RIVER MONITORING DESIGN

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**Why Monitor?**

- Determine baseline water quality characteristics throughout the watershed
- Screen for potential water quality problems
- Provide scientific basis for making management decisions
- Learn about your local stream
HOW WILL THE DATA BE USED AND WHO WILL USE THE DATA?

- Citizens/citizen groups
- Local municipalities
- County agencies
- State/Federal agencies
WHAT SORT OF BUDGETS DO YOU HAVE?

- Time
- Number of volunteers
- Analyses, additional monitoring equipment, etc.

**IT'S IMPORTANT TO WORK WITHIN YOUR MEANS!!!**
DETERMINE BASELINE WATER QUALITY CHARACTERISTICS THROUGHOUT THE WATERSHED

- Main stem throughout the watershed
- Tributaries
- Above and below potential impacts
DETERMINE BASELINE WATER QUALITY CHARACTERISTICS THROUGHOUT THE WATERSHED

- Mixed land use
- Can focus on
  - Headwaters
  - Tributaries with uniform land uses
  - Above and below potential impacts
What are the water quality conditions in the river at Site 1?
Does the millpond affect the temperature of the river water?
Do the agricultural land use practices affect the river’s turbidity?
Does the fish hatchery influence water quality in the river?
Does the highway affect water quality in the river?

This is a complicated situation that would be tricky to answer.
ADDITIONAL IMPORTANT FACTORS TO CONSIDER

- **Timing**
  - Season
  - Flow

- **Measurements**
  - Dependent on question
  - Dependent on use of data
  - Dependent upon complexity of the land uses

- **Sites**
  - Safety
  - Access (difficult/easy, public/private land)
  - Defined channel