

Improving Utah's Water Quality

Strawberry River Watershed



UtahStateUniversity
WATER QUALITY EXTENSION

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MAJOR WATERBODIES

Strawberry River
Strawberry Reservoir

MAJOR CITIES

Fruitland

MAJOR LAND USES

Forest
Recreation
Agriculture

LOCAL WATER QUALITY ISSUES

Elevated phosphorus
Low dissolved oxygen
High temperatures
Bank erosion

LOCAL CONTACT:

Duchesne Conservation District
Uintah Basin Watershed Coordinator
240 West Highway 40
Roosevelt, UT 84006
435-722-4621 ext 129

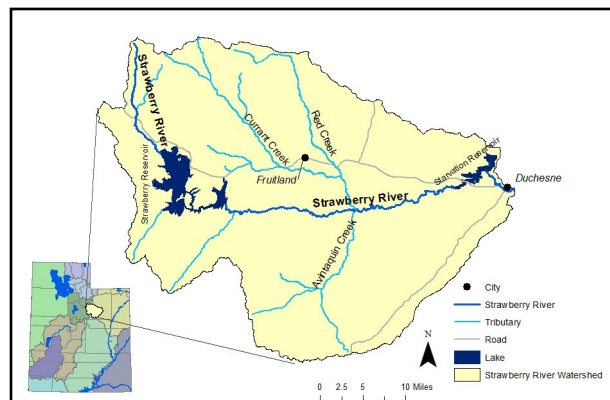
Watershed Description:

The Strawberry River watershed drains approximately 1,155 square miles of the Uintah Basin in northeastern Utah. It originates in the Wasatch Mountains at elevations of nearly 10,000 feet, and ultimately drains to the Duchesne River at an elevation of 5,500 feet. The river enters Strawberry Reservoir about 17 miles from its headwaters. Strawberry Reservoir and the river below are considered

Utah's premier trout fishery in terms of total angler hours and the number of fish produced. More than 2 million people visit Strawberry Reservoir each year. Below Strawberry Reservoir the river travels for about 28 miles to Starvation Reservoir. It enters the Duchesne River about 5 miles below Starvation Reservoir.

River flows in the Uintah Basin are dominated by spring runoff and brief, intense storms that occur in late summer. Several large reservoirs have altered the natural hydrology of the Strawberry River by reducing spring peak flows and providing higher minimum flows during summer and winter months.

Several nonpoint source water quality problems have been identified in the Strawberry River watershed. These include excess sediment and phosphorus loads which are degrading water quality in the river, its tributaries and the reservoirs. Loss of riparian vegetation along the river reduces interception of pollutants in runoff and also contributes to eroding stream banks. Additionally, water development for agriculture and livestock is causing reduced stream flows, fragmented streams, and stream habitat loss.



Strawberry River Water Quality Improvement

Project Description:

Strawberry Reservoir was listed on Utah's 303(d) List of Impaired Waters in 2004 for not meeting its designated use as a cold water fishery. High total phosphorus, low dissolved oxygen concentrations and high temperatures were identified as stressors of concern. Additionally, degraded in-stream and riparian habitats in the Strawberry River were identified as leading causes for reduced water quality and fish recruitment.

Since 2002 the Utah Division of Wildlife Resources, U.S. Forest Service, Utah Division of Water Quality, and other partners have worked to improve the river and restore its naturally functioning state by:

- Installing 3 miles of fencing to decrease grazing pressure on the upper Strawberry River;
- Developing a grazing management plan to increase vegetative cover and minimize hill slope erosion;
- Removing invasive plant species and replacing them with native vegetation, stabilizing banks with erosion fabric, and connecting the river with the floodplain along approximately 12 miles of the upper Strawberry River;
- Constructing in-stream structures to mitigate erosion and planting willows in riparian zones along a 5.5 mile reach of river below Starvation Reservoir; and
- Implementing outreach and educational initiatives for healthy riparian zones.

These projects were implemented to improve habitat quality for all life stages of cutthroat trout, increase vegetative cover and reduce bank erosion, and minimize nutrient and sediment input from nonpoint sources.



Partners

Utah State University Extension
Utah Division of Water Resources
Utah Division of Water Quality
Utah Division of Wildlife Resources
U.S. Forest Service
Friends of Strawberry Valley
Wasatch County
U.S. Environmental Protection Agency
Utah Habitat Council
Blue Ribbon Advisory Council
Trout Unlimited
Spring Creek Native Nursery
Strawberry Anglers Association
Utah Angler Coalition
Salt Lake County Fish and Game Association
Boy Scouts of America
The Oakley Academy
UDWR Dedicated Hunter Program
Watershed Restoration Initiative
Utah Conservation Corps
Duchesne Conservation District

Related Projects

Soil Testing and Training
Kokanee Festival
Stream Restoration
Water Quality Monitoring
Wildlife Habitat Improvement
Rangeland Management
Grazing Management and Pasture Planting
Outreach and Education Events

References

UDEQ 2007. Strawberry Reservoir TMDL <http://www.waterquality.utah.gov/TMDL/approvedtmdls.htm>

Funding

Upper Strawberry Fencing	\$113,200
Upper Strawberry Streambank Restoration	\$1,200,000
Lower Strawberry Invasive Removal	\$44,000

To learn how you can participate or lend your support to Utah community water quality projects, please contact your local conservation district or county agent.