USGS Protocols for the Operation of Continuous Water-Quality Monitors

National Water Quality Monitoring Council
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Key Issues

- Potential data errors
- Protocols and Guidelines
- Data comparability
- Data release and quality assurance
Potential Data Errors

- Fouling
- Calibration drift
Standard Protocol

1. Initial reading: “dirty” **
2. After-cleaning reading: “clean” **
3. Calibration check
4. Recalibration (if necessary)
5. Final reading **

**with side-by-side field meter readings
Fouling on sonde
Fouling on PVC
Clean sonde
Variations of the Standard Protocol

- Steady-state protocol
- Protocol for rapidly-changing conditions
- Hybrid protocol(s)
Data Comparability
Rating Continuous Water-Quality Data

- Assessment of accuracy
- Amount of data recorded and assessment of instrument performance
  - ✔ Excellent
  - ✔ Good
  - ✔ Fair
  - ✔ Poor
USGS Techniques and Methods

- Book 1, Section D3

USGS National Field Manual
http://water.usgs.gov/owq/FieldManual/