

FORUM SUMMARY



Changing Our Perspective:

New Ways of Thinking About the Delta

October 18, 2011



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Change can be difficult in the best of circumstances, and doubly difficult under an aura of uncertainty and crisis.

A change in perspective, fresh ideas and better ways of working together are exactly what is needed to address the complexity of problems in the Sacramento-San Joaquin Delta. That was the message delivered at the Oct. 18, 2011 water forum “Changing Our Perspective: New Ways of Thinking about the Delta,” sponsored by the Water Education Foundation and the Sacramento-San Joaquin Delta Conservancy, with assistance from the State and Federal Contractors Water Agency.

“The Water Education Foundation has put on countless events discussing the Delta dilemma,” the Water Education Foundation’s Executive Director Rita Schmidt Sudman told the 170 participants in her welcoming remarks at the forum. “Today we hope we will be part of bringing you something different. We will talk about new thinking and dif-

ferent ideas, but also today is a celebration of the uniqueness of the Delta, the sense of place that it is.”

“The Conservancy is committed to thinking differently about how we assist the Delta. We think that there needs to be a fundamental change away from the concept that there are problems in the Delta that need solutions to there are issues in the Delta that need to be managed,” Ingram said. “That may seem somewhat semantic and simplistic. But we



**Rita Schmidt Sudman,
Executive Director of the Water
Education Foundation**

ferent ideas, but also today is a celebration of the uniqueness of the Delta, the sense of place that it is.”

As planning continues in an effort to “solve” the problems in the Delta, the discussion needs to change to take a fresh look at how to manage the Delta’s conditions to maintain its local

and statewide resources and uses, said Campbell Ingram, the Delta Conservancy’s executive director. The Delta Conservancy was established as part of the California water policy reform package in 2009 and serves as the primary state agency for implementing both ecosystem restoration and promoting economic vitality in the Delta.

fundamentally believe that in doing that we open up a great deal of new opportunities to think about how to address ecosystem restoration, water supply delivery systems and flood protection rather than continue the conversations where the battle lines are drawn and positions have hardened.”

This paper is a summary of the Oct. 18 forum, including remarks and presentation points from the speakers, question-and-answer sessions with panelists and follow-up questions posed by audience members.



**Campbell Ingram,
Executive Director of the
Delta Conservancy**

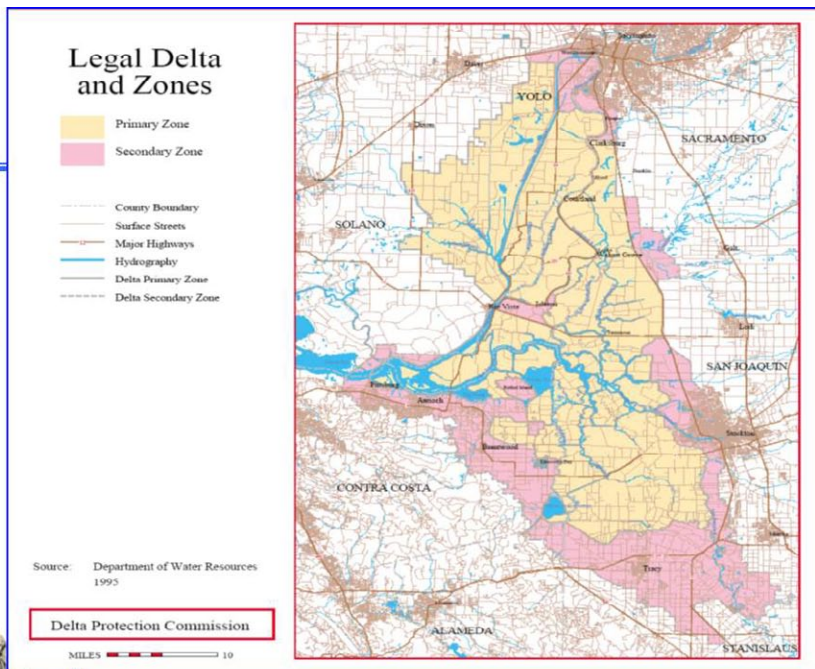
What is the Sacramento-San Joaquin Delta?

The Delta is the largest estuary on the Pacific Coast and home to more than 750 species of plants and animals. About 25 percent of all sport-fishing species and 80 percent of the state's commercial fishery species, including four distinct runs of salmon, live or migrate through the massive 738,000 acres. More than 500,000 people live in the Delta, which also serves as a major recreation destination and a crossroads for Northern California infrastructure.

Much of the water supply heading south flows through the Delta and is pumped into the state's two largest water delivery projects, the State Water Project (SWP) and the federal Central Valley Project (CVP). The Delta supplies more than 25 million Californians

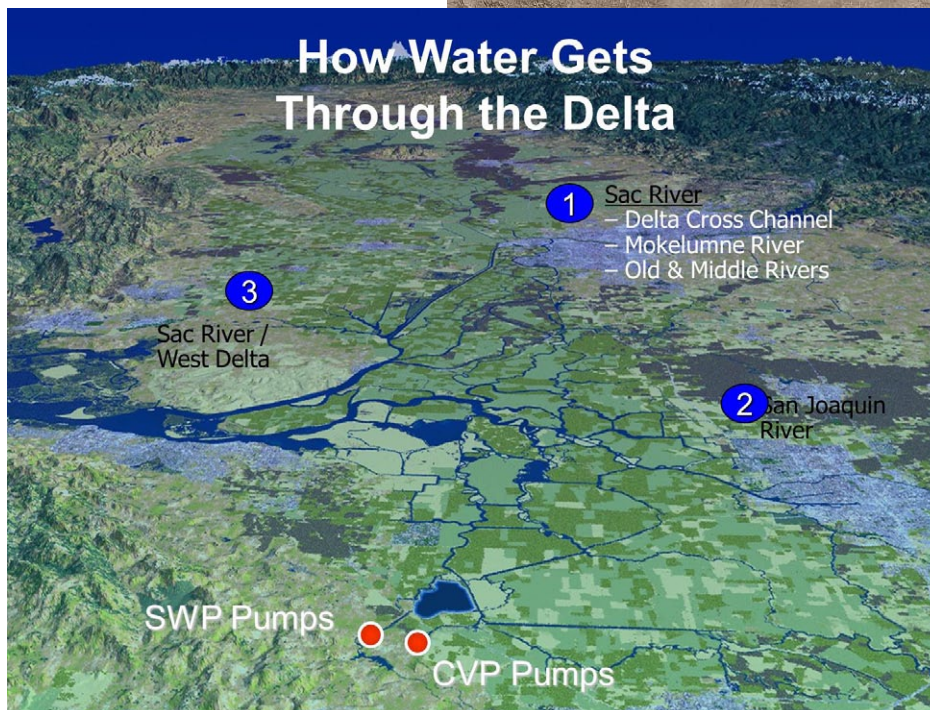
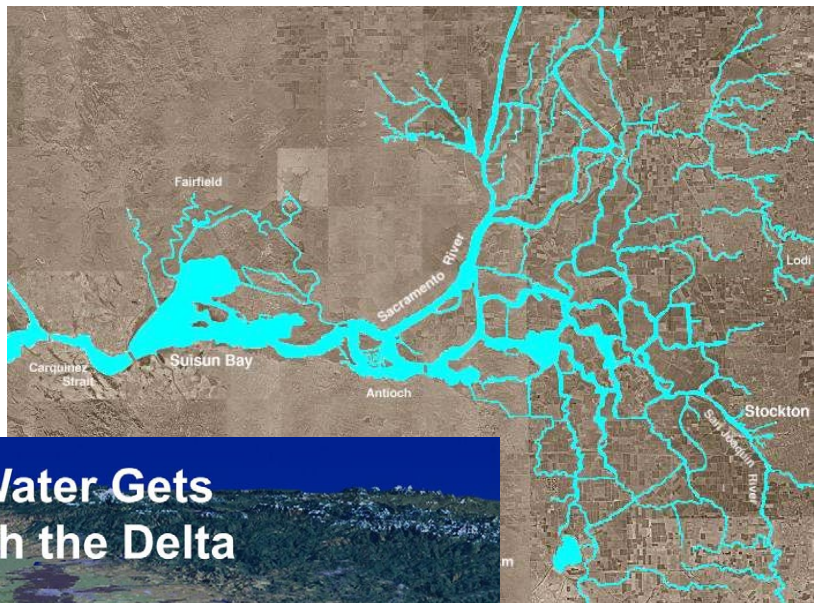
– about two-thirds of the state's population – with at least a portion of their drinking water, and it irrigates 5 million acres of farmland.

But the Delta is in crisis. Habitat water flows have been degraded and fisheries depleted; and there are increasing salinity and water quality issues that threaten the health of the estuary. Meanwhile the negative impacts of climate change, including sea level rise, as well as the ever-present risks associated with earthquake and flooding hover over the region's fragile levee system – putting the hub of the state's water supply distribution at risk of complete shutdown.



The continued deterioration of the Delta on so many levels has created a politically-charged battleground as stakeholders – water officials, researchers, farmers, business owners and environmentalists – focus on their specific issues. Through the years, numerous plans have been proposed to address the problems of restoring the Delta ecosystem while maintaining its vital role in distributing the state’s water supply. The intense efforts continue today as the Delta Plan, the product of the Delta Stewardship

Council, will be completed in 2012 and the Bay-Delta Conservation Plan (BDCP) is being prepared by a group of local water agencies, environmental organizations, state and federal agencies. The BDCP will provide the basis for the issuance of endangered species permits for the operation of the state and federal water projects. Including a long-term conservation strategy with actions for a healthy Delta, the plan will be implemented during the next 50 years.



KEYNOTE SPEAKER ADDRESS – JIM MAYER

California is in dire need of finding ways to achieve partnerships among state and local governments, according to keynote Jim Mayer, executive director of California Forward, which has the mission to help create “smart” government: “One that’s small enough to listen, big enough to tackle real problems, smart enough to spend our money wisely in good times and bad, and honest enough to be held accountable for results,” Mayer said.



Jim Mayer

California Forward is launching its most ambitious effort since its inception in 2008 – reaching out to local and regional leaders statewide and working with them to develop

the details of policies that would restructure the relationship between state and local governments.

Prior to founding California Forward, Jim Mayer was the executive director of the Little Hoover Commission, which wrote a 2005 report including recommendations for reforming the governance structure of CALFED, a collaboration among 25 state and federal agencies with the mission to improve California’s water supply and the ecological health of the Delta. The report Still Imperiled, Still Important affirmed the importance of the CALFED program yet recommended overhauling how state and federal agencies were managing the multibillion-dollar effort.

What’s wrong and why?

When faced with large, complex problems, people tend to take a strategic approach and select small problems without thinking about the big picture. Think of what we are told from the time we are youngsters: when the going gets tough, focus on putting one foot in front of the other, Mayer told the audience.

“We get to the top of the mountain one step at a time,” he said. “We are confronted with big problems, so we try to solve small discreet ones. It is strategic. How do you strategically use your time and resources?”

The difficulty with applying that concept to something as complex as the Delta is different groups and entities have been focused on solving little problems. “We have ended up with dozens of programs and silos of money that discourage people from working together,” Mayer said. “We need to think about the big picture. What are we trying to accomplish and how will we get there?”

What should and could be done differently?

Mayer pointed to overturning cultural learning in order to manage problems in the Delta. “In politics and in policy, we focus primarily on what’s wrong and who’s to blame rather than what’s the solution and who needs to be part of it. It truly is a cultural thing that transcends much of what we do.”

For example, Mayer said, “In the Legislature they don’t do oversight hearings when a program is working to figure out how to replicate it. They do oversight hearings when someone screws up and gets their name in the paper.”

“And of course there’s the hyper-partisanship that isn’t just affecting California but is affecting the nation. As a result of this, people avoid being part of the solution. An active strategy in many circles is to make sure no one can associate you with the

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problem. We have water districts that want to say ‘we don’t have anything to do with the problem in the Delta. We are too far upstream’ or something like that. The culture here is if no one associates you with the problem then you may have to be part of the solution,” he said.

“Policymakers also tend to be focused on who’s to blame rather than what will it take to solve the problem. Bureaucracy has become hypersensitive to it. Even when there is strong consensus among the management, science and the technical teams about what good can be done and should be done, the conversation quickly goes to how much trouble people will get in if they interpret their statutory authority in a way that may not be agreed to by the chairman of the committee. This becomes a huge problem. And the media is a huge part of this problem.”

Mayer also suggested that an alternative plan wasn’t a good idea. “People need to actually invest and buy into the solution to make real breakthroughs. No ‘Plan B.’ We need to be disciplined in

what are the steps to get there – all of them. There isn’t enough time and money not to be organized. There needs to be a performance-based outcome.”

We need a new quote

Mayer concluded his talk with a substitute quotation for “Whiskey is for drinking; water is for fighting over,” commonly attributed to Mark Twain, although it has never been verified. As an alternative, Mayer suggested a new quote, which he penned after an intriguing, yet futile, search of other water-related Twain quotes, he said. The new quote was: “When Californians learn to manage water for fish, for farmers, for families for the future, we will be able to manage everything. And until we do, we won’t be able to manage anything.”

“Everyone has a stake in the Delta,” Mayer told participants. “You are on the cutting edge. There is plenty you are doing that is working. Be persistent and be realistic. The question is whether we continue to make progress over time. We need to think big. We can’t afford to think small.”

PANEL 1

“The Delta’s Wicked Problem”

Two experts in cognitive thinking, problem-solving and risk management offered forum participants insight into how a better understanding of the nature of problems – and applying that knowledge – can ultimately lead to success in solving complex problems such as those that exist in the Delta.



Panel 1 was comprised of: (From left to right) Ian Mitroff, Jeff Conklin and Richard Frank

- **Jeff Conklin**, Author, “*Dialogue Mapping: Creating Shared Understanding of Wicked Problems*” and Director, CogNexus Institute
- **Ian Mitroff**, Author, “*Dirty Rotten Strategies: How We Trick Ourselves and Others into Solving the Wrong Problems Precisely*” and President and Founder, Mitroff Crisis Management
- Moderator: **Richard M. Frank**, Director, California Environmental Law and Policy Center and Member, Delta Vision Task Force

Complex Problems Create Gridlock – Jeff Conklin

Jeff Conklin, director of CogNexus Institute and author of articles about “wicked problems,” likened the Delta planning and problem-solving process to traffic gridlock. With complex problems comes gridlock – “there’s lots of intent to get where you are going but no motion. And just like in traffic, everyone knows it’s the idiot-in-front’s fault. As hard as everyone is working, the problem is us. Most people are in denial. It’s heart-breaking.”

The gridlock in addressing Delta issues is created by the complexity of the problem itself. Conklin referred to it as a “wicked” problem.

A “wicked” problem is a complex problem that is difficult or impossible to solve because of scarce

resources, conflict and changing requirements that are often difficult to recognize. Also, attempts to solve one aspect of the problem create unintended consequences that ultimately compound the complexity.

Wicked problems have many characteristics. Conklin detailed these in his PowerPoint presentation:

- Each solution illuminates a new aspect of the problem
- Solutions are not right or wrong
- Wicked problems have no stopping rule – “Any problem cannot be solved”
- You run out of resources – That’s when we know it’s done
- Wicked problems are unique and novel
- Every solution is a one-shot operation



Jeff Conklin

Author Jeff Conklin referred to Horst Rittel (1930-1990), who was an urban planning professor at the University of California, Berkeley. Together with colleague Melvin Webber, he coined the term “wicked problem” and main-

tained the search for a scientific basis for confronting problems involving social policy is bound to fail, because of the sheer nature of the problems.

Why? The scientific process is designed to deal with “tame” problems – problems that can be relatively well-defined, have a definite stopping point (we know when a solution is reached), have a solution that can be evaluated as being right or wrong and can be grouped with similar problems which can be solved in a similar manner.

When dealing with a “tame” problem, it’s a direct, linear process. The problem is defined; data is gathered and analyzed; and a solution is proposed and implemented.

However problems involving public policy cannot be solved with a linear approach. In 1973, Rittel and Webber wrote an article for Policy Sciences entitled “Dilemmas in a General Theory of Planning” in which they maintained problems involving policy cannot be definitively described. And when it comes to public policy, there is no objective definition of equity – “policies that respond to social problems cannot be meaningfully correct or false. Even worse, there are no ‘solutions’ in the sense of definitive and objective answers.”

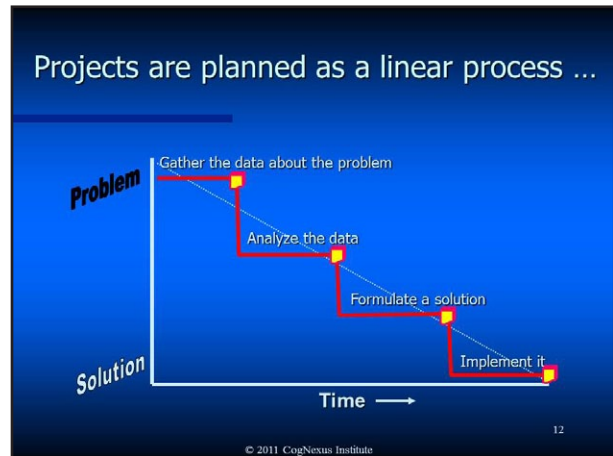
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- You can't try a canal and see how that works out
- It is not a matter of yes or no but better or worse.

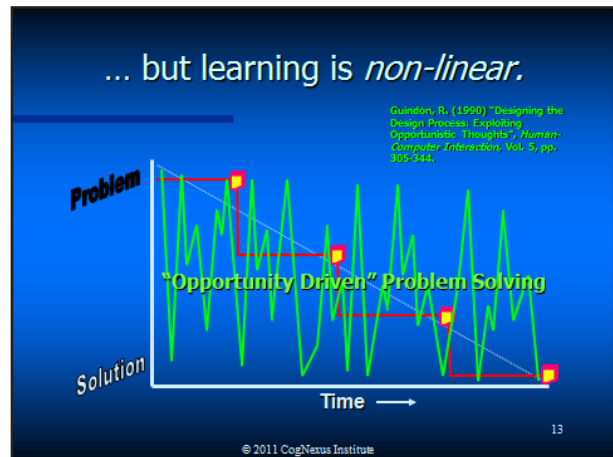
Conklin said public policy involves cognitive learning, which is never linear. "Non-linear cognition means jumping around between issues. What is the problem? What are the criteria? What does "X" mean? What are the facts? What should we do? How should we do it?" he said. "The process is chaos."

"Wicked problems cannot be tackled by the traditional approach in which problems are defined, analyzed and solved in sequential steps."

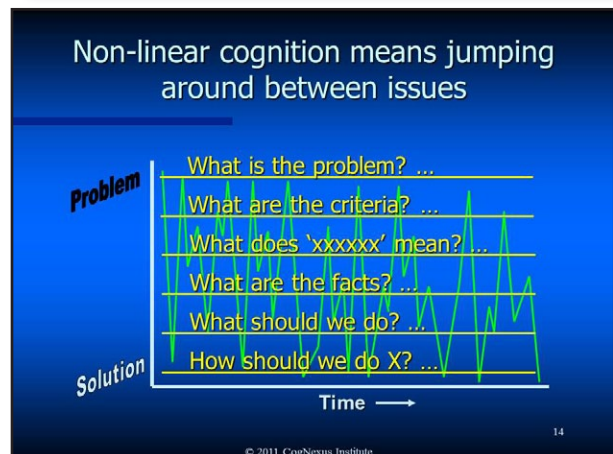
"So what's the way out? People created the problem. People are holding the problem in place. Dialogue is the only way out," Conklin said



When it comes to addressing the Delta's problems, he said, the non-linear process asks questions, such as "How can we achieve water supply reliability?" "What does success look like?" "How do we do it?" "How do we define it?"



Facing a wicked problem, the tendency is to try to "tame" it by redefining it and taking the scientific, direct path to solving it.



This is done by refocusing on a smaller, related problem and also not including foes or people who disagree: "People say, 'The whole thing, that's not my concern. I'm working on my part.' It creates silos and makes it hard to work together. But the only way for gridlock to break is you've got to work together. We can't just sit in traffic and blow our horn," Conklin said.

Crisis Management and the Delta – Ian Mitroff

The Messes We've Created

At the Delta forum, Ian Mitroff spoke about the complex nature of “messes” – intertwined, inter-related problems – and ways to begin to make progress and manage the crisis in the Delta. He defined a “mess” as a whole system of problems that are so interconnected and so interrelated that any one problem cannot be removed or solved without destroying the true nature of the problem and/or the mess.

“So we either learn to confront problems as parts of a mess or we don't solve them at all,” Mitroff said. “All problems we face in society are now messes – the education problem, infrastructure problem, security problem, real estate problem, financial problem. Furthermore, what's interesting is that

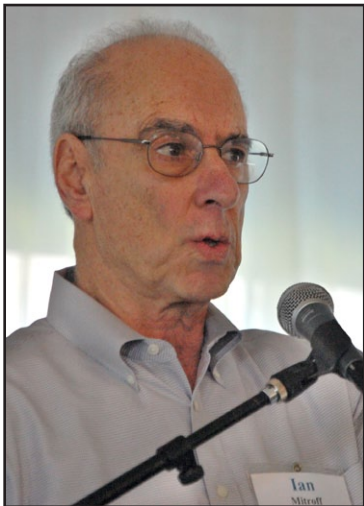
they are all interconnected. Think about it – you can't solve the education problem interdependent of all these other messes.”

“We either solve all of our problems in concert or we don't solve any of them. That doesn't mean you have to solve all of them at once – that's impossible. But we have to work on all of these simultaneously,” he added.

Unlearning What We've Been Taught

We must start by unlearning, Mitroff told the participants. In school, we've refined our skills through exercises posed as “problems.” For example, $X + 6 = 11$. What is “X”?

“That's not a problem, that's an exercise. Everything is well-defined. Everything is given to the student with no context,” he said. And that creates “certainty junkies.”



Ian Mitroff

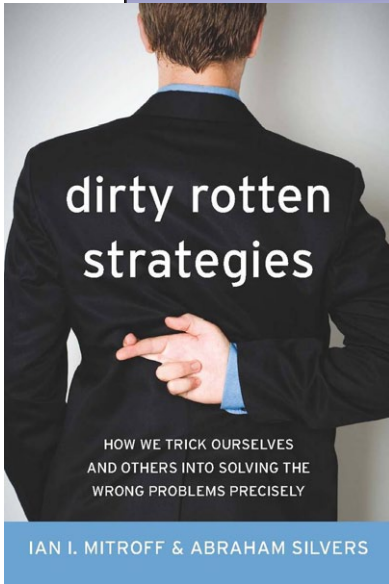
Dr. Ian Mitroff is widely regarded as the founder of the discipline of crisis management and specializes in crisis prevention, strategic planning and the design of ethical work environments. He is Professor Emeritus at

the Marshall School of Business and the Annenberg School for Communication at the University of Southern California, Los Angeles. He is an Adjunct Professor in the College of Environmental Design at the University of California, Berkeley and an Adjunct Professor of Health Policy in the School of Public Health at St. Louis University. He is also a

Senior Research Associate for Catastrophic Risk Management at the Haas School of Business, University of California, Berkeley. He is the president and founder of Mitroff Crisis Management.

As founder of Mitroff Crisis Management, based in Oakland, he consults on a broad and diverse array of human-caused crises. These include threats to the reputation of an organization, executive kidnappings, product tampering, fraud, sabotage, work-place violence, terrorism, loss of confidential information and industrial disasters.

Dirty Rotten Strategies: How We Trick Ourselves and Others into Solving the Wrong Problems Precisely



During the forum presentation, Mitroff referred to concepts presented in his book, *Dirty Rotten Strategies: How We Trick Ourselves and Others into Solving the Wrong Problems Precisely*. “An activity is not a problem unless it can be defined clearly, precisely and unambiguously and prior to one’s working on it. Also the definition is not supposed to vary as one works on the problem. The result of teaching only exercises is

that students are turned into ‘certainty junkies.’ Anyone with teaching experience knows that students rebel like mad if they are given problems when they have been conditioned to expect exercises.”

“Problems have none of these characteristics. For example, questions such as ‘Should the United States extricate itself from Iraq?’ are, to put it mildly, tortuous problems, not simple-minded exercises,” Mitroff wrote.

In his book, Mitroff details the characteristics of problems, including:

- One of the biggest difficulties with problems is determining exactly what the problem is.
- Problems have more than one solution because they have more than one formulation. As Iraq illustrates only too painfully, people with opposing political perspectives and ideologies don’t see issues in the same way.
- Unlike exercises, problems are dynamic. They not only change as the circumstances change but they also change in response to our so-called solutions. More often than not the solutions not only contribute to the problems but actually make them worse. For instance, the war in Iraq has made the Middle East more unstable, not more stable.
- Problems are inherently “messy.” Take away the messiness and you take away what makes them problems.
- The definition of a problem emerges only at the end of an inquiry, not at the beginning. If one really knew the definition of the problem prior to working on it, then it’s not a true problem.

Working Together

Since a mess involves stakeholders, it automatically contains all of their underlying anxieties, dreams, emotions, fears, hopes, and accompanying assumptions and beliefs. Furthermore, it contains, as well, the previous history associated with the mess. In short, messes potentially contain everything pertaining to the human condition. This is precisely why they are messy.

“In a problem every stakeholder has a different definition of the problem,” Mitroff said.

Also, it is difficult for individuals to look at the whole, multi-faceted problem, because it is too overwhelming or beyond their scope of understanding.

The No. 1 enemy is denial, Mitroff told participants, using a joke to illustrate: “A guy goes to a psychiatrist. ‘What’s your problem?’ asks the psychiatrist. The guy says, ‘I’m dead, but I can’t convince anyone that I am.’ The psychiatrist says OK and begins therapy sessions. After six months, the psychiatrist is frustrated. He says, ‘If I can convince you that you aren’t dead, will you give this up?’ The guy says ‘Well yeah.’

The psychiatrist says, ‘You don’t believe dead men bleed do you?’ The guy says, ‘No that’s impossible.’ So the psychiatrist takes out a pin and pricks the guy and a little drop of blood appears. And the guy says, ‘I’ll be damned, dead men do bleed.’”

Mitroff told participants, “If we think that just rational data and arguments alone are going to convince people with deep-seated beliefs, we are crazy. One of the things we have to do is come in with ways that are dramatically different.”

“A system is not the sum of the separate problems; it is the product of its interaction. For example, the system is 1×0 . You do perfect on one part but nothing on the other part. $1 \times 0 = 0$,” Mitroff said.

The Delta as Mental Health Problem

Mitroff suggested that the Delta be considered in terms of a mental health problem. “That doesn’t mean we are sick, crazy or deranged – of course not. But we’ve all been traumatized. And we’ve all been set up – we believe we must solve the problem. But managers don’t solve problems. They cope with messes. And that’s what we all are doing: Struggling to cope with this mess.”

“And we either learn to manage messes or they will manage and mismanage us. I do believe one of the biggest parts of preparing for messes is really psychological preparation – not giving in and not being depressed, not being in denial, not losing all hope and in the face of all this daunting stuff,” he added.

The Problems the Delta Present – A Conversation

Panel Moderator Richard Frank led a question-and-answer session to further explore the complexities of crisis management. “Regardless of whether we look at the Delta as a cauldron of wicked problems or an opportunity to clean up messes – which I think is a layperson’s synonym for crisis management – I think the Delta and the issues that you folks all are grappling with are a great case study for the theories that our two speakers have presented,” said Frank, Director of the California Environmental Law and Policy Center and member of Delta Vision process, (is “Delta Vision process” the Delta Vision Blue Ribbon Task Force?) requested by then-Gov. Arnold Schwarzenegger’s and concluded at the end of 2008.

“One of the unique aspects of the Delta’s wicked problems is it is a set of separate, but interrelated wicked problems. How does that affect participants here today?” Frank asked the speakers.

Mitroff noted that the fact that more than one problem simultaneously exists is the definition of a mess. “That’s the point. If you have a single problem by itself you may or may not have a problem. The new definition of reality that I’ve come to in my work is that messes are now the fundamental constituents of reality. Only we haven’t faced up to that,” he said.

“None of these problems exist in isolation. So we have to look at their impacts and interactions. Now when you do that, that doesn’t mean you have to solve all of them at once,” he added.

Catch 22

Frank noted, “There’s a Catch-22 related to wicked problems. You can’t first learn about the problem without first trying solutions. But in the case of the Delta the potential solutions are both enormously expensive and take a long time to implement. That is true whether you are talking about improving levee safety in the Delta, trying to address the critical ecosystem problems that the Delta is currently

facing or potentially constructing a Peripheral Canal.”

“How do we surmount the Catch-22 in the case of the Delta’s wicked problems?” Frank asked the speakers.

Conklin replied, “You have to start by letting go of all of your certainty. Let go of what you know and consider that you have been missing something critical. And you don’t have to implement the canal to find out it didn’t work. There are lots of ways of doing a mini-canal or a simulation – there are lots of ways of studying the ‘problem-solution’ interaction. System dynamics is all about trying to understand how if you change this, then what’s the consequence going to be and what might the unintended consequences be?”

In the planning process, failure to consider unintended consequences of any proposed action will compound the problem. Conklin noted the key to avoiding unintended consequences is mutual understanding and participants by all stakeholders involved in the process.

“You have to be willing to step away and say ‘ah, I’ve got my problem, I’ve got my scope, I’ve got my charter – we’re working on this part – I hope you guys are doing OK over there. Sure hope we meet up by and by.’ You have to let go of that whole frame of mind. It must fundamentally be a dialogue, because the only thing that is really missing fundamentally is shared understanding. And the worse it gets, the more gridlocked it gets. It’s an absence of shared understanding, he said.

Mitroff suggested an exercise to foster mutual understanding, based on his work with corporations and government organizations in deep conflict: “One exercise is getting dire opponents to sit down across from each other, and each one has to state the other person’s position to the satisfaction of the person with whom they have the disagreement. That single exercise helps lessen some of the conflict. The conflict will never go away, and perhaps it shouldn’t

go away. Because if it goes away then the worst thing we can do is solve the wrong problem precisely.”

Mitroff explained, “There are two errors most people don’t know about – Type 3 and Type 4 errors. Type 3 is where you trick yourself into solving the wrong problem. Type 4 is where you trick someone else. Or someone tricks you into solving a problem that they want you to spend your energy on, because it serves them well. How do you avoid solving the wrong problem precisely? You have multiple alternatives to how you formulate the problem. If you have only one formulation of the problem it’s almost a guaranteed prescription for solving the wrong problem.”

What to do when there is no money?

Frank asked, “The State of California is currently facing an unprecedented multibillion-dollar fiscal crisis and deficit, a deep economic recession and a level of political gridlock that has led some observers to characterize California as ungovernable. In this dysfunctional environment how does California undertake an effective crisis management strategy in regards to the Delta?”

In answering the question, Conklin noted that a common, incorrect assumption is if the state just had enough money, then the wicked problem could be solved. “The funny thing is it’s the gridlock that is expensive. If you could break the gridlock it would free up all kinds of resources, all kinds of energy and all kinds of creativity. It’s the despair and the denial that really lock the thing in place,” he said.

Mitroff followed up, “There’s a growing gap between the size of our problems and the narrowness of our thinking. Of course money is a factor, but I put it on the mental constraints. And to get out of the mental constraints you must stop being a ‘certainty junkie’ because you never are going to know everything. And by the time you know something with ‘perfect certainty,’ 10 things have become uncertain. It’s like we said earlier, beware every solution and the problems that it spawns.”

Frank asked Conklin, “You’ve written that productive movement toward a solution requires powerful mechanisms for getting everybody on the same page. Some would say that stakeholder groups in the Delta are generally intractable and have mutually inconsistent objectives. In that type of a zero-sum political environment, how is it possible to get Delta stakeholders onto the same page?”

Conklin replied, “You mean like how to reconcile the pro-choice people with the right-to-life people? Or how do we reconcile the Israelis and the Palestinians? It’s a hard problem. And there’s no silver bullet here. The biggest risk going forward from here is to have a lot of meetings to try to figure out what the real problem is. In my experience what it takes is a shift to a mentality of learning and experimentation.”

Conklin offered an analogy of circling a swamp with a treasure in the middle: “We’ve been chartered with finding the treasure, and we are on our 400th rotation around the swamp looking in trying to figure out where the treasure might be. We are just circling the problem. To find it you’ve got to get in there with the quicksand and the spiders and snakes. You must wade into it. It’s very hard work. And it takes more than intelligence – it takes courage. It takes integrity to be true to what you know is true instead of what you are getting paid to do. Because that’s where the gridlock lies.”

Conklin noted it often takes complete failure – hitting the bottom – before people begin to work together. “Historically, it takes a natural disaster or war.”

Time is a factor

Frank asked how to incorporate the time factor into the equation. “There are a lot of people convinced a small brown fish is going to eat it or an earthquake is going to knock all the levees into the Delta and destroy the water supply. So how do you deal with the mess or wicked problem but do so in a timely fashion and make sure things get resolved?”

“Action,” Conklin replied. “Take small steps to implement change. The worst thing you can do is study the thing to death. You must get busy and do experiments, try things – you have to adopt a learner’s point of view – or a scientist’s point of view – and learn how does this system that is gridlocked work? How do we break the gridlock? In a traffic jam, if everyone in their cars gets out and walks away does that solve the problem? No. So what do we do? It takes hard work.”

Speaker Closing Remarks

“The point is we are talking about a different type of complex thinking that is needed for this complex, messy world in which we all now live and are creating. And the old ways just make it worse. They not only don’t solve the problem, they just make it worse,” Mitroff said.

Conklin concluded, “The reason we are in this business is we want our grandchildren to have a livable world. The Delta isn’t the only ‘wicked problem’ around. As a civilization we actually have to learn how to deal with this phenomenon – wicked problems - at a level that is vastly more effective than we’ve been doing, or the show’s over. I think this gathering is an extremely hopeful sign, because the only way forward is to get the system in the room and begin to talk. People created the problem; people are holding the problem in place. And it’s only through dialogue and real listening that there’s going to be any shift from the gridlock.”

PANEL 2

Moving Beyond Delta Planning: Thinking for the Real Results

This panel of agency experts tackled Delta issues, offering keen insights and details about their respective efforts and the general challenges with which they are presented. This panel was conducted as a question/answer discussion session, with Moderator Rita Schmidt Sudman posing questions.



Panel 2 was comprised of: (From left to right) Byron Buck, Campbell Ingram, Rita Schmidt Sudman, Joe Grindstaff and Michael Machado.

- **Campbell Ingram**, Executive Officer, Sacramento-San Joaquin Delta Conservancy
- **Joe Grindstaff**, Executive Officer, Delta Stewardship Council
- **Michael Machado**, Executive Director, Delta Protection Commission
- **Byron Buck**, Executive Director, State and Federal Contractors Water Agency
- Moderator: **Rita Schmidt Sudman**, Executive Director, Water Education Foundation

Sudman: Why can't we all agree on the problem in the Delta? What are some areas on which we can agree to get beyond our silo positions?

Buck: Part of the problem of the Delta conundrum is we don't agree on the problem, and we talk past each other. We have lots of values clashing in the system. It is different now than it was before. When Burns-Porter was done in 1959, we were basically solving a physical problem – it was too wet in the north and with flooding in the Delta and in the Sacramento Valley, the San Joaquin Valley was in overdraft and Southern California didn't have enough water. The physical solution came together out of that shared understanding of the problem and shared interests.

Now we've got really different societal interests since we've had a very strong environmental movement come along where anything physical

for them is just anti-ethical. They don't want to see anything physical done to the system, including withdrawals.

Underlying it all is really an agenda about growth. It's not so much about the Delta; it's about a different type of debate and the Delta becomes subtext. So until you really get to an honest discussion of what the problem is, it's hard to move forward when you don't have that shared basis of what is it that we are trying to solve.

Machado: Can growth as we knew it yesterday be sustained tomorrow? What we have been looking at is trying to re-establish yesterday's status quo without taking a look at the problems that are out there. When Byron talks about the physical solution in 1959, the environment and ecology were after-thoughts. It wasn't a consideration because at the time the demand never exceeded the excesses available to deal with the environment.

LOGO TO COME

The Delta Stewardship Council, a state agency created by the 2009 legislation, is charged with adopting the Delta Plan by July 2012. The plan's goal is to coordinate government agency actions to better manage water, habitat and land use in the Delta. The plan is estimated to be more than 2,000 pages. The draft includes 12 key regulatory policies to manage statewide water demand, land development on the periphery of the Delta, as well as other issues.



SACRAMENTO-SAN JOAQUIN
DELTA CONSERVANCY

The Sacramento-San Joaquin Delta Conservancy also was created by the 2009 legislation. The Conservancy leads efforts to advance environmental protection in the Delta and the economic well-being of Delta residents. The Conservancy's goal is to implement projects that will result in integrated environmental, economic and social benefits. To do that, the Conservancy works with local communities, interested groups and state and federal agencies to ensure programs and projects are prioritized and funded in a balanced manner. Currently the Conservancy is developing its Strategic Plan which will direct future projects and activities.



The mission of the Delta Protection Commission is to adaptively protect, maintain and enhance and restore the overall quality of the Delta environment consistent with the Delta Protection Act, and the Land Use and Resource Management Plan for the Primary Zone. This includes, but is not limited to, agriculture, wildlife habitat, and recreational activities. The goal of the Commission is to ensure orderly, balanced conservation and development of Delta land resources and improved flood protection.



The mission of State and Federal Contractors Water Agency (SFCWA) is to assist SFCWA member agencies in assuring a sufficient, reliable and high-quality water supply for their customers; maximize the efficient operation of the State Water Project and federal Central Valley Project. The agency has three main program areas for addressing Delta issues: Science Review and Evaluation, Delta Governance and Operations. SFCWA dedicates its resources in each area in an effort to achieve co-equal goals for water supply and promoting a healthy ecosystem.

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Now we have exhausted that margin and at the same time we have laws that prescribe certain rights. Whether they are still applicable today as when they first originated a century ago is another debate. We also have laws that are yet to be enforced regarding how activity should take place in the Delta. That could redefine the base about which we then have to redefine the growth.

I think we are afraid to look at that broad of a spectrum. We want to just take a slice and say if we deal with that slice then the rest of the loaf will be taken care of. And until we start looking at the broader perspective and the fact we may not be able to sustain yesterday's status quo, and growth may have to be redefined, we don't solve the problem.



Speakers responding to questions were: (From left to right) Mike Machado, Joe Grindstaff and Campbell Ingram.

Grindstaff: I'm not so sure it's about growth, but I do agree it's about values. It seems to me that we have a very diverse set of values in California. There are people whose values are much more inclined to be focused on fish, wildlife and habitat and other people whose values are focused on their economic prosperity or way their region looks and feels. And those fundamental questions about values are very challenging.

I see the problems we are facing as a microcosm of the challenges we faces as a society in general. So we have big problems in California, not just about water but about the budget and all sorts of

issues that are fundamentally about values. And we haven't figured out how to integrate those different values.

Ingram: We at the Delta Conservancy are new, so we look at things with a new perspective. We face a facet of the wicked problem, tasked with economic development and ecosystem restoration in the Delta. We can't rely on the Legislature to solve our problems. But the Legislature came close. They recognized the importance of economic development and ecosystem. Moreover, they recognized the importance of having local input. We have a mandate that we will take local input and have local interests help us define what the problems are around our 12 mandates.

We represent a model of how things can move forward in the Delta. Words are easy to say and harder to actualize.

Sudman: How can we go forward? What are we going to do?

Ingram: How do all these efforts fit together? My response is there is overlap and not everyone is certain how it will fit together. That's something we will work on as we move forward.

Grindstaff: In spite of all the problems, we are making progress. We don't often acknowledge that things are better than 20 years ago. But if you look at levees in the Delta, they are much better than 20 years ago. We have built about 4-5 million acre-feet in storage – 1 million acre-feet of surface water storage and 3 million acre-feet of groundwater storage. That's a 10 percent increase, and that is significant. We have made improvements and we are doing far more in conservation and recycling. What we are doing, as the Council, is a continuation and hopefully a focusing of some of those efforts, but it's not really qualitatively a difference in the direction of the state. The state has been moving forward to implement different technologies from conservation to recycling and stormwater recapture – that's important. The state has been moving forward to develop more storage.

Almost all of this is occurring at a local level, and it's cumulatively significant. As we move ahead we have to make some big decisions in the Delta but in spite of all the problems I think we are capable of doing that. We must understand this in the context of much larger things that are occurring statewide.

Machado: We support efforts to get people off Delta water. The debate is how to restore the Delta and take care of those species that are imperiled. The question is whose water goes to help restore those species?



Mike Machado makes a point during the panel discussion.

The Delta Protection Commission, under the Delta Reform Act, was charged with coming up with an economic sustainability plan. This is based on co-equal goals to have a reliable water supply and restore habitat along with an inherent objective that the Legislature said to follow. And in pursuit of that was the preservation and enhancement of agriculture, recreation and tourism. We have co-equal goals which are set up on a moving target. The Legislature didn't define what is a reliable water supply. So how do we get to the implementation of the co-equal goals?

I agree with Joe that what the state has done is tremendous and what economics has driven – people who have depended on Delta water are looking at other alternatives, such as groundwater storage,

reclamation, reuse, conservation, etc. But we dance around the fundamental issue. If the molecules of water that fall in California today are the same as the ones that fell a million years ago, but the people today are 40 million-plus, how do we share the water and meet all of the other requirements? Maybe we have to go back to a prior era when someone talked about the limits and see how we might live within that.

Buck: We can look at this as problems, as issues or as opportunities. I think there are tremendous opportunities to bring the issues together. There's a confluence between ecosystem restoration and conveyance design. There's a confluence behind economic diversification and the health in the Delta and recreational investment and habitat restoration. There's a confluence between habitat restoration and flood control – opening up flood plains and taking away flood problems because of constricted river channels.

For example, the state and federal contractors have a habitat restoration obligation under the current biological opinions. We're buying lands to do habitat restoration. We're looking at a parcel in the Suisun Marsh area where a local person wants to develop a bed and breakfast business based upon ecotourism and birders. The essence of the deal is we would come in and do the restoration, then turn the land over to a conservancy – such as Campbell's – they would then have a business with a wonderful restored habitat for native birds and fish and a business opportunity. Those are the kinds of opportunities that we need to be promoting and working on. There are many, many of those we do, but we tend to focus on problems and zero-sum gain. If I win, then you lose, instead of looking at what are the things we can do together to advance everyone's vision without actually having to agree on exactly what the problem is.

Sudman to Buck: There was a time a few years ago when the state contractors did not talk about restoration and birding; they talked about getting more water or at least a reliable supply. So you are

taking a different tack. Obviously you still are saying we want a reliable supply but you are getting involved in restoration because you see it as part of the solution?

Buck: Absolutely. No one has any less of an interest in restoring the ecosystem in the Delta than anyone who diverts water from the system, whether it is upstream or in the Delta or out of it, because if we don't fix that problem the reliability suffers. And we are seeing that with the biological opinions and actions. Whether the science is valid or not, the reality is there is constrained water supply. And it's because we have fish and other species that are in trouble. So we fundamentally have to fix that problem. It is the beauty of the co-equal objectives. We are not going to have water supply reliability unless we have species moving away from the listing process and restoration overall. Now we can get into debates about what restoration means and are we focused on individual species or ecosystem? It's very complex at that point. But fundamentally it's in our interest to see restoration happening. Part of the reason our organization was created was to make it happen and do it because we've talked about it for 20 years and hardly anybody's really doing it. So we are.

Sudman: So Mike, are you OK at the Delta Protection Commission with all this restoration that's coming from environmental groups and water contractors? Everyone's getting into restoration now.

Machado: I think restoration is helpful. But I think from a county perspective restoration is a threat, because if you have restoration it takes land out of production. There's usually no mitigation for local services that have to be provided for by counties. And if we talk about in-lieu payments, they are usually elusive and unreliable and never materialize. But often lost, too, is associated economic activity that's there – of a working farm that was taking place and the employment that results from that. And that's of concern with residents in the Delta.

And it runs up against the inherent objectives of the co-equal goals to preserve and enhance. So the

Commission takes the perspective of yes, there is opportunity for restoration. There's restoration that can take place with modification of agricultural practices through partnering. There's restoration that can take place on existing state-owned lands that should be exhausted first before you start taking out private lands that are part of the economic activity of the Delta. And this is where the layering comes back in terms of how local counties can continue to provide their services.

The other aspect of this, too, is when you talk about making investments in the Delta, you have to deal with the multi-tiers of regulations that stand in the way or cloud the opportunity for return on investment that is a disincentive for private investment.

When you talk about approving infrastructure for recreation – and the state parks have come up with a great plan talking about looking at focal points to come into the Delta, base camps as it were – you have to have infrastructure for that. You have to have hotel rooms, restaurants and other services. Try to put those services in any of the legacy communities along the river corridor and you run up against problems because of flood potential, the Delta Commission's resource management plan and other issues with respect to proposals for covered actions coming from the Delta Stewardship Council. We have some inherent conflicts that should not be glossed over. They have to be dealt with head on, and you can't just let it flow downhill and say, "Let the counties deal with it," because the counties are at their wits' end right now in terms of how they can provide the essential services, how do they sustain economic sustainability and how do they do it with the regulations.

Sudman to all speakers: What kind of businesses do you want to see in the Delta if recreation and tourism aren't at the top of the list? What's your vision of the future, especially if farming isn't always viable either because of a catastrophe or earthquake or sea water rise?

Machado: I would take issue that farming is no longer viable. Farming has been viable for more than 150 years there and will probably continue to be so. There are manufacturing industries that deal with unique products that are to be distributed worldwide. Some of those companies are finding it very difficult to expand production in the Delta, and they provide essential employment. You have service industries that provide services into the Delta both from within and outside of the Delta. Recreation and tourism is looked at as a component of but not a replacement for agriculture. Agriculture will adapt.

The fragility of the levees is another question. Much of the fragility is placed on historical perspective that does not depict what has taken place from local investments since the 1900s to rebuild, expand and improve. To rely on the historical depiction of the Delta levees does nothing but skew a cost-benefit analysis. If you talk to the practitioners, the engineers who are on the levees, and take a look at the technology that can be applied to the integrity of the levees today, it's a much different picture than many would want you to believe.

Grindstaff: First of all, I agree with Mike that we need to have a system that really makes all of the beneficiaries a part of the solution. We need that in order to have a sustainable flood management program in the Delta.

What should the Delta look like? When I think about what would be incredible is if 100 years from now we could go from what are we now – maybe 5 percent of the Delta is habitat to 15 or 20 percent of the Delta is habitat; if the major undeveloped parts of the Delta that aren't part of existing city limits or urban areas could be preserved for agriculture or habitat, if it's key habitat land; if we could improve the infrastructure so we have highways that are really reliable and could have legacy communities – maybe not all of them but pick some – and find a way to make them economically viable and sustainable in terms of flood protection and sustainable so they can be those tourism

hubs – those gateways that Parks and Recreation have talked about. If you can do all of that while we have this incredible change that, whether you like it or not, is going to occur in California no matter what any of us in this room does. We are likely to see a megalopolis that surrounds the Bay Area to Sacramento – it will cover this whole area. If you can have the Delta at the heart of that as an incredible resource that protects open space values, I think that's the Delta I'd like to see. I don't think it's so impossible to do that in a way that financially works for everybody and, at the same time, provides water for California – because we are one state and water for all people in the state of California is really important.

Whether it's about growth or not, I think we need to have enough water so – my personal bias – we can continue to grow, so we can continue to have maybe the best agricultural land in the world. We have an incredible place where we live, and if we could maintain that for the next 100 years and improve on it while making the Delta reflect those kinds of open space values, that's what I personally would like to see. The Delta Plan is the Council's attempt to do that.

Sudman to Grindstaff: Part of that vision is improvement in levees?

Grindstaff: Absolutely. However I'm not prepared to say that every Delta levee should be at PL84-99 (the U.S. Army Corps of Engineers program that requires a levee be at a certain level in order to qualify for reimbursement for specific damages that result from high-water events), but I think that the kind of Delta that I would personally love to see is one that is resilient, that can support a reasonable amount of flood protection.

Ingram: I agree with Byron that there's an incredible opportunity in the Delta, particularly on the economic front. There are many, many ways we can look at the Delta differently and think about how we can bring resources to improve the economic condition in the Delta. I also recognize there will

always be a fundamental tension of needing to try to restore some percentage of the Delta to aquatic habitat – that habitat that’s been missing and that fundamental tension between agriculture and what that means for agriculture in the Delta. I think that’s an issue we will continue to struggle with for a long time, finding that balance and defining how and even what economic sustainability means in the Delta relative to loss of ag land. It gets back to some of the discussion this morning – the need to have a shared understanding to what these trade-offs really are and what they might look like in a very clear view.

I also agree with Mike that there is tremendous unrecognized habitat value in agriculture within the Delta today. We need to be able to take stock of that, but we also need to recognize that the aquatic habitat is largely missing and that is a component that will likely be brought back as a result of some of these planning efforts; there will be targets for habitat restoration in the Delta. So it does get back to the need to find the balance and really define what economic sustainability means in that light.

One of the things I find interesting about the Conservancy – going back to legislative mandate – is that it requires anybody we grant funding to incorporate payment in-lieu of tax for any lost revenue to counties. We are only one organization doing restoration in the Delta, but I think there is the expectation that any efforts we take we’ve got to compensate for that lost revenue to the counties. Counties need to be ensured that they will not lose services as a result of our conversions.

Sudman to Ingram: How does that work?

Ingram: Ultimately it means that if there’s a restoration project out there that will take a number of acres out of production, then, in order to receive money from the Conservancy, there’s got to be a calculation that recognizes what the loss in revenue will be as a result of the crops that are currently being used. You know, what is the loss to the county as a result of that conversion? And it

has to set aside funding to continue to make that payment. That has not been done well in the Delta or anywhere else in conservation in the past. But again it was recognized as a need in the enabling of the legislation establishing the Conservancy, so it’s something we will have to work out.

Sudman: Would that be on a year-to-year basis?

Ingram: I would think it would have to be. Much like the operation and maintenance in the long-term, you are going to have to endow funding to cover the funding of proper management of these lands that are being converted and being put aside for the benefit of habitat and find a way to fund them in perpetuity for the operation and maintenance as well as the lost revenue from the production that was on the land previously.

Sudman: Mike, I think I heard you say something like that wouldn’t work so well?

Machado: If you look at it historically, those types of payments have been elusive and unreliable or non-existent. The other question is the converse. If you did a restoration project with in-lieu payments and they failed to make the payment, does the restoration project then return back to its original use? And does the county then try to regain the economic output of that?

Grindstaff: I want to add that the big problem has been the state and federal government. They are the big deadbeats when it comes to helping ... (laughter) Well, it’s true, I’m sorry ... and so my sense is, in reality, if we are going to solve this problem, either there’s going to have to be a ton of money set aside upfront or you are going to have to have other parties who you can hold accountable. You can’t hold the state Legislature accountable for not appropriating money to fund in-lieu taxes, but you could hold, for example, Metropolitan Water District accountable if they do it. So my sense is when you work this through you will have to come up with other parties that are responsible so you have some guarantees.

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Sudman to Buck: Byron, have you given this some thought?

Buck: Yes; this is my world. For the current biological opinion requirements on the projects, it's a given, basically because our jurisdictions aren't where we are buying or restoring a habitat property. We own it and it looks essentially like a private individual. So to an extent, Williamson Act tract or not, that stable level of tax payments will continue. For the conveyance of the BDCP, that's part of the legislation; we will have to pay the property tax for both the footprint of the conveyance and for any habitat restoration that's related to the conveyance.

Sudman to Buck: You pay those property taxes indefinitely?

Buck: Yes, indefinitely in perpetuity. And what we will do is an endowment. The problem is, in part, the Delta Plan and restoration overall is a statewide responsibility. When 95 percent of the habitat disappeared in the Delta and went to agriculture and development, there was no mitigation for that. And now people will argue, "Hey wait a minute. Now you want to flip it around and say there's mitigation when there's restoration of the native habitat that was there in the first place?" Some would say that's a bit perverse. It's a real issue for the counties; they are relying on that revenue.

But again, we don't need to just look at it as a zero-sum gain replacing what was lost. Let's build something new. Let's combine habitat restoration and recreational development and ecotourism to create a new economic base so that we don't just replace what we had. Let's make the Delta more economically diverse. Let's make it better. Let's not just talk about mitigation or compensation. Adopt the notion of economic sustainability and viability of the Delta as part of all of what we are doing.

Sudman: This morning there was talk about "certainty junkies." We have to make decisions based on available information – that was called "adaptive management" awhile ago. Can we do that or

are we going to keep saying we need another study or that's not my science or sound science. Is there a concern we are trying to be certainty junkies?

Grindstaff: I am sometimes concerned about that, because the law doesn't always give agencies flexibility. I know when we first found out about the smelt decline back in 2005, I think it was, I was still chief deputy director at DWR and I was acting director at CALFED. So I thought, I am in a place where I maybe can have an impact on this. And I pulled in a broad group of scientists and some fishery biologists from Fish and Wildlife and the Department of Fish and Game, and asked the scientists that were not part of the fish agencies but who had been really involved in studying these species, "What would you do if we were really going to do an adaptive management program?" And they proposed something. And the fish agencies said we couldn't do it. It was frustrating, but I actually learned from that there are real constraints. They felt they were unable to take the chances that are really implied in adaptive management. Because adaptive management is not just "we are not going to take any risks"; it's about saying, "here's our hypothesis, here's how we are going to test it, we are going to go implement this and if it doesn't work we are going to modify what we do." Well the fish agencies are under constraints under the existing law that say we can't take any chances – we have to do everything possible to preserve these species and if something goes wrong in one of these experiments then we're to blame. So am I concerned about the law requiring that level of certainty? I don't think that certainty ever exists for biologists or anybody in this world. It is a challenge and something we have to work through.

Sudman: So it's the agencies that you think are hung up on being certainty junkies?

Grindstaff: Some parts of the agencies, and I don't blame the agencies. They actually would pull out the law and say, "Look, this is what the law says or here's what this judge's opinion said when our agency tried to do this in the past." It's a challenge and that's why BDCP and HCPs (Habitat Conser-

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vation Plans) are such positive things. I think we can build in adaptive management, and if we can commit to enough things over the long-term we can maybe do it right. But it is a challenge in the day-to-day management of the fisheries, yes.

Buck: I absolutely believe we are too fixated on trying to come up with the perfect solution or the consensus solution. And while we have made lots of progress in the state as mentioned, we haven't tackled the big issues. And unfortunately time is not our friend in the system. The Delta is not a static environment; it is changing before our eyes. We are seeing measurable sea level rise every year, whether you want to believe in the anthropogenic global warming or not, it's happening. The sea level rise is going up and the best scientists are saying, from a sustainability standpoint, many of the islands simply aren't sustainable over the long run. We have to deal with that.

There are going to be triggering events that will force the issue. We've had a wet year in 2011 that took the pressure off the water system, but if we had gone catastrophically dry like in 1991, when you saw 50 percent water shortages in the Bay Area and in Southern California driven by both drought and regulatory restrictions, we would have a full-blown crisis on our hands. Absent doing something about the current conveyance in the system, that day will come despite all the investment and local resource development which has lowered the pressure tremendously and kept water demands basically static for the past 25 years.

Yet we are far short of being able to meet urban California's and agriculture in the San Joaquin Valley's reasonable needs in the dry years. It's just not possible with the physical system we have today. So those events are going to come whether they come in a catastrophic fashion or in more of a rolling one with climate. So we don't have the luxury to sit still and wait for the perfect solution. We need to start implementing things. And there is no silver bullet that solves this. There are a lot of things that have to be done in the process. If

we don't start moving forward we are going to get caught very short and decisions will be made in an emergency fashion that won't necessarily be helpful to a lot of people.

Sudman: Does everyone on this panel agree that sea level rise is happening and it could lead to some very dramatic events in the Delta?

Machado: I think we all agree that sea level rise could happen and it could lead to some very dramatic events on the San Francisco peninsula and could happen in the Delta. But is it going to happen overnight? No. Can levees be adapted to go with sea level rise? Yes. And I think the science is not conclusive the levees are going to fail because of sea level rise. But it is something that has to be planned for.

With respect to adaptive management, I lived through the CALFED years. That happened to be my introduction as I came into the Legislature. I saw how effective adaptive management was. I don't know if there's been significant changes to the application in adaptive management. In saying that, when we talk about the problems with the species and the aquatic restoration, you also have to talk about the flows in the Delta and what flows that were there back in the 1970s with exports and the fish populations then and what flows are there today with the export levels we've seen recently and the decline in the fish. There appears to be a relationship between that. If we fail to recognize some of those fundamentals in trying to address the problem then we end up putting blame for the causes in areas that don't warrant full blame. And until we start looking at the system as a whole in terms of the contributions of everybody to the demise of the system we don't correct the system.

Adaptive management. They say the best application of that is piecemeal – try it here and if it works expand it – I think Joe is absolutely right. We have conflicting laws that prevent that, just as we have conflicting laws today that prevent us from achieving the co-equal goals.

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Sudman: What are some ways within your roles that you can work with each other? Can you think of some ways that Mike and Byron can work together, for example? How Byron and Joe could work together?

Machado: I guess it could be an attempt at adaptive management. (Laughter.)

Ingram: I think clearly we have no choice but work together. Ultimately that's the only way we will be able to move forward and address these issues. But I think also the discussion on the panel highlights that we don't have that shared understanding of what the issues are and how to move forward. I think there's so many issues on the table and, in a lot of instances, the details of those issues aren't being worked out in open forums at this point. You can see there could be endless discussions on any facet of those. We have no choice but to work together. It's imperative.

Buck: Yeah, I think that's true. That is why our organization was formed. We are a coalition of state and federal contractors, which have broad differences on the operations of the State Water Project and Central Valley Project. For years we fought over things tooth and nail yet have come together as one unit now, realizing we have common interests. And we are working together with lots of others with common interests, with Northern California Water Users Association and San Joaquin River Authority on an effort called the Salmon Recovery Group, because we are noticing that despite the regulations and diversions on all of us, the salmon are not recovering. There are a lot of tactics not being employed to recover salmon, and we are the ones taking the brunt of it. So we are looking at investing in certain things that can actually advance recovery of fisheries because we have the interest in doing that. It's going to take new coalitions forming.

And there are new and strange coalitions forming. We've got now the South Delta Water Agency asking to become a contractor to the State Water

Project and enter into negotiations with DWR. That will be a pretty interesting day when the South Delta Water Agency becomes a state water contractor. They are doing it because they realize that what's been said all along about the validity of water rights in the Delta is not necessarily the way they've been told. They are losing a lot of court cases based on litigation of water rights in the Delta and now they are saying, "Gee, we actually don't have a secure supply. We need to get a contract with the state which was the reason the agency was formed 50 years ago in the first place."

Sudman: They didn't get a contract like the North Delta Agency did?

Buck: Yes, North Delta went and did a contract, and Central and South Delta did not. South is now trying to negotiate with the state to get a contract. It's a pretty interesting development. Players will change. Things will change. It's not static.

Machado: But Rita, with respect to South Delta, they were not offered the same contract as the North Delta in terms of being able to meet the water quality standards, which is important to the South and Central Delta. The water quality in the south and central Delta has declined because of the lack of flows in the San Joaquin River and has essentially become the cesspool for all the discharges upstream. Here's the irony: without the export pumps bringing in fresh water across the eastern side you don't have the ability to have water quality for the type of economic activities that take place in the central and southern Delta. So yes, the South Delta at this point is looking at trying to get a firm contract, but the reason they didn't have one earlier is not because they didn't want it but because the state would not provide them with the same kind of water quality standards and assurances that they provided the North Delta.

Buck: The state couldn't. The state didn't operate any reservoirs on the San Joaquin system so they have no ability to make that deal.

Audience Questions

Sudman: “We’ve gotten into an hour of this without talking about a tunnel or Peripheral Canal. Let’s just see if the audience has questions.”

Jan Goldsmith, Placer County Water Agency: I was surprised to hear Joe say there were institutional constraints that prevented Fish and Wildlife Service from implementing adaptive management. I’m wondering – because I don’t remember reading it in the Delta Plan – whether or not the Delta Stewardship Council has made a systematic inventory and analysis of what the legal constraints and institutional constraints are that may hamper efforts to restore the Delta?

Grindstaff: I don’t think we’ve done that in exactly that way. We have in fact looked at adaptive management, and the Delta Reform Act says specifically that we and all state agencies should apply adaptive management as we move ahead. We have a chapter that is focused on that and we probably are going to add more to the plan as time goes on. We haven’t addressed what you do when you have these conflicting roles and laws, and in particular we haven’t addressed the federal agencies, and they are the ones that feel the most restricted in their ability to apply adaptive management.

Goldsmith: My question is broader than just adaptive management. I do think that some survey or overarching investigation into what the legal constraints are that prevent particular actions or prevent the institutional barriers to moving forward would be useful whether or not the Delta Stewardship Council has the authority to adopt them or not.

Grindstaff: That’s a good idea.

Katie Patterson, San Joaquin Farm Bureau: When you look for negotiations, you are forgetting a major partner and that is the individual farmers and landowners on the ground. And we talk about real broadly on the scale of policy and directives, but we talked about this fundamental value

scenario that we are not agreeing. And part of that is we haven’t been participating in the process. We are trying to catch up in the BDCP and other areas and trying to be involved, but it seems that is falling on deaf ears. I would put it out there that until you get the individual growers involved it’s going to be hard to find success. The people in the Delta need to be thoughtfully included in this process.

Sudman asks the panel: Do you see enough diverse stakeholders – are there enough Delta people involved?

Grindstaff: It sure feels like we see enough. (Laughter.) We have thousands of pages of comments from people. But actually in the long-term there is a need to do more outreach on a more localized and focused scale. So when you talk about doing a restoration project in an area it is important to work with the people on that island and tract to be sure you are addressing their concerns and long-term viability and economics. There is a lot of room for outreach. Because we are a programmatic agency, to this point we haven’t done that.

Ingram: What Joe is describing is the role of the Delta Conservancy. As you have seen, Katie, we are out there trying to engage local agricultural interests to help us understand what agricultural sustainability means in the Delta and understand how restoration can be done in a constructive way relative to agriculture and relative to every other component. And, as Byron has mentioned, how we can layer in other innovative ideas to enhance economic sustainability?

Are we seeing enough Delta interests? Absolutely not. Our first effort at doing an agriculture, recreation and tourism work group took place in the middle of the day in Sacramento, and only agencies were there. Now we’ve gone out and started working with smaller groups. We realize we have a lot more of that to do to get the local interests at the table helping us to define our roles and what our goals and objectives are. And even what does

economic sustainability mean across our mandates and what does preservation of ag mean and how can the Conservancy most effectively bring resources to realize shared objectives?

Machado: I think we missed what Katie was saying. And I am probably the only one here engaged in sustainable agriculture using minimum till for carbon sequestering, air pollution reduction, trying to look at irrigation efficiency so you avoid the runoff of many of our ag chemicals, looking at containment before they are discharged. I think we underestimate and overlook the ingenuity of the Delta farmers and what they have done on their own to put up habitat-friendly agriculture. They are cognizant of the role the lands play in the Pacific Flyway, and adapted to go into a rice culture rather than a corn culture because of what it does for habitat and subsidence reversal. The type of agriculture that has taken place over the last 30 years that has reduced significantly subsidence from the Delta that had previously been there. These farmers didn't just fall off the turnip truck. And every year they put their life on the line to put a crop in and they know they must have that basic resource a year ahead to do it again. And if they don't make a profit, they don't pay their bills then they can't do that. And that affects the lifestyles and values that they have and want to pass on to sons and daughters for multiple generations. There have been attempts to encourage the state to partner with some of those people and look at the type of technology they are employing on their own, and there has been reluctance by the state to so engage. And that has retarded the ability to have more large-scale restoration be adapted.

I think we can learn from agriculture how they've adapted to the environment around them cognizant of their neighbors – not just people but the Pacific Flyway – that is essential to the culture and environment that makes the Delta such a fascinating place.

Sudman to the panel: This question about involvement comes up time and time again. Many times

in respect to the BDCP, which is a habitat plan that primarily involves the exporters, there is a perception out there that it is the exporters' habitat plan and other people aren't allowed in the room. But really, it is a habitat plan and the exporters have to pony up, right?

Buck: Yes. Fundamentally it is a permit process. We have a fisheries agency saying where you divert from the Delta is bad for the fish and we think you ought to move that and have a conveyance that is friendlier to fish. Part of that is also mitigation to make sure in the guise of a habitat conservation plan, which is a section of the endangered species act, that you are actually moving the species toward a recovery trajectory. So the BDCP is fundamentally a permit process. We are applying for a permit to basically maintain the operations of the projects and yet do restoration that has the species going back on the right trajectory.

The process is convoluted and huge and it involves lots of folks with meetings that people can come to. But this is a real problem for someone on the ground that is running a farming operation that's a dawn-to-dusk drill. To take time to get away from your operation to come in to a roomful of people who are paid to, day-in and day-out, do this stuff and try to compete on that same level is very hard to do. So you can open the door as wide as you can but it's a daunting complex issue, and for that person it's like, "what does this really mean to me?"

All restoration is being done on a buyer-willing basis thus far. So while that individual is getting compensated and deciding he wants to sell and go do something else, it does bring up the issue that you have economic institutions built around crops. You don't take out so many tomato fields that you take out processing plants in Woodland and Stockton.

Sudman: A lot of what I heard today comes down to the money. We are worried about the Bond not passing and no money from the federal government. With other societal needs, we are not able to reprioritize to get more money to solve the Delta

problems. What do you think we need to do so that we can actually get the money?

Buck: Two-thirds of spending comes at the local level, the utility districts and water districts. As far as the BDCP, we are paying for it. That's a given. What is not paid for and what the Bond is about are efforts to try to incentivize activities around the state to make a local resource project cost-effective. Then there's the public value of Delta restoration beyond the BDCP. What we may find if people don't pass the Bond is, "Well, they said they don't want these things." That's a matter of choice. The voters will be able to say up or down – that doesn't mean there won't be another bond issue in the future.

Grindstaff: I agree that money is at the heart of these issues and if we had unlimited money we would have solved some of them. Money is a fundamental issue that we will have to address. Having asked a board to raise rates many, many times, I know it's not an easy thing to do. The truth is what happens in the future will be paid for, because boards of directors say, "This is important for my community, it is the right thing to do and I will ask my customers to support rates because of the benefits they will receive." It's not going to be because the state will take money out of the general fund. It's not because the state will have unlimited bond money available. It will be because local agencies really step up. And one of the things I have seen over time since I've been at the state is how important it is that we have local agencies and private water companies, too, that can make those decisions and value judgments and can move ahead.

We cannot make all the decisions at the state Legislature or Congress. They will need to be done at the local level usually tied to local benefits. That is sometimes difficult – there probably will be general managers and board members who will lose their positions because of it – but it is the way our society is organized. Earlier when I said that we have made progress, that's why we've made progress. It's not because state government has stepped up to

say, "This is the right thing to do – we're going to go do that." We've made progress largely because while state government is not totally dysfunctional and we have pointed to the right direction and we have had bond money to provide incentives, local agencies have actually stepped up to carry the burden. And I think that's the way it's going to be

Mark Rentz, Association of California Water Agencies: I heard there appears to be a fundamental relationship between Delta exports and fish population declines. If I go to another forum, I can hear another set of experts say there appears to be a fundamental relationship between predatory fish species and decline in native species. I can go to another forum and listen to someone say there appears to be a fundamental relationship between recent increases in discharges – whether urban or agriculture – and fish declines. The strategic question I have for you all is your thoughts about how do we take a multi-variable problem such as we are facing in the Delta and strategically think about a multi-variable approach and start crafting solutions that address these challenges?

Machado: I think you have to look at it systematically. You have to look at all the components and then you start incrementally looking at attacking all of them. Waste discharges in the Delta should be cleaned up. Period. Agricultural discharges should be dealt with, whether in the northern watershed of the Delta or in the southern watershed of the Delta. We should look at trying to clean up the contaminants. When you look at studies about predatory fish you can find where they were all together in balance. But when you look at the other stressors caused by man you can't just isolate one. All of them have to be dealt with. And what we tend to do is take the same position of who deals with the stressor as we do with taxes. You can tax the guy behind the tree but don't tax me. You can get the guy behind the tree to clean up his mess but don't ask me to clean up my mess. And once we get beyond that I think we will start making real progress. Does it happen overnight? No. But incrementally we've seen you can make progress to

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restore and recover. And I think that's what needs to be done.

Grindstaff: I do think tackling all of the major problems is imperative. We have to deal with everything that we can. And I think it is possible to do that and we are attempting to do that as we move ahead. There will be problems along the way but if we are committed to it, we can do it. I want to add I personally think conveyance is critical in the long run to the ecosystem of the Delta to achieve the co-equal goals of restoration and water supply and in the long-term the economy and health of the Delta. I don't see a way around doing that if you want to achieve all those objectives. How you do that? There are lots of details, important details, about what the flows are and how all of that works, but I think it's a critical part of what we've got to do.

Newsha Ajami, Senate Committee on Natural Resources & Water: I'd like to know (the panel's) perspective on Northern California agriculture water practices. What is their impact to the water resources both qualitatively and quantitatively in the Delta?

Buck: The practices and what can be grown in the Sacramento valley is different than other parts of the state, and soil conditions drive a lot of the opportunities. The reality is we tend to have a discussion that focuses on exports and exports being the problem and so forth. But twice as much water is diverted out of the system upstream of the Delta than ever gets to the Delta. So you are talking about the export debate, and with the BDCP we are only talking 20 percent of the water in the system. So we need to have all of that in perspective, and I agree with Mike that we need to have honest dialogue about all the stressors in the system. We have modified the system throughout the watershed. We've changed about every single thing you can do to it, and we all have a responsibility to look at what the problems are and address that. We have to look at all the real problems – we can't demonize one particular aspect of it and expect that you are

going to solve the problem by taxing that guy behind the tree. We are all part of it and we all need to be part of the solution.

Mary Piepho, Supervisor of Contra Costa County and Delta Conservancy President: Byron, would you be willing to put the Peripheral Canal or conveyance on the same ballot (as the Bond)?

Buck: I think it will happen one way or the other. It was a deliberate matter to separate it because we didn't want people to think that general fund taxpayers' money was going to have to pay for it. If you put it on, I think the vote would be very different. You've got growth in the state, and it's as much about ecosystem restoration as about restoring water supply. It's not about new water supply. It's



Mary Piepho and Campbell Ingram listen to discussions about the Delta.

about that which exists and what water rights currently exist. So I think it would be a very different debate and you wouldn't have the strange sort of bedfellow that you had in 1982 where basically opposite ends funded the attack on the middle. I wouldn't be afraid of a public vote at all, frankly.

PANEL 3

Reality Check: Status of Public Financing for Large-scale Ecosystem and Economic Development Programs

This panel of state legislators who are working with water issues sat down for a 90-minute session to talk candidly about how to finance water projects to improve delivery, supply and water quality throughout the state. This panel was conducted as a question/answer discussion session, with Moderator Dean Misczynski posing questions.



Panel 4 was comprised of: (From left to right) Assemblyman Bill Berryhill, Senator Jean Fuller, Senator Lois Wolk and Moderator Dean Misczynski.

Dean Misczynski: I'd like to remind you about the context of financing water. Go back to early in the last century – at one time what became the State Water Project and Federal water project (Central Valley Project) were to be one project built by the state of California. There was general agreement about doing it, but it didn't happen because the state couldn't finance it. You can't get more central than that.

So going forward a bit to the 1950s and 1960s, we put together the State Water Project and financing at that time was central to the public debate. The project was controversial on many levels but especially about how it was going to be paid for.

- **Senator Lois Wolk**, D-Davis
- **Senator Jean Fuller**, R-Bakersfield
- **Assemblyman Bill Berryhill**, R-Stockton
- Moderator: **Dean Misczynski**, Adjunct Policy Fellow, Public Policy Institute of California

There was an agreement, finally, that the state would sell G.O. (General Obligation) bonds but the contractors would pay all debt service. Every bit of it producing what to me is probably the best example in the world of a publically financed, benefit-financed project.

And then you go forward to CALFED. By the time of CALFED the discussion about financing had gone subterranean. It was not on public display. There were lots of technical advisory committees – I was on one of them – but there was not much in the way of public talk. And I think that happened for two reasons: one is there was a deep, fundamental, visceral opinion about how financing should work between the ag people on one side and the enviros on the other. They divided some on how to finance facilities, but they really divided on how to finance water mitigation, fish mitigation and habitat mitigation. The enviros thought the water contractors should pay for mitigating virtually everything and the water contractors thought they should pay for water delivered period. They never came together as far as I could see.

Senator Lois Wolk

State Sen. Lois Wolk has spent much of her career fighting for a healthier Delta and for strong water policy. In 1990, as a founding member of the Yolo Basin Foundation, she helped establish the 16,000-acre Yolo Basin Wildlife Area. She has been honored for her leadership in water policy, and for championing both efforts to protect the Sacramento-San Joaquin Delta and create a landmark package of flood protection bills to strengthen flood protection in California's Central Valley and Sacramento-San Joaquin Delta region.



From 2002 to 2008, she served as the representative for the Eighth

Assembly District. She was the first woman to head the Assembly Water, Parks and Wildlife Committee and used her four-year chairmanship to bring heightened attention to important topics including flood protection, the crisis in the Sacramento-San Joaquin Delta, water management, and climate change. In 2008, she was elected to represent the Fifth Senate District. She currently chairs the Select Committee on Delta Stewardship and Sustainability, and is a member of the Senate Committee on Natural Resources and Water. She is also the Senate representative on the Delta Protection Commission and a liaison advisor to the Delta Conservancy Board.

Senator Jean Fuller

State Sen. Jean Fuller was elected to represent the 32nd Assembly District in 2006 and elected to the Senate in 2010. She is Vice Chair of the Energy, Utilities and Communications Committee and a member of the Natural Resources and Water Committee. During her tenure in the Assembly, she served as the leader of the Republican Water Policy Team that focused on finding solutions to



California's water crisis to ensure sufficient water supplies in the Central Valley. She also served as Chair of the Rural Caucus, a bipartisan group of 43 assembly members and senators who provided a strong, united voice for residents of rural communities. She served as an educator in the Central Valley for more than 30 years, including extended terms as a Superintendent of Schools. She attended Bakersfield College, California State University, Fresno and UCLA, then continued her formal education at the University of California, Santa Barbara where she received her Ph.D. She supplemented her education at the Harvard Graduate School of Education, the University of Southern California, and Exeter College in Oxford, England.

Assemblyman Bill Berryhill

Assemblyman Bill Berryhill represents the 26th Assembly District. For more than 30 years he has farmed wine grapes in Stanislaus and San Joaquin counties and operated successful custom grape harvesting businesses. He founded BB Vineyards, the cornerstone of his agricultural operations, in 1978. He has also served on the boards of both Allied Grape Growers and the Stanislaus County Farm Bureau. In 2001, the Ceres Chamber of Commerce recognized him as Agri Business Man of the Year. In 2008 he was elected to the State Assembly where he is serving in his second term. He currently serves as Vice Chair of Business, Professions and Consumer Protection and is a member of several committees including the Committee on Agriculture; Water, Parks and Wildlife, and Select Committee on Ports; Regional Approaches to Addressing the State's Water Crises; and Wine. He is a partner in a 700-acre wetland restoration project in the Sacramento-San Joaquin Delta and is a member of Ducks Unlimited, the Greater Stockton Chamber of Commerce, and the Stanislaus and San Joaquin County Farm Bureaus.



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The other reason was during the period of CALFED there was a feeling, mood and hope that once we got together about what to do in the Delta the money would arrive either from the federal government or the state. The state was doing G.O. bonds for water and they seemed to pass easily. That was a time – it’s hard to remember – when it was not unusual at the end of the budget year to have a few hundred million dollars left over – loose change to just put somewhere – and it could be put into water.

So if you didn’t have to deal with this, if the money could come from someplace else, it was just best to not talk about it, not get people thinking too much about how it ought to work, because that could lead you somewhere else.

Misczynski: So with that as a beginning, I’d like to ask the panelists the most obvious of all questions: the Legislature, in 2009, passed a water bond of \$11 billion. Then in 2010 they decided it wasn’t a good idea to have it on the 2010 ballot so they put it off to November 2012. That’s where it is now. My question to all of you is, is that going to happen? Is it going to be on the 2012 ballot? Is it going to be pulled off the ballot? Is it going to be modified somehow? What do you think?

Wolk: I think that none of us really knows the answers to any of those questions, which is part of the problem. We cannot afford this bond. It’s a bloated, ridiculous bond at this time in history. It was a political deal cut in the middle of the night that has things like \$20 million for Siskiyou County’s economic development with no match; it has an \$8 million grant to city of Maywood, the speaker’s city, for replacing their pipes; and it has for the counties a 50 percent cost share for all projects related to the Delta. We can’t afford it, as the State Treasurer said.

But apart from that, I have no idea what’s going to happen, because it would require people getting together and trying to come up with something with some relationship to the regional needs that are

overwhelming right now at the local level. There’s plenty of regional concern and needs – recycling, cleaning up groundwater – that’s what water agencies are about these days. They are not about canals and they are not about these giant infrastructure projects, because nobody can afford them. So we ought to be more realistic. Whether or not the Legislature will do that and the Governor will do that, I really don’t know.

Fuller: I agree with Sen. Wolk that it’s really hard to do a bond of this nature, especially at this time. But I’d like to look at the question from another perspective.



Senator Jean Fuller thanks Moderator Dean Misczynski.

The bond basically was the very best compromise, deal, solution, fix to a messy problem with some kind of framework that the Legislature could come up with.

I had to learn a lot about the Delta and its needs before I could even sit at the table and begin to understand the issues. And frankly in the Legislature, while water is a very important issue in the state, water takes so much energy, so much time, so many people, so many resources that not many people like to work on it. And so, at the end of the day, among those of us who were remaining at the table, that was what we were able to do.

The bond did not have any canal infrastructure financed within it. And that was part of the problem and part of the solution because at the time we ended up with a brand new definition – not one that I thought I’d ever participate in actually – that included co-equal goals. The co-equal goals that came out of that discussion would not have been

my first choice. But after sitting at the table and becoming part of a shared community – with restoration on one side and reliability on the other and the centerpiece (and the only thing we all agreed upon) being conservation – the other two ends were to be defined and negotiated.

So local government's part of that bond was the conservation piece, and there's lots of money for different pieces of conservation to bring water to a higher level of usage or to conserve water throughout the state. That piece has been buffeted back and forth and is difficult.

I'm an educator. I really want strong education. I got up there (to Sacramento) and realized that our state was beginning to fail economically. The education system cannot be healthy if the economic system is not strong. What asset did our state have that we had not corralled? It was water. We have what almost none of the other states have in terms of being on the coast. We need to manage it well. So for me the question is: What happens if this water bond doesn't pass? Will we ever restore? Will we ever have a better economic future? Will we ever be able to help all of the citizens and will education finally get well?

So I don't know if the bond will pass. I think right now people are very worried about the finances. I think the governor is looking at it after he finishes the budget, and I think he will have a very big hand in whether it's opened or left to float on the ballot the way it is.

Berryhill: To dovetail into what Jean was saying about will we pull this bond off the ballot? I think that if you were to run it right now, it goes down in flames. I think if you pull it off, then it becomes Gov. Brown's water bond. If it runs, it's Gov. Schwarzenegger's and Dave Cogdill's water bond. So depending what the Legislature decides to do – and my guess is they will want to pull it off – then it becomes the governor's. Then my guess would be they will want to open it and look at it and try to get the price tag down. The governor has talked so much about the wall of debt, and he's exactly cor-

rect, that even a \$3-5 billion water bond might be a difficult thing for the state to bite off at this current time.

To just comment on the whole bond, I was adamantly opposed to it as Sen. Wolk was. I think there are many other ways you can convey the water and a lot of ideas that need to be explored such as Delta corridors for through-Delta conveyance that can be done cheaply and quickly and maybe gain as much as 1 million acre-feet. So we need to look at those kinds of alternatives. They are real and they are out there.

On the idea of storage, one of the things about the water bond was the way it was written. The storage was above-ground storage, groundwater recharge, whatever. That leaves too many openings. You need to tighten the loop on projects like that and name them. If it's Sites Reservoir, for example, then guess what? There are private equity firms that can come in and privately fund the construction of Sites Reservoir. They just need to figure out how to get their 10-12 percent, and maybe you could do that by dedicating a certain amount of water to them or water banking. So there are a lot of other ways to do things that are cheaper and faster, and that's what we ought to be focused on.

Misczynski: A phrase I hear people say, with absolute confidence that they are right, is that the bond measure is dead, dead, dead. Always in triplicate. None of you are saying that.

Fuller: I am an educator, and when I went up to Sacramento I thought that everything was either right or wrong. What I've found in politics is that while nothing is probable, everything is possible, but only at the last minute and likely in the dark of the night.

Wolk: It should be dead. It should be rewritten. It should bear more reality. But who knows what's going to happen.

Misczynski: I'd like to turn to the question of how you would go about financing the main elements

of water in the Delta. I'd like to divide it up first to canal – setting aside the question of whether you like the idea of a canal or not. Second, storage. Third, environmental mitigation and fourth, Delta mitigation – that is mitigation of possible harm to the economy and social structure of the Delta. How would you pay for that?

So starting with a canal: how would you pay for a canal?

Wolk: I think those that benefit from a canal are the ones who should pay for a canal.

Misczynski: So basically you'd charge the water contractors to pay for the entire cost?

Wolk: Indeed I would.

Misczynski: There are various rumors about how that would work. The Metropolitan Water District (of Southern California) has said it would pay and

some of the water districts have said they won't. What's your assessment of the viability of that?

Wolk: Well, that's why I don't believe this canal, pipe or whatever it ends up being, this diversion or conveyance will end up being built, because,

Senator Jean Fuller makes a point during the panel discussion.

in fact, there are other needs of the ratepayers in Southern California that they would rather fund than a boondoggle canal which may not yield the water. I think the reality of the economy and the reality of the ratepayer is something that is very different from the 1960s and, frankly, from the 1980s. We need to approach this with some sort of realism.

Fuller: There isn't direct financing of any kind to the canal. We could never agree on whether there would or wouldn't be a canal or whether there would be a bypass or wouldn't be a bypass. So that is not part of the bond.

But I would like to bring out the part (of the bond) that was about \$3 billion for storage and \$3 billion for restoration. Those were the two big parts. The restoration comes from agreements that there has to be some sort of restoration. The first canal in 1982 was not finished and the unintended consequences of that are there are now needs for restoration in order to make a healthy ecosystem, whether or not we have a canal.

I believe there will be a canal, because I believe at the end of the day if we do the restoration right and we do the storage right and we give money for conservation to all of the local governments that there's a better chance that we will end up with a better water policy that undoes some of the unintended consequences. If we do nothing and the bond doesn't go on, or it fails, then California continues to slide into its economic morass.

Berryhill: Clearly if ever there would be a canal or pipe built, I would say, yes, the user pays, and that means water agencies down south. I think when you talk about Delta restoration, the best thing is good flows of water. Look what one wet year has done. Our salmon populations and our smelt populations have really taken off. It's all about water flow. So why not take a look at through-Delta conveyance where perhaps you pump more toward the Sherman Island area and let those flows carry through the Delta. And that's the best thing for restoration.

We don't have to spend a ton of money on mitigating and taking farmland out of production to create new fishery habitat in the Delta. But what we do need is water. We need water to flow through. And a canal doesn't add a drop of water to the system. It simply diverts it around. It's not right. In fact, in my point of view, it would probably be



the greatest transfer of wealth in the history of this country to run a canal around because you basically have the opportunity to throw one region completely under the bus in order to help another. That would be wrong and immoral. So, like I say, the best thing for restoration in the Delta is good water flows.

Misczynski: Do you see any value for the state to sell bonds for this purpose (canal) like the State Water Project? The state sold the bonds and the water contractors paid the debt. It's conceivable that now that the water contractors have a better debt rating than the state (laughter) so we might want to go the other way. But do you think about that at all?

Berryhill: I can tell you that the Turlock Irrigation District developed our water supply through local bonds that were used to develop Don Pedro Reservoir, so I would think that would make sense, and down south as well.

Fuller: I see a role for that. I do believe that the users are willing and want to pay for the actual water supply portions. But there's an additional problem and that is we all know that in land planning you have problems you must solve before you do infrastructure projects. And there are costs with those. So the real debate last season was: What are those costs and most of those (most of those problems?) have to do with how do you put the system right and what are the public benefits – because we are only allowed to use money for public benefits – and what is not.

Misczynski: So let's move on to surface storage. How would you pay for Sites Reservoir or some other surface storage?

Wolk: I represent Solano County, a county that built a dam in the years that dam construction was going on. And the way we did that was the federal government lent the money and the ratepayers paid it back over time, and the federal government didn't charge interest. We are no longer in

that situation. But the "user pays" principle has to apply, because if it doesn't, it means that it is not economic. It means it makes no financial sense. The dams that have been built since 1990 are local projects – Los Vaqueros has been expanded and Diamond Bar, for example. The reason is local projects correspond to a regional need. People see the need, and they are willing to pay the rates. That basic principle has to hold.

If I can go back for a moment, when I say the contractors need to pick up the cost of a canal, the issue has truly been – including the legislation in 2009 – who's going to pay for the mitigations? Who's going to pay for the restoration? In the bond, that was put onto the public. The real conflict is how much of restoration and public benefit should the contractors have to pay? Nobody wants to deal with that.

Fuller: In the water bond there's actually \$23 million that is a federal share to our \$11 million, so there is a local-federal share cost existing in the current bond, and it's nearly double.

Berryhill: I think we need to think outside the box a little. There are private equity firms that build large infrastructure projects. We need to get creative and do it through the private sector. Short of that, I don't see any other way other than user pays for that water and pays for the facility to build it.

Misczynski: Can you build a reservoir that produces water that farmers can afford?

Berryhill: There are ideas out there to get 1 million acre-feet of storage. One is Sherman Island in the Delta that is owned by the state currently. You could do that relatively cheaply and quickly and save a whole lot of money to keep the water price down and help the flows of the Delta. To me, that makes all the sense in the world. Why are we talking about spending billions and billions of dollars when for probably \$2-3 billion we could pick up 1 million acre-feet, improve water quality and get conveyance going unabated.

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Wolk: Taking a longer view of this, where we are in California history, it's not just water infrastructure that is difficult to support and have citizens support with their tax dollars. This is true in many areas of infrastructure. We have to be creative. What happened in the past – the cost shares from the federal government – you can kiss those goodbye. I mean it's a new world out there. So we have to be more realistic and practical about what we are going to do, how we are going to fund it and how we sell it to the taxpayers.

Misczynski: The other name of this panel was proposed to be "The Other Wicked Question." The wicked question within this wicked question is how do we pay for mitigation? Starting with straight environmental mitigation and creating new habitat with buying water to maintain flows, if you think you need to buy it. For pure environmental mitigation, who do you think ought to pay? This means mitigation going back to the 1960s for harm done and going forward?

Berryhill: For starters, what are you mitigating? Are you mitigating a canal? Then there's a whole bunch of money that would need to be spent to

mitigate the impacts of that. Are you mitigating the fact that it was a saltwater marsh at one time? That's a whole other discussion. I think the thing that improves the entire

Assemblyman Bill Berryhill makes a point during the panel discussion.

health of the Delta is to make sure we have the proper flows through it and we are not taking too much out of it. I call it the "aquarium theory." That is, you can't change more than 25-30 percent

of your aquarium water without screwing up the chemistry of it, and flows in rivers are the same way.

If you start to divert more than 25 or 30 percent, that's where storage within the Delta makes sense. At the high flows, you could pull that water in and hold it. And then you could have continued deliveries down south that you don't have today. So I don't agree we ought to be mitigating back to 60 years ago. I think the Delta is fine. We've just got to take care of it, and that means dredging and doing those types of things.

Misczynski: Suppose we are talking about mitigation for the potential harm a canal might do. Bill, you said users should pay for a canal. Does that mean the mitigation, too?

Berryhill: Darn straight they should. They pay for the canal and they should pay for the mitigation. Why should I pay for something that has the threat of wiping out my property in the Delta? That doesn't make much sense. I can't support that.

Fuller: These issues are very difficult. They truly are the mess we talked about this morning. So all I can speak to is where we all came to. And believe you me, none of us agreed with anyone 100 percent about anything. But we sat through hours and hours and hours, and at the end of the day we agreed that there would be \$2.25 billion for Delta sustainability.

Misczynski: Since Jean cited the Bond Act, do you believe that some substantial responsibility for mitigation, overall, should rest with the people through bond acts?

Fuller: The public benefit portions were the parts finally agreed upon to be put in the bond. The canal itself was not put in the bond because that is a user-fee issue. And anything that might happen as part of the canal is not part of this deal yet because we don't know if we are going to have one or not.



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Wolk: The mitigations for conveyance were written into the bond. That's what the Delta monies are for (with the 50 percent cost share for part). I have to beg to differ with Jean about whether anyone even read the darn piece of legislation, any of the five bills, when they voted on them. I tend to doubt it. Most members of the Legislature wouldn't be able to tell you when they saw a levee. They wouldn't know what it's for, even what it looks like when they fly in from Southern California. The fact is that in this bond mitigation for any conveyance is entirely on the public. That's inappropriate. The contractors should bear a portion, if not all, of the mitigation requirements, certainly for the construction and also the ecosystem restoration. The canal damage has come from other sources, so it's simply not the contractors. But for a large extent they are responsible for what happens when you take out 6 million acre-feet a year from the Delta. At the moment they don't think they should pay anything; it should be on the public dole. My feeling is when you ask for a 50-year permit to take water out of the Delta at amounts that have been greater than any other historic period, according to Phil Isenberg, and I happen to agree, the fact is you owe. You must pay for that privilege; it's not a right. And that's what they want, a 50-year permit assured.

Fuller: Forgive me if I made anyone think that the contractors are willing to pay for the cost of the infrastructure of the canal or some of the costs required. That is not the case. I sat down and scratched my head for a long time – I was hoping the next big issue would be education and not water. And how did it get to be water? In my opinion it got to be water because it rose to a crisis level. The price of the three crisis triggers were drought of natural causes, regulatory drought caused by problems associated with that drought and three, the collapse of the levee system in New Orleans. I don't think there's any legislator or person in this room that didn't watch the news of the levees break in New Orleans. And when they saw that, suddenly people like me, who don't live by that many levees, said, "Oh my goodness. Levees can age; they

can get old and break. Oh my goodness. Maybe I should listen a little closer about what's going on in the Delta."

Now our problem is we have a solution out the door; we outsourced it to the ballot. And the natural drought has gone away and the memory of those levees bursting on New Orleans is fading. We are only left with the predictability of the future that for sure in California we will have more earthquakes. And these levees are aging and our water supply is dwindling.

Berryhill: I don't buy into the earthquake theory at all. They just did a study on Sherman Island – a 7.5 magnitude earthquake simulation. The Delta levee withstood it; it sunk just a few inches. The thing that people don't understand about the Delta, and this is a problem we have, is that there aren't members who are willing to do the grind of learning and getting themselves educated. I had a member come into my office after the votes had been taken on the water bond. She said, "OK, Berryhill, you've been griping about all of this. Let me see what your plan is." So I showed her this Delta quarter's plan that I was proposing and after I was all done, she said, "I just have one question. Where exactly is the Delta?" (Laughter.) True story. And so, part of our problem is people don't understand how the Delta works. Those levees float. They are not rigid levees. They've been there 100 years; they aren't going anywhere. Levees have broken before, and we repair them and we pump them out and we move on.

The whole idea of the levees blowing out; I just don't buy it, although I don't believe a lot of things people tell me.

Misczynski: I'd like to return to a concept that Sen. Fuller raised that is absolutely central to the Bond Act. And it is this idea of public benefit. The public should pay for mitigation that has public benefit and the contractors should pay for other mitigation. OK. I've never been able to get a clear idea of where the line is between public benefit and not-so public benefit. So for example, we have the Delta

smelt, which is in decline, although it's come back a little bit lately. You can talk about that in two ways. You can say, "OK, the fish is in decline – that's a public benefit – and we will try to restore it." Or you can say, "It's in decline because the contractors and other users have been taking too much water out of the Delta and so it's a private mitigation responsibility." Where's the line?

Wolk: That is the crux of the issue. It is very, very difficult. But those types of discussions aren't taking place. If you look at this bond, right now every mitigation is considered to be a public requirement. That is what the bond is about. And I think that's a mistake.

Fuller: That's absolutely a very difficult question. But like I said before, this group of people, who can hardly get along about anything, talked together for all this time and at the end of the day what we put in the bill – which was a huge compromise and no one was happy with hardly any parts of it – was a product and it moved us forward. That is, we would have a science council to come up with good science; we would have a BDCP; we would have a Delta Conservancy. And once those answers were formulated by the appropriate people the money would be there for them to figure out how to make it work. Because the Legislature may not be smart about a lot of things a lot of times, but at the end of the day they only have enough time to allocate large swaths of areas of responsibility and expenditures. And that's a wise thing, because there are many fights that need to take place if this bond passes at the local level.

I've been a member of ACWA for my 37 years and have been very interested in water for many years. And at the end of the day there's no way to solve these big messy problems in the Legislature, except to parcel them out and when time runs out put them on the table and you do the best you can. If everybody else does the best they can and we can live with it at the moment, then it moves us a step forward. If not and it completely falls apart, we are just nowhere.

Wolk: I think there are better ways of coming up with infrastructure bond money. We have a great example of how California comes up with and allocates money in transportation, which we do not have in the water area. The transportation system starts at the local level with unmet needs. That goes through a process of the cogs – the councils of local governments – and the projects seek consensus at the local level. Then they move to the Transportation Commission at the state level. And no matter how much bond funding the state figures it can spend, you basically come up with a list of the most important and highly prioritized projects in the transportation area. We need to do the same thing with respect to water, not in the middle of the night like this thing was but do it starting at the local level to determine what water projects are important and have consensus. Then we move, maybe using the cogs, then to the Water Commission – what in the world else do they do (laughter) – and then decide how much we can afford and then go down the list. You never hear the types of controversy in transportation that you do about water. I mean there's something wrong with the fundamental process and we ought to change it.

Misczynski: The bill that created the Delta Stewardship Council gave it lots and lots of responsibilities to do things to improve the Delta economy or mitigate harm in the Delta. The main source of money to do those things was the Bond Act, which may or may not happen. What's your thinking: Do water contractors have any responsibility to mitigate the Delta economy and if so, where would the money come from?

Berryhill: It's hard to find money from any source these days. I don't know where you get the money. What are you going to do, tax the landowners in the Delta? That's not right. I don't know where you get the money to move forward without the bond. And in which case, it all kind of disintegrates. I'm interested to hear what Lois has to say about that.

Wolk: Well, you have different agencies that have been set up. You have a Delta Conservancy, which

should be an important addition to the Delta and needs to be funded. It should be funded as other conservancies are as simply line items in a budget. When times are bad, they get less money and when times are good they get more. There are probably about 20 of them. The Delta Conservancy should be added to that source of general fund expenditure.

I also think the contractors have a role here. What about a tax on the water? If they want the water, I think after we figure out how much water the Delta needs I think it's important that we share anything over that amount with those who need it in our state. I don't have a problem with that, and we ought to tax it. And take that money to pour it back into the Delta to the Conservancy, the Stewardship Council, to the Protection Commission and to mitigate the harm that will occur if there is such a thing as a conveyance.

Misczynski: Aside from a bond act, which in some way has always been easy money, one proposal that floats around is to levy a Delta water charge on exporters and upstream users, both of whom affect the Delta. Is that something you'd support and how would you structure it?

Berryhill: I would not support a levy on upstream users. I look at a water right just like a property right or mineral right. You buy that right with your land. Now why am I going to get charged a fee for something I bought and paid \$7,000-\$8,000 an acre for so that those south of me who paid \$2,000-\$3,000 an acre can benefit. I don't think the current water users with water rights should have to be paying for that.

Wolk: I think there is appropriate sharing of fixing the Delta whether north or south. I am thinking about the number of wastewater treatment facilities and water pollution control facilities that will have to go to a higher standard because of the Delta and what that will mean to the ratepayers of this region. That kind of discussion needs to take place, but at the moment the contractors who are

in charge of the BDCP process – make no mistake about it – are not accepting their responsibility for the cost of the Delta and their actions in the Delta. And that has to happen.

Fuller: This was an issue that was debated actively. Of course, my area would not be for fees, and I won't quote all the reasons they think they already pay for a canal and are not getting the percentage of water they were originally supposed to get and so on.

I have to say when I started this I didn't even know why we were talking about the other stuff. My guys just want a canal. At the end of the day, though, I ended up supporting a bond like this because it's the only way you can put all the pieces of the jigsaw puzzle together to make it work out. For example, there's really only about 4 million acre-feet that was exported this year out of, I think, 29.6 million acre-feet that was possible. The rest of it went out to the Golden Gate Bridge. So what if the government got broke again – like in 10 years come into fiscal problems again – and start selling all of the water to make money for the government. I don't know; my people would probably be pretty excited about that. But I came to the understanding that all of that didn't matter. There's not a legal, doable financial plan that was ever put out there that could have made that work with fees. That's not to say that contractors weren't totally willing to take on the infrastructure parts that were user-related and clearly to them in the past part of water law.

Audience Questions

Dave Eggerton, El Dorado Water Agency: I can see the extreme difficulty with trying to define what truly is a public benefit that you should associate a larger general responsibility to pay for and what should be from those who get a direct benefit from the use of water. And I am wondering if we are talking about the public goods charge, is there any way you can ever make that showing that there's a nexus between that public benefit and the people, in the upstream watersheds, that would justify imposing that kind of fee upon those agen-

cies? My real concern is the economy has changed everything and local ratepayers and agencies' ability to meet the basic infrastructure maintenance is extraordinarily difficult. And I think there's just got to be a lot of thought put into this before this is advanced because it will put good board members, frankly, at risk of being thrown out and jeopardize our necessary capital improvement project. My question is how do you establish that nexus?

Berryhill: I don't know how you do. I mean when they say "public good," I have to ask "whose good?" I don't know how you do that. I guess look at recreation and other things and ask whether the public will use it. But who in the public? When we talked about Sites Reservoir, we talked about the use of the reservoir and all the good that comes with that. But whose good is that? Those folks who are up there by the reservoir, but it's not my good. I'm not going to go up to water ski. So it's a hard nexus to make.

Wolk: I just think it's a very difficult time to have that type of discussion. But it is a discussion to have for the future. I'm advocating for a realist approach to what the ratepayers want to happen and are willing to make happen. The larger questions I think are going to have to wait. You know that in your own communities and water agencies right now.

Miszczynski to the panel: I never knew where the public goods charge that the Energy Commission levied fit in with the California constitutional system of fees and charges. As far as I could tell it was just off by itself and probably not supported by the Constitution. But that raises the question: The Chamber of Commerce on the last ballot had Prop 26, which was their attempt to say you can charge fees for regulatory purposes but – it isn't perfectly clear – I think what they intended was you can't use fee revenue for mitigation. That has to be tested in court to see if that is true, but it is what they thought they were doing. How does Prop 26 affect this whole idea of water fees? Maybe this is too nerdy to ask.

Wolk: It's not nerdy. It's going to make everything more difficult. The initiative process has got us to a point that we are almost ungovernable, whether at the local level with the 218 restrictions on water fees – the public health and safety is at risk so communities can decide not to raise their water fees. We have come to a point where we have to decide fundamental questions about what is the role of government and how much are we willing to support it. I think right now the answer is very minimal.

Chuck Rose, Citrus Heights Water District: I want to put Dean on the spot for a moment. The State Water Project was built 50 years ago, and it paid for itself. Where's the profit going today? They are still moving all that water and still selling all that water. There's a heck of a lot of water that's going down the drain somewhere.

Miszczynski: I have never been able to get hold of any kind of intelligible accounting of the State Water Project, so I can't really answer your question.

Chuck Rose: Sixty percent of the people live south of the Delta, maybe more. So there's where that benefit comes in. They pay their 60 percent, but are looking to us to pay 40 percent. And you are right that it's their take and not ours. We're putting in the water and now they want to take some more of it. Would you go back now and change what you gave the Delta Stewardship Council the right to do? They have a mandate to do what they think they need to do to fix this problem. The flow standard they started, or the one they are saying, is not sustainable. We've been working for 10 years to get a flow standard on the American River and still do not have one. And now they are talking three-quarters of the unimpaired flow going through the Delta. It's unsustainable.

Wolk: We must absolutely have flow standards. Water is essential to the future of the Delta, and it should be based on science. I, for one, applaud the Water Board for finally stepping up to the plate. It

really needs to do that. It may not be the answer we want to hear and may be very difficult but it's an absolutely essential and critical piece of what we should be doing in the future.

Fuller: As long as the science is well-informed on both sides. As an educator, it makes sense to me that if we base this on good science we will all do better in the end. But there's a fundamental problem in that question, which is, rivers meander. As rivers get old, they meander. And if you don't let them meander and you channelize them, then it changes things. So the flow issue has a lot to do with how much you let it meander as well and what kinds of animals live there, based on past history. And then we have the question "how far do you go back?" When we get the right answer probably no one is going to like it, but there is something that has to be done. That is, both sides of the voices of the people in the field have to be heard. And what made us less trustful is one of those voices was more or less silenced.

So I can't go back and undo what's been done. I am an optimistic person. All I can do is try to keep going forward because I know if we don't solve this problem in California it has dire consequences for our children and grandchildren.

Berryhill: For starters, I did not support the Delta Stewardship Council, and I don't ever believe that the way you ever fix a problem in governing a region is to add more bureaucracy. I think at the end of the day it bogs everything down and you get to the question "how do you fund it?" Then it all blows up and it was for naught.

Don Cotton: I have a question about the projects that might possibly be funded using some sort of public participation arrangement. Is there any study going on in the Legislature or authorized by the Legislature to undertake any kind of analysis to determine which of these projects could be funded that way and therefore either eliminated or modified in the proposed bond issue?

Berryhill: We've had discussions with some of the administration. It was brought forward in the budget talks last year by myself. That's as far as that idea has gone. We need to explore it a lot more. The bottom line is if you are an equity firm and you contribute \$3 million, you've got to be able to get your 10-12 percent back for your investors. So every project would be a unique challenge. We've had discussions but as far as studies, we haven't done anything.

Question from the Audience (unidentified): If we have troubles with the bond but our initiative process is prohibiting people from attaching fees, what's going to prevent the eventual gridlock where people who don't live in the Delta throw up their hands and say, "We don't want to pay for it so we are happy with the status quo being like it is?" How do we sell the solution to people who don't have to live with the reality in their backyards?

Wolk: I don't know if I can give you a satisfactory answer, but I will give you an honest one. I think we are at gridlock on water because of the unreality. How the various parties are approaching the issue? People think they can have everything. The idea of shared sacrifice does not exist in California right now. So why are we surprised that we are in gridlock on water? I'm not. And it's going to be very hard to change at this time.

Dean talked about the State Water Project's inception. The 1960s were a very different time. It was a time of expanding economic horizons. When people graduated from school they had one, two and three jobs waiting for them; when it cost very little to go to one of the greatest university systems in the nation; and where you could buy a house if you had a job; where the federal government paid for wonderful things, such as levees, interstate roads and sewage treatment facilities in towns in which I live and where you live. We're not there now. And we have to get realistic really fast. Otherwise it is gridlock.

Fuller: This bond represents an overall framework that we haven't had before. It's not perfect, but it

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can move us forward. That everyone is so interested in it is a really good thing. And that there are forums like this to discuss it is a really good thing.

Regarding the whole initiative thing, if people don't have a voice and aren't able to weigh in and to judge and aren't able to voice what they want, then the whole assumption of our government doesn't work. So at the end of the day, yes, this is really hard. But I just can't say we are at total gridlock because this bond wouldn't have gotten out if we were at total gridlock. And if it dies, I can't look all of you in the eye and say there's no hope and that none of your dreams and aspirations will come true because we are at gridlock and we won't be able to solve any problems.

I am concerned about two things. One is – remember this morning when they said that the only thing that changed people who were true believers – because that's what we are, true believers in our own camps with our own specific interests – was a near-death experience and crisis? Our crisis of the water drought is hard to remember and the near-death of New Orleans is getting harder to remember and we've got other worries. The real question is how do we, as a society, cope with the really hard problem with so many diverse voices and move forward? Basically there will be a lot of people who give their lives and will die at least a political life, just trying to move this forward.

Today I would like my position to be we have to keep moving forward. It takes all of us. At the end of the day even if this bond passes, it isn't perfect and we will have to keep working on it. And if it doesn't pass, then we just need to be lucky that nothing really bad happens to us for another good, long period of time. It's been like 20 or 40 years since they had the last water bond.

Berryhill: At the local level, when water no longer comes out of the tap, that will get everyone's attention. Water is like electricity. As the price of energy goes up, other alternatives start to make sense.

I think technology is improving when it comes to desal and those kinds of things. In the perfect world, if I was king for a day and going to do a water bond personally I'd do a \$3-\$4 billion bond with a through-Delta conveyance program, and I would focus on regional sustainable projects where you get the rest of the state off the reliance on the Delta. You just can't bleed the Delta. That's not sensible in the long run. We need about 6-8 million acre-feet of storage in the state. You can't tell me there aren't places along the I-5 corridor ... look, San Luis Reservoir in one year was full. We clearly need more storage. We could have stored much more water down there.

At the end of the day, we've got to get people relying on their own regions, whether that's groundwater recharge or desal. But you can't keep bleeding the Delta to fuel growth down south. It's just not going to work.

Wolk: Bill absolutely is correct. What would pass with a big effort and consensus, I think, would be focusing on regional projects that water districts have determined meet their regional needs. That would be what everyone is asking for – more money for recycling, more money for conservation projects, more money to clean up the local groundwater, more money to look at desal and make something happen there. Those kinds of things there's consensus on at the local level. They require some sort of incentives and assistance, and that's been the role of the state. That's an appropriate role of the state for at least the next 5-10 years.

Berryhill: Water isn't the sexiest topic in the world, but remarkably it is a top priority in California to get something done. And yet very few of us take the time to understand it. So by coming here I hope you've gained some more knowledge from ourselves and the other panelists. I'm an optimist. I'm a farmer so I always believe that next year's going to be a better year. I believe there are solutions.

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