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Subject: MATERIAL FOR AMWG MAILOUT

Attached is a copy of the GCMRC draft Strategic Plan and a copy of the SAB review of same. As the SAB noted, the document was not intended to be a Strategic Science Plan, but is rather more like a business plan. The document will be revised after considering both the comments of the SAB and those of the TWG/AMWG. In the spirit of full disclosure, I am providing both the first draft and the SAB comments for TWG/AMWG review.

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Strategic Plan for the U.S. Geological Survey, Grand Canyon Monitoring and Research Center: 2005-2009

Jeff Lovich, Chief GCMRC

18 May, 2004
Flagstaff, Arizona

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“It is not necessary to change. Survival is not mandatory.”
W. Edwards Deming

“I cannot say whether things will get better if we change; what I can say is they must change if they are to get better."
G. C. Lichtenberg

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Introduction

The last approved strategic plan for the Grand Canyon Monitoring and Research Center GCMRC expired in Fiscal Year (FY) 2002 after being implemented in FY 1998. A draft revision extending to FY 2004 was never formally adopted and implemented by GCMRC. Strategic plans should be visionary, conceptual, directional, and short. Earlier versions of GCMRC's met few if any of these criteria. During the time period from 1998-2004, GCMRC went through several dramatic changes, including several Chief's (Directors), and most recently, a reorganization. These changes necessitate immediate development and implementation of a strategic plan to guide the organization into the near future.

Every organization needs a strategic plan so that all employees are clear on the corporate vision, mission and goals. This strategic plan will cover the interval from FY05-FY09. It is intended to be a living document that will be assessed annually to ensure that we are on track to achieve our goals. In short, a strategic plan is the means by which GCMRC will constantly recreate itself to achieve extraordinary purpose and relevance.

GCMRC Strategic Plan Underpinnings

This plan is founded on two unwavering principles. The **first** is a commitment to ensuring the conduct, interpretation and delivery of high quality science. High quality science is defined as science that is rigorous, repeatable, and subject to the highest standards of data collection, analysis, interpretation and peer review. GCMRC values objective, non-advocacy science that is based on developing testable hypotheses, rigorous collection of data, state-of-the-art analysis, anonymous peer review, and timely delivery to our stakeholders and the general public. GCMRC advocates only one thing: high quality science. We do not advocate for positions, protection of resources, or a particular mission beyond our own, or that of the USGS as a whole.

The **second** principle is relevance and responsiveness to the needs of our stakeholders. GCMRC research and monitoring activities will be evaluated against the Goals, Management Objectives and the Information Needs contained in the AMP Strategic Plan. We will strive to meet the needs of our stakeholders in all of our research and reporting activities. Who are our stakeholders? Our primary stakeholders are the 25 members of the AMWG. Because of the additional need for USGS to meet societal needs, our broader list of stakeholders includes the public. Failure to meet the needs of our stakeholders will result in failure to achieve our mission.

Vision

Every organization needs a vision to pursue excellence. While GCMRC has made significant accomplishments toward achieving the vision outlined below, we recognize that there is room for improvement. Simply stated, our vision is:

To be the undisputed leader in providing relevant, valuable, accurate, and timely information on the effects of Glen Canyon Dam operations on the natural and cultural resources in the Grand Canyon.

During the five year implementation period for this strategic plan, GCMRC will develop a well-integrated research and monitoring program with state-of-the-art information on the effects of Glen Canyon Dam operations on natural and cultural resources in the Grand Canyon Ecosystem. Our research and monitoring activities will be conducted using the most appropriate mix of skills including, limited work conducted by GCMRC scientists and staff work done with cooperators, and work done through contracts. Interdisciplinary approaches will be encouraged when appropriate. Results, databases, and geospatial information will be published and disseminated in real time through our web site, scientific journals and other USGS products. We will regularly produce a State of the Colorado River Ecosystem report that is used by resource managers as the undisputed source of relevant information on the topic. Our science will be aligned with the needs of our stakeholders who come to us as the acknowledged experts on the Grand Canyon Ecosystem. The stakeholders will highly value our work. GCMRC will be nationally and internationally recognized for the quality of our work and we will be regularly consulted as the model for adaptive management and client satisfaction. Several employees will be recipients of prestigious Department-level awards. Employee satisfaction will be high and we will be the envy of the USGS as a place to work.

Mission

Our mission has remained unchanged since the last Strategic Plan written for GCMRC:

To provide credible, objective scientific information to the Glen Canyon Dam Adaptive Management Program on the effects of operating Glen Canyon Dam on the downstream resources of the Colorado River ecosystem, utilizing an ecosystem science approach.

Linkages to other Strategic Plans and documents

The GCMRC Strategic Plan does not exist in a vacuum. The GCMRC Strategic Plan requires recognition of our roles and responsibilities within the U.S. Department of the Interior, the USGS, and the GCDAMP. Following is a synopsis of the role we fulfill in the context of each of the entities mentioned above.

Department of the Interior - The Mission of the Department of the Interior is to protect and provide access to our Nation's natural and cultural heritage and honor our trust responsibilities to Indian Tribes and our commitments to island communities. The Department of the Interior has established five Departmental goals that encompass the

major responsibilities of the Department. These goals provide a framework for the strategic plans of Interior's bureaus. The Departmental goals are as follows:

1. Protect the Environment and Preserve Our Nation's Natural and Cultural Resources.
2. Provide Recreation for America.
3. Manage Natural Resources for a Healthy Environment and Strong Economy.
4. Provide Science for a Changing World.
5. Meet Our Trust Responsibilities to Indian Tribes and Our Commitments to Island Communities.

USGS – The U.S. Geological Survey (USGS), established in 1879, is the Nation's principal natural science and information agency. As the primary science bureau for the U.S. Department of the Interior, the USGS plays a key role in research and monitoring activities on public land and beyond. The current Strategic Plan for the USGS covers the period of time from 2000-2005. As a part of the USGS, GCMRC will direct our program in adherence to the vision, mission, strategic direction, and goals outlined by the Bureau.

> **The vision of the USGS** – *USGS is a world leader in the natural sciences through our scientific excellence and responsiveness to society's needs..*
>
> **The mission of the USGS** – *The USGS serves the Nation by providing reliable scientific information to:*
> - *describe and understand the Earth;*
> - *minimize loss of life and property from natural disasters;*
> - *manage water, biological, energy and mineral resources; and*
> - *enhance and protect our quality of life.*
>
> **Strategic direction** – *The USGS will combine and enhance our diverse programs, capabilities, and talents and increase customer involvement to strengthen our scientific leadership and our contribution to the resolution of complex issues.*

In an earlier version of the Strategic Plan (1996-2005), the USGS characterized achievement of their strategic goals with a portrait of activities that will have increased in the organization by 2005. Those that resonate with the needs of the GCDAMP, as outlined in the AMP Strategic Plan, and with the GCMRC, are shown below.

Increasing emphasis
Long-term interdisciplinary studies
Mitigation studies
Quality and accessibility of resources
Nontraditional disciplines
Regional and national studies
Geospatial data integration
Applied research and development

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Technology transfer
Engaging in controversial issues
Issue-driven studies
Multiple-risk assessments
Digital products
Real-time event responses

More details on the USGS Strategic Plan can be found at http://www.usgs.gov/stratplan/.

USGS Leadership Program – The USGS created a leadership development program in 1999 with a vision to, "*Create a leadership-centered culture throughout the USGS that emphasizes the importance of people in the USGS to ensure high-quality science for the benefit of society*." GCRMC upholds the USGS Leadership Program Guiding Principles in all of our activities, interactions with stakeholders, and interactions with each other. The Guiding Principles are listed below.

BE RESPECTFUL
Honor the absent
Honor roles and responsibilities of each person
Treat each other with dignity

BE ACCOUNTABLE
Take personal responsibility
Reward desirable behaviors and results
Be decisive and consistent
Communicate clear expectations for the job
Hold others accountable

COMMUNICATE
Be a good listener
Be honest in the message you deliver
Admit when you are wrong
Be flexible

VALUE DIFFERENCES
Different backgrounds
Different ways of thinking
Different disciplines, roles

ENCOURAGE
Nurture and challenge
Provide a safe and rewarding environment
Provide clear directions

FOCUS
Strive toward USGS mission/vision
Accept change
Be resilient
Think beyond your own discipline

COLLABORATE
Work as a team member
Coordinate with others
Keep others informed

GCDAMP Strategic Plan – Because of our role in the GCDAMP, the AMP Strategic Plan is the keystone document upon which GCMRC will measure our success and

relevance in terms of accomplishing our vision and mission. This is not expected to result In conflicts with either the Department of the Interior or the USGS Strategic Plans.

The AMP Strategic Plan contains Goals, Management Objectives, and Information Needs. It is not the intent of this plan to list each of these again and the reader is referred to the AMP plan. However, the research and monitoring program of the GCMRC will be driven by these elements and relevance of our research, monitoring and reporting to the stakeholders.

Evaluation of Strengths and Weaknesses

Development of a strategic plan gives an organization the opportunity for self-examination with respect to its strengths and weaknesses, insofar as achieving the vision, mission and goals contained therein. Questions that need to be asked include the following:

- What are the needs that we currently have the capacity to support well?
- What are the areas that we need to develop to have capacity in the future?
- What are the opportunities and critical needs in the future?

With respect to weaknesses, the emphasis is not on finding fault, but rather on finding opportunities to improve. As such, the word "weaknesses" will be used only when referring to material deficiencies. All other matters on the debit side of our ledger will be referred to as opportunities for improvement. GCMRC, is serious about resolving management or personnel issues that affect achievement of the goals identified in our Strategic Plan. Because these issues tend to be tactical or operational in nature, they are recognized, but not addressed in this plan. Rather, they will be dealt with by management of the Center through effective supervision and accountability. Some of our **strengths** are listed below:

S.1. *Dedicated staff* – One of GCMRC's overarching assets is a highly dedicated staff, committed to science excellence in the Grand Canyon. Some of our staff members have over two decades of experience conducting research and monitoring activities in the Grand Canyon. During this time, they were involved in GCMRC and its organizational precursors (GCES Phases I and II). This experience translates into incredible institutional knowledge that needs to be protected and passed on to current and future GCMRC employees for the benefit of the GCDAMP.

S.2. *Creativity* – Working in the Grand Canyon requires an exceptional amount of skill and creativity because of the size of the system under investigation, its remoteness, the hostility of the environment, the complexity of the geo-ecological system, and changing needs of our stakeholders. GCMRC staff have demonstrated remarkable creativity in dealing with these challenges. This creativity may be even more critical in the future. *Clear mandate and focus* – The Glen Canyon Dam Adaptive Management Program has existed for almost nine years. Although the roles and responsibilities of the various

entities within the AMP are currently under discussion, the Goals, Management Objectives, and Information needs are well established. The difficulty for GCMRC is the shear number of these drivers and the fact that not all are sequenced as far as priority is concerned. When that is resolved, GCMRC will have a clearer identification of stakeholder needs.

S.3. *Logistics Program* – GCMRC's dedicated staff support a large and complex Logistics Program. Responsibilities of the Logistics Program Manager include: 1) scheduling as many as 40+ river trips per year: 2) administering the Logistics Program contract for boatmen and technical boatmen; 3) provisioning the trips; 4) maintaining GCMRC's fleet of boats, outboard motors, and other supplies; and 5) coordinating all permits with the Grand Canyon National Park. Having this capability in-house allows GCMRC to have a degree of efficiency and flexibility that would not be expected under other circumstances.

S.4. *Good equipment* – Related to the Logistics program above is a substantial infrastructure of advanced equipment that aids in the collection, archiving and dissemination of information to our stakeholders. While advances in technology require continuous capital investment to remain on the cutting edge of research and data archiving, GCMRC generally has the tools to do effective research and monitoring in the Grand Canyon.

S.5. *Ability to react quickly* – GCMRC management and science staff have demonstrated an ability to respond quickly to changing needs within the GCDAMP. While the ability to respond to changing management conditions in the AMP will remain a necessity in the future, GCMRC advocates development and implementation of a Long-term Core Monitoring Plan and a Long-Term Research Plan (including experimental actions) to add as much certainty to the program as possible. However, it is expected that even greater flexibility will be required in the next five years. In anticipation of that reality, GCMRC will focus energy on an organizational structure and management philosophy that facilitates rapid response of our research and monitoring programs to changing conditions.

S.6. *Sediment research and monitoring* – GCMRC physical scientists have developed an interdisciplinary and cooperative research program that has provided resource managers with unprecedented knowledge of sediment resources in the Grand Canyon ecosystem. Much of the success of the program is due to the use of technology to simplify and economize on data collection activities. The success of this program is a model for what GCMRC hopes to achieve for other major programs during the life cycle of this Strategic Plan.

S.7. *Excellent relationships with our cooperators* – GCMRC has numerous cooperators in academia, federal agencies, state agencies, and other parts of the USGS including the Water Resources Division (WRD), and the National Research Program of WRD. Our position within the USGS gives us access to all the capabilities of the organization. Cooperative relationships with diverse entities will remain a vital part of our future as

they bring a level of interdisciplinary science to our program that is required to deal with the research and monitoring questions of concern to our stakeholders.

Opportunities for improvement will require a considerable investment of staff time to achieve the vision, mission and goals identified in this strategic plan. This effort will also require the occasional assistance and patience of other members of the GCDAMP. The opportunities below are not presented in any order and all will be addressed during the next five years in the goals of this Strategic Plan. Weaknesses, or material deficiencies include an increased workload and program complexity with a budget capped for inflation, the uncertainty of getting increases in appropriated funding to augment that portion of the program supported by power revenues, and the loss of a full-time GCMRC administrative staff due to USGS reorganization. The solution to the latter is strongly related to the former issues and will be addressed as funding permits.

O.1. *Workload and staffing issues* – The GCDAMP has grown substantially in scope and complexity during the last several years. A recent example is the addition of experimental actions, totally over $2 million, to the existing monitoring and research program for FY03-04. In addition, implementation of both the Humpback Chub Ad Hoc Committee recommendations, and the concurrent sampling requirement for humpback chub monitoring, place additional strains on our ability to deliver timely science to the AMP under the existing budget and workforce. None of these additions to the GCMRC workload were accompanied by increased funding or staffing to cover not only implementation of these actions, but also the associated environmental compliance, logistics and permitting issues.

GCMRC faces difficult decisions in light of our increased workload. To maintain our strategic commitment to ensuring that our science excellence is beyond reproach, GCMRC will have to focus on program areas where it has strength. Areas where we do not currently have strength (e.g., economics and socioeconomic studies, Lake Powell water quality monitoring) may better be conducted elsewhere within the scope of the AMP. Additional staffing would be required to provide support in some of these areas, even utilizing a contracting approach, to the detriment of our core science capabilities.

Simultaneously, stakeholders have expressed concern about the size of the federal workforce at GCMRC. For the purposes of this Strategic Plan, GCMRC is changing the question, from, “How many federal employees does GCMRC have?” to, “How many federal and other employees does GCMRC need to support the needs of the AMP?” GCMRC is committed to keeping our staff size at the minimum needed to reasonably accomplish the job. We cannot do more with less and be realistic about our commitment to deliver high quality science and maintain employee satisfaction. As such, funding can be considered a material deficiency, or weakness. The AMP needs to be committed to giving GCMRC the flexibility to maintain an “*appropriate sized*” staff per the memorandum from the Assistant Secretary for Water and Science dated March 31, 2000. The memo further stated, “*The staff shall be composed of permanent, term, and temporary employees, as appropriate; program staff shall be employees or contractors of the USGS. In addition, the GCMRC may use post-doctoral appointments and detailees to complete its staffing needs.*” This language will guide the staffing plans of the GCMRC during the period covered under this Strategic Plan.

O.2. *Contracting* – Some stakeholders have indicated that GCMRC should do less in-house research and monitoring and contract more work outside of GCMRC. During the next five years GCMRC will move away from the model where we conduct a substantial amount of research and monitoring toward a model where GCMRC scientists enlist the assistance of contractors and cooperators, as required by the circumstances of each project. Our contractors and cooperators will conduct a large measure of our field work activities and feed the data back to GCMRC scientists for analysis, synthesis, and publication. This is not to say that GCMRC scientists will not be engaged in the implementation of field research and monitoring. Appropriate conditions for our involvement in field research and monitoring include the following: 1) we have the appropriate expertise; 2) our involvement is cost effective; and 3) we hold our own proposals to the same level of rigorous outside peer review as all others. Contracting is expected to cost more than federal employees in some cases.

O.3. *Permitting* – When GCMRC receives an approved budget from the AMWG implementation of work begins. Part of this process involves permit coordination and acquisition. Sometimes the AMWG approves projects that have permitting problems later due to conflicting mandates within some of the resource agencies involved. GCMRC is committed to working with the resource management agencies who provide permits to minimize and mitigate the effects of our research and monitoring activities on resources of concern. The AMWG needs to be aware of the fact that failure to obtain the necessary permits will result in cancellation or modification of an affected project.

O.4. *Morale and rewarding work environment* – GCMRC employees have consistently noted a lack of emphasis on celebrating accomplishments. The fast pace of our research and monitoring programs in support of the AMP creates an atmosphere where we don't pause to consider our contributions to the program. Starting immediately, GCMRC will begin an award program that recognizes the accomplishments of employees that have achieved above expectations.

O.5. *Need for new ideas* – The research community working in the Grand Canyon is comprised of highly capable and valued contractors and cooperators. However, the research community, especially in Flagstaff, is a finite resource. GCMRC and our stakeholders have expressed concern that we are not bringing new ideas and approaches to our program through broad national and international competition. GCMRC is committed to ensuring that future competitive announcements will be distributed as widely as possible to ensure that the broadest possible array of researchers have opportunity to strengthen existing efforts and build upon new efforts.

O.6. *Productivity and peer review* – As with all research and monitoring results, those produced by GCMRC are not generally useful without synthesis, and effective and timely communication to our stakeholders. During the next five years GCMRC will move swiftly and measurably along the continuum of collecting data, to synthesizing and publishing data. The Chief of GCMRC is committed to fostering a highly product-oriented culture among our scientists. Included will be a regular State of the Colorado

River Ecosystem Report (SCORE) generated by GCMRC staff. Emphasis will also be placed on producing major syntheses in peer-reviewed scientific journals. GCMRC is equally committed to ensuring that our products and proposals are held to the highest standards of outside peer review. Our existing protocols will be refined as necessary to maintain this key component of high quality science.

O.7. *Outreach* – GCMRC has amassed an extraordinary amount of data and publications on natural and cultural resources in the Grand Canyon ecosystem. A major focus for the future is serving data and publications on our website and through our library.

O.8. *Center focus and integration* – GCMRC programs were traditionally defined among disciplines as physical science, biological science, information management, and cultural resources. In October, 2003, the Chief reorganized the Center to consolidate physical and biological science programs into the new Integrated Ecosystem Science Program (IESP), elevated the logistics component to a stand-alone program, and merged most of the support functions (GIS, remote sensing, data acquisition and storage) into the IESP, where most of their support was provided. The purpose of this reorganization was to improve opportunities for fostering integrated approaches to complex problems, and to move the Center from a "program-focus" to a "center-focus." Interdisciplinary approaches will be required to effectively study the effects of dam operations on the CRE and this merger is an attempt to facilitate that approach. Over the next five years GCMRC will continue to foster integrated science, all the while evaluating the organizational efficiency of the GCMRC.

O.9. *Safe and productive work environment* – Every employee is entitled to a safe workplace, free from harassment, intimidation, and discrimination. GCMRC supports all Department and USGS standards for a safe work environment with zero tolerance for discrimination and harassment. All employees should understand their role in the organization and feel as if they are supporting something that is worthwhile and larger than them individually. In fulfillment of the latter, every employee is required to have an annual performance plan that outlines a reasonable set of critical results that can be accomplished within a year, and still keep the Center on track to achieve its vision and mission. Having a clear set of expectations, with a system of performance awards and performance improvement options will contribute measurably to creating a better place to work. Accountability must occur at all levels, among managers, from managers to employees, from employees to managers, and among employees of every position in the Center. When performance is not maintained at acceptable levels, agreed to by the employee and their supervisor, disciplinary actions will be instituted consistently and in accordance with Department and Bureau guidelines.

O.10. *Standard Operating Procedures* – Most organizations as complex as GCMRC require a clear set of standard operating procedures (SOPs) to ensure that guidance is available and followed for routine activities such as hiring, credit card use, safety, study plan development, peer review, etc. The Center has begun the process of establishing and posting SOPs on the Southwest Biological Science intranet. This process will continue

over the next five years to ensure that all employees have access to the information they need to do their job most effectively.

Drivers and emerging issues

The effectiveness of GCMRC to capitalize on our strengths and build on our opportunities for improvement, rests, in large measure, on our ability to prepare for the future drivers and emerging issues that will affect the GCDAMP. While our ability to react to change is a key competency, our ability to plan for change is of greater importance. As the current multi-year drought indicates, climatic factors beyond our control can have enormous impacts on research and monitoring activities, and the priorities of our stakeholders. GCMRC needs to have a workforce that can respond to such large-scale changes. Other future drivers include, but are not limited to, potentially new listings of threatened and endangered species, new diseases or invasive species entering the CRE, and the implementation of a Temperature Control Device on Glen Canyon Dam.

Corporate values

The management and staff of GCMRC commit to adhere to a set of corporate values that advance our vision and mission. Included are the following:

- Responsiveness to the Goals, Management Objectives, and Information Needs of Adaptive Management Program
- Timely reporting of research and monitoring results and an strong emphasis on products
- Interpersonal, interagency, and fiscal accountability
- Zero tolerance in the workplace for discrimination or intimidation
- Full adherence to Department and Bureau guidelines for promoting diversity
- Promoting a rewarding work environment by establishing clear expectations of roles and responsibilities, managing performance, and rewarding exceptional performance

Major goals and strategies for accomplishing our mission

Each of the opportunities for improvement discussed above is a stepping stone in the full implementation of this strategic plan and achievement of the GCMRC vision. Goals are presented in terms of metrics of success and dates of achievement.

O.1. Workload and staffing issues

GOAL O.1.a – GCMRC will continue to focus on core competencies during the next five years including: physical science activities (sediment transport, hydrologic modeling and water quality); fisheries science, data acquisition, storage and analysis; development of a cultural resource monitoring program; and dissemination of data and products through our website, publications, and our library. GCMRC will not be able to develop some

program areas (e.g., economics) without additional funding or a reduced list of priorities from the stakeholders.

GOAL O.1.b – By 2009 GCMRC will strive to achieve a federal FTE (Full time equivalent) staff size of no more than 18 employees. This target will be achieved largely through attrition of federal staff. Included in the staff will be a senior-level ecologist and an administrative assistant.

GOAL O.1.c – By 2009 GCMRC will achieve a permanent federal employee: temporary (temps and terms) federal employee staff ratio of no more than 3:1. The ratio in 2004 is approximately 4:1. Having a higher number of temporary and term employees will give GCMRC greater flexibility and allow us to respond quickly to changing conditions.

GOAL O.2.a – Starting in 2005 GCMRC will critically evaluate each new federal vacancy for possible filling with a contract position. The model of having a workforce comprised of both federal employees and contractors has worked at other USGS Centers, adding flexibility that allows a quick response to changing conditions.

GOAL O.3.a – Starting with the FY 2006 budget cycle, GCMRC will require a commitment from permitting agencies on the AMWG that they will support research and monitoring efforts approved in the AMP budget. Lack of support, in open AMWG meetings, will result in projects being removed from the list proposed by GCMRC or substantially modified.

In FY 2006, GCMRC will develop a process for certifying to the National Park Service that all mechanisms have been considered for consolidating river trips and minimizing the effects of research and monitoring efforts on resources and visitor experience in the Grand Canyon.

GOAL O.4.a – Starting in FY 2006 GCMRC will devote no less than 1% of our total AMP funding to an awards and recognition program for recognizing exemplary service. An awards committee will be selected from GCMRC staff with a representative from the GCMRC Management Team. The purpose of the committee will be to review recommendations for awards and advise the Chief on how to distribute both monetary and non-monetary awards. Awards will include recognition for the best scientific paper published in a given year and the most scientific papers published in a given year.

GOAL O.5.a – Starting in FY 2005, GCMRC will ensure that future competitions for contracts or cooperative agreements are disseminated nationally and internationally through whatever means are available.

GOAL O.6.a – Starting in FY 2005 all science staff will be required to have a critical element on their annual performance plan that commits them to SUBMITTING a set number of scientific articles to peer-reviewed scientific journals. The number will be negotiated with the supervisor but should be no less than 1.

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Starting in FY 2005 GCMRC will produce a professionally printed SCORE report. Future hardcopy SCORE reports will follow once every 5 years. A digital version of the SCORE report will be posted on the GCMRC website biennially.

O.7.a – Starting in FY 2005 GCMRC's web site will be substantially revised to be more user-friendly and to host more data and publications. In FY 2006 databases will be accessible on the GCMRC website that allow users to access and model flow data. In FY 2006, GCMRC sediment data will be available in real time via satellite transmission from sensors in the Grand Canyon.

O.8.a – Starting in FY 2005 GCMRC will conduct the second Organizational Assessment (OA) since the October 9, 2003 reorganization. OA's will be conducted annually to determine what is working and what is not working in our organizational structure. Changes will follow in the spirit of adaptive management. Starting in FY 2006, awards will also be given for the most integrated research project(s) at GCMRC (see O.4.a above).

O.9.a – Starting in FY 2005 GCMRC will require that all employees engaged in boating, aviation, electro-fishing, or any research or monitoring in the Grand Canyon be current on all applicable training, including first aid. All employees will also be required to take computer security training and ethics training as required.

O.10.a – By FY 2006 GCMRC, in collaboration with the parent organization the Southwest Biological Science Center of USGS, will develop or revise standard operating procedures for the following topics: animal care and use; time keeping; travel vouchers; duty hour options (maxi-flex, etc.); peer review; study plan development; reporting media contacts and submitting highlights; submitting content pursuant to the Government Performance and Results Act; and compliance with USGS visual identity guidelines for technical reports;

ACRONYMS

AMP – Adaptive Management Program (synonymous with the GCDAMP)
AMWG – Adaptive Management Work Group
CRE – Colorado River Ecosystem
GCDAMP – Glen Canyon Dam Adaptive Management Program (synonymous with AMP)
GCMRC – Grand Canyon Monitoring and Research Center
Grand Canyon Ecosystem – INSERT DEFINITION FROM AMP DOCUMENTS
IESP – Integrated Ecosystem Science Program
SCORE report – State of the Colorado River Report
TWG – Technical Work Group of the Adaptive Management Work Group
USGS – United States Geological Survey