

IMPERIAL

INTEGRATED REGIONAL WATER MANAGEMENT PLAN

Projects Work Group

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NOVEMBER 17, 2010

Agenda



- Introductions, Review of last meeting
- 2. Planning Framework
- 3. Existing Resources: Groundwater
- 4. Alternative sources of supply: Recycled water, Desalination
- 5. Supply strategies to integrate or take off the table
- 6. Assign relative priority to the strategies
- 7. Review and summarize findings and recommendations
- 8. Presentation to the Forum- what is our message and the main points we need to convey?
- Next steps

1. Intro, Review of Last Meeting

- Name
- Agency
- Feedback on last meeting
- Suggestions

2. Planning Framework

- Resources Management Strategy broad, conceptual
- Projects specific, actionable
- IRWMP Projects: near-, mid-, long- term projects
- Proposition 84 Grant Funded very near term projects

RMS Review Criteria

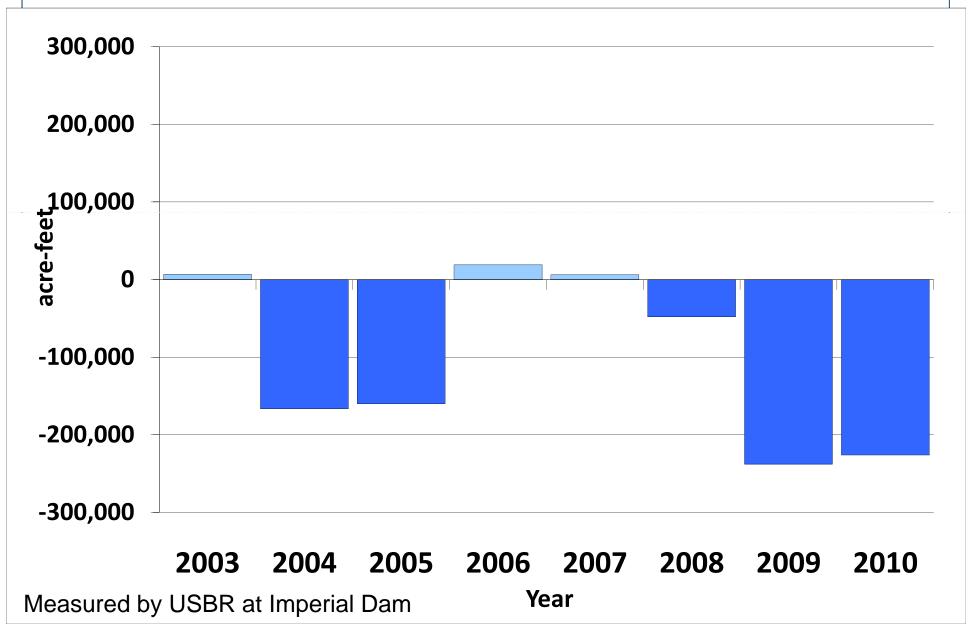
Criteria	Relative Score		
	5	1	
Contribution to meeting objectives	• •	Does not meet objectives. Meets one or less objectives	
Complexity to Develop and Permit	Least Complex	Most Complex	
Resolve conflicts: Colorado River		Would create conflicts or reduce ability to resolve conflicts	
Resolve conflicts: Imperial	Highest potential	Lowest Potential	
Regional Benefits	involves multiple participants	Provides limited regional benefits for singular participant	
Timeliness	Strategy well defined, projects identified and relevant to region	Slower to Develop	
Political Acceptability	Strong support	Weak support	
Adaptability to Climate Change	High potential to adapt	Low or no potential adapt	

4. Existing Resources: Surface water supply



- Opportunities: What projects will help increase, develop or make best use of the existing Colorado River surface water supplies?
- What would prevent us from developing our surface supplies?
- How do we overcome the obstacles?
- What are realistic time frames?





5. Existing Resources: Groundwater

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Opportunities:

- Is there groundwater that can be developed?
- How can we use our groundwater basins?
- Integration with other strategies?

Constraints

- What are the issues to further develop groundwater supplies or make use of groundwater basins?
- How do we overcome the obstacles?
- Evaluation Criteria?

5. Existing Resources, Groundwater RMS Concepts

- Groundwater development
- Groundwater storage
- Groundwater banking
- Conjunctive use

Groundwater Opportunities- Where?



- Central Imperial Valley
 - Upper aquifer
 - Deep aquifer
 - "Deeper" aquifer
- West Mesa groundwater development and banking
- East Mesa groundwater development and water banking
- The Coachella Valley Water via CVWD recharge
- IID groundwater banking facilities in the Coachella Valley.
- Arizona and Lower Colorado Groundwater Bank.

Groundwater Development



- Limited opportunities- low to no recharge
- West Mesa is at or near the sustainable yield
- East Mesa groundwater development
 - No natural recharge or sustained yield, water quality is limited
 - Water sources- leakage from the historic operations of the irrigation canals
 - Use would be mining without recharge
- Development of brackish groundwater in the Central Imperial Valley and East Mesa integrated with desalination strategy

Groundwater storage and banking Strategies eliminated

- Central Imperial Valley Upper Aquifer
- Central Imperial Valley "Deeper" Aquifer
- West Mesa groundwater development and large scale banking
- Arizona groundwater bank

Groundwater Storage and Banking

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- East Mesa
 - Blending
 - Desal
 - Desal with recharge of Colorado River water
- Coachella existing
- Coachella IID facilities

Considerations



- Uncertainties; feasibility study and/or pilot projects
- Groundwater management plan requirements
- Public private partnership
- Criteria
 - IRWMP Goals and Objectives
 - Regional benefits
 - Political acceptability
 - Timing
 - Resolve local conflicts
 - Resolve regional conflicts

6. Alternative sources of supply recycled water

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Opportunities

- Wastewater production
 - 14 discharge sources
 - **■** 16,000 acre-feet per year current
 - ▼ future volume is projected to total 36,000
 - **×** 75 KAF future
- Constraints
- Considerations/Findings

7. Alternative sources of supply: Desalination



Opportunities

- Brackish Groundwater
- Drainwater
- Regional: Yuma desalter, Navagua Desalination, International Boundary and Water Commission proposed Baja and Sonora, Mexico, Sea to Sea project
- Constraints
- Considerations

8. Supply strategies to integrate or take off the table

- Conveyance regional/local
 - Tie into local projects
 - Large scale is long term (e.g.; Sea to Sea)
- Surface storage- Interregional/regional/local/CalFed
 - Integrate small raw or treated water storage projects with DAC strategy
- Precipitation enhancement

9. Relative Priorities

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- Groundwater storage
- Desalination
- Recycling

Items 9 and 10.



- Review and summarize Work Group findings and recommendations
- Presentation to the Forum- what is our message and the main points we need to convey?

Questions?





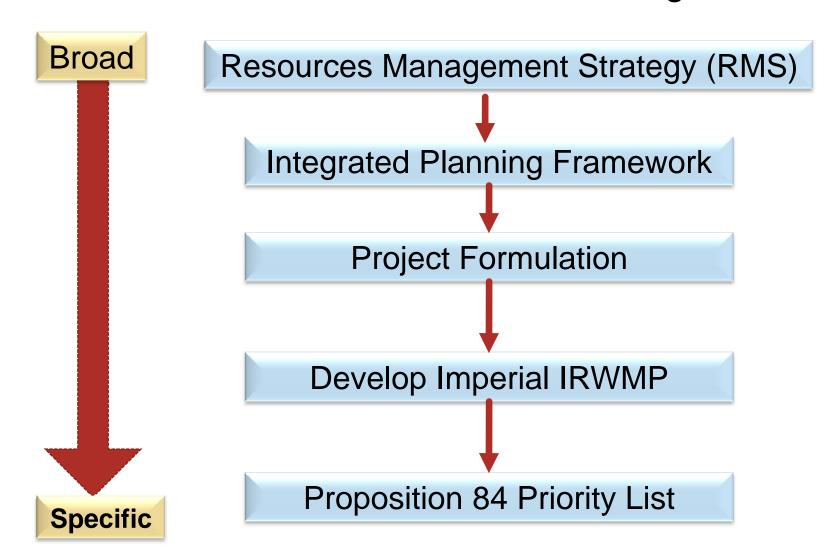


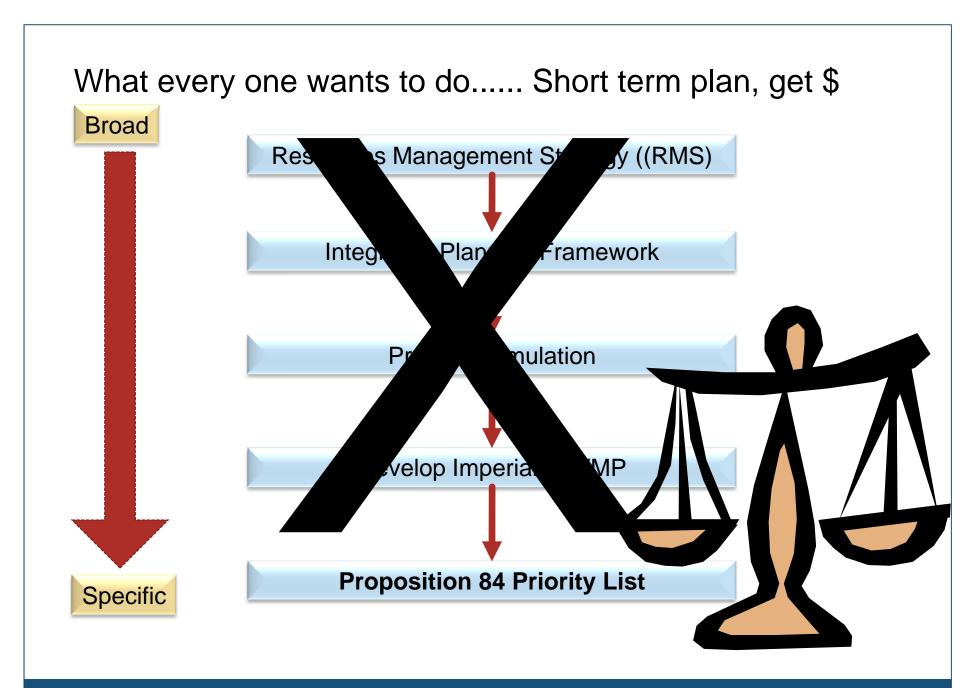
4. Related CDWR Standards

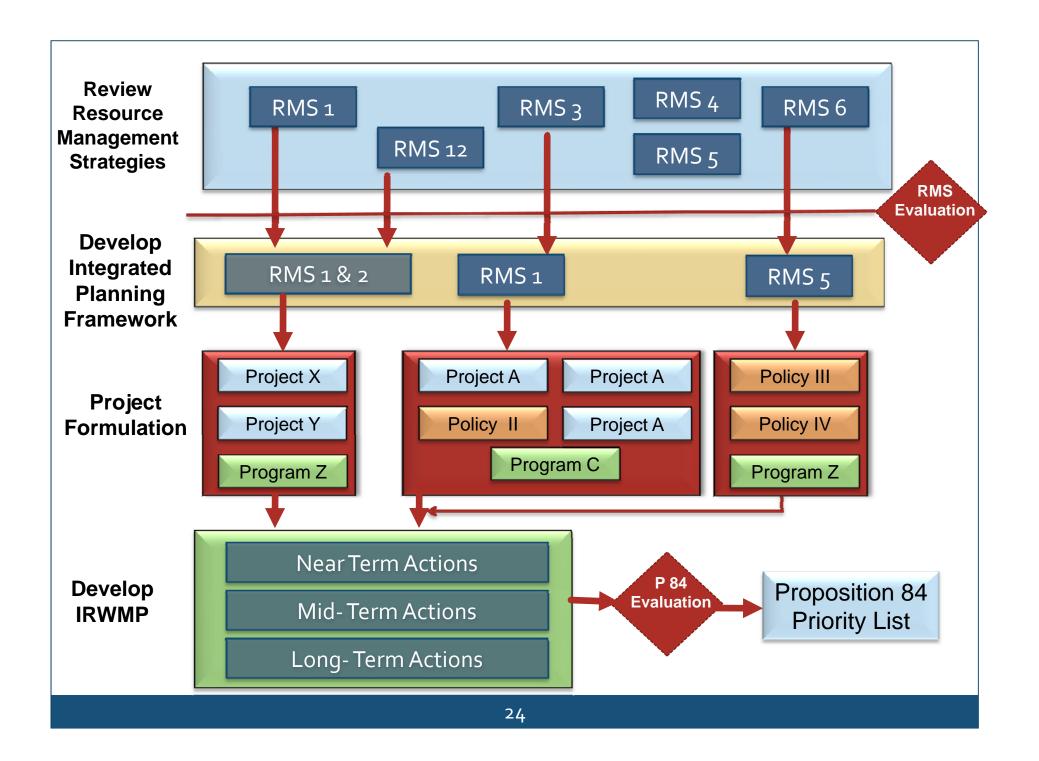


- Resources Management Strategies (Attachment 3)
- Project Review Process (Attachment 4)

What CDWR wants us to do...... Long-Term Plan







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Approach to Review of RMS



- Update Draft IID Plan RMS analysis to be consistent with CWP Update 2009, revised CDWR Guidelines/Standards, and Imperial IRWMP G&Os
- Work Group review to develop findings and recommendations
- Water Forum action on findings and recommendations

What we will be bringing to you on RMS



- Description of the strategy
- Current application in the Imperial Region
- Analysis of opportunities for application of the strategy
- Evaluation of constraints to applying the strategy
- Relation to, and integration with, other water management strategies
- Potential to support adaption to climate change
- Preliminary findings and recommendation for Work Group and Water Forum consideration

Outcomes for RMS Review & Discussion



- Support prioritizing IRWMP G&Os (required)
- Integrate RMS to meet IRWMP G&Os, meet CDWR standards
- Formulate regional projects
- Provide framework for integrating stakeholder projects into regional planning framework
- Provide basis for developing project review and evaluation criteria
- Define ways to adapt to climate change

CDWR Standard for Project Review Process



- 1. Procedure for submitting a project
- 2. Procedure for review of projects for
 - a) inclusion in IRWMP, and
 - b) P84 prioritized list
- 3. Procedure for communicating selected projects

Discussion – CDWR Project Evaluation Factors



- What CDWR evaluation factors are most important?
- What factors are missing that are relevant to Imperial Region?