Upper San Rafael River

Wildlife Management Area

Habitat Management Plan

Leroy Mead
Habitat Biologist

March 2012

Utah Department of Natural Resources
Division of Wildlife Resources
# TABLE OF CONTENTS

BACKGROUND INFORMATION

- Property Description ............................................. 1
- Location .......................................................... 1

Encumbrances ......................................................... 2
- Minerals ............................................................ 3
- Easements .......................................................... 3
- Grazing .............................................................. 3

Land Acquisition History ........................................... 4
- Historic Background ............................................... 4

Purpose of UDWR Ownership ........................................ 4

Conservation Partners Involved in Acquisition ................. 5

PROPERTY INVENTORY...................................................... 5

- Existing Capital Improvements ................................. 5
  - Roads ............................................................. 5
  - Fences ........................................................... 6
  - Facilities and Equipment ..................................... 6
  - Water Rights .................................................... 6

- Cultural Resources ................................................ 7
- Sensitive Species .................................................. 7

- Important Fish and Wildlife Habitats ........................ 8

- General Conditions of Habitat ................................. 9
  - Habitat Limitations ........................................... 9
  - Habitat Threats ............................................... 10

- Human Use Related Problems ................................ 10

- Adjacent Land Uses and Potential Impacts .................. 11

MANAGEMENT GOALS AND OBJECTIVES .......................... 11

STRATEGIES FOR PROPERTY MANAGEMENT ........................ 12

- Development Activities ........................................... 12
  - Establish Property Boundary/Fence ........................ 12
  - Sign Needs ..................................................... 13
  - Public Access .................................................. 13

- Annual Maintenance Activities ................................ 13
  - Noxious Weed Control ......................................... 14

- Compatibility of Proposed Uses with Local Government Planning/Zoning Ordinances .............................. 14

STRATEGIES FOR HABITAT MANAGEMENT .......................... 15

- Herd Unit Management Plans ..................................... 15

- Habitat Improvement Plan ....................................... 16

- Access Management Plan ......................................... 17

- Fire Management Plan ............................................. 17
TABLE OF CONTENTS (Continued)

Wood Products.................................................................17
Livestock Grazing Plan......................................................17

SUMMARY STATEMENT OF PROPOSED USES..............................................18

MONITORING AND EVALUATION.......................................................19

ATTACHMENTS........................................................................19
  Map # 1. Location of Upper San Rafael River WMA, Emery County, Utah........20
  Map # 2. Upper San Rafael River WMA, Hambrick Bottom Property..............21
  Map # 3. Upper San Rafael River WMA, Fuller Bottom Property ..................22
  Map # 4. Grazing Allotments Surrounding Upper San Rafael River..............23

APPENDIX.............................................................................24
  A. Agreement (Exhibit B to Correction Special Warranty Deed)..................
  B. Correction Special Warranty Deed...............................................
  C. Memorandum of Understanding................................................
  D. Water Rights Change Application Number 93-340..............................
  E. Bill of Sale.................................................................
UPPER SAN RAFAEL RIVER
WILDLIFE MANAGEMENT AREA
HABITAT MANAGEMENT PLAN

BACKGROUND INFORMATION

Property Description

Location

The upper San Rafael River Wildlife Management Area (WMA) is comprised of 938.74 acres located in Castle Valley in the central part of Emery County, Utah (see Map # 1). The town of Castle Dale lies about 4 ½ air miles from the western-most part of the WMA. The property consists of two historic ranches along the banks of the San Rafael River west of the San Rafael Swell that are separated from each other by a distance of about 2 1/2 miles. The upstream property lies about one mile above its namesake, Hambrick Bottom, and consists of 485.00 acres near the confluence of Huntington Creek, Cottonwood Creek and Ferron Creek which converge to form the San Rafael River (see Map # 2). The average elevation of this property is 5300 feet above mean sea level.

The second parcel lies immediately west of where the San Rafael River cuts its way through the San Rafael Swell and is called Fuller Bottom (see Map # 3). There are 453.74 acres at this location which is approximately 5,260 feet above mean sea level. The average annual precipitation at nearby Castle Dale is 7.52 inches per year.

The legal description for the Hambrick Bottom property is:

Township 19 South, Range 9 East, Salt Lake Base and Meridian

Section 20      N1/2NE1/4, SE1/4NE1/4
Section 21      SW1/4NW1/4, SW1/4SE1/4, NE1/4SW1/4 (less W1/2SE1/4NE1/4SW1/4, SW1/4NE1/4SW1/4 containing 15 acres, more or less)
Section 28      NW1/4
Section 29      NE1/4NE1/4, E1/2SE1/4NE1/4, SW1/4SW1/4

The legal description for the Fuller Bottom property is:

Township 19 South, Range 9 East, Salt Lake Base and Meridian

Section 35      SE1/4SE1/4
Encumbrances

PacifiCorp Energy (formerly Utah Power and Light Company, or UP&L) donated these ranches and three other properties along the San Rafael River to Utah Division of Wildlife Resources (UDWR) in 1994, along with accompanying water rights and grazing permits. UDWR is mandated by the transfer agreement with PacifiCorp to retain title to this property in perpetuity (See Appendix A). Specifically:

Title to the property, except for title to that part of the property located north of the San Rafael river, described as T. 20 S., R 9 E., SLB & M, Section 1: Lots 1, 2, SE 1/4 NE 1/4, shall remain with UDWR in perpetuity.

- UDWR shall abstain from demanding PacifiCorp limit use of, or abstain from using, or release from storage, water owned or controlled by PacifiCorp.

- UDWR shall abstain from demanding PacifiCorp limit use of, or abstain from using, or release from storage, water owned or controlled by PacifiCorp for the purpose of improving the quality of or mitigating the chemical or biological condition of the water making up the property water rights.

- UDWR shall not initiate, prosecute, maintain or voluntarily aid any action or other proceeding against PacifiCorp based on PacifiCorp’s impairment of quality or quantity of the property water rights caused, or alleged to be caused, by PacifiCorp’s usual and customary use of water upstream at PacifiCorp’s Hunter and Huntington steam electric generating plants.

- UDWR shall use its best efforts to maintain the property water rights by using them with such frequency or regularity as to avoid their loss by forfeiture or abandonment.

- UDWR will continue to use that part of the property water rights not approved for instream flow use in an authorized manner for the benefit of wildlife, recreation and the property, including, but not limited to, irrigation.

- For any of the property water rights not approved for instream flow use, UDWR agrees to file with PacifiCorp annual reports indicating use of the property water rights.

- UDWR agrees to evaluate and protest any new application to appropriate water between the highest point of diversion of the property water rights and the confluence of the San
Rafael River with the Green River, and to take any further action UDWR deems necessary to protect the property water rights on such new application after consultation with PacifiCorp, unless otherwise agreed to between UDWR and PacifiCorp at the time said new application is filed.

- PacifiCorp will make available to UDWR at its expense its records, personnel, and other expertise to support UDWR’s change application and in any other judicial or administrative proceeding relating to the property water rights.

- Upon UDWR’s request, PacifiCorp will make its personnel and records available at PacifiCorp’s expense to defend the validity and use of the property water rights in the adjudication of the San Rafael River or in any other administrative or judicial proceeding relating to the property water rights. Each party agrees to use its best efforts to defend the validity and continued use of the property water rights in the adjudication of the San Rafael River.

Minerals

No mineral rights were transferred to Utah Division of Wildlife Resources in this transaction according to the Correction Special Warranty Deed (See Appendix B).

Easements

In 1982 at Fuller Bottom, Utah Power and Light Company conveyed a perpetual exclusive access easement across portions of lots 1 and 2 in Township 20 South, Range 9 East, Section 1 to the USA. The easement is for recreationists and the public to access the San Rafael River for float trips. There are horse trails going up and down the river that also begin here.

Emery County maintains a road that dissects the Fuller Bottom ranch in a north-south direction at this location. They have an agreement with the BLM (Bureau of Land Management) that allows maintenance of this road although they have no formal right of way to this road. There are no roads accessing the Hambrick Bottom property. A road leaving the county road crosses private land and provides access to within ½ mile of the Hambrick Bottom ranch. The legal status of this access road is not known, but historic use would suggest a prescriptive right-of-way.

Grazing

Grazing is addressed here as an encumbrance due to the nature of the WMA in relation to the surrounding BLM lands. Both properties (Hambrick and Fuller Bottom) consist mostly of 40 acre parcels lining the flood plain of Ferron Creek, Cottonwood Creek and the San Rafael River. These small, scattered parcels are surrounded mostly by BLM and SITLA (School and Institutional Trust Lands Administration) lands and grazing allotments. In fact, there are four BLM grazing allotments which border the WMA (see Map #4). Without a lot of fencing and fence maintenance, unwanted cattle grazing is difficult to control and may be considered a preexisting liability.
Emery County is a “fence in” county by default, since they have never formally adopted a fencing ordinance. Unless a county adopts a fencing ordinance that specifies otherwise, their fencing policy defaults to state statute which essentially is “fence in” meaning that livestock owners have the responsibility to keep their livestock off neighbor’s property. The Fuller Bottom ranch has been fenced in its entirety to exclude grazing from surrounding BLM livestock grazing permits. Hambrick Bottom has not been fenced. Currently, UDWR leases 14 AUM’s (Animal Unit Months) at Hambrick Bottom to a neighboring landowner for winter grazing (December 1 through March 1).

Land Acquisition History

The Hambrick Bottom property was purchased by UP&L in about 1980-81. Fuller Bottom was purchased by UP&L in March 1980. Both properties were transferred to UDWR by PacifiCorp in June 1994. The ranches were purchased for their water rights at the time of the construction of the Hunter Power Plant, and were later donated to UDWR who is able to maintain the water rights under an instream flow. These properties, and three additional ranches downstream along with water rights and grazing permits, were all donated to UDWR. During the exchange, grazing permits from the Dugout, Jeffery Well, Iron Wash and Sweetwater BLM grazing allotments were sold or traded and the money put into an account for the future management of the property which is to remain in UDWR ownership in perpetuity (See Appendix C). Soon thereafter, UDWR applied for and received a change application from the State Engineer which changed all associated water rights to an instream flow with the option for irrigation if preferred (See Appendix D).

Historic Background

Each of these river bottoms were named after their original homesteaders. Tom Fuller settled at Fuller Bottom and a relative of his, Thaddeus Hambrick settled Hambrick Bottom. Since that time, each property has been irrigated and farmed from time to time. More recently, cattle forage has been created by irrigating the flood plain during summer months. At Hambrick Bottom, a pump and sprinkler system irrigated approximately 88 acres of pasture. It is estimated that 179 acres were under irrigation at Fuller Bottom prior to the historic flood of 1983 which destroyed the diversion dam.

Purpose of UDWR Ownership

UDWR accepted this donation due to the inherent fish and wildlife value associated with the five San Rafael properties and their associated recreation and hunter access values. UDWR ownership can also protect the water rights from forfeiture or abandonment with instream flow rights, which will also prove beneficial to indigenous fishes of the San Rafael River, some of which are federally listed as threatened or endangered and protected under the Endangered Species Act of 1973.
The two ranches which make up this WMA, however, are upstream of the irrigation water diversion dam at Hatt Ranch which has been and continues to be an impassible barrier to fish coming upstream from the Green River and Lower San Rafael River. Another diversion dam at the "Frenchman’s" property was presumably also an effective fish barrier until it washed out in 1983. It has never been restored. The native fish that live in the river above these barriers are the key benefactors of this WMA. All three are included on Utah's Sensitive Species list due to their limited distribution, declining numbers and waning habitat. These species are the flannelmouth sucker (Catostomus latipinnis), the bluehead sucker (Catostomus discobolus), and the roundtail chub (Gila robusta). Recently, Utah State University researchers have found that Fuller Bottom retains some of the most complex fish habitat in the river and subsequently the best populations of these three species.

Key terrestrial species that use the WMA include mule deer (Odocoileus hemionus) and perhaps an occasional pronghorn antelope (Antilocapra americana). Peregrine falcon (Falco peregrinus) are also known to nest nearby in the high ledges of the San Rafael Swell. A thriving herd of Desert bighorn sheep (Ovis canadensis nelsonii) live nearby on the Swell but have never been known to visit the WMA.

Recreation opportunities that exist on this WMA are hunting, horseback riding/packing, river running and riding All Terrain Vehicles (ATV) through the WMA on the BLM access road. After crossing the WMA, this road continues to the southwest skirting North Salt Wash and Horn Silver Gulch on the west side of the San Rafael Swell. Floating the river through the San Rafael River Gorge is also popular for locals. The WMA is the starting point for this 15 mile float trip of which the first 1 1/2 miles is mostly on the WMA. Horse enthusiasts like to camp here and ride horse trails which go up and down the river. While recreational activity in this area is judged to be light, it predominates human use on this WMA.

**Conservation Partners Involved in Acquisition**

Utah Power and Light Company (now PacifiCorp Energy) donated this property to UDWR.

**PROPERTY INVENTORY**

**Existing Capital Improvements**

**Roads**

There are no roads on the Hambrick Bottom parcel. A BLM road dissects the Fuller Bottom piece, and provides access to the property and to the river for recreationists. Just south of the river, this road forks, but each fork soon leaves the WMA. No other roads exist on the WMA at this time.
Fences

While the Hambrick Bottom property is mostly unfenced, the Fuller Bottom ranch has a perimeter fence that was in fair condition at the time the property was appraised in 1991. UDWR installed a cattle guard on the north boundary of the Fuller Bottom road where the road crosses onto the property.

Facilities and Equipment

At Hambrick Bottom, there are the remains of an old cabin. No other facilities exist on either property; however, Hambrick Bottom included sprinkler irrigation equipment which was transferred to UDWR along with the property. At the time of the transaction, the appraisal document says that the property was under lease to Mr. Mack Huntington and that the following equipment was stored at the tenant’s residence, or at the Castle Valley Special Service District warehouse in Orangeville, or on site at Hambrick Bottom. Most of that equipment cannot be accounted for at this time. The Bill of Sale (See Appendix E) lists that equipment as:

Berkeley Model No. B10QBN-1 pump
Detroit 453 4cylinder engine
Fuel Tank
Radiator
Miscellaneous hardware mounted on a steel frame
1,200’ of 8” dia. X 45’ aluminum main line irrigation pipe (26 sections)
2,320’ of 3” dia. X 40’ aluminum irrigation pipe (58 sections)
2 each 4”x 3” valve openers
2 each Big Gin Carts with Nelson F-100-R Big Guns
1 each 8” x 6” reducer
1 each 6” surge end plug
1 each diesel motor with pump, fuel tank, and trailer
1 each pipe trailer
4” x 3” SBS-ABC-ONL valve opener

Water Rights

Water rights associated with the Hambrick Bottom tract include two certified rights on Ferron and Cottonwood Creeks for a total of 1.973 cfs, with priority dates of 1973. The combined rights allow irrigation of 119.58 acres, although 151.92 acres may be irrigated, as determined by the State Engineer in issuing Water Certificates numbers 11095 and 11096.

Two water rights with priority dates of 1959 are associated with Fuller Bottom. The combined certificates allow diversion of up to 5.0 cfs of San Rafael River water to irrigate a maximum of 179.10 acres.

In addition to the river water, UP&L drilled six test wells on and near this ranch in the early 1980’s seeking sources of emergency cooling water for the Hunter Power Plant. Three of the wells were intended for production, while the other three were drilled for observation. One of
the production wells located in the SE1/4NE1/4 of Section 1 has artesian flow. This well has been cased and capped but has the capability of producing an artesian flow of 20 gallons per minute (gpm) with sustained pumping flow of approximately 100 gpm. The quality of water may also be suitable for human consumption. Applications for use of this ground water have been filed with the State Engineer by UP&L.

Table 1. Summary of Water Rights associated with the Upper San Rafael WMA.

<table>
<thead>
<tr>
<th>Number</th>
<th>Source</th>
<th>Priority Date</th>
<th>Quantity (cfs)</th>
<th>Irrig. Acres</th>
<th>Stock Water</th>
</tr>
</thead>
<tbody>
<tr>
<td>93-452 (11096)</td>
<td>Ferron Creek</td>
<td>1973</td>
<td>0.873</td>
<td>64.00</td>
<td>200 C, 10 H</td>
</tr>
<tr>
<td>93-463 (11095)</td>
<td>Cottonwood Cr</td>
<td>1973</td>
<td>1.100</td>
<td>55.58*</td>
<td>200 C, 10 H</td>
</tr>
<tr>
<td>93-1054 (7741)</td>
<td>San Rafael Riv</td>
<td>1959</td>
<td>5.000</td>
<td>179.10</td>
<td></td>
</tr>
</tbody>
</table>

*151.92 acres irrigable, subject to limitation

According to the Change Application Number 93-340 (a17629) (See Appendix D) all existing water rights for this WMA have been changed to an instream flow water right, meaning that the water will be allowed to remain in the San Rafael River where it will maximize the benefit to fish and wildlife without jeopardizing the water rights.

Cultural Resources

The Spanish Trail is a nineteenth century trade route that connected Santa Fe to Los Angeles and was traveled extensively by early Spanish traders and explorers, Indians and pioneers. During its glory days from 1829-1848, the 1,120 mile trail skirted the north side of the San Rafael Swell and crossed Ferron Creek in the vicinity of the Hambrick Bottom property. According to experts best guesses, the trail crossed land that is now part of this WMA or very near it.

Somewhere at Hambrick Bottom is the grave of a baby girl, Lillian Virginia Hambrick, who was born there and died on May 2, 1897. She was buried there rather than Castle Dale because high spring run-off in the river made crossing dangerous. The grave is apparently marked with a small headstone and is believed to be located on BLM land in Hambrick Bottom proper, not on the WMA.

The remains of an old log cabin exists at Hambrick Bottom and there is an old diversion at Fuller Bottom that was washed out during the floods of 1983. No cultural resource surveys have been known to occur on the WMA.

Sensitive Species

Wildlife Action Plan (formerly Comprehensive Wildlife Conservation Strategy or CWCS)

The Wildlife Action Plan is a document prepared by the Utah Division of Wildlife Resources that, among other things, identifies imperiled native wildlife species and ranks their status according to conservation need. Tier I species are wildlife that are of the greatest conservation
concern (very high concern). Tier II species are species of “high concern” and Tier III species are wildlife that are imperiled, rare, linked to an at-risk habitat, or for which there is little information. Tier III species are otherwise referred to as species of “moderate concern”.

The Upper San Rafael WMA provides habitat for three sensitive fish species (all Tier I), mule deer (Tier III), and potential habitat for a number of other “sensitive” or federally listed species including Yellow-billed Cuckoo (Coccyzus americanus), Southwestern Willow Flycatcher (Empidonax traillii extimus), Mexican Spotted Owl (Strix occidentalis lucida), Peregrine Falcon (Falco peregrinus), Northern River Otter (Lontra canadensis) and perhaps other reptiles, amphibians, or bats.

Ferron Creek, Cottonwood Creek and Huntington Creek all converge near Hambrick Bottom on the WMA to form the San Rafael River which then flows through Fuller Bottom, also part of this WMA. These waters are home to three native fishes that are judged by experts to be among the species of greatest conservation need in the state of Utah. The states three-tiered system lists the flannelmouth sucker (Catostomus latipinnis), the bluehead sucker (Catostomus discobolus) and the roundtail chub (Gila robusta) as Tier I species on the Utah Sensitive Species list. Although federally protected Colorado pikeminnow (Ptychocheilus lucius), razorback sucker (Xyrauchen texanus) and bonytail (Gila elegans) are known to occur in the lower San Rafael River, the historical importance of the upper stretches of the river to these species may never be known since large diversions have depleted streams and created insurmountable barriers to upstream migrations. It is believed that the upper reaches of these waters were used as spawning grounds for some of these fish, which floated downstream to the Green and Colorado Rivers after spawning. Bluehead suckers, flannelmouth suckers and roundtail chubs being less migratory, have remained in the upper reaches of the river above the insurmountable barrier at Hatt Ranch and elsewhere. Studies by Utah State University have shown significant outmigration of juvenile flannelmouth suckers downstream at Hatt Ranch, presumably the result of spawning in the upper river.

Ironically, these same diversion structures which have kept native fish from migrating into the upper reaches of the San Rafael River, have also kept most non-native fish out of the upper San Rafael River, a positive phenomenon that has helped to limit competition between them and non-natives like channel catfish (Ictalurus punctatus), common carp (Cyprinus carpio) and sand shiners (Notropis stramineus).

Sensitive fish species are dependent upon water flows in the WMA, and therefore, UDWR has changed existing water rights to an instream flow, and has made no effort to reestablish diversions that were washed out in 1983. Habitat conditions for native fish are good so long as adequate water flows through the WMA.

Important Fish and Wildlife Habitats

Habitats are also described in the Wildlife Action Plan and are assessed for their importance to native wildlife species. The plan identifies five habitat types that apply to the Upper San Rafael WMA, namely Lowland Riparian, Wet Meadow, High Desert Scrub, Lotic Water and Cliff.
Three of these (Lowland Riparian, Wet Meadow and Lotic Water) are identified as “key” habitats, meaning they are high priority habitats which are in need of conservation.

The Upper San Rafael WMA provides important habitat for the three sensitive fish species mentioned above, namely the flannelmouth and bluehead suckers and the roundtail chub. Providing and protecting habitat for these native fish is the focus of this WMA. Terrestrial wildlife also benefit from riparian and upland habitat that exists along the creeks flowing through the WMA. These desert streams provide a valuable water source and riparian sanctuary for many different terrestrial and amphibian species. The surrounding area is a semi-arid, cold desert, with sparse shadscale/greasewood vegetation.

**General Conditions of Habitat**

**Habitat Limitations**

*Aquatic*

The aquatic habitat conditions in the WMA are directly tied to water flows in Cottonwood, Ferron and Huntington Creeks. Before settlement, these creeks had high spring runoff which probably peaked in late May or early June. Random occurrences of late summer monsoonal storms also put the creeks at potentially high flood stages for shorter durations of time during the months of August, September and October. Since settlement, the spring flows have largely been diverted into reservoirs for storage and use later in the irrigation season (July, August and September). The late summer monsoonal moisture falls in the valley below most of the reservoirs and continues to flood dry washes and perennial streams as it has done for eons.

Although catchment and diversion systems upstream have depleted spring water flows, it has also had a tendency to make more water available in perennial streams later in the summer. Therefore, some streams that are perennial now (due to irrigation water being released late in the summer) historically may have dried up during the late summer months. The effects of this phenomenon upon native fish and their habitat are not entirely known. The quality of the water has likely also been affected since normal summertime flows are nearly all waste-water; that is to say water that has already been used for irrigation at least once before being released into the creeks that flow through the WMA. Waste water flows have a tendency to be higher in salts and minerals. These altered flow regimes have almost certainly affected native fish and habitat potential throughout the WMA. A potential positive effect of the pressurized irrigation systems in the drainage has been the reduced demand for water. However, this may be offset due to more acreage being irrigated and the lack of return flow from overland irrigation. A current modeling project on the river aims to increase efficiency of the irrigation process to provide more water for native fish.

*Terrestrial*

The riparian habitat in the bottom of this desert canyon draws terrestrial wildlife which require drinking water on a regular basis. Much of the WMA is within a narrow, rather deep canyon that
is surrounded on two sides by high cliffs and steep canyon walls. This badland-like topography creates habitat for numerous avian and terrestrial species. Much of the canyon floor is riparian or wetland with surrounding uplands. The WMA provides habitat for a variety of small mammals, birds and presumably reptiles, and even a few mule deer and an occasional pronghorn antelope. Perhaps the primary habitat limitation is livestock grazing on the riparian grasses and sedges. Due to the checker-board and non-contiguous nature of the combined 40 acre land parcels, it is unlikely that the property will ever be fenced well enough to control livestock grazing. This is especially true for the Hambrick Bottom part of the WMA.

Habitat Threats

The Wildlife Action Plan lists specific threats to key habitats throughout the state of Utah. The following specific threats may apply to the three key habitats identified in the Upper San Rafael WMA.

- Development: probably limited to road and recreational development
- Drought: a prolonged period of significantly below average precipitation
- Energy Development: the construction of well pads, powerlines, roads, and other structures associated with oil/natural gas extraction or coal mining
- Fire Cycle Alteration: fire frequency and intensity can increase if certain invasive non-native species (in this case, tamarisk) dominate an area
- Improper Grazing Practices: includes overgrazing by livestock, wildlife, or wild horses, grazing at the wrong time of year, grazing without periods of rest or deferment, etc.
- Improper OHV Use: negative impacts from off-highway vehicles used off of designated roads and trails; includes illegal trail pioneering and proliferation
- Invasive Animal Species: invasion by carp or certain aquatic mollusks, resulting in altered aquatic habitats
- Invasive Plant Species: invasion by cheatgrass, tamarisk, noxious weeds, or other undesirable non-native plant species
- Nutrient Enrichment: eutrophication of water habitats due to excess nitrogen, phosphorus, and/or other nutrients; includes sediment loading – increased inorganic soil materials suspended in the water
- Water Development: altering natural water flows through diversion, storage, pumping, and/or conveyance activities

Upstream at Electric Lake, zebra mussels (*Dreissena polymorpha*) remain a “detected status” species according to the UDWR Aquatic Invasive Species plan for the San Rafael River. If presence of the non-native mussel is confirmed, it could threaten aquatic habitat throughout the entire drainage.

Human Use Related Problems

The lack of control of livestock grazing is an issue for the Hambrick Bottom part of the WMA. Livestock grazing on the Fuller Bottom part is more easily controlled, but has also been a
frequent problem in the past. Most of the WMA is surrounded by public, BLM lands with existing livestock grazing allotments. Without fences, livestock cross the WMA to access water in the creeks and graze the WMA. The North side of the Fuller Bottom piece is currently fenced, but occasionally, the gate is let down or the fence is cut to allow cattle access to the river for drinking. This is a trespass situation and UDWR is frequently fixing this part of the fence and chasing cattle out of Fuller Bottom.

The BLM maintains a recreation easement for access to the San Rafael River at Fuller Bottom on UDWR property. River runners access the river here for float trips down the San Rafael River to the bridge at Buckhorn Wash. While river-runner traffic is seasonal and judged to be light, there may be occasional conflicts with WMA management from time to time. Of bigger concern is ATV and OHV traffic crossing the WMA on the BLM road at Fuller Bottom. ATV traffic in the area is on the increase.

Adjacent Land Uses and Potential Impacts

Cottonwood Creek downstream to the San Rafael River is the border between two different BLM grazing allotments. Hambrick Bottom grazing allotment is to the south, and the Red Seeps grazing allotment is to the north. This means that much of the WMA at Hambrick Bottom is sandwiched between the two grazing allotments. The Fuller Bottom property is similarly flanked by the Fuller Bottom and Buckhorn grazing allotments, with the river being the boundary. Each of these allotments has multiple permittees who graze cattle during the winter and spring months. While much of Fuller Bottom is fenced to exclude cattle use, that is not the case for Hambrick Bottom. Cattle grazing during the winter and spring months will likely continue on this part of the WMA unless a fencing strategy is adopted by UDWR.

Some private land borders the Hambrick Bottom property and it is mostly used for livestock grazing also. In addition to the current leasee, other nearby private land owners have expressed interest in leasing the Hambrick Bottom property in the past, since it is convenient to their own property and because it would be costly and difficult to fence livestock off the WMA.

The eastern-most 40 acre parcel at Fuller Bottom is bordered on two sides by the Sids Mountain BLM wilderness study area.

MANAGEMENT GOALS AND OBJECTIVES

The acquisition and management of this property is consistent with the resource goal outlined in UDWR’s Strategic Plan (2005-2010) which follows:

Resource Goal: Expand wildlife populations and conserve sensitive species by protecting and improving wildlife habitat.
Objective 1: Protect existing wildlife habitat and improve 500,000 acres of critical habitats and watersheds throughout the state by 2010.

 Objective 2: Increase fish and game populations to meet management plan objectives, and expand quality fishing and hunting opportunities.

 Objective 3: Conserve sensitive species to prevent them from becoming listed as threatened or endangered.

Furthermore, UDWR's constituency goal has relevance since the public road through the property serves consumptive and non-consumptive wildlife users who are drawn to the area because of its scenic beauty, wildlife viewing and recreational opportunities. Constituency goals outlined in UDWR's Strategic Plan are as follows:

Constituency Goal: Achieve broad-based support for division programs and budgets by demonstrating the value of wildlife to all citizens of Utah.

 Objective 1: Increase public awareness of wildlife as a quality-of-life issue in order to expand our support base and achieve stable funding.

 Objective 2: Improve communications with wildlife organizations, public officials, private landowners and government agencies to obtain support for division programs.

 Objective 3: Expand programs to recruit and retain young hunters, anglers and wildlife watchers.

The Upper San Rafael WMA will be managed to increase its functionality, appeal, availability and use by all fish and wildlife species. Habitat management will be consistent with sound ecological principles and wise land use practices. Access to the river for river runners and other recreationists will also continue.

STRATEGIES FOR PROPERTY MANAGEMENT

Development Activities

Establish Property Boundary/Fence

The property at Hambrick Bottom would be difficult and costly to survey professionally or fence due to the checker-board nature of the parcels, the surrounding terrain and the sinuosity of Ferron and Cottonwood Creeks. Historically, drift fences were erected across the canyon and topographic features like ledges, rocks and creek banks were used to exclude livestock. Because of the aliquot nature of land parcels, river bottoms were hard to survey accurately and many old homesteads like this one were originally assumed to contain the entire river bottom area. However, when mapped out on paper, they show large areas of public land that have been
included in the farm-stead. Similarly, large parts of upland hilltops are sometimes private but have never been integral to the farming operation. That is the case at Hambrick Bottom.

While this same situation applies to Fuller Bottom, it is not nearly so severe, and Fuller Bottom could be surveyed and fenced mostly along the boundaries with the possible exception of a 40-acre parcel on the far west end. This piece appears to be offset slightly from the rest of the property. Much of Fuller Bottom is already fenced.

Sign Needs

Signs identify the WMA where the BLM road enters onto the northern boundary of the property at Fuller Bottom. Signs explaining camping rules, pack it in, pack it out and other messages about management of the WMA should be placed at the north border which is considered to be the main entrance. Another sign should be placed at the south boundary along this same road to identify the southern boundary of the WMA. The BLM has a recreation sign-in station just inside the northern boundary of the WMA where the road enters to record river runner/hiker/recreation traffic. A sign along the river at the east boundary would help river runners know when they are no longer on the WMA.

Small boundary signs could be placed along the borders of the Hambrick Bottom property on the up and down river sides of the property to identify the WMA to anyone on the river or walking or riding up or down Ferron, Cottonwood or Huntington Creeks. There are no roads that penetrate the borders of the Hambrick Bottom property.

Public Access

The BLM’s Fuller Bottom road provides access to the Fuller Bottom part of the Upper San Rafael WMA. This road intersects with the Buckhorn Wash road near the “Wedge” turn-off at Buckhorn Well approximately five miles south of Buckhorn Reservoir. Adventurous travelers can cross the river at Fuller Bottom (seasonally) and continue south beyond the WMA skirting Salt Wash Canyon and the west side of the San Rafael Swell. Primitive camping is allowed on the WMA, but there is no trash collection, restrooms, potable water or fire pits on site. Camping from horseback and horseback travel is also allowed on the WMA.

There are no roads into the Hambrick Bottom property and therefore no public access. The best way to get to the property is to head southeast out of Castle Dale for approximately 4 ½ miles along a series of dirt roads that dead-end on the point between Rock Canyon Creek and Cottonwood Creek. From this outlook you can see part of the WMA in the distance. Near here (on the east side) is a road that drops off into Cottonwood Creek on private land. Taking this road and driving as far as possible will get you within ¼ to ½ mile of the northern-most parcel of the Hambrick Bottom property. Legal access along this last part of the road through private land is not known, but historic use would suggest a prescriptive right of way, at least for administrative access. The maps show an old jeep trail accessing the Hambrick Bottom property near the confluence of Ferron Creek and Huntington Creek, but this road is no longer accessible with an automobile.
ATV and OHV traffic is not allowed on the WMA except on the BLM road that dissects the Fuller Bottom property.

Annual Maintenance Activities

Maintenance schedules and responsibilities are as follows:

<table>
<thead>
<tr>
<th>Task</th>
<th>Responsibility</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fence Maintenance</td>
<td>Reg. Hab. &amp; Maint. Specialist</td>
<td>As needed or at least yearly</td>
</tr>
<tr>
<td>Road Maintenance</td>
<td>BLM/Emery County</td>
<td>As needed</td>
</tr>
<tr>
<td>Parking Area</td>
<td>BLM or UDWR</td>
<td>As needed</td>
</tr>
<tr>
<td>Noxious Weed Control</td>
<td>Reg. Hab. &amp; Maint. Specialist</td>
<td>As needed with annual checks</td>
</tr>
<tr>
<td>Sign Replacement</td>
<td>Reg. Hab. &amp; Maint. Specialist</td>
<td>As needed</td>
</tr>
</tbody>
</table>

Noxious Weed Control

UDWR personnel will spray and control noxious weeds on the WMA as required by state law. Care will be taken to limit opportunities for noxious weed introduction and any hay used by visitors, hunters or livestock-men must be certified weed free.

Compatibility of Proposed Uses with Local Government Planning and Zoning Ordinances

The entire WMA falls under Emery County Zoning regulations as: Mining, Grazing and Recreation (MG&R-1) Zone. About this zone, Emery County Zoning Ordinance states the following:

Declaration of Legislative Intent

The MG&R-1 Mining, Grazing and Recreation zone generally covers the dry mountain and desert areas of the County. Because of the limitations imposed by climate, topography, soil capability, inadequate water supply, and the presence of economically significant mineral deposits, this area has historically been utilized as a place for the grazing of livestock on the open range and as the location of numerous mining and mineral exploration sites. The peculiar characteristics and conditions present in this area make the land most appropriately suited for a continuation of these uses. However, because of the relatively fragile balance of nature in the area, all permitted activities must be carried out in a manner consistent with the limitations of the environment.

UDWR’s proposed management of the Upper San Rafael WMA is entirely compatible with Emery County’s Zoning Ordinance designation.
STRATEGIES FOR HABITAT MANAGEMENT

Herd Unit Management Plans

Deer Herd Unit Management Plan for Deer Herd Unit # 12 (San Rafael)

The management plan sets a target objective of 1000 mule deer for this unit which is 83% BLM-managed yearlong range, and 45% private winter range. Limiting factors for this deer herd are identified as:

- Habitat – Very limited year-round habitat exists for deer on this unit and the majority of deer are on private land.
- Crop Depredation – kept to a minimum as prescribed by law regardless of herd objectives
- Predation
- Highway Mortality

Habitat management objectives are described as:

- Maintain and/or enhance forage production through direct range improvements throughout the unit on winter range to achieve population management objectives.
- Work with private and federal agencies to maintain and protect critical and existing winter range from future losses.
- Provide improved habitat security and escapement opportunities for mule deer.

Pronghorn Herd Unit Management Plan for Herd Unit #12 (San Rafael North)

The management plan sets a target objective of 1200 total pronghorn on this unit with only 653 counted in 2005. Limiting factors are identified as:

- Predation (coyotes)
- Habitat
- Depredation loss
- Oil/Gas Development – shrinking and fragmented habitat due to well pad placement, associated roads, pipelines, etc.

Habitat management strategies are described as:

- Water development – construct guzzlers and ponds to distribute pronghorn over larger areas
- Vegetation management – support and encourage improved livestock grazing practices and season of use in an effort to improve the range for pronghorn and livestock

While there are a few elk on this herd unit (Cedar Mountain) the elk management objective is zero and there are no known occurrences of elk using the WMA. Most of the WMA lies within the “substantial” zone for mule deer winter range, which means it is of secondary value and
important especially during extreme winters. One of the state’s premier Desert Bighorn Sheep herds is very nearby in the northern San Rafael Swell, but none of the animals are known to visit or use the WMA.

**Habitat Improvement Plan**

Perhaps the best plan to improve terrestrial or aquatic habitat on this WMA is to consider fencing parts of it and controlling livestock grazing. This may be difficult due to the shape of the parcels, the terrain of the surrounding area, and the number of stream crossings that would be required across creeks that swell to many times their normal size during late summer flood events. The cost/benefit ratio of fencing would also have to be considered since the area has little potential for increasing terrestrial wildlife abundance. Fencing the entire property and excluding grazing may improve habitat, but would not likely increase wildlife numbers, making such a task expensive and unnecessary. Opportunities to acquire bordering private property could be sought when possible, especially through and with Salinity Control Mitigation efforts currently under way. Acquiring neighboring property would help block up the WMA and make it more contiguous, which would greatly diminish the need for fencing and make the existing land more useful to wildlife. If this is not a viable option, a fencing plan could be implemented that would minimize fencing needs while excluding cattle from the majority of the WMA.

Fuller Bottom was chosen as a Chinese Leaf Beetle (*Diorhabda carinulata* formerly *D. elongata deserticola*) release site by the Emery County Weed Department in about 2005 or 2006. By the summer of 2008, several acres of defoliated tamarisk were obvious near the northern entrance of the WMA. The exponential population growth of these small, green defoliators is expected to continue for years, eventually stressing the tamarisk plants to a point where they begin to die out. Perhaps as much as 95% of the tamarisk may be eradicated with this unusually successful biological control agent. The dead tamarisk plants, however, will remain for years to come unless burned or mechanically removed. Habitat projects to remove dead and dying (or even live) tamarisk plants should be considered a high priority on this WMA. The same is true for Russian olive trees and other invasive noxious weeds. Restoration of native plant habitat should be implemented as necessary.

From an aquatics perspective, native fish habitat has already been greatly improved by the acquisition of this property and the conversion of previously diverted irrigation water into an instream flow. Stream bank work and erosion control structures may also be advantageous along the river and creeks that flow through the Upper San Rafael WMA. Grazing control would also benefit native fish and their habitat.

Additional habitat improvement projects for this property will be considered on an individual basis as proposed through existing forums, i.e. Utah Partners for Conservation and Development (UPCD) and Habitat Council. Proposed projects must meet the objectives defined in this Habitat Management Plan and must be congruent with UDWR’s Strategic Plan and the Wildlife Action Plan. Implementation of projects will take place only after these criteria have been satisfied.
Habitat improvement projects should be designed to benefit the largest diversity of wildlife possible and should consider their impact upon all other species, especially sensitive species identified in the Wildlife Action Plan. It is expected that the focus of habitat improvement projects in the near future will target improvements for native fish, turkey, pronghorn, mule deer and upland game birds.

Access Management Plan

Access management on this WMA is simple. OHV, ATV and bicycle traffic are restricted to the BLM road that dissect the Fuller Bottom property. These vehicles are absolutely restricted from the rest of the WMA. Only administrative vehicular traffic is permitted on the Hambrick Bottom part of the WMA. All other access (loosely defined as foot, river raft/canoe, or horseback traffic) is permitted throughout the WMA. There are no additional roads planned for construction on the WMA in the foreseeable future.

Fire Management Plan

Tamarisk wildfires will be a threat on the WMA as long as tamarisk plants, either dead or alive, remain on the property. An understory of salt grass (*Distichlis spicata*) could carry a wildfire throughout much of the WMA. A wildfire could be detrimental to cottonwood trees and other native vegetation and should therefore be repressed. Carefully controlled prescribed fire, however, may be an acceptable alternative for dead tamarisk removal, provided that cottonwood trees and other desirable vegetation or features can be safely preserved.

Campfires will be allowed on the WMA provided that they are restricted to safely enclosed fire rings and live cottonwood trees are not cut down for firewood.

Wood Products

With the exception of tamarisk, wood products are scarce on this WMA. Cottonwood trees are common, but not thick, and should be propagated and preserved for their wildlife and aesthetic value. Driftwood from the creeks and river can be used for firewood while camping on the WMA, but does not exist in sufficient quantities to transport off site. Should enterprising entrepreneurs develop a market for tamarisk wood products, this option may be considered in addressing the tamarisk problem, but most marketable tamarisk trees require a trunk thickness of at least 8-10 inches.

Livestock Grazing Plan

While a neighboring landowner currently leases 14 AUM’s of winter grazing on the Hambrick Bottom portion of the WMA, there is no formal grazing plan for the entire WMA. Should one be written, the following points should be considered.
The AUM evaluation needs to be reconsidered. Should grazing at Hambrick Bottom continue as it currently does, a bonafide assessment of AUM’s should commence. The current assessment of 34 acres per AUM is not an accurate assessment of either the desert shadscale uplands or the riparian canyon bottom. The price per AUM is equal to the average cost of grazing at any state WMA, which seems fair.

Fuller Bottom has been fenced in the past to exclude or control livestock grazing, and most fences are still functional. These fences should be inventoried and decisions made about maintaining them to control livestock use of this part of the WMA. In the past, trespass problems have occurred when gates were left open or fences were damaged or destroyed. A cattle guard at the north entrance has helped considerably. This part of the WMA is completely surrounded by BLM/SITLA lands which are permitted for grazing during the winter months (see Map # 4). Prior to UDWR’s acquisition of the property, it was leased out to a local rancher who grazed livestock there. Parts of the property are topographically vertical or steep which eliminates the need to fence the entire property. Fencing between these cliffs roughly along the boundary can have the effect of excluding livestock while minimizing fencing needs.

This may also be true for parts of the Hambrick Bottom property. Winter grazing on this portion of the WMA is currently leased to an adjacent landowner for the sake of convenience to both parties, neither of which have the resources to fence their respective properties. State law favors the WMA since Emery County is a “Fence In” county, meaning landowners are responsible for fencing their property to insure that livestock don’t graze outside of their boundaries. Fencing the larger parcels of this property may be considered in an effort to increase management options for the property and enhance its usefulness to native fish and wildlife.

If the property were fenced to exclude livestock, there may be the need for prescriptive grazing in the future. More than one adjacent landowner has expressed interest in leasing the property for grazing in the past. Were the property fenced so that grazing could be managed, a competitive bid system for grazing rights could be implemented should it prove beneficial to graze the property in the future. UDWR personnel would insure that grazing is done in compliance with acceptable use criterion and will closely monitor available grasses and vegetation. Any prescribed livestock grazing will be managed according to guidance given in the Division’s Land User rule R657-28.

Grazing by domestic sheep, goats, llamas or camels will not be permitted on the Upper San Rafael WMA due to the close proximity of Desert Bighorn Sheep and the inevitable incompatibility of the species.

**SUMMARY STATEMENT OF PROPOSED USES**

The primary function of the Upper San Rafael WMA is to protect and preserve habitat for native fish and wildlife species. An integral part of this is the protection and stewardship of the instream water rights that UDWR is obligated to safeguard in perpetuity. UDWR is also under
obligation to maintain river access at Fuller Bottom for recreational river runners floating the San Rafael River. All other management decisions will be made with consideration for these uses and must be compatible with enhancing and maintaining fish and wildlife habitat and hunting, trapping and wildlife viewing opportunities. Uses that could be detrimental to wildlife or wildlife habitat like ATV/OHV use (outside the BLM road) are expressly denied. Livestock grazing and prescribed burning are acceptable management practices, so long as they enhance the primary function of the WMA.

MONITORING AND EVALUATION

The Habitat Program Manager and his/her staff has the ultimate responsibility of making sure that the tenets of this Habitat Management Plan are scheduled and applied. It is also his/her responsibility to evaluate the quality of work done and its relevance to the Habitat Management Plan.

ATTACHMENTS

Map # 1. Location of Upper San Rafael River WMA, Emery County, Utah
Map # 2. Upper San Rafael River WMA, Hambrick Bottom Property
Map # 3. Upper San Rafael River WMA, Fuller Bottom Property
Map # 4. Grazing Allotments Surrounding Upper San Rafael River WMA

Appendix A. Agreement (Exhibit B to Correction Special Warranty Deed)
Appendix B. Correction Special Warranty Deed
Appendix C. Memorandum of Understanding
Appendix D. Water Rights Change Application Number 93-340
Appendix E. Bill of Sale
Location of Upper San Rafael River WMA, Emery County, Utah

Hambrick Bottom
Fuller Bottom

0 5 10 20 30 40 Miles

N  E  S  W
Appendix A.

Agreement
This Agreement is made this 3rd day of May, 1994 between PacifiCorp, doing business as Utah Power & Light Company ("Company") and the State of Utah, Department of Natural Resources, Division of Wildlife Resources ("Division").

WHEREAS, Company owns land, water rights, grazing leases and permits, pumps, irrigation equipment, and other miscellaneous personal property ("Property") in Emery County, Utah, described on the Deed, Assignment and Bill of Sale, which are collectively referred to as the "Deed," and attached as Exhibit "A" to this Agreement, which is made a part hereof and incorporated herein by reference, and

WHEREAS, Company acquired the Property in connection with its construction and operation of its Hunter and Huntington steam electric generating plants located in Emery County, Utah and now wishes to donate the Property to Division subject to the terms and covenants contained within this Agreement, and Company’s Board of Directors has authorized said donation, and

WHEREAS, Division recognizes the significant wildlife value associated with the Property and wishes to accept the donation of the Property, in order to manage it to benefit wildlife, enhance recreation, and allow multiple uses consistent with wildlife objectives, and

WHEREAS, the parties have executed a Memorandum of Understanding on October 6, 1993 which set forth the basic terms of their agreement.

NOW, THEREFORE, the parties agree as follows:

1. On the date of the execution of this Agreement, Company will execute the Deed transferring the Property to Division. Company represents that the Property is subject to Company's indenture. As soon as is practicable after execution of the Deed from Company to Division, Company will take whatever action is necessary to acquire a Release of Mortgage from its indenture holder and forward same to Division.
2. On the date of the execution of this Agreement, Company will deliver proceeds from the sale of Company's Dugout, Jeffrey Well, Iron Wash, and Sweetwater grazing permits to Bureau of Land Management ("BLM") qualified livestock operators to Division to be used at the sole discretion of Division for future operation and maintenance of the Property, rehabilitation of the riparian corridor through the Property, enhancement of wildlife values on or in the vicinity of the Property, and acquisition of technical and legal experts to perform studies, provide advice or representation, or carry out other work related to the purposes of this Agreement. Division will deposit said monies in a special account created to accomplish the purposes of this Agreement pursuant to §23-14-14, Utah Code Ann., and shall not commingle said monies and any interest accrued thereon with other Division special or general operating funds.

3. On January 28, 1994, the parties executed a Memorandum of Understanding with the BLM regarding Company's San Rafael allotment grazing permits. Company submitted an application to the BLM to transfer the San Rafael grazing permits to other base property Company owns prior to execution of this Agreement. At Division's request, title to the San Rafael allotment grazing permits will continue to be held by Company pending an evaluation of the San Rafael River allotment by the BLM pursuant to the January 28, 1994 Memorandum of Understanding. The BLM has permitted non-use status of the San Rafael allotment grazing permits pending this evaluation. Upon final BLM decision after its evaluation, Company and Division agree to meet with the BLM to determine appropriate action with regard to the San Rafael allotment grazing permits. Upon notice and direction from Division, Company will transfer the grazing permits to Division or another person or entity, or take whatever other action Division requests with respect to said grazing permits.
4. This Agreement is made and executed upon the following conditions and covenants:

a. Title to the Property, except for title to that part of the Property located North of the San Rafael River described as T. 20 S., R 9 E., SLB & M, Section 1: Lots 1, 2, SE ¼ NE ¼, shall remain with Division in perpetuity.

b. Division shall abstain from demanding Company limit use of, or abstain from using, or release from storage, water owned or controlled by Company for the purpose of supplying the water rights described in Exhibit "A" as part of the Property ("Property Water Rights.") One purpose of this condition and covenant is to subordinate the priority dates of the Property Water Rights to the priority dates of water rights owned by Company.

c. Division shall abstain from demanding Company to limit use of, or abstain from using, or release from storage, water owned or controlled by Company for the purpose of improving the quality of or mitigating the chemical or biological condition of the water making up the Property Water Rights.

d. Division shall not initiate, prosecute, maintain or voluntarily aid any action or other proceeding against Company based on Company's impairment of quality or quantity of the Property Water Rights caused, or alleged to be caused, by Company's usual and customary use of water upstream at Company's Hunter and Huntington steam electric generating plants.

e. Division shall use its best efforts to maintain the Property Water Rights by using them with such frequency or regularity as to avoid their loss by forfeiture or abandonment.

f. Only at such time as the Director of the Division of Water Rights issues a final Memorandum Decision and Order approving use of that portion of the Property Water Rights described in Application No. 17629 for instream flow pursuant to §73-3-3(11), Utah Code Ann., and if all time for appeals or other challenges to such final Memorandum Decision and Order has expired without appeal or other challenge, the Division shall thereafter:
(i) abstain from demanding any water user owning on the date of the execution of this Agreement a perfected and valid water right with a point of diversion and place of use upstream of the Property Water Rights ("Upstream Water Right") to limit use of, or abstain from using, or release from storage, water which would otherwise supply said Upstream Water Right to supply the Property Water Rights. The effect of this covenant and condition is to subordinate the priority dates of the Property Water Rights to the priority date of said Upstream Water Right.

(ii) abstain from demanding any Upstream Water Right user to limit use of, or abstain from using, or release from storage, water to improve the quality of or mitigate the chemical or biological condition of the water making up the Property Water Rights.

5. Notwithstanding paragraph 14 of this Agreement, Company may waive the covenants and conditions set forth is this paragraph 4(b) through (d) by notifying Division in writing of such waiver.

5. If a final Memorandum Decision and Order approving Application No. 17629 for instream flow pursuant to §73-3-3(11) is not granted, or if a final order in an appeal to said final Memorandum Decision and Order or other challenge to the instream flow use of the water rights described in Application No. 17629 from which no further appeal may be taken is docketed which prohibits all or a part of the Property Water Rights from being used for instream flow pursuant to §73-3-3(11), Division will continue to use that part of the Property Water Rights not approved for instream flow use in an authorized manner for the benefit of wildlife, recreation and the Property, including, but not limited to, irrigation.

6. For any of the Property Water Rights not approved for instream flow use, Division agrees to file with Company annual use reports indicating use of the Property Water Rights.
7. Division agrees to evaluate and protest any new application to appropriate water between the highest point of diversion of the Property Water Rights and the confluence of the San Rafael River with the Green River, and to take any further action Division deems necessary to protect the Property Water Rights on such new application after consultation with Company, unless otherwise agreed to between Division and Company at the time said new application is filed.

8. Company will make available to Division at its expense its records, personnel, and other expertise to support Division’s change application and in any other judicial or administrative proceeding relating to the Property Water Rights.

9. Company makes no warranty as to the validity of the Property Water Rights transferred pursuant to this Agreement, except that they are of record, on file with the court, and published in the proposed determinations for the San Rafael River Drainage by the Utah Division of Water Rights. Both parties acknowledge that challenges to the validity of the Property Water Rights recently have been filed and are pending in the San Rafael River adjudication (Emery County Civil No. 1435). Each party agrees to use its best efforts to defend the validity and continued use of the Property Water Rights in the adjudication of the San Rafael River. Upon Division’s request, Company will make its personnel and records available at Company’s expense to defend the validity and use of the Property Water Rights in the adjudication of the San Rafael River or in any other administrative or judicial proceeding relating to the Property Water Rights.

10. The Division of Water Resources, the United States Department of Agriculture Soil Conservation Service, and the United States Department of the Interior Bureau of Reclamation are finalizing an Environmental Impact Statement for the Price-San Rafael Rivers Unit of the Colorado River Salinity Control Program and are seeking appropriations for funding to make on-farm and other agricultural practices improvements to decrease salinity in the San Rafael River. The Division of Water Resources, on behalf of itself and the other participating agencies, has initiated discussion with Division
for use of some of the Property in mitigation for the Price-San Rafael Rivers Unit of the salinity control program. While Division prefers on-site mitigation for salinity control programs, Division agrees to work cooperatively with the Division of Water Resources to enhance portions of the Property to meet salinity control program mitigation requirements, provided that the full cost of performing the mitigation will be borne by the project sponsors.

11. If any of the covenants and conditions set forth in paragraph 4 of this Agreement are alleged to have been violated by Division, Company agrees to notify and meet with Division and attempt to resolve the alleged violation. In the event Company determines, after consultation with Division, that a violation has occurred, then Company, at its sole option, may, upon written notice, demand and require that Division immediately reconvey the Property, with any improvements thereon made by Division, to Company. The parties will record a copy of this Agreement with the Deed in the office of the Emery County Recorder to give full public notice of the covenants and conditions in this Agreement and Division’s duty to reconvey the Property pursuant to this paragraph. The purpose and intent of this paragraph 11 is to create a power of termination in favor of Company as Grantor upon its determination of a violation of the covenants and conditions described in paragraph 4 of this Agreement.

12. This Agreement shall be governed by, construed, and enforced in accordance with the laws of the State of Utah.

13. This Agreement shall constitute the entire agreement between the parties and supersedes the Memorandum of Understanding dated October 6, 1993 and any prior understanding, representation, or agreement of the parties regarding the subject matter hereof.

14. No delay or failure by either party to exercise any right under this Agreement and no partial or single exercise of that right shall constitute waiver of that or any other right unless expressly provided herein. Either party may by written notice waive any of its rights or any conditions to any obligations hereunder or any covenant or duty of the other party, provided, however, that Company may
not waive Division's covenant to owners of Upstream Water Rights set forth in paragraph 4(f) hereof.

No waiver shall affect or alter the remainder of this Agreement. Each and every covenant, duty, and condition hereof shall continue in full force and effect with respect to any other then existing or subsequently occurring breach.

15. In addition to the specific rights and remedies set forth in paragraph 11 hereof, the parties shall have all rights and remedies provided under Utah law for a breach or threatened breach of this Agreement. These rights and remedies shall not be mutually exclusive and the exercise of one or more of these rights and remedies shall not preclude the exercise of any other right or remedy. Each party confirms that damages at law may be an inadequate remedy for a breach or threatened breach of a provision hereof and the respective rights and obligations of the parties hereunder shall be enforceable by a specific performance, injunction, or other equitable remedy.

IN WITNESS WHEREOF, the parties have executed this Agreement as of the day first above written.

APPROVED:

Robert G. Valentine
Director
Utah Division of Wildlife Resources

B. Ted Stewart
Executive Director
Utah Department of Natural Resources

Verl R. Topham
President and CEO
Utah Power, a division of
PacifiCorp, an Oregon Corporation

5/3/94
Date

5/11/94
Date

5/3/94
Date
Appendix B.

Correction Special Warranty Deed
CORRECTION SPECIAL WARRANTY DEED

PACIFICORP, an Oregon corporation (successor in interest by merger to Utah Power & Light Company, a Utah corporation), Grantor, hereby conveys and warrants to THE STATE OF UTAH, DEPARTMENT OF NATURAL RESOURCES, DIVISION OF WILDLIFE RESOURCES ("Grantee"), for the sum of Ten Dollars ($10.00) and other good and valuable consideration, the land and water rights situate in Emery County, State of Utah, described on Exhibit "A" to this Correction Special Warranty Deed, excepting therefrom any coal, oil, gas, and other minerals which may belong to Grantor.

Subject to easements, restrictions, and rights of way currently of record and/or enforceable in law or equity and the general property taxes for the year 1994 and thereafter.

Said property is subject to a partial release of mortgage.

Grantor specially warrants the right, title, and interest hereunder conveyed against the claims of any persons claiming by, through or under it, but not otherwise.

This grant and conveyance is made subject to the covenants and conditions set forth in that Agreement between Grantor and Grantee dated May 3, 1994, which is attached hereto as Exhibit "B" and incorporated herein by reference. If said covenants and conditions are violated by Grantee, Grantor may re-enter the Property subject of this Correction Special Warranty Deed and demand and require Grantee to reconvey it to Grantor pursuant to the procedure set forth in paragraph 11 of said May 3, 1994 Agreement.

IN WITNESS WHEREOF, Grantor has executed this Correction Special Warranty Deed by and through its duly authorized representative this 24, day of June, 1994.

PACIFICORP

By

Verl R. Topham
Senior Vice President and
General Counsel
PacifiCorp, an Oregon Corporation

STATE OF UTAH
COUNTY OF EMERY.

On the 24, day of June, 1994, personally appeared before me, a notary public, Verl R. Topham, who being first duly sworn, declared that he is the duly elected and authorized Senior Vice President and General Counsel, PacifiCorp, an Oregon corporation, and that the within and foregoing instrument was signed by authority of said corporation, and that he executed the same.

WITNESSETH MY HAND AND OFFICIAL SEAL.
EXHIBIT A

to Corrected Special Warranty Deed Dated June 8, 1994.

T. 19 S., R. 9 E., SLB&M

Section 20:  N½NE¼, SE¼NE¼
Section 21:  SW¼NW¼, SW¼SE¼, NE¼SW¼ (less W½SE¼NE¼SW¼, SW¼NE¼SW¼ containing 15 acres, more or less)
Section 28:  NW¼
Section 29:  NE¼NE¼, E¼SE¼NE¼, SW¼SW¼
Section 35:  SE¼SE¼

T. 20 S., R. 9 E., SLB&M

Section 1:  Lots 1, 2, 3, 4, SE¼NE¼

T. 20 S., R. 10 E., SLB&M

Section 6:  Lots 4, 5, 9, SE¼NW¼, NW¼SE¼

T. 22 S., R. 14 E., SLB&M

Section 27:  E½NW¼, SW¼NW¼, N½SW¼, SW¼SW¼
Section 28:  NE¼SE¼, SE¼SE¼
Section 33:  SE¼NE¼, NE¼NE¼
Section 34:  NW¼NW¼, SW¼NW¼, SE¼NW¼, SW¼
Less Utah State Road Right of Way and the County Road Right of Way.

T. 23 S., R. 14 E., SLB&M

Section 3:  Lots 3 and 4, SE¼NW¼, NE¼SW¼
Section 14:  SW¼NW¼, SW¼, SW¼SE¼
Section 15:  W¼NE¼, SE¼NE¼, NE¼SE¼
Section 23:  NW¼, W½NE¼, SE¼NE¼, E½SW¼, W¼SE¼, SE¼SE¼
Section 25:  SW¼NW¼, SW¼SW¼, N½SW¼
Section 26:  E½NE¼, NW¼NE¼, SE¼SE¼, SW¼NW¼, W¼SE¼, E¼SW¼
Section 35:  E½NE¼
Section 36:  W½NW¼, SE¼NW¼, SW¼SW¼, E½SW¼

T. 23 S., R. 16 E., SLB&M

Section 25:  Lot 2
Section 26:  Lots 2, 3 and 4, NW¼SE¼
Section 27:  S½N½, N½SW¼, NW¼SE¼, S½SE¼
Section 28:  E½NE¼, SW¼NE¼, N½SE¼, NE¼SW¼
Section 34:  NW¼NE¼, S½NE¼, N½SE¼
Section 35:  S½N½, N½SW¼, NW¼SE¼

T. 24 S., R. 14 E., SLB&M

Section 1:  E½NE¼, SW¼NE¼, NE¼SE¼

T. 24 S., R. 15 E., SLB&M

Section 6:  Lot 5, SE¼NW¼, SW¼NE¼, NE¼SW¼
Section 7:  NE¼NE¼
Section 8:  W½NW¼, SE¼NW¼
WATER RIGHTS

93-463 (A42638) Cert.#11095
93-1309 E. Johnson Decree 2nd Class
93-452 (A92637) Cert. #11096
93-1054 (A30755) Cert. #7741
93-973 Diligence
93-974 Diligence
93-975 Diligence
93-340 Diligence
93-341 Diligence
93-667 D3345
93-941 (A7705) Cert. #1047
93-1152 Diligence
93-1158 (A41911) Cert. #13076
93-976
93-977
93-978
93-979
93-1285
93-2182
93-3194
93-3514
Appendix C.

Memorandum of Understanding
MEMORANDUM OF UNDERSTANDING

This Memorandum of Understanding ("MOU") is made this 6th day of October, 1993, by and between PacifiCorp, doing business as Utah Power & Light Company ("Company") and the State of Utah, Department of Natural Resources, Division of Wildlife Resources ("Division"). The parties anticipate that a formal Donation Agreement incorporating the principles set forth in this MOU will be executed between them within 120 days after execution of this MOU.

1. Company owns land, water rights, grazing leases and permits, pumps and irrigation equipment and other miscellaneous personal property ("Property") in Emery County, Utah, acquired for a continuous and assured water supply to its Hunter and Huntington steam electric generating plants. Such Property is described on Exhibit "A" to this MOU.

2. Company's first priority in managing the Property has been to protect the operation of its Hunter and Huntington steam electric generating plants. This has resulted in additional burdens on the Company and involvement in activities which are not within the Company's ordinary course of business.

3. Company wishes to dispose of the Property management burden while maintaining or increasing protection of the associated water rights for continued operation of its upstream steam electric generating plants.

4. Division recognizes significant wildlife values associated with the Property and is willing to accept the donation of the Property, subject to the terms and conditions set forth herein which will be more specifically set forth in the Donation Agreement and deed, and is willing to
manage the Property to benefit wildlife, enhance recreation, allow multiple use consistent with wildlife objectives, and protect the water rights from forfeiture or abandonment.

5. Company will donate the Property, subject to existing leases and encumbrances to the Division.

6. In order to further the traditional uses of the grazing permits and enhance agriculture in Emery County, Company will transfer the Dugout, Jeffery Well, Iron Wash and Sweetwater AUMs to local, BLM-qualified livestock operators after advertising for proposals. The proposals may offer cash or a combination of cash and other benefits acceptable to the Division for the future management of the property by the Division. Company will transfer the grazing permits and hold the cash proceeds in escrow until the final closing of this transaction, at which time the proceeds will be transferred to the Division by Company as part of the closing.

a: Company will contact those operators who have expressed interest in the permits and indicate that the Company will accept proposals for their transfer. Company also will advertise in local newspapers and notify the Soil Conservation Service local office in order to notify prospective transferees of the availability of the AUMs.

b: Company and Division will evaluate the proposals and select one or several which will (i) provide the greatest enhanced agricultural opportunities while fulfilling wildlife objectives in Emery County, and (ii) provide revenue for management of the remaining Property held by the Division and achieve other goals of the Division.

c: Cash proceeds from the transfer of the AUMs will go into a Division special account dedicated only to the management of the Property. The special account may provide that some of the cash proceeds may be used, at the discretion of the
Division, as matching funds for participation in salinity control projects in the San Rafael River drainage.

7. It is the parties' mutual intent that the San Rafael grazing permits will be retained by Company until retired by the United States Bureau of Land Management ("BLM"). At the BLM's request, Company, the Division, and the BLM will negotiate a Memorandum of Understanding whereby the San Rafael grazing permits will be held by the Company pending their re-evaluation pursuant to the BLM's Range Management Plan. Management of the San Rafael permits after the re-evaluation will be the responsibility of the Division working in concert with the BLM.

8. Company will assign the State Lease on Section 32, Township 24 S., Range 14 E. to the Division along with the State Leases held within the San Rafael grazing allotment.

9. Company will contact and keep Emery County and State officials informed on the progress of the donation. Company will be primarily responsible to coordinate responses to information requests with the Division and disseminate information to the media on the donation.

10. The Division will agree to retain fee title to all the Property, except for a part of the Fullers Bottom parcel north of the San Rafael River, and to maintain the water rights in good standing consistent with State law in perpetuity. The parties anticipate that part of the Fullers Bottom parcel north of the San Rafael River may be transferred to the BLM by the Division for development of recreational facilities to promote recreation in Emery County. The description of land north of the San Rafael River not subject to the reversionary clause will be included in the Donation Agreement and deed.
11. The Donation Agreement and deed will contain covenants on behalf of the
Division and State not to sue the Company or threaten litigation for any cause of action or
damage or alleged damage to any part of the Property including, but not limited to, claims based
on impairment of water quality or quantity, arising or alleged to arise out of Company's operation
of the Hunter and Huntington steam electric generating plants and their water supplies, and any
additions or modifications to them or their operations.

12. The Donation Agreement and deed will contain covenants prohibiting the
Division from making a call on the water rights transferred to it as part of the Property by
subordinating the Property water rights to all valid upstream water rights existing at the date of
the final closing of this transaction.

13. The Donation Agreement and deed will contain reversionary clauses acceptable to
Company covering all of the Property except the Fullers Bottom parcel north of the San Rafael
River. The reversionary clauses shall become operative upon the violation of any of the
covenants expressed in the Donation Agreement and deed, including but not limited to,
covenants to retain fee title to the Property; covenants to maintain the water rights in good
standing in perpetuity; covenants not to sue the Company for damage to the Property arising out
of the Company's operation of the Hunter and Huntington steam electric generating plants;
covenants prohibiting the Division from making a call on the water rights transferred to it; and
covenants not to claim damage to water quality of the Property water rights, all as will be more
further set forth in the Donation Agreement and deed.

14. Company will prepare applications to change the place and nature of use of the
Property water rights for the Division of Water Rights to add instream flows for wildlife and
recreational purposes as uses for the Property water rights. After the execution of this MOU, the
Division and Company will jointly file the change applications and use their best efforts to get them approved by the Division of Water Rights. If the Division of Water Rights does not approve the instream flow applications, or if successful appeals are filed to the order granting instream flows as an approved use of the water rights, the Division will use the water rights in an approved manner for the benefit of wildlife, and including, but not limited to, irrigation.

15. The Division of Water Resources has approached Company and Division to discuss use of some of the Property in mitigation of its Price-San Rafael Salinity Control Project. Participation in the Project will provide substantial benefits to the agricultural water users in Emery County. Only after onsite mitigation has been declared infeasible and where the full cost will be borne by the Salinity Program Sponsors, Division will work cooperatively with the Division of Water Resources to enhance the Property as part of mitigation of impacts associated with the Price-San Rafael Salinity Project.

16. This MOU expresses the present intent of the parties with respect to the transfer of the Property. Nothing in this MOU shall become binding upon the parties until the same shall be included in the Donation Agreement and deed, which are subject to final approval by Company's board of directors and the State of Utah.
APPROVED:

Timothy H. Provan  
Director  
Utah Division of Wildlife Resources  


Date  
9/24/93

Ted Stewart  
Executive Director  
Utah Department of Natural Resources  


Date  
9/24/93

William C. Brauer  
Vice President  
PacifiCorp, dba Utah Power  


Date  
10/6/93


6
Description of property to be conveyed to Division of Wildlife Resources

T. 19 S., R. 9 E., SLB&M
Section 20: N1/2NW1/4, SE1/4NE1/4
Section 21: SW1/4NW1/4, SW1/4SE1/4, NE1/4SW1/4
  (less W1/2SE1/4NE1/4SW1/4, SW1/4NE1/4SW1/4 containing 15
  acres, more or less, leased to University
  of Utah)
Section 28: NW1/4
Section 29: NE1/4NE1/4, E1/4SE1/4NE1/4, SW1/4SW1/4
Section 35: SE1/4SE1/4

T. 20 S., R. 9 E., SLB&M
Section 1: Lots 1, 2, SE1/4NE1/4 (this portion of Section 1 may be transferred
  pursuant to the Donation Agreement)
Section 1: Lots 3, 4

T. 20 S., R. 10 E., SLB&M
Section 6: Lots 4, 5, 9, SE1/4NW1/4, NW1/4SE1/4

T. 22 S., R. 14 E., SLB&M
Section 27: E1/2NW1/4, SW1/4NW1/4, N1/2SW1/4, SW1/4SW1/4
Section 28: NE1/4SE1/4, SE1/4SE1/4
Section 33: SE1/4NE1/4, NE1/4NE1/4
Section 34: NW1/4NW1/4, SW1/4NW1/4, SE1/4NW1/4, SW1/4

T. 23 S., R. 14 E., SLB&M
Section 3: Lots 3 and 4, SE1/4NW1/4, NE1/4SW1/4
Section 14: SW1/4NW1/4, SW1/4, SW1/4SE1/4
Section 15: W1/2NE1/4, SE1/4NE1/4, NE1/4SE1/4
Section 23: NW1/4, W1/2NE1/4, SE1/4NE1/4, E1/4SW1/4, W1/2SE1/4, SE1/4SE1/4
Section 25: SW1/4NW1/4, SW1/4SW1/4, N1/2SW1/4
Section 26: E1/4NE1/4, NW1/4NE1/4, SE1/4SE1/4, SW1/4NW1/4, W1/2SE1/4, E1/4SW1/4
Section 35: E1/4NE1/4
Section 36: W1/4NW1/4, SE1/4NW1/4, SW1/4SW1/4, E1/4SW1/4

T. 23 S., R. 16 E., SLB&M
Section 25: Lot 2
Section 26: Lots 2, 3 and 4, NW1/4SE1/4
Section 27: S1/4N1/4, N1/4SW1/4, NW1/4SE1/4, S1/4SE1/4
Section 28: E1/4NE1/4, SW1/4NE1/4, N1/4SE1/4, NE1/4SW1/4
Section 34: NW1/4NE1/4, S1/4NE1/4, N1/4SE1/4
Section 35: S1/4N1/4, N1/4SW1/4, NW1/4SE1/4
T. 24 S., R. 14 E., SLB&M
Section 1: E¼ NE¼ SW¼ NE¼, NE¼ SE¼

T. 24 S., R. 15 E., SLB&M
Section 6: SW¼ NE¼, S¼ NW¼, NE¼ SW¼
Section 7: NE¼ NE¼
Section 8: W¼ NW¼, SE¼ NW¼

excepting therefrom any coal, oil, gas and other minerals which may belong to Grantor.
<table>
<thead>
<tr>
<th>Property</th>
<th>Priority</th>
<th>Water Right</th>
<th>Flow (cfs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thaler-Lower Cottonwood Creek</td>
<td></td>
<td>6-25-1973 93-463 (A42638) Cert. #11095</td>
<td>1.10</td>
</tr>
<tr>
<td></td>
<td>1879</td>
<td>93-1309 E. Johnson Decree 2nd Class</td>
<td>0.533</td>
</tr>
<tr>
<td>Thaler-Lower Ferron Creek</td>
<td></td>
<td>6-25-1973 93-452 (A92637) Cert. #11096</td>
<td>0.873</td>
</tr>
<tr>
<td>Fuller Bottoms-San Rafael River</td>
<td></td>
<td>3-6-1959 93-1054 (A30755) Cert. #7741</td>
<td>5.00</td>
</tr>
<tr>
<td>Hatt Ranch-San Rafael River</td>
<td></td>
<td>3-11-1893 93-973 Diligence 45%</td>
<td>7.50</td>
</tr>
<tr>
<td></td>
<td></td>
<td>93-974 Diligence 17%</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>93-975 Diligence 38%</td>
<td></td>
</tr>
<tr>
<td>Frenchmans-San Rafael River</td>
<td>1887</td>
<td>93-340 Diligence</td>
<td>15.00</td>
</tr>
<tr>
<td></td>
<td>1887</td>
<td>93-341 Diligence</td>
<td>4.00</td>
</tr>
<tr>
<td></td>
<td>1900</td>
<td>93-667 D3345</td>
<td>2.00</td>
</tr>
<tr>
<td></td>
<td>4-23-1918</td>
<td>93-941 (A7705) Cert. #1047</td>
<td>1.66</td>
</tr>
<tr>
<td>Chaffin-San Rafael Ranch</td>
<td>1885</td>
<td>93-1152 Diligence</td>
<td>1.00</td>
</tr>
<tr>
<td></td>
<td>10-30-1972</td>
<td>93-1158 (A41911) Cert. #13076</td>
<td>0.32</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Total</td>
<td>38.99</td>
</tr>
</tbody>
</table>
Property

Thaler-Lower Cottonwood Creek

Points of Diversion:
93-463:
1) S. 150 ft. & E. 370 ft.;
2) S. 635 ft. & E. 1020 ft.; both from N4 Cor.;
3) N. 705 ft. & W. 535 ft.;
4) N. 1106 ft. & W. 475 ft.; both from E4 Cor.;
5) N. 1030 ft. & E. 775 ft.;
6) N. 665 ft. & E. 1320 ft.;
7) N. 95 ft. & E. 1715 ft.; all from W4 Cor.;
    all Sec. 21, T19S, R9E, SLB&M

93-1309:
1) S. 150 ft. & E. 370 ft. from N4 Cor. Sec. 20, T19S, R9E, SLB&M

Thaler-Lower Ferron Creek

Points of Diversion:
93-452:
1) N. 490 ft. & E. 795 ft. from S4 Cor. Sec. 21;
2) N. 1010 ft. & E. 2345 ft.
3) N. 945 ft. & E. 1510 ft.; both from W4 Cor. Sec. 28;
4) S. 70 ft. & W. 95 ft. from E4 Cor. Sec. 29;
    all T19S, R9E, SLB&M

Fuller Bottoms-San Rafael River

Points of Diversion:
93-1054:
1) N. 1320 ft. & W. 1320 ft. from SE Cor. Sec. 35, T19S, R9E, SLB&M

Hatt Ranch-San Rafael River

Point of Diversion:
93-973, 93-974, 93-975:
1) N. 1770 ft. & W. 720 ft. from S4 Cor. Sec. 22, T22S, R14E, SLB&M
Property

Frenchmans-San Rafael River

Points of Diversion:
93-340:
  1) S. 750 ft. & E. 210 ft. from N4 Cor. Sec. 10, T23S, R14E, SLB&M
93-341:
  1) S. 750 ft. & E. 210 ft. from N4 Cor. Sec. 10, T23S, R14E, SLB&M
93-667:
  1) S. 750 ft. & E. 210 ft. from N4 Cor. Sec. 10;
  2) S. 920 ft. & E. 350 ft. from NW Cor. Sec. 36;
      both T23S, R14E, SLB&M
93-941:
  1) S. 750 ft. & E. 210 ft. from N4 Cor. Sec. 10, T23S, R14E, SLB&M

Source
San Rafael River

Chaffin-San Rafael River

Points of Diversion:
93-1152:
  1) S. 150 ft. & E. 80 ft. from N4 Cor. Sec. 3, T24S, R16E, SLB&M;
  2) N. 850 ft. & W. 1100 ft. from S4 Cor. Sec. 35, T23S, R16E, SLB&M
93-1158:
  1) N. 1205 ft. & E. 619 ft. from SW Cor. Sec. 35, T23S, R16E, SLB&M
## Attached Sheet #3

### Paragraph 10: Nature and Period of Use
### Paragraph 11: Purpose and Extent of Use

<table>
<thead>
<tr>
<th>Property</th>
<th>Nature &amp; Period of Use</th>
<th>Purpose &amp; Extent of Use</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Thaler-Lower Cottonwood Creek</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>93-463</td>
<td>Irr. - Apr. 1 to Oct. 31</td>
<td>87.92 acs./55.58 acs.</td>
</tr>
<tr>
<td>93-1309</td>
<td>Stock - Jan. 1 to Dec. 31</td>
<td>210 ELU</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Thaler-Lower Ferron Creek</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>93-452</td>
<td>Irr. - Apr. 1 to Oct. 31</td>
<td>64.00 acs.</td>
</tr>
<tr>
<td></td>
<td>Stock - Jan. 1 to Dec. 31</td>
<td>210 ELU</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Fuller Bottoms-San Rafael River</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>93-1054</td>
<td>Irr. - Apr. 1 to Nov. 1</td>
<td>179.10 acs.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Hatt Ranch-San Rafael River</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>93-973, 974, 975</td>
<td>Irr. - Apr. 1 to Oct. 31</td>
<td>348.50 acs./300 acs.</td>
</tr>
<tr>
<td></td>
<td>Stock - Jan. 1 to Dec. 31</td>
<td>812 ELU</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Frenchmans-San Rafael River</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>93-340</td>
<td>Irr. - Apr. 1 to Oct. 31</td>
<td>182.05 acs./10.3 acs.</td>
</tr>
<tr>
<td></td>
<td>Stock - Jan. 1 to Dec. 31</td>
<td>205 ELU</td>
</tr>
<tr>
<td>93-341</td>
<td>Irr. - Apr. 1 to Oct. 31</td>
<td>182.05 acs./36.60 acs.</td>
</tr>
<tr>
<td></td>
<td>Stock - Jan. 1 to Dec. 31</td>
<td>205 ELU</td>
</tr>
<tr>
<td>93-667</td>
<td>Irr. - Apr. 1 to Oct. 31</td>
<td>182.05 acs./67.1 acs.</td>
</tr>
<tr>
<td></td>
<td>Stock - Jan. 1 to Dec. 31</td>
<td>205 ELU</td>
</tr>
<tr>
<td>93-941</td>
<td>Irr. - Apr. 1 to Oct. 31</td>
<td>192.05 acs./66.5 acs.</td>
</tr>
<tr>
<td></td>
<td>Stock - Jan. 1 to Dec. 31</td>
<td>205 ELU</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Chaffin-San Rafael River</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>93-1152</td>
<td>Irr. - Apr. 1 to Oct. 31</td>
<td>43.5 acs.</td>
</tr>
<tr>
<td></td>
<td>Stock - Jan. 1 to Dec. 31</td>
<td>200 ELU</td>
</tr>
<tr>
<td>93-1158</td>
<td>Irr. - Apr. 1 to Oct. 31</td>
<td>59.56 acs./16.06 acs.</td>
</tr>
<tr>
<td></td>
<td>Stock - Jan. 1 to Dec. 31</td>
<td>200 ELU</td>
</tr>
</tbody>
</table>
Property

Thaler-Lower Cottonwood Creek
93-463: N2NE4, SE4NE4 Sec. 20; SW4NW4, NE4SW4 Sec. 21; T19S, R9E, SLB&M.
93-1309: NW4NE4, SE4NE4 Sec. 20, T19S, R9E, SLB&M.

Thaler-Lower Ferron Creek
93-452: SW4SE4 Sec. 21; NW4 Sec. 28; SE4NE4 Sec. 29; T19S, R9E, SLB&M.

Fuller Bottoms-San Rafael River
93-1054: Lots 1, 2, 3, 4, SE4NE4 Sec. 1, T20S, R9E, SLB&M;
Lots 5, 9, SE4NW4 Sec. 6, T20S, R10E, SLB&M.

Hatt Ranch-San Rafael River
93-973, 974, 975: S2NW4, N2SW4, SW4SW4 Sec. 27; N2SE4 Sec. 28; E2NE4 Sec. 33,
W2NW4, W2SW4 Sec. 34; all T22S, R14E, SLB&M; NW4NW4 Sec. 3, T23S, R14E, SLB&M.

Frenchmans-San Rafael River
93-340, 341, 667, 941: SW4 Sec. 14; W2NE4, SE4NW4, NE4SE4 Sec. 15; N2NW4 Sec. 23;
SW4NW4, N2SW4, SW4SW4 Sec. 25; SE4SE4 Sec. 26; NE4NE4 Sec. 35; W2NW4, SE4NW4
Sec. 36; all T23S, R14E, SLB&M.

Chaffin-San Rafael River
93-1152: SW4NE4, SE4NW4, NE4SW4, NW4SE4 Sec. 35, T23S, R16E, SLB&M.
93-1158: SW4NE4, SE4NW4, NE4SW4, W2SE4 Sec. 35, T23S, R16E, SLB&M.
Hereafter Paragraph 17: Points of Diversion

Cottonwood Creek:
1) S. 150 ft. & E. 370 ft. from N4 Cor. Sec. 21, T19S, R9E, SLB&M
2) S. 635 ft. & E. 1020 ft. from N4 Cor. Sec. 21, T19S, R9E, SLB&M
3) N. 705 ft. & W. 535 ft. from E4 Cor. Sec. 21, T19S, R9E, SLB&M
4) N. 1106 ft. & W. 475 ft. from E4 Cor. Sec. 21, T19S, R9E, SLB&M
5) N. 1030 ft. & E. 775 ft. from W4 Cor. Sec. 21, T19S, R9E, SLB&M
6) N. 665 ft. & E. 1320 ft. from W4 Cor. Sec. 21, T19S, R9E, SLB&M
7) N. 95 ft. & E. 1715 ft. from W4 Cor. Sec. 21, T19S, R9E, SLB&M

Ferron Creek:
8) N. 490 ft. & E. 795 ft. from S4 Cor. Sec. 21, T19S, R9E, SLB&M
9) N. 1010 ft. & E. 2345 ft. from W4 Cor. Sec. 28, T19S, R9E, SLB&M
10) N. 945 ft. & E. 1510 ft. from W4 Cor. Sec. 28, T19S, R9E, SLB&M
11) S. 70 ft. & W. 95 ft. from E4 Cor. Sec. 29, T19S, R9E, SLB&M

San Rafael River:
12) N. 1320 ft. & W. 1320 ft. from SE Cor. Sec. 35, T19S, R9E, SLB&M
13) N. 1770 ft. & W. 720 ft. from S4 Cor. Sec. 22, T22S, R14E, SLB&M
14) S. 750 ft. & E. 210 ft. from N4 Cor. Sec. 10, T23S, R14E, SLB&M
15) S. 920 ft. & E. 350 ft. from NW Cor. Sec. 36, T23S, R14E, SLB&M
16) N. 850 ft. & W. 1100 ft. from S4 Cor. Sec. 35, T23S, R16E, SLB&M
17) N. 1205 ft. & E. 619 ft. from SW Cor. Sec. 35, T23S, R16E, SLB&M
18) S. 150 ft. & E. 80 ft. from N4 Cor. Sec. 3, T24S, R16E, SLB&M

Hereafter Paragraph 22: Place of Use

N2NE4, SE4NE4 Sec. 20; SW4NW4 NE4SW4, SW4SE4 Sec. 21; NW4 Sec. 28; SE4NE4 Sec. 29, all T19S, R9E, SLB&M; Lots 1,2,3,4, SE4NE4 Sec. 1, T20S, R9E, SLB&M; Lots 5,9, SE4NW4 Sec. 6, T20S, R10E, SLB&M; S2NW4, N2SW4 SW4SW4 Sec. 27; N2SE4 Sec. 28; E2NE4 Sec. 33; W2NW4, N2SW4 Sec. 34, all T22S, R14E, SLB&M; NW4NW4 Sec. 3; SW4 Sec. 14; W2NE4, SE4NW4, NE4SE4 Sec. 15; N2NW4 Sec. 23; SW4NW4. N2SW4, SW4SW4 Sec. 25; SE4SE4 Sec. 26; NE4SE4 Sec. 35; W2NW4, SE4NW4 Sec. 36, all T23S, R14E, SLB&M; SW4NE4, SE4NW4, SE4SW4, W2SE4 Sec. 35, T23S, R16E, SLB&M.

Instream Flow Place of Use:

Ferron Creek: From the streams entrance into the applicants property located at a point W. 660 ft. from E4 Cor. Sec. 29, T19S, R9E, SLB&M to its confluence with the San Rafael River located at a point N. 410 ft. & E. 835 ft. from the S4 Cor. Sec. 21, T19S, R9E, SLB&M.

Cottonwood Creek: From the streams entrance into the applicants property located at a point E. 210 ft. from the N4 Cor. Sec. 20, T19S, R9E, SLB&M to its confluence with the San Rafael River located at a point N. 410 ft. & E. 835 ft. from the S4 Cor. Sec. 21, T19S, R9E, SLB&M.

San Rafael River: From the rivers beginning located at a point N. 410 ft. & E. 835 ft. from the S4 Cor. Sec. 21, T19S, R9E, SLB&M to its confluence with the Green River located at a point N. 160 ft. & E. 375 ft. from the S4 Cor. Sec. 25, T23S, R16E, SLB&M.

TOTAL P. 10
Berkeley Model No. B10QBN-1 pump

Detroit 453 4 cylinder engine

Fuel Tank

Radiator

Miscellaneous hardware mounted on a steel frame

1,200' of 8" dia. x 45' aluminum main line irrigation pipe (26 sections)

2,320' of 3" dia. x 40' aluminum irrigation pipe (58 sections)

2 each 4" x 3" valve openers

2 each Big Gun Carts with Nelson F-100-R Big Guns

1 each 8" x 6" reducer

1 each 6" surge end plug

1 each diesel motor with pump, fuel tank, and trailer

1 each pipe trailer

4" x 3" SBS - ABC - ONL valve opener
Appendix D.

Water Rights Change Application Number 93-340
FOR GOOD AND VALUABLE CONSIDERATION, the receipt and adequacy of which are hereby acknowledged, PACIFICORP, an Oregon corporation ("Assignor"), hereby sells, assigns, and transfers, to THE STATE OF UTAH, DEPARTMENT OF NATURAL RESOURCES, DIVISION OF WILDLIFE RESOURCES ("Assignee"), all of Assignor's right, title, and interest in and to the following described approved and unapproved water right applications ("Water Right Applications"), to have and to hold the same unto the Assignee, its successors, transferees, and assigns in interest.

<table>
<thead>
<tr>
<th>Water User Claim #</th>
<th>Application #</th>
</tr>
</thead>
<tbody>
<tr>
<td>93-1131</td>
<td>A40046</td>
</tr>
<tr>
<td>93-1158</td>
<td>A41911</td>
</tr>
<tr>
<td>93-1568</td>
<td>A55169</td>
</tr>
<tr>
<td>93-1569</td>
<td>A55170</td>
</tr>
<tr>
<td>93-3196</td>
<td>A56208</td>
</tr>
<tr>
<td>93-3197</td>
<td>A56209</td>
</tr>
<tr>
<td>93-3198</td>
<td>A56210</td>
</tr>
<tr>
<td>93-3199</td>
<td>A56211</td>
</tr>
<tr>
<td>93-3200</td>
<td>A56212</td>
</tr>
<tr>
<td>93-3201</td>
<td>A56213</td>
</tr>
</tbody>
</table>

Assignor specially warrants the right, title, and interest hereunder conveyed against the claims of any persons claiming by, through, or under it, but not otherwise.

DATED this 3rd day of May, 1994.

PACIFICORP

By

Verl R. Topham
President and CEO
Utah Power, a division of
PacifiCorp, an Oregon Corporation

STATE OF

COUNTY OF

On the 3rd day of May, 1994, personally appeared before me, a notary public, Verl R. Topham, who being by me first duly sworn, declared that he is the duly elected and authorized President and CEO of Utah Power, a division of PacifiCorp, an Oregon corporation.

WITNESSETH MY HAND AND OFFICIAL SEAL.
Appendix E.

Bill of Sale
BILL OF SALE

PACIFICORP, an Oregon corporation (successor in interest by merger to Utah Power & Light Company, a Utah corporation), Grantor, hereby sells and conveys all its right, title, and interest in the property described on Exhibit “A” to this Bill of Sale to THE STATE OF UTAH, DEPARTMENT OF NATURAL RESOURCES, DIVISION OF WILDLIFE RESOURCES ("Grantee"), for the sum of Ten Dollars ($10.00) and other good and valuable consideration. Grantor makes no warranty as to the condition of said property.

IN WITNESS WHEREOF, Grantor has executed this Bill of Sale by and through its duly authorized representative this 31st day of May, 1994.

PACIFICORP

By

Verl R. Topham
President and CEO
Utah Power, a division of
PacifiCorp, an Oregon Corporation

STATE OF  )
COUNTY OF  )

On the 31st day of May, 1994, personally appeared before me, a notary public, Verl R. Topham, who being by me first duly sworn, declared that he is the duly elected and authorized President and CEO of Utah Power, a division of PacifiCorp, an Oregon corporation, and that the within and foregoing instrument was signed by authority of said corporation, and that he executed the same.

WITNESSETH MY HAND AND OFFICIAL SEAL.

Notary Public
Pumps and Irrigation Equipment

Berkeley Model No. B10QBN-1 pump

Detroit 453 4 cylinder engine

Fuel Tank

Radiator

Miscellaneous hardware mounted on a steel frame

1,200' of 8" dia. x 45' aluminum main line irrigation pipe (26 sections)

2,320' of 3" dia. x 40' aluminum irrigation pipe (58 sections)

2 each 4" x 3" valve openers

2 each Big Gun Carts with Nelson F-100-R Big Guns

1 each 8" x 6" reducer

1 each 6" surge end plug

1 each diesel motor with pump, fuel tank, and trailer

1 each pipe trailer

4" x 3" SBS - ABC - ONL valve opener