

**St. Joseph River Watershed  
319 Project  
Road-Stream Crossing Subcommittee**

**August 19, 2003 Meeting**



What is available?

What is required?

What would be useful and efficient?

**Road Stream Crossing Inventory**  
Scoring for Erosion Quantification

SITE NUMBER \_\_\_\_\_  
(scores indicated in parentheses)

Stream Flow Type (check one)  
\_\_\_\_\_ ephemeral/dry (2) \_\_\_\_\_ stagnant (2) \_\_\_\_\_ slow/medium (1) \_\_\_\_\_ high/scouring (3)

Average Stream Depth (check one)  
\_\_\_\_\_ >3' (1) \_\_\_\_\_ <3' (2)

Sedimentation Observed Downstream (check one)

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**Road Stream Crossing Inventory**  
Scoring for Habitat Quality

SITE NUMBER \_\_\_\_\_  
scoring indicated in parentheses

Stream Flow Type (check one)  
\_\_\_\_\_ ephemeral/dry (1) \_\_\_\_\_ stagnant (2) \_\_\_\_\_ slow/medium (3) \_\_\_\_\_ high/scouring (0)

Morphology (may check more than one)  
\_\_\_\_\_ riffle/pool (1) \_\_\_\_\_ meanders (1) \_\_\_\_\_ channelized (0)

Riparian Vegetation Width (L) (check one)  
\_\_\_\_\_ >100 (3) \_\_\_\_\_ 30-100 (2) \_\_\_\_\_ 10-30 (1) \_\_\_\_\_ <10 (0)

Riparian Vegetation Width (R) (check one)  
\_\_\_\_\_ >100 (3) \_\_\_\_\_ 30-100 (2) \_\_\_\_\_ 10-30 (1) \_\_\_\_\_ <10 (0)

Exotic Vegetation Noted?  
\_\_\_\_\_ no (2) \_\_\_\_\_ yes, moderate numbers (1) \_\_\_\_\_ yes, abundant (0)

Canopy Cover  
\_\_\_\_\_ 100% (3) \_\_\_\_\_ 50-100% (2) \_\_\_\_\_ 25-50% (1) \_\_\_\_\_ <25% (0)

Substrate  
\_\_\_\_\_ sedimentation covering substrate (0) \_\_\_\_\_ rubble/sand exposed (3) \_\_\_\_\_ artificial (1)

Instream Cover (1 point for each type present)

- \_\_\_\_\_ Undercut Banks
- \_\_\_\_\_ Overhanging Vegetation
- \_\_\_\_\_ Deep Pools
- \_\_\_\_\_ Boulders
- \_\_\_\_\_ Aquatic Plants
- \_\_\_\_\_ Logs or Woody Debris

Physical Appearance

	Absent (1)	Present (0.5)	Abundant (0)
Floating Algae	_____	_____	_____
Filamentous Algae	_____	_____	_____
Bacterial Sheet/Slimes	_____	_____	_____
Oil Sheen	_____	_____	_____
Trash/Litter	_____	_____	_____

TOTAL SCORE (max score of 30): \_\_\_\_\_

\_\_\_\_\_ )  
\_\_\_\_\_ )  
\_\_\_\_\_, top, middle, etc.)  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_ include height \_\_\_\_\_ feet  
\_\_\_\_\_ include length \_\_\_\_\_ feet  
\_\_\_\_\_  
\_\_\_\_\_ (4)  
\_\_\_\_\_ toe stable, upper edge eroding (1)

**What are the limitations?**

**How can we integrate new data  
into original survey needs?**

**Should one universal form be used?**

**Or can we add certain additional  
parameters to all forms?**

- Length
- Height
- Erosion severity
- Soil type



**Erosion Severity allows you to estimate lateral recession rate.**

**Volume of sediment loss/year = length \* height \* lateral recession rate.**



**Alternatively lateral recession rate can be estimated from aerial photographs or location of bank in relation to stationary object over time.**

**Estimate soil type to convert volume of sediment loss to tons of sediment loss, using the density.**

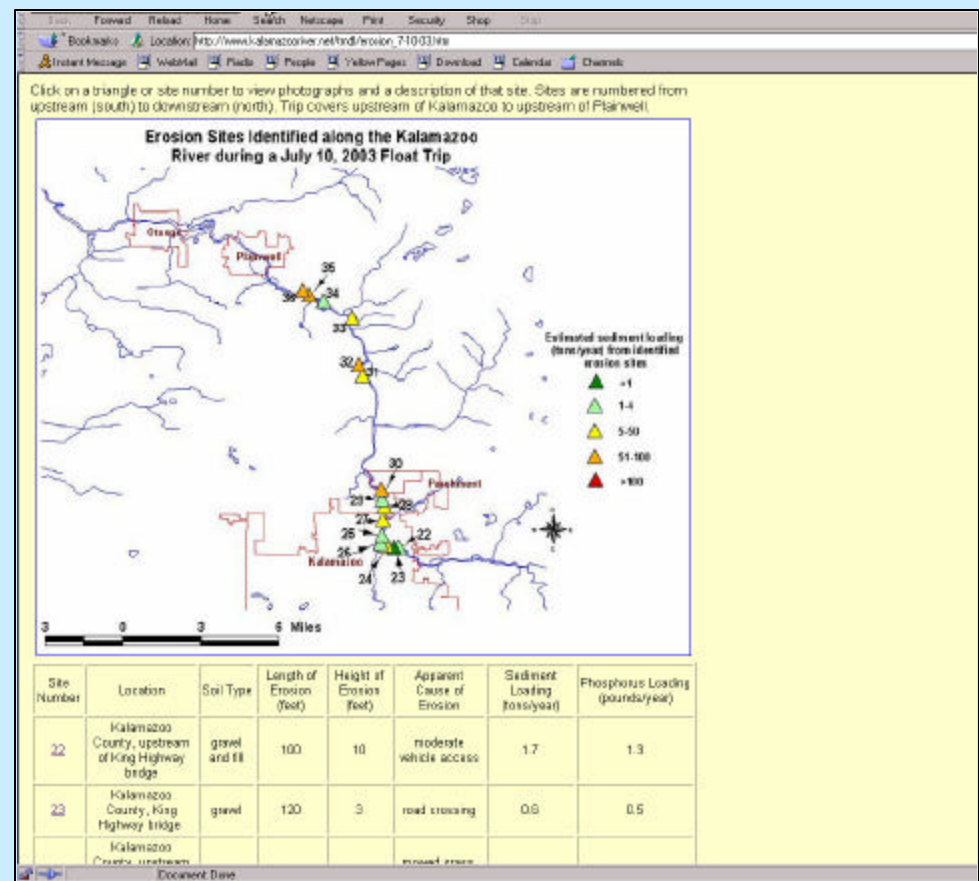
**Volume (cubic feet) \* Density (tons/cubic foot) = Weight of soil loss (tons)**



# How do we report data?

# How do we share data?

- Individual organizations mail hard copies to one repository.
- Individual organizations have spreadsheets for calculations and send updates to Friends, DEQ, etc.
- On-line data entry at one location accessible to public.



## **How do we use the data to set priorities?**

- **319 Implementation projects**
- **Road/Drain Commission maintenance/projects**
- **Subwatershed group projects**