

United States Department of the Interior GRAND CANYON MONITORING AND RESEARCH CENTER

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GCMR-700

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MEMORANDUM

To:

Adaptive Management Work Group

From:

Barry D. Gold, Chief

Subject: GCMRC Budget Information

Attached to this memo are the following GCMRC budget documents:

Attachment 1 - Status of GCMRC Funds for FY 2000

Attachment 2 - Status of Low Steady Summer Flow supplemental funds

Attachment 3 - 5-year Budget Report for GCMRC funds

These documents will be discussed at the AMWG meeting on January 11.

Under separate cover, Randy Peterson will be sending similar documents for the Bureau of Reclamation's portion of the AMP budget.

GCMRC PROGRAM AND OPERATIONS BUDGET FY-2000STATUS OF FUNDS

Summary of AMP Funding Sources, \$7,405,900 [\$6,229,000 (FY-00) + \$1,176,900 (carry-over)]

| X30-0 | 594-0913 | -00-0-0 | Budget | Expended | Balance |
|---------------------------------|----------|---|-----------|-----------|---|
| A. | 560 | Bureau Support Services | 123,000 | 109,734 | 13,266 |
| B. | 400 | GCMRC Administrative Operations | 2,036,000 | 1.972,981 | 63.019 |
| C. | 275 | Biological Resources Science | 1,682,000 | 1.155,896 | 526,104 |
| D. | 250 | Physical Resources Science | 710,500 | 710,993 | -493 |
| E. | 100;150 | Socio-Cultural Resources Science | 509,400 | 264,489 | 244,911 |
| F. | 650 | Information Technologies Program | 278,000 | 324,442 | -46,442 |
| G. | 800 | Oracle Database System | 293,000 | 12,499 | 280,501 |
| H. | 630 | Remote Monitoring Technology | 400,000 | 360,579 | 39,421 |
| I. | 450 | Integrated Water Quality Program | 227,000 | 164,625 | 72,375 |
| J. | 260 | Logistics | 638,000 | 726,720 | -95,582 |
| K. | 660 | Survey Operation | 314,000 | 38,215 | 275,785 |
| L. | 900 | Independent Review Panels | 195,000 | 18,861 | 176,139 |
| | | Subtotal: | 7,405,900 | 5,860,034 | 1,549,005 |
| and the second of the second of | | Deobligated Funds Applied to FY-2000 Expe | nditures: | -79,749 | and the hadden the grant of the manager and the same of |
| | | Used for Low Steady Summer Flows (LSSF) | | 970,000 | |
| | | Carry-over to FY-2001 for Research & Monitoring Projects: | | 624,300 | |
| vviii a middini | | Received from PA Program "575" for Logisti | ics: | -47,000 | |
| Tan Tanahira | | TOTAL | 7,405,900 | 7,327,585 | 78,315 |

FY-2000 Variance (under budget) \$78,315

GCMRC PROGRAM AND OPERATIONS BUDGET FY-2002 STATUS OF FUNDS

| FY-20 | 00 AMP Bud | get (\$6,229,000) | Budget | Expended | Balance |
|-------|------------|----------------------------------|-----------|-----------|--------------|
| A. | 560 | Bureau Support Services | 123,000 | 109,734 | 13,266 |
| B. | 400 | GCMRC Administrative Operations | 1,877,000 | 1,827,377 | 49,623 |
| C. | 275 | Biological Resources Science | 1,553,000 | 1,140,896 | 412,104 |
| D. | 250 | Physical Resources Science | 704,000 | 704,705 | -70 5 |
| E. | 100; 150 | Socio-Cultural Resources Science | 359,000 | 200,703 | 158,297 |
| F.· | 650 | Information Technologies Program | 233,000 | 319,736 | -86,736 |
| G. | 800 | Oracle Database System | 133,000 | 12,499 | 120,501 |
| Н. | 630 | Remote Monitoring Technology | 400,000 | 360.579 | 39,421 |
| I. | 450 | Integrated Water Quality Program | 77,000 | 77,000 | 0 |
| J. | 260 | Logistics | 583,000 | 713,068 | -136,929 |
| K. | 660 | Survey Operation | 32,000 | 38,215 | -6,215 |
| L. | 900 | Independent Review Panels | 155,000 | 16,361 | 138,639 |
| | | Subtotal FY-2000 Funds: | 6,229,000 | 5,520,873 | 701,266 |

| Carry | -over from FY | Y-99 (\$1,176,900) | Budget | Expended | Balance |
|-------|---------------|----------------------------------|------------------------|----------|---------|
| B. | 400 | GCMRC Administrative Operations | 159,000 (a) | 145,603 | 13,397 |
| C. | 275 | Biological Resources Science | 129,000 (b) | 15,000 | 114,000 |
| D. | 250 | Physical Resources Science | 6,500 ^[c] | 6,288 | 212 |
| E. | 100; 150 | Socio-Cultural Resources Science | 150,400 ^(d) | 63,786 | 86,614 |
| F. | 650 | Information Technologies Program | 45,000 ^(e) | 4,706 | 40,294 |
| G. | 800 | Oracle Database System | 160,000 ^(f) | 0 | 160,000 |
| 1. | 450 | Integrated Water Quality Program | 150,000 ^(g) | 87,625 | 72,375 |
| J. | 260 | Logistics | 55,000 ^(h) | 13,653 | 41,347 |
| K. | 660 | Survey Operation | 282,000 (1) | 0 | 282,000 |
| L. | 900 | Independent Review Panels | 40,000 ^(j) | 2,500 | 37,500 |
| | | Subtotal Carry-over Funds: | 1,176,900 | 339,161 | 847,739 |

⁽a) From FY-99 movings expense \$40,000; equipment \$75,000; scientific synthesis \$50,000; total \$159,000. To be used in FY-00 for space renovation and moving costs \$109,000; and scientific synthesis agreement \$50,000.

- (f) From FY-99 database management (Oracle) services, \$160,000. To be used in FY-00 for Oracle services agreement.
- (g) From FY-99 IWQP conceptual modeling \$20,000; uniflite restoration \$70,000; deobligations from past year agreements \$60,000. To be used in FY-00 for uniflite restoration \$60,000, other operating expenses for AMP IWQP \$90,000.
- (h) From FY-99 Ind. Review Panels SAB review \$50,000; travel \$5,000. To be used in FY-00 for replacement boats for Logistics.
- (I) From FY-99 Logistics aerial photography \$30,000; IPT workshop \$2,000; deobligated funds \$250,000. To be used in FY-99 for base mapping of the Grand Canyon \$250,000, and Survey capital expenses \$32,000.
- (j) From FY-99 RFP review \$40,000. To be used in FY-00 for RFP Reviews.

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|----------------------------------|---|---|---|--|---------|
| | Funding (\$3 | 00,000) Totalisi kalandan kalandan kalandan kalandan kalandan perangan kalandan kalandan kalandan berbasa kalandan kal | Budget | Expended | Balance |
| I. | X10 | Integrated Water Quality Program | 300,000 | 282,247 | 17,753 |

⁽b) From FY-99 trout sym. \$25,000; Indendent Review Panels tech. report review \$14,000; deobligated funds \$90,000. To be used in FY-00 for trout sym. \$25,000; FWS maintain hatchery HBC \$80,000; pit-tag data \$15,000; in-house TCD \$10,000.

⁽c) From FY-99 Physical Resources PEP II workshop \$6,500. To be used in FY-00 to pay for accrued PEP II workshop costs.

⁽d) From FY-99 Socio-Cultural conceptual modeling research \$12,400; data protocol working group \$10,000; protocol assessments \$24,000; tribal proposals \$9,000; deobligations from past year agreements \$95,000. To be used in FY-00 for conceptual model \$2,400; data protocol \$10,000; tribal proposal \$9,000; protocol assessments \$24,000; multi-tribal project \$47,000; socio-economic consulting \$18,000; recreational beach survey \$30,000.

⁽e) From FY-99 ITP computer support \$32,000; ITP workshop \$13,000. To be used in FY-00 for aerial photography \$30,000; GIS capital expense \$15,000.

| A. | BUREAU SUPPORT [X30-0594-0913-560-00-0-0] | Budget | Expended | Balance |
|-----|--|---------|----------|---------|
| A01 | Contracts | 64,000 | 44,839 | 19,161 |
| A02 | Personnel | 1,000 | 655 | 345 |
| A03 | Computer | 2,000 | 4,848 | -2,848 |
| A04 | Property | 1,000 | 563 | 437 |
| A05 | TSC - Liszewski (Patrick Wright) | 55,000 | 58,829 | -3,829 |
| | TOTAL A. | 123,000 | 109,734 | 13,266 |

| В. | GCMRC ADMINISTRATIVE OPERATIONS | | | | |
|-----|--|--------------|-----------|-----------|---------|
| | [X30-0594-0913-400-0-0-0] | Agreement No | . Budget | Expended | Balance |
| B10 | Salaries | | | | |
| | GCMRC Operations | | 351,000 | 279,531 | 71,469 |
| | Physical Resources | | 82,000 | 91,035 | -9,035 |
| | Biological Resources | | 143,000 | 173,613 | -30,613 |
| | Cultural Resources | | 101,000 | 105,300 | -4,300 |
| | Information Technologies | | 244,000 | 267,063 | -23,063 |
| | Integrated Water Quality Program | | 53,000 | 54,546 | -1,546 |
| | Logistics Operations | | 88,000 | 94,130 | -6,130 |
| | Survey Operations | | 136,000 | 147,828 | -11,828 |
| | | al Salaries: | 1,198,000 | 1,213,046 | -15,046 |
| B10 | Administrative Overhead on Salaries (CP/ | | 280,000 | 280,110 | -110 |
| B11 | Awards | | 10,000 | 11,751 | -1,751 |
| B15 | Space & Facilities | | 160,000 | 107,388 | 52,612 |
| B21 | Travel - Administrative | | 15,000 | 13,817 | 1,183 |
| B22 | Travel - TWG/AMWG | | 12,000 | 6,897 | 5,103 |
| B23 | Travel / Training - Gold | 00-AA-40-339 | 0 25,000 | 15,000 | 10,000 |
| B25 | Training - Administrative | | 12,000 | 5,741 | 6,259 |
| B30 | Administrative & Network Support - USGS/FFC | 99-AA-40-257 | 72,000 | 72,000 | 0 |
| B40 | Office Supplies and other Operating Expenses | | 50,000 | 55,320 | -5,320 |
| B50 | Equipment Purchases | | 15,000 | 8,820 | 6,180 |
| B60 | Vehicle Expense | | 28,000 | 37,488 | -9,488 |
| | Subtotal FY-00 AMP Funds: | | 1,877,000 | 1,827,377 | 49,623 |
| | Carry-over from FY-99: | | | | |
| B90 | Move Related Expense | | 109,000 | 95,603 | 13397 |
| B91 | Scientific Synthesis & SAB - Garret 39 | | 50,000 | 50,000 | 0 |
| | Subtote: Carry-over Funds: | | 159,000 | 145,603 | 13,397 |
| | Subtotal B. | | 2,036,000 | 1,972,981 | 63,019 |
| | Used (re Logistics (see J. Logistics) | | | 42,000 | |
| | Decisionated from past-year closed agreen | | | -21,308 | |
| | Use for Survey Services (see K. Survey Co. For | 1) | | 6,000 | |
| | TOTAL B. | | 2,036,000 | 1,999,673 | 36,327 |

| C. | BIOLOGICAL RESOURCES SCIENCE | | I | T | |
|------|--|----------------|-----------|-----------|---------|
| | [X30-0594-0913-275-00-0-0] | Agreement No. | Budget | Expended | Balance |
| C10 | Conceptual Modeling | 98-FC-40-22580 | 58,000 | 48,800 | 9,200 |
| C11 | Aquatic Food Base | 98-FC-40-22590 | 234,000 | 234,000 | 0 |
| C12 | Native Fish (\$580,000) | | | | |
| C12a | HBC Genetics* | | 90,000 | | 90,000 |
| C12b | Native Fish Monitoring | 98-AA-40-0040 | 396,000 | 372,773 | 23,227 |
| C12c | Willow Beach | 98-AA-40-0040 | 75,000 | 73,200 | 1,800 |
| C12d | PEP* | | 20,000 | | 20,000 |
| C13 | Lees Ferry Trout (\$175,000) | | | | 0 |
| C13a | Monitoring | 98-FC-40-22690 | 130,000 | 130,000 | 0 |
| C13b | Research | 98-FC-40-22690 | 42,000 | 41,848 | 152 |
| C13d | Lees Ferry PEP* | | 14,000 | 8,424 | 5,576 |
| C14 | Riparian Vegetation (\$105,000) | | | | |
| C14a | Synthesis | 00-FC-40-3180 | 55,000 | 54,960 | 40 |
| C14b | Trophic Linkages | 00-FC-40-3400 | 30,000 | 29,979 | 21 |
| C15 | Terrestrial PEP | | 45,000 | 21,105 | 23,895 |
| C16 | Avifauna (\$96,000) | | | | 0 |
| C16a | Monitoring | 98-AA-40-22680 | 81,000 | 81,000 | 0 |
| C20 | Side-scan Sonar Pilot | | 25,000 | | 25,000 |
| C21 | In-house Research (\$100,000) | | | | |
| C21a | KAS & SWWF | 97-21760 (BOR) | 45,000 | 42,760 | 2,240 |
| C21b | Uncommitted | | 55,000 | | 55,000 |
| C22 | Technical Work Group Requests | | 50,000 | | 50,000 |
| C23 | Unsolicited Proposals* | | 100,000 | | 100,000 |
| C25 | Travel | | 8,000 | 2,046 | 5,954 |
| | Subtotal AMP Funds: | | 1,553,000 | 1,140,896 | 412,104 |
| | Carry-over from FY-99: | | | | |
| C90 | Trout Symposium* | 98-FC-40-22690 | 25,000 | 15,000 | 10,000 |
| C91 | FWS Maintain Hatchery HBC | | 80,000 | | 80,000 |
| C92 | Compilation of Pit-Tag Data | | 14,000 | | 14,000 |
| C93 | In-house SASF & TCD | | 10,000 | | 10,000 |
| | Subtotal Carry-over Funds: | | 129,000 | 15,000 | 114,000 |
| | Subtotal C. | | 1,682,000 | 1,155,896 | 526,104 |
| | Used for Low Steady Summer Flows (LSSF) | | | 365,000 | |
| | Used for data storage equipment (see F. ITP) | | | 15,200 | |
| | Carry-over to FY-2001 | | [| 187,500 | |
| | Deobligations from past year closed agreements | | | -41,670 | |
| | TOTAL C. | | 1,682,000 | 1,681,926 | 74 |

Notes: *Carry-Over

| C12a | HBC contract cancelled due to failed negotiations. Reissuing as a part of FY-01 RFP's. | 90,000 |
|------|--|--------|
| C12d | Native Fish PEP deferred to FY01 due to LSSF activities. | 20,000 |
| C13d | Carry-over to supplement integrated aquatic food base component to Native Fish PEP | 6,300 |
| C23 | Carry-over to supplement remote sensing (inadvertently omitted from FY01 budget) | 61,200 |
| C90 | Carry-over for publications expense. | 10,000 |

| D. | PHYSICAL RESOURCES SCIENCE | | | | |
|-----|--|----------------|---------|----------|---------|
| | [X30-0594-0913-250-00-0-0] | Agreement No. | Budget | Expended | Balance |
| D10 | Conceptual Modeling | 98-FC-40-22580 | 25,000 | 25,000 | 0 |
| | | 98-FC-40-22630 | 15,300 | 15,300 | 0 |
| D11 | Extended Systhesis | 98-FC-40-22640 | 61,400 | 61,389 | 11 |
| | | 98-FC-40-22620 | 15,000 | 15,000 | 0 |
| D12 | Mainstem/Tributary Streamflow/Sediment | 98-AA-40-0070 | 330,000 | 326,040 | 3,960 |
| D13 | Tributary Model Verification | 98-AA-40-22620 | 14,000 | 14,000 | 0 |
| D14 | Protocols Evaluation Review, Field Testing | 98-FC-40-22630 | 85,400 | 85,328 | 72 |
| | and Capital Investment | 98-AA-40-0070 | 140,000 | 140,000 | 0 |
| D15 | Debris Fans and Rapids Change Detection | 98-AA-40-22650 | 10,000 | 10,000 | 0 |
| D24 | Other Operating Expenses | | 3,900 | 5,224 | -1,324 |
| D25 | Travel | | 4,000 | 7,425 | -3,425 |
| | Subtotal for FY-00 AMP Funds: | | 704,000 | 704,705 | -705 |
| | Carry-Over from FY-99: | | | | |
| D90 | PEP II Seds Workshop | | 6,500 | 6,288 | 212 |
| | Subtotal Carry-Over Funds: | | 6,500 | 6,288 | 212 |
| | TOTAL D. | | 710,500 | 710,993 | -493 |

| E. | SOCIO-CULTURAL RESOURCES SCIENCE | Agreement No. | Budget | Expended | Balance |
|-----|--|----------------|---------|----------|---------|
| | Cultural Resources [X30-0594-0913-100-00-0-0] | | | | |
| E10 | Photographic Terrace Monitoring | 98-AA-40-0170 | 35,000 | 35,000 | 0 |
| E11 | Investigation of Isolated Occurrences* | | 25,000 | | 25,000 |
| E12 | Protocol Assessments | | 15,000 | 15,000 | 0 |
| E13 | Unanticipated Information Requests | | 5,000 | | 5,000 |
| E14 | Application of Flow/Deposition Model | | 25,000 | | 25,000 |
| E15 | Tribal Resource Projects (3) * | | 125,000 | 31,716 | 93,284 |
| E18 | Tribal Technologies | | 35,000 | 15,250 | 19,750 |
| E19 | Application of Geomorphic Testing | | 35,000 | 44,226 | -9,226 |
| E30 | Socioeconomic Resources [X30-0594-0913-150-00-0-0] | | 1 | | |
| E31 | Assessing 30-year Campsite Changes | | 25,000 | 24,855 | 145 |
| E32 | Evaluating Trout Anglers Satisfaction | | 5,000 | 5,000 | 0 |
| E33 | Campsite Monitoring Protocols | 98-FC-40-22630 | 20,000 | 20,956 | -956 |
| E34 | Boater Adopt-a-Beach Program | | 5,000 | 5,000 | 0 |
| | Survey Support | | 0 | | 0 |
| E50 | Travel & OE | | 4,000 | 3,700 | 300 |
| | Subtotal FY-00 AMP Funds: | | 359,000 | 200,703 | 158,297 |
| | Carry-over from FY-99: | | | | |
| E90 | Conceptual Model | | 12,400 | 10,000 | 2,400 |
| E91 | Data Protocol | | 10,000 | | 10,000 |
| E92 | Tribal Proposal | LSSF | 9,000 | | 9,000 |
| E93 | Protocol Assessments | | 24,000 | 26,053 | -2,053 |
| E94 | Multi-Tribal Project | LSSF | 47,000 | | 47,000 |
| E95 | Socioeconomic Consulting | LSSF | 18,000 | | 18,000 |
| E96 | Recreational Beach Survey | 98-FC-40-22630 | 30,000 | 27,733 | 2,267 |
| | Subtotal Carry-Over Funds: | | 150,400 | 63,786 | 86,614 |
| | Subtotal E. | | 509,400 | 264,489 | 244,911 |
| | Used for Low Steady Summer Flows (LSSF) | | | 115,000 | |
| | Used for ITP data storage equipment (see F. ITP) | | | 44,300 | |
| 1 | Deobligated from past-year closed agreements | | | -16,771 | |
| | Carry-over to FY-2001 | | | 100,000 | |
| | TOTAL E. | | 509,400 | 507,018 | 2,382 |

Note: *Carry-over

 E11
 Remote Sensing
 25000

 E15
 Historic Preservation Plan
 50000

 E15
 Oracle
 25000

GCMRC FY-2000 STATUS OF FUNDS

| F. | INFORMATION TECHNOLOGIES PROGRAM | <u> </u> | | | |
|------|---|---------------|---------|----------|--------------|
| | [X30-0594-0913-650-00-0-0] | Agreement No. | Budget | Expended | Balance |
| F10 | Travel (IT) | | 8,000 | 4,330 | 3,671 |
| F11 | Geographic Information Systems | | | | |
| F11a | Travel | | 4,000 | 4,230 | -23 0 |
| F11b | Training | | 1,000 | 1,860 | -8 60 |
| F11c | Operating Expenses | | 6,000 | 3,469 | 2,531 |
| F11d | Capital Expenditures | | 6,000 | 4,500 | 1,500 |
| F12 | Library | | | | |
| F12a | Travel - Conferences | | 1,500 | 0 | 1,500 |
| F12b | Training | | 500 | 0 | 500 |
| F12c | Operating Expenses (Subscriptions) | | 6,000 | 5,317 | 683 |
| F12d | Capital Expenditures | | 10,000 | 2,966 | 7,034 |
| F14 | System Admin. of Computers & Networks | | | | • |
| F14a | Travel - Conferences | | 2,000 | | 2,000 |
| F14b | Training - Technical | | 1,000 | · · | 1,000 |
| F14c | Operating Expenses | | 32,000 | 34,129 | -2,129 |
| F14d | Capital Expenditures | | 85,000 | 59,124 | -173,936 |
| | Disk Storage | | | 199,812 | |
| F15 | Aerial Photography* | | 70,000 | | 70,000 |
| | Subtotal FY-00 AMP Funds: | | 233,000 | 319,736 | -86,736 |
| | Carry-over from FY-99: | | i i | | |
| F90 | Aerial Photography | | 30,000 | | 30,000 |
| F91 | GIS Capital Expense | | 15,000 | 4,706 | 10,294 |
| | Subtotal Carry-over Funds: | | 45,000 | 4,706 | 40,294 |
| | Subtotal F. | | 278,000 | 324,442 | -46,442 |
| | Used for Low Steady Summer Flows (LSSF) | | i i | 153,000 | |
| | Transfer-in from other Program areas for purchase of data storage e | equipment | | -199,812 | |
| | TOTAL F. | | 278,000 | 277,630 | 370 |

| G. | ORACLE DATABASE SYSTEM [X30-0594-0913-800-00-0-0] | Agreement No. | Budget | Expended | Balance |
|------|---|---------------|---------|-------------------|---------|
| G20 | Oracle Consulting* | | 108,000 | 0 | 108,000 |
| G20a | Training | | 7,000 | 3,180 | 3,820 |
| G20b | Travel | | 4,000 | 6,370 | -2,370 |
| G20c | Operating Expenses | | 5,000 | 0 | 5,000 |
| G20d | Capital Expenditures | | 9,000 | 2,948 | 6,052 |
| | Subtotal FY-00 AMP Funds: | | 133,000 | 12,499 | 120,501 |
| | Carry-over from FY-99: | | | 1 | |
| G90 | Oracle Consulting* | | 160,000 | 0 | 160,000 |
| | Suisotal Carry-over Funds: | | 160,000 | 0 | 160,000 |
| | Subtotal G. | | 293,000 | 12,499 | 280,501 |
| | Used for Low Streety Summer Flows (LSSF) Carry-over to Fig-2001 | | | 12,500 268,000 | |
| | TOTAL G. | | 293,000 | 292,999 | 1 |

Notes: *Carry-Over

G20 Oracle Consulting Contract

268,000

| Н. | REMOTE MONITORING TECHNOLOGY [X30-0594-0913-630-00-0-0] | Agreement No. | Budget | Expended | Balance |
|------|--|---------------|---------|----------|---------|
| H10 | Remote Sensing Evaluation | | | | . 0 |
| H10a | USGS Mainstern | 98-AA-40-0070 | 58,000 | 58,000 | 0 |
| H10b | Remote Sensing Coor. | | 102,000 | 120,994 | -18,994 |
| H10c | Overflight - LIDAR | | 97,000 | | 97,000 |
| H12 | Survey Capital Expense | | 143,000 | 181,585 | -38,585 |
| - | Subtotal FY-00 AMP Funds | | 400,000 | 360,579 | 39,421 |
| | Subtotal H. | | 400,000 | 360,579 | 39,421 |
| | Used for Low Steady Summer Flows (LSSF) | | İ | 31,000 | |
| | Transfer-in for survey capital equipment (See K. Survey) | | | -32,000 | |
| | Used for ITP data storage equipment (See F. ITP) | | | 40,312 | |
| | TOTAL H. | | 400,000 | 399,892 | 108 |

| J. | LOGISTICS OPERATION | | | | |
|-----|--|---------------|---------|----------|----------|
| | [X30-0594-0913-260-00-0-0] | Agreement No. | Budget | Expended | Balance |
| | Contracts: | | | | |
| J21 | Logistics Support - REO | 8CS40-2101C | 15,000 | 15,000 | |
| J22 | Logistics Support - OARS | 8CS40-2101B | 27,000 | 67,000 | |
| J23 | Logistics Support - PRO | 8CS40-2101A | 20,000 | 20,000 | |
| J24 | Boat Operation - HS Support | 8CS40-2102A | 240,000 | 314,000 | |
| J25 | Boat Operation - OARS | 8CS40-2102B | 60,000 | 60,000 | |
| J56 | NPS Permitting | 8AA40-1130 | 50,400 | 107,600 | |
| | Subtotal Contracts: | | 412,400 | 583,600 | -171,200 |
| J29 | Permits - Hualapai | | 5,000 | 4,392 | |
| J30 | Equipment Rental | | 6,000 | 5,509 | |
| J31 | Food | 1 | 51,600 | 45,838 | |
| J35 | Helicopter Support | | 40,000 | 24,032 | 15968 |
| J51 | Trip Supplies & Other Expenses | | 18,000 | 22,623 | -4,623 |
| J52 | Trip Equipment Purchases | | 22,000 | 2,445 | 19,555 |
| J53 | Trip Equipment Maintenance | | 18,000 | 16,449 | 1,551 |
| J54 | Warehouse Expenses | | 5,000 | 7,940 | -2,940 |
| J55 | Emergency Evacuation | | 5,000 | 240 | 4,760 |
| | Subtotal Other Logistics Costs: | | 170,600 | 129,468 | 34,271 |
| | Subtotal FY-00 AMP Funds: | | 583,000 | 713,068 | -136,929 |
| - | Carry-over from FY-99: | | 1 | | |
| J90 | Sport Boat & Trailer | | 30,000 | 12,420 | 17,580 |
| J91 | New & Replacement Oar Boat | | 20,000 | 1,233 | 18,767 |
| J92 | Motor for Electro-Fishing Boat | | 5,000 | | 5,000 |
| | Subtotal Carry-over Funds: | | 55,000 | 13,653 | 41,347 |
| | Subtotal J. | Ì | 638,000 | 726,720 | -95,582 |
| | Transfer-in from Programmatic Agreements for Logistics Reim. | | | -30,000 | |
| | Transfer-in from Programmatic Agreements for PEP Trip | Ì | | -17,000 | |
| L | Transfer-in for Logistics expense (see B. Admin) | | | -42,000 | |
| | TOTAL J. | | 638,000 | 637,720 | 280 |

| K. | SURVEY OPERATIONS | | | | |
|-----|---|---------------|---------|----------|---------|
| | [X30-0594-0913-660-00-0-0] | Agreement No. | Budget | Expended | Balance |
| K10 | Training (includes travel) | | 4,000 | 3,730 | 270 |
| K20 | Travel - Field Work | | 5,000 | 5,615 | -615 |
| K30 | Operating Expenses | | 17,000 | 22,799 | -5,799 |
| K40 | Capital Expense | | 6,000 | 6,070 | -70 |
| | Subtotal FY-00 AMP Funds: | | 32,000 | 38,215 | -6,215 |
| | Carry-over from FY-99: | | | | |
| K90 | Capital Expense | | 32,000 | | 32,000 |
| K91 | Base Mapping of the Canyon | LSSF | 250,000 | | 250,000 |
| | Subtotal Carry-over Funds: | | 282,000 | 0 | 282,000 |
| | Subtotal K. | | 314,000 | 38,215 | 275,785 |
| | Used for Low Steady Summer Flows (LSSF) | | | 250,000 | |
| | Used for Survey Equipment (see H. Remote Technologies) | | | 32,000 | |
| | Transfer-in for Survey Expenses (see B. Administrative) | | | -6,000 | |
| | TOTAL K. | | 314,000 | 314,215 | -215 |

| | TOTAL L. | | 195,000 | 168,861 | 26,139 |
|-----|--|----------|---------|-------------------|---------|
| | Used for data storage equipment (see F. ITP) Carry-over to FY-2001 | | | 100,000 50,000 | |
| | Subtotal L. | | 195,000 | 18,861 | 176,139 |
| | Subtotal Carry-over Funds: | | 40,000 | 2,500 | 37,500 |
| L90 | Carry-over from FY-99: RFP Review | | 40,000 | 2,500 | |
| | Subtotal FY-00 AMP Funds: | | 155,000 | 16,361 | 138,639 |
| L13 | Executive Secretary - Garrett Contract | | 5,000 | | 5,000 |
| L12 | Technical Report Review | | 15,000 | | 15,000 |
| L11 | SAB Review * | 25k LSSF | 100,000 | | 100,000 |
| L10 | RFP Review | | 35,000 | 16,361 | 18,639 |
| L. | INDEPENDENT REVIEW PANELS [X30-0594-0913-900-00-0-0] | | Budget | Expended | Balance |

Notes: *Carry-Over

L11 SAB Review

50,000

| | TOTAL W. | | 227,000 | 226,925 | 75 |
|-----------|---|---------------|---------|------------------|---------|
| | Used for Low Steady Summer Flows (LSSF) Carry-over to FY-2001 | | | 43,500 18,800 | |
| | Subtotal W. | | 227,000 | 164,625 | 72,375 |
| | Subtotal Carry-over Funds: | | 150,000 | 87,625 | 72,375 |
| W99 | Maintenance & Repairs | | 5,000 | | 5,000 |
| W98 | Lake Powell Assistance | | | 15,000 | |
| W97 | Research - Conceptual Modelling | | 20,700 | 16,700 | 4,000 |
| W96 | Sample Analysis | | 49,300 | 13,125 | 36,175 |
| W95 | Supplies | | 5,000 | 3,200 | 1,800 |
| W94 | Equipment | | 5,000 | 2,497 | 2,503 |
| W93 | Boats * | | 60,000 | 37,103 | 22,897 |
| W92 | Travel | | 5,000 | 3,342 | 1,658 |
| Z450 | Carry-over from FY-99: | | 1 | | |
| | Subtotal FY-00 AMP Funds: | | 77,000 | 77,000 | 0 |
| W18 | IWQP Downstream Water Quality | 99-AA-40-0070 | 75,000 | 75,000 | 0 |
| W12 | Travel | | 2,000 | 2,000 | 0 |
| W. W10 | INTEGRATED WATER QUALITY PROGRAM AMP [X30-0594-0913-450-00-0-0] - Downstream | Agreement No. | Budget | Expended | Balance |

Notes: *Carry-Over

W93 Carry-over to supplement remote sensing (inadvertently omitted from FY-01 budget)

8,800

W93 Carry-over to supplement O& ∴ WQP PEP

10,000

| WX0 | O&M [X10-1351-4999-100-0-4] - Reserva | Contract No. | Budget | Expended | Balance |
|-----|---------------------------------------|--------------|---------|----------|---------|
| WX1 | Salary (70% Hueftle, Vernieu, Asst)* | | 145,000 | 102,132 | 17,335 |
| | Overhead on Salary, CPA, OGE | | | 25,533 | |
| WX2 | Travel | | 8,000 | 4,749 | 3,251 |
| WX4 | Equipment | | 40,000 | 44,699 | -4,699 |
| WX5 | Supplies | | 7,000 | 20,924 | -13,924 |
| WX6 | Sample Analysis (TSC, BSA) | | 85,000 | 74,037 | 10,963 |
| WX8 | Contracts | | | | |
| | Lake Powell Technical Assistance | 8AA40-1140 | 10,000 | 10,000 | 0 |
| WX9 | Maintenance & Repairs | | 5,000 | 172 | 4,828 |
| | TOTAL O&M FUNDING: | | 300,000 | 282,247 | 17,753 |

^{*} Balance is a result of HydrologicTechnician . scancy for 12 months. Position filled November 2000.

LSSF STATUS OF FUNDS

| | | LOGISTICS | AGREEMENT | ORIGINAL | ADJUSTED | OBLH/ | |
|----------|--|---|--------------------|------------------|---|-------------|-----------------------|
| \$3,444, | 167 | BUDGET | NO. | BUDGET | BUDGET | EXP | BALANCE |
| A | हत्वे व्यवस्था इत्यावास्य | 111111111111111111111111111111111111111 | erice and a second | | ele en mini | Silika jari | Balan Laborat |
| | Shoreline Channel, Protiva | 21,000 | 00-PG-40-0163 | 81,000 | 81,040 | 81,040 | |
| | Effects on Temp, Vernieu | na | | 10,000 | | 0 | |
| | Suspended Sed, Hornewer, USGS | 4,800 | Transfer to C2 | 79,000 | | 0 | |
| | Eddy Complexes, Parnell, NAU | | 98-FC-40-22630 | 137,000 | | 137,783 | (|
| A3a | Vegetation, Kearsley, NAU | 4,500 | 98-FC-40-22670 | 104,000 | | 99,000 | |
| | Benthic Biomass, Blinn, NAU | 15,240 | 98-FC-40-22590 | 325,000 | | 324,550 | 1 |
| | Benthic Biomass, Persons, AGFD | na | 98-FC-40-22690 | 179,872 | 179,872 | 179,872 | |
| A3c | Algal Colinization, Blinn, NAU | 1,000 | 98-FC-40-0540 | 5,000 | 4,418 | 4,418 | |
| A4a1 | Young-of-year fish, Valdez, SWCA | 125,000 | Pucherelli | 300,000 | | 210,000 | 117.00 |
| A4a2 | Fish Equipment & Supplies | | | | 28,540 | 28,540 | |
| A4b | Co River Fish Comm, Ralston | 88,000 | 98-FC-40-22690 | 90,000 | | 86,509 | |
| | HBC Juveniles, Wiele, USGS | na | 98-AA-40-0070 | 28,000 | | | |
| | HBC Juveniles, Ecometric, Korman | na | 98-FC-40-22580 | 24,000 | | | |
| A4d | Lees Ferry Trout, Persons, AGFD | na | 98-FC-40-22690 | 17,967 | 17,967 | 17,967 | |
| B; | LAKEROWELLSTUDIES *** | | | ,:: X .:: | ###################################### | 機能。 | |
| B1 | Hydrodynamics, Hueftle & Vernieu | na | Trans to D3, D2b | | 188 | 188 | |
| CHAN | SEDIMENT STORAGE & BUDGETIST | DEST : | Andrew Salaria | | <u> </u> | (A) | |
| C1 | Sonar Mapping, Anima, USGS | 20,000 | Transfer to C2 | 185,000 | 0 | | |
| C2 | Collaborative Project Contract & OE | 16,000 | 98-AA-40-0070 | 463,000 | 725,494 | 725,494 | |
| D.M.A | AERIAL PHOTOGRAPHY& REMOTE: | SENSING | | | 3.77 | (19 | |
| D1 | Topographic Base Map, Horizons | na | 97-CA-40-2058A | 250,000 | 250,000 | 250,000 | |
| D2a | Pre-Spring | na | 97-CA-40-2058A | 127,000 | | 126,852 | |
| D2b | CIR & B&W | na | DOE 00-AA-4250 | 304,000 | 374,454 | 374,454 | |
| D2c | CIR of CRE | na | 97-CA-40-2058A | 102,000 | 113,594 | 113,594 | |
| D3 | Survey Equipment | na | Rqs 063, 064 | 61,557 | 63,166 | 63,166 | |
| EXAM | SOGIO-GULTURAL WORK | 11.00 | 888 - N 4 . 192 | 70 | | 66 . sk | 12. 17. 5. · |
| E1 | Whitewater Safety, Jalbert, NPS | na | New | 20,500 | E-202220-1-20-1-20-1-20-1 | | |
| E2 | Concessionaires / Private Boaters, NAU | na | New | 27,000 | | | |
| E3 | Boater Characteristics, NPS/NAU | na | New | 14,831 | 14,831 | 14,831 | |
| | LOGISTICS (351,440) | | N. A. Ber | \$ 27 a 25 a 1 | | | |
| F1 | Boat Rentals & Equipment | 57,900 | Rqs & bankcard | 57,900 | Lake a series a cost of the contract of the contract of | | STATE OF THE STATE OF |
| F2 | Logistics Expenditures | 01,000 | rigs a parincalu | 303,540 | | 335,787 | |
| | INFORMATIONS WITHESIS AND DISS | EMINATIO | N & S | | | | e i e kili |
| G). | Science Symposium | | /N/2013 | 25,000 | | | <u></u> |
| G2 | Contributed Volume Papers | na | | | | | 20,0 |
| G3 | GCMRC PM Synthesis | na | FY-2001 | 20,000 50,000 | | | 50,C |
| | | na | | | | | |
| | LSSF SCIENCE PLANNING | 到沙斯克 | | 17.00 | Mark to 3 | | |
| H1 | Meetings | na | Travel | 15,000 | | | A |
| 138734 | 2.17 | | | * | | - 4 | |
| 11 | David Harpman Economic SOW | na | TSC | | 1,077 | 1,077 | <u> </u> |
| <u> </u> | TOTAL | 361,440 | | 3,444,167 | 3,530,665 | 3,318,665 | 212,1 |

| Funding Sources: | Budget | Adjustment | Final |
|--------------------------------------|-----------|------------|-----------|
| FY-2000 GCMRC | 882,000 | 86,500 | 968,500 |
| * FY-2001 GCMRC | 50,000 | | 50,000 |
| FY-2000 Contingency Fund (WAPA) | 2,412,167 | | 2,250,167 |
| * Carry-over " " | | | 162,000 |
| Reclamation A30-0594-0921-100-00-0-0 | 100,000 | | 100,000 |
| Total Funding | 3,444,167 | 86,500 | 3,530,667 |

Attachment 2

5-YR BUDGET REPORT GRAND CANYON MONITORING & RESEARCH CENTER ADAPTIVE MANAGEMENT PROGRAM FUNDING

SUMMARY TABLE

| | | FY 1998 | FY 1999 | FY 2000 | FY 2001 | FY 2002 |
|---------------------------|---|-----------|-----------|------------|------------------------|--------------------|
| PROGRA | | Actual | Actual | Actual | Budget | Proposed |
| GCMRC / | AMP - Beginning Budget: | 5,927,000 | 5,849,000 | 6,229,000 | 6,434,000 | 6,576,000 |
| GCMRC I | Program and Operating Costs | | | | | |
| . A. | Bureau Support Services | 128,000 | 89,000 | 110,000 | 125,000 ^(a) | 128,000 |
| В. | Operations, Personnel, Contract Services | 1,851,000 | 1,618,000 | 1,973,000 | 1,945,000 | 1,987.000 |
| C. | Physical Resources Science | 1,048,000 | 928,000 | 711,000 | 954,000 | 975,000 |
| D | Biological Resources Science | 1,213,000 | 1,234,000 | 1,156,000 | 1,288,000 | 1,327,000 |
| E. | Socio-Cultural Resources Science | 346,000 | 277,000 | 264,000 | 369,000 | 377,000 |
| F. | Information Technologies Program | 435,000 | 253,000 | 337,000 | 290,000 | 300,000 |
| G, | Remote Monitoring Technology | | | 361,000 | 400,000 | 400,000 |
| H. | Independent Review Panels | 139,000 | 29,000 | 19,000 | 175,000 | 179,000 |
| 1. | Unsolicited Proposals | | | | 120,000 | 123,000 |
| J. | AMWG/TWG Requests | | | | 60,000 | 61,000 |
| K. | In-House Research | | | | 20,000 | 20,000 |
| L. | Logistics | 608,000 | 654,000 | 727,000 | 650,000 | 664,000 |
| M. | Survey Operation | 16,000 | 27,000 | 38,000 | 38,000 | 35,000 |
| N. | Integrated Water Quality Program | 163,000 | 177,000 | 165,000 | (b) | A city and Company |
| Su | btotal Obligations/Expenditures: | 5,947,000 | 5,286,000 | 5,861,000 | 6,434,000 | 6,576,000 |
| De | obligated funds applied to FY-99 & FY-00 expenditures | | -759,000 | -80,000 | | |
| TC | OTAL AMP FUNDING | 5,947,000 | 4,527,000 | 5,781,000 | 6,434,000 | 6,576,000 |
| Са | rry-over to next fiscal year | 62,000 | 1,177,000 | 624,000 | * * | |
| Ca | arry-over from previous fiscal year | | | -1,177,000 | | |
| Tra | ansferred from PA for Logistics Reimbursement | -85,000 | -45,000 | -47,000 | | |
| Re | eserved for Low Steady Summer Flows | | | 970,000 | | |
| Va | ariance with Budget: | 3,000 | 190,000 | 78,000 | | |
| W-17-1 - 1-00-Web-1-00-08 | RAND TOTAL | 5,927,000 | 5,849,000 | 6,229,000 | 6,434,000 | 6,576,000 |

⁽a) Support services provided by USGS after transfer effective 10/01/00.

ACCOUNT TABLE

| OGRAN | M AREA | FY-1998 Actual | FY 1999 Actual | FY 2000 Actual | FY 2001 Budget | FY 2002 Proposed |
|------------|--|-------------------|-------------------|---|----------------------|---------------------|
| Α. | Bureau Support | | | er sens in a Nobelin refer i distributed in a fin | age to see and it is | |
| | Contracts | 91,000 | 41,000 | 45,000 | 60,000 | 61,000 |
| | Personnel | 19,000 | 21,000 | 1,000 | 60,000 | 61,000 |
| | Computer | 14,000 | 25,000 | 5,000 | 5,000 | 6,000 |
| | Property | 4,000 | 2,000 | 1,000 | | |
| | Denver Technical Service Charge - P Wright | | | 58,000 | | |
| 117 (1966) | Subtotal A: | 128,000 | 89,000 | 110,000 | 125,000 (a) | 128,000 |

⁽a) Support services provided by USGS after transfer effective 10/01/00

Attachment 3

⁽b) IWQP AMP share funded in "Biological Resources Science" in FY-01 and FY-02

| MAREA | FY-1998 Actual | FY 1999 Actual | FY 2000 Actual | FY 2001 Budget | FY 200 Propose |
|---|-------------------|-------------------|-------------------|--|-------------------|
| TANCA | Actual | Actual | Actual | Duaget | rropose |
| Operations, Personnel, Contract Services | | | | The second secon | |
| Salaries* | | | | | |
| GCMRC Operations | | | | | |
| Chief (1-fte) | 163,000 | 171,000 | 180,000 | 141,000 | 146,0 |
| Biological Scientist, "Deputy Chief" | 76,000 | | | | |
| Secretary (1-fte) | 38,000 | 32,000 | 51,000 | 40,000 | 43,0 |
| Administrative Officer (1-fte) | 58,000 | 58,000 | 73,000 | 59,000 | 61,0 |
| Administrative Assistant (1-fte) | | | | 32,000 | 37,0 |
| General Biologist | 11,000 | | | | |
| Student Assistants - 2 (1 -fte) | 16,000 | 34,000 | 40,000 | 26,000 | 32,0 |
| Subtotal GCMRC Operations: | 362,000 | 295,000 | 344,000 | 298,000 | 319,0 |
| Physical Resources | | | | | |
| Physical Scientist (1-fte) | 60,000 | 76,000 | 97,000 | 84,000 | 89,0 |
| Physical Science Assistant (1-fte) | | 0 | 15,000 | 40,000 | 40,0 |
| Subtotal Physical Resources: | 60,000 | 76,000 | 112,000 | 124,000 | 129,6 |
| Biological Resources | | | | | |
| Biological Sci, "Program Mgr" (1-fte) | 76,000 | 74,000 | 89,000 | 84,000 | 88, |
| Ecologist - Post Doc | 49,000 | 75,000 | 0 | 0 | 50, |
| General Biologist Terrestrial (1-fte) | 33,000 | 0 | 0 | 59,000 | 60, |
| Biologist (Aqa) (1-fte) | 41,000 | 3,000 | 81,000 | 59,000 | 60, |
| Biologist - Detail | | | | 54,000 | |
| Student Assistant (.5-fte) | 27,000 | 22,000 | 45,000 | 18,000 | 18, |
| Subtotal Biological Resources: | 226,000 | 174,000 | 215,000 | 274,000 | 276, |
| Cultural Resources | | | | | |
| Social Scientist, "Program Mgr" (1-fte) | 89,000 | 93,000 | 105,000 | 84,000 | 89, |
| SocioCultural Assistant (1-fte) | | 0 | 17,000 | 40,000 | 40, |
| Economist - Harpman | | 0 | 4,000 | 0 | |
| Subtotal Cultural Resources: | 89,000 | 93,000 | 126,000 | 124,000 | 129 |
| Information Technologies | , | · | · | · | |
| Res. Info. Analyst, "Program Mgr" (1-fte) | 83,000 | 94,000 | 103,000 | 84,000 | 85 |
| Computer Spec., Database (1-fte) | 46,000 | 0 | 87,000 | 71,000 | 72 |
| Computer Spec., Sys Admin (1-fte) | 10,000 | Ü | 0.,000 | 71,000 | 72 |
| Computer Spec., GIS (1-fte) | 42,000 | 31,000 | 83,000 | 65,000 | 66 |
| GIS Assistant (1-fte) | 12,000 | 01,000 | 00,000 | 44,000 | 44 |
| Technical Information Spec (1-fte) | | 0 | 0 | 49,000 | 49 |
| Surveyors - 2 (2-fte) | 132,000 | 163,000 | 171,000 | 119,000 | 120 |
| Student Assistants - 2 (1-fte) | 49,000 | 54,000 | 68,000 | 27,000 | 27 |
| Subtotal Information Tech: | 352,000 | 342,000 | 512,000 | 530,000 | 535 |
| Logistics | 332,000 | 342,000 | 312,000 | 000,000 | 000 |
| Logistics Logistics Coordinator (1-fte) | 33,000 | 56,000 | 74,000 | 54,000 | 56 |
| - · · · · · · · · · · · · · · · · · · · | 33,000 | 6,000 | 43,000 | 35,000 | 37 |
| Supply Technician "Whise Mgr" (1-fte) | | 0,000 | 43,000 | 18,000 | 18 |
| Logistics Assistant, Seasonal (.5-fte) | 22.000 | 62.000 | 417 000 | management of the property of the control of the co | 111 |
| Subtotal Logistics: | 33,000 | 62,000 | 117,000 | 107,000 | 111 |
| IWOP Program | 440.000 | 400.000 | 07.000 | E0 000 (c) | en |
| Hydrologist (2-fte) | 148,000 | 168,000 | 67,000 | 59,000 (a) | 60 |
| Hydrologic Technician (.8-fte) | | | | (a) | 10 |
| Subtotal IWQP: | | 1,210,000 | 1,493,000 | 1,516,000 | 70 1,569 |

^{*} Salary includes benefits and overhead (CPA) in FY-98, FY-99, and FY-00; Does not include CPA in FY-01 and FY-02

⁽a) 30% paid by AMP funding; balance paid by O&M funding

| GRAI | M AREA | FY-1998 Actual | FY 1999 Actual | FY 2000 Actual | FY 2001 Budget | FY 2002 Proposed |
|------|---|-------------------|-------------------|-------------------|-------------------|---------------------|
| В. | Operations, Personnel, Contract Services (Cont'd) | | | | | |
| | Awards | 8,000 | 4,000 | 12,000 | 12,000 | |
| | Travel | 36,000 | 32,000 | 29,000 | 35,000 | 25,00 |
| | Travel - TWG | 11,000 | 10,000 | 7,000 | 12,000 | 12,00 |
| | Training | 7,000 | 27,000 | 6,000 | 18,000 | 18,00 |
| | Contracts - Transcription Services | 26,000 | , | 0,000 | 10,000 | 10,00 |
| | Contracts - Surveying, AZ Engineering | 114,000 | | | | |
| | Contracts - USGS/BRD Sci Synthesis | , | | 50,000 | | |
| | Contracts - Ambersnail WS (Scoville) | | 14,000 | , | | |
| | Administrative & Network Support - USGS/FFC | 24,000 | 45,000 | 72,000 | 74,000 | 75,00 |
| | Space (includes phones) | 147,000 | 172,000 | 107.000 | 162,000 | 166,00 |
| | Office Supplies & Office Equip Maintenance | 121,000 | 40,000 | 55,000 | 56,000 | 60,00 |
| | Vehicle Expense & Depreciation | , | 30,000 | 37,000 | 40,000 | 42,00 |
| | Equipment Purchases | 87,000 | 34,000 | 9,000 | 20,000 | 20,00 |
| | Building Mod. & Move Related Expenses | , | 0 | 96,000 | | |
| | Subtotal B: | 1,851,000 | 1,618,000 | 1,973,000 | 1,945,000 | 1,987,00 |
| | Physical Resources Science Conceptual Modeling Fine-Grained Sediment Deposits | 75,000 205,000 | 50,000 135,000 | 40,000 | | |
| | Geomorphic Synthesis | 100,000 | 119,000 | | | |
| | Extended Synthesis | 100,000 | 113,000 | 77,000 | | |
| | LCR Conceptual Model Dev / Verification | 30,000 | 31,000 | 77,000 | | |
| | Mainstern Sediment Transport & Streamflow | 553,000 | 529,000 | 326,000 | 400,000 | 408,00 |
| | Tributary Model Verification | 000,000 | 020,000 | 14,000 | 400,000 | 400,00 |
| | Protocol Evaluation for Physical Resources | 36,000 | 33,000 | 6,000 | | |
| | Protocols Evaluation Review, Field Testing, and | | 00,000 | 225,000 | | |
| | Capital Investment | | | 220,000 | | |
| | Ungaged Tributaries | 49,000 | 20,000 | | | |
| | Debris Fans & Rapids Change | 10,000 | 20,000 | 10,000 | | |
| | LT Mon of Fine-Grained Sediment Storage | | | 10,000 | 225,000 | 230,00 |
| | Long-Term Monitoring of Coarse Grained Sed. | | | | 75,000 | 77,00 |
| | Streamflow & Suspended-Sediment Trans Model. | | | | 175,000 | 179,00 |
| | • | | | | 75,000 | 77,00 |
| | Adv. Conceptual Model of Coarse Grained | | | | 10,000 | , ,,,,,,, |
| | Adv. Conceptual Model of Coarse Grained Travel | | | ጸ በበበ | 4 000 | 4 nn |
| | • | | 11,000 | 8,000 5,000 | 4,000 | 4,00 |

| GRA | M AREA | FY-1998 Actual | FY 1999 Actual | FY 2000 Actual | FY 2001 Budget | FY 200 Propose |
|-----|--|---|-------------------|--|--|-------------------|
| D | Biological Resources Science | | | | | |
| | Contracts | ne na manana na mananana na mananagan amananana manananana an | | Wager Marriage Colonia and Reprint Color | The second secon | |
| | Aquatic Foodbase | 166,000 | 178,000 | 234,000 | 234,000 | 235,0 |
| | Aquatic Foodbase PEP | | | | 40,000 | |
| | Avifauna | 70,000 | 81,000 | 81,000 | | |
| | Backwater Synthesis | 44,000 | | | | |
| | Conceptual Modeling | 70,000 | 9,000 | 48,000 | | |
| | Conceptual Modeling Workshop | 11,000 | | | | |
| | Data Integration Report | 25,000 | | | | |
| | Endangered Fish Research Flows | | 74,000 | | | |
| | Genetic Relatedness Ambersnail | 40,000 | | | | |
| | HBC, Second Population | | 62,000 | | 50,000 | |
| | Kanab Ambersnail | 44,000 | 44,000 | 43.000 | 10,000 | 10,0 |
| | Mainstem and Tributary Monitoring | 2,000 | | | | |
| | Native Fish | 485,000 | 520,000 | 446,000 | 456,000 | 469, |
| | Native Fish PEP | | | | 30,000 | |
| | Trout - Lees Ferry | 125,000 | 133,000 | 187,000 | 120,000 | 100, |
| | Wetland and Riparian Vegetation | 84,000 | 80,000 | 55,000 | | |
| | Terrestrial Endangered Species PEP | | | 21,000 | | |
| | Terrestrial Trophic Linkages | | | 30,000 | 30,000 | |
| | Trout PEP - Lees Ferry | | | 9,000 | | |
| | Terrestrial Ecosystem Monitoring | | | | 180,000 (a) | 184, |
| | New Research in Terrestrial Ecosystems | | | | · | 93, |
| | New Research in Native & Non-Native | | | | 30,000 | 41, |
| | Integrated Water Quality Monitoring | | | | | 84, |
| | Long-Term Mon. of Fine-Grained Sed Stor. | | | | 30,000 | 31, |
| | Long-Term Mon. of Streamflow & Fine Sed. | | | | 70,000 | 72, |
| | GCMRC In-house Studies | | | | | |
| | Benthic standing mass (GCMRC/NAU) | 47,000 | 47,000 | | | |
| | Pit-Tags and Other Expenses | | 6,000 | | | |
| | Travel | | | 2,000 | 8,000 | 8, |
| 2 6 | Subtotal D. | 1,213,000 | 1,234,000 | 1,156,000 | 1,288,000 | 1,327, |

| GRAM AREA | FY-1998 Actual | FY 1999 Actual | FY 2000 Actual | FY 2001 Budget | FY 2002 Proposed |
|--|--|--|--|------------------------------|------------------------------------|
| E. Socio-Cultural Resources Science | | - Marie Colon San San San San San San San San San Sa | and the second of the second o | a a decode que salego o como | to the contract of the contract of |
| Cultural Resources | ······································ | | | | |
| Conceptual Modeling | 30,000 | 30,000 | 10,000 | | |
| Flow Impact on Cultural Resources | 55,000 | 77,000 | . 0,000 | | |
| Geomorphic Hypothesis Testing | 80,000 | 80,000 | | | |
| Grand Canyon Natl Recreation Cultural Activities | 14,000 | , | | | |
| Synthesis of Cultural Resource Data | 59,000 | | | | |
| Protocol Assessments | , | | 41,000 | | |
| Southern Paiute Consortium | | 30,000 | ., | | |
| Hopi-Ethnobotanical | | 60,000 | | | |
| Unsolicited Tribal Proposals | 38,000 | , | | | |
| Application of Geomorphic Testing | , | | 44,000 | | |
| Monitoring Terrestrial Habitatats | | | | 75,000 | 77,00 |
| Photographic Terrace Modeling | | | 35,000 | 70,000 | ,00 |
| Tribal Resource Projects | | | 32,000 | | |
| Tribal Technologies | | | 15,000 | | |
| Evaluating Cultural Res. Monitoring & Mitigation | | | ,0,000 | 65,000 | |
| Research Design | | | | 25,000 | |
| Streamflow & Suspended Sed. Trans. Modeling | | | | 25,000 | 26,00 |
| Cultural Data Base Plan | | | | 20,000 | 25,00 |
| Cultural Monitoring Plan | | | | | 25,00 |
| Terrestrial Habitat Map & Inventory | | | | | 100,00 |
| Long-Term Mon. of Fine-Grained Sed. Stor. | | | | 85,000 | 87,00 |
| PEP Activities / Implementation | | | | 55,000 | 07,00 |
| Public Outreach Activities | | | | 35,000 | 33,00 |
| Socioeconomic Resources | | | | 33,000 | 33,00 |
| Recreation User Adjustment | 70,000 | | | | |
| Assessing 30-year Campsite Changes | 70,000 | | 24.000 | | |
| Evaluating Trout Anglers Satisfaction | | | 24,000 | | |
| Campsite Monitoring Protocols | | | 5,000 | | |
| · • | | | 21,000 | | • |
| Recreation Beach Survey | | | 28,000 | | |
| Boater Adopt-a-Beach Program | | | 5,000 | | |
| Travel | | | 4,000 | 4,000 | 4,00 |
| Subtotal E: | 346,000 | 277,000 | 264,000 | 369,000 | 377,00 |

DRAFT, 12/15/00

| GRAN | A AREA | FY-1998 Actual | FY 1999 Actual | FY 2000 Actual | FY 2001 Budget | FY 2003 Proposed |
|---|--|--|--|--|--|---|
| F. | Information Technologies Program | | | | | **** |
| | Aerial Photography - Annual Overflight | 177,000 | 101,000 | (a) | (b) | [0 |
| | Computer Support | 79,000 | 131,000 | 93,000 | 172,000 | 171,00 |
| | Geographic Information Systems | , | 5,000 | 19,000 | 42,000 | 58,00 |
| | Library Information | 8,000 | 2,000 | 8,000 | 14,000 | 18,00 |
| | Database Management | 116,000 | 14,000 | 13,000 | 54,000 | 45,00 |
| | Equipment - Data Storage | | | 200,000 | | |
| | NPS Agreement for GIS Topo Coverage | 55,000 | | | | |
| | Travel | | | 4,000 | 8,000 | 8,00 |
| | Subtotal F: | 435,000 | 253,000 | 337,000 | 290,000 | 300,00 |
| (a) | Aerial Photography funded in Low Steady Summer Flows project. | | | | | |
| (b) | Aerial Photography funded with carry-over funds. | | | | | |
| [c] | Aerial Photography funded with appropriations. | | | | | |
| G. | Remote Monitoring Technology | | | 0.0 4" 0.0" 0" | | 100.00 |
| and the grade transfer of the second | Remote Sensing Initiative | | TO THE RESERVE TO THE | 361,000 | 400,000 | 400,00 |
| Н. | Independent Review Panels | | | | | 00.00 |
| | RFP Review | 400.000 | 1,000 | 19,000 | 65,000 | 66,00 |
| | NRC Review | 139,000 | 27,000 | | 00.000 | 00.0 |
| | SAB Review | | | | 80,000 | 82,00 |
| | Technical Report Review | | | | 25,00 0 | 26,00 5,00 |
| | Unsolicited & In-house Proposal Review | | 4.000 | | 5,000 | 5,00 |
| | Travel & Overhead Subtotal H: | 139,000 | 1,000 29,000 | 19,000 | 175,000 | 179,00 |
| 1. | Unsolicited Proposals* | | | ** | AS | |
| | General | | | | 70,000 | 72,0 |
| | Tribal | | | | 50,000 | 51,0 |
| | Subtotal I: | Marie Marie (Marie) - (-Marie Marie (1995) - M | | *************************************** | 120,000 | 123,0 |
| ." -\$2. | * New category established in FY-01. Previously funded in the Biol | logical and Soc | ioCultural Progr | ams. | AND THE RESERVE OF THE PARTY OF | ALL THE |
| Ĵ. | AMWG/TWG Requests* | COLLEGE PRODUCTION PROFESSIONE | - a y 1117575, and 1155, | er - Napole - er er er skriverer skiperen mannaberen er skap | 60,000 | 61,0 |
| 113,12 | * New category established in FY-01. Previously funded in the Bio | logical and Soc | cioCultural Progr | ams. | e garagement en la companya de companya del companya de la compan | |
| K. | In-House Research* | - word in the television of television of the television of television of television of the television of television | CONNECTED A SERVICE AND A SERV | oder on a contraction of a contraction | 20,000 | 20,0 |
| | * New category established in FY-01. Previously funded in the Bio | logical Progran | | erusa in in indra iz ili ili. I | 16 - Transie II. France i e | |
| L. | Logistics | 11 y 2 11 11 11 11 11 11 11 11 11 11 11 11 1 | | - 2 | A CONTRACTOR OF THE CONTRACTOR | |
| C + 100C + 1++ | River Logistics Cost | 476,000 | 530,000 | 571,000 | 579,000 | 500,0 |
| | Warehouse Operations | , | 8,000 | 8,000 | 5,000 | 5,0 |
| | Equipment Purchases | | 32,000 | 16,000 | 30,000 | 65,0 |
| | Helicopter Support | 83,000 | 34,000 | 24,000 | 30,000 | 31,0 |
| | Emergency Evacuation | 1,000 | 5 1,000 | 24,000 | 6,000 | 6,0 |
| | NPS Permitting | 48,000 | 50,000 | 108,000 | (a) | 57,0 |
| | Subtotal J: | 608,000 | 654,000 | 727,000 | 650,000 | 664,0 |
| | · | | ,000 | , 000 | - / - / - / - | , - |

| ואמי | MADEA | FY-1998 | FY 1999 | FY 2000 | FY 2001 | FY 200 |
|-------------|---|--|-------------------|---------------------------------------|---|--|
| JKAI | M AREA | Actual | Actual | Actual | Budget | Propose |
| M | Survey Operations | wo . was | | | | |
| | General Expenses | 16,000 | 27,000 | 32,000 | 32,000 | 33,00 |
| | Travel | | | 6,000 | 6,000 | 2,00 |
| | Subtotal K: | 16,000 | 27,000 | 38,000 | 38,000 | 35,00 |
| N. | Integrated Water Quality Program | | | | | |
| ١٠. | Conceptual Modeling | | | 17.000 | | |
| | Equipment Restoration, Maintenance, Repairs | 11 000 | 2.000 | 17,000 | | |
| | NPS IA - Lake Powell Technical Assistance | 11,000 | 3,000 | 40,000 | | |
| | Sample Processing & Supplies | 10,000 129,000 | 10,000 158,000 | 15,000 | | |
| | WQP Downstream Water Quality Monitoring | 129,000 | 100,000 | 13,000 | | |
| | Travel | 12 000 | C 000 | 75,000 | | |
| | Subtotal H: | 13,000 | 6,000 | 5,000 | | |
| | Subiolai II. | 163,000 | 177,000 | 165,000 | (a) | |
| (a) | IWQP AMP share funded in Biological Resources Scie | Commission of the Commission o | | and the second second second | (4) | |
| (a) Fund | | Commission of the Commission o | | and the second second second | TGG STANZET, G1 | |
| Fund | | Commission of the Commission o | | and the second second second | - Gas CON MATE - Ga | |
| Fund | ding grated Water Quality Program Salaries (70% of 2.5 fte) | Commission of the Commission o | | and the second second second | 145,000 | 145,00 |
| Fund | ding grated Water Quality Program Salaries (70% of 2.5 fte) Support from GC National Recreation Area | Commission of the Commission o | | | To Charles to the state of the | |
| Fund | grated Water Quality Program Salaries (70% of 2.5 fte) Support from GC National Recreation Area Sample Processing | Commission of the Commission o | | 128,000 | 145,000 | 10,00 |
| Fund | grated Water Quality Program Salaries (70% of 2.5 fte) Support from GC National Recreation Area Sample Processing Research | Commission of the Commission o | | 128,000 10,000 | 145,000 10,000 | 10,00 85,00 |
| Fund | grated Water Quality Program Salaries (70% of 2.5 fte) Support from GC National Recreation Area Sample Processing | Commission of the Commission o | | 128,000 10,000 | 145,000 10,000 85,000 | 10,00 85,00 |
| Fund | grated Water Quality Program Salaries (70% of 2.5 fte) Support from GC National Recreation Area Sample Processing Research Other Operating Expenses Equipment | Commission of the Commission o | | 128,000 10,000 74,000 | 145,000 10,000 85,000 | 10,00 85,00 |
| Fund | grated Water Quality Program Salaries (70% of 2.5 fte) Support from GC National Recreation Area Sample Processing Research Other Operating Expenses Equipment Logistics | Commission of the Commission o | | 128,000 10,000 74,000 21,000 | 145,000 10,000 85,000 | 10,00 85,00 30,00 |
| Fund | grated Water Quality Program Salaries (70% of 2.5 fte) Support from GC National Recreation Area Sample Processing Research Other Operating Expenses Equipment | Commission of the Commission o | | 128,000 10,000 74,000 21,000 | 145,000 10,000 85,000 30,000 | 10,00 85,00 30,00 20,00 |
| Fund | grated Water Quality Program Salaries (70% of 2.5 fte) Support from GC National Recreation Area Sample Processing Research Other Operating Expenses Equipment Logistics | Commission of the Commission o | | 128,000 10,000 74,000 21,000 | 145,000 10,000 85,000 30,000 | 145,00 10,00 85,00 30,00 20,00 2,00 8,00 |