

**Elk River TMDL HY 2003 Data Transfer Components:**

- **Hard Copy (Arranged by Station Number)**
  - **Rainfall Data Summaries**
  - **Station Data Validation Rating Codes**
  - **Station Data Summary Report Includes (when applicable)**
    - **Station Visits (Continuous and Episodic)**
    - **Turbidity, SSC, and Discharge**
    - **Calculated Q**
    - **SSC/Discharge Plot**
    - **Turbidity/Discharge Plot**
    - **Stage Q Plot w/equations**
    - **Q Lookup Plot**
    - **Station Cross-section Plot**
    - **Continuous Turbidity and Depth Plots**
    - **Stage vs. Machine Depth Plot w/equations**
    - **Instrument Turbidity Printout**
    - **Instrument vs. Lab Turbidity**
    - **Turbidity vs. SSC**
    - **Station Sediment Data**
    - **Turbidity vs. SSC Log Plot**
- **CD Electronic Copy**
  - **Rainfall Data**
  - **Data Validation Rating Codes Table**
  - **Continuous Sediment Data and Summary (Files by Station)**
  - **ISCO Data, Summary and Lookup Tables (All Stations in one File)**
  - **Machine Depth vs. Stage Data and Summary (All Stations in one File)**
  - **Station Sediment Data and Summary (All Stations in one File)**
  - **Station Sediment and Flow Data and Summaries( All Station in one File)**

TABLE 1. LISTING OF STATION DATA TRANSFER CD CONTENTS

Station	Continuous/ Episodic Station	Continuous Turbidimeter Data and Summary	Stage/Q Data, Plots and Lookup	Stage vs. Machine Depth Data and Plots	ISCO Lookup Data and Plots	Sediment Summary	Station Summary
Elk River							
183	C	HOLD	HOLD	HOLD	HOLD	HOLD	HOLD
188	C	cd	cd	cd	cd	cd	cd
509	C	HOLD	HOLD	HOLD	HOLD	HOLD	HOLD
510	C	cd	cd	cd	cd	cd	cd
511	C	cd	cd	cd	cd	cd	cd
512	C	cd	cd	cd	cd	cd	cd
517	C	cd	cd	cd	cd	cd	cd
522	C	cd	cd	cd	cd	cd	cd
513/525	E	NONE	cd	NONE	NONE	cd	cd
514	E	NONE	cd	NONE	NONE	cd	cd
515	E	NONE	cd	NONE	NONE	cd	cd
516	E	NONE	cd	NONE	NONE	cd	cd
518	E	NONE	cd	NONE	NONE	cd	cd
519	E	NONE	cd	NONE	NONE	cd	cd
520	E	NONE	cd	NONE	NONE	cd	cd
521	E	NONE	cd	NONE	NONE	cd	cd

TABLE 2. LISTING OF ELK RIVER MONITORING STATIONS

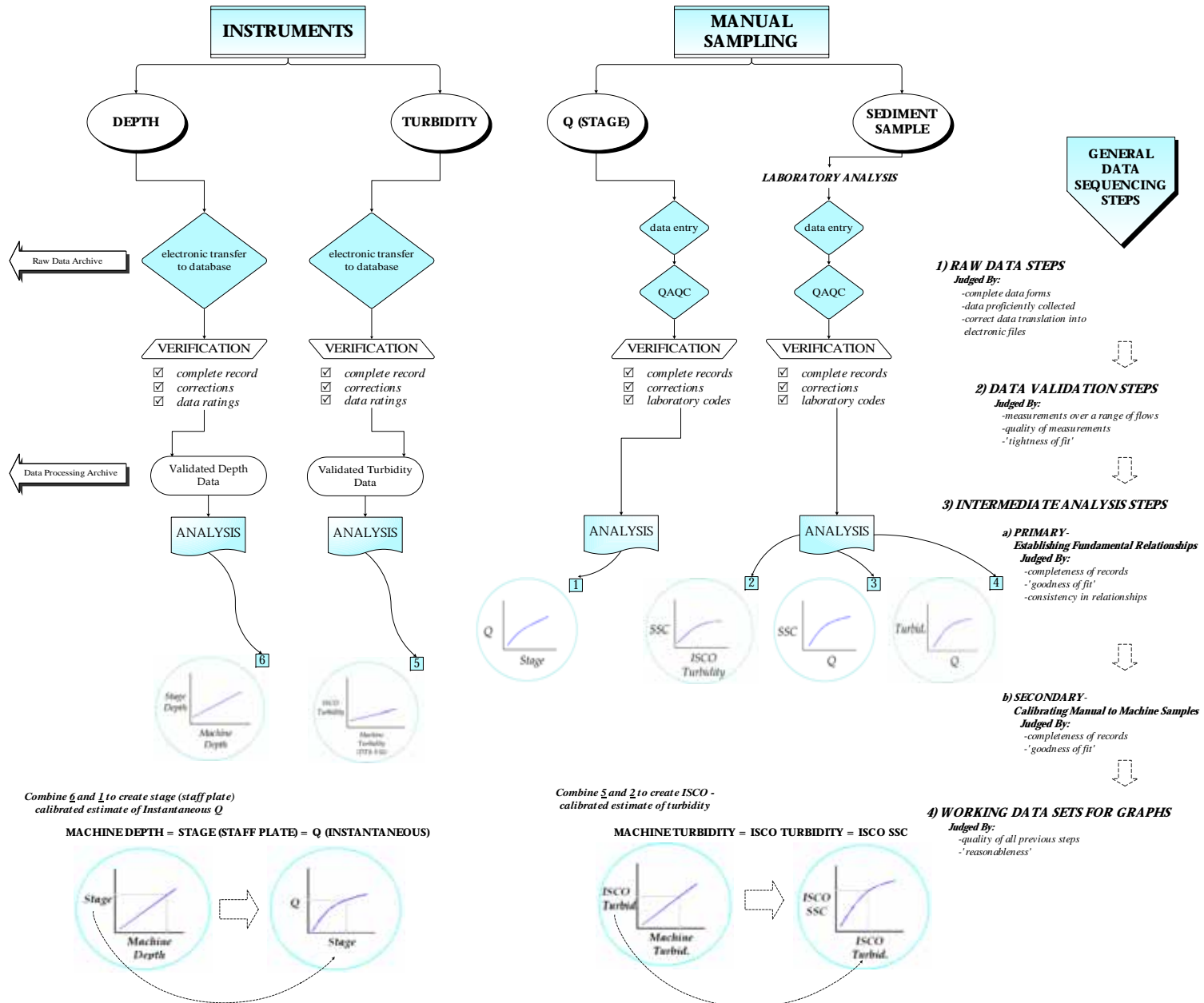
CG-1	20-513, 525	Clapp Gulch, upstream of the confluence with Mainstem Elk River
MS-1	20-509	Main Stem Elk River, approx at USGS gauging station and PALCO's trend Station 166
RR-1	20-514	Railroad Gulch, upstream of the confluence with Mainstem Elk River
SF-1	20-510	South Fork Elk River, approximately at PALCO's trend monitoring Station 175
SF-2	20-183	South Fork Elk River, at PALCO's THP Station 183 (assoc with THP 1-97-520 HUM)
SF-3	20-188	South Fork Elk River, PALCO's THP Station 188 (associated with THP 1-97-520 HUM)
CC-1	20-522	Corrigan Creek, upstream of the confluence with South Fork Elk River ( <i>HSU operated</i> )
NF-1	20-511	North Fork Elk River, downstream of Bible Camp
DG-1	20-515	Dunlap Gulch, upstream of the confluence with North Fork Elk River
BG-1	20-516	Browns Gulch, upstream of the confluence with North Fork Elk River
BC-1	20-517	Bridge Creek, upstream of the confluence with North Fork Elk River ( <i>HSU operated</i> )
SB-1	20-519	North Branch North Fork Elk River, upstream of confluence with North Fork Elk River
NF-2	20-521	North Fork Elk River, upstream of the confluence with North Branch North Fork Elk River
NB-1	20-518	South Branch North Fork Elk River, upstream of confluence with North Fork Elk River
NF-3	20-520	North Fork Elk River, upstream of the Turkey Foot road crossing

TABLE 3. MONITORING PROGRAM SUMMARY

Station Type	Station	Parameter Measurements	Sampling Frequency	Sampling Duration
<b>Continuous Measurement Stations</b>	Mainstem Elk River (MS-1) (EXISTING STATION) S. Fork Elk River 1 (SF-1) S. Fork Elk River 2 (SF-2) S. Fork Elk River 3 (SF-3) N. Fork Elk River 1 (NF-1) <i>To be installed and operated by Humboldt State University:</i> <i>Corrigan Creek 1 (CC-1)</i> <i>Bridge Creek 1 (BC-1)</i>	Continuous turbidity (in situ) and streamflow (stage-discharge relationships)  Weekly depth-integrated point samples for lab turbidity and suspended sediment concentration  Stormflow grab sampling for lab turbidity only	Continuous (every 15 minutes), with data downloads weekly  Weekly depth-integrated point samples at each station (except NF-1)  Stormflow sampling (following 5 significant rainfall events)	From November 4, 2002 until May 15, 2003
<b>Grab Sampling (only) Sites</b>	Clapp Gulch (CG-1) Railroad Gulch (RR-1) Dunlap Gulch (DG-1) Brown's Gulch (BG-1) S. Branch of the North Fork Elk River (SB-1) N. Branch of the North Fork Elk River (NB-1) N. Fork Elk River headwaters (NF-2) N.Fork Headwaters (NF-3)	Turbidity (grab field for weekly, and grab lab for stormflow)  Stage-discharge relationship  Suspended sediment (depth-integrated point sample) – weekly samples only	Weekly scheduled samples and stormflow sampling (following 5 significant rainfall events)	From November 4, 2002 until May 15, 2003
<b>Storm Threshold Suspended Sediment</b>	S. Fork Elk River 1 (SF-1) N. Branch of the North Fork Elk River (NF-1)	Suspended sediment concentration	Stage activated (automated) sampling	Storm events
<b>Continuous Rainfall Measurement</b>	S. Fork Elk River 2 (SF-2) (Site 700) N. Branch of the North Fork Elk River (NB-1) (Site 701)	Rainfall	15minute intervals	Continuous

Raw data quality rating codes		Type of data recovery or correction codes		Quality of data recovery rating codes	
1	Good	1	No action necessary	0	No data to rate
2	Questionable	2	No recovery possible (data loss)	1	No recovery necessary
3	Unknown	3	Data questionable, but maintained	2	Good
4	Error: Unknown	4	Interpolation	3	Fair
5	Error: Equipment malfunction	5	Reconstruction	4	Poor
6	Error: Equipment maintenance	6	Adjustment		
7	Error: Equipment calibration error				
8	Error: Equipment fouled/water depth				
9	Error: Other measurements being taken affecting readings	9	Other	9	Other

# HYDROLOGY DATA FLOW



Combine 6 and 1 to create stage (staff plate) calibrated estimate of instantaneous Q

**MACHINE DEPTH = STAGE (STAFF PLATE) = Q (INSTANTANEOUS)**

Combine 5 and 2 to create ISCO - calibrated estimate of turbidity

**MACHINE TURBIDITY = ISCO TURBIDITY = ISCO SSC**