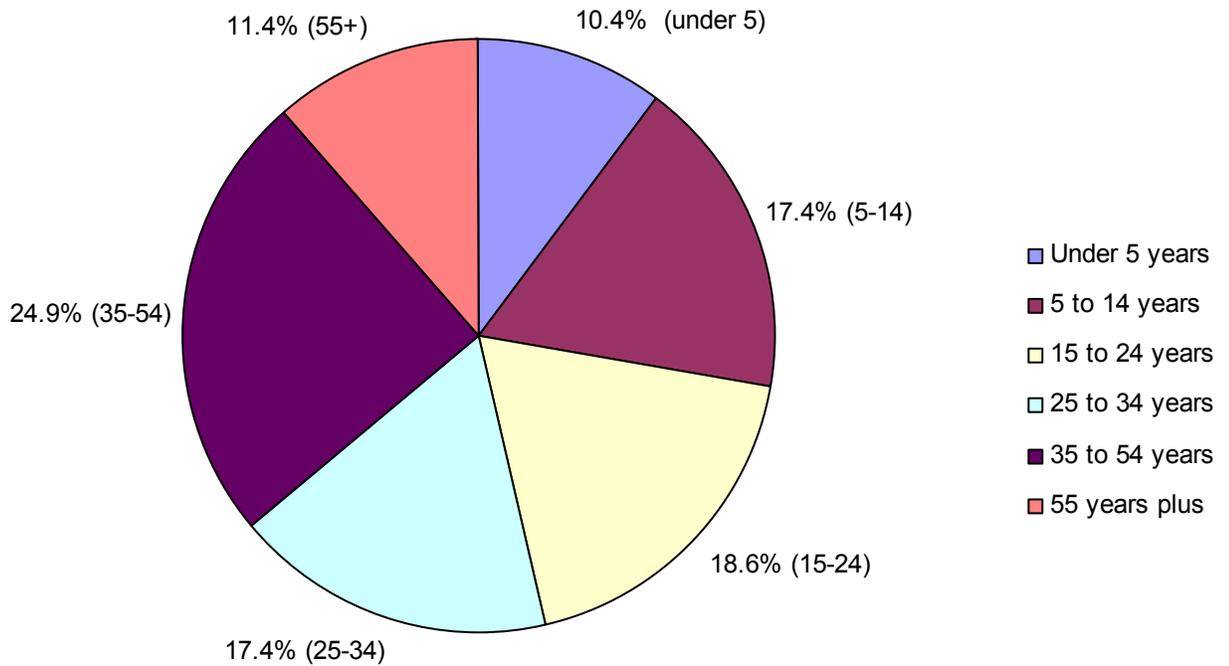
##### *Population, Age Ranges, Family Information for the City of Evans*

##### **Age Distribution**

In order to separate the population into age-sensitive user groups, and retain the ability to identify future age-sensitive trends, the following age categories are utilized based on the 2000 U.S. Census (see figure below).

- **Under 5 years (10.4%)** - This group represents users of preschool and tot programs and facilities, and as open space and trails users are often in strollers. These individuals are the future participants in youth activities.
- **5 to 14 years (17.4%)** - This group represents current youth program participants.
- **15 to 24 years (18.5 %)** - This group represents teen/young adult program participants moving out of the youth programs and into adult programs. Members of this age group are often seasonal employment seekers.
- **25 years to 34 years (17.4%)** - This group represents involvement in adult programming with characteristics of beginning long-term relationships and establishing families.
- **35 to 54 years (24.9%)** - This group represents users of a wide range of adult programming and park facilities. Their characteristics extend from having children using preschool and youth programs to becoming empty nesters.
- **55 years plus (11.4%)** - This group represents users of older adult programming exhibiting the characteristics of approaching retirement or already retired and typically enjoying grandchildren. This group generally also ranges from very healthy, active seniors to more physically inactive seniors.

**Figure 1: Population Breakdown**



Source: 2000 U.S. Census

### **Gender**

The population consists of 49.6% male and 50.4% female according to the 2000 U.S. Census.

### **Ethnicity**

The 2000 U.S. Census data indicated the majority of the population in Evans is white (71.1%). American Indian and Alaska Native comprise 1.3% of the population. Persons of African American descent make up 0.8%, and persons of Asian descent make up 0.7% of the population. Twenty-two and one half percent (22.5%) of respondents indicated other races, and 3.7% are two or more races.

Of the total population, the Hispanic or Latino population is 40.1%. Weld County School District 6, which serves the communities of Greeley and Evans, further supports this information in their 2003 Annual Progress Report by showing the Hispanic population, for preschool through high school, comprises 47% of the total student body.

With these findings it is important to note:

- The Latino portion of the local population typically does make heavy use of the public parks and facilities and does contribute to the local economy, especially in the form of sales taxes.

- Information gathered by the Outdoor Industry Association's Outdoor Recreation Participation Study (2001) concluded that while the majority of outdoor recreation participants are Caucasian, Hispanic participants are recreating outdoors with greater frequency.

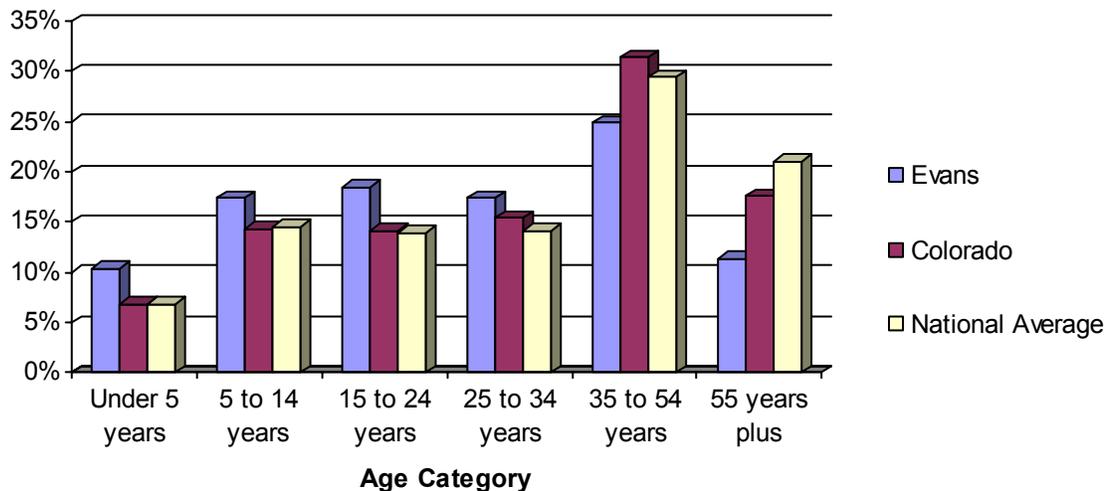
**Household Income**

Median household income in 1999 (2000 U.S. Census) was \$37,158 with the largest share of households (23.9%) earning \$50,000 to \$74,999. However, 15.6% earn \$14,999 or less, 13.6% earn \$15,000 to \$24,999, 18.3% earn \$25,000 to \$34,999, 19.2% earn \$35,000 to \$49,999, and 4.7% earn \$75,000 to \$99,999. The remaining population, 4.7%, earns more than \$100,000.

**Population Comparisons**

The population of Evans is generally younger than both state and national averages. Evans has dramatically higher percentages of persons under 5 years and 15 to 24 years, and moderately higher percentages of 5 to 14 years and 25 to 34 years (2000 U.S. Census). In the over 55 years category, the Evans population is significantly lower (11.4%) than both the state of Colorado (17.6%) and the national average (21.0%). All population groups tend to be users of open space and trail systems.

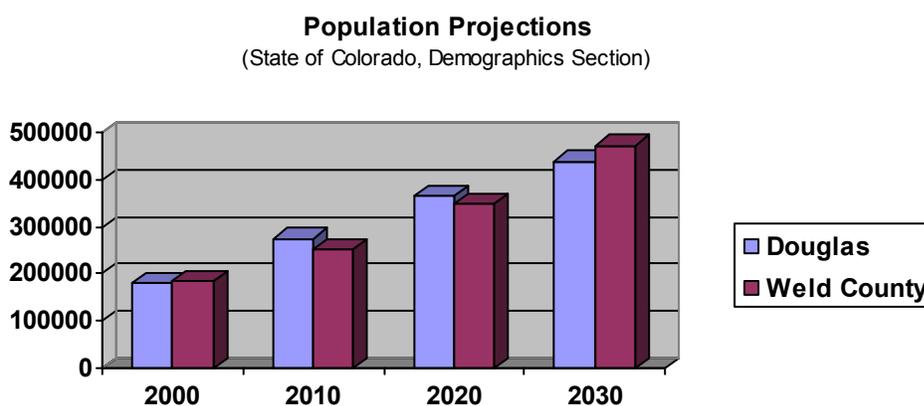
**Figure 2: Population Comparisons**



**Population Growth (Weld County)**

According to a report released in June 2003 by the Colorado Division of Local Governments, Weld County is experiencing a steady growth rate of 4.4% and will eventually surpass Douglas County as Colorado's fastest growing county. The community of Evans will continue to thrive along with Greeley, Garden City, and La Salle. The table below shows the projected population growth through the year 2030. With the pressure of fast growth, community members tend to be more concerned with rapidly disappearing open spaces and a need to maintain access to the natural environment that is often what brought them to the community in the first place.

**Figure 3: Population Projection**



**B. Trends Impacting Open Space and Trails**

*General Trends\**

- Activities are moving outdoors: the fastest growing activities include mountain biking, fishing, and boating (along with snowboarding and camping.)
- People want more environmentally friendly activities, and are placing an emphasis more on “open lands” natural areas rather than manicured turf in parks.
- People want to move from “doing something” to “experiencing” – they are looking to add quality to the basic recreation activity, with depth, self-fulfillment, and self-expression.
- They want quality vs. quantity - a first class experience in the form of excellent customer service, programs, and facilities.

*Facilities Trends\**

- Amenities that are becoming “typical” rather than alternative:
  - Nature centers/outdoor recreation centers
  - Trails for all forms of transportation (in-line, cycling, etc.)
- Methods of providing facilities
  - Partnerships with private or other agencies

**\*Sources for General and Facility Trends:**

SGMA	NRPA	Leisure Vision	EDAW, Inc.
FLOW Consulting	Younger and Pros	John Crompton	Athletic Business
Roper Research	NSGA	Publications	GreenPlay, LLC

Across the country, parks and recreation agencies are responding to these trends. The City of Evans, through this planning effort, is working to be ahead of its citizens as they are realizing that open land that is not protected can quickly become housing developments. The City is seeking to identify and protect areas with significant environmental values while providing appropriate access that allows citizens to experience those values and embrace a

sense of ownership and stewardship. The addition of quality interpretive programs will satisfy a hunger to form a connection with the natural environs.

Facilities that support experiencing and understanding our natural areas, like all facilities, require funding to plan, place, construct, and operate and maintain over time. Partnerships with other public agencies, as well as organizations in the non-profit and private sector can take advantage of a common desire to provide facilities and programs, by pooling resources and expertise.

Individual and community social and health benefits can be achieved by the City of Evans through a well planned program for provision of facilities and services, as highlighted in the following survey report.

***Outdoor Recreation in America 1999: The Family and the Environment***

In July 1999, as part of the 1999 Recreation Roundtable Study in-home interviews were conducted with 2,000 Americans 18 years and older representing a sample of the American adult population. These surveys focused specifically on outdoor recreation, defined as leisure activities involving the enjoyment and use of natural resources. This 1999 Recreation Roundtable Study indicates that outdoor activities are on the rise as the number of respondents engaging in outdoor recreation at least once per month has increased 10 points to 76% in 1999. In addition, there was a four-point increase in the number of people that recreate “several times a week,” up to almost a quarter of the population (24%). Overall, there has been a consistent increase in participation in outdoor recreation activities throughout the 1990s.

The top outdoor recreation activities in 1999 were walking for fitness/recreation (42%), swimming (40%), driving for pleasure (35%), picnicking (32%) and fishing (28%).

**Table 3-1: Outdoor Recreation Participation during 1999 - 10 Most Popular Activities**

<b>Sport</b>	<b>Percentage Participating</b>
Walking for fitness/recreation	42%
Swimming	40%
Driving for Pleasure	35%
Picnicking	32%
Fishing	28%
Bicycling	22%
Campground Camping	21%
Visiting cultural sites	16%
Running/jogging	16%
Hiking	15%
Wildlife viewing	15%

The most important reasons people gave for participating in outdoor recreation are fun (83%), relaxation (80%), health and exercise (79%), and for the family to be together (74%).

A large percentage of parents with children “engage in outdoor recreation as a family” at least monthly (65% for parents with children ages 0 - 7, and 59% for parents with children ages 8 - 17). Midwesterners are also fairly active with 57% indicating they “engage in outdoor recreation as a family” at least monthly.

Parents also identify reasons outdoor recreation may benefit children including promotes good health (72%), creates shared experiences family and friends can bond over (70%), teaches appreciation of nature (69%), and helps develop important physical skills (68%). Additional benefits parents noted included builds self-esteem and personal growth (65%), and helps children develop important interpersonal skills (62%).

## C. Facility Resource Inventory

### *Open Space and Trails*

#### **Study Area**

The area covered by this study is approximately the area included within the Urban Growth Boundary of the City of Evans. It is generally defined by 32<sup>nd</sup> Street on the north, Weld County Road 45 on the east, Weld County Road 46 on the south, and a line approximately one-half mile to the west of 83<sup>rd</sup> Avenue on the west. It contains 27 square miles. It lies entirely within Weld County in Northern Colorado, on the state’s eastern high plains. See Appendix A, Map 1, City Properties and Easements.

#### **Existing Conditions**

The South Platte River traverses the area from the south-central boundary to the northeast corner of the study area. The Big Thompson River enters the study area on the southwestern edge and joins with the South Platte in the southern-central part. Other channels in the study area include Ashcroft Draw and a number of smaller drainage ways that run generally from northwest to southeast, emptying into the Big Thompson or the Platte.

The highest point within the study area is 5030 feet above sea level, located in the western portion, and the lowest point, elevation 4625, occurs where the Platte River exits on the east.

The core of Evans is located in the east-central portion of the study area. The oldest part of the City is located along the north & west bank of the Platte, between the river and US Highway 85. West of the highway lies the bulk of present-day Evans, situated generally between Greeley and the river. This area was built up in the latter half of the 20<sup>th</sup> century, and consists primarily of suburban-style single family homes on a street grid that is laid out on the four points of the compass. The primary grid spacing is roughly ½ mile, with secondary streets and blocks occurring on modified grids in between. The portion of Evans lying within the eastern half of the study area is approximately ¾ built out, but the portion lying in the western half is mostly undeveloped at this time. Development is occurring at a fairly rapid pace within this area, along extensions of the existing grid.

Evans has relatively little commercial development within its boundaries. However, it has revenue-sharing agreements with Greeley for some large commercial developments along the two communities' common border.

Much of the undeveloped area is farmland. This part of Weld County has a productive past of fertile farms irrigated with water diverted from the rivers flowing through it. However, farming is now giving way to urban growth, in the form of large subdivision tracts. Many of these are being annexed into Evans, Greeley, La Salle, or the towns of Milliken and Johnstown further to the southwest, but some are still on unincorporated land within the county. Some of the tracts are becoming island in-holdings as annexation occurs around them.

Another element that is somewhat unique to the area is the abundance of oil and gas wells and associated features. These occur on a grid of approximately one well for every 1/16 Section of land. The wells have an area around them which must be kept open. This area typically creates a circle approximately 300 feet in diameter that contains no structures or other development except as may be needed to support the oil and gas extraction activity on the site. A de facto open space is thereby defined around each well site. While this space may or may not be publicly owned, it does mean that neighborhoods typically have open land scattered throughout them on a frequent interval. This could offer opportunities to create a unique series of open spaces that might provide habitat for wildlife and visual relief within built-up areas. However, it should also be noted that many of these areas are platted lots and could have homes or structures built upon them if, and when, the well heads are taken out of production.

### **Existing Open Space**

While Evans currently has no formal open space program, there are lands within the City that serve some of the functions of open space. Parks are the best example of this. Most of Evan's current parks are located across the northern half of the City, particularly within the northeastern quadrant. Approximately 40 parcels are identified within the City's current mapping system as Park, Open Space, Conservation Easement. Nine of these are designated as Future Park. The current lands identified as Parks/Open Space included a total of 174 acres. The current total of land in the Conservation Easement category is 24.5 acres. Land within the Future Conservation Easement designation totals 90 acres. The total for Future Parks/Open Space is 214 acres.

Riverside Park is the largest of the park parcels. While Riverside Park contains a number of active recreation facilities within it, a large portion of the site consists of natural riparian habitat along the river. This area provides ideal open space.

Parcels designated as "Open Space" in the City's mapping system include the Chappelow Detention Pond and a parcel southwest of Grapevine Hollow. The Conservation Easement parcel at the northeast corner of 37<sup>th</sup> Street and 65<sup>th</sup> Avenue is also included in the mapping system.

## **Existing Trails**

Developed trails belonging to the City are shown on Map 4 – Conceptual Trail Network. There is currently 11.5 miles of existing trail in segments throughout the City. These tend to be fragmented rather than connected together in a systematic manner. They currently include a segment in Riverside Park that follows the South Platte River upstream from the northeast part of the park and ends on the west side of Highway 85 after crossing underneath the highway and the railroad. A trail has also been designated along the Evans Town Ditch, and improvement of this should begin within the near future.

The American Discovery Trail passes through the study area for a distance of 8 miles, and the Colorado Front Range trail covers a distance of 3.25 miles.

Other trails are currently in the works. Funds are available and plans are underway for 1.5 miles of trail along Ashcroft Draw between 37<sup>th</sup> and 49<sup>th</sup> Streets. Plans are being formulated to link the Ashcroft Draw and Evans Town Ditch segments to form one continuous improved trail over four miles long.

Trails are also in place at this time within the area around Evans. Greeley has developed several trails that come within close proximity to the Evans City limits.

## **Data Collection**

Information for this study was primarily obtained from Weld County, in the form of Geographical Information Systems files. This was augmented with input from City staff, and observations in the field by the project team. In addition, information from other studies, such as Greeley’s trails master plan, was imported into the data set and mapping. In addition to creating a geospatial base for this project, a secondary objective of the data collection process has been to improve the GIS dataset for other uses by the City staff of Evans. Towards this end, all imported data has been formatted to allow for ease of use later on as other needs arise.

All of the collected data was assembled and displayed on a series of maps, which were reviewed by the City’s staff and others. Any inaccuracies were noted and changed. Additions and changes to the mapping were added by digitizing directly into the computerized map. This means that the results have a degree of accuracy based on “sighting-in” and not on surveyed coordinates or mathematical geometry. This level of accuracy is sufficient for planning purposes, but not for final design or alignment of constructed features.



# CITY OF EVANS

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# OPEN SPACE AND TRAILS MASTER PLAN

## *KEY ISSUES AND ANALYSIS*

## 4. KEY ISSUES AND ANALYSIS

### A. Open Space

#### *Key Issues*

**Proactive Approach** – Rapid development of open land is occurring in Evans. A program is needed that identifies lands worth preserving for the benefit of future generations, and outlines the tools and strategies for protecting these lands.

**Protection and Enhancement of Natural Areas** – Lands which are not threatened by development due to their location in floodplains or other factors may be in need of stabilization or restoration. Areas which may have once been rich in ecological or scenic value, but have been degraded, could become valuable once again through cleanup and restoration. Designating these lands as open space would provide the impetus needed for this to occur.

**Community Separators** – Rapid development is blurring the identities of individual towns and cities in the region as municipalities build up to the borders of one another. Buffers of open land are needed to allow existing settlements to retain their identity and sense of community.

**Open Space Connections** – Open space can serve as both separator and connector simultaneously. Linking open lands together creates a network of corridors that allow for the movement of wildlife and people along greenways of natural space. These corridors can link communities together at the same time that they separate them and allow them to keep their identities.

**Integration of Human Use with Preservation of Natural Qualities** – Planning and management of open space areas must balance activities such as low-impact recreational use with preservation of habitats and protection of sensitive species.

#### *Analysis*

##### **Level of Service**

Establishing a level of service for open space in residential developments should be based upon a predetermined numerical standard such as “X” number of acres per person. However, open space should also be designated in response to the community’s goals and desires for access and proximity to open lands and natural areas, combined with the availability of suitable lands for such purposes in the appropriate locations. This plan follows a process to identify these things and make recommendations on how to accomplish the City’s goals.

## **Definition of Open Space**

For the purposes of this study, open space is defined as lands to be acquired and/or preserved in their current state or returned to a natural state. Open space lands may include natural areas, wildlife habitat, wetlands, agriculture, visual corridors, and urban shaping buffers. Open space lands should provide for low-impact recreation, where appropriate, compatible with resource protection goals.

Open space is increasingly becoming a component of community parks. This is in response to the public's desire for buffer space between community park activities and adjacent residences, along with a desire for natural areas within community parks that can be used for un-programmed and low-impact recreation. It is quite common for up to 30% or more of the land area of a new community park to be effectively left as open space. In light of this, the City should evaluate its master plan for parks and recreation and adjust its dedication requirements to account for this need.

## **Purposes of Open Space**

Open space should address the goals and desires of the community. These goals can include separating communities to allow them to keep their individual identities; enhancing community gateways; conserving natural features and protecting lands of high ecological, scenic, or cultural value; providing visual separation between built areas; providing places for low-impact outdoor recreation; limiting development on lands that would adversely affect the community in some way; and creating corridors for the safe and enjoyable movement of people and animals.

## **Approach for the Open Space Acquisitions Program**

Evaluating lands for open space potential is a three-step process in this study. The first step is to identify in general terms the occurrence of attributes that contribute to the land's value for open space. The second step is to look at specific parcels to determine the level or degree to which they address these attributes. The third step is to determine the actions or strategies that will be taken to preserve a parcel of land that has been found through the previous steps to be worthy of preservation as open space.

### Tier I Analysis

The first step has been designated as **Tier I** of a three-tiered analysis. A work session was held with City staff to determine what characteristics affected the suitability of any given piece of land for open space. The following list was generated. These items became the Tier I attributes to be mapped and evaluated. The attributes were mapped to show the locations and extents of their occurrence within the study area. Some attributes were given an area of influence (buffer) beyond their actual extents, because of the nature of those characteristics.

1. Surface Water - 1/8 mile buffer
2. Historical - Evans Town Ditch 1/8 mile buffer
3. Vertical Relief - 30 ft or more
4. Bluffs
5. Riparian Influence Zone - stopped at development and agricultural lands
6. Waste Management Ownership

7. Vacant Land or Agricultural Use
8. Nationally Significant Agricultural Lands
9. Flood Plain – Special study limit
10. Railroad Diagonal/Railroad Corridor – kept narrow
11. Wetland – staff identified, no digital data available
12. Oil and Gas Wells – 150’-300’ doughnut
13. Wildlife – weighted within itself
14. Developed Parcels
15. Views

These attributes were mapped and scored as described below. Numerical values were assigned to the attributes. Equal values were assigned to each attribute. This value was applied to the entire area of extent for each attribute. The mapping for these attributes can be seen on Appendix A, Map 2, Open Space Values – Tier I Attributes.

- Proximity to Surface Water (ways) – 0.125 mile buffer of all surface water (ways). Maximum Weight of 1 for Analysis Processes Only.
- Notable Topographic Relief – Identified topographic contours that detailed a “hill” of 30 vertical feet or greater than the surrounding surface. This identified areas that may have a potential 360 degree view. These areas typically are located in the NW quadrant of the study area. Maximum Weight of 1 for Analysis Processes Only.
- Riverside Bluffs - Identified topographic contours that detailed the bluffs and gullies overlooking the Platte River. This identified areas that may have a potential view to the river and surrounding valley floor. These areas typically are located in the SW quadrant of the study area. Maximum Weight of 1 for Analysis Processes Only.
- South Platte Riparian Corridor - Identified the areas of typically undeveloped riparian influence adjacent to the major drainage corridors related to the South Platte River. These areas were heads up digitized from the Evans ortho-rectified digital color aerial photograph. Maximum Weight of 1 for Analysis Processes Only.
- Sanitary Landfill - Identified the parcels owned by the local landfill operator. Maximum Weight of 1 for Analysis Processes Only.
- Vacant Lands - Identified the parcels classified by Weld County as “Vacant” and/or “Agricultural” lands. Confirmed locations through overlay with the Evans ortho-rectified digital color aerial photograph. Maximum Weight of 1 for Analysis Processes Only.
- Agricultural Lands of National Importance – Areas classified by Weld County/NRCS as being high quality agricultural lands. These are typically identified by lands that receive irrigation. Maximum Weight of 1 for Analysis Processes Only.

- Flood Plain – Areas classified by FEMA as “Detailed Study” floodplain lands. These are areas in the 100 and 500 Year Zones. Maximum Weight of 1 for Analysis Processes Only.
- Active and Abandoned Railroad Corridors – 100 Foot Buffer of active and abandoned railroad corridors. Maximum Weight of 1 for Analysis Processes Only.
- Proximity to Evans Town Ditch - 0.125 mile buffer of the Evans Town Ditch. Identified as having historical interest. Maximum Weight of 1 for Analysis Processes Only.
- Wetlands Identified by Evans City Staff – Areas identified on hardcopy maps by Evans City staff as being “wetlands”. Maximum Weight of 1 for Analysis Processes Only.
- Proximity to Oil & Gas Wells (Stationary Equipment) – A 150 foot doughnut-type buffer was created around the existing 150 foot well-head safety buffer. The well locations were identified by Colorado Department of Natural Resources. Maximum Weight of 1 for Analysis Processes Only.
- Suitable Wildlife Habitat – This analytical layer was generated by compiling all “Potentially Suitable Habitat” for select species into a single weighted analysis layer. The Colorado Division of Wildlife GIS dataset was used for this analysis. Initially, eighteen species were reviewed for occurrence within the Study Area. Our analysis showed that the entire Study Area offered at a minimum, some degree of Suitable Habitat – primarily located in the river lowlands and the higher uplands. This created a base assumption that the Study Area offered Suitable Habitat. Additional field surveys identified areas of high value habitat: field areas under crop management, wetlands, and the riparian corridors near the confluence of the Big Thompson and South Platte Rivers

In addition to scoring features as described above, some lands were eliminated from consideration and therefore received no score:

- Developed Lands – Areas identified as “developed” and likely “out of play” have been removed from all analysis.

The mapping was then layered displaying a variation in color indicating the cumulative score of all the mapped attributes for any given point on the map. A darker color at any point on the map results from the number of mapped attributes overlaying that point. Parcels that should be considered for open space protection fall into two categories:

- Those parcels that are rich in color on the map (have the presence of a minimum number of values (to be determined), and
- Those parcels considered as being “at risk” or “opportunities” that may not have a minimum number of values, but may have one or more extremely important values that should be given consideration, or may have a “willing seller.”

These two categories are not prioritized. In other words, they would be parallel processes in the approach to acquisition/protection.

A look at Appendix A, Map 3, Open Space Values – Tier I Composite shows that the highest-ranking areas for open space values tend to be along the South Platte River, the Big Thompson River, and Ashcroft Draw. This is due to several factors, but mostly reflects the fact that riparian corridors are unique and special places within the surrounding plains environment. They reflect the presence of water, which is the life-blood of the region. These corridors provide habitat for wildlife, topographic interest, and a variety of vegetation. Preserving lands along these corridors should be the first focus of the open space program.

At the same time, large areas of undeveloped agricultural land remain in the western portion of the study area, but are rapidly disappearing as the Front Range Region grows in population and settlement. Now is a good time to plan for the preservation of a portion of these lands that reflect the heritage of the region. Possible candidates from the Tier I map for preservation include lands that are the highest points in the area, and historic farmsteads, ditches or other significant features located within this undeveloped western portion of the study area.

The Tier I analysis is a broad brush look at which lands have the most occurrences of positive open space attributes on them. It allows for the identification of parcels within the study area that are most likely to have the desired open space attributes. However, it does not account for the quality of those attributes. The next step in the process addresses qualitative aspects. This is the **Tier II** analysis.

#### Tier II Analysis

Individual tracts of land that are being considered for inclusion in the open space system should be evaluated to determine how well they address the specific attributes of open space. This includes lands identified through the Tier I analysis and any lands offered through a willing seller or other means.

At this level parcels are examined with a finer filter to determine the degree to which specific open space attributes exist on the site. This is done through field study and the use of an evaluation instrument contained in Appendix B. The evaluation scores each tract on the level to which it satisfies the open space values identified in the score sheet. If a parcel scores high enough overall or in any specific category, it can be considered for inclusion in the open space system. The evaluation can also be used to determine how specific parcels should be maintained once they become open space. A parcel that scores high as agricultural land would be maintained differently from one that scores high for wildlife habitat.

#### Tier III Analysis

The third step in the three-tiered approach is to determine how land that has been identified as suitable and desirable for open space should be preserved and managed. This includes asking questions such as:

- Who should acquire the land?
- Is it a partnering opportunity?
- Should it be acquired fee simple or protected through some other means?

This methodology can (and very likely will be) applied in reverse. If a parcel of land is offered to the City as open space, it can be evaluated to determine how well it fulfills the defined purposes of open space.

## B. Trails

### *Key Issues*

- a. **Connectivity** - The goal is to create a system of connected trails that link to open space, parks, schools, and other community features. Current plans for Ashcroft Draw and the Evans Town Ditch trails will create a spine trail running east and west across the City, but for this to become a system, a network of trails will be needed that create looped routes and connect to one another. Connections to other trails beyond the borders of Evans are also needed to make the trail network part of a regional system of trails.
- b. **Environmental Sensitivity** - Trail development should occur in a way that provides access and connectivity to open space areas without undue disturbance or impact to wildlife habitat and plant species.
- c. **Education** - The trail system should maximize opportunities to inform the public about the natural and cultural heritage of Evans, by exposing people to the natural and agricultural lands within the area and providing interpretive experiences. The historic relevance of oil and gas extraction to the development of the region should also be a part of this educational program.

### *Analysis*

**Trail Needs** - The demand for trails has been substantiated in a number of ways and documented in the City's Parks, Trails and Recreation Master Plan. Surveys throughout the region consistently show that trails are among the highest-ranking recreational features desired by the public, and that trails are one of the most highly-used recreational facilities provided by municipalities. Even in communities without a trail system walking, jogging, and bicycling consistently score among the highest of all recreational activities engaged in by residents.

**Levels of Service for Trails** - The establishment of a Level of Service for both open space and trails should be based on distribution and opportunities for facilities rather than on a numeric standard such as "X" number of miles of trail per person. Because trails are both a recreational amenity and part of the City's alternate transportation system, access to the trail network for residents is important. Ideally, the trail network should be easily reached within a short walk of each home. A walk of 10 minutes or less would fit this description. This translates into a distance of approximately  $\frac{1}{4}$  mile. Therefore, locating trails on an approximate grid of every  $\frac{1}{2}$  mile would place a trail within about  $\frac{1}{4}$  mile of the farthest home.

Trails on the ½ mile grid should be designated as Primary Trails. Primary trails are ones that are in themselves a destination and provide an enjoyable experience for the user, offering safe travel for people of all ages and a variety of travel modes, including walking, running, and the use of horses, bikes, strollers, or skates. The travel experience itself is as important as the destinations these trails connect to, so primary trails should follow scenic routes rather than the most direct routes between destinations. However, these trails should also connect to other recreation opportunities such as parks and open space lands, recreation centers, and schools.

Primary trails may follow streets, but the trail surface should meet the criteria described in the *Trail Development Standards* section of this report, and should be separated from traffic as much as possible. Conflicts with streets, driveways, and other hazards should be minimized along the trail corridor. Landscaping should be provided along the trail to enhance the travel experience and provide a buffer from the adjacent street.

Secondary Trails are spurs or connections to the primary trails. The main purpose of these is to get people safely and conveniently from their home to the primary trails. Secondary trails can be sidewalks or other such connections. They could be along residential streets if traffic volume and speeds are low enough, and the route is clearly marked to warn motorists to watch for pedestrians and other trail users. The level of service goal for secondary trails should be to provide a safe connection along secondary trails from every home to the Primary Trail network.

## C. Management of Open Space and Trails

### *Key Issues*

- a. **Weed Management and Integrated Pest Management** guidance, with emphasis on restoration of damaged sites
- b. **Inventory and Monitoring Systems**, with emphasis on tracking federally and state listed species and species of concern
- c. **Wildlife Management and Habitat Maintenance**, with emphasis on identification and mapping of wetland habitats
- d. **Low Impact Recreational Use**, with special emphasis on dog management and bike management
- e. **Trail Development and Use** to minimally impact wildlife and plant species, including educational opportunities
- f. **Management Strategies** to sustain or improve the ecological integrity of the Evans system, including guidance on staffing levels and areas of expertise, plus thoughts on zone management and connectivity issues

## *Analysis*

It is most critical to clarify the intentions for a particular parcel when it is being considered for acquisition, by identifying the values present on the parcel (see purposes of open space) and the value of the potential for the parcel to meet active use needs. Care should be taken to protect the values that reflect the original intentions of the acquisition. Communication about the intentions should be strong and clear from the outset. Management and maintenance plans should reflect the intentions.



## **CITY OF EVANS**

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# **OPEN SPACE AND TRAILS MASTER PLAN**

### ***RECOMMENDATIONS AND IMPLEMENTATION STRATEGIES***

## 5. RECOMMENDATIONS AND IMPLEMENTATION STRATEGIES

### A. OPEN SPACE

#### *Summary of Recommendations*

#### *Implementation*

- A. Potential parcels should pass through Tier I, II and III evaluation
- B. Evans should coordinate with Greeley, Milliken, La Salle and Weld County to develop a regional plan and strategies to finance and implement a regional open space and trails system.
- C. The Planning Department may also use this mapping of composite values as an effective tool for to guide developers as to the most appropriate locations to place structures on a particular development site.

#### *Acquisition and Funding Mechanisms*

- A. The City of Evans should investigate and use the most appropriate technique for acquisition and/or protection of open space properties.
- B. A developer land dedication requirement (or fees-in-lieu to acquire or develop open space properties) could be put into place along with the parkland requirement.
- C. Parks and Recreation Staff should meet with Planning Staff to review and evaluate the applicability of regulatory techniques and financial incentives, and determine those appropriate for use.
- D. Evans needs to be prepared to provide funding in order to maximize partnering potential

### *Discussion*

#### *1. Implementation*

The mapping tools developed throughout this process are based on the definition of open lands and intended purposes developed through the public process, and should be used as a guide for the first level evaluation of properties for acquisition. This is true

whether appropriate properties are sought out or opportunities for acquisition present themselves. The process for evaluation is designed to work in either case.

### Recommendations

#### **A. Potential parcels should pass through Tier I, II and III evaluation**

Individual parcels should pass through the Tier I evaluation to determine, from a broad-brush perspective, how many and what type of values are present on the property.

The Tier II analysis allows a site-specific analysis to occur, which most likely will include a further determination of the degree of each value present through additional field study.

When a property is deemed desirable for acquisition, the questions pertinent to Tier III come into play. Based on how well the parcel meets goals of other jurisdictions, who should acquire the land? Is this a partnering opportunity? Should it be acquired fee simple or protected through some other means?

#### **B. Evans should coordinate with Greeley, Milliken, La Salle and Weld County to develop a regional plan and strategies to finance and implement a regional open space and trails system.**

#### **C. The Planning Department may also use this mapping of composite values as an effective tool for to guide developers as to the most appropriate locations to place structures on a particular development site.**

For this purpose the read of the map would be reversed, meaning the lighter areas would represent land that does not hold as many natural resource values and would be more appropriate for building structures.

## ***2. Acquisition and Funding Mechanisms***

#### **A. The City of Evans should investigate and use the most appropriate technique for acquisition and/or protection of open space properties.**

##### Common techniques

###### *Acquisition Techniques*

- Fee simple purchase
- Conservation easement/purchase of development rights (partial interest)
- Joint purchase with other entity(s) (undivided interest)
- Leaseback or Lease
- Donations and gifts (full or partial)
- Non-profit acquisition and conveyance to the City

###### *Regulatory Protection Techniques*

- Zoning – large lot, performance, carrying capacity, cluster, preservation
- Exaction
- Phased Growth Moratorium
- Transfer of Development Rights (TDR)

*Financial Incentives*

- Preferential Assessment
- Density Bonuses
- Grants and Loans

Acquisition desires need to be in balance with potential funding for both one time and ongoing costs. Conservation easements are quite popular, and afford permanent protection against development, at a lesser cost than fee-simple purchase. Prior to pursuing a conservation easement, it is important to develop a set of criteria to help meet the natural resource management and maintenance objectives to include as part of the conservation easement agreement. The criteria language should be general yet flexible so that it can be tailored to each specific agreement.

**B. A developer land dedication requirement (or fees-in-lieu to acquire or develop open space properties) could be put into place along with the parkland requirement.**

Consideration should be given to amending the standards to account for the trend towards leaving a significant portion of the land within community parks undeveloped for use as open space and for low-impact recreation.

**C. Parks and Recreation Staff should meet with Planning Staff to review and evaluate the applicability of regulatory techniques and financial incentives, and determine those appropriate for use.**

For any deemed appropriate, next steps should be identified for potential implementation.

**D. Evans needs to be prepared to provide funding in order to maximize partnering potential**

Even with the tools available, in order to maximize partnering potential and realize the desires of Evans citizens, it may be necessary to obtain additional financial resources. Partnerships and grants are commonly used, however, Evans needs to be prepared to provide funding for matches, etc.

Acquisition Process

Once the City has determined interest in a particular parcel, Staff is responsible for evaluation of the parcel, using the approach provided in this plan, and for presenting a negotiated deal to the Parks and Recreation Commission for its recommendation to the City Council. A recommendation is also sought from the Planning Commission to

assure compliance with Land Use and Zoning regulations. The City Council gives final approval for acquisitions.

#### Disposition Of Open Lands

To instill confidence in the public regarding the acquisition program, an understanding of what could happen to Open Space in the future is important. Public lands are afforded some protection in the state statutes by requiring a vote of the Council in order to dispose of any lands. Consideration should be given to requiring a vote of the people as well, particularly if a new tax funding source is being sought.

## B. TRAILS

### *Summary of Recommendations*

#### *Trail Routes and Classifications*

- A. Construct a connected network of Primary Trails and Greenways at an approximate spacing of every ½ mile across the city. Utilize drainage ways and other scenic corridors where possible. Utilize rights-of-way for arterial streets when this is not possible.
- B. Provide Secondary Connections to Primary Trails and Greenways.

#### *Ancillary Features and Components*

- A. Provide Trailheads at Appropriate Locations
- B. Provide Waysides at Appropriate Locations
- C. Implement an Effective and Consistent System of Signage

#### *Trail Development Standards*

- A. Provide appropriate surfacing and dimensions for each type of trail constructed. Meet the requirements of the American Association of State Highway and Transportation Officials (AASHTO), the Americans with Disabilities Act (ADA) and other applicable codes.

#### *Protect and Restore Existing Features*

- A. Inventory and monitor resources so that trail planning is based on actual field conditions.
- B. Ensure that trail routing avoids the most valuable habitat and in general, protects wildlife habitat and plant cover as much as possible.
- C. Practice a knowledge-based, minimal disturbance trail building protocol to avoid disturbing native vegetation and creating an environment for noxious weeds.
- D. Protect and restore existing features affected by trail construction, and improve degraded areas along the trail corridor as part of implementing the trail system.

## *Discussion*

### *Approach to Trails Program*

The planning process for trails has proceeded from some basic assumptions:

- The primary purpose of the trails planned for in this study will be recreation rather than transportation, although the trails should allow for both uses. Primary trails should not be intended to preclude or substitute for an effective commuter bikeway system.
- Trails should be consistent with a network for connected routes. Trails should provide for linkages to other Evans trails and to existing and proposed trails outside of and beyond Evans.
- Trails should fall into a variety of categories, depending on their role in the system. This includes Primary, Secondary, and other categories of trails.
- The distribution and location of primary trails should be such that a primary trail is available within a reasonable distance of every home in Evans insofar as possible. Typically, this could mean a travel time of 10 minutes or less, which translates into a grid of trails on a spacing of about one-half mile apart.
- Trails should be linked and combined with open space to create a system of Greenways. These are corridors that allow for the movement of people and wildlife, and connect open space areas to one another.
- The type of surfacing is secondary to the goal of providing adequate distribution of trails within the community and providing a connected network of trails.

## **TRAIL ROUTES AND CLASSIFICATIONS**

A variety of trail types and configurations are recommended. Together, these make up an overall system to meet the needs of the citizens of Evans. The system is hierarchical, consisting of **Primary Trails** that have an emphasis on enjoyment of the recreational experience of traveling by foot or wheel. When combined with waterways, open space, or other amenities, these become **Greenways**. The emphasis for **Secondary Trails** is to connect the Primary trails to homes and other destinations. **Primitive Trails** are recommended for rural areas with lower frequency of use.

Selection of trail routes was conducted in conjunction with the Tier I analysis of open space lands. All known and existing trails within and adjacent to the study area were mapped in the Geographic Information System. This included trails belonging to other agencies, such as the City of Greeley, and regional trails such as the American Discovery Trail and the Colorado Front Range Trail. Destinations such as existing parks, schools, and other features were also mapped.

This information was reviewed with City staff and others in a work session by projecting the G.I.S. mapping on wall screen. Using laser pointers, the workshop participants were asked to point out desired trail routes and opportunities for trail connections. This information was input into the computer in real time “on the fly” as

each segment was identified. The result was a schematic plan for the trail system. Segments were added to achieve the desired distribution of trails on an approximate ½ mile grid. The results were then refined by the consultants into a map of the proposed trail system. Map 4 – Conceptual Trail Network (Appendix A) shows the overall trail plan. The plan identifies 45 miles of Conceptual routes for Primary Trails.

### Recommendations

**A. Construct a connected network of Primary Trails and Greenways at an approximate spacing of every ½ mile across the city. Utilize drainage ways and other scenic corridors where possible. Utilize rights-of-way for arterial streets when this is not possible.**

The backbone of the trails system is the **Primary Trail**. Primary trails should follow routes along rivers, streams, ditches, ridges, or other features with scenic or recreational value whenever possible. They may also parallel arterial or other streets if properly designed to provide an enjoyable recreational experience. The user expects to find a variety of views, landscapes, and amenities along the way, and ideally expects to travel a circuit and return to his starting point without having to backtrack. A choice of lengths and circuits is desirable.

The plan shows a series of primary trail routes throughout the study area that form an approximate grid with trails spaced roughly ½ mile apart. Drainage ways, canals, and arterial street corridors combine to form the basic template for the grid. Trails paralleling the South Platte River and its tributaries – the Big Thompson River and Ashcroft Draw – offer opportunities to create off-street **Greenways** running approximately east and west across the City. The Evans Town Ditch also forms part of this east-west axis. Greenways combine multi-use trails with streams, canals, ridges, or other scenic corridors. These greenway corridors will be completely separate trails with minimal street crossings. The surface of these paths can be a variety of hard and soft surfaces. In areas where high use is expected, a paved concrete path is preferred. Soft surfaces of crusher fines may be used in other areas.

The routes shown on Appendix A Map 4 – Conceptual Trail Network are intended to indicate the overall concepts of connectivity and level of service. The alignments are of a general nature and are deliberately shown at a coarse scale. Specific alignments and locations should be determined according to several criteria. These include the availability of suitable right-of-way for the trail, and the occurrence of conflicts with streets or other impediments to construction and safety.

Locating trails along drainage ways offers an opportunity to bring people into some of the City's most scenic and attractive natural areas. However, care must be taken in selecting the exact alignment and configuration of trails in order to protect the scenic and environmental resources found within these corridors. Trails should be routed so as to avoid areas with the highest habitat value. Trails should also be aligned to avoid critical wetlands, and ideally should be located near the edge of riparian zones rather than through the middle of them.

To accommodate a variety of users, the ideal primary trail should offer both hard and soft surfaces. It should be wide enough to accommodate the expected amount of traffic in both directions, and should provide separation between potentially conflicting uses where needed.

Primary trails should be 10' wide in most cases, although a combined 8' hard-paved trail with an attached 3' crusher fines trail is an alternative that is sometimes preferred by runners and others who like having a choice of surfaces along the route. The crusher fines offer a refuge from faster traffic on the paved surface. Trail alignments should follow AASHTO standards for multi-use trails. Because Primary trails are intended to be multi-use paths, they should also meet all requirements of the Americans with Disabilities Act. This would not apply if the trail was intended for bicycle use only. In such case the AASHTO standards for gradients would apply.

Although greenways enhance and augment the City's transportation system, encouraging the use of alternative modes of travel, the primary intent of the greenway system is to provide opportunities for recreation. Greenway paths should be designed to offer pleasant recreational experiences for trail users, including views of the rivers and streams, and access to natural and open space areas. They should also provide pleasant connections for traveling to and from schools, parks, and other destinations.

The greenway paths are supplemented with proposed multi-use paths along new thoroughfares. These paths would be constructed parallel to the thoroughfare, either within the street right-of-way or along an adjacent street. Like the greenway paths, they should be planned and designed to meet AASHTO standards<sup>1</sup>. The typical cross-section for an arterial street as shown in the City of Evans Transportation Plan includes a 10-foot detached walk separated from the street by a minimum 10-foot wide landscape strip. The total area between the curb and the edge of the Right-of-Way is 23 feet. This is adequate in most situations to accommodate a primary trail that will fit the design criteria described below in the section on *Trail Development Standards*.

Minor Collectors should also be suitable for lower-use primary trails. The cross-section of these streets has an area that is 21 feet wide from curb to edge of R.O.W. Contained within this is an 8-foot wide path located a minimum of 8 feet away from the curb.

Major Collectors have an 8 foot wide walk as well, but it is located only 4 feet away from the curb, making it less enjoyable as a recreational path, but quite suitable for serving as a secondary path, as described below. Boulevard Collectors are similar, but their walk is only 5 feet wide and 6 feet away from the curb. If this walk was widened to 6 feet it could serve as a suitable secondary trail.

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<sup>1</sup> See AASHTO Guide for the Development of Bicycle Facilities, 1999, pages 33 - 35 for a discussion of shared-use paths in relation to other bicycle transportation facilities)

In planning for new street extensions that will have primary and secondary paths along them, driveway cuts and other crossings should be minimized along the path. The paths can be designed to offer pleasant recreational experiences by maximizing the separation from the street and through proper landscaping of the ROW. Together, the greenway paths and the thoroughfare paths combine to create a series of interconnected loops, offering recreation enthusiasts a wide choice of routes and distances for recreational trips.

## **B. Provide Secondary Connections to Primary Trails and Greenways.**

Not shown on the map, but equally important, are the secondary connections from homes, businesses, and public places to the primary trails. Secondary connections need to be designed into all new developments, and their location and form will depend upon specific conditions on a case-by-case basis. A connection by way of secondary trails to the primary trail system should be provided throughout all new developments. These should be off-street multi-use paths, with a minimum width of 6 feet and paving of concrete, asphalt, or crusher fines. Sidewalks can serve as secondary trails if wide enough and if designed to minimize conflicts with streets and driveways.

In certain sections of the community low-traffic streets or existing sidewalks might serve as secondary connections to the primary trails. While not meeting AASHTO standards for *bike* trails, these can provide safe access for pedestrians and others to the multi-use primary trails. Such routes should not be signed or marked as bike paths, however, unless they are safe for such use according to AASHTO standards. Streets adjacent to these routes may be marked with signage to warn motorists to watch for people using the route.

## ***ANCILLARY FEATURES AND COMPONENTS***

In addition to the trails, facilities should be provided that enhance the safety and enjoyment of the trail system.

### Recommendations

#### **A. Provide Trailheads at Appropriate Locations**

Trailheads are the interface between Primary Trails and the city's transportation system. Trailheads should be provided at points where several primary routes converge, and in places where easy access from arterial streets to a parking area can be created. An adequate number of parking spaces should be provided to serve the projected use of the trailhead. Other features that can be provided include an information kiosk with a trails map posted on it, and trash receptacles. Benches and shade should also be provided. All of these features should be selected for consistency of materials, colors, and form.

Trailheads should also be provided for access to rivers and streams. Favorite fishing holes and put-in points for tubing and kayaking that occur along a trail route are good places to locate a trailhead, especially if these are close to arterial streets.

Some suggested trailhead locations are shown on (Appendix A Map 4 – Conceptual Trail Network). These include one at Riverside Park, another at the northeastern end of the Evans Town Ditch Trail, a third one at the confluence of the Evans Town Ditch Trail with the Ashcroft Draw Trail, and a fourth near 37<sup>th</sup> Avenue and the Ashcroft Draw Trail. Additional locations for trailheads should be identified as development proceeds in the remaining portions of the City. In particular, trailheads should be located near the confluence of the Big Thompson with the South Platte and along the bluffs in the southwest portion of the study area.

## **B. Provide Waysides at Appropriate Locations**

Waysides are places along trails where travelers can stop to enjoy the shade or a pleasant view, or to read an interpretive sign. Waysides should be provided at places that offer these characteristics, or at least every ½ mile along the trail. Benches and/or picnic tables should be provided at waysides. Parks or other features along the trail can serve as waysides if properly designed and connected to the trail.

## **C. Implement an Effective and Consistent System of Signage**

All trails within the system should be marked with consistent signage to identify the trail, help users find their way along the trail, and provide regulatory information on allowable uses, trail courtesy, etc. Other types of signs include identification signs for trailheads and interpretive signs. All signs should be consistent in their materials, colors, and graphics. The City’s logo should be included on all signs to clearly identify the trails as part of the City’s trail system.

The City is currently developing a system for signage within parks. This system should be expanded to include signs such as those described above. Suggested sign configurations are shown in figures 7 through 11 of this report. These should be modified to be compatible with the City’s overall parks signage system once it is complete.

# ***TRAIL DEVELOPMENT STANDARDS***

Routes and locations for trails are discussed in Item 1. This section discusses standards for developing the trail surfaces and other features.

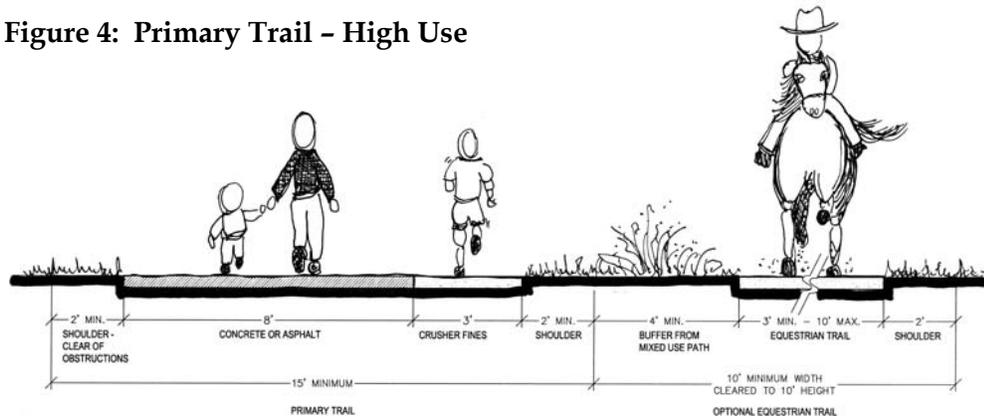
## Recommendations

- A. Provide appropriate surfacing and dimensions for each type of trail constructed. Meet the requirements of the American Association of State Highway and**

Transportation Officials (AASHTO), the Americans with Disabilities Act (ADA) and other applicable codes.

An ideal trail cross-section is shown in [Figure 4: Primary Trail – High Use](#). It includes an 8-foot wide section of paved (preferably concrete) surface suitable for wheeled vehicles including strollers, bikes, and skates. An attached 3-foot soft surface of crusher fines provides a place for runners and pedestrians who want to stay out of the path of faster-moving cyclists or skater/bladers. A two-foot shoulder on the other side, kept clear of obstructions, provides a safety zone. All shoulders

**Figure 4: Primary Trail – High Use**

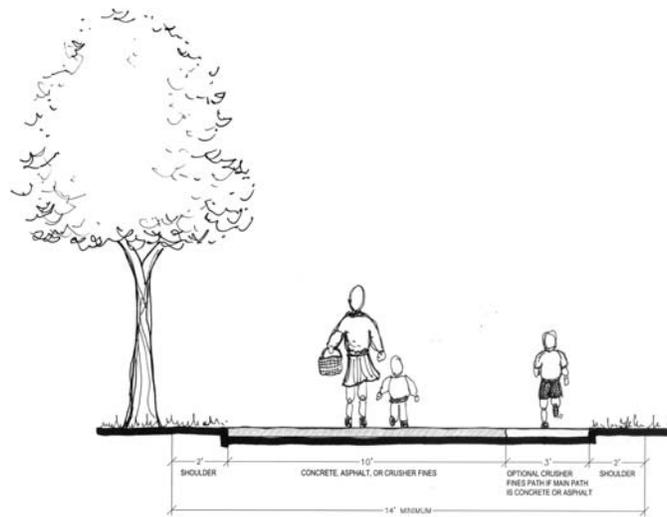


should have a maximum 1:6 slope. Wider shoulders of 3 feet or more are recommended to provide clearance from trees, poles, walls, fences, guardrails or other lateral obstructions. Where the path is next to a steep (1:3 or more) drop-off, a 5-foot separation between the path and the top of the embankment is recommended.<sup>2</sup> The slopes across the travel surface of the path should not exceed 2%. Along the direction of travel, slopes should not exceed 5% in order to meet the requirements of the Americans with Disabilities Act.

An optional equestrian trail, separated by a four-foot buffer, allows horseback riders to use the corridor as well. The equestrian trail should be a minimum of 3' wide and up to 8' or even 10' wide if significant horseback traffic is expected. Regardless of the surface width, the equestrian route should provide a space free of obstructions that is at least 10' wide and 10' high. This will allow riders to pass safely in opposite directions.

An alternative to the 8'+3' main cross-section described above is shown in [Figure 5: Alternative Primary Trail](#). It consists of a single 10' foot width or wider paved trail with 2' shoulders on either side. This is useful when a high volume of bikes and other wheeled travelers is expected, or when the trail needs to accommodate service vehicles. In such a case, a 3' wide soft trail adjacent to one side is still recommended if possible. In areas of lower expected use, the entire trail surface may be paved with crusher fines instead of concrete or asphalt.

<sup>2</sup> AASHTO, pg 36.



**Figure 5: Alternative Primary Trail**

Because of the current demand for additional trails and connectivity in the Front Range and Northern Colorado Region, it is recommended that surfacing requirements be flexible to allow for as many miles of trail to be set aside as possible. Providing a longer trail surfaced across its full width with crusher fines is likely to be preferable to a shorter concrete one if budget constraints are equal in either case. Trail surfaces can be improved at a later date, but acquiring adequate land for a trail might be impossible once the surrounding area is developed.

The trail configurations described above dictate a minimum of 15 feet and up to 25 feet of horizontal space needed to fit the trail’s cross-section. Additional space will be needed to allow for the trail to be graded and to meet existing grades at the corridor’s edge, and to fit around existing trees or other obstructions. The amount of additional space needed will increase with the steepness of the terrain and the density of existing vegetation or other obstructions. Providing adequate separation from roadways and other adjacent hazards may also dictate a wider corridor. Space for directional signs, trailside benches, and other amenities should also be taken into account.

A minimum corridor width of 25 feet is recommended in order to account for the variables listed above, and a corridor width of at least 40 feet is recommended whenever possible. This corridor can be an easement or right-of-way, but the entire corridor width must be available for trail purposes.

Primary trails should be designed to minimize crossings with streets, driveways, and other hazards. Grade separated crossings are recommended whenever possible, and on-grade crossings should be clearly marked with caution signs for motorists and crosswalks on the street that is to be crossed, and stop signs on the trail where it crosses a street. Locating on-grade crossings at intersections, especially signalized ones, is preferred to mid-block crossings unless a pedestrian signal or other accommodations can be made.

### Secondary Trails

Secondary trails are ones that connect from residences, schools, and other locations to the primary trail. The width and surface of these can vary according to the

expected type and amount of traffic. At a minimum, these trails should meet the requirements of the Americans with Disabilities Act. In some cases, secondary trails will need to meet the same standards for width and surface as the primary trail to which they connect. All new developments should be required to provide adequate secondary trails across their property to connect to any primary trails within ¼ mile of any given point within the development. In most cases this can be accomplished on sidewalks or similar paths, although in high-use locations a wider multi-use trail with a configuration similar to the Primary Trails described above may be required.

### Primitive Trails

Primitive trails should also be a part of the recreational trail system. These are appropriate within open space lands or other situations where traffic is low or the goal is to provide a more natural experience. The cross-section for this type of trail is shown in [Figure 6 - Primitive Trail](#). It consists of native soil or crusher fines, with improvements made for trail stabilization and erosion control. This can include water bars, culverts, steps, or other elements.



**Figure 6: Primitive Trail**

While not required in all cases, at least some primitive trails should be designed with slopes and surfacing to allow for use by wheelchair occupants who desire and are able to handle a challenge that is beyond the standards of ADA, yet not beyond the capabilities of an athletic wheelchair operator. Like the rest of the population, people with disabilities differ in their stamina and capability to tackle challenging routes. For this reason, consideration should be given to creating a rating system for primitive trails that would be similar to that used for ski slopes, which would rate the degree of difficulty for various trail

segments. This would allow all people, disabled or otherwise, to determine if a particular primitive trail route is suitable for them.

### Trailheads

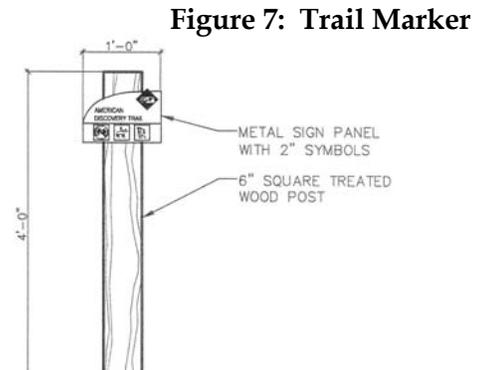
Trailheads should occur where roads intersect primary trails and a suitable pull-out or curb cut can be attained, especially in rural areas. Safe entry and exit for cars is a primary concern. Some trailheads may consist of little more than a safe parking space or two, with appropriate signage. In some locations greater use may be expected, and additional improvements such as trash bins and toilets may be necessary. Portable toilets in a permanent enclosure work well in this situation. Permanent structures of any type should be of a character and quality that fits with the overall character of Evans' parks system and will meet the maintenance requirements of the City.

## Signage

Signage serves a variety of functions for the trail system, and a variety of signs are needed to address these functions. Suggested configurations for these signs are shown in Figures 7 through 11.

- **Trail Marker Signs**

Trail marker signs are needed to identify trails as part of the overall Evans Trail System. These signs should provide the City's logo along with the name of the trail segment along which they are placed. These signs should be located at all trail intersections and at regular intervals of every ½ mile along the trail.



- **Trailhead Signs**

Trailheads should be identified with signs visible from the adjacent road. Such signs should be tall enough to stand above mature native grasses in natural areas. They should include the trailhead name and City logo. If other

entities are involved as partners in the provision of a trail or trailhead, their logo should be included on the trailhead sign.

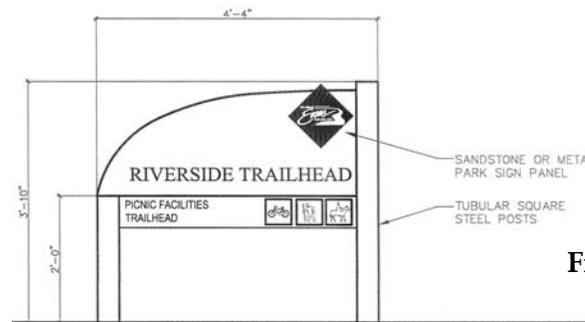


Figure 8: Trailhead Sign

- **Information Kiosks / Regulatory Signs**

Information kiosks may be used to accommodate maps, seasonal information, rules and regulations, or other information. Kiosks should have a shadow-box design and protective covering for printed materials. Pamphlet boxes for trails maps or other handouts may also be included.

- **Open Space Boundary Signs**

In addition to trail signage, boundary signs are needed to identify lands belonging to the Open Space System. Information on the sign

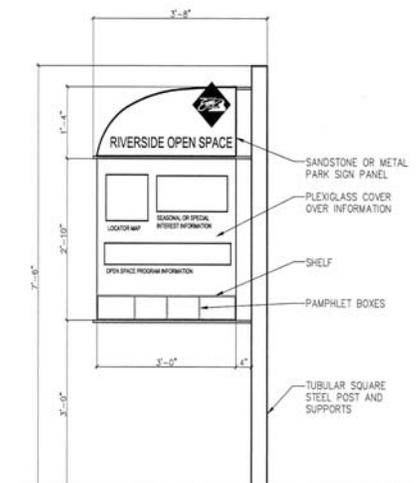
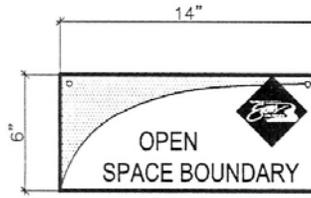


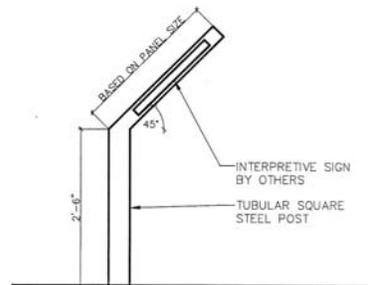
Figure 9: Regulatory Sign

should include a statement indicating that the property belongs to the public and is part of the open space system. In some cases, land may be part of the system but not open to the public. For example, protected conservation lands, agricultural lands, wildlife preserves, easements, or space yet under closed to the public may be protected as open private ownership or such cases, the boundary sign for some other reason. In these cases, the boundary sign should identify the land as part of the open space system and state the land's status. Reference should be made on the sign to the ordinance or statute that prevents public access.



**Figure 10: Open Space Boundary Sign**

▪ **Interpretive Signs**



**Figure 11: Interpretive Sign**

Signs will be needed to inform and educate the public about the natural and cultural history of the region and specific features along the trail. These signs need to be suitable for more detailed graphics such as photographs and illustrations, but also need to fit the design character and theme of the rest of the system signs.

***PROTECT AND RESTORE EXISTING FEATURES***

The City of Evans has a wonderful opportunity to develop a significant trail network encompassing the City, linking citizens to each other and the natural world around them. Utilizing the remarkable natural pathways of the South Platte and Colorado Big Thompson Rivers, the Ashcroft Draw, and interesting terrain features, coupled with the man-made opportunities provided by the Evans Town Ditch and subsidiaries, the future trail system could weave nature throughout the City. It is vitally important to plan to protect the habitats through which the trail may proceed.

Recommendations

**A. Inventory and monitor resources so that trail planning is based on actual field conditions.**

In general, we recommend inventory and monitoring efforts to ascertain existing and future conditions, and engagement of knowledgeable people and agencies in resource analysis and decision making. Be conservative and cautious in planning trails proximal to wildlife habitat and recognize that the impacts of human use on wildlife differ between individuals and species.

Use vegetative screening to reduce the visual impact of trails on both humans and wildlife. Restore areas to more natural or native conditions as you construct trails, giving special attention to native plant species that can accommodate heavier human use and high nitrogen contents.

*Resources:*

Colorado State Parks has written an excellent guide to accomplish sound trail planning – Planning Trails with Wildlife in Mind, a Handbook for Trail Planners. The guide provides excellent recommendations, many of which complement the general strategies mentioned in the natural resource section of this study.

**B. Ensure that trail routing avoids the most valuable habitat and in general, protects wildlife habitat and plant cover as much as possible.**

Know your resources so trails can be routed around, rather than through, the highest value habitats. Avoid putting trails near critical wetland or breeding habitat, and consciously choose to route trails away from such areas. Allow trails to touch riparian habitats briefly rather than to continuously intrude into them.

**C. Practice a knowledge-based, minimal disturbance trail building protocol to avoid disturbing native vegetation and creating an environment for noxious weeds.**

Unless the area is already heavily disturbed and full of invasive plants, disturb as little vegetation as possible in construction activities. Bare soil creates a haven for non-native, invasive plant species. Protect and preserve native trees, shrubs, forbs and grasses as it is far easier to maintain these through management than to attempt to restore them. Know and observe critical distances to protect nesting areas, particularly of birds of prey.

**D. Protect and restore existing features affected by trail construction, and improve degraded areas along the trail corridor as part of implementing the trail system.**

All construction associated with trails should be sensitive to the natural resources and other features that make use of the trail an enjoyable experience. This includes protecting and restoring the landscape as well as historic and cultural features.

Screening should be used to reduce the visual impacts of trails in natural areas. When disturbance of natural areas during construction of the trail is unavoidable, this can be used as an opportunity to enhance or improve upon the existing condition in the restoration of the area.

## C. MANAGEMENT ISSUES FOR OPEN SPACE AND TRAILS

### *Summary of Recommendations*

#### *Weed Management and Integrated Pest Management*

- A. Utilize an Integrated Pest Management (IPM) approach to weed management.
- B. Identify and understand the location and characteristics of both non-native invasive plants and native plants. A survey for Purple Loosestrife should be conducted in the wetland areas of the study area as soon as possible.
- C. Develop management strategies to reduce or eliminate non-native invasive species and to support and enhance native species.
- D. Engage in long term monitoring and holistic, adaptive management to protect and restore sustainable plant communities.

#### *Wildlife Management and Habitat Maintenance*

- A. Identify and map wetland habitats
- B. Preserve riparian corridors so wildlife and human populations can effectively meet their current and future needs.
- C. Design trails, based upon resource inventory and monitoring knowledge, to avoid specific areas that may be critically important to some species.
- D. Avoid placing human activities and trails in confluence areas where streams or rivers join, as these are often very important habitat areas.
- E. Protect riparian corridors
  - HIGH PRIORITY - Plan extensive restoration in the Ashcroft Draw area below the reservoir
  - Minimize grazing.
  - Plant low native shrubs alongside the existing bike-path in Riverside Park
- F. Use purchase, conservation easements, and zoning to reduce or eliminate encroachments. Protect the remaining prairie habitat within the study area, where possible.
- G. Use interpretive signing along trails to enhance the exposure of the natural history of the area to add to the human enjoyment and understanding of wildlife and habitat and enhance volunteerism and citizen based management strategies.

### ***Low Impact Recreational Use***

- A. The integration of intensive and low impact recreation activities should occur by educating and connecting the citizens with the resource.
- B. Plant low-growing native shrubs alongside paths, primarily aimed at helping connect and shield wildlife utilizing the river corridor.
- C. Use signage on bikeways to instruct citizens of the various benefits of use and limiting the impact of disturbing wildlife.
- D. Dog owners should be encouraged to train and manage pets to minimize negative impacts of their exposure to other humans and wildlife.
- E. Use volunteers and citizen peer pressure whenever possible to accomplish management goals.
- F. Fishing management should occur to minimize the impacts of trash and shoreline erosion by anglers.

### ***Inventory and Monitoring Systems***

- A. Managers should initiate a program to identify, assess, and acquire potential natural resource lands in the planning area.
- B. Management plans should be developed to assess the results of management strategies and human-caused changes and monitor programs in the future.
- C. Adaptive management practices should be adopted to provide a continuous loop of knowledge-based input.

### ***Trail Management and Maintenance***

- A. Develop and implement interpretive and maintenance practices which enhance trail experience and safety for the visitor and preserve the trailside environment in the long term.

### *Staffing and Management*

- A. Provide focus and training for current employees in natural resource management, and provide information about resources available
- B. Structure recruitment efforts to encourage and select employees who possess, or have the willingness to learn, skills in natural resource management techniques.
- C. Involve the Public Works, Fire and Police Departments in training for them to gain an understanding of natural resource management and how their routines and responses to law enforcement issues can either help or hurt the environment. Employees of these departments can serve as another set of eyes on the watch for harmful actions.
- D. Develop an environmental education program internal to the Parks and Recreation Department.
- E. Provide training, as necessary, for the Parks and Recreation Advisory Commission relative to their advisory role in natural resource management.
- F. Become active participants in the Colorado Open Space Alliance.

### *Discussion*

#### **WEED MANAGEMENT AND INTEGRATED PEST MANAGEMENT**

The City of Evans developed adjacent to a remarkable native riparian corridor and has a rich history of agricultural use. Both of these facts influence the current status of vegetative cover in the study area. Intensive agricultural practices and the introduction of non-native species have facilitated the development of a strong component of invasive plant species which must be identified, mapped, controlled and monitored. At the same time, native species must be identified and mapped to ensure protection of the native ecotypes still in existence in this area. Preliminary observations by the study team indicate that most native species may be found in prairie dog habitat, hills and gullies, and along the riparian corridors and ditches, as these areas have been least disturbed by agriculture and development.

#### Recommendations

##### **A. Utilize an Integrated Pest Management (IPM) approach to weed management.**

A good IPM system recognizes the threat posed to ecosystems by uncontrolled invasive weeds and also respects the impacts of chemical control on both natural and human systems by applying a tiered approach to weed control. The first, intermediate, and final steps in any IPM system must be knowledge of the plants and the ecosystem in which they exist. We recommend a thorough inventory of plant species, perhaps conducted by local botanists, with accurate mapping of results

so that control measures can be applied and results monitored over time. Through the identification of existing plant species, priorities may also be established so the City is controlling the most damaging species of invasive plants.

**Resources:**

The Colorado Natural Areas Program publishes an excellent guide to IPM: Creating an Integrated Weed Management Plan: A Handbook for Owners and Managers of Lands with Natural Values. In this guide, the authors emphasize the need for identifying both plants and other resources on the management area, as well as the importance of mapping, setting priorities, and monitoring results of management actions. Various weed management techniques are also discussed. As an agricultural community, Evans has many resources to control weeds, including range equipment (mowers, seeders, tillers) and livestock. In brief, an adaptive weed management strategy is recommended, which includes the following:

1. Establish and record management goals and weed management objectives
2. Identify weed species which block the completion of these goals, and assign priorities to these species based on the severity of their impact and the difficulty of their control.
3. Consider methods for controlling high priority species and infestations, or otherwise reducing their impact. If necessary, reprioritize based on likely impacts of control actions on target and non-target species, ecosystem functions and agricultural productivity.
4. Develop and implement weed control plans based on this information.
5. Monitor the results of management actions and evaluate the results in light of the management goals for the property.
6. Modify and improve control priorities, methods and plans according to the information gained through monitoring, and start the cycle again.

(From the Handbook)

**B. Identify and understand the location and characteristics of both non-native invasive plants and native plants. A survey for Purple Loosestrife should be conducted in the wetland areas of the study area.**

Native species as well as invasive species must be identified to avoid natural diversity loss through management actions aimed at eliminating or controlling invasive plants. The primary component of a successful invasive weed management program is to employ or work with knowledgeable botanists who are capable of identifying the species and the life cycles of the plants. The City of Evans may wish to develop the Geographic Information System (GIS) capacity to assist in mapping plant populations. This is a highly effective method of tracking populations, treatments, and changes over time.

**Resources:**

The Natural Resource Conservation Service is an excellent source of expertise to assist in identification and management strategies. The Colorado Native Plant Society may also be a source of assistance, particularly in identifying rare plants.

**C. Develop management strategies to reduce or eliminate non-native invasive species and to support and enhance native species.**

As control of non-native invasive species is implemented, knowledge of the site will guide restoration plans. In some cases, control of non-natives, carefully timed to limit the impact to natives, will allow the native species to re-establish themselves naturally. Natives are often classified into cool season and warm season grasses. Management action must be timed appropriately to either enhance or harm these species according to the season of their growth and seed-set. Native seed is also far more available than in past years, and careful selection, planting, maintenance, and monitoring is a viable way to re-establish native plant communities.

**Grazing:** Timed grazing systems, reduction in animal units of grazing, and in some cases, changes in the grazer species, have all been shown to be effective in re-establishing and managing native species. Livestock grazing may be an important tool in restoration, as timed intensive grazing may weaken or eliminate non-natives. The subsequent removal of grazing from the site must be carefully timed and implemented to allow the native species to grow undisturbed. Cooperative partnerships with interested agricultural operators may facilitate the use of livestock to assist in resource management goals.

**Prescribed Fire:** The use of prescribed fire may also be a helpful tool in restoration, again implemented only with careful timing based on identification and knowledge of the specific plants and their responses to fire.

**D. Engage in long term monitoring and holistic, adaptive management to protect and restore sustainable plant communities.**

***Resources:***

New methods of re-establishing native prairie communities are being developed by multiple agencies, including the Nature Conservancy (Glacial Ridge Restoration project in Minnesota) and the U.S. Fish and Wildlife Services (Detroit Lakes, Minnesota).

## ***WILDLIFE MANAGEMENT AND HABITAT MAINTENANCE***

The City of Evans is blessed with a relatively intact and resilient ecosystem in the riparian corridors of the South Platte and Colorado Big Thompson River systems as well as the riparian habitat found in Ashcroft Draw and other topographic swales. These areas are clearly the most important habitat types to protect to ensure both the future quality of wildlife habitat and the opportunity for nature-based recreational opportunities for the citizens of Evans. As recommended elsewhere in this study, inventory and monitoring efforts are critical to assess and enhance the habitat qualities and the presence of significant native plants and animals.

### **Recommendations**

#### **A. Identify and map wetland habitats**

Of particular importance in the Evans area, is the identification and mapping of wetland habitats so that this important resource appears in analyses of both preservation and development potential.

#### **B. Preserve riparian corridors so wildlife and human populations can effectively meet their current and future needs.**

The function of these riparian corridors is multi-faceted. It is estimated that 80 - 90% of Colorado's native wildlife is dependant on riparian corridors at some point in their life cycle, so by preserving riparian corridors, managers will make a significant difference in the future populations of multiple species. Not only do these riparian corridors provide important habitat for many species, they also function as a conduit or connecting corridor so that wildlife may move more effectively through human dominated landscapes. This is critical to ensure the ability of species to move seasonally to obtain habitat needs, and to ensure mixing of genetic characteristics so that future populations are not inbred and isolated.

Riparian corridors also attract human activities, and indeed, the founding of Evans as a human population center is largely based on the proximity to the rivers. Human activities may certainly be accommodated while protecting riparian corridors, but resource knowledge and planning should be incorporated into decision making so that habitat values are not diminished significantly. Most wildlife species feel threatened by human activities, and those that co-exist well with humans may not be the wild neighbors we wish to promote (raccoons, starlings, rats). With care, human activities can be promoted in riparian corridors with minimal impact on native wildlife species.

#### **C. Design trails, based upon resource inventory and monitoring knowledge, to avoid specific areas that may be critically important to some species.**

There is often a desire to place roads and trails alongside riparian corridors. Humans are as attracted to waterways as are other species, and trails can be designed to touch significant viewpoints along the riparian habitat to satisfy this need. It is not wise to design trails that continuously follow or intrude into the riparian habitat, as this incursion tends to replace wildlife activity with human activity. In some cases, legal criteria for protection of species will be important to understand. If planning for trail projects precedes specific resource knowledge, it is vital to proceed conservatively, i.e. provide sufficient buffer distance from potential habitat to protect values. If it is necessary to more closely follow the stream corridor in some areas, select areas that are of lower habitat quality. Wherever trail construction is implemented, enhance the area through restoration of native plants.

#### **D. Avoid placing human activities and trails in confluence areas where streams or rivers join, as these are often very important habitat areas.**

The confluence of the South Platte and the Colorado Big Thompson River systems is an area of particular habitat quality and should be protected to the highest degree. Wetlands contiguous to woodland riparian in this area support many species, including the Red-headed Woodpecker.

#### **E. Protect riparian corridors**

**HIGH PRIORITY - Plan extensive restoration in the Ashcroft Draw area below the reservoir,** as this area is massively eroded and undermined by a recent flood event. Care must be taken to reduce impact as much as possible on the gallery cottonwood forest lining this draw, as this feature is the core of the habitat and connectivity qualities in this area.

**Minimize grazing.** Continuous grazing in a riparian corridor can have significant negative impacts on native trees and shrubs, thereby impacting habitat quality. Limit grazing to locations and times where this activity can help to restore streamside habitat quality.

**Plant low native shrubs alongside the existing bike-path in Riverside Park** to help shield and support wildlife without reducing the views of the river. Shrubs with high wildlife attributes and drought resistance will add value and are visually attractive.

**Use purchase, conservation easements, and zoning to reduce or eliminate encroachments.** There are several areas along the South Platte where junkyards and other commercial uses have encroached on the riparian habitat. These are unsightly, may create pollution hazards downstream, and negatively impact both habitat quality and the wildlife connectivity provided by the rivers.

#### **F. Protect the remaining prairie habitat within the study area.**

These areas support multiple native species, including prairie dogs, foxes, coyotes, and multiple species of amphibians, reptiles, and birds. Perhaps most charismatic of these species are the birds of prey, many of which are heavily dependent on prairie dog habitat, particularly as a critical winter food source. These species include burrowing owls, redtail hawks, golden eagle, bald eagle, rough-legged hawk, and ferruginous hawk. Peregrine and prairie falcons would also hunt these prairie habitats. While management of prairie dogs can be problematic, their towns support multiple other species of wildlife and are always important wildlife centers.

**Be aware of the occurrence of prairie dogs and take steps to minimize the negative impact of the prairie dogs wherever possible. Monitor these lands, and apply prairie dog management strategies as needed to retain prairie dogs but limit their expansion into adjoining agricultural and residential areas, as well as remove prairie dogs as necessary.** When considering prairie dog management options, it is most ecologically responsible to select the most target-specific, humane, and “non-lethal to other species” control methods available. Controlling prairie dogs in a buffer zone surrounding a town can effectively limit the spread of prairie dogs to

adjacent lands. Relocation by qualified individuals can also limit expansion of prairie dog towns, and other new methods of control and containment are constantly being developed.

***Resources:***

The Colorado Division of Wildlife is working on developing a state wide prairie dog management plan, in recognition of the federal “threatened but precluded” status of the species and the tremendous importance of their habitat for other species of wildlife. In the Evans area, native prairie plants appear to be most prevalent in or near prairie dog habitat, as these areas have been less disturbed by agricultural practices. Appropriate management of grazing livestock may also diminish the spread of prairie dogs.

**G. Use interpretive signing along trails to enhance the exposure of the natural history of the area to add to the human enjoyment and understanding of wildlife and habitat and enhance volunteerism and citizen based management strategies.**

There are many excellent areas for nature trails that can highlight the natural resources and human history of Evans. Local nature and history groups can contribute significantly to both the design and installation of interpretive trails, and can partner with agencies to help with funding or grant acquisition. Given the rich agricultural history of the area, the City may wish to consider the development of a living museum to celebrate both agricultural and natural resource management and attributes. There is a remarkable farmstead and large historical barn south of Two Rivers Parkway that would serve beautifully in this function.

## ***LOW IMPACT RECREATIONAL USE***

The development of an open space and park system threaded into a community is both exciting and challenging. Human uses may easily overwhelm natural systems through sheer numbers, inappropriate activities, and poor planning. In many cases, insufficient knowledge and appreciation of the environment plays a leading role in the diminishment of natural values.

Natural resource areas can provide a valuable retreat from the mechanical nature of our civilized world, and thereby contribute significantly to the mental and physical wellbeing of citizens. Opportunities for enjoyment and recreation should abound in natural areas, but may be of a different nature than activities enjoyed elsewhere. In many situations, intensive recreational activities like sports and games can exist in fairly close proximity to more nature-oriented activities. The key is to provide appropriate physical guides and instruction on where different activities may occur.

Recommendations

**A. The integration of intensive and low impact recreation activities should occur by educating and connecting the citizens with the resource.**

The addition of interpretive signs will engage Evan’s citizens in both the history and the current importance of the river to both humans and wildlife. These interpretive signs can also stress the value of native wildlife and vegetation in maintaining biological diversity and stability. Promoting and enhancing native species, when established, can also significantly reduce management and maintenance costs. Techniques learned here can be applied to the development of the Evans Town Ditch as a community and natural resource asset.

**B. Plant low-growing native shrubs alongside paths, primarily aimed at helping connect and shield wildlife utilizing the river corridor.**

The bike-path through Riverside Park provides access to high intensity sports fields, serves as a commuter link, and can offer citizens an alluring glimpse into the wildlife of the South Platte River. Its function as a multi-faceted trail can be enhanced through planting of shrubs alongside the path to protect wildlife.

**C. Use signage on bikeways to instruct citizens of the various benefits of use and limiting the impact of disturbing wildlife.**

Bikeways are increasingly popular and they also serve as excellent walking and running paths for fitness oriented citizens. Horseback riders will often take advantage of bikeways if they have adjacent earthen paths. In addition, they are perfect for mothers with strollers and elderly and disabled citizens. The vast discrepancy in speed between these different users can often lead to conflict and hazardous conditions.

***Resources:***

The use of NORBA guidelines to educate bicyclists and a system of “yield” signs can assist users in recognizing and respecting the various recreational pursuits that may occur on a single bikeway.

**D. Dog owners should be encouraged to train and manage pets to minimize negative impacts of their exposure to other humans and wildlife.**

Dog management is another necessary tool to ensure good relationships between different kinds of human recreational users and also between humans and wildlife. While most urban areas require dogs to be controlled by a hand held leash or within a fenced area on private property, some jurisdictions allow dogs to be off leash when under voice and sight control.

***Resources:***

The City of Rockville, MD, allows dogs off leash within City limits after passing either a City test or achieving an American Kennel Club (AKC) Companion Dog Title. The City of Boulder allows dogs to be off leash in certain areas if their owners have trained them to meet the legal criteria for voice and sight control. Both of these systems are based on the principle of rewarding dog owners for taking the extra responsibility to provide the more advanced training regime required to safely allow a dog to be off leash.

**E. Use volunteers and citizen peer pressure whenever possible to accomplish management goals.**

In many cases, a system that rewards good behavior and extra effort is a very positive public relations tool, and can balance the negative aspects of strict enforcement of leash laws. Citizen peer pressure can become a powerful ally of knowledgeable law enforcement effort, which is always necessary to keep the system on track. In order to ensure the protection of wildlife and wildlife habitat, dogs must never be permitted to run at large or to harass and kill wildlife.

Regardless of whether a voice and sight control program is desired or needed, attention to the dog owning citizens is recommended. Fenced dog parks are very popular and can be incorporated into unused corners of City parks. It is important to understand that dog owners are as much a user group as any other, and that social events built around the family dog are extremely popular and a great way to build community. The City of Evans already provides dog swimming days in City pools as the season closes, and may wish to consider offering dog training or Canine Good Citizen events as well. Dog owners may constitute 30-50% of the population and therefore are a large constituency.

**F. Fishing management should occur to minimize the impacts of trash and shoreline erosion by anglers.**

Fishing is another type of recreational use which is extremely popular, and which can be either low impact or extremely damaging. Signs and enforcement to encourage good fishing etiquette will decrease the trash, including very dangerous fishing line. In heavily fished areas, routing and delineation of trails to protect bank integrity and the use of fishing piers will add to the quality of experience for fishers and other users. It is important to leave some portions of the lake or body of water without human access so that wildlife can escape from human presence.

## ***INVENTORY AND MONITORING SYSTEMS***

**A. Managers should initiate a program to identify, assess, and acquire potential natural resource lands in the planning area.**

At this time, the City of Evans has a unique opportunity to identify, acquire and protect valuable recreational and natural resource lands, thereby maximizing the quality of life for current and future residents. A critical component of successful planning and management of landscapes is to know the resource; what it contains, what it could contain, how to minimize negative characteristics, and how to stabilize positive aspects over time.

Considering the current threats of invasive plants and an increasing human population, both of which will compromise natural resource values if left

unmanaged, the time to begin an inventory and monitoring program is now. It is far easier and more effective to sustain natural resource values than to repair them.

**B. Management plans should be developed to assess the results of management strategies and human-caused changes and monitor programs in the future.**

Many agencies have developed fine systems for the inventory and monitoring of native species. The first step should always be to assess the ecosystem holistically, and an excellent method of obtaining an overall view of a site is to utilize the new Natural Resource Conservation Service (NRCS) Ecological Site Index System. These site indices are based on soil surveys, knowledge of expected plant species in similar but undisturbed sites, and information gleaned from historical and current assessments. This type of general inventory will identify major ecological types, including wetlands, riparian woodlands, prairie, and potential connecting habitats. It is also important to interview local residents, who may be able to provide important information on past uses, boundary issues, historical artifacts or buildings, and currently occurring wildlife species.

***Resources:***

Members of volunteer groups, particularly groups like the Audubon Society, the Sierra Club, and the Nature Conservancy, may possess valuable current and historical information about both plants and animals.

There are numerous sources of information (Colorado Division of Wildlife, Colorado Natural Heritage Program, Colorado Natural Areas Program), which can guide the development of both inventory and monitoring programs. The necessary mechanism for success is to have knowledgeable plant and animal specialists who have the expertise to identify both positive and negative components of the landscape. Field identification of plants and animals, as well as formulating predictions of the responses of natural systems to human-caused changes, must be accomplished. These people can be found in local volunteer organizations, in other municipal, state, and federal agencies, and in the consulting field.

**C. Adaptive management practices should be adopted to provide a continuous loop of knowledge-based input.**

Once the initial inventory is complete, it is just as important to develop management plans and monitor ongoing conditions, particularly if human development or management strategies are expected to change these conditions. Adaptive management – management that is adjusted over time to changing conditions – depends on specific and intimate knowledge of the resource base.

***Resources:***

Geographic Information Systems, photography, range analysis, bird counts, fecal surveys, and transects will all contribute to inventory and monitoring efforts.

## ***TRAIL MANAGEMENT AND MAINTENANCE***

### **A. Develop and implement interpretive and maintenance practices which enhance trail experience and safety for the visitor and preserve the trailside environment in the long term.**

Opportunities exist to improve the habitat and aesthetic qualities of existing trails. The bike-path trail in Riverside Park which runs along the Platte River could be enhanced with native shrub plantings to provide better connectivity and habitat for wildlife species. Carefully selected for their low growth and food characteristics, these shrubs would also beautify the trailside without diminishing the view of the river. Similarly, the shoreline of the pond at Riverside Park could be better protected from visitors and anglers if a more formal trail was constructed to provide only intermittent access to the pond. These access areas could be hardened to accommodate human use while other areas should be re-planted with willows, shrubs, and cattails to protect the shoreline. Additional effort at visitor contact and maintenance, as well as interpretive signing, will help protect all the qualities of this multi-dimensional recreational area.

In Evans, there is a wonderful opportunity to celebrate a tapestry of the City, the agricultural underpinnings, and the remarkable natural attributes of the site through extensive interpretive offerings. Nature and historical trails, brochures, sculptures, the writings of early pioneers, and other artwork could all be incorporated into a cohesive system of trailside educational opportunities. An interpretive facility could be developed which chronicles human and natural history, sustainable agricultural management practices and environmental education, all in a “living history” environment. The well-preserved barn near the south end of Two Rivers Parkway is perfectly located for such a facility. These additions would enhance the visitor experience and also build support and understanding for natural resource programs.

## ***STAFFING AND MANAGEMENT***

The City of Evans is in a transitional period as it considers and implements an Open Space and Trails Master Plan. Just as an expanded and more diverse program will offer new benefits to the citizens of Evans, there are new responsibilities of caring for and managing more natural landscapes than has been traditional in Evans. Evans, like most urban parks and recreation departments, has good to excellent skills in maintaining turf areas, intensively used recreational areas, and man-made facilities. The addition of new trails through natural areas and the natural areas themselves will require the Parks and Recreation Department to begin to build new skills in existing staff, establish new relationships with other City departments, and focus on attracting and hiring park professionals with diverse backgrounds.

While all the fields of natural resource management are constantly developing, one thing is agreed upon: it is far easier and less costly to prevent damage to the ecosystem

than to repair it later. Knowledge and intention are the prime ingredients in preventing damage.

Currently, the Parks and Recreation Department consists of a director, a parks/facilities superintendent, 2 park foreman positions, a city forester, and 3 park technicians. This staff is supplemented with 10-12 seasonal positions in the busy season. There are 2 additional park technician positions to be hired in early 2004. The job descriptions reflect the history of the department in caring for urban parks dominated by facilities, turf grasses and horticultural species.

We offer several recommendations to help prepare the City of Evans to manage and maintain “natural” or open space lands through building staffing levels and diversifying competencies. While some of these suggestions may require expanded funding levels, many of them are gradual changes in protocols, job descriptions, and training programs.

### Recommendations

#### **A. Provide focus and training for current employees in natural resource management, and provide information about resources available**

Work with current employees to advise them that “natural lands” management may become an added focus for the department and that training will be provided to help them meet any new job requirements. Involve employees in management plan implementation and encourage them to work with outside contractors and personnel from other agencies that have expertise in natural resource analysis and management. An equitable re-allocation of personnel duties will probably be required to ensure that current work is being accomplished while new skills and responsibilities are being learned. Consideration should be given to centering the overall responsibility in one position, with care to assure that all employees also retain some responsibility.

#### **B. Structure recruitment efforts to encourage and select employees who possess, or have the willingness to learn, skills in natural resource management techniques.**

As new positions are added to the Parks and Recreation Department, it is critical that job descriptions be re-written to encourage and select future employees who possess (or have the willingness to learn) new skills in natural resource management techniques. Given the geographical location of the City of Evans, skills in range management, ornithology, and wetland/riparian management should be particularly selected.

#### *Resources:*

Evans is very strategically located close to two major universities, the University of Northern Colorado (UNC) and Colorado State University (CSU). Both have strong programs in teaching and recreational management, and CSU has many programs in biological systems management. CSU is the hosting agency for the Colorado Heritage Program, which promotes sound resource management throughout the

state. Both universities also offer internship programs, and should have strong candidates with knowledge in all the skills that the City of Evans needs, including environmental education.

- C. Involve the Public Works, Fire and Police Departments in training for them to gain an understanding of natural resource management and how their routines and responses to law enforcement issues can either help or hurt the environment. Employees of these departments can serve as another set of eyes on the watch for harmful actions.**

**Public Works Department:** coaching the Department on the reason and need for minimal disturbance of stable vegetative systems will decrease the incidence of noxious weed infestation, not only on parks lands but throughout the City. Plant identification classes for equipment operators can be a tremendous assistance in natural resource management goals, especially noxious weed or native grass management.

**Fire Department:** This Department already assists in prescribed burns, and can be used more effectively to conduct burns that truly enhance native species if they have access to knowledgeable botanists or training to recognize and understand range management principles.

**Police Department:** This Department currently provides patrol and code enforcement officers, and should be involved in training to understand the biological and recreational aspects of natural lands management. Partnering with a non-commissioned parks employee who is competent in these issues will assist the Police Department to patrol effectively and respond appropriately to law enforcement issues in the parks. Requests to other jurisdictions with experience in natural resource management to assist in this transition may be very helpful. For instance, a police officer may be more likely to learn new techniques from a park ranger who is a fully commissioned peace officer in addition to being an interpreter.

- D. Develop an environmental education program internal to the Parks and Recreation Department.**

Both of the prior recommendations will be facilitated by the development of an environmental education program in the Parks and Recreation Department. This effort should initially be focused internally so that there is constituency building within the City of Evans staff. It is particularly important that this effort, which can be facilitated through other agencies, contractors, and local knowledgeable persons, precedes and prepares the City staff for the skill development needed for the new task of open space management. Preparing the staff first will reduce anxiety, increase the feeling of understanding and competence, and create opportunities for staff to help develop programs for the public.

- E. Provide training, as necessary, for the Parks and Recreation Advisory Commission relative to their advisory role in natural resource management.**

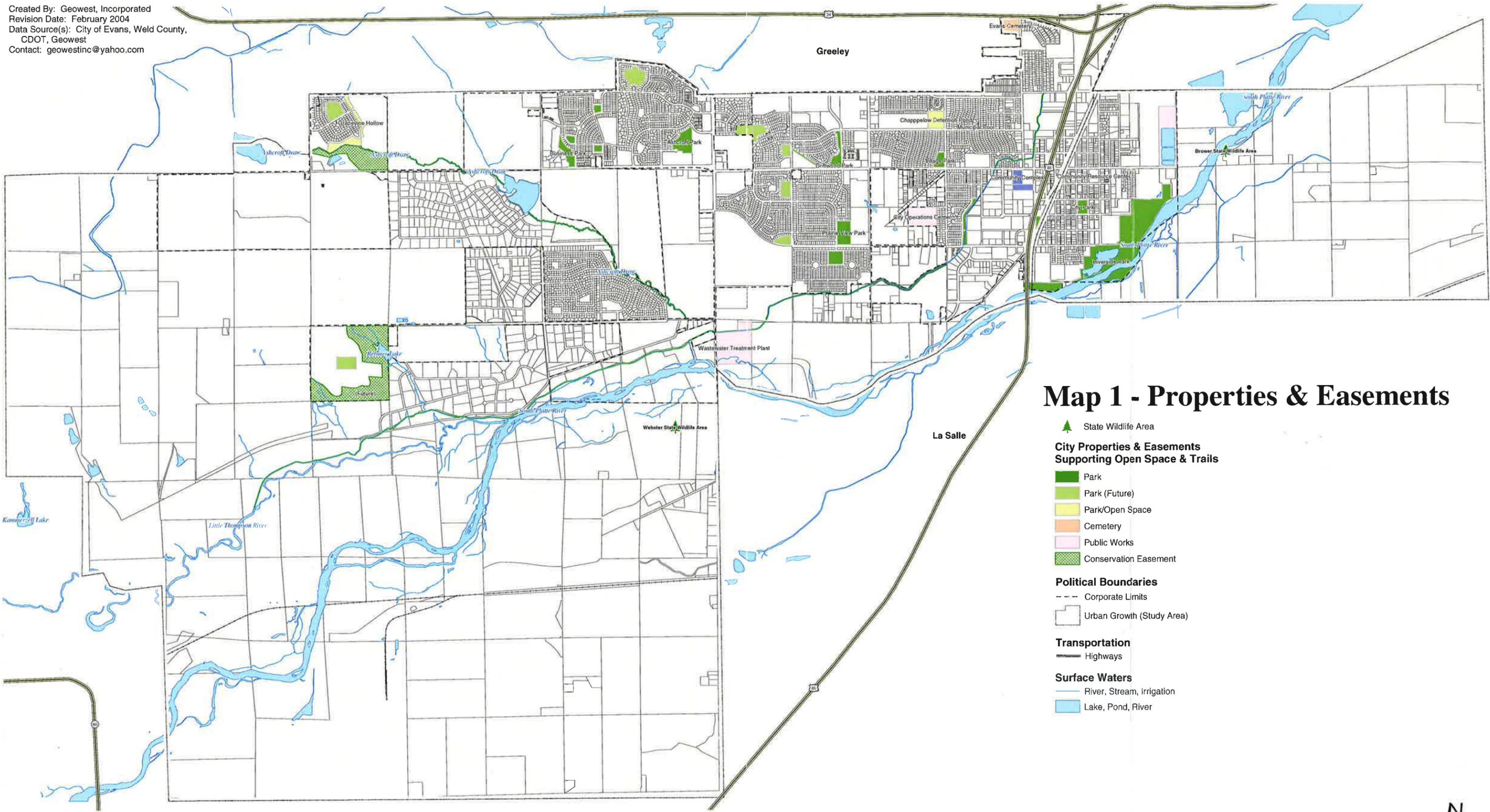
The Parks and Recreation Advisory Commission should be designated as advisory to City Council on the preservation, acquisition and management of open space and trails, along with their current advisory role dealing with acquisition, provision and management of active park and recreation resources. Training for this role, as necessary, should be provided.

- A common Board promotes balance for the community in the provision of natural lands and active recreation sites, while clearly distinguishing between the two through separate and distinct inventories of land types.
- Equal priority is given for both the natural land of the Open Space program and active recreation elements of the Parks and Recreation program.
- A commitment to distinct designations and plans for use of acquired lands must be made up front in the acquisitions process.

**F. Become active participants in the Colorado Open Space Alliance.**

Resources in the community or in surrounding localities should be accessed to help position the Parks and Recreation Department, and the City of Evans, more favorably in terms of natural resource management skills. Active participation in the Colorado Open Space Alliance (COSA), a networking group for professional managers of natural areas, will provide the staff with up to date information.

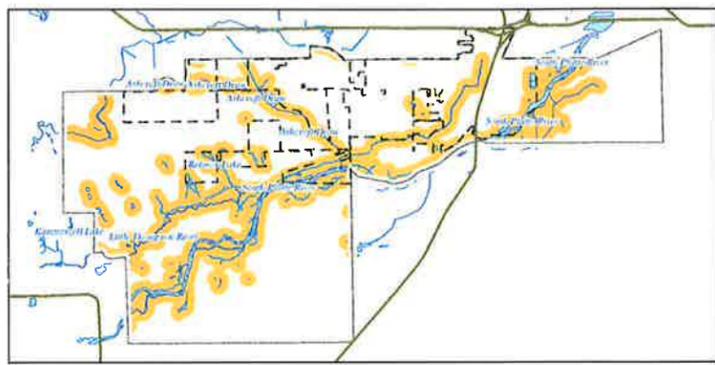
## APPENDIX A: MAPS



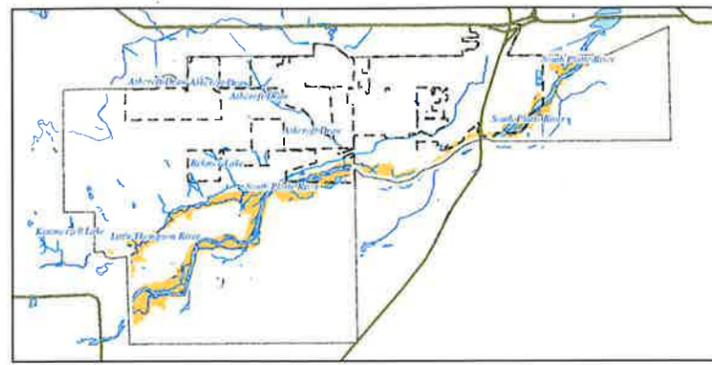
# Map 1 - Properties & Easements

- State Wildlife Area
- City Properties & Easements Supporting Open Space & Trails**
  - Park
  - Park (Future)
  - Park/Open Space
  - Cemetery
  - Public Works
  - Conservation Easement
- Political Boundaries**
  - Corporate Limits
  - Urban Growth (Study Area)
- Transportation**
  - Highways
- Surface Waters**
  - River, Stream, Irrigation
  - Lake, Pond, River

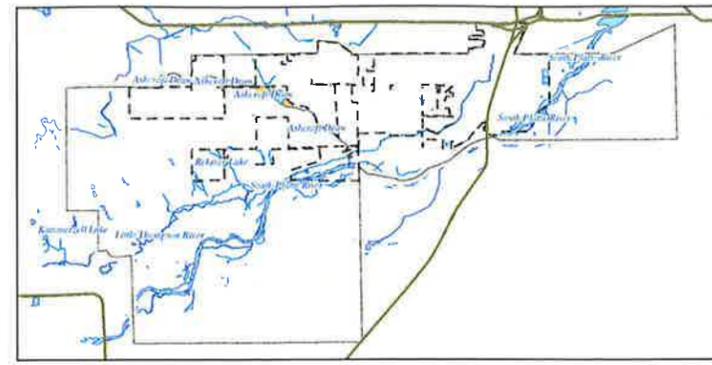




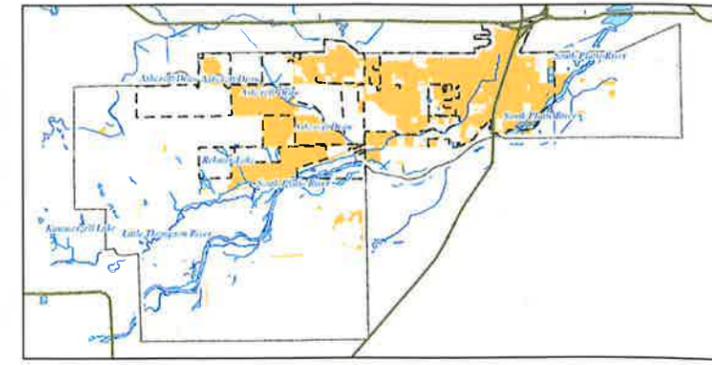
Surface Water - 1/8 Mile Buffer



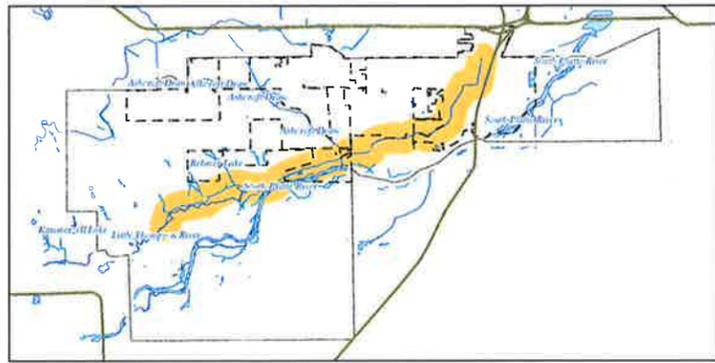
Riparian Influence Zone



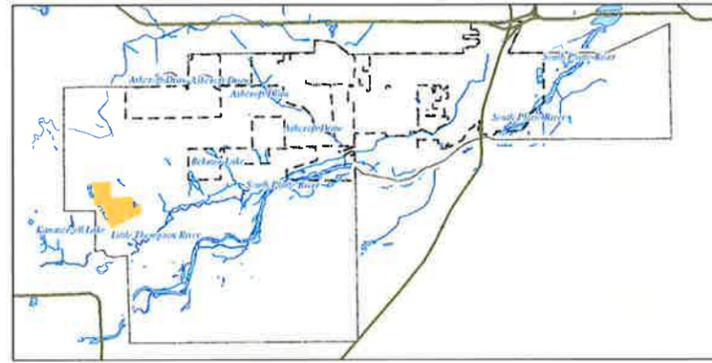
Flood Plain Study



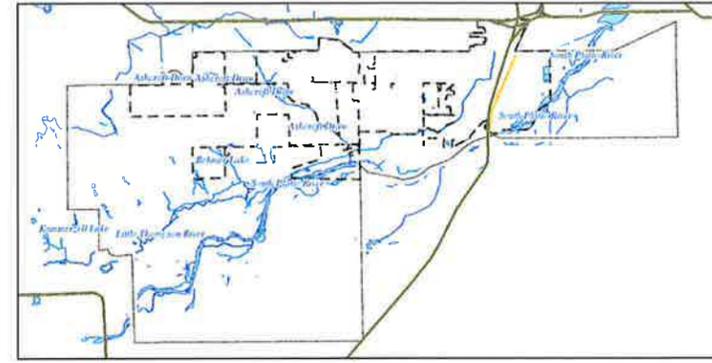
Developed Parcels



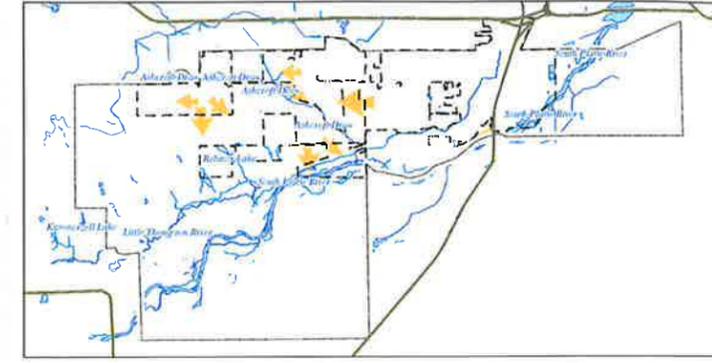
Evans Town Ditch - 1/4 Mile Buffer



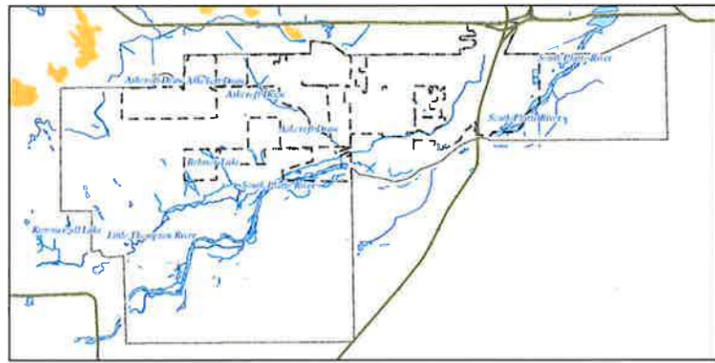
Waste Management Properties



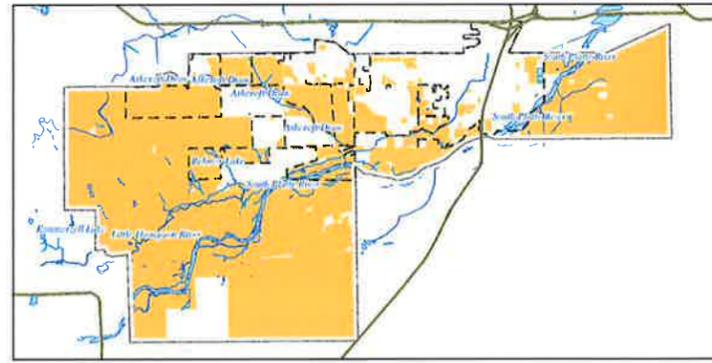
Railroad Corridors



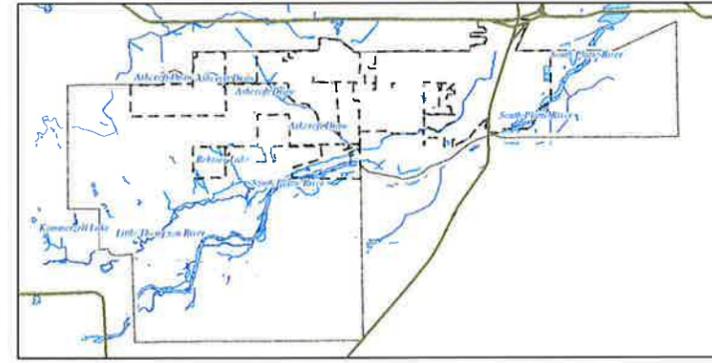
Views (Other Consideration)



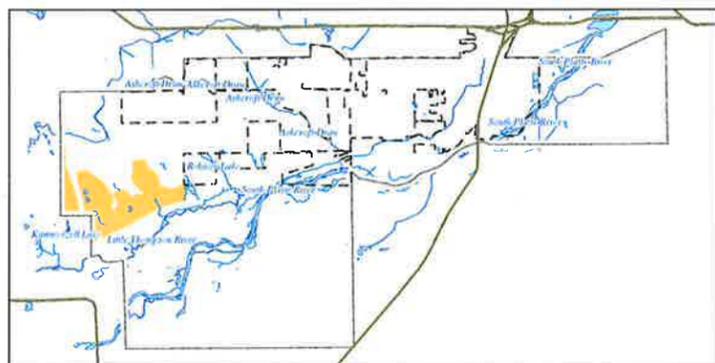
Vertical Relief



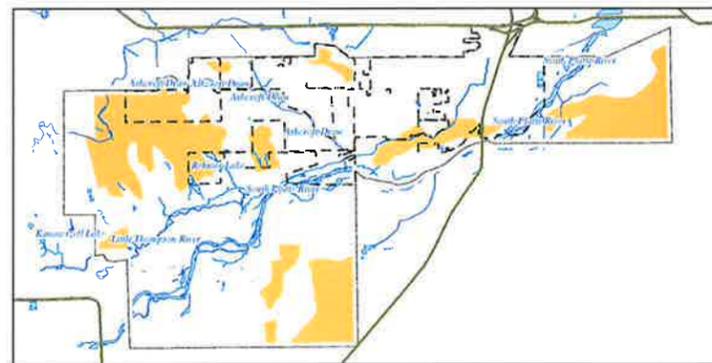
Vacant & Agricultural Lands



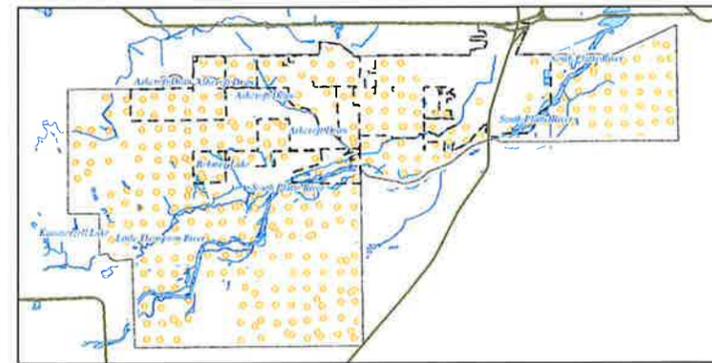
Wetland Locations



Bluffs



Agricultural Lands of National Importance



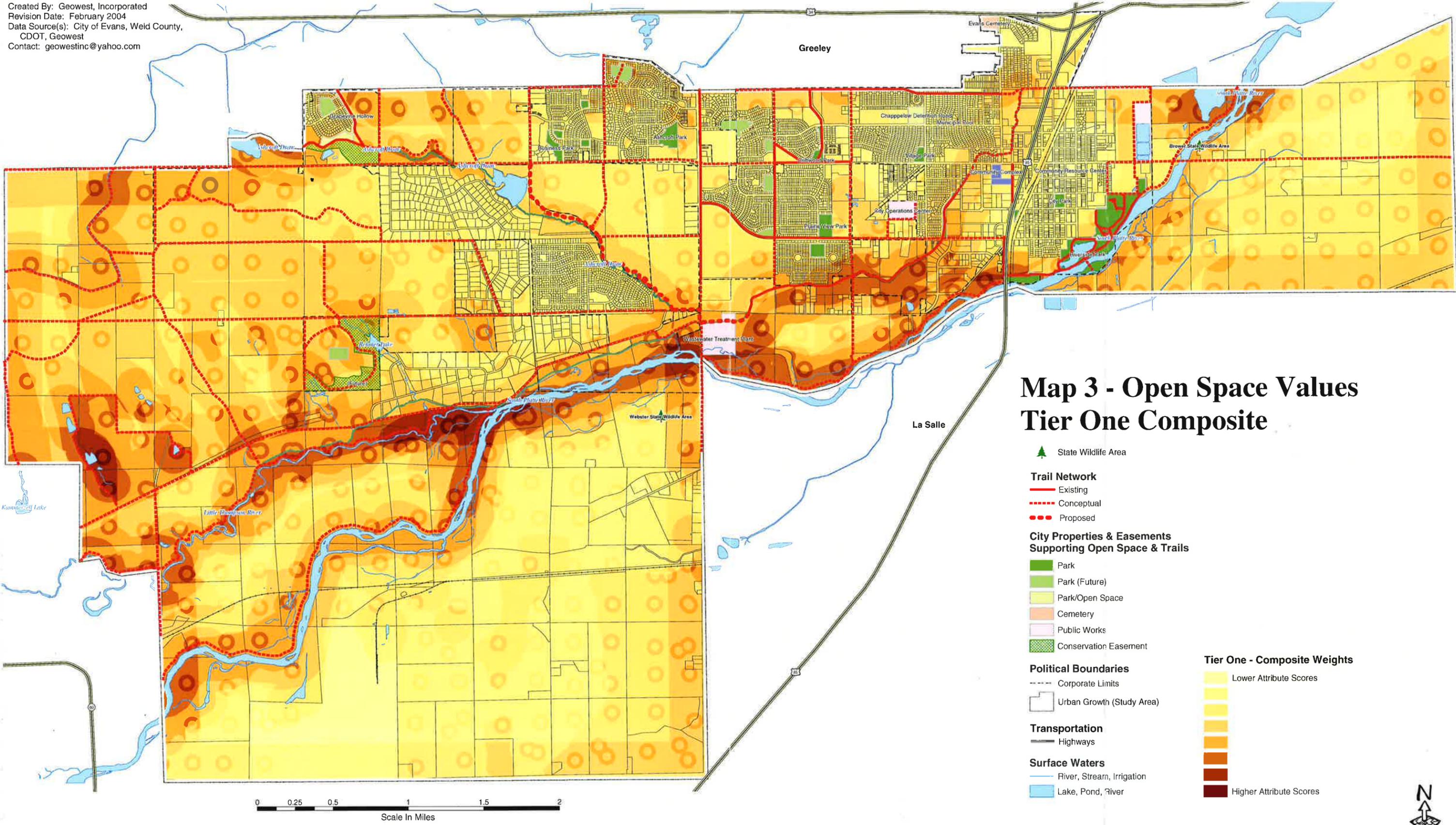
Oil & Gas Wells - 150'/300' Donut Buffer

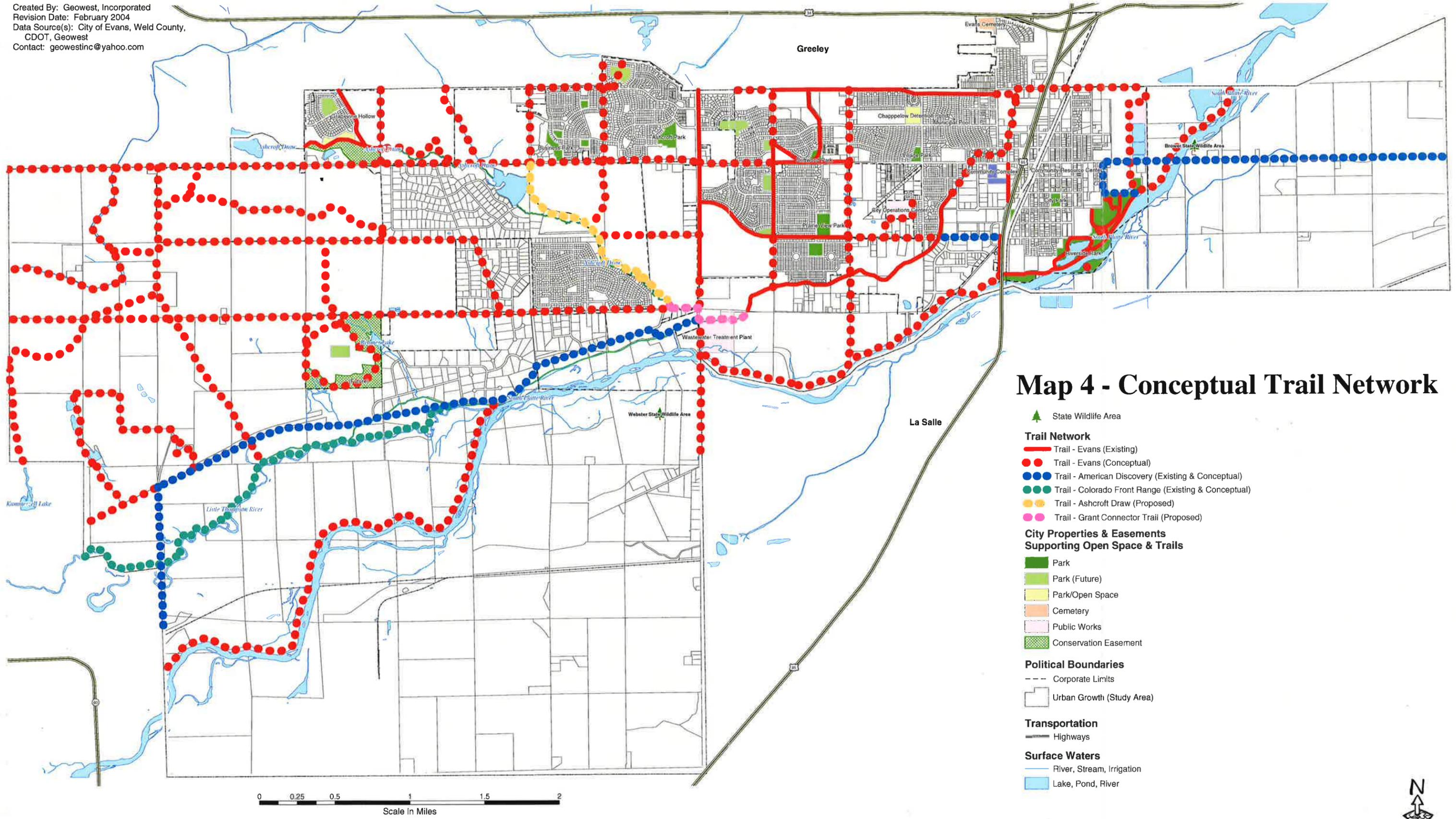
## Map 2 - Open Space Values Tier One Attributes

- Tier One Attribute & Analysis
- Political Boundaries**
- - - Corporate Limits
- Urban Growth (Study Area)
- Transportation**
- Highways
- Surface Waters**
- River, Stream, Irrigation
- Lake, Pond, River

Created By: Geowest, Incorporated  
 Revision Date: February 2004  
 Data Source(s): City of Evans, Weld County,  
 CDOT, Geowest  
 Contact: geowestinc@yahoo.com







## **APPENDIX B: TIER TWO EVALUATION**

**APPENDIX C: RESOURCES FOR NATURAL AREA MANAGEMENT**