

The Water Education Foundation's

Delta Vision WORKSHOP

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CONFERENCE SUMMARY

Prepared by the



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Acknowledgements

The agenda for the Delta Vision Workshop was developed by the Water Education Foundation with input from an advisory committee:

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Staff from the Water Education Foundation took notes throughout the Delta Vision Workshop for the preparation of this document. **Please note that this is not a word-for-word transcript. It is a summary of the major points of discussion among the speakers and a summary of the self-facilitated participant breakout groups.**

The PowerPoint presentations made at the Nov. 8 workshop can be found on the Foundation's web site <http://www.watereducation.org/deltavisionworkshops.asp>

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Welcome and Opening Remarks



Rita Schmidt Sudman, Executive Director, Water Education Foundation, opened the conference noting that it was the first in what the Foundation plans to be a series of Delta Vision Workshops. She acknowledged the support of the workshop funders, the California Resources Agency and U.S. Bureau of Reclamation's Mid-Pacific Region, and acknowledged Metropolitan Water District's cooperation in hosting the workshop. She also thanked the Foundation's advisory group for input into the agenda for the workshop.

The Foundation's hope for this workshop is to get people on the same page in finding a vision of a sustainable Delta. Why a new vision for the Delta? The CALFED effort is being reorganized. Through that process many people see the need to look at the Delta as an integrated region. There are many Delta vision efforts underway and the Foundation brought state and other voices to the table to discuss those today. •

Developing a Vision: How Do the Dots Connect?

Note: Refer to the Foundation's web site
<http://www.watereducation.org/deltavisionworkshops.asp>
to view Rod's PowerPoint presentation

Rod Meade, Executive Director of the Delta Vision Program, opened by explaining how the Delta Vision effort would differ from past governmental programs designed to find a solution to Delta issues. To find a sustainable management approach that will take us through the next 50 to 150 years and allow us to maintain those priority uses, functions and services that the Delta provides. Discussed the Governor's Executive Order and legislation AB 1200, AB 1803 and SB 1574 that call for forming a vision of the Delta.

One of the points of departure for this vision process is the recognition that we need to establish priorities for the services and uses that we have to manage over the long term. In the past we've been able to proceed under the CALFED program without having to answer those hard questions about identifying priorities in the Delta. Whereas CALFED focused on water, Delta Vision focuses on a broad range of issues, land uses, water uses and other infrastructure and administrative changes including

governance. Previously there was a feeling that the Delta would be the same way we think of it today as in 50 years. One of the other points of departure for this effort is the recognition that the Delta is going to change. It may not be the same in the future.

Phase One of the process will be to develop a Delta Vision, to be completed by the end of 2007. Once a vision is identified, we will then prepare a Delta Strategic Plan to imple-

Whereas CALFED focused on water, Delta Vision focuses on a broad range of issues, land uses, water uses and other infrastructure and administrative changes including governance.

– Rod Meade,
Delta Vision Program

ment those measures by October 31, 2008 for presentation to the Delta Vision Committee. In the Governor's Executive Order, the committee will be chaired by the Secretary of Resources. The secretaries for the Department of Food and Agriculture; Business, Transportation and Infrastructure; California EPA and the president of the Public



Rod Meade, Executive Director of the Delta Vision Program

Utilities Commission will serve. Duties will include selecting a science advisor and members of the stakeholder coordination group to advise the committee and the blue ribbon task force. The Delta Vision Committee will be the entity that receives the Delta Vision and the Delta Strategic Plan documents and will pass on recommendations to the governor who will make his recommendations to the Legislature by Dec. 31, 2008.

The second major component is the creation of an independent blue ribbon task force to be appointed by the governor. It will consist of seven to nine extraordinary qualified individuals. They will hold public meetings and prepare recommendations that will be provided to the public in both draft and final forms for the Delta Vision and the Delta Strategic Planning effort. Both will be supported by the stakeholder coordination group.

The Delta faces six challenges over the next 50 to 100 years: subsidence; sea level rise; regional climate change; seismicity; exotic species and ecosystem change; and

population growth and urbanization. One measure of ecosystem change is the issue of the pelagic fish decline. Another factor is that the Delta is one of the most invaded natural systems in the world with invasive species. Add the threats... this is a system under extraordinary pressure to sustain itself even without those six challenges

The Delta is underlain by a number of active faults which provide the prospect of seismic scenarios that would have

a devastating effect on the Delta at some point in the near future. *Rod referred to a slide modeling the impacts of a 6.5 earthquake...* the significance of this is that under these circumstances the infrastructure facilities we talked about earlier, the highways, the railroads, the power lines, the oil and

gas transmission lines, are all going to face various levels of destruction. It also poses the risk of having the pumps turned off because of sea water intrusion.

Climate change. It's become clear that the earth is warming. The causes can be debated but we will have rain instead of snow and droughts will be more common. Those problems, along with a sea level rise of 1-1/2 to 2 feet over the next 100 years ... those floods that are now 100-year events may be more like 10-year events. Having to accommodate these events is going to challenge users and managers.

Long term urbanization and population increase. The San Joaquin Valley includes a significant portion of the Delta and is the most rapidly growing area in the state. 130,000 homes are now approved for the legal area of the Delta. Add the commercial, parkland, industrial and other related uses... these translate into 55,000 to 60,000 acres of new development within the Delta area. And that's only the development we know of right now; that's not a projection of what will occur in the next 50 to 100 years. As we continue to urbanize the Delta, there will be direct impacts but it will also begin to constrain management and options we have for the future.

What do we want from Delta Vision? We want a vision of sustainable approach. We want to be provided with the kinds of institutional and implementation measures necessary to achieve that sustainable Delta. We want the vision to be a unifying factor within the overall issue of addressing our water needs. We want a program that is informed by and informs all the other planning efforts underway. These programs include Stage 1 of the CALFED program, the Bay-Delta Conservation Plan, the Delta Risk Management Strategy, the Ecosystem Restoration Program and the Delta Regional Ecologic Restoration Improvement plan. We hope to see a set of programs that move forward in a coordinated fashion that use common science, common alternate scenarios and inform each other so as they move forward we can come up with an educated and manageable approach for the long term protection of the Delta system. •

What do we want from Delta Vision? We want a vision of sustainable approach.

*- Rod Meade,
Delta Vision Program*

The CALFED Record of Decision: How Will Pending Stage 1 Decisions Affect the Delta Vision?

Note: Refer to the Foundation's web site
<http://www.watereducation.org/deltavisionworkshops.asp>
to view Joe's PowerPoint

Joe Grindstaff opened his talk by saying that he thinks one of the things we've learned at CALFED is that we can't do things in isolation. For those of you from southern California who don't understand the Delta, to give you some idea of scale, it's one and a half times the size of Orange County. It's twice the size of Los Angeles. When we talk about urbanization pressures, imagine plopping all of Orange County plus 50 percent of Los Angeles in the middle of the Delta. That's a significant issue. There are a lot of issues and we haven't had a coordinated plan for addressing those. CALFED limited its scope to levees, ecosystem restoration, water supply reliability and water quality. We didn't relate those things to land use. We didn't relate those things to transportation. A year ago we realized that the things we were finding out needed to be linked, that we need a more comprehensive plan.

CALFED. Most people in this room probably don't remember the serious differences in the early 1990s and late 1980s. We had real conflicts among the agencies. In many cases the agencies didn't talk to one another. Other cases when they did talk they disagreed vehemently and there was no process for pulling state and federal agencies together. First the feds formed Club FED to coordinate their activities. The state finally came around and developed CALFED. It was all about trying to have a coordinated plan to address the critical issues. Now we understand that even that wasn't enough.

There are major issues. For all the fact that we've had lots of exports in the last few years I would posit that water supply reliability is less than it was five years ago. In fact when you look at the challenges moving forward, we probably have a less reliable system. I don't think even two years ago people in the water community thought about climate change. We're more and more aware of climate change.

I am going to talk about some decisions we have to make as we move ahead. The first thing to point out is that they are all linked. The decisions that are part of CALFED are all linked to Delta Vision. We have to approach things from a system wide perspective. Second point; the longer you delay by not planning or by taking extra time to find things the longer it takes to come up with actions and actually



Joe Grindstaff, Executive Director of the CALFED Bay Delta Program

implement them. The risks increase the longer we delay. All of the risks I see are negative. When I look at the Delta and look at what we are facing it's hard to find positive factors that are decreasing risks as we move ahead. Instead they all seem to be increasing risks for the ecosystem, water supply, for the people who live there and for our opportunity to really have a special place.

Three years ago when Lester recruited me to work for DWR my total knowledge of the Delta was from being on a tour where I looked at the water levels and saw these islands that had subsided way below the elevation of the water. And that's an important thing to know. But the Delta is much more than that. There is incredible habitat. I don't think people understand the vast amount of habitat. I don't think people understand the people who live in the Delta and what those communities are about. Speaking as a southern Californian, we don't typically understand the depth of the issues. The Delta is an incredible place and it is something that is irreplaceable. If we let the Delta just kind of go on and we end up with all these disasters we

will have all lost something that is incredibly vibrant and important for the state.

In terms of our approach to decision making, we want to take the best information we have and make a decision. We can't wait for all the perfect information because we will never have it. We have to figure out what we know and make the best decision we can given the available data. We have much more data that we used to. We have an incredible volume of information to use as we move ahead. I think the time is coming. Over the next couple of years we have to make some decisions.

First, the ecosystem. We have had a real decline in the open-water species in the Delta. Not to say that all the problems are caused by pumping, but I am going to talk about pumping and the conflicts. *Joe referred to a slide in his PowerPoint regarding critical species and pumping in the Delta, and noted that an updated version of the graphic now shows that the "bare" months in this graphic don't actually exist.* One of the things we assumed 10 years ago is that we would be able to find times when we could pump the heck out of the Delta and not impact species. I think that assumption is proving false.

I don't think most people in southern California think about this but the Delta would naturally all flow out. When we're pumping, the system pulls water south. This is not a good system. We pump the rivers southward and there are times when we pump particles into the pumps that include eggs and larvae, and this can have an impact on species.

Not all the time. This last year we had enough water flows going through the Delta that we virtually had no impact on fish species because that flow was always positive and you weren't drawing those particles in. But it is true that sometimes we are. And we are having an impact on species.

I want to make the point that that means we can't do everything for everyone. I

think there was some assumption in the past that we could increase exports and at the same time meet all the needs of the ecosystem. And that's not what the science is saying right now. One of the key issues is conveyance. Right now the system can't meet all of the needs. That's a major problem that we have to acknowledge. Another example of the conflicts in the Delta is the needs for the different "services"; the scientists refer to the different services of the Delta. If you are a farmer you need reasonable water quality and salinity is a big deal. For urban uses, salinity is

a big deal but total organic carbon is a bigger deal. Fish, biologists say, would be much better off with a fluctuating salinity level; that we actually let the Delta become brackish sometimes and then make it fresh sometimes. Those are conflicting objectives and it's not always possible to do everything for everyone so we have some difficult decisions to make.

The changes that we're undergoing are going to make the changes more difficult. A one foot sea level rise increases pressure on the Delta as a tidal system. One thing I don't think everyone has always understood is how tidal the Delta is. There are times when the fish move back and forth 5, 6, 7 miles as the tides come in and out. The system is not being driven by rivers. Sea level rise will change salinity levels and the hydrodynamics of the Delta irrespective of other changes.

Storage and climate change. We expect to lose in 50 years about 4 million acre-feet of storage. Beyond that, let's talk about precipitation above some of our reservoirs. When the temperature increases by 3 degrees at Oroville all of the precipitation that we have changes from snow to rain. And that increases the flow rates into the reservoir by 50 percent. In January 1997, 1.6 million acre-feet of water went into Oroville in three days. Using the climate model, if all that comes as rain in that same event, we would end up with 2.4 million acre-feet over three days. That is going to impact how those reservoirs are operated. People have told me that the flood management agencies have to pay for that space. Maybe they should pay, but the reality is we can't let the reservoir overtop. This is something that already is happening and it will have a real impact in the future.

When you think about lowering the reservoir to maintain more flood storage that's also your cold water pool [which is necessary for fish spawning.] Behind Folsom this year they had the third lowest cold water storage in 50 years but they have lots of water. We're going to have lots of changes and we're going to have to think about what are our storage needs as we move out into the future. Surface storage is an issue very related to this.

Conclusions: the system is broken. What we've tried to do hasn't worked. It has worked in some areas. We have done some good things. Salmon are much healthier than if you go back to 1993 when they could count the number of winter-run salmon and they joked that they had a name for every one of them. I think they have improved significantly, but we have a long ways to go and the system is not working. The changes that are coming: climate change, sea level rise, earthquakes, urbanization. It's hard to overstate how much urbanization can change everything that's going on. All of those challenges make things more difficult. But remember when I talked about what a vital place in the Delta is? I really believe that and I believe we have the

The decisions that are part of CALFED are all linked to Delta Vision. We have to approach things from a system wide perspective.

– Joe Grindstaff, CALFED Bay-Delta Program

opportunity – because of the challenges – to address those problems and make sure we retain a Delta that will be very important for the future of the state.

Question from the Audience: If the levee system is not sustainable, why not engineer wetlands to help reduce subsidence?

Grindstaff: The critical levees we're fixing now are associated with urban areas. People live there and rely on being safe. Those are the ones at the top of the list for the emergency repairs. We have to think about wetlands and doing things like that in the Delta and upstream. That is a

really important thing to think about because levees will always fail at some point. We need to find natural ways to help mitigate the risk.

Question from the Audience: You refer to sea level rise and climate change as a fact.

Grindstaff: I believe climate change is a fact. We've been monitoring what's happened with snow pack in the state. And

we are melting our snow pack earlier. We have tracked the snow for the last 50 years. One example is Folsom Dam. The dam was built in the 1950s and they estimated that the probable maximum flood was 500,000 cubic feet per second (cfs) and the dam was designed to control that. If you look at the hydrology in the last 50 years, they have had to increase the probable maximum flood to 1 million cfs. I think there are examples throughout the state... we don't truly observe climate change because the temperature is gradually increasing.

Question from the Audience: How do you think the process can get to major decisions when we don't know the order of magnitude of the changes? How do you come up with a vision that allows such a big investment?

Meade: We don't really know. Barring cataclysmic change from a disaster like an earthquake that generates sudden levee failures, the kind of climate change we're going to experience is gradual. Having talked to the Dutch, whose system is different than ours, they think they can manage for a 6 to 9 foot increase in sea level rise. If it goes much beyond that, they're looking at mass migration because they cannot manage the larger systems. As we go through this process we're looking at developing an adaptive approach. But we have to make some decisions now based on the information we have. Just like you do with coastal permits. You get a permit now while you complete your program. If you're doing endangered species management you get "take" provided so you can take prudent actions while you are developing recovery plan.

Grindstaff: Adaptive management is the key. The things that you do have to be flexible enough so you can build on them as you move ahead and adapt to things as they occur. If sea level rises 7 to 8 feet, everyone's focus will be on what's happening in San Francisco and San Jose. That's why we need to focus on the Delta now. When that happens, your priorities go to those big urban areas and they're going to be demanding all the attention. There will be big problems if we encounter that and as a state we need to start planning for our first line of defense and how we are going to react as things develop.

Question from the Audience: Regarding your slides of export pumping from the Delta. What resources can you provide to southern California to reduce dependence on the Delta?

Grindstaff: One of CALFED's successes has been the money to develop local projects that increased water supplies in areas outside the Delta: groundwater storage, recycled water and significant conservation. Those were all part of the program the past six years. Speaking as someone whose local agency got lots of money, if we hadn't come together and developed CALFED, I don't think we would have had the ballot propositions. •

I believe we have the opportunity – because of the challenges – to address those problems and make sure we retain a Delta that will be very important for the future of the state.

– Joe Grindstaff, CALFED Bay-Delta Program

How is the Delta Vulnerable?

Note: Refer to the Foundation's web site
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to view the PowerPoint

Thomas Holzer began by saying that he wanted to expand a little bit on the uncertainties of the processes that make the Delta vulnerable and try and put a time frame to it. My last slide tries to bring all these causes of the vulnerabilities together and hopefully provides you with the kind of perspective time frame we're looking at. The processes have already been outlined. Subsidence, earthquake, river flooding and sea level rise. These are the physical vulnerabilities. But I can't stress how important the time frame is for this. This is not a static problem. They are changing over time and at different rates. That is the fundamental challenge in developing a vision.

Referring to the New Orleans flood photos in his presentation: This is one potential future in the Delta. There could be a catastrophic failure of the levees. It could be caused by an earthquake; it could be caused by sea level rise. And sea level rise doesn't necessarily mean a slow death. It aggravates the storm surges so you could have catastrophe.

In trying to answer the question how the Delta is vulnerable, I found it helpful to say why it is vulnerable first. Subsidence is why the Delta is vulnerable in the short term. We're looking at a process where every time you

Subsidence is why the Delta is vulnerable in the short term. We're looking at a process where every time you lower the water level a little bit, some of the Delta oxidizes.

– Thomas Holzer, USGS

standpoint. The vulnerability of the Delta is linked to this inevitable consequence of draining the peat soils in the Delta. If you get multiple failures of levees you will get flooding and a lot of that flooding will be salt water

lower the water level a little bit, some of the Delta oxidizes. Seventy percent of the subsidence is due to that process. That means that over time, Delta levees have to be built higher and higher because the islands are going down, down, down. The consequence of the height of the levee is Mark Twain's quote ["There are two kinds of levees – those that have failed and those that will fail"]; it is worse and worse from a stability



Thomas Holzer, U.S. Geological Survey

intrusion drawn in from San Francisco Bay. That's our backdrop.

The subsidence history of the islands in the central Delta shows a drop from 1920 to 1990 of about 15 feet, with a maximum of 20 feet. It's a gradual process; the inevitable consequence of that is what we've already talked about. When you stand on the levees you look down quite a way to the land surface. But it does appear that the rates have slowed down a bit and it highlights one thing about these islands: The subsidence is due to the oxidation of the peat soils. Peat soils are not all that thick. So eventually the subsidence is going to come to a halt. When? You're probably looking at 200 years.

Flooding... I am not going to spend a lot of time on that. The challenging problem is the climate change we're alluding to. I am simply going to assume flood risk as a standard risk and what makes it worse are sea level rise and subsidence. One could argue that the flood risk could get worse in the future if we get more severe storms.

Earthquake risk. It's probably the most drastic short term problem that could arise in the Delta; an earthquake that shakes the Delta could cause multiple levee failures and flooding. *He referred to a map in his presentation of the earthquake probability of magnitude 6.7 or greater earthquake over the next 30 years.* There is a pretty significant earthquake hazard in the Bay Area. The question is what does that mean for the Delta. This map doesn't mean a lot for the Delta because the earthquakes are too far away. *This presentation showed animation of*

We don't know the faults in the Delta region that well. The faults in the Bay Area have been much better studied.

– Thomas Holzer, USGS

1906 earthquake and the peat soil If you look at what's happening 90 kilometers away, a repeat of the 1906 earthquake probably is not going to be a major consequence for levees in the Delta. But earthquakes don't always happen the same way.

Recently, as part of the 100th anniversary of the 1906 earthquake we had

scientists create ground motion hazards. *He showed two of them in his presentation.* Here's a rupture of the fault and the ground motion from seismic way... a repeat of the 1906 earthquake ... clock seconds... The Delta is below the level of what you would expect to see. But a large earthquake on the San Andreas fault could start at the north end of the rupture. Start earthquake there.....1906-type earthquake that could cause damage in the Delta. What this highlights for us is there is a lot of uncertainty in just the estimation of ground level motion. When you hear the engineers talk about risk in the Delta they are trying to capture some of that uncertainty. The way seismologists capture this uncertainty is to create a map similar to what the water community would consider a 500-year flood. This is your 500 year ground motion map. ... The Delta has a gradation to the earthquake hazard. The western Delta is much more likely to endure larger ground motions than the eastern Delta.

But that's not all of the uncertainty here. There's another hidden factor. We don't know the faults in the Delta region that well. The faults in the Bay Area have been much better studied. We know there's a blind thrust system, which is a fault that doesn't rupture through to the ground surface, but what actually happens to that fault system in the Delta isn't known. So the scenarios you see are based on assumptions about what those faults look like. There is the possibility the faults just to the west of the Delta, the Concord and Green Valley faults, if you had a large enough quake in the part close to the Delta you could have a catastrophic series of levee failures. But the bottom line

with all these faults is they have very slow slip rate and they probably have earthquakes on the 500- to 1,000-year time frame unlike the San Andreas, which in the Bay Area has a large magnitude earthquake every 250 years. The actual threat to levees for at least a catastrophic earthquake is probably in the multi-100 year time frame. But doesn't preclude that we're a lot closer to that event and the probability will be increasing over time.

Sea level rise. Estimates of the future rise depend on greenhouse gas emissions over the next 100 years. There is a lot of uncertainty. We're projecting on the low end 1 foot and on the high end several feet. If you look at it from a geologic perspective and the sea level history going back to 16,000 years B.C. there's been a tremendous rise in sea level. That goes on until about 6,000 to 8,000 years ago – it was rising about 3.3 feet per century. And then it leveled off just as civilization took hold. But for Indians who were living on the coast of California before the pharaohs starting building pyramids in Egypt, you can imagine seeing sea level rise in your lifetime. That's what they were seeing. A child who started life on the ocean, by the time he was an older member of the tribe they had moved tens of feet inland as a result of sea level rise.

These are scientific theories based on modeling of how we expect the sea to respond to thermal expansion and melting ice. If you look carefully at the sea level records we can see sea level starting to rise at the beginning at the industrial age. Gauges from Stockholm and Amsterdam start showing by the mid-1700s slow increases. If we look at gauges on the West Coast in San Francisco, Seattle and San Diego, we see higher rates of sea level than in this geologic record. So we already have gone into this acceleration. It's just a question of how far it's going to go.

To conclude how all three come together; he referred to a graph in his presentation. Each one of these processes shows a ranking of bad to good over time. Earthquake risk in the Delta is probably more on the faults with low slip rates looking at multi-100-year worsening of the problem. Not to say there's not a significant risk today from a catastrophic earthquake. The catastrophic flood, if we ignore climate change, is sort of a constant in this equation. Subsidence will eventually end in 200 years. So the contribution of subsidence will at some point diminish. The big question is sea level rise.

So in terms of a vision for the Delta, the short term focus is probably on these other processes but over the long term, unfortunately with more uncertainty, is the question of what sea level rise is going to do. In a way a lot of that is in human hands; the public debate that we're starting to

see will determine whether or not we get to that point when it dominates all the other risks in the Delta.

Question from the Audience: Please put subsidence in perspective. What will the land surface be when it stops subsiding?

Holzer: It depends on where you are in the Delta because you're getting rid of all of the organic peat soil. In the thickest parts of the Delta there's maybe about 40 feet of soil left. Around the margins it goes to zero. We'll add, on average, another 20 feet of subsidence so you're looking at pretty monumental levees to just keep pace with the subsidence.

Question from the Audience: What is the observed sea level rise from 1900 to 2000?

Holzer: About 2/3 of a foot. Some of the communities like Venice, Italy, already are struggling with flooding. Part of that is due to groundwater withdrawals but part of it due to the fact that sea level has come up a little bit and they built right at sea level. I think we're actually seeing the consequences of sea level rise in some of the more vulnerable locations.

Question from the Audience: Are flooding and subsidence a bigger deal than earthquakes?

Holzer: The concern with the earthquake is if you get a big enough earthquake close enough to the Delta then you get massive levee failure. Subsidence and flood probably wouldn't lead to that catastrophic failure. If you have a 1,000-year flood that could give rise to a catastrophic sequence of levee failures. You can't really pick one of these and bet on that. But what I'm trying to do is give you the timeline for which you have to worry about with these hazards. But it masks the problem of the earthquake and this is the problem for risk reduction. You're dealing with low probability catastrophic events and those are very difficult to get people to plan for. •

The Value of the Delta: What's Important to You and Why? What Does Southern California Need from a Delta Vision?



Panelists (left to right):

Dee Zinke, *Manager of Governmental and Legislative Affairs, Calleguas MWD*

Ron Gastelum, *Of Counsel, Paul, Hastings, Janofsky & Walker LLP*

Marci Coglianese, *Former Mayor, City of Rio Vista*

Jane Perez, *Deputy District Director, District 10, Caltrans*

Fran Spivy-Weber, *Water Efficiency Consultant*

Moderator (third from right):

Steve Macaulay, *Executive Director, California Urban Water Agencies*

Steve Macaulay opened the session with a PowerPoint presentation about the value of the Delta. Note: Refer to the Foundation's web site <http://www.watereducation.org/deltavisionworkshops.asp> to view the PowerPoint

This is a 10-minute presentation to give you a sense of place in the Delta and the issues beyond water. The Delta is a place where people live. Lots of people. There's something in the human psyche; we just like living near water. And as you can tell from the last presentation, that's a dangerous thing. We're building houses right up to the edges of the Delta. *Showed aerial photo of Discovery Bay.* Some people have been building houses for decades. This is a pretty risky business, but there are a lot of really nice

houses and the people who live there just love it. When you think about sea level rise, there are not only people who live around the Delta but who live in the Delta.

The Delta is a place with a lot of water traffic. Ships headed into the ports at Sacramento and Stockton. This is big business and an important economic driver for the entire region. Three state highways cross the Delta carrying people and goods back and forth and connecting the Bay Area to the Central Valley. This is not just local traffic; the Delta highways connect two very important economic regions in the state. This is in addition to three interstate highways that traverse the north, east and southern edges of the Delta.

Since this is southern California we want to remind you about water. Delta pumps provide drinking water to more than 20 million people. A lot of people are dependent on it. It's not just southern California. There are areas in the San Francisco Bay region that are more dependent on the Delta than many water users in southern California. Urban water agencies throughout the southland depend on the Delta both directly and indirectly. Much of southern California and even northern California share in the benefit of the water; there is an indirect benefit. We can see that bringing

There are houses in almost every neighborhood within a couple of hours' drive from the Delta that have a boat parked in front of them. It's an enormous playground.

– Steve Macaulay, CUWA

water to this region and using it very carefully is a major driver for the economy. It's also an area that serves a lot of important local uses including more than a half a million acres of very important farmland. The Delta's peat soils are about as rich and productive as you can get.

The Delta is home to millions and millions of migratory waterfowl that use the Pacific Flyway every year from South

America to Alaska. That is important because it helps meet our international treaty requirement to maintain wintering habitat for migratory birds.

The Delta has a lot of fish... I searched around a lot for a picture of a Delta smelt. There's only one picture. It's the same picture from the U.S. Fish & Wildlife web site. That's not good. We should have more pictures of Delta smelt. I hope this is not the only Delta smelt. [Laughter,] The health of this 1-inch-long native species is a major driver for water supply reliability. And it turns out to be even more important these days. There is emerging science that says of the three factors – water exports, toxics and invasive species/food chain effects – it turns out that exports look like they are very important to the lack of health and well being for the smelt and maybe these other fish species. No one is giving up on [the other] factors, but there are more clear linkages than there were between water diversions and some endangered fish. Especially with pelagic organizations like Delta smelt; fish that live their entire lives in the Delta. The Delta smelt are in trouble; salmon have been in trouble for many years. Chinook salmon were in a very critical situation. One of the successes of CALFED is that some fish species like salmon are making a comeback. They're not at the doubling goal but we're seeing increasing populations of salmon. The curve [for salmon] continues to go up while the curve for Delta smelt continues to go down or stay relative flat.

Recreation is big business in the Delta. If you go to some of the smaller channels on a typical summer weekend there are wall to wall boats. There are houses in almost every neighborhood within a couple of hours' drive from the Delta that have a boat parked in front of them. It's an enormous playground located near the Bay Area, Sacramento and Fresno. You have about 6 to 7 million people living within an easy drive of the Delta. It's really a wonderful place. Thousands of houseboats are rented on a daily basis during the summer.

All of these things are threatened by nature. Storms threaten these fragile Delta levees every winter and forecasts are that this could get worse as sea level rises due to impacts from climate change and storm events. *Showed photo of the 2004 Jones Tract levee failure.* Here's an example of a levee failure in the summer that you probably read about. It didn't take a winter storm to cause this problem. Here are the consequences of flooding on Jones Tract. Here's the Mokelumne River Aqueduct that conveys water to the East Bay Municipal Utility District nearly under water. The railroad was shut down for several months. Think of the goods and services, the economic value of that, not being available between the Bay Area and the Central Valley. State Highway 4 was only useable for hauling repair materials back and forth to close those levees and pump out the water. Imagine something like this affecting all or a portion of the other 60 major islands in the Delta with natural gas and petroleum pipelines, state highways, housing, farms, environmental resources and water quality. Now water supply ... this is at sea level; there will always be plenty of water in the Delta the question is whether it will be quality enough to drink.

Showed photo of barge carrying repair material. It takes barges and rock as Band-Aids to make this work. At the Delta conference in June at the University of the Pacific there was a lot of discussion of how there is only one good source of rock and only one series of barges available to repair levees in the Delta. This is a serious issue. One of the questions I will ask the panel is with this long term Delta vision, what kind of near term actions should we be looking at? It's this kind of investment or lack of investment that threatens all of these uses we talked about. When the sun sets on the Delta tonight this is the no action alternative we face: large open, flooded spaces. This is the driver behind the governor's proposal to look at a long term vision from the Delta. The proposal is to look 100 years into the future and make decisions and investments with this long term plan but also to avoid putting a new transmission in a car that's about to run off the road.

I will ask our panelists to explain why the Delta is important to them and to the people they represent. In talking about why the Delta is important to each one of our panelist I caution you to avoid concluding that this is a "who gets to pay the most" exercise.

I've asked each panelist to give you a short background presentation on who they are and what drives them to believe the Delta is important to the people they represent.

Ron Gastelum: The former chief executive officer of the Metropolitan Water District of Southern California said when he joined the Los Angeles Chamber of Commerce he met a lot of people in the business community and began reaching out to them and other chambers of commerce to educate them about the importance of water.

Dee Zinke: Explained that Calleguas Municipal Water District is the northern most outpost of MWD and that it is 100 percent dependent on the State Water Project, and that 75 percent of Ventura County depends on the State Water Project for its supply. The State Water Project is a lifeline. What we really need is a pathway of reliability. As was said earlier, 20 million people rely on the Delta and the State Water Project in particular. We need to complete the project. We need smart infrastructure that is not built on peat or sand that will guarantee the water supply to southern California. We're not looking to increase or augment it but we do rely on it. And we really look forward to this Delta Visioning producing some results.

Marci Coglianese: Former mayor of Rio Vista and 40-year resident of the Delta. The Delta first and foremost to me is my home. It represents the place where people I know live, work and play. I am also aware that the Delta is important to many people. The Delta is at the heart of California. It is a crossroads. We have the water from the two major rivers intersecting in the Delta. You have two of the most dynamic economic regions in the state intersecting in the Delta. We are truly a crossroad for goods and people moving back and forth from the Port of Oakland to the Central Valley where the majority of the new growth is occurring. We are home to pipelines of enormous importance. Interstate electrical transmission lines, high pressure gas lines and fiber optic cable systems go through the Delta.

It's also a place that has a wonderful agricultural base. There are people who have farmed that land for five to six generations. There's a rich cultural life in the Delta. It is a step back in time. That's why people who come to the Delta to recreate say there is something called "Delta time." It is a chance for people to get in touch with nature, to relax and to rejuvenate. So it is vitally important to the entire state but it is of particular importance to those of us who live, work and play there.

Fran Spivy-Weber: Until just recently I was executive director of the Mono Lake Committee so it is an environmental perspective that I bring to this panel. I know that prior to the formation of the Mono Lake Committee and the decades of going back and forth about what to do about water coming from the Eastern Sierra, it was Los Angeles' view that the Eastern Sierra was important to this region

because of the water supply. After a lot of "toing" and "froing" and decisions by various important bodies that view changed. And Mono Lake became an extremely important place ... for this region to protect. Whether we go there or not, it feeds our souls like Yosemite and other places. The Delta is like that. I think we can take from the experience we had at Mono Lake and look for ways in which we can protect these places and still provide the water and other services that are needed. And it may be kind of out of the box thinking. For Mono Lake it was a major entry of the urban area into water conservation inside the home. And we know there are many other places where we can go for having a reliable water supply in this region.

I want to clarify the statistic that is used about two-thirds of the state being served in part from the Delta. That's true, but the total amount of water being supplied by the Delta is less than 20 percent. Some areas do rely 100 percent on Delta water, but most areas do not. So looking for those alternatives that are more reliable and perhaps even cheaper may make it possible for us to devise a scenario in this visioning process that will meet all the needs of the state of California and protect this incredibly special place.

Jane Perez: Explained that she is the deputy district director in Caltrans' District 10, located in Stockton, and is responsible for all the transportation planning activities in the district as well as assistance to local governments. There's no doubt that Caltrans has a real investment in the Delta. We have several state highways that go through the Delta, some of which are built right on the levees. So the integrity of the levees is very important to us. If the integrity of the levees is jeopardized in any manner the state highway system goes down. And we know from past experience that when that happens it is catastrophic.

Macaulay: Can you speak to the use of the three state highways – 4, 12 and 160 – for commerce in and around the Delta? And how important Caltrans views that degree of commerce to the regional, and even statewide, economy?

Perez: Of those three state highways, we have traffic volume in the range of 10,000 to 50,000 vehicles a day. A Highway 12 corridor study showed the traffic volume is up to 15,000 to 16,000 vehicles a day. Of that 15 percent is trucks. So you can see that Highway 12 is really becoming a lifeline route for goods movement. State routes 4 and 160 are not quite as high as that. We just completed a Highway 12 corridor study where we tried to identify near, mid and long term projects or solutions to some of the things that need to be addressed related to the high traffic volumes that we are seeing. It's important to recognize that when we look at particular projects we need to look at logical termini. In other words, the federal highway administration looks at a project for what it can really serve. If, for

example, we were to add a passing lane on Highway 12 it would have to have a logical termini so after the traffic has moved around and the lane comes to an end it is not then constricted by a bridge. And as we know there are a lot of bridges in the Delta. So this particular study we did took a look at the corridor from the Rio Vista bridge all the way through Lodi to Highway 99. It was not an engineering study but we did identify several projects and the core of the study focused on what the economic needs were as well.

Macaulay: Let's say there was a levee failure like we saw in 1972 on Brannan Island when Highway 12 was under water. We saw what the disruption was back in 1972. How would you contrast that with such a failure in 2006 or 2007?

Perez: When we look at the traffic volumes we have now, no doubt if a particular highway went down it would be catastrophic. If in the Bay Area we have some type of catastrophic event and needed to evacuate people we would be looking at our east-west corridors to do that, including those highways through the Delta. If those highways aren't open you can imagine what a catastrophe that would be. We need to maintain those highways in order to take people out.

Coglianesse: This discussion of Highway 12 points up an important fact about the Delta. It is the point at which five counties and three regions come together. Transportation planning is handled separately in each of those jurisdictions and there is insufficient communication. We spent a lot of time on the Bay Area side of 12 doing a major study and came to the Rio Vista bridge realizing it was a problem. But because we're on the fringe of the Bay Area there wasn't much interest in funding that. Similarly, for the Stockton district, the Delta is only part of a larger district and the urban demands are so great there are few resources available to address these kinds of issues. And yet the critical location is really important because if Highway 12 goes down you have this immediate transfer of traffic trying to get around the block on Highways 80 or 580, which are already highly congested. So even though it may seem remote and is a small highway it has, because of its location, a real central role.

Gastelum: I think we run the danger of mixing two discrete issues here. They do overlap. One is emergency planning and the other is long term infrastructure planning. We certainly see that in goods movement discussions we have had in southern California. We have immediate urgent issues dealing with air in particular but we also know in the advent of a terrorist attack or something like that things would just be impossible. And there's no way the infrastructure, in Oakland for example, could compensate. We haven't begun to come to grips with how we would deal with that. But it is clearly in my mind a separate issue from long term planning.

Macaulay: If we had a catastrophic problem in the Delta that disrupted water supplies, highways and gas lines for a year or more, could you describe your own sense for how this would affect the economy? And how do you think we'd be able to cope in that kind of a timeframe?

Gastelum: If you look at history, we've had both catastrophic events and slow moving events. If you look at the drought of the late '80s and early '90s we had areas of our state hit harder than others and we tried to compensate with various temporary measures, fairly successfully. From a catastrophic standpoint we have models in the transportation area for what happened in San Francisco and the San Fernando Valley with various [earthquake] responses. Most recently we have the Katrina situation.

If you look at Katrina, to me the most discouraging part of that is not that great natural forces came to bear on New Orleans but that our political, our administrative, our country as a whole wasn't able to cope with how to assess the problem, deal with the problem. We're still reeling from that. I think we need to incorporate in our vision today some real plans because there's no question in my mind, and I think the business community generally is feeling this, that we are highly vulnerable in the Delta and the first order of business is to do a better job planning for that. I don't think you have to make the economic case to make the case that emergency planning is important and that you have to put the tools in place. It's a collaborative process.

Macaulay: We will get back to emergency planning in a moment. First, a question for Dee. I know that Calleguas is in a unique situation in that you're nearly fully reliant on the Delta. You're also familiar with the concepts of integrated regional water management and I know you're familiar with what water utilities in Southern California are doing to make more efficient use of supplies. Could I ask you to comment on this notion of regional self sufficiency and how that works within a southern California water supply perspective?

Zinke: Speaking from a Calleguas perspective, it's not that we're completely irresponsible in the Calleguas area and have done nothing to address the fact that we're 100 percent reliable on the State Water Project. For the last decade we've been working with MWD to store water underground. We have a 300,000 acre-feet reservoir that is a joint project; that is a three-year supply for us. Right now we have 60,000 acre-feet in storage. In addition, Calleguas is working on local reliability projects. We're building a brine line that will help to develop brackish

The State Water Project is a lifeline. What we really need is a pathway of reliability.
– Dee Zinke, Calleguas Municipal Water District

water. One of the reasons we import water is because we have such poor quality groundwater in the region. And it will also help us bring recycled water on line. However, the key to these issues is the source of the water that we're going to be storing underground, the source of the water that we're going to recycle is water that we import. We're doing all we can to address short term reliability but there is still a significant reliability issue for us long term and our contract with the State Water Project.

It is amazing to me how – if the Delta is as important as we're saying today – the levee system has been neglected.

– Marci Coglianese, former mayor of Rio Vista

In terms of our planning effort, it wasn't Katrina and it wasn't Jeff Mount's presentation about the high risk of levee failures in the Delta that led our agency to work on these kinds of programs. The goal was drought proofing and trying to develop local reliability. I like to think we had foresight, but our foresight was planning for a different issue. And now

frankly we're alarmed at the level of threat we see to our water supply. One of the good things is that we are a MWD member and MWD members are all in this boat together. In a catastrophic failure we will shift supplies here locally and we will try to rely more on underground supplies. But the water loss to our region would be a huge economic impact. We support a \$1 billion ag industry; we have a lot of military and high tech sector jobs. If we didn't have the water supply we would be in trouble. I can't underemphasize that we absolutely count on the State Water Project to make that water picture work in Ventura County.

Macaulay: Fran, I would like to ask you to comment on what Dee said. I also would like you to comment on where water planning was in southern California 25 years ago. How does that contrast to where we are today and where you think we ought to be going in southern California?

Spivy-Weber: Dee's description of what they're doing to become more water secure is an example of what many of the agencies are doing in southern California to become more water secure. Looking back, I don't know if in the late 1970s and early 1980s we were looking ahead 25 or 30 years any of the water agencies would have predicted that any of this was possible. They would have assumed that you would have to bring your water from somewhere else; you couldn't possibly create some resiliency in southern California. My plea as we look ahead to the next 20 to 50 to 100 years is to be a little bit humble that we don't know what is possible. We do see a number of things on the horizon that are going to possibly open up opportunities. One is the integrated regional water management planning.

We just passed Prop. 84 yesterday – there's \$1 billion for integrated regional water management planning. This may mean storm water capture and storage underground or in cisterns. In Los Angeles we get 12 inches of rain a year. If that new water supply, or at least some portion of it is new, we may be able to be less reliant on the Delta. We may be able to use the Delta for much of the region for insurance or perhaps not have to use it at all. We need to have several visions, one that has the Delta as a special place, one that has it as a water supply, one that has it as a vital economic center. These do not have to be mutually exclusive but we have to think about what we can do now that will protect all of those uses. My suspicion is doing more locally with water planning and projects will come out on top in all of those scenarios and we can start doing it today.

Macaulay: This is a question for Ron. Rod Meade made me feel that we're going to have this Blue Ribbon Commission with high-level appointees, a top notch staff, highly paid and competent consultants; but, can we get anywhere without public support. That's a rhetorical question. The real question is starting with that premise that Californians don't know enough about the importance of the Delta to a wide range of issues, not just water and not just transportation, but all of these important issues. How do we get that message across in a credible way? What are the message points we need to get out to the general public? And how do we do that?

Gastelum: The Governor has made a good start with the executive order and the identification at the very highest level that this is something the state is going to pay attention to. Beyond that, I wouldn't encourage you in thinking that we can communicate with the public about this in a way that is going to engage them absent a catastrophe. But the public has given us an opportunity with the passage of the infrastructure bonds and Proposition 84 to apply ourselves and to be communicating with them about how we are planning to efficiently spend this money. They are not going to give us any more money for a long, long time. We're going to have to show results. Those results are going to have to be described in meaningful ways to the various constituencies – the media, the environmental community, the business community, water agencies.

So the short answer is I wouldn't try but I would sit down and get started on doing a really good job of meeting the public's interests that we are going to spend their money wisely. We have the institutions in place, including CALFED and this Blue Ribbon Committee. The interim step will be to establish great communication with the Legislature because they are going to play a critical role in how all this is rolled out financially and with the public.

Macaulay: Marci, Ron was mentioning earlier about the different strategies Band-Aids or emergency response as contrasted with long-term investment. As a very active participant in the Delta Risk Management Strategy, can I

ask you to comment on those two strategies? Thinking in the context of this 100-year vision that Rod talked about, how do we deal with the catastrophic failure as well as what kinds of near term investments we need to make to get ourselves in a better position?

Coglianesi: Working on the levee program for CALFED it's become clear to me that people don't appreciate the importance of levees. I think since Katrina and the flood bond measure publicity there is more appreciation for these humble dikes. The Delta Risk Management Strategy is an effort led by DWR, the Corps of Engineers and the Department of Fish and Game to bring to bear the best scientific information available on the risks to Delta levees. We have a consultant team of 25 experts in a variety of fields. You can find more information on the DWR web site, including some of the early reports. DWR is inviting comments and review on these technical areas. The goal is by next April to issue a Phase 1 risk analysis that will begin to quantify the risks from factors you saw displayed in the earlier Power Points. How much is the seismic risk contributing to the overall risk? How much is flood? They are going to quantify that and show the range of uncertainties. And in Phase 2 we will begin to lay out options for consideration to mitigate risks. Also we will be looking at the economic and ecosystem consequences of levee failures.

I am on the steering committee and I hear this question of uncertainty. We have a pretty good handle on some aspects of this for a certain period looking forward in time but there are great uncertainties out there and when you look at the 100-200-year time frame you are pushing the outer limits of our knowledge. At the end of this I think we'll have a good starting place and we're hopeful that this will help determine where we need more information. The timeline is tight and the best they can do is get the best available information and try to integrate it. There will be some peer review and they also are looking for the public to review these documents and be part of developing a framework of understanding of risk and how to manage it. But in the near term, we have to keep investing in maintenance. We need to keep the partnership with landowners in the Delta and the state through the subventions program going and we are learning more about the levee system. And we will have our levees surveyed to give us a better sense of the current elevation.

It is amazing to me how – if the Delta is as important as we're saying today – the levee system has been neglected. I'm hopeful given the level of attention and the fact that the bonds have passed that we'll have some new attention to this and we'll have an investment plan for the immediate, mid and long range. And then we'll come to the difficult question of whether all the levees should be maintained indefinitely. One of the premises of the study is that we will find some levees more equal than others and that we may be able to pick and choose to reduce the

investment. The people who live there are skeptical of that because they are an interlocking chain of islands and if one fails it is going to have an impact on the adjoining islands. Right now we have a premise that we must maintain all levees to a minimum standard and then invest in greater protection for the islands that are more vulnerable such as in the western Delta due to seismic risk or are protecting assets of particular importance like urban areas, the highways and this utility infrastructure.

Zinke: I just wanted to add to the utilities that Marci mentioned: water. We believe we need to move on two tracks right now. We can't afford to lose sight of a long term vision for not only the Delta but those of us in the water world for how we're going to move our water supply. At the same time we need to have a structure and materials in place to respond to a catastrophe.

We need to stockpile resources in the Delta. We need to shore up and make sure roads are there so we can move additional emergency response. We need to do it to make sure we protect the water resources from the salinity that is anticipated in a levee failure. If we don't have all those materials stockpiled my nightmare scenario is that we are all fighting. That we have multiple failures and not everyone in the state is going to say water is the priority. There are people who are going to say we need the barge to fix this transportation corridor or we need it because this pipeline for oil is in jeopardy. We need to have multiple resources already in the area.

One of the best reasons I heard for passing 1A was that if we didn't pass 1A, we couldn't get to work right away because everyone would be focused on well, what do we do now – that we would have a list of things that have to happen but no resources to do it. We now have the resources, but they have to be allocated by the Legislature. It's up to us to make sure they are allocated to cover long term for the Delta and what we need now because we are all aware of serious problems today that have to be addressed.

Macaulay: At the June Delta conference in Stockton, the Caltrans District 10 division chief mentioned the possibility of investing \$1 billion in the Highway 12 corridor over the next decade or so. Putting aside that figure but keeping in mind the money just approved in the highway bond, to what extent do you keep all of these concerns – climate

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– Jane Perez, Caltrans

change, flood control, the fragility of the levees – in mind as you plan for maintenance and infrastructure improvements on these state highways?

Perez: I can't confirm \$1 billion for Highway 12 but if we were to look at the study we did and the very long term improvements that the costs are up there and it's due in part to the nature of the peat soil we've been talking about. Those [threats] are things we look at no matter what project we are building. Is the project feasible? What are the environmental issues out there? And we do take a look at that and address all of those things in all of the documents that we do. Whether we're looking at the very initial stages of a project or actually going into the design stage.

Macaulay: The State Water Project water supply reliability study came out six months ago and it showed that the project can deliver 70 percent on average based on past hydrology but that any single year could be as bad as 5 to

10 percent. And that doesn't take into account climate change, these Delta seismic threats and the smelt crisis. Are you willing to invest big money in the Delta system even if it simply stabilizes your existing SWP water supply?

Zinke: Speaking on behalf of Calleguas, yes. The issue for us is reliability all the way. If we can secure the supply that means everything to us with the exception of quality; it does need to be of a certain quality. The worse the

quality is the more water we need to treat to have an end stream supply. If we can work on some of the quality issues and be guaranteed some level of reliability then we absolutely are interested in investing.

Macaulay: What do you need from the Delta Vision Process? What will you do to help it succeed?

Perez: We need a commitment or recognition that the state highways going through the Delta serve a key part in the economy of California not only for the movement of goods but the movement of people as well. Those routes are key links to the interstate highways such as Interstate 5 that are so critical to the Central Valley.

What we can do is participate and be at the table. In the past there sometimes has not been enough communication among all the key agencies whether they be at the local or state levels. We need to have everybody communicating

because communication is key to the success of anything we want to do out there.

Spivy-Weber: I hope that the Delta Vision process moves beyond the Delta looking at roles to be played by those outside the Delta that will help in the overall solution to some of the risk factors that we're facing in the Delta. And I don't mean just southern California or conservation. I'm talking about the Sierra. If there is an assumption with climate change that all the snow is going to melt and it's going to get dumped into the system, into the Delta, are there things that could be done in the Sierra to hold some of that water for a longer period of time than we can do now in a passive way? In looking at the San Joaquin Valley, there is a lot of hardscaping in the planning in those areas. What should they be doing to make us better able to adaptively manage the Delta? The role of others in protecting this area is going to be crucial.

The responsibility of the environmental community is to not only speak of what a special place the Delta is for the environment and the critters who live in the environment but to come up with cost effective ways in which the other needs can be met both for people who live in the Delta and those who depend on the Delta for water. A lot of alternative thinking on these issues needs to be part of any vision for making this special place a center piece.

Coglianesse: We need an elephant. What I mean by that is if you recall the Indian fable of the blind men and the elephant. So often discussions about the Delta are from one blind man's point of view depending on what resources he is particularly in touch with. I would like to have at the end of the day a fully integrated, living creature called the Delta where we really do understand all of the connections. I'd like to bring together land use planning and resource planning in a new way that can serve as a model for the whole state. Right now we don't have a set of coherent governmental policies. Local governments in the Delta really are confused. They thought their job was to provide housing and jobs and build their local economies. They don't even fully appreciate the resource that's at their doorstep because that's left to people who are experts in water and resources. We have to bring all these people together. We have to engage local government. They are doing the land use planning under our current laws and they don't know the cascading affects that their decisions are having. And I would pledge to try to get local governments to the table. That's the key. We have five counties, we have many, many cities, we have three councils of governments – we all have to work together.

Zinke: What we need from the Delta Vision is not just a strategic plan but an action plan. I think we have felt like we are floundering a bit. I don't think we have, but I think we have been waiting for a lot of the science to come in. The science is coming in and we are recognizing that we are impacting the Delta with pumping and yet we cannot

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– Fran Spivy-Weber, Water Efficiency Consultant

deny that we need these water resources in this area and we're counting on it. My hope is that we will come up with an action plan that recognizes that there is a better way in how we currently move water.

In terms of what we are willing to do, we will invest money and we look forward to working with all the different parties and needs in the Delta to come up with a scenario that addresses our needs but doesn't hurt anyone else's. I think that's really what we want to do to solve all of these problems but our ratepayers are going to expect that we are investing in water and that's what we're going to try to do in a way that recognizes the value of the ecosystem and the economy and all of the other users of the Delta.

Gastelum: We need first a credible, real emergency preparedness plan. If I were a betting man, which I'm not, I would say that chances are we will have to deal with the Delta in an emergency mode before we get to deal with our great vision. We have to be prepared. I want to agree with my fellow panelists about what our opportunity is here. And it's really an opportunity to not just look at it as a Delta Vision but a vision for California. It clearly extends to the rest of the state. And if we do this right we are solving some of those intractable land use issues we have at the local level trying to pull all the pieces together. That means we have to confront growth and look it square in the eye. We have to confront the fact we have no agricultural policy. We have to confront the fact that in our land use patterns it is the market that's driving this equation.

This effort has to move beyond interest-based negotiations. That's what CALFED is all about with a science overlay. It's a great overlay but it is essentially an interest-based negotiation. We know what that has accomplished. We may end up with an interest-based negotiation but we have to try to move beyond that. We need great ideas out of the table and think outside the box. The business community will be engaged and bring its resources to bear and we all have to be ready to put our money on the table. This is not going to be a free ride. Bonds are not going to be available to pay for everybody's wish list, so we need to be prepared to spend our money efficiently.

Question from the Audience: I am interested in land use planning and how it is driven more by the economy than safety.

Coglianesse: Increasingly, Council of Governments [COGs] are turning to blueprints that involve land use. It doesn't take the individual jurisdiction's autonomy away but is a consensus based process. There's one in the Bay Area that has neglected the Delta but it is now recognizing the importance of the Delta. Sacramento has done a blueprint but they don't extend that far down in the Delta. San Joaquin is more focused on transportation and public works. It is our idea to have a network of networks because

in some respects the Delta is hidden from the people closest to it. It's sort of everybody's backyard and now we need to make each of these urban areas understand how critical this backyard is to them.

We have the Delta Protection Commission in place and the Legislature had great foresight in 1992 when it established it. But it is a product of political compromise and the compromise, which was very good at the time, left the fringe of the Delta to develop as local governments decided. Now we can see that there are some definite problems and because of the growth pressure there is incursion on the primary zone. Those tensions are there. And people have turf issues. But I think the COGs have a real potential for leadership and this idea of networks of networks may be useful because so many of these problems throughout the state are on the edges such as trying to protect agriculture from urban growth. We're cajoling people to come to the table. We can't make them do that.

On the issue of emergency planning it's often talked about getting the rock stockpiled and the contracts in place but there is still that huge question of how to get people to, through and around the Delta in case of a Katrina like emergency. We're fragmented even with OES [Office of Emergency Services]. We're in two regions and we have five county OES. There are opportunities but there is no hammer to make people come and talk to each other.

Question from the Audience: How can areas outside the Delta be helpful? I have experience with watershed management and storm water capture in southern California designed to reduce reliance on imported water. In the Sierra, watershed management will play a critical role so we don't overtop our reservoirs but use our forests to slowly release water into our system. How much thought is being given to this type of management in the vision process?

Spivy-Weber: I think that's a question to put to the people running the Delta Vision process because right now, at least in CALFED, the watershed management issues have been moved into DWR and the State [Water] Board and they're not a central part of CALFED.

Gastelum: In the Delta visioning it would be important to include an economist who is familiar with water resources planning because you can look at fundamentals when

If you are defining your path based on "can I satisfy this guy, that guy" in some kind of process that assumes we will have consensus, I think you will fail.

– Ron Gastelum, Paul, Hastings, Janofsky & Walker

making decisions about water resources. Local water rates, infrastructure costs, all come to bear on how people come to the table to decide which option they want to use. We need to provide some transparency so we all understand that and if we're going to change patterns, what is it going to take? Changes in tax policy? Directing available bond funds? What does it take to change behaviors, incentivize behaviors, in a different way?

Question from the Audience: One of the issues local government faces is the continuing pressure from Sacramento to build more housing. The state will impose on local governments a specific number of houses required to be built. This competes with other interests, particularly in the Delta, of protecting and preserving Delta lands. It's something that Delta Vision has to take into consideration as it moves forward. The building of housing in the Delta suffers the possibility of flooding, but you have the requirement from Sacramento to keep building there.

Coglianesse: One of the hopeful things about Delta Vision is that for the first time we have the secretary of Business, Housing and Transportation involved in the process. This is the blind men and the elephant problem. What drives local government to develop? Not only the housing allocation numbers but pure survival to finance services. How can we sustain ourselves long term if we are at cross purposes? I think this process will get to some really fundamental issues.

Gastelum: Builders don't make decisions to go build houses just because there's a nice piece of property. The industry is not necessarily holding a lot of property. They're looking at the market demand and where the infrastructure is available, etc. so if you consider the motivations for builders – and builders need to build homes. We absolutely need more homes in this state to deal with the growth, but can we direct it in a way that's smart that meets the need and doesn't compound our problems.

Question from the Audience: I would propose that what southern California needs is a Peripheral Canal. I've heard panels of scientists say that the state could sustain half a trillion dollars in economic damage if one of these Delta failure scenarios occur. This is supposed to be a panel on what southern California needs and I think southern California needs a Peripheral Canal.

Coglianesse: That will be one of the one risk management tools that will come out of the Delta Risk Management Strategy and it will be analyzed along with everything else. We've been told that nothing is off the table in terms of discussion but the reality that we hope to bring to you today is that there are a lot of issues and it's not that simple.

Spivy-Weber: It's not that a Peripheral Canal is a terrible idea, of course not, and it should be looked at but it is a long time coming. We've got many, many years and lots of money to go into such a scenario so we have to look at other options.

Zinke: When I said that we need an exit strategy from the Delta, I was not referring to the Peripheral Canal because I don't think we know exactly what the structure needs to look like. But I do know that we're faced with a number of fears generally coming from uncertainty. If we're having problems and are seeing continuing declines of the pelagic fish population and a water quality scenario that does not work well for all three parties, we have to find an alternative way to do that. And if we have to put some assurances on it, I hate to use that word because it was overused before, but we don't need necessarily to increase exports to southern California. That doesn't have to be the linchpin of any decision made.

What we need is reliability, both in terms of quality, which will happen if we create a system that is a little more hardened that going through a patchwork of the Delta and solve the quality problems of all three entities, and potentially address the reliability issue. It can be in a smaller system it doesn't have to be in a system that raises a number of other threats. And we would like to talk about how we can do that so we can complete the State Water Project.

Question from the Audience: Ron, did I hear you say that we must move beyond negotiations that are interest based? And if you did say it, what do you mean by that? Are you suggesting that some interests be left behind as we move forward?

Gastelum: I don't think you have that choice. Interests will do what interests do. But if you are defining your path based on "can I satisfy this guy, that guy" in some kind of process that assumes we will have consensus, I think you will fail. CALFED is living testament that we have not been able to reach consensus. The reason we have not been able to reach consensus is 1), it's complex, but 2), we have not had leadership at the very highest level. To get consensus it takes really strong, engaged leaders and I am talking about the governor, secretary of the Interior and possibly the president of the United States to move that kind of process. We don't have that. Our governor has now laid out a path and this presents an opportunity to say yes we understand the interests are there but now at a higher level "what are the ideas that we can bring to the table for our leaders, our Legislature and the interests to look at?" Which is different than saying "where are we going?" We're not going to get there if that's what we do. •

How to Be Involved: Developing a Common Vision



Dale Schafer, *Staff Mediator, Center for Collaborative Policy* (above)
Julia Lee, *Associate, Center for Collaborative Policy*

Dale Schafer introduced herself and Julia Lee and explained the process for the lunchtime breakout groups. Participants were previously assigned to different tables, with each table composed of people from various interests. Each table was to select a recorder to record the conversation and a reporter to report-out after lunch. She encouraged robust conversation among participants as they considered five questions developed by the Center for Collaborative Policy related to the Delta Vision.

Each table was asked to spend 20 to 25 minutes discussing each of these two questions:

1. Besides water supply, why care in Southern California about the sustainability of the Delta?
2. What issues (if any) tend to be avoided but need to be addressed if the Delta Vision & Strategic Planning processes are to be successful?

Each table was to then spend the remaining time addressing at least two of the following questions:

3. What are your thoughts about decision-making processes for the Delta Vision & Strategic Planning? How can we ensure the process builds a strong foundation for decisions?
4. What information or data gaps need to be filled?
5. What should be the key outcomes of the visioning and strategic planning processes?

The Foundation will provide the written reports to the Center and state officials for inclusion in the development of the Delta Vision. The oral report-outs as well as the written reports are included in the written summary proceedings. •

Identifying Perspectives and Issues: Breakout Group Reports



Following the lunchtime breakout group sessions, the workshop reconvened. Dale Schafer explained the process of reporting on each group's discussions. For each question, representatives from the various groups were asked to outline two to three key points, with subsequent speakers/representatives adding on new and/or different thoughts and perspectives. (Note: see Appendix A, page 30, for the written reports from the various groups.)

Besides water supply, why care in Southern California about the sustainability of the Delta?

Answers:

- Economic impacts – catastrophic impacts, the cost would be spread statewide, also economic stability – jobs, tax revenues, etc. are affected in southern California by either problems in the Delta or just reliability of the Delta.
- Environmental issues – if they are allowed to slide in this area would it be precedent setting?
- Environmental purposes – both to support a healthy environment as well as linked to water supply reliability
- Water quality
- Recreation
- Economics – Delta is major economic hub for the state that ties northern and southern California together
- Intrinsic value – belongs to everybody
- Infrastructure in the Delta – far reaching impacts north of the Delta to southern California
- Healthy, diverse state economy, which is important to a healthy southern California economy
- Emergency – southern California liability may require it to help pay for it
- Ports – Two ports in the Delta, three if you count San Francisco Bay. If global warming or other disasters were to cause a failure, at least two ports may not be able to move commerce. Where else is the commerce going to move through? Could other ports in California handle that volume? Where would you build new ports?
- Farming – the history of the Delta
- Energy supply, storage, transmission
- Post-AB 32 – carbon dioxide sequestration
- Groundwater blending – without State Water Project water local agencies couldn't meet water quality standards
- One of the most important estuaries in the state
- Fiber optic lines – communication could be major disruption, economic effects, lot of repercussions with email communication, etc.
- Tourism and recreation
- Intrinsic area – provides opportunity for academic research about estuaries
- Environmental stewardship – preserving the environment for its intrinsic value



What issues (if any) tend to be avoided but need to be addressed if the Delta Vision & Strategic Planning processes are to be successful?

Answers:

- Deeper discussion, education and communication between northern California and southern California
- Climate change – need to more specifically address climate change related to the Delta
- Maximizing local resources – need to encourage others to increase their efforts
- Conservation and metering – need to get more people on board
- Address the politics vs. technical aspects of reclaimed water
- Governance and structure – varying perspectives. The question is can you have consensus and still develop a plan for sustainability? We also understand there is a lot of burnout and apathy for coming up with solutions. Challenge is to engage and re engage stakeholders
- Growth
- Need more comprehensive and intelligent land use decisions. Can we continue to grow and protect our quality of life?
- Peripheral Canal – honest discussion on its feasibility
- Social equity and environmental justice
- Longer range planning horizons – 100 year rather than 30 year
- More emphasis on integrated planning and watershed planning
- Local control
- High level leadership – need
- Are all levees equal? Making Decisions that may be bad for individuals but are good for the whole are going to be difficult
- More on land use – why farm in parts of the Delta if the levees can't be maintained? Why build houses if they are in floodplains? Should we continue farming in other parts of the state that have problems with selenium?
- Trust – we need more trust between northern California and southern California regarding the Peripheral Canal
- Price of water – what are we willing to pay? Because this will come at a high price
- How much water is needed to survive? – useful to quantify the demand and how much is reasonable to supply?
- Sharing the cost burden – species protection and water supply. no one talks about the upstream users' impact on water supply.
- Retire unproductive agriculture land or fallowing islands
- Local government as a sacred cow
- Reducing exports is one option
- Critical assessment of vulnerability – northern California would run out of water faster than southern California if there is a significant levee failure. Contra Costa County and the South Bay are far more vulnerable than southern California which has a three year supply in storage.
- We need credible plan for an emergency response
- Need “no regret” decisions – emergency work in the Delta in preparation for the rainy season because of liability. Aren't there some other examples of no regret decisions where we can stop talking and just get things done?
- Sustainability of farming
- Overlapping jurisdictions
- Liability – who is liable for levee failures?
- Federal agencies – what is their role?
- Population growth – can we even supply the demands?
- Do we need to save all the fish species?
- Large private ownership of Delta land – how do we deal with that?
- Storage in context of protecting Delta uses

- Exports – understanding a sustainable level of exports that can restore fish. Could and how would people do without water for export?
- Who will pay? And how would we allocate each pays?
- If all existing uses can't be sustained, how do you prioritize uses and resources? And how do you compensate those who are low on that priority list?
- Emergency response plan – need one that is coordinated at the federal, state and local levels
- Recognize that there are parallel planning efforts beside Delta Vision. How should those be coordinated with the Delta Vision? Should they be making significant decisions prior to a Delta Vision plan?
- What is the safe yield of the Delta? In light of that, would we consider reducing exports?
- Question of the cost of water vs. the value of water and the disparity
- Collaborative process, very difficult – no clear line of accountability
- Innovative use of water – matching the water quality and the supply with the needs rather than generically serving water out of the Delta
- Conservation mandates
- Salinity management
- Planning scale from the small to the larger scale and finding a way to integrate those

Question: What are your thoughts about decision-making processes for the Delta Vision & Strategic Planning? How can we ensure the process builds a strong foundation for decisions?

Answers:

- Need decisions made – not just planning
- Legislative mandate to implement recommendations. Everyone going into this collaboration rather than expecting everyone gets better together needs to realize that everyone is going to feel a little pain.
- Need strong, committed leadership
- Identify end game and what we want to get out of the process before we look at all the constraints
- Need Blue Ribbon committee to conduct a three-day exercise regarding a catastrophic levee failure. Outline what each entity has regarding water supply. What are you going to do and how are you going to handle that short term, intermediate and long term? Let them work through three day event to see how they would recover and operate the Delta moving forward.
- Need open and public process – no closed door deals
- Blue ribbon commission appointed by and supported by the governor that hears all the stakeholders before delivering a report
- Need to accept that we will all lose something but will get greater good

- Need to include Delta stakeholders in the process
- Need blogs and other innovative ways to reach out to lower-level staff who cannot directly participate in the meetings and activities

What information or data gaps need to be filled?

Answers:

- More synthesizing skills and experts
- More expertise on risk
- More expertise on economic analysis on options
- Continuing to learn more about the science of climate, water quality and fish
- Need more firepower to address broad-based technical issues, to evaluate our options to take actions. The Delta Risk Management Strategy, the pelagic fish decline study are good but narrowly focused. Where is the technical horsepower going to come from to evaluate action options?
- Better earthquake fault information
- Need to identify specific requirement for long term maintenance of key Delta species
- Need true cost effectiveness analysis of various alternatives

What should be the key outcomes of the visioning and strategic planning processes?

Answers:

- Action plan
- Full buy in
- Strong leadership with authority to make a decision
- Deadline
- Integrated, coordinated effort statewide rather than just spending bond funds piecemeal
- People and interest groups willing to give
- A long-term, 100-year vision even though we won't see it get done
- Early outcome – need this emergency response plan. If you had an emergency response plan it could help other pieces of the overall vision fall into place.
- Prioritize uses and resources that can be sustained over the long term, including levee maintenance.
- Regional water management plan
- Recommend how to reduce/improve the fragmented government and identify the person/entity responsible for implementing the plan
- Financing plan •

Shaping a Vision: How Do We Move Forward?



Panelists (left to right)::

Ann Hayden, *Water Resource Analyst, Environmental Defense*

John Cain, *Director, Restoration Programs, Natural Heritage Institute*

Tom Zuckerman, *General Counsel, Central Delta Water Agency*

Ellen Hanak, *Research Fellow, Public Policy Institute of California*

Leo Winternitz, *Deputy Director, CALFED Bay-Delta Program/California Resources Agency*

Moderator (third from left):

Tom Philp, *Associate Editor, The Sacramento Bee*

Tom Philp: Quick show of hands. Who went to bed today? I'm with you. I went to bed at 2 a.m. We went to bed today because the voters were shaping things for us [last night]. We have a new congressman in the Delta. How does that change things?

Tom Zuckerman: It probably won't change things too much. As I tell people, if you don't have roughly the same position on Delta issues you're not holding office in our area. We've worked closely over the years with people of all stripes and they all seem to share the same basic attitude when it comes to the Delta. I have been in situations where George Miller and [Richard] Pombo worked closely together on issues, although neither one of them would care to admit it. The main way it affects us is we have a junior congressman instead of the chair of the

House Resources Committee. On the other hand we have a speaker from northern California who again shares a similar vision of the Delta that most of us share.

Philp: The Democrats now run things, at least in the House; probably in the Senate. Is the Peripheral Canal entirely off the table? Are the ghosts of 1982 floating back? Or are they going to hold their fire and keep an open mind?

Ann Hayden: The Peripheral Canal sounds like it is going to be on the table and it is going to be studied. And Environmental Defense is keeping an open mind and will review it on the scientific and technical merits.

I'm not expecting a whole lot of change up front but I will say I am encouraged about Hetch Hetchy because the governor [has been re-elected] and [might like] having a little bit of a legacy not just on Hetch Hetchy but he might also be the governor who does something to make the Bay-Delta finally sustainable.

Philp: We passed \$4 billion in flood control bonds last night. Are you excited about this or are you afraid we're going to throw the money down a rat hole? [Laughter]

John Cain: I'm worried. We called it the levee bond but if you actually read it it's more a flood management bond and that's how the money should be spent. But I'm worried that a lot of people will think that it only needs to be spent on levees and that's the best way to spend it when it's

probably actually better to spend it on more progressive techniques like flood bypasses. These aren't new, environmental ideas. By the way, it was not Mark Twain who said "there are two kinds of levees" it was William Hammond Hall the first state engineer. This guy had vision and he was a one-man CALFED science conference. He is the one who surveyed all the rivers and in the 1800s recognized the need for flood bypasses; that levees alone weren't enough.

The Peripheral Canal sounds like it is going to be on the table and it is going to be studied. And Environmental Defense is keeping an open mind and will review it on the scientific and technical merits.

– Ann Hayden,
Environmental Defense

The problem is there are a lot of wealthy developers who want to build houses on the other side of the levees. As big as today's political news is the news on the business page that the housing market in San Joaquin County is tanking. We have a huge pile of money and a lot of plans to build developments in the Delta but the real estate market is kind of disappearing. Similar opportunities have come around before, like in the Santa Monica Mountains. I think we can do the same thing in the Delta. We have a window of opportunity.

Philp: Ellen, are we ready to spend money or do we need to wait for your report?

Ellen Hanak: Anyone who looks at flood control in this state will say the amount of money the voters agreed to issue is no where near what we want to get adequate flood control for the Central Valley. It's not just a Delta issue. In relation to the Delta Vision process it is encouraging that there is money available to do something, but we shouldn't think that means we have a strategy. Because even if there is a decision that a lot of money needs to go into Delta

levees, it's not clear yet which levees really need it and it's not the case that levees are going to solve the multifaceted problems of the Delta alone. They're just part of the solution and it may not be the solution for water supply issues.

Philp: One of the new issues in the Delta is the new science which seems to challenge that there was this safe window in the winter when we could move water to Los Angeles because the fish didn't mind. But apparently we're moving Delta smelt larvae in that water and that's causing some headaches, and may cause a rethinking of operations. Where are we with this new science?

Leo Winternitz: It's not necessarily new science. The science has been there. People have thought for a long time that there are impacts from pumping. What was missing were objective criteria to show exactly what is happening. There are some new techniques in science in getting information. These new techniques were presented at the CALFED science conference last month and that information is being used to develop hypotheses for testing to confirm what scientists have said in papers and presentations. Essentially, they found that from September to May, periods where we was thought it was OK to pump, there are more impacts taking place than thought – depending on hydrology. The biggest impact has been on adult Delta smelt and Delta smelt larvae are being taken.

But the bigger story is that science is confirming that our current system of conveyance is not flexible enough to meet the multiple objectives that we have established. Water supply reliability. Ecosystem. Water quality. We have established good, multiple objectives and the system can't meet them. Not that it hasn't been tried. Intelligent people since the 1970s have tried to manage the Delta system in an adaptive manner. In 1970s and early 1980s there was a lot of spring and summer pumping. And the State Water Resources Control Board came in and said you're impacting striped bass and they set water quality objectives in 1985 that forced a movement of pumping from the summer to the fall. Then the Delta smelt, winter-run salmon and spring-run salmon were listed and we found out that the pumps were taking fish during the fall. Since 2000 the projects increased their pumping in December, January, February and March. Since the pelagic organism decline (POD) happened in 2001 the scientists have been looking into this and one thing they found is that as far as Delta smelt are concerned, they come in early in the winter and they spawn, the pumps are going and taking those larval fish and even some adults. In the last several years scientists have found by looking at a fish's ear bone they can tell when the fish was born and where it was born in the Delta. One scientist has determined that since 2000, no smelt have been born prior to April. The managers have been trying to adaptively manage the system, but you press on that balloon in one part and there's a bulge in the other part.

Philp: This is new science, which has two impacts. What is the rational, short-term response? And how do we use this for our longer term solution?

Hayden: One of the problems has been that in CALFED, water was set aside for the environment to actually take these fish actions at times when it was bad for fish at the pumps. The decline in pelagic species is coincidental; in the last three to four years there has not been enough environmental water to take all the actions that are necessary at the pumps. This is due largely to the fact that when CALFED came about there was ample public funding to buy this environmental water and the public funding has run out. As we look forward we might have to start talking about beneficiary pays and how we are going to fund conservation and restoration and allow for increased actions at the pumps to reduce these impacts on the fisheries.

Hanak: I've been working with an interdisciplinary group from UC Davis to try to step back with [regards to] where the Delta is going. There is a current where one group says that shoring up the levees and getting this system more secure than it is right now is where we should focus. There's another current of folks who are interested in bringing up the idea of a Peripheral Canal again; maybe not your grandfather's or dad's canal, but a canal nonetheless. And the environmental community has been focused on whether export levels within whatever configuration are part of the problem.

We thought it might be useful to take a step back and look at a broader range of possible alternatives and see how they might be able to address the various concerns we've talked about today. That it's not just a water export issue. That it's not just a water quality issue. It's also an issue of ecosystem health and land uses in the Delta, including agriculture, urban areas and other infrastructure. Our study is not a detailed engineering study. It's looking at a range of ways to manage these different resources.

From the ecosystem side, the fish, unlike people, are stuck in the Delta. They don't have the option to move or make changes like moving a road or where you build houses. Those are fundamental things to think about. One of them is the role of the pumps and what that means for conveyance. Another big problem for the pelagic organisms are invasive species, which are doing a lot better in the Delta we've created over the last 70 years than the native species, which has to do with fluctuating salinity in the western part of the Delta. When we built the Central Valley Project we created a fresh water barrier at the western edge of the Delta. That's good for export water quality but it turns out it's better for the invasive species than the pelagic species.

Philp: Tom, what do the in-Delta folks think about these studies and other activities?

Zuckerman: I've survived three or four different attacks on this subject over my career and I suppose it's beginning to sound like we're going to have to survive another one. The way we look at this issue in the Delta is we were doing pretty well before some of these modifications began to take place. We had healthy fisheries, even though we were farming and taking out some water for municipalities in the western Delta. And then things began to change. And we all know what those changes are. We need to go back to the point where we knew it was working and work our way forward. We used to have problems with salinity intrusion in the driest years in August and September and October but it didn't interfere with the farming because irrigation season was over. The water projects substituted worse water quality in the spring in exchange for better water quality in the late summer and early fall when it wasn't of any advantage to us.

The first thing we ought to do is try to figure out the safe yield of the Delta so we don't over-export water and then figure out how to increase local supplies [in export areas] to bridge those gaps in years where there isn't sufficient supply. If you move the pumps up somewhere on the Sacramento River, you're going to be exposing every fish that uses the Sacramento River – including the entire Chinook salmon fishery, all of the sturgeon, most of the steelhead and most of the shad. And we don't even know if we can build a fish screen on that scale that can separate the fish from the water supply. I don't think we can afford to take that gamble at this stage. We need to figure out how to reduce exports if we need to, and in years where there's a plentiful water supply figure out ways to get that water into storage underground or wherever, and then work forward from that basis.

Philp: For your interests, is there a way to keep an open mind on the science and the location of the pumps in this process? Or is your community "southern Delta pumps or bust?"

Zuckerman: We had a lot of assets that we've expended in this battle over the years. When you go out and educate a generation in 1982 it's hard to un-ring that bell. All of our politicians come from the same bolt of cloth on this issue and it would be a very hard sell at this point. Remember the results of that election. The same election today would probably be even more devastating against the idea of a Peripheral Canal regardless of what the science

The bigger story is that science is confirming that our current system of conveyance is not flexible enough to meet the multiple objectives that we have established.

– Leo Winternitz, CALFED Bay Delta Program

looks like. I think a more viable political approach is the one that was described earlier by Fran and others.

Cain: I'm frustrated to no end that 25 years later and we're again talking about the Peripheral Canal. I buy into the idea that we need a long-term plan and the canal should be on the table and studied but there are things we need to do today and we have money to do today and if we don't choose to spend the money wisely it is going to be spent unwisely. I think there are some no-regrets actions like we need to spend some money on the levees so the Delta doesn't fail in the next 10 to 20 years. Another thing on my list is restoring the San Joaquin River, which I can check off thanks to the settlement. But the most important item is to prevent urbanization of the Delta.

If the entire perimeter of the Delta is urbanized the Delta will be a water resource not worth fighting over. We need to work together to prevent the urbanization of the Delta. There's River Islands near Lathrop where they want to put 11,000 homes on an island that was 6 to 10 feet under water in 1997. But it's not just about putting people in harm's way. It's also about constraining our water supply. When you put all those people in the floodplain, especially River Islands, it's going to affect the way upstream reservoirs are operated. We're already looking at increased rainfall and increased flood events which will make the U.S. Army Corps of Engineers require more space in the reservoirs for flood space. That means less water supply to the state of California. Also, all that development is going to cause the same problems with storm water runoff like in Santa Monica Bay except that water is going to come out of your tap.

Philp: If we shore up our levees in the Delta we're going to have to provide an urban level of protection for communities like Clarksburg and Walnut Grove where there are people who really want to develop. How are you so sure that shoring up the levees in the Delta doesn't unleash that same urbanization problem?

Cain: I'm not talking about shoring them up to urban level protection. Besides, when the real estate market is hot, developers are willing to pay money for super levees so bad levees aren't an impediment to development in the Delta. What we need is a stronger Delta Protection Commission paired with a Delta conservancy. This idea that we can just let some islands go; I don't think that's a credible idea. There are a couple of islands that did get let go, Big Break and Frank's Tract. Those islands are clogged full of the invasive Brazilian water weed; you can't even boat through that stuff. And when one island fails you increase the risk of another island failing and you get the scenario of multiple islands failing. If we let the Delta islands go, we're going to have an irreversible outcome. Maybe within the long-term vision we need to have some sort of controlled way to let an island go, but we can't let the islands go in a short term.

Zuckerman: We were all privileged to hear the presentation by Tom Holzer. Something that came as a shock to me is that the state does not have a flood plan. You talk about emergency response... We don't have a flood plan even with the existing hydrology of how to route a flood through either the Sacramento Valley or the San Joaquin Valley yet we're looking at climate change with less snowfall and more rainfall. It's a very haphazard, patchwork situation with each reclamation district and city on its own. If we don't get our act together there's no chance we're going to solve these problems.

We need to have an idea of which portions of the floor of the valley we need to protect in flood events. We need to figure out how to take islands in the Delta and use them as temporary flood basins without a catastrophic levee failure. We need to figure out which of the western Delta islands are most vulnerable to seismic activities and fix those levees. The only ones working on it are the University of California, University of the Pacific and CSU Sacramento, but the government is not working on it. I'm not suggesting that this has to be the government's doing. But if we don't take some of this bond money and develop a plan to use it, we're going to end up in the same situation we've been in this past year. Not taking anything away from the governor and his flood emergency repairs but a cost analysis would show that wasn't the most efficient way to spend the money.

Philp: We have no flood plan, the fish are declining, pollution threats from urbanization... Let's discuss the idea that everyone is going to feel some pain... Leo, how much pain are we talking about?

Winternitz: The CALFED program was designed as "we all get better together." That hasn't happened. We heard discussion this morning, and I asked a question, about interest-based negotiations. Ron Gastelum said we should set that aside, that it hasn't worked. Where I previously worked at the Sacramento Water Forum that was the basis for all getting better together. But some felt pain because it focused not on what people wanted but on what they needed. In the dry years, water purveyors stopped diverting from the American River and went to groundwater. The environmental organizations allowed almost double the amount of diversions in the other years and they all felt some pain, but they did move forward. If we're going to get into solutions... we're going to have to focus on information, the best science there is; education, like this venue to make use of that information; and we need to move forward in fair manner acknowledging the different interests. I didn't say meeting the different interests because I don't know if we can do that.

Philp: I have a criticism about the last two water bonds we passed, Prop. 84, which we passed last night, and Prop. 50. The problem with them is they were consensus water

bonds. Environmentalists and the water community took the middle parts of their agendas where they shared common ground. So there was no paid opposition because everyone gets something, and paid opposition would be the death of the bond. And everyone was happy. But this does not work well when you have some unbelievably complex and difficult decisions in the pain era... How do the interests rewrite how they relate to one another and come up with the mother of all controversial water bonds that they all hate but that actually does something?

Hanak: Part of changing from an assumption that we're all going to get better together to recognizing that there are going to be some costs, and the idea that it might cost everybody something. We should be careful because any solution is likely to make some people very happy, while some will hate it. The goal has to be to find the best overall answer for the state and make sure that folks who are going to lose out get some reasonable compensation.

Cain: I think everyone needs to be flexible, but I don't know if everyone is going to feel pain. I think we need to get diverse people together in a room for two days for a design charrette such as the one held at UC Berkeley earlier this year. We weren't developing a plan. It was stakeholders getting together and drawing specific lines on the map to get really explicit about what kind of future we could create for the Delta. That process got us thinking about what is realistic and excited about creating a future for the Delta. A lot of things jumped out. The Delta is this amazing open space area for the Bay Area but it's mostly under private ownership. By converting a couple of western Delta islands to wetlands and recreation you create this new constituency and they are gaining a valuable asset.

Philp: What about the baseline? CALFED assumed current exports as the baseline goal and a lot of documents didn't consider lower exports. This is an issue we're going to revisit during the vision. Is there a baseline?

Hayden: That is one of the huge data gaps that needs to be addressed. The Bay-Delta Conservation Plan, which is a negotiated agreement, is where the water supply projects are going to be looked at and how we can develop a conservation strategy to mitigate for those impacts while continuing to recover endangered species... At the core of that process is answering that question [about a baseline]. We think our preferred strategy for the near term, and perhaps for a long term, is to export what you can safely out of the Delta. Out of that yield, a certain amount of water should be able to be used flexibly to take actions on a real time basis. Now, fishery agencies do not have the tools available to take those real time actions when they need to.

Philp: What is the role of the Legislature?

Zuckerman: With term limits, we can't rely on expertise in the Legislature. The attention span isn't there. It's incumbent on the people to come together, to meet outside the legislative process and try to forge solutions and take compromises to the Legislature where you need enactment.

Philp: Who likes the idea of a deadline? Is a deadline useful?

Winternitz: I think they're very useful tools. The governor's executive order setting up the Delta Vision Blue Ribbon Task Force has a date for development of the Delta Vision itself and a date for the strategic plan that will result from that Delta Vision.

Hanak: In terms of short term things from Sacramento... there are some things we could take action on before we have a long term vision such as flood control policy.

Cain: I think one of the best successes in California water, was the constitutional amendment on reasonable and beneficial use. It grew out of different movements and different stakeholders coming together. And then it was easy for the Legislature and the governor to adopt it. Same thing happened with solving the levee wars of the 19th century. A commission allowed stakeholders to come together and say this is how we're going to solve the problem and they eventually found a Legislature and a governor willing to move the plan forward. I think we're more likely to get a winning result if the stakeholders can get together and serve up the plan rather than waiting for a consultant and a blue ribbon committee, etc. It's better for stakeholders to come together to show a plan to government and government to use its resources to analyze the plan and refine it over time with the stakeholders.

Philp: Ellen, you discussed how some interests may have very different futures under the vision. If one interest looks at this in the beginning and says I don't like this... how do we get beyond that moment and keep everyone at the table through that initial primal scream period?

Hanak: I don't think there's a guarantee there will be universal satisfaction with any strategy that folks can agree on. I don't think you can avoid that cranky moment. I do think having a process in which it's understood that there is going to be reasonable type of compensation, which could be financial or physical ...

Sudman: We learned a lot about the process today. It's been a very informative day. Stay tuned for more Delta workshops.

Appendix A

Written Responses to Break Out Group Questions

Questions:

1. Besides water supply, why care in So Cal about the sustainability of the Delta?
2. What issues (if any) tend to be avoided but need to be addressed if the Delta Vision & Strategic Planning processes are to be successful?
3. What are your thoughts about decision-making processes for the Delta Vision & Strategic Planning? How can we ensure the process builds a strong foundation for decisions?
4. What information or data gaps need to be filled?
5. What should be the key outcomes of the visioning and strategic planning processes?

TABLE 4

Question 1:

- Because it's there. Benefits to economy. All parts of state contribute to vitality of the state. We're interconnected.
- Environment guardianship.
- It's "cheap" land where people can live closer to jobs
- Open space and recreational destination.
- Part of our natural heritage.
- Agricultural industry is critical to state.

Question 2:

- Sacrifices need to be made. Governance issues.
- Land use issues (why are farmers on this land and why are we building new developments here?)
- Why fortify islands that will ultimately fail?
- Who pays and how much?
- Peripheral canal
- Navigation of Delta for goods movement
- Revenue stream for operations & maintenance. Not addressing long term revenue source/mechanism
- Air quality
- Perception that the Peripheral Canal is a So Cal water grab and that there would no longer be an interest in continued investment in the Delta and related needs.
- What are we going to do in the case of near term disaster and to prepare for the future?
- Growth control not being acknowledged by segments of environmental community.

Question 3:

- Include more Delta stakeholders
- Need to prevent politics over good policy. We don't trust that legislative solutions will independent of special interest influences
- Accept that everybody is going to lose a little bit of something in order to gain something.

Question 4:

- Need to weed out the variables that will answer questions about why some fish populations are declining while others are thriving.

TABLE ?

Question 1:

- Economy of entire state is at risk
- If something goes wrong in the Delta, we will all have to pay for it.
- Agriculture is important to the people of California.

Question 2:

- The price of water
- Loss of storage in snow pack due to global warming. California must have more storage, both in-stream and off-stream
- How much water is needed to survive? We need to quantify what demand we are trying to provide.
- Land use decision-making. Is it right to keep building urban sprawl at the expense of other land uses?

Question 4:

- Base line amount of water needed for population in various areas. What is the bare minimum? What is reasonable? This could be used to create accountability on the part of agencies which make land use decisions

Question 5:

- Our vision should be that Southern California can have a sustainable lifestyle that includes homes with landscaping. We may have to change what we have now, but we don't want to be Las Vegas.
- Everyone will have to give up something to make the Delta Vision successful.
- More storage

TABLE 1

Question 1:

- Corridor for utilities-spillover affects others
- Important to state's economy
- Disaster will have spillover effect
- Recreation value
- Cost effective water treatment area
- Ecological values

Question 2:

- Land use
- Time frame out to 100 years
- What can be allowed US need?
- Integrated planning CA
- Institutional issues: division between local and state actions
- Local control
- Leadership at highest level
- Not all levees are equal

Question 3:

- All stakeholders at table/involved
- Workshop like today particularly for newcomers
- Need websites/email
- Will conference attendees be alerted when there are draft proposals?
- Blogs, uTube, wikipedia for new ideas
- Need Blue Ribbon TF=Big picture thinkers w/support (able to choose from options) that may not have consensus

Question 4:

- Always gaps
- More synthesizing a la Tom Holzer's presentation
- More work on fish decline
- Water quality-more info
- Science on climate
- More on risks
- Economic analysis of options

Question 5:

- Reliable water supply
- Statewide regional watershed planning as an important approach to solving problems
- Healthy Delta ecosystem
- Integrated plans
- Less reliance on the Delta
- Improved land use and long range planning policies
- Emphasis on taking action
- Making system more robust/resilient to respond to natural disasters

TABLE 6

Question 1

- Water supply for 23 million Californians, majority reside in So. Cal.
- Economic impact of having water supply to So. Cal

- Ag production in Delta area-dependency & water quality becomes key issue (So. Cal as well as No. Cal)
- Recreational component for So. Californians
- Dependence on drinking water supply important to So. Cal
- Integral part of No. Cal economy but economics are linked (So. Cal to No. Cal)-we could have simultaneous problems affecting our regional economics
- Water quality (So. Cal) interests/poses supply challenges
- Ecosystem supports fisheries/another component of the economy and the health and sustainability of the Delta
- Transportation: another component of sustaining the economy

Question 2:

- Education & communication between No. Cal & So. Cal
- Address climate change (more rain, less snow)
- Continue maximizing local resources & celebrate our success; Conservation & metering-continue to get people on board; Reclaimed water (need to address politics vs. technical aspects)
- Governance of Delta Vision is an issue; Varying perspectives ~can you have consensus & still develop a plan for sustainability? (Issues of overlapping jurisdictions)
- Burnout/apathy over trying to come up with solutions; Challenge to engage or reengage stakeholders
- Address growth – rapid pace, issue of state; directing growth to low impact regions
- More comprehensive & intelligent land use decisions in Delta (incentivizing land use decisions and encouraging density); can we continue to grow and protect our quality of life?
- Unpopular/Need to address feasibility of the p.c.; Have honest discussion; "alternative conveyance"/different options
- Social equity & environmental justice (of the impacts)

Question 3:

- Consensus vs. compromise: What do we want as the end result? Will there be an end result?
- Process best works if know opportunity for success; without the support of government & leadership where will this circular discussion go?
- In the decision-making process we need to decide how much we are going to do to mitigate threats.
- Bottom line: buy in and support from local, regional, state & national leadership for the process to work)
- We have expectations, now there must be implementation. Delta Vision process must be time and resources well spent. Water bonds have just passed.
- Incentives must be a part of the decision-making process.
- All interests must be represented and there must be transparency. We must uncover all of our fears. There must be realization of our interconnectedness.

TABLE 16

Question 1:

Water quality

- Gas fields: state economy impact of loss of utilities to Bay Area
- Largest estuary in West Coast
- Cost to California taxpayers if Delta fails
- Loss of revenues

Question 2:

- Alternative conveyance facility
- Housing & land use
- Financing
- Bay Area will run out of water first
- How the state is so interconnected economically

Question 3:

- Emergency modeling
- Little Hoover commission
- Report putting forbidden topics in one package
- Strong committed leadership
- End games

Question 5:

- Road map
- Timetables
- Resources
- Staffing needed
- Milestones
- Priority list
- Temperance flats?

TABLE 18

Question 1:

- We are all connected across the state
- We care about environment
- Major transportation hub affects economy
- Affects vitality of economy
- Important migratory path
- Recreational opportunities: Fishing, boating, water skiing, wake boarding
- Global warming effects – such as less surface water storage
- Agricultural resources – dairy, vineyards, crops
- Major power transmission lines
- Massive storage area for natural gas
- Concern about residential areas, flood control needs, loss of homes, jobs because of floods
- Concern about restoring wetlands

Question 2:

- Imposing a water usage assessment so that beneficiary pays
- A sustainable funding mechanism to meet Delta needs
- How long is the planning horizon?
- Should the Vision include methods of finding alternative water supply for Southern California or other areas?

- What happens to Delta water now used for agricultural land (west side of valley) which will be removed from agricultural production (underlying problem is salt accumulation and improper drainage)?
- How can the Vision integrate all the interested parties and interests-urban growth, agricultural, recreational & environmental, north vs. south?
- Peripheral canal/alternative conveyance
- Surface storage and subsurface storage in both north & south and better statewide management of such storage
- Management of flood and storm flows to increase levels of supply

Question 3:

- Open & public – no closed door deals
- Process could be: a) Blue Ribbon Commission hears stakeholders or b) stakeholders meet directly

Question 4:

- Climate change – what is really happening? How good is the science? What predictions can we rely on?
- How much water does the Delta need to sustain various uses? Is outflow needed? How much?
- What are the impacts of invasive species?
- More info on how preservations of one species negatively impacts others. What is the optimum water flow and timing to sustain all species?
- Should Vision give preferential treatment to any species?

TABLE 21

Question 1:

- Plays large role; Loss of the Delta could cause \$200 billion dollar annual loss in economy
- Potential environmental destruction with loss of Delta. Environmental stewardship is important.
- Quality of water (although this is difficult to separate from water supply)

Question 2:

- Reducing pumping/exports
- How much water does the Delta need to be healthy? What is the safe yield of the Delta?
- Is California ready to control development? Is California ready to take on SMART planning?
- Population
- Cost of water vs. value of water
- Difficulty in having a collaborative effort b/w the numerous agencies
- Who is responsible if the Delta fails? State of California?

Question 5:

- A plan that is truly integrated/involves all interested parties
- Viable Delta

TABLE 20

Question 1:

- It is a California resource, not a regional resource. May never visit but know it's there.
- How much cost to fix Delta?
- Is tremendous infrastructure that supports Bakersfield & south; Loss would be significant effect on State;
- Should not build communities below; however, is so much already there that we cannot solve that problem;
- More water pumped out of Delta; drive in salt wedge which is potential contaminant of water, including groundwater.
- Major Delta catastrophe would be disastrous to So. Cal water supply; Small amount of salts is very damaging to strawberries

Question 2:

- Peripheral canal
- Prohibit construction below Delta
- Use recycled water (i.e. toilet>beer)
- New construction conflicts (i.e. # of new streets required by Sacramento)
- Mandated housing starts in regions that may not want; Development in regions w/o sufficient infrastructures-roads, water supply
- Coherent state water conservation/demand/conjunctive use policy/groundwater use/replenishment/storage (use of space above legal adjudicated rights)
- Broad land use policy to prioritize degrees of protection use
- Is it worth maintaining all the salmon runs?
- Competing water demands

Question 4:

- Requirement to maintain Delta adequate species
- Cost effectiveness of various solutions
- Earthquake fault information
- Reliable region wide population projections

Question 5:

- Analysis of costs/benefits
- Reliable water supply for intended uses
- Long term maintenance of healthy levels of aquatic species in Delta
- Coherent water policy that can create legislative initiative to support local projects that reduce pressure on Delta (i.e. water conservation, water recycling)
- Cost effectiveness of alternative transportation methods/routes/etc.
- Short-term viable projects identified/implemented; Show small success; Success breeds success

TABLE 7

Question 1:

- Not obvious to general public that we should care about Delta for a water supply; Delta not fully appreciated
- Economic impacts – costs will also affect So. Cal; Catastrophic impacts affect us all
- Not in same category of Yosemite
- Ecological significance of the Delta
- Can't turn our back on enviro issues; Precedence setting
- Economic stability of the region – jobs, manufacturing, tax revenues
- Water supply overshadows the other factors
- Loss of gas/power transmission

Question 2:

- Retirement of unproductive farm land south of Delta – put water to more productive uses
- Following island within Delta – let them go; Dedicate to environmental benefits
- Looking at shifting burden of risk for flood protection to local government and/or building industry
- Governance – there is a lack of authority/responsibility due to diffusion of responsibility – no one seems to be in charge
- Local governance is a sacred cow. Look at broader authorities. No accountability.
- Who gets to decide what's more important? A political question we avoid, but we need to address.
- Conveyance/Peripheral canal/Isolated transfer facility
- Lack of leadership
- Sharing the burden for species restoration, water supply & costs – are we pinning the enviro issues in Delta on So. Cal water users? Where do the diverters of water upstream of the Delta have responsibility? What about more water conservations in No. Cal? Why don't we have mandatory conservation measures?
- Reducing exports from the Delta

Question 3:

- Task force might make a difference if they make a decision. We need some decisions & a path formed
- Skeptical that progress will be made but still need to try – question is for how long do we do this?
- The improved scientific knowledge of today may make the process better this time
- Process should result in deadlines that become legislative mandates
- Everyone needs to expect they will feel a little pain – not everyone gets better together

Question 5:

- The “visioning process” probably won't work. We've done this before and nothing happened. Let's pick a course & move forward.
- “Lost cause” is the wrong message from this question.

TABLE 9

Question 1:

- Economic factor – driven by water supply
- “National park” factor
- Habitat & recreation
- Ecosystems/fish – flyway
- Farming, history
- Energy – supply, storage, transmission
- CO₂ sequestration?
- Question 2:
- Peripheral canal
- Development
- Sustainability of farming
- Who pays? Who maintains?
- Overlapping jurisdictions
- Who is liable for levee failure?
- Avoiding the obvious risk of catastrophic failure
- Role of feds?
- Growth, inevitably
- Reality

Question 3:

- Communication is critical
- Someone actually has to decide!
- Process needs to be known up front
- Clear expectations articulated up front

Question 4:

- Knowledge of groundwater storage
- Capacity around the state

Question 5:

- Reliable water supply
- Improved ecosystem
- Viable Delta agriculture
- Public safety
- Adaptive management for climate change
- Protect functionality of existing infrastructure

TABLE 11

Question 1:

- Water quality – impacts from urbanization, for example
- Integrated state economy linked to Delta (if roads were disrupted then that would affect commerce, impacts to fiber optics)
- Invasive species – brought in by ships affecting fisheries (exotic clam, algae)
- Intrinsic value of Delta as ecosystem, migratory stop for water fowl, etc., largest wetland on west coast
- Tourism – recreational
- Academic research—learning ground

Question 2:

- What is a sustainable level of freshwater exports from the Delta to restore pelagic fisheries?
- What is the minimum level of water coming from the Delta that could sustain So. Cal urban users (assuming self-reliability)?
- Surface storage
- Beneficiary pays
- Sustainable funding structure (how do we pay for it and who pays?)
- Can all existing uses of the Delta be sustained – how do you prioritize uses of Delta?
- Do we need to take another look at how we govern & protect the Delta?
- Coordinated emergency response plan for the Delta
- Distrust among the stakeholders – how do we overcome distrust among stakeholders in this Vision process?
- How should the timeline of parallel processes dealing with activities in the Delta be coordinated with the Delta Vision?
- Are there any laws that need to be amended to implement the Vision?
- How do you compensate people who are determined to have low priority uses?

Question 4:

- What’s the maximum amount of water that can be diverted but still sustain/help recover the ecosystem?
- What is the externalized cost of water from the Delta for its various services?
- Are there any cost-effective alternatives to Delta water supply?
- What defines a healthy fishery?

Question 5:

- Prioritization of levee improvements
- Identifying & prioritizing uses and resources that can be sustained
- Improved buy-in/trust among stakeholders
- Needs to deal with water management
- Needs to have a recommendation about for improved/less fragmented governance
- Need to make recommendation about financing
- With projected sea level rise, what would the height of the levees have to be to maintain our current levee system? And how do you deal with the salinity impacts?

TABLE 12

Question 1:

- Water quality
- Recreation
- Wildlife/habitat restoration
- Importance of Delta to ports/commerce
- Water supply
- If the Delta failed there would be major economic disruption
- State's economy is directly tied to the Delta
- Deal with the people that live there. Future development needs to be discussed.
- Current agricultural industry
- Fire safety considerations/supply

Question 2:

- Must discuss the Peripheral Canal/conveyance facility (isolated)
- Land use management – must be addressed rationally & on a statewide basis for the greater good
- Credible near-term emergency response plan – we are at risk today!
- Real cost of an extended outage
- Reduce risk of saltwater reaching the Delta pumps (in a catastrophe)
- Real balancing of interests
- Remind folks that an isolated facility was part of the original design of the SWP – principally to protect fish
- Implement “no regrets” decisions – stop talking – do things we know we need to do
- Stop ignoring timeliness – too much delay – not acceptable
- Educating the voters of the true risks of doing nothing, must be a high priority
- Agreement on a structure & a timeframe – then empower the entity (group) to determine the solution
- Educational component again must be emphasized
- People of the state have to see themselves as responsible – both north & south
- Determine the role the legislature should play
- Customers/users of the SWP/CVP must step up to fund an isolated facility
- Take the long view both with respect to the need to implement a solution and pay for it

Question 3:

- Too much process already. Make a decision and move forward

Question 4:

- Not sure we are short on data
- When are owners of the infrastructure in the Delta going to deal with it (gas, electric, etc.) – could be a distraction to what needs to be done
- Lack of understanding of true economic data/risks at stake

- Economic and other impacts on other states
- Money is not the answer – we have been throwing money at it and we haven't solved the problem
- Making the deliverable meet expectations

Question 5:

- Deliverables/Actions
- A project that can be implemented
- Exactly what needs to be done, who can decide, authority to move ahead
- Identify the mitigation needed to take action
- Ensure that we are not abandoning the Delta/levees – just less reliance
- Early outcome for an emergency response plan for the Delta – other pieces, projects may surface as a result – fast track
- Watch the rodent immigration
- Guard against overburdening the process itself
- Recognize that we all benefit and are connected to the Delta in some way
- We are one state; The Delta is a key resource for the state
- Water is a one-state issue
- Business/labor interests must be fully engaged

TABLE 13

Question 1:

- Statewide economic impact will affect us in So. Cal
- Water quality in So. Cal is improved because the agencies use state water to blend
- Environmental assets – the most important estuary in the state
- Water reliability

Question 2:

- Land use/development in flood plains & re-charge areas both regionally and in the Delta
- Who pays for flood plain protection—developers, homeowners, farmers
- Peripheral canal
- Not enough water for demand
- Population growth
- Eliminate levees

Question 3:

- The planning process should be driven by the governor making it a personal priority
- More involvement by local and regional officials other than water officials
- Public outreach to develop public support

Question 4:

- Do we have adequate studies to evaluate how to rebuild levees (material that should be used, height, etc.)
- Concepts that work with nature instead of trying to control it

TABLE 19

Question 1:

- Salmon-ecosystem
- Recreation – ecosystem – unique
- Water fowl migration
- Economic engine – water to Central Valley
- International economy trade/ports
- Quality impact to the supply impacts to the Colorado
- Migration North change
- AB 32 sequestration

Question 2:

- Peripheral Canal (around the Delta) for water quality/ ecosystem health
- Climate change
- Land use/development in flood plain
- Local control; Ag-urban conversion
- Program to generate safe water in winter for recharge
- Innovative water use to match water supply to need. Integrated approach
- Price of water
- Conservation mandates
- Salt intrusion/water quality/salinity management
- Lack of action orientation or ability to maintain the energy
- Planning scale and integration
- Economics and financing
- Expectations management
- Independent review of levee stability and quality
- Transportation funding and coordination

Question 3:

- Unity of purpose/mission
- Maintain research and education outreach
- Identify doable actions
- Early implementation focus
- Financing plan
- Federal-State-Regional-Local-coordination and success•
- Make it a political “hot issue”; Governor with legislature

Question 4:

- Risks
- Economics
- Climate
- Broad based review of actions

Question 5:

- Reliable water supply-shortage risk less catastrophic risk
- Defined action plan with schedule for near term actions (doable)
- Working eco
- Long term 100-year vision – general

TABLE 2

Question 1:

- Important for the state – a economic
- Healthy diverse state economy
- Emergency (everybody has to pay)
- Recreation
- Water quality
- National economic security
- Nothing for people that don’t understand the Delta
- Environment
- Commercial fisheries
- Agriculture

Question 2:

- Solutions – specific, finite action oriented solutions
- Urbanization of Delta – flood hazard, water supply
- Deadline – advocates for solutions
- Regional decision-making authority like coastal conservancy
- Solutions – prevent urbanization, point source protection, zipper bags

Question 3:

- More open broader community inclusive to those who are not part of water community
- Full buy-in by individual interest groups (one group can hold it up)
- People & interest groups willing to give
- Increasing level of specificity

Question 5:

- Action plan (specific)
- Full buy-in
- Strong leadership – authority to make decision; People at table have to make decisions
- Deadline
- Integrated coordinated effort statewide
- People committed and willing to give

TABLE 10

Question 1:

- Environment – general purposes and water reliability
- Economy
- Water quality – salinity in water business is a train wreck in slow motion
- Recreation

Question 2:

- Cost to So. Cal – serious leadership issue
- Action timeline – is this an essential component or an issue?
- Strong leadership
- How do we deal with the fact of large ownership of Delta lands?
- Local govt. decisions on land use
- Meaningfully deal with Delta
- Storage

Question 3:

- People cannot feel excluded
- Committee strong leadership
- Strategic plan plus action plan/investment plan
- Legislative plan
- Long-term funding plan that does not rely on continued bond issues
- More fire power to address broad based technical issues



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