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. Restore and protect the health of watersheds which communities depend upon for drinking water through the development and support of local partnerships between drinking water providers, landowners, and restoration practitioners.
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

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.

WHAT ARE THE POTENTIAL SOURCES OF CONTAMINATION TO GLIDE WATER ASSOCIATION’S PUBLIC DRINKING WATER SUPPLY?
The geographic area providing water to Glide’s intake (Glide’s portion of the drinking water protection area) is approximately 31,000 acres, giving a total area of 668 square miles. The boundaries of the Drinking Water Protection Area are illustrated on the figure attached to this summary.

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

The primary intent of this inventory was to identify and locate significant potential sources of contaminants of concern. The delineated catchment improper drainage, and/or impacted the water quality in the watershed.
“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

01/16/2011
Turbidity 335 FNU
3.82 inches precipitation over 3 days

01/18/2012
Turbidity 260 FNU
2.89 inches

12/21/2014
Turbidity 280 FNU
5.89 inches precipitation over 3 days

12/14/2015
Turbidity 160 FNU
2.71 inches precipitation over 3 days
Evaluating existing opportunities: low hanging fruit

• Irish/Rumble Road Restoration EA
• Road Storage vs. Decommissioning
• Contract vs. In-house
Turbidity and Risk Reduction Project Area

Legend
Culvert Failure Risk
- Very High
- High
- Moderate
- Low
- Road Decommissioning Opportunities
Road Work and Risk Reduction Measures

- Removal of stream crossing culverts and fill material
- Re-contour streambanks and reestablish steam 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
Figure 7. Map of the Scenario B road.
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.