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## 2.0 MANAGEMENT FRAMEWORK

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### 2.1 Introduction

Administration of the land and water areas within the study area requires a coordinated effort between several entities with varying degrees of management responsibility. Reclamation has an obligation to coordinate its planning activities with adjacent private and public landowners to ensure that authorized uses of its lands are compatible with adjacent land uses. The purpose of this chapter is to describe the management framework, the existing policies and responsibilities of the agencies involved.

### 2.2 Management Responsibilities

#### 2.2.1 Bureau of Reclamation

Reclamation maintains primary jurisdiction of the lands and associated resources within the study area and is responsible for the environmental resources; however, some of the resources, such as the fishery, are the responsibility of other entities, as explained later in this chapter. Reclamation administers all use authorizations for land and water areas at the four Larimer County reservoirs. In providing proper stewardship of public lands, Reclamation is responsible for implementing and enforcing all federal laws, regulations, and executive orders (E.O.) dealing with natural resources, such as the Endangered Species Act; National Historic Preservation Act; Fish and Wildlife Coordination Act; E.O.s 11644 and 11989, Off-Road Vehicles; E.O. 11889, Floodplains; E.O. 11990, Wetlands Protection; E.O. 12962, Recreational Fisheries; E.O. 13007, Sacred Sites; and E.O. 13186, Conservation of Migratory Birds. As such, Reclamation has ultimate responsibility for protecting and managing most of the resources within the study area.

Reclamation authorizes and manages concessions on its lands pursuant to Reclamation's manual and *Directives and Standards: Concessions Management by Non-federal Partners*. Reclamation and any managing partners will ensure that concessions are developed and managed to meet public needs, protect natural and heritage resources, provide stewardship of all lands and waters, and to provide a variety of goods and services to the public while being consistent with authorized project purposes.

#### 2.2.2 Larimer County

On June 18, 1954, Larimer County assumed the responsibility of administering the four reservoirs for recreational purposes. In 1965, the Federal Water Project Recreation Act (P.L. 89-72) provided for the planning, land acquisition and development of the recreational potential at existing water development projects. The law was later amended to allow for federal cost-sharing of up to one-half the cost of this planning, as well as operations, maintenance and replacement (Section 2804 of P.L. 102-575, Title 28). The overarching County vision is to add value to the lives of county citizens by: building partnerships, being customer driven, empowering people to take responsibility, being a fulfilling and enjoyable place to work, and being a good steward of public resources.

Within the County, the Parks and Open Lands Department (Department) is responsible for managing the reservoirs, surrounding park and open lands. The mission of the Larimer County Parks Department is to "establish, protect, and manage significant regional parks and open

lands, providing quality outdoor recreational opportunities and stewardship of natural resource values.” The Parks and Open Lands Department is “committed to fostering a sense of community and appreciation for the natural and agricultural heritage of Larimer County for present and future generations.” The Department is comprised of four programs: Parks, Open Lands, Weed District and Forestry. These programs complement each other and function as one cohesive unit. The Parks program manages all lands, including Open Lands properties, and provides the staffing and equipment for on-the-ground operations. Unlike the Parks properties, the Open Lands properties do not require entrance fees; instead, these areas are funded through open space tax money (discussed below). The Open Lands program is responsible for the acquisition, planning, and funding of new or existing Open Lands properties. In the future, each of these programs will have its own advisory board. These boards will not necessarily function exclusive of each other, but they will maintain and enact separate policies. The Parks and Open Lands Department consists of two management districts: Horsetooth and Blue Mountain. Each district has its own district manager and staff.

In November 1995, the citizens of Larimer County voted to approve a quarter-cent (1/4%) *Help Preserve Open Lands* sales and use tax (Open Lands tax) to protect open space, natural areas, wildlife habitat, regional parks and trails. A portion of the Open Lands tax is available to the Parks Department for recreation enhancement, new facilities, and land acquisition.

A citizen task force, reviewed by Reclamation, was appointed by the Larimer County Commissioners, and organized by the Department. The task force met

regularly with the project staff to participate in the development of the RMP/EA. The task force is comprised of members representing a wide range of park and recreation, natural resource and community interests and geographic areas. A permanent Parks Citizen Advisory Board, including some members of the citizen task force, will be appointed by the Larimer County Commissioners following the completion of the RMP/EA and revised Larimer County Parks Master Plan.

The Larimer County Parks program operations are primarily funded through parks-generated revenue, including permit fees collected from park visitors (covering approximately 94% of operational expenses). Most of these user fees are generated at the four regional reservoirs; all such funds are required to be used for operation, maintenance or improvement projects at the reservoirs, by agreement with Reclamation. The Department receives some grant funding, as well as General Fund dollars to cover the remaining operational expenses. General funds (budgeted at \$242,000 for 2006) are used for programs which lack a sufficient revenue stream from recreation use fees, etc., to meet operating expenses.

Reclamation may match up to 50% of capital improvement costs for certain recreation planning and development at the reservoirs. These funds are appropriated through the Reclamation Recreation Management Act of 1992. Annual funding allocations vary significantly, depending on federal budget appropriations. The County’s share of capital improvement costs comes from Colorado Lottery, Great Outdoors Colorado (GOCO) and other grants, and open space sales tax.

In 1997, the original recreation agreement (1954) between Reclamation and Larimer County was replaced with a new Memorandum of Understanding (MOU). The MOU is for a period of 25 years and is renewable for an additional 25 years upon request of Larimer County. The total length of the MOU will not exceed 50 years, at which time it shall be re-negotiated at the consent of both parties.

## 2.3 Management Partners

### 2.3.1 Fire Management

Pursuant to the Secretary of the Interior's policy letter dated January 18, 2001, Reclamation is required to address the implementation actions contained in the updated 2001 Federal Wildland Fire Management Policy document. The 2001 Wildland Fire Management Policy states that every area with burnable vegetation must have an approved Fire Management Plan. Fire Management Plans are strategic plans that define a program to manage wildland and prescribed fires based on the area's approved land management plan. Fire Management Plans must provide for firefighter and public safety; include fire management strategies, tactics, and alternatives; address values to be protected and public health issues; and be consistent with resource management objectives, activities of the area, and environmental laws and regulations.

Fire management at the Larimer County reservoirs is provided through a reciprocal, multi-agency agreement including Reclamation and other U.S. Department of the Interior agencies, Colorado State Forest, and, to some extent, Larimer County Parks and Open Lands. The agreement provides for cost-sharing and common, annually updated Fire Management Plans.

### 2.3.2 Northern Colorado Water

#### *Conservancy District: Water Supply*

Under the terms of an agreement with the federal government, NCWCD is responsible for operating and maintaining the water supply facilities at Carter Lake and Horsetooth Reservoir. The majority of water stored in the four reservoirs is used for municipal or agricultural uses. Depending on supply and demand within the system, optimal water levels for recreational activities are not always available. Various municipal water districts depend on water from the Larimer County reservoirs.

### 2.3.3 Colorado Division of Wildlife

The Colorado Division of Wildlife (CDOW) is responsible for stocking the reservoirs with fish for recreation purposes. Monitoring of fish populations for stocking purposes occurs on an unplanned, as needed basis. CDOW officers patrol the reservoirs at unspecified times to enforce fishing regulations and creel limits. CDOW also oversees the management and viability of wildlife populations on all park lands.

### 2.3.4 Law Enforcement

The Larimer County Parks and Open lands Department along with the Larimer County Sheriff's Department enforces state and local laws on Reclamation lands. Some of the Larimer County Parks and Open Lands rangers are deputized and enforce state and local laws. Rangers also enforce Larimer County County Title 29 regulations. The Sheriff's Department also regularly patrols the dams at each of the reservoirs for security purposes.

### 2.3.5 Adjacent Land Use

Lory State Park is the only state land adjacent to the northwest shoreline of Horsetooth Reservoir. There are no formal agreements or MOUs between Reclamation and Lory State Park; however, the Parks and

Open Lands Department regularly consults with Lory State Park managers when proposed Larimer Park activities could affect Lory State Park lands or visitation. There is a permit agreement between Lory S.P. and Larimer County Parks to allow trail users to pass from one park to another using the pass of the park they originated in. The majority of land adjacent to the reservoir properties is privately owned, primarily for residential purposes. Larimer County owns several open space properties adjacent to park lands, such as the Soderberg, Chimney Hollow, Ramsay-Shockey, and Horsetooth Mountain Park open space properties. The City of Fort Collins Natural Areas program has several properties adjacent to Horsetooth Reservoir, including Maxwell, Reservoir Ridge, and Pine Ridge natural areas. These natural areas serve as important conservation and recreational corridors between the City's developed areas and the foothills.

### *2.3.6 Related Actions and Activities*

Various permits and agreements exist between private and civic recreational groups and the Larimer County Parks. At

Horsetooth Reservoir, the County maintains permit agreements with the Sail and Saddle Club. At Carter Lake the Carter Lake Sail Club operates private marinas and access roads. These agreements stipulate the permissible uses, permit cost, duration, and allow the lessees to control access to club members and their guests only.

After a rigorous application and approval process, special use permits are extended to various recreational, civic, and private groups for short-term events on park lands and reservoirs. Special uses include weddings and private celebrations; organized sporting events such as rowing, sailing, swimming or fishing contests; and group events or regularly scheduled outings such as the Boy Scouts of America annual jamboree or the Fort Collins Rowing Association activities.

Concessions at the Larimer County reservoirs include the Horsetooth and Carter Lake marinas and a variety of short-term concession agreements, such as fishing guides, sailing schools, and scuba companies.

## 3.0 PLANNING ISSUES, OPPORTUNITIES, & CONSTRAINTS

### 3.1 Introduction

This chapter describes the key factors that have influenced the development of this RMP/EA. Reclamation land use planning focuses on resolving issues concerning the use and management of public lands and resources and providing opportunities for future use and demands.

### 3.2 Planning Process

An established planning process was used for the preparation of the RMP/EA and to determine planning issues, opportunities and constraints (Figure 1). The planning process for this RMP/EA was conducted consistent with NEPA and Reclamation guidelines. Information on the public involvement aspects of this process is detailed in Chapter I.

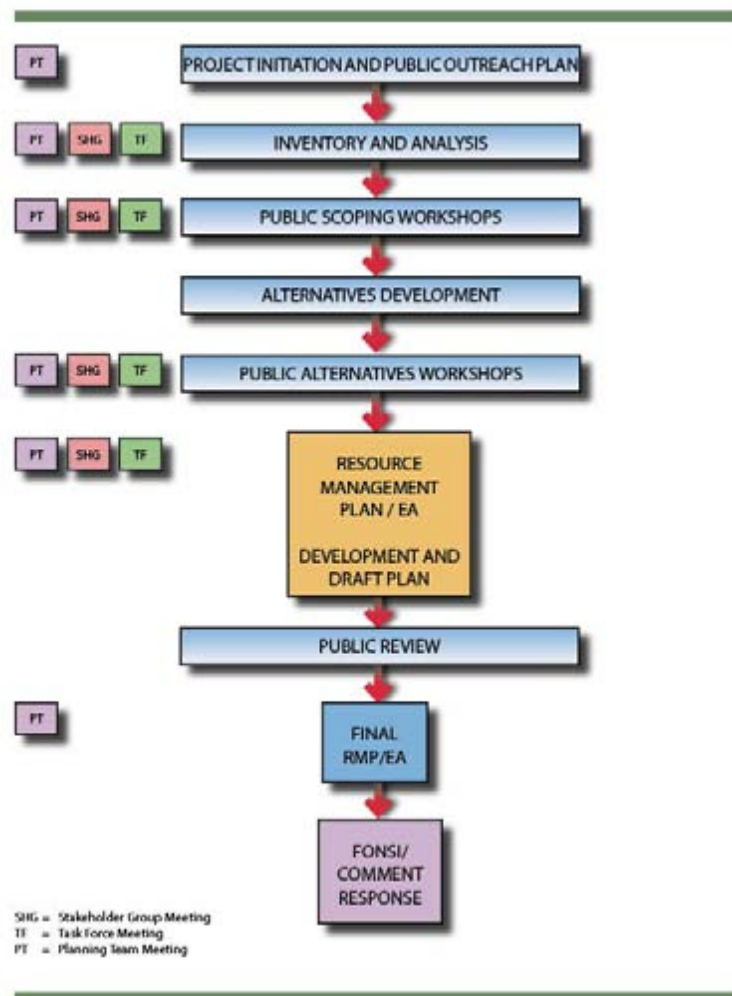


Figure 1. Planning Process for RMP/EA.

In addition to public involvement, several planning entities were involved throughout the process including the Parks Planning Team, Parks Task Force, and various stakeholder groups. A list of Planning Team, Task Force, stakeholder groups, and other involved persons is available in Chapter 7.0.

The Parks Planning Team was formed to address management strategies and parks issues and opportunities. The team included representatives from Reclamation, NCWCD, the Larimer County Parks and Open Lands Department, Estes Valley Recreation and Parks District, and the project consultant. The Parks Planning Team was responsible for coordinating and evaluating the planning process. Ultimately, the Planning Team was responsible for guiding the direction and scope of the RMP/EA.

The Parks Task Force was a citizen group, appointed by the Larimer County Commissioners, and organized by the Parks Department. The Task Force met regularly with the project staff in the development of the RMP/EA. The Task Force, a representative cross-section of the user population, was comprised of members representing a wide range of park and

recreation, natural resource and community interests and geographic areas. The task force provided feedback on the alternatives and planning priorities and helped to evaluate ideas presented by the County, Reclamation, and other planning entities. The task force contributed an intimate knowledge of the parks and user concerns. The task force served as the liaison between the various planning teams and the public.

In June 2006, the Task Force participated in tours of each of the parks. The purpose of the tours was to familiarize each of the Task Force members with each of the parks and their existing conditions. Opportunities and constraints were discussed with Task Force members during the tours.

Interviews were held with various individuals, groups and government organizations (stakeholders) to solicit opinions about the management of the Larimer County reservoirs and parks. In addition to the agencies listed in Chapter II, stakeholder outreach included a diversity of user groups and encouraged the involvement of group leaders and the general membership throughout the process (Table 3-1). Stakeholder input and comments are documented in Appendix C.

**Table 3-1. Partial list of stakeholders.**

Name	Types of Stakeholder
USGS	Government
Carter Lake Marina	Concessionaire
Inlet Bay Marina	Concessionaire
Carter Lake Canoe & Kayak Rental, Inc.*	Concessionaire
Field of Dreams Neighborhood Association	Park User
Carter Lake Sail Club & Members	Park User
Colorado Mountain Club	Park User
CSU Outdoor Adventure Program	Park User
Centennial Bass	Park User
Horsetooth Sail & Saddle Club / Horsetooth Recreation Corporation	Park User
Larimer County Horseman's Association	Park User
Boy Scouts of America	Park User

Name	Types of Stakeholder
Cycologist	Park User
Fort Collins Rowing Association, Inc.	Park User
CSU Crew Team	Park User
Carter Lake Marina Customer	Park User
Fort Collins Mountain Bike Association	Park User
Colorado Walleye Association*	Park User
Diamond Peaks Mountain Bike Patrol*	Park User
Loveland Sertoma Club*	Park User
Quarter Horse Association*	Park User
Rock Climbing Coalition*	Park User
Team BOB (Babes on Bikes)*	Park User
CSU Sport Clubs*	Park User
Bellvue Area Homeowners / CATCH	Park Neighbor
Dennis Acott	Park Neighbor
Tom and Carole Dougherty	Park Neighbor
Ken Ashley	Park Neighbor (former Parks Board Chairman)
Citizen Planners*	Community Organization
Estes Park Planning Commission*	Community Organization
Estes Valley Land Trust*	Community Organization
Poudre Canyon Sierra Club*	Community Organization
Audubon Society*	Community Organization

\*Group was contacted to participate, but a formal interview was not conducted.

### 3.3 Planning Issues and Opportunities

A planning issue can be an unresolved conflict or problem, an effort to implement a new management program as a result of new initiatives or laws and regulations, an issue raised by the public, or a value being lost. Not all issues are related to resource management; therefore, not all issues are planning issues that can be resolved through an RMP/EA. Issues concerning the conflicting demands for consumptive and non-consumptive uses of the land have been identified. The most basic challenge is to protect natural and cultural resource values while allowing recreational uses that have a minimum effect on these resources.

The key factors that influenced the development of the RMP/EA resulted from the following areas of investigation:

- Collection and review of existing resource data, including a review and update of the 1995 RMP and EA

- Public involvement including meetings, workshops, and comment periods
- Agency review of internal programs and policies to identify issues, goals, and objectives

The planning issues identified in these investigations allowed Reclamation to formulate the necessary management actions and implementation strategies outlined in Chapter VI, Resource Management Plan. The effects of implementing the management actions are addressed in Chapter V, Affected Environment and Environmental Consequences.

A variety of issues and concerns were grouped into categories which helped to (1) define the scope of each issue and concern, and (2) develop specific goals and objectives to address each issue and concern. Three issue categories were identified including natural resources, visitor experience, and

social and cultural resources. Some issues, concerns, and comments expressed by the public were determined to be outside the scope of this RMP/EA and were ultimately eliminated from analysis. The following key resources and issues were identified by the public, planning teams, and *Reclamation Recreation Demand and Capacity Analysis* report (April 2006) as being particularly important to the development of alternatives and the assessment of potential impacts. Complete documentation of the public, planning team, and stakeholder input is documented in Appendix C. Resources and site-specific issues will be discussed, by reservoir, in detail in Chapter 5.0.

### 3.3.1 Natural Resources

This issue category pertains to preserving, protecting, and enhancing vegetative and wildlife health, and other natural resources and sensitive environmental conditions. The Natural Resources category includes the following key issues:

- **Hydrology and Water Quality** - Maintaining suitable water quality while allowing motorized boating and other water-based recreation is critical to supplying and satisfying water customers and supporting healthy fish populations and aquatic habitat.
- **Soils and Geology** - Countywide, the parks' landscape is characterized by steep, rocky slopes. These areas present challenges to recreational use and development. Construction activities and increased use may cause soil compaction, increased erosion, and sedimentation into waterbodies.
- **Vegetation** - Sensitive plants and rare butterfly host plants have been identified in the project areas. Noxious weeds are a continuous threat to native vegetation, wildland fire return intervals, and wildlife habitat.

- **Fish and Wildlife** - The parks contain potential habitat for sensitive wildlife species, including the threatened Preble's Meadow Jumping Mouse (*Zapus hudsonius preblei*) and rare butterflies. The parks system provides valuable habitat and refuge for many different wildlife species.

### 3.3.2 Visitor Experience

This issue category pertains to providing a safe, diverse, healthy, and enjoyable environment and experience for the visiting public; providing safe and usable facilities; providing an acceptable level of public safety throughout the study area; and accommodating existing and future recreation demand, decreasing user conflict, dispersing users, and providing quality recreation opportunities, while protecting the environmental resources of the area. This resource category includes the following key issues:

- **Recreation** – Recreation opportunities and access is an increasingly important determinant of “quality of life” for many Larimer County residents and the population within the region of influence. The Parks Department is challenged with fulfilling current and future recreation demands and providing for new and appropriate recreational opportunities and experiences.
- **Visual and Aesthetic Resources** – The scenic landscapes (including the reservoirs) of the Larimer County Parks has been identified by park visitors as an important attraction.
- **Land Use** – Residential developments are located in proximity to the Parks.
- **Public Infrastructure and Transportation** – Increasing use at the Parks will require additional

infrastructure and road maintenance in order to safely and effectively serve park visitors.

### 3.3.3 *Social and Cultural Resources*

This issue category pertains to the need to protect and provide for interpretation of cultural and historic resources, and account for socioeconomics in and around the study area. This resource category includes the following key issues:

- **Socioeconomics** – User populations are predicted to diversify over the life of this RMP/EA. Park operations should not disproportionately affect minority groups or other disadvantaged populations.
- **Cultural Resources** – Historic sites and cultural artifacts have been found at each of the reservoir parks and record a spectrum of historical events important to the overall history of the northern Front Range.

The overall RMP/EA objectives and subsequent response actions (i.e., alternatives) offer solutions to the issue categories described above. Reclamation has determined that the implementation of appropriate management actions is essential for the successful management of Larimer County Park resources. Implementation of an RMP can protect in the quality of natural resources within the study area and create a positive visitor experience by meeting the needs and desires of Larimer County Park visitors.

## 3.4 **Management Constraints**

When addressing management changes and other actions, agencies are constrained by their respective legislative authorities, budgets, personnel, current policies, and

environmental limitations. The policies affecting management have been discussed in Chapter II, Management Framework. The ability of land management agencies to manage environmental and recreational resources will always depend on maintaining sufficient personnel and on the ability of the agencies to obtain adequate funding to operate and maintain facilities and programs, as well as to protect and enhance existing opportunities and resources. The following discussion addresses the legislative and environmental constraints associated with the study area.

### 3.4.1 *Legislative Constraints*

When project planning and/or development are being considered on Federal land, there are rules, laws, and Executive Orders that may be triggered. These include, but are not limited to, those previously mentioned in Chapter II and the Clean Water Act, Clean Air Act, Americans with Disabilities Act, and the National Environmental Policy Act. For example, if management recommendations involve a Federal action that causes a site disturbance, a heritage resource inventory would have to be conducted before implementing the action. These legislative mandates require Federal land management agencies to consider the effects of its management decisions on endangered or threatened species, water quality, Indian Trust Assets, recreation, fish and wildlife, and heritage resources.

Recreational use of the these reservoirs is secondary to the foremost purpose of water storage: fulfillment of the Colorado-Big Thompson project by delivering and storing water from the west slope for agricultural and municipal purposes. Operating the reservoirs for irrigation, power generation, and other downstream purposes limits Reclamation's ability to manage exclusively for recreation and for natural resources.

Reclamation has a limited opportunity to change the historic operation of the project because of its obligations to water users, such as NCWCD. This RMP/EA does not address changes to project water operations; therefore, existing authorities, as well as operating requirements and contractual obligations are, in some cases, considered to be constraints on the development of recreation facilities and the enhancement, development, and protection of natural resources.

### 3.4.2 *Environmental Constraints*

Limiting factors, such as slopes, soils, wetlands, critical habitat, and the lack of an adequate land base, can constrain future development. (See Maps 6, 7, 8, and 9 for areas that have limitations to development.) Facilities should not be located on unstable soils, extreme slopes, on or near wetlands and critical habitat areas, or within land areas that do not have a sufficient land base to accommodate such development (e.g., the physical carrying capacity of the land may be exceeded). The existence of any one of the following factors would make an area less suitable for recreation development:

- Presence of a wetland or riparian vegetation or habitat
- Sensitive habitat for certain wildlife species
- Poor soils for constructing foundations and installing septic systems
- Reservoir inundation zones (e.g., 100-year flood plain)
- Slopes greater than 10 percent
- Shoreline erosion areas, especially cliffs that are undercut by wave action
- Hazardous geologic conditions, such as a fault zone

GIS mapping has been used to delineate specific environmental resources within the study area. With GIS mapping, it is possible

to identify areas that have constraints or limitations for development. It provides a tool to determine if suggested management actions might be compatible with the existing use of the land.

There are various naturally occurring phenomena and conditions that may limit or influence human activity within the study area such as 100-year flood plains, critical wildlife habitat, wetlands, or noise-sensitive areas. Although more than one management alternative will be developed for this plan, each must take into account potential associated environmental impacts. For the benefit of making daily management decisions, natural constraints are mapped in Maps 6-9 and are discussed within the Chapter 5.0, Affected Environment and Environmental Consequences.

### 3.4.3 *Carrying Capacity Constraints*

Carrying capacity is the ability of a recreational resource to accommodate a user population at a measurable threshold without the user population negatively affecting the resource or the visitor experience. Carrying capacity applies to both water and land surface acres. Boating carrying capacity levels for Larimer County reservoirs are outlined in the *Reclamation Recreation Demand and Capacity Analysis report* (April 2006).

Even though some public comments suggest that carrying capacity limits for some areas and facilities at certain times of the year are near their tolerable limits, the management actions to moderately increase facilities and opportunities identified in this RMP/EA should not cause any carrying capacity limitations to be exceeded within the 10-year planning period. Proper site planning, site-specific NEPA compliance, and use of Geographic Information System (GIS) mapping should identify any potential

social, physical, facility, and environmental carrying capacity issues; each of these is described below.

Specific carrying capacities for the four reservoirs are discussed in Chapter VI, Resource Management Plan.

***Social Carrying Capacity:*** Social carrying capacity can be described as the impacts that resource users have on one another. The number, type, and location of recreation users encountered sometimes affect the recreation experience. The social carrying capacity differs among users and depends on the type of experience sought and the tolerance of the individuals or groups using the resource.

The Larimer County Parks have a sufficient land base and adequate vegetative and topographic screening to alleviate some of the conditions that would lead to social carrying limits being exceeded. The challenge is to accommodate increased visitor use by dispersing users throughout the reservoir area, providing a quality recreation experience, defining what that experience will look like, and decreasing user conflicts. If dispersing use does not prevent user conflicts, then actions to limit use in certain areas may have to be implemented.

***Physical Carrying Capacity:*** Physical carrying capacity can be described as the area that is available to a user for a specific recreation activity. The overall landscape surrounding each of the Parks is characterized by steep slopes and rock outcrops, severely limiting development possibilities. The primary physical challenge at these Parks is to provide adequate access to the public, while optimizing the number and variety of

recreational opportunities within the available and developable land base.

***Environmental Carrying Capacity:*** Environmental (or ecological) carrying capacity can be described as the effects that a level of recreation use will have on resources such as vegetation, fish, wildlife, soils, water, and air. Activities with high impact, such as off-road vehicle use, can have a detrimental effect on natural resources. The challenge is to provide an adequate number of facilities and opportunities to meet existing and future demand without negatively impacting the environmental resources at the Larimer County Parks.

***Facility Carrying Capacity:*** Facility carrying capacity can be described as the ability of an existing facility to accommodate the current level of recreation use. User conflicts can result if a facility has reached its carrying capacity limits. As visitation continues to increase at the Larimer County reservoirs, the challenge is to provide an adequate number of additional facilities within the study area to prevent existing facilities from being abused by overuse. Construction of additional facilities would also prevent future user conflicts that would likely occur as facilities reach their capacity limits.

The availability of campsites and parking spaces, particularly oversized vehicle or boat trailer spaces, is the limiting factor for facility carrying capacity at the Parks. During peak use, there is often a waiting period for access to the reservoirs as a result of limited parking; campsite and parking capacity limits are often reached on weekends during the summer. The Parks Department has established watercraft/vessel capacity limits at Carter Lake and Horsetooth Reservoir. At high

water, Carter Lake's maximum capacity is 187 boats and Horsetooth Reservoir's maximum capacity is 380.

When the one or more of the social, physical, environmental, or facility carrying capacities are exceeded, the natural and human resources can be negatively affected, and the users can be displaced to alternative areas or to other recreation or non-recreation activities. Except for peak holiday weekends, Larimer County reservoirs provide adequate area to accommodate facility expansion to meet existing and future recreation demand without exceeding the above-mentioned capacity limits.