# State Forest State Park





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Colorado Parks & Wildlife and State Land Board hereby state their approval of State Forest State Park's Management Plan.



Dan Prenzlow, Colorado Parks & Wildlife Director

Bill Ryan, Colorado State Land Board Director

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## List of Abbreviations

BLM: Bureau of Land Management CPW: Colorado Parks & Wildlife CFS: Colorado State Forest CSFS: Colorado State Forest Service CSU: Colorado State University CTO: Colorado Tourism Office NPS: National Parks Service OHV: Off-Highway Vehicle RMNP: Rocky Mountain National Park SCORP: Statewide Comprehensive Outdoor Recreation Plan SFSP: State Forest State Park USFS: United States Forest Service USGS: United States Geological Survey

# Acknowledgements

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Colorado Parks & Wildlife

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# About the Plan

State Forest State Park (SFSP) is the largest park in Colorado's State Park system and the only park with alpine habitat. SFSP's 71,000 acres are mostly rugged and remote wilderness with elevation ranging from the East Sand Hills at just over 8,200 feet to Clark Peak at 12,952 feet. The park's forest, jagged peaks, cold weather sand dunes, alpine lakes and streams are home to a variety of wildlife.

In general, visitors want to enjoy the 'backcountry' feeling but have the support and convenience of a modern State Park. Park staff are looking to find the balance between front and backcountry amenities while working from a remote location. In addition, another unique aspect of SFSP is the multi-use management of the forest in collaboration with the Colorado State Forest Service, State Land Board, grazing lessees and others.

The State Forest State Park Management Plan serves as the foremost guiding document for State Forest State Park. The park's goals are:

1. **Collaboration** - CPW and its partners work together to improve and sustain the health of the forest and the park's assets as well as supporting the local community through economic development, law enforcement and emergency support, and educational and recreation opportunities.

2. **Multi-Use Management** - Provide opportunities for Coloradans and visitors to understand the multiple uses and benefits of sound forest management.

3. **Future focused** - Keep pace with rising demands, needs and diversity of park visitors by providing front and backcountry recreation experiences, amenities and services.

Some of the specific key management considerations addressed in this plan include: continued recovery from the Mountain Pine Beetle epidemic; remote location, large geographic size & alpine terrain; crowding/increased visitation; resource damage in the backcountry; and protection of important wildlife habitat.

# **Public Engagement**

Public input is an important part of the management planning process. Members of the public were encouraged to provide input on the plan through online comment forms. The first comment form was used to gather input prior to drafting the plan and the second to allow for feedback on the draft plan. Appendix B summarizes input gathered from the first public comment form in August-September 2018.

Overall, respondents expressed a lot of support for SFSP and admiration for the park as a place they value and highly enjoy visiting. Many expressed a strong desire to keep the park "as is" and "natural".

# Management Zoning

CPW's management zoning scheme (See Section 4) provides a framework for identifying areas with different types of visitor experiences and various recreation opportunities, based on the resources that occur within the park. Within each management zone, suitable types of facilities and land uses are also identified, along with the suggested visitor experience and management focus. Management zoning helps park managers avoid conflicts among visitors seeking different types of activities, identify management needs, sustainably manage the unique resources at the park, and more effectively plan future park development.

For this plan, the management planning team reviewed existing zones from previous plans for applicability of their continued use. In general, most zone boundaries and names are remaining the same. The names are already familiar to staff and visitors and reference key features of that zone.

## **Recommended Park Enhancement Opportunities**

Enhancement opportunities for SFSP (Section 5) were developed based on input from the public, professional knowledge and experience of staff, and discussions with key partners and stakeholders. Enhancement opportunities and management initiatives support the Desired Future Condition outlined in the plan and are situated within appropriate management zones. It is important to note that new development should be balanced with maintaining and conserving what already exists and with resource conservation.

Enhancement opportunities and initiatives are not necessarily "commitments" and implementation is contingent on the park securing adequate financial and human resources and must be considered or weighed within the context of other CPW-wide needs. In addition, new opportunities may need to be added as conditions, recreation trends and other changes occur over time.

Park enhancements include:

- 1. Major rehabilitation or improvements to existing facilities and infrastructure
- 2. New facilities and infrastructure
- 3. Natural resource rehabilitation and restoration efforts
- 4. Management initiatives critical to the long-term operational success of the park.

# Park Description

State Forest State Park (SFSP) is the largest park in Colorado's State Park system and the only park with alpine habitat. SFSP's 71,000 acres are mostly rugged and remote wilderness with elevation ranging from the East Sand Hills at just over 8,200 feet to Clark Peak at 12,952 feet. The park's forest, jagged peaks, cold weather sand dunes, alpine lakes and streams are home to a variety of wildlife.

Visitors to SFSP enjoy iconic Colorado scenery and a variety of recreation opportunities - from backcountry camping to developed campgrounds that can accommodate RVs, long-distance backpacking to shorter nature trails near amenities, wildlife watching from your car to hunting and fishing far away from roads and OHV recreational opportunities in all seasons. While winter snow provides the setting for much of the year, all seasons provide recreation opportunities.

North Michigan Reservoir was constructed in the mid-1960s by Colorado Game, Fish, and Parks and opened as the North Michigan Reservoir Recreation Area with camping along the shores. In 1965, a tour of the area with legislators, stakeholders, and Colorado Game, Fish, and Parks representatives started the effort to create a new State Park on the Colorado State Forest. In 1972, a lease was signed with the State Land Board to create State Forest State Park.

Throughout this plan "SFSP" refers to the land area associated with the recreational lease allowing public access to the Colorado State Forest (CSF) between the State Land Board and Colorado Parks and Wildlife (CPW). "CSF" refers to the land area acquired by the State Land Board through a land exchange with the U.S. Forest Service in 1931. The enabling legislation (Appendix A) declares land will be called 'Colorado State Forest' and will be managed as agricultural land to include forestry and grazing. CSF encompasses all of SFSP. All forestry operations are managed by the Colorado State Forest Service (CSFS) through their agreements with State Land Board. CSFS was initially forestry consultants for State Land Board in the 1950s but in 1985 they fully took over forestry operations.

Known as the "Moose Viewing Capital of Colorado", the park opened the Moose Visitor Center in 1997. Now, SFSP hosts well over 330,000 visitors a year.

# Purpose of the Plan

The State Forest State Park Management Plan serves as the foremost guiding document for State Forest State Park. The ultimate purpose of developing a state park management plan is to plan for both the public enjoyment and protection of the state park's resources. The Plan provides a conceptual planning framework for setting management priorities and providing specific management direction for park resources. The plan also:

- Serves as a guide and policy document for current and future Park staff, other partnering agencies, elected officials, and interested members of the public.
- Guides management of natural, cultural, and recreational resources.

- Provides a framework for monitoring and maintaining resources at State Forest State Park.
- Identifies park enhancement opportunities including *possible* facility upgrades, new park facilities, restoration and rehabilitation projects, and important management initiatives.
- Serves as a guide for future park budget allocations and annual funding requests.

Included in the plan is a broad description of the complete spectrum of recreational, cultural, and natural resources at State Forest State Park. Implementation of the plan will assist park staff in their efforts to preserve and enhance the park for future recreational users.

Park managers should regularly review the plan to evaluate implementation progress. This includes annually reviewing the document. Park and other CPW staff (e.g., planning, region, natural resource and capital/region development staff) should update the Management Plan every 10 years.

## Relationship to the CPW Strategic Plan

Using Colorado Parks and Wildlife's (CPW) Strategic Plan as an overall guide, the Management Plan serves as the primary "go-to" planning document for all the Park staff. Specifically, CPW's Strategic Plan is a useful guide for achieving a broad range of CPW-wide goals and objectives, while the Management Plan is the primary guidance document for park-level planning efforts. The Management Plan is consistent with the following CPW-wide mission, vision and goals (as defined in the Strategic Plan) described below.

#### Mission

CPW's mission is "to perpetuate the wildlife resources of the state, to provide a quality state park system, and to provide enjoyable and sustainable outdoor recreation opportunities that educate and inspire current and future generations to serve as active stewards of Colorado's natural resources" (C.R.S. 33-9-101).

#### Vision

CPW's vision is to be a national leader in wildlife management, conservation and sustainable outdoor recreation for current and future generations.

#### Strategic Goals

CPW's Strategic Plan, finalized in November 2015, provides a roadmap for achieving the agency's vision and mission through concrete goals and objectives. The six CPW goals identified in the Strategic Plan are:

- 1. Conserve wildlife habitat to ensure healthy sustainable populations and ecosystems
- 2. Manage state parks for world class outdoor recreation
- 3. Achieve and maintain financial sustainability
- 4. Maintain dedicated personnel and volunteers
- 5. Increase awareness and trust for CPW
- 6. Connect people to Colorado's outdoors.

# Park Goals

State Forest State Park is a rustic, mountainous park on the west slope of the Medicine Bow Mountain Range in north-central Colorado. In general, visitors want to enjoy the 'backcountry' feeling but have the support and convenience of a modern State Park. Park staff are looking to find the balance between front and backcountry amenities while working from a remote location. In addition, another unique aspect of SFSP is the multi-use management of the forest in collaboration with the Colorado State Forest Service, State Land Board, grazing lessees and others.

#### Vision

State Forest State Park continues to provide unique outdoor recreation opportunities for current and future generations through proactive stewardship of it's natural, scenic, cultural and recreation resources.

#### Goals

1. **Collaboration** - CPW and its partners work together to improve and sustain the health of the forest and the park's assets as well as supporting the local community through economic development, law enforcement and emergency support, and educational and recreation opportunities.

2. **Multi-Use Management** - Provide opportunities for Coloradans and visitors to understand the multiple uses and benefits of sound forest management.

3. **Future focused** - Keep pace with rising demands, needs and diversity of park visitors by providing front and backcountry recreation experiences, amenities and services.

## Future Plan Updates

Most of this management plan should remain relevant for many years to come. That is, much of the information in the plan includes historical documentation, factors that influence park management and recommendations that will remain static or ongoing in perpetuity. To ensure it is a dynamic document that meets the changing needs of the park and park visitors over time, park managers may supplement the plan with updated information, provide minor changes to management actions, or add management actions that help the park adapt to changes in recreational trends, visitor demands, and changes in the natural environment to maintain a high quality visitor experience. This may occur during the annual review or whenever relevant information becomes available. In addition, during a 5-year review, park managers should determine whether any formal amendments to the plan are necessary. In general, park management plans are to be amended when changes in circumstances are significant enough to merit updating the plan. Examples of when formal amendments to the plan may be necessary are listed below.

- There are changes to the land base (e.g., additional lands are purchased or portions of the park are sold off)
- Major new facilities or infrastructure are planned for the park
- A policy or directive is instituted that significantly affects park management direction

- Major changes to land use occur within or adjacent to the park
- Changes to the management zoning
- Significant environmental stress (i.e., fish kill, drought, etc.)

#### **Previous Planning Efforts**

Over the years there have been several major plans developed for SFSP/CSF. Many other planning and information documents have been developed and are referenced throughout this plan. The major planning efforts include:

- 1986 State Forest State Park Management Plan
- 1996 Ecosystem Planning Project
- 2001 Integrated Management Plan

The 2001 Integrated Management Plan is a document that merged planning efforts of several of the CSF land management agencies. Each lessee also has their own management plans with specific interest to their assigned missions. For CPW, the completion of this 2019 State Forest State Park Management Plan signifies the official "retirement" of the 1986 State Forest State Park Management Plan.

#### **Public Input Process**

Public input is an important part of the management planning process. Members of the public were encouraged to provide input on the plan through online comment forms. The first comment form was used to gather input prior to drafting the plan and the second to allow for feedback on the draft plan.

The planning team developed the initial comment form with further assistance from CPW's Public Involvement and Human Dimensions Specialists. The survey was open for 6 weeks in late summer/fall 2018 and advertised via a press release, SFSP's Facebook page, CPW website flyers, Jackson County Star and in the Moose Visitor Center. Nearly 300 people provided input via the online form. Results from this comment form were used throughout the development of the plan and are referenced in various sections. The questionnaire and a summary of responses is found in Appendix B. Overall, respondents expressed a lot of support for SFSP and admiration for the park as a place they value and highly enjoy visiting. Many expressed a strong desire to keep the park "as is" and "natural".

The draft management plan was available for review May 28 - June 15, 2019. CPW notified the public of this opportunity to comment on the draft via a press release, our website and Facebook. CPW received comments from 48 individuals primarily from the Front Range. A majority of comments were related to mountain bike access with a nearly even split between comments supporting "status quo" (in regards to maintaining access where it currently exists) and concerns over limiting access for mountain bikes. There are currently no plans to reduce opportunities for mountain bikers at SFSP. Additional support for the park's general direction and a few specific ideas on the plan's proposed projects were provided and will be considered as the details of the conceptual ideas presented in the plan become reality.

#### **Key Stakeholders**

As part of SFSP's operations and cooperation with managing partners and neighboring agencies, CPW staff regularly meet with State Land Board, CSFS, U.S. Forest Service (USFS), Bureau of Land Management (BLM), Jackson County and Silver Spur Ranches. During the course of the planning process, there were additional meetings to gather input from key stakeholders. State Land Board staff participated in monthly planning team phone calls and CSFS and CPW had several check-in meetings while both agencies developed their respective management plans. In addition, the planning team met with aquatic, terrestrial, Area 10 and NW Region CPW staff to gather input throughout the agency on management of SFSP resources and recreational opportunities.

#### **Influences on Management**

SFSP is managed for a variety of different uses. These include recreational activities, forest management, wildlife management and livestock grazing. How each of these uses interact and affect each other must be considered in any planning and management efforts. The agencies involved in this multiple use management are Colorado State Land Board, Colorado Parks and Wildlife (CPW), Colorado State Forest Service (CSFS) and various grazing leases primarily Silver Spur Ranches. The State Land Board manages the area for the benefit of its trust beneficiaries. CPW has a lease with the State Land Board to manage the recreation in the park.

Public land managed by other agencies surrounds a majority of the park. Management decisions made by these agencies can affect the park and differences in regulations can cause confusion for the public. SFSP is working on management initiatives (See Section 5) to address some of these concerns. For example, State Land Board, CPW, BLM and USFS are working to develop a Cooperative Management Agreement for the North Sand Hills that would provide for consistent management of the entire area (a popular OHV destination).

Private land and other State Land Board owned land borders the western side of the park. SFSP works to maintain relationships with landowners and lessees to maintain access points as needed and minimize any wildlife concerns for the landowners (e.g., flooding from beavers, elk getting pushed to graze outside the park).

#### Management Considerations

Management considerations include issues and concerns that identified by park staff based on first-hand experience, knowledge, and information gathered from the public and other stakeholders. This information, in addition to knowledge and experience of park staff, directly influenced the development of suggested park enhancement opportunities and management actions included in Section 5. Some of the specific key management considerations addressed in this plan include:

- Mountain Pine Beetle (MPB): The park continues to recover from the epidemic. Key issues included removal of most trees from campgrounds, forestry operations focusing on MPB kill, and informing visitors about the effects of MPB.
- Remote location, large geographic size & alpine terrain: Challenges include securing needed services and recruiting staff and volunteers as well as providing the range of

experiences visitors desire from backcountry to modern amenities. Winter conditions (snow) persist for a majority of the year.

- Crowding: SFSP is starting to see increases in visitation and there is potential for this trend to continue in the coming years as visitation at other sites (e.g., Rocky Mountain National Park) and the Front Range population are growing markedly. There are a few areas of the park (e.g., Agnes Lake Trailhead, North Sand Hills) already experiencing crowding issues that need to be addressed. There are also concerns over safe human-wildlife interactions (e.g., moose viewing) as the growth trends continue.
- Resource damage in the backcountry: These issues stem partially from increased use but also visitors not adhering to regulations (i.e., camping near lakes, having illegal fires etc.).
- Important wildlife habitat: Protection of wildlife habitat throughout annual cycles (critical and severe winter range, calving/lambing areas and migration routes) is important for elk, moose, deer, sheep and other wildlife. Consideration may be given to additional seasonal closures, management zoning and location of any future development.
- Staffing: Managing such a large geographic space makes consistent maintenance, facility repairs, patrol of campgrounds, responding to emergencies etc. challenging for staff. More is being asked of volunteers whose collective hours have increased to over 1,100 a year.

# 2.0 Regional Planning Context

This section provides information on the regional setting in which State Forest State Park is situated. Regional issues or considerations that may influence management of the park include climate, proximity of the park to major population centers and other geographical considerations, eco-regional issues, adjacent land ownership, and regional population trends. See "References" for website links, cited references and other sources of information.

# Climate

The nearest weather station to SFSP is located in Gould, CO, which sits at about 8,900 feet elevation. SFSP (roughly 8,200-13,000 feet elevation) generally has colder temperatures and higher annual precipitation.

Over the course of a year, Gould's average daily temperatures fluctuate roughly 40°F, from 16.6°F in January to 56.8°F in July. Daily temperatures may also vary 35°F in a given summer month. Gould falls below freezing about half of the year from November-March. The coldest month is December with an average maximum temperature of 30.0°F, and July is the warmest, maxing out at 74.4°F. Annually, the mean temperature is 35.2°F, with an average high of 50.3°F and a low of 20.6°F.

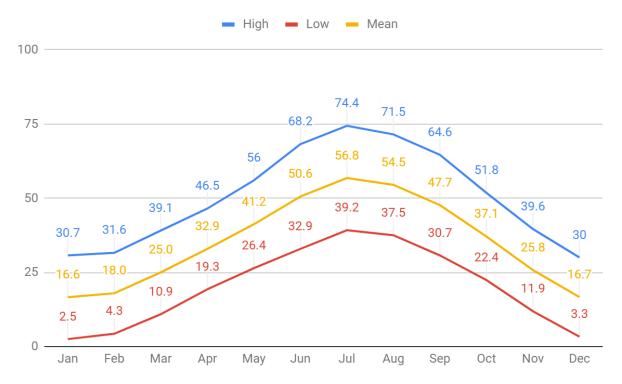


Figure 1. Average Temperature (°F) of Gould from 2000-2018 (Colorado Climate Center - CSU).

An average of 165.6 inches (13.8 feet) of snowfall blankets Gould each year, contributing to 23.49 inches of annual precipitation. A majority of SFSP's precipitation comes from snowmelt. Gould's precipitation is consistent throughout the year, oscillating between 1.33 and 2.63



inches, but the wettest months are April, May and July. Snowfall is highest in January and February, although Gould consistently sees snowfall 9 months of the year.

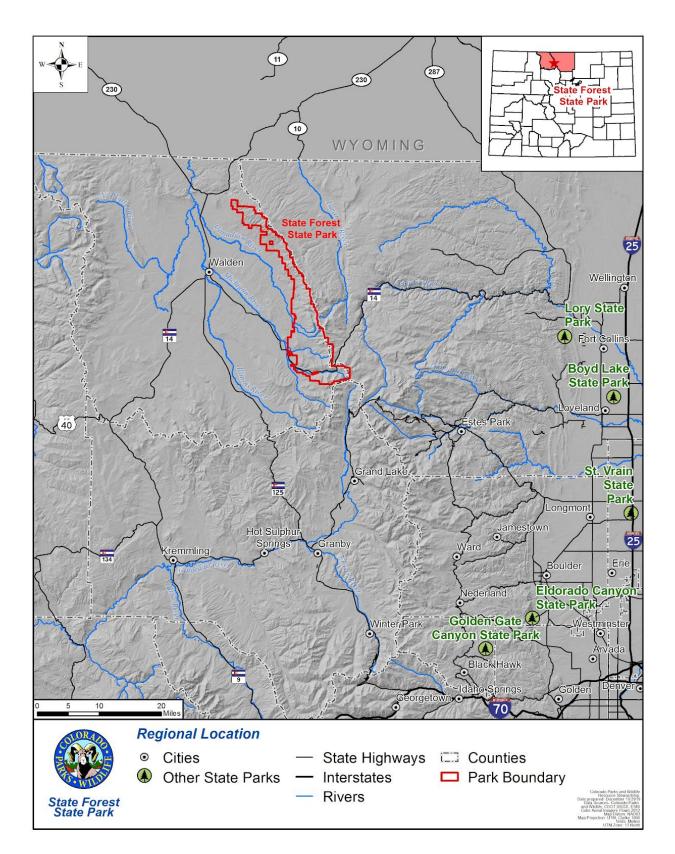
Figure 2. Average Precipitation Totals (inches) of Gould from 2000-2018 (Colorado Climate Center - CSU).

# **Physical Setting**

SFSP is situated in north central Colorado, approximately 60 miles west of Fort Collins and 25 miles east of Walden. As Colorado's largest state park, it encompasses about 71,000 acres. From its highest point, Clark's Peak (12,952 feet elevation), to its lowest around 8,200 feet along the western boundaries of the park (i.e., near the North and East Sand Hills). A majority of the park (96%) lies within Jackson County and forms most of its eastern boundary, and the remainder of the park spills into Larimer County.

Jackson County is fringed by numerous mountain ranges such as the Rawahs, Medicine Bows, Never Summers, Rabbit Ears and the Park Range. Between these mountains lies the vast highaltitude valley known as North Park, which spans 6,200 feet to just over 12,000 feet in elevation. North Park includes slow meandering streams that come together to form the North Platte River. SFSP is a part of this region, and falls within the Colorado State Forest (CSF). The state forest stretches approximately 28 miles north and south along the Medicine Bow Mountains. It is 8 miles wide at its widest point and 1 mile wide at its narrowest point.

"CSF" refers to the land area transferred to the State Land Board from the USFS in 1931, while "SFSP" is the area within CSF leased for recreation and public access. CSF is about 135 acres larger than SFSP and includes the 7 acres CSFS uses as their headquarters, 43 acres leased to Fairbanks Ranch Holdings for livestock grazing, 5 acres used by the Gould Community Association and 80 acres leased to Focused on the Forest, LLC for commercial timber operations.



Map 1. Regional Location

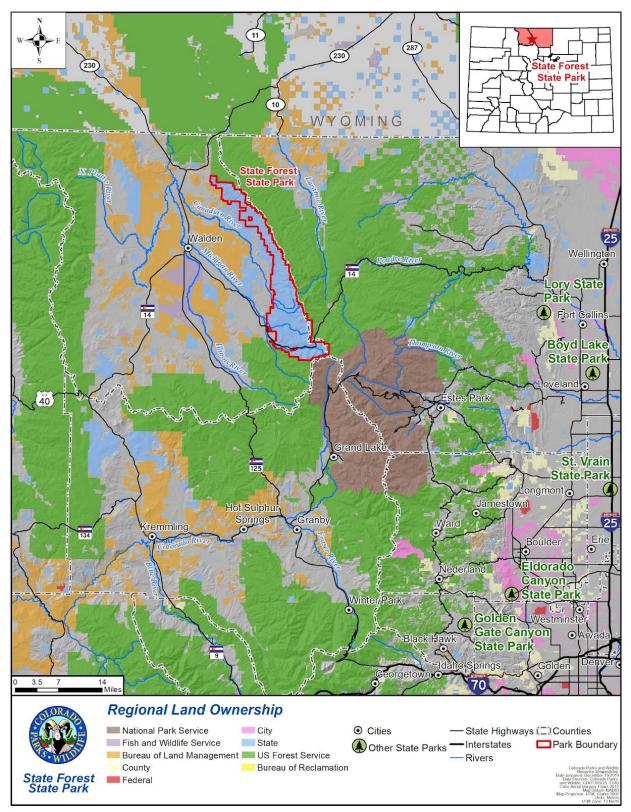
## **Eco-Regional Setting**

Three major biomes thrive in SFSP: montane, subalpine and tundra. SFSP's two main drainages - the Michigan and Canadian Rivers - supply the headwaters of the North Platte River watershed and is the main source of irrigation outflow for the region. The cirque lakes and u-shaped valleys within the park are a result of widespread glacial activity that occurred about 75,000 years ago. SFSP is home to many birds, fish and small mammals, but big game make special use of the park through calving/fawning/lambing areas, migration routes and critical winter range (See "Natural Resources" in Section 3).

# Adjacent Land Use and Land Ownership

SFSP is nestled between several large protected areas. The Medicine Bow-Routt National Forest hugs the north and south end of the park; the Rawah and Neota Wilderness areas, which are a part of the Arapaho and Roosevelt National Forest, trace the easetern edge; and the famed Rocky Mountain National Park shares the southeast border.

Land to the west of the park is under a mixture of ownership including private ranchers, the State Land Board and the BLM. Silver Spur is the largest ranching operation within and near the park. Sherman Creek Ranch also provides recreational opportunities and grazing in the north. In 2018, they entered into a 10-year lease with the State Land Board that's confined mostly to state trust land, but includes parts of SFSP for grazing operations. On the edge of the Land Ownership map lies the eastern portion of the Arapaho National Wildlife Refuge, a 23,400-acre swath of nesting and rearing habitat for migratory birds.



Map 2. Regional Land Ownership

# Water Rights

A number of landowners around the park hold water rights within park boundaries to manage ditches, wells and other water diversion structures. Most of the surface water structures are owned by Silver Spur Ranches, although other private parties and entities exercise water rights. In 2016, the State Land Board contracted with WestWater Research to complete an inventory of water features and water rights. Highlights of this inventory include:

- North Michigan Reservoir is a CPW water right. Guiding documents were reviewed in 2017 as part of the State Land Board-CPW lease renewal process. No applicable language to suggest the water right should be converted to a State Land Board water right was found. The current lease acknowledges North Michigan Reservoir as a CPW water right. CPW owns, manages and maintains this right.
- Ranger Lakes did not appear to have an adjudicated water right. The current lease agreement states that the State Land Board is the owner of the right and CPW is the operator of the water right. The State Land Board and CPW are co-applicants to file for water rights to secure future water usage. The water right would be in the State Land Board's name.
- The wells used by CPW on State Forest were filled by CPW and will likely be transferred to the State Land Board.

# Regional Recreation and Tourism Trends, Needs, and Opportunities

In 2018, the Colorado Tourism Office (CTO) released their Regional Branding Initiative. This effort aims to create more cohesive regional identities to promote unique travel experiences and help generate local marketing strategies. SFSP lies within "The Great West" region, which covers the northwest pocket of Colorado.

SFSP is a microcosm of the geographic diversity of The Great West, which ranges from high tundra to rolling hills to evergreen mountains to mesas. It also reflects the importance and persistence of working ranch communities across the region. With special points of interest like Steamboat Springs and Dinosaur National Monument, The Great West draws visitors that seek an authentic, western travel experience amongst salt-of-the-earth locals. Jackson County alone provides 1,600 square miles of untouched mountain scenery for its numerous outdoor recreation-inspired visitors. See the "History" section of CTO's report for more context and background on this area.

CTO's plan includes recommendations for tourism development. The top three are: 1) Focus should be approximately 70% on destination development and 30% on destination promotion; 2) Create a destination development plan based on a regional identity (western lifestyle); and 3) Build niche marketing plan (start with one niche) for underdeveloped areas. Leverage iconic assets.

The 2019-2023 Statewide Comprehensive Outdoor Recreation Plan (SCORP), based on CTO's previous travel management zones, offers valuable insight into the recreation trends in this area. For the SCORP, SFSP belonged to the "Northwest" region, which includes the winter recreation hubs of Breckenridge and Vail Ski Resorts, and Grand Junction, the largest city in western Colorado.

The Northwest's top three recreational activities are: 1) walking, 2) hiking/backpacking, and 3) skiing/snowboarding. Some of the state's best hunting can be found in this region, and tributaries to the Colorado River offer exceptional whitewater and fishing adventures. This region generates around \$10 billion of direct economic output each year from recreation, and provides the highest economic contributions out of all the regions in Colorado (although region sizes must be considered). See the "Economic Value" section of the SCORP for more information on the Northwest Region's contributions.

Federal lands abut most of SFSP, including the Medicine Bow-Routt National Forest to the north and south. This forest provides year-round recreation, including hiking, backpacking, camping, horseback riding and OHV riding. Arapaho and Roosevelt National Forest skirts along the eastern edge of SFSP and includes 1.5 million acres and ten designated wilderness areas. The Rawah Wilderness, spans about 73,900 acres across Roosevelt and Routt National Forests and harbors 25 named lakes. The other adjacent wilderness area - Neota - is further south and includes about 10,000 acres and flattened ridges of granite that are uncommonly seen in the Rockies region.

Rocky Mountain National Park (RMNP), located in the southeast, contains one of the largest tracts of alpine habitat in the contiguous U.S. It's extensive trail system can be accessed via Trail Ridge Road, the highest continuous paved road in the states. Furthermore, RMNP is of high ecological value, revered as a United Nations Educational, Scientific, and Cultural (UNESCO) international biosphere reserve and a globally important bird area.

# **Population Trends**

The SCORP notes that Colorado's population has surged across the last two decades. Colorado is the seventh fastest growing state in the nation with a 10-year population growth rate of 17%. From now until 2040, the population is expected to jump from nearly 5.5 million people to just under 8 million. Much of Colorado's growth is concentrated on the Front Range (the urban corridor stretching from Fort Collins to Pueblo, CO) and many of the park's visitors come from Fort Collins and other Front Range cities.

SCORP also cites population increases and demographic changes as an important consideration in the future management of Colorado's public lands. Undoubtedly, the quality of life in Colorado plays a key role in attracting new residents; however, as our state's population increases, there are associated challenges to conservation and outdoor recreation. While the population of Colorado continues to grow, the amount of land available for recreation and wildlife habitat is finite and there is a related decline in per capita protected areas as the population grows. In addition, as the demographics, change within the state, outdoor recreation must be culturally relevant and planners must evaluate the different ways in which people recreate. Providing the same types of recreation options that have been popular may not accommodate the unique needs and interests of different racial and ethnic groups, people with disabilities, an aging population and more.

Although most SFSP visitors are not from Jackson County, it is important to note that the county's population has dropped by about 12% across the last two decades, from 1,577 residents in 2000 to an estimated 1,385 in 2017. According to Colorado's State Demography Office, the county's numbers will continue to gradually decline through 2040, with a projected population of 1,238.

# 3.0 Park Setting & Resources

This section provides an overview of the current condition of resources and various ongoing factors within the park (e.g., visitation, budget, and staffing trends) that affect management efforts. Included in this section is a detailed description of current land use and land ownership; park administration and special functions; visitation; existing recreation, natural, and cultural resources; and other information that either directly or indirectly influences management of State Forest State Park (SFSP). This information provides: 1) a contextual framework for better understanding management needs and constraints and 2) a "baseline" from which to identify Enhancement Opportunities in Section 5. See "References" for website links, cited references and other sources of information.

# Park Land Ownership

The jewel that is the Colorado State Forest (CSF) was created through a 1931 land exchange between the Colorado State Board of Land Commissioners and the United States Forest Service (USFS). In 1938 President Franklin D. Roosevelt completed this exchange by issuing a patent to the state of Colorado, and the state legislature designated this land as CSF in 1953. The land exchange included roughly 65,600 acres of Routt National Forest and 5,400 acres of Roosevelt National Forest.

The State Land Board is steeped in a rich history, established at the same time that Colorado acquired statehood in 1876. The mission of the State Land Board is to produce reasonable and consistent income over time to benefit Colorado's public schools and institutions, as well as provide sound stewardship for state trust assets. The State Land Board is the second largest landowner in Colorado, with 2.8 million surface acres and 4.0 million mineral estate acres. The checkerboard of scattered lands granted to the State Land Board has been sold and exchanged over time to secure returns to the State Land Board and more contiguous federal and state lands, which is how CSF came to be.

Grazing and forestry were the primary original purposes of the forest (see the "Multi-Use Management" section for more information). During the 1960s, the State Park Board recognized the recreational potential of CSF and made repeated attempts to acquire the land. Consensus was reached in 1970 for the State Land Board to lease recreation management responsibilities to the Colorado Game, Fish and Parks Department, which was put into effect in 1972 with the establishment of the Colorado Division of Parks and Outdoor Recreation and thus State Forest State Park was born.

Currently, the roughly 71,000-acre park, owned entirely by the State Land Board, is leased to CPW to manage recreational activities and retail facilities via the 2017 *Interagency Real Property Agreement* (Appendix C). Other leases within the park include:

- Colorado State Forest Service
- Silver Spur Operating Company, LLC: lease with the State Land Board covering most of the park for livestock grazing
- Jackson County: Road agreement
- Bureau of Land Management (BLM) and the State Land Board Cooperative Management Agreement Area (320 acres of the 680 acres in this lease overlap with SFSP)

- City of Fort Collins: use of buildings associated with maintenance of City owned water diversion (Michigan Ditch area); radio tower on top of Montgomery Pass
- United States Geological Survey: Water gauging station on the Michigan River
- Colorado Avalanche Information Center: Remote weather station for avalanche forecasting
- Over a dozen other rights of way also exist to provide transmission and electric lines, road, ditch and communication line access with relevant agencies/utility companies (i.e., Mountain States Telephone, Mountain Parks Electric, Jackson County)

## **Natural Resources**

Due to its vastness (approximately 71,000 acres) across a wide range of elevation (roughly 8,200-13,000 feet), SFSP is a prime location for many habitat types, including mountain meadows, shrublands, riparian zones, wetlands, cold climate sand dunes, and lodgepole pine, subalpine and aspen forests. It's also uniquely characterized as the only Colorado state park containing alpine tundra habitat. SFSP includes pristine alpine lakes, large reservoirs and winding streams, as well as two major drainages - the Michigan and Canadian Rivers - that flow into the North Platte watershed. All of these resources support ungulate populations, various small mammals, a wealth of bird species, fishable trout and other wildlife that make SFSP an important asset to the public.

Information in this section stems from four main sources: 1) CSF's 2001 Integrated Management Plan; 2) CSF's 1996 Ecosystem Planning Project Strategic Plan; 3) 1986 State Forest State Park Management Plan; and 4) 1995 Wetland Resources of State Forest State Park (Appendix D).

#### Significant Features

The significant features outlined in this section are rare, unique or important vegetation, wildlife, water and cultural resources found on the park (the full report and all references for this section can be found in Appendix E).

At-risk species are identified under U.S. Fish and Wildlife Service's Endangered Species Act guidelines:

- Endangered: in danger of extinction throughout a significant portion of its range
- Threatened: likely to become endangered within the foreseeable future

CPW also utilizes NatureServe's conservation status ranks to identify and manage threatened species. The following definitions pertain to either global or state populations:

- Critically Imperiled At very high risk of extinction due to very restricted range, very few populations or occurrences, very steep declines, very severe threats, or other factors.
- Imperiled: At high risk of extinction due to restricted range, few populations or occurrences, steep declines, severe threats, or other factors.
- Vulnerable: At moderate risk of extinction due to a fairly restricted range, relatively few populations or occurrences, recent and widespread declines, threats, or other factors.

- Apparently Secure: At fairly low risk of extinction due to an extensive range and/or many populations or occurrences, but with possible cause for some concern as a result of local recent declines, threats, or other factors.
- Secure: At very low risk or extinction due to a very extensive range, abundant populations or occurrences, and little to no concern from declines or threats.

Colorado's State Wildlife Action Plan (SWAP) identifies Tier 1 and Tier 2 Species of Greatest Conservation Need (SGCN) for conservation priorities in the state. See https://cpw.state.co.us/aboutus/Pages/StateWildlifeActionPlan.aspx for criteria used to determine SGCNs and the full list of species included. Some of the potential threats to species are associated with SFSP's multi-use management framework, which - through recreation, agriculture and forestry - provides various critical public services. See the "Multi-Use Management" section for more information on mitigation and cooperation efforts.

The following lists are in order of global (G) status, state (S) status and then alphabetical.

#### Vegetation:

Communities:

Willow Carr - Vulnerable Globally, Vulnerable/Imperiled in Colorado (G3/S2)

- Occurs along montane and subalpine streams around the edges of fens and lakes from 7,500-11,400 feet elevation. Sites are near recreation and grazing areas.
- Threats include incompatible grazing practices, climate change and changes in hydrology.

Aspen / Alder - Montane Riparian Forests - Vulnerable Globally and in Colorado (G3/S3)

• This community occurs at elevations between 7,850 and 9,370 feet in narrow ravines and along first- and second- order streams. Other species that can be found in aspen/alder riparian forests include lodgepole pine, Douglas-fir, blue spruce, subalpine fir and various willows. Community likely occupies the same range as presettlement time.

• Threats include incompatible grazing practices and changes in hydrology. Drummond's Willow / Mesic Forbs Shrubland - Apparently Secure Globally and in Colorado (G4/S4)

- Occurs in wet meadows, marshes and near mountain streams. Community likely occupies the same range as pre-settlement time.
- Threats include incompatible grazing practices and changes in hydrology.

Geyer's Willow - Rocky Mtn Willow / Mesic Forbs Shrubland - Secure Globally, Vulnerable in Colorado (G5/S3)

- Occurs in wet meadows, marshes and near mountain streams. Some signs of hydrologic alteration and grazing impacts at site.
- Threats include incompatible grazing practices, runoff and changes in hydrology.

#### Plants:

North Park Bugseed - Critically Imperiled Globally and in Colorado (G1/S1)

• Habitat includes sandy and gravelly areas at elevations between 8,235-8,727 feet. Only known in the sand dunes of Jackson County.

• Site extremely sparse but flowering. Major threat is unmanaged OHV use.

Colorado Divide Whitlow-Grass - Vulnerable Globally and in Colorado (G3/S3)

• Occurs above treeline on ridges, slopes, scree margins and cliffs in montane to alpine habitats at and above 11,500 ft.

• Threats to habitat include recreational use and climate change, though it has some natural protections due to its habitat being on inaccessible high steep slopes.

Rocky Mountain Columbine - Vulnerable Globally and in Colorado (G3/S3)

• Prefers cliffs and rocky slopes in subalpine and alpine regions from 9,000-12,300 feet elevation. Rarely observed in Neota.

Leathery Grape Fern - Secure Globally, Critically Imperiled /or Imperiled in Colorado (G5/S1S2)

- Habitat includes wet meadows, forest edges, areas adjacent to trails. Usually in sandy soils at elevations of 6,750 11,500 feet. Moderate site quality.
- Threats include road and trail construction/maintenance, recreation, exotic species, incompatible grazing practices, timber harvest, climate change and pollution.

Oregon Bitterroot - Secure Globally, Imperiled in Colorado (G5/S2)

- Grows on well-drained, exposed gravelly benches, stony slopes and open ridges at elevations of 7,000-9,000 feet.
- Threats include incompatible grazing practices, recreation, and shading due to natural succession.

#### Wildlife:

Boreal Toad - SWAP Tier 1; State Endangered; Critically Imperiled Globally and in Colorado (G1/S1)

- Primarily reside in lakes, mountain streams, wet woodlands and shrublands and wetlands.
- Population trend is stable. Habitat threats include chytrid fungus, encroachment of cottonwood and aspen, gravel mining, invasive species, infrastructure development, drought, recreation and fertilizer/pollution runoff.

Autumn Springfly - Vulnerable/Apparently Secure Globally, Imperiled in Colorado (G3G4/S2)

- Invertebrate not well known. Nymphs found in pristine small streams.
- Threats include changes in hydrology and pollution.

Brown-capped rosy-finch - SWAP Tier 1; Apparently Secure Globally, Breeding Populations Vulnerable in Colorado (G4, S3B)

- Habitat is above treeline and nest only in high-elevation alpine crags and crevices of vertical cliffs.
- Population trend is stable. Habitat threats include climate change and alpine recreation.

White-tailed Prairie Dog - SWAP Tier 1; Apparently Secure Globally and in Colorado (G4/S4)

- Primary habitat includes desert shrub, sagebrush and grasslands in the foothills and mountains.
- Immediate threats include severe weather, recreational (illegal) hunting and humancaused plague outbreaks.

White-tailed Ptarmigan - SWAP Tier 1; Federally Protected; Apparently Secure Globally and in Colorado (G4/S4)

- Ground-dwelling birds that live in willows, vegetation and rocks in snowfields in alpine areas.
- Threats to habitat include climate change, incompatible grazing practices, recreation and land development.

Lynx - SWAP Tier 1; State Endangered; Federally Threatened; Secure Globally and Critically Imperiled in Colorado (G5/S1)

- Reintroduced to Colorado in 1999. Prefer dense subalpine forests and thick willow communities along streams in high elevations.
- Habitat threats include logging, infrastructure development and climate change.

Boreal Owl - SWAP Tier 2; Secure Globally, Imperiled in Colorado (G5/S2)

- Nest in tree cavities in lodgepole pine and spruce-fir forests.
- Population trend is unknown. Habitat threats include insect outbreaks, infrastructure development, logging, warming climate and drought.

Wood Frog - SWAP Tier 2; federal species of Special Concern; Secure globally and vulnerable in Colorado (G5 S3)

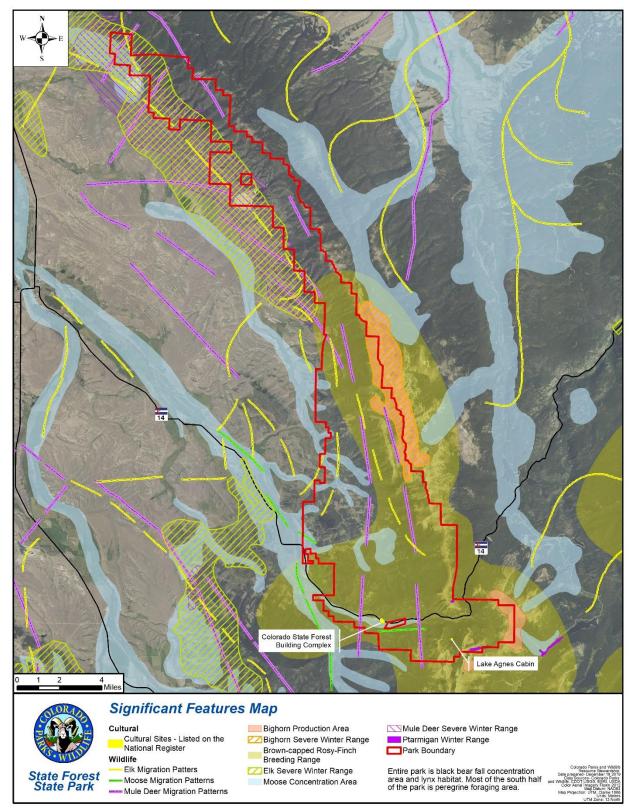
- Habitat includes subalpine marshes, bogs, pothole ponds, beaver ponds, lakes, streams, wet meadows, willow thickets and forests bordering these mesic areas.
- Active during the day in spring and at night in warmer summer months. Breeding occurs early May to early June.
- Primary habitat threats are habitat fragmentation and loss due to logging, wetland draining, incompatible grazing practices and natural changes due to habitat succession.

Galium Sphinx Moth - Secure globally and vulnerable in Colorado (G5 S3?)

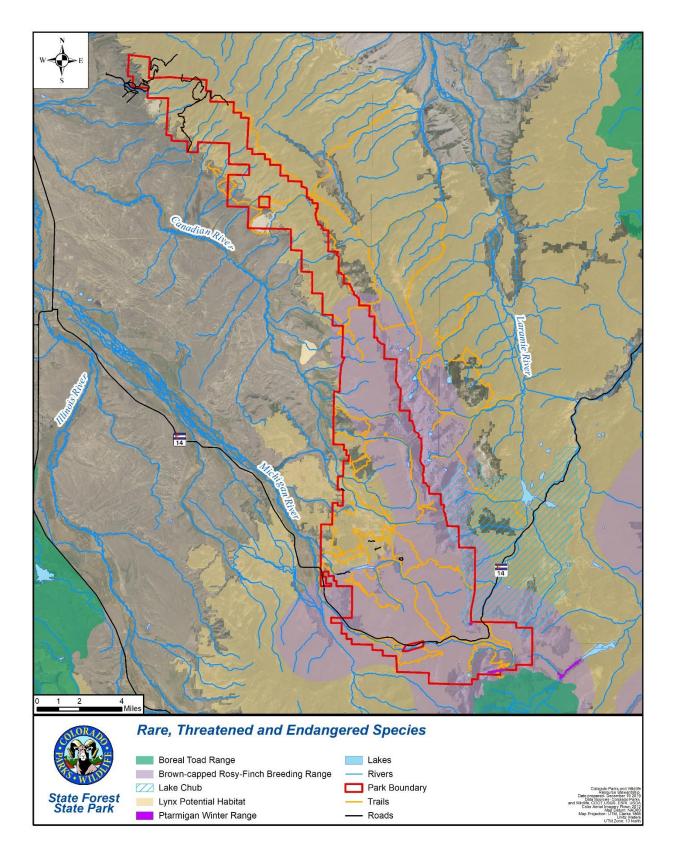
- Habitat is sand dunes, meadow edges and cleared montane forests.
- Habitat threats are incompatible grazing practices, hydrologic change and off-road vehicle use.

River Otter - SWAP Tier 2; State Threatened; Secure Globally, Vulnerable or Secure in Colorado (G5/S3S4)

- Dwell in lakes, rivers, streams and ponds with healthy vegetation and complex river or lake banks throughout western Colorado.
- Once extinct in state but reintroduced in the 1970s with a current stable/increasing population.



Map 3. Significant Features



Map 4. Rare Species

#### Wildlife

#### Mammals

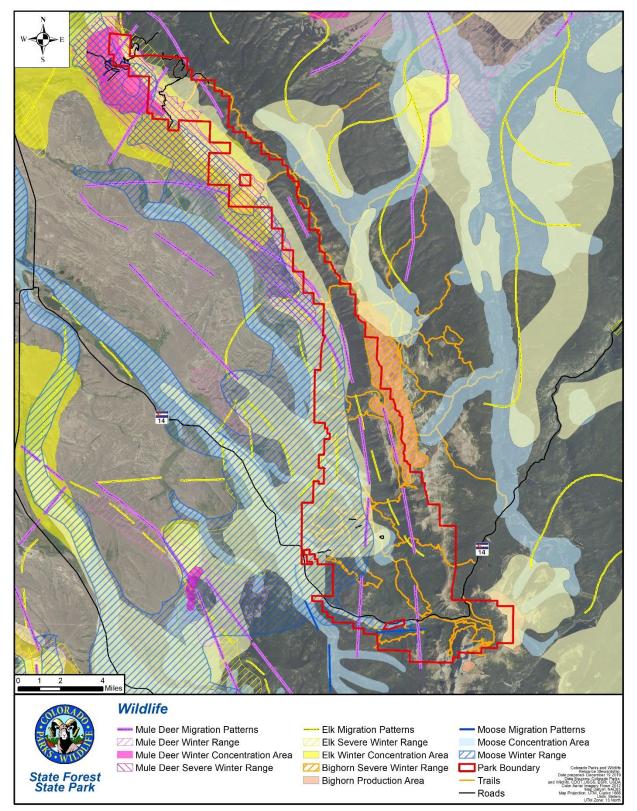
Several ungulate species traverse SFSP's varied habitats, including elk, mule deer, moose and pronghorn. In general, herds are fairly stable in this area. The current population estimates for Jackson County are 5,000-6,000 elk, 5,000-6,000 deer, 500-600 moose and 1,100-1,200 pronghorn.

SFSP supports a healthy herd of elk, in part due to the park's suitable year-round habitat. Grasses and forbs in mountain meadows and riparian areas supply food in the summer, shrublands and aspen stands provide winter food and closed canopy forests allow elk rest and thermal cover. CSFS does not allow forestry operations during elk calving which is typically May 15 - June 15th annually. Additionally, Custer Draw Road is closed to motorized recreational use during the same time frame. If snow melts early and elk move up to higher elevations CSFS and CPW work together to determine if operations can start earlier in small areas near roads.

Mule deer utilize critical winter habitat in the park near the East and North Sand Dunes. These management zones have seasonal closures from December 15 - April 15 during the winter. Through the remainder of the year, they use meadows, riparian areas and forests and especially frequent feeding areas with nearby canopy cover. They depend heavily on shrubs. When winters are severe, mule deer (along with elk) migrate and seek shelter in milder areas on the western edge of the park or on ranch lands and the Arapaho National Wildlife Refuge.

North Park has transformed from an area essentially devoid of moose to the "Moose-viewing Capital" of Colorado (designated in 1995 by Colorado State Legislature) thanks to a transplant of 24 moose to the area in 1978 and 79. Moose now thrive in SFSP's lodgepole pine forest because it provides food and cover. They especially seek out lodgepole forests near riparian zones to feed on willow, such as the essential moose habitat located along the Michigan and Canadian Rivers. Pronghorn are also present in the park, primarily keeping to sagebrush areas, thus preferring lower altitude sagebrush habitat located in the northwestern section of the park or elsewhere in North Park.

Two bighorn sheep herds are known residents of SFSP - the Never Summer herd in the southern portion of the forest and the Rawah herd spanning the Medicine Bow range. Thunder Pass, Iron Mountain, Hidden Valley and the upper reaches of Kelly and Clear Lake drainages are important bighorn sheep habitat. Lambing occurs on steep rocky areas to escape predators, and portions of both herds winter above treeline (although the Never Summer herd is above treeline year round and some of the Rawah herd winters in the upper Poudre Canyon). Interestingly, bighorn sheep are sensitive to changes in their usual migratory range and transmit these changes/knowledge across generations, so it's especially important to protect these areas.



Map 5. Wildlife (Mammals)

Black bears and mountain lions are other large mammals that use the park, but to a lesser extent. Black bears like to wander through SFSP's aspen stands and forested areas. However, they are limited because of the lack of berry and mast crops, which are especially important for females prior to denning.

The last lynx sighting within the park occurred at Michigan Ditch over a decade ago. While there are other areas of the state with better and more important lynx habitat, the park has suitable habitat for lynx and their preferred food source - snowshoe hares. No wolverines are currently known to use the park.

SFSP is home to an abundance of small mammals. River otters, beavers and bats (including some species of conservation interest) dwell in riparian areas in the park (see the "Water Resources" section for beaver management considerations); voles and mice flit around the mountain meadows and aspen forests, creating prey for foxes, coyotes and badgers; snowshoe hares, porcupines and red squirrels make use of the expansive lodgepole pine forest. Other small mammals include weasels, martens, marmots, jackrabbits, bobcats, minks and various rodents. These mammals are foundational to the ecosystem health and vitality of SFSP.

#### Birds

A bird survey in 2018 compiled information from previous surveys and documented 178 breeding bird species in the park that year. The six widest-spread species (i.e., seen at most survey points) observed in recent surveys were broad-tailed hummingbird, olive-sided flycatcher, western wood-pewee, warbling vireo, tree swallow and mountain chickadee. Some of these species were also observed in the highest densities; others include the American robin, Lincoln's sparrow, pine siskin, white-crowned sparrow and Canada goose. Sites with the greatest species diversity and highest counts were found to have the best developed riparian shrublands combined with adjacent forests.

Songbirds and raptors are of special interest because they are sensitive to changes in their habitat and act as ecological indicators. SFSP's raptor species are diverse, including the following species which were observed during the 2018 survey: red-tailed hawk, Cooper's hawk, great horned owl, boreal owl, bald eagle and turkey vulture. Of the complete list of raptors that have been observed in the park, most are potential breeders. Waterfowl, wading birds and shorebirds are another important category of birds and were found to primarily flock in the North Michigan Reservoir in the early spring and fall. Some were observed at Ranger Lakes, although mostly for overnight or short-term rafting, and in beaver ponds along the South Fork Canadian River and North Fork Michigan River.

Four "avian habitats of special interest" were also identified within the 2018 study area, which focused on higher use/developed areas in the southern portion of the park. The Michigan River Willow Carr, the North Fork Michigan River Willow Carr, the East End of North Michigan Reservoir and the Moose Overlook were chosen for density, diversity and ecological significance of bird species. Other significant avian habitats exist outside of the study area.

At least half of the bird species identified in the SWAP as SGCNs are found in the park. Tier 1 species, requiring the most attention, include greater sage grouse, southern white-tailed ptarmigan, greater sandhill crane, golden eagle and brown-capped rosy-finch. Greater sage grouse have been found along the western edges of the park. There is some suitable habitat for greater sandhill cranes and as they continue to expand their range, it is certainly possible

that crane use of SFSP could increase. There are some old nest records for golden eagle on the park as well as breeding habitat for ptarmigan and rosy finches. Tier 2 species that may nest in the park include: bald eagle, northern goshawk, northern harrier, boreal owl, olivesided flycatcher, Swainson's hawk, peregrine and prairie falcons, Lewis' woodpecker, veery, Cassin's finch, and Brewer's sparrow.

#### Fish

Although there are several fish species native to the upper North Platte - fathead minnow, creek chub, Johnny darter, longnose dace, longnose sucker, and white sucker - SFSP's streams and alpine lakes likely sustained very few fish prior to stocking efforts. This is due in part to predominantly narrow, fast-moving streams that are unsuitable for spawning habitat.

Historically, SFSP's waters received plants of arctic grayling, brown trout, rainbow trout, greenback cutthroat trout, Pike's Peak cutthroat trout, Snake River cutthroat trout and golden trout. Today, alpine lakes are stocked primarily with cutthroat, and the reservoirs, Upper and Lower Ranger Lakes and North Michigan, receive rainbow trout. SFSP's high and mid elevation lakes require regular stocking, although many streams in the park support successful brook trout reproduction and recruitment. (See the "Recreation Resources" section for more information on fisheries).

White sucker have been documented in Lake Agnes. A native species to Colorado that most likely competes for resources with stocked trout. Nonnative brook trout are found in the Michigan River system, as they survive and reproduce well in small streams.

#### **Reptiles and Amphibians**

Tiger salamanders and western terrestrial garter snakes occupy a wide range of habitats, provided there is a body of water nearby. Tiger salamanders rely on water for breeding as well as a primary food source for adults, which eat a wide variety of aquatic invertebrates. They also require ground suitable for burrowing (NatureServe, 2019). Western terrestrial garter snakes also require water, though can be found quite far from water in some parts of Colorado. Most activity takes place on the ground, in water, or in low vegetation. They are opportunistic eaters, feeding on a wide range of vertebrates and invertebrates. Tiger salamanders are primarily nocturnal while western terrestrial garter snakes are primarily active during the day (Hammerson, 1999).

Boreal toads and wood frogs live in mesic subalpine environments in the vicinity of marshes, wet meadows, streams and lakes. Wood frogs are active during the day during spring and at night during the warmer summer months and eat small insects, worms and spiders. Similarly, boreal toads are active during the day and night and are insectivores (Hammerson, 1999 and Keinath & McGee, 2005). Boreal toads and northern leopard frogs have not been confirmed in the park but suitable habitat is present and toads have been found in the North Park area.

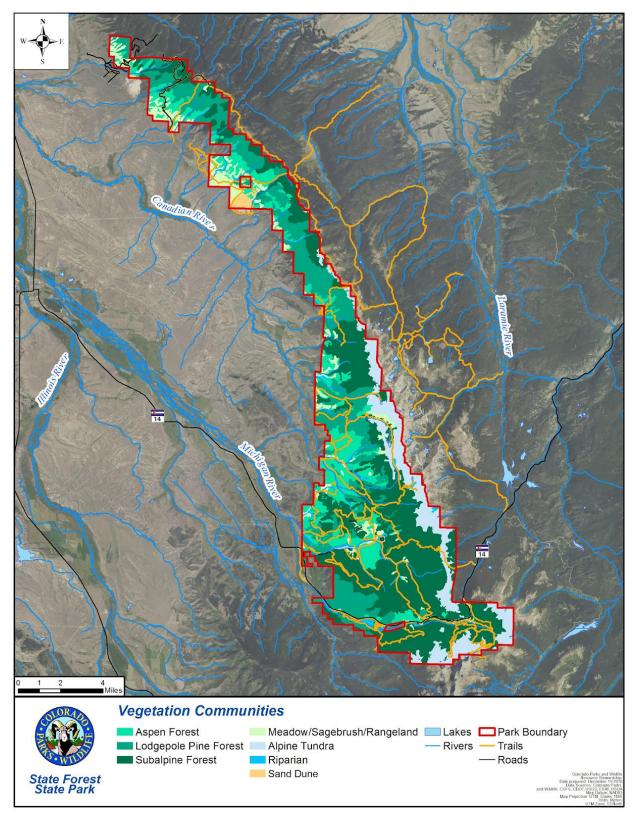
The boreal chorus frog and western chorus frog both are found at low and high elevations, up to 12,000 feet for the boreal chorus frog, along the edges of a wide range of waterbodies. Breeding sites usually occur in shallow ponds, with low emergent vegetation. Western chorus frogs have been found to range within 700 meters of their breeding sites. Both species are active during the day and night and eat a large variety of insects and other invertebrates (Hammerson, 1999 and NatureServe, 2019).

#### Habitats and Vegetation

SFSP touts nine distinct habitat types: alpine tundra, aspen forest, lodgepole pine forest, subalpine forest, mountain meadow, riparian zones, wetlands, shrublands and sand dunes. Coniferous trees abound in SFSP, spanning 46,000 acres or 65% of the park. Subalpine forests are the most prevalent, followed by lodgepole and aspen forests. The next largest habitat types are alpine tundra, meadow/shrublands, and riparian zones, with sand dunes being the smallest.

Within these broader habitat types lies at least 53 different plant communities, as defined in the park's latest *Vegetation Assessment* in 2008 which only covered the developed areas and high alpine lakes (Appendix F). Although SFSP's forest communities dominate in scale, meadows and shrublands provide much of the park's diversity. Dominant shrub species include silver sage, mountain sagebrush, shrubby cinquefoil, various willow species or others. Forest communities are dominated with lodgepole pine, aspen, Engelmann spruce or subalpine fir.

The plant communities are generally in "good" or "excellent" condition. Willow-dominated shrublands are thriving, while lodgepole pine usually have the poorest conditions due to mature lodgepole mortality (see the "Threats to Habitats and Wildlife" section). There are 17 permanent vegetation monitoring plots around the park (in high use areas) to determine the effectiveness of management actions. In addition, there are a few FIA (Forest Inventory and Analysis) plots setup by the USFS. CSFS administers the program in Colorado to track long-term forest changes.



Map 6. Vegetation Communities

#### Forest Communities

Lodgepole pine is one of the most common tree species in the intermountain west and also the dominant tree species on SFSP, covering approximately 17,000 acres/24 % of the park. It grows between 8,500 and 11,000 feet elevation in pure or mixed stands, with either a barren understory or one comprised of dwarf huckleberry, kinnikinnik, grouse whortleberry, heartleaf arnica and other plants. Forest fires from 1880-1900 (indicated by tree rings) consumed most of the lodgepole pine in the forest, resulting in over mature, dense stands that increase insect/disease susceptibility and crowd out young stands. (See the "Forestry" section for information on management techniques.)

Spruce-fir forests, made up mostly of Engelmann spruce and subalpine fir, can be found in SFSP's high, moist elevations between 8,800 and 11,000 feet. This habitat does particularly well in the southern third of the park and comprises 29,000 acres/41 % of the park. Due to their shade tolerance, Engelmann spruce and subalpine fir are able to generate uneven-aged, multistoried stands and increase structural diversity. Grouse whortleberry, mountain lover, northern bedstraw, arnica, twinflower and other plants grow in the understory, and birds enjoy the complex canopy and cavities in dead trees.

From the foothills to the subalpine zone, aspen forests comprise about 12,000 acres/17 % of the park. Taking root in moist sites with some disturbance, aspen trees regenerate rapidly but decline significantly after 80 years. They may intermix with lodgepole pine and subalpine fir, and they nurture a lush understory of wild rose, elk sedge, nodding brome, fireweed, daisy, common juniper and more. On the broader North American scale, aspen are the most widely distributed and one of the most significant tree species for wildlife habitat.

#### Wetland and Riparian Habitats

A vast majority (nearly 75%) of all Colorado wildlife depends in some part on riparian areas. SFSP boasts approximately 1,110 acres (2% of the park) of riparian habitat, particularly well-supported along the Michigan and Canadian Rivers. They also exist in point bars, drainage and reservoir margins, and the margins of kettle ponds and seeps. Species are predominantly willow varieties but also include mature alder, aspen, Engelmann spruce, serviceberry, chokeberry, Colorado columbine and more. Because cattle gather around riparian zones, careful grazing management must be considered to avoid resource degradation.

Wetlands harbor incredible benefits for ecosystems and people such as flood and erosion control, increased water quality, spawning/rearing habitat, waterfowl habitat, groundwater recharge, and recreation and education opportunities. SFSP's wetland are primarily found within riparian zones. The 1995 Wetland and Riparian Resources Report (Appendix G) categorized them into 4 types - aquatic, emergent, shrub-scrub and forested - and vegetation is dependent on type, but includes pondweed, bur reed, spike-rush, bush honeysuckle, alder, and birch.

#### Alpine Tundra

SFSP is the only state park in Colorado containing alpine tundra habitat within the park boundary. The elevation for this habitat ranges from about 11,200 to 13,000 feet, spanning 7,600 acres/11% of the park. It is characterized by an absence of trees, but supports perennial grasses, sedges, rushes, forbs, mosses, lichen, and a colorful array of flowers like the snow buttercup, marsh marigold and alpine forget-me-not. The significance of alpine tundra for wildlife varies from incidental use (marten and coyote) to critical need (bighorn sheep, White-tailed ptarmigan and American pipit).

#### Mountain Meadows - Shrublands

Beautiful mountain meadows, the kind seen on Colorado postcards, are scattered around SFSP between 8,500 and 10,500 feet elevation. Meadows can be drier, supporting plants like bluegrass, sagebrush, yarrow, iris; or wetter, fostering tufted hairgrass, sedge, willow, northern bedstraw and more. Elk graze these areas in the summertime, but they also support smaller creatures like voles and mice and, in turn, predator populations.

Shrublands occur mostly on south and southwest exposures and flat areas. They foster important forage resources for ungulates. The transitions zones between shrublands and woodlands are hotspots for wildlife activity due to their edge effects. Plant species common to SFSP's shrublands are bitterbrush, big sagebrush, rabbitbrush, prickly pear, serviceberry, blue grama, sedge and wheatgrass. These primarily herbaceous habitats cover 3,900 acres / 5% of the park.

# Sand Dunes

Perhaps one of SFSP's biggest claims-to-fame is that it contains the only active (i.e., dune lands whose physical landscape and ecological character results from continuously moving wind-blown sand), cold-climate dunes in Colorado: the North and East Sand Dunes. These are both part of a vast 25-square-mile dune system. The East Sand Dunes, where recreation is more restricted, encompasses 342 acres. This area provides critical winter habitat for deer and elk, and burrowing habitat for mammals and insects. Vegetation includes Indian ricegrass, rabbitbrush, annuals, sagebrush varieties, aspen stands and willow varieties. The 1995 *East Sand Dunes Natural Area Management Plan* (Appendix H) contains more in-depth information on this area's resources and history.

The North and East Sand Hills also contain North Park bugseed, *Corispermum navicula*. This is a G1/S1 species meaning it is critically imperiled globally and in the state. This species has been petitioned for listing (as endangered) with a decision to come by 2022. This species is also undergoing genetic testing to determine the status of the plants. There may be a difference between the plants found at the two sites. The potential listing by the US Fish and Wildlife Service, was considered during the development of this plan in management zoning and future projects especially visitor use of the East Sand Hills.

# Threats to Habitats and Wildlife

#### Recreational Impacts on Wildlife

Although SFSP seems far removed from the bustle of the Front Range, increasing recreation pressure in neighboring areas like Rocky Mountain National Park may affect SFSP in the future. Recreationists have the potential to displace wildlife, cause trail erosion, impact water quality and spread noxious weeds. Vehicles, livestock and foot traffic can introduce noxious weeds and use of non-certified weed free hay can lead to weed introduction near

horse corrals. Coloradans are also recreating more year-round and in more places, meaning wildlife must tolerate direct and indirect human disturbance for a longer amount of time and over greater geographic areas. Two ways to mitigate recreational impacts to wildlife are to enforce seasonal closures to protect breeding, wintering and migratory areas, as well as strategic trail planning that maintains large blocks of unfragmented habitat (see the "Enhancement Opportunities" section for more).

## Shifting Habitat Conditions

In addition to recreation pressures, severe weather, increased frequency and severity of fires and altered habitat conditions are changing species' normal dwelling places. Boreal owls, an imperiled species in Colorado, have been observed in the park and are sensitive to these types of environmental changes. The imperiled/vulnerable plant community willow carr is also facing these threats. Future monitoring and management decisions should consider these factors.

#### Mixed Use Impacts

CSF's multi-use management creates challenges for the management of the health of SFSP's ecosystem. All three of the park's major activities (recreation, forestry and grazing) pose potential risks, whether it's wildlife disturbance near high-use trails, habitat alteration through forestry or decreased water quality in riparian zones from cattle grazing. Many of SFSP's sensitive/vulnerable plants and animals are especially susceptible to these practices. See the "Multi-Use Management" section for more on how managers are cooperating.

#### Mountain Pine Beetle

Mountain pine beetle (MPB), a native species to Colorado, has historically played a critical role in the natural renewal process of forest ecosystems. However, due to warmer winters, drought and previous forestry practices, Colorado forests and others across Western North America underwent an extreme MPB epidemic. The 1996 outbreak has since wiped out 3.3 million acres of pine forestland in Colorado, including 95% of mature lodgepole pine stands on the CSF.

MPB carries a fungus that clogs water-transportation vessels in trees, and rapidly produces larvae that eat away at tree bark. Mature lodgepole pine in CSF are especially susceptible to MPB, and a vast majority of trees die after infection. This has driven much of the CSF's forestry management practices, but is still accomplishing the desired future conditions of healthy, resilient and diverse forests.

A Visitor Response to MPB at SFSP Report (Appendix I) revealed that 1% of visitors had "never heard of it"; 7% "know a lot about it"; 34% "heard of it but knew nothing of it"; and nearly 50% "heard of it and had some knowledge." Visitors were least likely to visit forest areas with the least aesthetic appeal. In other words, people will gravitate to areas with unhealthy, infested trees rather than areas where clear-cutting had been performed. This sheds some light on the impacts of infestation on recreation, as well as educational opportunities for those with little or no knowledge of the epidemic.

## Dwarf Mistletoe

Another plight of SFSP's lodgepole pine is a dwarf mistletoe infection. Fires within the park from 1880-1900 set the stage for the spread of the disease. During CSF's more intensive period of forestry from the 1940s-70s, the largest and best formed trees were removed, leaving behind a collection of trees that could easily spread dwarf mistletoe to stands that regenerated after the harvest.

These small, leafless parasitic flowering plants mostly target lodgepole and ponderosa pine in Colorado's forests. By slowly stealing food and water from its host, they slow growth and reduce seed production and wood quality, with the possibility of killing the host tree. In addition to CSF's even-aged tree stands, aesthetic practices (e.g. leaving smaller wind-resistant trees in a cut zone) can also increase the risk of spreading dwarf mistletoe.

#### Noxious Weeds

Plants that are not part of Colorado's native vegetation are considered exotic species, and those that outcompete native species are considered *noxious weeds*. Per requirement on the lease with the State Land Board, SFSP's most recent *Weed Management Plan* was written in 2015 (Appendix J) and covered all campsites, trails, roads/roadsides, parking areas and structures managed by CPW, as well as off trail areas in the southern portion of the Park. Although weed populations are relatively under control, the inventory yielded several management priorities. The top three were to eradicate dalmatian toadflax, leafy spurge and diffuse knapweed. These measures are important to protect the plant composition, habitat quality and recreation qualities of the Park. Starting in 2019, an updated integrated (covering recreation, forestry and grazing operations) weed management plan is being developed by the State Land Board.

#### **Other Threats**

Land development and pollution pose additional challenges for SFSP's sensitive and vulnerable species. SFSP's past management zones were reconsidered in this plan to better protect these species and accomplish the desired future vision of the park (see the "Management Zoning" section for more).

#### Water Resources

SFSP's water resources not only sustain the Park, but also the surrounding region. Streams, lakes, springs and ponds provide habitat for fish and aquatic organisms, water for wildlife and livestock within the Park, and the outflow is a major source of irrigation lands in eastern North Park. The 2008 State Forest State Park Water Resources Assessment (Appendix K) provides the latest documentation of the condition of these important resources.

SFSP supplies the headwaters of the North Platte River watershed, lying on its eastern boundary. Drainage comes from two major sources - the Michigan and Canadian Rivers. The Park includes various 1st-4th order streams that provide over 500 square miles of available drainage. Most of this water is derived from snowmelt - over 100" of snowpack was measured at Cameron Pass in 1993. However, snowpack since then has been on a slight downward trend, measuring an average of 71" (USGS). Gould, CO's average annual precipitation is 23.49" (see the "Climate" section for more information).

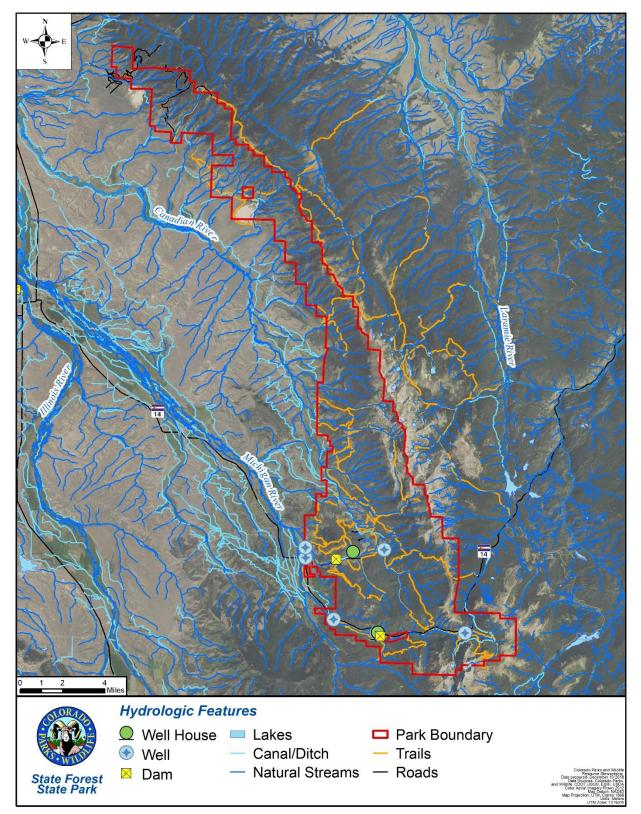
All of these factors combine to make SFSP a significant source of hydrologic activity in the region. SFSP's visitors and wildlife also enjoy mid and high elevation lakes, which include Upper and Lower Lake Agnes, Clear Lake, Ruby Jewel, Snow Lake, Kelly Lake, Michigan Lakes, North Michigan Reservoir, and Upper and Lower Ranger Lakes. (See the "Recreation Resources" section for information on fish stocking and angling.) However, North Michigan Reservoir is the only body of water within SFSP that CPW has rights associated. Rather unique for a state park, this reservoir has clean, cold water, no notable shoreline erosion and experiences little summer drawdown. At 66 acres it is the largest body of water in SFSP supporting both riparian and aquatic habitat as well as recreation such as fishing and the only (wakeless) boating opportunity in the park.

The Michigan and Canadian Rivers are highly important to the park. Their significant perennial flows support cold-water aquatic life, and, perhaps more importantly, riparian willow carr and wetlands thrive in their floodplains and provide key habitat. Ten years of measurements (from the mid '80's-mid '90's) shows that the Michigan River near Lindland Station (near Gould) flows an average of 37 cubic feet/second (cfs) annually, and the Canadian River near Brownlee Station (near Walden) flows slightly faster at an average of 42 cfs across 6 years of data. In addition USGS data includes:

- Michigan River near Cameron Pass: 1974-2018 average daily discharge of 3 cfs annually, with peak flows reaching 115 cfs (1995) and averaging 43 cfs across the time frame.
- South Fork of Michigan near Gould: 1951-1958 average daily discharge of 17 cfs, with peak flows reaching 450 cfs (1957) and averaging 240 cfs across the time frame.

SFSP's numerous creeks, rivers and lakes within create perfect settings for wetlands to thrive. Examples include Cabin, Clear and Grass Creek; the Michigan and Canadian rivers; and Ranger Lakes and Lake Agnes. Many of these wetlands have been shaped by beaver activity, although some of these dams have since been abandoned. Historically, beavers in SFSP have posed challenges for agricultural practices (i.e. interrupting irrigation flow) and recreational amenities (i.e. trail flooding). However, beavers have the ability to diversify wetland and riparian habitats within the park and improve visitor's watchable wildlife and fishing experiences. Management should aim to sensibly balance these challenges and opportunities. Beavers influence flow rates and even soil composition, and have the ability to create a mosaic of wetland and riparian plant communities. Beaver are not considered a nuisance species in the park and any management issues that arise should be coordinated with the local District Wildlife Manager.

Because of SFSP's integral role as a source of the North Platte watershed, water quality is important to maintain. The Park's top threat to water quality is sediment load, which can be affected by grazing, logging and road usage. OHV use at the North Sand Dunes has led to disturbance of the channel of Government Creek. The BLM is conducting studies on the natural sedimentation occurring from the dune to identify the level of anthropogenic impact. Sand Creek is considered "impaired" by the Division of Water Resources. Future management may include installation of a fence to direct OHV use to a designated stream crossing. Proper grazing practices, road maintenance/evaluation and recreation management can help reduce these risks. SFSP collaborates with other agencies and lessees to mitigate these risks.



Map 7. Hydrologic Features

#### **Geology and Soils**

Geology and soils are defining factors in the park's physiology, biology and visitor experiences. Many highly scenic areas of the park owe their appeal to geologic features such as rock outcrops and cliffs, or unique soil characteristics such as large sand dunes. Hydrology is closely intertwined with geology, and soil characteristics - depth, porosity, biology, etc. - contribute to the vegetative health of the Park. The last assessment of SFSP's geology and soils (Appendix L) was completed in 2008.

## Geology

Stepping back in time, one can see rock formations from all major geologic ages in North Park. SFSP's current structure mainly developed near the close of the Mesozoic and into early Tertiary time. Thrust faulting, when one section of the earth's crust is pushed up and over another, greatly impacted the park's topography, which can be viewed in the iconic Nokhu Crags.

Shale once occupied SFSP's underground, which eventually transformed into hornfels (erosiveresistant metamorphic rock) due to heat from subsurface magma. Lava is a large part of the Park's story, and remnants can be seen on Iron Mountain with exposed hornfels and granitic outcroppings.

Glacial activity shaped much of the present physiology of North Park. The cirque lakes and Ushaped valleys are a direct result of moving glaciers. Glacial moraines (accumulations of glacial debris) can be found in the Park's valleys, and erosion has produced sandy terraces, some as many as six terrace levels.

#### Soils

There are three major soil associations in SFSP, which are named for a town or other geographic feature near the location the soil association was first observed. The Rock Outcrop-Mirror and Nokhu-Lulude-Perceton Associations are uplift associations. Rock Outcrop-Mirror are well-drained, gravelly loams and remain frozen at some depth, except during a short growing period. Rock Outcrop is exposed bedrock that are subject to high erosion and do not generally support vegetation. The other primary uplift association, Nokhu-Lulude-Perceton, is deep and well-drained and common on mountainsides. Lodgepole pine, Engelman spruce and subalpine fir take root in these soils and do not generally support understory.

The dominant soil in the bottomlands is of the Cowdrey-Pinkham-Gothic Loam Association. These are well-drained, fine textured soils composed of glacial till and found in low lying meadows, moraines and stream beds.

The sand dunes present an interesting phenomenon. Southwesterly winds encounter the base of the Medicine Bows and lose energy, thus depositing eolian (wind-blown) sands. Accounts from North Park residents in the late 1800s say the entire 25-square-mile dune system was dormant, and aerial photos from the 1960's and '70's indicate that the size of active dunes shrank over the past several decades. It's conjectured that, at one time, the North Sand Dunes may have been linked to East Sand Dunes in single expanse of open dunes. (See the "Habitats and Vegetation" section for more on the sand dunes.)

# Wildfires

Information in this section is sourced from the 2015 *Jackson County Wildfire Protection Plan* (Appendix M). This plan provides background information on wildfire and identifies essential county infrastructure, emergency services and fire mitigation strategies.

One of the biggest influences on the structure and composition of land ecosystems is wildfire. While it helps to create and perpetuate native plant communities in Jackson County, a combination of fire suppression, lack of forest management, extreme weather, public misunderstandings, and logging and grazing practices created conditions that have escalated the risks of wildfire. Trees killed by mountain pine beetle also create a risk for high intensity fires.

Intense, damaging wildfires are not uncommon throughout Colorado. The Mt. Zirkel complex, Jackson County's most impactful fire, spread from the Zirkel Wilderness across the continental divide into Jackson County in 2002.

Fires are believed to have swept through CSF in the time period between 1880 and 1900, as indicated by tree ages. CSFS is predominantly responsible for fire mitigation within the forest. Fire breaks, thinning prescriptions and post-harvest fuel reduction are some of the tactics utilized to manage fire. Plants and plant communities within CSF (and greater Jackson County) have unique responses to fire, some of which are beneficial to their survival:

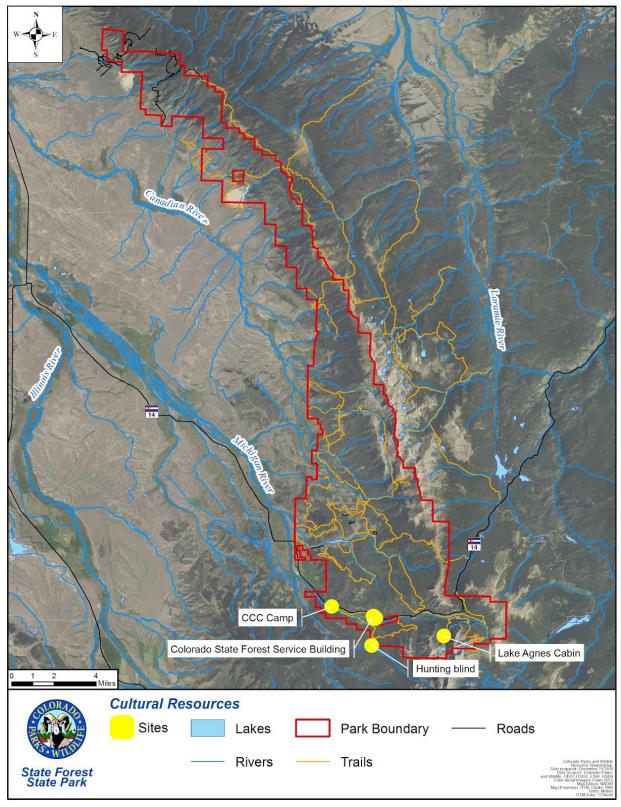
- <u>Lodgepole pine</u>: Because of it's thin bark, these fire-dependent forests are vulnerable to fire but rely on it to stimulate seed dispersal from serotinous cones. Colorado's lodgepole forests also include open-coned trees that release seeds regardless of fire presence.
- <u>Subalpine fir:</u> With thin bark and shallow roots, this species is easily killed by fire. Survivors are susceptible to crown scorch and wood-rotting fungi that enter through fire scars. This species relies mostly on wind-blown seeds from protected pockets of trees to regenerate affected areas.
- <u>Aspen:</u> These trees are typically top-killed by low-severity fire. Similarly to subalpine fir, wood-rotting fungi, borers and other insects can weaken surviving trees. However, aspen regenerates vigorously through root-sprouting after fire incidents.
- <u>Sagebrush:</u> Big sagebrush, comprising the majority of sagebrush association, generally has a shorter fire return interval than other sagebrush types. Fire suppression across Jackson County, however, has limited native herbaceous plants in the understory that are critical in maintaining natural fire regimes.
- <u>Grasslands-grasses/forbs:</u> Fires typically top-kill and consume these communities at ground level. They are able to regenerate rapidly either via rhizomes (as fire stimulates new shoots) or seed banks in the soil or from off-site.

Although annual wildfire occurrence on private land in Jackson County is generally low to moderate (6 fires/year for an average of 32 acres), fire suppression and land practices "have lead to a more or less even-aged stands of mixed conifer; an increased accumulation of forest fuels on the ground; an increase in tree density in forested areas; and an increase of trees, brush, and other species in prairie areas" (Appendix M pg. 18). These conditions are especially risky in wildland/urban interfaces, which comprise 3,310 acres in the county per a 1990 CSFS survey (with many anticipation changes and growth since then). This, along with the fact that 35% of fires in Northwest Colorado between 2001 and 2014 were human-caused, adds up to an increased potential of damaging wildfires in the future.

The desired outcomes of the CWPP are to: 1) reduce the amount of hazardous fuels within and adjacent to the community; 2) reduce and regulate fuel loading; 3) modify the vegetation structure and stand composition as necessary to protect life, property and resources; and 4) provide evacuation and contingency plans for emergency responders and residents alike.

# **Cultural Resources**

The Public Lands History Center at Colorado State University is developing an in depth report on the cultural resources of SFSP. This report will be available in Fall 2019. Appendix N is a summary of the initial findings. In addition, see Appendix O for an assessment of the Lake Agnes Cabin which is on the historic register.



Map 8. Cultural Resources

# **Scenic Resources**

SFSP received a nearly 100% satisfaction rate by its visitors in "scenery/surroundings" in 2008. With it's smooth pristine lakes, softly rolling sand dunes and rugged mountains, there's always something to catch the eye at SFSP. A rainbow of wildflowers bloom throughout the summer, such as the yellow rubber rabbitbrush, the blue harebell, the orange golden banner and the purple monkshood (Appendix P).

Scenic areas of particular importance include: 1) The Nokhu Crags - a dramatic display of geologic thrust faulting visible from the Moose Visitor Center; 2) The "Glacial Cirque" - a bowl-shaped area harboring the scenic Ruby Jewel, Kelly and Clear Lakes; 3) Lake Agnes - an iconic alpine lake frequently accessed by SFSP visitors via a short hike; and 4) Michigan Ditch and American Lakes.

# **Recreation Resources**

SFSP's over 300,000 annual visitors (2016-18 average was 323,000) seek it out largely for its high-quality recreational opportunities. The most popular activities in the park include walking/hiking, fishing, sightseeing, tent camping, photography and wildlife viewing. With snow falling on the park for half of the year snowshoeing, sledding and snowmobiles are popular too. The following section outlines the resources that make these diverse outdoor opportunities possible.

# <u>Trails</u>

#### Table 1. Designated Trails Inventory

## Non-Motorized

Trail Name	Length (miles)
Summer	
Beaver Lodge Nature Trail	1
Gould Loop Trail	6
Lake Agnes Trail	0.8
American Lakes Trail	5.5
Michigan Ditch Trail	6.5
Crags Basin Trail	2
Seven Utes Trail	3
Ruby Jewel Lake Trail	1.5
Kelly Lake Trail	6.5
Clear Lake Trail	8
Thunder Pass Trail	0.5
Montgomery Pass Trail	4
Ute Pass Trail	2.5
Ranger Lakes Nature Trail	1.5
Silver Creek Trail	.75
Custer Draw Trail	2.3
Mountain View Nature Trail	1

D 1 T 1	1 7
Pennock Trail	1.5
Lumberjack	1.25
Hidden Valley Trail	2.5
North Canadian Trail	3.3
Mendenhall Trail	4
Medicine Bow Trail	22
East Sand Hills Trail	3.5
Jack Dickens Trail	4
Winter (primary cross-country s	kiing)
Lake Agnes Trail	2.5
Michigan Ditch Trail	6.5
Crags Basin Trail	2
Ruby Jewel Road	3
Montgomery Pass Road	6.5
Gould Mountain Road	2.6
Grass Creek Road	4
Ranger Lakes Nature Trail	1.5
Gould Loop Trail	6
Beaver Lodge Nature Trail	1
Mountain View Nature Trail	1
Pennock Trail	2.5
Hidden Valley Trail	2.5
Medicine Bow Trail	22
Jack Dickens Trail	4

# Motorized

Trail Name	Length (miles)		
Summer			
Bull Mountain Roads	4		
Gould Mountain Roads	2.6		
Grass Creek Road	4		
Bockman Road	6		
Montgomery Pass Road	4		
Ruby Jewel Road	3		
Diamond Peaks Trail	7		
Francisco Loop	3.5		
Kiwi Road	2		
Mendenhall Road	8		
South Canadian Road	2.5		
Custer Draw Road	2.5		
County Road 41	9		
Winter (primary snowmobiling)			
American Lakes Trail	5.5		
Bull Mountain Roads / (Bull Mountain,	8.5		
Kiwi, South Canadian)			
Bockman Road	6		
Clear Lake Trail	8		
Kelly Lake Trail	6.5		
Seven Utes Trail	3		

Silver Creek Trail	.75
Custer Draw Trail	2.3
Montgomery Pass Road	6.5
Diamond Peaks Trail	7
Lumberjack Trail	1.25
North Canadian Trail	3.3
Mendenhall Road	8

#### Combined total trail miles: 136 miles

Summer non-motorized total miles: 99.4 Summer motorized total miles: 58.1 Winter non-motorized total miles: 65.1 Winter motorized total miles: 81.1

#### Motorized Trail Use

OHV users and snowmobilers can rejoice at the just over 80 miles of winter and nearly 60 miles of summer designated motorized trails in SFSP. Motorized use is concentrated in the southern portion of the park and the North Sand Hills area which includes connections to U.S. Forest Service and Bureau of Land Management riding areas. Motorized vehicles must remain on designated roads and OHVs are not allowed in the campgrounds except to enter and exit each campsite.

#### Non-Motorized Trail Use

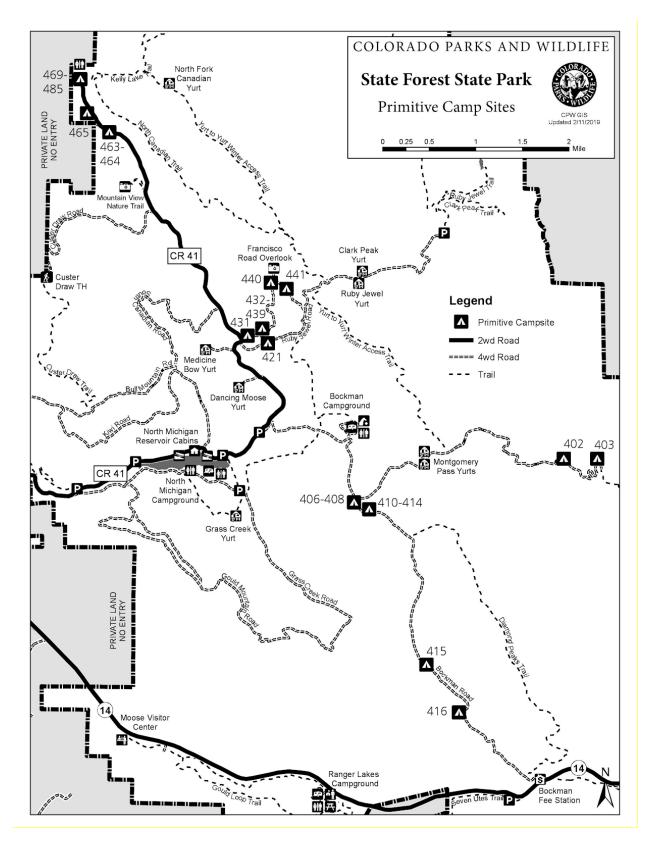
Fifty-six miles of designated non-motorized trails offer immersive recreational experiences for hikers, backpackers, mountain bikers, horseback riders, cross-country skiers and snowshoers. These users make up a substantial portion of SFSP visitors, although oftentimes activities are coupled with other recreation activities such as camping and hunting. Most users explore around Lake Agnes, although equestrians are prohibited from the Lake Agnes Trail and designated camping areas. Mountain bikers are also not allowed on Lake Agnes Trail and through out the park must stay below treeline.

#### Camping

Whether visitors seek designated vehicle campsites, remote backcountry experiences or the conveniences of a cabin or yurt, SFSP can accommodate any type of camper. Other than primitive and backcountry sites, all sites have a picnic table and fire ring. Types of camping and their locations are described below:

- **Designated vehicle camping** is located in the Middle and North Forks of the Michigan:
  - <u>Ranger Lakes Campground:</u> 32 sites; 3 vault restrooms (1 at trailhead, 2 in the campground) all with pads meeting ADA requirements, water pump, picnic site and fishing area; fairly high density

- The lease with the State Land Board recommends the entrance road is regraded; sewer and water infrastructure is added and upgraded; and all 32 existing RV sites are upgraded to include 30/50 amp electric, water and sewer service by 2022
- <u>Crags Campground:</u> 26 sites; moderate density; 2 vault toilets; hand pump water system for filling water jugs
- North Michigan Reservoir Campground: 48 sites, 9 of which are restricted from trailers; water spigots by upper and lower cabins; vault toilets
- <u>Bockman Campground:</u> 52 sites; 3 water spigots in campground; includes a horse corral with a water spigot; vault toilets; fairly high density.
- <u>North Park Campground:</u> 30 sites; KOA-operated prior to summer of 2018; See Section 5 for CPW plans to upgrade this campground per the State Land Board lease requirements.
- <u>Primitive Camping:</u> 43 sites scattered along Hwy 41, Ruby Jewell Road and Francisco Road; fire ring; horse corrals and vault toilet at the end of County Road 41.



Map 9. Primitive Camp Sites

- *Backcountry camping* along Ruby Jewel, Kelly, Clear and American Lakes:
  - No backcountry fires allowed
  - Camping allowed 1/4 mile past established facilities, trailheads and roads
  - Horses should be tethered at least 100 feet from lakes, streams and trails.
  - Groups can be no larger than 6 people.
  - Trash must be packed out
  - Campers should adhere to Leave No Trace Principles.
- *Cabins and yurts* provide year-round enjoyment of the park:
  - 7 cabins (6 located in North Michigan Reservoir Campground and 1 near Lake Agnes); include a bunk and mattress, propane heating stove, picnic table, outdoor grill, firewood shed (North Michigan Cabins 4-6) and vault toilet.
    - North Michigan Cabins 1 & 2: 15 visitors maximum;
    - North Michigan Cabins 2-3 & Agnes Cabin: 6 visitors maximum;
    - Cabins cannot be occupied by any one group for more than 14 consecutive nights and daily park fees still apply
    - Winter visitors may opt to access via 2.5 miles of groomed trails for skiers and snowmobilers
  - 9 cabins at North Park Campground: 7 rustic and include electricity; running water, shower and toilet nearby; picnic table; fire grill; bunk beds; 2 "deluxe" with flushing toilet, shower, sink, bunk beds and queen bed, table and chairs, outdoor grill
  - <u>Backcountry huts (cabins) (2) and yurts (8)</u> are managed through a long-term concession permit currently allocated to Never Summer Nordic. This contract started in fall 2018 and has a 10 year commitment with an option to renew for another 8 year.
    - Contract requires maintenance of facilities (units, parking and access to the units) and the additional of two more units to the following yurts by 2022: North Fork Canadian, Clark Peak, Ruby Jewel, Medicine Bow, Dancing Moose, Upper Montgomery Pass, Lower Montgomery Pass, Grass Creek, and Agnes Creek Hut and Noku Hut

# Wildlife-based Recreation

# Fishing and Boating

A variety of lake and stream fishing opportunities are available throughout SFSP. Anglers can fish for rainbow trout in Michigan Reservoir right off the road, take the short hike to Ranger Lakes, or opt for a more remote backcountry lake targeting cutthroat trout in one of the park's 8 alpine lakes. There are also many miles of stream fishing, dominated by brook trout, but also including rainbow, cutthroat and brown trout.

Contrary to popular belief, SFSP's streams and lakes likely supported few or no fish prior to stocking efforts. Streams are currently able to support brook trout reproduction with little stocking assistance, although most high and mid elevation lakes require regular stocking due to their lack of spawning habitat, winterkill and other factors the prevent populations from regenerating. Fish stocking within SFSP has varied over the history of the park, but has been

relatively consistent for the last decade (Table 2). Specific water bodies within the park are managed with very different strategies to help promote diverse fishing opportunities.

North Michigan Reservoir provides two boating ramps and the only opportunity for (wakeless) boating in the park, which is commonly coupled with fishing. This reservoir and Ranger Lakes see the highest fishing activity, ringing in 720 hours/acre/year and 12,000 hours/acre/year, respectively (1996 Ecosystem Plan). A 2016 and 2017 passive creel survey (Appendix Q), conducted at three backcountry lakes (Clear Lake, Kelly Lake and Ruby Jewel Lake), documented a total of 3,269 visitors at these lakes, of which 245 (7%) were fishermen. (See the "Visitation" section for more on the creel survey).

Lake	Planted	Number	Length (inches)
Kelly Lake	9/14/2000	3,785	1.22
	9/4/2003	3,430	1.2
	9/9/2004	3,771	1.29
	8/29/2006	3,750	1.07
	8/29/2008	3,749	1
	9/13/2010	3,749	1.3
	8/23/2012	4,434	1.34
	9/17/2014	3,750	1.44
	11/5/2016	2,700	1.5
	9/8/2017	3,750	1.58
Clear Lake	9/14/2000	505	1.22
	9/4/2003	452	1.2
	9/9/2004	509	1.29
	8/29/2006	1,001	1.07
	8/29/2008	999	1
	9/13/2010	1,000	1.3
	8/23/2012	1,000	1.34
	9/17/2014	1,000	1.44
	9/8/2017	750	1.58

Table 2. Cutthroat Stocking in Backcountry Lakes, 2010-2018

Ruby Jewel Lake	9/14/2000	410	1.22
	9/4/2003	368	1.2
	9/9/2004	416	1.29
	8/29/2006	401	1.07
	8/29/2008	499	1
	8/23/2012	1,001	1.34
	9/15/2014	400	1.44
	9/20/2016	399	0.98
Lake Agnes Lower	9/14/2000	1,514	1.22
	9/4/2003	2,075	1.2
	9/8/2004	1,516	1.29
	8/29/2008	1,495	1
	9/13/2010	1,500	1.3
	8/23/2012	1,500	1.34
	9/17/2014	1,500	1.44
	11/5/2016	1,800	1.5
	9/8/2017	1,500	1.58
Lake Agnes Upper	9/14/2000	300	1.22
	9/4/2003	284	1.2
	9/8/2004	335	1.29
	8/29/2008	310	1
	9/13/2010	300	1.3
	8/23/2012	301	1.34
	9/17/2014	300	1.44
	9/8/2017	300	1.58
Snow Lake	9/14/2000	1,703	1.22
	9/4/2003	2,392	1.2
	9/8/2004	1,717	1.29

	8/29/2006	1,700	1.07
	9/13/2010	1,700	1.3
	8/23/2012	1,699	1.34
	9/17/2014	1,700	1.44
	9/8/2017	1,700	1.58
Michigan Lakes Upper	9/14/2000	401	1.22
	8/28/2003	999	1.2
	9/4/2003	368	1.2
	9/8/2004	416	1.29
	8/29/2006	401	1.07
	9/13/2010	400	1.3
	8/23/2012	398	1.34
	9/17/2014	400	1.44
	9/8/2017	400	1.58

Table 3. Fishery Resources

Name	Number of Acres	Current Dominant Fish Species	Drainage
High Elevation Lake Fi	sheries		
Kelly Lake	25 acres	Cutthroat Trout	Kelly Creek/Canadian River
Lower Lake Agnes	22 acres	Cutthroat Trout; Longnose Sucker	Middle Fork Michigan River
Snow Lake	17 acres	Cutthroat Trout	Middle Fork Michigan River
Michigan Lakes (2)	9 acres	Cutthroat Trout (only Upper Lake gets stocked)	Middle Fork Michigan River
Clear Lake	9 acres	Cutthroat Trout	Clear Creek/Canadian River
Upper Lake Agnes	4 acres	Cutthroat Trout	Middle Fork Michigan River
Ruby Jewel Lake	4 acres	Cutthroat Trout	South Fork Canadian River
Reservoir Fisheries			

North Michigan Reservoir	66 acres	Rainbow Trout; Brown Trout; Brook Trout	
Ranger Lakes	13 acres	Rainbow Trout	
Stream Fisheries			•
North Fork Canadian River	n/a	Brook Trout	Canadian River
South Fork Canadian River	n/a	Brook Trout; Brown Trout	Canadian River
North Fork Michigan River	n/a	Brook Trout; Brown Trout; Rainbow Trout	Michigan River
Middle Fork Michigan River	n/a	Brook Trout; Brown Trout	Michigan River
Cabin Creek	n/a		Canadian River
Clear Creek	n/a	Brook Trout	Canadian River
Kelly Creek	n/a	Brook Trout	Canadian River
Grass Creek	n/a	Brook Trout; Brown Trout	North Fork Michigan River
Muddy Creek	n/a	Brook Trout	Canadian River

# Hunting/ Collecting Shed Antlers and Horns

SFSP draws its fair share of rifle, muzzleloader and bowhunters. Hunters primarily seek elk and deer in the park in the months of September, October and November. Hunting of bighorn sheep, bear, mountain lion and moose is also permitted. Although less common, waterfowl and small game hunting for species such as dusky grouse, ptarmigan and snowshoe hare also occurs. Bockman Campground and the primitive sites host many hunting camps, and those who seek a more remote experience opt for the Medicine Bow, Ute Pass, Glacial Cirques and Canadian River Zones.

CPW manages big game populations to achieve population and sex ratio objectives established for Data Analysis Units (DAU) - a geographic area representing the range of a herd in all seasons. A DAU is made up of one to several Game Management Units (GMU). Jackson County encompasses GMU's 6, 16, 17, 161 and 171. SFSP itself falls predominantly within GMU 6, slightly overlapping with GMU 171 at the southern end. The park is located within the following DAUs: E-3 (elk), D-3 (deer), M-1 (moose), A-3 (pronghorn), B-4 (bear), S-1,18 and S-19 (bighorn sheep). Current Herd Management Plans by DAU can be found at: <a href="https://cpw.state.co.us/thingstodo/Pages/HerdManagementPlans.aspx">https://cpw.state.co.us/thingstodo/Pages/HerdManagementPlans.aspx</a>.

To protect wintering wildlife from severe and constant stress from human activity no shed antlers or horns may be collected from January 1 to April 30 annually. This restriction applies

to all public lands in Colorado west of Interstate 25. The CPW Commission approved the annual restrictions in 2018. Shed collecting had become extremely popular over the past decade which led to a major increase in the number of collectors spreading out in areas where elk and deer are trying to conserve fat reserves to survive the winter. For more see: https://cpw.state.co.us/antlershed.

# Wildlife Viewing and Sightseeing

From dramatic alpine habitat to lush stream areas to woody lodgepole pine forests, SFSP provides a diversity of scenic landscapes and habitats for visitors to enjoy. A large portion of visitors seek out wildlife viewing and sightseeing opportunities either on their own or in conjunction with other activities like fishing, mountain biking and camping. The "Moose Capital of Colorado" designation brings many visitors to the area to look for Colorado's largest mammal. Birders also visit regularly as part of sage grouse lek tours in North Park and often stop by SFSP to see rosy finches and other spring migrants. During May the park's heaviest visitation comes from bird watchers.

# **Picnicking**

Due to the relatively long travel distance for many SFSP visitors, day picnicking is fairly infrequent. However, picnicking sites are established at Ranger Lakes, the Crags Picnic Area, and the Beaver Lodge Nature Trail Picnic Area to provide visitors ample opportunities to dine in the great outdoors.

# **Outfitters**

To enhance enjoyment for visitors through hunting, horseback and other back country experiences, SFSP manages annual concession permits with Red Feather Outfitters, North Park Outfitters, Medicine Bow Outfitters and others. These permits also generate revenue for the park and local companies.

# Multi-Use Management

# Forestry

SFSP is a unique amongst state parks because of its multi-use land management framework. One of these key land uses - as embedded in the park's name - is forestry. There is evidence that timber cutting has been practiced since white settlers arrived in the North Park. After a land exchange with the federal government in 1939, the State Land Board became the owners and operators of the Colorado State Forest.

The Colorado State Forest Service (CSFS) became the primary forestry consultant for the State Land Board in 1972. Full forest management responsibility of CSF was officially delegated to CSFS in 1985. This was preceded by roughly three decades of intensive forestry in the park. Bockman Lumber Camp, the largest logging camp to ever exist in Colorado, removed an approximate 80 million board feet of wood from the park. The visibility of logging spurred public interest and the eventual transfer of management.

Many different forestry and recreation interests converge at SFSP. Managers must cooperate to support sustainable and diverse forest conditions that benefit the local economy; reduce insect, disease and fire risks; safeguard wildlife populations; and provide high-class recreational opportunities.

CSFS is currently conducting a rolling forest inventory of the forest to help inform the new Forest Management Plan, the last one having been completed in 1988. The plan will provide general guidance for forest health which includes:

- Managing dead lodgepole (i.e., treating roads and campgrounds; creating fire breaks)
- Spruce beetle management
- Age class diversity
- Species diversity
- Fuels and fire

The primary timber types of SFSP are lodgepole pine, spruce/fir forests (comprised of Engelmann spruce and subalpine fir) and aspen. Various factors influence forestry practices, such as tree stand conditions, slope and soils, market conditions, recreation pressure and cultural resources. Resource damage and loss from the mountain pine beetle epidemic and dwarf mistletoe has historically driven much of the forestry in the park (see the "Threats to Habitats and Wildlife" section for more information).

A 2012 FEMA Pre-disaster Mitigation funded project concluded in their Environmental Assessment (EA) that lynx may occur on CSF but occurrence would likely be only transient individuals. The EA determined that the actions of creating defensible space, thinning and creating fuel breaks may affect but are not likely to adversely affect lynx. When possible, as CSFS lays out their timber sales they leave spruce and fir advanced regeneration (seedlings or saplings that develop/are present in the understory) and stagger treatments around previous harvests that have had time to regenerate. This allows for suitable habitat for snowshoe hares a primary food source for lynx.

Two areas for enhanced collaboration between CPW and CSFS in the park are scenic resources and travel management. Visitors do not always anticipate or understand the forestry operations in the park, and high visitation can impact road usage for CSFS staff. (See these "Enhancement Opportunities" section for more information on management directives.)

#### Grazing

Starting in 1879 when J.S. Fordyce first wintered cattle in North Park, ranching is a key cultural and economic component of the region. North Park's broad, fertile plains, along with a drought in northern Larimer County, attracted ranchers to the area. In the winter of 1883-84, 50% of the stock died due to starvation, prompting ranchers to relocate winter cattle to irrigated hay meadows west of SFSP.

Grazing accounts for a significant portion of the State Land Board's revenue from SFSP. In 1959, the myriad of grazing leases within the park were combined into a single lease to the State Forest Grazing Association. However, in 2007, this organization was abolished because Silver Spur purchased most of the grazing operations that constituted the Grazing Association.

There is no current comprehensive management plan, as all grazing on the park is dictated by each lease agreements with the State Land Board.

According to the last Grazing Management Plan completed by the Grazing Association in 2000, grazing within SFSP occurs primarily in thinned timber stands, aspen groves, low-lying meadows and riparian areas:

- Roughly  $\frac{2}{3}$  of land leased for grazing is forested with aspen as the main vegetation
- About 10% lies in lower elevation non-forested lands, primarily covered in sagebrush
- Another 10% in is the tundra, suitable for sheep but not cattle
- The remaining leased land is in highly productive meadows and riparian areas

Well-managed grazing lands double as habitat for wildlife species like elk, mule deer and moose, and correspondingly attract wildlife watchers, hunters and other recreationists to SFSP. However, much like forestry, visitors aren't always aware of grazing potential in the park and raise concerns about cows seen near campsites.

#### Minerals, Oil and Gas

Although no commercial extraction currently takes place in the park, mining is a part of the park's history and nearby land practices. The discovery of gold and silver in the area in the 1860's-70's led to the establishment of several mining towns in and around SFSP, including Teller City, Crescent City and Michigan City. However, they dissolved nearly as quickly as they were built; Teller City, the largest, grew in less than 5 years to a population of 1,300, and had become a ghost town by 1885 due to mineral depletion.

Within SFSP, extracted substances have included uranium, copper, fluorspar and gravel. The latest lease for fluorspar mining was to W.D. Tripp from 1989-1992, although nothing was ever extracted because of the insufficient market. A gravel pit on CR 41 was used by the park until 2005. CPW is currently seeking a new permit for gravel extraction for road repairs.

Future mining activity within the park's boundaries is unlikely due to the foothills and mountainous terrain. However, if oil and gas exploration is proposed, the State Land Board and CPW will collaborate to ensure the visibility of the project, potential conflicts with park operations or any other factors affecting the success of the park are fully considered.

# Interpretation and Environmental Education

#### Interpretive Themes/Messages

The following subjects focus on what visitors should know, believe or do while at the park and/or as a result of their visit. These should be developed into interpretive themes and messages as part of efforts to update programming and signage in the park.

- Unique features of SFSP
  - Largest park in Colorado State Park system and only one with alpine habitat
    - Sensitive ecology; high elevation recreation, lakes, rock formations (e.g., Nokhu Crags whose name came from Arapaho for eagle's nest)
  - SFSP has the only cold weather dunes in Colorado
  - North Park contains the headwaters of the North Platte

- "Moose Viewing Capital" of Colorado
- Multi- use management: forestry, grazing and recreation
  - Conservation of resources in multi-use framework
  - Seasonal closures for wintering, migration, calving big game
  - Where does the wood go? How are the cut trees used?
    - 2x4s, pellets, mills in Saratoga WY and Parshall, CO
- Ethical Camping/Leave No Trace
  - Pack it in pack it out, camping properly in the woods
- History
  - Why is it called State Forest State Park?
  - History of Gould (e.g., CCC camp) and Colorado State Forest
- Mountain Pine Beetle epidemic

## **Interpretive Facilities**

The Moose Visitor Center is the primary location for events at SFSP. The Visitor Center also has interpretive displays, wildlife mounts, window lookouts and a computerized map of the park listing the variety of recreation opportunities for visitors. Outside the Visitor Center there is a kiosk to promote scenic byways and a finely crafted life-sized barbed wire moose sculpture. Other programs, signage and more are found at the Ranger Lakes Amphitheater, North Park Campground, Moose Overlook, Self-Guided Nature Trails and Lake Agnes Cabin. The cabin is being renovated into an education center to expand interpretation opportunities into a heavily used area of the park.

## Interpretive Programs

SFSP provides a variety of interpretation and environmental education opportunities and will continue to improve programming for increased number and quality of opportunities for visitors. During the peak season (May - September) there are multiple programs every weekend including campfire programs, guided hikes, geocaching, Junior Ranger programs and presentations on ecology, history or dynamics of the park. During the rest of the year there are 1-2 events a month such as the Moose Festival, Full Moon Open House Hikes, Christmas Bird Count, Merry Moosemas, fishing clinics and more.

An	nual Interpretive Programs or Events
JANUARY 1st	First Day Hike
JANUARY & FEBRUARY	Full Moon Open Houses
	Winter Survival Day
MID-MARCH	Ice Fishing Clinic
MARCH & APRIL	Bird Monitoring
	Nature Night & Earth Day (Jackson Co Schools)
MAY	Weekend Park Programs
JUNE	Fishing Clinic
	Water Carnival (North Park Schools)
JULY	Never Summer Parade
AUGUST	Moose Festival
SEPTEMBER	Day in the Woods
NOVEMBER	Fresh Air Friday
DECEMBER	Christmas Bird Count/ Moosemas

Some educational programming is done in conjunction with the North Park School District. Jackson County Outdoor Education Network (partnership between school district and land management agencies) host programs at the park and SFSP staff host off park programs. SFSP also participates in CPW's S.O.L.E program (<u>https://cpw.state.co.us/learn/Pages/SOLE.aspx</u>) to connect kids and their families with the outdoors. Colorado State University, as well as other colleges and universities, also utilize SFSP for educational purposes. For example, CSU's summer Mountain Campus students come to the park for natural resources coursework.

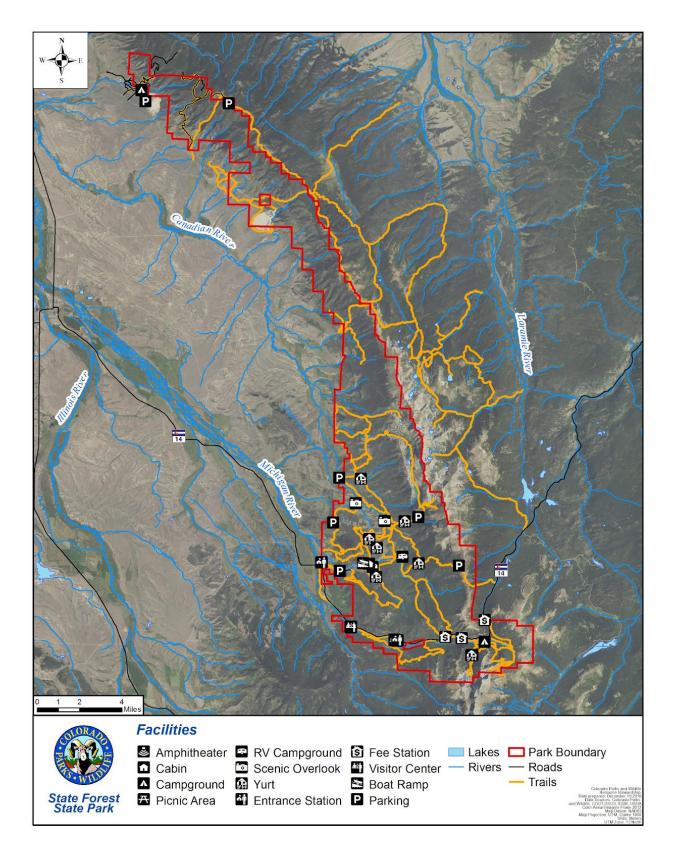
CSFS is highly interested in collaborating on telling the story of this area via interpretation opportunities.

# Facilities and Infrastructure

#### Table 4. CPW Owned and/or Managed Improvements

Improvement Name	Year Built
Moose Visitor Center	1996
Maintenance Complex	
Materials Shed	1972
State Forest Shop	1973
Horse Stable	1976
Snowmobile Shed	1981
Sign Shed	1982
Employee Housing	1985
Employee Housing	1995
Garage	1999
Boat Shed	2009
Dump Station	2009
North Michigan Reservoir Recreation Area	
Reservoir Water Rights	n/a
Cabin #4	1950
Cabin #5	1950
Cabin #6	1950
Cabin #1	1958
Cabin #2	1958
Cabin #3	1958
Firewood Shed for Cabins #1-4	1987
North Michigan Entrance Station	1999
North Michigan Campground (North side)	1979
North Michigan Campground (South side)	1985
<b>Ranger Lakes Recreation Area</b>	
Ranger Lakes Campground	1976
Ranger Lakes Entrance Station	2013
Crags Campground	
Crags Campground	1976
Dispersed Camping Areas	
Closure Campsites and Horse Corral	1999/2010
Dispersed Campsites	1999

Bockman Campground and Horse Corral1980Vault Toilets1976North Michigan Boat Ramp1976Lake Agnes Trailhead2018Crags Campground #11976Crags Campground #22018American Lakes Trailhead2018Bockman Campground #31980Cabins #4-61985North Michigan South Campground #1 and 21985North Michigan South Campground #1 and 21985North Michigan Spillway1999Cabins #1-31999County Road 41 Closure1999Bockman Campground #1 and 21999Ranger Lakes Day Use1999Ranger Lakes Campground #12018Ranger Lakes Campground #21999Ranger Lakes Campground #21999Ranger Lakes Campground #21999Rockman Campground Power Building1999North Michigan Spring2002Crags Campground Hand Pump2002Visitor Center2002Bockman Campground2014Shop Complex1973North Park Campground1967Ranger Lakes Campground1967Ranger Lakes Campground1967Ranger Lakes Campground1986North Park Campground1986Ruby Jewel Yurt and Vault Toilet1986North Fork Yurt and Vault Toilet1986North Fork Yurt and Vault Toilet1993Lower Montgomery Pass Yurt and Vault Toilet1999Lower Montgomery Pass Yurt and Vault Toilet1999Lower Montgomery Pass Yu	Bockman Campground	
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Equipment Shed 2000		
Nokhu Crags Hut and Vault Toilet 2000		
Agnes Creek Hut 2003	0	2003
Clark Peak Yurt and Vault Toilet 2005	Clark Peak Yurt and Vault Toilet	
Office/Home 2005		2005
Medicine Bow Yurt and Vault Toilet 2010	Medicine Bow Yurt and Vault Toilet	2010



Map 10. Facilities

#### **Operations and Maintenance**

- Most state park activities occur on the southern portion of the State Forest.
- To supplement the paid staff, there is an active volunteer program for visitor center, trails, campground and interpretive functions.
- The maintenance complex is located off of Highway 14 and includes a maintenance shop, seven bay vehicle garage, sheds, supply yard, bulk fuel station, seasonal and permanent housing.
- The park's fleet includes: 4 law enforcement vehicles, 4 maintenance vehicles, 1 trails vehicle, dump truck, 1995 JD 6200 tractor, and a skid steer primarily for trail's use only. There are also 6 OHVs and 7 snowmobiles.

# Issues / Challenges

- Most of the North Park Campground building is currently closed for assessment and capital improvement. Renovations or a new building would provide much needed upgraded bathroom, shower and laundry facilities, additional employee housing, full hook up camper sites, additional camp host sites, retail options and more.
- There are limited local service vendors (i.e., sewer and trash) which makes it difficult to keep prices competitive. There is also limited interest from outside contractors to work on facilities due to distance they must travel from Steamboat, Fort Collins, Denver, etc.
- The extensive trail and road systems require resources to manage adequately for visitor use and safety.
- There are facilities in need of updates or repairs across the park. Aging infrastructure is beginning to fail or is outdated and undersized for today's recreational needs.
- Short 5 month construction season makes it difficult to complete outdoor projects.
- The park has many adjacent and bordering land management agencies the public does not always differentiate whose land they are on.
- The park is spread out and access to northern portions are difficult and far from the central offices and maintenance complex.
- Electric sites are becoming more and more popular upgrades and additions will be needed in the future. Today's RV's have larger water and sewer holding abilities than ever before and the ability to use much more electricity. These changes are already putting a strain on our current systems.

# Information Technology

There is a T1 line at the Visitor Center but it still presents challenges. Bringing a Century Link line in from Walden is cost prohibitive. Vista Beam is a potential option but would mean putting towers in the park. There is a need to consider new options as they become available in this remote part of the state. The information systems currently in place are slower than average and are lacking at critical entrance points to the park such as gatehouses. There is also limited cell coverage and ability to make radio contact.

# Utilities

- Electrical service provided by Mountain Valley Electric.
- Heating of buildings by propane provided by bid through three vendors.
- The maintenance section operates seven separate water treatment and distribution systems to provide potable water to park visitors.

- Wastewater is treated by Individual Sewage Disposal Systems at the Visitor Center, maintenance complex, and North Park Campground, and one dump station is located by the maintenance complex. These systems are 20+ years old and will be in need of upgrade or major repair in the next 10-15 years.
- Wastewater pumping is through Elk Mountain Services.
- Phone and internet are provided by CenturyLink.
- Trash is collected by Bullpen Trash weekly during the summer and every other week during the winter.

#### Roads

Roads within SFSP serve multiple purposes to help maximize utilization of resources within the park. They provide access for timber management, fire protection, grazing management and recreational visitation, helping people experience hunting, angling, boating, camping, cross-country skiing, sledding, hiking, OHVing and backcountry activities.

State Highway 14, Jackson County Road 41 and its Bockman and Canadian River Road branches provide main access to the southern portion of SFSP. Hunters and backpackers typically use Jackson County Road 12E to access the middle part of the park, although it is relatively isolated from vehicle traffic. The northern portion also has limited access, primarily reached via the Mendenhall Creek Road (Jackson County Road 8) and Jackson County Road 6E.

As identified in SFSP's 1986 Management Plan, the park's "developed" roads (two lane, gravel-surfaced) are found in the southern portion and include: County Road 41 (maintained by Jackson County), Canadian River Road, Ranger Lakes Road, Crags Campground Road, Bockman Campground Road, American Lakes Trailhead and the South Side of North Michigan Reservoir.

"Recreational" roads (single lane, four-wheel-drive recommended) mainly occur in the park's southern region and include: Bockman Road, Bull Mountain Roads, Grass Creek Road, Gould Mountain Road, Lake Agnes Trailhead, Mendenhall Creek Road (northern portion of park), Montgomery Pass, North Sand Hills Roads (northern portion of park), Ruby Jewel Road, Sales Creek and Middle Fork Road - Ranger Lakes Fishing Access.

"Closed" roads (no public access) include Ute Pass and Michigan Ditch.

# Visitation

The following visitation information stems from four main sources: 1) 2018 SFSP Public Comment Form Summary (Appendix B); 2) 2014 Visitor Response to Mountain Pine Beetle Impact in SFSP (Appendix I); 3) Colorado State Parks Marketing Assessment: Visitor Intercept Survey (2008 Corona Study), and; 4) 1986 State Forest State Park Management Plan (1983 data).

The Public Comment Form gathered 274 responses, the mountain pine beetle study utilized 200 survey responses and the Corona study had 301 participants in SFSP. Some loose comparisons were drawn between the studies to identify trends, but due to methodology and sampling differences, they are not directly comparable. Cited data is associated with the year

in which it was collected (e.g., Public Comment Form data will be attributed to the year 2018.)

# Visitor Demographics

In 2014, visitors to SFSP averaged 45 years of age. This was consistent with 2008 trends: 35-44 and 45-54 year-olds had the highest visitation rates (24% each). Other age brackets were: 18-24 years old (4%), 25-34 years old (11%), 55-64 years old (22%) and 65 years old and above (13%). Visitation from males was 43% (2008) and 59% (2014). Correspondingly, the percent of female visitors ranges between 41% (2014) and 52% (2008).

In 2008, a vast majority of SFSP visitors identified as Caucasian (93%), followed by Hispanics and Native Americans (3% each). According to the U.S. Census Bureau as of July 2018, 87% of Coloradans are white. Over 20% identify as Hispanic. The percentage of visitors who are Colorado residents rose to 90% in 2014.

Travel distance has somewhat fluctuated through the decades (Table 5). Local visitation (0-50 mile trip) increased around 10%. Visitors travelling 100 or more miles peaked in the 2008 timeframe, at 65%. In 2018, the average travel distance to SFSP was over a hundred miles greater than the statewide average (250 miles vs. 145 miles), demonstrating that this park is an attractive getaway.

	0-50 miles	50-100 miles	100+ miles
2018	13%	40%	47%
2008	3%	32%	65%
1983	2%	45%	54%

#### Table 5. Visitor Travel Distance (in percent of respondents)

# Visitor Trends

A new method of counting vehicles has led to much more accurate visitor counts in SFSP over the past several years (Figure 3). However, accuracy is still a challenge as there are multiple entrances to the Park. From 2016-2018, summer was the most popular time of year to visit, with most visitors flocking to the park in July (~73,000) and second most in August (~66,000). Average annual visitation to the park across these years hovered around 323,000. Which is 13% of all visitation to the Northwest region of Colorado (~2,517,000 visitors total).

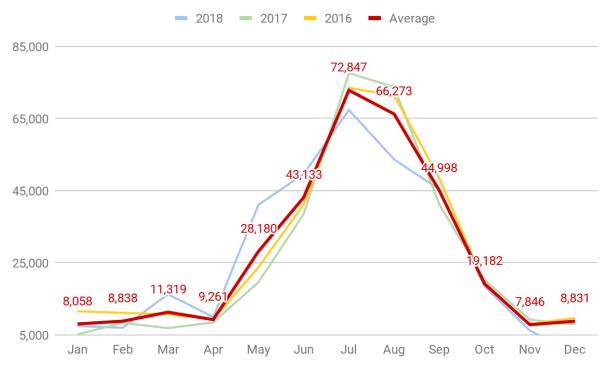


Figure 3. SFSP Visitation by Vehicle Count

The 2018 Public Comment Form shows that nearly half of SFSP's visitors come to the park alone or with one other person. 10% of visitors recreate with groups of 6 or more people. A majority (77%) of SFSP's visitors stay overnight in the park - a dramatic increase from 2008 statewide overnight visitors (38%). 38% of overnighters stay 1-2 nights, 31% camp for 3-5 nights and 8% stay for 6 or more nights.

About one third of SFSP visitors go there on an annual basis (35% in 2018, 32% in 2008). A similar proportion of visitors make an appearance 2-4 times per year. Frequent visitation (about one or more times a month) increased from 5% in 2008 to around 18% in 2018. Camping accommodations are utilized more than in the average state park: tents were utilized most (22%), followed by cabins (8%) and yurts (6%).

Table 6 lists the top ten recreational activities in SFSP across several years. Comparisons must be drawn tentatively as survey procedures differed, but this representation helps to identify general recreation trends. Several tried and true activities make the top of each list, including camping, walking/hiking, sightseeing and fishing. Hunting appeared to be much more popular in the '80s, while OHV riding gained traction in more recent years. Wildlife viewing and photography have also notably moved up in the ranks.

2018*		2014		1983	
Activity	%	Activity	%	Activity	%
Walking/hiking	86%	Camping	94%	Fall:Hunting	80%
Fishing	58%	Hiking	89%	Camping	76%
Sightseeing	49%	Wildlife viewing	81%	Shore fishing	71%
Tent camping	48%	Sightseeing	66%	Sightseeing	65%
Photography	46%	Fishing	62%	Winter:Skiing	70%
Bird watching/wildlife viewing	43%	Picnicking	36%	Hiking	64%
RV camping	40%	OHV riding	15%	Picnicking	60%
Backpacking	32%	Biking	13%	Winter: Snowmobiling	25%
Staying in a cabin/yurt	28%	Boating	9%	Nature study 25	
Summer: OHV riding	26%	Geocaching	3%	Boat fishing	9%

Table 6. Top 10 Recreation Activities in SFSP

\*See Appendix B for the full activity list from the 2018 Public Comment Form Report.

In 2016 and 2017, a passive creel survey (Appendix Q) was conducted at three of SFSP's backcountry lakes - Clear Lake, Kelly Lake and Ruby Jewel Lake. Of the 245 anglers who participated, 41% identified hiking as their primary recreation activity, followed by fishing. Nearly one quarter (23%) sought a solitary fishing experience, and 9% chose an "other" primary activity (backpacking, scouting, hunting, etc.)

Staff has observed an increase in archery hunting, aided in part by the growing popularity of the e-bike. With this technology, visitors are spreading out further and further from main roads. This coincides with the general observation of more dispersed use within the Park, and a shift to year-long recreation due to improved equipment. This ties into the broader conversation in the parks and natural resources realm of how to predict and manage future recreation impacts.

#### Visitor Preferences/Attitudes

Visitors have a proven positive experience at SFSP. In 2008, well over half (64%) of visitors rated their visit as "excellent," 31% described it as "good" and 3% said "fair." Breaking this down further, SFSP performed best in the categories of nature and interpretive programs (ranked #11 of 42 state parks), trails (ranked #16 of 42) and camping (ranked #11 of 34). Scenery satisfaction and recreational activities were SFSP's lowest ranks (#18 of 42), although scenery received 98% satisfaction overall.

The park tends to draw a specific type of recreationalist that is more backcountry-oriented than the average state park visitor (46% vs. 41%), and slightly less amenities oriented (39% vs. 41%).

#### Management Implications

A significant portion of respondents to the 2018 Public Comment Form voiced their opinions about additional recreation activities in SFSP. The top three themes were additional/enhanced trail opportunities (28% of respondents), none/keep as is/stay natural (24%) and other recreation (17%), which included comments about an archery and gun range, an off-leash dog area and other amenities.

The sentiment behind 'none/keep as is/stay natural' was captured again by 61% of the respondents who provided open-ended comments. Other comments revolved around issues with motorized recreation, RV usage, grazing and limited staffing, to name a few. When asked to voice top concerns with the park, people focused on resource management/damage and crowding (although drawing a relatively small number of responses). Overall, visitors love SFSP and want to limit development and protect the resources and existing infrastructure.

Figures 4 and 5 depict additional visitor priorities for park management. For North Park Campground, most visitors would like to see additional trees, followed by campsite improvements and self-serve camper registration. In 2019, SFSP began a reservation only system for camping, eliminating the need for a self-serve station. Other priorities included the reintroduction of golden trout, planning for backcountry use and access to the East Sand Dunes. More OHV trail connections and OHV road maintenance were the lowest priorities, although this is likely linked to the low number of OHV users who completed the survey. SFSP caters to the novice to intermediate OHV rider. More advanced riders and organized groups tend to be more likely to participate in public input opportunities. SFSP staff continue to reach out to OHV clubs for input on trails and to engage them as volunteers.

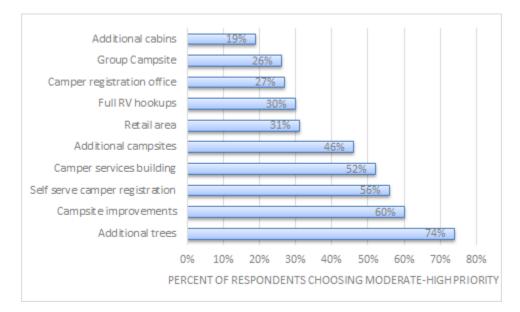


Figure 4. Visitors' Priorities for North Park Campground Improvements

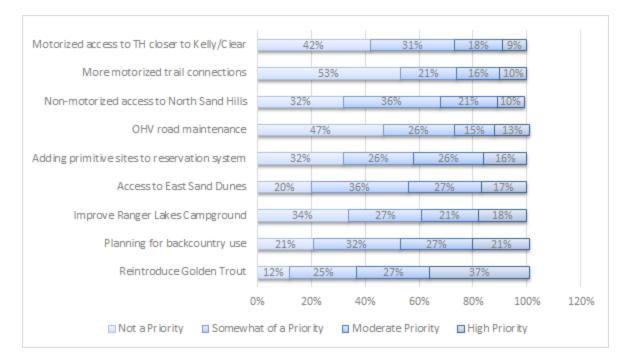


Figure 5. Visitors' Priorities for Management of SFSP

The 2008 Corona study illustrates SFSP's challenge of balancing primitive recreational opportunities demand for modern conveniences. Given 12 potential alterations to park features, the top three that respondents selected would increase their visits were more natural/primitive experiences (51% of respondents), more restrooms/change facilities (43%) and more campsites with plumbing/electricity (41%). The highest ranked reason for potentially decreasing visitation was more non-motorized trails (33%), although this would increase visits for 18% of park users. It's worth noting that a large portion of visitors selected "don't know/no difference" for each alteration looked at in the study.

On the flip side, SFSP's visitors demonstrated a high level of satisfaction for existing park features in 2008. Scenery/surroundings, cleanliness, information and signage, customer service and safety were all selected as satisfactory by over 90% of respondents. Nature and interpretive programs (51% of respondents) and recreational activities (62%) had the least satisfactory rankings, although the interpretive program ranked 11th of 42 state parks in the same study. Facilities (restrooms, visitor centers) drew the largest "not very/not at all satisfied" responses (9%) but was satisfactory for 86% of respondents.

Based on the 2016-17 creel survey, anglers generally support stocking additional species, but support varies by lake and anglers are relatively content with the current cutthroat trout management. Echoing the Public Comment findings, 35% of anglers reported being "more likely" to fish SFSP again if golden trout were stocked.

Finally, the Public Comment Form included a question about rental shop products of interest. Most respondents (72%) selected canoes/kayaks, followed by stand-up paddleboards (57%), self-guided ATVs (42%) and fishing boats (33%).

# Park Administration and Special Functions

Full-time and Seasonal Staffing

As of January 2019, SFSP has 6 full-time staff including: Park Manager, Senior Ranger, Park Resource Technicians (2), Ranger and an Administrative Assistant.

## Volunteers

*Camp Hosts:* SFSP has increased the number of hosts from 2-3 in 2015 to 16 in 2019. There are 3 host sites at maintenance complex, 3 at North Park Campground, 1 at Ranger Lakes and 2 dry host sites (no hookups) at North Michigan and Bockman Campgrounds. Hosts support daily operations serving as campground maintenance technicians as well as entrance station, visitor center and camper registration attendants.

*Internship Program:* The internship program currently covers one of the winter Visitor Services Ranger positions that covers park patrol, maintenance, and Moose Visitor Center staffing.

*Special Events:* Volunteers help with some interpretive programs and special events such as the annual Moose Festival.

*Ski Patrol:* Diamond Peaks Ski Patrol and Nordic Rangers patrol the backcountry.

#### Enforcement/Public Safety

SFSP staff work daily to maintain the safety of park visitors, protection of natural resources and enforcement of regulations and statutes. In addition, at the request of the Jackson and Larimer County Sheriff's Departments as well as Colorado State Patrol, SFSP staff respond to emergency needs outside of the park and provide critical law enforcement capacity for the county.

The most common issues within the park include: dogs off leash, illegal fires, failure to pay entrance fees, and hunting, fishing, OHV and snowmobile violations. Visitor misperception of which jurisdiction they are located in is often cited as a reason for noncompliance. There are multiple agencies managing land up to SFSP's borders, each with different regulations.

Emergency and wildland fire suppression services in Jackson County are provided by three agencies: North Park Fire Rescue Authority, the USFS (Park Ranger District) and the BLM (Kremmling Field Office).

#### MOUs, IGAs or Other Agreements

a. State Land Board Interagency Real Property Lease Agreement (Appendix C): The lease is in effect for 20 years, from July 1, 2017 to June 30, 2037. Per this agreement, CPW commits to expending \$2.2 million dollars on the design and construction of certain improvements explained in the lease by June 30, 2022. CPW must also develop and deliver management

plans, including this Park Management Plan, an annual Maintenance Plan and participate in other multi-party planning efforts (ex., Weed Management Plan).

- b. MOU for Road Management: Jackson County, CPW and CSFS have an agreement that expires in 2020.
- c. North Sand Hills:
  - i) Cooperative Management Agreement (CMA) between the State Land Board, CPW, BLM. BLM has a lease with the State Land Board for management of State Trust Land parcel associated with NSH.
  - ii) North Sand Hills MOU between the State Land Board, BLM and CPW.

## Partnerships

#### Table 7. Primary partnerships

Partner	Description of Partnership						
Local							
Jackson County	Manage Highway 41 and collaborate with CPW law enforcement.						
City of Fort Collins	Management of Michigan Ditch						
State							
Colorado State Forest Service	Manage CSF's forestry resources and work cooperatively with CPW.						
State Land Board	Land owners						
Federal							
United States Forest Service	Neighboring land manager of Routt and Roosevelt National Forests.						
National Park Service	Neighboring land manager of Rocky Mountain National Park.						
Bureau of Land Management	Co-manager of the North Sand Dunes and neighboring land manager						
Private							
Silver Spur Ranches Primary grazing lessee on SFSP.							

Other partners include: Ewy Forest Resources, Gould Community Center, Never Summer Nordic, Medicine Bow, North Park and Red Feather Outfitters, Rocky Mountain Conservancy, North Park Snow Snakes, North Park Ambulance Service, North Park Fire/Rescue, North Park School District, Walden Chamber of Commerce/Visitors Bureau, Arapaho National Wildlife Refuge, Rocky Mountain Youth Corp, Northern Colorado Backcountry Horsemen, Roundup Riders of the Rockies, Colorado State University, Cache LaPoudre - North Park Scenic and Historic Byway Council.

# Special Uses

SFSP uses Special Activity Permits to allow for single day events (i.e., Never Summer 100k) and special interest opportunities such as hunting, horseback and backcountry outfitter/guide opportunities. These permits are issued for each calendar year, can be renewed at the discretion of CPW, and include a percentage of gross revenue profit sharing with CPW.

# Park Budget and Finances

The Park relies on various budget allocations (i.e., General Operating, Permanent Personnel Services, etc.). These are commonly referred to as agency Budget Buckets or Categories, which are summarized in the table below. Budgets are requested through various CPW processes on an annual or ad-hoc basis based on the nature of the type of request. Table 8 provides a breakdown of the Park's total expenses in FY 2016-17 and FY 2017-18. The state Fiscal Year is July 1 - June 30.

Category	FY 2016-17	% of Total	FY 2017-18	% of Total
Permanent Personnel Services <sup>1</sup> (Includes Permanent Benefits)	\$414,985	48%	\$344,356	36%
General Operating (Includes Temporary Personnel Salary and Benefits) <sup>2</sup>	\$333,695	39%	\$477,361	49%
Parks Small Capital (Projects under \$100,000 each)	\$10,368	1%	\$69,185	7%
Boat Safety and Boat Education	\$42,145	5%	0	0
Trails Grants (Motorized and Non- motorized)	\$31,466	4%	\$44,099	5%
POTS (Indirect; Excluding leased space)	\$20,256	2%	\$18,303	2%
Snowmobile Grooming	\$2400	0.3%	\$1105	0.1%
Forest Management Program	\$1065	0.1%	\$4988	0.5%
Special Purpose Grants: Mitigation, Non-Budgeted Grants, etc.	\$450	0.1%	\$6877	0.7%
Total	\$856,530	100%	966,274	100%

# Table 8: Park Expenses (FY 2016-17 and FY 2017-18)

There were 5 FTEs in FY 16-17 but due to a vacancy, FY 17-18 had 4 FTE filled. A new FTE (Park Resource Technician) was added in May 2018 (therefore FY 18-19 had 6 FTE for the first time) with the acquisition of North Park Campground from KOA.

<sup>2</sup> The State Land Board lease renewed in June 2017 with a significant increase in the lease.

Sections below highlight some of the recent budget allocations and expenses for the primary budget categories shown above.

# General Operating Costs

Most operating costs for the Park remained relatively constant between FY 2016-17 and FY 2017-18. <u>A significant increase in expenditures for the Property Lease began a renewed lease with the State Land Board effective June 2017.</u> The majority of the rest of the operating budget is spent on temporary employees' salary and benefits, followed by property repair, maintenance and improvements and utilities.

Category	FY 2016-17	% of Total	FY 2017-18	% of Total
Temporary Personnel Services (Salary and Benefits)	\$132,577	40%	\$133,022	28%
Property Lease	\$45,400	14%	\$160,000	34%
Property Repair, Maintenance, Improvements	\$41,435	12%	\$43,547	9%
All Utilities	\$28,934	9%	\$46,698	10%
Contract Personal Services	\$24,997 <sup>1</sup>	8%	0	0
Supplies and Materials	\$23,665	7%	\$38,958	8%
Motor Vehicles (Supplies, Maintenance)	\$22,075	7%	\$26,574	6%
Communications (Telephone and Telecommunications)	\$4,090	1%	\$5,446	1%
Equipment (Maintenance, Rental, Repair and Purchase)	\$2,635	0.8%	\$3,990	0.8%
Travel	\$2,151	0.6%	\$4,335	1%
Services (Construction, Repair, IT, Testing, etc.)	\$2,067	0.6%	\$8,740	2%
Overtime	\$1,992	0.5%	\$1,962	0.4%
Other Miscellaneous Expenses	\$1,677	0.5%	\$4,089	0.9%
Total	\$333,695	100%	\$477,361	100%

Table 9: General Operating Expenses (FY 2016-17 and FY 2017-18)

<sup>•</sup>This reflects the cost of a ground soil assessment in the North Park Campground's former fuel station.

# Temporary Staff Resources

In addition to State Forest State Park's 6 full-time employees, the Park hires an additional 17 temporary employees throughout the year as seasonal rangers, gate attendants, visitor center attendants and maintenance workers.

Activity	FY 2016-17	% of Total	FY 2017-18	% of Total
Organization Support	\$46,698	35%	\$48,515	36%
Visitor Support (Law Enforcement, Customer Service, Education, Recreation)	\$85,879	65%	\$84,507	64%
Total	\$132,577	100%	\$133,022	100%

Table 10: Temporary Employee Expenditure Detail (Salary and Benefits) (FY 2016-17 and FY 2017-18)

# Large Capital Construction Projects

Large capital construction projects are high-dollar improvements to the Park that are considered on an annual basis. These expenses do not come directly out of the Park's funds. There were no large capital expenses in FY 2016-17 or FY 2017-18. Large capital expenditures are expected in the coming years for improvements to North Park Campground and dam repairs.

#### Concessions

Current concessions include Never Summer Nordic (yurt and hut management) as well as Red Feather Outfitters, Medicine Bow Outfitters and North Park Outfitters. There is an annual fee and the park receives 5-11% of total gross income from each activity.

# **Economic Value**

Through park temporary and permanent jobs, business for concessionaires and visitor expenditures, SFSP has a positive impact on the economy of neighboring communities. The 2008 Corona study provided details about visitor spending. All visitors direct spending (i.e., lodging, gas, food, etc.) within 50 miles of the park and within the park (not including entrance fees) averaged \$198.89 per vehicle with total expenditures of over \$20 million dollars.

As reported in the 2019 Statewide Comprehensive Outdoor Recreation Plan, outdoor recreation contributes significantly to Colorado's economy. In the Northwest region of the state there are over 130,000 jobs attributed to outdoor recreation and total economic output of \$14.9 million contributing over \$8 million to the state GDP and producing over \$2.4 million in local, state and federal tax revenue.

# 4.0 Management Zones

# Methodology for Determining Management Zones

CPW's management zoning scheme (Table 11) provides a framework for identifying areas with different types of visitor experiences and various recreation opportunities, based on the resources that occur within the park. Within each management zone, suitable types of facilities and land uses are also identified, along with the suggested visitor experience and management focus. Management zoning helps park managers avoid conflicts among visitors seeking different types of activities, identify management needs, sustainably manage the unique resources at the park, and more effectively plan future park development.

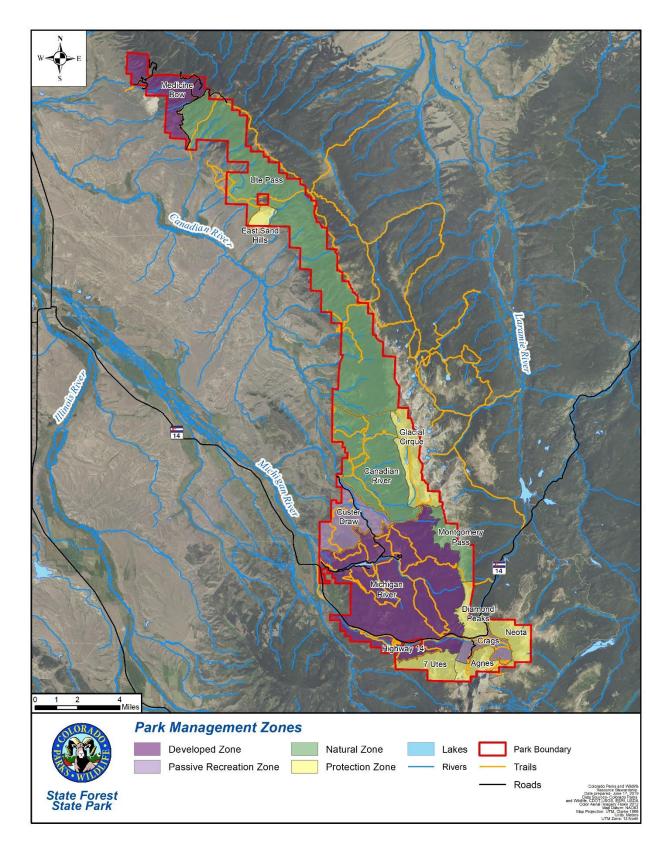
For this plan, the management planning team reviewed existing zones from previous plans for applicability of their continued use. In general, most zone boundaries and names are remaining the same. Changes to zones are covered below in their descriptions. The names are already familiar to staff and visitors and reference key features of that zone.

The team agreed that the zones would:

- 1. Help inform CPW management directions;
- 2. Paint a picture of Desired Future Condition of the natural and cultural resources as well as recreation opportunities in each zone; and
- 3. Be determined at the park, not the system, scale i.e., the conditions and resources at SFSP determined zones, not criteria based on all of Colorado's State Parks.

Due to the unique alpine habitat and large size of SFSP, "protection" zones may allow for limited recreation to continue. In addition, large continuous areas of wildlife habitat in a "developed" zone may not be developed for recreation. "Seasonal closures" were considered in all zones for areas with sensitive seasonal issues (e.g., breeding, nesting, or calving sites for sensitive wildlife etc.).

The Significant Features Map (Map 3) was also used to verify zone boundaries, and classifications were consistent with known information about natural and cultural resources. CPW aquatics, terrestrial and local staff were consulted to ensure accuracy of the Significant Features Map and agreement throughout the agency on zoning decisions.



Map 11. Management Zones

Zone Classification	Visitor Experience	Recreation Opportunities	Potential Facilities	Management Focus
Development	High social interaction Low opportunity for solitude Low opportunity for challenge	High-density recreation Emphasis on providing opportunities that rely on motor vehicle access via roads such as picnicking, and at some parks could include RV and tent camping, and potentially motorized uses in designated areas. Some fishing, boating, equestrian use, mountain biking, hiking, and watchable wildlife may occur in this zone.	Tyipically parking areas, paved or high-use roads, utilities, group picnic areas, visitor services, restrooms, concessions, interpretive facilities and at overnight parks, developed camping areas. Less typically this could include marinas, motorized use areas, and dog off leash areas at some parks.	Intense management needs Manage to provide sustainable recreation and aesthetic qualities Prevent weed spread, erosion, or other degradation Intense fire prevention mitigation Revegetate with natives where possible or with non-invasive landscaping
Passive Recreation	Moderate social interaction/low opportunity for solitude Moderate degree of interaction with the natural environment Moderate opportunity for challenge	Medium-density recreation Emphasis on providing hiking, fishing, equestrian use, mountain biking and other dispersed recreation. Some picnicking or backcountry camping, canoeing and other non- motorized boating, watchable wildlife, interpretive opportunities are likely to occur in this zone	Typically trails and interpretive facilities and individual picnic areas. Less typically this could include dirt roads or light use roads, limited motorized uses (in larger parks only), hike-in campgrounds, or yurts Minimize utilities to the extent possible	Moderate to High management needs Manage to maintain the natural character and provide sustainable recreation Actively manage weeds in order to eradicate or suppress, and prevent erosion or other degradation High level of fire prevention Revegetate with native species
Natural	Low social interaction/moderate opportunity for solitude High degree of interaction with the natural environment Moderate to high opportunity for challenge	Medium- to low-density recreation. Emphasis on providing low impact, non-motorized and dispersed recreation. All recreation opportunities in the Passive Recreation Zone are likely to occur here with the exception that there be more of an emphasis on providing non-motorized dispersed recreation. Hunting also permissible at some parks	Primarily trails and some interpretive facilities Minimize utilities to the extent possible	Moderate to low management needs Manage to maintain the natural character, the native flora, the wildlife habitat, and the ecological functions Actively manage weeds for eradication, prevent erosion or other degradation Moderate to high level of fire prevention Revegetate with native species
Protection	Typically unmodified natural environment	None, or heavily restricted	None or heavily restricted	Least intense management needs Preservation of very sensitive resources or restriction of visitor use for legal or safety reasons.

Table 11. Management Zone Classification Scheme and Characteristics
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# **Description of Management Zones**

Using the zoning scheme in Table 11, a zoning map was developed for SFSP that identifies 7 subalpine management zones plus 6 alpine management zones (Map 11). The northern and southern ends of the park are mostly classified as developed due to motorized access, campgrounds, visitor center and other recreation facilities that occurring these areas of SFSP. The middle of the park is primarily natural and protection zones due to the sensitive ecological resources found in these areas. The far south east, high alpine areas of the park, are natural and protected as well.

# Area Descriptions that Influence Park Zoning

SFSP contains important year-round habitat for a variety of wildlife including important areas for big game calving/fawning/lambing areas, migration routes, and winter range. Critical winter range for big game has been identified along the western edge of SFSP from Elk Mountain north to the North Sand Dunes. In addition, elk and deer prefer the western edge of the park's sage/aspen habitat for birthing. These areas and potential impacts of recreation were considered as management zones were determined. Bighorn sheep tend to use steep rocky cliffs above treeline for lambing, making recreation impacts less of a concern for them during spring. In addition, within each zone management actions will include minimizing any further fragmentation of core habitats/large unfragmented areas and utilize seasonal closures.

Many areas of SFSP are remote and not easily accessed by visitors or staff. Maintenance and law enforcement responsibilities are assigned to various staff by zone boundaries.

A brief summary of the zones and key considerations that were taken into account during the park management zoning process are highlighted below.

# Subalpine Zones

# Medicine Bow Zone: Developed

This zone is from Mendenhall Road north to the park boundary. Vegetation ranges from sagebrush flats to aspen groves to lodgepole pine and spruce-fir as well as non-forested ridges. Mule deer severe winter range occurs in the zone.

The primary recreation in this area is the North Sand Dunes which allows motorized access north and west of Mendenhall Rd in the summer. The sand dunes are just a small portion of the larger North Sand Hills Special Recreation Management Area (SRMA) managed by the Bureau of Land Management. This is Colorado's only open sand dunes for OHV recreation and provides riding opportunities for 4x4 vehicle, dirt bike, ATV, side-by-side and sand rail riders. The area is increasingly popular during the summer season and crowded during holidays and weekends. It is closed to motorized and mechanized use December 15 to April 15 annually to

protect critical winter range for big game. The BLM and the State Land Board have an existing Cooperative Management Agreement (CMA) that allows for BLM management activities and enforcement on lands adjacent to the BLM SRMA. The CMA covers 640 acres and includes the adjacent Stewardship Trust Lands including a portion of SFSP that is utilized by visitors for recreational camping, trail riding and dune riding. The State Land Board, CPW and BLM are working to update the CMA.

North Park bugseed, *Corispermum navicula*, is found here. This is a G1 S1 species meaning it is critically imperiled globally and in the state. This species has been petitioned for federal listing (as endangered) with a tentative listing decision to come from U.S. Fish & Wildlife Service by 2022. This species is also undergoing genetic testing by Bureau of Land Management to determine the taxonomic status of the plants found here and in the East Sand Hills.

# Ute Pass: Natural

Ute Pass is focal point to this zone which extends between Mendenhall and Clear Lake Trails. The topography bordering this zone is very rugged on either side with the Rawah Wilderness on the east and private land on the west. Recreation in this area includes hunting, hiking, backpacking, backcountry camping, dude ranching and horseback riding.

Ute Pass Trail crosses the northern portion of this zone and is one of the shortest distances to Shipman Park in the Rawah Wilderness Area east of SFSP. The East Sand Hills Protection Zone is a culturally and ecologically sensitive area within the Medicine Bow Zone and is in close proximity to Ute Pass Trail.

Jack Dickens Trail crosses the southern portion of this zone and is roughly the southern end of the highest concentrations of elk and deer in the park. Seasonal closures for wintering wildlife occur in the Medicine Bow and Ute Pass Zones, including Ute Pass Trail and Jack Dickens Trail, from December 15 to April 15 annually.

Prohibiting dogs and bikes in the Ute Pass Zone is being considered to enhance wildlife protection and natural solitude.

# East Sand Hills: Protection

The East Sand Dunes are the only undisturbed (i.e., no motorized access) active cold-climate dune system in Colorado. The East Sand Hills are managed as a State Natural Area which also extends into State Land Board's, Sand Creek State Trust Land, outside of the park. The entire Natural Area is larger than the dunes to provide a buffer. A portion of Sand Creek State Trust Land is enrolled in the State Land Board's Stewardship Trust to also help protect the East Sand Hills. CPW and the State Land Board are working to evaluate the boundary of the Stewardship Trust designation and possibly redefine the State Park boundary to make it inclusive of the dunes and any adjacent areas that contain sensitive resources.

Relatively high precipitation, short summers and cold climate combine to limit sand movement. The fragile soil and vegetation are extremely rare in Colorado. North Park Bugseed is found here as well (see above in 'Medicine Bow'). There are only two known populations of this species known in the world, including the North Sand Hills and East Sand Hills. The population at East Sand Hills is very important since it is the only population not impacted by OHV use and it is petitioned for federal listing under ESA.

Park regulations already do not allow motorized access or collection of any plants, artifacts, etc. In the coming years, the park will evaluate the need for new regulations related to limiting the number of people in this area, prohibiting access for dogs and bikes, and restricting horses from the dunes. Permitting options for access and special conditions are also being evaluated. Currently there is limited staff to patrol this area. See pages XX for enhancement opportunities/management initiatives related to this zone.

# Canadian River: Natural

Known for its long distance hikes and backpacking trips this zone goes from Clear Lake Trail to Ruby Jewel Road with the ridgeline west of Kelley Lake and Hidden Valley, that includes 3 peaks at 9,000, 11,000, 12,000ft as the western border. Most of this zone has limited motorized access keeping it for medium to low density recreation. In the summer, motorized access is only allowed on Ruby Jewel Road. In the winter, there are motorized trails in the middle portion of this zone. Peak use is in the fall for big-game hunting.

# Custer Draw: Passive Recreation

This zone is north of Bull Mountain and west of Highway 14, centered around Custer Draw Road. This has been determined to be a critical elk calving area in the spring and has a road closure in effect from May 15 - June 15.

In the fall elk move through this corridor regularly as snows start driving animals out of the higher elevations. Private hay fields west of Custer Draw attracts elk in the mornings and evenings for feeding. Elk often move through Custer Draw into the dark timber during the warmer periods of the day. This draws many hunters into this area, which can lead to safety concerns as hunters line both sides of the draw. Consideration for ways to encourage hunter safety and possibly limit the number of hunters need to be made if this area continues to grow in popularity.

# Michigan River: Developed

This zone lies from Ruby Jewel Road to HWY 14. Headwaters of the North Fork of the Michigan River rise in the eastern edge of the State Forest along the Medicine Bow Range near Montgomery Pass. The upper portion of the watershed is above timberline. The lower portion,

mantled by spruce-fir forests, falls steeply westward into lodgepole pine and meadowed valleys. This watershed converges to form North Michigan River, which is dammed to form the 66 acre North Michigan Reservoir. CPW has full water rights to the reservoir which is not for storage. At the reservoir there is a campground with RV access, cabins and fishing opportunities. East of the reservoir is Bockman Campground on the site of the historic Bockman Lumber Camp, which is nestled against the Medicine Bow foothills. Most primitive campsites are located in this zone along with several yurts, and various recreation trails.

The North Park campground near the junction of Highway 14 and County Road 41 has campsites, rustic cabins and camper services. CPW took over management of this campground from KOA in 2018 - see pages XX for information on redevelopment plans.

# HWY 14: Developed

State Highway 14 is a major operational division for the park. People traveling along this highway may be passing through the area not necessarily visiting the park. This zone encompasses the area south of 14 to the park's southern boundary and east to 7-Utes Trailhead.

This zone is home to the Moose Visitor Center and Ranger Lakes Campground. Ranger Lakes has an amphitheater used for interpretive programs as well as fishing, wildlife watching (e.g., beaver, river otter, bear and moose) and hiking opportunities. Spectacular scenic views of the Never Summer Mountains are found along the highway corridor.

The only private property in-holdings in the State Forest occur along a small stretch of the highway in the middle of the zone, east of Ranger Lakes. This area is also home to the Gould Community Center, Colorado State Forest Service - State Forest Headquarters, and a private forestry and grazing lease. Each have their own lease with the State Land Board.

As mentioned above, both southern "Developed" zones (HWY 14 and Michigan River) will be managed to maintain large blocks of unfragmented habitat. Summering elk and other wildlife need contiguous corridors to move and avoid development.

# Crags: Passive Recreation

The Michigan Ditch and American Lakes Trails mark the eastern and a portion of the southern border of this zone. The Michigan Ditch Trail is maintained by the City of Fort Collins as a service road for access to their facility. The water diversion ditch is a source of drinking water that is diverted into the Poudre River system. The northern boundary is Highway 14. The western boundary is the ridgeline west of Agnes Road. A Lynx sighting was confirmed via photo documentation in this area in the early 2000s.

This zone has a developed campground (no RVs), two huts, and a very popular trailhead (Agnes Lake). The Crags area is zoned as passive with the intent of managing this zone to

continue to provide unique alpine and backcountry experiences. The Crags area including Nokhu Crags, Paradise Bowl, and Mt. Rickthofen provide the most popular scenic viewshed in SFSP. This is an ever growing, popular area for trailhead departures to Lake Agnes and American Lakes. There is a need for new management initiatives (see page XX) to address crowding concerns.

# **High Alpine Zones**

# Central Alpine Zone

# Glacial Cirque: Protection

This is a scenic backcountry area of the park with alpine habitat that lies along the park boundary with the Rawah Wilderness. Clear Lake Trail marks the northern edge of this zone and Clark Peak Trail the southern edge. Narrow glacial valleys carpeted by alpine meadows and bordered by spruce fir timber lead to three high mountain lakes. These lakes are Ruby Jewel, Kelly, and Clear, all of which sit in a glacial cirque (bowl shaped depression formed by glacial erosion).

There is severe winter range for bighorn sheep and potentially habitat for brown capped rosy finch in this zone. Backpacking and day hikes to the high alpine lakes are both popular activities. The lakes are stocked with sportfish (see page XX) and is home to the state record Golden Trout. The zone is identified as protected to allow for continued experiences of backcountry hiking and camping but limiting the impact to sensitive alpine resources. This zone is being evaluated for limited, hardened off backpacking campsites to reduce damage from dispersed backpack camping and undesignated fires. A permit system has been proposed for overnight stays in this area.

# Southeastern Alpine Zones

These newly defined zones (i.e., were not unique zones in previous planning efforts) is in the far south eastern section of the park; east of the Michigan River Zone, wrapping around the Crags zone, and includes the 7 Utes area. It is adjacent to Routt and Roosevelt National Forests in close proximity to Neota, Rawah, and Never Summer Wilderness Areas, and Rocky Mountain National Park (RMNP).

# Montgomery Pass: Natural

The Montgomery Pass zone has some cultural sites. The Montgomery Trail crosses a saddle between Diamond Peaks and Clark Peak, and links the interior of SFSP to Cameron Pass Trailhead on the Roosevelt National Forest. The Montgomery Trail is the most southern formal trail to the ridgeline of the Medicine Bow Range and leads into the sensitive vegetation of the alpine tundra habitat type.

#### Diamond Peaks: Protected

The Diamond Peaks are a highly visible set of pyramid shaped peaks that are visible from Cameron Pass, North Park, Highway 14, and Bockman Road within SFSP. The peaks are hiked from Bockman Road, Montgomery Pass, and Cameron Pass. They are also a popular winter backcountry ski destination from the Cameron Pass Trailhead.

The Diamond Peaks zone has sensitive plant species and is boreal owl habitat. This zone is popular for cross country hiking and running, and backcountry skiing.

#### Neota: Protected

There are a few rare plants, bighorn habitat and production area (bighorn are found year round above treeline in the Never Summers), and habitat connectivity to other protected areas just outside of the park. The Neota zone is home to the historic City of Fort Collins water diversion maintenance compound. Many of these facilities are over 100 years old. They are not currently listed to the historic register.

The eastern section of this zone is very rugged and has limited use by people. Significant increased visitation in this area is unlikely in the near future; however, as RMNP becomes more crowded, some backcountry users may prefer this zone and other remote areas of SFSP.

#### Agnes: Protected

This zone is used heavily in the summer and winter. In addition, though their trailheads are in neighboring zones, Agnes and American Lakes themselves are in this zone. They are separated by Nokhu Crags, a 12,490 ft rock formation in the Never Summer Mountains. "Nokhu" is shortened from the Arapaho "Neah-no-xho" which means "Eagle's Nest".

This zone is popular for hiking, backpacking, fishing, and winter sports, such as snowshoeing, backcountry skiing, and slpit-boarding. Due to the close proximity of the Lake Agnes trailhead and the unique scenic views of the lake and mountain peaks, the draw to this area has the potential to cause crowding and resource damage. A management plan for crowd control and resource protection should be created to allow visitation while protecting the resource and preserving the quality of the experience.

This zone is also ptarmigan winter range and is the location of the Lake Agnes Cabin, which is listed to the historic register. The City of Fort Collins has original historic water diversion pipes within this zone that are not yet protected on the historic register.

# 7 Utes: Protected

The Willies Lumber Camp was located north of the 7 Utes zone where the current 7 Utes trailhead is located. This is also an area that has had requests for ski related services.

Currently the area is predominantly used by hikers, horseback riders, trail runners, and backcountry skiers.

The 7 Utes zone is often a deer and elk migratory corridor from the Never Summer Mountains to North Park. This area is a comparably low visitor utilized location that lends itself to summer big game respite.

# 5.0 Park Enhancement Opportunities & Initiatives

This section highlights specific park enhancement opportunities and management initiatives that will help meet park goals. Enhancement opportunities and management initiatives support the Desired Future Condition outlined previously in the plan and are situated within appropriate management zones. It is important to note that new development should be balanced with maintaining and conserving what already exists and with resource conservation.

Enhancement opportunities and initiatives are not necessarily "commitments" and implementation is contingent on the park securing adequate financial and human resources and must be considered or weighed within the context of other CPW-wide needs. In addition, new opportunities may need to be added as conditions, recreation trends and other changes occur over time (see page 11 regarding amending the plan).

Along with the other lessees, SFSP is required to submit an annual work plan (Appendix R) to the State Land Board. The work plan outlines the direction the park is headed and proposed projects for the upcoming year(s). An annual meeting is held to coordinate the work of all the lessees. This section of the Management Plan should be used to create annual work plans and each year's work plan should be added to this plan to maintain a storehouse of information on completed and planned projects.

# **Enhancement Opportunities**

Park enhancement opportunities for SFSP were developed based on input from the public, professional knowledge and experience of staff, and discussions with key partners and stakeholders. Park enhancements include:

- 5. Major rehabilitation or improvements to existing facilities and infrastructure
- 6. New facilities and infrastructure
- 7. Natural resource rehabilitation and restoration efforts
- 8. Management initiatives critical to the long-term operational success of the park.

# **Existing Facilities and Infrastructure**

#### EO 1. North Michigan Dam Repair (Michigan River)

The North Michigan dam's hazard classification was evaluated and raised from low hazard to high hazard due to downstream structures and roads. To meet dam safety standards, repairs must be done to an historic seep on the natural abutment and the spillway must be widened per dam regulations. Additionally, the outlet pipe needs to be re-lined as part of ongoing maintenance. Over \$3 million will come from CPW Capital Development Funds. Construction will start no sooner than 2021. During construction access to north County Road 41 will be maintained and there will be a Conservation Pool to protect the fishery and river otter habitat.

# EO 2. Information Technology (All zones)

There is a desire and need to improve SFSP connectivity (internet speed, wifi options, remote connections, etc.) and phone systems. Current options are limited and cost prohibitive. However, as the technology improves and options in this area of the state expand, the feasibility of upgrades should be evaluated and included in future (short- and long-term) planning efforts. HugesNet or DSL may need to be intermediate solutions. Cellular boosters should also be considered. Need reliable and fast IPAWS access at the Moose Visitor Center, North Park Campground Registration, and remote entrance stations; especially for Reservation Only camping system. Additionally, cellular connections for public access to the Reservation system and "iron ranger" automated pay systems would be preferable.

# EO 3. Crags Campground Renovation (Crags)

The picnic tables were replaced in 2017-18, but the rest of this campground needs to be brought up to standards for a State Park in Colorado with the following improvements: high use tent pads, picnic and fire grill pads, trim and clean campsite vegetation and improve parking. Phased funding requests will be made for materials and contract labor. Additionally, one new vault toilet was added to Crags Campground in 2018, but the second planned toilet was postponed due to funding shortages and rising construction costs. A second toilet should be constructed prior to the demolition of the original brick toilet, which is currently acting as the second toilet for the campground.

# EO 4. Lake Agnes Trail and Trail Head Parking (Agnes)

The Lake Agnes Trail is the most popular trail within SFSP, as it is a relatively short hike and takes visitors to and around the popular scenic alpine destination. The trail is designed to be a loop trail around the perimeter of the Lake Agnes. Currently there are social trails that connect the east and west sides of the Lake Agnes Loop. Several Volunteers for Outdoor Colorado (VOC) projects and in-house volunteer projects have improved the loop connection. The southern portion of the loop still needs to be completed to improve the experience.

The trail head parking lot for Lake Agnes in under-sized for the volume of people it serves. There is resource damage occurring from visitors parking in unhardened areas and on vegetation. Additionally, the access road is often restricted due to road side parallel parking. The parking lot needs to be improved to better accommodate users, while meeting future needs; along with protecting the resource.

A long term capacity management plan will become necessary for future management of the area during high use times. This plan may include traffic control, closure times, permit only access, or other tools to maintain the quality of experience, while also protecting the resource.

#### EO 5. Increase winter access points on Highway 14 (HWY 14/Crags)

The Crags Entrance is the only SFSP maintained winter access point (trailhead) east of the Visitor Center. This parking lot often reaches capacity and visitors are using CDOT turn outs, which blocks CDOT from performing winter snow removal operations as designed. The turn outs are slated for "No Parking" sign installation, which will eliminate access for SFSP users. The 7 Utes trailhead parking is closed in winter but if the size is increased and the roadway improved it could accommodate overflow from Crags Entrance and trailer parking. A third winter access point may be added if SFSP was able to assume management of Cameron Pass on behalf of the USFS through a lease agreement (see Management Initiative 14).

# EO 6. North Michigan and Bockman Campground Improvements (Michigan River)

North Michigan and Bockman campgrounds need improvements that could be phased into multiple projects including:

- Fencing: Repair aging buck and rail or replace with wildlife friendly smooth wire. Determine "wildlife friendly" protocol. Consider aesthetics, cost, and serviceable life when determining buck and rail vs. smooth wire.
- Host Sites: Improve and modernize host sites. Include high use pads, water access, solar or generator provided electric options, sewer tank, picnic table, fire ring, etc.
- Boat Ramp Docks: Install boat docks at North Michigan boat ramps, along with boat safety signs, regulation brochures, and ANS information brochures.
- Vault Toilets: Improve approaches to the vault toilets to better meet safety and ADA requirements.

# EO 7. Improve Camp Host Sites (Michigan River, HWY 14)

To continue to recruit high-quality camp hosts and increase the number of hosts, camp host sites (in the Maintenance Headquarters, North Park, North Michigan, Bockman and Ranger Lakes Campgrounds) need to be increased and upgraded with amenities found at other parks. This project will encourage volunteers to assist with maintenance (campgrounds and custodial) and revenue generation (expanded gate, campground registration and visitor center hours). Amenities to add/improve may include: high use pads, water access, 50 Amp electric, solar, or generator provided electric options, sewer tank or system, picnic table and/or fire rings. In addition, consideration should be given to create a full hook-up volunteer camp spur possibly at North Park Campground.

# EO 8. Lake Agnes Historic Cabin Restoration (Agnes)

In 2018, a State Historical Fund grant funded an assessment (Appendix O) and park operating funds were used for emergency stabilization of the Cabin. A restoration grant should be secured for construction to restore the cabin and convert it to an education hub.

#### EO 9. Ongoing Maintenance Projects (All zones)

Small capital funds will be used to fund emerging maintenance needs. Annual work plans and budgeting requests will reflect upcoming needs and their associated priority. Examples of these projects include: converting cabin stoves from wood to propane, refinishing cabin floors, staining the Visitor Center's exterior wood siding and modernizing restroom facilities.

#### EO 10. Ranger Lakes Campground Improvements (HWY 14)

The entry to this campground needs to be realigned, regraded and paved to improve the approach for larger vehicles such as RV's and campers. Currently the campground is not accessible in snow months due to the grade and volume of snow. The Nature Trail needs improvements to signs, trail markers and brochure dispensers at each trailhead entrance. In the long-term, full hook-ups are desired to give campers water and sewer access. Host sites should be improved as described in EO 7.

# New Facilities and Infrastructure

#### EO 11. North Park Campground Remodel (Michigan River)

The North Park Campground is a former KOA that is owned by the State Land Board and was leased to SFSP/CPW in summer 2018. The redevelopment of this campground will meet the

requirements of CPW's lease with the State Land Board and the standards of a State Park campground. Capital funds of \$2.2 million will be spent by June 30, 2022 to meet the terms of the lease. If capital funds remain after the completion of these improvements, they will be used on Ranger Lakes Campground improvements. There are three phases planned for the remodel of North Park Campground:

- I. Evaluation/Assessment of buildings, wastewater system, drinking water system including wells and pumps, electrical system, soils, asbestos, property line, and topography.
- II. Master plan development for layout of campsites, cabins, water, sewer, and electrical lines, roads, wells, remodel of camper services building, etc. Research and apply for permanent water rights.
- III. Phased construction of utilities, campsite improvements, new campsites, roads, buildings (camper services and cabins), dump station, host site improvements and landscaping.

# EO 12. Park Entrance Sign (Michigan River)

A welcome monument at the Junction of Highway 14 and County Road 41 is needed. The former KOA sign was removed and a landscape and sign design using CPW design parameters needs to be created. The sign and monument can be constructed once CDOT (owners of site) and the State Land Board approve of the design.

# EO 13. Boat Shed, (Michigan River)

CPW's assigned Boston Whaler and Zodiac are used for SFSP and regional patrol and emergency response. This equipment should be protected from inclement weather. A Boat Safety Grant (Federal USCG Grant) has been secured, and a boat shed will be built to house them along with boating supplies and equipment near the maintenance shop.

# EO 14. Horse Rental Coral/Stable (Michigan River/HWY 14)

To better market and respond to daily horse tours it would be advantageous to work with the existing horse concessionaire to create an on site commercial coral/stable along with some form of portable business office/tack shed.

# Rehabilitation/Restoration Efforts (for Natural Resources)

**EO 15. Manage Backcountry Camping (Ute Pass, Glacial Cirque, Neota, and Agnes)** Some areas (primarily alpine lake areas) are seeing some over-utilization, illegal fires, camping too close to water and resource damage (e.g., vegetation loss). There may be a need to partially formalize what has been an informal system. Backcountry systems, including backpacking and primitive sites, should be managed with these potential efforts:

- Primitive Camping: In State Forest "Primitive" sites are designated drive up roadside campsites that have a fire ring, but no other amenities. These used to be named "Dispersed" sites which caused confusion with USFS dispersed sites which means camping is allowed outside designated sites. However, Primitive sites are designated on State Forest State Park. Additionally, CPW does not use the terminology "Dispersed" in regulation. CPW should continue to remove the term "dispersed" and replace with "primitive", especially in public information materials.
- Restoration of primitive sites: Inventory and restore closed primitive camping sites in areas affected by pine beetle to better disperse use and restore camping opportunities. Many primitive sites were closed due to pine beetle dead hazard trees.

A hazard tree survey has been completed. Many of the hazards were removed. Some sites are missing posts. Re-establish which sites are ready for opening, which need work, and which will remain closed permanently. Update maps to create a map available to the public depicting current primitive site locations.

- Designated Primitive Backpack Sites: Designated and hardened sites should be created in these popular backpacking locations (Kelley, Clear, Jewel, and American Lakes). Consideration should be made for high use pads and possibly low profile campfire rings with specialized campfire rules to reduce risk. Most alpine lakes will be closed to dispersed camping and replaced with designated and permitted primitive site camping.
- Backcountry permit system: Consider creating and charging primitive camping fees for designated camping locations.
- Backpack Camping: Backpacking is allowed east of County Road 41. Additional revision of the backpacking rules should be clarified and included in public information outlets, such as brochures and signs. Currently backpackers are allowed to disperse camp in designated areas of the park. There are no fees charged for this camping. Fees and a permit system should be considered in the future for dispersed backpacking, although no model exists for this within Colorado's State Parks.
- Leave No Trace Education: SFSP should implement a signage and education program to encourage Leave No Trace Ethics in the backcountry.

# EO 16. Remove abandoned fence lines (All zones)

SFSP should continue working with Silver Spur and the State Land Board to remove abandoned wire fences (e.g., by providing GPS locations of fences in question). Removal of unused fences are desired as they can be trip hazards for people travelling cross county (e.g., hunters), they cause boundary confusion as the grazing fence lines are not on the maps, so people think they are near a park boundary, and they can be hazardous to wildlife. They may also cause issues with logging operations. Fences in use for grazing near recreation areas (i.e., campgrounds) should be maintained to prevent cows from entering campgrounds and other high use areas.

#### EO 17. Ongoing Natural Resource Stewardship Monitoring (All zones)

Park wide monitoring of wildlife, forest health, noxious weeds, T&E species and more keeps CPW and its partners informed on the condition of our resources. Coordination across CPW ensures various resources are monitored regularly by staff, partners and contractors.

#### EO 18. Ongoing Vegetation Management (All zones)

For resource protection, visitor access and safety, SFSP manages the vegetation near recreation resources (i.e., roads, trails, buildings, campgrounds) by controlling noxious weeds, pruning, clearing downed and hazard timber, chipping, etc. The State Land Board, with significant input from CPW's Resource Stewardship staff, coordinates weed management planning for all grazing, forestry and recreation operations. The CSFS manages all forest health and timber products on the CSF.

#### EO 19. Campground Tree Restorations (Michigan River, HWY 14)

Coordinate with CSFS and CPW's Resource Stewardship Program to replace trees in campsites where pine beetle hazard trees were removed. Trees provide visual buffer and shade, which are highly desirable to campers.

# Management Initiatives

# MI 1. North Sand Hills Cooperative Management Agreement (Medicine Bow)

SFSP will continue to partner with Bureau of Land Management (BLM), State Land Board, Jackson County and U.S. Forest Service (USFS) to develop a Cooperative Management Agreement (CMA) for the North Sand Hills (NSH). At a minimum, the CMA will:

- 1. Clearly set boundaries of the CMA motorized recreation area Mendenhall Road north to park boundary and west through BLM and State Land Board land. The Medicine Bow Zone was designated to have the same boundaries.
- 2. Implement a unified fee system. When implemented within the Medicine Bow Zone of the CSF; CPW and the State Land Board would potentially be beneficiaries.
- 3. Identify support services, staffing needs and funding for unified management within the area managed under the CMA.
- 4. Increase ranger presence and emergency/visitor services. CPW could use a portion of the unified fee system funds to hire a temporary ranger staff to assist with regulation education, visitor services, emergency response, and maintenance.
- 5. Reduce illegal camping and campfires by clearly designating authorized camping locations.
- 6. Create clear unified regulations for the NSH basic regulations for the entire NSH will be the same regardless of which agency's land visitors are using.
- 7. Include seasonal closures for critical wildlife winter habitat. Motorized access will not be allowed Dec 15 April 15 annually.

In addition, the following management actions are recommended:

- Acquisition: Add two new State Land Board parcels (200 acres) to the lease acquired from the State Land Board purchase of the Adams Ranch.
- Mendenhall Loop: Connect Mendenhall Road to North Sand Hills.Close social trails on the Mendenhall Loop.
- North Sand Creek Crossing: Division of Water Resources impacted waterway concerns devise ecologically sensitive OHV crossing to facilitate implementation of the Mendenhall Loop.
- Trails: Partner with agencies (State Land Board, BLM, USFS, CSFS, & CPW) on trail and road connections and improvements within the CMA. Partner with the US Forest Service on trail and road connections outside the boundary of the CMA. Clear the Mendenhall Trail of down trees.

#### MI 2. East Sand Hills/Ute Pass/Sherman Creek Access Management (East Sand Hills)

Manage recreation in the north central portion of State Forest in response to increasing usage and changes in management. This area of the park has unique natural and cultural resources and also provides a more isolated experience for the visitor. Any plans should consider ways to maintain a quality experience for public and commercial visitors while protecting the resource and respecting bordering private lands.

- Management Plans: This area will need to balance public access with the desired quality of an isolated and tranquil experience. While also protecting cultural and paleontological artifacts, and protecting a rare plant species; the North Park Bugseed, which is under consideration by the U.S. Fish and Wildlife Service for federal listing as a protected species.
- Ute Pass Trail Access and Sherman Creek Partnership: To re-establish an access point within 5 miles of the Ute Pass Trail within State Forest State Park for hunting and fishing and to introduce limited options for other non-motorized recreationalists, such as hikers, backpackers, and horseback riders. Determine ways the Sherman Creek

Ranch can potentially partner with CPW to provide new and expanded recreational services on the State Forest.

- Outfitter RFP: Currently two concessionaires [Medicine Bow Outfitters and Sherman Creek Ranch] operate concessions in the Ute Pass Area.
  - A long term concession contract for the Ute Pass Zone created through an RFP process would enable greater investment and less ambiguity between concessionaires. See: Northern Backcountry Outfitter and Guide Service for additional information.
  - Sherman Creek Ranch: Create a special use agreement to permit dude ranching on the State Forest, along with the potential for additional commercial recreational opportunities in the Medicine Bow Zone.
- Access: Continue discussions with the State Land Board to facilitate access to the Ute Pass Trail/East Sand Hills of the SFSP by establishing a public access route across adjacent state trust lands. The goal of this route would be to replace the hunting access that was formerly provided through a State Land Board lease on the Adams Ranch State Trust Land (STL) as part of CPW's Public Access Program (PAP). Ideally this route would secure access for summer and fall recreation and be closed from Dec. 15 Apr. 15 for protection of critical winter range.
- Trailhead: Install trailhead at approved access point, including parking lot, vault toilet, fencing, and signage. It may also be an option for a concessionaire to provide trailhead amenities in exchange for being able to charge a reasonable public access fee.
- Trails: If a trail crosses the Sherman Creek Ranch or STL, sign and make improvements to facilitate the crossing of those lands. Signage and boundary markings will need to clearly articulate when crossing into CSF.
- Fee System: Install self serve fee collection system or potentially have a concessionaire charge the fees as part of a private concession operation and pay CPW an alternative entrance fee.
- Acquisition: Work with the State Land Board to adjust the boundary of the State Forest so it includes the entire open sand area at the East Sand Hills.
- East Sand Hills Regulations: Determine any additional needed regulations (i.e., horse and foot only non-motorized with the recommendation of No bikes and No dogs) and sign them. Monitor trends in use and resource quality. If there becomes a trend for increasing use and/or resource damage consider instituting a permit system.

# MI 3. Trails Planning and Improvements (All Zones)

A Trails Plan and/or updated Travel Management Plan for SFSP may be warranted. A Trails Management Plan was completed in 1997 (Appendix S). Currently SFSP staff maintains approximately 136 miles of trails and roads. The following are upcoming projects, concerns related to trails, and other issues discussed in the planning process that need further study and discussion.

- 1. Motorized Trails (maintain 58 miles of summer and 80 miles of winter trail access)
  - a. The OHV Good Management Grant is utilized to fund a high percentage of the motorized trails. This program primarily utilizes hand crews to conduct trail maintenance. The crew is not able to keep up with annual maintenance needs, thus creating a maintenance backlog. Aging stands of pine beetle killed trees has resulted in additional downed timber across trails and increased water erosion. A long term management process needs to be created to maintain the program into the future.
  - b. There are potential connections that could be made to improve the system:

- i. Mendenhall Loop Connect Mendenhall Road to the North Sand Hills and USFS Roads in the Kings Canyon area, to create a loop.
- Research Options for a Summer Motorized Trail Connection from the Colorado State Forest to US Forest Service land to the south: CDOT closed a long used social trail connecting county road 41 with USFS 740. A connection would enable visitors to access USFS trails from the Colorado State Forest. There is an ongoing dialogue between CDOT, CSFS, State Land Board, and Jackson County to explore the feasibility and potential options.
   Connecting options would include:
  - a. Converting a non-motorized section of Seven Utes into a motorized section, to connect the USFS Silver Creek Road to the south to Bockman Road to the north.
    - i. If this connection is made, a spur could be connected to Ranger Lakes Campground via another section of non-motorized 7-Utes Trail.
    - ii. This would give Ranger Lakes campers with OHV's access to the USFS land to the south and SFSP land to the north, which currently does not exist from Ranger Lakes.
    - iii. It is recommended this section of trail be limited to OHV's and not include 4x4 vehicle travel, as those vehicles (4x4 vehicles) have alternate options for access to the north and south trails.
  - b. Converting a Gould Mountain logging road into a motorized connection from Gould Mountain Road to Ranger Lakes, and then Silver Creek.
    - i. This would give Ranger Lakes campers with OHV's access to the USFS land to the south and SFSP land to the north, which currently does not exist from Ranger Lakes.
    - ii. It is recommended this section of trail be limited to OHV's and not include 4x4 vehicle travel, as those vehicles (4x4 vehicles) have alternate options for access to the north and south trails.
    - iii. If not used as a year round motorized route, it may be advantageous to still look at this route for summer access, as the views are fantastic. There is concern this connection could disturb popular fall hunting in the Gould Mountain area, and therefore a seasonal closure may be advantageous.
  - c. Connecting County Road 21 from Gould to County Road 41. There are currently 2 options being discussed at the moment, involving re-establishing the CDOT right-a-way connection; or researching easement options from private landholders.
- iii. Replacing Pennock Bridge with a motorized bridge enabling and developing a motorized connection from the east side of North Michigan Reservoir to Bockman Road, which would provide a motorized trail loop around the lake, utilizing the Pennock Trail alignment.
- iv. Medicine Bow Trail to U.S. Forest Service Road 881.

- v. Grass Creek and Bockman: Connect the south terminus of Grass Creek Trail at the junction of Gould Mountain Trail to the midpoint of Bockman Road with a newly created connector to create a stacked loop system.
- vi. Montgomery to Ruby Jewel Connection with a possible second connection to Diamond Peaks.
- vii. Ranger Lakes: A connection to the Visitor Center could potentially result in the North Side of the Gould Loop becoming motorized for summer use. This would result in a summer motorized connection from Ranger Lakes to the Visitor Center.
- viii. Silver Creek and Gould: A summer motorized connection from the Visitor Center to Forest Service Road 740 would open up motorized use from Ranger Lakes to Forest Service Road 740, tying in a large portion of Forest Service OHV roads to CPW facilities such as the visitor center and potentially campgrounds, if other connections are made.
- b. Non-motorized Trails (maintain approximately 78 miles of trails):
  - a. Nearly 86% of Comment Form (see Appendix B for more on this survey) respondents reported walking or hiking during their visit to SFSP. Backpacking, trail running, horseback riding, snowshoeing and skiing are also popular activities.
  - b. Resource protection and visitor satisfaction are concerns.
  - c. Small amounts of operating funds are used to maintain the non-motorized trails. These discretionary funds are very limited and are constantly at risk of cuts due to increasing wages and alternative staffing needs.
  - d. Volunteers for Outdoor Colorado and Rocky Mountain Youth Corps are already partnering with the park to reroute some trails (to avoid riparian and wetland areas, along with steep non-maintainable trail tread). Coordination with volunteers can take significant staff resources but result in valuable projects.
  - e. Current GIS mapping needs to be completed along with updated inventory to better plan and manage future trails needs. Improved maps and signage are also a need.
  - f. Current long term non-motorized trail projects include:
    - i. The Lake Agnes perimeter trail that follows the shore around the entire lake.
    - ii. Ruby-Jewel Trail reroute that takes the trail out of a wetland crossing in a riparian corridor.
  - g. Improvements should also be made to:
    - i. Beaver Lodge Nature Trail Create an improved turnpike and bridge, or boardwalk on the Beaver Lodge Nature Trail, which is commonly impacted by beaver dam floods during spring run-off.
  - h. Pending trail projects include:
    - i. Reconnecting Mendenhall area trails to the East Sand Hills and Ute Pass area. Formalize restricted access route to Ute Pass Trail through adjoining State Trust Lands to allow historical hiking and backpacking to the Rawah's Shipman Park and the Colorado State Forest's East Sand Hills.
    - ii. Formalizing a recreational connection to Jack Dickens Trail by obtaining an easement (lease adjustment) to allow general recreationists to travel from the Elk Mountain parking lot to the Jack Dickens Trail in State Forest State Park.
  - i. Potential future connections that could be made to improve the trail system:
    - i. Pennock Trail needs improvement after the 2018/19 logging operation east of Grass Creek and North Michigan.

- 1. An option may be to re-route the trail along the edge of the meadow for a more scenic trail.
- 2. This would be the preferred option if the Pennock Trail is converted to a motorized route.
- ii. Grass Creek and County Road 41 Connection across North Michigan Inlet.
- iii. Seven Utes Trail to Lake Agnes Trail.
- iv.Clear and Kelly Lake connection over the saddle north of Kelley Lake.
- v. Jack Dickens Connections northbound connection to East Sand Hills/Ute Pass and southbound connection to Clear Lake Trail. Much of these trails are partially in place due to old logging roads and social trails to traditional hunting camps.
- vi. "Chain of Lakes" this would be a multiagency discussion to connect Jewel, Kelly, Clear, Twin Carter, Carey, Island, Timber and Blue Lakes.

# MI 4. MOUs for Roads (All Zones)

Multiple agencies, including CPW, have jurisdiction over road management. An inventory of managing partners needs to be articulated along with creating and maintaining the following MOUs:

- 1. Jackson County: All County roads in SFSP, with special attention to County Road 41, which is the primary route into the interior of CSF.
  - a. Inventory County Roads.
  - b. Determine primary management and maintenance of those county roads.
- 2. City of Fort Collins Water: Michigan Ditch in Lake Agnes and American Lakes area.
  - a. Partnership to help maintain the Crags, and Lake Agnes Roads, along with the Michigan Ditch Trail.
    - b. City of Fort Collins has an early 1900's work site with cabins perched on the edge of the Michigan Ditch. The Michigan Ditch also has some sections of early 1900's wood slat pipe. These areas would be conducive for educational opportunities regarding the history and importance of water in Colorado. The facilities may also be conducive for historic designation.
- c. Colorado State Forest Service: Logging roads, which often double as trails or are converted to trails.
- d. State Land Board: Need to obtain mining permit for the gravel pit on CR 41 for road restoration. Long-term harvesting right on the road and creating a visible scar is not ideal. A new location for obtaining local material and options for re-purposing the mined areas should be considered.
- e. CDOT: No direct partnership exists, but CDOT maintains, plows, and solely manages State Highway 14.
  - a. CDOT Assists with keeping Crags and 7-Utes parking areas accessible from Highway 14.
  - b. Plow turn arounds near 7 Utes need to be maintained as CDOT use and clearly posted "No Parking."
  - c. An agreement needs to be put in place to reclaim the road construction staging area near Ranger Lakes. It is a visual nuisance and attracts illegal parking and camping; and an unwanted access point to the park.

# MI 5. CPW Retail Program (HWY 14, Michigan River)

To allow for more flexibility, customizable products and more revenue SFSP should complete the transition from Rocky Mountain Conservancy retail program to a CPW retail program at the Moose Visitor Center and eventually a camper service store at North Park Campground.

#### MI 6. Ranger Lakes Water Rights (HWY 14)

Continuing to work with CPW and State Land Board Water Right Specialists in consultation with Jackson County Water Conservancy District to ensure the application for water rights at Ranger Lakes will protect the lakes into the future and benefit both agencies. To acquire rights at the historic water diversion point there may be a need to create a mechanism to divert water from Ranger Lakes back to Michigan River to account for evaporative loss and may include impounding additional water at the lower pond.

# MI 7. Expansion of the Yurt and Hut Services

Currently, Never Summer Nordic, Inc. runs the yurt and hut concession at SFSP. The yurts and huts are in high demand, especially during summer and winter seasons. It is difficult for park users to get a reservation for a backcountry yurt or hut on the weekends, and often during the weekdays in the summer. The 2018 RFP bid of the yurt and hut concession operation includes an expansion plan to add up to ten (10) yurts or huts over the next ten years. SFSP staff will need to work with Never Summer Nordic, Inc. to approve new development locations, and oversee construction to ensure they meet contract standards.

# MI 8. Southern Backcountry Outfitter and Adventure Guide Service (All Zones South of Canadian River)

A long-term lease will improve recreation opportunities, generate revenue for CPW and allow a private partner to invest in capital improvements. SFSP will need to create an RFP to solicit bids for providing backcountry guided and unguided adventure outfitting from the Jack Dickens Trail to the southern State Park boundary. This service will include educational opportunities for beginner and advanced hikers, backpackers, mountain bikers, skiers, snowshoers, and others, that will include training and guided trips into the backcountry. This service may include a front country classroom in the form of a yurt or cabin. This service may also include a backcountry group lodge for group excursions in the form of a cabin or yurt.

#### MI 9. Northern Backcountry Outfitter and Guide Service (Ute Pass and Medicine Bow)

A long-term lease will improve recreation opportunities, generate revenue for CPW and allow a private partner to invest in capital improvements. SFSP will need to create an RFP to solicit bids for providing backcountry tours including hunting, fishing, and horseback outfitting from the Jack Dickens Trail to the northern SFSP boundary. This may also include wagon rides, backcountry camping, cabins, and a base camp with restroom facilities and a dining hall for guest meals. Services should include amenities such as camping and cabins for visitors wishing to stay in the State Park while visiting and touring the North Sand Hills, Kings Canyon, and Mendenhall recreation areas.

#### MI 10. Lake Agnes Trailhead (Crags and Agnes)

During summer this trailhead is regularly crowded with visitors seeking the opportunity for a short hike to an iconic Colorado view of a high alpine lake surrounded by peaks over 11,000 ft. On some summer weekends safety is compromised by two-way traffic and roadside parking on the steep road. A visitor use plan would benefit the park and its visitors. Potential options to consider piloting include: parking lot redesign, parking lot closure mid-day on summer weekends (visitors could still hike in or drive up during non peak hours); adding a ranger station at the junction of Lake Agnes and Crags Roads to control traffic in/out; provide information at the Visitor Center on busiest times/what to expect at the TH.

# MI 11. Reintroduce Golden Trout (Glacial Cirque)

Re-establish a "boutique fishery" by reintroducing golden trout to one or more high alpine lakes. Golden trout are not native to Colorado but have been stocked in SFSP lakes in the past. The state record golden trout (3 pounds, 12 ounces; 22.5 inches) was caught in Kelly Lake in 1979. CPW aquatic biologists support this option and do not believe golden trout would negatively impact other stocked trout. Stocking would not happen by plane (like other alpine trout stocking) and the fish would come from other states, which can be unpredictable. Through the Comment Form and Creel Survey (see Appendix Q) the public expressed interest in having this opportunity.

# MI 12. Waterways/fishing opportunities Map (All Zones)

Visitors have requested a waterways map similar to existing trails maps. The CPW Fishing App, GIS, Communications and Aquatic staff are resources to develop this handout. There is currently a North Park Fishing Brochure that could be elaborated on, as a starting point.

# MI 13. "Closure" Area/Kelly & Clear Lake Trailhead (Glacial Cirque, Canadian River)

The following initiatives and questions should be considered to manage this non-motorized trail system that is seeing increasing visitation, while experiencing changes from logging operations (i.e., potential for more trail connections). Considerable visitor use management planning will be needed to support managing this area for resource protection and the continued enjoyment of the backcountry.

- Rename the "Closure" Area: The once motorized route was temporarily closed in the mid-80's and became a non-motorized route. It was closed due to degrading road conditions. The area starting being called the "Closure". That name creates confusion with the public as they try to discern what is closed. Rename the area/trailhead. Suggested names include: Canadian Headwaters, Canadian River or Kelly/Clear Lake.
- Consider re-establishing the Clear and Kelly Lakes Trailhead approximately 1.5 miles past what is now the end of County Road 41. This would shorten the hike along the logging road and allow visitors to park closer to more enjoyable sections of the trail if desired. There would still be 6 miles of non-motorized access on the Clear Lake Trail.
  - The counter argument is a closer trailhead would increase usage too much and degrade the isolated experience of the longer hikes.
  - The route would need to be improved before this could be initiated. Additionally, consideration should be given to the steep grade directly north of the current lot.
- Muddy Park/North Park Outfitters: There is a partially constructed seasonal trail maintained by North Park Outfitters heading north into Muddy Park. It is starting to see more use, primarily during hunting season. Should it be formalized and maintained by State Forest staff?
- Permits: Consider the need for a permit system for designated camping sites at Clear, Kelly, and Jewel.
- Convert the "Closure" primitive campsites to basic campsites by adding pads and picnic tables. This would increase popularity, functionality, and revenue.
- Group Primitive Sites: Some primitive sites are located in clusters and thus could be used as group sites that are reserved individually. Some primitive sites are used by groups even though designated as an individual site. A gravel pit on CR 41 is a roadside area wide enough for a group primitive site and could be restored for that purpose.
- Signage & Enforcement: Occupancy is not consistently enforced, causing overutilization in some sites, resulting in resource damage. Decals explaining maximum

occupancy should be installed on campsite marker posts. Educational enforcement should then occur to change current over-utilization.

# MI 14. Cameron Pass Rest Area (Neota, Diamond Peaks)

Visitors use this trailhead to access SFSP (Michigan Ditch, Diamond Peaks, and Montgomery Pass) and as a base/takeoff for the backcountry. As the highest point along Colorado State Highway 14, Cameron Pass is also a popular front range auto tour destination along the Cache La Poudre to North Park Scenic Byway. As the eastern gateway to State Forest State Park, providing SFSP welcome information at Cameron Pass would help with visitor orientation and marketing. There is no fee station here for entering SFSP since it is USFS land. CPW and State Land Board have had discussions with USFS to take over management of this area. This would also benefit the USFS as Cameron Pass is one of the more remote visitors services facilities in the Roosevelt National Forest; which creates a maintenance challenge for the Canyon Lakes Ranger District (USFS).

# Ongoing Management Initiatives:

#### MI 15. Maintain positive working relationship with State Land Board (All Zones)

A new lease was signed between the State Land Board and CPW in 2017, which outlines recreational management through 2037. CPW will participate in the Annual Work Plan process as outlined by the State Land Board. SFSP staff will request approval for any capital asset project exceeding \$5,000 as requested by the State Land Board. Additionally, CPW will complete annual reports and invest \$2.2 million into the rehabilitation of North Park Campground as articulated in the current lease.

#### MI 16. Maintain positive working relationship with CSFS (All Zones)

Current CPW and CSFS staff have worked to develop a very positive relationship through regular communication. Discussions between the agencies prior to new logging or recreation projects help each other plan for agreed upon outcomes. Throughout this planning process both agencies have met to discuss our plans and be sure they can be integrated. Current and future staff should continue these efforts and continue on efforts to educate the public on forestry practices and the benefits in a multi-use recreation area.

# MI 17. Ongoing Law Enforcement, Medical, Search and Rescue, & Wildland Fire Services (All Zones)

SFSP staff provide services as requested by Jackson & Larimer County Sheriff's Departments for public safety and resource protection. Funding and partners include: CPW Operating (Cash Fund), OHV Registration Fund, Snowmobile Registration Fund/Jackson & Larimer County Emergency Services.

# MI 18. Ongoing Interpretive Programs (All Zones)

To support visitor's experiences at the park and their understanding of the park's history, unique features and multi-use management regime, SFSP will continue offering Interpretive Programs. In addition to staff time, funding comes from GOCO, SOLE (Schools and Outdoor Learning Environments) and Jackson County Outdoor Education Network. See pages 58 for existing programs and facilities. There may be interest in re-developing a self-guided "Auto Tour" for County Road 41.

# MI 19. Ongoing Park Promotions (All Zones)

Social media, CPW website, brochures, flyers and the Jackson County Star newspaper are good outlets for promoting park activities. Promotions can include:

- Moose Festival in late summer to increase visitation at a time when visitation drops due to kids returning to school and prior to hunting season.
- Fishing and hunting clinics and outfitters
- Winter moonlight hikes and holiday open house
- Improve trailheads, signage, and fee collection areas
- "Bird Watching Tours" and work with concessions to promote the tours
- Improve the SFSP specific web page "Trip Planner" to help visitors plan their trip, promote park concessions, and give visitors information about local amenities that might help them enjoy their visit.

#### Discussed by management planning team but not proposed at this time:

**County Road 12E Connection:** Consider connecting County Road 12E to County Road 41 to create a scenic driving loop from State Forest State Park into Walden. At this time, this project is likely at least 10 years away, outside the scope of this plan. In addition, there are significant concerns about the impact of this connection that would need further evaluation.

**Northbound Snowmobile Trail:** Consider connecting Clear and Kelley Lake Trails to the Wyoming trail system to the north. To create a north/south snowmobile route to connect three trail systems (Grand Lake, SFSP and Wyoming). The latter suggestion could be difficult due to terrain conditions where wildlife critical winter range needs to be avoided. At this time, this project is likely at least 10 years away, outside the scope of this plan.

# References

#### **Primary sources of information**

- 1986 State Forest State Park Management Plan
- 1996 Ecosystem Planning Project
- 2001 Integrated Management Plan
- 2008 State Parks Marketing Assessment, Corona Research
- 2019-2024 Statewide Comprehensive Outdoor Recreation Plan (SCORP)

#### Websites

Colorado Climate Center - CSU: http://climate.colostate.edu/data\_access.html

2018 Regional Branding Initiative - Colorado Tourism Office: https://industry.colorado.com/sites/default/files/Colorado\_Identity\_MainReport\_v12.pdf

ESA Overview https://www.fws.gov/endangered/laws-policies/

NatureServe Conservation Status Rank: http://www.natureserve.org/conservation-tools/conservation-status-assessment

Dwarf Mistletoe Information - CSFS: https://csfs.colostate.edu/forest-management/common-forest-insects-diseases/dwarf-mistletoe/

Colorado's State Wildlife Action Plan https://cpw.state.co.us/aboutus/Pages/StateWildlifeActionPlan.aspx

About the State Land Board: https://www.colorado.gov/pacific/statelandboard/about-state-land-board

USFS - Medicine Bow-Routt National Forest: https://www.fs.usda.gov/main/mbr/home

USFS - Arapaho and Roosevelt National Forest: https://www.fs.usda.gov/main/arp/home

NPS - Rocky Mountain National Park: https://www.nps.gov/romo/index.htm

Jackson County: http://jacksoncountycogov.com/

U.S. Census Bureau Fact Finder: https://factfinder.census.gov/faces/nav/jsf/pages/index.xhtml CO State Demography Office Population Forecasts: https://demography.dola.colorado.gov/population/population-totals-counties/

USGS Rocky Mountain Regional Snowpack: https://co.water.usgs.gov/projects/RM\_snowpack/html/site.php?siteID=403100105540000

USGS Water Data: https://waterdata.usgs.gov/nwis

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