

GCMRC FY03 Core Monitoring Program

Individual Project Summary and Cost



Terrestrial Ecosystem Monitoring Project

- Simultaneous assessment of multiple trophic levels (plants, invertebrates, herps, mammals, riparian breeding birds) (5 trips/year).
- Estimates: relative abundance each year of birds, vegetation volume/structure. Density and identity of invertebrate food base across zones (terrestrial and aquatic). Survey for distribution and abundance of mammals and herps.



Terrestrial Ecosystem Monitoring Project continued....

- Provides: Habitat quality information (long-term change); Corridor-wide species change (wetlands score, diversity index) relative to operations (year-year effects).
- FY03 Cost: \$244,202 contract personnel, \$25,000 (GCMRC); \$140,000 IT, \$249,171 logistics: Total Annual Cost of Terrestrial Monitoring-\$658, 373



Terrestrial Ecosystem Monitoring continued... Tribal Participation

- Information transfer of terrestrial data for tribal interpretation.
- Augmenting monitoring with tribal monitoring methods
- FY03 Cost: \$125,000 contract personnel; \$60,000 logistics: Total \$185,000



Kanab Ambersnail Monitoring at Vaseys Paradise

- Spring and Fall habitat and snail surveys (2 trips). Logistic support for surveys at downstream translocation sites.
- Provides: area of inundation for BHBF's and available habitat estimates, adult snail population estimates.
- FY03 Cost: \$12,500 contract personnel, \$20,000 (GCMRC); \$25,952 logistics: Total Cost-\$58,452



Integrated Water Quality Downstream Monitoring

- Quarterly sampling in concert with WRD or other trips.
- Provides: continuous temp, conductivity, pH, dissolved oxygen
- FY03 Costs: Contracts \$78,000, GCMRC salary \$ 71,000, IT \$21,000, Logistics \$32,000: Total Cost - \$202,000



Reach-Scale Changes" in Fine-Grained Sediment Storage
Within the Main Channel of the Colorado River

Status: Ongoing "Reach-Integrated" Monitoring Project

Objective: Change Detection for Fine-Sediment Storage
Throughout Bed and Shorelines of the Main Channel; Supporting
Management Goals #8, #9 and #11; MO's 8.1-8.5, 9.3 and 11.1-11.2

Schedule: Year 3 of 5, with Completion of Phase I in FY05

FY03 Total Project Cost: \$426,000

Accomplishments: Annual Fact Sheets on Camping Beach Area
Changes, as Well as High-Elevation Bar Areas and Volumes at 30 Long-
Term Study Sites. Biennial Data and Reports on Changes in Fine
Sediment Grain-Size, Area and Volume Throughout 11 Main Channel
Segments. Interpretive Reports End of Phase I (FY05)



"Fine-Sediment Mass Balance" (Stream Flow, Fine-
Sediment Transport and Water Quality Monitoring)

Status: Ongoing Integrated Monitoring Project

Objective: Tracking Monthly Sand Mass Balance for the Ecosystem;
Supporting Management Goals #7 and #8; MO's 7.1-7.3 and 8.1-8.5

Schedule: Year 3 of 5, with Completion of Phase I in FY05

FY 2003 Total Project Cost: \$575,000

Accomplishments: Intensive Sediment Sampling Within Major and
Minor Tributaries, as Well as at Main Channel Gaging Stations. Semi-
Annual Reports on Sand Mass Balance Results for Two Main-Channel
Locations Since Summer 1999 (see poster). Water Quality Data along Main
Channel. Interpretive Reports Scheduled for End of Phase I (FY05).



"Coarse-Grained Sediment" Tributary Gravel Inputs, Storage
Changes and Impacts to Physical Habitats

Status: Ongoing Integrated Monitoring Project

Objective: Tracking Annual to Decade-Scale Gravel Flux
Within Ecosystem; Supporting Management Goals #1, #8
and #9; MO's 1.4, 8.1-8.6 and 9.2-9.3

Schedule: Year 3 of 5, with Completion of Phase I in FY05

FY 2003 Total Project Cost: \$138,000

Accomplishments: Annual Monitoring Report Documenting
Impacts of Tributary Debris Flows on Main Channel Resources,
Effects of Dam Operations on Coarse-Sediment Deposits.
Collaboration with Advanced Conceptual Modeling Project.
Interpretive Reports Scheduled for End of Phase I (FY05).

