

FY 2000 LOW STEADY SUMM LOW SCIENCE ACTIVITITES

Project ID	Project Title and PI
A.	ECOSYSTEM STUDIES
1. a.	Effect of Discharge on Shoreline Channel and Tributary Velocities and the Effect of Thermal Inputs on Mainstem Temperatures PI: Frank Protiva, Shephard-Wesnitzer, Inc.
1. b.	Effect of Discharge and Flows on Temperatures in Aquatic Habitats. PI: Wm. Vernieu, GCMRC
1. c.	Monitoring Effects of the Test Flow on Suspended Sediment and Turbidity Levels in the Main Channel of the Colorado River. PI: Nancy Hornewer
2. a.	Monitoring Effects of Test Flows on Sand Storage in the Main Channel and Eddy Complexes PI: Rod Parnell, NAU
3. a.	Effect of Steady vs. Fluctuating Flows on Creation of "Vegetated Shoreline" for Juvenile Fish and Recruitment of Exotic Plants in Newly Available Habitat. PI: Mike Kearsley, NAU
3. b.i.	Effect of Low Steady Flows on Drift and Benthic Biomass and Composition in the Lees Ferry Reach and Downstream PI: Dean Blinn, NAU
3. b.ii.	Effect of Low Steady Flows on Drift and Benthic Biomass and Composition in the Lees Ferry Reach PI: Bill Persons, AGFD
3. c.	Algal Colonization and Recolonization Response Rates During Experimental Low Summer Steady Flows PI: Dean Blinn, NAU and Mike Yard, GCMRC
4. a.	Effect of Steady Flows on Relative Abundance and Distribution of Young-of-year Fish Along Shoreline Below the Little Colorado River PI: Rich Valdez, SWCA
4. b.	Monitoring of the Colorado River Fish Community PI: Barbara Ralston, GCMRC; Bill Persons, AGFD
4. c.	Effects of Flow and Temperature Releases from Glen Canyon Dam on the Accessibility of Suitable Habitat for HBC Juveniles in the Colorado River. PI: Steve Wiele, USGS; Josh Korman, Ecometric
4. d.	Effect of Low Summer Steady Flows on Lees Ferry Trout PI: Bill Persons, AGFD
B.	LAKE POWELL STUDIES
1.	Effects of the Low Steady Summer Flow Experiment on the Stratification, Composition, and Hydrodynamics of Lake Powell, and the Downstream Effects of that Limnology. PI: Susan Hueftle and Bill Vernieu, GCMRC
C.	INTEGRATED MONITORING OF SAND STORAGE AND BUDGET STUDIES
1.	Additional Channel-Bed Substrate Mapping PI: R. Anima, D. Rubin, D. Hoagg, P. Chavez 1.a. Bed Grain-Size Change Detection 1.b. 2-D Bed Substrate Change Detection
2.	A Collaborative Project Before, During, and After the 31,000 cfs Fall Test Flow With Integrated and Alternative Methods to Monitor Sand Transport and Storage • Team lead & synthesis - Schmidt

	<ul style="list-style-type: none"> • Photogrammetry – Horizons • Radiometer & CIR - Chavez • Change-Detection of Sand Storage in the contiguous study reaches of the Main Channel and Eddy Complexes - Parnell • Streamflow and Sediment Modeling - Wiele • Intensive Fall 31,000 cfs Suspended-Sediment data collection - USGS • Data Analysis – Topping
D.	AERIAL PHOTOGRAPHY AND REMOTE SENSING
1.	Topographic Base Map
2.	<ol style="list-style-type: none"> 1. Pre spring 31,000 cfs CIR and B&W Orthophotography 2. CIR and B&W orthophotography of 1st 100 miles <ol style="list-style-type: none"> a. Thermal IR b. Pre fall 31,000cfs B&W c. Peak 31,00cfs CIR d. Post fall 31,000 cfs B&W 3. CIR of entire CRE (annual overflight with supplement)
3.	Survey support: Equipment purchase, rental, etc.
E.	SOCIO-CULTURAL WORK
1.	Whitewater boating safety below Lees Ferry PI: Linda Jalbert, NPS
2.	Economic impacts to concessionaires: angling & whitewater boating PI: Yeon-su Kim, NAU
3.	Economic impacts to power customers PI: Clayton Palmer, WAPA
4.	Changes in whitewater boating trip characteristics PI: NPS and NAU
5.	Changes in campable beach area. PI: Lambert
F.	LOGISTICS
1.	22' and 32' boat rentals, purchase two 30 HP motors, purchase 2 satellite phones, purchase additional trip equipment (kitchen, stove, water purification, coolers, boxes, etc.). Electrofisher and motor set up.
G.	INFORMATION SYNTHESIS AND DISSEMINATION
1.	Science Symposium
2.	Contributed Papers Volume
3.	GCMRC Program Manager's Synthesis
H.	LSSF SCIENCE PLANNING
1.	Meetings / Travel, etc.