

6.0 South Platte Headwaters and Upper South Platte Watersheds

6.1 Introduction and Overview

The South Platte River is composed of four major drainages: the North, Middle and South Forks of the South Platte River and Tarryall River which flow through two watersheds - South Platte Headwaters and Upper South Platte Watersheds. The South and Middle Forks and Tarryall River are located in the South Platte Headwaters Watershed (Figure 6-1) and the North Fork is located in the Upper South Platte Watershed (Figure 6-1).

The South Platte Headwaters Watershed is almost entirely within Park County, except for a small portion in the northwestern portion of Teller County, and the Upper South Platte Watershed overlaps five counties – Park, Teller, Clear Creek, Jefferson and Douglas. Teller County is unique because it has a natural drainage divide running east-west through the county: the southern portion is in the Arkansas Basin and the northern portion is in the South Platte River Basin. About 25% of the Upper South Platte Watershed is within the PPACG Planning area and the remainder is within the Denver Regional Council of Governments (DRCOG) planning area and is covered in their respective 208 Plan, which can be found at http://www.drcog.org/reg_growth/water/Water.htm. PPACG and DRCOG have a signed MOU that provides a framework for joint opportunities in watershed planning, coordination and review of activities for the purpose of establishing consistency between the water quality plans and planning programs of the two regions.

The portions of Park and Teller Counties located within these watersheds are sparsely populated with several small towns located near historic mining, recreation, and agricultural areas. The cities/towns of Woodland Park (located partially within the watershed), Fairplay and Bailey are the largest in the watershed. The smaller communities include Lake George, Jefferson, Alma, Bailey, Divide, and Deckers. Many of the communities throughout the watershed have a mix of permanent and seasonal residences. Many homes are located adjacent to the river and its tributaries.

Mining and ranching played an important role in the early development in Park County. Diversions from the South Platte River provided water for mineral processing and irrigation of hay meadows. Dams and reservoirs were constructed to provide water storage for Front Range municipalities also serve as fishing and recreation sites for Park County

South Platte Watersheds Reference Map

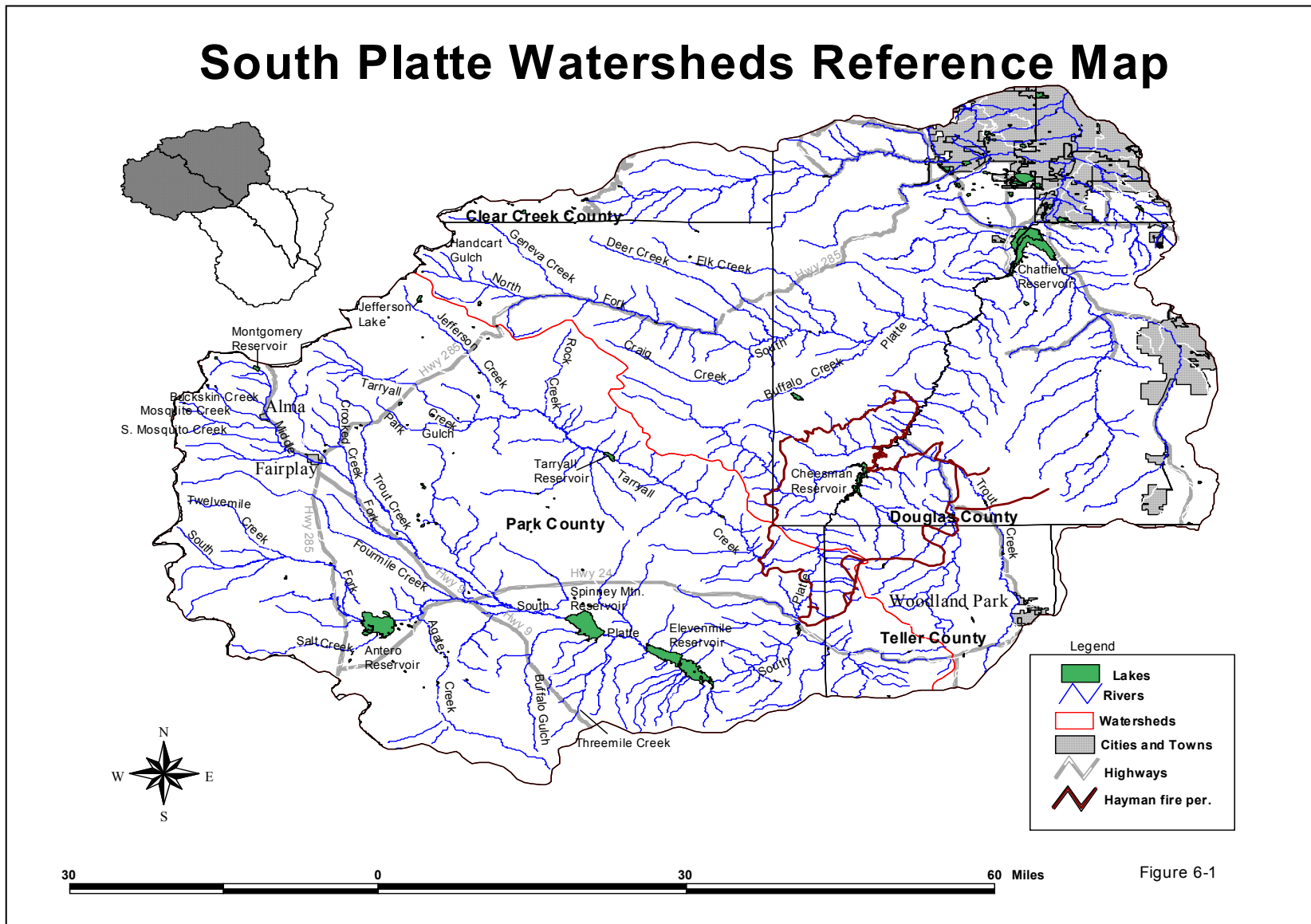


Figure 6-1

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residents and visitors (Gary Minke, Park County Water Preservation Coalition).

- Montgomery Reservoir above Alma is storage for Colorado Springs.
- Antero Reservoir (currently dry) and 11-Mile Reservoir along the South Platte are storage for Denver Water Department.
- Jefferson Lake and Spinney Mountain Reservoir provide storage for Aurora.

The Division of Wildlife operates Tarryall Reservoir along Colorado 77 which is currently dry while dam repairs are in progress.

The Park County Strategic Master Plan was completed in 2001 and provides guiding principles and strategies toward a future that includes development that respects the natural characteristics and landscape so critical to the image of Park County (Clarion Associates, 2001). The Master Plan contains several guiding principles regarding Growth Management, Natural/Cultural Resources and Environmental Hazards, Open Lands and Agricultural Lands and Infrastructure/Public Services, which will directly and indirectly affect water resource and quality issues in the future. Guiding principles are also given for each of the five subareas: 1) Bailey/Pine Junction/Crow Hill/Shawnee/Grant; 2) Fairplay/Alma/Jefferson/Como; 3) Hartsel; 4) Lake George; and 5) Guffey.

6.1.1 Land Use Description

Land ownership within the watershed is mostly public parcels. The U.S. Department of Agriculture (USDA) Forest Service is the largest landowner within the basin, owning 51 percent of the land. The Forest Service manages the Pike National Forest which covers roughly a 1400-square-mile area of the watershed. National Forest Service lands are managed in accordance with the Land and Resource Management Plan for the Pike and San Isabel National Forests, Comanche and Cimarron National Grasslands approved in November 1984. The second largest public landowner is the State of Colorado, managing approximately 155 square-miles. The Bureau of Land Management (BLM) manages 98 square-miles. Other significant public land owners include the National Park Service (Florissant Fossil Beds National Monument), Denver Water Department and the City of Aurora. Private landholdings make up the remainder (41%) of the land ownership within the basin.

Mountain biking, camping, skiing, hiking, and fishing are the primary tourist activities in the area, but snowmobiling and the use of off-road vehicles is growing rapidly. The number of people enjoying these activities is increasing yearly with Highway 285

becoming congested during the weekends. In addition to vehicular emissions, the heavy use of the county for tourism is adversely affecting the water-quality through erosion from overuse of unsurfaced roads, backcountry trails, campgrounds, and reservoirs. There may come a time when permits will be needed to preserve some of these areas for everyone to use.

6.1.2 Population and Socioeconomic Characteristics

Park County had population growth above the state average during the booming 1990s. According to Census 2000, there were 14,523 residents. In the first five years of the decade, Park County grew at an annual average rate of 7.8% versus the state annual average of just 2.9%. The second half was slower for both the state and county, with respective rates of 2.4% and 6.8%. Park County was the third fastest growing county in Colorado, behind Douglas and Elbert Counties during the decade.

Park County expanded by a dramatic 144% during the 1970s, growing from 2,185 to 5,333 people. The 1980s also saw substantial growth in the county with the population climbing another 35% to 7,174 people in 1990. According to the U.S. Census Bureau, the trend continued through the 1990s as the population grew another 102% to 14,523 or at an annual average rate of 7.3% over the decade. This growth is expected to continue to at least 2020 (PPACG, 2002a).

The majority of Park County's growth occurred in the unincorporated areas of the county. The Town of Alma gained only 31 residents from 1990 to 2000, while the Town of Fairplay saw more substantial growth with the addition of 223 residents. While these areas are expected to continue to grow, neither municipality matched the growth rate for the unincorporated areas of the county. Because many portions of the County consist of National Forest and State owned lands, this will preclude significant growth from occurring in certain areas. The Guffey/Lake George area grew by 125.5% and the Bailey/Shawnee/Pine Junction area grew by 94.2% during the 1990s.

The growth in the Bailey/Shawnee/Pine Junction area can be attributed to its proximity to the Denver metro area, which is only 40 miles away. The Alma/Fairplay area is expected to grow significantly over the long term as it has proved to be an affordable place to live for employees of Summit County's resorts. Lake George has become an attractive place to live for retirees and the semi-retired due to its lower elevation and milder climate.

6.1.3 Overview of Watershed Issues and Activities

The high priority watershed issues that have been identified include:

- Agriculture – where livestock grazing is a concern in the southwestern portion of the county and especially near riparian areas and streams. Cattle are being fenced out in certain areas to perform stream restoration projects.
- Erosion – prevalent throughout the watershed, but especially in the east and southwestern portion and areas that were impacted by the Hayman Wildfire.
- Mine discharges and runoff – many of the water quality problems are from historic mining activities. Examples of these are in Mosquito Creek, South Mosquito Creek, and Geneva Creek.
- Wildfires – Hayman wildfire has caused much damage in the watershed and rehabilitation efforts are currently underway. Hayman Fire restoration activities are being coordinated by Coalition of Upper South Platte (CUSP) with the U.S. Forest Service, local fire departments, Park, Jefferson, Teller and Douglas Counties and NRCS. The USFS Restoration Team is being set up to restore forests and reduce impacts of future wildfires. Efforts are underway to stabilize burned lands with grass-like vegetation.
- Wetlands – Wetland conservation efforts are being concentrated on the South and Middle Forks of the South Platte River and the Tarryall River Corridor. Park County, Colorado Open Lands, The Nature Conservancy and South Park Wetland Focus Area Committee are using a total of ten grants totaling about \$7 million dollars to purchase conservation easements on 20 properties helping private landowners keep their natural and agriculture resources intact in the future.
- Regional cooperative agreements - PPACG has an MOU with DRCOG, NWCOG and North Front Range which allows review and recommendations regarding existing and future water quality planning overlap; wastewater issues; and review and exchange of water quality and environmental data.

6.1.4 Summary of Major Planning Efforts

Major planning efforts completed since the last update of the 208 Plan are:

- Park County Strategic Master Plan (Clarion Associates, 2001)
- Park County Heritage Program Handbook (Park County Tourism and Community Development, 2003)
- Upper South Platte River Conservation Project
- Revised Land Use Regulations (<http://www.co.park.co.us/lurs.htm>)
- USGS Water Resource Investigations Report 01-4034 (USGS, 2001)

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- South Park Basin Legacy Project
- Park County Inventory of Critical Biological Resources (CNHP, 2001).