

GCMRC Proposed FY 11-12 Biennial Budget and Work Plan
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TWG Meeting
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Background

CPI: 2.5% in FY 11; 3.0% in FY 12

Hydrograph:

- MLFF w/ steady flows in September and October; (fall steady flow science plan)
- Possible HFE subject to DOI approval (preliminary science plan included)
- Initiate LTEMP EIS in FY 11 and continue into FY 12

The Preliminary Budget was revised to addresses recommendations from DOI and the AMWG to provide additional funding emphasis to the following projects:

- Nonnative fish control (shown in Reclamations portion of the BWP)
- LTEMP EIS development (shown in Reclamations portion of the BWP)
- Increased aquatic food base, sediment, rainbow trout, and Glen Canyon recreation experience monitoring to support the evaluation of the proposed HFE Protocol
- A new study to evaluate rainbow trout use of the Paria River to Badger Rapid reach (the reach immediately below Lee's Ferry)
- HBC monitoring and translocation above Chute Falls
- Hydropower economic analyses by WAPA with independent oversight by GCMRC

Additional costs for addressing priorities:

- FY 11: \$1M
- FY 12: \$750K

General Guidelines for Making Reductions

- Maintain core monitoring across program goals/resources
 - AMWG/DOI (not GCMRC) should determine if scope of program should be reduced
- Continue ongoing projects; focus on maintenance of existing project
 - Ecosystem modeling
 - Sediment modeling
 - Remote PIT tag deploymentExcept for AMWG/DOI priorities, no new starts
- Past performance

Major funding shifts in the GCMRC FY 11-12 Biennial Work Plan

- **LTEMP EIS Support: \$250k FY11 & FY12**
 - To be held in reserve by Reclamation
 - Assumes an additional \$250K of matching funds from Reclamation
- **Nonnative Fish Suppression Contingency Fund: FY11 \$600k, FY12 \$300k**
 - To be held in reserve by Reclamation
 - To be allocated in accordance with the Nonnative Fish Environmental Assessment
 - If Nonnative fish suppression is not implemented in FY 11/12 redirect about \$240K to mainstem fish monitoring
- **Redirected GCMRC Budget (to BOR): FY11 \$266,385 FY12 \$356,519**
- **GCMRC recommends that Reclamation redirect the following funds to the LTEMP EIS & Nonnative Fish Suppression Contingency Fund**
 - ½ POAHG funding FY11 \$28,092, FY12 \$28,935
 - All Compliance Documents funding FY11 \$50,584, FY12 \$52,101
 - ½ Admin Support for NPS Permitting funding FY11 \$60,120, FY12 \$61,924
 - All Nonnative Fish Suppression Contingency Plan funding FY11 \$144,819, FY12 \$50,521
 - Canyon Treatment Plan funding \$300k FY11
- **Redirected Reclamation Budget: FY11 \$583,615, FY12 \$193,481**

TABLE 1 GCMRC FY11-12 PROJECT SUMMARIES

Project	FY11 Summary	FY12 Summary
1. Food Base		
Aquatic Food base monitoring	Focus on completion of research, reports, PEP review, and development of core monitoring plan; Monthly drift and benthos monitoring at Lees Ferry and Diamond Creek only	Monthly drift and benthos monitoring at Lees Ferry and Diamond Creek only, Implementation of core monitoring plan subject to approval
2. Native Fishes		
LCR Monitoring	Repeat FY10 monitoring, revise based on analysis of PEP recommendations;	Repeat FY10 monitoring, revise based on analysis of PEP recommendations;
Mainstem Monitoring	Mainstem monitoring reduced from 4 to 2 trips (to support nonnative control work by BOR)	Mainstem monitoring restored to 4 trips
HBC Translocation & Monitoring	Monitor HBC status and translocate fish above Chute Falls; include funding for GCMRC involvement	Monitor HBC status and translocate fish above Chute Falls; include funding for GCMRC involvement
Stock Assessment of Native Fish	Continued analysis of fish stock data at reduced level; Complete & publish ASMR estimate humpback chub adult population	Continued analysis of fish stock data at reduced level; No ASMR
Remote PIT Tag Reading	Operate & maintain equipment and analyze data with graduate student and advisor; Defer expansion of the system	Operate & maintain equipment and analyze data with graduate student and advisor; Defer expansion of the system
Near Shore Ecology	Implement project per work plan; Increase logistics funding	Implement project per work plan; Field work ends in October, 2011; (FY12) Increase logistics funding for October river trip; prepare final report
Mainstem Nonnative Fish Control	\$600K identified in BOR budget to determine scope of work, if any	\$300K identified in BOR budget to determine scope of work, if any

Project	FY11 Summary	FY12 Summary
Nonnative Control Plan Science Support	Monitor and synthesize nonnative capture data in Open File Report and conduct 2011 nonnative workshop	Monitor and synthesize nonnative capture data in Open File Report and conduct 2012 nonnative workshop
NEW Evaluation of Trout Movement, Natal Origins and Alternatives for Controlling Rainbow Trout Populations	Investigate RBT movement patterns between Paria R. and Badger Rapid.	Investigate RBT movement patterns between Paria R. and Badger Rapid
Biometrics & General Analysis (Vice Coggins)	ASMR, ecosystem modeling, and biometric support	ASMR, ecosystems modeling, and biometric support
3. Extirpated Species		
	No funded projects; GCMRC will participate in extirpated species ad hoc group and razorback workgroup	No funded projects; GCMRC will participate in extirpated species ad hoc group and razorback workgroup
4. Rainbow Trout		
	Continue monitoring of fish community in Lees Ferry reach including YOY, juvenile and adult RBT monitoring	Continue monitoring of fish community in Lees Ferry reach including YOY, juvenile and adult RBT monitoring
5. Kanab Ambersnail		
	Continue annual monitoring	Continue annual monitoring
6. Springs / Riparian		
	Implement vegetation transect monitoring (assumes approval of core monitoring plan); Analyze 2009 imagery for vegetation change	Analyze 2009 imagery and prepare report; Defer bird and/or arthropod monitoring
7. Quality of Water		
Lake Powell & Tailwaters	Continue monitoring; PEP review; Increase emphasis on analysis and modeling	Continue monitoring; Prepare core monitoring plan; Implementation of core monitoring plan subject to approval Increase emphasis on analysis and modeling
Downstream	Continue monitoring flow, temperature and sediment, etc.; PEP review of water quality component	Prepare core monitoring plan; Implementation of core monitoring plan subject to approval Continue monitoring flow, temperature and sediment, etc.;

Project	FY11 Summary	FY12 Summary
Modeling support	Operate & maintain models; no new model development	Operate & maintain models; no new model development
8. Sediment		
	Conduct SedTrend core monitoring. Monitor sandbar study sites. Report on 2009 SedTrend monitoring and 2009 remote sensing for sandbar area.	Conduct SedTrend core monitoring. Report on 2011 SedTrend monitoring.
9. Recreation		
Grand Canyon	Conduct biennial campsite monitoring; Continue river guide monitoring; Analyze campsite atlas data as part of integrated image analysis project; Update & maintain campsite atlas on website	Camp area field monitoring does not resume until FY13; Continue river guide monitoring; Analyze campsite atlas data as part of integrated image analysis project; Update & maintain campsite atlas on website; Campsite PEP review
Glen Canyon	New Project: Evaluate visitor use values and satisfaction in the Lees Ferry Reach (HFE Experimental funds)	Year 2: Evaluate visitor values and satisfaction in the Lees Ferry Reach (HFE Experimental funds)
10. Hydropower		
	New Project: Evaluate GTmax model as a tool for assessing economic costs to hydropower in the context of the western electrical grid. Prepare report. Serve data via website; Annual report	Use model to assess economic costs to hydropower from alternative flow regimes; Prepare report. Serve data via website; Annual report
11. Cultural		
	Implement pilot monitoring with reduced scope (fewer sites, etc), which may extend length of project	Implement pilot monitoring with reduced scope (fewer sites, etc), which may extend length of project
12. DASA		
Overflights	Contribute \$71k to overflight fund	Contribute \$129k to overflight fund
Oracle Database	Update & maintain Oracle database, develop custom data management applications, provide data modeling, data mining, and architecture support	Update & maintain Oracle database, develop custom data management applications, provide data modeling, data mining, and architecture support
Library Operations / Scanning	Maintain GCMRC library reduced to ½ time position; Defer online library system	Maintain GCMRC library reduced to ½ time position; Defer online library system

Project	FY11 Summary	FY12 Summary
GIS Support	Provide spatial database and analysis support to GCMRC projects; continue supporting all mapping functions, and expand on spatial web applications	Provide spatial database and analysis support to GCMRC projects; continue supporting all mapping functions, and expand on spatial web applications
Integrated Image Analysis & Change Detection	Coordinate analysis of 2009 imagery; Map & analyze sandbars, campsites, backwaters & vegetation	Final reporting of 2009 imagery; Plan for 2013 overflight
12. Planning		
Ecosystem Modeling	Working with senior ecologist, continue to update & refine ecosystem models, focusing on aquatic resources; including development of new Lees Ferry rainbow trout production model; Defer LCR [downstream ecopath w/ ecosim] model expansion, publication of results, & MATA workshop	Working with senior ecologist, continue to update & refine ecosystem models, focusing on aquatic resources; complete Lees Ferry rainbow trout production model; Defer LCR [downstream ecopath w/ ecosim] model expansion, publication of results, & MATA workshop
Knowledge Assessment & SCORE Report	Complete KA & initiate S.C.O.R.E. report; use results of KA to support ongoing efforts to develop Desired Future Conditions, as requested	Finalize S.C.O.R.E. report; use results of KA to support ongoing efforts to develop Desired Future Conditions, as requested
HFE Protocol Science	Evaluate HFE protocol implementation using existing and expanded monitoring projects. Open file report prepared after each HFE	Evaluate HFE protocol implementation using existing and expanded monitoring projects. Open file report prepared after each HFE
12. Support		
Logistics Base	Provide base logistics support to field operations	Provide base logistics support to field operations
Survey & Control Network	Provide survey support to GCMRC projects (through contract); Maintain & expand network as needed	Provide survey support to GCMRC projects (through contract); Maintain & expand network as needed
12. Administrative		
Operations	Continue to provide administrative support	Continue to provide administrative support
Program Planning & Management	Continue to provide planning & management support	Continue to provide planning & management support

Project	FY11 Summary	FY12 Summary
AMWG/TWG Travel	Continue to provide funding to attend AMWG & TWG meetings	Continue to provide funding to attend AMWG & TWG meetings
Independent Reviews	Peer review all publications; Integrated Water Quality and Food Base PEP	Peer review all publications; Campsite & Sediment PEPs
Science Advisors	Reduce SA support by 25%	Continue SA support at reduce level
Computer Systems Support	Maintain IT support for GCMRC	Maintain IT support for GCMRC
Synthesis of High Flow Experiment	Complete HFE synthesis by 01/01/11	

GCMRC FY11 and FY12 Major Deferred or Scaled Back Projects.
Projects that were cut to address AMWG/DOI recommendations are
highlighted in grey.

Project Number /Title		FY11	FY12	Comments
GOAL 1—Aquatic Food Base				
BIO 1.M1	Aquatic Food Base Monitoring	84,200	84,200	Deferred field sampling except at Diamond Creek and Lees Ferry in FY11-12
GOAL 2—Native Fishes				
BIO 2.M4	Monitoring of Mainstem Fishes	518,427	239,300	Deferred increased mainstem monitoring FY11-12 subject to change based on fish data analyses
BIO 2.R7	Stock Assessment of Grand Canyon Native Fish	48,700	49,000	Decreased analysis of fish data
BIO 2.R13	Remote PIT Tag Reading	84,500	84,500	Defer expansion of PIT tag system
BIO 2.R17	Nonnative Control Plan Science Support	76,900	76,900	Decrease staff support
BIO 2.tbd	Fall Steady Flows Thermal Imaging	86,200	86,200	Deferred
GOAL 6—Riparian and Springs				
BIO 6.M2	Bird Monitoring / Alternating Years with Vegetation Transect Monitoring	-	53,000	Defer bird monitoring FY12
BIO 6.R4	Arthropod Monitoring Research & Development	0	95,400	Proposed by PEP to be implemented in alternating years FY10, FY12
GOAL 7—Quality of Water				
PHY 7.R2	Integrated Flow, Temperature, and Sediment Modeling of the CRE	145,200	145,200	Defer further model R&D
GOAL 9—Recreation				
REC 9.R5	Evaluate Relation between Flows and Recreation Experience	225,000	225,000	Deferred in FY09-12
REC 9.R6	1973 Weeden Campsite Survey Revisited	75,000	75,000	Deferred in FY09-12
REC 9.R7	Update Regional Recreation Economic Study	250,000	250,000	Deferred in FY09-12
GOAL 10--Power and Economics				

Project Number /Title		FY11	FY12	Comments
HYD 10. tbd	Phase I - Results of Economic Value Workshop	117,300	117,300	Deferred FY11-12
GOAL 11—Cultural Resources				
CUL 11.R1	Cultural Research & Development towards Core Monitoring, Phase II	45,000	45,000	Reduced scope of work in FY11-12
CUL 11.R3	Geomorphic Model of Archaeological Site Vulnerability	266,100	266,100	Deferred in FY09-12
GOAL 12— Administrative / Management				
DASA 12.D1	Quadrennial Remote Sensing Overflight	83,500	116,500	Decreased savings for overflight FY11-12
DASA 12.D1	Hyperspectral Overflight for Vegetation Mapping	95,200	95,200	Deferred FY10-12
DASA 12.D3	Library Operations / Scanning Support	66,200	66,700	Decreased to 1/2 time position,
DASA 12.D9	Integrated Image Analysis and Change Detection	89,600	89,600	Deferred 1984 Sandbar Image Analysis FY10-12
PLAN 12.P1	Support and Enhancement of Ecosystem Modeling Efforts	143,000	143,000	Defer model expansion, publication of results & MATA workshop FY11-12
PLAN 12.P5	NEW Desired Future Conditions Facilitation & Decision Support	60,500	60,500	Deferred FY11-12
ADM 12.A4 (B)	Science Advisors Support	50,000	50,000	Reduced services FY11-12
ADM 12.A5	GCMRC Component of SBSC Sys Admin Support	72,900	72,900	Defer expanded GCMRC Website development,
TOTAL GCMRC Major Deferred or Scaled Back Projects		2,683,427	2,586,500	

Experimental Fund Expenditures and Projected Balance -- FY10 through FY12

Project Number/Title		FY10 Gross Actual Funding from BOR Experimental Fund	Gross FY11 Proposed Funding from BOR Experimental Fund	Gross FY12 Proposed Funding from BOR Experimental Fund
Beginning Balance at Start of Fiscal Year		-	427,174	286,672
Contributions to Experimental Fund from Reclamation		493,500	505,838	521,013
BIO 2.E18.11	NEW Evaluation of Trout Movement, Natal Origins and Alternatives for Controlling Rainbow Trout Populations Near the LCR (PBR)	-	198,631	311,610
BIO 1.M1.11	HFE Science Plan Implementation Aquatic Food Base	-	100,000	100,000
BIO 4.M2.11	HFE Science Plan Implementation Monitoring Lees Ferry Fish	-	22,709	22,709
PHY 8.M2.11	HFE Science Plan Implementation Sediment	-	300,000	300,000
REC 9.R4.11	Evaluate Recreation Values and Visitor Experience Quality in the Glen Canyon Reach		25,000	25,000
EXP 7	HFE Synthesis of Knowledge (Study 7)	66,326	-	-
Total Expenditures		(66,326)	(646,340)	(759,319)
Balance at End of Fiscal Years		\$ 427,174	\$ 286,672	\$ 48,366

Conclusions

Priority AMWG/DOI needs addressed but at the expense of AMP resource monitoring projects that address high priority information needs.

- will significantly impact projects that are aimed at assessing the status of key resources and evaluating the effectiveness of management or experimental actions.
- implications for the ability of the AMP to assess surprising resource responses and assess progress towards achieving desired future conditions.

Strategy is needed to seek additional revenues to meet the growing demands for science and management in the AMP.

- DOI and the AMWG need to work together to address this issue.

GCMRC Response to TWG FY 2011-12 Preliminary Budget Recommendations to the Adaptive Management Work Group

Issues of Concern:

1. **Implement a new start in the work plan for power economics** which will be carried out by WAPA in FY 2011 and 2012, as described in the proposal provided by WAPA dated 3/15/10. WAPA will perform these tasks with no cost to the GCDAMP, and will provide the actual cost as a cooperator in the budget spreadsheet. The work will be part of the work plan and coordinated and reviewed by GCMRC. The work plan would be developed by GCRMC and WAPA in coordination with the TWG. This will result in costs to GCMRC that will need to be provided to oversee and provide peer review of this project. (10/3/3)

GCMRC Response: This project is included in GCMRC's BWP. Funding is included GCMRC to coordinate the work plan and provide peer review for this new initiative, and coordinate timely publication of findings pursuant to USGS publication standards.

2. (Line 175) **Humpback chub translocations above Chute Falls** have been deferred by GCMRC. TWG believes this is an important compliance requirement, and a project that has shown great potential for positive effects on the LCR population and should be funded in FY 2011 and 2012. (No objection)

GCMRC Response: Funding to implement humpback chub monitoring and translocation above Chute fall is included in the BWP GCMRC staff time is included to help develop a long term study plan for the project in coordination with FWS. Continued funding of this activity by the AMP will impact other elements of the AMP science program.

3. TWG is concerned about the continued **use of the experimental fund for other purposes** within the budget. Without setting aside the experimental fund, it may be difficult to carry out flow experiments in the future. Should there be an HFE in FY 11 or 12, having this small amount of money available for data gathering and analysis would mean no meaningful study. The default would be determining the effect of an HFE through the monitoring program alone. An HFE should only be conducted to answer direct science questions. Therefore, a science plan should be developed and funding should be identified for this purpose. (10/3/3)

GCMRC Response: GCMRC does not believe that the use of the experimental fund was or should be limited only to high flow experiments. We believe that the primary means of evaluating the HFE protocol will be through existing monitoring programs. GCMRC proposed using Experimental funds to be enhance the monitoring efforts to support the evaluation of the HFE. A summary table showing the experimental fund expenditure and balances for FY 2010, 2011 and 2012 is attached (Attachment 3).

4. (Line 24) TWG is concerned about the **continued use of the warm water nonnative fish contingency fund for other purposes** within the budget. (no objection)

GCMRC Response: The BWP proposes depositing \$900K into the nonnative fish contingency fund in FY 11 and 1 (\$600K in FY 11 and \$300K in FY 12). These funds would be allocated by Reclamation subject to nonnative fish control projects defined through the Nonnative fish EA and tribal consultation.

5. (Line 166) GCMRC has moved numerous projects out of the budget to an **unfunded projects** list. Many of these issues represent compliance requirements or other important projects that should be carried out to further the goals of the GCDAMP. The **AMWG should consider other mechanisms for acquiring funding** for these projects, such as identified in the biennial budget process paper. (13/2/2)

GCMRC Response: GCMRC agrees with the TWG that this is a significant issue that needs to be addressed by the AMWG and DOI.

6. Although GCMRC has **designated projects in the spreadsheet as core monitoring (COR)**, TWG has only provisionally approved the sediment-related programs at this time and will be considering the other programs over the next few years. (no objection)

GCMRC Response: All such Core Monitoring designations are made with the understanding that they are subject to TWG and AMWG review in accordance with the Step 4 approval process in the general core monitoring plan.

7. (Line 115) Add **funding in FY 2011 for DFC support** (60k), including facilitation and decision support. (No objection)

GCMRC Response: No funding was specifically included in GCMRC's portion of the BWP for this activity. We believe the Knowledge Assessment and ecosystem modeling project can help address this need.

8. (Line 71) The FY11-12 budget/work plan should **include \$25,000 to fund an Extirpated Species Workshop** to achieve the following:
 - a. Finalize and prioritize species list
 - b. Assess current compliance environment for various implementation strategies
 - c. Develop a strategic framework for implement extirpated species goal within AMP

This work could be funded by reducing the DASA 12.D5.10 cooperative agreement by \$25,000. (12/3/1)

GCMRC Response: The AMWG or DOI needs to determine whether funding for extirpated species work (Goal 3) is an AMP priority. It is currently not reflected in the AMWG priority questions or called for in the Monitoring and Research Plan. Funding this out of DASA 12.D5.10 will impact a variety projects which need GIS support.

GCMRC is willing to assist with planning and organizing this workshop if the AMP decides to sponsor this activity. However, given the funding shortfall, the direct costs for the workshop (i.e. conference room rental, travel reimbursements, speakers' fees, facilitators' fees, etc.) will not be covered by GCMRC with AMP funds.

9. (Line 188) The FY11-12 budget/work plan should include \$89,568 to fund deferred project DASA 12.D9.10-11. This one-time study is needed to aid the AMP in **quantifying a desired future condition for sediment resources**. This work could be funded by reducing the DASA 12.D5.10 cooperative agreement by \$89,568 for one year or \$45,000 over two years. (11/3/2)

GCMRC Response: Funding this work seems premature until the DFC process determines that this analysis is needed. Funding this out of DASA 12.D5.10 will impact GIS support to a variety of projects and delay project deliverables. GCMRC believes it may be able to dedicate some staff resources to this project in FY 11 within the existing budget subject to AMWG/DOI approval . however the full funding request could not be accommodated.

10. (Line 160) **Evaluation of rainbow and brown trout movement . . . this funding is inadequate for the purpose of studying and implementing possible alternatives to lethal fish removal**. We suggest an increase to \$200 to \$300 k. Alternatively, we suggest a budget correction after tribal consultation and resulting actions identified. (No objection)

GCMRC Response: The BWP include a detailed study plan for evaluating rainbow trout movement in the Paria to Badger Reach below Lee Ferry. We believe this study will help address questions related to the natal origins of rainbow trout and the feasibility of and strategy for removing fish in the Paria to Badger reach.

11. (Line 168) **Increased mainstem monitoring** should be funded in FY 11 and 12. (no objection)

GCMRC Response: Mainstem fish monitoring was reduced in FY 11 to make funds available to address AMWG priorities provide funds for nonnative fish control. In FY 12 the mainstem monitoring will be restored to the FY 10 level of effort. Intensive sampling of the mainstem will occur in conjunction with any mechanical removal project that is implemented in FY 11 and 12. If nonnative fish control does not occur in FY 11, GCMRC recommends that \$240K be restored the mainstem removal project.

12. (Line 186) Since this **geomorphological modeling project** assists in the identification of the impacts of dam operations vs. the impacts of natural effects, this project should be funded. (no objection)

GCMRC Response: We believe a geomorphic model may potentially assist in the identification of the impacts of dam operations on cultural sites and be useful to frame the future monitoring program. The geomorphic workshop planned for later this year will better define the scope and

benefits of a model. Due to the relatively high expected cost (~\$250K) and program funding constraints, GCMRC does not support model development in FY 11 or 12.

13. (Lines 38-42) Recommend that DOI and DOE meet with the tribes to discuss including a CPI increase for tribal participation to those tribes that utilize their allocation, consultation and tribal monitoring programs. Another tribal entity may participate in FY 11 and additional funding may be necessary. (No objection)

GCMRC Response: Funding for tribal participation is not within the purview of GCMRC. This is provided with DOI appropriated funds outside the scope of the AMP science budget

14. (Line 29) Develop **methodologies to integrate tribal perspectives into the treatment plan.** (no objection)

GCMRC Response: N/A. This project is managed by BOR.

15. **The budget spreadsheet and work plan should include other projects being undertaken by cooperators using funds outside of the GCDAMP funding.** (7/6/3)

GCMRC Response: We recommend that ancillary project descriptions, deliverables and associated cost should be identified in an appendix to the BWP. We agree with Robert King's comment at the last TWG meeting that the AMP budget/spreadsheet should not include funding being provided by other cooperators for GCDAMP ancillary projects

16. TWG advises the AMWG that if a **long term experimental management plan EIS** is undertaken in FY11 or 12 the amount of power revenues requested in the budget will increase. (No objection)

GCMRC Response: GCMRC BWP provides for \$250K of AMP funds to support a LTEMP EIS in FY 11 and FY 12. We understand that BOR will match this contribution with appropriated funds

17. TWG recognizes that it does not have a **formal process for evaluating and identifying a proposed hydrograph to the AMWG**, and intends to undertake that development in this budget cycle. (8/7/1)

GCMRC Response: GCMRC modeling support for the hydrograph development "process" should be factored into this discussion.

Failed TWG “issues of concern”

1. (Line 184) The FY11-12 budget/work plan should include \$117,273 to fund deferred project HYD 10.tbd, “Phase I – Results of Economic Value Workshop”. (6/7/3)

GCMRC Response: The AMWG or DOI needs to determine whether additional economic analysis capacity is an AMP priority. It has been clearly identified as a priority by the Science Advisors and by previous NAS/NRC reviews of the program. However, it is currently not reflected in the AMWG priority questions or called for in the Monitoring and Research Plan. If this work is a priority it’s not apparent where the funding will come from.

2. (Line 66) The FY11-12 budget/work plan should initiate the **development of a non-native fish control implementation plan** that will include elements that will be scoped at the March 31st 2010 NNF workshop, but include the following elements:

- Define Cooperating Groups and Roles
 - Agencies and tribes involved
 - Roles of agencies and tribes in plan development
 - Roles of agencies and tribes in plan implementation
 - Role of conservation measures
- Define geographic and programmatic scope of plan
- Outline possible control alternatives for inclusion in plan
- Compliance and consultation and science needs
- Completion schedule and deadlines
- Funding needs for implementation
- Draft outline of chapters of plan

GCMRC Response: GCMRC supports this initiative and believes that if the plan is developed collaboratively and with AMP support, it will facilitate implementation of nonnative fish management actions. Except for GCMRC science support to develop the plan, funding for developing this management plan should not be taken from the AMP science budget. Also the development of this plan should be coordinated with ongoing tribal consultation and the NEPA activities related to nonnative fish management. GCMRC would like some direction from AMWG/TWG/DOI as to whether we should actively provide science support for development of this plan.

3. (Line 143 & 161): **SCORE report** – FY 11 & 12 are “tight” budget years. We suggest deferring this project. (3/13/0)

GCMRC Response: GCMRC supports the development of a SCORE report and Knowledge Assessment in FY 11 and 12. We believe they are needed inform the LTEMP EIS and GCMRC and AMP strategic planning.