

Draft Lower Boise River Subbasin Assessment and Total Maximum Daily Load

Lower Boise Watershed Council - TAC
January 21, 2015

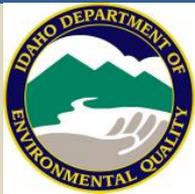


IDAHO DEPARTMENT OF ENVIRONMENTAL QUALITY



TMDL CONSULTATION & COORDINATION

- ❖ March 16, 2012 – TMDL Kickoff Meeting
- ❖ July 26, 2012 – TMDL Strategy Paper
- ❖ 95 Meetings
 - LBWC/BAG/TAC
 - Model, Technical, Policy, Stormwater
 - Agencies, Industry, Elected Officials
- ❖ Progressive TMDL Drafts
 - November 2013
 - February 2014
 - November 2014
 - January 2015



BENEFICIAL USES ATTAINED (NOT FULLY SUPPORTED)

Assessment Unit Name	AU	Pollutant	Beneficial Uses	Type of Use
Boise River– Middleton to Indian Creek	005_06b	Total Phosphorus	COLD, SS, PCR	Designated
Boise River– Indian Creek to Mouth	001_06	Total Phosphorus	COLD, PCR SS ^b	Designated Existing ^b
Mason Creek– Entire Watershed	006_02	Cause Unknown – Nutrients Suspected	COLD SCR	Presumed Designated
Sand Hollow Creek– C-Line Canal to I-84	016_03	Cause Unknown – Nutrients Suspected	COLD SCR	Presumed Designated
Sand Hollow Creek– Sharp Road to Snake River	017_06	Cause Unknown – Nutrients Suspected	COLD SCR	Presumed Designated

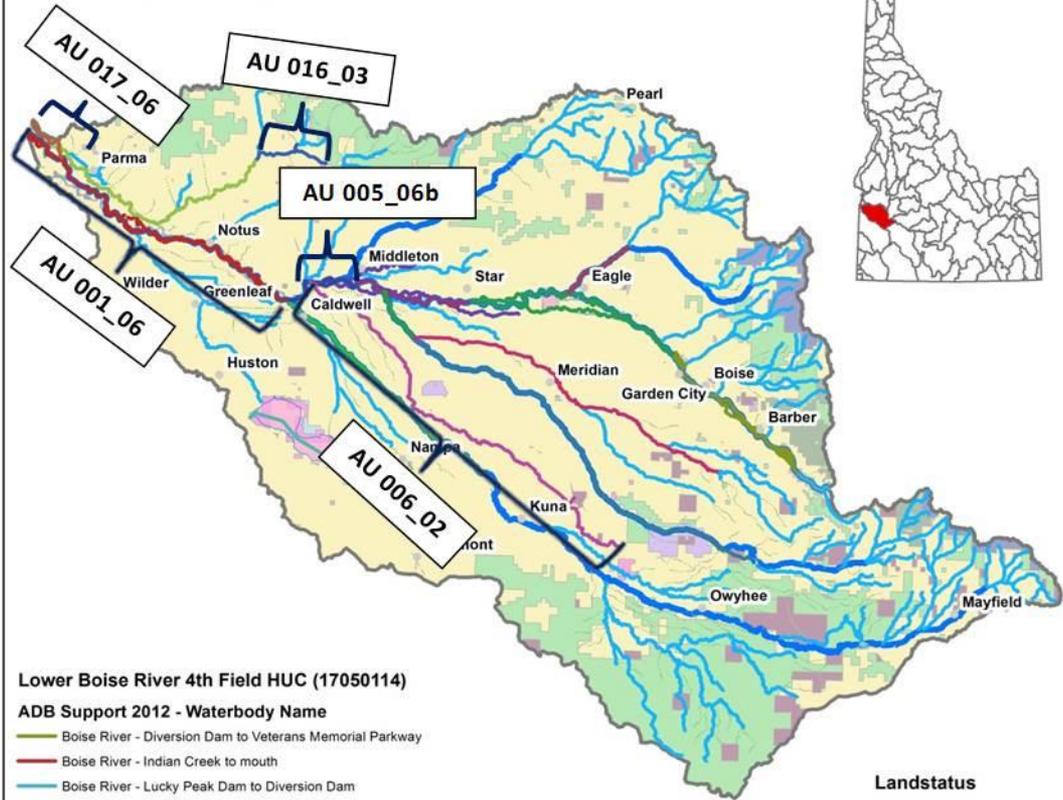
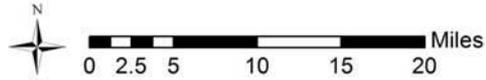
All Assessment Units (AU) Begin with ID17050114SW

Cold = Cold Water Aquatic Life

SS = Salmonid Spawning

PCR/SCR = Primary/Secondary Contact Recreation

Lower Boise River Subbasin (HUC 17050114)



Lower Boise River 4th Field HUC (17050114)

ADB Support 2012 - Waterbody Name

- Boise River - Diversion Dam to Veterans Memorial Parkway
- Boise River - Indian Creek to mouth
- Boise River - Lucky Peak Dam to Diversion Dam
- Boise River - Veterans Memorial Parkway to Star Bridge
- Boise River - Middleton to Indian Creek
- Boise River - Star to Middleton
- Dry Creek - 4th order (Spring Valley Creek to mouth)
- Fifteenmile Creek - 4th order (Fivemile Creek to mouth)
- Fivemile Creek - 3rd order
- Indian Creek - 4th order below Sugar Ave. in Nampa
- Indian Creek - New York Canal to Sugar Avenue
- Lake Lowell
- Mason Creek - entire watershed
- Mill Slough and Phyllis Slough
- Sand Hollow Creek (C-Line Canal to I-84)
- Sand Hollow Creek - I-84 to Sharp Road
- Sand Hollow Creek - Sharp Road to Snake River
- Tenmile Creek - 3rd order below Blacks Creek Reservoir

Landstatus

- Owner**
- BLM
 - BOR
 - HSTRCWTR
 - MIL
 - NWR
 - OTHER
 - PRIVATE
 - STATE
 - STATEFG
 - STATEOTH
 - STATEPR
 - USFS



TMDL DEVELOPMENT

Snake River-Hells Canyon May-Sept 0.07 mg/L TP Target

- Quantify current TP loads
- Tools »
 - USGS Mass Balance Model
 - Load Duration Curves



Nuisance Algae Target of 150 mg/m²

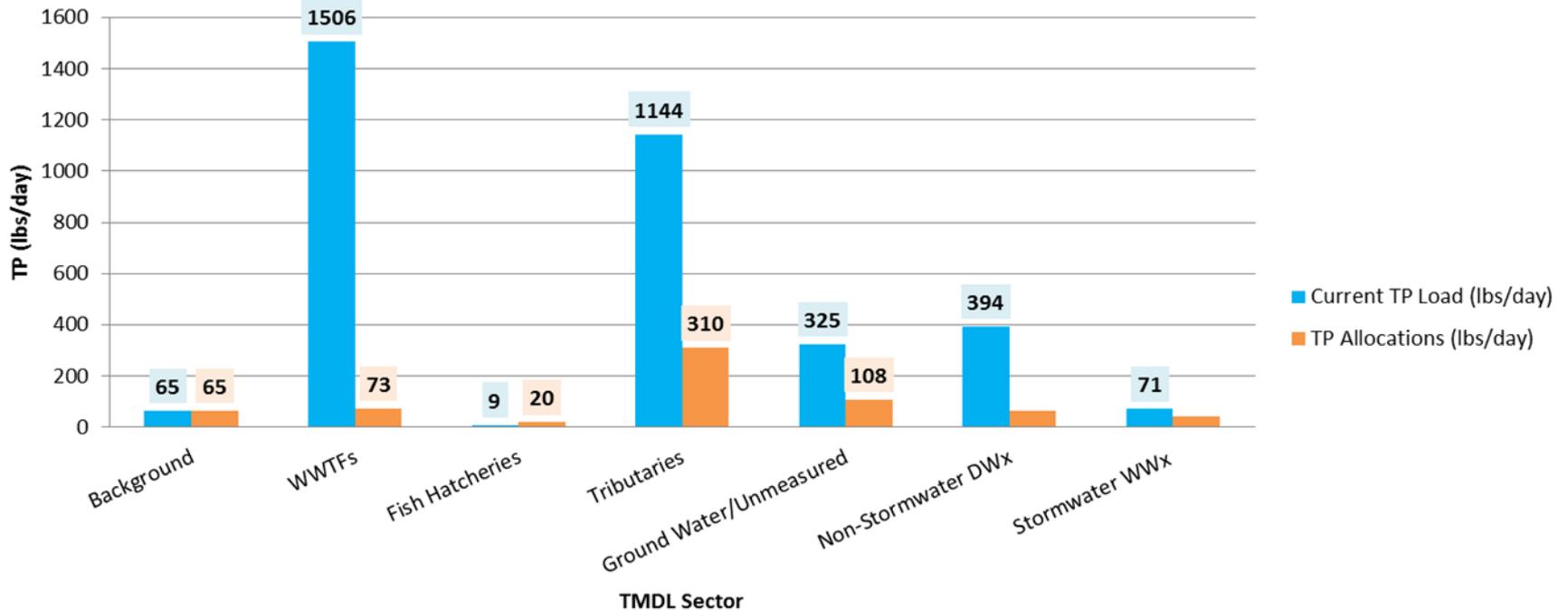
- Chlorophyll a & phosphorus relationships in impaired Assessment Units
- Tools »
 - AQUATOX Model
 - Additional Lines of Evidence





LBR MAY-SEPT TP ALLOCATIONS

Current vs. Projected TP Loads in the Lower Boise River (May 1 - September 30)

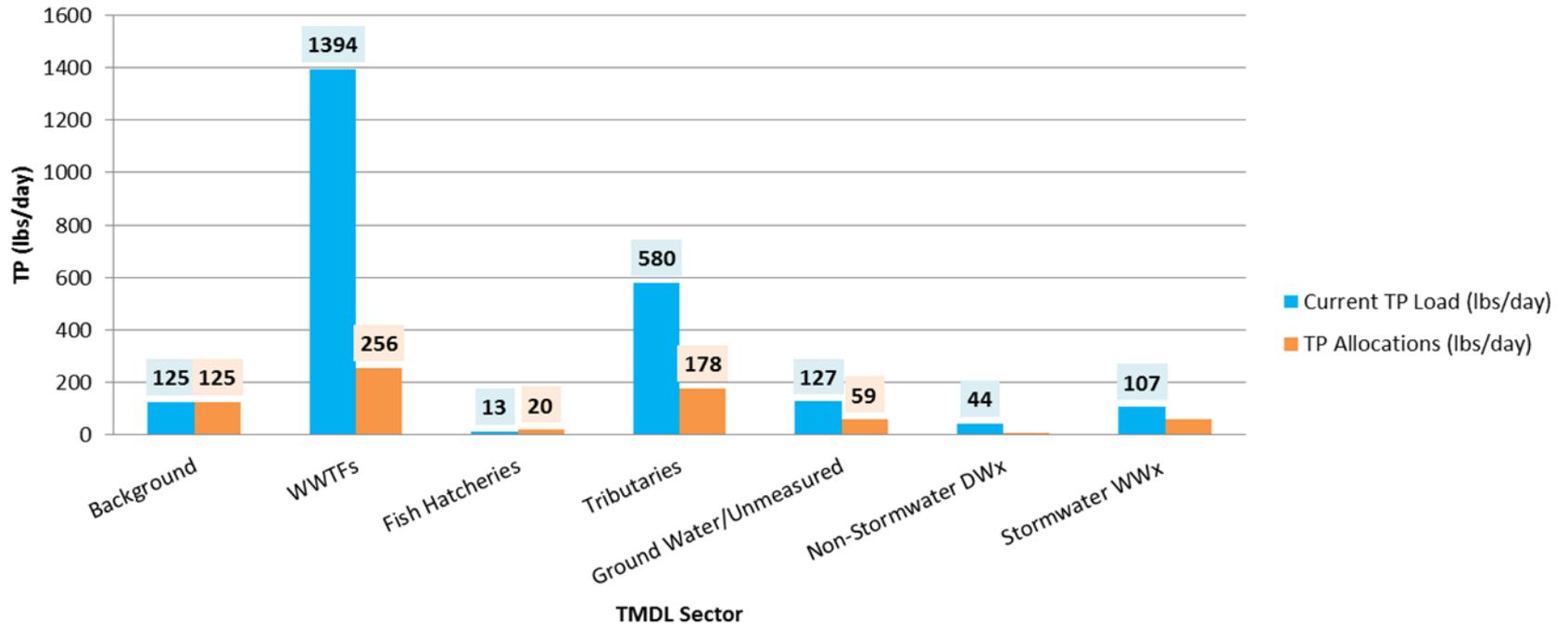


Note: per discussion during TAC meeting, DEQ will reevaluate how Natural Background and Ground Water/Unmeasured are represented in the TMDL tables and figures.



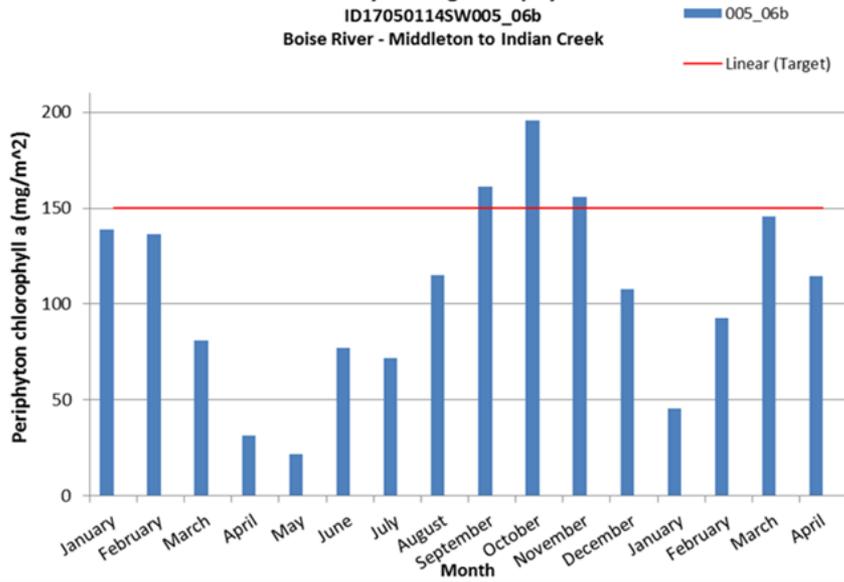
LBR APR-OCT TP ALLOCATIONS

Current vs. Projected TP Loads in the Lower Boise River (October 1 - April 30)

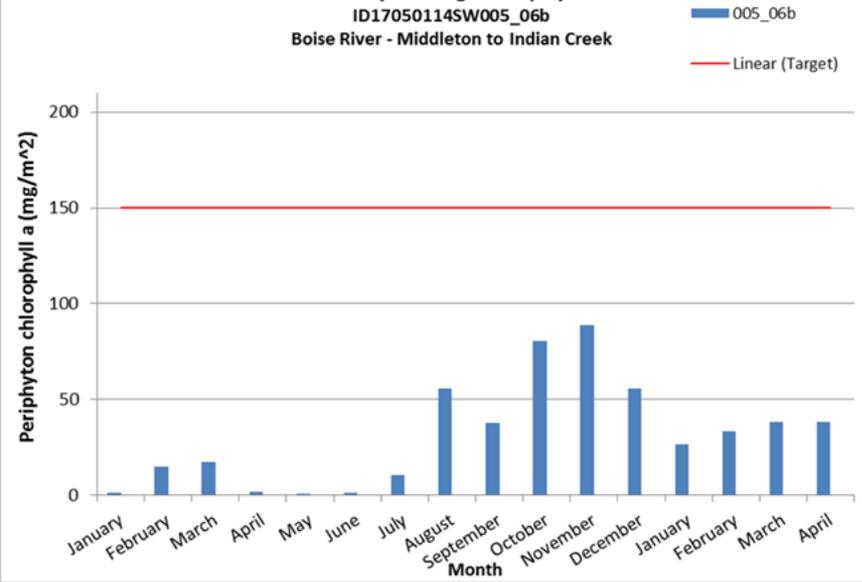


Note: per discussion during TAC meeting, DEQ will reevaluate how Natural Background and Ground Water/Unmeasured are represented in the TMDL tables and figures.

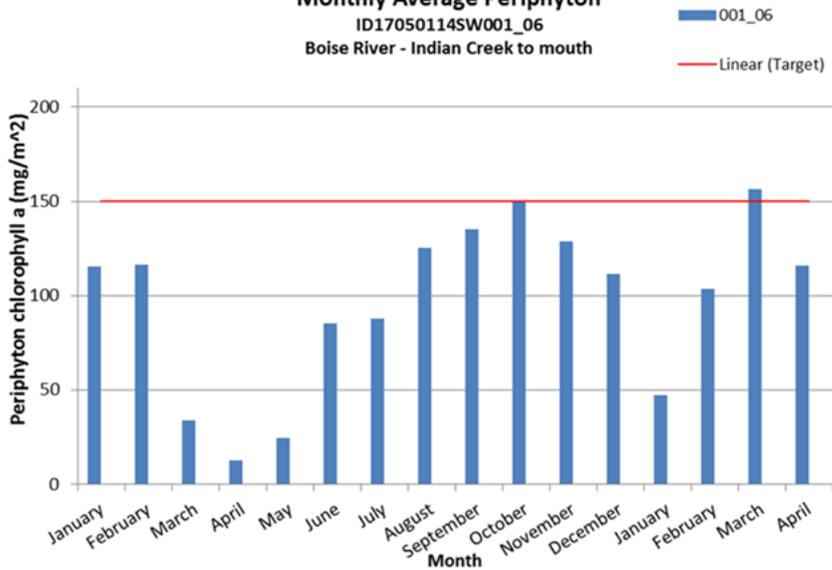
**Existing Conditions 2012-2013:
Monthly Average Periphyton**
ID17050114SW005_06b
Boise River - Middleton to Indian Creek



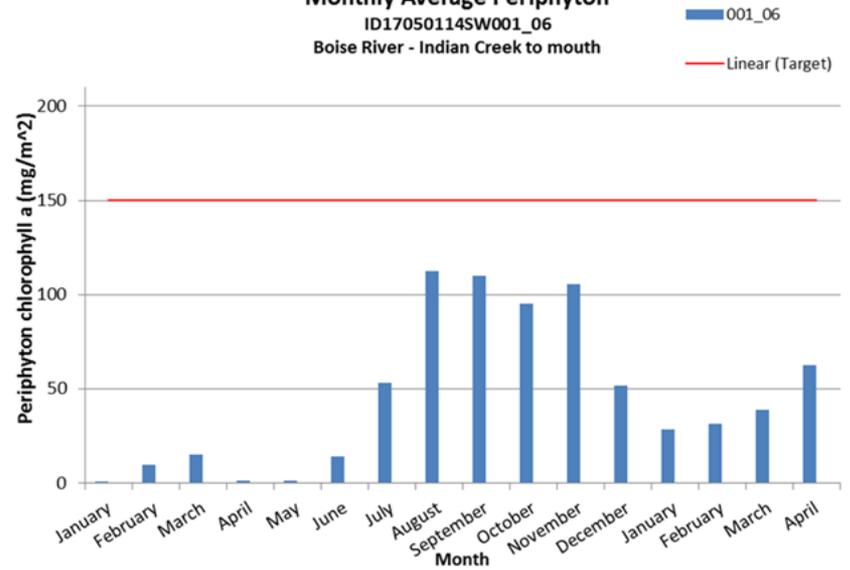
**Reduction Scenario Prediction:
Monthly Average Periphyton**
ID17050114SW005_06b
Boise River - Middleton to Indian Creek



**Existing Conditions 2012-2013:
Monthly Average Periphyton**
ID17050114SW001_06
Boise River - Indian Creek to mouth



**Reduction Scenario Prediction:
Monthly Average Periphyton**
ID17050114SW001_06
Boise River - Indian Creek to mouth

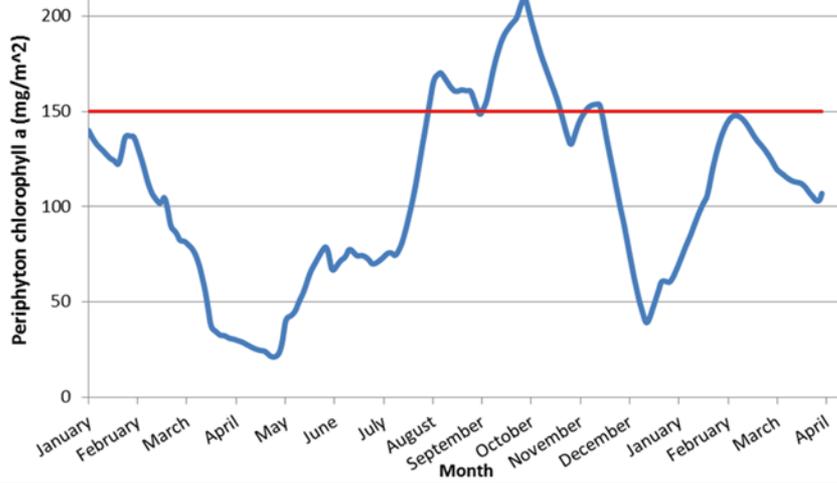


**Existing Conditions 2012-2013:
Rolling 30-Day Average Periphyton**

ID17050114SW005_06b

Boise River - Middleton to Indian Creek

005_06b
Linear (Target)

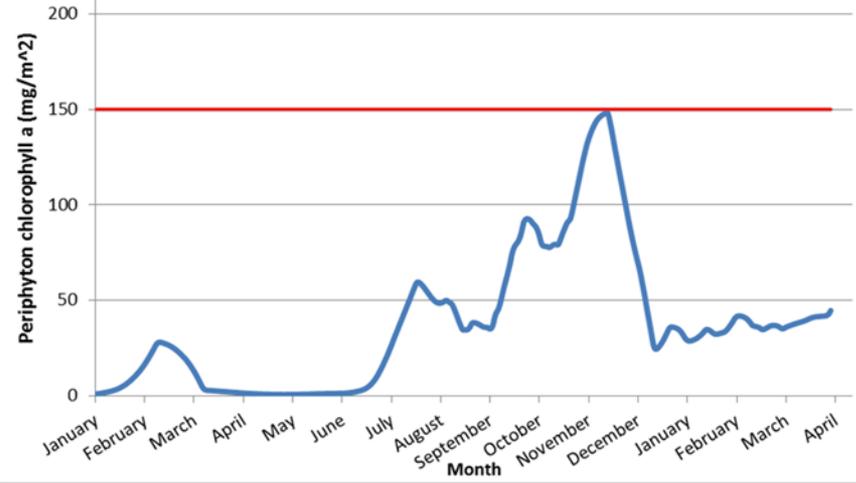


**Reduction Scenario Prediction:
Rolling 30-Day Average Periphyton**

ID17050114SW005_06b

Boise River - Middleton to Indian Creek

005_06b
Linear (Target)

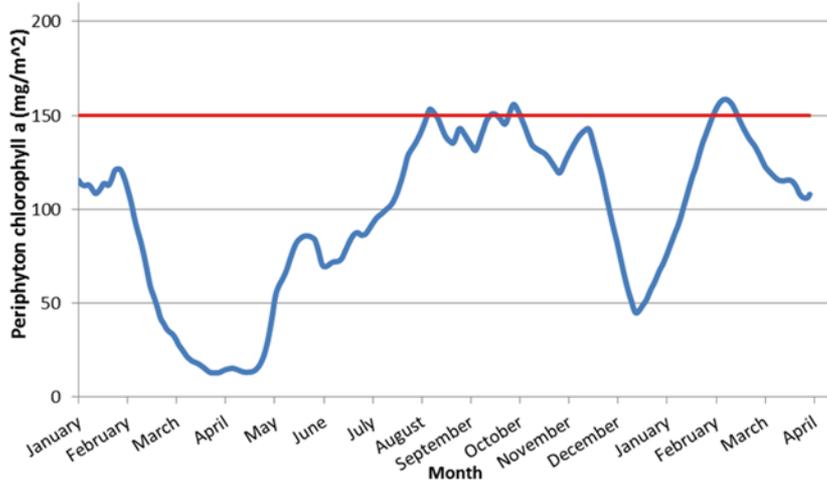


**Existing Conditions 2012-2013:
Rolling 30-Day Average Periphyton**

ID17050114SW001_06

Boise River - Indian Creek to mouth

001_06
Linear (Target)

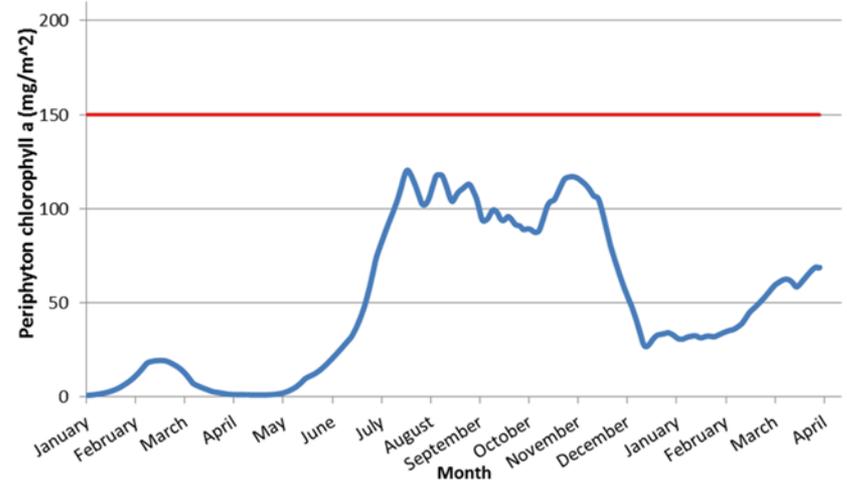


**Reduction Scenario Prediction:
Rolling 30-Day Average Periphyton**

ID17050114SW001_06

Boise River - Indian Creek to mouth

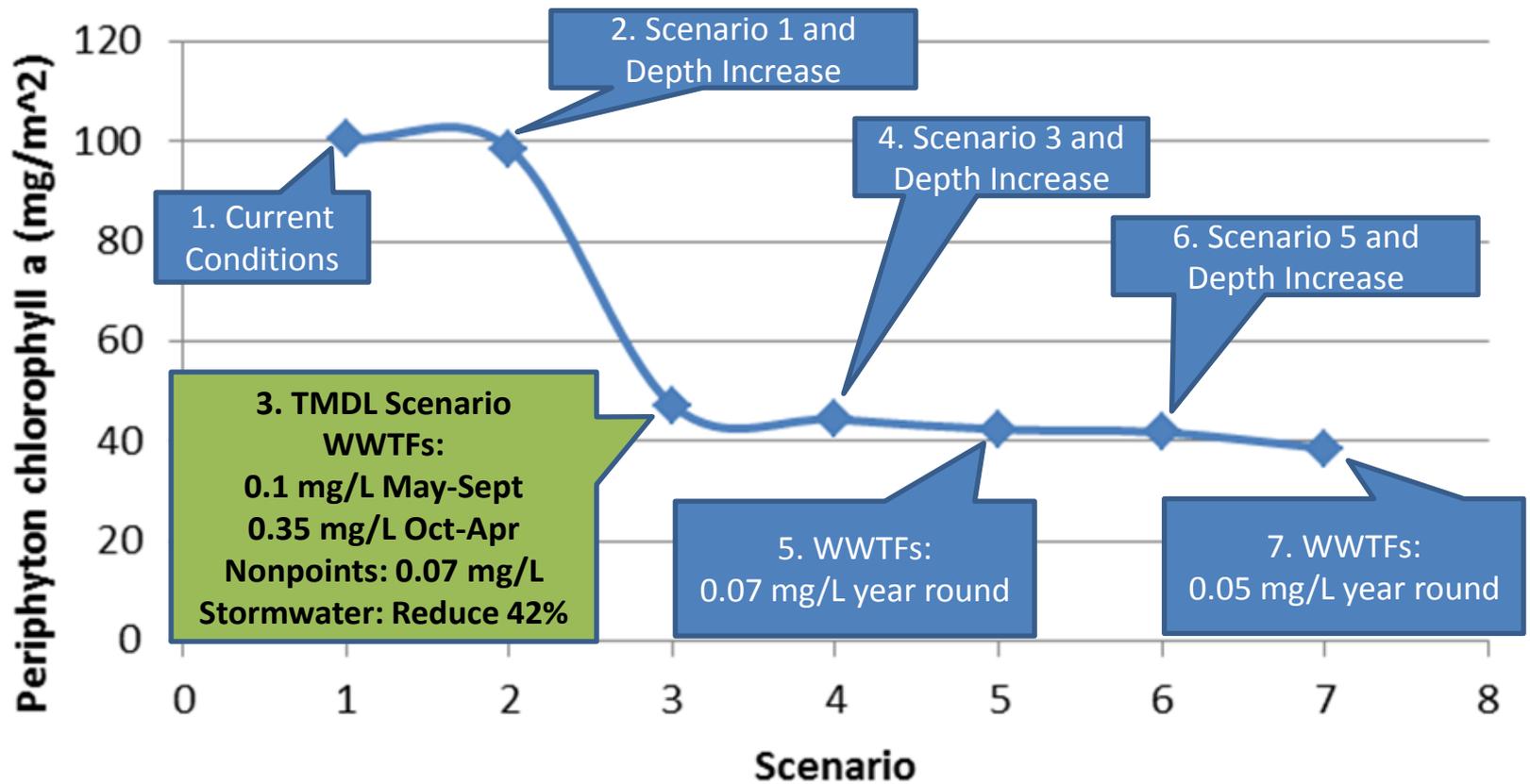
001_06
Linear (Target)





DIMINISHING RETURNS

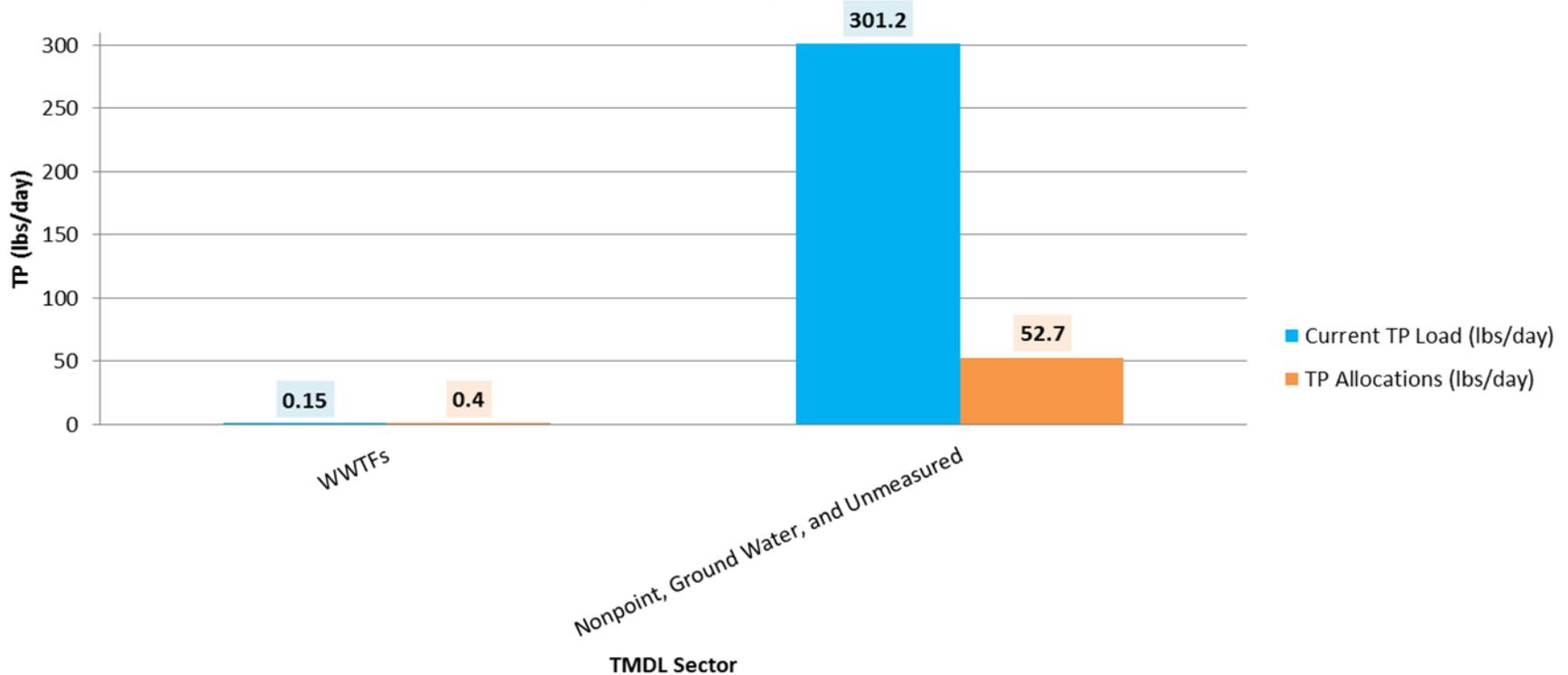
Yearly Average Periphyton in Segments 9 - 13





SAND HOLLOW MAY-SEPT TP ALLOCATIONS

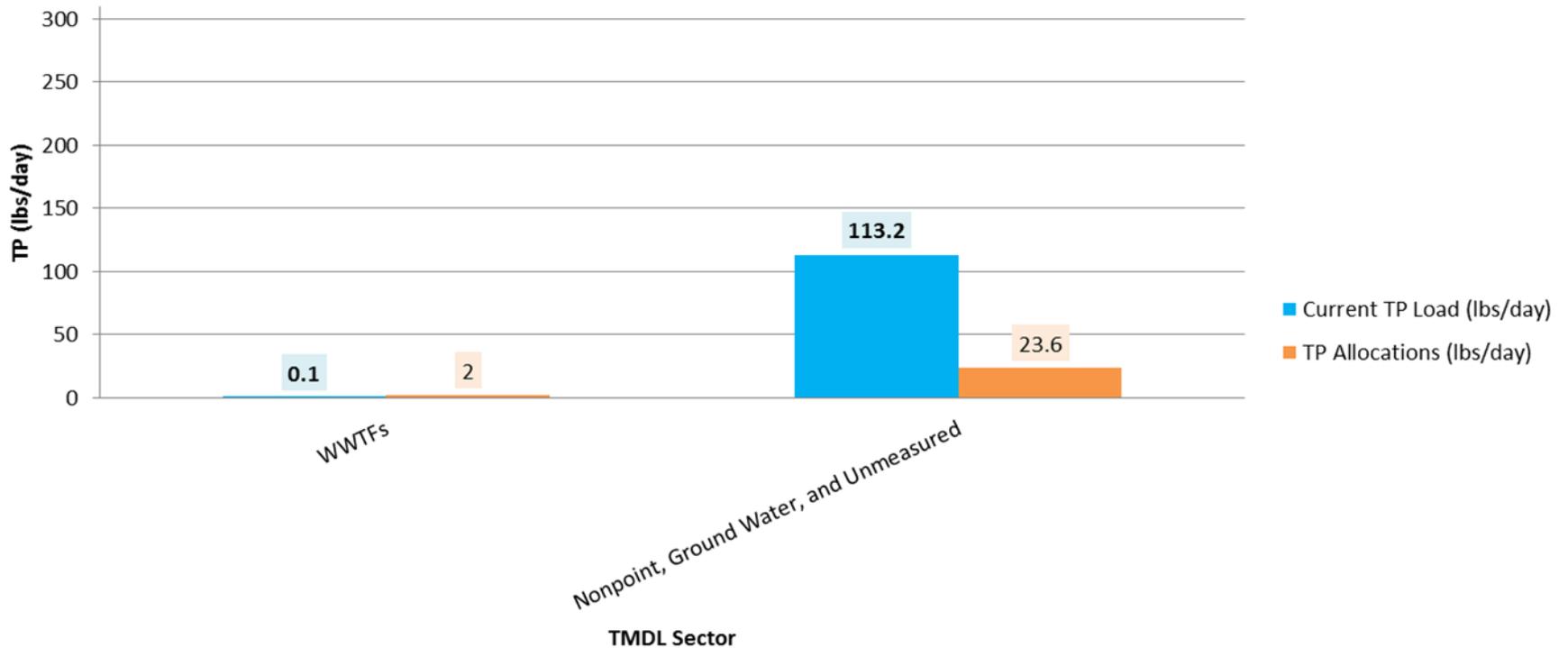
Current vs. Projected TP Loads in Sand Hollow Creek (May 1 - September 30)





SAND HOLLOW APR-OCT TP ALLOCATIONS

Current vs. Projected TP Loads in Sand Hollow Creek (October 1 - April 30)





TMDL ALLOCATION SUMMARY AND ASSUMPTIONS

1. Achieve May-Sept 0.07 mg/L target near Parma
2. Nonpoint sources must be \approx 0.07 mg/L to achieve the May-Sept target
 - TP concentrations not expected to increase in Oct-Apr
3. Stormwater
 - Wet weather permitted loads reduced 42%
 - Dry weather nonpoint (**and point**) source loads reduced 84%
 - **MS4 permittees estimate flows/loads of nonpoint source origin**
4. Facilities at 0.1 mg/L May-Sept and 0.35 mg/L Oct-Apr
 - Hatcheries 0.1 mg/L year-round
5. Further TP reductions do not reduce \approx periphyton

NEW



RESERVE FOR GROWTH

- Current Conditions:

1. *New (or expanded) point sources at ≤ 0.07 mg/L*
2. 5-year review identifies and allocates growth reserve
3. Water quality offsets or trading
4. No discharge

- DEQ 5-year Review Identifies

1. *Achieve 0.07 mg/L May-Sept near Parma*
2. *Achieve 150 mg/m² in impaired AUs*

NEW

NEW



IDAHO Department of Environmental Quality

Search the site

go

Find it Fast

Pick a Topic

About DEQ

Contact Us

Regional Offices & Issues

Boise »

Coeur d'Alene »

Idaho Falls »

Lewiston »

Pocatello »

Twin Falls »

News & Public Comments & Events

Air Quality

Water Quality

Waste Mgmt & Remediation

INL Oversight

[Permitting](#)

Pollution Prevention

Assistance & Resources

Laws, Rules, Etc.

Home » Regional Offices & Issues » Boise » Basin-Watershed Advisory Groups » Lower Boise River WAG

Lower Boise River Watershed Advisory Group (WAG)

Watershed advisory groups (WAGs) are groups of interested citizens that provide local public input and guidance to DEQ during the development of water quality improvement plans or "Total Maximum Daily Loads" (TMDLs) for water bodies that fail to meet water quality standards. TMDLs are designed to reduce the levels of pollutants, such as bacteria and sediment, in impaired water bodies.

The Lower Boise River WAG was formed to develop and implement TMDLs to improve water quality in the Lower Boise River. DEQ will consult with WAG participants on a regular basis throughout the TMDL development and/or five-year review process.

» [Lower Boise Watershed Council Website](#)

Upcoming Meetings

Lower Boise Watershed Council TAC
Thursday, December 4, 2014, 9 a.m. to 12 p.m.
DEQ State Office
Conference Rooms A and B
1410 N. Hilton, Boise
[Agenda](#)

Lower Boise Watershed Council TAC 319
Thursday, December 11, 2014, 8 a.m.
Caldwell Farm Service Center
Conference Room

Lower Boise Watershed Council
Thursday, December 11, 2014, 7 p.m.
Caldwell Police Station, Caldwell
[Agenda](#)

» [Agricultural Reuse: Wastewater and Drain Water Preliminary Outline](#)

Lower Boise Watershed Council
Thursday, January 8, 2015, 7 p.m.
DEQ State Office
Conference Rooms A and B
1410 N. Hilton, Boise

Subscribe to this page

Staff Contacts

Watershed Manager
Lance Holloway
DEQ Boise Regional Office
1445 N. Orchard St.
Boise, ID 83706
(208) 373-0550
lance.holloway@deq.idaho.gov

Senior Water Quality Analyst

DEQ Boise Regional Office
1445 N. Orchard St.
Boise, ID 83706
(208) 373-0550

Water Quality Scientist
Hawk Stone
DEQ Boise Regional Office
1445 N. Orchard St.
Boise, ID
(208) 373-0550
hawk.stone@deq.idaho.gov

Related Pages

[Total Maximum Daily Loads \(TMDLs\): Water Quality Improvement Plans](#)

[Watershed Advisory Groups](#)



NEXT STEPS

- ❖ Drafts of TMDL and Subbasin Assessment for:
 1. Lower Boise Watershed Council (Feb 2015)
 2. Public Comment (~Mar 2015)
 3. EPA (~May 2015)
- ❖ Implementation Plan & Trading Framework (2015)
- ❖ Address NPDES vs. TMDL Permit Limits (2015...)



iTHANK YOU!

Troy Smith
Idaho Department of Environmental Quality

