# Strawberry River WMA

# Habitat Management Plan

Northeastern Region Habitat Section 6/25/2021



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# I. BACKGROUND INFORMATION

#### Introduction

This management plan has been developed to guide management on lands owned and managed by the Utah Division of Wildlife Resources (DWR) adjacent to the Strawberry River, downstream of Soldier Creek dam. These lands were previously managed as the Strawberry River WMA, the Timber Canyon WMA, and lands obtained by the Utah Reclamation Mitigation and Conservation Commission and the Bureau of Reclamation (see Appendix B, Map 1). This management plan also serves as the "specific management plan or operating agreement" required by the 2020 GENERAL PLAN FOR USE OF PROJECT LANDS AND WATERS FOR WILDLIFE CONSERVATION AND MANAGEMENT, BONNEVILLE UNIT – CENTRAL UTAH PROJECT.

All lands acquired by the Utah Reclamation Mitigation and Conservation Commission (URMCC) and Bureau of Reclamation (BOR) were obtained as mitigation or conservation properties with the intent of transferring ownership to the Utah Division of Wildlife Resources and have been managed by the DWR for many years. Upon official receipt of these lands, the DWR intends to manage all these parcels as a single block to be known simply as the Strawberry River WMA.

As various parcels have been acquired, different management plans, agreements, and memoranda have been developed to outline the intended uses, goals, and management activities to take place on these separate parcels. This management plan seeks to incorporate all the relevant information contained in those separate plans and to outline the management of the entire block as a single unit. Unless otherwise stated, further references in this plan to the "Strawberry River WMA" (or "the WMA") will refer to the entire block of lands managed by the DWR under this plan.

The Dollar Ridge Fire of 2018 impacted approximately 70,000 acres within the Strawberry River watershed downstream of Soldier Creek Dam. The twenty-mile reach of Strawberry River within the Strawberry River WMA was severely impacted by erosion, mud and debris flows, and flooding as a result of the fire. Nonetheless, URMCC, BOR and Utah DWR are proceeding with transfer of the remaining federal lands within the Strawberry River WMA to the Utah DWR.

#### PURPOSE OF DIVISION OWNERSHIP

Many of the parcels comprising the Strawberry River WMA were purchased as mitigation for fish and wildlife impacts of the Strawberry Aqueduct and Collection, Diamond Fork, and Municipal and Industrial Systems of the Bonneville Unit of the Central Utah Project (CUP). Part of the mitigation includes an angling easement through approximately 1 mile of private property along the Strawberry River surrounded by the WMA.

Other parcels obtained by the Utah Division of Wildlife Resources were purchased to provide access for hunting, fishing, recreation, and protection of fish and wildlife habitat.

All of these properties were acquired to preserve and enhance wildlife habitats and populations, as well as preserve public angler access to the Strawberry River between Soldier Creek Dam and its confluence with Red Creek near the Strawberry Pinnacles. Management actions on the WMA will be determined based on these purposes.

Consumptive recreation opportunities that occur on the WMA include angling and hunting of both upland game and big game. Non-consumptive recreation opportunities on the WMA include bird watching, wildlife viewing, and hiking. OHV use is allowed on existing roads only.

#### HISTORIC USES

Prior to Division or BOR ownership, most of these lands were used as un-developed rangeland. The principal uses of the land were recreation (primarily fishing) and cattle grazing. Several pastures along the Strawberry River were irrigated for cattle grazing. A few parcels along the river were used as cabin sites.

#### Public Recreation Opportunities

#### **PUBLIC ACCESS**

There are no seasonal closures or other permanent restrictions on public access. However, motor vehicle access is limited primarily to the Strawberry River and Timber Canyon roads. Much of the WMA is accessible only by foot or horseback. Winter conditions may further limit access. Existing roads where motor vehicle access is allowed, as well as access points, are shown on Map 2 in Appendix B.

There are a dozen parking areas along the Strawberry River Road built to enhance angler access. Several of these parking areas were damaged or destroyed in the Dollar Ridge Fire in 2018. The DWR plans to rebuild these parking areas as access and resources allow. The angler parking points are shown on Map 2 in Appendix B.

Public road access on the Strawberry River Road terminates on its western end near the Duchesne County/Wasatch County line. Road access beyond that point is limited to private property owners that own cabin sites. However, angling easements were acquired from those owners and thus the Strawberry River is open to angling and passage within 20 feet of each streambank from Soldier Creek dam to the Strawberry Pinnacles.

Following the Dollar Ridge fire in July 2018, several severe flash flood events along the Strawberry River damaged the Timber Canyon and Strawberry River roads and rerouted the river channel into and across the roadways in several places. In 2020, Duchesne County, in consultation with the Natural Resources Conservation Service (NRCS), repaired the Timber Canyon road and the Strawberry River road from the Pinnacles to just above Timber Canyon. Repairs to the Strawberry River road above Timber Canyon are planned for 2021.

#### **C**AMPING

Overnight camping is not permitted along the Strawberry River Corridor or in the bottom of Timber Canyon. These riparian areas are Day Use Only. Dispersed camping is allowed in other areas of the WMA, but limited access largely restricts camping to backpack/horseback access only. There are no formally established camp sites on the WMA. DWR limits camping to no more than 14 consecutive days on all WMA's unless otherwise specified.

#### **OHV USE**

OHV use is limited to existing roads. Off road travel is prohibited on the WMA. Roads where motorized vehicle travel is permitted are shown in the Access Management Plan on Map 2 in Appendix B.

#### KEY WILDLIFE SPECIES

The Strawberry River WMA provides habitat for mule deer, elk, moose, bighorn sheep, black bear, cougar, bobcats, gray fox, ringtail cats, beaver, raccoon, mink, cottontail rabbits, jack-rabbits, and the occasional river otter. Mule

deer often move to lower elevations for the winter, but can be found on portions of the WMA year-round. Bighorn sheep from the Lake Canyon herd occasionally visit the area. Elk, moose, bear and cougar use the area throughout the year.

Wild turkeys, dusky grouse, and ruffed grouse inhabit riparian and wooded areas of these properties. Several species of waterfowl are often found along the Strawberry River. Many species of passerine birds and raptors also nest in the area. Peregrine falcons and golden eagles are known to occasionally nest along the Strawberry River corridor. Bald eagle are frequent winter visitors.

Undetermined species and number of amphibians and reptiles also inhabit the WMA, including midget faded rattlesnakes.

For some of these wildlife species, such as mule deer, elk, and bighorn sheep, the Dollar Ridge fire resulted in some habitat improvements. For other species, there may have been significant losses of habitat. It is currently unknown what effects the fire had on population numbers for most of these species, but for mule deer, elk, and sage-grouse there has been no appreciable decline in population that can be attributed to the fire.

The Strawberry River provides habitat for several species of sport fish including Colorado River cutthroat trout, brown trout, and brook trout. Prior to the Dollar Ridge fire the Strawberry River from the Pinnacles to Soldier Creek Dam was designated as a Blue-Ribbon fishery. However, due to impacts from the fire and subsequent debris flows which eliminated trout in large portions of the river, it has been downgraded to a potential Blue Ribbon water. As habitat conditions improve, it is the intent of the DWR to re-obtain Blue-Ribbon status on the Strawberry River.

#### GRAZING

The Utah Division of Wildlife Resources may use domestic livestock grazing to manage vegetation on Division lands if the Division determines that such grazing is beneficial for the maintenance or improvement of wildlife habitat. In recent years, grazing has been utilized as a management tool only on the unfenced Lion Hollow parcel within the adjacent USFS cattle allotment, where 25 AUMs are leased annually in conjunction with that allotment.

#### II. PROPERTY INFORMATION

#### **PROPERTY DESCRIPTION**

The Strawberry River Wildlife Management Area (WMA) is located on the border of Duchesne County and Wasatch County, UT. The majority of the property lies along the Strawberry River corridor, downstream of Soldier Creek Dam, between Red Creek at the Strawberry Pinnacles on the east and Soldier Creek Dam on the west. The portion of the WMA formerly managed as the Timber Canyon WMA lies to the South of the Strawberry River between Timber Canyon and Avintaquin Canyon.

The Strawberry River WMA is approximately 23,450 acres in size and includes approximately 20 miles of Strawberry River downstream of Soldier Creek Dam.

(See Appendix A for information concerning Deeds; see Appendix B for maps).

#### LAND ACQUISITION HISTORY

On June 3, 1959, a fee simple patent was issued to the Utah State Department of Fish and Game, wherein was granted to the State of Utah approximately 5,718 acres, portions of which are currently part of the Strawberry River WMA. Other portions of this land are currently contained in the Tabby Mountain WMA.

On November 15, 1978, William R. Peatross and Jessie Peatross sold to the Utah Division of Wildlife Resources the southern-most parcel of the former Timber Canyon WMA, which lies west of Avintaguin Canyon.

On Dec 5, 1984, Fred L. Morris sold to the Utah Division of Wildlife Resources the eastern-most parcels of the Strawberry River WMA.

On February 19, 1988, a quitclaim deed from the United States of America transferred to the State of Utah, Division of Wildlife Resources approximately 9,523 acres as mitigation resulting from the Central Utah Project. Portions of this grant were formerly managed as part of the Timber Canyon WMA. Other portions of this land are currently contained in the Wildcat WMA.

In November of 1989, The Nature Conservancy entered into a contract with the Utah Division of Wildlife Resources to purchase property from Childs Ranches. This property would be divided into 4 parcels, and sold to the DWR in sequence. On April 16, 1990 the first parcel containing approximately 265 acres, was sold to the Utah Division of Wildlife Resources by The Nature Conservancy.

On June 22, 1990, the Utah Division of Wildlife Resources obtained from The Nature Conservancy the remaining three parcels of the Childs Ranches property, containing approximately 1,060 acres.

Between July 1987 and December 1989, approximately 3,070 acres known as the Camelot mitigation parcel, along the Strawberry River were purchased from Dynamic America Corporation in a series of transactions between the Bureau of Reclamation (BOR) and The Nature Conservancy. These lands were purchased to obtain and preserve angler access to the Strawberry River and to preserve wildlife habitat. This land was acquired and will be transferred to the DWR as partial mitigation for fish and wildlife losses attributed to the Central Utah Project.

Since 1992 and the passage of the Central Utah Project Completion Act (CUPCA), the Utah Reclamation Mitigation and Conservation Commission (URMCC) and the Bureau of Reclamation (BOR) have acquired approximately 6,176 acres along the Strawberry River for this same purpose including the Giles and Hayes mitigation parcels.

The URMCC is responsible for designing, funding and implementing projects to offset the impacts to fish, wildlife and related recreation resources caused by the Central Utah Project (CUP) and other federal reclamation projects in Utah. As part of these duties, the Mitigation Commission has obtained an additional 7,364 acres of property. These lands will also be transferred to the DWR for management as part of the Strawberry WMA. These lands include the Fitzgerald, Golinski, Moon, Peterson, and Currant Creek Ranch parcels.

(See Appendix B, map 3)

#### **ENCUMBRANCES**

#### WATER RIGHTS/DEVELOPMENTS

The DWR, BOR, and URMCC hold stockwatering rights in Jensen Canyon stream, Water Hollow, Strawberry River, Slab Canyon, Timber Canyon, Beaver Creek, and in unnamed springs. These rights are listed in Table 1 in Appendix C.

Several irrigation water rights along the Strawberry River are currently held by the Utah DWR, BOR and URMCC. These rights are listed in Table 2 in Appendix C.

Other parties also hold water rights on lands managed by the DWR under this plan. These rights are listed in Table 3 in Appendix C.

#### **GRAZING RIGHTS**

When the Utah Division of Wildlife Resources obtained the Childs Ranches portion of the property, a Cattle Foraging/Grazing Deed Reservation was included, which allows Childs Ranches, along with "its heirs, successors and assigns" to annually allow cattle to graze and forage on the portion of the property "which is located south of the Strawberry River and is higher than 7,800 feet in elevation, together with that portion which lies within Willow Creek Canyon". This deed reservation is binding until the southern boundary of the property is fenced. Nothing in the deed prohibits or limits the construction of such a fence.

An annual grazing lease for 25 AUMS is currently offered for the Lion Hollow parcel to the permittee running cattle on the adjacent USFS allotment.

# MINERAL DEVELOPMENT

There is currently no mineral development on the Strawberry River WMA. However, oil and gas development has occurred on nearby lands in recent years. Old reclaimed exploratory oil well pads are on the Currant Creek Ranch parcel of the WMA.

The Ute Indian Tribe holds mineral rights on parcels granted to the Utah Division of Wildlife Resources under a fee simple patent issued by the United States of America (see Appendix B, map 3).

#### RIGHTS OF WAY

The Childs Ranches parcel of the Strawberry River WMA has a perpetual easement and right of way to allow the Deseret Generation & Transmission Cooperative to erect, construct, reconstruct, rephase, enlarge, repair, operate,

maintain, place, relocate and/or replace electric transmission and/or electric distribution lines and/or pipelines and/or other underground facilities. A high-voltage transmission line intersects this portion of the WMA at its far western edge.

The private property owners that own the parcels in Sec. 17 and 20, T4S R9W near the mouth of Beaver Canyon are granted an access right to drive the 1 mile to their properties beyond the gate at the west end of the Strawberry River road. The one-mile stretch of private road was closed by URMCC to public access in 2007 in cooperation with those landowners.

Angler access easements have been acquired along the Strawberry River through the private parcels near the mouth of Beaver Canyon.



# III. PROPERTY INVENTORY

*NOTE:* In July of 2018, the Dollar Ridge Fire burned about 70,000 acres in Duchesne and Wasatch Counties, including the majority of the lands managed under this plan. This section describes the baseline conditions of the WMA prior to the fire and includes notes relative to impacts on the existing structures. (See Appendix B, Map 4)

#### **EXISTING CAPITAL IMPROVEMENTS**

#### **ROADS**

The vast majority of this property is accessible only by foot or horseback (See Appendix B, Map 2).

The Strawberry River Road provides access along the Strawberry River until it is closed to public vehicle access approximately one half mile west of the Duchesne/Wasatch county line. This road is traditionally well used, but sometimes becomes impassible during winter months. Authorized access has been permitted to the private property owners beyond the closed gate. The closure was implemented to protect the private property rights of those landowners. Erosion events following the Dollar Ridge fire significantly impacted the Strawberry River Road, including bridges crossing the river. In 2020, Duchesne County, in consultation with the Natural Resources Conservation Service (NRCS), repaired the Strawberry River road from the Pinnacles to just above Timber Canyon. Additional repairs to the Strawberry River road above Timber Canyon are planned for 2021.

The Timber Canyon road provides limited access to portions of the WMA in that canyon. This road is well used, but can become impassible during winter months.

The portion of the WMA on Currant Creek Mountain can be accessed from the North through private property. Open roads, and roads that are closed, are shown on the Access Management Plan on Map 2 Appendix B.

#### **FENCING**

Currently, most of the property is not fenced except a two-mile portion along the Fitzgerald parcel boundary, which is fenced with pole fencing. In 1998, the BOR installed chain link fences to identify property boundaries along the Strawberry River where the road crosses a corner of Tribal land and where it crosses two private parcels. They also installed a chain link fence and cattle guards at the private property boundary in Timber Canyon. An old wire fence is in place at the Forest Service boundary in Timber Canyon. Other fences include small stretches where the parcels have common boundaries with private land.

Numerous internal cross fence lines have been removed along the Strawberry River corridor on the various mitigation parcels.

In July of 2018, the Dollar Ridge Fire burned through the majority of lands managed under this plan. Damage to existing fence lines is unknown but likely. DWR intends to assess the condition of these fences and will repair or replace as necessary and as resources allow. Repairs or replacement of pole fencing along the Fitzgerald/URMCC boundary were completed in 2019.

#### PHYSICAL FACILITIES

No physical facilities currently exist on the Strawberry River WMA.

Twelve parking areas along the Strawberry River Road were constructed to provide angler access. In addition, there is a fishing access parking lot on USFS property near Soldier Creek Dam. From this parking area, the WMA can be

accessed on foot via a short trail. These access points are shown on Map 2 in Appendix B. No facilities exist at any of these parking areas.

#### HABITAT PROJECTS

In the spring of 1994 approximately 60 acres in the bottom of Lion Hollow was burned and later reseeded. This was a cooperative project between the DWR, USFS, and the Rocky Mountain Elk Foundation (a total of about 90 acres treated). The treatment removed a decadent stand of sagebrush (about 5-6 feet tall) and the area was reseeded using a grass, forb, and shrub mixture.

In 1995, the old fields on the Camelot mitigation parcel were disked and re-seeded with a wildland seed mix.

In 1999, over 2,000 shrub seedlings were planted in the old fields on the Camelot mitigation parcel along the Strawberry River to improve wildlife habitat values.

In 2006, streambank repairs were installed by URMCC on a stretch of the Strawberry River where it was cutting into the Strawberry River Road on the Giles mitigation parcel.

In 2017, approximately 80 acres of decadent Mountain Big Sagebrush was mechanically removed from several old fields on the Giles mitigation parcel along the Strawberry River.

In July of 2018, the Dollar Ridge Fire burned the majority of the WMA (See Map 4 in Appendix B). The following November, seed was applied using a fixed-wing aircraft to approximately 13,200 acres of the WMA and adjacent private lands. This seeding occurred primarily on the burned slopes north and south of the Strawberry River, and to portions of the riparian corridor.

In 2020, Duchesne County, working with the NRCS, repaired the Strawberry River road from the pinnacles to just above Timber Canyon. This work required some impacts to the Strawberry River, including hardening banks in some locations. Some in-stream improvements, including cross-vanes, J-hooks, and root wads, were installed to help mitigate those impacts, but further work needs to be done to improve fish habitat.

#### IRRIGATION

Numerous irrigation diversions and associated ditches are located along the Strawberry River corridor on the Camelot, Hayes, and Giles mitigation parcels. Due to the Dollar Ridge fire and subsequent erosion events, these diversions and ditches were heavily damaged or destroyed. It is the intent of the DWR to rebuild these as access and resources allow. Diversion reconstruction will be included in projects to restore stream function and fish habitat.

#### **CULTURAL RESOURCES**

The property acquired by the BOR and the URMCC includes a parcel known as the "Simmons Ranch complex" which contained historic structures listed on the National Register of Historic Places. In 2005, the BOR, the URMCC, the DWR, and the Utah State Historic Preservation Officer (SHPO) entered into a Memorandum of Agreement regarding the protection of this property. This agreement was set to expire after 10 years (in 2015) at which time the structures would be allowed to deteriorate without active intervention. Following that period of time, the DWR would be allowed to remove structures in this complex if it is determined that they present an unacceptable risk to the public. Most of this complex was destroyed in the Dollar Ridge Fire in 2018. The Simmons Ranch Complex is no longer eligible for the National Register of Historic Places. If an unacceptable public risk warrants removal of debris, the DWR will do so.

Other existing trailers and cabins on the Giles and Hayes mitigation parcels were documented and removed in 2004 by URMCC.

A small cabin site in lower Slab Canyon was destroyed in the Dollar Ridge Fire.

Prior to any new surface disturbing activities on the WMA, a cultural resource survey will be conducted to locate and document any and all cultural resources. Any significant cultural resources found in such surveys will be avoided during maintenance or improvement projects.

#### Species of Greatest Conservation Need

The Utah Wildlife Action Plan has been created "to manage native wildlife species and their habitats, sufficient to prevent the need for additional listings under the Endangered Species Act. The State of Utah has created a list of 141 Species of Greatest Conservation Need (SGCN), which "do, or potentially could, present the possibility of an ESA listing." Threats to these species are described in the Utah Wildlife Action Plan. Of the 141 listed Species of Greatest Conservation Need, up to 26 potentially could occur, at least occasionally, on lands managed under this plan. For many of these, very little is known about the species and surveys have not been conducted in this area. For those with known information, the following are of note:

#### Bald eagle (Haliaeetus leucocephalus)

Wintering bald eagles frequently use the area. No nesting is currently known to occur on the WMA.

#### Bluehead sucker (Catostomus discobolus)

Surveys conducted in 2004 show a moderate occurrence of bluehead sucker in the Strawberry River downstream of the WMA, becoming more abundant in downstream sections of the river. The State of Utah has a conservation and management plan for bluehead sucker. A range-wide conservation agreement is also in place. Erosion events following the Dollar Ridge Fire in 2018 severely impacted water quality and fish populations downstream. The DWR will continue to conduct fish surveys to determine status of aquatic species and will work to recover species as needed.

#### Colorado River cutthroat trout (Oncorhynchus clarkii pleuriticus)

Extensive work has been done to protect and enhance Colorado River cutthroat trout populations in tributaries of the Strawberry River, including those in Timber Canyon, Avintaquin Canyon, Willow Creek and Lake Canyon. Colorado River cutthroat trout also occur in the Strawberry River. There is a Tri-State conservation strategy for Colorado River cutthroat trout. Fishing for cutthroat trout is allowed; see the most recent guidebook for regulations. Debris flows resulting from heavy thunderstorms following the Dollar Ridge Fire in 2018 severely impacted water quality and eliminated the trout population from the pinnacles upstream to approximately two miles below Soldier Creek Dam. In October 2019, the DWR restocked portions of the Strawberry River with Colorado River cutthroat trout. The DWR will continue to conduct fish surveys to determine status of aquatic species and will work to recover species as needed.

#### Flannelmouth sucker (Catostomus latipinnis)

Surveys conducted in 2004 show that flannelmouth sucker are abundant in lower sections of the Strawberry River, downstream of the WMA. The State of Utah has a conservation and management plan for flannelmouth sucker. A range-wide conservation agreement is also in place. Erosion events following the Dollar Ridge Fire in 2018 severely impacted water quality and fish populations downstream. The DWR will continue to conduct fish surveys to determine status of aquatic species and will work to recover species as needed.

#### Golden eagle (Aquila chrysaetos)

Golden eagles have been consistently documented nesting at various locations along the Strawberry River.

#### Northern leopard frog (Rana pipiens)

Northern leopard frogs are known to exist along the Strawberry River, but information about their presence on the WMA is limited. Erosion events following the Dollar Ridge Fire in 2018 severely impacted water quality and fish populations downstream. The DWR will continue to conduct surveys to determine status of aquatic species and will work to recover species as needed.

#### Peregrine falcon (Falco peregrinus)

Peregrine falcons have been documented nesting in the cliffs along the Strawberry River near Timber Canyon.

#### Pinyon jay (*Gymnorhinus cyanocephalus*)

Pinyon jays have been observed in the Strawberry River corridor and likely use the conifer covered slopes on the WMA. Much of the pinyon and juniper woodlands they rely on were destroyed during the Dollar Ridge fire in 2018.

#### IMPORTANT FISH AND WILDLIFE HABITATS

In addition to the species of greatest conservation need listed above, these lands provide crucial habitat for mule deer, elk, and moose. The entire WMA is summer range for these species and much of the WMA is winter range as well. Elk and moose use the wind-blown ridges, even on the hardest of winters. Mule deer wintering along the Strawberry River spend their summers in the Strawberry Valley to the west. Similar migration patterns are found in elk, too. Wild turkey, dusky grouse, and ruffed grouse also utilize the area. The riparian corridor along the Strawberry River provides habitat for many species of game and non-game species.

The Strawberry River provides good habitat for both native fish and sport fish, though the habitat in much of the Strawberry River above the Pinnacles was severely impacted by the Dollar Ridge fire, subsequent erosion events, and efforts to rebuild the Strawberry River road.

#### **GENERAL CONDITIONS OF HABITATS**

#### HABITAT TYPES

Prior to the Dollar Ridge fire, pinyon-juniper woodlands dominated the hillsides with Douglas-fir/mixed conifer, aspen, sagebrush, and mountain brush habitat types forming a minor component. Pinyon-juniper habitat types were found on the drier slopes with western and southern aspects. Slopes with northern and eastern aspects host Douglas-fir types.

Small stands of aspen are found on the higher elevations and in some of the canyon bottoms.

Upland areas of the WMA are dominated by sagebrush. Other shrub species, such as Saskatoon service berry, bitter brush, and curl-leaf mountain-mahogany are scattered throughout the general area. Gambel Oak communities are small and localized.

Prior to the Dollar Ridge fire, riparian habitat along the Strawberry River was characterized by cottonwood and Douglas-fir in the over story with occasional white fir, blue spruce, and box elder. The riparian understory was made up of willows, river birch, red-osier dogwood, golden currant, and Oregon grape.

#### Range and Watershed Conditions

Prior to the Dollar Ridge fire, range conditions were generally good for the area. In the time since the fire, many areas have experienced new growth, and seeded species applied during initial restoration efforts have been found. Variables such as burn severity, slope, soil type, and pre-fire vegetation type have resulted in different outcomes at different locations on the WMA. Areas with aspen, Gambel oak and other mountain brush communities appear to be recovering relatively quickly. Areas previously dominated by conifers are more severely impacted, and will likely exist as a grass and shrub dominated community for years to come, interspersed by pockets of unburned conifers.

Erosion is a concern. Multiple storm events produced large debris flows and flash flooding in the Strawberry River even before the fire was fully contained. Storm events in July and August 2019 caused significant erosion in Timber Canyon. Further debris flows from monsoon storm events are likely. Erosion potential should gradually improve with revegetation of the burned area, but may continue to have impacts for some time.

#### RIPARIAN CORRIDORS AND WETLANDS

Prior to the Dollar Ridge fire, the riparian areas along the Strawberry River and Timber Canyon Creek were generally in good condition. The fire burned several areas in the riparian zone along the Strawberry River and many large trees were lost. Other riparian vegetation, however, showed quick re-growth after the fire. Some areas of the riparian zone were un-burned and in good condition. Flash flooding and debris flows shortly after the fire impacted the riparian zone further and changed the stream channel in some areas, but riparian and wetland vegetation appear to be recovering well.

Increased erosion may continue to impact riparian corridors and wetlands for some time.

Weeds, especially tamarisk and musk thistle, appear to be expanding following the impacts due to the Dollar Ridge fire.

The Strawberry River is recovering following major debris flows in 2018 and 2019. In many places incised channels were aggraded and the river spilled onto the floodplain and began forming braided channels. However, efforts to reconstruct the Strawberry River road re-channelized the river and hardened the banks with rip-rap along much of the channel between the pinnacles and Timber Canyon. DWR biologists worked with engineers and construction crews to try to limit the impacts, and some in-stream structures were placed, but much more work needs to be done to improve fish habitat in areas where construction occurred.

#### HABITAT LIMITATIONS

The wildlife habitat on the WMA is limited by steep, rocky slopes. These slopes were previously dominated by pinyon-juniper woodlands or other conifers. In areas that burned during the Dollar Ridge fire, these slopes are now dominated by grasses, and may be more suitable to big game species, including elk and Rocky Mountain bighorn sheep.

# **HUMAN USE RELATED PROBLEMS**

Few problems related to human use exist on the WMA.

Prior to the Dollar Ridge Fire, the Strawberry River corridor was heavily utilized by fishermen and parking areas were created to provide access points to the river.

There is a concern that off-road OHV use could become a problem in the Long Ridge area, Beaver Canyon, and on the ridges north of the Strawberry River where illegal OHV use from adjacent private properties are becoming an issue. Enforcement patrols are difficult in these areas due to the remoteness and property ownership.

#### ADJACENT LAND USES AND POTENTIAL IMPACTS

The Strawberry River WMA is bordered primarily by US Forest Service Lands to the South, Ute Tribal lands on the Southeast and Private or other DWR lands to the North (See Appendix B, Map 5).

There is some potential for the Strawberry River WMA to be impacted by oil and gas extraction activities. Every effort will be made to move oil and gas development out of the river flood plain to avoid potential pollution of the Strawberry River, a major source of drinking water for Duchesne County.

There is high potential for development on adjacent private property. This development would be primarily seasonal cabins and is not likely to significantly impact hunting opportunities in the short term; however, as more of these cabins become used year round the impacts to wildlife will increase.

#### **ZONING AND LAND USE ORDINANCES**

In Duchesne County, private lands surrounding the Strawberry River WMA are zoned for agricultural purposes. In general, private lands to the north of the WMA are zoned for a minimum lot size of 10 acres (A10 zoning). Private lands to the south of the WMA are zoned for a minimum lot size of 5 acres (A5 zoning). Tribal lands, federal, and state lands are not zoned by Duchesne County. See Appendix B, Map 6.

In Wasatch County, many of the lands surrounding the Strawberry River WMA are zoned for preservation (P-160 zoning). This zone establishes "areas where development may be limited due to remoteness of service, topography, and other sensitive environmental issues." This zoning allows only one unit for every 160 acres. The only exception is the large Strawberry Recreation Zone south of the WMA near Strawberry Reservoir. This zone allows recreational development "in harmony with mountain settings" and dictates "adverse impacts shall be mitigated". This zoning allows for up to 1,230 units. See Appendix B, Map 6.

# IV. MANAGEMENT GOALS AND OBJECTIVES

The management of the Strawberry River WMA takes into account the goals, objectives, and strategies of other Division of Wildlife Resources planning efforts, as well as county and state resource management plans. These plans include, but are not limited to, the DWR strategic Plan, the Utah Wildlife Action Plan, and species specific management plans. Some of these plans are briefly discussed below. *Note: this is not a comprehensive review of the listed plans, but a summary of relevant objectives and strategies contained within those plans.* 

#### **DWR STRATEGIC PLAN**

The management of the Strawberry River WMA will be consistent with the goals and objectives of the Utah Division of Wildlife Resources Strategic Plan:

- Constituency Goal: Strengthen support for wildlife management by demonstrating the value and importance of wildlife to all Utahns.
  - Objective C6 Increase hunting and fishing opportunities.
- Resource Goal: Conserve, enhance and actively manage Utah's protected wildlife populations.
  - Objective R1- Increase, decrease or maintain wildlife populations, as needed, to meet the objectives in our management plans.
  - Objective R2- Maintain existing wildlife habitat and increase the quality of critical habitats and watersheds throughout the state.
  - Objective R4 Decrease risks to species and their habitats through integrated implementation of the Wildlife Action Plan, species recovery plans, conservation agreements and other management plans.

#### WILDLIFE ACTION PLAN

The 2015 Utah Wildlife Action Plan (WAP) was created with the goal "to manage native wildlife species and their habitats, sufficient to prevent the need for additional listings under the Endangered Species Act." The WAP identifies wildlife species most in need of conservation attention and the habitats they require for survival. The WAP includes a statewide threat assessment, which identifies threats to each key habitat and then ranks the impact of that threat according to the number of species of greatest conservation need that could be affected from that threat. The Strawberry River WMA contains the following key habitat types. The threats listed below are not a comprehensive list of statewide threats identified for these habitats, but are those that may be most relevant to the habitats on the WMA. Management activities on the WMA will attempt, to the extent possible, to address these priority threats, and will utilize the suggested strategies for management as outlined in the WAP.

#### ASPEN-CONIFER

Priority threats include:

- Inappropriate Fire Frequency and Intensity (Very High)
- Droughts (Medium)
- Problematic Animal Species Native (Medium)
- Improper Grazing (current) (High)

Strategies for management include:

- Increasing disturbance from either prescribed or natural fire to stimulate aspen regeneration.
- Applying mechanical disturbance agents such as timber harvest. This can be used to stimulate aspen regeneration and avoid resource losses to conifer beetles.
- Monitoring smaller, naturally-occurring or human-created disturbances for ungulate damage, and taking follow-up actions such as fencing, hazing, hunting, and/or domestic grazing management.
- · Promoting policies that reduce improper browsing and grazing by domestic livestock and wildlife.

#### GAMBEL OAK

#### Priority threats include:

- Invasive Plant Species Non-native (Medium)
- Inappropriate Fire Frequency and Intensity (High)

#### Strategies for management include:

- Promoting policies and management that allow fire to return to a more natural regime.
- Promoting and funding restoration that reduces the Uncharacteristic class, including cutting/mulching of
  invading pinyon and juniper trees, and herbicide or mechanical treatment of non-native invasive species
  such as cheatgrass and smooth brome.
- Continuing the funding and support for weed abatement programs, including "early detection rapid response" programs.

#### LOWLAND SAGEBRUSH

#### Priority threats include:

- Inappropriate Fire Frequency and Intensity (Very High)
- Droughts (High)
- Invasive Plant Species Non-native (Very High)

#### Strategies for management include:

- Promoting policies and management that allow fire to return to a more natural regime.
- Promoting policies that reduce inappropriate grazing by domestic livestock, feral domesticated animals, and wildlife.
- Promoting and funding restoration that reduces the Uncharacteristic class, including cutting/mulching/chaining of invading pinyon and juniper trees, herbicide or mechanical treatment of nonnative invasive species such as cheatgrass and secondary perennial weed species, and rehabilitation of burned areas following wildfire.
- Developing and deploying techniques to diversify the understory species composition and age classes of decadent even-aged sagebrush stands.
- Developing and deploying techniques to diversify species composition in monoculture or near monoculture stands of seeded non-native plants (e.g. crested wheatgrass).
- Promoting management that includes seeding a diversity of grasses, forbs and shrubs that will lead to increased resiliency and resistance in the plant community.

#### MOUNTAIN SAGEBRUSH

#### Priority threats include:

- Invasive Plant Species Non-native (Medium)
- Roads Transportation Network (Medium)

- Droughts (High)
- Inappropriate Fire Frequency and Intensity (Medium)
- Improper Grazing (current) (High)

#### Strategies for management include:

- Promoting policies and management that allow fire to return to a more natural regime.
- Promoting policies that reduce inappropriate grazing by domestic livestock and wildlife.
- Promoting and funding restoration that reduces the Uncharacteristic and surpluses of older age class, including: Dixie/chain harrow, brush mowing or other treatments that reduce the older age class and stimulate the younger/mid age classes; herbicide or mechanical treatment of non-native invasive species such smooth brome; single tree mulching/cutting of invading conifer.
- Promoting policies that lead to responsible human/energy intrusion and development.
- Promoting management that includes seeding a diversity of grasses, forbs and shrubs that will lead to increased resiliency and resistance in the plant community.

#### MOUNTAIN SHRUB

#### Priority threats include:

• Invasive Plant Species - Non-native

#### Strategies for management include:

- Promoting policies that reduce inappropriate grazing by domestic livestock and wildlife.
- Continuing the use of appropriate methods for reducing the spread and dominance of invasive weeds and annual grasses, including "early detection rapid response" programs.

#### **A**OUATIC-FORESTED

#### Priority threats include:

- Presence of Dams (High)
- Sediment Transport Imbalance (Medium)
- Roads Transportation Network (Medium)
- Improper Grazing (current) (Medium)
- Channelization / Bank Alteration (direct, intentional) (High)
- Presence of Diversions (Very High)
- Dam / Reservoir Operation (Medium)
- Droughts (High)
- Water Allocation Policies (Very High)
- Agricultural / Municipal / Industrial Water Usage (Very High)
- Invasive Plant Species Non-native (Medium)

#### Strategies for management include:

- Promoting policies that maintain or restore natural water and sediment flow regimes.
- Promoting policies that reduce inappropriate grazing by domestic livestock and wildlife.
- Promoting policies that reduce inappropriate siting of roads in riparian zones.
- Continuing the use of appropriate methods for reducing the spread and dominance of invasive weeds, including "early detection rapid response" programs.

#### AQUATIC-SCRUB/SHRUB

#### Priority threats include:

- Sediment Transport Imbalance (Medium)
- Roads Transportation Network (Medium)
- Improper Grazing (current) (High)
- Channelization / Bank Alteration (direct, intentional) (High)
- Presence of Diversions (Very High)
- Dam / Reservoir Operation (Medium)
- Inappropriate Fire Frequency and Intensity (Medium)
- Droughts (High)
- Water Allocation Policies (Very High)
- Agricultural / Municipal / Industrial Water Usage (Very High)
- Invasive Plant Species Non-native (Medium)

#### Strategies for management include:

- Promoting policies that maintain or restore natural water and sediment flow regimes.
- Promoting policies that reduce inappropriate grazing by domestic livestock and wildlife.
- Promoting policies that reduce inappropriate siting of roads in riparian zones.
- Continuing the use of appropriate methods for reducing the spread and dominance of invasive weeds, including "early detection rapid response" programs.

#### **EMERGENT**

#### Priority threats include:

- Channelization / Bank Alteration (direct, intentional) (Medium)
- Droughts (High)
- Water Allocation Policies (High)
- Agricultural / Municipal / Industrial Water Usage (Medium)
- Invasive Plant Species Non-native (Medium)

#### Strategies for management include:

- Promoting policies that maintain or restore natural water and sediment flow regimes.
- Promoting policies that reduce inappropriate grazing by domestic livestock and wildlife.
- Continuing the use of appropriate methods for reducing the spread and dominance of invasive weeds, including "early detection rapid response" programs.

#### RIVERINE

#### Priority threats include:

- Presence of Dams (High)
- Sediment Transport Imbalance (Medium)
- Roads Transportation Network (Medium)
- Improper Grazing (current) (High)
- Channelization / Bank Alteration (direct, intentional) (High)
- Presence of Diversions (Very High)
- Dam / Reservoir Operation (Medium)

- Inappropriate Fire Frequency and Intensity (Medium)
- Droughts (High)
- Water Allocation Policies (Very High)
- Agricultural / Municipal / Industrial Water Usage (Very High)
- Invasive Plant Species Non-native (Medium)

#### Strategies for management include:

- Promoting policies that maintain or restore natural water and sediment flow regimes.
- Promoting policies that reduce inappropriate grazing by domestic livestock and wildlife.
- Continuing the use of appropriate methods for reducing the spread and dominance of invasive weeds, including "early detection – rapid response" programs.

#### UNIT MANAGEMENT PLANS FOR WILDLIFE SPECIES

The Strawberry River WMA is a part of the Wasatch Mountains Wildlife Management Unit. As such, management activities on these properties will be consistent with the objectives and strategies within the herd unit management plans, outlined below.

#### MULE DEER

The Wasatch Mountains Deer Herd Unit Management Plan (2016) contains the following habitat management objectives:

- Maintain mule deer habitat throughout the unit by protecting and enhancing existing crucial habitats and mitigating for losses due to natural and human impacts.
- Improve the quality and quantity of vegetation for mule deer on crucial range.
- Provide improved habitat security and escapement opportunities for deer.

These objectives are to be met by a combination of strategies including broad scale vegetative treatment projects to improve mule deer habitat with emphasis on drought or fire damaged sagebrush winter ranges, ranges that are being taken over by invasive annual grass species, and ranges being diminished by encroachment of conifers into sagebrush or aspen habitats.

#### ELK

The Wasatch Mountains Elk Herd Unit Management Plan (2016) contains the following habitat management objectives:

 Within the next five years, enhance forage production on a minimum of 20,000 acres of elk habitat, through direct range improvements to maintain population management objectives.

This objective is to be met by a combination of strategies including re-instituting natural fire interval in conifer zones, increasing vegetative understory and reducing pinyon/juniper invasion of sagebrush habitats, and implementing other habitat enhancements when opportunities arise.

#### STRAWBERRY RIVER WMA MANAGEMENT GOALS

In 1995, the Utah Division of Wildlife Resources, the Bureau of Reclamation, and the Utah Reclamation Mitigation and Conservation Commission signed an operating agreement outlining management goals and objectives for the

CUP parcels under DWR management. While some of these objectives outlined activities to occur within a specific timeframe that has now lapsed, other objectives are still applicable to all the properties under this plan.

The following management goals for all lands managed under this plan were outlined in the 1995 operating agreement and are still in effect for the WMA:

- Maintain and promote use of the area by big game, upland game, fish and non-game wildlife through protecting and improving critical wildlife habitats, rehabilitating burned areas and mitigating for long-term stream impacts due to wildfire and subsequent erosion events.
- Maintain public access to the property for hunting, fishing, and wildlife watching. This access will preserve a primitive condition and wild setting. Any improvements will be the minimum necessary to protect wildlife habitat from increases in recreational use.
- Maintain a level of law enforcement necessary to assure acceptable compliance with all public-use laws and regulations pertinent to the property.
- Utilize livestock grazing only when necessary for the enhancement of wildlife values and habitat quality.
- Allow the natural expansion of beaver in areas where such expansion does not compromise necessary facilities or conflict with other specific wildlife or habitat goals.
- Prohibit construction of new roads and limit all vehicular use to existing roads and dedicated parking areas.
- Evaluate existing spur roads and effectively close or obliterate said roads as deemed necessary for habitat protection.
- Install and maintain appropriate regulatory and interpretive signing necessary for management of public
- Monitor instream flows and fish populations regularly to determine the status of the sport fishery.
- Protect and preserve the appurtenant water rights to the property for fish and wildlife purposes as appropriate.

#### LOCAL RESOURCE MANAGEMENT PLANS

In 2015 the Utah Legislature passed H.B. 323, which required each county to develop a resource management plan (RMP) as part of the county's general plan. The State of Utah aggregated the land use decisions and directives that emerged from the county plans and, in 2018, published a resource management plan for the state of Utah. These local resource management plans were created to address and remedy a disconnect between local land use needs and desires and federal land use planning. The county and state RMPs are intended to provide a basis for coordinating with the federal government. Counties also utilize their RMP's as a basis for coordinating with State planning activities.

Under Utah State Code 63L-10-104, "State agencies and political subdivisions shall refer to and substantially conform with the statewide resource management plan when making plans for public lands or other public resources in the state."

Local Resource Management Plans applicable to the Strawberry River WMA include the statewide RMP and those for Duchesne and Wasatch Counties. Management of the Strawberry River WMA will be consistent with these local resource management plans to the extent possible.

# V. STRATEGIES FOR PROPERTY MANAGEMENT

#### DEVELOPMENT AND ANNUAL MAINTENANCE ACTIVITIES

Annual maintenance on these properties consists of weed control, fence maintenance, and monitoring for problems. New fencing may be constructed if monitoring of habitat and trespass shows that fencing is needed. Signs will be placed and maintained as needed. Fire-damaged fences, parking areas and signage will be re-built as needed. Diversion structures and ditches will be rebuilt along with stream restoration as needed.

Specific strategies are listed below.

- Maintain signs to show ownership and inform the public.
- Maintain and construct fencing around property boundaries and riparian areas as needed.
- Construct boundary fence along southern boundary of the Childs Ranches parcel.
- Maintain parking areas for public access. Rebuild fishing access points as needed.
- Continue to develop low-impact public use and access.
- Inform and educate the public about the value of habitat protection and enhancement.
- Monitor and control livestock trespass. Solve any chronic problems through fencing.
- Monitor and discourage the use of OHV's on the property, except for their legal use on existing roads.
- Monitor for tamarisk and musk thistle, along with other weeds. Coordinate weed control efforts as needed.
- Acquisitions which would facilitate management of this property and better protect the area's resources should be pursued when opportunities arise and funds permit. To comply with county policies, any acquisitions will be coordinated with county commissioners and may coincide with the disposal of other DWR properties in the county.

#### VI. STRATEGIES FOR HABITAT MANAGEMENT

#### HABITAT IMPROVEMENT PLAN

In late 2020, the DWR issued a Request for Proposals (RFP) to solicit proposals from private contractors to develop, design, and oversee the development a watershed scale restoration plan for the Strawberry River Watershed, which includes most of the Strawberry River WMA (See Appendix B, Map 7). This will begin a transparent, public process to assess the watershed and riparian conditions, prepare a rehabilitation and implementation plan, and to guide affected agencies and communities in restoring the fishery, riparian corridor, and associated watershed. In 2021, the DWR will begin evaluating these proposals and move forward with hiring a contractor. Once complete, the resulting restoration plan will be used to guide DWR's efforts to improve habitat for fish and wildlife on the WMA. It is anticipated that this plan will focus on reducing erosion to protect infrastructure, improving stream function, restoring fish habitat, and controlling noxious weeds.

Until this restoration plan is complete, DWR will work on improving habitat for fish and wildlife through the following specific priorities:

- Improve the riparian corridor and in-stream fish habitat by placing in-stream structures (J-hooks, cross vanes, etc.) and through planting riparian vegetation, with a focus on areas where the river was impacted during reconstruction of the Strawberry River road.
- Monitor and treat invasive weeds, especially musk thistle and tamarisk.

It is understood that Duchesne and Wasatch counties will pursue reconstruction of the Strawberry River road west of Timber Canyon. The DWR will coordinate with the counties on this process and provide guidance to assist in protecting riparian and in-stream habitat quality. Consistent with county resource management plans, the DWR will:

- Promote the use of bio-engineering methods that facilitate riparian vegetation growth for bank stabilization in lieu of hardened structures and surfaces.
- Encourage construction methods that will help reestablish floodplain connectivity.
- Work with the county to offset the road alignment from riparian areas and wetlands where practicable.

Any future habitat improvement projects will be developed and proposed through the Habitat Council and/or Watershed Restoration Initiative processes and other eligible funding sources.

#### ACCESS MANAGEMENT PLAN

Public vehicle access on the WMA is limited by few access points and the limited number of developed roads. The majority of the WMA is accessible only by foot or horseback. OHV use will be restricted to existing open roads identified on Map 2, Appendix B. Fencing or other barriers have been used to control illegal OHV use in problem areas. Additional fencing or barriers may be constructed if necessary.

The Strawberry River Road provides access along the Strawberry River until it is closed to public vehicle access approximately one half mile west of the Duchesne/Wasatch county line. This road is traditionally well used, but sometimes becomes impassible during winter months. Authorized access has been permitted to the private property owners beyond the closed gate. The closure was implemented to protect the private property rights of those landowners.

It is understood that Duchesne and/or Wasatch counties will pursue reconstruction of the Strawberry River road west of Timber Canyon. Until the road is repaired public vehicle access along the Strawberry River west of Timber Canyon is limited. It is the intent of the DWR to allow recreational access to the greatest extent possible while protecting fish and wildlife habitat values, reducing erosion and ensuring public safety.

Appendix B, Map 2 shows all the public access roads that are open to motorized vehicles on the WMA. No other trails or roads are open to motorized vehicle use.

Fishing access points along the Strawberry River will be re-built and maintained as access and resources allow. Additional access points may be added if needed. See Appendix B, Map 2 for roads and fishing access points.

#### FIRE MANAGEMENT PLAN

Fire management will be carried out in partnership with the Utah Division of Forestry, Fire, and State Lands, Duchesne County office of Fire and Emergency Management, Wasatch County Fire District and Emergency Management, and Ashley National Forest, which owns property adjacent to the WMA. Fire suppression plans are developed in coordination with the Division of Forestry, Fire and State Lands.

Given the large-scale impact of the Dollar Ridge fire, the DWR has no plans to use prescribed fire as a management tool in the foreseeable future. Wildfires will be managed to protect life and property, protect vulnerable habitats and, if deemed appropriate, to enhance existing habitats subject to other suppression priorities.

To reduce the risk of wildfire, target shooting is not permitted on the WMA. Shooting may only occur during valid hunting seasons with a valid hunting permit. The use of tannerite or other exploding targets is strictly prohibited.

## Wood Products

The Dollar Ridge fire left many burned trees within the riparian corridor and adjacent hillsides. The dead trees are weakened and could be a hazard to recreational users of the river or contribute to future flooding events, but many still have value as wood products. The DWR may issue firewood cutting permits or a timber sale contract to remove some of these hazardous trees if needed.

Other opportunities for harvesting of wood products are limited by steep slopes and lack of road access.

#### LIVESTOCK GRAZING PLAN

Under terms of the agreement with Childs Ranches described in the "grazing rights" section of this document, grazing is permitted on part of the Childs Ranches parcel of the Strawberry River WMA until such time as the DWR constructs a fence on the southern boundary. To comply with management goals from the 1995 operating agreement between the Utah Division of Wildlife Resources, the Bureau of Reclamation, and the Utah Reclamation Mitigation and Conservation Commission to "utilize grazing only when necessary for the enhancement of wildlife values and habitat quality," the Utah Division of Wildlife Resources is making plans to construct this fence and will proceed as resources are available to do so.

Under DWR policy, carefully planned grazing may be used as a tool in managing wildlife habitat. To maximize feed for wildlife and protect the sensitive riparian habitat, the WMA is not being grazed except for the unfenced Lion Hollow parcel that is grazed in association with the surrounding Forest allotment. Regional DWR personnel will periodically evaluate the property and determine if the WMA could benefit from additional grazing.

# VII. SUMMARY STATEMENT OF PROPOSED USES

The Strawberry River WMA will be used to provide aquatic habitat and a trout fishery for the public, as well as habitat for both game and non-game wildlife. Human uses that will be allowed include hunting, fishing, wildlife viewing, hiking, and horseback riding, with motorized recreation on existing roads only.

Destruction and/or degradation of habitat from any of these uses may result in further restrictions to protect resources.



# VIII. MONITORING AND EVALUATION

As priorities allow, regional aquatics biologists will assess the aquatic habitat in the Strawberry River and tributaries and make recommendations for improvement projects. Wildlife biologists, with help from the Habitat Section, will perform periodic evaluations of terrestrial habitat condition and prepare any habitat improvement proposals. The district Conservation Officer, with help from other biologists, will monitor human use and trespass livestock grazing and propose management modifications where problems are occurring with input from regional aquatics, wildlife, and habitat biologists. The Habitat Section of the Northeastern Region of the Utah Division of Wildlife Resources will present improvement projects to the Habitat Council and/or the Watershed Restoration Initiative for approval and funding.



# IX. APPENDICES

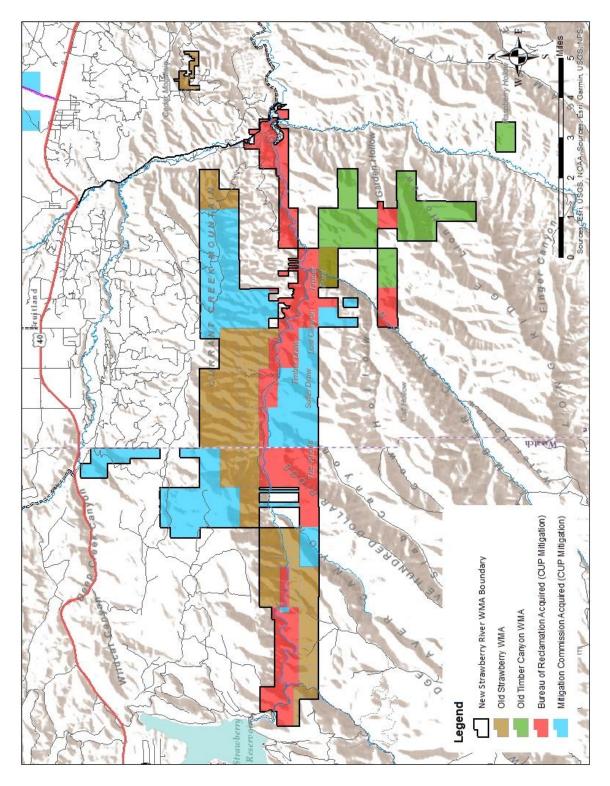
# APPENDIX A - DEEDS

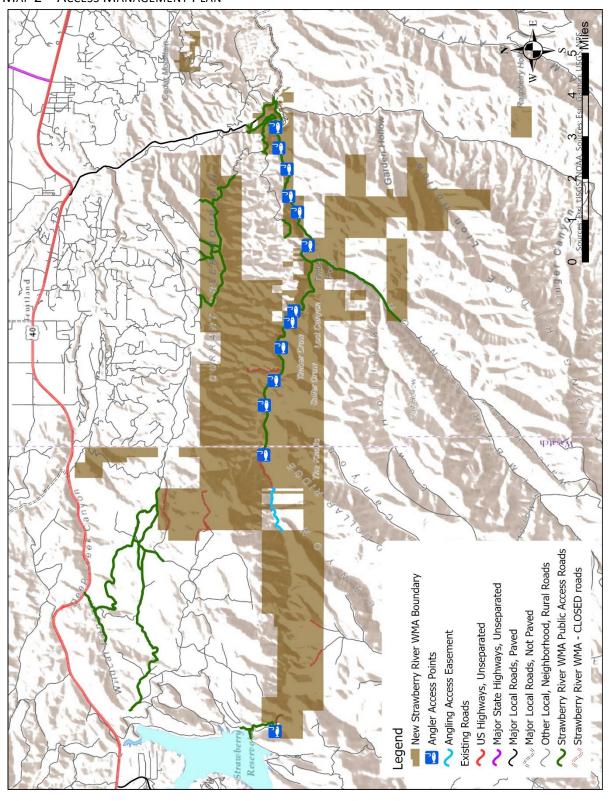
Copies of deeds associated with the Strawberry River WMA can be found at the Northeastern Regional Office of the Utah Division of Wildlife Resources, 318 N. Vernal Ave., Vernal, UT 84078.



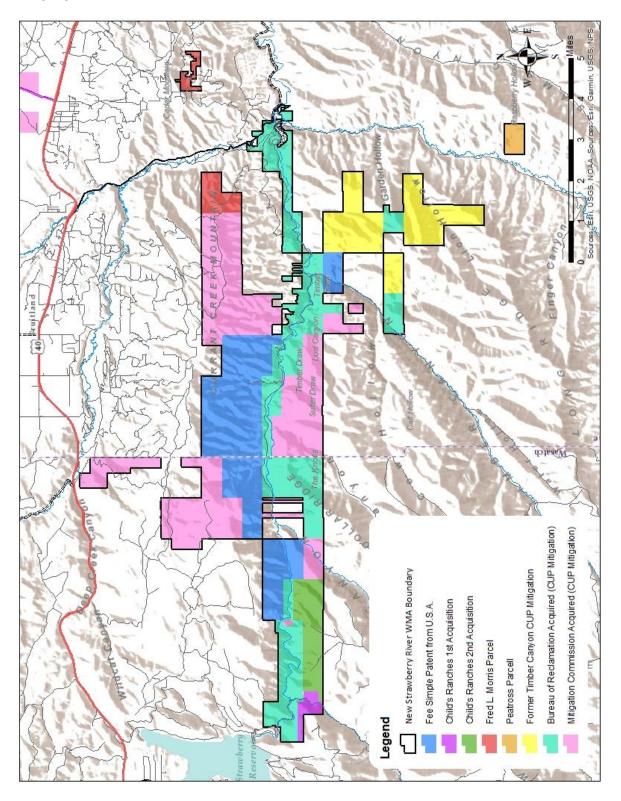
# APPENDIX B - MAPS

# MAP 1 – LANDS COMPRISING THE NEW STRAWBERRY RIVER WILDLIFE MANAGEMENT AREA

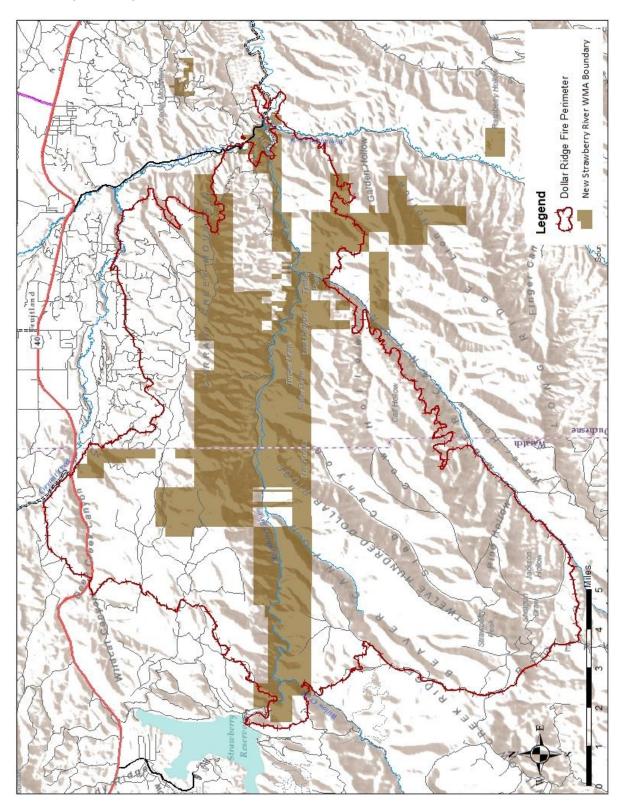




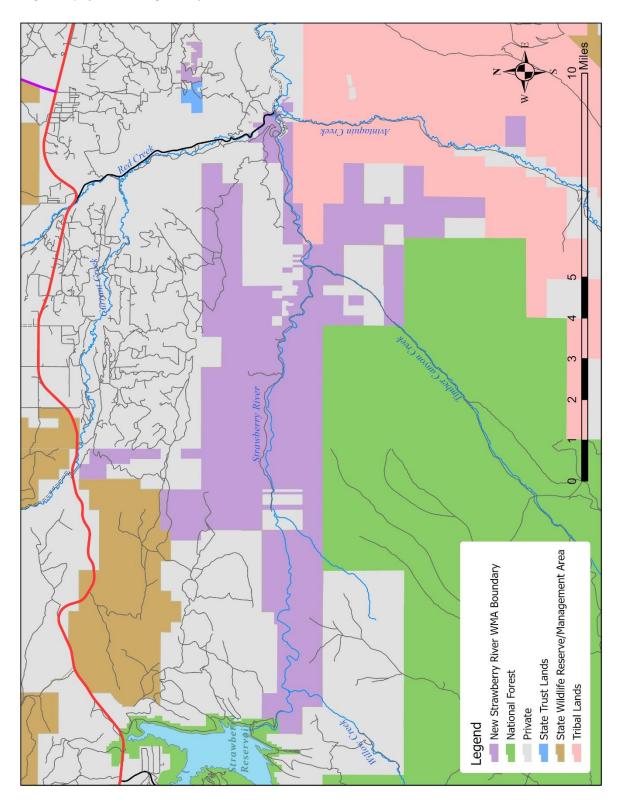
MAP 3 - STRAWBERRY RIVER WMA BY DEED



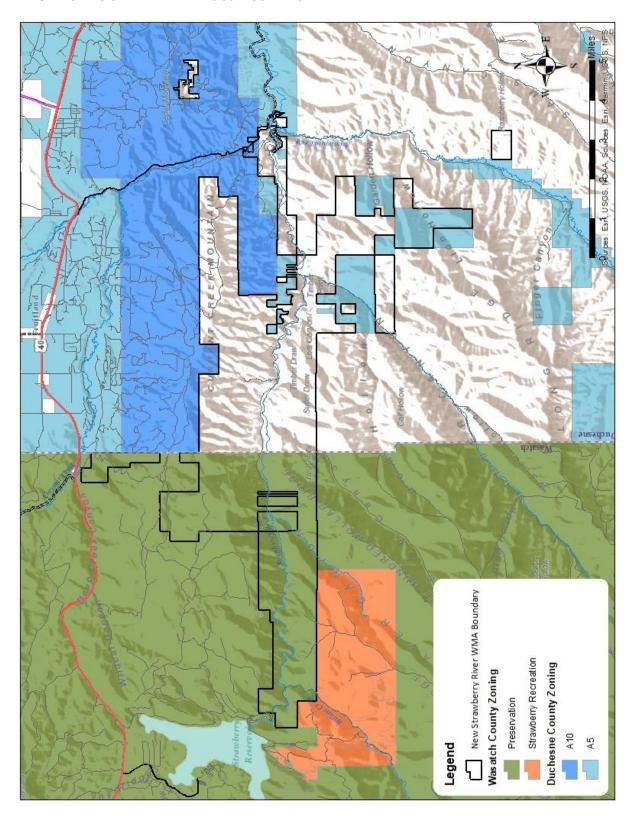
Map 4 – Dollar Ridge Fire Perimeter



MAP 5 – ADJACENT LAND OWNERS



MAP 6 – ZONING ON PRIVATE LANDS SURROUNDING THE WMA



MAP 7 – STRAWBERRY RIVER WATERSHED, REQUEST FOR PROPOSALS (RFP) Strawberry River watershed assessment area State Trust LandsState Wildlife Reserve/Management Area Dollar Ridge Fire Perimeter Bureau of Reclamation Mitigation Commission National Forest Tribal Lands Private Legend 5

# APPENDIX C – WATER RIGHTS INFORMATION

TABLE 1 - STOCKWATERING RIGHTS HELD BY DWR, BOR, OR MITIGATION COMMISSION

WUC No.	Owner	Source	Beneficial Use	Priority
43-849	DWR	Unnamed Spring	21 ELU's*	1861
43-1099	DWR	Jensen Canyon	42 ELU's	1861
43-1102	DWR	Jensen Canyon Stream	1200 ELU's	1861
43-1137	BOR	Water Hollow	135 ELU's	1861
43-1141	DWR	Water Hollow Stream	2200 ELU's	1861
43-1151	BOR	Unnamed Spring	135 ELU's	1861
43-1177	BOR	Strawberry River	1015 ELU's	1861
43-1398	BOR	Strawberry River	135 ELU's	1861
43-2005	BOR	Strawberry River	270 ELU's	1861
43-2006	BOR	Strawberry River	850 ELU's	1861
43-2007	BOR	Slab Canyon Stream	135 ELU's	1861
43-2008	BOR	Strawberry River	600 ELU's	1861
43-2010	DWR	Strawberry River	1000 ELU's	1861
43-2011	BOR	Strawberry River	300 ELU's	1861
43-2012	BOR	Strawberry River	300 ELU's	1861
43-2013	BOR	Strawberry River	300 ELU's	1861
43-2014	BOR	Unnamed Tributary to Strawberry River	850 ELU's	1861
43-2015	BOR	Unnamed Tributary to Strawberry River	300 ELU's	1861
43-2018	BOR	Timber Canyon	600 ELU's	1861
43-2021	DWR	Timber Canyon	1000 ELU's	1861
43-2024	BOR	Rough Canyon Stream	300 ELU's	1861
43-2025	BOR	Timber Canyon Stream	300 ELU's	1861
43-2026	BOR	Strawberry River	300 ELU's	1861
43-2027	BOR	Strawberry River	300 ELU's	1861
43-2028	BOR	Strawberry River	300 ELU's	1861
43-2031	BOR	Unnamed Tributary to Strawberry River	300 ELU's	1861
43-2034	BOR	Unnamed Tributary to Strawberry River	300 ELU's	1861
43-2037	BOR	Unnamed Tributary to Strawberry River	300 ELU's	1861
43-2038	BOR	Strawberry River	300 ELU's	1861
43-2039	BOR	Strawberry River	300 ELU's	1861
43-2040	BOR	Strawberry River	300 ELU's	1861
43-2042	BOR	Strawberry River	300 ELU's	1861
43-2043	BOR	Strawberry River Tributary	300 ELU's	1861
43-2044	BOR	Tributary to Strawberry River	300 ELU's	1861
43-2048	BOR	Red Creek	425 ELU's	1861
43-2050	BOR	Strawberry River Tributary	300 ELU's	1861
43-7100	BOR	Strawberry River	800 ELU's	1861
43-7102	DWR	Strawberry River	1200 ELU's	1861
43-7103	BOR	Strawberry River	1015 ELU's	1861
43-7104	DWR	Strawberry River	1000 ELU's	1861
43-7108	DWR	Beaver Creek	1000 ELU's	1861
43-7112	BOR	Unnamed Spring	425 ELU's	1861
43-7113	BOR	Unnamed Spring	425 ELU's	1861
43-7114	BOR	Unnamed Spring	425 ELU's	1861
43-7144	BOR	Strawberry River	425 ELU's	1861

43-7145	BOR	Unnamed Spring	425 ELU's	1861
43-7146	BOR	Unnamed Spring	425 ELU's	1861
43-7147	BOR	Strawberry River	425 ELU's	1861
43-7194	DWR	Unnamed Spring	2000 ELU's, 1 domestic	1861

<sup>\*</sup>ELU means equivalent stockwatering units

TABLE 2 - IRRIGATION RIGHTS HELD BY UNITED STATES BUREAU OF RECLAMATION

WUC No.	Owner	Source	Flow (CFS)	Beneficial Use	Priority
43-389	BOR	Strawberry River	1.11	27 acres	1946
43-510	BOR	Strawberry River	0.32	7.80 acres	1946
43-1140	BOR	Strawberry River	0.30	7.40 acres	1946
43-1225	BOR	Avintaquin Creek	0.50	32.18 acres	1913
43-1275	BOR	Strawberry River	1.21	29.30 acres	1946
43-1278	BOR	Strawberry River	0.93	16.70 acres	1950
43-1581	BOR	Strawberry River	0.17	3.0 acres	1950
43-1582	BOR	Strawberry River	0.57	10.20 acres	1950
43-2447	BOR	Strawberry River	0.33	5.90 acres	1950
43-2806	BOR	Strawberry River	0.06	1.40 acres	1946

TABLE 3 - STOCKWATERING RIGHTS HELD BY OTHER OWNERS

WUC No.	Owner	Source	Beneficial Use	Priority
43-1145	Fitzgerald	Water Hollow Stream	240 ELU's, 5 domestics	1861
43-1147	Fitzgerald	Water Hollow Stream	240 ELU's, 5 domestics	1861
43-1150	Fitzgerald	Water Hollow Stream	240 ELU's, 5 domestics	1861
43-1300	Childs/Marshall Farlen LLC	Willow Creek Stream	PTP 1015 ELU's	1861
43-7106	Ingersoll	Strawberry River	PTP 240 ELU's 5 domestics	1861
43-7107	Ingersoll	Beaver Canyon Stream	PTP 240 ELU's, 5 families	1861
43-7109	Ingersoll	Beaver Creek	PTP 240 ELU's, 5 families	1861
43-7143	Hayes	Spring	425 ELU's	1861