

# Partnering Together: Glide Water Association and the Umpqua National Forest

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# Overview

- Drinking Water Providers Partnership - DWPP
- Glide Water Association –
  - Source Water Assessment
  - Evaluating opportunities and implementation strategies
- Initial partnership accomplishments
- Partnership goals – now and into the future...

# Drinking Water Providers Partnership (DWPP)

The goals of the DWPP are to:

1

**GEOS**  
INSTITUTE



State of Oregon  
Department of  
Environmental  
Quality



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# Drinking Water Providers Partnership (DWPP)

2. Benefit aquatic and riparian ecosystems, including the native fish that inhabit them, through the successful implementation of restoration and protection projects.



# DWPP Funding

- Grants range from \$10k-\$50k
- 25% partner match (cash or inkind)
- Multiple funding sources – EPA, BLM, USFS, State of Oregon (DEQ) and Washington (Dept of Health)
- Additional application for State funds once recommended by the Partnership.
- Obligating and expending funds – variable timeframes.

# Glide Water Association & Umpqua National Forest Partnership

- Initial meeting between GWA, USFS, Geos Institute, Ecotrust – October 2014
- Initial RFP came out early November 2015
- Met again as a smaller group with the Geos Institute to review the RFP and get a better sense of how well certain activities would be received – November 2015
- Collaboratively drafted a proposal - December of 2015.

# Source Water Assessment

Protection Area are illustrated on the figure

## SOURCE WATER ASSESSMENT SUMMARY BROCHURE

**GLIDE WATER ASSOCIATION**

PWS # 4100326

### WHAT IS A SOURCE WATER ASSESSMENT?

The Source Water Assessment was recently completed by the Department of Environmental Quality (DEQ) and the Oregon Health Division (OHD) to identify the surface areas (and/or subsurface areas) that supply water to Glide Water Association's public water system intake and to inventory the potential contaminant sources that may impact the water supply.

### WHY WAS IT COMPLETED?

The Source Water Assessment was completed to provide information so that Glide Water Association's public water system staff/operator, consumers, and community citizens can begin developing strategies to protect the source of their drinking water, and to minimize future public expenditures for drinking water treatment. The assessment was prepared under the requirements and guidelines of the Federal the geographic area providing water to Glide's intake (Glide's portion of the drinking water

## WHAT ARE THE POTENTIAL SOURCES OF CONTAMINATION TO GLIDE WATER ASSOCIATION'S PUBLIC DRINKING WATER SUPPLY?

the drinking water intakes and protection areas within the North Umpqua Sub-Basin is provided in this summary brochure.

The geographic area providing water to Glide's intake (Glide's portion of the drinking water protection **stream crossings**, **road density**, tion and encompasses a total area of 668 square miles. The boundaries of the Drinking Water Protection Area are illustrated on the figure attached to this summary.

## WHAT ARE THE POTENTIAL SOURCES OF CONTAMINATION TO GLIDE WATER ASSOCIATION'S PUBLIC DRINKING WATER SUPPLY?

The primary intent of this inventory was to identify and locate significant potential sources of contaminants of concern. The delineated **which is improperly managed or released** impact the water quality in the watershed.

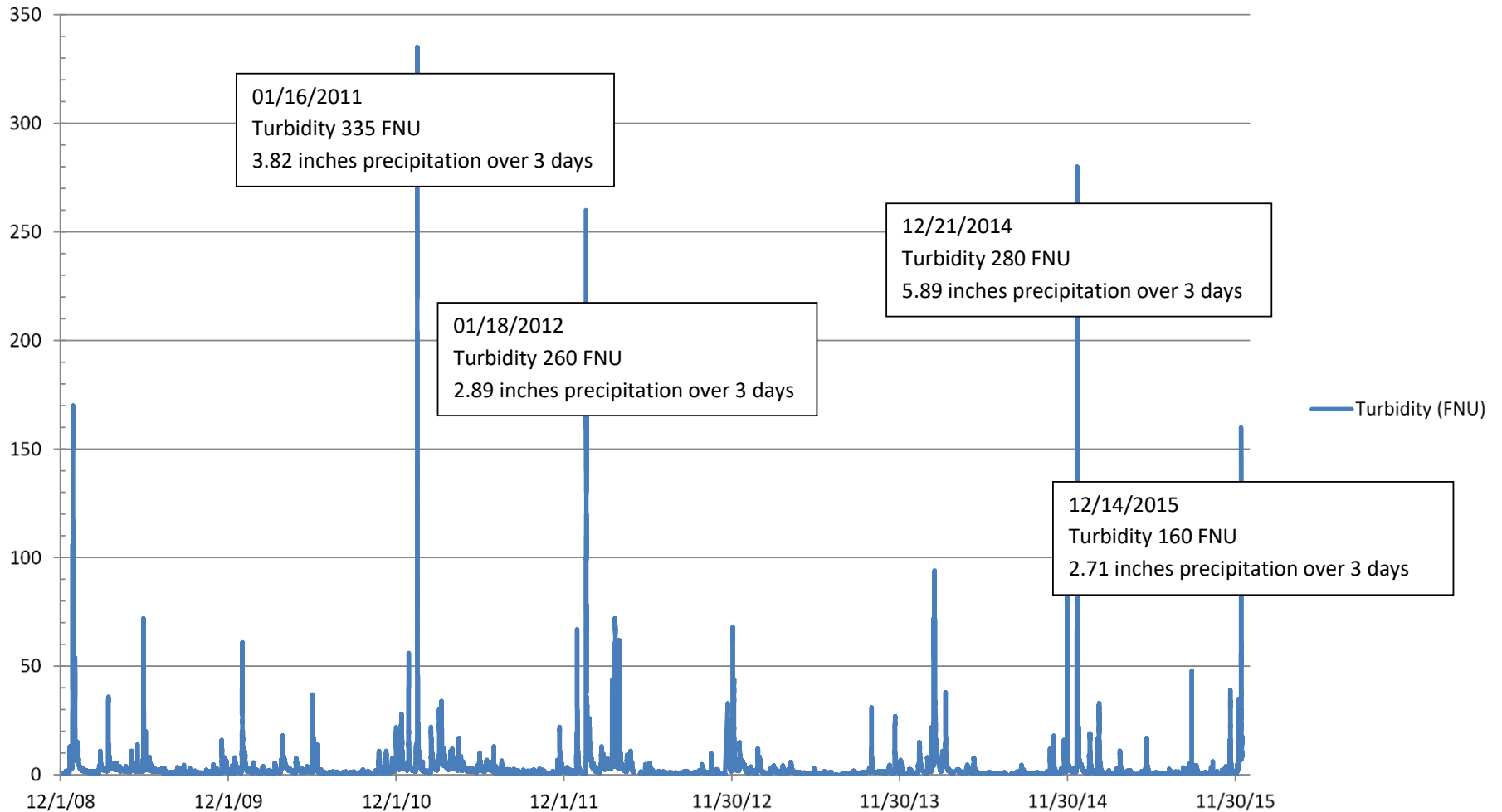
A misty forest scene with a river in the foreground. The background is a dense forest of evergreen trees, partially obscured by a thick layer of mist or fog. In the foreground, a river flows through a rocky, wooded area. The water is turbulent, with white foam and rapids. The overall atmosphere is serene and somewhat somber due to the mist.

*“It isn't pollution that's harming  
the environment. It's the  
impurities in our air and water  
that are doing it.”* attributed to Dan Quale



# Turbidity at the water quality station above Glide

## Glide Water Association - North Umpqua River Turbidity







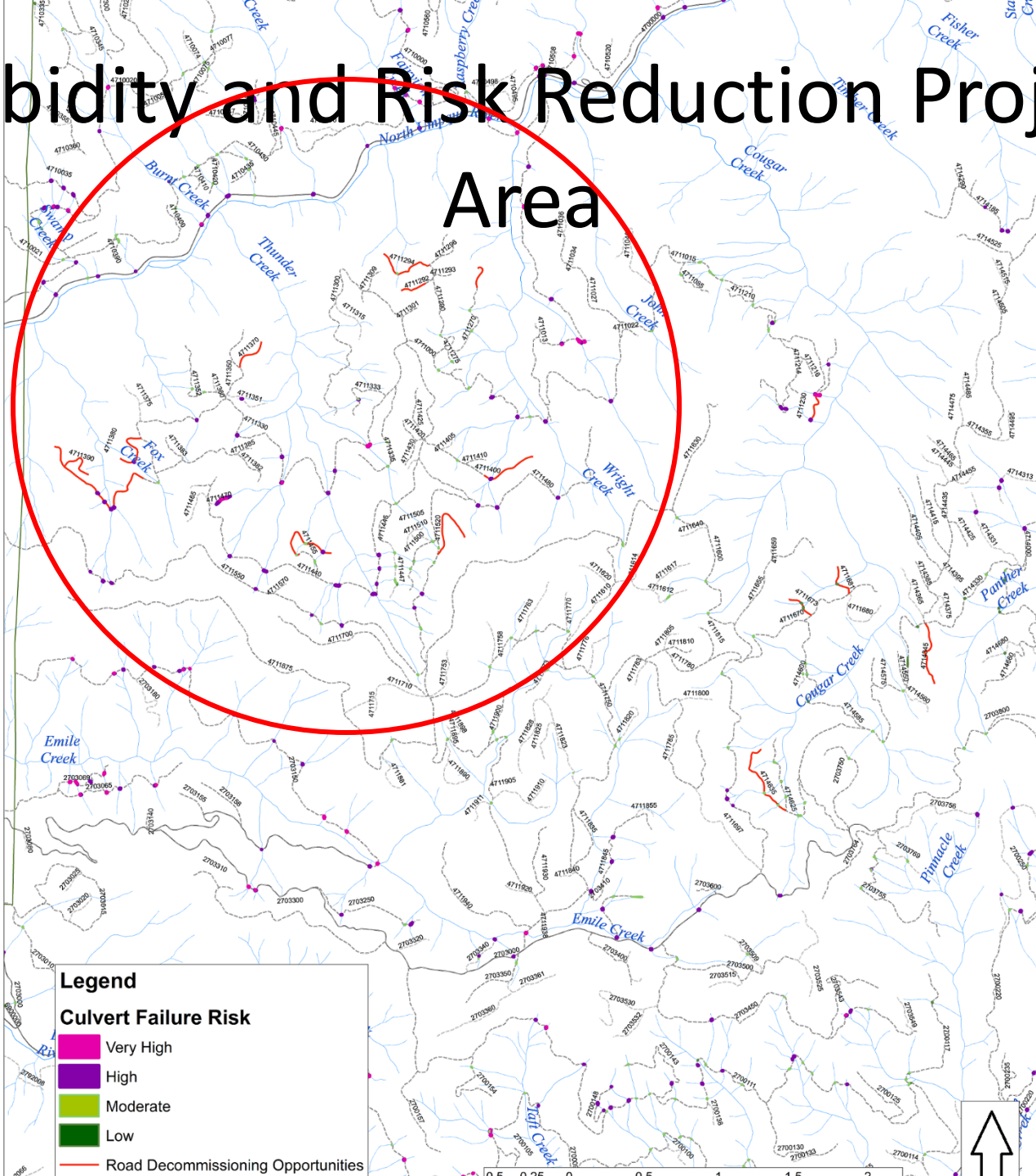


# Evaluating existing opportunities: low hanging fruit

**IRISH/RUMBLE KV RELATED ROAD RESTORATION  
ENVIRONMENTAL ANALYSIS**

# Turbidity and Risk Reduction Project

## Area

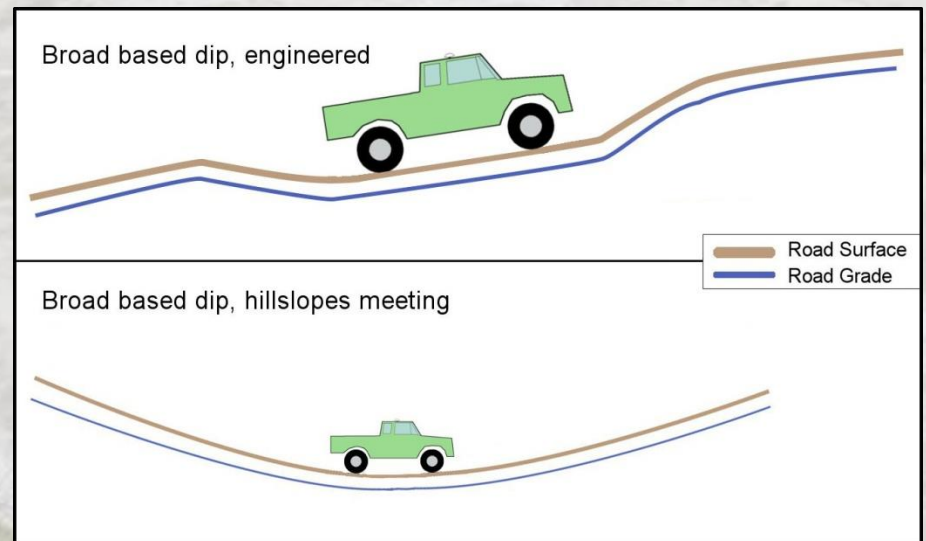
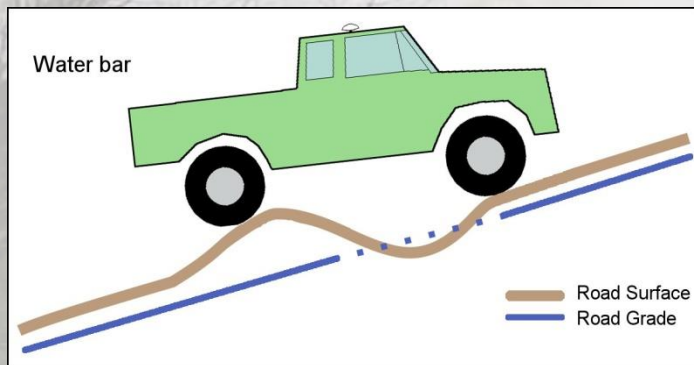


# Road Work and Risk Reduction Measures

- Removal of stream crossing culverts and fill material
- Re-contour streambanks and reestablish stream channels at road crossings
- Removal of road cross-drain culverts
- De-compaction of road surface using subsoiling techniques
- Reshape road surface for better drainage

# Road Work and Risk Reduction Measures

- Install water bars
- Construct drivable drainage dips
- Seed with native seed





# Funding sources and timing

- Mix of EPA, USFS/BLM, and State of Oregon DEQ
- EPA needed to be expended by 1<sup>st</sup> week in September
- DEQ funds didn't arrive until mid- October.

# FY2016 DWPP Accomplishments

- 1.51 miles of hydrologic restoration of forest roads within the Fox Creek drainage.
  - Cross drain removal (8 pipes)
  - Stream crossing culvert and fill removal (4 large pipes, 7-8k cubic yards of fill)
  - Pull back of over-steepened road fill
  - Native seed, straw and heavy slash for erosion control
  - Road barricade berms















# Road Construction IDIQ

- Worked with Engineering on survey and design – beginning in 1st quarter FY16
- Engineering drafted the IDIQ task order

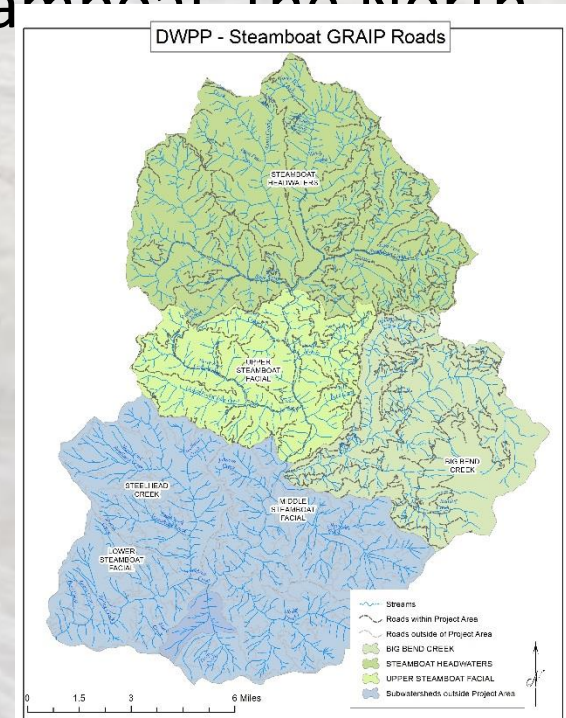




# 2017 Drinking Water Providers Partnership

## GRAIP – Geomorphic Roads Analysis and Inventory Package

- Steamboat Creek Headwaters sub-watersheds
  - 250 miles of roads
  - 2 field seasons (fall of 2017, summer of 2018)
- Monitoring – water quality within Steamboat, the North Umpqua, and at the treatment plant.
- Brings in additional partners:
  - RMRS for training and support
  - GeoCorps for interns
  - AREMP
  - Glide High School



# GRAIP products

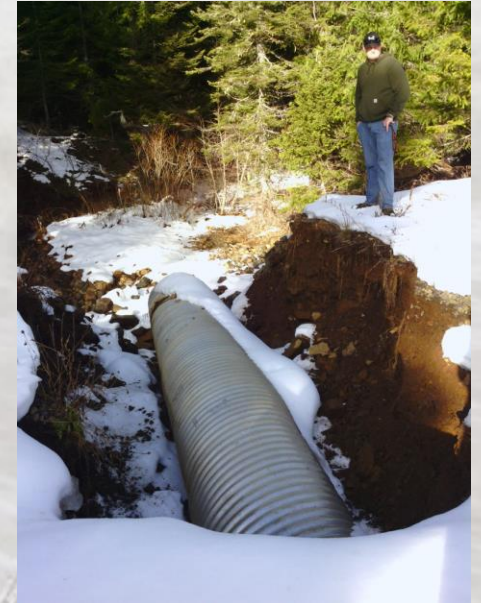
Q: Why GRAIP?

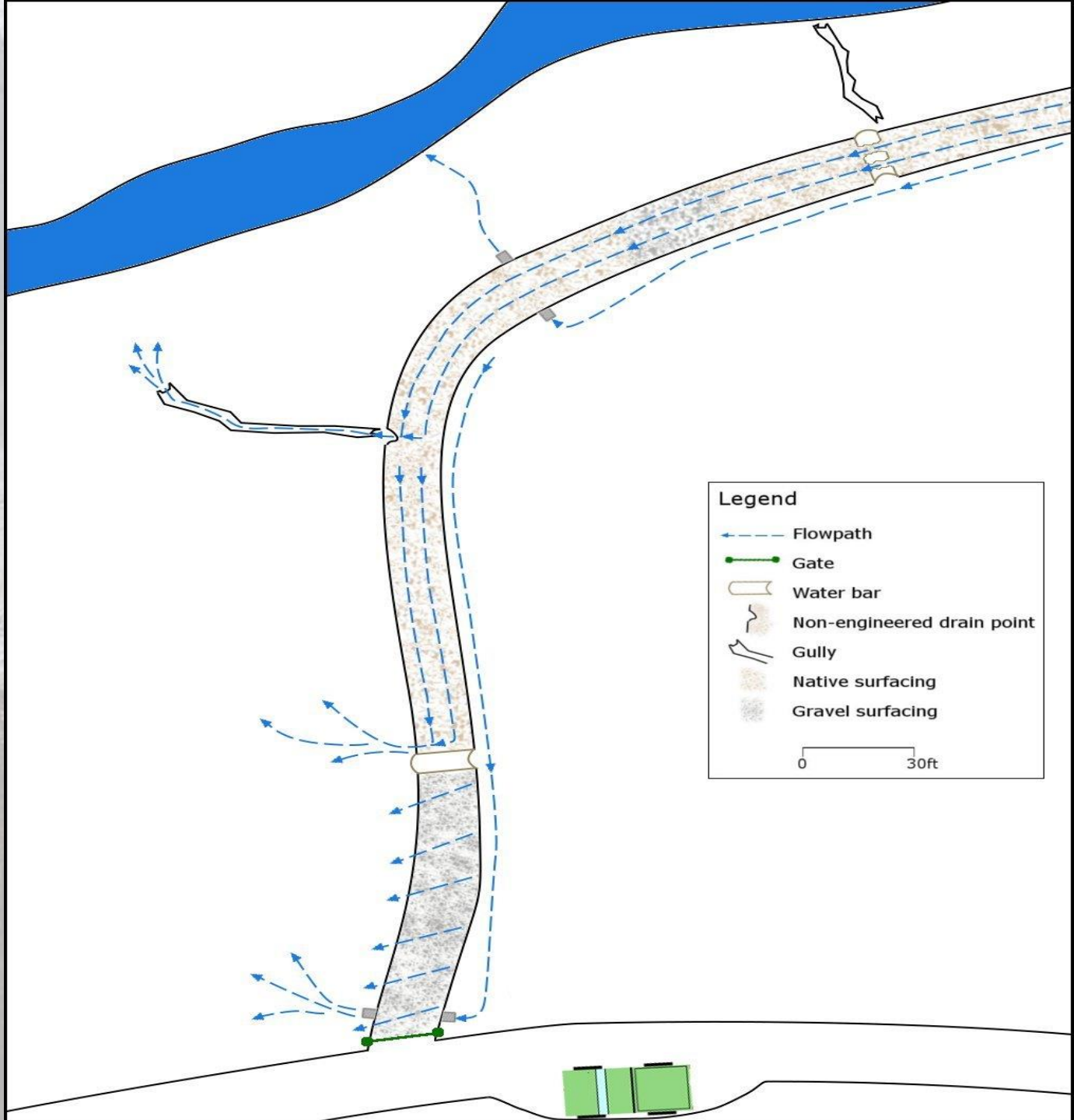
A: Because we want to know...

1. Where are runoff and sediment generated or intercepted by roads, and
2. Where do the water and sediment go?

# GRAIP sediment sources

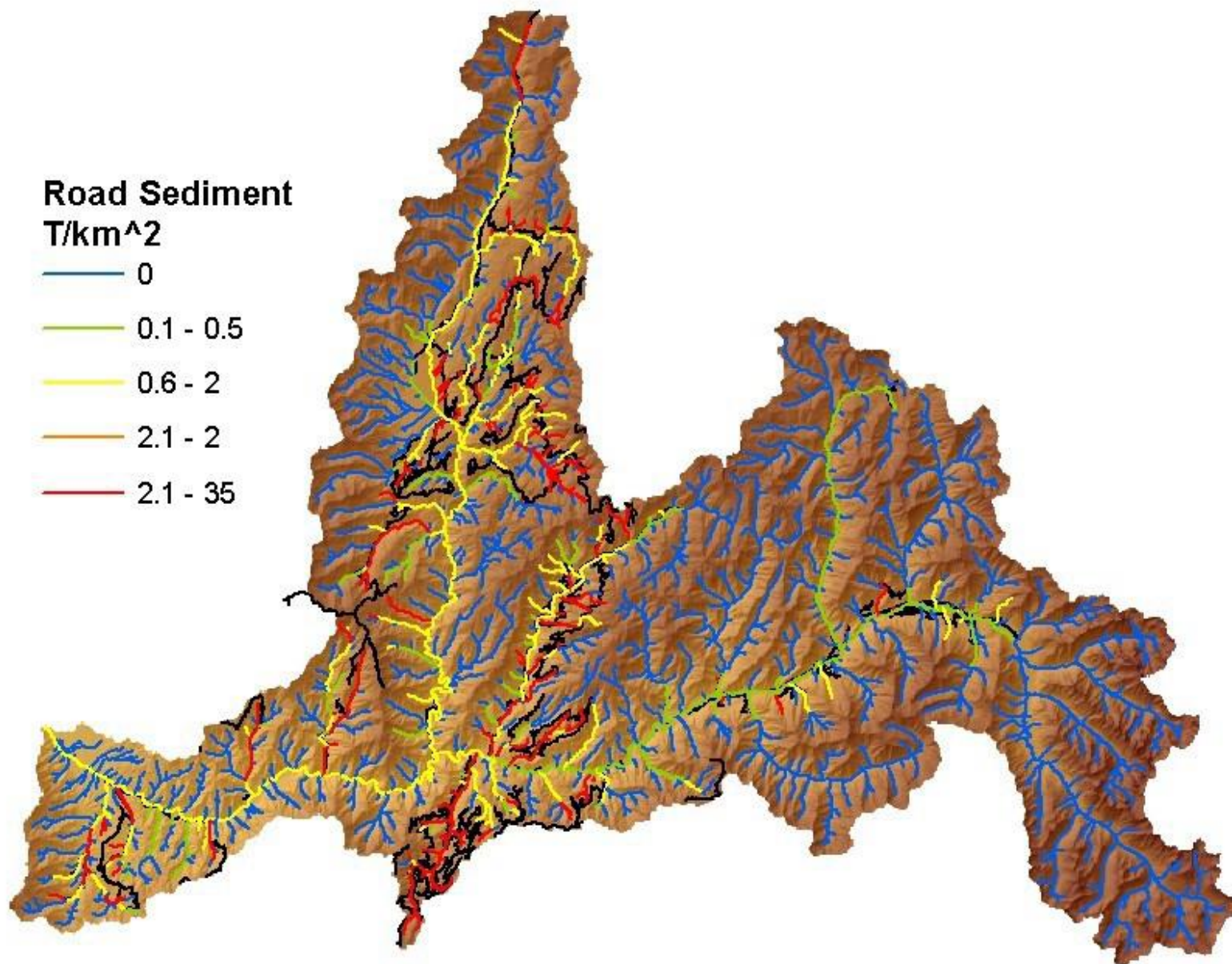
- Road surface erosion
- Landslides - cutslope and fillslope failures
- Stream diversion and culvert failures
- Ditchlines erosion





**Road Sediment  
T/km<sup>2</sup>**

- 0
- 0.1 - 0.5
- 0.6 - 2
- 2.1 - 2
- 2.1 - 35



# Fall of 2017

- 2 GeoCorps interns – collecting GRAIP field data on 125 miles of roads
- 1 USFS hydro tech – performing data pre-processing in prep for modeling

## Winter 2017-2018

- Run GRAIP model and produce maps
  - Compare with GRAIP-lite
- Begin road restoration/maintenance prioritization
- Apply for DWPP funds for Phase I of the Steamboat Creek Sediment Reduction Project
- Summer of 2018 – repeat of fall 2017.



# Questions?

