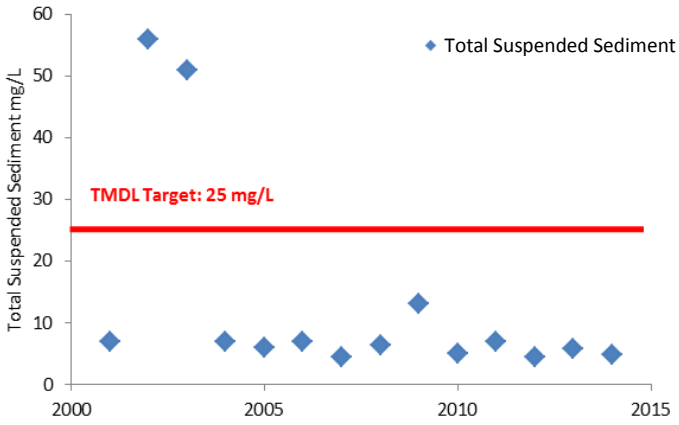
Water Quality Report Card		Sediment in the Middle Truckee River	
Regional Water Board:	**Lahontan, Region 6**	**STATUS**	☐ Conditions Improving ☐ Data Inconclusive ☑ **Improvement Needed** ☐ Targets Achieved/Water Body Delisted
Beneficial Uses Affected:	COLD, SPWN		
Implemented Through:	NPDES Permit, Waste Discharge Requirements, Squaw Creek TMDL		
Effective Date:	September 16, 2009 (TMDL)	**Pollutant Type:**	☑ Point Source ☑ Nonpoint Source ☑ Legacy
Attainment Date:	2028	**Pollutant Source:**	Erosion/Siltation; Urban Storm Water Runoff; Construction/Land Development

Water Quality Improvement Strategy

The Middle Truckee River (from the outlet of Lake Tahoe at Tahoe City to the California/Nevada state line) is impaired by sediment from storm water and legacy sites, including ski resorts, dirt roads, and trails. The Middle Truckee River was listed on the 303(d) List in 1992 as impaired for sediment. To address the impairment, the Regional Water Board developed the Middle Truckee River Watershed Sediment TMDL in 2008. The TMDL target for sediment in the river is an annual 90th percentile value of less than or equal to 25 milligrams per liter (mg/L) suspended sediment as measured at the river's U.S. Geological Survey (USGS) monitoring station at the town of Farad. Local dam releases, snowmelt, thunderstorms, and storm water runoff, contribute to spikes in turbidity, temporarily increasing sediment concentration in the river (though still below the TMDL target), which affects in-stream aquatic beneficial uses. The TMDL is implemented through NPDES permits for area ski resorts, Caltrans municipal storm water permits (MS4s), a cooperative agreement with federal and State agencies, and assistance from local non-profits. TMDL monitoring involves tracking road sand application and de-icing techniques used to prevent ice from developing on roadways, road sand recovery rates, ski area Best Management Practices (BMPs), maintenance or decommissioning of dirt roads, and legacy site restoration.

TMDL Suspended Sediment at USGS Farad Monitoring Station, Middle Truckee River (2000-2015)



Middle Truckee River Watershed

Water Quality Outcomes

- Although sediment trends have shown improvement, according to monitoring reports from 2014 and 2015, biotic indices (numeric analyses of the population and diversity of benthic macroinvertebrates living on the streambed) indicate continued impairment by sediment as the diversity and number of insects has been impacted and decreased. However, the total suspended sediment values indicate improvement in sediment load in the Middle Truckee River.
- Rain-on-snow and summer thunderstorm events caused suspended sediment loads to temporarily exceed the TMDL target in 2002-2003. However, the annual 90th percentile accounts for these seasonal variations.
- The 2014 Middle Truckee River Suspended Sediment Monitoring Report approximated annual sediment load to the river as 742 tons per year. According to the TMDL, the loading capacity of the Truckee River is 40,300 tons per year (based on water year 1996 to 1997). It is speculated that the sharp decline in suspended sediment is due, in part, to drought conditions.
- Monitoring of Truckee River tributaries and outfalls in 2015 focused on characterizing storm water quality and associated land uses to identify the volume, turbidity, suspended sediment concentration, and sediment sources for the Truckee River. The tributaries and outfalls are continually monitored to develop a multi-year, robust dataset to evaluate storm water management activities, and identify and prioritize future storm water management activities in the watershed.

Released October 2016