

Lower Payette River Watershed
Advisory Group Meeting
October 31, 2012

TMDL Development for
Little Willow Creek



Watershed Advisory Groups (WAG)

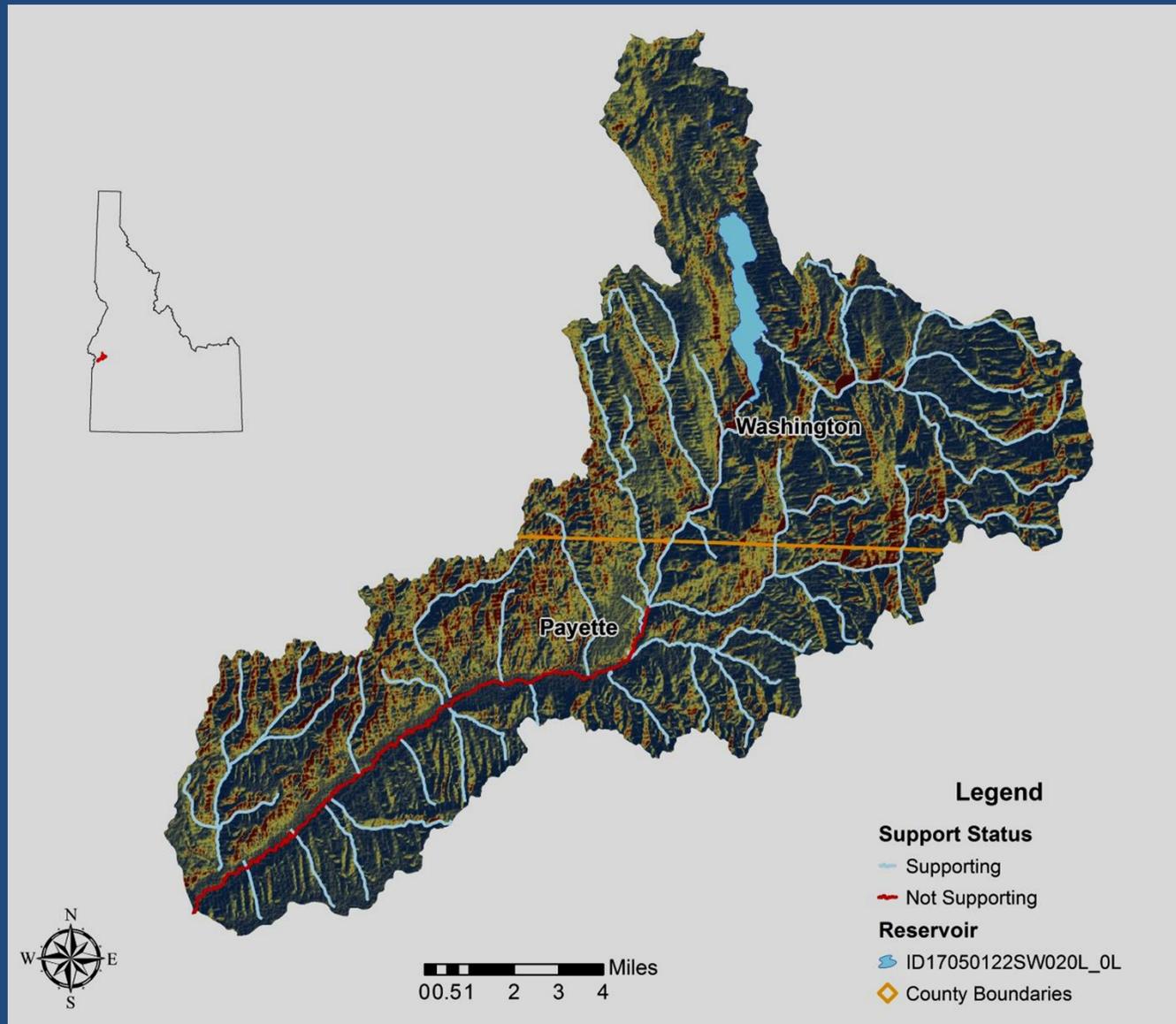
39-3615 - 3616, Creation & Duties of each Watershed Advisory Group

- Each watershed advisory group shall generally be responsible for recommending those specific actions needed to control point and nonpoint sources of pollution within the watershed so that, within reasonable periods of time, designated beneficial uses are fully supported and other state water quality plans are achieved. Watershed advisory groups shall, as described in this chapter, consult with the director and participate in the development of each TMDL and any supporting subbasin assessment for water bodies within the watershed, and shall develop and recommend actions needed to effectively control sources of pollution. In carrying out the provisions of this section, the director and the watershed advisory groups shall employ all means of public involvement deemed necessary or required in chapter 52, title 67, Idaho Code, and shall cooperate fully with the public involvement or planning processes of other appropriate public agencies.

WAG Participation in TMDL Process

- DEQ develops a strategy paper and updates the WAG.
- DEQ requests WQ data, if necessary, and shares WQ data with WAG.
- DEQ drafts the SBA with WAG input.
- DEQ develops WQ targets, TMDL load analysis, and with WAG input.
- DEQ provides draft TMDL to WAG for review.
- DEQ considers/incorporates/responds to WAG comments.
- Tech Editing
- EPA review
- WAG Review - If WAG is not in agreement with an SBA/TMDL, the position and the basis for it will be documented in the notice of public availability.
- Public Comment opportunity
- If the WAG still disagrees with the SBA/TMDL after public comments have been considered and incorporated, DEQ must incorporate the WAG's dissenting opinion in the TMDL that is submitted to U.S. EPA.
- DEQ submits TMDL to the U.S. EPA for approval.
- DEQ and WAG develop an implementation plan for goals of the TMDL.

Little Willow Creek Watershed



Assessment Unit & Pollutants

Little Willow Creek

Assessment Unit	Beneficial Use	2010 IR 303 (d) listed Pollutant(s)
ID17050122SW018_04 Indian Creek to mouth	Cold Water Aquatic Life (COLD) Secondary Contact Recreation	Sedimentation/Siltation

Additional Constituents

- Bacteria (E. coli)
- Temperature

Idaho Water Quality Standards

- **58.01.02.200.08. Sediment.** Sediment shall not exceed quantities specified in Sections 250 and 252, or, in the absence of specific sediment criteria, quantities which impair designated beneficial uses. Determinations of impairment shall be based on water quality monitoring and surveillance and the information.
 - **250.02.e (Cold Water Aquatic Life)** – Turbidity, below any applicable mixing zone set by the Department, shall not exceed background turbidity by more than 50 NTU instantaneously or more than 25 NTU for more than 10 consecutive days.
 - **252.01.b.1 (Water Supply Use)** – Increased by more than 5 NTU above natural background, measured at a location upstream from or not influenced by any human induced nonpoint source activity, when background turbidity is 50 NTU or less.
 - **252.01.b.2 (Water Supply Use)** – Increased by more than 10% above natural background, measured at a location upstream from or not influenced by any human induced nonpoint source activity, not to exceed 25 NTU, when background turbidity is greater than 50 NTU.

Little Willow Creek Sediment 2007

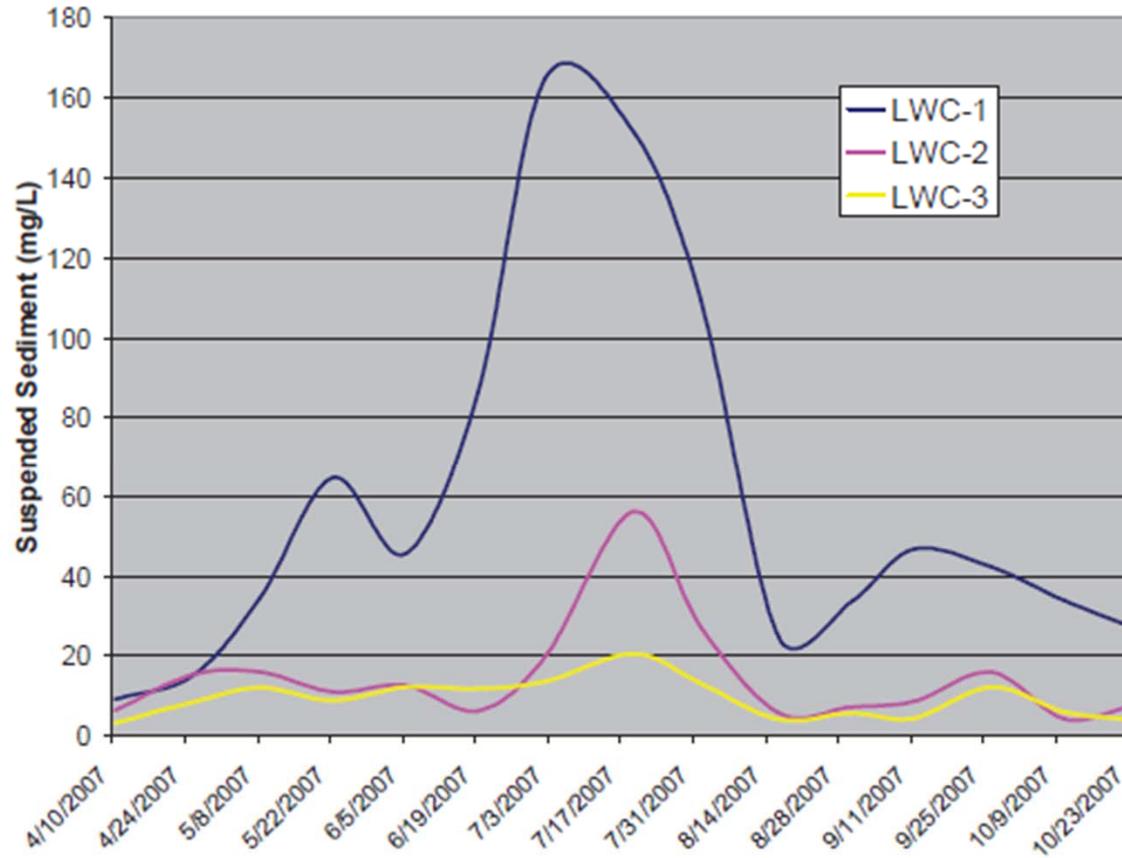


Figure 2. SSC concentrations.

**Idaho State Department of Agricultural 2007 Report

Little Willow Creek



Idaho Water Quality Standards

- **58.01.02.250.02 Cold Water.** Waters designated for cold water aquatic life are not to vary from the following characteristics due to human activities:
 - **b.** Water temperatures of 22 degrees C or less with a maximum daily average of no greater than 19 degrees C.

Little Willow Creek Temperature 2007

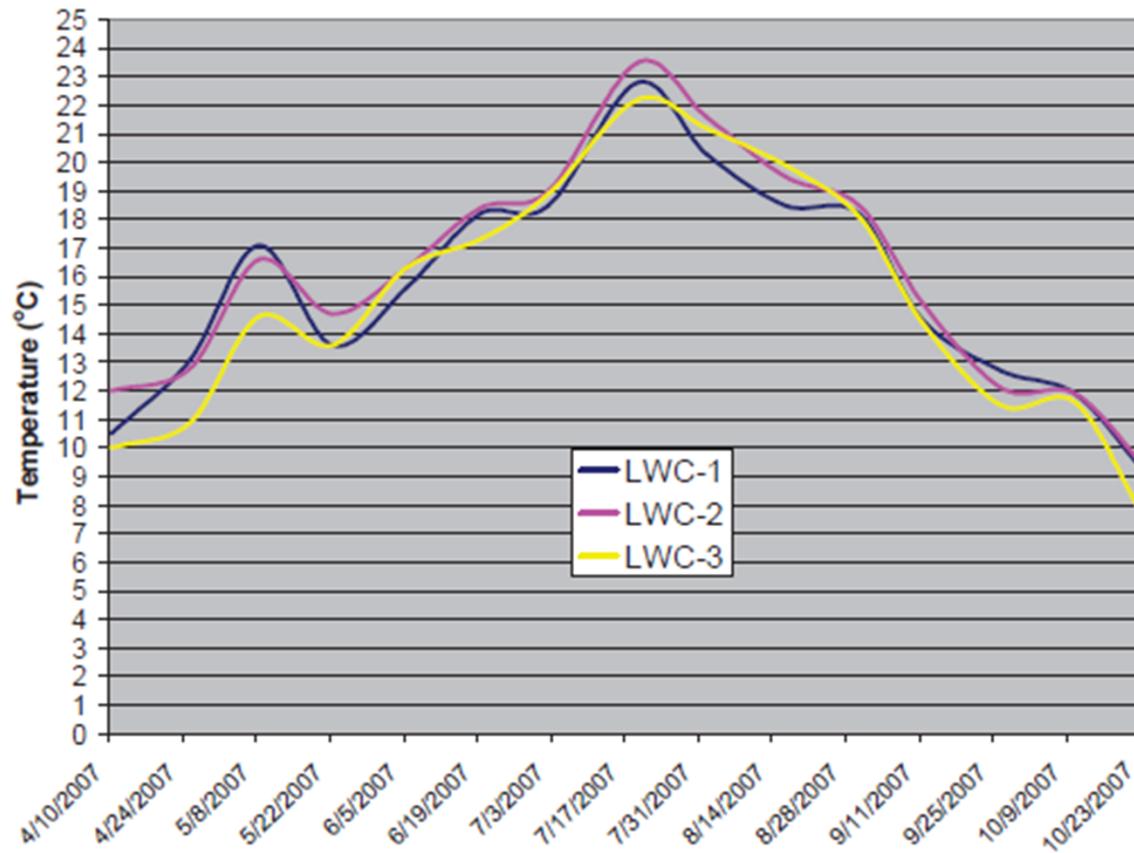
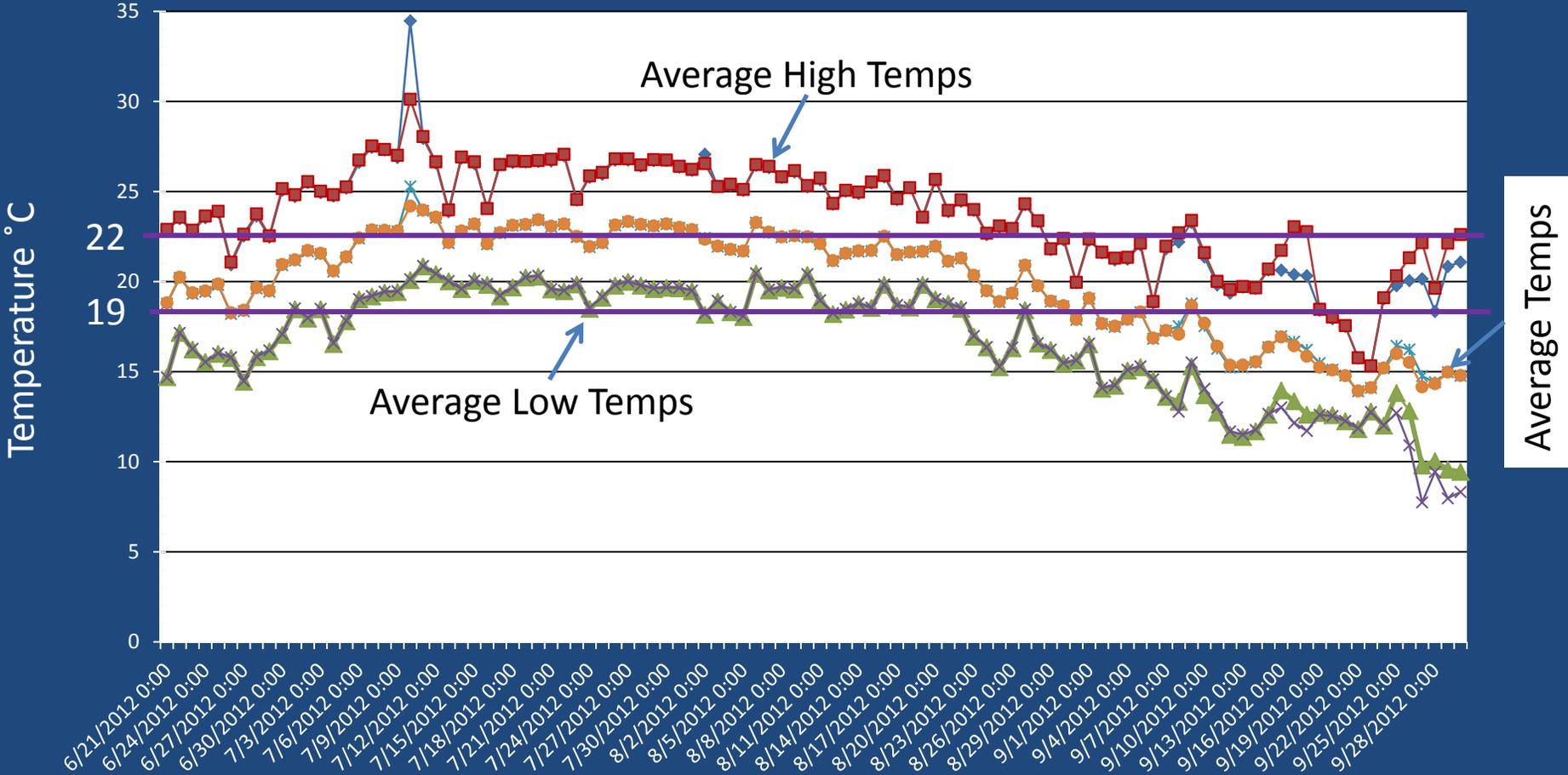


Figure 5. Temperature levels Little Willow Creek.

**Idaho State Department of Agricultural 2007 Report

Little Willow Creek Temperature 2012



Idaho Water Quality Standards

- **58.01.02.251.01. E. Coli Bacteria.** Waters designated for recreation are not to contain E.coli bacteria, used as indicators of human pathogens, in concentrations exceeding:
 - **a. Geometric Mean Criterion.** Waters designated for primary or secondary contact recreation are not to contain E. coli bacteria in concentrations exceeding a geometric mean of 126 E. coli organisms per 100 ml based on a minimum of 5 samples taken every 3 to 7 days over a 30 day period.
 - **b. Use of Single Sample Values.** A water sample exceeding the E. coli single sample maximums below...is not alone a violation of water quality standards...
 - **i.** For waters designated as secondary contact recreation, a single sample maximum of 576 E. coli organisms per one 100 ml; or
 - **ii.** For waters designated as primary contact recreation, a single sample maximum of 406 E. coli organisms per one 100 ml;

Little Willow Creek E. coli 2007

Table 1. E-coli (CFUs) results for Little Willow Creek.

Date	LWC-1	LWC-2	LWC-3
4/10/2007	75	190	310
4/25/2007	150	520	410
5/8/2007	1600	440	190
5/22/2007	2400	310	580
6/5/2007	1700	650	690
6/19/2007	2000	280	300
7/2/2007	1700	1000	200
7/19/2007	920	2000	210
8/1/2007	730	920	330
8/16/2007	610	650	140
8/30/2007	690	920	440
9/11/2007	730	220	200
9/26/2007	280	270	160
10/10/2007	180	490	100
10/23/2007	93	290	23

**Idaho State Department of Agricultural 2007 Report

Little Willow Creek E. coli 2012

<u>Date</u>	<u>Little Willow Creek</u>
6/1/2012	613.1
6/7/2012	1515.0
6/13/2012	1332.7
6/20/2012	727.3
<u>6/26/2012</u>	<u>1012.2</u>
Geomean	981.6

TMDL Approaches

- Sediment
 - Narrative Criteria – Protect Beneficial Uses (COLD)
 - Examples: Succor Creek & Bissel Creek – 22 mg/L TSS
 - Scientific literature and impacts to COLD
- Temperature
 - Numeric Criteria Protective – 22°C Max Temp
 - Potential Natural Vegetation
 - Examples: Draft West Fork King Hill Creek TMDL
- E. coli
 - Numeric Criteria – 126 CFU/100 mL

Proposed Timeline

- **October 2012:** Present TMDL strategy to WAG
- **Nov. – Dec. 2012:** Determine sediment & E. coli strategies/targets
- **Jan. – Feb. 2012:** Develop TMDL
- **March 2013:** Determine temperature targets; Draft TMDL review by WAG
- **April 2013:** Public Comment
- **May 2013:** Finalize TMDL

Contact Information

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Comments/Questions????