Approved September 12, 2006

San Juan River Basin Recovery Implementation Program
Hydrology Committee Meeting
June 13, 2006
Farmington, NM

Member/Alternates Present	Representing
Pat Page, Chairman	U.S. Bureau of Reclamation
Aaron Chavez (Alternate) for Randy Kirkpatrick	Water Development
Ray Alvarado	Colorado Water Conservation Board
Rick Cox	Water Development
Bill Miller	Southern Ute Tribe
Steve Cullinan	U.S. Fish and Wildlife Service
Chuck Lawler	Southern Ute Indian Tribe
Steve Harris	Water Development
Earle Dixon	Navajo Nation
Dave Frick	Jicarilla Apache Nation
John Whipple	State of New Mexico
John Simons	U.S. Bureau of Reclamation
Ron Bliesner	Keller-Bliesner Engineering (Bureau of Indian Affairs)
Brian Westfall	Keller-Bliesner Engineering (Bureau of Indian Affairs)

Program Management	Representing
David Campbell	Program Coordinator U.S. Fish and Wildlife Service, NM Ecological Services

Other Interested Parties	
Dave King	U.S. Bureau of Reclamation
Michael Howe	U.S. Bureau of Indian Affairs - NIIP
Erin Wilson	Leonard Engineers - Southern Ute Indian Tribe
Mark Miller	Daniel B. Stephens & Associates

1. Introductions and review and approval of agenda items

Earle Dixon will be representing the Navajo Nation on HC.

2. Review and Approval of April 11, 2006, Draft Conf. Call Summary

Minutes approved as edited.

3. Review of Action Item Log (attached to 04/11/2006 Draft Conf. Call Summary)
Item 34 – There are ongoing random errors in the gage readings and the BC has decided to remove this action item and to live with the errors.

4. Budget and Status Report
Dave King discussed the budget spreadsheet attached.

5. Gen 2/Gen 3 comparison.

- Comparing Gen 3 using Gen 2 Criteria compared pretty good in general with about a 1.6% difference in net depletion. It is recommended not to continue model runs using monthly rules in a daily model.
- Colorado depletions are higher because State-mod has better shortage estimates and because of the use of high altitude growth coefficients.
- San Juan-Chama Project supply differences will be analyzed by Reclamation.
- McElmo Creek basin imports are felt to be much improved.
- Dave will pull Utah and Arizona numbers for a closer look.

Update on Revised Flow Recommendations (Biology Committee Requests)

1. Verify G3 with G2 Rules - Completed
2. Reduce ascending and descending limbs of release hydrographs to the minimum time allowed by ramping criteria (5-6 days presently) - Completed
3. Avoid the early spring low level release in wet years (nose water) in favor of extended peak release (this may exacerbate the spill problem, requiring some rules to prevent spills).
    - Problem with spills – does not look good
4. Examine effectiveness of matching the Animas Peak.
    - Yet to be tested – will use Run 2 as base
5. If matching the Animas Peak accomplishes the above goals, then examine better forecast routines to achieve an improved match
6. Examine the decision tree release hydrographs, removing the smaller releases and focusing on the larger releases.
    - Does not work without major change in decision tree
7. Gate capacity 2 valves 3400, one at 1600 (1400 at mid to lower elevation). However the capacity is dependent on reservoir elevation and that at lower levels 5,000 cfs cannot be met.
8. Dave King will put gate criteria in model (gate rating curve)

Other Thoughts

- Steve Harris stated he has a depletion issue with New Mexico (NM) possibly taking another large block of water under the flow recommendations for Navajo Gallup Project.
- Colorado and NM would like to consider a programmatic Biological Opinion on an additional 50,000 ac/ft block of water for use in both states. Under the Modeling there needs to be pool/block for Colorado, NM, Utah etc.

6. Hydrologic Conditions Discussion

- June 1st Modified Unregulated inflow forecast was 380,000 acre feet (af) for the April-July period.
- This is 48% of the 30-year average.
- July-September releases are projected to be between 560 to 700 cfs to maintain the summer base flow target of 500 cfs.
- See attachment 2, 2006 Spring Release and downstream USGS stations.

- End-of-September reservoir content is expected to be about 1, 380,000 af or 101% of average.
- We are not predicting a water supply shortage this summer.

7. Navajo Reservoir Operations

USGS Presentation – Stream Gaging; Archuleta Gage ROW (chart attached)

- Leave room for discussion. The Program provides some funding for gages. No response from Lynn Miller (USGS). Pat has worked with Tino from the USGS to resolve gage readings.
- 2006 Recommendations for SJ River Administration and Operation signed by all parties, Jicarilla emergency water contracts approved.
- Draft ROD for Navajo operation was sent out to cooperating agencies.

9. New Projects – Update from HC Members on any new projects on the horizon

- Lightner Creek project postponed.

10. Review new action items

- Dave King explanation on differences of San Juan Chama Depletions
- BOR will look at 2006 budget for fund balance carryover

Next Meeting

September 12, 2006, Farmington Civic Center, Farmington, New Mexico

Adjourn

HYDROLOGY COMMITTEE ACTION ITEM LOG

(Updated August 8, 2006)

	Action Item	*Meeting/ Origination Date*	*Responsible Party*	*Due Date*	*Revised Date*	*Date Completed*
4	Add model runs and other information to the permanent hydrology website: http://uc.usbr.gov	7/25/01	Erik Knight	Ongoing		
5	Model modification briefings.	7/25/01	Reclamation and Keller-Bliesner	Ongoing		
12	Any new data or methods incorporated into RiverWare or State Mod will be shared with the Hydrology Committee.	7/25/01	Keller-Bliesner and Reclamation	Ongoing		
34	Gage error analysis discussion: the Hydrology Committee still needs to determine whether big losses are due to daily deagregation. The Committee has the option to re-evaluate losses once the 3rd Generation model is complete. HC decided to live with gage error.	11/27/01	Pat Page need to have a discussion with USGS	Ongoing	Postponed until StateMod analysis is completed	
105	USGS agreed to give a presentation annually to the Hydrology Committee regarding the effectiveness of the gage readings.	8/5/03	USGS	June 13, 2006	Annually	
136	Coordinate documentation for depletion differences for Gen 2 & Gen 3	5-18-04	Ron Bliesner & Dave King	03-01-06		
139	Committee will report any new projects which will be coming up.	5-18-04	Hydrology Committee	Ongoing		

HYDROLOGY COMMITTEE ACTION ITEM LOG
(Updated August 8, 2006)

	Action Item	*Meeting/ Origination Date*	*Responsible Party*	*Due Date*	*Revised Date*	*Date Completed*
140	Follow-up on (USGS) gage at Archuleta right-of-way **AGENDA ITEM at June meeting**	5-18-04	Pat Page	06-15-06		06-15-06
141	Budget Report to include foot notes with explanation of expenditures.	11-9-05	Pat Page, Dave King and (HC comments)	Ongoing		

Modeling Budget and Expenditure for FY 2006 5/31/2006

Task	Description	Budget	Expended	Balance	% Expended	% Completed
1	Develop, test, and implement new flow recommendations.	$ 138,563	$ 56,643	$ 81,919	41%	41%
2	Maintain data.	$ 18,538	$ 16,516	$ 2,022	89%	89%
3	Maintain model.	$ 17,232	$ 16,160	$ 1,072	94%	94%
4	Maintain software associated with model and data.	$ 7,584	$ 3,024	$ 4,560	40%	40%
5	Model operations for Hydrology Committee and new projects.	$ 3,942	$ 3,500	$ 442	89%	89%
6	Program management and coordination.	$ 5,592	$ 4,632	$ 960	83%	83%
7	Technical transfer.	$ 6,192	$ 2,928	$ 3,264	47%	47%
Other	O&M Travel, RiverWare, etc	$ 8,610	$ 5,120	$ 3,490	59%	59%
	Total to date	$ 206,253	$ 108,523	$ 97,730	53%	53%

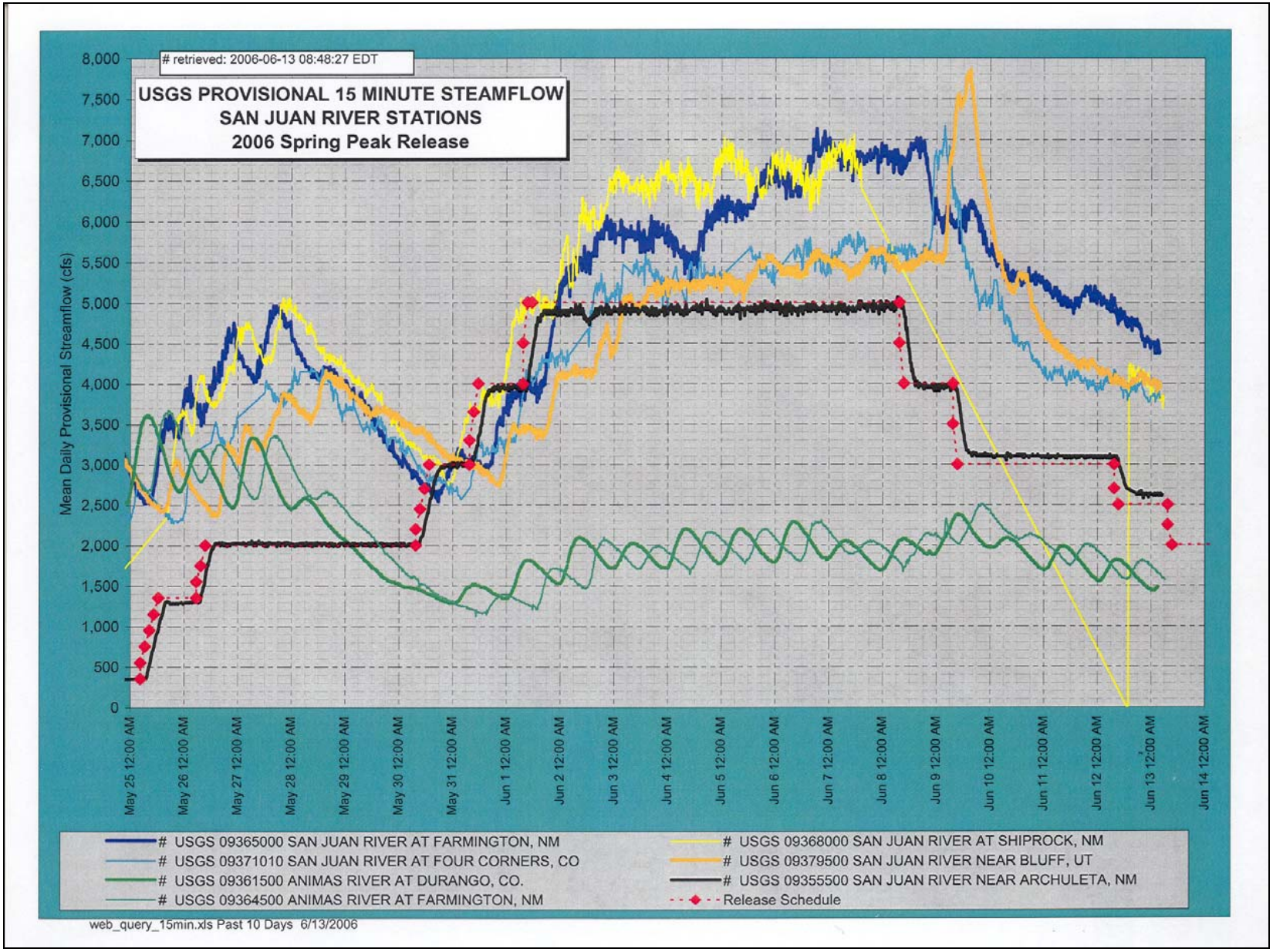
Budget Notes

1. Task 1 is for FY 2004 through 2006 funding. All other tasks are FY 2006.

Task	Description	Task Activities
1	Develop, test, and implement new flow recommendations.	Completed comparisons of second and third generation data and model runs; adjusted target operations; initiated sensitivity runs related to revised flow recommendations.
2	Maintain data.	Updated historic data through 2004; Adjusted baseline for Navajo-Gallup; Computed natural flows through 2004; Update NIIP efficiency, incidental loss rate, and ground water distribution and accumulation.
3	Maintain model.	Updated models through 2004 and added Navajo-Gallup project; Made configuration and depletion reporting adjustments
4	Maintain software associated with model and data.	Updated TSTool software and database (Colorado data thru 2004); Updated HEC DSS VUE software; Changed querying of StateMod operations data from StateMod special reports to StateMod binary file queries via TSTool; adjusted StateMod depletion reports via TSTool.
5	Model operations for Hydrology Committee and new projects.	Conducted special run for NMISC.
6	Program management and coordination.	Prepared budget updates and participated in meetings.
7	Technical transfer.	Provided additional training to field personnel on data and model

Task Notes

1. 1. Data and model maintenance was delayed due to incorporation of Navajo Gallup and team availability.
2. 2. Configuration and depletion reporting adjustments were necessary due to changes made to StateMod subsequent to September, 2003, RiverWare update.
3. 3. NIIP adjustments were necessary due to a misinterpretation of consultant data.



1 Attachment 2: 2006 Spring Release Schedule vs Actual USGS flows.