

The Strawberry Valley Project: A History and Initial Experiences¹

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<http://www.fcnet.org/proceedings/1991/garcia.pdf>

Abstract.--The Strawberry Valley is located in Wasatch County, Utah, approximately 65 miles southeast of Salt Lake City. Rehabilitation projects are ongoing in the Strawberry Valley as a result of management of some of the land being transferred to the Forest Service and changes in grazing practices. These rehabilitation projects include streambank stabilization, installation of gully plugs and willow planting.

The Strawberry Valley is located in Wasatch County, Utah, approximately 65 miles southeast of Salt Lake City. The valley covers approximately 100,000 acres and elevations range from 7,500 to 9,000 feet above sea level.

There is not much written on the use of the valley by Native Americans, although we know it was used by bands of the Ute Tribe who inhabited this part of what is now Utah.

The first European known to see the Strawberry Valley was Father Escalante, who passed through it in 1776. There are two interesting notes in Escalante's journal concerning the valley. First was his note concerning scattered patches of white poplar (aspen) which did not grow very large. The other reference is to the trout caught in the medium sized river (probably the Strawberry River) which ran through the valley. The fact that they caught two-pound trout is interesting in light of the fact that the Strawberry area, especially the reservoir, has been and again is becoming a premier cutthroat trout fishery in the western United States.

With the settlement of the Heber Valley, 23 miles to the northwest, in the 1850's and 60's, the Strawberry

Valley was used for grazing livestock. Some grass hay may have been harvested in portions on the valley as well.

The first photographs of the area were taken in 1888 when the Army from Forts Bridger, Duchesne and Douglas had a summer encampment in the Strawberry Valley. These photographs show the impacts of grazing, even at that early time, although willow cover along the Strawberry River appears to be in good condition. This encampment involved 700 men with all of their equipment and horses and lasted for 28 days. Archeological digs in 1990 and 1991 have turned up many interesting artifacts left by the army.

At the same time the army was encamped in Strawberry Valley, the residents of Heber Valley were busy digging a canal for irrigation, and in 1889 the first transbasin water diversion in Utah was activated. The water was diverted from the Strawberry River in the Colorado Drainage to the Heber Valley in the Bonneville Basin Drainage. This diversion remains in effect today, and subsequently leaves a portion of the Strawberry River dry from mid-June to mid-October.

The Bureau of Reclamation (BR) entered the Strawberry Valley to build the original Strawberry Dam and reservoir in 1905. This was the first large reclamation project in Utah, and was designed to transport water from the Strawberry Valley to Wasatch Front areas in Utah and Juab Counties. The dam was

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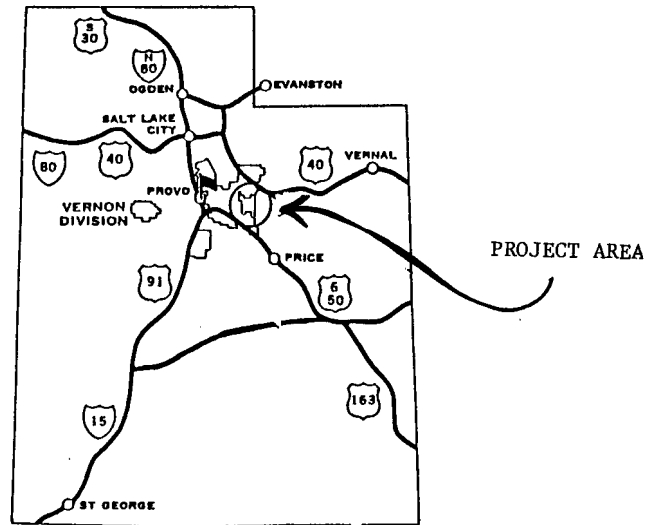
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completed in 1911. As a part of the Strawberry project, the BR withdrew approximately 56,000 acres of land. When the dam was completed, the BR entered into a contract (in 1912) with the Strawberry Water Users Association (SWUA), to manage the land. The SWUA was the organization responsible for paying back the Government for the construction of the Strawberry Dam. The contract, with a major modification in the early 1940's, was ratified by Congress. It remained in effect until October of 1989, when an Act of Congress made it possible for the BR to buy out the contract rights from the SWUA and transfer jurisdiction of the land over to the National Forest System.

In managing the "Strawberry Project Lands," the SWUA interpreted the contract and managed along those interpretations. The contract referred to the lands as "grazing lands," and that became the major land use. Management was geared to grazing production and all other uses were secondary. With little opposition from anyone, their management consisted of season-long grazing on much of the land, and spraying willows and sagebrush for grass production. With the loss of willows, streambank stability was lost and large amounts of sediment were washed into Strawberry Reservoir. In part, it was these practices which resulted in the Strawberry Project Lands transfer to the National Forest System.

When the Central Utah Project was conceived in the 1950's, the Strawberry Valley again became a focal point. The Soldier Creek Dam was to replace the original Strawberry Dam and enlarge the reservoir as part of the Bonneville Unit. As the new dam was being constructed, along with new recreation facilities, there was much discussion on how the "Project Lands" should be managed and who could best do the job. Through much discussion with Federal and State agencies and officials, environmental and wildlife groups, and the public, it was decided that the land would best be managed for its watershed, recreation, wildlife and fish values by the U.S. Forest Service (FS) which managed the rest of the Federal lands in the valley.

H.R. 3408 was passed by Congress, which made it possible for the lands to be passed from BR to the FS to be administered by the Uinta National Forest. The transfer became official on October 16, 1989. With this Act came



the funding by the BR for the rehabilitation of the Strawberry Valley Management Area. Rehabilitation work was to be accomplished over a five-year period at a cost not to exceed \$3 million dollars. Work on this project began in 1990 and will continue with the BR funding through 1994.

To begin the rehabilitation efforts, the Heber Ranger District of the Uinta National Forest prepared an Environmental Impact Statement (EIS) on the area which put the newly acquired Forest lands under the umbrella of the Forest Plan. The EIS covered all management aspects of the area including recreation, watershed improvement needs, wildlife, fisheries, and grazing. Probably the most important decision made in the EIS was the elimination of domestic livestock grazing for at least five years, and the criteria which will have to be met before grazing will be considered again in the area. The criteria centers on watershed condition with plant species composition, condition, ground cover, seral stage and water quality. Condition of riparian areas and streambank stability are very important factors.

With direction from the EIS, FS crews and contractors have been constructing and reconstructing fences to keep livestock from adjacent allotments off of the SVMA. Many interior fences have been removed where they are not needed for any management purposes. If grazing is allowed again, the allotment formed will be in a rest rotation system and needed fences will be constructed at that time.

Many upland acres have been reseeded for soil stability, vegetative diversity and aesthetics. Other areas will be seeded as needs are identified. Access management, including road closures, has been an important part of the rehabilitation process.

The main thrust in rehabilitation has been the work on fisheries habitat and riparian restoration. Rehabilitation plans for fisheries habitat have been developed for seven of the major streams in the area. Sediment traps have been installed in Trail Hollow with the goal of raising the water table and restoring riparian vegetation to the drainage. The gullies were 8 to 20 feet deep.

Streambank stabilization on the Strawberry River with the use of juniper trees (with limbs attached) will give horizontal stability to the stream and allow the reintroduction of willows and other riparian species. Bank stabilization will also occur on all streams in the area where it is needed.

It is the goal of the Utah Division of Wildlife Resources (UDWR) and the FS to have a self sustaining cutthroat trout fishery in the Strawberry Valley. The goal is to have 10 million young-of-the-year return annually to the reservoir from the 100+ miles of tributary streams. Work is progressing to restore the spawning habitat in these tributary streams. This is being accomplished through the installation of structures and gravel that will accommodate spawning fish and give needed habitat to young-of-the-year as they hatch and migrate downstream to the reservoir.

A very important aspect of the riparian and the fisheries is the condition and vegetative makeup of the riparian areas. Willows are needed to give bank stability and provide shade and cover for fish. The Forest has used both cuttings and rooted stock for this purpose. Rooted stock has been the most successful. Crews from the Lone Peak nursery gather willow cuttings in the

spring and root them at the nursery during the year. The following spring the willows are delivered to the Heber District for planting. Through careful handling, the nursery has been able to top cut willows in the fall and use these cuttings to supplement the next years order. This cuts down on time and expense in getting more cuttings in the early spring. Lone Peak nursery has also started to train their crews in winter identification of willows so when planting time comes, species can be planted in the locations where they will best meet management objectives (willows which handle high flows can be placed on the current baring banks, etc.).

Lone Peak has cut, rooted, and planted 35,000 willows in 1991 in the Strawberry Valley. Cost to the FS was 51.5 cents per willow. In mid August, when survival plots were established, there was 99% survival. These plots will be monitored for 4-5 years to gain an understanding of willow survival and growth patterns.

Another important aspect of riparian rehabilitation is the reestablishment of carex species. In the past, FS crews have used a backhoe to scoop up patches of carex, cut them into plugs and plant them. Lone Peak Nursery has been experimenting with reproduction of carex as tublings and is planning to have large carex beds built at the nursery to produce this stock. This will greatly simplify the reestablishment of carex on streambanks in the future.

Lone Peak is also working with the FS to provide local rooted cottonwood trees for use in the Strawberry Valley.

Although only in its second year of rehabilitation, the Strawberry Valley is improving in ecological condition. It is anticipated that the environment will greatly improve. In the next few years, the Strawberry Valley Management Area will be much closer to the natural condition of the environment which occurred before man's heavy intervention