

# Methods for Quantifying Public Benefits

California Water Storage Workshop 2

October 25, 2011

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# Current Staff Work on Public Benefits

- “CWC shall develop and adopt, by regulation, **methods for quantification** and management of public benefits”
- Staff is currently preparing:
  - Review and screening of available methods for quantification of public benefits
  - Recommendations on quantification requirements and options
  - Guidance on regulations and guidelines

# Defining Public Benefits

- 5 categories defined as eligible
  - Ecosystem improvements; water quality improvements; flood control; emergency response; and recreation
- What is a “benefit”?
  - Willingness of people to give up something of value in order to obtain a project’s output
  - A change comparing **with-** vs. **without-**project
  - Benefits should be from the State’s perspective

# Methods to Quantify Benefits

- Quantification of physical changes is fundamental
- Potential approaches for economic quantification
  - Direct observation of values or behavior
  - Survey-based methods
  - Avoided cost or avoided damage
  - Alternative cost
  - Adapt values estimated from other studies

# Key Screening Criteria for Quantification Methods

- Use one or more of the acceptable approaches
- Are not inferior to another available method
- Consider variability and risk
- Data and estimates are verifiable and documented
- Use appropriate geographic and temporal scope
- Provide level of detail commensurate with size of benefit

# Preliminary Staff Findings

- More than one quantification method for each benefit category:
  - Choice can depend on without-project condition, project location, size, available information
  - Regulations should include principles to guide choice
- Relatively few recent studies on economic value of public benefits in California
- Alternative cost method will play a large role, especially for ecosystem benefits

# Preliminary Staff Findings (continued)

- SBX7-2 requires cost-effectiveness, so must provide a cost comparison of feasible alternatives
- Cost allocation required to convert from benefits to cost shares
- Economic quantification only one of the considerations
  - Priorities of DFG and Board
  - Inclusion of unquantifiable benefits
  - Other