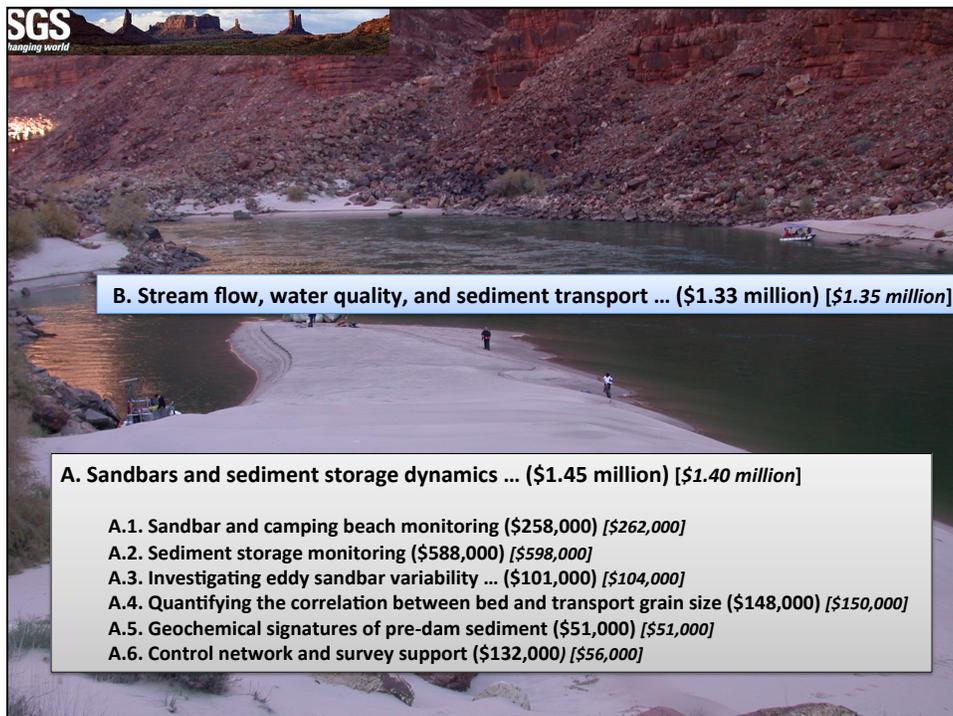


FY13/14 specifics

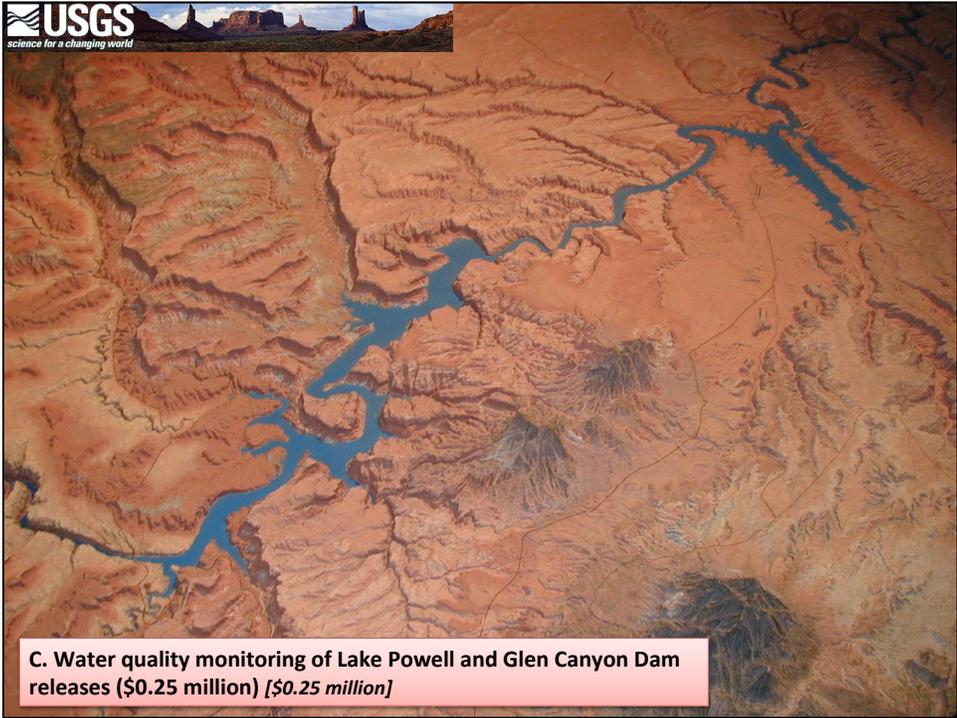
Jack Schmidt
GCMRC



B. Stream flow, water quality, and sediment transport ... (\$1.33 million) [\$1.35 million]

A. Sandbars and sediment storage dynamics ... (\$1.45 million) [\$1.40 million]

- A.1. Sandbar and camping beach monitoring (\$258,000) [\$262,000]
- A.2. Sediment storage monitoring (\$588,000) [\$598,000]
- A.3. Investigating eddy sandbar variability ... (\$101,000) [\$104,000]
- A.4. Quantifying the correlation between bed and transport grain size (\$148,000) [\$150,000]
- A.5. Geochemical signatures of pre-dam sediment (\$51,000) [\$51,000]
- A.6. Control network and survey support (\$132,000) [\$56,000]



The image features the USGS logo in the top left corner with the tagline "science for a changing world". The main part of the image is an aerial photograph of Lake Powell, a large reservoir in a desert canyon. The water is a vibrant blue, contrasting with the reddish-brown, eroded rock walls of the canyon. The terrain is rugged with many small tributaries and canyons.

C. Water quality monitoring of Lake Powell and Glen Canyon Dam releases (\$0.25 million) [\$0.25 million]

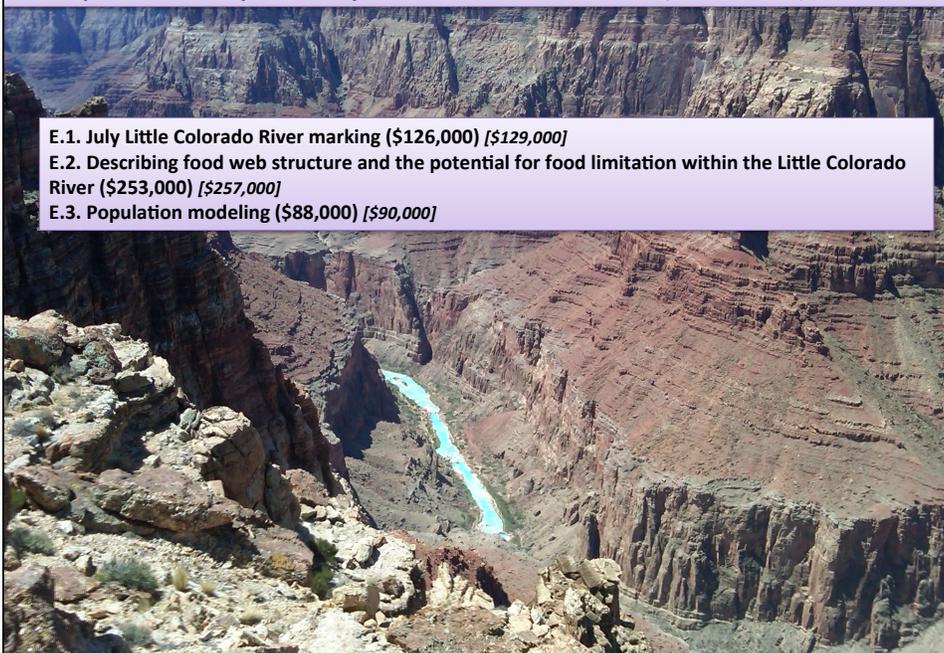


The image shows a wide, winding river flowing through a deep canyon. The river is a light blue-grey color, likely due to sediment. The canyon walls are steep and rocky, with some sparse vegetation. The lighting suggests it's either early morning or late afternoon, with long shadows.

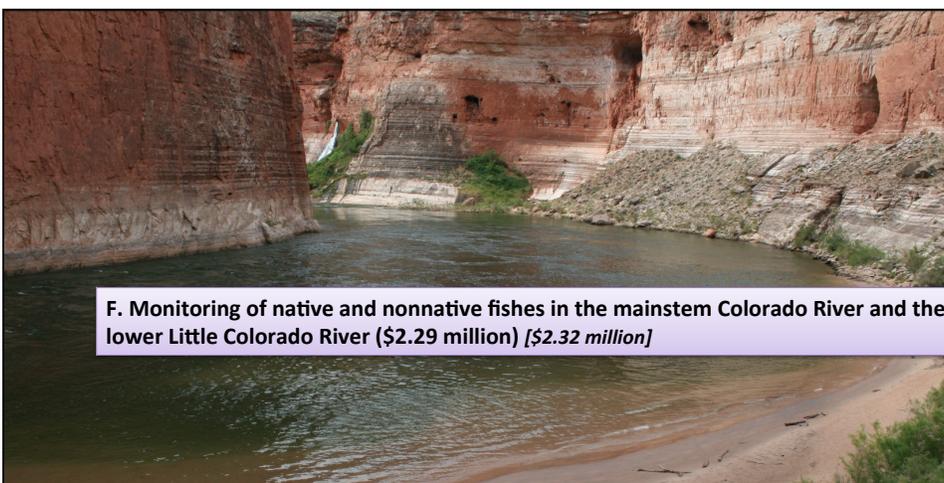
D. Mainstem humpback chub aggregation studies (\$0.36 million) [\$0.37 million]

D.1. Aggregation sampling (\$197,000) [\$200,000]
D.2. Natal origins of humpback chub(\$166,000) [\$167,000]

E. Humpback chub early life history near the Little Colorado River (\$0.47 million) [\$0.48 million]

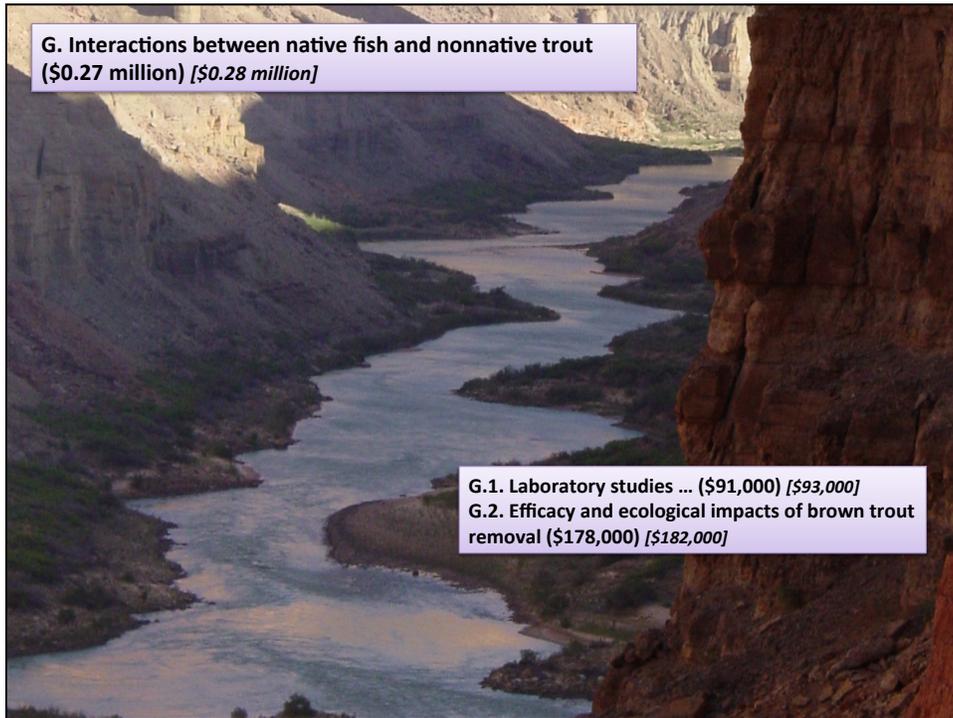


- E.1. July Little Colorado River marking (\$126,000) [\$129,000]
- E.2. Describing food web structure and the potential for food limitation within the Little Colorado River (\$253,000) [\$257,000]
- E.3. Population modeling (\$88,000) [\$90,000]



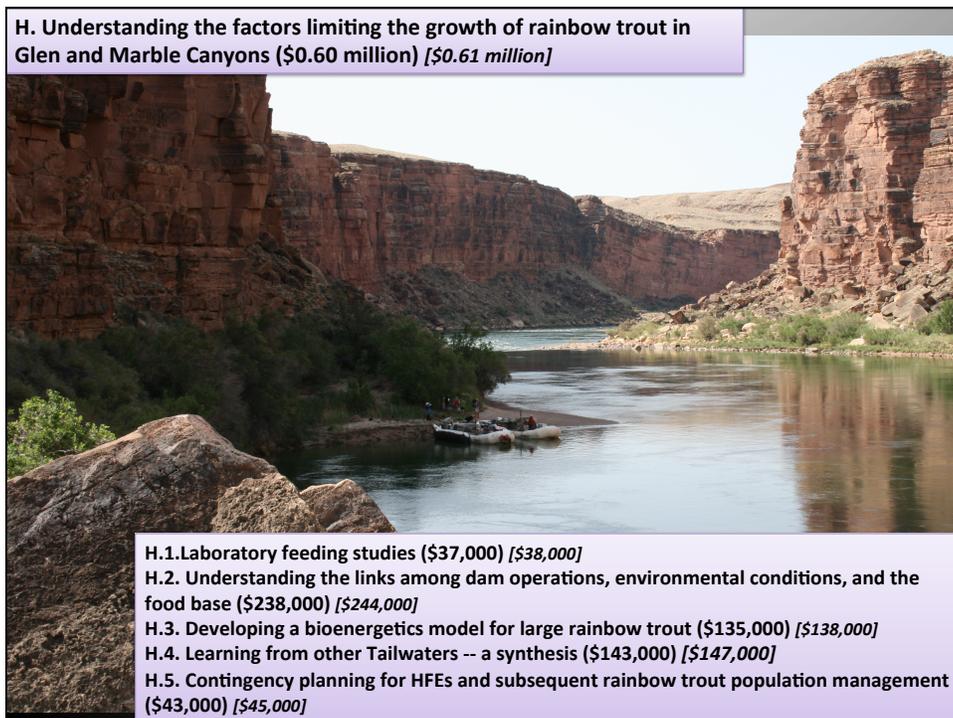
F. Monitoring of native and nonnative fishes in the mainstem Colorado River and the lower Little Colorado River (\$2.29 million) [\$2.32 million]

- F.1. Systemwide electrofishing (\$214,000) [\$217,000]
- F.2. Glen Canyon monitoring (\$261,000) [\$264,000]
- F.3. Mainstem monitoring of native and nonnative fishes near the Little Colorado River; juvenile chub monitoring (\$457,000) [\$464,000]
- F.4. Little Colorado River monitoring (\$805,000) [\$811,000]
- F.5. Stock assessment and structured mark recapture model of humpback chub abundance (\$20,000) [\$20,000]
- F.6. Detection of rainbow trout movement from Glen Canyon into Marble Canyon (\$271,000) [\$276,000]
- F.7. Food base monitoring (\$266,000) [\$272,000]



G. Interactions between native fish and nonnative trout
(\$0.27 million) [*\$0.28 million*]

G.1. Laboratory studies ... (\$91,000) [*\$93,000*]
G.2. Efficacy and ecological impacts of brown trout removal (\$178,000) [*\$182,000*]



H. Understanding the factors limiting the growth of rainbow trout in Glen and Marble Canyons (\$0.60 million) [*\$0.61 million*]

H.1. Laboratory feeding studies (\$37,000) [*\$38,000*]
H.2. Understanding the links among dam operations, environmental conditions, and the food base (\$238,000) [*\$244,000*]
H.3. Developing a bioenergetics model for large rainbow trout (\$135,000) [*\$138,000*]
H.4. Learning from other Tailwaters -- a synthesis (\$143,000) [*\$147,000*]
H.5. Contingency planning for HFEs and subsequent rainbow trout population management (\$43,000) [*\$45,000*]

I. Riparian vegetation studies (\$0.37 million) [\$0.38 million]



I.1. Monitor vegetation and channel response using response guilds and landscape scale vegetation change analysis (\$368,000) [\$377,000]



J. Monitoring Cultural Resources at a Small Scale and Defining the Large-Scale Geomorphic Context of the Processes Affecting Cultural Resources (\$534,000) [\$540,000]

J.1. Cultural site monitoring in Glen Canyon (\$159,000) [\$162,000]

J.2. Monitoring of Select Cultural Sites in Grand Canyon (\$189,000) [\$191,000]

J.3. Defining the Extent and Relative Importance of Gully Formation and Annealing Processes in the Colorado River Ecosystem (\$186,000) [\$187,000]



