Tucannon/Pataha Watershed
TMDL

Where are we at &
Where are we going

Photo of Tucannon River near Territorial Road Bridge taken by HDR, 7/25/2005
WHY DO TMDL’S?

• It’s the law

• EPA lawsuit

• Clean Water!
WHAT IS A TMDL?

- Total Maximum Daily Load

- Water Clean-up Plan
THE POLLUTION PIE

Point-source

Non-point source
ISSUES WITH TMDLs

- More time spent planning, less doing
- Duplicative of other planning processes
- Regulator centric = stretched resources
STREAMLINED TMDL

- Data Collection
- TMDL Reports
- Management Focused
- Implementation Ongoing
WHY HERE?

- Mostly non-point sources
- Small watersheds
- Data already exists
- Implementation happening
TMDL Development Strategy

- Address comments on the 2005 HDR study.
- Analysis of existing data for Pataha Creek.
- Complete the required TMDL elements.
Comments on 2005 Study

- Discussion needed for system potential vegetation analysis.
- Question about water withdrawals assumptions.
- What was the effect of the 2005 ‘School House’ fire.
- The Qual2K model analysis needed a verification model run.
Why was the 2005 study not ready for submittal?

- A TMDL requirements not included:
  - A discussion of seasonal variation and address potential issues related to climate change.
  - Load and waste load allocations
  - Margin of Safety
  - Summary Implementation Strategy
So what do we know so far?
Stream Temperatures

- Warmest day (7/31) vs. Model Day (7/13)
- Tributary affect on Tucannon
- Temperatures During Schoolhouse Fire
Comparison of Daily Maximum (DMax) Stream Temperatures for Tucannon River and Tributaries

July 2005 Daily Average Streamflow

July Day 2005

River Kilometer (Rkm)
Seepage Survey Data

• Comments about the seepage survey have been addressed
  – Estimated sprinkler usage vs. water right claims and metering database
  – Seepage results make sense with the existing knowledge of the watershed’s hydrogeology
Comparison of Daily Average (DAve) Stream Temperature and Groundwater Gain and Loss Volumes Using HDR and Ecology Seepage values

River Kilometer (RKm)

Stream Temperature (°C)

Seepage gain/loss (+/-cfs)

- Syncline
- Anticline
- Major Fault
- Monocline
- Major Fault
- Monocline

Tucannon DAve 7/31/05
Tucannon DAve 7/13/05
Tributary DAve 7/13/05
HDR Seepage estimates
Ecology Seepage estimates
Geologic Faults and Folds
Comparison of Tucannon River Streamflow and Seepage as Percent of Total Flow
Riparian Vegetation Analysis

- Checked vegetation coding in HDR’s analysis against better aerial imagery.
- Pataha Creek vegetation analysis is in process
Delineated Riparian Vegetation

200ft Buffer on both sides of Tucannon River
Next Steps for Vegetation Analysis

- Define and Validate values used for system potential vegetation
- Rerun SHADE for current vegetation
- Define Load Allocations for effective shade
Next Steps for TMDL Submittal