

MONITORING AND DATA ANALYSIS OF THE DOWNSTREAM FISHERY

PROBLEM: Multi-faceted

- Lack of a collective database to provide long-term trends regarding fish community dynamics.
- Disagreement over what the historic data will contribute to long-term trends (experimental data collection vs. data collected for monitoring).
- Lack of time to evaluate and populate a database for the purpose of trend analysis and understanding community dynamics. (Data collection emphasized over analysis).
- Disagreement over which methodologies provide monitoring information (i.e., sniping among P.I.'s).
- Need/desire for cooperation among researchers and GCMRC to develop the best, most appropriate monitoring program for fish in Grand Canyon and still collect basic life history data.

**EVENTS TIED TO DOWNSTREAM FISH
COMMUNITY**

**LONG-TERM MONITORING OF SEDIMENT --
JANUARY 2001**

STEADY FLOW EXPERIMENTS -- SUMMER 2000?

**TEMPERATURE CONTROL DEVICE EA WITH A
MONITORING PLAN -- 2001**

**TEMPERATURE CONTROL DEVICE
IMPLEMENTATION -- TBD**

BEACH/HABITAT BUILDING FLOWS

Options

1. **Status quo -- award a contract.**
 - This does not move the program forward.
 - But it follows the process regarding RFP's.

2. Concentrate efforts on data analysis and monitoring design.
 - neglects data collection for a year and
 - does not provide a method to deal with contingency experiments that provide no time for planning (field crews/permits, etc.)

3. Do both -- award a contract and release an RFP for analysis
 - Lacking adequate funds to fully fund monitoring proposal and do analysis
 - Analysis requires data from all participants and a contractor may not be able to get this
 - The argument of whose methods are better remains
 - The sniping continues
 - Time?

4. Do both, but do it under GCMRC's direction and with a reduce field effort to afford the analysis
 - Funding is estimated to cover costs of this effort.
 - Additional funding is taken from in-house research which would be appropriate
 - Other programs are not affected by this approach
 - Potentially get more buy-in from P.I.'s
 - Data collection emphasized critical life history stages of fish.

Plan elements

1. Database development and population
2. Data analysis
3. Sampling design recommendation
4. Monitoring design/implementation/evaluation
5. Baseline data collection

Products

1. Structured database that is integrated with GIS and other tabular data (e.g., water quality, habitat values-side scan sonar). Single location and data sharing protocols.
2. Determination of the value and relevance of historic data to trends of fish community below L.F.
3. Monitoring design that has undergone peer-review and protocol evaluation prior to long-term implementation.
4. Data collection efforts that bring fishery data into the 21st century, meaning quicker turn around of information.
5. Data available for evaluating temperature control device and other management experiments.