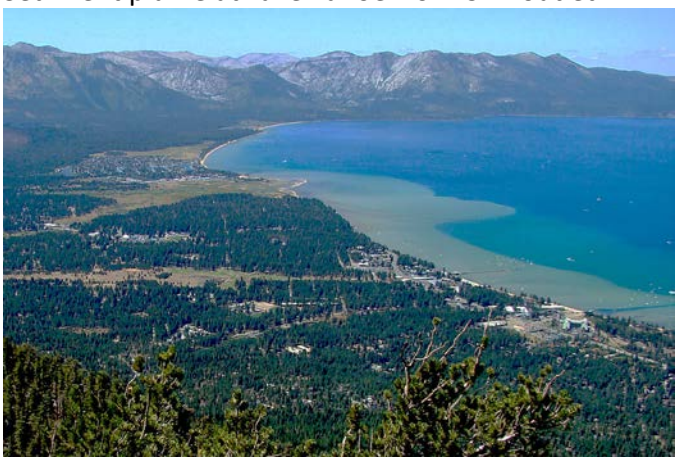
Upper Truckee River Reach 5 Restoration and Utility Relocation Project

Sediment plume at Lake Tahoe from UTR outlet



Eroding bank in UTR in Reach 5 - 2005

In 2013, the USFS, LTBMU plans to begin implementation of a river channel/floodplain restoration project along the Upper Truckee River (UTR) in Reach 5, located adjacent to the Lake Tahoe Airport just south of South Lake Tahoe, CA in El Dorado County. The project is located on both LTBMU and California Tahoe Conservancy lands.

The UTR watershed is the largest watershed in the Lake Tahoe Basin and has the highest annual sediment loads of all the tributaries to Lake Tahoe (see photo to the left).

The existing channel became incised as a result of urban development, grazing, road building, airport construction, logging, and gravel mining, as illustrated by the bare stream banks shown in the picture to the left.

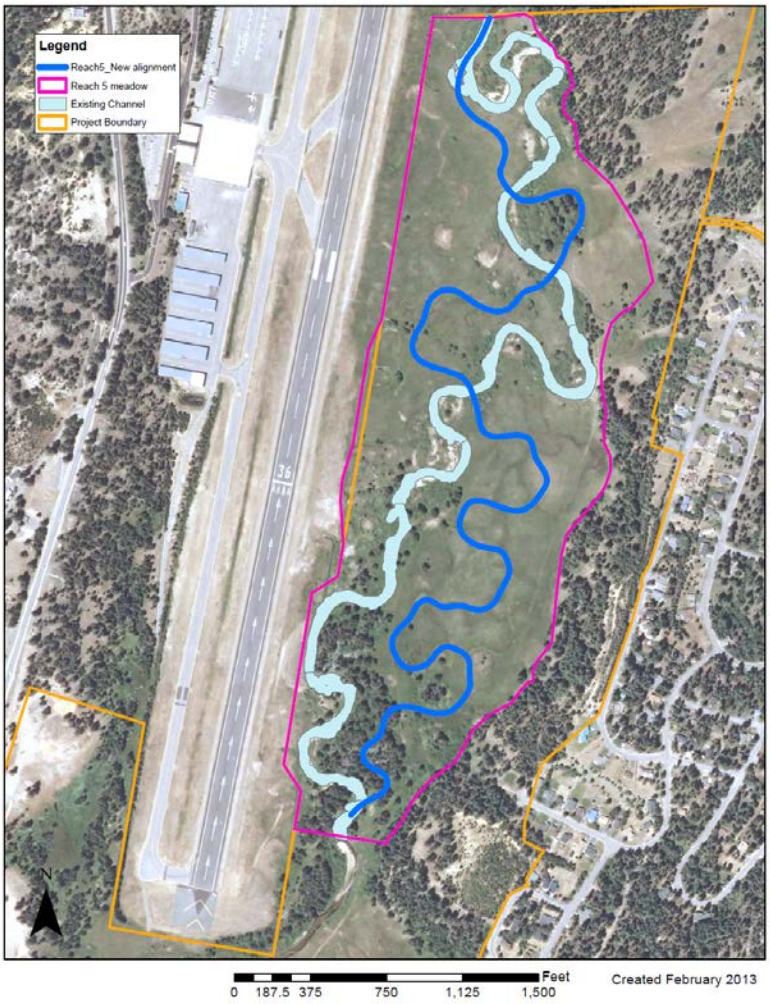
Restoration activities include the construction of approximately 7,340 feet of new river channel to replace the existing incised and eroding channel, relocation of buried utility lines where they will cross the new channel, and grading and revegetating approximately 5.6 acres of floodplain near the transition to the downstream reach. The project will result in 120 acres of restored and reactivated floodplain.

This restoration project is designed to achieve the following objectives:

1) Restore river geomorphic function in terms of channel stability and aquatic habitat features.

2) Restore surface and subsurface channel-floodplain connectivity by increasing the frequency, duration and extent of floodplain inundation so that; river flows frequently flood the meadow surface resulting in the deposition of fine sediments on the floodplain and increased nutrient uptake, and seasonal ground water levels are increased in the floodplain meadow to support the growth of wet meadow vegetation during late summer.

Upper Truckee Reach 5 Restoration Project



Implementation is expected to take 4 years:

Year 1 - New channel construction (approx. 4,000 ft)

Year 2 - Remaining new channel construction (approx. 3,300 ft) and Utility Line Relocation

Year 3 - Irrigation and seasoning (no active construction)

Year 4 - Construct channel tie-ins, floodplain grading area, and connect new channel to UTR flows

Under existing conditions, overbank flows occur in this project area approximately every 5 years (at flows of 800 cfs or larger) and groundwater is between 4 and 7 feet beneath the meadow surface during summer months (July-September). After project implementation, the channel is expected to overbank the new channel approximately every 1.4 years (at 375 cfs flows) and groundwater elevation will be increased so that it is approximately 2-3 feet below the meadow surface during summer months.

Increasing the groundwater elevation will increase plant available water late in the growing season to support a conversion to wet meadow vegetation on the floodplain. Wet meadow communities are not as abundant in the Tahoe Basin, and provide desired habitat for several native terrestrial wildlife species.

In addition, aquatic habitat conditions are expected to improve by increasing pool depth during baseflow conditions and pool frequency, and increasing streambank vegetation and associated stream shade.

Streambank stability is also expected to increase due to increased vegetation on the banks and from larger flows overbanking out on the floodplain rather than those flows being contained in the existing channel.

This project is a component of a larger UTR wide restoration effort, spanning from the Lake Tahoe Golf Course to the outlet to Lake Tahoe, involving the CA State Parks, CA Tahoe Conservancy, LTBMU, and the City of South Lake Tahoe. These projects have been planned and designed collaboratively through the Upper Truckee River Watershed Advisory Group.

More information on this project can be found on the LTBMU website:
http://www.fs.usda.gov/goto/ltbmu/UpperTruckeeRestoration