

**Glen Canyon Dam Adaptive Management Program
Strengths, Weaknesses, Opportunities, and Threats (SWOT) Report
Fall 2000**

Internal Strengths and Weaknesses

Trust and respect

Action outside the AMP

- A weakness of the program includes the general mistrust for each other and the belief that opposing views have an agenda that will lead to actions outside of the AMP process. Although this situation does not occur often, but when it does, dissatisfied interests try to win the day through political solutions. What is lacking is more facilitation by a neutral and objective party to keep communications moving.
- Another weakness is that there is not true parity between participants. Recent events have shown that some participants can virtually ignore what goes on within the program and use their influence outside the process to nullify what the stakeholder majority within the program has agreed to. Without a means to hold participants to decisions within the program, stakeholders with less political clout outside the program have little true clout within the program.
- Members step outside the process and go directly to Congress to get things done, there is a general lack of trust and seems to be a great deal of frustration with the whole program. I had heard the AMP and AMWG referred to as a farce a few years ago, but at that time felt that it had a good future. Now I'm not so sure.
- Some members (most likely CREDA) have apparently chosen to exert external political pressure to reshape the program, rather than working as a team to advise the Secretary of the Interior. Whether the call for political pressure comes from the AMWG representative or from employees or consultants to the organization is irrelevant. It severely undermines the group's confidence that CREDA is constructively contributing to the process.

No action incentive

- Some stakeholder groups have an agenda of stalling or preventing the process from proceeding.
- The AMP program is bogged down with various stakeholders stuck in the status quo. To many, it is better to do nothing than make any changes. There is an underlying premise that if a consensus can't be reached that the issue will not get a recommendation. As such, complex and important issues are not considered within this process. Alternatively, certain issues important to certain members have been resolved not through the AMP but through outside lobbying efforts. Such behavior has tended to erode the effectiveness and validity of the AMP process.

Trust and respect

- + For the most part, people respect other viewpoints and the process has become much more civil over the past couple of years.
- + Good collaboration, people listen to each other.
- Lack of respect and cooperation among AMWG and TWG members, due mainly to preconceived ideas and convictions that the other side is "out to get me (or my resource)."
- If trust and willingness to adopt a set of unified goals and work toward them together is considered to be a resource, then it is completely lacking.

Internal communication

- + Physical science and cultural resources programs do a good job communicating their activities.
- + Has quickly implemented electronic communication and info/product dissemination.

Note: A plus sign (+) indicates a strength, and a minus sign (-) indicates a weakness, as identified by the respondent.

- + One of the successes of the program is the manner in which information is distributed to the interests involved.
- + Abundance: Paperwork and reports.

Process

Open discussions

- + Strength: Willingness to discuss issues openly.
- + Do well: holds regular meetings that keep a diverse group of special interests in contact with other; ongoing conversations as to what a common vision might consist of.
- + Does well: brings forward issues.
- + Thoroughly debates actions in advance of implementation.
- + Given a chance, issues can receive a thorough airing or discussion and this helps ultimate decision-makers make better-informed decisions.
- + It is a cooperative, supposedly public process for managing one of the world's most valued ecosystems.
- + It provides an opportunity to develop creative solutions, other than legal challenges, to resolve issues.
- Too much talking – not enough listening.

Conflict resolution

- + The forum has established itself in such a way for positive resolution of conflicts in most instances.
- Controversial issues are just not discussed or resolved within the AMP and the AMWG does not seem ready or able to make meaningful recommendations to the DOI Secretary regarding Glen Canyon Dam. For some, the goal is more to be congenial than anything else; even if nothing gets accomplished.
- An additional weakness is the program's inability to date to deal in conflict resolution. Where resources, management actions, etc. are inherently in direct conflict, those conflicts have been virtually ignored and shoved aside to fester instead of taking a practical approach to resolve the conflicts.
- The AMP has been ineffective at resolving issues surrounding ESA and NHPA. The AMWG seems more than willing to just sit back and accept the direction of the BOR on many of these issues rather than evaluate, take a stand, and make a recommendation.
- Difficulty in reaching a decision.
- The politics of the process. History is replete with the power and water buffaloes dictating the message and the process. It is necessary for the AMP to be the unbiased moderators in the process.

Taking action

- There is a real lack of ability to arrive at agreement on substantial issues and then put that issue to bed as a given – too much wanting to revisit every decision at every opportunity. (Example – the scope of the project and the issues addressed in the guidance document.)
- Continually revisiting issues.
- Finally, the program is a victim of too much talk and too little action. Not surprising given that it is a government program with all the ensuing bureaucracy, and involves 27 stakeholders, each with an agenda and need to speak, but were this program part of a private, for-profit corporation, profits would be down and heads would be rolling. We all need to start thinking like entrepreneurs – innovative, action-oriented, results-driven.
- Administrative Constipation. Taking action when needed is often deferred for "more study" or "decision evolution". In the interim, the species and their environment continue to degrade. Hand wringing and arm waving need to be facilitated out of the process of the AMP.

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- Positioning. With a program as large and public as the AMP and Grand Canyon, there have been many opportunities of people and groups posturing for their constituents and not looking at the big picture and needs of the Grand Canyon. A trained facilitator and mediator must run the discussions in order to develop a balanced approach and decision environment.
- No one is held accountable. We're trying to run a program like business managers but doing it like a bunch of college kids. We plan and plan and plan, but never seem to follow through on what was agreed to.

Compromise

- The AMP tries to be all things for all interests and cannot recommend extreme actions (even though this may be needed for certain issues like endangered species) if a member's interests will be jeopardized.
- Decisions are usually middle of the road compromises not necessarily in the best interest of one group or another but harms the least.

External communication

Public Outreach

- + Reasonably high visibility in eyes of participating agencies and public.
- There is no discernible public outreach or public involvement, and therefore little present public interest in this program.

Communication with the Secretary and ROD recommendations

- Weakness: no clear process for periodic reports to Secretary on the effectiveness of the ROD with regard to the current objectives; including recommendations, based on scientific information, for how the elements of the ROD might be altered to better achieve the management objectives and tenets of the GCPA of 1992.
- Not do well: Assimilate science information with goals and objectives and turn that information around in the form of specific, periodic reports to the secretary on how well the ROD is achieving the stated goals of the 1992 Grand Canyon Protection Act.
- Resources lack: reporting framework and support staff to report effectively on the effectiveness of the ROD.
- There is no evidence that the Secretary's Designee is actually forwarding recommendations from AMWG to the Secretary, or that Secretary is providing AMWG with questions on which he wants advice. It appears that the Secretary's Designee views this as a BOR program, not as an Interior program with national significance.
- Lack of Secretarial (DOI) feedback re: satisfaction/dissatisfaction with AMWG recommendations.
- Until just recently, AMWG members had no idea how their deliberations were brought forward to the Secretary.

Planning

Strategic Planning

- + Goals and objectives, and a strategic plan are being developed.
- Lack of focus and clear-cut, shared, common understanding and vision for Program objectives, measures of success/progress and outcome of program action.
- Goals and objectives continue to be unclear.
- We haven't developed a strategic plan so we can give proper guidance to GCMRC.

Priorities

- Adequate resources may exist but the AMWG may not be patient enough to establish appropriate priorities to use the resources. It seems we want to do everything and have a difficult time agreeing to priorities.

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- Failure to set priorities. Lack of a specific vision, or what we want the resource to look like. Our vision, in our vision and mission statement, is entirely too vague and give us no direction or guidance at all. It says our vision is an ecosystem where the resources and natural processes are in harmony. An agreed-upon vision will involve trade-offs, so we can set priorities and develop a Strategic Plan. We will have to address the native fish-trout issues, for example, number of camping beaches desired or possible, motorized and un-motorized boat travel, wilderness, etc. We can't do everything for everyone. The resources are limited, and so is our time.

People and institutions

Inclusion

- + Involves stakeholders from all points of view.
- + The program brings together groups who would not normally communicate with each other.
- + All resources represented.
- + The AMP gets a large and diverse group of stakeholders together to discuss issues related to Glen Canyon Dam and the Colorado River.
- + Includes wide cross-section of stakeholder interests.
- + Broad-based stakeholder participation.
- + Inclusivity of participation by all affected stakeholders.
- + Provides opportunity for all views to be heard.
- + Enough eyes and ears are involved that entities responsible for management of resources or facilities are less likely to take unilateral action and less likely to do something detrimental to another's interest. Public disclosure can exert pressure to prevent or amend 'bad' practices.
- + Another strength is the inclusiveness of the program, with a broad range of stakeholders involved in the workings of the program. This gives a strong buy-in from all potentially affected stakeholders, and brings to the table a great breadth of knowledge and expertise.
- + The strength of the program at this point is that all stakeholders are coming to the table to talk about issues of mutual concern. Theoretically, all issues should be open for discussion and various management options can be tried.
- + Provides an opportunity for various interests to hear views on issues relating to impacts of operation of Glen Canyon Dam. There seems to be an abundance of interests dealing with pro-environmental views against the existence of the dam.
- + Strength: Forum for stakeholders to meet together.
- + The biggest resource is the inclusion of the federal agencies, all of which have deep interest and financial resources to dedicate if they are so motivated.

Participation

- Participants have other jobs, relegating AMP work to a lower priority. This means quality time is not assigned to AMP work by most members. Those that do spend time then obtain decisions by default, i.e., not representative.
- One of the fundamental problems with the AMP is that only certain members are funded to participate in the AMP process, i.e., GCMRC and BOR. The other stakeholders participate at their own expense and have less time to devote to the process. As such, some members are at a disadvantage within the process.

Dedication and enthusiasm

- + Enthusiasm of federal agencies to do a good job.
- + The GCMRC is staffed, for the most part, with dedicated and professional people.
- + Most of the people on the AMWG and TWG are dedicated to the program, and are knowledgeable in their field.
- + The inclusion of many non-federal groups who have knowledge, concern and dedication to the program is also a big resource.

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- + The AMP has an abundance of philosophers, thinkers and idealists.
- + Strength: GCMRC, very capable, dedicated, hard-working.
- + All want this to work, all are dedicated to the resource.

Science

Research

- + Is able to organize its resources to do research that is needed.
- + Do well: Provides up-to-date and state-of-the-art science studies.
- + Abundance: Scientific resources by which to evaluate the relationships between dam operations and stated goals of the ROD and the 1992 Act.

Monitoring

- A conceptual model has been developed but is not utilized to justify the monitoring.
- A conceptual model has been developed but is not used to develop a cohesive GCMRC monitoring program.
- We have been too slow in putting monitoring in place so we can evaluate the preferred alternative, and, if necessary, make changes to the preferred alternative and ROD.

Results

- + We have been able to conduct two experiments within the Adaptive Management framework – the 1996 experimental high flow and the 2000 steady flow. In reality the 1996 flow was conducted prior to formation of the AMP, so maybe we shouldn't take credit for it. Compared to other Adaptive Management Programs, that seems to be a good sign.
- + Over the summer, our research team prepared a memo detailing the ongoing depletion of sediment resources in Grand Canyon and the failure of current operations to meet AMWG's sedimentologic management objectives. We explained the hydrologic and sedimentologic reasons for this failure. How the AMP incorporates this new scientific understanding will be a true test of adaptive management.
- + The program's ability to apply the results of research into some "better" way of treating the Grand Canyon is yet unknown and untested.

Adaptive Management Approach

- + Finally, the adaptive approach embodied in this program is a tremendous strength. It gives the flexibility and responsiveness to new knowledge that is imperative when dealing with ecosystems, especially one so disturbance-driven as the Colorado River ecosystem. A cookie-cutter management approach to the Colorado River in Grand Canyon would quickly reach the limits of its applicability.
- Despite the adaptive approach being a positive element of the program, the program manifests weakness in its inability to respond to opportunities in an "adaptive" manner. Several times the program has been presented with opportunities to learn from and respond to unusual events, such as high inflows, flash floods, etc., but has been caught with its proverbial pants down and has failed to respond to the opportunities.

Use of science

- Specifically, the use of the best science in the implementation or modification of the Biological Opinion has been stymied by personal stakes within the program.
- Science is largely set aside in this process because stakeholders do not understand the scientific method, the use of science in adaptive management, or how to promote good science to achieve agreed-upon objectives.
- Constrained Perspectives. The Colorado River is a system, not separate components. Actions in one arena will have effects on other components of the system. Too often, the AMP tends to compartmentalize the discussion and look only at the short-term issues and avoid the long-term relationships and results.

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- AMWG and TWG have not really addressed the issue of research and monitoring priorities in a fiscally responsible manner. The list of information needs is endless, and GCMRC is trying to address them all. Which ones do we really need to know to meet the mandates of the Grand Canyon Protection Act?

GCMRC

- + Abundance: GCMRC.
- + A research center has been developed that provides data for input into the AMP process in order to make good recommendations to the DOI Secretary.
- There is no scientific review of this process, and costly strategic errors are being conducted, such as this past summer's flow regime and the thermal modification plans. There is no scientific accountability.
- GCMRC basically runs on its own agenda. It seems to use the MOs as justification for the ongoing programs rather than setting its programs on the existing MO priorities.
- The NRC recommendations should be followed in detail. For example, GCMRC needs scientific oversight, in the form of a senior scientist, and the AMP needs a GCMRC to Department-level scientific review panel.

Other

- + Abundance: external reviews.
- The NPS (land managing agency) has its own agenda and research program, which are not integrated with AMP activities.

Budget and administrative

Administrative and departmental support

- + Reasonable level of staffing on part of program administrators.
- + A second strength is the fact that the AMP has administrative support. Depending on what happens in the next election, this support could be lessened. The EIS that eventually led to the passage of the Grand Canyon Protection Act and the completion of the ROD was initiated through getting both Republicans and Democrats to support the Grand Canyon.
- + Hand in hand with the mandate is the interest of the current Interior Secretary in the AMP and his desire to see the program succeed. This has meant a level of support throughout the Interior Department that is somewhat unusual.

Funding and funding priorities

- + The program has abundant money for meetings, equipment, and large projects
- Insufficient funds are set aside for unsolicited and small research projects, which stand to contribute a great deal to changing our views, particularly with regard to biological components and processes.
- Not enough on the ground work is done in the canyon. Too much money is spent on bureaucracy. The program lacks money. Tribal participation is underfunded. Biological resource monitoring and research is underfunded.
- More DOI agencies should be putting more funds into this process.

Management

- Insufficient tracking/status of budgeted programs; i.e., need a type of PERT chart to track performance to budget and goals. Many line item programs should have a finite "end date" but seem to go on endlessly.
- Not enough analysis of economic effects/impacts.
- The AMP lacks time needed to fully understand issues and make more meaningful input.
- Way too bureaucratic and not respectful of time and resource (funds and personnel time) constraints of participating entities.

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- Seeming sense that we can spend/waste as much time as is necessary/lack of time accountability and enforcement of deadlines.
- Proper role of the AMWG as it relates to the GCMRC
- Lack of management in the GCMRC.
- Lack of resources: I don't see that much is lacking in the way of material goods and staff. What is missing is management/leadership in the GCMRC (for example they can't even put out a budget in standard format from one group to the next):
- GCMRC should not write its own RFPs – they are generally ill-conceived and poorly written.

Legal mandate

- + The GCPA essentially mandates that the AMP continue. The act also provides a secure funding mechanism to carry out the act's provisions.
- + The AMP's greatest strength is its statutory authority and clear charge, contained within the Grand Canyon Protection Act and the Record of Decision on operation of Glen Canyon Dam. Many other programs are attempting this kind of ecosystem restoration without the clear mandate that the AMP has.

Other

- + The strength of the AMP comes from its history and strong base of doing the right things at Glen Canyon dam. The history of the program today is one of its strengths because it does show that with diligence, perseverance and sound approach that differences can be made.
- + The third strength is the Grand Canyon itself. If we can't do the right thing for the right reasons then clearly we are not doing a good job.
- + The opportunity to develop a stronger river management relationship with science and cultural needs is unprecedented. The exposure that the Grand Canyon and AMP can and should receive provides an opportunity and a necessity to develop a strong program for the Colorado River.

External Threats and Opportunities

Social

Water and power

- T Given electricity issues often driven by California, the question of "fish vs. people" may threaten some plans unless a balanced analysis is performed.
- T Need for more peaking power generation.
- T Water supply demands in the SW.
- O Electrical brownouts and rampant electrical rates across intermountain West induce large segments of the public to demand "wise use" of installed hydroelectric power capacity that puts societal needs for clean, renewable source power in front of perceived impact to canyon resources.
- O Water in the basin.

Tribal issues

- T Tribal land use interest may exert disproportionate pressure toward actions harmful to other interests.
- T Indian Tribes. If the AMP does not include them fully in the process and discussion, then the Tribes could and should take this issue public. The Tribes need to be treated as the sovereign nations that they are and be given more opportunity and funding to interface at the same level as the "traditional user groups". The playing field is extremely unlevel at this point.

Internal issues

- T Stakeholders continuing to circumvent the AMP process by addressing critical concerns through outside lobbying efforts.
- T Poor planning and communication.
- T General perspective. An attitude shift needs to occur, from one, which now seems based on "minimizing impacts" to one that embraces "restoration". If looked upon with this perspective then a threat becomes an opportunity.
- O The increased understanding of the AMP may show required actions may be less drastic than originally proposed.

Science and impact

- T Reduction in data collection.
- T The fact that the program doesn't even consider scientific factors in this list of factors.
- T Lack of beneficial impact on resources, elimination of more species from Grand Canyon because of poorly conceived management actions, increase in the distribution of non-native species by badly timed events.
- T Impacts on the recreational experience and trip safety.
- T Auditing and scientific peer-review may expose the inadequacies of the Program.
- O Remote sensing, but it will be expensive.
- O Leadership role in modeling AM in other programs.

Public support

- T Dissatisfaction with the apparent slow progress being made might cause some social pressure to change the program.
- T Public opposition to large expenditures of public funds to study/monitor resources which are showing very little change/response – as operations are essentially stabilized and repeated year after year.

Note: A "T" bullet indicates a threat, and an "O" bullet indicates an opportunity, as identified by the respondent.

- T If the public loses sight of why the AMP is there and if the actions definitely are focused on short-term benefits to a small group of people.
- T A shift in public and administrative support of the need for restoration to the natural condition in Grand Canyon.
- O Public sentiment frustrated by the lack of progress of collaborative stakeholder AMP efforts throughout the nation. Pressure could be brought to bear to ensure that these processes actually accomplish something or are dissolved.
- O Public desire to accomplish something in the canyon.
- O Much of the public doesn't understand the purpose and value of the AMP or the GCMRC program. We need a stronger outreach program; to show what the AMP has accomplished for the level of funding and science activities associated with it.
- O Educate the public, focus on the young and old people and you will gain groups who will support the AMP in the long run.

Wilderness

- T Wilderness designation for river would jeopardize achieving goals.
- T Lawsuit on NPS river management plan may yield decision impacting resource management.
- T Restrictions on use of available technology in the Grand Canyon due to wilderness issues.
- T Resolution of Wilderness designation for the river corridor.

Other

- T Lawsuit giving dominance of ESA over Law of River.
- O Lower Colorado MSCP adoption and implementation may help AMP achieve goals for aquatic/riparian species.
- O Humpback chub may be downlisted or delisted thereby alleviating need for ever-increasing efforts to help the species.
- O The opposite of threats.

Technological

Remote sensing

- T Remote sensing technologies may not live up to their advanced billing and provide promised information or sufficiently useful information.
- T Too much remote sensing.
- T The new remote sensing initiative (2000-2002) has greatly increased the number of science-related overflights in Grand Canyon. The program was sold to AMWG as measure to reduce the intrusiveness of ground based work in the Grand Canyon wilderness. However, it appears to be a "shotgun" approach to some, taking every potential opportunity to add more flights. There is great resistance to increasing the number of government flights in a park that is trying to constrain the air tour industry. It is critical that the benefits of this program be demonstrated quickly through answering critical information needed, replacing ground based studies, and reducing total costs.
- O Hopefully, some of the new technology will be useful in improving the research and monitoring effort. We are promised this is true for the remote sensing technology.
- O Better remote sensing technology so that large scale decisions can be accurately made.
- O Enhanced remote sensing.
- O Remote sensing, but it will be expensive.
- O Increased opportunities for remote sensing within monitoring program.
- O Advances in remote sensing technology may allow reduction in traditional methods for conducting monitoring thus reducing costs and impacts.
- O New remote sensing technologies that facilitate monitoring.
- O Improved remote sensing may provide some important baseline information.

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Communication

- O Actual information management would enhance the availability of information to the public.
- T Collapse of the Internet infrastructure due to terrorism or traffic outstripping capacity.
- T Price of oil escalates to point that airline ticket prices become prohibitively expensive causing curtailment of direct participation.
- O Improved communication, Internet tools.
- O Ability to use personal computer-based conferencing software to hold video conferences in lieu of expensive face to face meetings.

Use of technology and science

- T Technology may show that present solutions may not be effective and new approaches will be needed.
- T Additional modeling, or modeling done by parties other than those presently involved, may turn around basic premises regarding management options in this system. For example, modeling and experiments that run counter to claims that the natural condition is the best for native fish and wildlife.
- T Being too caught up in finding a technological fix as a Band-Aid for the past impacts rather than looking for solutions. Reclamation and others are classic in this approach of trying to "engineer" their way out of problems.
- T Completion of Temperature Control Device EIS/ROD & implementation may result in conditions detrimental to AMP goals thus undermining its effectiveness.
- T Failing to see that the response of the Colorado River system is the result of system impacts. Solutions to the problems below Glen Canyon dam need to look beyond the traditional "modify flows" to include a broader perspective of remanaging the river system.
- T USGS. Overstudying and overbearing approach to the program. The USGS has historically and will likely in the future continue to dictate the pace and direction of the AMP science program. There is no one in the process now who can or will stand up to the USGS and tell them no. The AMP science process needs to be balanced in all elements of the ecosystem.
- O Technology may show present and anticipated solutions are not necessary and less restrictive actions may achieve desired results.
- O Mapping.
- O Increased availability and reduced expense for map servers and assoc. software that will allow greater use of maps and georeferenced data.
- O Integration of other sciences and issues into a multi-component evaluation and program. Our ability to link and model is evolving daily. The AMP cannot lose sight of the fact however that we are still dealing with a system under stress and that sometimes the effort of restoration and management will require making tough decisions related to the traditional approach to managing the river

Other

- T Increased power demands resulting from more computers.
- T Enviro group litigation in other areas of the Colorado may spill over.
- O Extreme dry or wet years may help AMP experiments needed to determine resource responses thus aiding in achieving AMP goals.

Economic*Water and power*

- T Need to be more recognition of region-wide economic impacts due to slim reserve margins and lack of surplus energy.

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- T Increase in CRSP hydropower electric rates and lack of peaking power generation in the Colorado River Basin.
- T Increased power costs and pressures to increase peaking power production.
- T Cost of electricity. A case in point in regards to what is happening in November 2000. The Colorado River Basin Fund is being depleted so what is the first thing to change? -- The flow of the river in order to generate more electricity.
- T Cost of Water. California, Arizona and Nevada are driving the buggy right now in regards to water and water delivery in the Colorado River basin. As the economics of water continue to evolve, the Grand Canyon and the species may be factored to the sideline in the deal. The AMP really has no one who actively speaks for the environment and that does not have an affiliation or a constituency to play to.
- T Value of water and power will continue to increase applying influence on how the dam is operated.
- O Value of water and power will continue to increase applying influence on how the dam is operated.
- O Increased power costs and pressures to increase peaking power production.
- O New valuations of hydropower vs. "other" resources.

Deregulation

- T The effects of deregulation and escalating energy costs could have a severe impact on the power users (nation wide) and cause some strong backlash against the reduced operations of Glen Canyon, and make it impossible to make any further negative changes.
- T Deregulation of electric utility industry.
- T Deregulation of the power industry
- O The effects of deregulation and escalating energy costs could present an opportunity (or require) for some in the program to reevaluate their positions and be more willing to be flexible.

Program budget and expenditures

- T Too much money spent on GCMRC salaries.
- T General Accounting Office or Office of Inspector General audit/review of Program expenditures.
- T Restricted budget with no relevance to scientific requirements
- T Maintaining or reducing the budget.
- T There is a strong perception among many AMWG members and their constituents that the GCMRC budget is out of control. GCMRC needs to move forward to define a cost-efficient and effective monitoring program, capable of determining changes in the system that are due to natural and dam-related effects. This should be the top priority.
- T Scope of the programs increasing where added costs may jeopardize the whole program. Additionally, the cost of CRSP is becoming a problem for existing power customers who may seek other sources, thus financially stranding the AMP.
- T Cost of research. Researchers always want more data. Had to get them to draw conclusions.
- O Greater NPS funding by Administration and Congress.
- O Relaxation in current budget cap restrictions through AMWG lobbying efforts.
- O Pressures of holding costs within budgets will force AMWG to set priorities and generally be more careful of how money will be spent. The result will be a more efficient AMP.

Recreation

- T Value of recreational activities (rafting, fishing) will increase influencing objectivity of decisions affecting other resources.
- T Increased recreation.

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- Value of recreational activities (rafting, fishing) will increase influencing objectivity of decisions affecting other resources.

Other

- More support meetings and perhaps some science.
- Value of the Grand Canyon. It is irreplaceable. The AMP should put aside the bullying of the traditional users of the river and understand that a balance now needs to occur.

Political

Elected and appointed officials

- T Change in congressional representation and the administration can provide a threat or an opportunity, depending on whose ox is being gored.
- T New administration not inclined to support adaptive management or willing to consider recommendations from the AMWG.
- T New administration – Interior Secretary that is not as strongly focused on Grand Canyon.
- T Changes in administrations.
- T Republican takeover of the administration
- T Lack of commitment from the Secretary of the Interior to make this program a success.
- T Potential ESA reform, could be clear political shift in focus depending on election outcome.
- T Congress
- T Non-supportive Congress
- T Lack of political patience in Washington. It may be hard to keep Congress funding studies.
- Continued emphasis by Dept. of the Interior/Administration on national parks and enhancement of pristine environmental/recreational areas.
- Change in congressional representation and the administration can provide a threat or an opportunity, depending on whose ox is being gored.
- Possible Gore administration with stronger environmental agenda.
- Supportive Congress
- New chances to solicit support from new cabinet members.

Lobbying

- T Actions by members of the AMP to achieve their goals outside of the program (through Congress).
- T It would appear that water and power interests are prepared to use external political influence to shape the program. This is a dangerous precedent, because if other AMWG members choose to do the same, the program may cease to function.

Internal processes

- T Continued reliance on GCMRC to write their own RFPs.
- T Continued resistance to scientific review of the program at all levels.
- T Politics of the River. The AMP should be a neutral forum for the discussion of the issues and opportunities. It should not be a place for politicking and soapboxing.
- T Politics of the Agencies. The AMP should be a forum for getting all the issues on the table and not letting the hidden agendas drive the process or decisions.

External forces

- T Wilderness issues may affect GCMRC equipment and costs.
- T It is possible that economic factors (not just power prices) could cause a public (therefore political) questioning of this whole effort – the goals, the results (\$ vs. environment), and the cost of the program.

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- T** Political pressure exerted to require actions outside of the original ROD, the 1992 Act and the "law of the river".
- O** Political pressure may give the AMP a reality check to force the programs to be more focused and more accountable for results.
- O** Wider recognition of the value of this program, and its importance as an adaptive management experiment.
- O** National Politics. The Grand Canyon has a natural constituency and an international appeal. Use the exposure to allow the AMP to do innovative applications and to evolve a different approach to resolving and balancing conflicts. Be a forum for discussion and action, not of posturing and peacock feather fluffing.

Funding

- O** Additional funding sources may alleviate tensions and bring more broad-based support of the program.
- O** The stakeholders may be very supportive of additional studies to find solutions they may be able to support.

Other

- O** Downlisting of Humpback chub (*Gila cypha*) in Upper Colorado River Basin.
- O** I suppose the opposite could also be true, i.e. – world peace, complete economic euphoria, love will reign and we could put the Grand Canyon as it was 100 years ago. I don't see this happening in my few remaining years – but you may see it.