

TWG Meeting Nov. 8, 2000:

Additions/Corrections to GCMRC FY2002
Monitoring and Research Work Plan

(Draft dated October 30, 2000)

- Sent to TWG 10-31-00 -

SCHEDULE AND BUDGET

The Annual Work Plan and budget described in this document were reviewed by the TWG in Fall 2000, and the AMWG recommended at their January 11-12, 2001, meeting that it be approved by the Secretary for implementation. The GCMRC FY 2002 Work Plan described in this document will be implemented for \$6,576,000 provided from power revenues.

For information about AMP activities and budget, and the Programmatic Agreement, please contact Mr. Randall Peterson at the Bureau of Reclamation, Salt Lake City, Utah.

In addition, GCMRC is seeking \$1,010,000 in appropriated funds to support the activities described in this plan. If these appropriated funds are not available, GCMRC will need to revise some of the activities described in this plan. Finally, GCMRC will be seeking \$307,000 in support for water-quality-related activities in Lake Powell.

5. Prioritize promising technologies based on this evaluation into ones which deserve further evaluation and possible field testing.
6. Conduct pilot field tests of selected technologies and evaluate the results of those field tests.
7. Recommend to the GCMRC Chief which, if any, of the ground-based and airborne remote sensing technologies should be utilized in the Grand Canyon.
8. Develop the needed protocols and implement a ground-based and airborne remote sensing program, as appropriate.

Schedule: The remote sensing initiative begins in FY 2000 and continues for three years through FY 2002. A report summarizing the evaluation is scheduled for 2003.

FUNDING:

AMP	\$440,180
TOTAL	\$440,180

OBJECT CLASS	DESCRIPTION	FY-2001	FY-2002
11.0	Salary (includes benefits)		19,580
	Research Information Analyst (.22)	8,700	19,580
25.0	Contracts		400,000
	Biology		
	Cultural		
	Physical		
	Other	400,000	400,000
25.0	Services		20,600
	Logistics		
	Survey (Surveyor .10)	8,300	8,600
	GIS (GIS Specialist .20)	6,100	12,000
	TOTAL	423,100	440,180

TABLE 2.3 Funding Sources

SUMMARY BY PROJECT	AMP		Appropriation Request
	Power Revenues		
I. SCIENTIFIC OPERATIONS			
A. TERRESTRIAL ECOSYSTEM ACTIVITIES		799,660	
1. Terrestrial Ecosystem Monitoring	386,730		
2. Monitoring Kanab Ambersnail & Habitat at Vasey's Paradise	80,650		
3. New Research in Terrestrial Ecosystems	93,000		
4. Cultural Data Base Plan	42,050		
5. Cultural Resource Monitoring Plan** ^e	40,130		200,000
6. Terrestrial Habitat Map and Inventory**	157,100		
B. AQUATIC ECOSYSTEM ACTIVITIES		1,383,170	
1. Mon. Aquatic Foodbase & Evaluating its Quality for Util.	312,030		
2. Mon. of the Status and Trends of Downstream Fish Comm.**	672,830		200,000
3. Mon. of the Status and Trends of the Lees Ferry Trout Fishery	137,830		
4. Ongoing Research Assoc. with Population Genetics of HBC	16,050		
5. New Research Assoc. Inter. Between Native & Non-Native Fish**	63,450		125,000
6. Integrated Water Quality Monitoring	180,980		
C. INTEGRATED TERRESTRIAL & AQUATIC ECOSYSTEM ACTIVITIES		1,732,330	
1. LT Mon. of Fine-Grained Sed. Storage throughout Main Channel	492,160		
2. LT Mon. of Streamflow and Fine-Sed. Trans. in the Main Chan.	607,860		
3. LT Mon. of Coarse-Grained Sed. Inputs, Storage & Impacts	130,260		
4a. Modeling Reach-Averaged Sand Bar Evol. In Response	166,510		
4b. Dev. Of a One-Dimensional Fine Sed-Routing Model	141,750		
5. Advanced Conceptual Modeling of Coarse-Grained Sediments	99,250		
6. Control Network	18,280		
7. Channel Mapping	32,580		
8. Public Outreach	43,680		
D. REMOTE SENSING ACTIVITIES		440,180	
1. Evaluating Ground-Based & Airborne Remote Sensing Tech.	440,180		
II. MANAGEMENT AND BUDGET			
E. UNSOLICITED PROPOSALS	123,000	123,000	
F. IN-HOUSE RESEARCH	20,000	20,000	
G. AMWG/TWG REQUESTS	61,000	61,000	
H. INFORMATION TECHNOLOGIES PROGRAM SUPPORT		619,190	
Data Base Management System	101,240		
Geographic Information System	149,450		
Library	65,500		
Survey Services**	70,550		50,000
System Administration	172,450		
World Wide Web	60,000		
Aerial Photography**	0		135,000
I. LOGISTICS OPERATIONS (ALLOCATED TO PROJECTS)	0	0	
J. INDEPENDENT REVIEW PANELS**	194,200	194,200	50,000
K. ADMINISTRATION & PERSONNEL**	1,203,270	1,203,270	250,000
TOTAL	6,576,000	6,576,000	1,010,000

** Appropriated funding requested.

FUNDING SOURCES	TOTAL
ADAPTIVE MANAGEMENT PROGRAM - Power Revenues	6,576,000
APPROPRIATED FUNDING REQUEST	1,010,000
TOTAL	7,586,000

Provide GIS support to the remote sensing initiative

The GIS program supports the remote sensing initiative by developing protocols for seamless integration into existing datasets, ensuring that the delivered products meet contract technical specifications and conform to GCMRC data standards, and assisting in program development and execution by recommending sites where remote sensing evaluations would be most useful and cost effective and providing logistical support in data collection

Migrate GIS data from INFO to Oracle database

GCMRC's selection of the Oracle data base engine presents additional challenges to the GIS. Currently GIS data layers are stored in an obsolete database called INFO. Advances in software allows us to migrate this data from INFO to the Oracle relational database system while maintaining all the mapping and analysis capabilities of the GIS. Using a software called Spatial Database Engine, GIS information and tabular data will now be stored in a single Oracle database management system allowing us to fully integrate tabular data with spatial layers developed through remote sensing or the GIS program. In addition, the GIS will now be able to take advantage of modern database tools that are available in the Oracle software and not in the INFO software.

The cost of these ongoing and three additional activities in FY2002 is:

OBJECT CLASS	DESCRIPTION	FY-2001	FY-2002
AMP Funding			
	GIS Services		149,450
11.0	Salary (includes benefits)		91,450
	GIS Specialist (1-fte) (56%)	48,800	33,600
	GIS Assistant (1-fte) (95%)	42,000	40,850
	GIS Student Asst (.5-fte) (100%)		17,000
21.0	Travel		4,000
25.0	Services		8,000
26.0	Supplies and Materials	12,000	11,000
31.0	Equipment		35,000
	TOTAL	102,800	149,450

FUNDING:

AMP \$1,203,270
Appropriations \$250,000
TOTAL \$1,453,270

OBJECT CLASS	DESCRIPTION	FY-2001	FY-2002
AMP Funding			
	Administrative Operations		817,540
11.0	Salary (includes benefits)	318,000	283,540
	Chief (1-fte) (40%)		60,800
	Secretary (1-fte) (88%)		37,840
	Administrative Officer (1-fte) (90%)		54,900
	Administrative Assistant (1-fte) (100%)		37,000
	Student Assistant - Secretary (.5-fte) (100%)		16,000
	Student Assistant - Program Sup (.5-fte) (100%)		16,000
	Logistics Operations Specialist (1-fte) (5%)		2,700
	Supply Technician "Whse Mgr" (1-fte) (25%)		10,000
	Biological Scientist (Program Mgr) (1-fte) (5%)		4,450
	Biologist (General) (1-fte) (5%)		3,000
	Biologist (Aquatic) (1-fte) (5%)		3,000
	Ecologist (1-fte) (5%)		3,000
	Physical Scientist (Program Mgr) (1-fte) (5%)		4,450
	Social Scientist (Program Mgr)(1-fte) (5%)		4,450
	Research Info. Analyst (Program Mgr (1-fte) (5%)		4,450
	GIS Specialist (1-fte) (5%)		3,000
	GIS Assistant (1-fte) (5%)		2,150
	Computer Specialist, DBMS (1-fte) (5%)		3,700
	Computer Specialist, Administrator (1-fte) (5%)		3,000
	Technical Information Specialist (1-fte) (5%)		2,500
	Surveyor (1-fte) (5%)		4,300
	Surveying Technician (1-fte) (5%)		2,850
	Awards	12,000	
21.0	Travel	33,000	25,000
23.0	Payments Made to GSA		216,000
	Space and Telecommunications	180,000	184,000
	Vehicle Lease	30,000	32,000
24.0	Printing and Reproduction		5,000
	GPO Copy Agreement	5,000	5,000
25.0	Services and Contracts		27,000
	Office Equipment Maintenance & Repairs	6,000	7,000
	Training Attendance	18,000	18,000
	Vehicle Maintenance & Repairs	2,000	2,000

OBJECT				
CLASS	DESCRIPTION	FY-2001	FY-2002	
26.0	Supplies and Materials	45,000	48,000	48,000
31.0	Equipment	20,000	20,000	20,000
81.0	Intra-Office/Inter-Bureau		193,000	
	Administrative & Network Support - USGS/FFC	64,000	65,000	
	Regional Office Administrative Support	125,000	128,000	
	Biological Resources Management		132,230	
11.0	Salary (includes benefits)	116,370	124,230	
	Chief (1-fte) (5%)		7,600	
	Secretary (1-fte) (2%)		860	
	Administrative Officer (1-fte) (2%)		1,220	
	Biological Scientist (Program Mgr) (1-fte) (35%)		31,150	
	Biologist (General) (1-fte) (35%)		21,000	
	Biologist (Aquatic) (1-fte) (55%)		33,000	
	Ecologist (1-fte) (32%)		19,200	
	Student Assistant - Biology (.5-fte) (60%)		10,200	
21.0	Travel	8,000	8,000	
	Physical Resources Management		38,360	
11.0	Salary (includes benefits)	46,710	34,360	
	Chief (1-fte) (5%)		7,600	
	Secretary (1-fte) (2%)		860	
	Administrative Officer (1-fte) (2%)		1,220	
	Physical Scientist (Program Mgr) (1-fte) (22%)		19,580	
	Student Assistant - Physical (.5-fte) (30%)		5,100	
21.0	Travel	4,000	4,000	
	Socio-Cultural Resources Management		57,810	
11.0	Salary (includes benefits)	53,490	53,810	
	Chief (1-fte) (5%)		7,600	
	Secretary (1-fte) (2%)		860	
	Administrative Officer (1-fte) (2%)		1,220	
	Social Scientist (Program Mgr)(1-fte) (17%)		15,130	
	Economist - Harpman (TSC) (100%)		12,000	
	Student Asst - Cultural Resources (.5-fte) (100%)		17,000	
21.0	Travel	4,000	4,000	
	ITP Program Management		67,520	
11.0	Salary (includes benefits)		59,520	
	Research Info. Analyst (PrG. Mgr) (1-fte) (56%)	78,300	49,840	
	Chief (5%)		7,600	
	Secretary (2%)		860	
	Administrative Officer (2%)		1,220	
21.0	Travel	8,000	8,000	
	AWG/TWG		89,810	

OBJECT			
CLASS	DESCRIPTION	FY-2001	FY-2002
11.0	Salary (includes benefits)		77,810
	Chief (1-fte) (30%)		45,600
	Secretary (1-fte) (4%)		1,720
	Administrative Officer (1-fte) (2%)		1,220
	Biological Scientist (Program Mgr) (1-fte) (5%)		4,450
	Physical Scientist (1-fte) (5%)		4,450
	Social Scientist (Program Mgr)(1-fte) (5%)		4,450
	Research Info. Analyst (Program Mgr) (8%)		7,120
	Surveyor (1-fte) (4%)		3,440
	GIS Specialist (1-fte) (4%)		2,400
	Computer Specialist (Database) (4%)		2,960
21.0	Travel	12,000	12,000
	TOTAL	1,188,870	1,203,270

OBJECT			
CLASS	DESCRIPTION	FY-2001	FY-2002
Appropriations			
11.0	Administrative Support Personnel (2 positions)		120,000
81.0	Administrative Support from Flagstaff & USGS Regions		130,000
	TOTAL		250,000

Program Schedule

The tentative schedule for implementation of the FY 2001 Monitoring and Research Plan (annual plan) is as follows:

January 11-12, 2000	AMWG review of FY 2002 Annual Plan and recommendations for implementation
March 2001	Review of FY 2000 program accomplishments
April 2001	First Progress Report due on FY 2001 program activities
April-May 2001	Release of RFPs
July 2001	Second Progress Report due on FY 2001 program activities
July 2001	Receipt of Proposals for FY 2002 program
August 2001	Panel Review of FY 2002 Proposals
September 2001	Notification of Intent for FY 2002 Awards
September 2001	Draft Final Reports due on FY 2001 program activities
Sept./Oct. 2001	FY 2002 Awards
October 2001	Develop Logistics Plan for FY 2002 program
October 2001	Draft FY 2003 Annual Plan and FY 2001 "State of the Colorado River Ecosystem Resources" report for review by TWG/AMWG
December 2001	Final "State of the Colorado River Ecosystem Resources" report to AMWG.
December 2001	Final Reports on FY 2001 programs with all contract deliverables
January 2002	AMWG review of FY 2003 Annual Plan and recommendations for implementation

GCMRC Budget

The total FY2002 budget for the GCMRC is \$7,893,000. This includes \$307,000 programmed for the IWQP in Lake Powell from Reclamation operation and maintenance funds and \$1,010,000 in funds requested from appropriations.