

# Overview

## Shared Vision Planning Workshop

California State Library, Sacramento  
April 22, 2008

**Summary:** On April 22, 2008, the California Department of Water Resources (DWR) and the California Water and Environmental Modeling Forum (CWEMF), in collaboration with the U.S. Army Corps of Engineers' Institute for Water Resources, sponsored a one-day workshop to introduce the topic of Shared Vision Planning (SVP) to an audience of natural resource planners, scientists, and engineers. The workshop was designed to provide a general introduction to SVP and solicit views from the technical community on how SVP might be applied to statewide water planning process. The primary focus of the presentations and discussion was on how to apply SVP to interact with stakeholders in the development of analytical tools and models used by public agencies. DWR proposes to use the California Water Plan's Statewide Water Analysis Network (SWAN) and Public Advisory Committee to help guide the implementation of SVP in the California Water Plan and to promote the application of SVP to other statewide and regional water planning efforts.

The workshop featured an overview and demo of Shared Vision Planning as well as presentations on collaborative planning in Los Angeles and a statewide water planning process in Texas. In the afternoon, the approximately 45 participants were divided into breakout groups to discuss how to incorporate Shared Vision Planning principles into the development of analytical tools and models used by public agencies. One breakout group discussed how DWR might apply SVP for Update 2009 of the California Water Plan. Two other groups discussed how SVP can be applied to improve the long term development of analytical tools and data to support decision making for regional and statewide water management plans.

**What is Shared Vision Planning?** Shared Vision Planning integrates tried-and-true planning principles, systems modeling, and collaboration into a practical forum for making water resources management decisions ([www.SharedVisionPlanning.us](http://www.SharedVisionPlanning.us)). SVP addresses the need for broad involvement of stakeholders by actively involving them in the technical analysis. Aside from the intensive and continuous collaboration, what defines SVP is the use of collaboratively-developed decision-support models that serve as the primary tools for plan formulation and evaluation. These SVP models are designed to be transparent and easy-to-use and integrate hydrologic simulations with economic, environmental and other aspects relevant to understanding the system. Benefits that result from SVP are a shared understanding and vision of the system, identification of alternatives that are both technically and politically feasible, and reduced resistance to implementation of any decisions.

**Why SVP in the Water Plan?** DWR is pursuing the use of SVP in the Water Plan because it hopes to achieve better integration and consistency with other planning activities, to obtain consensus on quantitative deliverables, to build a common conceptual understanding of the water management system, and to improve transparency of Water Plan information. The use of Shared Vision Planning in the Water Plan will be described in Chapter 6 – *Integrated Data and Analysis* of the 2009 Water Plan Update.

**Applying SVP for Update 2009:** DWR is funding development of WEAP models (Water Evaluation and Planning System [www.weap21.org](http://www.weap21.org)) for Update 2009 to quantify future scenarios and water management responses. Reasons for using WEAP include a successful application for the Inland Empire Utilities Agency in southern California, that there is a shorter learning curve with WEAP than with other modeling platforms, and that its graphical nature supports collaboration. For Update 2009 the analysis will expand the scenarios to consider water supply, climate change, water quality, flood issues, use refined scenario narratives, and support the evaluation of response packages against scenarios. The Water Plan will include WEAP modeling for a high-level analysis at the hydrologic region scale for the entire state and a more detailed analysis for the Sacramento and San Joaquin hydrologic regions

**Long-term Activities to Improve Analytical Tools and Data:** Working with SWAN, DWR has identified a number of potential activities to support long term development of the data and tools for the Water Plan and other statewide and regional water planning efforts. Potential products include statewide and regional system schematics, a framework for integrating statewide and regional water planning, documented databases on common technical issues, visualization displays for policy discussion, a survey of technical & collaborative efforts (Texas, South Florida, MWD, etc.), synthesis of regional information (Urban Water Management Plans, Integrated Regional Water Management Plans) and implementing the Strategic Analysis Framework and Modeling Standards and Protocols from CWEMF.

**Applying SVP in the Long-term:** Workshop participants were asked to develop recommendations for how to apply SVP concepts in future water planning activities. As a vision for the role stakeholders could play in development and use of analytic tools for future water planning, participants discussed different goals, as well as decision and stakeholder roles and attitudes.

*Goals* for the long term include building trust through sharing control, building long term relationship and increasing awareness of the collaborative planning process and its benefits. Prior experiences with Shared Vision Planning processes (e.g. the Los Angeles IRP experience) may help to increase awareness. Technical analysis should include transparent, integrated, understandable models that are accessible to stakeholders for them to run their own scenarios. The analysis should include regulatory constraints.

Participants identified various *attitudes* that would support use of a SVP approach in the long term. Stakeholders and decision makers need to be open to learning about decision making tools, and learn to work outside of their authorities or comfort zones in terms of knowledge. Related agencies should be invited into the process as stakeholders. Existing data and models will be equally important, and we should take advantage of legacy models that were not developed in a transparent or collaborative fashion.

Stakeholders and decision makers will play important *roles* in the technical analysis. Decision makers will set the rules of the game, and provide incentives for locals to embrace Shared Vision Planning processes. Stakeholders can play vital roles in development of management objectives, in helping ensure usability of output and reports, in data provision and confirmation, in defining drivers and parameters of concern. Stakeholders can be conduits, advocates and translators of the technical analysis to the wider public. Stakeholders and decision makers need to understand that the cost of Shared Vision Planning may be higher than a traditional planning approach, but may result in greater public acceptance and willingness to fund projects, programs, and policies. It is important to have stakeholders and decision makers advocate for investment in the Shared Vision Planning process.

Based on this vision, stakeholders identified the opportunities for use of SVP concepts that have the greatest potential for improving the utility of, and confidence in, the analytic tools. By developing higher level, transparent screening tools, developing common planning scenarios, and sharing data and data collection efforts, the Water Plan will build long term relationships, increase awareness and support for collaborative planning processes, and build trust in the planning process. Additional near term steps include a communications plan for Update 2009 that includes Shared Vision Planning and touches on the many competing programs that deal with water.

Participants identified the need for two levels of detail in analytical tools used for water planning: detailed analytical tools and simpler Shared Vision Planning tools. Detailed analytical tools are needed to capture the complex system dynamics as realistically as possible. These more complex tools are used to ground truth the simpler Shared Vision Planning tools. Proponents of Shared Vision Planning need to show a bridge to development of the detailed analytical tools that support the Shared Vision Planning tools to justify long-term funding commitments.

Longer term needs include both hammers (e.g. regulatory requirements) and incentives (e.g. grant funding) to promote investments in Shared Vision Planning. In the longer term, the use of Shared Vision Planning will promote the development of more transparent flexible, plug-and-play modeling tools that will be appropriate for different planning scales.

Finally, the participants were asked to comment on the role of the technical community to help DWR implement SVP. SWAN's role could be to streamline technical development and present these modeling concepts to a larger audience. Both SWAN and CWEMF could build trust in the analysis by increasing awareness among both technical experts and decision makers of issues, the Shared Vision Planning process, models, and data availability and needs. SWAN and CWEMF could likewise contribute to peer-review of models, including risk and uncertainty analyses, and continue to improve the transparency of models as well as develop compatible models at different levels of detail.

**Applying SVP in the Short term:** Workshop participants contributed ideas on how Shared Vision Planning could be applied in the short term in development of analytic tools for the Water Plan. Ideas touched on how to structure the process of stakeholder involvement in the analysis, as well as suggestions on how to structure the analytic tools.

Participants suggested developing core groups of stakeholders for each region that met frequently (monthly), and conducting SVP exercises at regional workshops. In addition the group suggested topic-specific workshops (e.g. population-water use linkages, land use-water use connections). These workshops would need to be combined with outreach to technical experts and regional stakeholders and with efforts to involve a wider cross section of stakeholders.

In terms of the technical analysis, participants cited the need for a simple statewide model for screening for different hydrologic regions and their inter connections. This model would be available to stakeholders to verify and improve the model. More detail could be added over time as trust in the process and model is built. Water wholesalers will need to be represented in the model for statewide analysis and interactions. Concurrently they urged development of separate collaboratively-developed more detailed regional models that would tie into a statewide screening model, yet allow consideration of important regional information. The IRWMP's and other local plans could be used as a starting point for developing the regional SVP models. Participants noted that the complexity of questions answered must match the model complexity with careful consideration of the benefits and cost of aggregation at the regional scale. The modeling should make use of the new CALSIM III geographical schematic, capture the indicators being used by other agencies and may want to employ RAND's XLRM approach. Specific suggestions for the analytics were to include water pricing structures, water transfers (including Colorado River water and future reductions), desalination, and water use/pollution relationships in the model.

Longer term, there is a need to maintain SVP activities over time. This will require buy-in and commitment to a SVP process for future updates. Maintaining SVP activities over time will allow for model updating and will allow for re-evaluation of long-range planning objectives as knowledge, conditions, and values change. A suggestion is to tie IRWMP grant funding to development and use of regional SVP models.

Finally participants saw advantages in developing regional subgroups of SWAN to assist with technical detail of SVP models. CWEMF could help educate others about the working and value of Shared Vision Planning.

## Appendix 1 - Agenda

- 8:30 a.m. **Welcome, Introductions and Workshop Purpose**
- 8:45 a.m. **Overview of Shared Vision Planning and Demo**  
Hal Cardwell & Stacy Langsdale, U.S. Army Corps of Engineers' Institute for Water Resources; Jesse Roach, Sandia National Laboratories
- 10:00 a.m. **Break**
- 10:15 a.m. **The Los Angeles IRP: Success Through Collaborative Decision-Making**  
Dan Rodrigo, Camp Dresser & McKee Inc.
- 10:35 a.m. **Implementation of State Water Plans Through Effective Regional Water Planning**  
Barney N. Austin, Texas Water Development Board
- 11:00 a.m. **Using Shared Vision Planning to Improve Technical and Policy Collaboration on the California Water Plan**  
Rich Juricich, California Department of Water Resources
- 11:45 a.m. **Activities for the Afternoon**  
James L. Creighton, Creighton & Creighton, Inc
- Two breakout groups will be formed after lunch to discuss how to apply Shared Vision Planning to interact with stakeholders on development of analytical tools and models used by public agencies. One breakout group will discuss how DWR might apply SVP for Update 2009 of the California Water Plan, which is currently under development. The other group will discuss how SVP can be applied to improve the long term development of analytical tools and data to support decision making for regional and statewide water management plans.
- 12:00 noon **Lunch**
- 1:00 p.m. **Instructions for Breakout Groups**
- 1:15 p.m. **Breakout Groups**  
-- What would it take to apply SVP for Water Plan Update 2009?  
-- What would it take to apply SVP for long term improvements?
- 3:00 p.m. **Break**
- 3:15 p.m. **Report Outs**
- 4:00 p.m. **Discussion and Next Steps**
- 4:30 p.m. **Adjourn**

## Appendix 2 - Workshop flip chart notes

### Applying SVP for Update 2009 (Short term group)

#### **General comments**

- Include water pricing / structure
- Include tiered pricing
- Include water transfers (They are a significant source of water)
- Include Colorado River imports and future reductions
- Include desalination
- Look at water use / population relationships

#### **Shared Vision Recommendations for Update 2009**

- Include organized region-based stakeholder groups
- Meet frequently (monthly)
- Develop a simple statewide model for statewide screening of different hydrologic regions and their inter connections
- Include separate regional models developed by stakeholders to tie into statewide screening model (allow regions to build in local detail).
- The complexity of questions answered must match the model complexity ( can't answer complex questions with a simple SVP model)
- Statewide model should be available to stakeholders to run to see where weaknesses are. This will allow stakeholders with local expertise to help improve the model.
- Tie IRWMP grant funding to regional SVP models.
- Stay with simple statewide model to build trust in process and build detail over time.
- Need outreach for both the technical experts and the regional stakeholders
- Get wider cross section of stakeholders involved for greater buy in.
- Try to get long term buy-in and commitment to SVP for future updates, so that models are constantly updated.
- Need to reconsider what level of detail to provide in model. Lumping entire region is too coarse. Should break out by water wholesalers.
- Integrate water wholesalers at statewide level.
- Consider important regional information and interactions when determining model complexity (groundwater storage, water transfers, groundwater banking)
- Use IRWMPs as starting point for developing regional detail in SVP models.
- Have topic specific workshops (like population – water use connections, land use – water use connections)
- Have SVP exercises at regional workshops
- Develop core group of stakeholders for each region
- Use SVP to re-evaluate long range planning objectives to see where they are (objectives evolve over time)
- Need to maintain SVP activities over time rather than start new process for each Water Plan.

- XLRM approach developed by RAND is helpful.
- Capture indicators being used by other agencies.
- Harvest information from local plans for SVP models
- Make use of new CALSIM III geographic schematic as basis statewide schematic.

### **Role of SWAN**

- Develop regional subgroups of SWAN to assist with technical detail of SVP models

### **Role of CWEMF**

- Help educate others about SVP

### Applying SVP for Long Term (Agua Group)

#### **Vision** (for role of stakeholders and decision makers):

- Building trust in the process: (note this was seen as both a vision and objective)
  - By sharing control of the process and outcome.
  - By building longer-term relationships.
  - By increasing awareness of process and its benefits.
- Providing input on defining the critical issues (drivers) for Shared Vision Planning.
- Data and models equally important
- Stakeholders and decision makers need to be open to learning about decision making tools.
- Stakeholders and decision makers need to understand that the cost of Shared Vision Planning may be high but is less than the alternative of not doing process. This means that they should invest \$ into the process.
- Stakeholders can bring data to the process – this will encourage buy-in.

**Objectives:** (Note: Listed in priority. All bold items (1-4) need to be accomplished in order to be successful. Items highlighted were seen as potentially being accomplished prior to the 2009 update.)

#### **1) Building trust in the process:**

- a. By sharing control of the process and outcome.**
- b. By building longer-term relationships.**
- c. By increasing awareness of process and its benefits.**

#### **2) Need hammer (legislation, court decision) and incentives (grant funding) to get investment in Shared Vision Planning process.**

- 3) **Put together a communications plan for the California Water Plan. – Include Shared Vision planning as a component. (Include reclamation as part of communications plan)**
- 4) **Show bridge between short term and long term needs. This will justify the need for long term funding.**
- 5) Bring stakeholders together so that you get synergy and cost effectiveness due to pooling resources. You also form partnerships. (eliminate lawsuits?)
- 6) **Partnerships leading to better communication and coordination.**
- 7) Use SVP to:
  - a. **Integrate local planning and state planning**
  - b. **Provide feedback loop to ensure State and local planning mesh.**
- 8) Competing programs all dealing with water – need to get all to table at one place. (Divided we fail)

### **Role of CWEMF and SWAN:**

- Building trust by increasing awareness of both techies and decision makers of:
  - Issues
  - Shared Vision Planning process.
  - Models
  - Data
- Peer review of models
  - See page 16 of CWEMF's Strategic Analysis Framework
  - Include risk analysis
  - Include uncertainty analysis

### **Applying Shared Vision Planning for Long Tern (Blue Group)**

#### **Vision**

- Use Los Angeles IRP experience (Dan Rodrigo presentation) as a model where diverse group worked to shape screening tool.
- Traditionally state has played a facilitative role.
- Some stakeholders don't understand technical issues.
- Stakeholders must learn to work at a scale outside of their jurisdiction / knowledge.
- DWR doesn't have authority, but has carrots.
- Tools need to be developed transparently.
- Tools can be understandable to the public (at least the parameters of concern).
- Stakeholders can focus parameters and help with understandability.
- Stakeholders can help with design of front end.
- Translation of screening model and consistency.
- Some models have been developed without SVP and we shouldn't get rid of those.
- Decision makers should establish the rules of the game.
- Need to consider regulatory constraints.
- There is value in integrating all the elements.

- Include related agencies as stakeholders.
- Role of stakeholders and Decision makers
  - Data confirmation
  - Developing management objectives
  - Should be able to use output for reports
  - Should be meaningful
- Stakeholders should be able to access the working model and run their own scenarios
- Stakeholders should be a conduit, advocate, and translator for model.

### **What are the Opportunities for SVP?**

- Allows stakeholders to collect and provide data
- Uniform reporting of results
- Funding for data collection
- SVP should be used to decide what data collection activities are needed and prioritize them
- Identify and highlight need for centralized data storage, collection, access.
- Identifying data gaps
- Identify process to fill data gaps
- Promote plug and play and open source tools
- Identify knobs to turn in models
- Where are the areas that the next generation of tools need to be developed?
- Reduce the perception of black box models (use simpler models)
- Plug and play screening tools are the best way to empower stakeholders.

### **Which Opportunities have the Biggest Priority?**

- Data sharing
  - Collection
  - Centralization
  - Funding
  - Access
  - Identify data gaps
- Developing a screening tool
  - Knobs
  - Plug and play
  - Simpler or higher level
  - Transparency
  - Builds confidence
- Common Planning scenarios
  - What level of risk are we willing to accept
  - Use for regional planning

### **What needs to be done now (for Update 2009)**

- Data sharing and identification of data gaps

- Develop screening tool
- Planning scenarios
  - Identify acceptable risk
  - How bad do people think it can get
  - Obtain stakeholder consensus
  - Identify value of collaborative scenario planning in regions

**What is the role of SWAN and CWEMF?**

SWAN can streamline technical development and present to larger stakeholder group

CWEMF – defer to AGUA group with CWEMF rep. Improve models to expand plug and play at different levels of detail.