

# Utah's Water Quality Program

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1. Water quality monitoring

Ambient sites sampled every six weeks or quarterly (for toxics)  
Plus five-year rotation intensive sampling

2. Assessment for compliance with State Water Quality Standards

[Biannual assessment of all waterbodies; 303(d)]

- Includes all DWQ data and data submitted by cooperators

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# How does a waterbody get listed?

## Fully supporting:

**Conventional parameters:** No more than one exceedance or  $< 10\%$  of samples

**Toxic parameters:** No more than one violation of acute criteria

## Partially supporting:

**Conventional parameters:** Criteria was exceeded  $> 10\%$  but not more than  $25\%$

**Toxic parameters:** Two or more violations, but in  $< 10\%$  of samples

## Non-supporting:

**Conventional parameters:** Criteria was exceeded in more than  $25\%$  of the samples

**Toxic parameters:** Violations occurred in more than  $10\%$  of samples.

# What Happens then?

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1. Organize a Watershed Steering Committee  
(Technical Advisory Committee)
  2. Initiate TMDL Process
    - A. Identify Sources
    - B. Allocate loads
      - Point Sources
      - Nonpoint Sources
  3. Implement
  4. Monitor
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# How does the Clean Water Act Apply

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## The Clean Water Act Amendments of 1987:

- Added Section 319 to Assist States Control Nonpoint Source Pollution
  - However, Nonpoint Source Control Measures are Voluntary
    - This is why the Watershed Committees are so important!!!
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How is this linked to other programs?

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# Federal Agencies

Forest Service and BLM may elect to rely upon or join the State's TMDL development effort

- The latter is prudent in watersheds with mixed ownership
- Utah DWQ encourages this effort

FWS is also encouraged to participate

- Restoration projects may require T & E Consultation

# Implementation



**Cost-Share**

**EPA Section 319 Grants**

**NRCS – EQIP**

**(NRCS is a strong participant)**

**Private**

# Other Water Quality Programs:

Division of Forestry, Fire and State Lands:  
Forest Water Quality Guidelines

Works with:

- State Lands
- Private Lands



# Suggested Forest BMPs

The background image shows a natural landscape. In the foreground, a river flows through a wooded area, with several large, fallen tree branches partially submerged in the water. The left bank is a steep, eroded hillside of reddish-brown soil. The middle ground consists of a lush green field with scattered trees. In the far background, there are rolling hills under a clear sky.

- Preharvest Planning
- Streamside Management Zone
- Roads, Skid Trails, Landings, Stream Crossings
- Timber Harvesting Practices
- Site Preparation
- Regeneration and Revegetation
- Chemical Management
- Prescribed Burning
- Forest Wetlands

# Stream Restoration BMPs

## Fencing



After



# Bank Stabilization

Before





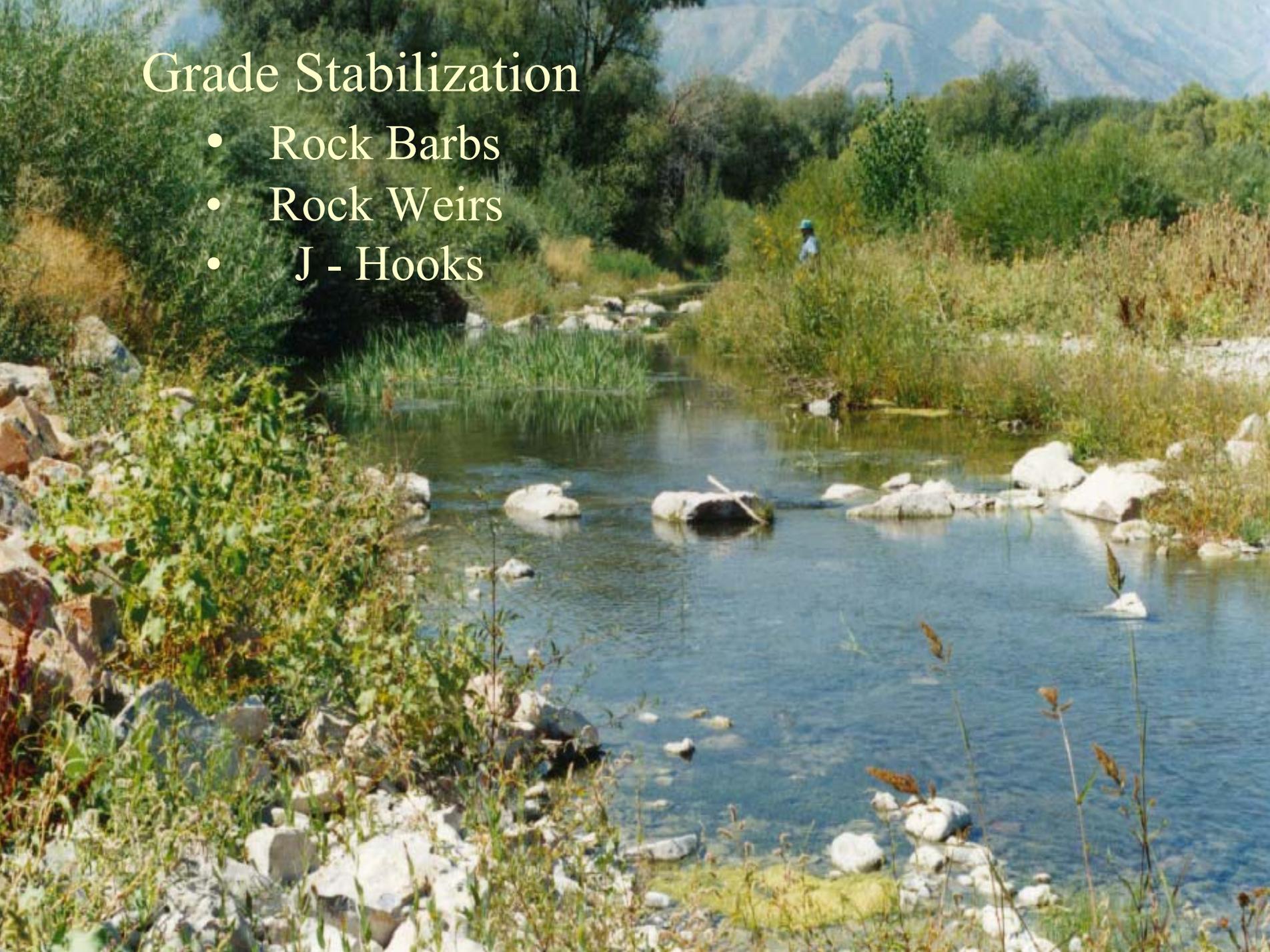
During





# Grade Stabilization

- Rock Barbs
- Rock Weirs
- J - Hooks



# Monitor

## Utah Interagency Nonpoint Source Monitoring Workgroup

**Water Quality (e.g. Nutrients, TSS)**

**Geomorphology**

**Aquatic Habitat (HQI)**

**Sediment Size**

**Macroinvertebrates (indicator Species,  
Functional groups, Metrics)**

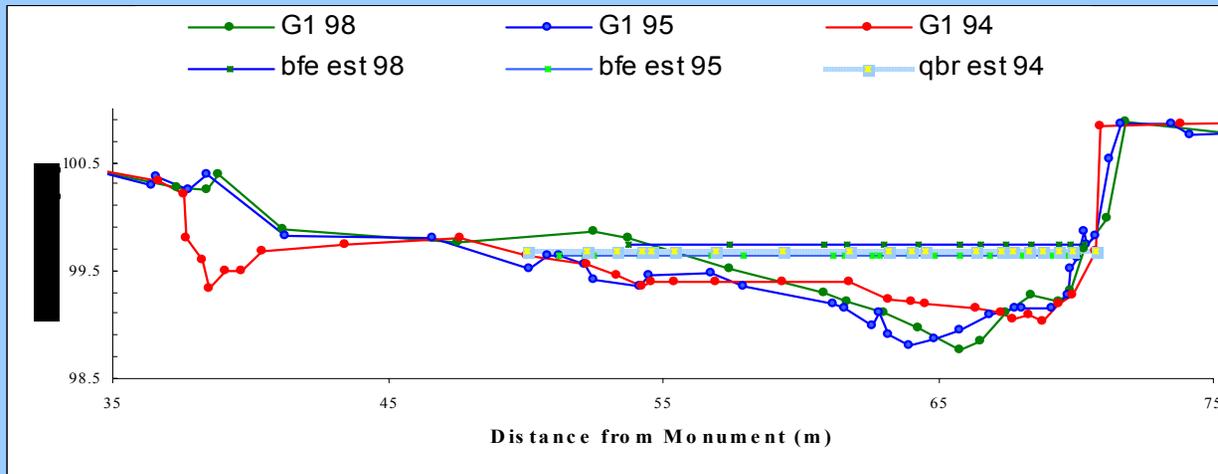
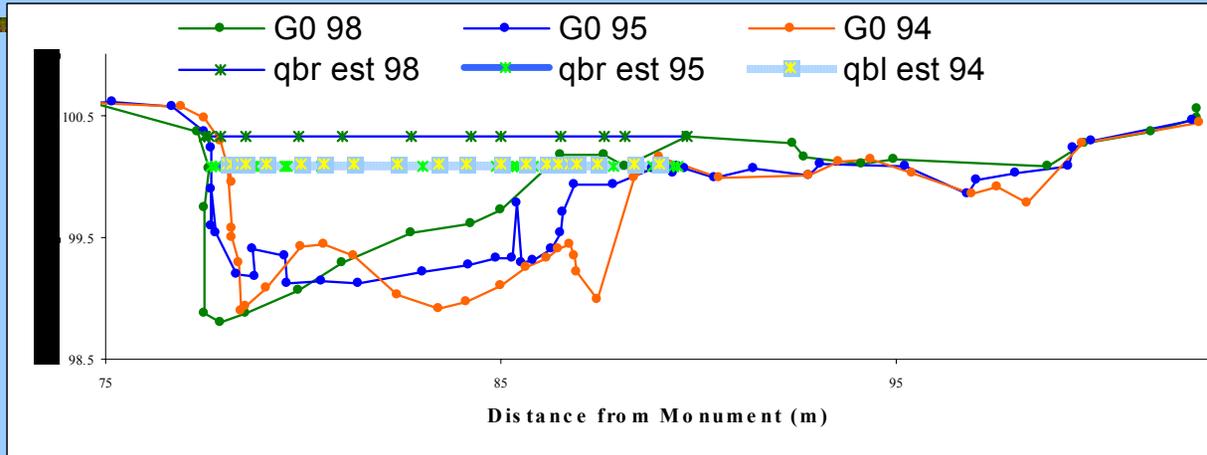
**Riparian – Greenline, Solar Shade**







# Channel Morphometry



# Number of woody plants along the green line transect at the Curtis Site

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<b>Age class</b>	<b><u>Trend in Total Number of Woody Plants</u></b>			
	<b>1994</b>	<b>1995</b>	<b>1996</b>	<b>1998</b>
<b>Seedling</b>	<b>156</b>	<b>364</b>	<b>300</b>	<b>324</b>
<b>Young</b>	<b>74</b>	<b>148</b>	<b>165</b>	<b>208</b>
<b>Mature</b>	<b>15</b>	<b>28</b>	<b>45</b>	<b>49</b>
<b>Decadent</b>	<b>2</b>	<b>2</b>	<b>0</b>	<b>0</b>
<b>Dead</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

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