

*Shared Vision Planning*  
Stakeholder Involvement in the  
Technical Analysis

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# Context of Corps and Shared Vision Planning

- IWR is a policy & planning think-tank for Corps developed in the early 1970s
- IWR has been a proponent of Shared Vision Planning since National Drought Study in early 1990s
- Corps is mounting a major effort to support collaborative planning, with IWR playing an important supporting role
- Multiple federal agencies jointly looking at the stakeholder involvement in the technical analysis



# Why the Water Plan is pursuing Shared Vision Planning:

- Better integration and consistency with other planning activities
- Obtain consensus on quantitative deliverables
- Build common conceptual understanding of water management system
- Improve transparency of Water Plan information



# Water management is characterized by...

- Persistent conflict
- complexity & uncertainty in natural systems (hydrology, ecology etc.)
- Conflicting interests & values
- Interest groups and the public demanding involvement



# To survive in this environment we need to

- Understand basic hydrology, ecology, economics, etc
- Accurately represent the linkages between these areas

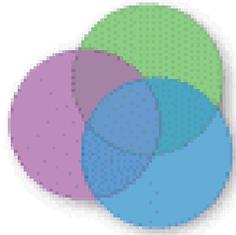
## Technical tools

- Understand institutional setting
- Develop ways engage Stakeholders
- Build trust

## Process skills

Collaboration in the Technical Analysis





# Shared Vision Planning

- PLANNING PRINCIPLES
- SYSTEMS MODELING
- COLLABORATION

**integrates** tried-and-true **planning principles, systems modeling and collaboration** into a practical forum for making resource management decisions;

*SVP means **involving stakeholders in the technical analysis** – in the data and technical relationships*



*“the process of building a model is a way of working out a shared view of what is being managed and how the managing should be done.” K. Lee*

- SVP builds **understanding** of the system –
  - By participating in developing the model, there is *joint learning*
  - Shared knowledge will *minimize disputes over “facts”*, leaving disputes over values and interests still on the table
- SVP builds **confidence** in the analysis
  - People more willing to *trust the outputs of a model* if they trust the way the model was developed
- SVP builds **trust** between stakeholders



# What we want from technical analysis within SVP

- **Integrated** – All stakeholder interests and their interactions are in one place
- **User Friendly** – capable of being used by multiple stakeholders and decision makers
- **Understandable/Transparent** – assumptions, input, relationships, & output
- **Relevant** to the interests and values of stakeholder and decision makers
- **Adaptable/Flexible** to changing conditions or evolving process



Tier I: Conceptual Framework

Tier II: Integrated Planning / Screening /  
Negotiating Model

Tier III: Detailed Data Sets and Numerical Models

Quality

Hydrology

Ecologic

Economic



# What is different?

- The **use of a model** sets SVP apart from other “collaborative” planning processes.
- The **participation of stakeholders** in developing and validating the modeling sets SVP apart from traditional technical analysis



# Stakeholder Involvement in the Technical Analysis is not just Theory

- **Drought Exercises for the Potomac River (DC)** - Interstate Commission for the Potomac River;
- **Drought Preparedness** - El Dorado Irrigation District (CA)
- **404 Water Supply Permitting on Cache la Poudre (CO)** - with cities of Greeley & Fort Collins & WSWC
- **Urban Water Management for Los Angeles** – CDM
- **Middle Rio Grande River (NM)** water allocation and ESA issues – Sandia National Labs;
- **Roanoke River (VA/NC)**– Hydrologics, Inc., TNC;
- **Other SVP Cases** - Five Pilots in the National Drought study, ACT-ACF, Rappahannock (Va), Mississippi Headwaters, Willamette TMDLs (OR), Cache la Poudre (CO),
- USGS, EPA, BuRec, all have related initiatives

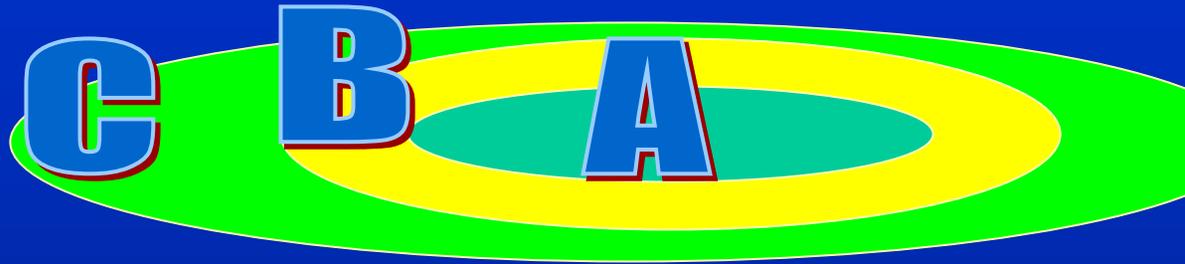


# A Quick Example - Lake Ontario Regulation Study

- Five year, \$25 Million study on re-regulation of Lake Ontario-St. Lawrence River Lawrence River
- Co-sponsored by the US and Canada through the International Joint Commission
- Collaboratively-built models help interest groups identify and begin to quantify the relationships between hydrology and their interests.



# Structured Stakeholder-involvement in Model building



## Circle A

- Modelers from Corps + Envi Canada + contractors
- email, weekly teleconferences

## Circle B

- Working groups on Navigation, Hydropower, M&I water supply, Environment, recreational boating, coastal (lake) erosion
- Working groups developed technical information and passed it to the Circle A team

## Circle C –

- The most interested members of the public
- Technical experts in subsidiary studies
- Road Show presentations at stakeholder gatherings

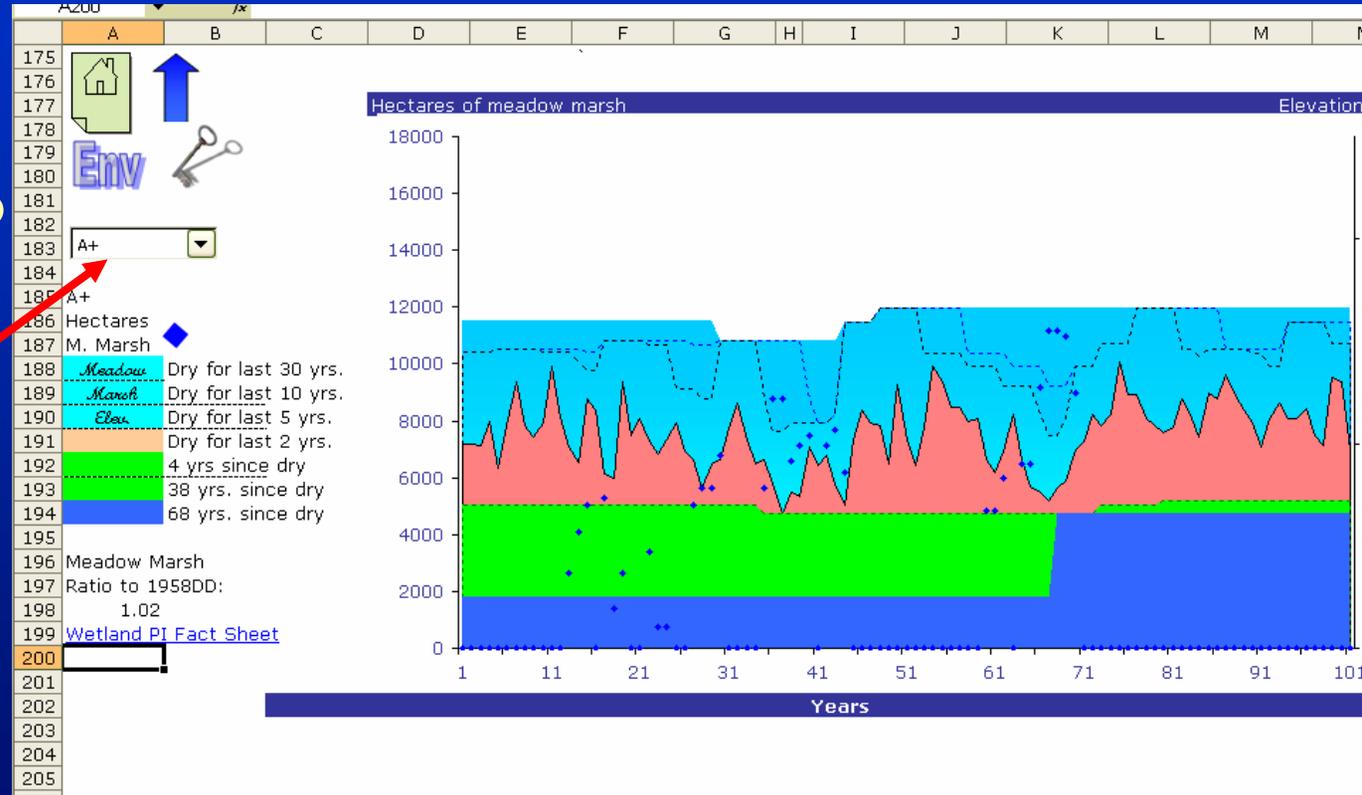
## Circle D

- Practice Decision-Making workshop with US-Canada Study Board



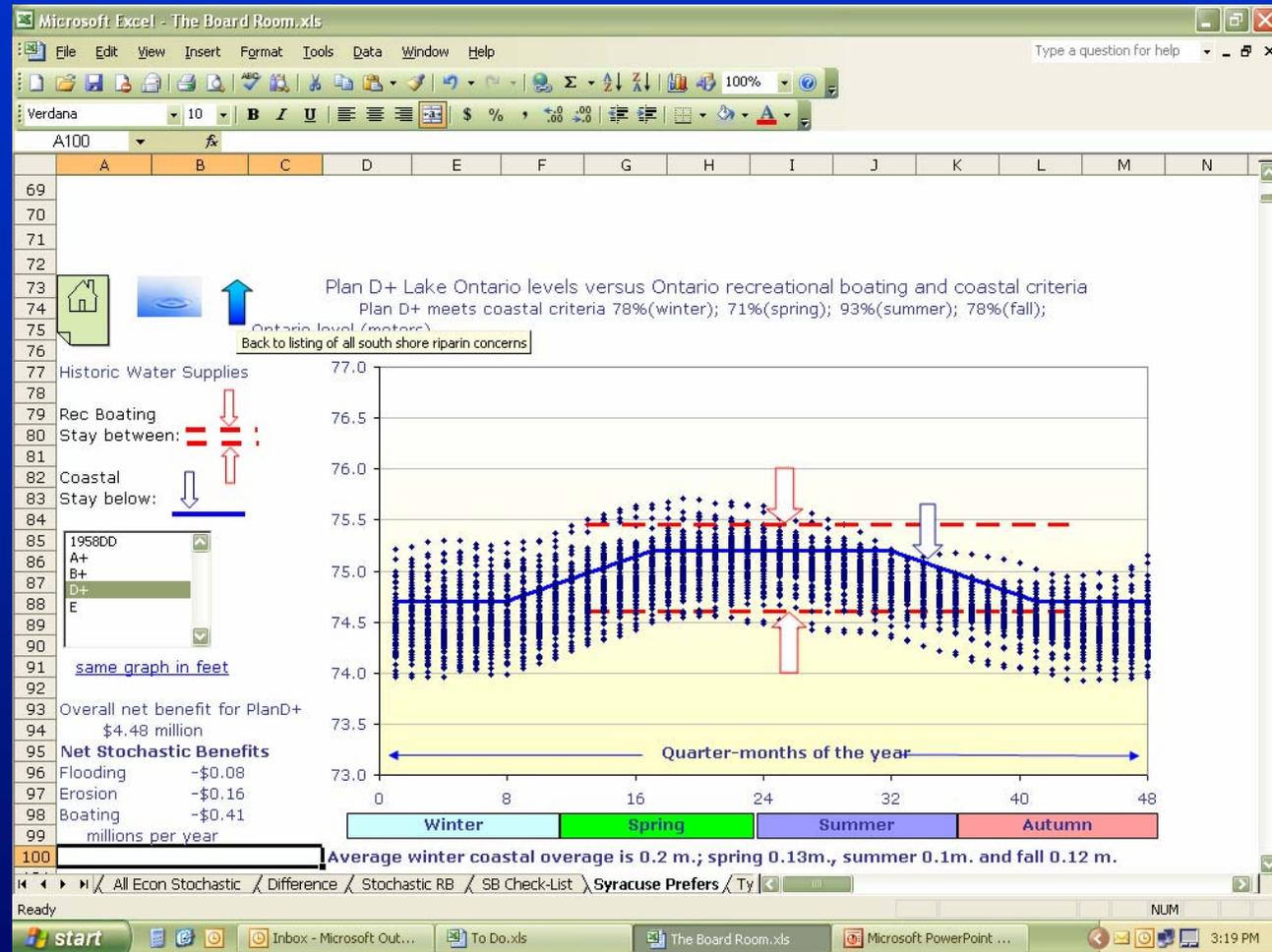
# Evaluation using dynamic Excel spreadsheet in workshop settings

Graphic displays like this one on meadow marsh can relate alternatives to “thing people care about”; able to switch alternatives to play “what if” games



# Evaluation using dynamic Excel spreadsheet in workshop settings

Different graphics can display more of the available data in ways that people relate to – and again allow what-if games.



# Evaluation using dynamic Excel spreadsheet in workshop settings

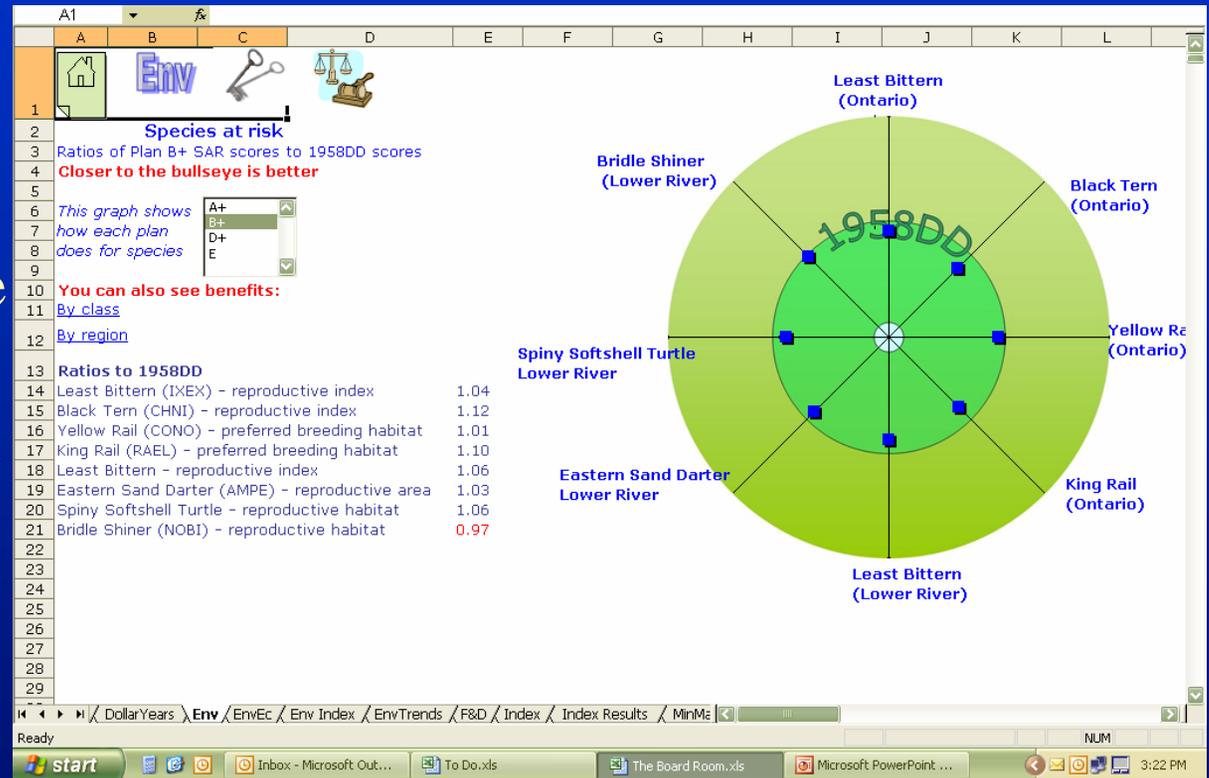
Environmental Performance Indicators		A+	B+	D+	E	Much difference?	Disproportionate Loss
3	Wetland Meadow Marsh Community	1.02	1.44	1.17	1.56		
4	Low Veg 18C - spawning habitat supply	0.89	0.95	0.94	0.88	7%	
5	High Veg 24C - spawning habitat supply	1.05	1.00	1.01	1.08	7%	
6	Low Veg 24C - spawning habitat supply	1.00	1.02	1.00	1.11		
7	Northern Pike - YOY recruitment	1.02	1.00	1.05	1.03	4%	
8	Largemouth Bass - YOY recruitment	0.94	0.98	0.97	0.96	4%	
9	Least Bittern (IXEX) - reproductive index	0.88	1.04	0.96	1.13	25%	
10	Virginia Rail (RALI) - reproductive index	0.96	1.11	0.99	1.15	19%	
11	Black Tern (CHNI) - reproductive index	1.03	1.12	1.01	1.16	15%	
12	Yellow Rail (CONO) - preferred breeding habitat	0.96	1.01	0.98	1.01	5%	
13	King Rail (RAEL) - preferred breeding habitat	1.05	1.10	1.03	1.27	23%	
14	Low Veg 18C - spawning habitat supply	1.01	1.01	1.01	1.04	3%	
15	High Veg 24C - spawning habitat supply	1.03	1.01	1.02	1.02	1%	
16	Low Veg 24C - spawning habitat supply	1.01	1.01	1.01	1.04	3%	
17	Northern Pike - YOY recruitment	1.05	1.03	1.01	1.06	5%	
18	Largemouth Bass - YOY recruitment	0.99	1.00	1.00	1.00		
19	Northern Pike - YOY net productivity	4.02	2.08	1.17	4.08	291%	
20	Virginia Rail (RALI) - reproductive index	1.16	1.27	1.31	1.33	17%	Muskrat
21	Muskrat (ONZI) - house density in drowned river mouth	1.42	4.39	1.75	37.25	3583%	Weight in
22	Golden Shiner - suitable feeding habitat area	1.00	1.00	1.00	1.03	3%	Depinto
23	Wetlands fish - abundance index	0.87	0.90	0.84	0.97	13%	Index
24	Migratory wildfowl - habitat area	1.03	1.03	0.97	1.00	6%	
25	Least Bittern - reproductive index	1.03	1.06	1.00	1.06	6%	
26	Virginia Rail (RALI) - reproductive index	0.94	0.97	1.06	1.00	13%	
27	Migratory wildfowl - productivity	1.06	1.00	1.00	1.03	6%	
28	Black Tern (CHNI) - reproductive index	0.84	0.77	1.00	0.77	23%	
29	Northern Pike (ESLU) - reproductive area	0.97	0.94	0.94	0.94	16%	
31	Eastern Sand Darter (AMPE) - reproductive area	1.10	1.03	1.13	1.06	10%	
32	Spiny Softshell Turtle (APSP) - reproductive habitat surf	1.03	1.06	1.03	1.03		
33	Bridle Shiner (NOBI) - reproductive habitat surface area	1.00	0.97	1.00	1.03	6%	
34	Muskrat (ONZI) - surviving houses	1.04	0.88	0.96	0.80	24%	
35	Percentage "good" scores for each plan	9%	22%	16%	34%		
36	Joe Depinto's Pretty Good Overall Environmental Index	1.06	1.35	1.10	4.04		

Table displays  
resonate with some  
– color coding can  
help focus  
information.



# Evaluation using dynamic Excel spreadsheet in workshop settings

A radar or “bulls-eye” format can help display relative impacts of different alternatives. Again, color-coding and what-if games may help people learn about options.



# So, how can we adapt SVP process to support Water Planning in Calif?

- Observations

- SVP has always been applied to specific place-based decisions
- Decentralized decision-making on technically intricate issues over a vast spatial scale
- Many well-informed, politically-savvy stakeholders with diverse views
- Integration with Flood-safe & IRWM



# General ideas

- Focus on the “why” & “what” – objectives and vision of stakeholder involvement in technical analysis
- Identify and setup the appropriate mechanisms for including stakeholders in the technical analysis
  - Technical staff
  - Policy makers
- Identify critical points in model development at which stakeholders want to be involved
- Use a variety of models – simple to complex
- Treat initial efforts at both process and modeling as “experiments” requiring subsequent refinement
- Exercise & update both the technical analysis and the collaborative process - assume iterative development.



# Initial proposal

- Initial Activities
  - Share experiences, solicit ideas (April Workshop for technical people)
  - Vetting through climate and scenario activities
  - Vetting at June 2, 3 All-Regions forum in San Jose
- Expected Results
  - Vision for how to apply SVP in the long term (2013, 2018) that can form the basis of the Data & Tools chapter in Policy section of 2009 Update
  - Baby steps to test ideas through climate & scenarios work
  - Awareness building & endorsement
- Risks
  - Creating unrealistic expectations – collaboration will be a long process full of bumps technically and process-wise



# Wrap Up – *Shared Vision Planning*

- Connecting collaboration & modeling is **proliferating** – with top-level Corps backing & a federal initiative
- Shared Vision Planning **integrates** tried-and-true **planning principles, systems modeling and collaboration**
- Openness in the process and the modeling foments trust in both
  
- Application to Ca Water Plan will be challenging, but basic ideas still apply
- Start with
  - collaboratively developing a vision of integrating stakeholders into the process, and
  - small steps technically





# Shared Vision Planning

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## About Shared Vision Planning

Shared Vision Planning (SVP) is a collaborative approach to formulating water management solutions that combines three disparate practices: 1) traditional water resources planning, 2) structured public participation and 3) collaborative computer modeling. Although each of these elements has been successfully applied, what makes Shared Vision Planning unique is the integration of all three planning processes with structured public participation and collaborative computer modeling.

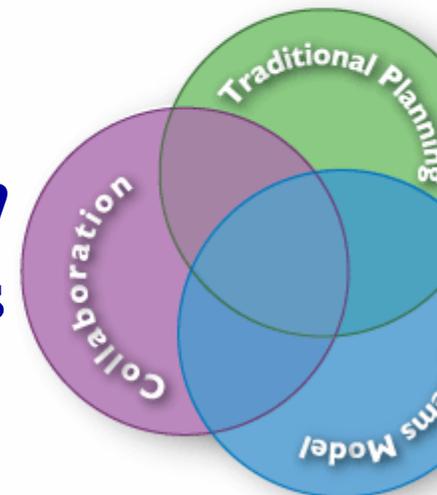
### Goal

The goal of Shared Vision Planning is to improve the economic, environmental and social outcomes of water management decisions. Shared Vision Planning facilitates a common understanding of a natural resource system and provides a consensus-based forum for stakeholders to identify tradeoffs and new management options. Shared Vision Planning creates user-friendly and understandable computer models that are relevant to stakeholder interests and adaptable to changing conditions.

### What's in this Web Site

- News and Events
- Current Initiatives
- Tools and Techniques
  - Methods
  - Models
- Resources
  - Case Studies
  - References
- Training
- CADRe Partners

*For More Information*  
[www.SharedVisionPlanning.us](http://www.SharedVisionPlanning.us)



Shared Vision Planning integrates  
 • tried-and-true Planning principles



**Institute for Water Resources**

**Presentation for Advisory Committee  
March 20, 2008**