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FIELD HEARING ON PROPOSED MODIFICATIONS OF FOLSOM DAM

FIELD HEARING

BEFORE THE

SUBCOMMITTEE ON WATER AND POWER

OF THE

COMMITTEE ON RESOURCES
HOUSE OF REPRESENTATIVES

ONE HUNDRED FIFTH CONGRESS

SECOND SESSION

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HEARING ON PROPOSED MODIFICATIONS OF FOLSOM DAM

WEDNESDAY, MAY 27, 1998

HOUSE OF REPRESENTATIVES, SUBCOMMITTEE ON WATER AND POWER, COMMITTEE ON RESOURCES, *Sacramento, California.*

The Subcommittee met, pursuant to notice, at 10 a.m. in room 4202, State Capitol Building, Sacramento, California, Hon. John Doolittle (chairman of the subcommittee) presiding.

Mr. DOOLITTLE. I am pleased to have the Water and Power Subcommittee meet in Sacramento this morning to consider the proposed modification of Folsom Dam.

Can we get some order here?

I would like to say that the balcony is open for people who wish to sit up there.

We are meeting to consider the proposed modifications to Folsom Dam and the related downstream levee modifications. Our Committee is responsible for the Bureau of Reclamation, which operates Folsom Dam.

My No. 1 priority in the years I have represented Sacramento and surrounding areas is to find a solution for adequate flood protection.

The purpose of today's hearing is to evaluate a proposal that would modify Folsom Dam to provide a new level of flood protection. Unfortunately, it not only promises a multipurpose mission for Folsom but fails to give the city of Sacramento the flood protection it needs and deserves. It does so at tremendous cost to the region, and Sacramento getting the protection it needs.

Folsom Dam is operated as an integral part of the Central Valley project. Two of the primary purposes for which Sacramento dams are to supply water supplies and hydropower from the Folsom reservoir for the city of Roseville, suburb of Sacramento, the city of Folsom, and throughout the Central Valley to many of the state's agriculture districts.

The cities Sacramento and Roseville also supply hydroelectric power from the Folsom power plant to the Western Area Administration.

If we are going to compromise those functions, it should be for a plan that will give Sacramento adequate flood protection.

H.R. 3698 was introduced, which would authorize the Corps a stepped release plan, as identified in the Corps' 1996 American River watershed project. Such a plan would make several modifications to Folsom Dam.

The Corps estimates these modifications, along with the plant's proposed improvements to existing American River levees downstream Folsom Dam would increase Sacramento's flood protection from seventy-seven-year protection up to a level of a hundred-and-forty-five to a hundred-and-sixty-year protection.

This level of protection is, however, far below the minimum two-hundred-fifty-year flood event predicted by the Corps or the five-hundred-year level of protection recommended by the inner agency floodplain management review committee, which most other comparable flood protection centers enjoy.

As you know, my preference for that is to complete the construction of Auburn Dam, a project that would provide Sacramento in protection of four hundred years instead of a hundred-forty-five-year level being proposed.

It is important for everyone to realize that Auburn is not under construction right now because of actions in Sacramento, not Washington, DC.

Don't get me wrong, it is not the responsibility of the people of Sacramento. They have repeatedly stated their support for Auburn Dam.

The failure to build Auburn lies in substantial part with elected officials who represent the people in Sacramento and so-called public interest groups which purport to represent people in Sacramento. Most of them appear to be interested in white water and environmental rehabilitation.

The capital of the state of California could have Auburn built and could enjoy both flood protection as well as water supply and recreation if there were a clear voice from Sacramento demanding such a facility.

I look forward to hearing from the witnesses and shedding light on the current proposal, and I would like to recognize my colleague from the Monterey Bay area, Mr. Farr.

Mr. FARR. Thank you very much, Mr. Chairman. It is indeed a pleasure to be back here in this building we both served.

We are in the capitol, which I recall in the museum downstairs has pictures of the legislature getting to work in rowboats. It is a city that does flood, and today's discussion is more about floods than it is about dams.

It has certainly a place I love being back in. It is dear to me. I purchased my first home in Sacramento. I worked here in this building and served here as a member of the legislature.

I was here as a young child when my father was elected to the state senate in 1955; not from Sacramento, but Yuba City, showing these 1955 newspapers that the Feather River broke, and we are living with floods.

I now represent an area, the Salinas Valley and Pajaro Valley, which has been flooded. I am concerned about the issues we are going to hear today.

I might say from where I come from I think the issue, Mr. Chairman, on the Auburn Dam was first authorized thirty-six years ago. It hasn't been built, never will be built. I think the issue is dead, dead, dead. So I think that this is not a discussion about dams, but a discussion about how we prepare for floods.

I happen to believe that members of the Resource Committee also have an opportunity to preserve resources for various purposes and the big debate in Congress right now is management of those resources, management of our forests, whether they ought to be managed or sold, our timber sales, our mining activities.

I mean, there is some way of looking at it where everything the Federal Government owns or invests should be sold at the highest price.

Best recreational value, I think Members of Congress have as much duty to represent the white water interest as well as those interests that don't have white water.

I look forward to this hearing. I am glad you brought the hearing to Sacramento, and I think you have a very strong witness list.

Those of us that are here today are all Californians. We serve in Congress. We have a special interest in making sure that our system of river management flood control works well, and I appreciate the fact that you brought the Committee back to the state capitol for that purpose.

Mr. DOOLITTLE. Thank you. We would like to welcome our two colleagues, Mr. Matsui and Mr. Fazio, representatives of the area here concerned, and recognize them for their testimony. We will begin with the author of the bill I oppose, Mr. Matsui.

STATEMENT OF HON. ROBERT T. MATSUI, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF CALIFORNIA

Mr. MATSUI. Thank you very much, Mr. Chairman. I appreciate this opportunity very much. I would like to, first of all, commend you and your staff for holding these hearings today, and Mr. Farr for coming from Monterey and being with us this morning, and obviously Mr. Pombo, and Mr. Radanovich.

Mr. Fazio is leaving at the end of this year. I have to tell you, I certainly am going to miss him very dearly. I appreciate the help and assistance he has given to our region and the state of California and the Nation over the past twenty years.

Mr. Chairman, 1986, as you know, we had a potentially catastrophic—we were twenty-four hours away from a major catastrophic flood where the levees would have collapsed.

At that time approximately a hundred and forty thousand cubic feet per second went down from the American River down into the Sacramento and beyond.

For the last twelve years we have been trying to get adequate flood control for Sacramento County.

Just to put this in perspective, if a child is born today, that child, if it has a normal life span of seventy-seven years, will suffer a catastrophic flood in Sacramento.

What we are really talking about here is that there is a one-third chance every thirty years that we are going to have that catastrophic flood.

There are right now of the nine regional hospitals in Northern California, which includes Placer, El Dorado, Stockton, Yolo County—use it has a theater—of the nine regional hospitals, seven are within the floodplain and in dire danger, if, in fact, we have a catastrophic flood; thirty nursing homes, some of which residents are from the up-lying northern counties.

You have over a hundred and twenty public schools and private schools within the floodplain with all these young children that obviously would be in jeopardy.

We have thirty-seven billion dollars of assets and over four hundred thousand people in the floodplains and over four hundred thousand people in the AR zone and six hundred thousand people in the floodplains itself.

This is a matter not of politics. This is a matter not of technicalities. This is a matter of public safety, dire public safety.

If we have a levee break in a huge flood, this would be could be equivalent to the 1906 earthquake. We all know the consequences of this. I don't think this is one region versus another region.

If a flood hits Sacramento County and creates the kind of damage anticipated, it would hit the entire Sacramento region including San Francisco. This is not a matter to be taken lightly. This is a serious matter.

Even in Stockton, Mr. Radanovich, I am happy he is here today, Sacramento was the lifeblood of the entire Northern California region and entire Central Valley.

Now, what kind of protection do we need? You asked for the Auburn Dam. Mr. Farr said it would never be built. Two years ago Mr. Herger and you supported the Auburn Dam. We were very vigorous in our efforts to fight for the Auburn Dam.

We lost on a twenty-eight to fourteen vote, and we worked that bill for probably 3 months, and I have to tell you, and you know this, and I never question my colleagues motives, but of the twenty-eight members that voted with us to move the bill out of Committee, I would say a third to half of them said this is a courtesy vote. When it gets to the floor of the House, they were going to vote against this bill.

I have to also tell you this isn't people in Sacramento that oppose this legislation. The mayor supported it. SAFCA supported it, and the entire county board of supervisors supported it.

What you have is opposition from the national environmental group, but you have opposition from the major taxpayer groups as well.

So the issue really isn't whether we have the Auburn Dam or a level of flood protection that is adequate for Sacramento, it is whether you have an adequate level of flood protection or nothing. This is what we are talking about here.

You talked about the planned transfer—I hope you give me a little more time since this is my legislation.

I have done a CRS land transfer. If you move a railroad right-of-way, that takes anywhere from 3 to 5 years because surveying has to be done, the whole issue of evaluation has to be done.

We have right now three hundred and eighty million dollars invested in the Auburn Dam site. Three hundred and eighty million dollars. Who is going to pay those costs——

Mr. DOOLITTLE. We have got to have the audience to restrain themselves.

Mr. MATSUI. Is Placer County going to pay for it? State of California? Is the Federal Government going to seek reimbursement?

Surveying has to be done. We are talking probably about fifteen years, ten to fifteen years before that can be transferred, if you use

a normal legislative process. You can't put this on an appropriations bill.

What we are talking about here is nothing versus adequate flood control protection. Right now we don't have adequate flood control protection.

What does my legislation do? It would basically deal with the modification of Folsom Dam, and in addition to that, as you know, it would strengthen and raise the levees, not just in Sacramento but for sixty-six miles. We want to provide adequate protection for the downstream interests as well.

I know you are going to raise today the whole issue of the Folsom Dam Road and obviously whether or not there is going to be enough water while this construction is going on.

My legislation allows a modification of the stepped release plan, which essentially would allow Mr. Countryman's plan, who you will be hearing from later this morning, to be part of our legislative process as long as the cost is about the same and the benefits are about the same.

Mr. Countryman's plan will shorten time of construction and also mitigate some of the concerns that you have, legitimate concerns like whether or not Folsom Dam Road will be closed, and some of these other issues as well.

What we are talking about here, Mr. Chairman, is an issue of whether or not we want to double the level of protection from seventy-seven years to a hundred and sixty years.

Now, let me talk because you raised this issue a number of times, the whole issue of levees. Right now we have a hundred-and-fifteen-thousand cubic feet per second that can go through the American River.

Our bill would put it so it could go, in times of stress, up to a hundred-eighty-five-thousand cubic feet per second, but a hundred-forty-five-thousand cubic feet per second.

Take a look at this chart that is prepared. This is a Corps of Engineers chart—in New Orleans we are talking about one-point-two-five-million cubic feet per second.

Mr. Herger went before Mr. Fazio's committee in 1993 and sought a level of protection in modifying his levee system.

To get to and all the way down to the end here you have a hundred-fifteen-thousand cubic feet. We want to get to a maximum one eighty-five under my plan.

And so we are not talking really about an issue of safety. It is really interesting because what I find is that you become an environmentalist. You really don't believe in the levee system, but all of Northern California, including the Central Valley, is built on levees.

Maybe a hundred and fifty years ago we wouldn't have built the floodplain, but we have to do something about it. We can't let this situation go unmet.

In conclusion, Mr. Chairman, I might just want to say in terms of downstream issue, the Corps will take care of that. The Corps has been building levees for two hundred years. The Corps will testify they can do this safely. They have to do more studies and more technical information has to be given. No reason to hold this up at this particular time.

Let me just say the January 1997 flood that happened in Yuba City and hit the Feather River, if that flood were seventy miles south, that would have hit Sacramento at a hundred-seventy-five-thousand cubic feet per second. That would have been the earthquake of 1906. Seventy miles would have created that position for all of Northern California. Instead of testifying today, we would still be digging ourselves out.

We are talking about public safety. We are talking about concerns of the people of Northern California. Mr. Chairman, I just hope that you and your members of the Committee and the Congress as a whole, the House and Senate, will look upon this as an issue that is for all Northern California and not just for some regional issue. This is too serious to handle on a regional basis. Thank you.

[The prepared statement of Mr. Matsui follows:]

STATEMENT OF HON. ROBERT T. MATSUI, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF CALIFORNIA

Thank you for this opportunity to testify regarding Sacramento flood control.

I think all of us here are well aware of the perilous situation Sacramento finds itself in as a result of insufficient flood protection. I cannot emphasize enough how inadequate our 77-year level of flood protection truly is. It means that Sacramento has greater than a 1 in 3 chance of flooding every 30 years. In real terms, a person born in Sacramento, who lives the normal life span of an average American, is statistically guaranteed to see a catastrophic flood event.

In a study completed by the Army Corps of Engineers, Sacramento was found to have less flood protection than any other metropolitan area. Omaha, Tacoma, Kansas City, and St. Louis all have at least 500 year protection—yet we are left with protection of only 77-years. To make matters worse, beginning in July the annual flood insurance rates that my constituents pay for a $100,000 premium will increase approximately $280 per year to almost $600.

What we all need to understand is that a flood would devastate not only the Sacramento flood plain, but the entire region. If Sacramento flooded, more than half-a-million people and $37 billion in property would be at risk. In a catastrophic flood, this very building would be under water. Clearly, a flood would shatter not only Sacramento, but as the center of economic activity in Northern California, the surrounding counties and the entire State of California.

Given the facts, how can we not work toward a realistic solution that would provide the most flood protection possible now? The centerpiece of the plan I support would authorize modifications to Folsom Dam and raise and strengthen levees along the American River. This would double our level of protection from 77 to 160 years. I recognize that 160 year protection is not enough and want to secure at least 200 year protection for our community—but I will not stand by hoping that the inevitable floods will not come while we wait for Auburn Dam to be built. I, along with Congressmen Fazio, Doolittle and Pombo, fought for Auburn Dam in 1996 and it failed before it even left Subcommittee by a vote of 35 to 28. It wasn't even close. Auburn Dam suffered a similar fate in 1992 when it was defeated nearly two to one on the floor of the House of Representatives. I still believe Auburn Dam is the only flood control solution to solve our problems, but the political and budgetary considerations that defeated Auburn Dam in previous years still exist today. I will not abandon my constituents and leave them with dangerously low levels of flood protection while we wait 20, 30, 40 years or more until a means of building Auburn Dam is found. Everybody knows the Congress is not going to consider Auburn Dam this year or for many years to come. I cannot—and will not—stand by and wait while my constituents flood.

There are those who falsely argue that raising levees will somehow put Sacramento at greater risk. If you look at the chart, you will note that the proposed levee design of 180,000 cfs is nowhere near the levee design capacity of other major metropolitan areas. This proposal, like any other flood control plan, has undergone the required studies and technical analysis needed before the Corps will allow a project to be authorized. That is why the feasibility of this project is without question and also why this project has the strong support of those officials responsible for making this decision including—President Clinton, Senator Feinstein, Senator

Boxer, Mayor Joe Serna, the Sacramento City Council and the Sacramento Area Flood Control Agency.

I also want to clear up any misunderstandings concerning the objective flood water releases of this proposal. Under this proposal, the maximum objective release under flood conditions would increase from the current level of 115,000 cfs to no more than 145,000 cfs. A release of 180,000 cfs is used only in case of emergency—when evacuation procedures are merited—and it is important to recognize that our current emergency release is 160,000 cfs.

It appears that opponents of this plan believe that if the levees are not strengthened, the water will not come. Make no mistake, once Folsom Reservoir is full, Dam operators will send high flows down the river regardless of the designed levee capacity. During the record storm of 1986, Folsom Dam operators were forced to release 130,000 cfs flows, despite the fact that such releases exceeded the designed capacity of 115,000 cfs. Clearly, it would be foolish not to raise levees given the opportunity.

I would like to close with a very sobering thought. In 1997, winter storms ravaged Northern California communities. Two weeks ago, the Army Corps of Engineers reported that if the worst portion of the storm, located just 70 miles north of Sacramento, had hit Sacramento, not only would our current flood control system have failed, but modifications to Folsom Dam only would have failed as well. The Corps also noted that American River flows would have reached 175,000 cfs.

The flood waters will come. The choice is simple, we can either implement a plan to control floods we know are likely or we can ignore this opportunity to secure 160 year protection. I will not compromise on public safety and challenge anyone who would ask for less.

Mr. DOOLITTLE. Thank you. I recognize that—let me just—ladies and gentlemen, we have a lengthy hearing today, and in order to complete the business, we are going to have to minimize—in fact, the demonstrations are just inappropriate from either side. I would ask that they not occur.

I would like to tell you that anybody who wishes to submit testimony to the Committee, we would be eager to have it, and if you will contact our clerk or one of the Committee staff, we will receive your testimony and include it in the record.

This hearing, I think, will be very informational, but there are far too many people to accommodate all of those who wanted to testify. We did the best we could under the circumstances.

I would now like to recognize the gentleman from our neighboring congressional district, Mr. Fazio, for his testimony.

STATEMENT OF HON. VIC FAZIO, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF CALIFORNIA

Mr. FAZIO. Thank you, John. Let me express the appreciation of all of us to you and your Subcommittee to provide opportunities for a variety of points of view to be expressed.

I hope this won't be a hearing that turns into competing applause meters because frankly, I will stipulate to the passion and commitment that both you and Congressman Matsui feel about your contrasting positions. It is held, and very sincerely held, and I think the audience is probably equally divided and equally committed.

What we need in this community is a lot more light and a lot less heat, frankly.

What I am hoping this hearing will do, once everybody gets their frustrations out, is start the process of getting consensus.

I think we have all learned on almost any issue that affects a region, if you are not together, you don't get anything. You don't get it in Sacramento, and you certainly don't get it in Washington.

It strikes me that in 1986 you and I, John, and a number of other members sat right in this room. We sat on these tiered podiums listening to the Corps of Engineers as they described what happened in the 1986 flood.

You were a state senator then. There were a number of representatives of the legislature and the Congress, and we had what was the first hearing devoted to determining what we would do as a result of the clear threat that that winter rain produced to the region.

The Corps of Engineers went to work and produced a number of proposals, one of which was brought to the Congress in the early nineties. I think you remember well the frustration Bob and I felt at that time.

We had what was derided as a flow-through dam, which was deemed inadequate for purposes of people in the Placer and El Dorado Counties' perspective, but it did provide flood protection for Sacramento, and it would have maximized water in Folsom Dam, so we could have provided it more for the region and for the state.

That alliance of opposition that you involved yourself in, along with environmental groups, provided an inadequate number of votes for us to pass that proposal, but at the same time, out of those 1986 hearings did come forward a very positive approach to levee reconstruction on the Sacramento River. While we tend to focus on what we haven't gotten done, I think we can all take pride on the work that was done to shore up those levees. While we haven't finished it, I think we are well on our way of doing it. I think that is one of the successes we obtained because we worked together on something that was less controversial than how we dam the American River south of Folsom Dam.

But that continues to be the unaccomplished task, the things that bring us together this morning.

I think everyone on the Committee knows that it has been my history in Congress to be involved in water issues. I have served for nineteen years on the Appropriations Subcommittee that deals with the issues of the Bureau and the Corps and flooding and water supply and everything else that some people like to deride as wasteful pork barrel spending.

Of course, unless it is in your district when it takes on the term "infrastructure" and we are all for it.

I have supported the LACDA project in Los Angeles, the city of Stockton's efforts. I have worked with Wally Herger in Yuba and Sutter Counties, even the permanent pumps in Placer County in your district, Mr. Chairman, because I thought it was important for us to work together for anything that would benefit any part of our state that could emerge from consensus.

And that is why when Bob Matsui urged me to support him and you in the position you took in the last Congress to build the Auburn Dam, at least a version of it, it was similar to that authorized years ago through the efforts of Ms. Johnson, I agreed to do it because I felt that consensus was required.

We were unsuccessful. We did not get the votes in committee, and I think it is fair to say that some we did get in Committee would not have been there on the floor, as Bob said. Some of us weathered severe criticism for that.

I find it ironic in my impending retirement I agree with you on many things, except Auburn Dam, and I discovered subsequently in conversations with these people, half of them opposed Auburn and half of them supported Auburn.

They all concluded they didn't agree with me but I have worked to try to find common ground to try to find a way to give Sacramento more flood protection because we all agree we need it.

What we discovered after the floods of 1986 made it very clear we simply don't have anywhere near the kind of protection we need.

But also I think there will be legitimate needs in your region for additional water supply. There has to be some way to bring about a further commitment to the people of Placer, and to some degree, El Dorado and other parts of Sacramento County that have counted on water supply.

But I think we all have reached a conclusion that maybe the Federal Government is not going to take responsibility, as it did in all those communities, for the level of protection we deserve and need in this area. I regret that fact, but I find it hard to refute.

We don't have an ethic in Congress today that allows you to build projects on faith and then worry about how they get paid for later. That was the ethic in this country well into the seventies.

Ronald Reagan was frankly proud of the fact that, on behalf of many taxpayer organizations, we did away with building projects, many by the Bureau, in advance of knowing how we would pay for them through water supply hookups and irrigation districts coming together.

New Melones was struggling, until very recently, to find a home for all the water it provided. So more and more our projects are based on flood protection, and yet I find many of our colleagues would rather turn their back on our community than fight alongside us.

They have their flood protection projects. They would rather assume the risks on behalf of Federal taxpayers or FEMA because they don't want to stand up to the taxpayer groups and environmental groups that decided the Auburn Dam was first going to be built.

I don't think there is any way in our history during the time any of us are going to serve that that project can be provided for at the Federal level.

And as I remember B.T. Collins' efforts here with a Republican legislature and Republican Governor. I am willing to let that issue be resolved at the state level when a Federal Government won't take responsibility.

As I struggle with the Cal-Fed process, I know you just had hearings of that in Washington, and in my conversations with Lester Snow and other statewide water agencies, we will hear from some of them this morning, when they talk about water supply and they move away from underground storage and aquifer.

But if any surface supply is to be part of this statewide agreement on water, I hear little, if any, reference to Auburn, but intellectually I can't disagree that perhaps the state is the cockpit where any action should occur.

It seems to me as we think about what the Federal responsibility ought to be, we ought to find consensus once again, the way we attempted to in the last Congress. And that is why I support what Bob Matsui is proposing. That is why I think what Bob is saying is let's get the best we can get. Let's reop Folsom.

And I am willing to be flexible, as I believe you are, on how that is done, how that is designed, but also let's strengthen and shore up the levees on the lower American to guarantee the people living adjacent to it get the protection they need. That is the best we can do in our lifetime. It may be all the Federal Government ever does.

We will work together on the common elements we agreed on in the last Congress—we will try to get the additional funding. The President's funding doesn't do it—I think we need to go beyond that. We need to find a way to resolve those issues that make this more complex.

And I will be very straightforward about my concerns about Yolo County. I think there are problems with the higher flows down the American River bypass. All of that has to be included in whatever fix is authorized. We can't export Sacramento's problems to Yolo County. We all know that.

We are facing a tremendous bill statewide for flood protection. In Richard's district tremendous investment has to be made on levees. In my area to the north that I share with Wally Herger, additional investments have to be made. George's as well.

We are not in a position to have funds spent on things we can't all agree on, whether it be in a statewide bond act or in an enactment in Congress. There has to have the broadest support from our entire delegation.

We have to concentrate on those things we can agree on because we will be fortunate to get them, let alone the things we remain divided on.

I would conclude simply by saying to you, Mr. Chairman, we worked together in the past, and we didn't succeed. We now ought to work together again and succeed, however modestly, in giving the Sacramento region for our lifetime, for our tenure in public service, the best flood protection we can, leaving for others, future generations, the continuing debate about values and priorities, which I think are legitimate and important to hold.

We can argue about white water versus flood protection and storage for Delta water quality, for Los Angeles or for whoever can make the best case. We can argue about it at a state level and find out if it is part of the package that goes before the voters.

But now, at the Federal level, let's do what we can do to move the ball a little bit further down the road to a hundred-and-sixty-year protection, not two hundred, not the four hundred we could have had in 1992 when we would have built the fourth largest dam in the country, but something better than when we came.

I know this is not easy for anybody to compromise on. It wasn't easy when we supported Auburn, and I know it has not easy for you, but that is what leadership is about, and I hope that we can all step up to the challenge and work, once again, to provide that kind of leadership for the community, explaining to our constituents why we must do it and agreeing together on compromises that

they expect us to make. Like it or not that is our job. Thank you, Mr. Chairman.

[The prepared statement of Mr. Fazio follows:]

STATEMENT OF HON. VIC FAZIO, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF CALIFORNIA

I appreciate the opportunity to testify. Flood protection is a topic of enormous importance to the people of Sacramento and its surrounding counties.

For many years, I have worked with elected officials throughout the Sacramento area on the problems that confront us, and we have developed strategies that assist the people of this area in improving the quality of life.

But on one of the most important issues—flood protection for Sacramento—we have come up short and have made little progress in nearly a decade.

I certainly have the credentials to comment on this issue and the controversy surrounding it for many reasons, chief among them that since I'm retiring I don't have to worry about the political consequences of what I say.

But perhaps more importantly, I think I have the credentials of support for flood control. As a member of the Energy and Water Development Subcommittee of the Appropriations Committee for some 18 years, I have taken a back seat to no one in support of California flood control projects. In fact, some have accused me of never having met a dam or a levee I didn't like.

That's because I've always recognized the importance of these projects not to just the local economies here in California and around the country, but to the well-being of the national economy. I believe that keeping our cities safe from natural disasters, as well as ensuring that our ports and waterways are maintained and operating optimally, is well worth the investment.

It's often been a fight with those who portray investments in infrastructure as wasteful spending or pork. And it's a fight we are continuing to wage each year with fewer and fewer supporters who recognize the value of these projects.

Here in California, my support for projects has come without regard for partisanship. I've supported the Santa Ana project in Orange County, the LACDA project in Los Angeles County, the City of Stockton's project, flood control projects benefiting Yuba County in Wally Herger's district and placement of permanent pumps in Placer County in the chairman's own district. I've not just supported these projects passively, but I have pushed actively for funding that would expedite work on them.

So my credentials are solid.

One of the common factors of those successful projects was the ability of disparate local groups and local officials with different views to work through issues and adopt a common strategy.

That's a methodology I've tried to support locally. I've supported the strategies developed by our local officials, and I worked vigorously in the House in both 1992 and 1996 to authorize Auburn Dam. The simple fact is, we were defeated.

I would remind the chairman that he opposed our effort in 1992 on the floor of the House when we fought for a flood control dam based on studies developed after the disastrous floods of 1986. In hindsight, 1992 was the best chance we had to procure the Federal funding we needed. The cost-share on Auburn Dam at that time would have had the Federal Government paying for 75 percent of the costs.

In 1996, I weathered severe criticism from environmentalists and others to support a multi-purpose Auburn Dam in conjunction with our local strategy, but we were defeated in the Transportation and Infrastructure Committee.

Perhaps the Chairman knows something I don't about a change in heart by all the Members of that committee who voted against us in 1996. No matter how much we may wish it, that simple fact we can't win—won't go away.

What I do know is that seven years after our initial efforts to bring significant flood protection to the City of Sacramento, we are not only no further along, in fact, we appear to be recreating the same errors we made in the past by refusing to reach consensus and pursue a common strategy.

I contrast that with the effort we have made on the Sacramento River where the 5-phase project that was indicated by the same 1986 flooding is nearing completion. That project has not moved as quickly as I would have liked at times, but by working from year to year, first on the studies and then on the construction increments, we have moved forward and are within sight of that project's completion.

I can't say we are wholly without progress on the American River. Nearly $10 million was provided last year to move forward on the "common elements" component of that project.

But the bottom line is: we can't get our act together. And until we do, we merely create problems for ourselves in a time of tightening budgets and a changing Washington mentality about the Federal responsibility to states for expensive projects.

I've served on my subcommittee for 18 years now, and we've met the needs of communities throughout the United States while facing the realities of budgets in both Republican and Democratic Administrations, and in both Democratic-controlled and Republican-controlled Congresses.

We cannot ignore such budget realities. At my subcommittee this year, we face more than $1 billion in requests above the level we funded just last year. All of these projects are authorized by law. Now, Bob Matsui and I are asking that the Transportation and lnfrastructure Committee include the flood control project endorsed by SAFCA and the City Council in a new Water Resources Development Act.

At best, our project will then compete against the demand from projects and the needs of communities across the country embodied in the new authorization. To lose this authorization this year will only delay further the needed improvements that won't be completed for a decade even under ideal circumstances. By then, I suspect even the chairman will have announced retirement. But if he is successful in opposition, his legacy will leave the City of Sacramento without adequate flood protection.

I know that some arguments may be made today about the damage of increased flows, and there may be other technical arguments raised about the operation of Folsom Dam. First, I believe those arguments are without merit: they are contradicted in large part by the professionals from the Corps of Engineers, and they are contradicted by the provisions of the Matsui bill requiring that this project be consistent with the Sacramento River Flood Control Project.

But second and more important is whether our intention is to work the process to resolve these issues and others that will surely arise over the life of this project, or whether we are just using them to create additional obstacles.

Certainly, we do not want changes in the American River levee system to undermine what we've accomplished in West Sacramento, or to encroach on the effectiveness and function of the Yolo Bypass. But I sit here as the Representative of the people of those areas, and I would not support a project that does harm to my constituents.

The officials from West Sacramento and Yolo County know that too, and they are committed to working through the process to meet their needs while providing flood protection to their neighbors in Sacramento.

In closing, I know that I will not be in office as these events play out. Others will have to step up in the years ahead to lead the movement to reach consensus in order to determine our solutions and to acquire the funding in an increasingly hostile environment.

During my career, I have done my best to be a conciliator and to find middle ground. And I've been willing to take my share of slings and arrows as a result. I believe that's what leadership is all about.

We need leadership to help solve the flood threat to the City of Sacramento. We need leadership to keep our region and our nation strong and prosperous and to keep our citizens safe from the threat of natural disasters. Only leadership will get the job done.

Mr. DOOLITTLE. Thank you. Bob, let me ask you: Your proposal encompasses a couple of approaches to Folsom. I am not clear which one you are advancing.

Can you shed some light on whether we are talking about the Corps proposal or the Countryman proposal?

Mr. MATSUI. As you know, Mr. Chairman, our proposal is a stepped release proposal. That is where the SIR has been completed on, but our proposal does allow for Mr. Countryman's proposal as well.

As I mentioned the four criteria: As long as the cost is the same, benefits comparable, the certainty about if the project can be completed at the same or sooner time that is in our legislation, so I believe the Countryman legislation or the Countryman proposal will be the one the Corps will market on, certainly if we all work together in terms of mitigation of Folsom Dam Road and the water issue in Placer County.

All these things need to be brought in the discussion, but certainly we want to mitigate damage to any other region of the Northern California area as much as possible, and I believe Mr. Countryman's proposal is the most logical one to do that.

Mr. DOOLITTLE. Well, the reason I ask about that is it has an effect on the level of flood protection we get, and sounds like I hear you sympathetic to the Countryman proposal.

But the Countryman proposal, as I understand it, provides a level of protection that is a hundred and forty-five years, not the hundred and sixty that would be the full Corps proposal with auxiliary spillways; is that your understanding?

Mr. MATSUI. Instead of building new outlets in the auxiliary spillway, a level of protection, whether that is a hundred forty-five or a hundred and fifty years, I couldn't tell you at this time because we need to do more work on that. There will be a reduction in the level of protection.

It certainly will be much more than the seventy-seven, or if you just do the modifications alone without the levees, which would be about a hundred-and-five-year protection.

Mr. DOOLITTLE. So I think what we are really talking about, though, is not the hundred-and-sixty-year protection, which I believe is inadequate, but the hundred-and-forty-five year or whatever studies determined the level of protection to be.

Since the studies haven't been done, it is just an estimate at this point, you would acknowledge the problem with downstream communities, and I think you made it clear you don't believe we ought to solve Sacramento's problems at the expense of Yolo County and downstream communities; right?

Mr. FAZIO. I have worked very hard to get west Sacramento four-hundred-year protection. They are in a bathtub.

I am concerned with people north of the city and the area protecting the city who could have flooding as water backs up the Sacramento.

We don't know whether the flows down the river would be potential problems. Those are rural levees. I think all of us, particularly this group, know that rural levees are harder to maintain and rebuild and increase, given the assessed valuation behind them. It is one of the issues we struggled with, the levee fix we enacted in the eighties.

We have to keep in mind whatever protection needs to be provided for the river levees and the bypass, what additional water is delivered down the levee, that has to be factored into whatever legislation we can all agree to.

Mr. DOOLITTLE. I think, as you indicated in your answer, I am glad you acknowledge the impact even on the up-stream communities, but the fact of the matter is that impact really is unclear at this point both upstream and downstream what it might be.

Do you agree with that?

Mr. FAZIO. We need to understand the full impact. We can all assume with our rudimentary knowledge of this problem that has to be studied, determined, and some sort of fix needs to be proposed and funded as part of the package. We are going to be spending 4, 5, 6 years preparing to do this. I think that is ample time to assure the Yolo County that we will factor their concerns in.

Mr. DOOLITTLE. Thank you. I recognize Mr. Farr for his questions.

Mr. FARR. Thank you, Mr. Chairman. I just have a question for Mr. Matsui.

In your bill where you authorize a study of the stepped release program and the new river outlets below, enlarging the existing river outlets, do you also include the—as I understand it would require thirteen miles of American River levee raising and about five point eight miles of levee erosion protection, and in that bill also includes the new levees and flood walls——

Mr. MATSUI. All that is in the——

Mr. FARR. [continuing] modification to the bridges, including the pump and drainage facilities for the cities would need.

The study includes the entire package of all the things that would have to be done to reach—and then with that you reach the hundred, and is it—I am a little bit confused. You reach the hundred and eighty thousand cubic feet per second level.

Mr. MATSUI. Under our proposal we can do all that you have stated, including Mr. Countryman's proposal that Mr. Doolittle agreed to as an option.

Other than the stepped release plan, in addition—the Corps will be doing additional work and studies and analysis of the downstream effect on about sixty-six miles of levees, obviously the Yolo Bypass, and throughout the entire Northern California region, and so this will allow all of that to occur.

Mr. FARR. I am going to be very interested in understanding why anybody would be opposed to this. Every other place in California we are dealing with flood problems. We are dealing with levees. Santa Cruz or the Pajaro River in Watsonville.

I mean, even in the coastal communities that are not part of the Central Valley Water Project are trying to deal with flood protection. It all deals were levee improvements, and yours is a study and an authorization that once the study is completed, pending appropriations to do the necessary work——

Mr. MATSUI. Exactly. It would complete the entire project, pending the study obviously, but you are absolutely right.

As I said in my opening remarks, the entire region basically is supported by levee systems. Obviously you want dams and levees. New Orleans there are dams and levees. In St. Louis there are dams and levees.

It is a combination of both, you want the highest level of protection you can get, what is politically and what is possible.

And as I said, I think Mr. Fazio stated as well, that we did support the Auburn Dam 2 years ago and we made a vigorous effort for it. We were not successful in that effort. Now we need to get the highest level of protection that is practical.

Mr. FAZIO. Sam, if I could quibble for a moment, there are a lot of communities that are looking for meander belts down in the San Joaquin and areas where the kind of adequate levees that we would need are unaffordable in this area with the assessed valuation as high as it is, with the urbanization as high to the levees as possible.

We have no alternative but to do levees. That is the only solution we can come to, although increasingly we will be turning away from them in some rural areas.

Mr. FARR. Mr. Chairman, I think what is overlooked in Sacramento, and people that don't live here don't understand it, but this city is really the key critical point, not only in north/south traffic.

I mean, everything that goes north essentially goes right through here, historically it always was. That is why the city is here. It is probably the most vital transition point in California.

There is no other region that is so dependent on flow of traffic and people, that is so dependent also on the elements of big rivers running through it, both the Sacramento and the American.

I really support your legislation, and I hope we can get testimony today to prove that it is essential.

Mr. DOOLITTLE. Mr. Pombo is recognized for his questions.

Mr. POMBO. Thank you, Mr. Chairman. As we move ahead in trying to develop some kind of increased flood protection for this region, I look at the both of you and you guys have both spent over twenty years trying to build alliances and work to find the best solution that you can.

And when I look at what is in front of us at this point, I think you both have to admit that there is no consensus that this is the way to proceed, that there is further work that needs to be done.

And in getting there from where we are right now, I don't think any one of us wants to adopt legislation that is shortsighted in terms of let's take care of this one specific problem at the expense of everyone else and you both have talked about that in your testimony here this morning.

In my district I have concerns about the impact of this particular plan on the rest of my district. I have people who live along the American River who have deep concerns about what this would mean. I have people that are out in the Delta that are looking at the Cal-Fed plan that you are both very well aware of and combining this particular proposal with the Cal-Fed plan, they don't know what it means to them.

They don't know if that means their ability to continue to farm and produce out in the Delta is going to continue. They don't know if all of a sudden they become a lower priority because of this.

And I guess the point I would like to make to both of you is that we all know the only way this is going to proceed and the only way we are going to get this is if we develop a flood control plan that everybody can sign off on and everybody, on a much larger scale than just Sacramento, but everybody in a much larger scale can look at and say this takes care of our flood control problems that we have. This takes care of surface water problems that we have, and a stepped plan that says this is where we are going to start. This is the goal. This is where we are going to end up, and we are not going to do anything between here and our goal that is going to stop us from getting there.

There is a lot of concerns about this, and I think, as we look at this, we really do need to sit down and come to some kind of consensus. That is just not there right now. I think we have a long ways to go before we get there, Bob.

Mr. MATSUI. Thank you. Richard, let me say this: I think the consensus would be very, very helpful. Certainly I would love to see it go back to the consensus.

The problem is if the consensus requires the Auburn Dam, which I support, Mr. Fazio supports, you support, Mr. Doolittle supports. Our colleagues will not support the Auburn Dam.

And if there is all of that, somebody has to explain to me how do we double our level of protection, which is—I don't believe is adequate, but it will get us by a hundred forty, a hundred sixty years.

If somebody can come up with—if John or you or anybody else would introduce a bill for the Auburn Dam today, I will support it. But we obviously know it is not going to happen, and as a result of that, tell me how we get a consensus if we take the Auburn Dam out of it.

The SAFCA, the Corps of Engineers, the Reclamation Board, city of West Sacramento, Reclamation District one thousand nine hundred sixty-eight, city and county of Sacramento, they signed off on a statement that said the Corps represented the lower American River project and determine the impact each plan will have on the Yolo Bypass, both upstream and downstream of the lower American River.

If this shows that the levee, by the proposed alternative mitigation plan to restore the level of protection, the hydraulic will include, but may not, levees' construction of additional bypass capabilities by widening, setting back levees, or an accommodation of the above. We want to take into——

Mr. POMBO. Bob, what you just described is what everybody is afraid of. When you talk about mitigation downstreams, you are not talking about fixing their levees because the money is not there to support that.

So what you are talking about is saying "Well, if those levees blow out down there, we just—we are going to buy them out some day," or we will like what they are doing with the Cal-Fed process. We will retire those lands out of production, and that becomes the mitigation for it.

Mr. MATSUI. That is not true, Richard. We have a hundred and thirty-two million dollars in our bill, maybe more that will take care of the levee work. That means not only here but sixty-six miles beyond that. This is not only a study but also the construction and improving the levees all the way down where the water will flow from the American River down and out. We are talking about making sure we take care of those downstream communities.

The Corps will not build a project that will leave that open. That is why that money is in there and in the authorization.

Mr. FAZIO. Richard, if I can comment?

Your comment about the need for consensus is well taken, but it is also indicative of the thinking of your district. For example, I think it would be hard for you, reading some of the things you have already said, to accept any of the cross Delta facilities, alternative facilities coming out of the Cal-Fed. You fear the loss of farmland and have a number of concerns.

When we went to people statewide in the eighties and asked them whether they would support an Auburn Dam as originally au-

thorized, the people south of you in Los Angeles and Southern California were particularly discouraging.

Their view was "Well, there is no conveyance. How do we get the water? Why would we want to support a project that is not going to allow us to take our share of the water?"

And so you know, what we need here is to come to reality about what it is going to take to get out-of-area support, even in the state, for a project of this size.

Auburn doesn't yield on an annual basis anywhere near as much as some of the other proposals that are in themselves controversial for surface water development, if any, it is going to be over whether it should be put on the ballot this fall.

It will probably be one that yields farm or water, and at the same time is politically far less controversial, one would hope. We are in a box. That would be possible.

For example, for Los Angeles to get excited about whatever increment of Auburn water would be available to them may be unacceptable to you. That is why we need a statewide fix.

Mr. POMBO. You are absolutely right. We need a statewide fix, and I am afraid if we proceed in a manner that is designed to take care of one specific problem, not only will we not reach consensus among the Sacramento delegation, but our chances of getting support outside of this region diminish greatly.

George is here, and George and I have our fights over water all the time because of where his district is versus where mine is, and I know my district is a little bit different because I have all the elements in California within my district but unless you develop a statewide plan that takes care of consumer flood control, that takes care of water availability, you are not going to be able to proceed with any of this.

You are talking about spending several hundred thousand dollars on this one particular fix. Unless we look at this from a statewide basis, we are never going anywhere with this.

Mr. FAZIO. Let me argue: We can look at this from a statewide basis, from the statewide cost of flood insurance. We ought to do the best we can, and then let the state resolve the various issues about what it wants to do with its money.

I think that is the responsible thing to do, and as I have already indicated, I think we have a pretty good understanding of what the state will or will not want to do vis-a-vis Auburn.

But I can't intellectually argue that we should prevent it from being put on the table. That land shouldn't be an impediment from the state taking whatever action it wants to take. Let's not punt on protecting Sacramento to the extent we can where we have responsibility at the Federal level.

That doesn't preclude some day down the road doing something else that might relate to water supply for the region or the state, but let's not leave the people of Sacramento hanging out there year after year wondering whether they are going to get inundated because we can't agree on what sort of water supply solution the state needs.

I think that would be unfair. Let's take an incremental step here and now.

Mr. POMBO. I don't think anybody is proposing that we punt at this point. The argument or the debate is what the best way to proceed is. It is—no one has come forward yet and said that we should punt.

Mr. FAZIO. If we can't reach agreement and we go back squabbling how we do levee fixes south of the American, we might be accused of punting because the Congress is not going to respond for another 2 years.

Mr. DOOLITTLE. Mr. Radanovich is recognized.

Mr. RADANOVICH. Boy, I thought we had problems in Fresno. Thank you very much for the opportunity to come up and speak and testify or at least participate in this hearing.

I do have a couple of questions and perhaps some observation as somewhat of an outsider, although water in California is tied intricately to the state.

I represent the area of the picture up there of Yosemite and into the San Francisco Bay, but I got a new appreciation of the problems you are going through here in the Sacramento Valley and in this area in trying to solve the problem that is going to basically protect the lives of four or five hundred thousand people in the area.

I have got some numbers here, and I am not so much a—I have been a supporter of the development of Auburn Dam for the sake of John Doolittle, who is my colleague, and other members of the delegation, but I think I have come to a new awareness how important it is as the final solution to the flooding problems in this basin.

I am not sure of—although I very much in appreciation of your efforts, Bob, and your efforts, Vic, to do something. We have a problem out there that needs a solution.

If my numbers are correct, though, I understand that Auburn Dam is projected to cost something in the area of eight hundred eighty-eight million dollars.

With your stepped release program, correct me if I am wrong, Bob, is a total of five hundred twenty-eight million for the cost of the bill.

Auburn Dam gets you a hundred-sixty-years protection at about 95 percent certainty. The stepped release plan gets you a 140 to a 160 percent certainty, and the cost of doing that is five hundred twenty-eight million.

What you get from the stepped release program, in addition to a little less certainty is unknown regional consequences or the price of fixing those levees you mentioned to the tune of three hundred million dollars on top of five hundred and twenty-eight as a means of protecting downstream users like Richard Pombo and Vic's area in West Sacramento in appreciation of the problems you are all going through or try to solve the problem.

Unfortunately it looks like building a dam is the best solution.

Is there any way the legislation you are offering can be at least dovetailed into what might be the event solution of building a dam?

Mr. MATSUI. Thank you, George. We attempted to look at that—John, Richard, Vic, and myself—and we all attempted to see if we can come up with something to move forward. We did that with the common elements that were passed in 1996, obviously only fifty-

eight million dollars, but it was to preserve the option to build Auburn at the same time, do enough work on our levee system to get us over a hundred-year protection.

Since new hydrology systems have been done with that fifty-eight million dollars, we are now down to a hundred, then seventy-seven years. We can't seem to catch up.

We have attempted several times to get a consensus. The problem with the premises of your question—and I appreciate the fact that you are here and you are looking at this issue—is the fact that we have tried Auburn on the floor of the House, which we lost in a two to one, and most recently in 1996, and we lost twenty-eight to thirty-five.

Now, I agree with you that the highest level of protection to both reliability is a dam, the dam in Auburn, and I agree with you that a levee system does not anywhere near reach the level of protection that a dam would reach.

Right now we have a reliability of 20 percent. We would double that with a 60 percent reliability if we have a hundred eighty thousand cubic feet per second going through the American River.

We are trying to improve a very, very dangerous and bad situation for six hundred thousand people. If I were at least given some reasonable assurance we can build Auburn in the next 5, 10, 7 years, I would say "Well, maybe the community should wait and do something that is temporary."

But you know, as I said, we did a CRS study, a lot of work on this. We don't see Auburn Dam. You are not going to get it at the Federal level. You try to at the state of California.

As I said, it is going to take years in order to figure out who is going to pay what cost and who is going to pay maintenance cost, who is going to pay for it statewide, bond issue, local community folks, two-thirds vote on a property tax. That is pretty tough for an entire region.

Somebody has to give me assurance that Auburn Dam will be built. I agree with what John is saying, ultimately we are going to need a structure in Auburn to provide protection for Sacramento and the downstream communities as well.

The problem is it is not going to happen, as Vic said, in our lifetime, and we can't wait.

Mr. RADANOVICH. Thank you. And just closing up my comments is you are looking at a, you know, a plan, bottom line to protect about a half million people in this area.

Those that object to the Auburn Dam or people recording this issue need to understand that this plan is only getting you 60 percent and you are going to end up spending just as much money you would on the Auburn Dam or any dam.

Mr. MATSUI. George, if I can comment on that?

In my opening comments, right now we can get a hundred fifteen thousand cubic feet per second in a normal situation. On my bill we can get up to a hundred forty-five thousand cubic feet per second, a 100 percent reliability on that.

We are talking worst case scenario, then it is at a 65 percent reliability. That is under the worse scenario under our bill.

And so when you and I say 60 percent, we are not talking under the normal situation where it is a hundred and twenty, hundred-thirty, hundred-thirty year occurrence.

We are talking only if you get the worst case, hundred eighty-five thousand cubic feet per second going down that river it becomes a 60 percent reliability issue.

Mr. RADANOVICH. Isn't the goal to send that up to two hundred fifty years?

Mr. MATSUI. New Orleans one point twenty-five million cubic feet per second. I can assure you it doesn't have more than a 50, 60 percent reliability, maybe less than that. All dams, it is based on the probabilities you get. The higher level of flow you get as you reach the threshold you get less percentage of protection.

Sixty percent is a number you use. What we are really talking about is a hundred forty-five cubic feet per second, which is a normal situation under emergency.

Mr. RADANOVICH. But when you are protecting for floods, you use flood history totals, like with the hundred-fifty-year floods. Most of what the bureau or regulators recommend is anywhere between two-hundred to two-hundred-fifty-year floods out to be the goal with some degree of certainty.

Mr. MATSUI. That is what Herger, Fazio, Pombo wanted to do with the Auburn Dam. We don't see that in the foreseeable future. Right now we have a 30 percent under the current situation. Getting up to 60 percent would double that.

Mr. RADANOVICH. I think what also needs to occur within this community is an acceptance that a dam in the future is a reality if you want to solve this problem.

Mr. FAZIO. Getting a hundred year protection is our immediate need. We are going to be seeing the Federal remapping process statewide. It is going to drive insurance rates for everyone.

Maybe that will at some point help get the two-thirds vote requirement that is so difficult for us to attain in the short run to get over a hundred year protection, as Bob's bill will do, which is imperative for us.

We are about to see on the 1st of July our current protection run out and flood insurance rates jump up. I would say one more thing to you, and Richard, I appreciate you being here today as Bob does.

This year our Subcommittee was asked to provide a billion dollars more than the President's budget for water projects across the country. We are all aware of the reality that that is simply impossible to provide. We have had two El Niño years in a row. We have created a demand. We have to be practical with what we can accomplish for your districts, as well as ours.

I am hoping Sam Farr will succeed me on the Appropriations Committee. If we really get lucky we will find him on this Subcommittee so we can keep working for California on a bipartisan basis.

But we can't ask for things that are beyond anybody's ability to obtain, not only in the authorizing process but more importantly in the appropriating process or we are going to end up with way less than the hundred-year figure statewide and nationally.

I am hoping we will be practical, realistic, and once again cooperative in the way we go about attacking this problem with the scarce resources we have.

Mr. RADANOVICH. The numbers—in appreciation for all you are doing here, you all have a tough job, but we are spending about eight hundred million dollars to not solve or at least get closer to solving the problem when spending the same money to build the dam—it is just worthy of mentioning.

Mr. FAZIO. I wish it were as obvious to our colleagues.

Mr. DOOLITTLE. Let me ask both of you: Do you accept the figures of the Corps that the standard project flood protection for the American River floodplain is two-hundred-fifty-year event?

Mr. MATSUI. That I couldn't tell you, but I can tell you that is a concern. That is why I think we should have had the Auburn Dam because I would say that it is quite possible that a two-hundred-fifty-year event could occur in Northern California.

Mr. DOOLITTLE. That is what the Corps actually——

Mr. MATSUI. I am not disputing that.

Mr. DOOLITTLE. Do you dispute that, Vic?

Mr. FAZIO. I can't say I dispute it. It is an evolving situation. As we know, the last decade has produced a lot of data that contradicts what, certainly, the people who built Folsom Dam thought they were accomplishing.

I think we ought not to err on the side of being cautious. I think we all understand to be cautious.

Mr. FARR. Mr. Chairman, do you yield on that?

Mr. DOOLITTLE. I yield.

Mr. FARR. You have to ask that question for the whole state. There is not many places in California that have that standard of two hundred fifty years.

Mr. DOOLITTLE. Let me reclaim my time on that.

That is, in fact, what the Corps study said, that the largest storm that could reasonably be predicted to dower is a two-hundred-fifty-year event. We are for Auburn, but it is not going to be built in my lifetime, which Sacramento floods, which it will eventually do, could be this year, could be next year, could be the year after.

If we have another warm storm off there that melts the snow pack, when that happens and the city does flood, and let me say I agree, you cannot paint too negative a picture of what will happen to our region certainly, but it will have an impact on the entire state when it floods.

That is why, frankly, those of us that right there in the floodplain are concerned because we will be severely impacted because Sacramento, in addition to being a state capitol which is a flood region, and you will bring down on our heads an artificial depression like the Great Depression, only it will be in Sacramento.

The rest of the country will be doing great, but we will have dire consequences when the city floods, which will happen eventually if we do not protect against the standard flood.

Then, in your opinion, will we have an Auburn Dam?

Mr. MATSUI. I would hope, John, it wouldn't get to that point. Certainly let me say it wouldn't be Sacramento city or the county. It would be the entire region.

Mr. DOOLITTLE. I meant that it is not just the city and county.

Mr. MATSUI. That we get the level of protection that would get us by a hundred and forty-five, hundred fifty, hundred sixty year level of protection for Sacramento County, and obviously the entire floodplain area.

Mr. DOOLITTLE. I want you to tell me what happens when it floods.

Mr. MATSUI. And then we hope that beyond that that over the next twenty or so years that we can start working and continue to work, as we have been working, on making sure that eventually we get a dam up in Auburn because we need this level of protection.

As this Northern California community grows, this is an incremental step that needs to be taken back in Washington, DC right now on getting the Auburn Dam. Maybe over time we will. It will take time.

In the meantime, we can't let this region be open to a major catastrophic event.

Mr. DOOLITTLE. Let's say next year it is going to flood and we know that somehow now.

When it does flood, at that point do you believe Auburn Dam will be built?

Mr. MATSUI. John, I think at that point we will be in such dire straights it will take us twenty years to get us out of where we are. People won't be thinking about Auburn Dam. They are going to be thinking how they are going to get by week to week, day to day, year to year.

If this thing hits, it will be something we haven't seen before equivalent to the 1906 earthquake. We are not going to be thinking of floods. We are not going to be thinking of dams. We are going to be thinking of food.

Mr. DOOLITTLE. I am trying to get a yes or no.

Mr. FAZIO. In 1992 we had four-hundred-year protection, and we would have yielded a lot more water out of Folsom almost to the brim because we had the backup protection of the facility.

We were prepared to build in Auburn. You didn't support it because you had another valid, from your perspective, priority, which you wanted to have a reservoir in Auburn. We have all had to make compromises. We have all had to live with the reality of that.

You didn't choose to compromise then, and we could have been through this potentially without any concern for flood protection and two-hundred-year less level in Sacramento.

What we are saying is "Please, help us find a consensus," and we will then, I think, at least have done the best we can do given the circumstances at the turn of the millennium.

Mr. DOOLITTLE. Since you have brought this ancient history up twice now, let me just say that I am not the one who failed to compromise. You were the one who refused.

You gave us a national recreation area. You gave us a dry dam, and I went to you and Bob both before that vote, indeed the morning of that vote, and said "Please, let's work together."

I have always believed in the flood control, but you didn't concede to my request, so I want to set the record straight on that.

Mr. FAZIO. We can continue on this. I offered a number of amendments in the Rules Committee that were helpful to you, but you already made up your mind; you wanted an up or down vote

on your Auburn Dam, which we gave you in the last Congress. I understand why you didn't want to compromise any further. Then I understand you wanted to get ultimately the vote you thought you deserved.

We are back where we started from. That is why I am saying let's find common ground and finish, for this generation of elected officials, the jobs we have been given.

Mr. DOOLITTLE. When the city floods, do you believe we will then get an Auburn Dam?

Let me pose the same question to you that I did to Bob.

Mr. FAZIO. I don't think it is going to be something any of us are going to be judged by, but I think we will be judged if we get a flood in a few years that exceeds the hundred-year level that we could have mitigated against and chose not to.

Mr. DOOLITTLE. Mr. Farr?

Mr. FARR. Let me give you experience from my district. We are on the opposite side, not talking so much of Carmel Valley, Monterey, peninsula water. We don't have any—our question is: What do you do when you have a drought? The issue at that time was "Let's build a dam."

The regions rejected the dam, and even though they have the most severe water rationing in the state of California and probably the highest priced water in California, just the opposite.

Just because there is a disaster, whether it be a drought or flood, doesn't mean the taxpayers want to go and build on a river in California. Since the New Melones, that is not the way the world is going. It is now looking at offsite storage.

The problem I think we have here, and I really appreciate both of my colleagues pointing out to those who are newer to Congress, that Congress has been there, done that, and when you first authorized the dam thirty-six years ago after the 1975 earthquake, everything was abandoned on the site. No work has been done on the dam for the last twenty-three years.

Congress refused to approve the dam in 1992 and again in 1996. I don't think the dam is an option, and I appreciate the concern of the Chair, but if you can't have the dam, what do you do?

Politics is the art of compromise. This is now discussing flood protection, levee protection. I assume you retrofitting of Folsom, and I presume that what this hearing gets down to is essentially the money to be committed for levee repair.

Is that kind of where we are? Are you opposed to the Folsom retrofits?

Mr. DOOLITTLE. Direct your questions to our witnesses.

Mr. MATSUI. I tell you why, John, to—Sam, but to respond somewhat to John, the reason the Folsom reop is not an option, we can get a hundred-ten-year Countryman plan that you suggest. Maybe reached just a hundred years. The problem with the hydrology studies being done, we have had recent floods, heavy rainfall.

Over the last 10 years there is been two, since 1986, two hydrology studies that keep dropping our level of protection.

I am afraid if you do the reop of Folsom, we have heavy rainfalls with years in construction. All of a sudden we are going to be doing the same thing all over again. We can't afford to do this time and time again.

What we have to do, our job, is get to a hundred fifty years, hundred sixty years, hundred forty-five, whatever that number is, and then work on a higher level of protection.

You have a lot of interest. You have levees you need to have built. You have obvious water issues, recreation issues. Instead we spend all our time fighting, getting Sacramento County a level of protection that makes us feel like we have go to sleep at night right now for seventy-seven years. It is too dangerous.

Mr. DOOLITTLE. Will you yield?

If we know the threat is a two hundred fifty year, whether we provide a hundred year protection and a hundred fifty year and by you both saying you are not going to ever see the dam which provides that level in our lifetime, you are both admitting we are going to flood, aren't you?

Mr. MATSUI. John, if I can answer?

Like I said, the January 1997 flood put a hundred—would have put a hundred seventy-five thousand cubic feet per second through the American River. That would have been adequate under the bill I have.

Under your proposal, or no proposal, we would have had that catastrophic flood. Not only is there a two-hundred-fifty-year occurrence, hundred-ten-year occurrence as well. We need to protect from seventy-seven years all the way up to——

Mr. DOOLITTLE. Assuming the levees held. But as you alluded to, there is a 40 percent chance the levees will fail under the circumstance even with the five hundred twenty million dollars we put into them.

Mr. MATSUI. If you hit the highest level of protection, if you get, let's say, the Countryman plan gives a hundred-forty-five. You get to that level, yes, you may be at a sixty year, anything less than that the——

Mr. DOOLITTLE. The five largest storms of record—Folsom Dam was a two-hundred-fifty-year event dam when it was authorized, and before construction had even started, they dropped that figure down because the five largest storms of history happened before.

And 1997 you mentioned, but next year it could be even worse. Well, our point is not to sit here and debate with each other, but these issues are important.

If there are no further questions, we will thank both of you.

And let me just ask: Is there objection to our colleagues joining us up here on the dais?

Hearing none, then I will extend the invitation to both of you to come up here and join us in the questions that will be directed to other witnesses.

[Pause in proceeding.]

Mr. DOOLITTLE. With that, let me invite our first panel of witnesses now, an hour and a half into the agenda, to come forward.

We have as our witnesses Roger Patterson, Pete Rabbon, and Carl Enson. Let me ask the three of you if you will please rise and raise your right hand.

Do you solemnly swear or affirm under the penalty of perjury the responses made and the statements given will be the truth, the whole truth, and nothing but the truth?

Let the record reflect that each answered in the affirmative. Thank you, gentlemen—ladies and gentlemen, and we thank you for being here.

And Colonel Klasse, I understand you will be accompanying Mr. Enson, and we are appreciative of you being here as well.

We haven't been very good about the 5-minute rule, and these red lights. I guess we will try and be better of that in interest to not being here until 6 o'clock at night. We can always go to a second round of questions.

Our first witness is Mr. Roger Patterson, the regional director of Mid-Pacific Region of the Bureau of Reclamation.

STATEMENT OF ROGER PATTERSON, REGIONAL DIRECTOR, MID-PACIFIC REGION, BUREAU OF RECLAMATION

Mr. PATTERSON. Mr. Matsui, Mr. Fazio, thank you for the invitation to attend the hearing today. I have with me Tom Akin, who is hiding in the front row of the audience. He's the area manager out in Folsom, if you need to call on him.

The Bureau of Reclamation believes that flood protection for the Sacramento area, and efforts to protect Folsom Dam in an emergency are extremely important. In response to that concern, Reclamation entered into an interim reoperation agreement with SAFCA in an effort to provide hundred-year flood protection until a final decision could be made on flood control for the city and county of Sacramento.

Our recent hydrologic analysis to date has shown, based on the 1997 flood, that that level of protection cannot be provided by reoperation alone.

It is primarily for this reason that the administration in the Water Resources Development Act of 1998 sent to Congress last month a provision to address flood control concerns in Sacramento. Section 3 of that legislation would authorize modifications to Folsom Dam.

The Bureau of Reclamation believes there are engineering and logistical issues created with the stepped release plan developed by the Corps of Engineers.

We would continue to work very closely with the Corps of Engineers and local flood control to determine the flood capabilities of various proposals. For example, we believe that a design that would incorporate new or enlarged outlets, discussed earlier by Mr. Countryman, may be a more workable conclusion.

Constructing emergency repairs at Folsom gate number 3 sheds some light on the potential. Totally sealing and waterproofing that area for construction proved to be very difficult.

If modifications to Folsom Dam are approved, we would make every attempt to proceed with minimal disruptions. We realize the importance of working closely with state and local officials to minimize the disruption of commuter traffic and businesses in the local area. Closures of Folsom Dam should and would be kept to a minimum.

These considerations, notwithstanding, it is clear to us from flood operations in 1997 that modifications to Folsom Dam are necessary. The limited ability to make adequate releases from the res-

ervoir in advance of an upcoming storm is a concern of Reclamation and a concern we feel should be addressed.

That will conclude my testimony, Mr. Chairman. I would be happy to answer questions at the appropriate time.

[The prepared statement of Mr. Patterson may be found at end of hearing.]

Mr. DOOLITTLE. Thank you. Next witness is Peter Rabbon, executive director of the California State Board of Reclamation.

STATEMENT OF PETER RABBON, EXECUTIVE DIRECTOR, CALIFORNIA STATE BOARD OF RECLAMATION

Mr. RABBON. Thank you, Mr. Chairman and members.

The purpose for me today is to hopefully have you better understand the State Reclamation Board, and in the process—before I get into that, I would like to thank in your help and support for the Reclamation Board in providing many flood control projects throughout the Central Valley all for improvement of the public here.

The Reclamation Board is a seven-person Governor-appointed board. We were established in 1911, and our responsibility is flood control in the Central Valley.

Some of the authorities we have to go along with that that I want to speak to for the American River project is our authority to act as a nonFederal sponsor to federally sponsored projects.

In that role we share with the Corps of Engineers and the local agencies the cost sharing that—cost sharing is generally, using the new rules: 65 percent Federal, 25 percent state, 10 percent local.

We also have authority over plans of flood control including modifications to Federal projects such as what we are discussing today, if there is a nonFederal participant.

Let me briefly cover the Reclamation Board's decisionmaking authority in two arenas: One is nonFederal sponsor for federally sponsored projects and two, when we are not the nonFederal sponsor for federally sponsored flood control project. The Corps of Engineers traditionally, before they move forward with recommending authorization of any flood control project, have, per their policy, requested a nonFederal or letter of intent, and that is the role the Reclamation Board generally provides.

Additionally, if the Reclamation Board submits their letter of intent to act as a nonFederal sponsor, we will also seek state project authorization and state funding. We also are placed to act as lead agency for the California Environmental Quality Act.

Let me now cover the board's decisionmaking authority if we are not the nonFederal sponsor. First, the Federal Government would have to find for the American River project—I will refer to that one as an example—a legally eligible entity that meets all the criteria required of the Federal Government to be a local sponsor or a nonFederal sponsor.

Based on the knowledge I have right now, I am not aware of any other entity that could sponsor the Stepped Release Plan today except the state of California, the Reclamation Board.

Putting that aside, the legal entity would act as nonFederal sponsor. We believe the Federal project would still have to come be-

fore the Reclamation Board for approval by the Board because of our permit authority, and we believe that that is the case.

We understand the Federal supremacy; however, the project will have nonFederal dollars involved with it, very similar to the CEQA process, that—essentially will go through the CEQA process through California.

So regardless of who acts as nonFederal sponsor, the Reclamation sponsor will have a major decisionmaking role in what project is placed here for the protection of the greater Sacramento area.

The Reclamation Board has stated its position for providing the Sacramento area improved flood protection. We did that on March 20th, when we passed our resolution 98–04. We again stated our position on April 20th in a letter to congressional representatives, and then clarified that position again on May 22nd.

The board's position is basically we are seeking, as a goal, a minimum of two-hundred-year level of dependable protection for the Sacramento area. We do support modifying Folsom Dam; however, we have serious concerns about raising levees for the sole purpose of passing additional water through the levees system in an urban area. For that reason we are supporting studying the levees at this point.

We do have technical concerns on the idea of raising levees, and I would like to go through those briefly. We would like to know that the Stepped Release Plan is dependable, as we currently understand, it would require a waiver in order for that plan to receive FEMA certification by the Corps.

The storms of 1997 and 1998 have shown us that you can experience levee failures at or near design stages.

Engineering concerns: The Stepped Release Plan must be thoroughly developed to the technical level that is normally done for the Corps and the state to consider authorization. The work that has currently been done on the Stepped Release Plan is not to that level.

Mitigation issues, environmental and hydraulic: Again, there are substantial work that needs to be done to clarify what the engineering and environmental impacts are, but more importantly to establish what the environmental and hydraulic mitigation will be.

The project scope and estimated cost, we believe, will have to be completely reevaluated after they have addressed the dependability, the engineering, and the mitigation issues.

I would like to reiterate we are, at this point, prepared to submit our letter of intent to act as a nonFederal sponsor for modifying Folsom. At this point we do not support cost sharing of the levee raising portion.

We would like to point out that there is common ground in terms of issues that have been discussed; that is, modifying Folsom.

I would be happy to answer any questions that you have.

[The information referred to may be found at end of hearing.]

Mr. DOOLITTLE. Thank you. Our next witness is Mr. Carl F. Enson, Director of Engineering and Technical Services, South Pacific Division, Corps of Engineers.

Mr. Enson is accompanied by Colonel Dorothy F. Klasse, Sacramento District Commander Sacramento.

Mr. Enson?

STATEMENT OF CARL F. ENSON, DIRECTOR OF ENGINEERING AND TECHNICAL SERVICES, SOUTH PACIFIC DIVISION, CORPS OF ENGINEERS, ACCOMPANIED BY COLONEL DOROTHY F. KLASSE, SACRAMENTO DISTRICT COMMANDER, SACRAMENTO

Mr. ENSON. Mr. Chairman, members, and Congressman Matsui and Congressman Fazio. Thank you for inviting us here this morning. I am representing Dr. John Zirschky, the accounting secretary of Army of Civil Works, and we are here to respond to the issues that you have raised in your letter of invitation to us.

I also have with us Mr. Bob Childs, the project manager for the American River projects. He sits with us in the audience, should there be any detailed questions to be directed to him.

The following comments are intended to respond to each of the five issues and concerns identified in your letter of invitation.

The first issue is traffic on the dam road. Alternative flood control plans for American River, including the stepped release plan, were formulated and evaluated in the Supplemental Information Report, commonly referred to as SIR. It was produced by the Corps of Engineers in 1996.

The stepped release plan as identified in that report includes lowering the spillway to allow a greater amount of flood storage space behind Folsom Dam.

Although the SIR reported no major impacts to traffic through the closure of Folsom Dam Road during construction, we learned that lesson during the repair of the gates out at Folsom Dam in the last year or so.

An alternative is to increase the number of low level outlets through the dam. This outlets option is slightly less effective than spillway lowering, but would result in only occasional closure during the construction.

The Corps is working closely with the Bureau of Reclamation on this and other dam modifications issue. This issue would be addressed during the design of any Folsom Dam modifications.

The second issue is the impact of the proposal on local water supply. The stepped release plan would not adversely affect water supply. The Folsom Dam is currently operated using a variable maximum flood control space between four hundred thousand and six hundred seventy thousand acre feet.

The flood control space is set depending on flood control storage space available at five other reservoirs upstream. Folsom Reservoir had a fixed value of four hundred thousand acre feet.

The current operation reduces the space available for water supply compared with the original operation. The current operation was the result of an agreement between SAFCA and the Bureau of Reclamation to increase flood control storage space available to Folsom Dam. Continuation of this operation was authorized in the Water Resources Development Act of 1996.

The stepped release plan is based on continuation of this operation for variable flood control storage in Folsom Dam.

The third issue is reliability of the safety concerns caused by releasing a hundred eighty thousand cfs from Folsom Dam.

The stepped release plan includes modification to the flood control outlet facilities at Folsom Dam, increased use of surcharge

storage space in Folsom Reservoir, and increasing the objective release to the lower American River from a hundred fifteen thousand cfs to a maximum of a hundred and eighty thousand cfs.

The higher objective release requires significant modifications to the existing levee and channel system along the lower American River and Sacramento and Yolo Bypasses. The plan would result in a decrease in the likelihood of flooding from about one in seventy-seven to about one in one hundred sixty in any given year.

Based on information known to the Corps today, we believe the existing system can be modified to reliably pass a system of a hundred eighty thousand cfs. Additional studies are required to design specific project features. We will have to consider factors such as hydrology, river stage, estimated levee stability, and operation of facilities.

The fourth issue is effects of proposal on downstream and upstream communities. The stepped release plan includes the objective release for flood control from Folsom Dam to a maximum of one hundred eighty thousand cfs.

A fundamental conclusion regarding this plan in the 1996 SIR was that without increasing the flow capacity at the Sacramento Weir and Bypass and modifying some of the levees along the Yolo Bypass, the increased flows existing—I am sorry—exiting the American River would reduce the level of flood protection along the lower Sacramento and elsewhere.

Accordingly, to mitigate this impact, the stepped release plan included widening the Sacramento Weir and Bypass by a thousand feet and constructing improvements to about fifty-two miles of existing levees along the Yolo Bypass and downstream sloughs.

It is the intent of these modifications to not increase the water surface elevations during design events upstream along the American River or Sacramento River.

Whether or not these features will ultimately be defined as all those necessary to fully mitigate for any increased river stages and/or flows will need to be determined in more detailed evaluations conducted prior to the project construction. It is our intent to fully mitigate for any effect the stepped release plan would have on downstream areas.

The last issue is the environmental consequences of the proposal. The levee work as described in the 1996 SIR would have impacts including the expected loss of about forty acres of riparian vegetation and oak woodland along the lower American River and approximately a hundred twenty acres of riparian and oak woodland cover and wetlands would be lost due to construction in the Sacramento and Yolo Bypass areas downstream of the American River. Those losses would be mitigated as a project activity at sites in the project area.

As with the other elements of this plan, environmental impacts and potential mitigation features would need to be reevaluated as part of any future studies.

The Folsom Dam modifications primary impacts during the construction period would be to air quality, local traffic patterns, and noise levels. Dam operation with the modifications would result in occasional changes to flows in the lower American River and

changes to the reservoir's water surface elevations. These changes would have little effect on the environmental resources.

Mr. Chairman, that concludes my testimony. I can assure you that the Corps of Engineers will work with our Federal, state, and local partners and affected parties to address the issues raised and undertake expedited efforts to assure reliable flood protection along the American River and in the Sacramento area. Thank you very much.

[The prepared statement of Mr. Enson may be found at end of hearing.]

Mr. DOOLITTLE. Thank you, Mr. Enson. It has been represented that in the event of a hundred-and-sixty year flood event in Sacramento that there would be a 40 percent chance of levee failure; is that correct?

Mr. ENSON. Sir, I don't believe that I can explain risk and uncertainty as well as Congressman Matsui did, but the answer to your question is we have placed a 60 percent probability on the one hundred eighty thousand cfs discharge having a return interval of a hundred and sixty years.

Mr. DOOLITTLE. And therefore, does that mean that there is a 40 percent chance of failure?

Mr. ENSON. No, sir. It means there is a 40 percent chance that the hundred eighty cfs will not have a return. It is a complexed relationship here that——

Mr. DOOLITTLE. Let me just stop you for a minute. In a letter I received this morning from Colonel Klasse, it says, quote, "Using information under the Corps today in applying our risk and uncertainty, the stepped release plan has about a 60 percent probability of passing the hundred-sixty year event."

Now, that seems to be different than what you are telling me.

Mr. ENSON. Certainly it didn't. That is exactly what I am saying is that we can—we have a level of confidence that the hundred and eighty thousand cfs discharge, which is the release that we are looking at with a stepped release plan, we can, with confidence, build a levee system that will contain that discharge.

When we try to apply a frequency to the hundred and eighty thousand cfs is where you get great difficulty in predicting the reliability of that being the right discharge.

And just as we have seen since 1997, we originally thought we had a hundred-year frequency protection with the existing system. Well, after we had those floods, we added those floods to our frequency curve, and those floods changed the existing level of protection down to a seventy-seven year protection.

That is essentially what we are talking about, the degree of difficulty in predicting what a discharge frequency is for any specific discharge.

Mr. DOOLITTLE. Mr. Rabbon, you alluded to this.

What is your understanding of that figure?

Mr. RABBON. Let me try to respond to that primarily because of the Reclamation letter that is up here behind me.

And the letter says we understand there is only 60 percent reliability for passing the increased flows. It is our understanding that there is a 60 percent reliability for passing a hundred-and-sixty year storm.

Mr. ENSON. That is correct.

Mr. DOOLITTLE. Passing meaning the water gets through without something breaking and causing a flood; is that what that means?

Mr. RABBON. That is my understanding.

Mr. DOOLITTLE. That was the plain reading then. I was getting some unusual explanation that didn't make sense.

Do I now have the correct understanding that there is a 60 percent chance that the flows get through the levees without a flood occurring?

Mr. ENSON. Sir, I am at great difficulty to explain this. Because of its complexity for me to explain for someone to understand, but the hundred and eighty thousand cfs discharge, the objective release we are planning for, we have high confidence that we can design a system that will pass that flow.

Mr. DOOLITTLE. But you said "high confidence." You said there is a 60 percent chance.

Is that high?

Mr. ENSON. That the frequency related to that hundred eighty thousand cfs is, in fact, a hundred sixty year event.

Mr. DOOLITTLE. That extra language—maybe we should direct this to Colonel Klasse.

Colonel Klasse, if you are going to testify, will you raise your right hand. We will go through this.

Do you solemnly swear or affirm under the penalty of perjury the responses made and the statements given will be the truth, the whole truth, and nothing but the truth?

Colonel KLASSE. Yes, sir, I do.

Mr. DOOLITTLE. Colonel Klasse, you wrote this in your letter?

Colonel KLASSE. Yes, sir. I have the letter in front of me. I will read the sentence and see if I can't clarify.

Mr. DOOLITTLE. Thank you.

Colonel KLASSE. "Using our risk and uncertainty procedures, the stepped release plan has about a 60 percent probability of passing the one hundred and sixty year event."

So if we are talking about the one hundred and sixty year event, we are saying that we have a 60 percent probability of passing the one hundred and eighty thousand cfs.

Mr. DOOLITTLE. And if I may, then, to just further confirm my understanding, that would mean there is a 40 percent possibility or probability—40 percent probability that you may not pass the hundred and sixty year event.

And my question is: In the event that—let me use another term. In the situation where we don't pass the event, does that then mean that there is a flood? That the levee has broken? That somewhere in the system something has broken and there is, therefore, a flood?

Mr. ENSON. Sir, you are absolutely right. The 160 percent frequency has a probability of—has a 60 percent probability of having a hundred and eighty thousand cfs discharge associated with it.

Mr. DOOLITTLE. Excuse me, but that gobbledegook is not in this letter. I can understand what is in this letter.

Is what you are telling me right, or what is in this letter right?

Mr. ENSON. Sir, if you would like me to have Mr. Childs explain it in detail——

Mr. DOOLITTLE. We can assume Mr. Rabbon understands it, as I have understood it. And I think we are entitled right now to understand what you mean rather than come up here and start throwing in words that aren't in this letter.

Does the Corps stand by this letter?

Mr. ENSON. Yes, sir. The letter is accurate.

Mr. DOOLITTLE. The letter says, "The stepped release plan has a"—I will put a period after that because the next thing is related to a lesser event.

Mr. ENSON. That is correct, sir.

Mr. DOOLITTLE. Well, the plain meaning of that is, to me, that there is a 60 percent chance the levees hold. There is a 40 percent chance they fail.

Do you disagree with that characterization?

Mr. ENSON. For the hundred and sixty year event.

Mr. DOOLITTLE. Why did we just spend twenty minutes haggling over what is the plain meaning of this letter?

Mr. ENSON. We are talking about two different things. When we are talking about the level of protection, we are talking about a discharge and a frequency.

Mr. DOOLITTLE. What we are talking about is in the hundred and sixty year event, there is a 40 percent chance the levees break and we flood Sacramento or someplace.

Mr. ENSON. That is correct.

Mr. DOOLITTLE. That is correct. Thank you. All right.

Mr. Enson, you flew out here, didn't you, to come to this hearing?

Mr. ENSON. Sir. I am from San Francisco.

Mr. DOOLITTLE. You drove then. Would you fly on a plane that had a 40 percent chance of crashing?

Mr. ENSON. No, sir.

Mr. DOOLITTLE. I wouldn't either.

Mr. Patterson, are you happy with the Corps of Engineers doing work on your dam?

Mr. PATTERSON. We work pretty well with the Corps.

Mr. DOOLITTLE. Work well enough that you would stand by and let them fix the dam?

Mr. PATTERSON. We would work out a joint plan like we did when the gate failed. Both Corps and we had our designers do the redesign on the gate. We administered the construction contract. We had people from Corps of Engineers out from time to time looking at how it was working. So I mean, that we can work through, if we use this to authorize a modification. The Bureau and the Corps will be able to figure out how to do that.

Mr. DOOLITTLE. Thank you. Mr. Farr.

Mr. FARR. My question really goes to Mr. Rabbon. Thank you, Mr. Chairman.

In your testimony you indicated that the Reclamation Board reviews the Federal projects and you can deny a permit.

Have you ever denied a permit of the Corps of Engineers and recommendations to repair levees?

Mr. RABBON. We have not denied a permit. Every activity where this type of instance has come up, we have been able to work jointly together.

Mr. FARR. And you indicated you are now—the Board is now studying the levees.

And how much are you studying the same levees that is being proposed in the stepped program?

Mr. RABBON. I may have misspoke. We are not studying the levees. We are recommending that the Corps study the levees.

Mr. FARR. That is not what you said. You said you are studying the levees right now. I wrote that down when you spoke.

Mr. RABBON. Then I misspoke, excuse me.

Mr. FARR. The Board is not pursuing a study, as your testimony indicates, to obtain a goal and to further study the levee raising. You are not pursuing that at all. That is your position, but you are not pursuing it.

Mr. RABBON. That is incorrect. Let me clarify because I was focusing just on the Stepped Release Plan.

We currently are not studying raising and strengthening the levees for the stepped release plan. We are the local cost-sharing partner with the Corps in the repairs in the common elements for the American River, so we are funding that. We are working with the Corps.

Mr. FARR. That is ongoing levee repair, not levee improvements on new levees or raising levees, just making sure the levees that are there are adequate.

Mr. RABBON. Making sure that the levees are adequate to pass the design flows. We are included in Central Valley studies with the Corps of Engineers, which we are cost sharing.

Mr. FARR. At what level is that? The two-hundred-fifty year level?

Mr. RABBON. We are looking at how to make the flood control system work better.

Mr. FARR. What standard?

Mr. RABBON. There is no standard because it varies if you are up in Northern California or down in the Central Valley urban areas.

Mr. FARR. You indicated the concerns existed about the stepped release plan, that it has to be dependable.

How can you be dependable if you don't have a standard?

Mr. RABBON. For the Stepped Release Plan and the greater Sacramento area we do have standards. That is a minimum two-hundred year for highly urban areas.

Mr. FARR. You indicated you were opposed to cost sharing purposes if the Auburn Dam isn't built.

And if the only feasible compromise is the stepped release plan, would you then support it?

Mr. RABBON. If we can see how the stepped release plan is part and package of a long-term goal of two hundred years, that would be brought before the Reclamation Board.

Mr. FARR. Anything less than two hundred years the Reclamation Board wouldn't support?

Mr. RABBON. That is not correct.

Mr. FARR. What is correct?

Mr. RABBON. We support modifying Folsom Dam, which is in our incremental plan for flood protection for the area.

Mr. FARR. Which of the proposals of that do you support? What's the other one called, the Joe Countryman proposal or the other one?

Mr. RABBON. We have not taken a position on which one to support because again, we need to see the studies, and we concur, though, with, I think, all the agencies in terms of modifying Folsom and that that does fit in a long-term plan.

Mr. FARR. You are a state agency, California Reclamation Board?

Mr. RABBON. Yes.

Mr. FARR. Funded by the state.

What's your agency budget?

Mr. RABBON. Approximately three hundred thousand, however, a majority of the services are performed by the Department of Water Resources.

Mr. FARR. So with a very limited budget, what role are you going to play in this?

Mr. RABBON. The limited budget is to staff the seven board members, myself, our chief engineer, and as I said, we receive our services from the Department of Water Resources, and we expend probably over ten million a year in terms of various projects, and we will use the same resources we have used to fund all the projects we have cooperated with.

Mr. FARR. So you will not be nonFederal sponsor for the Stepped Realease Plan?

Mr. RABBON. Because of lack of information, that is correct.

Mr. FARR. You don't have the money to get that information?

Mr. RABBON. We have the money to cost share in studies.

Mr. FARR. But you don't put the money into studying the plan?

Mr. RABBON. I don't think that question was asked of me.

Mr. FARR. Will you?

Mr. RABBON. We can budget for that.

Mr. FARR. Thank you.

Mr. POMBO. Mr. Rabbon, so I can understand what you are testifying to at this point, you support the Folsom modifications because you see that as an incremental plan moving to the two-hundred year protection?

Mr. RABBON. Correct.

Mr. POMBO. Are there any other steps that you see that would lead you to that incremental two-hundred year protection at this point?

Mr. RABBON. At this point that is why we are asking to study the levees to see if that truly is the next logical incremental step.

Mr. POMBO. Are there any other proposals that have been brought forth that you are aware of at this point?

Mr. RABBON. The Reclamation Board has supported, as the best technical solution, the Auburn Dam in the past.

Mr. POMBO. As the best technical solution.

What about in terms of cost and overall cost?

Mr. RABBON. Economically it would also be the best solution.

Mr. POMBO. So it is the board's opinion at this point that it is economically the best solution?

Mr. RABBON. That is what they have stated in their past positions.

Mr. POMBO. Thank you. Colonel Klasse, last year we had the misfortune dealing with the floods in most of my district, and one of the problems that we had was a levee system that was incapable of handling the amount of water that came through.

One of the concerns my constituents have is a plan, such as been proposed, that the levee system downstream from Sacramento would not be able to hold that, would not be able to withstand that.

Could you comment on that?

Colonel KLASSE. I believe that Mr. Enson, in his opening statement, mentioned the fact that we do feel confident that we would be able to design for the one hundred eighty thousand cfs downstream.

Mr. POMBO. I find that interesting. Maybe Mr. Enson would comment on that.

In terms of money, what are we realizing downstream to handle the hundred and eighty thousand cfs?

Mr. ENSON. Yes, sir. The estimates that we put together in the SIR dated 1996, in 1995 dollars, was approximately three hundred and eighteen million dollars for the levee portion of the stepped release plan.

Those estimates were made for a specific purpose. This was to link out all the alternatives in the same level of detail, but the three hundred eighteen million was our estimate in 1996.

Mr. POMBO. That is to take it all the way out?

Mr. ENSON. That is for everything we needed to do, to strengthen up and prepare those levees so we can get a hundred eighty thousand cfs through it.

It also included the cost of mitigation, the hydraulic mitigation downstream on the Sacramento River where we needed to widen the weir by a thousand feet.

And then it was also so—we don't want to cause any hydraulic damage down there because of these releases on the Sacramento River, then we put a larger volume of river in the Yolo Bypass. That is why we have to beef up those levees along the bypass. It includes all those features.

Mr. POMBO. It involves the mitigation that you talk about in your testimony as well?

Mr. ENSON. Yes, sir. In terms of the report we did in 1996, as I mentioned in my statement, and the administration has included in their proposed bill. All of that needs to be investigated. The questions that the state has asked are all legitimate questions that need to be addressed. Our next step is to address those questions before moving forward for construction of the dam or the levees.

Colonel KLASSE. Congressman, I maybe should clarify the three hundred eighteen million that Mr. Enson is talking about does not include the environmental restoration features. I think you asked that as to the latter part of the question. That portion is ten point one. It is for recreation and environmental restoration features, which is above the three eighteen, sir.

Mr. POMBO. Ten point one million?

Colonel KLASSE. That is correct, sir. I realize you said you still have to study this, but my previous experience in terms of environmental mitigation is that it will be many times the ten point one million before you are done with that.

Mr. POMBO. And I know that these are all preliminary numbers, and when do we expect to have some certainty on in terms of numbers?

I know you are saying preliminary numbers. Any time in the near future are you going to be able to come to us and say this is what it is going to cost?

Mr. ENSON. Sir, I think that the next step is for the regional representatives to decide which plan they would like us to move forward on and make that expression to us so we can begin those studies, but right now we are not concentrating on any one of these alternatives in preparing more data.

Mr. POMBO. Thank you. Mr. Chairman.

Mr. DOOLITTLE. Mr. Radanovich.

Mr. RADANOVICH. No questions.

Mr. DOOLITTLE. Mr. Matsui.

Mr. MATSUI. I would like to ask Mr. Enson and Colonel Klasse, if you want to discuss this together, the issue of reliability if, in fact, that is the reliability of a hundred and eighty thousand cfs going through the American River under the stepped release or under Mr. Countryman's plan.

The stepped release plan, that is the only one that has the SIR attached it to.

Can you answer that in terms of reliability?

Mr. ENSON. Sir, we don't have a number on reliability on passing that. All I can say is we have a high degree of confidence we can design a system that will pass the hundred eighty thousand cfs.

Mr. MATSUI. The 60 percent has nothing to do with the hundred and eighty thousand cfs going through the American River?

Mr. ENSON. That is correct, sir.

Mr. MATSUI. The issue that has to do with the 60 percent is the issue of whether or not it can sustain a hundred year occurrence; is that correct?

Mr. ENSON. The hundred and sixty year.

Mr. MATSUI. Sorry. Hundred-sixty-year occurrence.

Mr. ENSON. Absolutely.

Mr. MATSUI. The reason you can only predict a hundred sixty year is different hydrology or different rainfalls that might occur that may change the hydrology; is that correct?

Mr. ENSON. Essentially correct, but the frequency curve is a complex statical analysis that leads you to have probabilities low when you get up to the high ranges.

Mr. MATSUI. In other words, it isn't your ability to build the dam. It is the issue that makes this thing somewhat uncertain in terms of reliability, the things beyond your control, Mother Nature essentially.

Mr. ENSON. Thank you, sir. That is what I was trying to say.

Mr. MATSUI. I spent a lot of evenings trying to understand this thing. You clarified it for me much better than the book did. I want to thank you very much.

Essentially it doesn't have anything to do with the issue of reliability the fact that a hundred eighty thousand cfs will go through the stepped release plan. We are talking about a variable of Mother Nature, which may change the reliability whether it is a hundred sixty year occurrence or something else?

Mr. ENSON. Yes, sir.

Mr. MATSUI. Thank you. I hope we all will discuss this in terms of that. I want to thank both of you, by the way, for your testimony today, and particularly you, Mr. Enson, for being here today and showing up from San Francisco.

Mr. Rabbon, I am going to spend a minute on this so the letter that Mr. Delgado wrote the president of the Reclamation Board, you are basing this on no studies, then, at least from what I heard from Mr. Farr here?

Mr. RABBON. Basing the fact. There are no studies.

Mr. MATSUI. The fact you are not willing to give your seal of approval?

Mr. RABBON. It is based on a lack of information and our concern on what we have seen very recently in 1997 and 1998.

Mr. MATSUI. If I may, then, we authorized this this year. Now, let's say that we don't start the appropriations process on the levee work for 5 years because you want to do the reop first, modification of Folsom first.

Studies will be done over the next 60 months, then you get the studies, then you reevaluate it; is that my understanding?

Mr. RABBON. It could work this way.

Mr. MATSUI. This is the normal appropriations process, a normal process, which many pieces of items go through.

Mr. RABBON. It is not the normal process I have seen in terms of how the Reclamation Board has worked with the Corps of Engineers here for authorizing projects.

Mr. MATSUI. Let me ask you this: Do you think the Corps would build an unsafe project?

Mr. RABBON. I believe the Corps will build a project to the best of their ability.

Mr. MATSUI. Right. OK. And let me just—he does say in the last sentence of the second—any decision on the levees must be based on updated information and consider the results of additional studies.

So you are basically confirmed, at least in your mind, Mr. Farr and myself, maybe not in your opening statement but you confirmed your opening statement, so thank you very much.

Mr. DOOLITTLE. Mr. Fazio is recognized.

Mr. FAZIO. Mr. Enson, could you kind of give us, with Colonel Klasse's involvement, a sense of what the region that you are responsible for looks like in terms of similar flood threats, similar kind of levee vulnerability?

How many levees in the jurisdiction that this Corps office is responsible for meet the two-hundred-and-fifty year standard or hundred-year standard?

Where are we in the total mix of what's out there, not just in this state but the region?

Mr. ENSON. Sir, I would say these levees, especially on the Sacramento River, are ones that have the highest flow going through them.

For most regions, when we get down to the Los Angeles system, we are talking down there of a hundred and forty-five thousand cfs. Our design discharge at the mouth of the river, the lower end of the river. Santa Ana, it is about a hundred and seventy thousand

cfs at the mouth of that river. We are stuck with flows that are higher in this area for the levee system that you have.

As far as the levees we have under our purview here in the Federal system, as you well know, we have about eleven hundred miles of system and about another five to six thousand miles of system that are not in the levee system. That is our purview.

Mr. FAZIO. What about the American River? You talked about the Sacramento. We are really focusing here on the American.

How do you compare, if we were to reach some sort of ultimate agreement hereafter, all studies that I know to be done, the technical fixes that seem attainable, the protection that you can guarantee us, how does that rank with others around the region?

Mr. ENSON. I don't see it any different, sir. I don't see it significantly different than any other area we normally work in. We have constraints here, which we have in most areas, the development right up to the backside of those levees, the recreational corridor inside those levees that need to be compensated.

Mr. FAZIO. Thank you.

Mr. DOOLITTLE. Mr. Enson, are you aware of Corps levees which have failed?

Mr. ENSON. Yes, sir.

Mr. DOOLITTLE. Could you tell us about those you are aware of?

Mr. ENSON. Well, just to kind of give you the experience that we have had right here in the region during the 1997 event, again, eleven hundred miles of levee, and I believe we had about thirty-six levees that were breached in areas along that eleven hundred miles.

And out of those thirty-six breaches, thirty-four of those were from flows that exceeded the design capacity of those levees. Two of them were slightly below the design level or just at the design level, so we have had some experience.

At Paradise Cut we have had some problems with levees where we made some repairs. We still have residual problems associated with it.

I want to make it clear: When we are talking about levee systems, we are talking about risks. There is no question about that. We have to be cognizant of those risks, but there is an inherent risk. There are things we don't know about levee systems. No matter where they are, all of those things need to be studied and investigated.

The bottom line, in my mind, when we talk about upgrading levees, in the general sense, even though we are increasing the risk, as the state believes we are, in raising and strengthening these levees because we are pushing more water through them, usually the net increase in that risk is small compared to the increase in the benefits associated with that strengthening and raising.

That is to say the flood protection we get from increasing the strength or heights of those levees is usually justified from a technical, as well as a risk.

Mr. DOOLITTLE. When a levee is breached, usually there is a wide swath?

Mr. ENSON. Sir, I can't speak to the Paradise Cut. I will ask Colonel Klasse——

Colonel KLASSE. That can be true, yes, sir.

Mr. DOOLITTLE. Do you have any idea in the instance of Paradise Cut what the swath was?

I heard levees break, wiping out two, three hundred feet sometimes.

Colonel KLASSE. I don't know what that one was, sir. Paradise Cut, how much was cut or how much it breached on both sides, the east side and the west side so——

Mr. DOOLITTLE. That was one of the—both cases that was under the design capacity; right?

Colonel KLASSE. One was at the design capacity. One was below the design capacity.

Mr. DOOLITTLE. I don't mean to infer the Corps doesn't do the best they can do. This is somewhat uncertain. Mid Valley, Reclamation district fifteen hundred, the Corps redesigned a levee for them.

Do you know what I am talking about here?

Colonel KLASSE. We have got work going on in Mid Valley, yes, sir.

Mr. DOOLITTLE. It is my understanding that the Corps did a wall like they are going to be doing on the common elements we have all supported and that certify the levee is safe, and despite all of that, the levee still boils; is that your understanding?

Colonel KLASSE. I am not sure if Mid Valley is the one you are talking about. Let me just——

[Pause in proceeding.]

Colonel KLASSE. I believe the one you are talking about is the Sutter Bypass, that is correct. That is where we had the major breach.

And going back to your first question which dealt with how much scour there was, we closed the breach, dropped in big rocks, did not recognize, or at least at the time that it had scoured away the clay layer, so when we put in the slurry wall, we did not lock it into a clay layer. We did not identify that at the time. It is part of the, you know, I guess, of the process.

Mr. DOOLITTLE. You learned from additional experience, as we all do?

Colonel KLASSE. Yes, sir.

Mr. DOOLITTLE. Let me ask you, Mr. Rabbon, you said, I think, the state does not support the increased objective releases, was that an accurate quote?

Mr. RABBON. I think what I had said is that is the Reclamations Board's position.

Mr. DOOLITTLE. So when—and these levee enlargements that are going around that Mr. Fazio alluded to earlier, if his statement is correct, those are not designed to increase the objective releases or the state is not a partner in it?

Mr. RABBON. I am not sure. If you can be more—on the levee enlargements, let me respond.

We are not participating in any levee strengthening or raising projects, that I am aware of, where the purpose is to allow increased higher objective releases.

Mr. DOOLITTLE. Is such an instance unusual where levees are being built up for the purpose of increasing the objective releases? In your experience is that an unusual?

Mr. RABBON. For our experience in this area, yes.

Mr. DOOLITTLE. Is it unique in your experience in this area?

Mr. RABBON. I would hate to rely on myself to say it is unique.

Mr. DOOLITTLE. To the best of your knowledge, that is all I am asking.

Mr. RABBON. For the American River it is unique.

Mr. DOOLITTLE. You talked about what's going on, the way flood control projects are normally handled.

Could you comment on how they are normally handled? Maybe contrast it with what the difference is here.

Mr. RABBON. I am referring to what I believe to be the normal Federal process in terms of authorizing Federal projects and the normal Corps process, and we have worked with the Corps of Engineers on numerous feasibility studies and numerous projects that have gone to construction.

The normal process is we cost share with the Corps of Engineers and at the end of the feasibility study, a letter is requested from a potential nonFederal sponsor, a letter of intent, and the Reclamation Board has, on numerous occasions, provided a letter of intent to attach into the feasibility report which the Corps sends, then, through their approval process.

And they eventually send a Chief of Engineers report to Congress with a recommendation, and normally in that recommendation is—the normal process is that they would recommend in the Chief's report the recommended plan that the Corps of Engineers has studied in their feasibility report, which is the plan that they have done the most work on because it was going to be the recommended plan, and so what the chief engineers would say "This is a plan we support and do have a local nonFederal sponsor."

The difference that I am seeing here is that, then, the authorization process starts, so the difference here is that it would be authorized first and then studied, where normally it is studied, then authorized.

Mr. DOOLITTLE. OK. Thank you.

Mr. Enson, you talked about the impact of the Folsom road closures.

Mr. ENSON. Yes, sir.

Mr. DOOLITTLE. Based on what you know of the impact upon Folsom, is it your belief, then, that we are really probably talking about the Countryman plan as opposed to the full original Corps plan that talked about lowering the spillways?

Mr. ENSON. Sir, I don't know that I can specifically say one plan would be what we are talking about. At this point in time we really haven't spent very much time looking at the Countryman plan.

Mr. DOOLITTLE. Because you are going to have to do studies on that?

Mr. ENSON. That is right.

Mr. DOOLITTLE. What do your figures show, how many months or years? What is the impact? How much is that road going to be closed over the dam if they should lower the spillways?

Mr. ENSON. Sir, I do not have with me figures I would address that question. I do know that the concern was significant enough to us that we have had discussions certainly with the state and with the Bureau.

As I said in my opening statement, we learned a lot from when the gates were being repaired. It would be an extensive problem if we tried to lower the spillway.

Mr. DOOLITTLE. Maybe I could ask Mr. Patterson if he has any additional information on the impact of the road?

Mr. PATTERSON. I am not sure that I do, but the stepped release plan would require the road to be closed a significant part of the time. I would say the majority of the time.

Mr. DOOLITTLE. And the time required to lower the spillways is approximately how long, do you think?

Mr. PATTERSON. Mr. Enson is probably in a better position. To lower the five main bays was about one per year. It was about 5 years.

Mr. DOOLITTLE. So the road would be closed for a majority of the 5-year period if that plan would be to go forward?

I am not putting words in your mouth. Based on your belief—I understand this is based on rescission, and I might ask you if you would please, for the Committee to supplement your testimony with that information.

Doesn't the Corps, Mr. Enson, normally require that the elements be separable?

For example, here we have two elements, the modification of Folsom Dam and the raising of the levees downstream.

Normally those would be separable elements, wouldn't they?

Mr. ENSON. That is correct, sir, they'd be evaluated separately.

Mr. DOOLITTLE. But in this case they are not?

Mr. ENSON. That is correct.

Mr. DOOLITTLE. Can you tell us why?

Mr. ENSON. I believe that the administration wants to have something they can move forward here in Sacramento, and the acting assistant secretary of the Army, Dr. John Zirschky, has considered it is one complete project, not as separable units.

So for purposes of economic analysis and cost sharing, we would cost share—the Federal Government would cost share on the entire portion, not the share that is economically justified.

Mr. DOOLITTLE. In your experience, is the treatment of this different than would normally be the case?

And I think you have answered it. That is yes, isn't it?

Mr. ENSON. It is unusual.

Mr. DOOLITTLE. In your own personal experience, is this the only such instance that you are aware of?

Mr. ENSON. I can't cite other ones at this point in time.

Mr. FAZIO. John, will you yield on this?

Mr. DOOLITTLE. Go ahead.

Mr. FAZIO. Having worked on this thing for 19 years, it is not the only—in fact, it is frequent that we have elements of our projects that are uneconomic and we fold them into the total project, which is still more than positive in terms of a cost benefit ratio.

This is particularly important for those of us that have rural communities that do not have enough evaluation to do the projects incrementally, so we roped them all in together. We estimated the total project because it is still a positive, and at the same time we get some of the elements done. It is something we need to do fre-

quently in order to make some of our California projects pass muster.

Mr. DOOLITTLE. OK. Mr. Pombo? Mr. Radanovich? Mr. Matsui? Mr. Fazio? OK.

Ladies and gentlemen, thank you very much. We appreciate your forthright responses. I am sure we will have additional questions we will want to tender in writing. We will hold the record open to get your responses, and we thank you for appearing, and we will excuse you now.

Invite panel No. 2 to come forward.

[Pause in proceeding.]

Mr. DOOLITTLE. Mr. Countryman, will you please rise with the others and raise your right hand.

Do you solemnly swear or affirm under the penalty of perjury the responses made and the statements given will be the truth, the whole truth, and nothing but the truth?

Let the record reflect each answered in the affirmative.

We appreciate you very much each of you coming. I know this proved to be a longer hearing. We get some very good facts about this.

Our first witness will be Mr. Ray Costa, who is a soils engineer with the state of California. Mr. Costa?

STATEMENT OF RAY COSTA, SOILS ENGINEER, SACRAMENTO

Mr. COSTA. Thank you, Mr. Chairman and Committee members. My name is Ray Costa. I am actually not working for the state of California. I represent a private engineering consulting firm called Kleinfelder.

Mr. DOOLITTLE. Thank you for that clarification. I apologize.

Mr. COSTA. My firm has worked in the Sacramento Valley for 35 years, which I have been associated. Kleinfelder has work on dozens of levee projects, well over two hundred miles of levees throughout the system. We are currently providing levee evaluation services for the U.S. Army Corps of Engineers and Sacramento Area Flood Control Agency.

I am here to discuss release of hundred and eighty thousand cfs from Folsom Dam. As you know, flood control solutions generally involve three needs: This is storage, diversion, and/or conveyance.

Many times the conveyance capacity of the rivers has increased by the constructions of levees below the river banks. Many flood control engineers believe increased storage is the most efficient way to increase flood protection in Sacramento.

However, recent attempts to obtain conveyance along the American River, Sacramento River, the Sacramento Bypass and the Yolo Bypass have not been successful. This increase of conveyance is a hundred eighty thousand cfs discharge from Folsom Dam.

The role of geotechnical engineers, which I am, is to provide you, the decisionmakers, an accurate assessment of the risk associated with a particular option. After a decision is made, it is the geotechnical engineer's role to design a system that will be safe and reliable.

The impact of increased discharge into the American River will have two main effects. First, the water in the river will be deeper. Second, it will be faster.

This translates, first of all, the deeper water reduces the safe height. In other words, the freeboard, the measure of distance between the water and the top of the levee, presents a greater pressure against the levee and faster flow causes increased erosion.

These conditions are not unique to the Sacramento River flood control system. They are conditions that exist throughout the system, and geotechnical engineers have been able to protect the levees in the past from these kinds of conditions.

Conventional needs are for increased stage or water depths. Levees can be raised. For every one foot of levee height increased, the levee is increased in width by five feet.

For the greater water pressure, the levees can be buttressed along the landslide slope. This current program of installation of a slurry wall will greatly increase the stability of levees over the American River for erosion protection.

Rock slope protection can be applied to vulnerable locations, such as bins along the river.

In summary, the possible effects of levee integrity on the lower American River can be mitigated using conventional and proven engineering design and construction techniques.

It is my opinion that the relative safety and reliability of the levee system can be maintained during a discharge event of a hundred and eighty cfs. Thank you very much.

[The prepared statement of Mr. Costa may be found at end of hearing.]

Mr. DOOLITTLE. Next witness is Ricardo Pineda, Chief Engineer, State Board of Reclamation. Mr. Pineda?

STATEMENT OF RICARDO PINEDA, CHIEF ENGINEER, CALIFORNIA STATE BOARD OF RECLAMATION

Mr. PINEDA. Good morning, Chairman Doolittle, members, Congressman Matsui, and Congressman Fazio. My name is Ricardo Pineda, and I am the chief engineer for the board project and activities done in cooperation with the U.S. Army Corps of Engineers, along with technical services provided by the Department of Water Resources.

I am here today to provide my professional views on the stepped release plan. My comments on the stepped release plan focus on four primary areas: One, reliability of the project to pass the design discharge; two, hydraulic impacts; three, environmental impacts; four, cost of the project.

I have been involved with flood control planning on the American River since 1989, and prior to that I was a flood forecaster with the Department of Water Resources, and at times making flow forecast for the American River system.

On the first issue of reliability, the stepped release plan will be designed to pass a controlled release from Folsom Dam of up to one hundred eighty thousand cfs. This discharge is fifty thousand cfs greater than the maximum flow ever released from Folsom Dam.

To safely pass this flow, levees along the lower American River will need to be raised and new levees and floodwalls will need to be built. The new and existing levees will need to be protected against erosion by the placement of rock on the waterside levee slope.

Existing riverbank protection may need to be modified to account for the higher flow velocities associated with the increased objective release. The one hundred eighty thousand cfs objective release will strain the downstream levee system and require it to work flawlessly in order to safely convey these flows through narrow parts of the levee system. There cannot be a single weak link throughout the complete length of the levee system.

In order to provide Sacramento with the protection that it needs, damage to Federal and state levees caused by the floods of 1997 and 1998 highlight the need to take a very cautious approach relative to increased dependence on levees for flood control.

Stepped release will need to be carefully planned, analyzed, and designed to ensure that there will be no failure, expected or unexpected.

The Reclamation Board, in four different resolutions, has stated its intent to support at a minimum, a two-hundred-year level of flood protection. The safest and most reliable way to provide protection is through additional flood control storage upstream of Folsom Dam.

The Corps' reliability analysis shows that the flood control storage upstream of Folsom Dam is the only option to provide a minimum two-hundred-year level of flood protection with high reliability.

On the issue of hydraulic impacts, the stepped release plan increases the objective release from Folsom Dam from the current one hundred fifteen thousand cfs to a stepped one hundred forty-five thousand to one hundred eighty thousand cubic feet per second level.

To account for the additional flows, the downstream Sacramento River and Yolo Bypass flood control system must be modified to safely convey the increased discharge from the American River to the Yolo Bypass.

To accomplish this transfer without adverse impacts to the system, the 1996 report estimated that the Sacramento Weir would need to be widened about a thousand feet, a new Sacramento Weir north levee would be constructed, approximately twenty-six miles of Yolo Bypass levees would be raised, and thirty-eight miles of Yolo Bypass levees need to be strengthened along tributaries.

The widened Sacramento Bypass would encompass and abandoned landfill located in Yolo County. Dependent upon modeling assumptions and criteria for determining the need for hydraulic mitigation, additional downstream levee improvements may be necessary.

The Reclamation Board plays a vital role as the caretaker of the Sacramento River Flood Control Project. Levee maintenance reclamation districts, both large and small, depend on the board to ensure that the system is operated safely, maintained properly, and that modifications to project facilities that decrease the possibility for flood damages in one community does not increase the risk of flooding in another.

The board takes this role very seriously and will need to fully evaluate project impacts and proposed mitigation before taking any action to recommend approval of a levee based American River flood control project.

The issue of environmental impacts, according to the 1996 report which I participated in, preparing the stepped release plan requires thirteen point five miles of American levee raising, about six miles of levee erosion protection, new levees and floodwalls, modifications to two bridges on the American River and one bridge across the Yolo Bypass, extensive modifications to city and county pump and drainage facilities, and extensive levee work along the Sacramento Bypass and Yolo Bypass.

While environmental restoration is proposed for the lower American River, a detailed accounting of environmental impacts associated with this project, especially along the lower American River, has not been fully documented or publicized relative to a project of this magnitude or scope.

For the Reclamation Board to act as lead agency under the California Environmental Quality Act, additional environmental analyses and problem outreach will be necessary.

Preparation of the report—and prior to that on the Auburn Dam, since that was more than likely the plan that was going to be selected. Like I said, we did have a lot of workshops and hearings. A lot of our focus was on the dam proposal.

On the cost of the project, the 1996 Chief of Engineers report estimated the cost of the downstream levee improvements at approximately $313 million. Based upon the board's experience in 1997 and 1998 floods, I firmly believe that levee improvements, in addition to those discussed in the 1996 report, would be necessary if considering a levee based plan for the American River.

In addition, depending upon the criteria used for computing hydraulic impacts and a policy for hydraulic mitigation, we may be underestimating the amount of work associated with impacts to the downstream system. Current court cases indicate this to be true.

Dependent upon final amount of structural levee, bridge, and pump/drainage facility work necessary for the profit to safely convey one hundred eighty thousand cfs, the project cost may increase significantly above that which is estimated in the Chief's report.

That concludes my testimony, and I would be happy to answer any questions you have.

[The prepared statement of Mr. Pineda may be found at end of hearing.]

Mr. DOOLITTLE. Our next witness is Joe Countryman, Consultant with Murray, Burns, and Kienlen.

STATEMENT OF JOE COUNTRYMAN, CONSULTANT, MURRAY, BURNS, & KIENLEN

Mr. COUNTRYMAN. I am Joe Countryman. I am a resident of the American River floodplain, so I have more than an engineering interest in what we do here today. I would say things are representative.

I have worked on a project in Congressman Farr's district that have 30 years of Corps levees that are protecting Watsonville. And Congressman Pombo, I have worked in his district in the San Joaquin that is bringing a hundred-year level of protection through Stockton.

Sometimes we can't always get all the protection we want, and we get what we can get, and to some extent that is what we are talking about here today.

I have provided extensive information on the issues that you ask—I can never get it within the 5 minutes we have here. I see you have probably some questions with me with the boards that I have behind me, so I will probably be able to answer some of those.

At this time a couple points I do want to make. The hundred eighty thousand cfs, it is called stepped release because it has a graduated response to the flood.

For an extreme flood, yes, you release a hundred eighty thousand. For a less extreme flood, you release a hundred forty thousand. We have not had a flood occur from 1860 until today with a release to a hundred eighty cfs, so we have a hundred thirty years of record.

The maximum release in the lower American River would be a hundred forty-five thousand, not a hundred and eighty thousand.

And recalling the 1986 flood, we released a hundred thirty-four thousand cfs down the American River. We are not making here a huge change in the existing condition that we have here.

Now, I did prepare a chart, and I think you have copies of it. If you have chart one where I show for a hundred fifty year flood what the flows would be under various conditions.

Under the existing condition at Folsom Dam, if we don't do anything, if we sit on our hands and don't do anything, we will have an outflow of three hundred and fifty thousand cfs down the American River.

Now, I think my good friend Ricardo and Mr. Costa would agree that there is no levee that is going to withstand flows at three hundred fifty thousand cfs. As a matter of fact, the Sacramento levees will be destroyed, and there is a good chance the Yolo Bypass levees will be heavily impacted by flows of that magnitude.

If we just fix the dam, we can lower that flow to about two hundred twenty, two hundred thirty thousand cfs down the American River. Again, the existing levees will be overtopped with a flow of that magnitude with heavy impact to the Sacramento Valley. The reliability is zero for passing that.

If we do the stepped release, if we buy into the fact it can be maintained from a hundred and fifteen to a hundred and forty-five thousand cfs, and for an extreme event bigger than any event that is occurred before 1860, go to a hundred eighty thousand cfs, we can control that flow into the lower American River, and our geotechnical engineers—the Corps geotechnical engineer agree they can safely pass that.

Now, the question was asked: What's the chance of failure with a hundred and eighty thousand cfs? The Corps was asked that question.

I know there is always some risk but, in their risk and uncertainty analysis that they did as part of this project, they assigned zero probability for failure for a flow of a hundred eighty thousand cfs. When they were evaluating what level of protection should be provided, they applied zero in that study. The SPF, Congressman, you requested is the standard project flood, the two-hundred-fifty year flood.

That is an interesting question because in 1996 it was the two-hundred-fifty year flood, but following the 1997 storm on the American River and the Corps redrawing its frequency curve, the standard project flood is no longer a two-hundred year flood.

As a matter of fact, the stepped release plan that is before you today will pass over 90 percent—safely pass over 90 percent of the standard project flood, so at one time, yes, it was a two-hundred-fifty year flood. That was before the Corps released their frequency curve.

Downstream effects, I have a chart here—I can put it up if you'd like to see it—that shows all the work that will be done in the Yolo Bypass.

Mr. DOOLITTLE. Go ahead and put that up. That would be useful.

[Discussion off the record.]

Mr. COUNTRYMAN. If I can stand up?

The Fremont Weir is at the top of the system, and Rio Vista is at the bottom of the system, Congressman, but this chart shows where we are raising levees, where we are strengthening levees in the Yolo Bypass, and where we are widening the Sacramento Weir.

In Yuba City, Congressman Herger's district, there is currently a project on the books that we are trying to move forward jointly as a region to strengthen those Feather River levees. In 1997, if the Feather River levee had not failed at below Marysville, a significantly larger amount of water would have arrived at Sacramento and gone down the Yolo Bypass.

Sacramento is not opposed to fixing the levees in Marysville because there may be an increase in flow down, but that project is not talking about strengthening or raising levees in the Yolo Bypass. So I think, in fact, it is the only project being kind to the neighbors.

My conclusion is I support Auburn Dam. I have always supported Auburn Dam. I continue to support Auburn Dam. I think it provides the most reliable flood protection and water supply that we can have in this area. I also now believe that it will not be a Federal project.

We went before Congress twice. I testified twice in Congress for a Federal project, Auburn Dam. We lost, and we lost badly. If it is going to be built, it is going to be built as a state project.

We have four hundred thousand people that desperately need flood control in Sacramento. We have to get on with it. We need the flood protection now.

When Auburn is built, and it will be built some day because the water requirements will increase or flooding of the water, it will provide Sacramento even a greater level of flood protection on top of what we are now proposing.

[The prepared statement of Mr. Countryman may be found at end of hearing.]

Mr. DOOLITTLE. Mr. Countryman, let me ask you: What do you believe is the standard project flood after the rescission?

Mr. COUNTRYMAN. Well, I give you the Corps' answer to that. The standard project has no frequency, that is because if you take the peak flow, it may have one frequency, if you take a 1-day volume, but I am sure that it is less than the two hundred year with the new current Corps frequency here.

Mr. DOOLITTLE. Well, I will have to ask the Corps in a written question, I guess. I am intrigued to hear that they keep revising down our level of flood protection.

Mr. COUNTRYMAN. You have noticed.

Mr. DOOLITTLE. As that goes down, how do the standard project flood estimates keep going down?

Mr. COUNTRYMAN. Because they are not tied to frequency. It is a natural storm event with a certain flow, and a certain shake, and if the frequency curves change, you just have to read off the frequency curve at a new location. The flood itself doesn't change.

Mr. DOOLITTLE. But these are, at best, estimates of what's going to happen based on what has happened; right?

Mr. COUNTRYMAN. That is correct.

Mr. DOOLITTLE. What has happened in recorded history in this state doesn't go back all that far, does it?

Mr. COUNTRYMAN. Recorded with a hundred year historical, about a hundred forty, hundred fifty years.

Mr. DOOLITTLE. It is true the five largest storms on record have happened since the memorialization of Folsom?

Mr. COUNTRYMAN. By the way, I didn't mention in chart three, that I handed out as part of my presentation, the 1997 flood was the largest flood on record since 1860, if we have any records at all. As far as I know, it is the largest one we have any knowledge of.

I am showing on this chart three a comparison of the 1997 flood as compared to the size of flood that could be protected against if you just repair Folsom, which is the red curve, or if you do the dam and levee plan, which is the blue, or if we build Auburn.

I will note if we are able to do the stepped release or dam and levee plan, it will control the plan 70 percent larger than the 1997 flood, which is the largest flood. Seventy percent larger. We are not talking incremental. We are talking about flood. Seventy percent larger than the largest flood on record. To me, that is a significant improvement in the level of protection.

Mr. DOOLITTLE. But is it your belief that remains, nevertheless, less than the standard project flood?

Mr. COUNTRYMAN. Yes, it is.

Mr. DOOLITTLE. Let me direct your attention to one of those charts back there. Let's start with the one right behind you there, Folsom Lake impacts.

I believe—I can't make this—"The stepped release plan would permanently cause intermittent lowering of Folsom to provide additional flood protection for Sacramento. Many California interests have temporarily accepted a lowering of Folsom as part of the SAFCA reoperation plan until a permanent flood plan is implemented. These same interests will strongly oppose permanent reoperation of Folsom Lake for flood control."

Mr. COUNTRYMAN. I am hoping I am wrong, that they will strongly oppose, since I have written that the Countryman plan to reduce those impacts, and I think we have come a long, long way.

One of the things we did by adding new outlets instead of lowering the spillway by about 25 percent, it should really reduce the impacts at Folsom Dam itself.

The second thing I am currently doing, SAFCA has had me make contact with the Corps, the Bureau of Reclamation, and the state flood center to determine can we use the newest technology on forecast, any kind of forecast, satellite technology, anything. It is based on the way we did it when I started the Corps thirty years ago.

I believe—I strongly believe that if we use the latest technology, we can reduce maybe as much as 20 percent the reoperation requirement at Folsom based on using that forecast and try to absolutely minimize the recreation and water impacts as Folsom.

Mr. DOOLITTLE. You referred to an earlier exchange between Mr. Enson and Colonel Klasse, but as I get it straightened out with them, in the hundred-sixty-year flood even there is a 40 percent chance of failure.

Are you disputing that?

Mr. COUNTRYMAN. I am not disputing it, but I am saying that is based on their values that assumed a zero percent chance of failure with a hundred eighty thousand cfs.

Mr. DOOLITTLE. So you, therefore, concur with Colonel Klasse and Mr. Enson, if you are not disputing it?

Mr. COUNTRYMAN. I don't like the R and U analysis. I will say I will accept the Corps' R and U analysis.

Mr. DOOLITTLE. You concur with 40 percent chance of failure?

Mr. COUNTRYMAN. I concur with my conclusion there is zero percent for a flow of a hundred and——

Mr. DOOLITTLE. Do you concur with their conclusion, if you accept their premises?

Mr. COUNTRYMAN. Honestly, I don't. It is a technical issue. Error bounds around the frequency curve. I am not challenging their integrity. I wouldn't do the analysis the way they did it.

Mr. DOOLITTLE. Let me ask you this: In using their analysis there was a 14 percent chance that the levees would fail in a hundred year event, using their same 14 percent failure for a hundred year, and 40 percent failure for one hundred sixty year event.

What I want to ask you is what the Corps experts have determined, I guess, is this: This plan is safe, so safe that even after we spend half a billion dollars to build it, Sacramento will still have a 13 percent chance of flooding from a hundred year event, because that was their testimony.

I accept the fact that these are sort of mathematical calculations that are not a 100 percent factual because they can't be. They are theoretical projections; right?

Mr. COUNTRYMAN. That is correct.

Mr. DOOLITTLE. Let me ask this: It is my understanding, using the Corps' risk and uncertainty analysis, until it has a 90 percent chance of passing a hundred year storm—is that your understanding?

Mr. COUNTRYMAN. May I elaborate on that?

Mr. DOOLITTLE. Sure.

Mr. COUNTRYMAN. Let me give an example of the project. In Congressman's Pombo's district it was built for a hundred year level of protection, maybe a 50 percent chance of passing that flood, and under their new criteria they wouldn't be able to certify that.

But they are actually certifying the project for us using the old FEMA criteria of three foot of freeboard on a hundred year flow, and they are able to certify the flow on that basis.

If they use that same basis on the American River, they would be able to certify that too. It is the switchover to this R and U methodology; that is——

Mr. DOOLITTLE. I understand that, but they, in fact, have concluded that is a better way to do it.

Mr. COUNTRYMAN. I think Congressman Pombo would agree with that.

Mr. DOOLITTLE. But the point is the experts advise us under their—you can certainly challenge that. It is not cast in stone, but their best analysis is that this is the new approach that should be used; is that right?

Mr. COUNTRYMAN. Unfortunately.

Mr. DOOLITTLE. But Sacramento's won't get a waiver to do away with that?

Mr. COUNTRYMAN. Thank goodness.

Mr. DOOLITTLE. Do you know how it got such a waiver?

Mr. COUNTRYMAN. I would assume because we were in the process. The court just recently adopted this R and U procedure very recently. We have been in this process since 1990. I assume we have been grandfathered in because of that.

Mr. DOOLITTLE. Well, you have been fairly critical by your statements of this stepped release plan in the past, Mr. Countryman. Today you seem to be more enthused about it.

Has something changed to cause this change of heart?

Mr. COUNTRYMAN. Yes. When I was convinced and hopeful that we were going to build an Auburn Dam, I could see all the weaknesses and all the warts of the stepped release plan.

Now that I don't believe any longer that the Federal Government is going to step forward and construct an Auburn Dam, the stepped release plan looks pretty darn good, especially next to doing nothing, which is catastrophic.

Mr. DOOLITTLE. Why did you think doing nothing is——

Mr. COUNTRYMAN. I am open to any step, but I am saying if we don't build the dam, and that is where we are, the stepped release plan looks good. If there are other steps that make a lot of sense that we can move, but the stepped release plan looks good compared to where we are.

Mr. DOOLITTLE. Well, let me ask the question to you that I asked to my colleagues early: When this community floods, do you believe at that point the dam will then be built?

Mr. COUNTRYMAN. It may, but it sure will be a sad day.

Mr. DOOLITTLE. No question it will be a sad day.

May I? Mr. Radanovich, can I have some of your time? I have used up half of it already, maybe most of it. Thank you.

You have testified to Congress that although the stepped release plan theoretically meets the minimum of state requirement, it does not reach to Folsom Lake increased downstream system reliability of greatest concern. The stepped release plan will not provide adequate protection in future flood magnitudes.

Which part of that, if any, do you disagree with? Setting aside the improvement of Folsom Lake due to the way you come up with, which I commend you for doing, the outlet works?

Mr. COUNTRYMAN. I agree with everything I said there relative to comparing this plan with Auburn Dam, and that is what I was testifying to before Congress. I was basically testifying in support of Auburn Dam, which is a better plan for flood control, but the stepped release plan is cost effective.

It has a BC ratio greater than one. It can be made reliable if we to the downstream fixes, which we need to make sure that San Joaquin County and upstream—also our upstream neighbors be kept whole. It can be done reliably, and compared to where we are now, we would be in a much better situation regionally.

Mr. DOOLITTLE. Do you believe this stepped release plan provides us with increased flood protection, adequate flood protection?

Mr. COUNTRYMAN. Well, I don't think it is the final flood protection, but I think it is adequate.

Mr. DOOLITTLE. Even though it is less than the largest foreseeable flood that we can have?

Mr. COUNTRYMAN. Well, there is—what's foreseeable, let me ask you?

Mr. DOOLITTLE. I am using what the Corps says is foreseeable. They have all their wonderful calculations that are so difficult for mortals to understand.

Mr. COUNTRYMAN. I suppose if we were like the Dutch, we would have two-thousand-year level of protection. I don't see that has being affordable.

Mr. DOOLITTLE. What does the Galloway report recommend?

Mr. COUNTRYMAN. Galloway report stuck with the standard flood. This plan will control over 90 percent of the standard project.

Mr. DOOLITTLE. But this is not a standard project.

Mr. COUNTRYMAN. Not quite.

Mr. DOOLITTLE. When it isn't quite that, water runs over something.

Mr. COUNTRYMAN. I am with you. Maybe we will.

Mr. DOOLITTLE. I mean, when the damage is done, a hundred people or more drown. We have seven billion in damage. Those are the numbers. Maybe ninety people drown. Again, it is a theoretical projection.

Then all of a sudden will we be looking from this ever happening again?

Mr. COUNTRYMAN. Yes. But I will tell you this: If we don't do something right now and get on with it, it is so likely to occur it scares the hell out of me. We need to take this seriously. We need to get this out of the gaming arena and get it into doing something to protect four hundred thousand people.

Mr. DOOLITTLE. I couldn't agree more. That is why we are holding this hearing.

With that, I will recognize Mr. Farr.

Mr. FARR. Thank you, Mr. Chairman. The Federal Government sunk three hundred eighty million into Auburn Dam already.

Mr. COUNTRYMAN. I believe the—I don't know that number. That probably sounds close.

Mr. FARR. Then the estimated cost of completing a dam is, someone told me, about eight hundred eighty more.

Mr. COUNTRYMAN. I use a billion-dollar number.

Mr. FARR. A billion more. So it is—the total Federal investment will be about one point four billion, one and a half billion dollars?

Mr. COUNTRYMAN. Sounds about right.

Mr. FARR. The stepped release plan is what you estimate for Folsom construction?

Mr. COUNTRYMAN. I don't have that number in mind. It is about five hundred million.

Mr. FARR. That is including the levees or the dams?

Mr. COUNTRYMAN. That is everything.

Mr. FARR. About a third. These two projects, one costs about one point five billion dollars. The other costs five hundred million, about one-third of the levee repair, and the stepped release plan is a third of that?

Mr. COUNTRYMAN. To be fair, the costs are sunk, and we probably ought to be looking at just the future expenditures. I use about half the cost of continuing on with Auburn.

Mr. FARR. If I find myself in an awkward role, I am the tax and spend liberal, this is the fiscal conservative, and——

Mr. DOOLITTLE. Don't be penny wise and pound foolish.

Mr. FARR. The question is—penny wise and pound foolish, that is a legitimate debate.

I represent earthquake country. Big Sur Highway just fell into the sea. How do you build that highway?

Nobody lost their lives, but business has been closed down from February 2nd to last Friday. I don't know where all this feedback is coming from. We are always—we as politicians, we have to play with this risk issue.

I am just curious from a flood protection, this whole guesstimate of—because what your charts show is you have to have an incredible amount of rainfall. It has to occur within a very short period of time, and it has to create a runoff that is historical, and it all has to hit the same place in the same time in order to cause this disaster. Those are a lot of ifs.

What I am also hearing about risk analysis, your analysis is we are much better off investing the money in the stepped release program and doing that now than waiting for this appropriation to finish the Auburn Dam, and that I think you also said that the Auburn Dam, if it ever was built, would be insurance, so essentially you need the stepped release plan anyway.

Mr. COUNTRYMAN. Well, I believe the Auburn Dam will be built some day, but it is probably 50 years from now when it is built.

Mr. FARR. Those of us you will be buying water from us, saltwater conversion.

Mr. COUNTRYMAN. Maybe you are right, but I have lost the question. I am sorry.

Mr. FARR. The question is sort of this penny wise/pound foolish on the risk issue. The insurance is the stepped release plan, which is 1 percent of the cost of the plan, that should be done anyway?

Mr. COUNTRYMAN. The benefit cost ratio is positive. It is something we can implement quickly. We can get those modifications to Folsom Dam done in 3 years. By the time you folks say go, we can

get some real improvement to Sacramento's flood protection for the first time since 1975. We can do it quickly, and we should get on with it.

Mr. FARR. No further questions. Thank you.

Mr. DOOLITTLE. Mr. Pombo?

Mr. POMBO. Before we go on, Mr. Chairman, the question came up about the cost of the dam.

Would you mind going through what the proposed cost was of the proposal that was before Congress last year?

Mr. DOOLITTLE. Well, the total cost—we wrote off the sunk cost pretty much. And the total cost of the dam, the Federal share, as I recall, was about five hundred and ninety million.

I think the total cost was somewhat right around nine hundred million dollars, and again, it depends on the ultimate size of the dam. I believe that was for a dam that produced a one-point-two-million acre foot reservoir.

Mr. POMBO. The Federal share was five hundred ninety million?

Mr. DOOLITTLE. Right.

Mr. POMBO. What is that proposed share on this project?

Mr. DOOLITTLE. Well——

Mr. POMBO. Mr. Matsui, what is the Federal share proposed of this project?

Mr. MATSUI. I think about two hundred ninety million dollars.

Mr. POMBO. Let me just ask, Mr. Countryman, if you thought that this stepped release plan would definitely end the possibility of the Auburn Dam being built because we are dealing with limited resources, would you support it?

Mr. COUNTRYMAN. Absolutely. Because we cannot wait for the Holy Grail of Auburn anymore. We have too many people at risk here.

Mr. POMBO. Even though you admit that the Auburn Dam is a better alternative, you would support it?

Because it might end the possibility of Auburn being built.

Mr. COUNTRYMAN. Given your premises, yes, I support.

Mr. POMBO. Mr. Pineda, in your testimony you talked about what some of the downstream impacts are, and you have heard Mr. Countryman's testimony as well.

What, in your opinion, would be the increased costs?

I know you have some concerns that maybe the plan that is been done so far doesn't have all of the downstream costs included.

Can you share with the Committee what some of the increased costs are that you may be afraid of?

Mr. PINEDA. I think those can be broken into three categories. We put a lot of effort into developing the stepped release plan; the Corps staff, the Department of Water Resources, and the staff from the Sacramento Area Flood Control Agency, but we were developing three maps, so we did the best we could with the time that was available.

And then, again, our experience of 1997/1998, I think, were taken a much more cautious approach to the repair of levees and the improvement of levees.

So additional costs could be associated with which or how we go about strengthening the levees on the lower American River.

We have certain elements already authorized: How much erosion protection do we need? What should be the final height construction of new levees? How we do deal with the right-of-way issues upstream of Arden Way where it intersects the river east of here?

There are homes that are kind of built on the waterside of the levee. Don't ask me how those got in there, but they are there, and we need to protect them. It would involve right-of-way issues, maybe buyouts. I am not sure.

The downstream work was done based upon certain assumptions and the R and U modeling and certain runs of frequency curves. At the time those change. The Sacramento Weir is where it can run a hundred eighty thousand down.

As part of the stepped release plan, we have to make sure we are not dealing with that one hundred thirty thousand cfs between the one eighty and one forty-five.

Mr. POMBO. Where would that go?

Mr. PINEDA. Some of that would—you have to compare it to the discharge that would occur if you didn't do the project, and if you did do the project, you'd be seeing one eighty. Also it is in a controlled fashion or uncontrolled fashion.

There is a certain amount of how do you do the appropriate accounting, or what's the logic in what the impact would be as compared to what it is without condition. Some of that would have to go down the Sacramento River, and that has some of us concerned.

Do we properly account for all the water? The stepped release plan, would it? What are your assumptions with and without conditions?

We want to make sure the downstream levee, both on the Sacramento River and on the Yolo Bypass downstream and upstream is not made any worse, that we are not imposing that. We are not going to run in in one area due to the fact that we are trying to decrease, and we have struggled with—the Rec Board has struggled with this on various projects.

We are looking at it on a project-by-project basis. The mitigation is something that is downright expensive now. It costs money, but it is a real part of the project, so we want to do some additional model runs and make sure we look at the project integrity as a whole.

The third element would be the environmental impacts. Does the public really know that we are going to be putting this riprapping on the water slide slope of the levees and raising them on the American River, the Yolo Bypass, and through environmental accounting models called help analysis fish and wildlife—Fish and Game use that—have we properly accounted?

We need to put some more focus time in before I would recommend approval of this project to the board. Not so much that we are against it, but that we feel we don't have the comfort level yet to make the recommendation.

Mr. POMBO. After last year's floods, I got a list of problems with the levees in my district five pages long from the Army Corps, a very small percentage of those they were allowed to fix because of the nature of the funding that it could only go to fix what absolutely happened because of last year's flooding. They are fully aware that there are a number of problems with the levees.

My concern is when you look at this hypothetical modeling that all of a sudden we start blowing levees downstream because we just can't handle it, and there is no provision made for fixing things that we know are wrong with the current levee system, and we are talking about putting a considerable amount of water through there, and it is my concern that all of a sudden this land that is out in the Delta becomes the mitigation for not being able to handle it.

Mr. DOOLITTLE. Thank you. Mr. Matsui is recognized.

Mr. MATSUI. Thank you, Mr. Chairman.

Mr. Countryman, I want to thank all three of you for your testimony today. You were saying that Mr. Herger—if the Feather River had not broken last—in 1997 January when we had that occurrence, that was a memory of a hundred thirty year.

Well, we haven't seen such a flood or rainfall in a hundred and thirty years that could have created problems for Sacramento County because that could have gone downstream through the Sacramento River; is that my understanding?

Mr. COUNTRYMAN. Yolo County more than Sacramento County because the Fremont Weir essentially siphons the greater bulk of the water off coming down from the Feather.

Mr. MATSUI. And that authorization doesn't take into accounting Yolo County, Mr. Fazio's district?

Mr. COUNTRYMAN. I am not familiar about the authorization, what the status is right now. They just have a feasibility report that is being published.

Mr. MATSUI. I appreciate what you are saying, what we are attempting to deal with.

Mr. Pineda, do you have a problem with that?

I know you don't feel comfortable with my plan, but you are comfortable or uncomfortable with what Mr. Herger is trying to do.

How are you going to handle that?

Mr. PINEDA. The feasibility study, which has a recommended plan along the Yuba River and the Feather River to provide improvements to the Marysville area, we did jointly come to the conclusion with Corps of Engineers there were not significant downstream hydraulic impacts.

Mr. MATSUI. Sounds like Mr. Countryman may have a little difference of opinion there, and obviously the Corps with you in terms of my plan because they can mitigate. Obviously, that is why it is political, intentional——

Why is your comfort level OK with what might happen down in Yolo but not OK with what might happen in the Sacramento/American River issue?

I mean, that kind of comfort is always—it is important, I know, but we are talking about science, I hope, because that is what your job is, I assume, but you are comfortable with the one that Mr. Countryman has a problem with and you are not comfortable with the other that the Corps seems to be comfortable with, although they base it on fact. Maybe you can help me.

Mr. PINEDA. The Yuba River feasibility study, from an early on stage, I am not sure at what point levee raising was going, the plan that provided the highest the Yuba River feasibility study, and we focussed on one plan, the 1996 report, which gives me—which does

not give me the comfort level relative to the hydraulic looked at three plans.

Mr. MATSUI. We are playing a dangerous game here. All of a sudden I am going to have to have a comfort level out in Yolo County. We can all play games with each other. We have five, six Members of Congress in this region. If all of a sudden we want to play comfort games, we can play these comfort games. You want two-hundred year protection in your——

Mr. PINEDA. The board has passed——

Mr. MATSUI. Can you tell me how we are going to get that? Explain it to me. Give me the numbers. Where is the financing coming from? How are you going to get the—explain this to me.

You can wish as much as you want. Give me some facts. You are an expert. Make this thing work because I would like to walk out of here saying "We are going to build the Auburn Dam," and get three hundred plus years of protection. You can't tell me this now explain it to me.

Mr. PINEDA. Sir, I don't think I ever mentioned comfort in my testimony.

Mr. MATSUI. You did talk about comfort, so let's——

Mr. PINEDA. The 1996 report, which I was a part of, along with other staff, ran detailed hydraulic runs using the R and U analysis.

Mr. MATSUI. How are we going to transfer the land? How much is it going to cost? Where are you going to get the financing?

You said you want two hundred years. Tell me how you are going to protect the people of this community with six hundred thousand people. I mean, you are coming here testifying now as an expert. Tell me how you are going to protect these people.

Mr. PINEDA. For two hundred year——

Mr. MATSUI. Auburn Dam, tell me how we are going to get the Auburn Dam? Give me something factual——

Mr. PINEDA. There are means. There is a certain amount of cost it would take for it to be there. Could be assessments, Congressman.

Mr. MATSUI. How much is that going to cost per household? Yuba County, Sutter County, El Dorado, or Placer or Sacramento. How are you going to apportion the cost to get two-thirds vote? Tell me how much it is per unit.

Mr. PINEDA. One billion to build the project, assuming——

Mr. MATSUI. My house is in south Land Park. It is worth about a hundred ninety-two thousand dollars. How much is it going to cost me annually?

You must have that number. You must have done all the studies, and you don't like my plan. Tell me. You must know this number.

Mr. PINEDA. I am trying to go through the mathematics. Assuming a hundred thousand homes—would take a hundred thousand homes to generate a billion dollars—I am trying to work out the zeroes here.

Mr. MATSUI. Is it just Sacramento County or Yuba, Sutter, Placer, don't they benefit?

Mr. PINEDA. I work for the Reclamation Board, and the Reclamation Board is to look at the state's role. It would be cost shared essentially with—there is no formula right now for building a project for the Reclamation Board to participate in a new flood control

project without the assistance of the Corps of Engineers, so new legislation would have to be passed. That legislation would have certain cost sharing formulas.

Mr. MATSUI. Do you know what the infrastructure—do I have to remind you? Do you know what the vote was on Auburn Dam.

Mr. PINEDA. I know it did not pass.

Mr. MATSUI. Thirty-five to twenty-eight. When I want to get into details, you don't want to talk. About, individual members, a third or half of them said they would not support it in the House.

Assume we are not going to get that. Tell me how we are going to get Auburn Dam, two-hundred year protection. I want that. Tell me. You are opposing one of the most feasible plans, practical plans. Tell me how we are going to get it.

Mr. PINEDA. We are not opposing the plan. We are saying that we do not have the comfort level, quote, to recommend this plan or the implementation. It is a matter of when you do the advance planning, do you do it as part of the feasibility study?

Mr. MATSUI. Once you are satisfied with the Corps.

Mr. PINEDA. The Corps, it is collective process. It is not just the Corps.

Mr. MATSUI. You might be satisfied once the studies——

Mr. PINEDA. I might be.

Mr. MATSUI. In other words, you are not opposed to it. You may support it.

Mr. PINEDA. We may.

Mr. MATSUI. Great. Thanks a lot.

Mr. DOOLITTLE. Mr. Fazio?

Mr. FAZIO. Thank you, Mr. Chairman. I think it is fair to say there is a lot of work that is been done by a lot of parties that would ultimately come together on whatever is authorized was done on the premise we were going to build an Auburn Dam. Now we are refocussed.

A lot of work has to be done on the refocus, that would include the Rec Board, as well as others, would have not gone back and done the work it would be necessary if we authorize this project.

We have authorized projects that didn't even have a Corps report. If somebody was powerful enough to do it, I think we can proceed on this basis and for the comfort levels of all the various entities of the region, including Yolo County and others that might be impacted.

Joe, you made a good point about the Yuba/Sutter work—I represent Sutter. Wally represents Yuba. We have worked together to improve those levees on the Feather, on the Sacramento. There is no question that that would have an impact down here.

It is a dynamic environment we are operating in, which would reduce flows down to the Sacramento with what we would be doing on the American. But the point is well taken, anytime we take action there will be a reaction elsewhere.

I want to thank you for your testimony because it really does, I think, focus us on the practical problem we face and the practical solutions that are before you.

And I realize in your prior analysis done, because you favor Auburn Dam, you made some points that we have to deal with or that are permanent liabilities for what we are offering as an alternative,

but I appreciate the fact that you have come to a conclusion that I think is extremely practical and feasible.

Let me ask you this question: John is opposed to or at least at this point opposes the levee fixes below Folsom. He has come a long way to a Folsom reop, and you are in the lead of how we do that.

But the question is: Why would we oppose the levee fix now?

There are obvious questions of public safety. I think we have to resolve those, but there are those that believe that opposition to the levee fix is predicated on the fact that it would permanently limit—this is the implication of a question you had a minute ago—the ultimate Auburn Dam.

You have, I think, implied earlier it's a question of water supply and the ultimate need for additional water, not only in the region but the state.

Tell us why you think doing the levee fix in addition to the Folsom reop would not preclude the ultimate Auburn Dam 50 years, whatever out in the future?

How do you see that being built, and why would you not believe that a fatal decision on these levees would preclude it from occurring in the future?

Mr. COUNTRYMAN. Well, I didn't bring my crystal ball with me today, but I guess my belief is that the dam will be constructed because as we see our population grow to fifty million, sixty million, seventy million people in the state of California and the water pie being sliced thinner and thinner and becoming more and more difficult to survive with the limited amount of water we have in this state, that there will come a time when the wisdom of constructing Auburn Dam will be seen and it will be constructed. I mean, but that is what is going to drive it is the water supply.

We made a run at it with flood control, basically for flood control. We can't afford it only for flood control. It has to be justified on a multiple purpose basis, and I think the multiple purpose that will drive the construction will be the water supply.

Mr. FAZIO. I have forgotten what the annual yield would be, but it's not a great deal, would be justified simply because it would be that dear to the state of California, and probably, Southern California residents.

Mr. COUNTRYMAN. When you don't have water, you will pay any price.

Mr. FAZIO. But your premise is on the decision to protect Sacramento. A hundred forty-five year, a hundred sixty is not going to prevent John Doolittle and his ancestors from building a water supply facility that would not only supply the Delta but his local constituents' needs as well, but it does not go to water pricing?

Mr. COUNTRYMAN. Right.

Mr. FAZIO. So your suggestion is we proceed with the best flood control project we can get politically, and in doing so, we don't write off the future potential for this project, given all the rehashing and redebating, which I am sure will quote what happened in the eighties and nineties.

Mr. COUNTRYMAN. I don't believe so.

Mr. FAZIO. Thank you.

Mr. DOOLITTLE. Mr. Pineda, you are the chief engineer to the state Board of Reclamation.

Do you feel that a plan which has a 40-percent failure rate, if we get to the hundred and eighty thousand cfs, the maximum design capacity, the Matsui plan, do you feel such a plan is wise to implement?

Mr. PINEDA. The question that you ask me, Congressman, may need to be slightly rephrased.

The 40-percent failure rate refers to a flood with a one in one sixty chance of occurring. The hundred eighty thousand would be—could be a smaller flood than that and thus have a higher reliability, so I guess I will answer it.

Mr. DOOLITTLE. Answer it with a hundred sixty years in mind.

Mr. PINEDA. The question is?

Mr. DOOLITTLE. Is it wise, in your opinion?

Mr. PINEDA. My opinion is: If the water is going to come, something is better than nothing. But you don't want to build a plan that you don't have all the elements fully thought out or fully analyzed.

It goes to the point that I am not against the stepped release plan. I don't have enough facts relative to its extent. What are all the different pieces to recommend approval at this time?

Mr. DOOLITTLE. Mr. Rabbon testified that raising levees to increase carrying capacity to the channel of the American is without precedent.

Is that your belief to increase the carrying capacity of the channel was unprecedented on the American——

Mr. PINEDA. Mr. Rabbon also stated that was based upon changing the objective release of the reservoir. On the board, on a regular basis, I am involved with reviewing permits associated with levee raising.

Mr. DOOLITTLE. Let me rephrase it on the objective release. That is what I meant, how I meant to phrase that question.

It would be unprecedented to raise the levees in order to accommodate an increase in the objective release from the reservoir.

Is accommodating an objective release——

Mr. PINEDA. If there is a better alternative, I would go with an alternative that releases more on upstream storage.

Mr. DOOLITTLE. Is it your belief that there is a better alternative?

Mr. PINEDA. Technically there is a better alternative out there.

Mr. DOOLITTLE. That is what?

Mr. PINEDA. The detention dam at Auburn.

Mr. DOOLITTLE. I couldn't give the answer to Mr. Matsui's question which jurisdiction pays how much. It doesn't mean it can't be done. I was waiting for you to give him the answer. It would save me a lot of work.

Mr. PINEDA. The plan that provides the highest protection, the greatest amount of net benefits is well documented in various reports, and the last one being the 1996 Corps-State SAFCA report.

Mr. DOOLITTLE. Does the Galloway report, is that something you worry much about?

Mr. PINEDA. I have read portions of it, and I have heard General Galloway speak many times.

Mr. DOOLITTLE. He urged communities to seek a level of five-hundred-year protection.

Mr. PINEDA. That is correct.

Mr. DOOLITTLE. He indicated that communities in urban areas should not rely on levees as their primary means of flood protection. Mr. Matsui will argue that we are not doing this because we have a dam involved in this.

It seems like most of the emphasis in terms of new improvements will be more if the flood controls will come, the added level of flood protection, meander belts, will be great. We will send notices to all the mayor's constituents in the city of Sacramento, see how they like that. Mr. Pombo doesn't like meandering belts, I apologize.

Flood insurance: Do you think it's bad that people have to pay a vast increase in flood insurance now that the flood protection is under a hundred years?

Mr. PINEDA. My opinion relative to flood insurance is if you live behind the levee, you should have flood insurance because you may have greater than hundred years or somebody may have certified you have greater. If you live behind the levee, there is an increased chance of levees breaching. Flood insurance is a wise investment.

Mr. DOOLITTLE. You indicated that there are houses built on the waterside of the levee.

Which jurisdiction would have approved that?

Mr. PINEDA. I shouldn't be embarrassed to admit it was probably the Reclamation Board, the group I work for. Through our encroachment permit process, up to twelve homes were built.

That was based upon after the construction of Folsom Dam at the end of the sixties—or I am sorry—at the end of the fifties. They essentially thought the planners, the people at the time, that Folsom could control the outflow to the American River to a two-hundred-and-fifty-year event, and so the objective release was set at one fifteen. These homes are set significantly away from the one thousand.

Now, if we change that to one hundred eighty thousand, water does encroach, and we need to relocate them or build flood walls. I think flood walls and new levees was part of the alternatives in the report.

Mr. DOOLITTLE. I will conclude my questioning with this: Forty-five years ago or so, all of you experts told us that we had a level of two-hundred-fifty-year protection, with the authorization of Congress, with the building of Auburn Dam.

It's now seventy-seven years instead of two hundred and fifty. That is quite a dramatic reduction from what the experts thought it was, and I am not running down the expert, but it does strike me as a layperson involved in making this policy.

I would like to have your reaction to this that sometimes we get so caught up in all of these numbers and theoretical models we forget it's a rather imprecise science, if, indeed, it is a science, and that based on past history, the outcome can be radically different than we think at any given time.

Would you agree with that?

Mr. PINEDA. I would agree with that. We definitely did not—the 1997 event was a very scary one, as others have testified.

If it was centered over the American River watershed, we would have seen significantly higher flows. That is why we strive for,

whether it's ones we are building or get the levees as high as you can, if that is a feasible alternative.

Mr. DOOLITTLE. You should err on the side of caution, would that be your belief, based on what you know of this process?

Mr. PINEDA. Yes.

Mr. FAZIO. I just thought to say: Historically, there were a number of occasions when we inflated the value of flood protection to increase the Federal contribution.

I don't want to say we were lying with statistics, but we were doing what we could do to make a project feasible.

There were a lot of taxpayer groups that were critical of that over the years, and with the right to be so, and then we realized what our real benefits were, and we say "Oh, my God. They were inflated." There wasn't total capriciousness involved here. This was an occasion, the way in which the Federal contribution was increased, so this is not unheard of.

Mr. DOOLITTLE. You mean politics was coloring all of this back then, not just now?

Mr. FAZIO. Probably a lot back then, but we should not be shocked nor dismayed.

Mr. DOOLITTLE. Mr. Farr, do you wish to ask further questions? Anybody else? OK. All right.

Well, gentlemen, thank you very much. That wasn't too bad, was it?

Mr. Countryman, thank you very much for appearing. We may have further questions, and we will submit them in writing if we do and ask them to respond.

[A brief recess was taken.]

Mr. DOOLITTLE. Ladies and gentlemen, thank you for this change, of course, in midstream here.

We invite panel three to come up: Mayor Serna, Mayor Miklos, Chairperson Johnson of SAFCA; Mr. Montemayor, Councilmember from West Sacramento; Mr. Barber, San Joaquin County Supervisor.

Let me ask you gentlemen to stand up, and do you solemnly swear or affirm under the penalty of perjury the responses made and the statements given will be the truth, the whole truth, and nothing but the truth?

Let the record reflect that each answered in the affirmative.

We thank you for sticking with us through lunch, and we are glad you are here. We will begin our testimony with the Honorable Joe Serna, Mayor of Sacramento. Mr. Serna?

STATEMENT OF HON. JOE SERNA, MAYOR OF SACRAMENTO

Mr. SERNA. Thank you, Mr. Chairman. Let me say that I represent the city that is probably more at risk anywhere in the United States regarding flooding.

As you know, when the city was founded, it provided flood protection in an era where there was an effort that prevailed in the country. In order to protect yourself, you either incorporated, either as a municipality if you had an urban population, or you were a flood district if you were predominantly composed of farm land.

We in the city no longer use a policy of pushing our water and making it somebody else's problem. That is why we have formed SAFCA, and our SAFCA chairman is here today.

We know that the plan that Congressman Bob Matsui proposes is a plan that is wholeheartedly endorsed by the city council as a SAFCA plan.

You have asked me to address several issues. I will summarize those. My testimony—you have the written testimony already before your Subcommittee.

You raise the question of delays on the commute across Folsom Dam. The strategy advocated by Joe Countryman should avoid any delays in the daily commute across the bridge.

You already questioned him, so I will refer you to him without me supplying any additional testimony. We rely pretty heavily on his testimony.

The issue has been raised about water supply. We have sought to meet the legitimate water needs of local and regional water users, like my colleagues from San Joaquin, out of discussions organized by the Water Forum.

By the way, the Water Forum, as you know, is the city of Sacramento's response to behaving like the regional leader; that is, we have water rights that are very extensive, and we are in the process of developing a regional water plan so we may all share the city's water rights, not only with the city of Sacramento, but we would do with Elk Grove for the last 17 years.

I know there are many that have pinned all their hopes in El Dorado and Placer Counties and upstream communities by the use of a multipurpose dam, but that is years away at best. As we have heard today, Congress has failed to support it.

Like many of us have testified this morning and this afternoon, we believe that it is important to understand the interests of our upstream and downstream neighbors. We have made good faith efforts through the Water Forum to do so, so for us it's not just a concern. We have actually put up money from our general fund and that process continues.

We hope that members of this Subcommittee will understand that we continue to make every reasonable effort to continue that sharing of water, but we must also separate the demand for water to support new growth in outlying areas for flood protection. It's unfair to hold four hundred thousand residents hostage for the dream of unlimited water for regional sprawl.

The reliability of the proposal you have asked me to address as well, and no proposal is a 100 percent reliable. Let me instead focus on the greater hazards of doing nothing.

As I mentioned, we have evidence that our level of flood protection is not as great as it should be. Let me also say if in the case of a catastrophe, flooding along Highway 50, the lowest parts of our levee system, or Highway 99 were to flood, that Mayor Miklos and his residents would be at risk here.

Not so much from flooding, but it would put Intel at risk because they would not be able to receive their goods and supplies. They operate on a very, very short time line to receive material. They have a twenty-four-hour turnaround to receive material. A flood

would shut all that down and have drastic effects on Folsom. It involves safety of all of our people.

Currently the gate overflows that we have heard this morning on whether we should run the American River at a hundred and eighty cfs is really a capacity issue for me. I am not going to get into the detailed engineering issues because I am not an engineer, and the discussions that I have heard this morning regarding that capacity is important to understand.

Here's an analogy regarding ambulance service: They don't want us to have ambulances that do 30 miles an hour. They want us to have ambulances that do 50, 60 miles an hour in order to be there to save lives. That is the capacity issue. That is what a hundred eighty cfs means to me.

It's an apt description to say that capacity issue is flood protection in our city. We are a leveed city. As a leveed city, we have lived with floods since the foundation of the city of Sacramento.

To you, Mr. Chairman, when you ask for my support in the last awarded legislation, both Mr. Matsui, myself, and others, especially in my case, I still had serious doubts about the Auburn Dam, and in order to create that regional consensus that you desperately were looking for, I gave you my support because I thought what's important is not a political opposition for me that ought to drive my thinking.

What ought to drive my thinking is the lives of four hundred thousand people in my city, not some ecological public safety.

Flood control continues to be the city of Sacramento's most important public safety infrastructure problems. The SAFCA plan that we support provides us with the short-term need of flood protection.

I don't know if the state of California is going to pick up the cost for the Auburn Dam. Certainly when we testified before your Committees or committees in Congress last time the yes in a bipartisan way said Auburn dam's not in the making, so what's the price?

Do we say then that we are not going to support Congressman Matsui's bill for some reason or another? If we do so, does the claim for the Auburn Dam goes away? I don't think so.

Like Joe Countryman, I think we want it all. We want to fix up the gates and the modifications to Folsom Dam and we want the levee improvements and some day the Auburn Dam, but to hold us hostage for that thought or that dream is frankly not right and borders on irresponsibility. It's something like saying "Let's lay off the military and then pray for peace." That is not something that can happen.

We are in an immediate danger. All of the flooding that we saw on television from cities across the country reminded me, and I hope reminded all of you, of the tremendous risk that our city faces in the very near future.

While Congressman Matsui's bill may not solve all the problems, he admits that it's a legislation we need. If we don't have that legislation, we will have nothing. That is not acceptable to me.

We are here as elected officials and as politicians, and I am reminded when we are criticized as politicians that we really do not address the public's needs. Because of politics we can sustain. We are not up here legitimate—I hope. Real lives are at stake. I am

the mayor of a city that is most at risk anywhere in the United States.

Like we supported you, Mr. Chairman, in 1992, I would hope that you would support me and Congressman Matsui. If the time came for the Auburn Dam, it would be possible we would be there if we talk about five hundred, but to say that we are not going to have anything, to say we are not going to support the Matsui bill is unfair to my city because the only conclusion that I can come to as the mayor is my city is being held hostage. And why can't I have reciprocity? Why can't I have the same kind of support I gave you, Mr. Chairman, very gladly, because it was a problem that needed to be solved?

So today in the name of the people of the Sacramento, I am asking you for that support to get the Matsui legislation passed, to work with our Congressman. You worked with them before. We worked together before.

SAFCA has made the right decision. Muriel Johnson, the chairperson, you will hear from SAFCA, had a difficult decision to make. I applaud her. We need her support, and we need your support.

As for my colleagues here today with me in local government, the mayors that are here, Steve Miklos, if he was the mayor of Sacramento, I bet he'd be arguing the same points he argues today, that we need flood control as soon as possible.

Let me close by saying that I hope that this issue will not devolve into a divisive debate over Auburn Dam or nothing. That would truly divide our community, and I am afraid that the issue would pit one community against another. That is wrong.

We are leading in that area. We know that if we work together we can make our communities secure. We will not be able to do that if this debate is a debate over the Auburn Dam or nothing, and the people of Sacramento are put at ultimate risk.

I hope, Mr. Chairman, that will not be the case. Thank you.

[The prepared statement of Mr. Serna may be found at end of hearing.]

Mr. DOOLITTLE. Thank you. Our next witness is the Honorable Steve Miklos, Mayor of Folsom. Mayor Miklos?

STATEMENT OF HON. STEVE MIKLOS, MAYOR OF FOLSOM

Mr. MIKLOS. Thank you, Mr. Chairman. I am the mayor of the city of Folsom. I guess I should be pleased as much as I hear the name of Folsom being thrown. In fact, I am a little bit disappointed.

I appreciate the opportunity to appear before you in the late hour, it's now this afternoon, and respect for your time limits, Mr. Chairman. I will try to keep my issue related to the proposed modification of Folsom Dam, which is very obvious, it has a profound consequence to the city of Folsom.

As I said, I would like to thank, certainly, Congressman John Doolittle for his support and efforts, and he has definitely taken a good cause, such as the case was with the gate failure in July 1995.

As I said before, any proposal to modify Folsom Dam obviously has serious and profound implications for my city and its forty-five thousand residents.

Obviously, my concern in the 4 hours I have been sitting here, I have yet to hear anybody tell me what they are going to do to mitigate our concerns.

I was pleased my message back in October 1995 was finally heard, that the Folsom Dam Road is a real concern. I am the only person who can sit in this chamber and say that we have a quantifiable effect that we had to live through when there is any work to be done on Folsom Dam. Nobody else can sit here and say that.

We had to live every single day—as I was told when that gate broke, it took darn near 2 years to fix. That is a 2-year fix for one gate and some modifications to repair and/or check or grease up a few of the others.

Obviously you can hear in my tone a little bit more than concern about not hearing what the mitigations for the city of Folsom are going to be.

To kind of refresh: Currently there are only four lanes of traffic connecting the two halves of our city, and two of those lanes are obviously on top of Folsom Dam.

To reiterate: Folsom suffered severe economic consequences in 1995 and 1996. I know that the Subcommittee's aware of it because I testified to that fact in 1996.

Since that time, our traffic coming out of the foothill region has substantially increased and daily trip traffic, about twenty-five thousand a day, everyone knows those foothills and that traffic continues to grow from that region is the Folsom Dam Road.

Therefore, I would suggest at a minimum, before serious consideration is given to modifying Folsom Dam, that a firm commitment be made to the city of Folsom that a replacement bridge be built across the American River just below the dam before—I want to say that—before any modification work begins.

And quite frankly, my city is considering that to be the least of the solutions we will accept before you start modifying Folsom Dam.

Having said that, I want to reiterate resolution in support of Auburn Dam as a most complete and best overall solution to the threat of flooding. No other modifications of Folsom Dam or improvements to the levees can come close to providing a level of flood protection as Auburn does.

It appears to us that spending a hundred million dollars on what amounts to merely stopgap measure is not prudent.

Our city, obviously, is concerned about recreational activity and its accompanying economic base. The lake levels at Folsom play a critical role in recreation activity. Again, I did not hear any mitigation levels to offset that impact.

The best and most permanent way to stabilize our lake level is to build Auburn dam, not through a modification of Folsom, which allows more water to be evacuated faster.

Any consideration of modification to Folsom Dam should also include consideration of public safety, particularly the effectiveness of police and fire access.

When the dam road is impeded, there are additional pressures put on our fire department associated with having sufficient emergency equipment located on the other side of the river, or to provide specifically when one engine company or a paramedic company

is out we have to—in this case we have to double up, which means the south side of the river, perhaps, should be short.

We basically have to do this with our police in order to keep the regular presence necessary to cover that side or the south side of the city.

Further, we belong to a mutual aid capacity to the Sacramento Fire Command Center, as well as police. By closing the dam road, it reduces our ability to provide and receive. I want to say that again: Provide and receive mutual aid from other jurisdictions.

The city of Folsom is very mindful of the need for flood protection for our neighbors downstream in Sacramento. I have always gone on record that we have always supported a combination of plan and fixing the levees and strengthening of the levees.

Currently we are aware that the entire region would suffer greatly, as Mayor Serna has reiterated, if Sacramento were flooded. We are strongly supportive of effective and permanent flood protection for the city of Sacramento.

The city of Folsom commends the Chairman, members of the Committee, and particularly Congressman Matsui. Thank you for examining all aspects of flood control in our region. The issues involved in this hearing are of paramount concern to our community and everyone involved. Thank you.

[The prepared statement of Mr. Miklos may be found at end of hearing.]

Mr. DOOLITTLE. Thank you. Our next witness is the Honorable Muriel Johnson, and she is accompanied by Butch Hodgkins.

STATEMENT OF MURIEL JOHNSON, CHAIRPERSON, SAFCA

Mrs. JOHNSON. Good afternoon, Chairman Doolittle and California Members of Congress. I am Muriel Johnson, Chair of the Sacramento Area Flood Control Agency, better known as SAFCA. I have preferred to call it SAFCA with the emphasis on "safe."

There are really nine members or were nine members of the board here today. Lots of them had to go back to work, but we had a full house today.

We appreciate the opportunity to appear before your Committee in connection with the Water Resources Development Act of 1998. The Committee's invitation to testify asks for our views on the follows issues related to the proposed modifications:

Traffic impacts caused by construction on the dam road; impact on local water; any other safety concerns of releasing a hundred and eighty thousand cubic square feet per second; the effects on downstreams and upstream communities; and environmental consequences of the proposal.

Because of the importance for the Committee to appreciate the context of which these issues arise, I want to—some of it you have already heard today. When you come third, a lot of things bear repeating.

No metropolitan area in America faces a graver threat of flooding than Sacramento where four hundred thousand residents, the state capitol, and one hundred sixty thousand occupy a vast floodplain.

Economic losses from an uncontrolled flood are estimated to range from seven to sixteen billion dollars, depending on the magnitude of the flood event, and as has been stated many times today,

without substantial improvement of the existing flood control system, there is approximately only one chance in seventy-seven that Sacramento will be flooded from the American River in any year.

The bar keeps being lowered for us. This annual risks, cumulative risk, over the next thirty years of one chance in three a home in the floodplain more likely to be damaged by a flood than an earthquake.

In response to the record floods of 1986 and 1997 and Congress' decision not to authorize a comprehensive flood risk reduction program for Sacramento involving the construction of a new onstream storage facility, SAFCA has concluded that it is incumbent to seek as much flood protection as possible through incremental improvements to the existing flood control system.

During the past 8 years, SAFCA has spent a hundred million dollars in local funds for planning, administration, and construction of incremental flood control improvements, and increased space available in Folsom Reservoir are, again, incremental.

And I stress that structural modifications to Folsom Dam designed to improve the efficiency of flood control operations and levee improvements designed to increase the capacity of the American River channel so as to allow dam operators to step up in the event of a very, very large flood.

These modifications are generally described in the Corps of Engineers American River Watershed Project 1996 report, which provides a comprehensive analysis of flood control options along the American River, which was prepared to assist Congress in an American River flood control program and is the report with which the administration, in recommending authorization of the next step plan——

With regard to the specific issues of concern to the Committee, we believe that with some adjustments in the design of the improvements described by the Corps of Engineers, they can be implemented in a manner which minimizes impacts.

These modifications, which are outlined in the SAFCA Information Report which we issued last February, the proposed dam and levee modifications can be implemented in a manner which minimizes traffic impacts on the dam road, Mr. Mayor, during construction. This would avoid most of the adverse water supply and environmental impacts.

I am also a member of the Joe Countryman fan club for his looking at new ways to add water protection at Folsom Dam.

Once these new outlets were completed, the amount of flood control, which in turn would further long-term impacts on water supply. Joe Countryman has discussed all of the increased releases through downstream levees; however, I think it is important to understand that these increased releases will occur whether or not the levees are modified. The water is going to come down, controlled or uncontrolled.

SAFCA's goal is to improve the levees so that the dam operators can increase flows to a hundred and forty-five thousand cfs, and that is for most storms, and a maximum of a hundred eighty thousand for severe storms through emergency releases, if you will, not to be run every day of the week.

With respect to the impacts on other communities, SAFCA has long realized it could not and would not want to higher necessities mitigating for impacts on other communities. SAFCA began discussing this in Yolo and Solano Counties in 1994. We have had several agreements in the past, and we are committed that we will incorporate into any proposal those improvements with no increase in flood risk to other communities. That simply would not be the right thing to do.

Now, it's nearly time for you and Congress to make a decision, and it truly will be in your hands, not ours. A comprehensive analysis of available flood control options for Sacramento was presented in the 1996 Chief's report.

I know that could be controversial, and we will answer questions later, and it was not free from technical uncertainties or organized opposition to some of the options presented, nor are the lands today free of the very same objections.

I wanted to mention too, when I heard so many people talking about consensus, I needed to say some of the consensus I know and I see is when I walk through the district I represent along the American River and watch the people on those levees and when they say "Why can we not have flood protection? Get out there and work for it," I under consensus. I understand consensus of constituents that live in the floodplain. There is a consensus there.

And I also wanted to say that we have talked so much about whether or not—and in fact, the only negatives I have heard today are people more hesitant to commit to what is happening before we actually tackle the levee repair and the raising of the levees. It's because people don't know exactly what's going to happen.

But the fact is being a little bit part of government now, and I am sure all of you agree, is there anything government hasn't studied to death?

There will be studies, studies of the studies. There will be research. Nothing could happen until we were terribly well prepared, and all the studies have been approved by all authorities.

The issues to be decided in this instance are not unique to the American River basin, and I wanted to point this out, other urban areas in the Central Valley are moving forward with incremental improvements which are in principle indistinguishable from those proposed for Sacramento, and I wanted to give an example.

I note in Stockton, but I hear there will be fifty-one miles of levees being built by the city, paid for probably, and West Sacramento will have levees providing some two-hundred-fifty year protection. We have heard about the Yuba basin seeking flood protection from levees. I just want to know: If levees are so unsafe, why are we building them in so many other counties and cities?

With that, the red light is on.

I wanted to conclude by saying we really are a community at high risk, high risk of losing lives. We would like to have had four-hundred-year protection of the Auburn Dam, but the votes were not in Congress, and it appears from all the information we get from all of you that that project is not in the foreseeable future way down the line.

SAFCA still believes we need two-hundred-year protection, and we are asked that frequently. These improvements bring us to a hundred and sixty years, but isn't that better than seventy-seven?

Nevertheless, we understand that just as they have lowered us from two-hundred-year protection, which we thought we had, to one-hundred-year protection, now we have been lowered to seventy-seven-year protection.

That means that we will continue to fight for whatever protection we need to have in this community, and we know that eventually they'll lower that too. We will get to a hundred and sixty, and before we know it, there will be—this truly is an interim step of great need.

It's an enormously frightening fact to think that the plan we are talking about today could take up to ten or twelve years to be built, but it's far less frightening than taking no action to protect four hundred thousand Sacramento citizens. Thank you very much.

[The prepared statement of Muriel Johnson may be found at end of hearing.]

Mr. DOOLITTLE. Thank you. The next witness is the Honorable Mark Montemayor, councilmember of the city of West Sacramento.

STATEMENT OF HON. MARK MONTEMAYOR, COUNCILMEMBER, CITY OF WEST SACRAMENTO

Mr. MONTEMAYOR. I assure the Committee that after a very long and tedious and emotional testimony that I promise to conclude my statements before that green light thing turns yellow.

My name is Mark—good afternoon, Chairman Doolittle and members of the Subcommittee. My name is Mark Montemayor. I am a city council member from the city of West Sacramento.

The city of West Sacramento is downstream from the proposed improvements to both the Folsom Dam and American River levees. Since West Sacramento is completely encircled by water during periods of high water, increased flows in the American River will have a direct impact on our flood protection capabilities.

Our levees on the Sacramento River as well as the levees in the Yolo Bypass will be additionally challenged to protect our citizens from the additional flows from the American River.

City representatives from the city of West Sacramento have had several discussions with the Sacramento Area Flood Control Agency regarding the current proposals before Congress. We have expressed to them the same concerns that we wish to share with you today.

The current maximum discharge from Folsom Dam to the American River is one hundred fifteen thousand cfs. In 1986 the actual discharge was about a hundred and thirty thousand cubic feet per second due to the high inflows which brought the reservoir to near capacity.

The discharge at that time was very near the maximum carrying capacity of the levees along the American River. This SAFCA proposal would result in the American River levees being able to carry the release of as much as one hundred eighty cfs, if necessary.

The improvements to Folsom Dam would improve to a degree our flooding protection, inasmuch as they would allow earlier release from the dam in the event of a major event. This could very well

help to avoid at least a part of the problem that occurred in 1986 by allowing water to be released earlier.

The first concern we have regarding this dramatic increase in flows down the American River is the lack of adequate engineering studies on upstream and downstream properties in Yolo County. There are many of us in West Sacramento and Yolo County that do not believe sufficient analysis of these impacts have been undertaken.

A great deal of engineering analysis must be done to determine the ability of the downstream levees to withstand these additional flows. We would expect that such analysis would identify the work needed to mitigate downstream effects.

It is our belief that such mitigation should be undertaken and completed prior to the upstream improvements. We also believe that these improvements should be part of the Federal project and the downstream users should not have to bear the costs of the mitigation created by these increased flows.

The city of West Sacramento has taken great steps in being able to protect our city from the danger of flooding. We are in the final stages of levee improvement projects, in conjunction with the Federal Government, that will bring our community to a four-hundred-year flood protection level if the Auburn Dam is—if and only if the Auburn Dam is constructed. If not, the city of West Sacramento will experience a two-hundred-fifty-year level of protection.

It is not our city's intent to get involved in the debate as to what adequate flood protection is for the city of Sacramento. Those are the decisions for Sacramento and SAFCA to make. Our only intended involvement is relevant to how such measures may impact us.

It is our intention to work with our neighbors to ensure that any increased flood protection they provide for themselves will not increase the risk to the people of West Sacramento.

Thank you very much for your time and I look forward to answering your questions.

[The prepared statement of Mr. Montemayor may be found at end of hearing.]

Mr. DOOLITTLE. Thank you. Our final witness in this panel is the Honorable George Barber, member of the San Joaquin Board of Supervisors. Mr. Barber?

STATEMENT OF GEORGE BARBER, SAN JOAQUIN SUPERVISOR

Mr. BARBER. Members of the Subcommittee, it's my pleasure to join with you. I am chairman of the board of supervisors in San Joaquin County.

San Joaquin County is immediately south of Sacramento County and includes 40 percent of the Sacramento/San Joaquin River Delta. All flood flows generated from waterways in the Sacramento and American River basins eventually flow through San Joaquin County on their way to the San Francisco Bay. We are very concerned for our safety and preservation of existing flood protection facilities.

The proposed modifications to Folsom Dam currently being considered include increasing the maximum release from Folsom Dam

to one hundred eighty cfs. This flow rate is substantially higher than flow rates for which the flood protection system was designed.

It's extremely important that, in the analysis of higher flow rates, the analysis not end at the confluence of the American and Sacramento Rivers, but be carried out through the entire system. The analysis must include the determination of impacts on the Delta levees and provide mitigation for their impacts.

The higher flow rates, longer flow durations, and higher flow elevations through the levees in northern San Joaquin County, and throughout the Delta, must be treated as an integral part of the project. The impacts must be clearly defined to the understanding of all, and these impacts must be mitigated as part of any proposed project.

Previous considerations of a dam at Auburn on the American River would not require the significantly higher flood flow rates, and in fact, would probably allow them to be reduced, thus not only providing flood assurance for the Sacramento metropolitan area, but would also relieve our concern regarding higher maximum flow rates.

Auburn Dam has historically been a key feature in providing an adequate water supply for San Joaquin County. The authorized project to construct both the Auburn Dam and the Folsom South Canal would have provided sufficient water supply to San Joaquin County to relieve the critical overdraft in the eastern San Joaquin groundwater basin.

The development of this project was delayed for a number of reasons. The reasons include changing Federal positions regarding the support of the project, implementation of the National Environmental Policy Act, and disputes between environmental and water supply agencies concerning the diversion of American River water into the Folsom South Canal.

The position of San Joaquin County has long been in support of the development of the Auburn Dam as a way to meet water needs in San Joaquin County. Yesterday, the San Joaquin County Board of Supervisors, at their regular meeting, adopted a resolution in opposition to H.R. 3698 and in support of transferring the Auburn Dam site to the state of California.

This resolution expresses our concern regarding the flood control measures in this county, as well as continuing our support of proposals to develop a water storage project at Auburn. The resolution will be included as part of our testimony.

In addition to meeting regional water supply needs, the Auburn Dam would also provide water for the management of flows in the lower American River, provide additional water to meet all of Californians' needs, and provide supplemental water for maintaining water quality in the Sacramento-San Joaquin River Delta.

I would like to thank you for the opportunity to present these remarks, and we appreciate the Committee's support in not decreasing the flood protection in San Joaquin County, and for the support in developing an adequate water supply to meet our future needs.

[The prepared statement of Mr. Barber may be found at end of hearing.]

Mr. DOOLITTLE. Mayor Serna, let me assure you I have no intention to holding the city hostage, but there is a legitimate soundness of this man.

You heard the testimony, I believe earlier, from the Corps of Engineers indicating that if we had a hundred sixty year event with a hundred and eighty cfs going through the American River, that the Corps believed, using their formula, that there is a 40 percent chance of levee failure.

Do you consider that safe?

Mr. SERNA. Let me say this: As I think I was hearing the debate over statistics, I had the strange feeling that you were comparing apples and oranges here.

What I heard was that the Army Corps of Engineers builds safe levees, whether we—as statistical debate is one that I know.

I know what the alternate purpose is my faith, Congressman, is when the Army Corps tells me, as mayor of this city, that they have built hundreds of safe levees in this city. I believe they can do this. If they can't build safe levees, they ought not be in the business at all.

Mr. DOOLITTLE. They did both testify after we got through of all the nuances of what it meant under their formula, which did challenge their formula, on what they think is the best way to examine it, that there is a 40 percent chance of failure.

Mr. SERNA. As Joe Countryman stated, it's also a 100 percent reliability as well if you look at the statistics the correct way. The way you are interpreting them will lead to your conclusions. The way Countryman and others see the same status say their reliability is a lot greater than you suggest.

Mr. DOOLITTLE. Mr. Countryman doesn't——

Mr. SERNA. Which makes me very, very leery of this discussion at all in terms how meaningful it really is.

Mr. DOOLITTLE. They are the so-called flood control experts for the country. They believe it has a 40 percent failure. I wonder if this concerns you.

Mr. SERNA. What concerns me is if this bill of Mr. Matsui's doesn't pass, it will be moot because we won't get nothing.

Mr. DOOLITTLE. That is really not the tradeoff. There is something that, at least theoretically, all of us can agree to, that would be the Folsom modification without the levees.

Mr. SERNA. I understand that is a very strange debate for me, as well—and you also suggest we have run the American River at a hundred thirty-four thousand cfs. On one hand you say you can't run it that high, but those running Folsom Dam says you can run it.

Mr. DOOLITTLE. It wouldn't be a hundred eighty cfs. It would be substantially less than that. Nevertheless, it is an improvement substantially over what it is now because you have heard your fellow colleagues here. There are severe problems with this plan with other jurisdictions, and none of them really, other than Mr. Miklos, has raised an objection to Folsom modification, and he wouldn't necessarily object to that if he gets his bridge first.

Mr. SERNA. Let me suggest to the mayor that the economic loss to Folsom would be greater because would you not be able to support that wonderful manufacturing computer system you have at

Intel at Folsom, but all of us, by the way, as regional leaders support it.

The bill by Mr. Matsui is a package. You can't do one without the other. In fact, it makes no sense to do one piece and not all parts along the levee. Likewise, we have spoken about making sure we don't point the fire hose at West Sacramento and make sure if we are not doing that, working out the details of the bill.

Mr. DOOLITTLE. Since we are on my time, Mr. Montemayor, do you consider 40 percent failure to be safe?

Mr. MONTEMAYOR. Well, Congressman, I consider being on the other side of a fire hose not being very comfortable, but indeed 40 percent, you can't disagree with the concept. I wouldn't drive my car if I had a 40 percent chance of going into the river. I might as well take off my seat belt and start walking along.

Mr. DOOLITTLE. Let me ask Mrs. Johnson: With the fact that the state won't be a cost-sharing partner this would actually—the SAFCA plan would result in local homeowners paying more than three million dollars more than they would pay building the Auburn Dam.

Mrs. JOHNSON. I think it would be very, very hard to raise all of this money in this community, but I did not hear that they would not, and perhaps I am hearing what I want to hear.

But in talks with the state Board of Reclamation, I think they stopped short of saying that they are saying the same: They want to see the analysis first. They want to see all of the studies continue, and then they have not said they would consider it after those studies are done, and if they are appropriate, my take is those studies would be done and that time would come back to the Board of Reclamation, state of California, and they would participate, since they are, indeed, at great risk of losing that.

Mr. DOOLITTLE. What about the 40 percent failure? That thing is——

Mrs. JOHNSON. I heard Dr. Klasse say that they could build levees that would be safe enough for a hundred eighty cfs.

Did I not hear that? Am I the only one?

Mr. DOOLITTLE. Of course the Corps is going to tell you they build safe levees, but they had two to fail at Paradise Cut. One was at design capacity, and they do occasionally fill——

Mrs. JOHNSON. Again, you look at the risk, which are right now at seventy-seven-year protection.

Is that any greater risk than having something that might fail once in a lifetime? Where we can fail every year without anything?

Mr. DOOLITTLE. Let me ask you this: Suppose we do transfer the land to the state and the state goes ahead and supports Auburn.

Would you be willing to create assessment districts and assess the districts for your share of Auburn?

Mrs. JOHNSON. I think we would all have to take this to the ballot box and try it out.

Mr. DOOLITTLE. Would you be willing to put it on the ballot?

Mrs. JOHNSON. They also like Auburn Dam, and they are saying we have to have protection now, and I think those folks would like to see it on the ballot and would like a chance to vote.

Mr. DOOLITTLE. Let me ask the mayor: Would you be——

Mr. SERNA. On the condition that you support the Matsui vote first.

Mr. DOOLITTLE. The answer is no?

Mr. SERNA. The answer is I need help.

Mr. DOOLITTLE. My time is up. Mr. Matsui?

Mr. MATSUI. Thank you, Mr. Chairman. One thing I forgot to do, if I beg the Chairman's indulgence here, I would like to introduce a letter dated April 29, 1998, to Chairman Bud Shuster.

May I enter this into the record?

Mr. DOOLITTLE. Certainly.

Mr. MATSUI. In terms of this methodology, I have essentially—what we are talking about here, the Corps says it can make safe levees. They are talking about a hundred-sixty-year level. That is because of hydrology. It's not a question of construction. It's a question of fate.

In fact, this book that I have referred to earlier deals with this issue, and it's Flood Risk Management, American River Basin, was published in 1998—academic and practical in the engineering area.

Talking about this particular issue in chapter four, they basically say here the Committee at this time doesn't believe the process of economic—ecological to be applied—the problems of flood control for the American River Basin.

This is still a raging debate in the Corps of Engineers, but the reality is there is a lot of debate right now going on in the Corps on this thing.

Let me ask, if I may, Mr. Montemayor from West Sacramento: You talked about you wouldn't want to risk yourself at a 40-percent failure rate. Mr. Doolittle talked about it. I wouldn't either, but if I proposed to you an 82 percent failure rate, what would you rather have? An 82 percent failure rate or a 40 percent failure rate?

Because that is what we have currently. You have one in a hundred sixty the possibility of a failure, the 82 percent.

Mr. MONTEMAYOR. Not seeing the mathematicals.

Mr. MATSUI. Assume I am telling the truth.

Mr. MONTEMAYOR. Assuming politicians speak the truth, assuming the 82 percent failure rate, the first thing I would actually do is, first of all, ask my city manager to start putting together some serious evacuation plans for the city of Sacramento.

Second, I would be arrested for assault and battery——

Mr. MATSUI. You are not really going to respond?

Do you know how many people live in Yolo County that work in Sacramento?

Mr. MONTEMAYOR. I guess I need to understand your question because——

Mr. MATSUI. How many people live that in Yolo County commute and work in Sacramento County in the floodplains?

You don't know that answer then?

Mr. MONTEMAYOR. We are talking a significant number.

Mr. MATSUI. Twenty-one thousand a day come from Yolo County to Sacramento County and work here, and we have an 82 percent failure rate if we have a hundred-and-sixty-year occurrence.

Are you concerned about that for your community, Yolo County? You must be.

Mr. MONTEMAYOR. As a citizen of West Sacramento and a citizen of Yolo County, I am concerned with what happens in the city of Sacramento for the primary reason is that the city of Sacramento, the city that is known as the head of the region for the entire——

Mr. MATSUI. I hope it's just not because we have the Sacramento Kings. It's because we have thirty billion dollars' worth of assets.

Mr. MONTEMAYOR. You made my point.

Mr. MATSUI. Thank you. I said what we need. Let me say this: Mayor Miklos, how many hospitals, regional hospitals, do you have in the city of Folsom?

Mr. MIKLOS. One.

Mr. MATSUI. What's the size, number of beds?

Mr. MIKLOS. Three fifty.

[Multiple speakers, exchange inaudible.]

Mr. MATSUI. Do you know what the capacity is?

Mr. MIKLOS. If I had to guess off the top of my head, it's probably six hundred units.

Mr. MATSUI. And so you have some citizens that may be inundated by a flood.

You are going to say now, on the record, for prosperity, that you don't want to support our project? You are going to wait for Auburn Dam?

Mr. MIKLOS. I don't believe I said that, Congressman Matsui. I am saying that look at—all I am asking, there is some groups out there in Sacramento County which take positions on issues but they don't come up for reelection.

All I want to do is hold people accountable. I want to hold myself accountable. I think you should be held accountable, but we are not going to be able to do it unless you are an elected official.

Mr. MATSUI. I want to hear you say on the record what I thought you did say, so that we can at least—if we should have this horrible catastrophe, we can hold. There has to be some accountability in the system. That is what this system is about.

Mr. MIKLOS. With the information I see in this bill, I can't say I support your bill. I said our city prefers and supports Auburn Dam as being the best.

[Multiple speakers, exchange inaudible.]

Mr. MIKLOS. The stepped release plan is a problem. You have thirteen months of partial closure.

Mr. MATSUI. I agree with you that Folsom Dam Road is a problem, and I agree with you that there will be a partial closure in the entire 3-year period and a hundred—and ten partial closures in which there will be at least a single reversible lane going back. At least it will be a mitigating factor.

Mr. MIKLOS. The history—we were told the type of plan they were going to use when they fixed the gates and a similar plan which you referred to is so many days closure.

In reality it took quite a number of trips to your office, Mr. Fazio's office, Mr. Pombo, Mr. Doolittle pounding on a table.

In fact, I testified in front of Committee explaining our concerns, so my confidence level with something that did occur, regardless of what plan, I am not willing to bet the total closure is going to be 10 days. We have lived that experience. It's not reality.

[Question inaudible.]

Mr. MIKLOS. I didn't say that either.

Mr. MATSUI. I know, I am just trying to understand your position.

Mr. MIKLOS. I agree with you there.

Mr. DOOLITTLE. Mr. Pombo?

Mr. POMBO. Thank you, Mr. Chairman.

Mr. Barber, how long have you been on the Board of Supervisors in San Joaquin County?

Mr. BARBER. I have been an elected official for thirty-eight years, twenty-four of them as a member of the Board of Supervisors. The very first here was in support of Auburn Dam in 1975. A little more information than you asked for.

Mr. POMBO. Will appreciate it. I know that representing San Joaquin County you are widely known as one of the experts on water policy, not just in San Joaquin County but in Northern California. You have spent a great deal of your public life, as well as your personal life, learning and working on water issues in Northern California.

How deeply were you consulted in terms of this particular plan that we are talking about today?

How much input did San Joaquin County have into the formation of this plan?

Mr. BARBER. None whatsoever.

Mr. POMBO. You said in your written testimony that 40 percent of the Delta is well within San Joaquin County. I also represent the Sacramento portion of the Delta as well. Most of the water flows through San Joaquin County.

You are well aware of the flooding problems that we had last year, particularly early January, and what the impact was on San Joaquin County.

Do you feel that the proposal that is been put forth today, the testimony of the Army Corps and Board of Reclamation, do you feel comfortable with the safety level of the Delta and the areas we now have?

Mr. BARBER. No. No, I don't. I think that in the most recent flooding in 1986 and last year and the year before, we have had several levee failures, major ones in the area that you represent, particularly in the south county, and I don't feel that the level is satisfactory.

Mr. POMBO. Do you have any idea how much it would cost to fix all of the levees to a hundred-year level of protection in the Delta?

So not the hundred and sixty years that it's proposed in this, but just to reach a level of a hundred years, do you have any idea what that would cost?

Mr. BARBER. No. I can just tell you in the reclamation district where I live, they are doing a partial fix to a hundred years. It was something like five million dollars. The remaining portion is estimated at fifty million, just in the one reclamation district.

Mr. POMBO. Do you think it is sufficient enough to carry the level of capacity all the way through the Delta that they are talking about sending through to the American River?

Mr. BARBER. Well, I don't know enough about it, but I would suggest we have serious reservation that it would be sufficient enough. There is a lot of impact in the Delta area, his as well as some of

the north portions of the county where some of the levee setbacks and so forth would have to have levee setbacks to let the water get out faster.

Mr. POMBO. We have heard testimony today that the Auburn Dam would be the most economical and technically the best method of correcting flood control for this region.

I would like to ask all members of the panel: Do you disagree with that? Do you believe that the Auburn Dam is not technically or economically the best answer?

Mr. SERNA. Let me respond first, Congressman Pombo. I think that is one of the better answers. It's simply not before us. There is not a bill up. It's not on the agenda. It's not before your House. It's not before the administration. It's not anywhere.

Mr. POMBO. But you agree technically?

Mr. SERNA. If I had my druthers, we would have the Matsui legislation and ultimately the Auburn Dam so we were really at five-hundred-year flood protection. But simply put, the Auburn Dam is not before the people of California.

Mr. POMBO. Mr. Miklos?

Mr. MIKLOS. Yes, without a doubt. It's obvious in my mind that it is economic to the benefit ratio and all the other benefits that come with it.

Mr. POMBO. Mrs. Johnson?

Mrs. JOHNSON. SAFCA has not taken it off their list from 2 years prior. It's still listed as one of our goals, as well as two-hundred-year protection. We have never taken those things off.

I believe that. I personally believe that. I believe it is technically the strongest and best solution we have in the long run. That is a personal perspective.

And I believe that the SAFCA will be split on this, but they have not moved or tried, in any way, to take that off table as an ultimate solution. They are simply just very much in getting some protection when we are down to seventy-seven year protection.

Mr. POMBO. Mr. Montemayor?

Mr. MONTEMAYOR. Yes. Especially in conjunction with the uses one can get from a storage facility with this magnitude.

Mr. POMBO. Mr. Barber?

Mr. BARBER. My position is Auburn will be ultimately built at some point in time. It will be built as a multiuse facility. The driving force behind it will be for the water and benefit. The shortage is going to occur, and that water, although expensive, will be a source that will not go unchallenged or untapped.

Mr. POMBO. Mrs. Johnson, you and I had the opportunity to discuss this in great detail a few weeks ago, and at that time I told you that I didn't believe any plan that did not take into account all regional issues would ever make it through Congress, that I believed that if the plan is not truly a regional plan, you will never gain the support to get it through.

And I think by the testimony you have heard today, you can understand why I hold that position in that your neighbors are very concerned about this plan. They don't feel that their interests are being taken at heart, and in this particular plan,—and it causes them great concern that that is happening.

It was a year ago, and it was a bill that was on the House floor that allowed the maintenance, rehabilitation, repair, and replacement of a Federal or nonFederal flood control processor facility. It exempted that work from consultations under the Endangered Species Act.

Where necessary to protect human life or to prevent the substantial risk of serious property damage, and let me repeat that: When necessary to protect human life or to prevent the substantial risk of serious property damage. That was the language that we vote on a majority two hundred, and we have members of the House voted to kill that legislation.

So we have previous votes in the House against fixing levees that are falling apart because of flood damage and not just, you know, in raising your level of flood protection so we run a risk. No matter what legislation gets put up there is a chance we can lose that.

I feel like what we ought to do is pick a regional plan that best represents what this region needs in terms of flood protection and water availability, lay that out.

We are not going to get the Auburn Dam all at once. I think we all know that, but I think we have to come up with a plan that says this is step one, this is step two, and this is the ultimate level of flood protection, which is Auburn Dam.

Unless you put that plan together, you are going to have a fractured region where you have—where it's almost impossible for those of us that represent this region to come together with a unified voice because we have different problems in our respective districts.

Even though I represent two-thirds of Sacramento County—I know Mr. Matsui represents the majority of the population, but I represent the majority of the county, and I represent all of the American River all the way to the San Joaquin River, so I have a lot of problems when it comes to flood protection and water availability, and unless we have that kind of a regional plan put together, that I have San Joaquin saying "Yes, this is what we need," as well as Sacramento County, it makes it impossible for us to put together a consensus plan.

Mrs. JOHNSON. Well, you have my absolute promise to try in every way we can to get that kind of feeling of real support from surrounding counties. There is nothing that SAFCA wants to do that has to do with—that will give everybody some satisfaction and security about what this would mean.

I also want to say I very much agree with Supervisor Barber about when that Auburn Dam gets built, I, too, believe it's going to be for the need of water. Water in California is gold. It always has been our need——

Mr. MATSUI. Not with the weight of city and the mayor behind you.

Mr. MONTEMAYOR. Do you want to know the position of the city of West Sacramento?

Mr. MATSUI. Do they have a position?

Mr. MONTEMAYOR. The position of the city of West Sacramento is to remain neutral between——

Mr. MATSUI. You are here on your own?

Mr. MONTEMAYOR. I am here on behalf of the city of West Sacramento.

Mr. MATSUI. I thought you said the city of West Sacramento.

Mr. MONTEMAYOR. The position is we have not come to a formalized position because we are still studying. There is a lot of analysis before we can even possibly do——

Mr. MATSUI. Your position is neutral.

Mr. MONTEMAYOR. Neutral and supportive of more studies.

Mr. MATSUI. Thank you.

Mr. FARR. I feel like I am back in this room sitting here looking at two supervisors, mayors, and a city councilmember, and I really appreciate this panel because you all have to make tough choices. You also have to balance——

My question goes—you are the last of the witnesses.

I haven't heard one of the witnesses oppose the building of the Auburn Dam, including the two Members of Congress that were here before you. I also heard people say they don't think it's going to get built and the new Congress has not been supporting it. I don't know. You know what's going to change in Congress to change that?

My question to you is: If you don't get the Auburn Dam right now, obviously a lot of this is being used as leverage. You don't want to build to step down. If you don't get the Auburn Dam, would each of you support the stepped release plan?

I think—why don't we go down the line.

Mr. SERNA. Clearly the bill that Congressman Matsui is carrying include all the elements that include the step plan. Let me piggyback. SAFCA is our regional flood control body, so the region has spoken through that agency, so I am not sure what more you want of us.

The city of Sacramento and the sponsorship and in pain and part the Water Forums—the Congressman deals with the issue of water supply. When people tell us—I get disturbed when I hear from members that the region has to get its act together.

Mr. FARR. I have never heard anybody here oppose the SAFCA plan either, but if you don't get the dam, the question comes back: These are the choices you have to make every day. You don't always get what you want. Politics is about the art of compromise.

The question I have: Would you support the plan, the step plan or the SAFCA plan?

Mr. MIKLOS. First, I want to clarify something. SAFCA represents—we are in the county of Sacramento. We were asked by SAFCA what our opinion was, and our opinion was not at that time the plan that was presented to us. I would like to clarify. I get concerned, as he does, when people say the region has spoken. The region is not just the city and county of Sacramento.

Now, in direct response to your question, if I had to absolutely just pick which plan I was supposed to take back to my city and say "This is it," I am going to get in there, again, that is the measures I have spoken about early, if there is proper mitigation.

And you may not be aware of it, but when that lake level is at its maximum, we receive more visitors than Yosemite does.

[Question inaudible.]

Mr. MIKLOS. Now, as he did last year; however, is that, you know, I would have been working with Congressman Doolittle's office.

Mr. FARR. You got power of mitigation, you do that in CEQA. Your city council takes it to court, stalls this whole thing out. Obviously mitigation you get your cake, so with that, would you support it?

Mr. MIKLOS. The Auburn Dam is the only plan I can support, given the information that is in front of me.

Mr. FARR. The Matsui bill asks for a——

Mr. MIKLOS. I don't feel there is enough.

Mrs. JOHNSON. As the proposer of this main support it, our board is very, very supportive and involved. Obviously we haven't done a good enough job when I hear the people around me. Clearly I need to get busy and get to these places more often, and we really need to do the kind of analysis that would give them some real feelings of security that this thing can help their needs and help the entire region and not hurt them. That is what seems to me SAFCA needs to do.

Mr. MONTEMAYOR. Again, I have to echo a little: West Sacramento is not a member of SAFCA. When SAFCA speaks for the region, they are not speaking for the city of West Sacramento.

Mr. FARR. The alternative is to do nothing.

Mr. MONTEMAYOR. Assuming that the mitigation is followed through as it is outlined currently and assuming that the studies have no adverse impacts on the county of Yolo and the city of West Sacramento, which we don't quite know yet.

We have to wait until these analyses come out. Assuming those things and assuming that all downstream communities are not adversely impacted, obviously the choice would be to support the alternative for a stepped release.

Mr. FARR. Thank you.

Mr. BARBER. I think you were out of the room when I was doing most of the testimony. I indicated we have not had any real contact on the project at all; therefore, we are not in a position to be able to know what the adverse impacts may or may not be until we know that we are not in a position to support it. In fact, we took the opposite approach.

[Question inaudible.]

Mr. BARBER. Well, somebody will have to do the study. I certainly am not objecting to that. It may well be the board may want to take a different position once they have had an opportunity to look at it.

Mr. FARR. Well, my time has run out, Mr. Chairman, but I think—I don't know how you go there from here if we just get stuck trying to do the same old, same old.

In Congress, it has been rejected twice. It seems to me what's on the table is a study, a bill, that says "Let's do a study."

The study will have to show what the adverse impacts are. The adverse impacts have to be mitigated, that becomes part of the entire project. You don't know whether you support the project until you have the facts, which will be delivered by a study.

It seems to me this bill is in order, and we should at least—going back to your opinion, Mr. Chairman, is that I don't think it is a

penny wise/pound foolish. I don't see any pound foolishness in it at all. It's essential to protect the flood mitigation of the Sacramento area.

Mr. DOOLITTLE. This approach under the Matsui bill is something like the Queen of Hearts in Alice of Wonderland: Verdict now. Jury later.

There is no Chief's reports. I have heard knowledgeable people speculate that the downstream is another billion dollars. We don't really know what that is going to be, and so there is a strong feeling that the alternative is either vote for the Matsui plan or do nothing. No one is advocating, doing nothing. There is another alternative, but we ought to be darn sure of what the ramifications are.

Mayor, let me ask you: I don't remember if you were on the city council in those days, but it's my understanding the city of Sacramento was within just a few hours, maybe minutes, of breaching the levee intentionally in 1986 in order to avert a greater disaster in places.

The disaster in 1997 we were too, so twice in eleven years we have come within a hair's breath of having a calamity occurred.

All the dire consequences that have been portrayed here are—it does concern me when we talk about, in fact, the local cost share of the Matsui plan is like forty million dollars more than it would be for building the Auburn Dam.

Is that something that seems appropriate to you?

Mr. SERNA. Congressman, for me that is debating the issue a bit. The point is that the Auburn Dam is not before the House.

Mr. DOOLITTLE. I will be happy to amend it into the Matsui bill.

Mr. SERNA. We want flood control now. The Matsui bill gives us the opportunity to perfect his vehicle to give us that flood protection as soon as possible. I would beg for your support. That is the only thing viable before us. I am fine.

The thing that I would ask of you, Mr. Doolittle, is the following: To support the city of Sacramento like we support you in your efforts to support the Matsui bill. Let's work for this solution, and then if you want to go back and still build the Auburn Dam, get it to the state, put it on a ballot.

We came within a half hour of evacuating River Park. I got a call at midnight from the city manager "Be prepared to evacuate."

This is not about gamesmanship. This is really about the real lives of real people in a real city that is subject to flooding.

Mr. DOOLITTLE. Let me ask you more about that because I want to ask this, and I am talking to the right person: River Park, weren't they—because they were going to close those gates under the railroad trestle. They were going to dynamite the levee hoping that would take enough pressure off.

Mr. SERNA. Campus Commons was at great risk also.

Mr. DOOLITTLE. Mayor Miklos, I know that the Bureau, if we would have time to ask them, they are not happy about having the top of the dam have to be one of the main ways in and out or between the two halves of Folsom.

I think you are quite reasonable in asking that that be put on the table as one of the mitigation measures for doing something with Folsom, and we will just have to, as this whole discussion con-

tinues, see where it all ends up, but I think it's good that you have raised the issue and you obviously have real safety concerns yourself that are different than the city of Sacramento's.

I would like to ask—Mr. Hodgkins, I would like to ask you about that memo back there you wrote. This is a memo that "To: File. From: F.I. Hodgkins dated April 1st, 1998."

Now, this isn't an April fools' joke, is it?

Mr. HODGKINS. I don't joke about flood protection, Congressman.

Mr. DOOLITTLE. You say "Given time and the unwillingness to embrace this SAFCA plan to secure support within the administration for authorizing the SAFCA plan this year would not be—Chief's report updating the technical analysis in the 1996 report."

Can you comment on that?

Mr. HODGKINS. I think I can. I think there are many members of the Corps who are strong engineers, as I am, who believe that the best project, from an economic technical standpoint is the dam at Auburn, and their belief in that, I think, causes them to be less than candid when you get down to what has become the political reality for me, and you know, that with exception of the four Congressman up there, nobody worked harder in 1996 to get that project authorized.

Mr. DOOLITTLE. I do know this, and I know that you believe in the Auburn Dam.

Mr. HODGKINS. And we simply have come to a point where for this community, I think water—faced with the decision "Should we proceed forward and try to get as much flood protection as we can?"

And that is why I think we should proceed forward with this plan, and I think that the Corps, who is somewhat isolated from having to deal eyeball to eyeball with people, who are behind those levees especially during the flood of 1997——

I mean, I saw the projections that the flood center produced of what the—as we watched that storm in I had the look those people in the eye, and I don't think the Corps has to do that, and they are able to be more engineering and dispassionate and less practical in terms of trying to figure out how to get improvement in flood protection.

Mr. DOOLITTLE. Is that what you meant when you said referring to the Chief's report "Under no such circumstances could a document be helpful."

Mr. HODGKINS. The other part of it is the report that was transmitted to Congress in 1997, which was the basis for the 1996 Chief's report, took the Corps 3 years to prepare.

They assembled a team who became very knowledgeable on issues of the American River Watershed, and then we had the flood of 1997, huge disaster. That team was scattered to the winds, not available to—and do additional technical work on this.

Trying to put together a knowledgeable team to do the work was another problem that was a concern to the Corps and myself as well.

Mr. DOOLITTLE. When you wrote "It would harm the—and yet, you know, we have done this before in 1986. We went through the preparation of the recommendations and so forth, all the studies and hearings"——

Mr. HODGKINS. I believe that the document you have—that that was prepared in 1996, and I haven't heard anybody disagree with that—is a document that basically looked at all of the alternatives that are available in the American River. That information was prepared to assist Congress in making that decision.

Your own scientific advisory panel, the National Research Council, looked at that document and said "Yeah, there is uncertainties. Uncertainties are unavoidable," risking uncertainties as the engineer's trying to learn to communicate with the people that make the policy decisions about the fact that there are risks here and there is uncertainty here.

And what the National Research Council concluded, basically, is we can't use the uncertainties as an uncertainty.

Now is the time to decide and move forward with flood protection so you have, I think, a report that provides a good analysis of the alternatives that are available.

Mr. DOOLITTLE. Let me: Do you support raising constituents' taxes forty million more dollars than it would cost to build an Auburn Dam?

Mr. SERNA. Do I support raising their taxes?

Mr. DOOLITTLE. In essence it would be taxes or assessments.

Mr. SERNA. Not if there is a solution before us that is cheaper.

Mr. DOOLITTLE. Mrs. Johnson?

Mrs. JOHNSON. I am not quite sure I understand the forty or how you got the——

Mr. DOOLITTLE. It gets to be forty because the state won't be a cost-sharing partner in the SAFCA plan, so you have to pick up their share.

Mrs. JOHNSON. I haven't given—I am——

Mr. DOOLITTLE. Let's assume for the sake of this answer that it's not going to be a cost-sharing partner.

Mrs. JOHNSON. Then I think we have a very tough time.

Mr. DOOLITTLE. Then it would be no?

Mrs. JOHNSON. Please let me just say I believe we can get the state, then I am willing and I believe the SAFCA board stands ready to put forth an assessment for the reasonable part that we feel we would need to pay as the local entity.

Mr. DOOLITTLE. If you get the state, it's not going to be forty million more. It's only more if you don't get the state. Then I understand your answer to be no.

Mrs. JOHNSON. I doubt that we can do it.

Mr. DOOLITTLE. Additional questions?

Mr. POMBO. I have one question for the mayor of Folsom.

You had an interesting statement. You said that Folsom does best when the lake is full.

Mr. MIKLOS. Obviously, when you look at a tourist area, and Folsom Lake, based on the amount of revenues that are calculated, that is a dramatic difference between a full reservoir versus 50 percent or the years that that picture represents it is severe on very specific times of the year.

Mr. FARR. Would filling the Auburn Dam lower the Folsom Dam?

Mr. MIKLOS. No. Because the way I understood Auburn Dam to be done all the way to Auburn.

Mr. FARR. You have an upstream control?

Mr. MIKLOS. That is correct.

Mr. FARR. If more water was released, you lower the Folsom Dam.

Is that an adverse impact?

Mr. MIKLOS. Depending on which plan.

Mr. FARR. You said when the lake is full, that is when you are best off.

Mr. MIKLOS. Now I understand your question.

Not very much.

Mr. FARR. So you are not worried about flooding?

Mr. MIKLOS. To be honest with you, we don't have the problem of the city and county of Sacramento, but however, I did say we are trying to do our part with as little impact to the city of Folsom and helping to share the concern and find a solution.

That is why I said I have been working with Congressman Doolittle's office. To say the city of Folsom does not recognize they have flood control needs is incorrect. We are acutely aware of that and have been working to find out what's the least impact to our city.

[Multiple speakers, exchange inaudible.]

Mr. MIKLOS. The only thing I want to bring up, if you give me the indulgence, the water supply issue has catastrophic—it is surface water actually. We are still waiting for the other CVP water, Congressman Fazio.

The reason I bring that up with the stepped release plan is if there is an evacuation of lake level, that again has a devastating effect on the city of Folsom. We have a particular water to draw from, but to voluntarily say we are going to modify the dam without mitigating effects for the city of Folsom, I have to be accountable to my citizens.

Mr. FARR. What I am trying to get at, seems to me there is a selfish opinion by Folsom "We benefit best because this dam has been built" but you don't want to share in the responsibility for downstream flood control.

We want the economic value, recreational value, and we are willing to take the sales tax and things that come to the cities for that bed tax, and things like that, that you can share when the lake is full, but you don't want to share the largess, the windfall in protecting downstream mitigation in the same proportion share?

Mr. MATSUI. Let me followup on that.

We are talking about the Countryman plan actually. Now, I think there is a consensus developing among those that support the levee improvements and also the reoperation of Folsom that we do have Mr. Countryman, and I would like you to look at the most recent at that time and then——

[Multiple speakers, exchange inaudible.]

Mr. MATSUI. But you have said earlier that you didn't support the reop of Folsom.

Did I misunderstand that?

Mr. MIKLOS. No. What I said is——

Mr. MATSUI. In other words, the auxiliary, the Countryman plan, in other words, you are open to that?

Mr. MIKLOS. Yes, sir.

Mr. MATSUI. I appreciate that. Now I understand it.

Mr. MIKLOS. [continuing] and our responsibilities and our minds as regional partners in the region. I can't say enough of Mayor Serna's support.

And if we were steadfast in saying absolutely nothing, which of the modification plans, with least impact to the city but still has some kind of level, we have with preponderance, seriously considered supporting, with the proper mitigation effects, the Countryman plan.

Mr. MATSUI. Obviously they will not impact you because that is downstream. You'd want to make sure they are.

Mr. MIKLOS. That is correct. And Congressman, if I may: Two years ago I said the city of Folsom has to support strengthening the levees.

Mr. MATSUI. I remember that. I really appreciate this, and thank you again.

Mr. DOOLITTLE. Let me just clarify: When you said "the Countryman plan," you mean the plan that pertains to the modification of Folsom Dam, the additional modification of outlet, rather than lowering the spillways?

Mr. MIKLOS. That is correct.

Mr. DOOLITTLE. The strengthening of levees we all support, and that is embraced in the common elements which has finally commenced construction.

But with reference to the enlargement of the levees downstream and upstream, I am just trying to understand: What you are saying here is that something that—Folsom, what is their position on that?

Mr. MIKLOS. We have not seen the information. The information is out there. It's not been shared with our city and our elected officials.

Mr. DOOLITTLE. You are not endorsing that today?

Mr. MIKLOS. No, I am not.

Mr. DOOLITTLE. That was my understanding. I want to throw this out before the panel goes.

I would like to give us the flood protection we need because if Sacramento floods, almost everybody that I represent anywhere around here is going to suffer tremendously because of it, whether or not they are in the floodplain.

And I would just throw out for your consideration: Let's transfer this land to the state. I believe we can do this in less than 5 year's time. We can do it in 1 year, if the Republican and Democrat decided to transfer it, do the modification to Folsom Dam, move with the mitigation, that is appropriate, and that we create the assessment districts within Sacramento County, figure out what's the best apportionment of costs, and let's just do it.

Let's not wait for some force we have little control over. I think we can do it. I really don't believe that I am talking about something that can never be accomplished in my lifetime. Great things can be accomplished if we decided to put our minds to it.

We shouldn't delude ourselves in believing Auburn Dam is some far distance, you know. It's like achieving perfection on earth. I certainly don't see it that way. I don't think you should.

The reality is it would cost less for local taxpayers to pay for that than it would for the SAFCA plan, assuming the present cir-

cumstance that the state's not a participant in it. Then you would get your flood control and you get all the other benefits that the region needs, and not to mention, all the environmental enhancements.

I won't go through the litany of benefits we get from it. Maybe you think I am totally wrong on this, but I believe this is much more achievable than I have picked up from comments made today.

With that, is there further questions?

Mr. MIKLOS. Congressman, if I may——

Mr. FAZIO. You know what, Steve, that is not a bad idea. We did go on record saying we would support that.

Mr. DOOLITTLE. Mr. Farr?

Mr. FARR. Is the question requirement dependent on whether the assessment districts be set up for building the dam, or is it just transferring real estate to the state and let the state make the decision?

Mr. DOOLITTLE. Well, I would like to do both. The reality is until we have a new Governor, whoever it is. As soon as we have them, we need to sit down and see if we can get that administration support for that to.

Mr. FARR. Requires a two-third's vote.

Mr. DOOLITTLE. Interestingly enough, there really is very little support among the populace in the region for anything other than the Auburn Dam. SAFCA knows that itself when it tried to do that the last go around.

But something that does pretty much unify anything we will have to work hard to get it. It's close to that. I think it would be worth the effort.

You look at the great things in the past the forefathers have done from the state water project or the Central Valley project freeway system, all of those things. Those weren't easy things to accomplish in that day.

Mr. FARR. The question is whether you want to. You can't transfer the land until you set up this mechanism for assessing people to pay for the dam or whether you just transferred the land.

Mr. DOOLITTLE. Let me answer that: It would be a joint—obviously it would be between the state and local government.

Mr. FARR. You get it done.

Mr. DOOLITTLE. We have closed all our bases. We can't use these.

Mr. POMBO. My suggestion is you transfer it to the Department of Forestry, if there is any national forest around there, and you and I sit on the Ag Committee, and we have jurisdiction on it.

Mr. DOOLITTLE. We do have the jurisdiction. The Department of Forestry is in bad shape. I throw that out. Think about it. We will think about it.

We will excuse the members of this panel. Thank you, and please we will hold the record open for further responses to questions we may have in the next few days.

We will take another 10-minute break, and then we will come back.

[A brief recess was taken.]

Mr. DOOLITTLE. Ladies and gentlemen, the fourth and final panel is ready to begin. Provide—or invite our three panel members to come up.

Let me ask you, gentlemen, please, to stand and raise your right hands.

Do you solemnly swear or affirm under the penalty of perjury the responses made and the statements given will be the truth, the whole truth, and nothing but the truth?

Let the record reflect that each answered in the affirmative.

This has been an extraordinary long hearing, good hearing, guild with good information and tiring. You have been patient until the end here.

You have as your first witness Mr. Lew Uhler, president of the National Tax Limitation Committee, Roseville, California.

STATEMENT OF LEW UHLER, PRESIDENT, NATIONAL TAX LIMITATION COMMITTEE

Mr. UHLER. Members of the Committee, I have to give you high marks for your staying power.

One of the things asked of us in the materials was to answer the question as to whether our organization has ever taken a dime of Federal, state or local money to carry out its operations.

I am proud to say we have not, and what I am going to have to say comes straight from the private sector and offers a solution that is different than I have heard today.

While the focus of the hearing has been on proposed modifications to Folsom Dam and related water management implications, I think it's clear that no halfway measures are likely to provide a true solution to the area's flood and water challenges. Nothing short of construction of a multipurpose dam is really relevant.

It's widely agreed that two-hundred-year or two-hundred-fifty year, as we have heard today, flood protection is the minimum safety level for the Sacramento floodplain.

Recent recalculations by the Corps of the flood potential of the American River watershed reveals that the flood threat is even greater than we had originally understood, and that only a dam can interdict major water flows and provide safety and effectiveness.

All of the other alternatives that have been suggested, and with all due respect to Congressman Matsui, who I know is trying to do the right thing, are nevertheless makeshift and temporary and do not get the job done.

By the same token, it appears that taxpayers nationwide have had a chance to say whether they want to help California and the local area by building a dam or voting for a dam, and that seems to be at best questionable at this point in time.

Now, given this range of circumstances, may I suggest an alternative that we haven't discussed but I want to raise. I want to consider a private or privatization solution for the construction of the dam in Auburn?

And the essential first step, of course, is the legislation which Congressman Doolittle has introduced to turn the dam site and inundation areas of the dam over to the state of California so that the process can move forward.

Now, while too much water at one time is a threat to our safety, too little water, the inevitable droughts we experience, constitutes an equal and grave public risk.

Water is then a precious commodity, and we ought to seek a solution which protects against too much water and too little.

As a freer market in water it is now developing as farmers are selling some of their surface water rights, prices are firming up. The pursuit of assured water supplies, especially in urban areas, can provide solid cash-flows for financing dam construction.

Equally important, electrical power can be generated from such a dam facility, and it is the cleanest and cheapest power available.

I might add under electricity deregulation, the value of the inexpensively produced power goes to the highest marginal rate, and therefore, is more valuable on a hot August afternoon. The stack-rate structure that the regulated industry had experienced has changed, and now market rates will increase the level of hydro or cheaply produced power.

If we add flood insurance premiums and other funding sources, I believe a private solution begins to make real sense, and we ought to pursue that.

Some very rough calculations, whether it's government-backed or not, you may have a range of a hundred and thirty to a hundred and fifty million dollars a year mortgage on a two billion plus dam.

Now, if you spread that over thirty to fifty years, some very rough calculations on my part suggest that that hundred and thirty to a hundred and fifty billion dollars can be filled in by water sales, electricity sales, and some reasonable allocation of insurance premiums from the people who would derive the benefit of the existence of a big dam.

The federally supported flood insurance covers only a part of the people who are at risk here, and the rest of them are covered by other kinds of insurance. I have not been able to get my hands on the numbers that are represented by those nonfederally insured businesses and homes.

And if we have all those numbers, my thinking would be that what we ought to be talking to the government about at the Federal, the state, even local assessment areas is filling the gap.

And I would suspect that filling of the gap might be less expensive than the solution that Congressman Matsui is supporting, although he prefers the full Auburn Dam anyway. If we get a less expensive solution, it seems to me we really have something.

All we have to do with the environmentalists is discuss the inundation of portions of the North and Middle Fork of the American River with the resulting loss of whitewater rafting opportunities. I happen to be a whitewater rafter, and know we lose lots of lives in the area to be inundated.

Look at the pluses we gain in terms of water, water conservation, flood protection, clean electricity, stable Lake Folsom, additional recreation benefits, water to flush the Delta.

My bottom line is taxpayer interests will be well served if we quickly and thoroughly explore the privatization alternative for the ultimate solution: A multipurpose Auburn Dam, and our committee stands ready to assist, in any way, with these efforts.

[The prepared statement of Mr. Uhler may be found at end of hearing.]

Mr. DOOLITTLE. Thank you. Our next witness is Mr. Ed Steffani, General Manager, Stockton East Water District.

STATEMENT OF ED STEFFANI, GENERAL MANAGER, STOCKTON EAST WATER DISTRICT

Mr. STEFFANI. Thank you, Congressman Doolittle.

I want, first, to endorse San Joaquin County Supervisor Barber's statement. about the county's concern about potential flood impacts.

I want to address a potential water supply impact that could result from the H.R. 3698 proposal. We ask that water supply impacts be clearly defined and mitigated.

H.R. 3698 would make permanent a decrease in water supply below that originally provided by Folsom. I presume everyone realizes that I have heard some people today say there would be no decrease in water supply. They are measuring that from today. You have got to go back to the pre reop condition as the baseline.

We want Sacramento to get two-hundred-year protection, but we want you to get it in such a way that water supply is not decreased. We hope there is a way to do the flood control with an increase in water supply.

We believe there are alternatives to what's on the table now. We believe you can get the two-hundred-year protection with a small Auburn and with Folsom reop.

Joe Countryman tells me that Folsom reop will get you up to a hundred-ten-year protection. A two-hundred-thousand-acre foot reservoir at Auburn will get you another ninety, so there is your two: Small Auburn, Folsom reop, no levee raising.

What do you do about water supply? The one I like, and I think my friend Jerry Meral sitting next to me likes, is groundwater recharge.

Take the water that we would release from Folsom to get down to flood control space, take that water, and put it into the ground. Put it into southern Sacramento County where you have a severe overdraft, and put it into San Joaquin County.

I think I will stop there and let Jerry pick up the ball. Thank you.

Mr. DOOLITTLE. Thank you. Our final witness on the final panel is Dr. Jerry Meral, Executive Director of the Planning and Conservation League, American river Coalition.

Nice to see you again, Dr. Meral.

STATEMENT OF DR. JERRY MERAL, EXECUTIVE DIRECTOR, PLANNING AND CONSERVATION LEAGUE, AMERICAN RIVER COALITION

Dr. MERAL. I am Jerry Meral. I was formerly the deputy director of the California Department of Water Resources on the American River for 8 years. I have been working on American River issues since 1968.

The environmental opposition to the destruction of the American River canyons by the Auburn Dam goes back to that year, 1968, and I would predict would not go away in the future. They are used by half a million people a year or more. They should be preserved, well managed by the state.

And I will say with some interest that we hear of Congressman Doolittle's—because we do believe as managed by state parks, once

state parks has some of the restraints on the current use lifted, and the concept of an Auburn Dam has many problems.

One, it's, as many of you know, to be constructed, if it is ever, on an earthquake fault. Failure of Auburn Dam is an unimaginable, far more serious problem, but I think the principal problem with Auburn Dam is one that Mr. Uhler pointed out, and that is economic problems: Federal subsidies, Federal cost sharing is going down, Federal water, financing the Auburn Dam.

Congress is not putting money into these changes. There is not been a big new water project authorized in California since the 1970's.

The environmental community is very interested in and willing to support reasonable flood control protection, such as Congressman Matsui's bill, and we applaud him for making a strong effort.

I am a homeowner here in Sacramento, and subject to the inundation that is been discussed today, and those of us that live here think his bill is the right approach to providing flood control, we don't want that to happen. We want protection to come as soon as possible. We don't believe that the Auburn Dam is possible.

Now, we don't believe it will be possible in the future, but that is a fight for a future day. We want to see Mr. Matsui's bill funded, and we will continue to oppose the Auburn Dam, but there are solutions to the problems you have heard discussed today, certainly flood control by enacting—Placer County has serious water supply problems.

We endorse a permanent pumping station in the North Fork of the American River, and opening up the American River in the North Fork for recreation and other purposes.

I think one of the other problems that we see with the idea of doing anything upstream on one fork of the river or another is the problem that occurred with Pectola Dam in North Dakota in the 1970's.

It would protect Rapid City from a flood, if that flood had occurred upstream of Pectola Dam, and Rapid City was destroyed in the downtown area. We don't want that to happen to Sacramento.

- Projected to take place throughout the entire watershed of the American River to be centered on the south fork and have that fork provide the flood water that Auburn Dam could not mitigate. We believe Congressman Matsui's is the most careful plan.
- Department of Water Resources in 1982, and it shows that those kinds of ideas have staying power, so we endorse that bill and encourage the Committee to rapidly support that idea, and Congress should approve it. Thank you very much.

Mr. DOOLITTLE. While I take it, Dr. Meral, you don't like Dr. Steffani's idea——

Dr. MERAL. We very much like to see an overdraft problem. We would like to see the development of water resources that would make it possible to provide that recharge. We do the resource of the water.

Mr. DOOLITTLE. Let's speak clear. You do not support it.

Assume because the source of the water was a small dam at Auburn.

Dr. MERAL. We would not support a small dam at Auburn.

Mr. DOOLITTLE. Mr. Uhler, your ideas are intriguing. I would love to see such a thing get established, and I believe the economics are there to do it, in terms of the water and the power, and then we can go, once it was built, to seek the reimbursement for the flood control portion of the dam, which amounts to about half the cost, half the total cost, I believe.

So I would welcome your active involvement in identifying a potential contributors to such an effort.

Mr. UHLER. We have already spoken with some folks at Morgan Stanley. They do this every day. Two-billion-dollar deals are rolling out of bed, and I am really surprised that the private alternative—the private funding alternative has not been explored previous to this.

Privatization has been taking place worldwide, the sale of government-owned businesses—a petroleum preserve recently sold. This is the alternative. There really is no justification to ask somebody in Texas or North Dakota or New Hampshire to solve the water problem or the flood problem for the people in California.

We can do it ourselves. We can raise the money locally and do it in a proper and rapid fashion. We can get the area controlled here.

And the business of environmentalists, self-styled environmentalists, standing in the way of the only solution to Sacramento's flooding problem, acknowledged by everyone who has looked at this, is, in my judgment, terribly shortsighted and terribly selfish.

Mr. DOOLITTLE. Dr. Meral, do you support the level of two-hundred-year protection for Sacramento?

Dr. MERAL. We would support it in content, the higher level—the highest level possible could be achieved, would be desirable, what's practical to achieve.

We are not in support of the Auburn Dam and will not be, so to the extent we can approve changes necessary at Folsom and to the extent the levees can improve our flood protection, we support that, if that could be done in a better way through that kind of operations to get to two hundred years, without the construction of Auburn Dam.

Mr. DOOLITTLE. What if it meant the draining—the increase in the amount of that reservoir allocated to that flood-flow containment?

Dr. MERAL. We would not because of the economic impact in the area.

Mr. DOOLITTLE. So you are concerned about that?

Dr. MERAL. Yes, we are. If two-hundred-year protection has to be achieved and everyone is willing to pay for it, probably the best way to achieve it is to go beyond what Congressman Matsui is proposing to go for additional levee increases in heighth because you can pass a larger flow.

We believe Matsui's plan provides protection against the largest flood we have ever experienced. We are not concerned a larger plan is necessary.

Mr. DOOLITTLE. Mr. Steffani, I understand that over the years San Joaquin County was induced by Sacramento and the Federal authorities not to develop its water supply in exchange for getting water from the Auburn Dam; is that your understanding?

Mr. STEFFANI. Well, there has been an understanding that goes back thirty years, I guess, that San Joaquin County would be ultimately supplied from Auburn, yes.

Mr. DOOLITTLE. So if there were never to be an Auburn, then you would experience rather severe consequences of your own.

Perhaps not only do you not impact on flooding but to the overdraft of your groundwater basin and shortage of available water?

Mr. STEFFANI. There has got to be some supply from the American River to San Joaquin county. Ultimately we won't depend on it for the total answer, but it's an important part.

May I continue for a moment?

Folsom Dam and Folsom South Canal were authorized in the sixties, I guess or the——

Mr. DOOLITTLE. 1965 they were authorized.

Mr. STEFFANI. [continuing] and public money was used to build these facilities that were—that had a very specific and defined purpose, and one of those purposes was water supply to San Joaquin County. We can't forget that. We don't just erase that. That is still on the books. People have depended upon that promise for thirty years. We have got to find a way to do it.

Mr. DOOLITTLE. Thank you.

Mr. Farr, you are recognized.

Mr. FARR. Sorry. I missed the testimony again.

I was very interested in Mr. Uhler being on the panel. I am just—you have been here all day and heard the debate, have you not?

Mr. UHLER. And I heard you say same old, same old, and you were right on.

Mr. FARR. The point from a taxpayer's standpoint having to make these choices, nobody is against the Auburn Dam, but they want to do the best effort flood mitigation and environmental——

Do you support, essentially, the Matsui approach?

Mr. UHLER. No, as I have said in my testimony. While the Congressman has the absolute best of intentions in proposing this and is doing so from his sense of the reality of what the Congress is going to vote for, he has acknowledged many times that he too supports the dam.

So the alternative that I presented was a privately funded dam. I believe a preliminary analysis of the value of water to be stored and sold with a high dam would be sizable? We have a couple of million acre feet of stored water at capacity, and in Folsom we have about a million one, something like that.

We could add the sale of at least a half a million, maybe seven-hundred-thousand-acre feet of water out of an Auburn storage facility. The water markets around the state are firming up, especially with farmers selling their surface water rights now, so it won't be too long before we can make firm contracts with water districts north and south. The electricity is the cleanest produced and very valuable commodity.

Mr. FARR. I understand putting hydro on Auburn would not be cost effective with rates coming down, that the costs of just the infrastructure building, the facility there, wouldn't pan out.

Mr. UHLER. That is not my understanding, and as I explained in my testimony, here's the way the rate structure seems to work

under regulated electricity. The way in which the Public Utility Commission and the rest figure the rates is that the cheapest comes on first. You get a stacking of the rate structures. So your cheapest, of which hydro is one, comes on first.

Nuclear is also inexpensive and always bore a very small per kilowatt hour cost in the marketplace but is still going to sell at the market rate.

So on a hot August afternoon, the fella who has the hydro plant is going to sell at whatever the marginal price is of the highest coal-fired plant.

Mr. FARR. Your point here, what you are representing is you believe that the reason Congress is supporting the building of the Auburn Dam is strictly fiscal, and if you made that private, then it would sail through, regardless of the concerns of people like Dr. Meral, who——

Mr. UHLER. Look, look. I am a sportsman. I am an outdoors man. I whitewater raft and all the rest, and these environmentalists do not speak for me, and they don't speak for an awful lot of people.

Mr. FARR. But they elect me, and I try to speak for them.

Mr. UHLER. That is fine. And I know common sense has to override preexisting notions of how the world works when you have a flood threat and water needs like you have in your district. This area could provide the water you need for your people. I think you are going to have to think twice about the environmentalist viewpoint.

Mr. FARR. I would like to share with you the taxpayers' viewpoint. I think we reflect that as well. I don't think you have the total say-so on that.

The voters in my district were given that option of building a dam, and they turned it down. They don't want to build a new dam. You know why? These are people in Pebble Beach.

They are conservative groups; right?

Mr. UHLER. When their taps go dry, Congressman, they might give it a second thought, and that is what's going to have to happen, sometimes, for us to get our thinking back to some common sense.

Mr. FARR. Let me point out there is a market rate common sense. You know what happens when the cost of water goes up? The cost goes down.

We have had a water shortage since 1975. We have not stopped taking baths, irrigating golf courses, although we do it with reclaimed water. This whole fear here, the fear is the worst case example of a flood.

The other side of the argument is the worst case scenario of a drought. We begin to learn Americanisms to cope, and we usually—best management practices are the most cost effective, and I don't think the jury is still out.

We know we can get better water utilization from agricultural, and frankly, the last part of the question here: If you are going to—if we were going to use this water for agricultural, don't you think there agriculture is quid pro quo? That the subsidized rate, with some kind of commitment, low cost, and turn it into urban sales.

Mr. UHLER. Clearly what's going on around the state, from what I observe and read, we are moving from a controlled government-

subsidized world into one in which markets play a part, and you are absolutely right: Supply/demand curves in basic economics produce prices and produce the consumption levels.

All I am suggesting—and I have listened all day to taxpayer-provided dollar solutions to this problem—is an alternative which considers the value of commodities of water, hydropower, and flood protection, which can be translated into dollars and cents. If there is a gap between that and the payoff of the borrowed funds on a thirty- or fifty-year mortgage program, then the governmental levels ought to step in and say "All right, Congress, we want three hundred million and the state of California. We want a hundred million to fill the gap, but you own part of that dam, and you will have an asset interest."

And after twenty-five years or twenty years of the operation, and the pay down of the debt, we will refinance, pay off the asset value to the state and the government too, the taxpayer never misses a beat, never misses a dime, and we have what we need for flood protection, for hydro, and for water.

Mr. FARR. Does that process require a vote for assessment?

Mr. UHLER. It will require some people in the legislature, I assume. Should the Congress vote to turn the property over to the state?

It will take some people with some guts to withstand the environmental implications in this body right here in order to get this thing done. Yes, it will take that.

Mr. FARR. And that will take a two-thirds vote of this body, won't it?

Mr. UHLER. I don't think so.

Mr. FARR. You are not supporting a two-thirds vote for——

Mr. UHLER. It's premature. You are talking the method of financing. The budget of this state has always required a two-thirds vote, and I would assume, given all we have, a seventy-five-billion-dollar budget in this state, I am sure pocket money of a couple hundred million bucks could be found someplace to fill the gap to protect the capital city of California.

Mr. FARR. It's all being sent back to the automobile owners.

Mr. DOOLITTLE. Mr. Pombo?

Mr. POMBO. Thank you, Mr. Chairman. You have heard the testimony we had earlier today, everybody from the Army Corps to the Bureau of Reclamation to the local elected officials have stated that the best economic and technical method of dealing with the flood control problem in Sacramento in this region would be the Auburn Dam.

I would like to ask the panel: Do you agree with that statement in terms of your knowledge of the technical and economic benefit. Mr. Uhler?

Mr. UHLER. Restate it for me, if you would, Congressman?

Mr. POMBO. The testimony we had earlier today was that the best economic method and best technical method for supplying flood control for this region was the Auburn Dam.

Do you agree with that?

Mr. UHLER. It's obvious everything I read tells me that we have got to have more than two hundred years to two fifty to meet the newly calculated American River watershed problem, and there is

only one solution that everybody acknowledges. There is only one solution that meets that need, and that is the high dam at Auburn.

And while you are at it, what's the purpose of simply building a flood control when if we throw in a few more bucks you can have water, you can have the water sales, you can have hydro, and you know, why not go the final step and do it the right way.

Mr. POMBO. I believe in their calculations that they are considering that in terms of economics of it, that the economics of it will not work unless we provide a water source as well.

Mr. Steffani?

Mr. STEFFANI. A dam at Auburn, as I stated in my presentation, I think a small dam at Auburn plus reop at Folsom will give you the two-hundred-year protection.

What I don't know today is what the cost of that combination might be or if there are other environmental impacts. I don't know. I don't think anybody has looked at that alternative. I would ask that we do that so we are sure we covered all the bases.

Mr. POMBO. Dr. Meral?

Dr. MERAL. Having spent thirty years on this and supervised multimillion dollars on this study, Auburn Dam won't meet the test that Mr. Uhler proposes. I would like to see it tried, but my concern is whether the private sector really wants to invest it in. That is the best test in the——

I would be interested in seeing if a private company would want to try to invest in the Auburn Dam. It's not economically feasible, not understand the types of studies or under private sector, if the private sector wants to come in and look at it, that would be interesting.

Based on my own experience it is not technology—earthquake problem, and the problem it doesn't control the South Fork, which hasn't come up today. I don't believe it has the positive benefit cost ratio.

Mr. POMBO. One direct question I would have for you is from your testimony, you are familiar with the Matsui plan. You are familiar with a similar plan in the early 1980's.

What we are talking about is raising the levees and riprapping. You support doing that?

Dr. MERAL. Yes.

Mr. POMBO. That is coming from your vantage point that surprises me. Riprapping the levees down in my part of my district down in the Delta where I am from, we would love to be able to fix our levees and riprap them, and we run into opposition from the environmentalists every time we bring it up.

Dr. MERAL. As distinguished from Calaveras River, the real difference is the American River Parkway, which is essentially the floodplain of the American River today, is by and large, pretty much in a natural state except for the levees. The levees are, by and large, sanitized today because of engineering concerns and flood control concerns.

The habitat that you have in some extent is not present on the American River levees. They are maintained in a highly engineered state during boils, things like that, so the changes that would have to be done to the levee, such as the slurry wall, things like that, would not be serious degradation, which it might be. The levees

work in our area along the American River. Why Congressman Matsui that you referred to.

Mr. POMBO. I find that really interesting because I have been through these battles all my adult life, and having grown up out in the Delta, having had the opportunity to see what happens with our particular levee system, and I am very familiar with the American River system because I represent a good part of it, and I know what's there, and there is not a lot there that is natural.

I am saying you stated that it was pretty much in its natural state. Quite frankly, it's not. It's in a man-made, manufactured state, that, in some ways, replicates a natural state, but there is nothing there managed for a hundred years, and it's not really natural nor are the levee systems in the Delta in a natural state.

Dr. MERAL. What I meant: Not the levees are a natural state. The area below the levees inside along the river are still more or less in a natural state. They are certainly not like they were. But I mean, the area—the land that is not protected by the levees inside the floodplain channel. That is what I was referring to.

Mr. POMBO. I realize that is what you are referring to. I think you would have a real difficult time making a case that that is natural.

Dr. MERAL. We have a lot of nonnative plants, I agree with that.

Mr. POMBO. Bypass and a lot of other things I don't think nature created.

Just for the sake of argument, I am a little bit surprised to hear you support that plan because I know what kind of opposition we have gotten from trying to maintain our levee systems down in the Delta, and it has been fierce opposition to maintaining the levee system, and it has taken years to do routine maintenance on a system because of lawsuits that have been filed and everything else.

I find it interesting that we have gone from that to supporting this particular plan, and it's very interesting that we have gotten to that point.

Dr. MERAL. In my normal role at this table as a state lobbyist, we have strongly supported—we work with George, basically, and many others in the Delta to come up with money in 204, which many Members of Congress support as well too. That is a very high priority. We are concerned about the natural protecting of those levees, and a lot of money has been spent to do that. I used to be in charge of that program, and it's got to be done.

Mr. POMBO. Thank you, Mr. Chairman.

Mr. DOOLITTLE. Thank you. Mr. Matsui?

Mr. MATSUI. I don't have any questions.

I would like to thank you, Mr. Uhler, Mr. Steffani, Dr. Meral, for testifying here today.

Mr. Chairman, if would you indulge me, I would like to thank the members that came from outside of the Sacramento area, including yourself, today to be part of this hearing.

I would like to conclude by saying I really appreciate your judiciousness and evenhandedness, whatever side we have to be on. We had every opportunity to ask any question we wanted to, and the witnesses had every opportunity to respond.

I want to thank you very much. I thought it was a very fair, very open, and very even hearing, and so I appreciate it, and I wanted to extend my appreciation to you.

Mr. DOOLITTLE. Thank you. I do appreciate that, and I thank all of our witnesses. And I want to especially thank our court reporter. If I realized this would have dragged on for this long—Keli Rutherdale has done an outstanding job. This hearing has gone on for six and a half hours.

I guess we will learn from this. I think a great deal of the valuable information has been induced from the hearing. I think understanding has been increased to the State Assembly.

I acknowledge their assistance in providing the hearing room, to the State Senate for assisting us with security, and specifically to our Senate sergeant-at-arms and his staff. We are grateful for the help you have given us and to the State Police, as well, with helping for security. And to our Committee staff who have worked a great deal to make this hearing possible.

We no doubt will have further questions for you and will try to get those to you soon and ask for you to respond expeditiously and hold the record open for that purpose.

And with that, we will excuse this panel and this hearing is adjourned.

[Whereupon, at 4:31 p.m., the Subcommittee was adjourned.]

[Additional material submitted for the record follows.]

STATEMENT OF ROGER PATTERSON, REGIONAL DIRECTOR, MID-PACIFIC REGION, BUREAU OF RECLAMATION, DEPARTMENT OF THE INTERIOR

Mr. Chairman and Members of the Subcommittee, thank you for the invitation to attend today's oversight hearing on proposals to modify Folsom Dam. I appreciate the opportunity to discuss the technical and operational aspects of this issue.

The Bureau of Reclamation believes flood protection for the Sacramento area, and efforts to protect Folsom Dam during a flood emergency are extremely important. In response to our concern, Reclamation entered into an interim reoperation agreement with the Sacramento Area Flood Control Agency (SAFCA) in an effort to provide 100 year flood protection until the flood control solution for Sacramento was determined. However, our hydrological analysis to date has shown, based on the 1997 flood, that 100 year protection may not be provided by reoperation alone.

For this reason, the Administration in the Water Resources Development Act of 1998 sent to Congress last month a provision to address flood control concerns in Sacramento. Section 3 authorizes the construction of the Folsom Stepped Release Plan identified in the U.S. Army Corps Engineers Supplemental Information Report dated March 1996. Section 3 authorizes the Secretary of the Army with full participation of the Secretary of the Interior to modify Folsom Dam. Prior to making any changes at Folsom, the Secretary of the Army must review the design plans to determine if modifications are necessary to account for changed hydrological conditions and any other changed conditions in the project area, including operational and construction impacts.

The Bureau of Reclamation believes there are engineering and logistical issues associated with the Stepped Release Plan developed by the Corps. We will be pleased to work with the Army Corps of Engineers and local flood control officials to evaluate the flood capabilities of the various proposals for modifying Folsom Dam. For example, we believe a design that incorporated new and/or enlarged outlets may be more workable but could result in a slight reduction in flood control benefits.

Reclamation's recent experience constructing emergency repairs at Folsom Gate number 3 sheds some light on potential problems. Totally sealing and leak-proofing the construction zone was difficult. If modifications to Folsom Dam are approved, we will make every attempt to ensure that the work area can be leak-proofed so that work will proceed with minimal disruptions.

We also recognize the importance of working closely with state and local officials to minimize the disruption of commuter traffic and area businesses. Closures of Folsom Dam Road would be kept to a minimum.

These considerations, notwithstanding, it is clear to us from flood operations in 1997 that modifications to Folsom Dam are necessary. The limited ability to make adequate releases from the reservoir in advance of oncoming storms is a serious concern to Reclamation and it is a situation that should be addressed.

In summary Mr. Chairman, we agree that modifications to Folsom Dam are critical to providing flood control for Sacramento. We will fully cooperate with the Corps and local officials should Congress authorize the modifications.

Thank you for the opportunity to testify. I would be pleased to answer any questions you may have.

STATEMENT OF THE CALIFORNIA RECLAMATION BOARD

The Reclamation Board has State responsibility for flood control in the drainage areas in the Sacramento and San Joaquin rivers and tributaries. This includes the American River. In that role the Board is responsible to either, (1) act as non-Federal sponsor and provide State portion of cost sharing and act as lead agency under the California Environmental Quality Act, or (2) review the project and grant or deny a permit if the Reclamation Board is not acting as nonFederal sponsor.

The Reclamation Board has stated its position for providing the greater Sacramento area improved flood protection on three different occasions. March 20, 1998, they passed Resolution 98-04; April 20, 1998, a letter to congressional representatives restating the Resolution 98-04 position, implying that there was a substantial difference between raising levees and fixing levees and that raising any hydraulic structure is a serious issue and creates many concerns that must be addressed; and May 22, 1998, a second letter to congressional representatives restating in more definitive terms our position and concerns.

The Board's position is to ultimately provide the Sacramento area with a minimum two-hundred year level of protection. The next incremental step that appears prudent to obtain that goal is to modify Folsom Dam and further study the levee raising to answer numerous technical issues. The Board is prepared to act as local sponsor and seek State funding for modifying Folsom. At this point in time, the

Board is not prepared to act as local sponsor nor provide State funding for raising the levees.

The Board strongly supports repairing levees as has been demonstrated in their participation as nonFederal sponsor and funding on projects throughout the Sacramento Valley. However, the Board has serious concerns on raising levees to routinely pass increased flows and have higher stages on the American River system. Concerns exist in four categories:

- Dependability—
- The Stepped Release Plan must be proven to be a dependable and fiscally prudent incremental step for improved flood protection. Also note that the Corps requires a waiver to their 90 percent reliability policy in order to certify the Stepped Release Plan or Folsom Modification Plan for FEMA 100-year protection.
- Engineering—
- The Stepped Release Plan must be thoroughly developed to the technical level normally provided by the Corps prior to considering State authorization. This requires further detailed studies on many issues, such as bank and levee erosion protection or levee and foundation stability and seepage concerns.
- Cost—
- Based upon the levee problems encountered in recent floods and the additional engineering and environmental studies that are needed, we seriously question the accuracy of the project scope and estimated cost. In fact, the Stepped Release Plan does not appear to meet Corps policy for cost effectiveness and Federal cost sharing.
- Mitigation—
- The Stepped Release Plan will create hydraulic effects downstream and upstream in the Sacramento River and the Yolo Bypass that require further analysis for determining the impacts and mitigation. Additionally the environmental impacts have not been evaluated in detail nor have the hydraulic and environmental impacts and mitigation been fully presented to the public for full disclosure and comment as a recommended plan for flood control.

STATEMENT OF CARL F. ENSON, DIRECTOR OF ENGINEERING AND TECHNICAL SERVICES, U.S. ARMY CORPS OF ENGINEERS, DEPARTMENT OF THE ARMY, SOUTH PACIFIC DIVISION

INTRODUCTION

Mr. Chairman and Members of the Subcommittee, I am Carl F. Enson, Director of Engineering and Technical Services for the South Pacific Division of the U.S. Army Corps of Engineers. Accompanying me are Colonel Dorothy F. Klasse, Commander of the Sacramento District of Army Corps of Engineers, and Mr. Robert D. Childs, Project Manager in the Sacramento District. We are here today representing Dr. John H. Zirschky, the Acting Assistant Secretary of the Army for Civil Works, to respond to the issues raised in your letter of invitation concerning impacts and effects of the proposed modifications to Folsom Dam.

ISSUES AND CONCERNS

The following comments are intended to respond to each of the five issues and concerns identified your letter.

"the traffic impacts caused by construction on the dam road"

Alternative flood control plans for the American River, including the Stepped Release Plan, were formulated and evaluated in the Supplemental Information Report (SIR) produced by the Corps of Engineers in 1996. The Stepped Release Plan as deemed in the SIR includes lowering the spillway to allow a greater amount of water to be released sooner, thus increasing the effectiveness of the flood storage space behind the Folsom Dam. Although the SIR reported no major impacts to traffic through closure of Folsom Dam Road, we now believe lowering the spillway would result in regular closing of Folsom Dam Road during construction. An alternative to spillway lowering is to increase the number of low level outlets through the dam. This outlets option is slightly less effective at reducing flood risk than spillway lowering, but would result in only occasional closure of Folsom Dam Road during construction. The Corps is working closely with the Bureau of Reclamation on this and other dam modification issues. This issue would be addressed during the design of the Folsom Dam modifications.

"the impact of the proposal on local water supply"

The Stepped Release Plan would not adversely affect water supply. The Folsom Dam is currently operated using a variable maximum flood control space between 400,000 and 670,000 acre feet. The flood control space is set depending on flood control storage space available at five other reservoirs upstream of Folsom. Folsom Reservoir originally had a fixed flood control storage pool of 400,000 acre feet. The current operation reduces the space available for water supply compared with the original operation. The current operation was initially the result of an agreement between the Sacramento Area Flood Control Agency and the Bureau of Reclamation to increase flood control storage available in Folsom Dam. Continuation of this operation was authorized in the Water Resources Development Act of 1996. The Stepped Release Plan is based on continuation of this operation for variable flood control storage in Folsom Dam.

"the reliability of the proposal, including the safety concerns caused by releasing 180,000 cfs from Folsom Dam"

The Stepped Release Plan includes modifications to the flood control outlet facilities at Folsom Dam, increased use of surcharge storage space in Folsom Reservoir, and increasing the objective release to the lower American River from 115,000 cubic feet per second (cfs) to a maximum of 180,000 cfs. The higher objective release requires significant modifications to the existing levee and channel system along the lower American River and Sacramento and Yolo Bypasses. The plan would result in a decrease in the likelihood of flooding in the greater Sacramento area from about 1 in 77 to about 1 in 160 in any year.

Based on information known to the Corps today, we believe the existing system can be modified to reliably pass an objective release of 180,000 cfs. Certainly, additional studies are required to design specific project features. We will have to consider factors such as hydrology, river stage, estimated levee stability, and operation of facilities.

"the effects of the proposal on downstream and upstream communities"

As mentioned, the Stepped Release Plan includes increasing the objective release for flood control from Folsom Dam to a maximum of 180,000 cfs. A fundamental conclusion regarding this plan in the 1996 SIR was that without increasing the flow capacity at the Sacramento Weir and Bypass and modifying some of the levees along the Yolo Bypass, the increased flows exiting the American River would reduce the existing level of flood protection along the lower Sacramento River and elsewhere. Accordingly, to mitigate this impact, the Stepped Release Plan included widening the Sacramento Weir and Bypass by about 1,000 feet and constructing improvements to about 52 miles of existing levees along the Yolo Bypass and downstream sloughs. It is the intent of these modifications to not increase the water surface elevations during design events upstream along American River or Sacramento River. Whether or not these features would ultimately be defined as all those necessary to fully mitigate for any increased river stages and/or flows will need to be determined in more detailed evaluations conducted prior to project construction. It is our intent to fully mitigate for any effects the Stepped Release Plan would have on downstream areas.

"the environmental consequences of the proposal"

The levee work in the Stepped Release Plan as described in the 1996 SIR would have impacts including the expected loss of about 40 acres of riparian vegetation and oak woodland along the lower American River and approximately 120 acres of riparian and oak woodland cover and wetlands would be lost due to construction in the Sacramento and Yolo Bypass areas downstream of the American River. These losses would be mitigated as a project activity at sites in the project area. As with the other elements of this plan, environmental impacts and potential mitigation features would need to be reevaluated as part of any future studies. The Folsom Dam modifications primary impacts during the construction period would be to air quality, local traffic patterns and noise levels. Dam operation with the modifications would result in occasional changes to flows in the lower American River and changes to the reservoir water surface elevations. These changes would have little effect on environmental resources.

CONCLUSION

Mr. Chairman, that concludes my testimony. I can assure you that the Corps of Engineers will work with our Federal, state and local partners and affected parties to address the issues raised and undertake expedited efforts to assure reliable flood protection along the American River and in the Sacramento area.

STATEMENT OF RAYMOND COSTA, JR., PRINCIPAL ENGINEER, KLEINFELDER, INC.

LEVEE IMPACTS

Flood control solutions generally involve storage, diversion, and/or conveyance. Storage is achieved by constructing dams, diversion is accomplished with bypasses, and conveyance is usually facilitated with levees. Many local flood control experts believe that increased storage (in the form of a structure along the North Fork of the American River) is the most efficient means to increase the flood protection for Sacramento. However, recent attempts to obtain authorization and funding for such a structure have not been successful. As a result, a proposal has been put forth to increase flood protection through modification to levees along the American River, portions of the Sacramento River, Sacramento Bypass, and Yolo Bypass. These levee modifications include raising, strengthening, and armoring in order to safely convey an objective release of 180,000 cubic feet per second (cfs) from Folsom Dam.

The role of a geotechnical engineer in this decision making process is to provide input to the decision makers concerning the relative risks associated with levee modifications. Once a decision is made, it becomes the geotechnical engineers role to design a system that is both safe and meets the expectations of the public.

This increased discharge from the current objective release of 115,000 cfs relates to two principal geotechnical impacts to the existing levee system. The first is a raising of the maximum water surface level (stage) and the second is an increase in flow velocity along the levees.

The resultant effects of these two potential impacts are as follows:

Increased Stage

- Reduction in safe height (freeboard) above the maximum water surface
- Increased water pressure against the levee embankments

Increased Flow Velocity

- Increased erosional forces on the levees

Each of these impacts can be mitigated using conventional engineering design and construction techniques. These techniques are not unique to this application having been utilized successfully within other portions of the Sacramento River Flood Control System.

Some of these techniques are as follows:

Increased Stage

- The levees can be raised with either earthen materials or where access is limited, concrete floodwalls. For every one foot in levee vertical height increase, the levee embankment increases five feet in width. A normal freeboard amount of three feet can be provided.
- Earthen buttresses and/or seepage relief improvements can be constructed to provide enhanced stability against greater water pressure. The current program of slurry wall construction within the levees should enhance the seepage/stability of the earthen embankments. In other areas, land side earthen buttresses can be provided to increase the levee slope stability.

Increased Flow Velocity

- Rock slope protection can be provided to armor slopes where flow velocities would increase and threaten to erode the levee surface.

In summary, due to increased objective releases, potential impacts to levee integrity can be mitigated by conventional engineering design and construction techniques. Existing factors of safety can be maintained or improved under conditions of increased water surface elevations and flow velocities.

It is important to also note that all flood control improvements require continued monitoring and maintenance. This will be especially important for a system designed to convey an objective release of 180,000 cfs.

Raymond Costa, Jr.,
Principal Engineer

Summary of Experience

Mr. Costa is both a California licensed civil and geotechnical engineer with more than 22 years of project management experience. He has provided design, evaluation, and construction recommendations for more than 200km of levee projects involving bank stability, erosion, seepage, and settlement analyses. Mr. Costa is also knowledgeable in coordinating design and construction projects with various flood control agencies and districts including the Sacramento District Corps of Engineers, State Reclamation Board, and Sacramento Area Flood Control Agency.

Education

BS Civil Engineering, University of California, Davis, California, 1976

Registrations

Civil Engineer, 29078, California, 1978
Geotechnical Engineer, 241, California, 1987

Professional Affiliations

American Society of Civil Engineers
American Public Works Association
Society of American Military Engineers
Structural Engineers Association of Central California
Association of Drilled Shaft Contractors

Select Project Experience

A representative selection of Mr. Costa's project experience is included below:

Geotechnical Investigations, Emergency Levee Repairs, U.S. Army Corps of Engineers, Sacramento River Valley, California. Project manager for emergency response assessment of levee damage associated with January 1997 flooding in accordance with Public Law 84-99. Four separate basins were investigated for inclusion within the emergency levee repair program. Scope of work involved levee stability and seepage evaluation, erosion analyses, geotechnical investigations, cost benefit economic determinations and preparation of cost estimates, plans and specifications. All work was completed on an accelerated time schedule in order that construction could be completed prior to the following flood season.

Geotechnical Engineering, Natomas Area Flood Control Improvements (SAFCA), Sacramento and Sutter Counties, California. Provided geotechnical engineering services for the Sacramento Area Flood Control Agency for flood control improvements. Project manager in responsible charge of the design and construction monitoring of over 30km of levee strengthening and raising. Coordinated all work with Sacramento District COE, State Reclamation Board, and local levee maintenance districts. Verified work was completed in accordance with COE design and construction methods.

Geotechnical Engineering, Feather River Levee, Sutter County, California. Completed a geotechnical investigation for a major groundwater water collection system constructed south of Yuba City. Project manager in responsible charge of the firm's analysis and design of a seepage collection system at the location of 1955 levee break. Coordinated all work with Sacramento District COE, State Reclamation Board, Levee District 1, and project civil engineer. Responsible for design of relief wells, relief trench drains, and seepage interceptor trenches. Performed slope stability analyses of adjacent levee.

Slope Stability Analysis, Marysville Levee System, Marysville, California. Project manager for slope stability analysis of over 7 miles of levee which surrounds Marysville. Explored, instrumented, and currently monitoring area of possible levee movement. Instrumentation as a suspected soil creep area performed after 1986 floods.

Slope Stability Design, Beach Lake Levee Repair, Sacramento, California. Project engineer in charge of repair of damaged section of levee during 1986 flood. Slope failure area was removed and entire 2 miles levee alignment was buttressed with an earthen fill to enhance levee stability.

Evaluation Studies, Lower American River Levees, Sacramento, California. Project manager for local agency review of Corps of Engineers preliminary levee evaluation studies. Scope included stability, seepage, and erosion analysis of 26 miles of levees.

Geotechnical Investigation, Laguna Creek Levees, Sacramento, California. Principal-in-charge of investigation for 4.3 miles of new levees surrounding Laguna Creek subdivision. FEMA approval was accomplished.

Earth Fill Design, Harvey Place Dam, Alpine County, California. Project manager and senior engineer during dam construction of 3,900 acre foot treated wastewater storage reservoir. Main dam included an 80 ft. high earth embankment. Provided earth fill dam design, supervised borrow pit explorations, laboratory testing, and dam instrumentation. Worked with geologists to assess foundation shear zones and develop seismic "crack supper" mitigation measures. DSOD permitting required for project.

Geotechnical Investigation, Anderson Ranch Dam, Nevada City, California. Project manager for geotechnical investigation and construction monitoring services for this 30-foot dam located in Nevada City, California. Project included earth fill dam de-

sign and investigation of borrow sources which included the use of decomposed granitic rock. DSOD permitting required for project.

Photogeologic Lineament Analysis, Pine Flat Reservoir, Fresno and Tulare Counties, California. Conducted a photogeologic lineament analysis and fault capability study of an area approximately 32km in radius around Pine Flat Dam and Reservoir in Fresno and Tulare Counties, CA. Project manager in responsible charge of coordinating and conducting geologic analyses and identification of lineaments by overseeing detailed photolineament analysis of the study area. Made recommendations for subsurface exploration at locations within the study areas to assess the origin of mapped lineaments.

California State Prison Ione, Amador County, California. Project engineer for siting study for wastewater storage reservoir constructed for new prison. DSOD review required.

California State Prison Coalinga, Fresno County, California. Project manager for geotechnical siting study and design of 250 acre effluent storage and treatment ponds. The project was configured with intermediate dikes such that DSOD jurisdiction and approval was not required.

STATEMENT OF RICARDO S. PINEDA, CHIEF ENGINEER, THE CALIFORNIA RECLAMATION BOARD

My name is Ricardo Pineda and I am the Chief Engineer for the Reclamation Board of the State of California. I am here today to present my views as a professional engineer on the various technical concerns the Reclamation Board has regarding the proposed Stepped Release Plan (SRP).

My comments on the SRP focus on four specific areas:

1. Reliability of the project to pass the design discharge
2. Hydraulic impacts
3. Environmental impacts
4. Cost of the project

Reliability

The Stepped Release Plan will be designed to pass a controlled discharge from Folsom Dam of up to 180,000 cubic feet per second. This discharge is about 50,000 cfs greater than the maximum flow ever released from Folsom Dam. To safely pass this flow, levees along the American River will need to be raised and new levees and floodwalls will need to be built. The new and existing levees will need to be protected against erosion by the placement of rock on the waterside levee slope. Existing riverbank protection may need to be modified to account for the higher flow velocities associated with the increased objective release. The 180,000 cfs objective release will strain the downstream levee system and require it to work flawlessly in order to safely convey the flows through narrow parts of the levee system. There cannot be a single weak link throughout the complete length of the levee system.

Damage to Federal and State levees caused by the floods of 1997 and 1998 highlight the need to take a very cautious approach relative to increased dependence on levees for flood control. Elements of the SRP associated with levee stability, foundation seepage, and erosion protection will need to be carefully planned, analyzed and designed to ensure that there will be no failure, expected or unexpected.

The Reclamation Board in four different resolutions has stated its intent to support at a minimum, a 200-year level of flood protection. The safest and most reliable way to provide protection at this level, is through additional flood control storage upstream of Folsom Dam. The Corps reliability analysis show that flood control storage upstream of Folsom Dam is the only option that provides a minimum 200-year level of flood protection with a high reliability (90 percent).

Hydraulic Impacts

The SRP increases the objective release from Folsom Dam from the current 115,000 cfs to a stepped 145,000 cfs/180,000 cfs level. To account for the additional flows, the downstream Sacramento River and Yolo Bypass flood control system must be modified to safely convey the increased discharge from the American River to the Yolo Bypass. To accomplish this transfer without adverse impacts to the system, the 1996 report estimated that the Sacramento Weir would need to be widened about 1,000 feet, a new Sacramento Weir north levee would be constructed, approximately 26 miles of Yolo Bypass levees would be raised and 38 miles of Yolo Bypass levee strengthened.

The widened Sacramento Bypass would encompass an abandoned landfill located in Yolo County. Dependent upon modeling assumptions and criteria for determining

the need for hydraulic mitigation, additional downstream levee improvements may be necessary.

The Reclamation Board plays a vital role as the caretaker of the Sacramento River Flood Control Project. Levee maintenance districts both large and small depend on the Board acting through the Department of Water Resources to ensure that the system is operated safely, maintained properly and that modifications to project facilities that decrease the potential for flood damages in one community does not increase the risk of flooding in another. The Board takes this role very seriously and will need to fully evaluate project impacts and proposed mitigation before taking any action to recommend approval of a levee based American River flood control project.

Environmental Impacts

According to the 1996 report, the SRP requires about 13.5 miles of American River levee raising, 5.8 miles of levee erosion protection, new levees and floodwalls, modifications of three bridges, extensive modification to city and county pump and drainage facilities, and extensive levee work along the Sacramento Bypass and Yolo Bypass. While environmental restoration is proposed for the lower American River, a detailed accounting of environmental impacts associated with the project, especially along the lower American River has not been fully documented or publicized relative to a project of this magnitude or scope. For the Reclamation Board to act as lead agency under the California Environmental Quality Act, additional environmental analyses and public outreach will be necessary.

Cost of the Project

The 1996 Chief of Engineers report estimated the cost of the downstream levee improvements at approximately $313 million. Based upon the Board's experience in the 1997 and 1998 floods, I firmly believe that levee improvements in addition to those described in the 1996 report would be necessary if considering a levee based plan for the American River. In addition, dependent upon the criteria used for computing hydraulic impacts and the policy for hydraulic mitigation, we may be underestimating the amount of work associated with impacts to the downstream system. Current court cases indicate this to be the case. Dependent upon the final amount of structural levee, bridge, and pump/drainage facility work necessary for the project to safely convey 180,000 cfs, the project cost may increase significantly above that which is estimated in the Chief's report.

STATEMENT OF JOSEPH D. COUNTRYMAN, PE, (ENGINEER CONSULTANT TO SAFCA)

INTRODUCTION

I am Joseph D. Countryman, a resident in the American River flood plain. The issues before us today are more than just a technical curiosity to me since I will join 40O,000 other people in the Sacramento area as a flood victim should the American River breach its levees. I have worked as a civil engineer in California for over 30 years planning, designing and operating flood control facilities. The first 21 years of my career were with the U.S. Army Corps of Engineers. During that period I was chief of Reservoir Operations, and I ended my career with the Corps as Chief of Civil Design. The last 11 years I have been in private practice with the firm of Murray, Burns and Kienlen (MBK), a civil engineering company. I am a principal at MBK. Our company works exclusively on flood control and water resources issues.

I have reviewed the statement provided to your Committee by SAFCA, and I concur with both the technical presentation therein and the logic presented supporting the construction of the Folsom Dam modifications and the improvements in downstream levees. I will not reiterate the descriptions provided in that testimony. I will provide specific technical data in my testimony pertinent to the issues on which you have requested additional information. As I understand the purpose of this hearing, it is to explore questions on construction impacts at Folsom Dam relative to traffic, water supply and recreation. In addition, the impact raising American River levees and the consequent higher objective flood releases in the lower American River would have on the overall flood control system reliability will be reviewed.

FOLSOM MODIFICATION IMPACTS

Traffic. The modification of Folsom Dam to improve its outlet capacity under the original plan proposed by the Corps would have a substantial impact on traffic that uses the top of the dam as a highway. My report, prepared for SAFCA in March 1998, indicated that the lowering of the spillways at Folsom Dam would cause the road to be closed for a substantial period over nine years. Construction of new river outlets or the enlarging of the existing outlets will have minimal impacts on traffic

and no impacts during peak travel periods. In our report we recommended that the lowering of the spillway bays be replaced with the addition of five new river outlets because it would be less costly, it would essentially eliminate traffic impacts, and could be constructed in two years. I believe once the Folsom Dam modifications are authorized by Congress, the Corps will confirm my findings in their Preconstruction Engineering and Design (PED) studies.

Separate from the issue of modifications to Folsom Dam, the use of the top-of-dam road by the public should be addressed. The public highway interferes with the operation and maintenance of the dam. If possible, a bridge should be constructed downstream of the dam to move the traffic off of the dam to improve safety for the personnel at the dam and to facilitate Reclamation's ability to operate and maintain the structure. If future emergency operations are required, then this critical transportation link across the American River would not be lost during the emergency.

Water Supply Impacts. The proposed modifications to Folsom Dam and the time extension of the reoperation for flood control would not have any impact on local water supply. Construction of improved pumping capacity at Folsom Dam is currently underway and will be finished this year. This new water supply pumping capability will assure Roseville, Folsom, San Juan Water District and Placer County Water Agency that they will be able to obtain their water from Folsom Lake.

The addition of the new outlets will allow a reduction in the existing reoperation flood space due to the increased efficiency of the flood control operation. The reoperation flood space could be reduced from 270,000 acre-feet to 200,000 acre-feet, a 25 percent reduction once the Folsom Dam outlets are modified. Therefore the adoption of this plan would substantially reduce the chance that the CVP water supply or other uses of Folsom Dam would be impacted by the revised flood operations plan. In addition, I am now working with the Corps, Reclamation, National Weather Service and the State Flood Center to determine if the utilization of currently available flood forecasting technology can be implemented that would improve flood operations and water supply performance at the dam. If we are successful in developing a new operation schedule based on the use of this technology, flood control, recreation and water supply will all benefit. I would be happy to keep you informed of progress we make in this area.

AMERICAN RIVER LEVEE RELIABILITY

Would the American River levees be more or less reliable if they were designed to pass 180,000 cfs? The existing Federal levees along the American River were designed to pass 152,000 cfs with 3 feet of freeboard under emergency conditions or 115,000 cfs under "normal" flood operations. During the 1986 flood, a 134,000 cfs was safely passed down the American River. The "Stepped Release Plan" envisions a "normal" flood operations flow of 145,000 cfs and an extreme event release of 180,000 cfs. From a flood control perspective, the design of a flood system can be made more reliable with lower flows than for higher flows. This is because the higher a levee is the greater the forces are working against that levee. The height of the water and the erosive force of the water against the levee are factors. When a reservoir is involved in the flood control design, higher controlled flood releases actually reduce the maximum flows that the downstream levees must carry. I have attached *Chart 1* to this presentation which illustrates this point with the 150-year flood under three operating conditions; (1) existing Folsom Dam facilities and operation plan, (2) modify Folsom Dam (new outlets + enlarge existing outlets) with 115,000 cfs objective flood release, and (3) modify Folsom Dam with "stepped" 145,000 cfs—180,000 cfs objective flood release. The chart shows that the flow will be nearly 350,000 cfs in the American River with the existing Folsom Dam facilities and operation plan. I can assure you that the American River levees will not pass flows of this magnitude without breaching, and I have no doubt that Sacramento River levees and Yolo Bypass levees will also be severely impacted. Modifying Folsom Dam while keeping the objective flood release of 115,000 cfs would reduce the American River flows to about 230,000 cfs. Again, the American River levees will be overwhelmed by a flow of this magnitude. Finally, by adopting the "stepped" objective flood release schedule, flows in the American River can be controlled to 180,000 cts. Hydraulic modeling studies by the Corps indicate flows of this magnitude can be safely accommodated within the American River levees. Therefore, the system will be much safer with the increased objective flows than if the current objective flow of 115,000 cfs is maintained.

I reviewed the existing Sacramento River Flood Control System levees to determine if either the flow magnitudes or levee heights required along the American River by the "Stepped Release Plan" were consistent with the rest of the system; *Chart 2* summarizes my research. The American River levees, after modification to pass the emergency release of 180,000 cfs, compare favorably with the Feather

River, Sacramento River and Yolo Bypass levees. Another factor to consider is the extensive bank protection currently underway along the American River that is significantly improving the protection of the levees from lateral erosion.

Another issue relating to flood protection reliability is the size of the flood that can be controlled by the dam and levees. I have prepared an illustration, *Chart 3,* showing the relative performance of the proposed flood system alternatives. This chart compares the size of the flood that can be controlled by Auburn Dam, Folsom Dam and Levee Modifications, and Folsom Dam Modifications to the 1997 Flood (the largest flood recorded on the American River since 1860). The Dam and Levee Plan will safely control a flood nearly 70 percent larger than the record 1997 flood.

My conclusion is that the American River levee system will be much more reliable with the proposed dam and levee modifications than the existing condition levee and dam system.

DOWNSTREAM AND UPSTREAM AFFECTS OF THE PROPOSED PROJECT

The hydraulic impacts of the Dam and Levee Plan have been documented by the Corps. The Dam & Levee Plan includes widening the Sacramento Weir to accommodate the increased objective releases from the American River. Because of this weir widening, the river stages in the Sacramento River will be reduced since additional water will be transferred to the Yolo Bypass. The Corps hydraulic modeling indicates that the limit of the upstream hydraulic impacts of the project is near Verona on the Sacramento River and downstream of the Fremont Weir in the Yolo Bypass. I have attached a map that shows the Corps' proposed hydraulic mitigation work in the Yolo Bypass to offset the increased flows in the Yolo Bypass. Although the Corps studies did not identify any impacts downstream of the Yolo Bypass due to increased flows in the bypass, this conclusion was partially based on engineering judgment. I understand detailed design studies will be completed by the Corps following Federal authorization of the project to quantify their findings. They will expand their hydraulic modeling effort to assure that downstream concerns about impacts of the project are evaluated in detail. Additional impacts are not expected to be identified but if new impacts are identified, the project will mitigate the impacts. The existing Corps studies show that the maximum water level difference in the Yolo Bypass will be about 6″ for the 200-year flood, and the levee system will maintain about 3 feet of freeboard for this rare flood.

It is important to note that any improvements to the Sacramento River Flood Control Project levees upstream of the Yolo Bypass that increase the carrying capacity of the levees could increase flows in the Yolo Bypass. Certainly, the Feather River levee failure in 1997 reduced downstream flows in the Yolo Bypass. I know of no flood control project in California, other than the American River project, that recognizes this potential and is recommending hydraulic mitigation. I strongly recommend that the Corps' current Sacramento River Watershed Investigation recognize the critical importance of the downstream levee systems and make recommendations to assure that downstream levees can carry increased flows that result from upstream levee improvements.

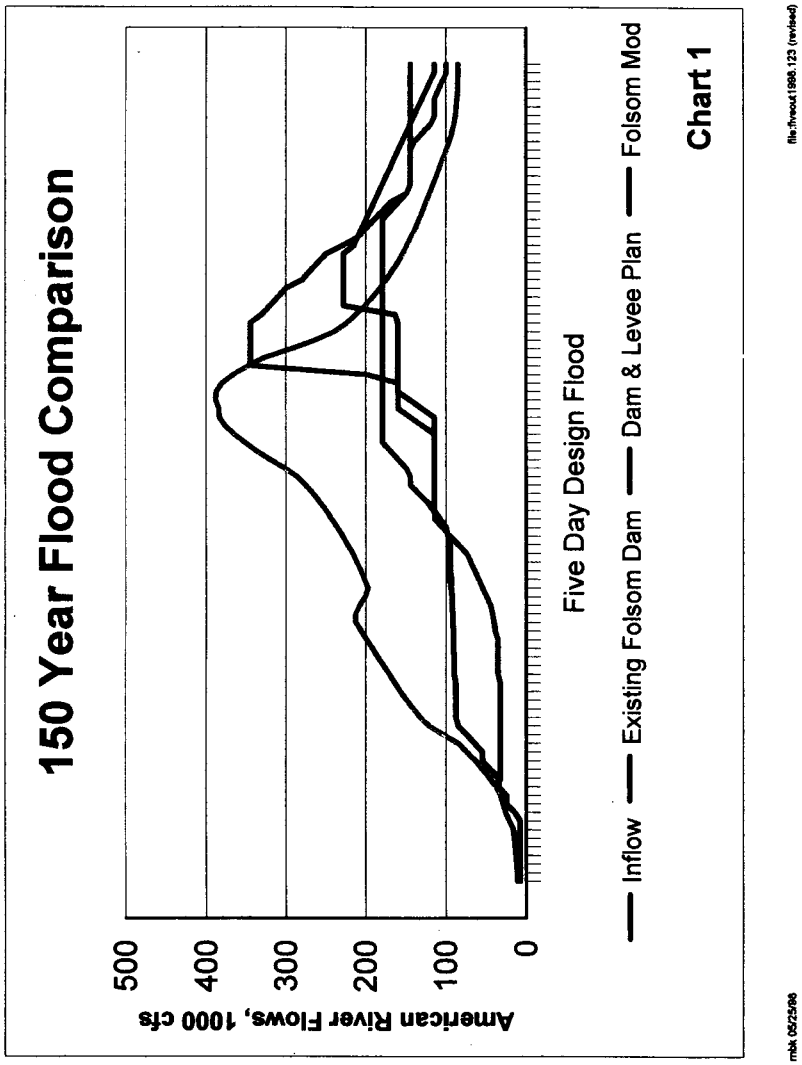
CONCLUSIONS

Sacramento is facing an extreme flood risk. No area in this country has either the number of people or value of improved property at risk as does Sacramento. The Federal, state and local flood agencies have made significant progress since 1986 to improve the flood control system. I believe that without these heroic efforts, Sacramento would have flooded in January 1997.

I have supported Auburn Dam as the ultimate solution for American River flood protection. I have twice traveled to Washington to testify in support of the construction of the Auburn Dam, and twice the Congress has refused to support the construction of the dam. I have become convinced that the Federal Government will not support construction of the dam in the near term. This is because there is determined opposition to the dam from national environmental organizations and because of the cost of the project (nearly $1 billion). The dam will eventually be built because California will need the water supply (regardless of cost) and the added flood protection will accrue.

We need flood protection NOW. The Dam and Levee Modification Plan provides the most flood protection that we can obtain without constructing an upstream dam or severely impacting Folsom Dam's multiple purpose functionality. The improvements under the Dam & Levee Improvement Plan will provide even greater reliability to the flood system as a whole when the upstream dam is finally constructed. I strongly endorse moving forward with the Folsom Dam and Levee System Improvements to provide Sacramento and the surrounding area with a very sig-

nificant improvement in flood protection. If we move expeditiously, within three flood seasons we can have new Folsom Dam outlets in place and the remainder of dam and levee improvements well underway. The high probability of flooding that Sacramento now faces will finally see a substantial reduction.


150 Year Flood Comparison
American River Flows, 1000 cfs
500
400
300
200
100
0
Five Day Design Flood
Inflow
Existing Folsom Dam
Dam & Levee Plan
Folsom Mod
Chart 1
mbk 05/25/96
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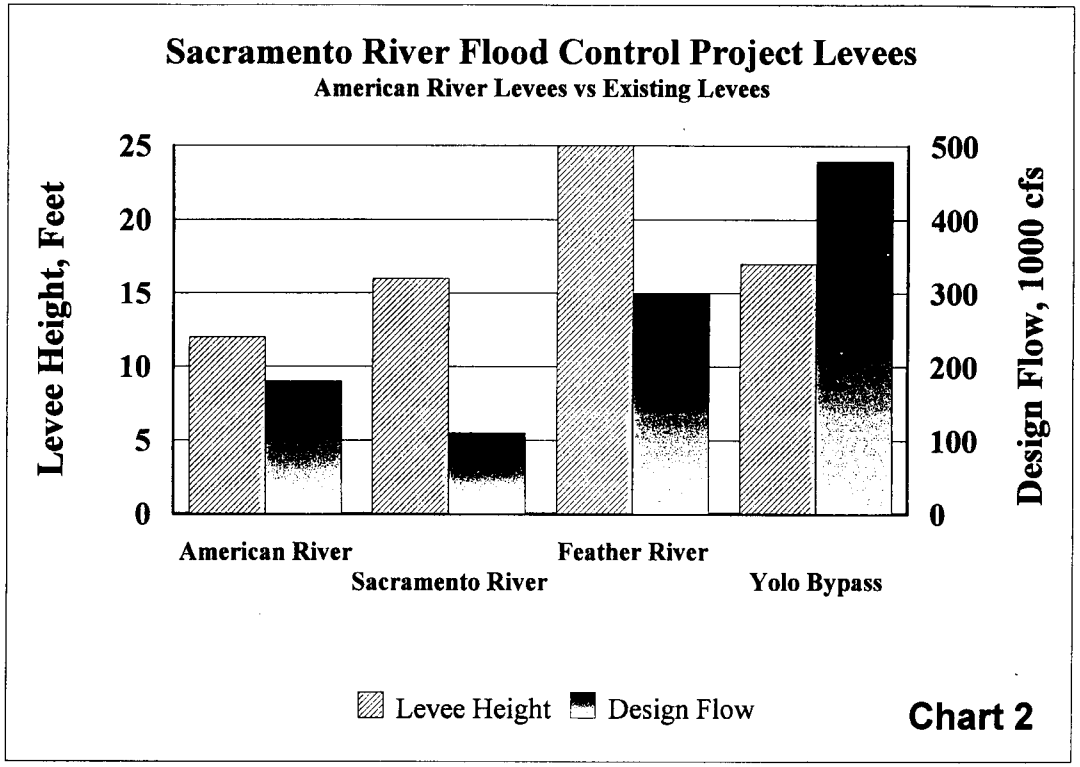

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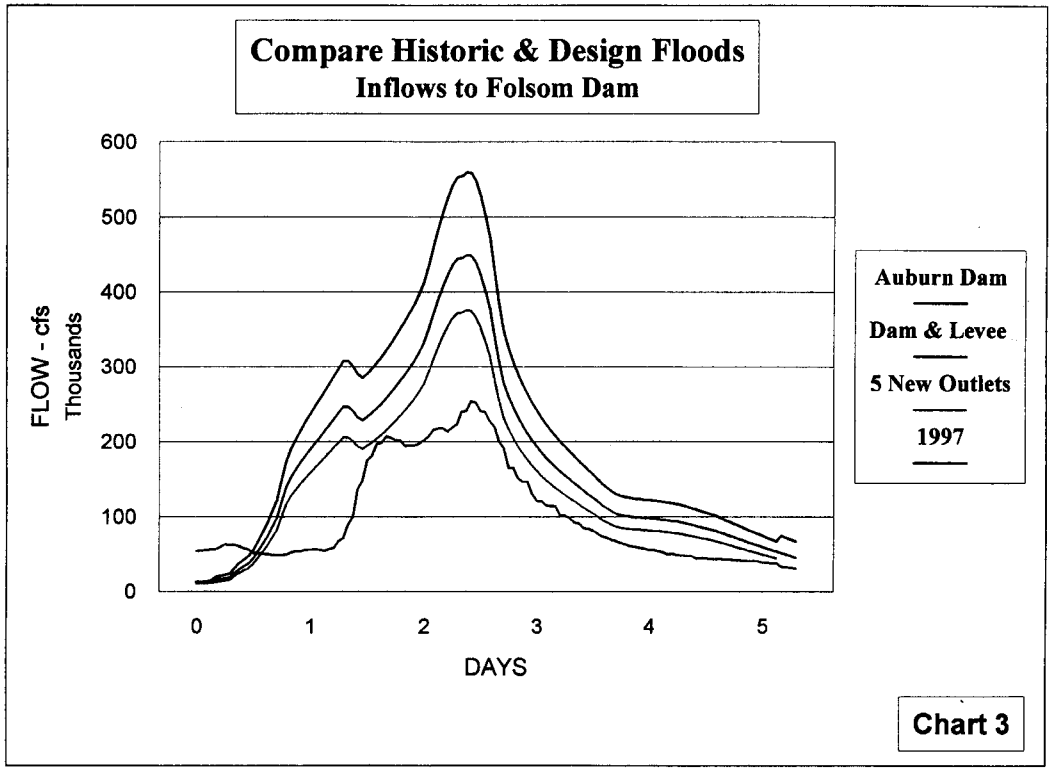


STATEMENT OF MAYOR JOE SERNA, JR., SACRAMENTO

Representatives Doolittle, Fazio, Matsui, Parr, and other members of the Subcommittee on Water and Power:

Welcome to Sacramento. I'm the Mayor of the major U.S. city with the unfortunate distinction of having the lowest level of flood protection. The building you are meeting in sits in a flood plain that is statistically expected to be flooded every 77 years.

The City was formed to provide flood protection in an era when forms of extreme Jeffersonian democracy prevailed. In order to protect yourself, you incorporated, either as a municipality if you had an urban population, or as a flood district if you were predominantly composed of farm lands. The technical solution in those days was simple: build your levee higher than the agency on the other side of the river, and push the water your way.

We in the City, at least, no longer seek to protect ourselves at the expense of our downstream neighbors. That is why we have reached out to form regional agencies such as SAFCA.

And that is why SAFCA, and the City, and the County of Sacramento all endorsed a package of features that are included in Representative Robert Matsui's legislation. Mr. Chair, you've asked a number of questions about how Mr. Matsui's legislation will avoid creating hazards or nuisances for our downstream and upstream neighbors. Let me attempt to lay out our thinking:

• Delays in the commute across the Folsom Dam.

The strategy for fixing Folsom Dam advocated by Joe Countryman should avoid any delays to the daily commute across the bridge. I will refer you to him for any specifics.

But I will point out that if we fail to make these needed improvements, and should the Dam overtop in a significant storm or downstream levees fail because we take steps to protect the dam by raising flows along the lower American, Highway 50 may close. If that happens, Intel, for example, will suffer greatly from the loss of a regional infrastructure. Intel, like most electronics manufacturers, employs just-in-time manufacturing. These high tech companies generally only have 24 hours of raw materials and parts on hand. If Highways 50 and the downtown interchanges are inundated, many of the region's high tech firms will shut down for the duration.

• Local water supply:

We have sought to meet the legitimate water needs of local and regional water users, like my colleague from San Joaquin, out of the discussions organized by the Water Forum. We believe that there are ways to help. The Water Forum has developed plans that will likely serve portions of the County of Sacramento (as we already serve the needs of Elk Grove in Representative Pombo's district), and perhaps EBMUD.

I know that there are many that have pinned all their hopes for continued suburban growth in El Dorado and Placer Counties on an upstream multi-purpose dam. But that is years away at best. Congress has failed to support it, and I see no hope of statewide funding in the near future.

We believe that is important to understand the interests of our upstream and downstream neighbors. We have made good faith efforts through the Water Forum to do so. We hope that members of the Subcommittee will understand that we continue to make every reasonable effort to do so. But we must separate the demand for water to support new growth in the outlying areas from flood protection. It is unfair to hold 400,000 city and county residents hostage to a will-of-the wisp, or to dreams of unlimited water for regional sprawl.

• Reliability of proposal:

No proposal is 100 percent reliable. Let me instead focus on the greater hazards of doing nothing.

As I mentioned, we have evidence that our level of flood protection is not as great as earlier believed. There is danger that Folsom Dam might overtop in a major storm, and fail. Therefore, we must increase the Dam's ability to control and release water in greater volumes than now possible. Then what happens downstream? Currently, flood planning calls for allowing levels of up to 160,000 cfs down the lower American River. If we fail to make repairs to the levees, and upgrade them to handle Folsom's new release capacity, they may fail. I've already described what that might mean to the region's high tech economy if the levees fail and Highways 50 and 99 are inundated.

If we don't take action to improve our levees, we can be even more concerned about a failure. One of my constituents has responded to this matter with this simile: The speed limit is only 30 miles per hour in my neighborhood. But I want the City to buy ambulances that can go 50 miles per hour in an emergency. I don't ex-

pect them to drive at 50 all the time; just for the limited duration that they need to do so to save lives.

I think that's apt. No one in their right mind believes that the releases will reach design capacity for any longer than necessary. But we must have that capacity if we need it. All the signs are that we will. So, we turn the question around, and view it properly. What are the likely consequences if we don't improve our levees?

I supported the Chair in his efforts for an upstream structure during the last WRDA debate. And I saw the will of Congress. So, we firmly believe that well managed levees are our best and most feasible opportunity for increased flood protection.

• Impacts on downstream and upstream communities.

We oppose any efforts to divide the region by pitting community against community.

That's why we're supporting Bob Matsui's bill. The Matsui legislation will upgrade levees in Yolo and make improvements to the Yolo Bypass to accommodate incremental flows. Because there is agreement from all parties to make improvements allowing increased releases from Folsom, those incremental flows are coming.

We responded to the needs of our neighbors in last year's floods, dispatching our City personnel to these other communities, staffing evacuation centers in the City for victims of the flooding, and sending police patrols into Sacramento County to allow them to redeploy into the Cosumnes flood plain. We are seeking reciprocity.

Again, the loss of the downtown and the Highway 50 and 99 corridors is from catastrophic flooding upstream is a serious regional blow. Representative Matsui has included funds in his bill for improving those levees impacted by the incremental flows from Folsom. Improving our levees to handle those flows has no bearing on the marginal increases downstream.

We support the efforts of other communities to improve their levees as well. I commend the wisdom of Yuba City and Marysville to seek funding to increase the capacity of the Feather River to carry flows levels up to 70,000 cfs greater than current capacity. That would bring the flood capacity of the Feather to around 200,000 cfs in an emergency. I applaud the City of Stockton, which has upgraded their levees as a means of increasing flood protections from major storms. In the past, Congress has supported their requests. In light of broad regional support for increased protections along the lower American, we ask for Congressional assistance for our citizens.

• Environmental impact:

Flood flows from any of our historic major storms have impacted the American River Parkway. Levee improvements in and of themselves will not likely create new problems. But upgraded levees will prevent sheet flooding across Rancho Cordova and areas south of American River affecting 400,000 County and City residents. Forty percent of these residents, according to census figures are ethnic minorities. Protecting them is a matter of environmental justice.

Furthermore, failure to take action to improve Folsom and upgrade levees along the lower American produces other environmental hazards. These hazards are very familiar to health officers who have coped with cleanup from the flooding in the Cosumnes and San Joaquin drainage. During a catastrophic, hazardous materials from hundreds of underground tanks and businesses are released. Contamination then spreads across the entire Delta. We regularly heard reports, for example, of propane tanks from the flooding in Wilton ending up in downstream Delta communities.

Having said all this, I must point to a number of issues with this hearing itself.

• This Subcommittee has no jurisdiction over Congressmember Matsui's bill.

• Chair holding in a rump hearing in another member's district.

• The location and time of hearing are inaccessible to the community most affected—400,000 working folks. Many of them only heard about this hearing from us and are very concerned about the outcome. Some of them wanted to speak.

I hope that I have been a voice for those who did not have a chance to speak. I feel clear that while many of my constituents may very well support a dam at Auburn, very few of them feel that it is a solution that we will see in the near future. They have strongly spoken to me in favor of Congressmember Matsui's legislation. I am joining with the Sacramento Association of Realtors, neighborhood groups, community based organizations and other business groups to mobilize community support for Mr. Matsui's bill.

I hope that the issue will not devolve into a divisive debate over Auburn or nothing. That would truly divide our community, and I am afraid that the issues would not be over what constitutes the best flood control policy, but instead on whether or not to hold up flood protection for a proposal that will also provide water for regional sprawl.

STATEMENT OF HON. MARK MONTEMAYOR, CITY COUNCIL MEMBER, CITY OF WEST SACRAMENTO

(Greetings) Chairman Doolittle and Members of the Subcommittee on Water and Power. My name is Mark Montemayor, Council Member, from the City of West Sacramento.

The City of West Sacramento is downstream from the proposed improvements to both the Folsom Dam and the American River levees. Since West Sacramento is completely encircled by water during periods of high water, increased flows in the American River will have a direct impact on our flood protection capabilities. Our levees on the Sacramento River as well as our levees in the Yolo Bypass will be additionally challenged to protect our citizens from the additional flows from the American River. City representatives from the City of West Sacramento have had several discussions with the Sacramento Area Flood Control Agency regarding the current proposals before Congress. We have expressed to them the same concerns that we wish to share with you today.

The current maximum discharge from Folsom Dam to the American River is 115,000 cfs. In 1986, the actual discharge was about 130,000 cfs. due to the high inflows which brought the reservoir to near capacity. The discharge at that time was very near the maximum carrying capacity of the levees along the American River. This SAFCA proposal would result in the American River levees being able to carry the release of as much as 180,000 cfs., if necessary. The improvements to Folsom Dam would improve to a degree our flooding protection, inasmuch as they would allow earlier release from the dam in the event of a major event. This could very well help to avoid at least a part of the problem that occurred in 1986 by allowing water to be released earlier.

The first concern we have regarding this dramatic increase in flows down the American River is the lack of adequate engineering studies on upstream and downstream properties in Yolo County. There are many of us in West Sacramento and Yolo County that do not believe sufficient analysis of these impacts have been undertaken. A great deal of engineering analysis must be done to determine the ability of the downstream levees to withstand these additional flows. We would expect that such analysis would identify the work needed to mitigate downstream effects. It is our belief that such mitigation should be undertaken and completed prior to the upstream improvements. We also believe that these improvements should be a part of the Federal project and the downstream users should not have to bear the costs of the mitigation created by these increased flows.

The City of West Sacramento has taken great steps in being able to protect our city from the danger of flooding. We are in the final stages of levee improvement projects, in conjunction with the Federal Government, that will bring our community to a 400-year flood protection level if the Auburn Dam is constructed, or to a 250-year level if it is not. It is not our city's intent to get involved in the debate as to what is adequate flood protection for the City of Sacramento. Those are the decisions for Sacramento to make. Our only intended involvement is relative to how such measures may impact us. It is our intention to work with our neighbors to ensure that any increased flood protection they provide for themselves will not increase risk to West Sacramento.

SUPPLEMENTAL SHEET

- West Sacramento is extremely concerned about the level of engineering analysis relative to the impacts on downstream properties. Any work on Folsom Dam and the American River levees should not degrade the level of protection of any downstream users.
- Funds to fully mitigate any impacts on downstream users should proceed the work done on the American River levees.
- The improvements to Folsom Dam and the American River levees should not impact downstream properties, both in terms of flood protection or financial impacts.

STATEMENT OF GEORGE BARBER, CHAIRMAN OF THE SAN JOAQUIN COUNTY BOARD OF SUPERVISORS

Good morning. My name is George Barber. I am the Chairman of the Board of Supervisors in San Joaquin County.

San Joaquin County is immediately south of Sacramento County and includes 40 percent of the Sacramento/San Joaquin River Delta. All flood flows generated from waterways in the Sacramento and American River Basins eventually flow through

San Joaquin County on their way to the San Francisco Bay. We are very concerned for our safety and preservation of existing flood protection facilities.

The proposed modifications to Folsom Dam currently being considered include increasing the maximum release from Folsom Dam to 180,000 cfs. This flow rate is substantially higher than flow rates for which the flood protection system was designed. It is extremely important that, in the analysis of the higher flow rates, the analysis not end at the confluence of the American and Sacramento Rivers, but be carried out through the entire system. The analysis must include the determination of impacts on the Delta levees and provide mitigation for their impacts.

The higher flow rates, longer flow durations and higher flow elevations through the levees in Northern San Joaquin County and throughout the Delta, must be treated as an integral part of the project. The impacts must be clearly defined to the understanding of all, and these impacts must be mitigated as part of any proposed project.

Previous considerations of a dam at Auburn, on the American River, would not require the significantly higher flood flow rates and, in fact, would probably allow them to be reduced, thus not only providing flood assurance for the Sacramento Metropolitan Area, but would also relieve our concern regarding higher maximum flow rates.

Auburn Dam has historically been a key feature in providing an adequate water supply for San Joaquin County. The authorized project to construct both the Auburn Dam and the Folsom South Canal would have provided sufficient water supply to San Joaquin County to relieve the critical overdraft in the eastern San Joaquin groundwater basin. The development of this project was delayed for a number of reasons. These reasons include changing Federal positions regarding the support of the project, implementation of the National Environmental Policy Act and disputes between environmental and water supply agencies concerning the diversion of American River water into the Folsom South Canal.

The position of San Joaquin County has long been in support of the development of the Auburn Dam as a way to meet water needs in San Joaquin County. Yesterday, the San Joaquin County Board of Supervisors, at their regular meeting, adopted a Resolution in opposition to H.R. 3698 and in support of transferring the Auburn Dam site to the State of California. This Resolution expresses our concern regarding the flood control measures in this County, as well as continuing our support of proposals to develop a water storage project at Auburn. The Resolution will be included as part of our testimony.

In addition to meeting regional water supply needs, the Auburn Dam would also provide water for the management of flows in the lower American River, provide additional water to meet all of Californians' needs and provide supplemental water for maintaining water quality in the Sacramento-San Joaquin River Delta.

Thank you for the opportunity to present these remarks and we appreciate the Committee's support in not decreasing the flood protection in San Joaquin County, and for the support in developing an adequate water supply to meet our future needs.

BEFORE THE BOARD OF SUPERVISORS OF THE COUNTY OF SAN JOAQUIN
FLOOD CONTROL AND WATER CONSERVATION DISTRICT
STATE OF CALIFORNIA

R E S O L U T I O N

R-98- 272

RESOLUTION PROVIDING FOR THE ADOPTION OF THE OPPOSITION TO H.R. 3698 (MATSUI) AND IN SUPPORT OF TRANSFERRING THE AUBURN DAM SITE TO THE STATE OF CALIFORNIA

- - - - -

WHEREAS, Congressman Robert Matsui has recently introduced H.R. 3698, which would authorize construction of the Stepped Release Plan as identified in the United States Army Corps of Engineers' 1996 Supplemental Information Report; and,

WHEREAS, the Stepped Release Plan calls for modifications to Folsom Dam and raising the American River levees in order to accommodate greater flood flows; and,

WHEREAS, the modifications to Folsom Dam, as called for in the Stepped Release Plan, would take up to 11 years to complete resulting in severe impacts to traffic, recreation, water supply and the environment;

WHEREAS, the levee improvements, as called for in the Stepped Release Plan, would raise the American River levees by up to five feet in order to handle 180,000 cubic feet per second of water, far greater than what the levees are currently designed to hold; and,

WHEREAS, many experts, including the engineer who designed the Stepped Release Plan, have questioned the ability of the aging levee system to withstand the projected 60 percent increase in flood flows and have called the Plan unreliable and dangerous; and,

WHEREAS, the Army Corps of Engineers' Galloway Report says that levees are unreliable and that major metropolitan areas, like Sacramento, should not rely on them as their primary means of flood control; and,

WHEREAS, the State of California Reclamation Board has expressed its concern with the levee improvements called for in the Stepped Release Plan and chosen not to pass a resolution in support of the Plan; and,

WHEREAS, Northern California was devastated in January 1997 by severe flooding primarily caused by over 50 levee breaks;

WHEREAS, levee improvements, as called for in the Stepped Release Plan, would require the acquisition of private property and would result in severe environmental impacts to the Lower American River Parkway; and,

WHEREAS, studies indicate that the greater flows, as anticipated by the Stepped Release Plan, may cause flooding along the Sacramento River, both upstream and downstream of the confluence with the American River; and,

WHEREAS, the Army Corps of Engineers has recently determined that Sacramento has only 77-year flood protection and is much more at risk from flooding than originally thought; and,

WHEREAS, the Army Corps of Engineers has established the Standard Project Flood; the maximum flood event Sacramento could expect in any given year at a 250-year event; and,

WHEREAS, the Stepped Release Plan would cost almost $550 million to construct and only provide Sacramento with 145-year flood protection, far below what is needed to protect against the Standard Project Flood, and the minimum 200-year level of protection the City of Sacramento, the County of Sacramento, the Sacramento Flood Control Agency, the State of California, the Sacramento Congressional delegation and environmentalists have said Sacramento needs to protect itself against a catastrophic flood; and,

WHEREAS, the Auburn Dam would only cost $230 million more in Federal dollars and would provide almost three times the level of flood protection; and,

WHEREAS, the Congress has twice defeated legislation which would have authorized an Auburn dam; and,

WHEREAS, Congressman John T. Doolittle has proposed legislation which would transfer all interest in and title to the lands, rights-of-ways, water rights, and facilities constituting and adjacent to the Auburn Dam site to the State of California; and,

WHEREAS, the transfer of the Auburn Dam site to the State would allow decisions about our region's flood control and water supply to be made by our State legislators who have a greater appreciation for the urgency of our situation than the Congress; and,

WHEREAS, many, including Congressman Doolittle, feel that the transfer of the Auburn Dam site would improve the chances of building a dam at Auburn; the only solution to our region's flood control and water supply needs;

NOW, THEREFORE, BE IT RESOLVED that the San Joaquin County Flood Control and Water Conservation District opposes H.R. 3698 and encourages the House Transportation and Infrastructure Committee to not include Congressman Matsui's proposal in this year's Water Resources Development Act.

BE IT FURTHER RESOLVED that the San Joaquin County Flood Control and Water Conservation District supports Congressman John T. Doolittle's efforts to transfer the Auburn Dam site to the State of California.

PASSED AND ADOPTED this May 26, 1998 by the following vote of the Board of Supervisors, to wit:

AYES: SIMAS, CABRAL, BARBER

NOES: MARENCO, GUTIERREZ

ABSENT: NONE

GEORGE L. BARBER, Chairman
of the Board of Supervisors
County of San Joaquin
State of California

ATTEST: LOIS M. SAHYOUN
Clerk of the Board of Supervisors of the County of San Joaquin, State of California

By Caroline Gunch
Deputy Clerk

SEAL

WR-88148.19

STATEMENT OF LEWIS K. UHLER, PRESIDENT, THE NATIONAL TAX LIMITATION COMMITTEE

Dear Mr. Chairman:

While the focus of the hearing is on proposed modifications to Folsom Dam and related water management implications, I believe it is clear that no half-way measures are likely to provide a true solution to the area's flood and water challenges short of construction of a full multi-purpose dam. (The State Reclamation Board's recent decision against providing funding to increase the height of American River levees supports this view.)

It is widely agreed that 200+ year flood protection is the minimum acceptable safety level for the Sacramento flood plain. Recent recalculations by the Army Corps of Engineers of the flood potential of the American River watershed reveals that the flood threat is even greater than originally understood, and that only a dam that can interdict major water flows on the American River will prove safe and effective. All other alternatives are makeshift, temporary and dangerous.

Taxpayers should not be asked to foot the bill for a jerrybuilt solution to Sacramento's flood challenges. By the same token, taxpayers nationwide do not seem anxious to pay for a project which has specific local benefits but not general national or multi-state implications.

Given all these circumstances, it has become increasingly apparent that the people of California should consider private or, if you will, a privatization alternative in terms of the construction of a dam in the Auburn area. The essential first step is for the Federal Government to turn over the dam site property and inundation rights to the State of California so the process can move forward.

While too much water at one time is a threat to our safety, too little water—the inevitable droughts which we experience in the area—constitutes a grave public risk as well. Water is then a very precious commodity. We should seek a solution which both protects us against too much water and too little. As a freer market in water develops, prices per acre foot are firming. The pursuit of assured water supplies by various water districts, especially those in urban areas, can provide solid cash flows for financing dam construction.

Equally important, valuable electrical power can be generated from such a dam facility. It is the cleanest and cheapest power available.

If we add flood insurance premium funds and other flood protection funding sources, a private solution begins to make real sense. I believe this is the route that should be pursued seriously and aggressively.

Self-styled environmentalists have said they will oppose any multi-purpose dam solution. They ought to weigh carefully the conservation pluses and minuses attendant to such a project. On the down side is the inundation of portions of the North and Middle Forks of the American River, with the resulting loss of whitewater rafting opportunities (very dangerous in those areas, incidentally). On the plus side are at least the following benefits:

- real protection against catastrophic floods, preserving human life, property and a wide range of flora and fauna that could not otherwise survive;
- conservation of precious water to meet human needs, as well as to provide constant flushing effects in the delta to preserve various fish and aquatic species;
- the cleanest electricity generation possible to meet California's growing population needs;
- maintenance of a stable level for Folsom Lake, assuring the recreation and fishery benefits of that facility;
- creation of a new recreation lake behind Auburn Dam with enormous fish and other aquatic potential;
- stabilized habitat for indigenous, as well as migrating, water fowl at both Folsom Lake and Auburn Dam lake.

Taxpayer interests will be well served if we quickly and thoroughly explore the privatization alternative for the ultimate solution: a multi-purpose Auburn Dam. The National Tax Limitation Committee stands ready to assist with this effort.

THE NATIONAL TAX-LIMITATION COMMITTEE

LEWIS K. UHLER

Lew Uhler is founder and President of the National Tax Limitation Committee, one of the Nation's leading grass roots taxpayer lobbies. He has been at the forefront of the national movements for a Tax Limitation/Balanced Budget Amendment to the United States Constitution and for term limits.

Then-Governor Ronald Reagan selected Uhler to serve on the California Law Revision Commission in 1968 and appointed him to key positions in state government. In 1972, Governor Reagan asked Uhler to organize and serve as Chairman of the Governors Tax Reduction Task Force. With the assistance of a nationwide panel of advisors (including Nobel Laureates Milton Friedman and James Buchanan), the task force developed Californians landmark Revenue Control and Tax Limitation Act, which became a model for tax-expenditure limitation measures in many states across the Nation.

Uhler founded the National Tax Limitation Committee in 1975 to carry California's message of controlled government to the Nation. With offices in Roseville (Sacramento), California, and Washington, DC, NTLC works with grass roots organizations to limit state and Federal spending through legal restrictions and constitutional changes. Uhler has recognized the need for an everexpanding base of intellectual and organizational resources in the battle for fiscal responsibility. He participated in the founding of the American Legislative Exchange Council and has worked closely with the State Policy Council movement nationwide.

In 1990, Uhler was co-author of Proposition 140, Californians pioneering state term limit initiative. Under Uhler's leadership, NTLC has forged coalitions, including "Americans for Responsible Privatization" and the "Council for Retirement Security," to return functions to the private sector and to downsize government. In March 1996, Uhler participated in a symposium at the Vatican on "The Family and the Economy in the Future of Society" to explore private alternatives to welfare states worldwide.

Uhler has written numerous articles and opinion pieces on taxes and spending. He is the author of the book, *Setting Limits: Constitutional Control of Government,* with foreword by Milton Friedman. Uhler speaks internationally on fiscal issues and has appeared on numerous national, regional and local television and radio programs and has been widely quoted in the print media.

Uhler is a native Californian, a graduate of Yale University and of the Boalt Hall School of Law at the University of California at Berkeley. He is a member of the California Bar and has been active in the practice of law and in land development in California. He is married to the former Cynthia Ross, has four grown sons and resides in the Sacramento area.

SACRAMENTO FLOODING

A REGION AT RISK

THE LOCALLY PREFERRED APPROACH FOR REDUCING FLOOD DAMAGE

STATEMENT OF THE
SACRAMENTO AREA FLOOD CONTROL AGENCY
ON THE
AMERICAN RIVER WATERSHED PROJECT BEFORE THE
SUBCOMMITTEE ON WATER AND POWER OF THE U.S. HOUSE OF REPRESENTATIVES COMMITTEE
ON RESOURCES
May 27, 1998

STATEMENT OF THE
SACRAMENTO AREA FLOOD CONTROL AGENCY
ON THE
AMERICAN RIVER WATERSHED PROJECT BEFORE THE
SUBCOMMITTEE ON WATER AND POWER OF THE U.S. HOUSE OF
REPRESENTATIVES COMMITTEE ON RESOURCES
May 27, 1998

Introduction

Mr. Chairman and members of the Committee, I am Muriel P. Johnson, Chair of the Sacramento Area Flood Control Agency (SAFCA). We appreciate the opportunity to appear before your Committee during its hearings on modifications to Folsom Dam which have been proposed in connection with the Water Resources Development Act of 1998. The Committee's invitation to testify asks for our views on the following issues related to the proposed modifications:

-- traffic impacts caused by construction on the dam road;
-- the impact of the proposal on local water supply;
-- safety concerns caused by releasing 180,000 cfs from Folsom Dam;
-- the effects of the proposal on downstream and upstream communities; and
-- the environmental consequences of the proposal.

Because it is important for the Committee to appreciate the context in which these issues arise, my statement is divided into five sections: (1) what is at stake in Sacramento for the local community, the State of California, and the Federal Government in the event of an uncontrolled flood along the American River; (2) why, absent a realistic prospect of securing Federal authorization for a dam at Auburn, it is incumbent upon SAFCA to seek as much flood protection as possible through incremental improvements to the existing flood control system; (3) why SAFCA is advocating modifications to Folsom Dam and the downstream levee system as the logical next steps in the incremental improvement process; (4) why we believe, in response to the Committee's inquiry, that these modifications can be implemented in a manner which makes the existing flood control system safer to operate while minimizing or avoiding significant adverse traffic, water supply, flooding, or other environmental consequences; and (5) why it is appropriate to proceed with authorization of the needed dam and levee improvement program notwithstanding the technical uncertainties and even organized opposition associated with some aspects of this program. My major contentions are as follows:

No river city in America faces a graver threat of flooding than Sacramento where 400,000 residents, the State Capitol and 160,000 other structures, with an estimated value of $37 billion, occupy a vast floodplain at the confluence of the Sacramento and American Rivers. Economic losses from an uncontrolled flood are estimated to range from $7 to $16 billion depending on the magnitude of the

flood event. At the lower level, the damages would be comparable to those suffered in the 1989 Loma Prieta earthquake. Assuming a comparable public/private sector response to such a disaster, costs for relief and reconstruction would total almost $5 billion of which the Federal Government would contribute approximately $2.6 billion, State and local government $1 billion, private insurance $1 billion, and private charities $125 million.

In response to the record floods of 1986 and 1997 and Congress' decision not to authorize a comprehensive flood risk reduction program for Sacramento involving construction of a new on-stream storage facility in the American River basin, SAFCA has concluded that it is incumbent upon the Agency to seek as much flood protection as possible through incremental improvements to the existing flood control system. This incremental approach has focused on repairing and improving the levees which provide residents of the floodplain with the first line of defense against flood damages and increasing the space available for flood control in Folsom Reservoir. In pursuit of these improvements, SAFCA has spent almost $100 million for planning, administration and construction of flood control improvements since 1990.

The logical next steps in this process are: structural modifications to Folsom Dam designed to improve the efficiency of flood control operations, and levee improvements designed to increase the safe carrying capacity of the American River channel so as to allow dam operators to step up the releases from Folsom Dam in the event of very large flood events. These improvements are generally described in the Chief's Report dated June 27, 1996 for the American River Watershed Project, California (Chief's Report).

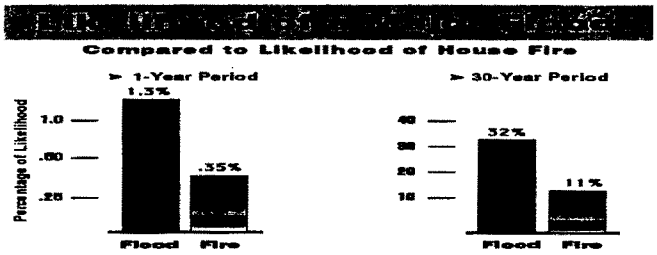
With regard to the specific issues of concern to the Committee, we believe that with some adjustments in the design of the improvements described in the Chief's Report, as outlined in the SAFCA Information Report which we issued in February 1998, the proposed dam and levee modifications can be implemented in a manner which minimizes impacts to traffic on the dam road, reduces flood control's reliance on reservoir storage space otherwise available for water conservation, and makes the existing flood control system safer to operate without increasing the risk of flooding outside the American River basin or causing other significant adverse environmental effects.

The matter of increased flood protection for Sacramento is ripe for decision by Congress. A comprehensive analysis of available flood control options for Sacramento was presented in the Chief's Report. This analysis is not free of technical uncertainties or organized opposition to some of the options presented. Nevertheless, the issues to be decided in this instance are not unique to the American River basin. Indeed, other urban areas in the Central Valley are moving forward with incremental improvements which are in principle indistinguishable from those proposed for Sacramento. Accordingly, SAFCA heartily agrees with the major finding of the National Research Council's Committee on Flood Control Alternatives in the American River basin which was formed for the express purpose of reviewing the Corps' analysis: "It is time to select and implement flood risk reduction strategies for the American River basin."

No River City in America Faces a Graver Risk of Flooding than Sacramento

Like most of America's river cities, Sacramento's 19th Century economy revolved around river transport. As a result, the city's early settlers preferred to live close to the water's edge - opting to battle the large floods that periodically transformed California's Central Valley into an inland sea rather than retreat to high ground. As a result, over the past 150 years, the floodplain at the confluence of the Sacramento and American Rivers has been widely developed. An extensive system of flood works built almost entirely by the Corps of Engineers during this century has prevented serious flooding during the city's modern era. However, the record flood of 1986 has reminded area residents of the perils of life in a floodplain and caused flood control engineers to reassess the likelihood of uncontrolled flooding along the American River.

It now appears that without substantial improvement of the existing flood control system, there is approximately one chance in 80 that Sacramento will be flooded from the American River in any year. This annual risk translates into a cumulative risk, over the next thirty years, of one chance in three. A home in the floodplain is thus more likely to be damaged by a flood than a fire, and much more likely to be damaged by a flood than an earthquake.



The flood will be the direct result of either a levee failure or levee overtopping along the Lower American River. When the breach occurs, water levels in the American River will be eight to fifteen feet higher than the ground outside the levees. Water will pour through the gap and spill into the heavily urbanized areas along the Sacramento and American Rivers, eventually inundating as much as 55,000 acres.

Damages, without including costs for local and statewide business disruption are estimated to range from a minimum of $7 billion for a 100-year flood to $16 billion for a 400-year flood. At the lower level, the damages would be comparable to those suffered in the 1989 Loma Prieta earthquake which caused 63 deaths, 3,757 injuries, and more than $8 billion in direct property damage. Assuming a comparable public/private sector response to such a disaster, costs for relief and reconstruction would total approximately $5 billion of which the Federal Government would contribute

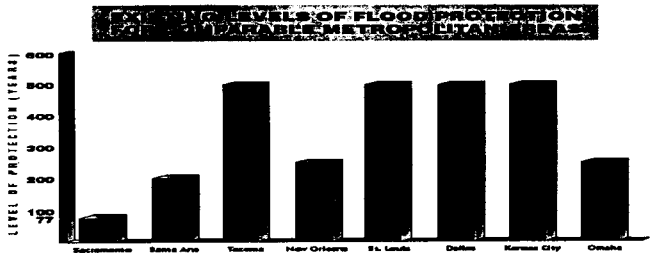
approximately $2.6 billion (Table 1), State Government $1 billion, private insurance $1 billion, and private charities $125 million.

Table 1

Allocation of Federal Costs for Loma Prieta Earthquake	
FEMA - Disaster Relief	$0.85 billion
Federal Highway Adm. - Emergency Bridge & Highway Repair	$1.0 billion
Small Business Adm. - Disaster Loan Fund	$0.5 billion
Department of Commerce*	Unknown
President's Discretionary Funds	$0.25 billion
*to supplement existing SBA and FEMA business loan programs	

Since its Inception, SAFCA's Long-Term Goal Has Been to Provide Sacramento with a High Level of Flood Protection

Since its formation in 1989, SAFCA's long-term flood control planning goal for the American River basin has been to provide Sacramento with a high level of flood protection. This goal, variously defined over the years as protection from a 200-year or larger flood, or protection from the "standard project flood," inspired the design and construction of Folsom Dam and Reservoir in the 1950's, gave impetus to the multipurpose Auburn Dam project in the 1960's and 70's, when Folsom's inadequacies became apparent, and guided the governmental response to the record flood of 1986 along the American River. According to the June 1994 report by the Interagency Floodplain Management Review Committee, "Blueprint for Change, sharing the Challenge - Floodplain Management in the 21st Century" (Galloway Report), "the standard project flood (or "SPF") ... represents the flow that can be expected from the most severe combination of meteorologic and hydrologic conditions reasonably characteristic of the geographic region involved ... The SPF discharge is generally used to determine the level of protection for urban population centers where there is great threat of loss of life and damage to critical infrastructure."



Without a Realistic Prospect of Securing Federal Authorization for a Dam at Auburn, it is Incumbent Upon SAFCA to Seek as much Flood Protection as Possible Through Incremental Improvements to the Existing Flood Control System

Based on the most current hydrology for the American River basin, it appears that SAFCA's long-term planning goal can only be achieved by creating a new flood control storage facility along the American River upstream of Folsom Dam. Having failed in 1992 and again in 1996 to secure congressional authorization for such a facility, SAFCA has concluded that Auburn is not a realistic option at the Federal level. We have therefore opted to pursue a series of incremental improvements to the existing flood control system with the aim of achieving as much flood protection as possible without adding new storage capacity to this system. This approach has produced the following results:

- SAFCA has cooperated with the State Reclamation Board and the Corps of Engineers in carrying out $35 million of improvements to strengthen approximately 33 miles of the east levee of the Sacramento River which protects 40,000 residents of the Natomas basin and much of the urbanized portion of the City of Sacramento south of the American River.

- SAFCA, at its own expense, has completed $60 million worth of levee and related improvements to protect Natomas and portions of North Sacramento (collectively referred to as the North Area) from flooding along the Natomas East Main Drainage Canal and lower Dry and Arcade Creeks.

- SAFCA has entered into an agreement with the U.S. Bureau of Reclamation (Reclamation) to increase the space available for flood control in Folsom Reservoir, provided that SAFCA fairly compensates the Federal Government for any resulting loss of hydropower and replaces any lost water that may be needed by Reclamation to meet contractual obligations or environmental requirements.

- SAFCA has facilitated a consensus among flood control, environmental, recreation and neighborhood interests to proceed under the authority of the Sacramento River Bank Protection Project with a series of uniquely designed erosion control measures at four sites covering almost two miles of the south bank of the Lower American River.

- SAFCA is cooperating with the State and the Corps on the congressionally authorized Common Elements project involving $68 million in improvements to strengthen the levees along both sides of the American River and to raise and strengthen portions of the east levee of the Sacramento River.

These incremental improvements provided Sacramento with an important margin of safety in warding off the flood of 1997. This flood was the largest flood since 1860. Unlike 1986, however,

no significant seepage occurred along the east levee of the Sacramento River; SAFCA's variable storage space operation at Folsom helped Reclamation safely contain reservoir inflows without raising outflows above the safe carrying capacity of the downstream levee system; bank protection work, completed less than a month before the storm hit, helped prevent major bank erosion and potential jeopardy to the south bank levee; and relatively modest peak flows in the lower tributaries combined with the improvements constructed as part of the North Area Local Project, kept stages in the channels around Natomas and North Sacramento well within design standards.

Nevertheless, the 1997 flood has underscored the urgency of seeking additional improvements to the existing flood control system. First, this flood, occurring just eleven years after the flood of 1986, has caused the Corps to re-evaluate the hydrology of the American River basin. It now appears that even with the above-described improvements in place, a huge portion of the City of Sacramento, outside Natomas and the portions of North Sacramento protected by the North Area Local Project, has only about 80-year flood protection. In addition to facing unacceptably high flood risk, these areas face the prospect of increased flood insurance rates and development restrictions pending further improvement of the flood control system. Second, the 1997 flood generated very high replacement costs for water and power lost as a result of the operation of Folsom in connection with the flood, thus highlighting the difficulty of balancing Folsom's competing uses.

The Logical Next Steps for Flood Control in Sacramento are to Modify Folsom Dam and Increase the Safe Carrying Capacity of the Downstream Levee System

SAFCA believes that the logical next steps in the process of improving the existing flood control system are structural modifications to Folsom Dam that would increase its operational flexibility and improvements to the downstream levee system that would allow higher flows to be safely conveyed through the urbanized floodplain without increasing the risk of flooding outside of the American River basin. These improvements are well described in the Chief's Report which was prepared for Congressional consideration in connection with the 1996 Water Resources Development Act (WRDA) and which was formally transmitted to Congress by the Assistant Secretary of the Army for Civil Works in October 1997. The Chief's Report indicates that the dam and levee modifications could be treated as technically separable elements. However, SAFCA believes that it is essential to authorize both elements now so as to ensure that the risk of flooding in Sacramento is reduced to the maximum extent possible. The estimated construction cost of these improvements is $450 million, with an estimated Federal cost of $293 million and an estimated non-Federal cost of $157 million. When combined, these improvements have a benefit to cost ratio of 1.6 to 1. These improvements assume that SAFCA's reservoir operation agreement with Reclamation will be indefinitely extended as directed by Congress in 1996. It should be clear that SAFCA is not seeking an extension of Federal cost-sharing for replacement water and power in connection with this agreement at this time. However, SAFCA recommends that the Secretary of the Interior be directed to work with SAFCA to develop a long-term plan to mitigate water and power impacts. Such a plan could be presented for Congress' consideration in the year 2000. In addition, as a part of the authorization for the dam and levee improvements, SAFCA is seeking a credit/reimbursement provision patterned on language

Congress adopted in 1992 which allowed SAFCA to move quickly forward with construction of the Federally authorized levee improvements around Natomas and North Sacramento.

Finally, because the American River improvements described above do not achieve SAFCA's long-term goal of 200-year flood protection, efforts to identify additional, feasible flood damage reduction measures should continue. Consequently, while the Corps' ongoing American River Watershed Investigation should be focused on designing and constructing the proposed dam and levee modifications, the Corps should also be directed to continue to identify and evaluate the additonal steps that might be taken in the future to realize SAFCA's long-term goal of providing Sacramento with a 200-year or greater level of flood protection.

Folsom Dam Modifications are Needed to Increase the Dam's Operational Flexibility

The proposed improvements to Folsom Dam consist of modifications to the dam's outlet works and surcharge storage operation. Improved outlet works will permit dam operators to respond more quickly to incoming floods by releasing more water earlier in the flood in order to preserve as much empty space as possible for safe containment of inflows to the reservoir at the peak of the flood. An improved surcharge operation will allow more water to be stored near the top of the dam, thus increasing the space available for containing peak inflows. As described in the Chief's Report, the most important pieces of this work are lowering the crest of Folsom Dam's main spillway by fifteen feet and enlarging all of the dam's existing spillway gates and low level river outlets. This work is estimated to cost $137 million, with an estimated Federal cost of $89 million and an estimated non-Federal cost of $48 million.

Make no mistake about it, this is major surgery to an aging facility. Construction would occur over an eight-year period commencing in 2001. Dam operations would be constrained in the early years of the construction process and there would be persistent conflicts with traffic on the dam road throughout the process. SAFCA is deeply concerned about these construction related impacts and we think every effort should be made to avoid or minimize them. Accordingly, we believe Congress should give the Secretary of the Army as much latitude as possible in determining the final design of the needed improvements. In particular, we think the Secretary should be directed to take a hard look at the analysis recently completed by SAFCA's engineering consultants evaluating the feasibility of including new river outlets in the design of the dam modifications. This analysis, which is set forth in the SAFCA Information Report which we issued in February 1998, concludes that with new outlets in the mix, the needed improvements could be constructed without compromising dam operations and with significantly less traffic impacts. We also think the Secretary of the Army should be directed to work closely with the Secretary of the Interior to evaluate the benefits from a dam safety point of view of constructing a new bridge across the American River just downstream of Folsom Dam. Such a facility would permit closure of the existing dam road, allowing dam operators to secure access to the dam and clearing the way for unimpeded work on the main spillway in the event it is determined that spillway modifications are needed to meet Federal dam safety standards.

American River and Downstream Levee Modifications are Needed to Make the Existing Flood Control System Safer to Operate

The second major element of SAFCA's program is improvement of the levee system below Folsom Dam. The American River levees, Sacramento's last line of defense against a catastrophic flood, are currently not capable of safely carrying flows that will result from a 100-year flood. Accordingly, SAFCA believes that it is essential to raise and strengthen these levees to allow Folsom Dam operators to step up their releases from the dam based on inflow and storage conditions in the reservoir. The maximum step under the improvements described in the Chief's Report would be 180,000 cfs. In order to accommodate this flow in the American River channel and avoid adverse impacts on interior drainage systems in the American River floodplain and on the levee system downstream of the mouth of the American River, the Chief's Report identifies the following features.

Raise and Strengthen Existing American River Levees. About 13.5 miles of existing Federal and non-Federal levees along the north and south banks of the American River would be raised. The raises would vary from up to 2 feet for the Federal levees to up to 4 feet for the non-Federal levees upstream of the Mayhew Drain. In addition, erosion protection would be placed along 5.8 miles of existing levees in order to resist the higher flow velocities associated with this plan.

Modify Bridges. In order to accommodate flows up to 180,000 cfs in the American River channel, the Howe Avenue and Guy West Bridges would be raised between 3 and 5 feet. In addition, minor modifications would be added to the right trestle of the Union Pacific Railroad where the track crosses the north levee below the levee crown.

Modify Drainage Facilities. Local pumps and related facilities would be upgraded and new pumping stations would be constructed at existing gravity outfalls to maintain the current capacity of these facilities to discharge interior drainage into the American River channel.

Widen the Sacramento Weir and Bypass. The Sacramento Weir and Bypass would be widened by moving the existing north levee 1,000 feet to the north to avoid any increase in existing flows and stages in the Sacramento River channel upstream and downstream of the American River.

Raise and Strengthen Levees in the Yolo Bypass. To avoid any reduction in the level of flood protection currently provided by the Yolo Bypass levees, about 25.6 miles of these levees would be raised and 38.2 miles would be strengthened; two miles of new levees on several tributaries to the bypass would be constructed; and a bridge over the Tule Canal would be modified.

Environmental Restoration and Recreation Improvements. Project construction in the lower reach of the American River would include recreation improvements and seasonal wetland and riparian habitat restoration in the American River Parkway.

As set forth in the Chief's Report, the estimated cost of these improvements is $313 million, with a Federal cost of $204 million and a non-Federal cost of $109 million. These improvements would increase the response capability of the system during large flood events by allowing Folsom Dam operators, when faced with forecasted inflows that might exhaust Folsom's safe storage capacity, to preserve as much of this storage capacity as possible by increasing their releases to the lower American River. Assuming these releases were raised from 115,000 cfs to 180,000 cfs for eighteen hours at the peak of a large flood, the storage space preserved would total about 100,000 acre-feet. Based on the record of flooding in the American River basin, such increased releases would be extremely rare. Nevertheless, for a range of storms approximating the magnitude of the 1997 flood centered over the American River basin, this additional release capacity could well provide the margin of safety that allows Sacramento to avoid catastrophic flood damages.

SAFCA's Preferred Plan Can be Implemented in a Manner Which Minimizes or Avoids Significant Adverse Traffic, Water Supply, Flooding, or Other Environmental Consequences

The Committee has specifically asked SAFCA to address the potential for the dam and levee modification plan to cause significant adverse traffic, water supply, flooding or other environmental consequences. With respect to traffic impacts, as noted above, SAFCA's engineering consultants have concluded that Folsom Dam's outlet capacity could be modified to permit the releases anticipated in the Chief's Report by constructing five new river outlets through the dam's auxiliary spillway and enlarging the dam's eight existing river outlets (Folsom Dam Modification Report, New Outlets Plan, Revision 1, March 1998). This work could be carried out over a three-year period requiring 10 part-day (9 a.m. to 4 p.m.) and 110 partial (single reversible lane during peak hours) closures of the dam road. This compares to the estimated five weeks of full road closure and 13 months of partial closures for the modifications described in the Chief's Report.

With respect to water supply, the proposed modifications to Folsom Dam would permit SAFCA and Reclamation to reduce the maximum storage space requirement under the current reservoir operations agreement from 670,000 acre-feet to 600,000 acre-feet, thus increasing the space otherwise available for water conservation. In addition, with the increased outlet capacity afforded by the proposed modifications, it may be possible for SAFCA and Reclamation to incorporate weather forecast based criteria into the reservoir operations agreement that would accommodate transient water storage in the variable storage space otherwise allocated to flood control under the agreement. Thus, the proposed modifications would have no adverse effect on local water supplies and could even increase the water available for local delivery depending on the criteria incorporated into the SAFCA-Reclamation reservoir operations agreement once the outlet modifications are in place.

With respect to concerns raised by increasing the carrying capacity of the American River channel to 180,000 cfs, as noted above, this increased capacity would make the existing flood control system safer to operate because it would provide Folsom Dam operators with the option of increasing

releases from the reservoir when forecasted inflows might otherwise exhaust the safe storage space available in the reservoir during the peak of a very large flood.

With respect to effects of the proposed modifications on upstream and downstream communities, SAFCA is committed to the principle of full mitigation for the adverse hydraulic impacts that could result from increasing the safe carrying capacity of the American River levee system. This commitment is clearly expressed in the ratified Proceedings of Phase One of the Lower American River Task Force (July, 1994) which state:

> "The Corps will analyze each plan presented in the LAR [Lower American River] Project Alternatives Report and determine the impact each plan will have on the Yolo Bypass, Sacramento Bypass, and the Sacramento River both upstream and downstream of the LAR. If this analysis shows the levee system is adversely impacted by the proposed alternative, a mitigation plan to restore the system reliability and level of protection will be adopted. The hydraulic mitigation plan could include but may not be limited to: physical improvements to the levees; construction of additional bypass capability by widening weirs; setting back levees; and/or a combination of the above."

This statement was approved by all of the signatories to the Phase One Proceedings, including SAFCA, representatives from the Reclamation Board, the City of West Sacramento, Reclamation District 1000, Reclamation District 900, and Reclamation District 2068.

Consistent with this statement, the Chief's Report incorporates into the dam and levee improvement alternative a hydraulic mitigation plan designed to preserve or improve existing levels of flood protection upstream and downstream of the American River basin. SAFCA understands that the feasibility level analysis which supports the Corps' plan measures must be further developed before the planned improvements can be designed and constructed. Nevertheless, the SAFCA Board is persuaded that the level of detail provided in the 1996 Report is sufficient to support Congressional authorization of the project. We recognize that upon completion of more detailed studies, the scope and cost of the necessary improvements could increase. However, Federal guidelines and procedures require the Corps to seek further authorization from Congress if any such increase exceeds 20% of the authorized total project cost. Hence, concerns about the ultimate scope of the Corps' hydraulic mitigation plan should not frustrate the Federal authorization process.

With respect to other environmental impacts, the Chief's Report identifies a loss of approximately 37 acres of seasonal wetland and riparian habitat as a result of construction activities in the American River Parkway. This loss would be mitigated by restoring seasonal wetland and riparian habitat on a 140-acre site in the Woodlake area of the Parkway patterned on the borrow/restoration project with SAFCA carried out on adjacent lands in 1996 as part of the North Area Local Project. Approximately 120 acres of emergent marsh, seasonal wetland and riparian habitat would be lost in connection with construction in the Sacramento and Yolo Bypass systems. The Chief's Report indicates that this loss could be mitigated through restoration of a portion of Liberty Island adjacent to an existing mitigation site along Cache Slough.

A Decision on Increased Flood Control for Sacramento Should Not be Delayed

The debate over the levee component of SAFCA's preferred plan has tended to look at Sacramento's problems along the American River in a vacuum. Often ignored in this debate is the fact that pursuit of measures designed to increase the channel capacity of other segments of the Sacramento-San Joaquin River levee system is a common flood risk reduction strategy for urban areas outside the American River basin. SAFCA itself is pursuing such an approach in Natomas and North Sacramento and in the southern part of the City along the South Sacramento Stream Group. The City of West Sacramento, in cooperation with the Corps and the Reclamation Board, is proceeding with a project involving levee raising and strengthening to provide its residents with a high level of protection from flows in the Sacramento River and the Yolo Bypass system. Marysville, Linda, and Olivehurst in the Yuba River basin are also working with the Corps and the Reclamation Board to secure Federal authorization for a project involving levee raising and strengthening that would increase the safe carrying capacity of the Yuba and Feather River channels adjacent to urban developments. Finally, the City of Stockton, guided by the example of SAFCA's North Area Local Project, is funding its own local project of levee raising and strengthening to protect its urban area from flooding along various tributaries to the San Joaquin River. Each of these efforts has involved difficult planning and design issues, including hydraulic mitigation. Nevertheless, these difficulties, which in principle are not distinguishable from those we face in the American River basin, have not prevented these urban areas, or their Federal and State partners, from proceeding with the incremental improvements which they have identified as a necessary part of their flood risk reduction program.

Clearly, the incremental dam and levee improvements proposed by SAFCA would not fulfill the Agency's long-term flood control objective. However, these improvements would provide a significant measure of flood risk reduction and they represent the logical next steps in the ongoing process of upgrading the existing flood control system which began in the aftermath of the 1986 flood. These steps are not free of technical and engineering uncertainties or organized opposition; but SAFCA strongly concurs with the principal finding of the National Research Council, whose experts reviewed and issued a report on the options for flood risk reduction in the American River basin in 1995:

> "The key issue in the planning process, and in this report, is how to reduce flood risk in the Lower American River basin given a decision making arena that includes significant scientific uncertainty and organized opposition to some of the possible risk reduction alternatives...[b]ut decision makers, agency officials, and interest groups reading this report should not use calls for additional research as an excuse for not taking action...It is time to select and implement flood risk reduction strategies for the American River basin."

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