

Water Quality Data for Tributaries to the Lower Boise River for Consideration in the Draft 2012 Integrated Report

ID17050114SW002 04 Indian Creek below Sugar Avenue

Historical IR status-TP on 1998 §303(d) list, deleted TP on 2002 IR

Available Data:

- Average TP 2650 ug/L (2003 City of Nampa DMR)
- Average TP 520 ug/L (2005 USGS in DEQ 5 year review)
- 8/24/12 TP of 604 ug/L (USGS 2012)
- 2011SBOISWA036 BURP site failed
- 1 instantaneous D.O. violation on 7-22-2008 (City of Nampa DMR)
- Picture of the slimy waterwheel in downtown Nampa

ID17050114SW003a 04 Indian Creek above Sugar Avenue

Historical IR status-TP on 1998 through 2008 IR, delisted Cause Unknown (placeholder for “nutrients suspected impairment”) on 2010 IR thinking temperature was causing the biological impairment at that time (subsequent data supports delisting temperature in 2012 IR). By delisting Cause Unknown and replacing the listing with temperature, the nutrients listing was deleted.

Available Data:

- Average TP 710 ug/L (2008 DEQ in DEQ 5 year review)
- 8/24/12 TP of 218 ug/L (USGS 2012)
- 8/24/12 24-hour D.O. < 6mg/l criteria (USGS 2012)
- Benthic Chl a 251 mg/m² (USGS 2012)
- 2003SBOIA051 BURP site failed
- 2003 BURP site notes mention ‘aquatic growths’
- Photographs show heavy macrophyte growth (2012 USGS)

ID17050114SW010 03 Fivemile Creek

Historical IR status-TP on 1998 through 2008 IR, delisted Cause Unknown (placeholder for “nutrients suspected impairment”) on 2010 IR since sediment was identified as the cause for the biological impairment. By delisting Cause Unknown and replacing the listing with sediment, the nutrients listing was deleted.

Available Data:

- Average TP 506 ug/L (2001 USGS web site)
- Average TP 420 ug/L (2005 USGS in DEQ 5 year review)
- 1 instantaneous D.O. violation in September 2006 (city of Meridian)
- 8/24/12 TP of 319 ug/L (USGS 2012)
- 2003SBOIA052 BURP site failed

ID17050114SW008 03 Tenmile Creek

Historical IR status-TP on 1998 through 2008 IR, delisted Cause Unknown (placeholder for “nutrients suspected impairment”) on 2010 IR since sediment was identified as the cause for the biological impairment. By delisting Cause Unknown and replacing the listing with sediment, the nutrients listing was deleted.

Available Data:

- Average TP 230 ug/L (2001 USGS web site)
- Average TP 270 ug/L (2005 USGS in DEQ 5 year review)
- 8/24/12 TP of 347 ug/L (USGS 2012)
- 2 instantaneous D.O. violations on 7-29-2009 (USGS)
- 1997SBOIA003 BURP site failed
- 1997SBOIA004 BURP site failed

TP targets that can be used in interpreting water quality data

<u>Target TP (ug/L)</u>	<u>Source</u>
1. 21.8	Recommended for Ecoregion III, Xeric West, EPA (2000)
2. 42.5	Reference Condition for Snake River Basin Ecoregion (EPA 2000)
3. 100	Gold Book (EPA 1986)
4. >40 most disturbed <10 least disturbed	Western EMAP EPA (2005)
5. 25 to 140	Suplee et al. (2012) for Montana Streams and Rivers
6. 70 (average monthly)	EPA NPDES limits May-September for Lander Street, West Boise, Kuna and Greenleaf WWTP
7. 70-75	Approved TMDLs for Snake River Hells Canyon, Mid Succor, Upper Snake Rock, CJ Strike to King Hill
8. 40	Median TP concentration at Diversion Dam (USGS 2004)
9. 90	Median TP concentration at Glenwood Bridge (USGS 2004)

Citations

- 1 & 2 EPA. December 2000. Ambient Water Quality Criteria Recommendations, Information Supporting the Development of State and Tribal Nutrient Criteria, Rivers and Streams in Nutrient Ecoregion III, Xeric West
3. Quality Criteria for Water 1986. EPA 440/5-86-001
4. Stoddard, J.L., D.V. Peck, S.G. Paulsen, J. Van Sickle, C.P. Hawkins, A.T. Herlihy, R.M. Hughes, P.R. Kaufmann, D.P. Larsen, G. Lomnický, A.R. Olsen, S.A. Peterson, P.L. Ringold, and T.R. Whittier. 2005. *An Ecological Assessment of Western Streams and Rivers*. EPA 620/R-05/005. U.S. Environmental Protection Agency, Washington, D.C.
5. Overview of numeric nutrient criteria development and implementation in Montana. February 17, 2012 presentation to the Water Pollution Control Advisory Council.
6. EPA web site: <http://yosemite.epa.gov/r10/water.nsf/NPDES+Permits/Current+ID1319>
7. DEQ web site: <http://www.deq.idaho.gov/water-quality/surface-water/tmdls/table-of-sbas-tmdls.aspx>

8. MacCoy, D. E. 2004. Water Quality and Biological Conditions in the Lower Boise River, Ada and Canyon Counties, Idaho, 1994-2002 USGS 2004-5128.