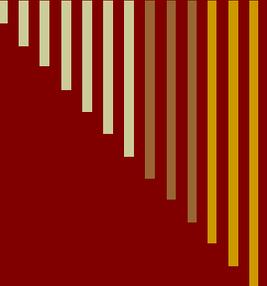


ESPA CAMP Quantitative Goal Subcommittee

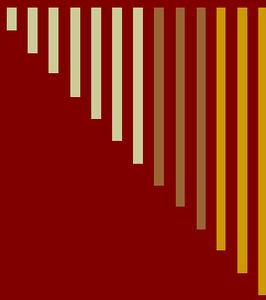
**Preliminary Analysis of Water Budget
Adjustment of 600,000 and 900,000
acre-feet**

November 14, 2007



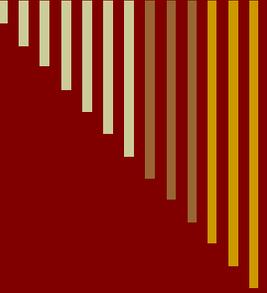
Objectives

- Evaluate annual water budget change of 600,000 and 900,000 acre feet to determine long term benefit of such actions to aquifer levels and spring flows
 - Attempt to distribute changes equally above American Falls, A&B area and Thousand springs
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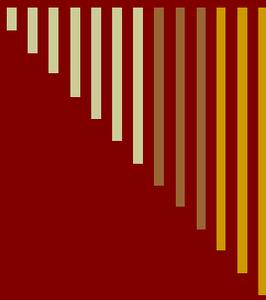
Preliminary Approach

- Technical team assembled to consider the sub-committee assignment and determine an approach and product for CAMP
 - Team decided that the preferred method was to use a package of mechanisms including estimated water quantities given defined assumptions
 - Spreadsheet tools based on ESPA model response functions, that were developed to analyze various scenarios like CREP, were modified for this effort
 - Analysis presented and discussed with the sub-committee on November 8
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Result

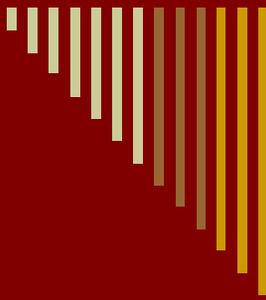
- This approach provides information on one way to answer the question of where we get the water, how to modify supply and demand and the type of infrastructure needed to accomplish the desired change
 - Analysis supports Committee deliberations regarding quantitative goal but does not provide quantitative goal
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Presentation Outline

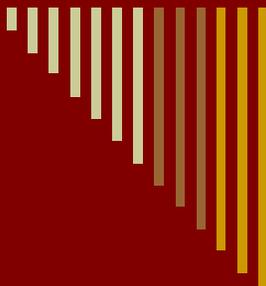
□ Outline

- Analysis Assumptions and Management Tools
 - ESPA Hydrology and Water Supply
 - Reach Gains
 - Ground Water Levels
 - General Discussion
-



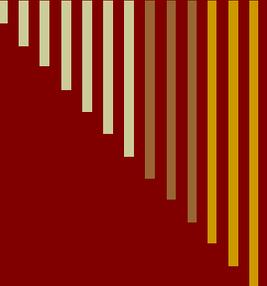
Small Group Discussion

- Small Group Discussion with Technical Experts
 - Each group will have opportunity to discuss issues and questions with the technical experts using spreadsheet tools
 - Each Small Group will:
 - Generate specific questions for immediate analysis (use spreadsheet tool)
 - Identify additional analysis to be conducted
 - Identify implications for setting quantitative goal
 - Report back to large group on issues, questions, observations and next steps
-



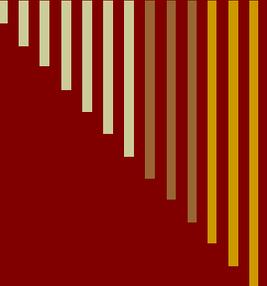
Observations and Challenges

- A 600 kaf or 900 kaf annual water budget adjustment requires major infrastructure (storage facilities, canal modifications, recharge facilities etc...)
 - Additional storage capacity is needed to capture water in high run-off years
 - Infrastructure needed to enable delivery of surface water and convert to surface water supply (hard and soft)
 - Significant institutional changes are required (legislative, organizational, water rights, etc...) to implement water budget change
 - A 600 kaf or 900 kaf adjustment is very costly
-



Observations and Challenges

- Implementation and Benefit Timeline
 - Some actions will take many years to develop and implement
 - After implementation, some tools will take a number of years to realize substantial benefit
 - Management action location determines effect and benefit
 - Management *actions* in the upper valley result in benefits in both upper and lower valley.
 - Impacts of management actions need to be considered (hydropower, fish and wildlife, economic, others) when adjusting the water budget or retiming
-



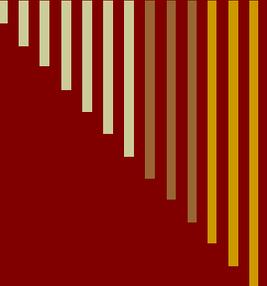
Challenges and Observations

□ Recharge

- Assumes IWRB able to exercise full recharge water right
- Effects of recharge are different above American Falls and below American Falls
- Infrastructure is needed to develop capacity to recharge (canal improvements, constructed recharge sites)
- Recharge will be costly – water availability and infrastructure needs

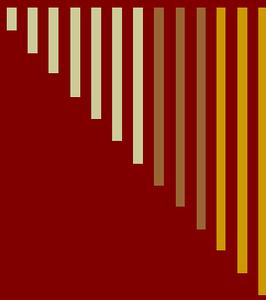
□ A&B Hard Conversion

- Provides the most overall benefit to entire aquifer (both up and down gradient)
 - Reduces aquifer withdrawals and increases incidental recharge.
 - [Requires new storage and salmon flow exchange for hard conversion], can provide long-term assurance in supply
 - May take 20 years to realize most benefits to aquifer
-



Challenges and Observations

□ Others?



Next Steps

- Using spreadsheet tool, posted on the ESPA website, Committee members conduct individual analysis and formulate policy level questions
 - Based on this analysis, how to we proceed with setting a quantitative goal?
 - How do we continue the discussions over tradeoffs between options?
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