A stylized, grayscale landscape illustration. In the background, there are three jagged mountain peaks. A white, winding river flows from the left side towards the center. In the foreground, there are several rounded, grassy hills. The overall style is simple and graphic.

Upper Hangman Creek Total Maximum Daily Load (TMDL)

**August 2, 2006
Tensed City Hall
Tensed, Idaho**

So why are we all here?

Goals of a Watershed Advisory Group (WAG)

- To work cooperatively to achieve a realistic and usable water quality restoration plan for the Upper Hangman Creek Watershed.
This will be accomplished by:
 - Sharing of knowledge
 - Group discussion
 - Review of draft documents
- Once TMDL is complete, WAG will work with Idaho DEQ to complete and implement an Implementation Plan.
 - Watershed improvement projects aimed at restoring beneficial uses

DRAFT AGENDA

Upper Hangman Creek Watershed Advisory Group

Wednesday August 2, 2006

9:00 am – 12:00 pm

Tensed City Hall

311 C Street, Tensed ID

9:00 - 9:15

1. Introductions and Meeting Agenda

9:15 – 10:00

2. Background on the Total Maximum Daily Load (TMDL) process

- A. Upper Hangman Creek overview
- B. Upper Hangman Creek Draft TMDL results
- C. Data used for listing
- D. Coeur d'Alene Tribe and Washington Dept. of Ecology TMDL status

Break 10:00 – 10:15

10:15 – 11:00

3. Watershed Advisory Group (WAG) role

- A. Idaho Statute 39-3615 – 39-3616 requirements of Idaho DEQ and WAG in TMDL development
- B. WAG operating procedures

11:00 – 11:45

4. Beneficial uses and support status of the waters of the Upper Hangman Creek Watershed

- A. Upper Hangman Creek use designations and status
- B. Beneficial Uses

11:45 - 11:55

5. Upper Hangman Creek TMDL Draft Timelines and Milestones

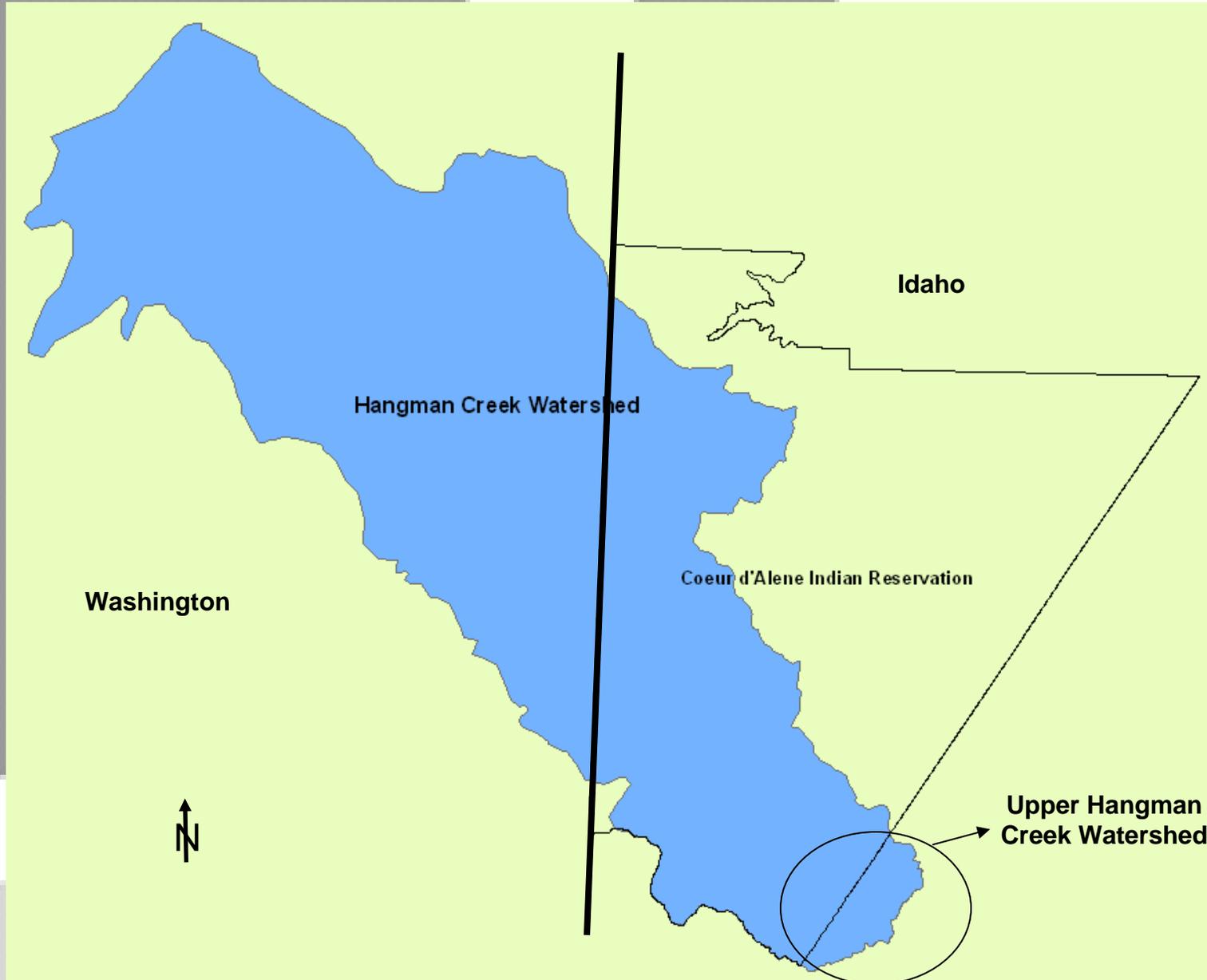
- A. Navigating the Upper Hangman Creek TMDL Website

11:55 - 12:00

6. Future WAG meetings

- A. Future meetings

Upper Hangman Creek Watershed in Perspective



Clean Water Act

- The federal Clean Water Act requires states to develop water quality standards.
- Idaho's standards have been developed and approved by the EPA.
- Standards are intended to protect, restore and preserve water quality so waters are available for their intended (beneficial) use.

Identifying Impaired Waters

- DEQ collects information on water bodies to determine if they meet water quality standards and support their beneficial uses.
- The Clean Water Act Section 303(d) requires that Idaho report on the status of assessed water bodies every two years. The report formally known as the §303 (d) list, is now known as the Integrated Report.
- The current EPA approved version of Idaho's impaired water body list is the 2002 Integrated Report.
- TMDLs are required for all water bodies not meeting Idaho water quality standards.

Listing History of the Upper Hangman Creek Watershed

- 1998 §303 (d) list
 - Hangman Creek ID17010306PN001_02 and ID17010306PN001_03
 - Habitat alteration, Bacteria, Nutrients, Sediment and Temperature
- 2002 Integrated Report Section 5
 - Hangman Creek ID17010306PN001_02 and ID17010306PN001_03
 - Bacteria, Nutrients, Sediment and Temperature
- Draft TMDL developed using the 1998 §303 (d) list

Draft Upper Hangman Creek Assessment and TMDL

Upper Hangman Creek Assessment and Total Maximum Daily Load



Draft



Department of Environmental Quality

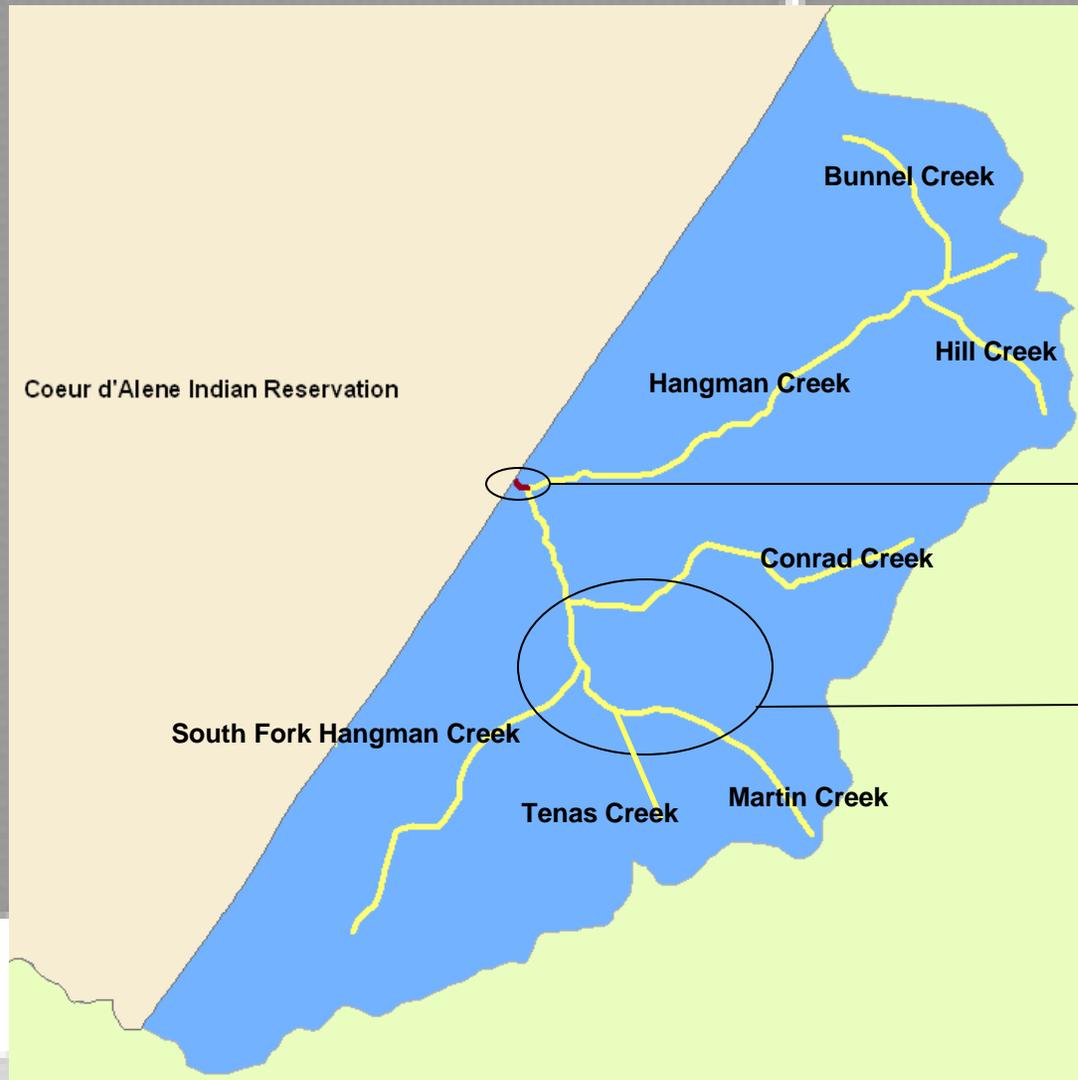
July 2005

- Written by DEQ Technical Services
 - Mark Shumar
 - Don Zaroban
- 151 pages
- Addresses
 - Sediment
 - Temperature
 - Bacteria
 - Nutrients
- Completed July 2005

The Total Maximum Daily Load (TMDL) Process

- A TMDL is a calculation of the maximum amount of a pollutant that a water body can receive from human-caused sources and still meet Idaho water quality standards.
- $LC = MOS + LA + WLA + NB = TMDL$
 - LC = Load Capacity
 - MOS = Margin of Safety
 - LA = Load Allocation
 - WLA = Waste Load Allocation (Point Sources)
 - NB = Natural Background
 - TMDL = Total Maximum Daily Load

Assessment Units (AUs) in the Upper Hangman Creek Watershed



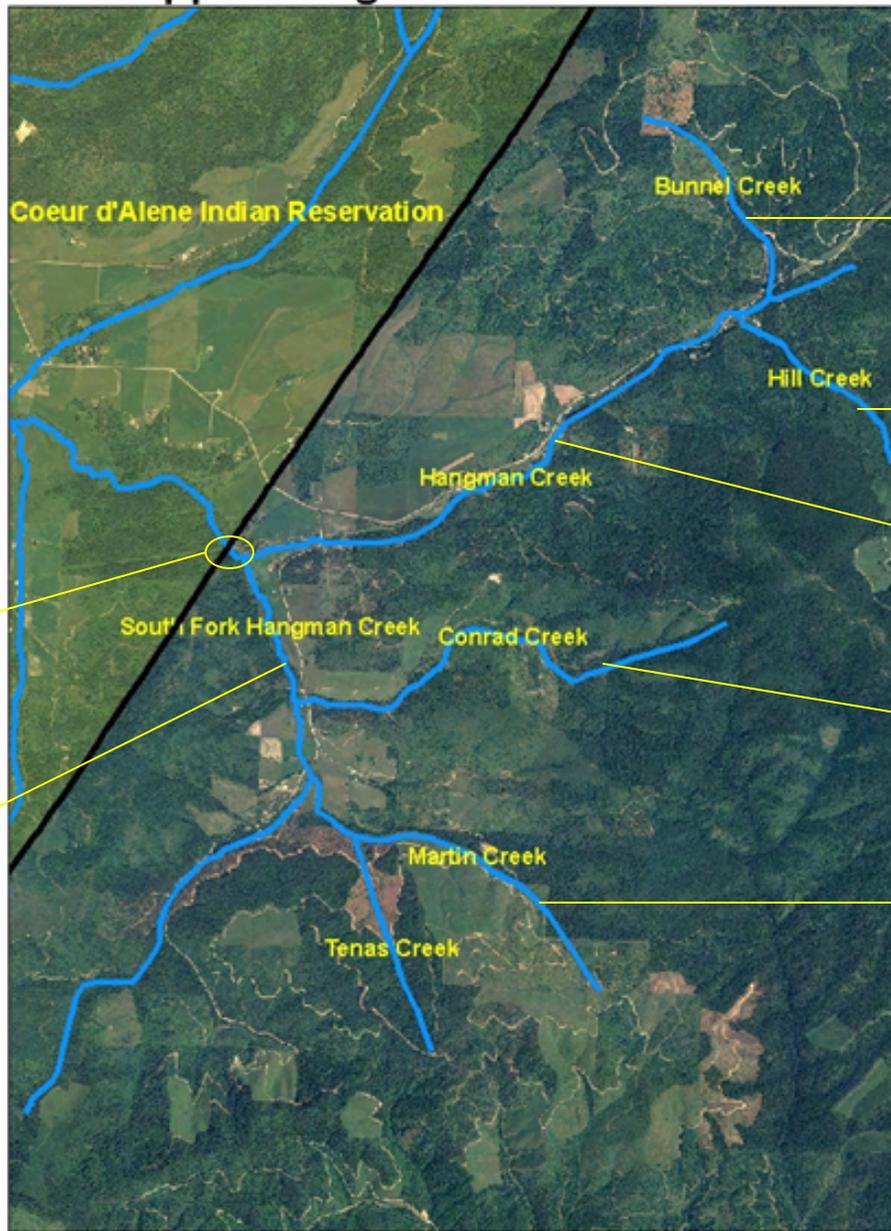
ID17010306PN001_03

-Hangman Creek below confluence with South Fork Hangman Creek

ID17010306PN001_02

-All tributaries to Hangman Creek and South Fork Hangman Creek including Hangman Creek above confluence with South Fork Hangman Creek and South Fork Hangman Creek

Streams for TMDL Development in the Upper Hangman Creek Watershed



Bacteria,
Sediment and
Temperature

Bacteria,
Sediment and
Temperature

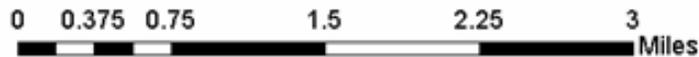
Sediment and
Temperature

Sediment and
Temperature

Bacteria, Sediment
and Temperature

Sediment and
Temperature

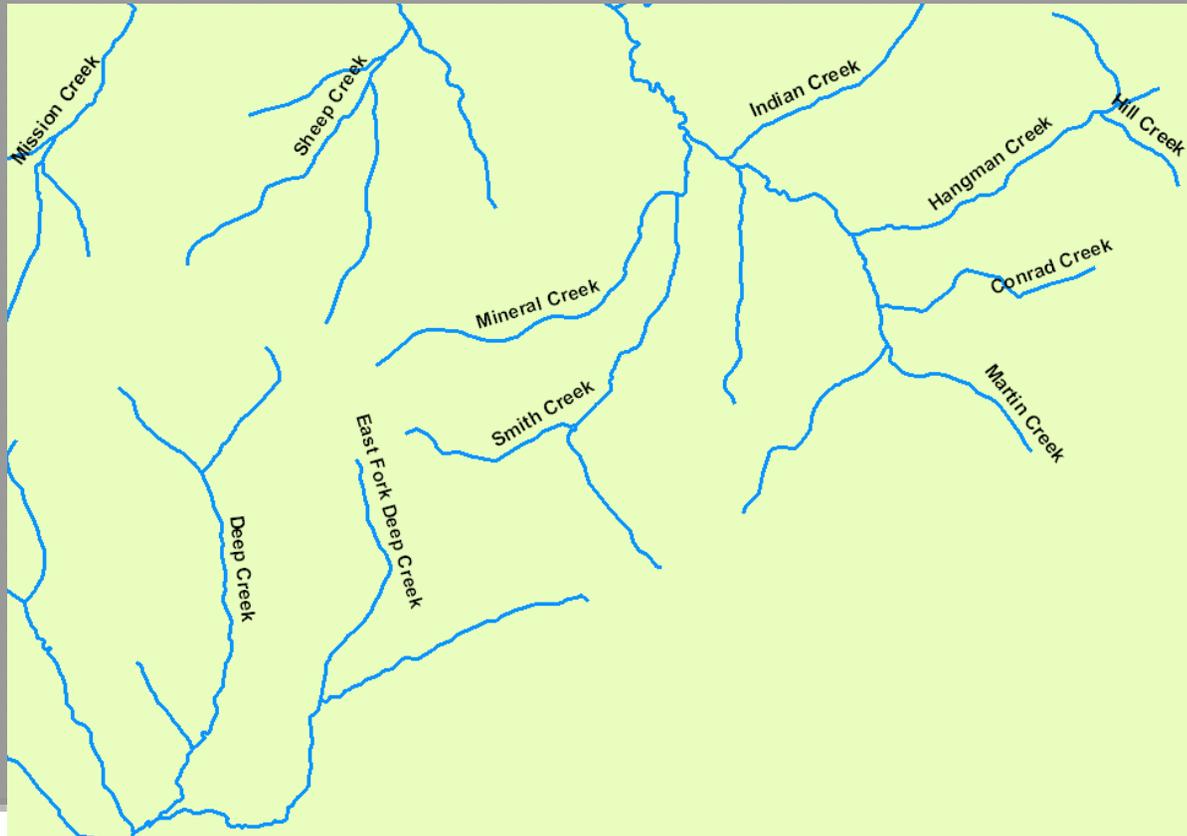
Sediment and
Temperature



Draft Upper Hangman Creek TMDL Overview

- **Temperature**
 - All streams assessed were determined to be exceeding temperature standards
 - All streams assessed given 90% shade target
 - Solar loading reductions ranged from 50% - 0%
- **Sediment**
 - Bank stability, mass failures and road erosion used to determine appropriate sediment load
 - 80% bank stability set as target, 50% over natural background set as target for roads
 - Sediment loading reductions ranged from 73% - 0%
- **Bacteria**
 - Water quality standard is target, 126 cfu/100 ml of *E. coli*.
 - Reductions ranged from 85% - 0%
- **Nutrients**
 - No TMDL developed, recommended nutrient de-listing
 - Nutrients found to be in concentrations near reference conditions

Draft TMDL Results in Comparison to Deep Creek



- Deep Creek
 - Sediment reduction of 96%
 - Solar loading reduction of 70-50%
- Hangman Creek
 - Sediment reduction of 73%
 - Solar loading reduction of 50-0%
- Nutrient de-listing also suggested for Deep Creek

Data Evaluated in TMDL

Data Evaluated in the Draft Upper Hangman Creek TMDL

1963-Coeur d'Alene Tribe fish collection

1981-1982 Idaho Dept. of Health and Welfare baseline monitoring

1989-1990-Idaho Dept. of Health and Welfare monitors same 1981-1982 sites

2002-2003-IDL CWE assessments

1994-Soil Conservation Service, evaluation of flooding and erosion potential

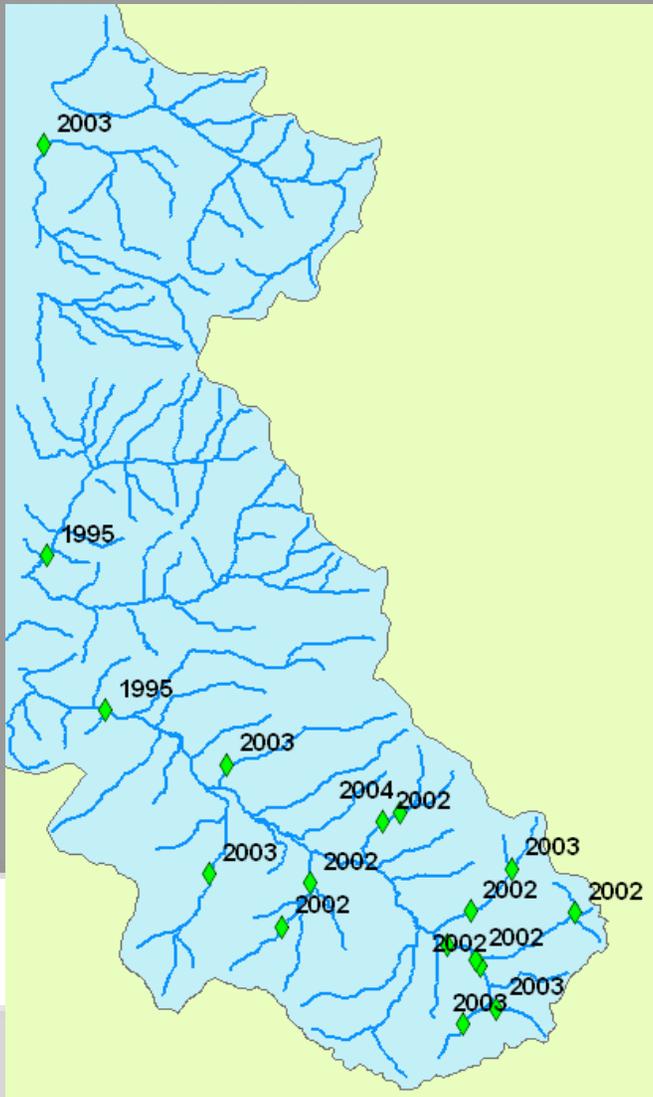
2002-2003-IDEQ BURP suveys completed

2005-IDEQ collects nutrient data, Solar Pathfinder information, Streambank stability assessment

2002-2004-CDA Tribe temperature data collection

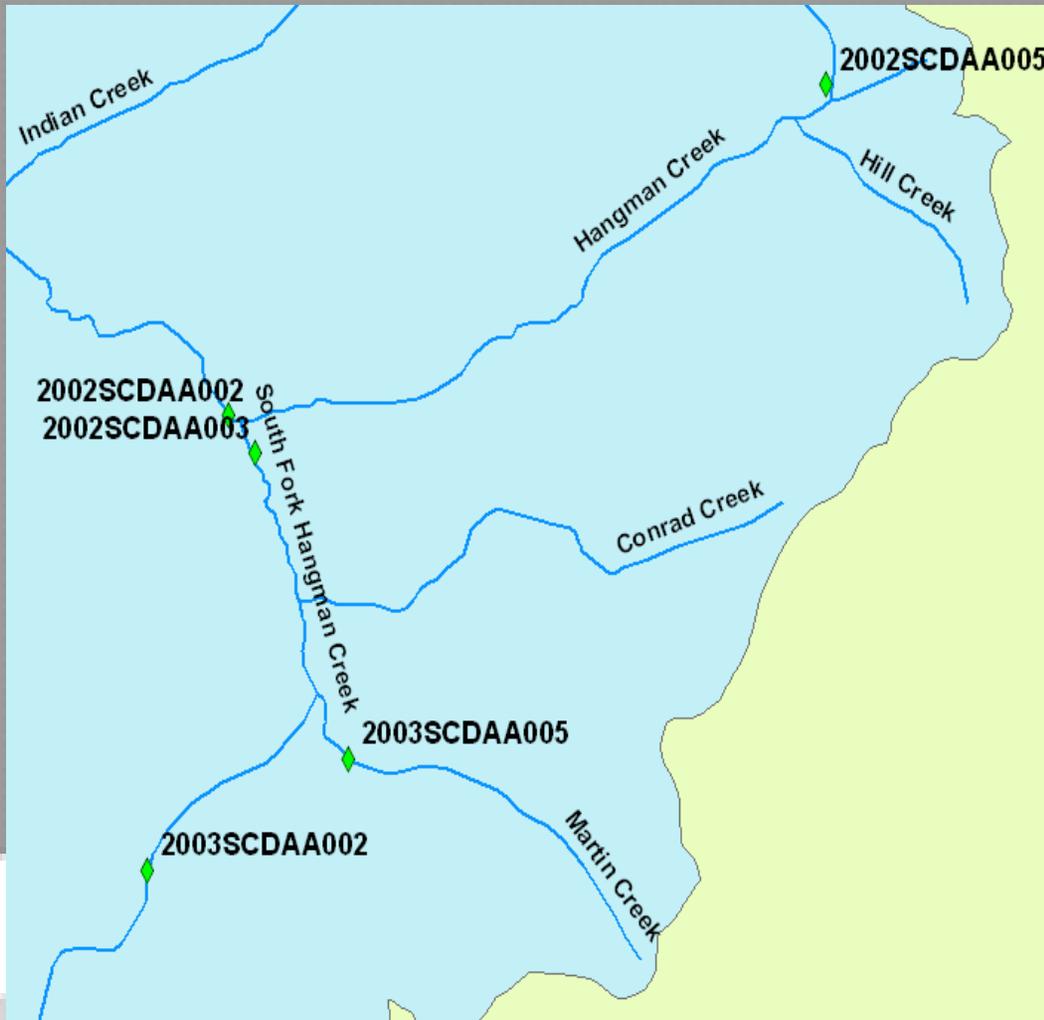


DEQ BURP Sites in the Hangman Creek Watershed

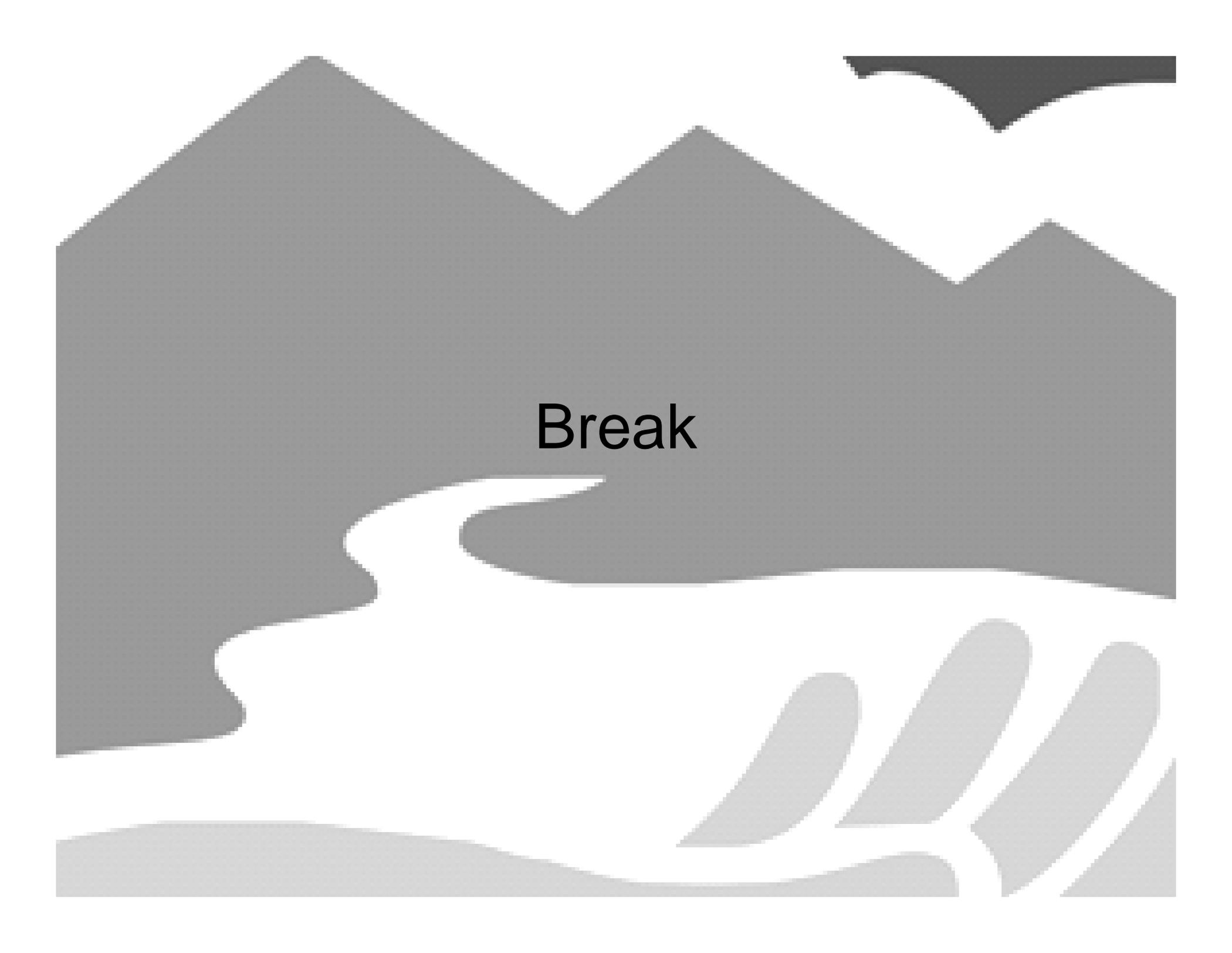


- Beneficial Use Reconnaissance Program (BURP) collects biological, physical and chemical data to aid in the assessment of water quality support status.
- BURP data has been collected during July through September since 1995.
- 17 BURP sites are located within the Hangman watershed.

DEQ BURP Sites in Upper Hangman Creek



- Five BURP surveys completed in Upper Hangman Creek Watershed
 - SF Hangman Creek
 - Bunnel Creek
 - Hangman Creek
 - Martin Creek
- One BURP survey per 2,000 acres
 - St. Joe/St. Maries = one BURP survey per 5,500 acres

A stylized landscape illustration. The background is a dark gray mountain range with three peaks. A white, winding river flows from the left towards the center. In the foreground, there is a light gray field with three rounded, leaf-like shapes on the right side. The word "Break" is written in black, sans-serif font in the center of the image.

Break

Watershed Advisory Group Consultation Role

Idaho Code §39-3611 (HB145)

Watershed advisory groups will generally advise DEQ on the:

- appropriateness, attainability and status of existing and designated beneficial uses and water quality criteria within the watershed, and
- on the development and implementation of TMDLs and other state water quality plans, including those specific actions needed to control point and nonpoint sources of pollution within the watersheds of those water bodies where designated beneficial uses are not fully supported.

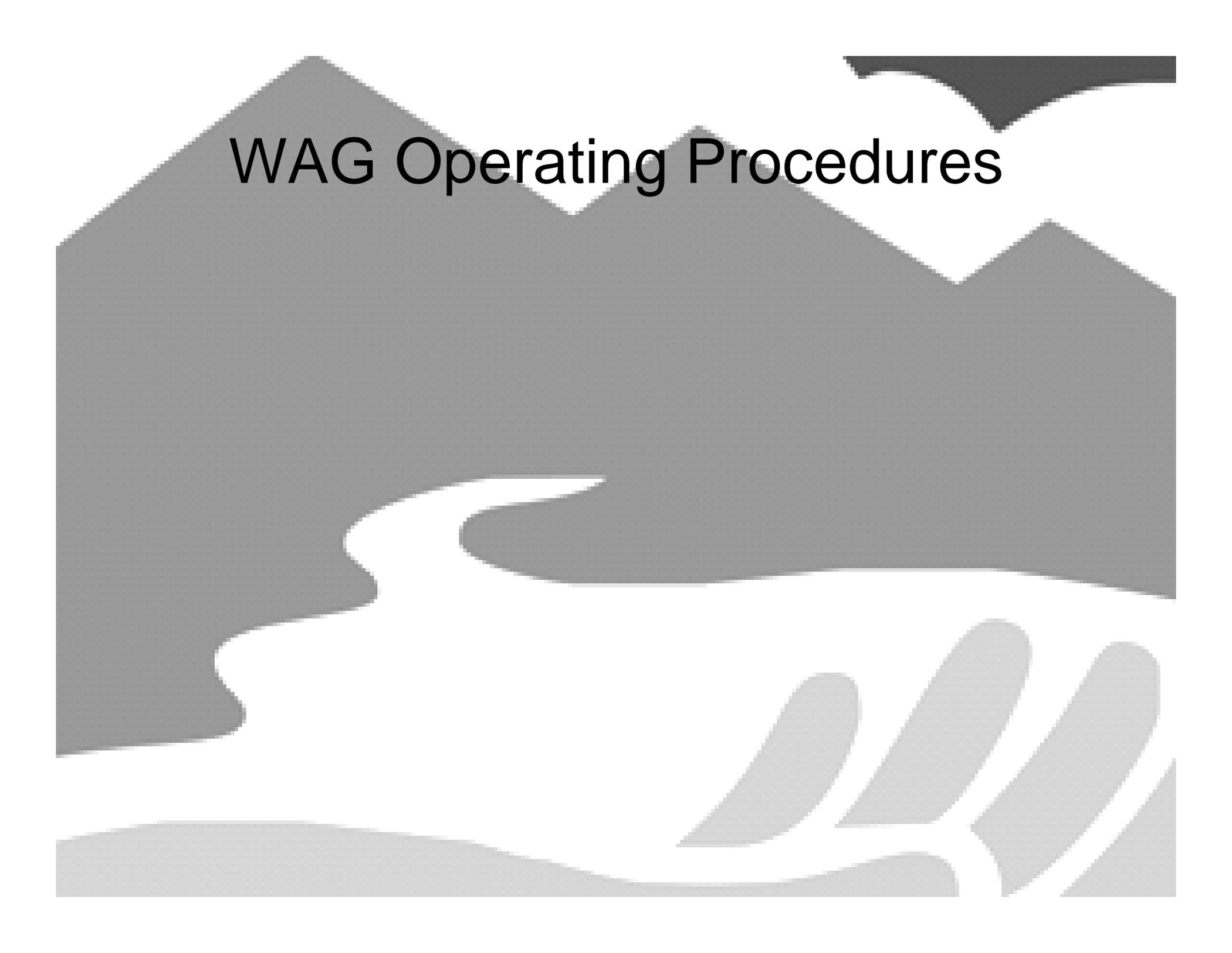
DEQ Responsibilities

- Consult with WAGs while developing the Subbasin Assessment and TMDL and present all requested information in a timely fashion
- Provide opportunity for the WAG to assist in writing the SBA, TMDL and Implementation Plans for the watershed
- Produce a Subbasin Assessment and TMDL in accordance with state and federal water quality laws
- Record any WAG disagreement with SBA/TMDL at the time of public comment and in all drafts of the document

Stakeholder Representation

- Agriculture
- Mining
- Point Source Dischargers
- Forest Products
- Local government
- Livestock
- Indian tribes
- Water-based recreation
- Environmental interests
- Land management and regulatory agencies with an interest
- Other members representative of the industries and interests affected by the management of the watershed

WAG Operating Procedures

The background of the slide is a stylized, monochromatic landscape. It features a dark grey sky with a jagged mountain range silhouette. A white, winding river flows from the left side towards the center. In the foreground, there are several rounded, grey shapes representing trees or bushes. The overall aesthetic is clean and modern.

Beneficial Uses

- Beneficial Uses are any of the various uses of water.
 - Beneficial Uses of Upper Hangman Creek include cold water aquatic life, salmonid spawning and secondary contact recreation
- Beneficial uses are broken out into three categories
 - Existing – uses actually attained in the water body on or after November 28, 1975
 - Designated – uses specified in water quality standards
 - Presumed – all waters without existing or designated beneficial uses assigned, DEQ will apply the numeric cold water criteria and primary or secondary contact recreation criteria

Upper Hangman Creek Use Designation

Water Body	Uses	Type of Use
Hangman Creek	Cold water aquatic life Secondary contact recreation	Designated
Hangman Creek	Salmonid spawning	Existing
Tributaries to Hangman Creek	Cold water aquatic life Secondary contact recreation	Presumed
Tributaries to Hangman Creek	Salmonid spawning	Existing

Applicable Water Quality Criteria

- Bacteria
 - *E. coli* concentrations are not to exceed 126 *E. coli* organisms/100ml.
- Nutrients
 - Narrative standard - surface water shall be free from excess nutrients that cause visible slime growth.
- Sediment
 - Narrative standard - sediment shall not be in quantities which impair designated beneficial uses.
- Temperature
 - Numeric standard - cold water aquatic life daily max 22°C
salmonid spawning daily max 13°C

From Idaho water quality standards (IDAPA 58.01.02.200.09), if natural conditions exceed numeric water quality criteria, exceedance of the criteria is not considered a violation of water quality standards.

Upper Hangman Creek Homepage

Find information about:

- Schedule & location of upcoming meetings
- Agendas
- Operating protocols
- Review and background documents such as maps, definitions, draft TMDLs, etc.
- Documents, minutes and other content from previous meetings

DEQ Web Resources for WAGs

DEQ website address:

<http://www.deq.idaho.gov>

Upper Hangman Creek website address:

http://www.deq.idaho.gov/about/regions/upper_hangman_creek_wag/index.cfm

DEQ Website Homepage

Find It Fast drop-down menu

The screenshot shows the DEQ website homepage in Microsoft Internet Explorer. The browser window title is "DEQ - Microsoft Internet Explorer provided by DEQ" with a timestamp of "8/24 11:24 ROBBIN SIMMONS robbins ScreenHunter". The address bar shows "http://www.deq.idaho.gov/". The website header includes the "Idaho Department of Environmental Quality" logo and navigation links: HOME, SEARCH, FEEDBACK, CONTACT US, ACCESS IDAHO. A left sidebar menu lists categories: About Us, Public Info & Input, Air, Water, Waste, INL Oversight, Maps & Data, and Rules & Policies. A central banner reads "DEQ receives complete air quality permit to construct application for Idaho Ethanol P...". The main content area is divided into four columns: "What's New?" with links for Quick Links, News Releases, Public Comment Opportunities; "Top Picks" with links for Air Quality in My Area, Job Opportunities, and Mercury in the Environment; "Info By Audience" with links for Businesses and Industry, Citizens and Communities, and Educators and Students; and "Find It Fast" featuring a search dropdown menu and a "Sign up for E-mail Updates" button. The footer contains a navigation bar with links like Home, Search, Contact Us, Feedback, About PDF Files, Acronyms, Glossary, and State of Idaho, along with a copyright notice: "Copyright © 2000-2006, Idaho Department of Environmental Quality. All rights reserved."

From DEQ Website Homepage to WAG Homepage

Choose Watershed Advisory Groups

DEQ - Microsoft Internet Explorer provided by DEQ 47:24 11:30 ROBBIE SIMMONS robbiemoss ScreenKunter

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Back Forward Stop Home Search Favorites Refresh Print Mail Print Preview

Address <http://www.deq.idaho.gov/> Go Links

Google Search 1 blocked Check AutoLink AutoFill Options

Idaho Department of Environmental Quality HOME SEARCH FEEDBACK CONTACT US ACCESS IDAHO

About Us

Public Info & Input

- Air
- Water
- Waste
- INL Oversight
- Maps & Data
- Rules & Policies

DEQ urges no idling to control air pollution from vehicle emissions and save gas

What's New?

- [Quick Links](#)
- [News Releases](#)
- [Public Comment Opportunities](#)

Top Picks

- [Air Quality in My Area](#)
- [Job Opportunities](#)
- [Mercury in the Environment](#)

Info By Audience

- [Businesses and Industry](#)
- [Citizens and Communities](#)
- [Educators and Students](#)

Find It Fast

Watershed Advisory Groups

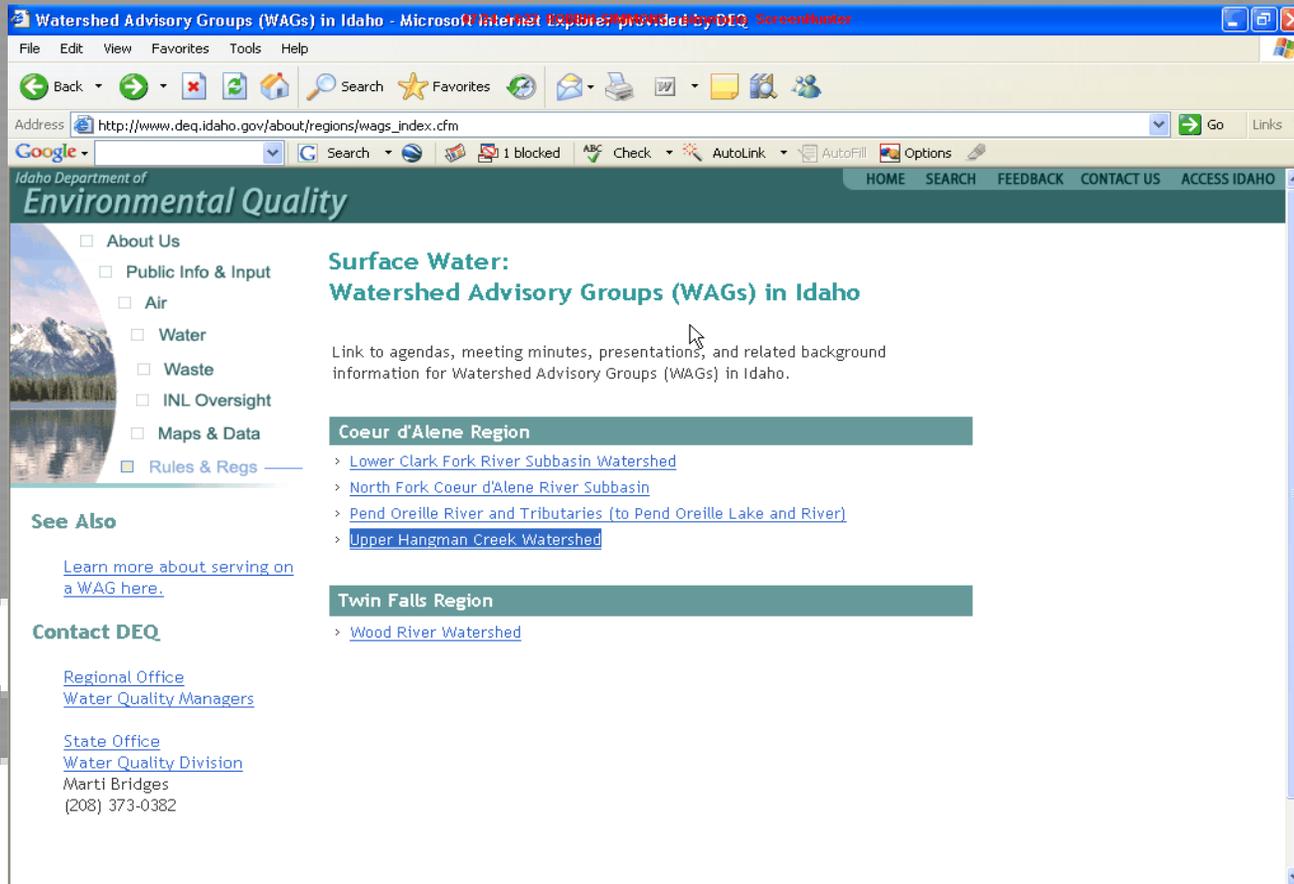
- Air Quality Permitting
- Board of Env. Quality
- Burning Guidelines
- Drinking Water
- Emissions Inventory Download
- Job Opportunities
- Pollution Prevention Assistance
- Public Records Requests
- Regional Offices
- Rulemaking Activities
- TMDLs & Assessments
- Waste Division Inventory
- Watershed Advisory Groups**
- UST Compliance Act
- Water Quality Standards
- Workshops

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From WAGs Homepage to Upper Hangman Creek WAG Homepage

Choose your WAG



The screenshot shows a Microsoft Internet Explorer browser window displaying the Idaho Department of Environmental Quality (DEQ) website. The address bar shows the URL: http://www.deq.idaho.gov/about/regions/wags_index.cfm. The page title is "Watershed Advisory Groups (WAGs) in Idaho". The website header includes the DEQ logo and navigation links: HOME, SEARCH, FEEDBACK, CONTACT US, ACCESS IDAHO. The main content area is titled "Surface Water: Watershed Advisory Groups (WAGs) in Idaho" and provides a link to agendas, meeting minutes, presentations, and related background information for WAGs in Idaho. The page is organized into two main regions: Coeur d'Alene Region and Twin Falls Region. The Coeur d'Alene Region includes links to the Lower Clark Fork River Subbasin Watershed, North Fork Coeur d'Alene River Subbasin, Pend Oreille River and Tributaries (to Pend Oreille Lake and River), and Upper Hangman Creek Watershed. The Twin Falls Region includes a link to the Wood River Watershed. A sidebar on the left contains a navigation menu with links to About Us, Public Info & Input, Air, Water, Waste, INL Oversight, Maps & Data, and Rules & Regs. Below the sidebar, there are sections for "See Also" (Learn more about serving on a WAG here.) and "Contact DEQ" (Regional Office, Water Quality Managers, State Office, Water Quality Division, Marti Bridges, (208) 373-0382).

Watershed Advisory Groups (WAGs) in Idaho - Microsoft Internet Explorer, provided by DEQ, ScreenKaster

File Edit View Favorites Tools Help

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Address http://www.deq.idaho.gov/about/regions/wags_index.cfm Go Links >>

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See Also

[Learn more about serving on a WAG here.](#)

Contact DEQ

[Regional Office](#)
[Water Quality Managers](#)

[State Office](#)
[Water Quality Division](#)
Marti Bridges
(208) 373-0382

**Surface Water:
Watershed Advisory Groups (WAGs) in Idaho**

Link to agendas, meeting minutes, presentations, and related background information for Watershed Advisory Groups (WAGs) in Idaho.

Coeur d'Alene Region

- > [Lower Clark Fork River Subbasin Watershed](#)
- > [North Fork Coeur d'Alene River Subbasin](#)
- > [Pend Oreille River and Tributaries \(to Pend Oreille Lake and River\)](#)
- > [Upper Hangman Creek Watershed](#)

Twin Falls Region

- > [Wood River Watershed](#)

Upper Hangman Creek WAG Page

Note e-mail update option

The screenshot shows a web browser window with the following content:

- Browser Title:** Upper Hangman Creek Watershed Advisory Group (WAG)
- Address Bar:** http://www.deq.idaho.gov/about/regions/upper_hangman_creek_wag/index.cfm
- Page Header:** Idaho Department of Environmental Quality. Navigation links: HOME, SEARCH, FEEDBACK, CONTACT US, ACCESS IDAHO.
- Left Navigation Menu:**
 - About Us
 - Public Info & Input
 - Air
 - Water
 - Waste
 - INL Oversight
 - Maps & Data
 - Rules & Regs
- Sign up for E-mail Updates:** A button with an envelope icon and the text "Sign up for E-mail Updates".
- Return to:** [DEQ's Coeur d'Alene Regional Office Web Page](#)
- Contact Us:** [Tyson Clyne](#), Watershed Coordinator, DEQ Coeur d'Alene Regional Office, 2110 Ironwood Parkway, Coeur d'Alene, ID 83814, ph: (208) 769-1422.
- Main Content:**
 - Section Header:** About DEQ's Coeur d'Alene Region: Upper Hangman Creek Watershed Advisory Group (WAG)
 - Text:** Content on this page is provided for informational purposes while the Upper Hangman Creek Watershed Advisory Group (WAG) and DEQ work to develop a water quality improvement plan or "Total Maximum Daily Loads" (TMDLs) for water bodies in the watershed found to be not fully supporting beneficial uses.
 - Note:** All of these documents are considered draft and are subject to change. The goal of providing these documents at WAG meetings and on this web page is to ensure citizens have the opportunity to provide input as the documents are developed.
 - Upcoming Meeting Date:** Wednesday, August 2, 2006, 9 a.m. - 12 noon, Tensed City Hall, 311 C Street, Tensed, Idaho. [> Link to Draft Agenda](#)
 - Background:**
 - [> WAG Invitation Letter](#)
 - [> Map of the Watershed with Listed Segments and Pollutants](#)
 - [> Background Information: Definitions of Subbasin Assessment and TMDL; Duties of a WAG](#)

Upper Hangman Creek WAG Page

Note links to other documents

Upper Hangman Creek Watershed Advisory Group (WAG) - Microsoft Internet Explorer provided by DEQ

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Back Forward Stop Home Search Favorites Refresh Print Mail News RSS Feeds

Address http://www.deq.idaho.gov/about/regions/upper_hangman_creek_wag/index.cfm Go Links >>

Google Search 1 blocked Check Look for Map AutoFill Options

Regional Office web Page
311 C Street
Tensed, Idaho
> [Link to Draft Agenda](#)

Contact Us

[Tyson Clyne](#)
Watershed Coordinator
DEQ Coeur d'Alene
Regional Office
2110 Ironwood Parkway
Coeur d'Alene, ID 83814
ph: (208) 769-1422
fx: (208) 769-1404

Background

- > [WAG Invitation Letter](#)
- > [Map of the Watershed with Listed Segments and Pollutants](#)
- > [Background Information: Definitions of Subbasin Assessment and TMDL; Duties of a WAG](#)
- > [Overview of TMDL Development Process](#) (on DEQ's Web site)

WAG Review Documents

- > [Draft Upper Hangman Creek Assessment and Total Maximum Daily Load \(July 2005\)](#) (pdf 1.4 mb, 150 pages)

Previous Meeting Information

Content pending.

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Further Assistance

- If you have any problems accessing DEQ web resources, please contact the DEQ TMDL team:

Tyson Clyne at 666-4610 or by email at tyson.clyne@deq.idaho.gov; or

Robbin Simmons at 666-4633 or by email at robbin.simmons@deq.idaho.gov.

If we are not available, any DEQ TMDL team member will be happy to assist you at 769-1422.

Proposed WAG Meeting Schedule

September

- September Basin Advisory Group (BAG) meeting present potential WAG member information to BAG for approval.
- DEQ presents to WAG methods used to develop pollutant loads.
- WAG review of Draft Subbasin Assessment (SBA) and TMDL.

October

- WAG comments on draft Upper Hangman Creek TMDL

November

- DEQ reports TMDL changes to WAG
- WAG approval to move with public review process