

OGDEN RIVER RESTORATION

After river restoration

For over 100 years, the Ogden River had been used as a dumping ground for waste material and channelized in an attempt to maximize industrial land to the detriment of stream health. The project vision, to restore a naturally functioning Ogden River with vibrant greenspaces connecting to the urban landscape, was led by RiverRestoration. Design features included interior floodplains, glide, riffle, pool sequences, stormwater buffering, and overall improved stream health. Riparian habitat was increased five-fold. A 1.1-mile river trail was aligned with boardwalks crossing over constructed wetland stormwater return areas. Concentrated river access was created at over 20 locations, including innovative river access ramps. Whitewater parks, fishing habitat, and swimming-safe rapids were created throughout. Over 6,000 tons of recyclable debris, 9,000 tons of trash, 7 whole cars and 2,500 tires and 200 car batteries were removed from the channel.





Boardwalk over a stormwater return wetland



After river after restoration



River access feature

Awards:

- Utah's 46th Blue Ribbon fishery
- American Fisheries Society Utah Chapter Conservationist of the Year Award to Ogden City 2011
- Utah DEQ Water Quality Board Sudweeks Award 2012
- Migratory Bird City

Quick Facts:

- The Ogden River Restoration was a phased design while building approach.
- Design drawings, construction details, specifications, and permits were developed within 9 months.
- Construction started on the first phase of the project with \$1M from 2009 ARRA.
- The Restoration was completed within three years for a total project cost of \$6M.
- Assistance was provided for fund raising and stakeholder coordination.
- A CLOMR/LOMR was prepared by RiverRestoration

Project Highlights:

- Restored riffle, pool, glide morphology
- 7 Wetland stormwater return areas
- 1.1 miles of riverwalk
- 20 concentrated river access features
- 1 whitewater recreation enhancement
- 17 acres of delineated riparian easement
- 350,000 native plantings
- Comprehensive invasive species removal
- 1 Irrigation diversion with improvements
- 1 New USGS gage station



Ogden River Restoration



Swimming in the Ogden River restoration

The health of our waters is the principal measure of how we live on the land.
Luna Leopold



Fishing in the restored river

The project was listed by the USACE on WRDA 206 list and Senator Bennet supported the project in the 2008 Federal budget; however, federal funds were not appropriated. Project momentum languished until April of 2009 when substantial American Recovery and Reinvestment Act (ARRA) monies were set aside for the project. Since that time the successes and merits of the project have been widely acknowledged and celebrated and the support, both monetary and communal, has snowballed. It was once the city trash dump. Now the Ogden River is at the heart of the revitalization of Ogden City.

The structures installed in the channel were designed to affect the morphology of the river bed. The encroached channel had very uniform cross section, habitat type, and substrate size. Innovative riffle structures were designed and located with the intent to capture and refresh with gravel at a steeper gradient than the uniform channel. Thalweg formation was promoted with location of scour vanes and boulder clusters. Pools were designed to be maintained by hydraulic drops. Flooding during construction in 2011 was a channel forming event and the channel response is very positive with refreshed riffles, a scoured thalweg, deep pools and productive glides. The morphological response was just in time to test the natural habitat function in the severe drought condition of 2012. The deep pools and thalweg helped the survival of the new fishery and the designation as Blue Ribbon trout waters.

Creating a sustainable interface between the urban and restored natural areas is a long-term goal of the project. The developable areas were remapped and taken out of the 100-year flood hazard by increasing the channel conveyance with interior floodplains. The interior floodplains serve as a greenspace for the community. The river changed Ogden's blighted past to a vibrant future. Today the community embraces their river as a valued resource flowing in the heart of the City.



Recreation access to the Ogden River have made it a centerpiece of the City.



Ogden River Restoration