Water Management Strategy Overview

- General update on Water Management Strategy (WMS) approach
- Draft Goals and Objectives
- Integrated Storage Investigation (ISI)
- Economic Evaluation of Water Management Alternatives (EEWMA)
- Environmental Water Account (EWA)

Water Management Strategy

Water Management Strategy														
	Water Management Tools													
	Transfers		Water Conservation				Storage [illegible]							
Water Supply Reliability Goals	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Goal A: Increase the utility of available water supplies														
Goal B: Improve access to existing or new water supplies														
Goal C: Improve flexibility of managing water supply and demand														

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Purpose of Water Management Strategy

The Water Management Strategy (WMS) is a strategy to coordinate and integrate the activities of several key CALFED program elements in order to help secure sufficient, reliable water supplies to support environmental, urban and agricultural beneficial uses.

The WMS:

- Describes a menu of water management tools
- Identifies specific tools for implementation in Stage 1
- Provides a long-term decision making framework for evaluating success and selecting additional tools

Draft Water Supply Reliability Goals/Objectives

- Goal A: Increase the utility of available water supplies (making water suitable for more uses and reuses).

Objectives focus on using water supplies more efficiently, increasing wastewater reclamation, and reducing TDS to help water blending, recycling, and treatment.

Draft Water Supply Reliability Goals/Objectives

- Goal B: Improve access to existing or new water supplies, in an economically efficient manner, for environmental, urban and agricultural beneficial uses.

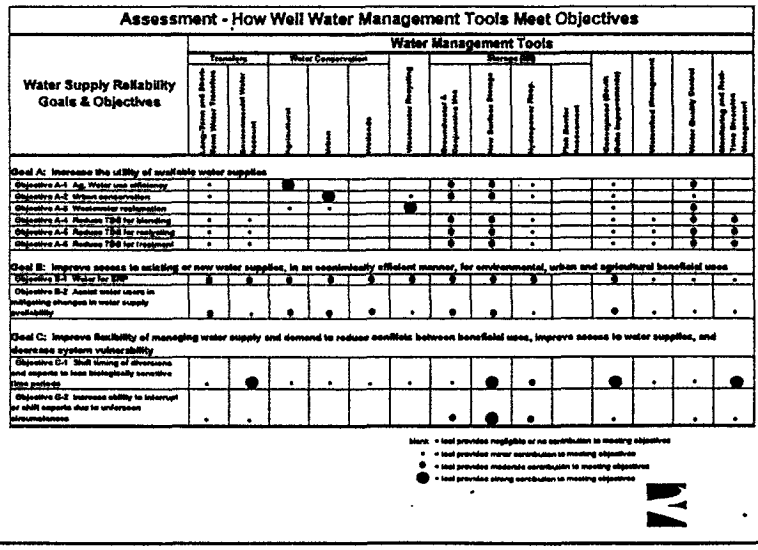
Objectives focus on securing reliable water for the ERP, assisting water users in mitigating changes in water supply, and providing for an improved water market.

Draft Water Supply Reliability Goals/Objectives

- Goal C: Improve flexibility of managing water supply and demand in order to reduce conflicts between beneficial uses, improve access to water supplies, and decrease system vulnerability.

Objectives focus on shifting diversions/exports to less biologically sensitive times and increasing ability to respond to unforeseen circumstances.

Example WMS Tool Assessment



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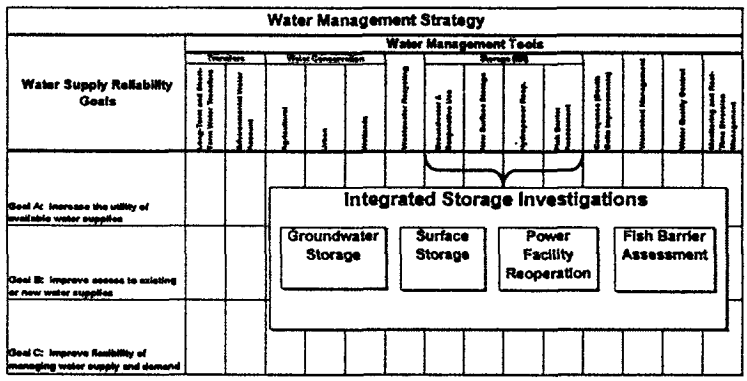
WMS Considerations

- Economics
- Multiple Benefits
- Solution Principles
  - Reduce Conflicts in the System
  - Be Equitable
  - Be Affordable
  - Be Durable
  - Be Implementable
  - Have No Significant Redirected Impacts

Integrated Storage Investigations



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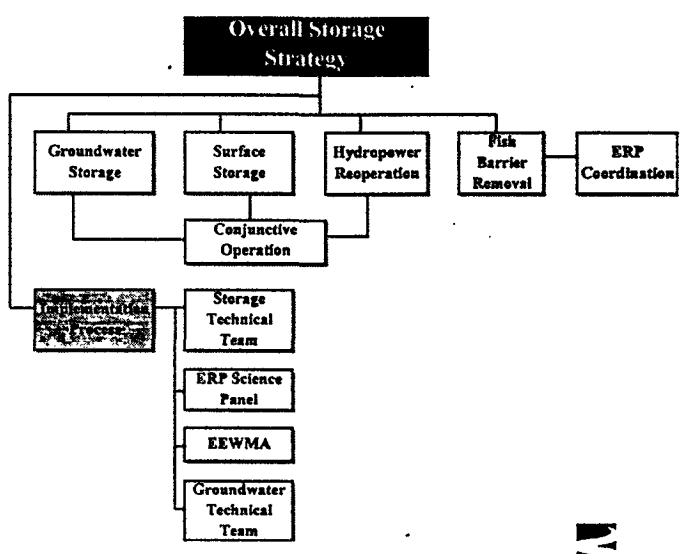
Integrated Storage Investigations (ISI)

Storage generally:

- Requires significant initial investment
- Presents less opportunity for incremental implementation
- Is less conducive to adaptive management

Therefore, need ISI to guide utilization of storage in broader water management strategy

ISI



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ISI at Time of ROD

- Initial assessment of storage potential and relation to other water management tools:
  - Appropriate mix of tools and approximate sizing
  - Timing considerations
  - Operations for water quality and other benefits
  - Etc.
- More detailed studies continuing several years

Economic Evaluation of Water Management Alternatives (EEWMA)

- Preliminary screening - more detail to follow
- Water supply and demand relationships for five regions
- How "elastic" is water demand to water price changes?
- How do constraints (stakeholder preferences) affect selection of WMS tools?

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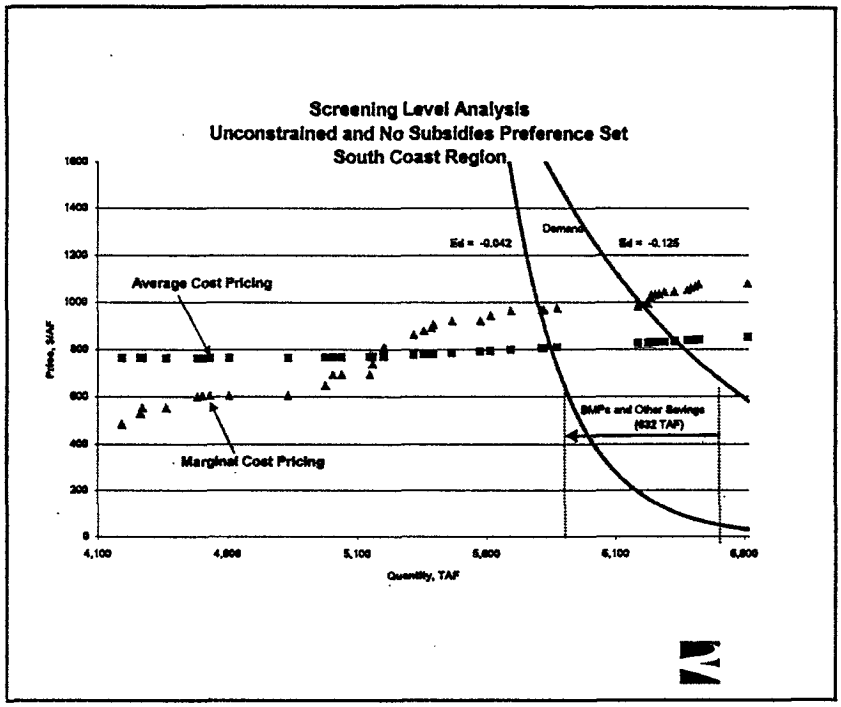
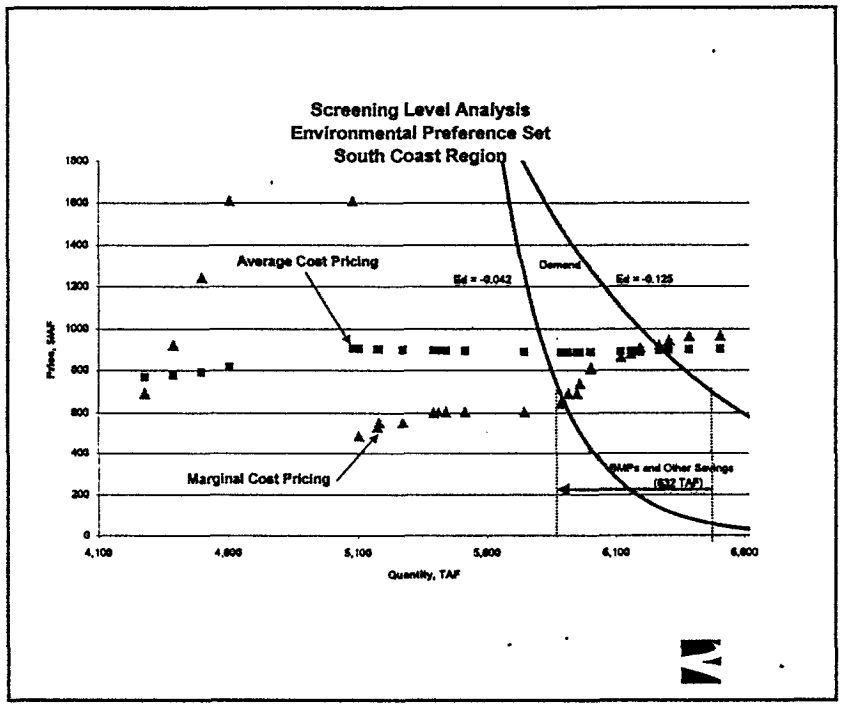

Screening Level Analysis
Unconstrained and No Subsidies Preference Set
South Coast Region
Demand
Ed = -0.042
Ed = -0.125
Average Cost Pricing
Marginal Cost Pricing
BMPs and Other Savings
(632 TAF)
Price, $/AF
Quantity, TAF
1600
1400
1200
1000
800
600
400
200
0
4,100
4,600
5,100
5,600
6,100
6,600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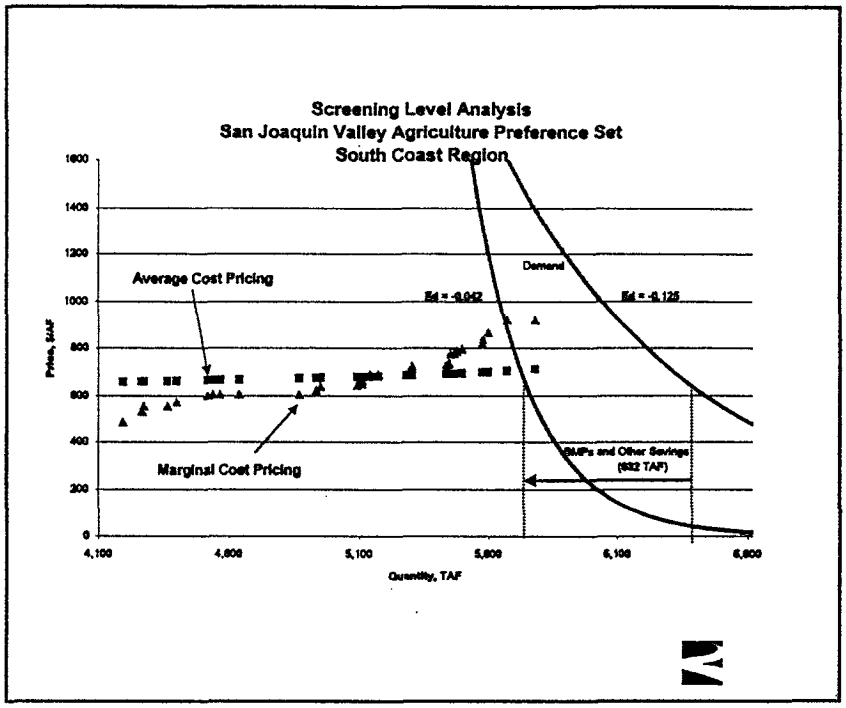


EEWMA Preliminary Observations

- There is little economic difference among many supply options (supply functions are relatively flat)
- Results are similar between sets except when tools are specifically excluded
- Water supply price changes have a small effect on urban demand (relatively "inelastic")

Major Conclusions

- The economic evaluation shows that all WMS tools are economically viable
- Some tools are well developed and ready for early implementation
- Some tools require additional evaluation before future decisions can be made on potential implementation

Environmental Water Account

A concept that provides for various water assets to be used to benefit the environment. Water supply would be allocated or purchased to provide benefits to fish and the environment.

EWA Helps Water Supply Reliability Objectives

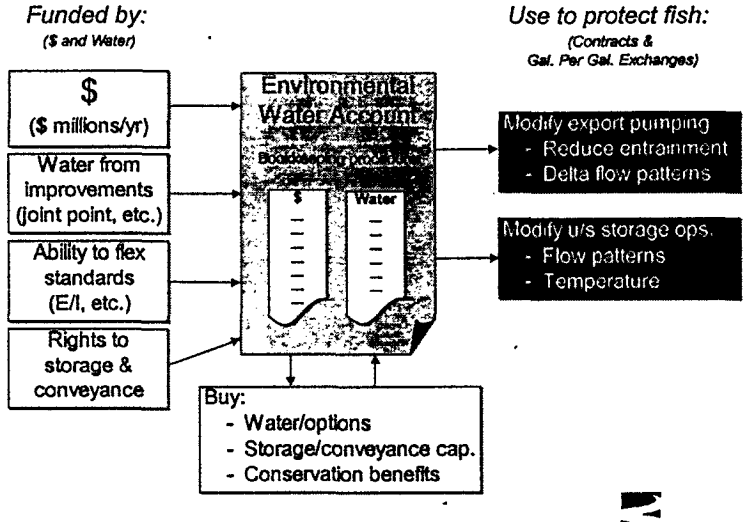
- Prime tool for meeting Objective C-1:

  Shift timing of diversions and exports to less biologically sensitive time periods

- Helps meet Objective B-1:

  Secure reliable water supplies to achieve ERP objectives

Environmental Water Account



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EWA Essential Assets

- A monetary account (early Stage 1 requires more $)
- Ability to purchase water at reasonable cost and at needed times
- Ability to vary standards
- Adequately screened project water diversion intakes in the south Delta
- Access to storage north and south of Delta and on Delta islands
- Increased permitted export capacity

EWA Major Findings

- Gallon for gallon approach worked best
- Need to adjust to specific circumstances
- Water quality, water supply, and the environment can all benefit
- New water supply would increase EWA opportunities