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Assembly Committee on Water, Parks and Wildlife

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INTERIM HEARING ON

# **WATER RESOURCES (AB 2249-BATES) CALIFORNIA WATER FUND (AB 2250-BATES)**

CALIFORNIA STATE UNIVERSITY AT LOS ANGELES  
December 2, 1981 - 10:00 A.M.

Norman S. Waters  
Assemblyman, Seventh District  
Chairman  
ASSEMBLY WATER, PARKS AND WILDLIFE COMMITTEE

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CHAIRMAN NORMAN WATERS: Good morning ladies and gentlemen. You certainly have a wonderful day in Los Angeles. I don't know who's responsible for that but the Committee thanks you. This interim hearing of the Assembly Water, Parks & Wildlife Committee will now come to order. Before I proceed, I would like to introduce some of the members and the consultants. Clyde McDonald, the Consultant to the Committee; Jim Cramer of Ontario, extreme right Betty Johnson, Committee Secretary; Tom Bates and Lenny Goldberg, his aide. Glad to have you all with us.

This morning we are going to hear testimony on two water bills which have been introduced by Assemblyman Bates. We have approximately 17 witnesses who wish to testify today and in order to make sure that we have adequate time for the witnesses who will come later in the agenda I intend to limit the witnesses to approximately 20 minutes and we'll break for lunch around noon. I expect we'll be done around 4:00 or earlier. With that, our first witness is Assemblyman Tom Bates, the author of these bills. He's going to describe in detail these bills to us. There's a slight change in the agenda, but we'll announce that as we go along.

ASSEMBLYMAN TOM BATES: Thank you very much. I appreciate the hearing of this Committee on these important pieces of legislation. I think the timing of this hearing is extremely important because we're now seeing the campaign against the Peripheral Canal starting to heat up and we're also seeing the fact that Lieutenant Governor Mike Curb has announced that he's putting together a committee to look at the alternatives to the Canal and the \$20 billion Canal package. This hearing is, I think, an opportunity to examine some of the alternatives to that costly package. I believe that the

major economic reform of the California water system will solve many of the water problems of the state. Such reform will generate more water, at far lower cost than the expensive, massive construction project called for by Senate Bill 200. We live in a time of austerity and I'm amazed that the inefficiency of the water system has escaped public scrutiny until now. The current water system operates in a way which is inefficient and wasteful on a grand scale. The water system is wasteful in both dollars and water and is replete with subsidies and inefficiencies which are harmful to the taxpayers, ratepayers and the environment of California.

The specific problems of the economics raise -- let me just cite a few of those problems which I believe are inherent in the economics of the water system. First, taxpayers statewide subsidize the state water project by about \$500 million over the last 20 years. They continue to fork over \$25 million per year every year. Urban ratepayers in water districts such as Metropolitan Water District of Southern California have provided hundreds of millions of dollars through their water rates to subsidize cheap water for agriculture. Prices of water in some agricultural areas are kept artificially low so that farmers have little incentive to conserve. Even if farmers do conserve they cannot reap any real savings because of archaic barriers against water resale.

No official cost-benefit analysis has been done for the billions of dollars worth of proposed projects while independent economic analysis most often occurs for far less costly items which include the benefits of those projects but yet we see this is immune or has been immune from that kind of scrutiny. It is my contention we cannot afford to have this waste of the resource and of the water.

82-9-232 We can't afford to tie up billions of taxpayers and ratepayer dollars on projects which are not needed. The future health and productivity of the California economy demands an end to such massive wastes of money.

What do we propose in the bills? First of all, I'd like to talk for a moment about the basic principles underlying the legislation before this Committee. The basic principles that are in these proposals are traditional, market economics. As long as water prices to agriculture are kept artificially low, water will be misused. Establishing a market based pricing policy means much more efficient use of water since agriculture uses 85 percent of the water in this state. Increased efficiency will mean plenty of water for urban and industrial users. Economists are unanimous in their opinion that our water system is highly inefficient. The solutions are obvious. Eliminate taxpayer and ratepayer subsidies; allow for a water resale market and require rational, economic criteria for approval of new projects.

The bills, specifically, say first, the benefits of new projects must at least equal their costs and that such analysis take place before new water projects are built. Second, it requires that a lease-cost-first approach be used for new inter-basin transfers. Specifically, it requires that conservation be considered as an alternative in water supply planning. Third, eliminate the current barriers to transfer of water through a water resale market. Currently, if a farmer does not use all the water he has a right to, he cannot sell the unused water, even if another user is willing to pay more than the water is worth to the farmer. So the farmer has little incentive to conserve and the system as a whole uses a great

deal more water in an uneconomic use.

According to a study done by the Rand Corporation, a transfer system would lead to the establishment of fair market prices for water and would send water to more efficient users and would save the state the need for any new massive water projects. Fourth, the legislation redefines the way costs are allocated in the state water project so that current subsidies from the Metropolitan Water District ratepayers to Kern County agriculture is eliminated. It calls on project users to pay their fair share of the development costs. Currently, water districts such as the Metropolitan Water District, for a fixed share of the capital costs of building -- excuse me. Currently, the water district, such as the Metropolitan Water Contract -- district contract, for a fixed share of the capital costs of building in the state water project -- the Metropolitan Water District ratepayers pay this amount whether or not they receive the water they pay for. The water which is not taken by MWD and they never take their full share is then declared surplus and is delivered to Kern County agri-business for only the transportation cost of moving it or pennies on the dollar paid for by the ratepayers. The bills say that the Water District shall hold the right to the water they pay for in the proportion of the amount they have paid. They can resell the water that they don't need to the highest bidder with the proceeds from such resale returned to the ratepayers who are footing the bill in the first place. The system was actually originally designed to operate this way in 1960 and was only changed in 1973 at the request of the Kern County Water Agency. Fifth, the bills eliminate the \$25 million in state revenue which flows automatically, with no legislative scrutiny, to the

California Water Fund for the purpose of water project construction. About \$500 million from tideland oil revenue has been pumped into the water project, despite the claim that the state water project is self-sustaining. The money is supposed to be paid back, but in fact, it is recycled and recirculated back into more water project construction. The effect of such subsidy is to help make the water system free from the discipline of the market and leads to more construction than the water users would otherwise be able to support. The effect -- using the market is a much better regulation as a means to promoting conservation. Rather than establishing a cumbersome, bureaucratic requirement, market pricing of water will provide the incentive for better irrigation methods, more efficient use of land and better choice of crops. Ultimately, the farmer, the taxpayers, the ratepayers, and the consumers will be better off with these changes. The only beneficiaries to the current wasteful system are the huge agri-businesses that are currently located in Kern County and oil companies who also benefit by this current wasteful system.

The testimony will elaborate on these points. The real question before this Committee is: Do we need a phenomenally expensive system of plumbing to deliver more water? I contend we can eliminate the barriers to an efficient water system and deliver more water at less cost. The spending and the subsidy spree of the 1960's is over and the old expensive policy such as give-away programs have to give way to the lean policies of the 1980's. I believe that the bills will add to the debate around the Peripheral Canal package and, in fact, will show people that it is more efficiently using the market approach and will provide water for

their needs into the 1980's and beyond. I look forward to the opportunity of giving testimony before this Committee, so the Committee can fully debate and understand all the points that are covered in the legislation.

In closing, I would like to say that I appreciate people coming and the opportunity to present these facts to people in Southern California because I don't think people really fully appreciate that there are alternatives; there are ways in which we can deliver water to people in Southern California without building the costly Peripheral Canal package.

CHAIRMAN WATER: Thank you, Tom. Is there any questions from the Committee?

ASSEMBLYMAN BATES: Mr. Chairman. Maybe if it would be appropriate, Lenny Goldberg of my staff, would like to go into some of the points a little deeper, if that would be acceptable to the Committee.

MR. LENNY GOLDBERG: Just very briefly to clarify some of the intent because a number of issues have been raised about the language and the construction of the bill, since this is their first hearing. In fact, there are many items about the language of the bills that need to be discussed.

With regard to transfers, it is the intent of the legislation to go beyond the Filante bill, which is currently in law by allowing for transfers among users and restricting water districts from putting barriers on transfers of water. To the intent, is as much as possible, to open -- and the language has been interpreted in different ways -- the intent is, as much as possible, to open up as free a transfer system as possible. As the hearings go on



and as the issue will continually be discussed, there have been various proposals for different ways of phasing in a transfer program, different kinds of restrictions on a transfer program and those are all issues which we will continue to consider. I think there are many different viewpoints about how such transfers will take place and I just want to clarify that the intent of the legislation on transfers is to remove restrictions as much as possible and to open up the water resale market.

Second, there has been a fair amount of discussion already with regard to the proportionate vs. firm yield provisions of the bill. One thing about the proportionate yield is that it is intended to be on an average basis over a long period of time. The third thing is that there have been other discussions as to other and perhaps more simple ways of eliminating the current subsidies that exist. We also have heard and will continue to discuss such policies as original state water policies which allowed for the sale of water rather than its delivery as surplus so it becomes a transfer policy rather -- as a simpler way of providing for the same thing which is full payment of costs and full recovery of costs. Some comment has been made about water resources planning by the State Water Board as opposed to the State Department of Water Resources. The intent there is to separate the planning functions from the development functions and that is the basic concept behind that section. The fourth issue just briefly to elaborate a little is the question of tideland oil revenues and the use of tidelands oil. For the last 20 years or so, with some interruptions about \$550 million in tidelands oil subsidies has gone to the State Water Project. That will begin to be paid back. Future construction

will in fact be paid substantially out of two areas; one is what is called net revenues in the State Water Project which was \$52 million last year, which has accumulated \$387 million plus the tidelands oil revenue, so the concern there is that there is a substantial amount of both net revenues and tidelands oil revenues which have accumulated. Second, that therefore being no reason to continue the \$25 million subsidy the other thing is that with the continual increase in the amount of combined net revenues and tidelands oil revenues and the water fund basically takes any of the discipline of the market away despite the internal interest rate that is paid on California Water Fund money all that money is just recycled back into construction. So the call there is to say there is no need for taxpayers through tidelands oil revenues to continue to subsidize the State Water Project, especially given the build-up that has already occurred and second, insofar as that money is unencumbered and it's questionable to what extent it is encumbered at this point, that that should be returned to the General Fund given the current condition of the state's finances.

CHAIRMAN WATERS: Thank you. Before we proceed, I would like to introduce Senator John Garamendi. Thank you, John, for joining us today. I'm sure that you can add to this hearing as we move along.

At this time I would like to call on Michael Storper and Richard Walker. Michael is with the Friends of the Earth and Richard is a Professor at UC Berkeley.

MR. MICHAEL STORPER: Well, we're going to deliver our testimony jointly. Dick will go first and describe...

CHAIRMAN WATERS: Will you please state your names for

the record before proceeding?

MR. STORPER: Michael Storper, Friends of the Earth.

MR. RICHARD WALKER: Richard Walker, Professor of Geography at UC Berkeley.

MR. STORPER: We're going to discuss some research that we've done on the state water system and review how it fits in with the provisions of AB 2249.

MR. WALKER: I'll go first to present some of the numbers we've come up with and then we'll discuss a bit more of the implications of that. I want to thank the Committee Chair for giving us this opportunity. We have done a report on financial transfers within the State Water Project. The gist of our findings is -- urban contractors of the Metropolitan Water District of Southern California are paying for water they never receive while agricultural contractors, chiefly in Kern County, are receiving water they do not have to pay for. In the process, millions of dollars annually change hands. The basic logic of this is fairly simple, except for a rather thick fog of numbers in the DWR financial accounts which we'll try and cut through a bit here. Now, how is this transfer effected? It's principally through the fiction of surplus water. Now what is surplus water? Surplus water is of two kinds. We start out with the entitlements, the contract entitlements being allocated to various contractors on the basis of dry-year yield of the State Project and that's called firm water.

Now, in most years, six out of seven years on the average, there's more water than the firm yield. That's hydrologic surplus. This is not a rarity, this is a normal occurrence. In addition,

there is some surplus that comes from contractors who do not take their full firm entitlements and that water goes back into the pool to be allocated to other contractors as they see fit by DWR. Now the problem here is that the water deliveries have nothing to do with water payments. How is repayment taking place? There are two charges. There is a fixed charge for water and there is a variable charge. The variable charge is based on the amount of water actually delivered each year. That is essentially pumping and a few other things. It is called variable OMP & R. It varies with distance. More important for our purposes are the fixed charges. There's three different kinds of fixed charges. There is a Delta charge, which is essentially repayment for the cost of Oroville Dam and facilities north of the Delta, there is a transportation charge, capital charge on transportation, which goes to pay off the capital costs of the California Aqueduct and pumping facilities and there's a minimum OMP & R as operating costs on the California Aqueduct and pumping facilities. That's all graded by distance. Okay, now the fixed charges here are assessed not by the amount of water delivered, but by the share entitlement of firm water yield that any single contractor holds. In other words contractors pay fixed charges whether or not they take any water at all. Now what is actually happened under this system since the State Water Project began full operations in 1972. We have here data for 1972 to 1979 drawn from the DWR's own reports. Our calculations go as follows: First of all, the entitlement shares, that is the shares of firm water on which payments are allocated. Metropolitan Water District is by far the biggest contractor with 51 percent of the entitlement. Kern County Water

Agency is the second largest with 26 percent and it falls down very quickly from there. Our focus is on those two agencies. Second, what have the deliveries been? And what have the surpluses been? Total deliveries thus far in those eight years is 12.1 million acre feet. During that period Metropolitan Water District had entitlements of 4.7 million acre feet. The actual deliveries to Metropolitan Water District were considerably less than that; 2.8 million acre feet or 1.9 million acre foot deficit. Meanwhile, Kern County Water Agency had an entitlement of 3.5 million acre feet and got 5.8 million acre feet for a net surplus of 2.3 million acre feet. Most of that surplus was entitlement water of Metropolitan Water District that the Met did not take and the rest was hydrologic surplus. Third, what should each contractor have paid? Now here we calculated what the fair share of payments would be if there were proportionate yield. If the contractors actually took the amount of water that they paid for or if they paid for the amount of water they actually took. Excuse me. Again, this is the allocation of fixed costs. That would mean that they would both pay Delta charges for Oroville proportionate to the amount of water they took. They would both pay a proportionate charge on the California Aqueduct as far as the Edmundson Pumping Plant which they essentially share. Whereas Metropolitan Water District would be responsible for the costs of the California Aqueduct south of Edmundson Pumping Plant. Now that's a simplified calculation. It took DWR millions of dollars and several computers to come up with the numbers they have in their handbooks, we had about \$2 thousand and one research assistant with a hand calculator, so we had to make some simplification. So we assume that water north

and south of the Edmundson Pumping Plant going to other contractors would be roughly equally allocated and would not really change the results very much. I am quite confident that that's the case. What are the results? MWD should have paid a fair share for the water it took of \$147,214,255. Kern County Water Agency's fair share should have been \$253,281,586. The actual payments were Metropolitan Water District - \$317 million and few smaller numbers that are insignificant here; Kern County Water Agency, \$76,767,322. That led to a net overpayment for Metropolitan Water District of \$170 million, or approximately \$21 million per year. Although since 1973 it's been closer to \$27 million per year. In the same time Kern County Water Agency enjoyed a subsidy of \$176 million, or about \$22 million per year. Now on a per acre foot basis that works out to Metropolitan Water District paying \$112.13 per acre foot. They should have paid \$52.04 per acre foot for a net loss of \$60.09 per acre foot. Kern County Water Agency meanwhile paid \$14.00 per acre foot. It should have paid \$46.17 for net subsidy of \$32.17 per acre foot. Or it roughly paid 30 percent of its fair share costs. Now what this means if Metropolitan Water District is not taking water that it has a right to, it is still paying for that water. That water is then being sold at bargain prices in the central valley. That is the contractors out there simply pay the variable operating costs, the costs of pumping, while all the costs of the facility, up to 51 percent are being picked up by Metropolitan Water District. Both for its entitlement water and it has...should be receiving 51 percent of the surplus water. Needless to say, we find this an unfair situation in which the agricultural contractors of the central valley are being

seriously underwritten by the Metropolitan Water users of the MWD service area.

Now I might add as a note that I just had a chance to see the testimony to be presented by the Department of Water Resources and in it they essentially admit we're right. They say that if AB 2249 were adopted, the Kern County agricultural contractors would have to pay an additional \$30 million per year today and that is very close to our figure which is in the \$20-25 million range, and moreover, they say they would have to pay up to \$60 million extra dollars by 1985. That is simply a measure of the bargain deal that the agricultural contractors are getting on water today as a result of internal transfers, internal subsidies in the State Water Project.

Now I'll turn it over to Michael who will answer some further questions.

MR. STORPER: Okay. I would like just to trace briefly some of the implications of this for the future of the State Water Project. We have before us a plan contained in SB 200 to expand the State Water Project and plans beyond SB 200 to fully develop the project. The water industry generally in the DWR particularly claim that the subsidy situation that we have just documented is a temporary situation owing to a build-up, a slow build-up of entitlement to the point where somewhere around the year 2000 the agricultural contractor -- well sometime between 1990 and 2000, the agricultural contractors will be taking full entitlement and sometime after the year 2000, a date currently unknown, MWD will be taking its full entitlement and at that point all of the surplus will be gone and all of the subsidies will be

eliminated. That's the argument and the argument therefore is that the kinds of subsidies we documented are merely a necessary part of developing a project like this but not a permanent feature. We therefore look at the future of the State Water Project assuming that the facilities contained in SB 200 are built and we found that that is not true. SB 200 facilities would simply continue the subsidies that we have already documented. This is basic to the logic of the State Water Project. It is not a question of an agency's mistake. It is the way the Project is currently designed and that is because payments are based around shares of entitlement, not around water deliveries. How does this work? Let's take the benchmark year 2000 -- if anyone can hear me over this construction -- and look at the firm yield year, which is to say a dry year, look at an average year and look at a wet year and see what it looks like. DWR, if they build the Project out to 4.2 million acre feet, which is about what's indicated with the current mix of facilities that's proposed. This is firm yield, in other words, it is designed to be delivered in a relatively dry year. In the average year the Project would deliver more than 4.2 million acre feet going up to about 4.9 and in a peak year it might even exceed more than 5 million acre feet if the deliveries were timed appropriately across the course of the year. MWD ultimately is entitled to a little more than 2 million acre feet which is about 48 percent of the total firm yield of the State Water Project. That is ultimate share of entitlement. DWR has planned that somewhere around the year 2000, and for some period after that, they will receive about 1.7 million acre feet. How, there is only one situation in which payments and water deliveries would be proportional to each



other and subsidies would be eliminated and that is the year that MWD takes its entire ultimate entitlement and it is a dry year. Those kinds of years happen on the average of one out of every six to eight. So your ordinary year in California is going to contain subsidies from the urban areas within the State Water Project to the agricultural area. If MWD conserves as DWR has planned, they would receive about 40 percent of the water out of the Project in the year 2000 and pay 48 percent of the costs. In an average year MWD would receive only 34 percent of the water but still pay 48 percent of the costs while the non-MWD primarily agricultural contractors, would pay 52 percent but receive 66 percent of the water. There will be several sources of subsidy. MWD taking less than its 2 million acre foot entitlement and the surplus runoff which comes in most of the kinds of years that we have in California with its rainfall cycle. In a peak year the distribution is even poorer. Since the yield of the Project rises, MWD's demand is essentially fixed or unelastic and payment shares are not adjusted, so MWD would receive about 32 percent of the water but pay 48 percent while the non-MWD contractors would receive about 68 percent and pay only 52 percent.

All this means is that the current project capacity and that which is planned to be added to it, because it is planned around the dry, firm yield scenario, will yield large surpluses in the future in perpetuity.

Now, DWR claims this not to be the case, so let me address why I disagree with what they say. They say, as I mentioned earlier, that entitlements are rising and will soon eliminate the surplus. But again, this is only true if the Project never develops

the firm capacity to meet the contract entirely. In other words, if only a small portion or none of the SB 200 facilities are built and entitlements rise and MWD takes all of their entitlement which is a highly unlikely scenario if you look at the planning that has gone into SB 200. It is a very, very speculative situation. So.. that's why we say that it's built into the logic of the State Water Project, that if you construct to meet the contract with firm yield there will be considerable surplus. The solution is contained in AB 2249. The solution is a proportional yield system. Under a proportional yield system, you don't have to eliminate the original State Water Project contracts insofar as they call for...insofar as they assign entitlement to the various contractors. But you have to eliminate the surplus provision.

How would it work? It is very simple and it works the way you would work any business. You give each contractor a proportion of the yield of the Project in any given year which is the same as their payments are as a proportion of total payment. MWD pays 48 percent of the fixed costs of the State Water Project, give it 48 percent of the water. Whether it's a wet year or a dry year. In other words, the conflict of entitlement is redefined as a proportion of the yield of the Project, rather than a fixed acre foot amount. So the amount of water that MWD or any other contractor would get in a given year would fluctuate according to the hydrological cycle. Now this means in many years that an agency such as the MWD would end up with a lot more water than it can use. What would you do with this water? The solution to that problem is also contained in AB 2249, which is you allow MWD and the other contractors to arrange among themselves voluntarily

to sell, exchange, trade, distribute the water however they see fit in a market-like situation. What this means is that you have a more flexible allocation system for water in California so that water can go to the places where it can be most efficiently used from year to year. Now this would provide several benefits. First, the revenue from sales, for example, from the MWD to agricultural contractors, would be transferred to the people who pay for the State Water Project in the first place and that is in the case of the Metropolitan Southern California area. They are overpaying for the State Water Project. Why not devise a system whereby they can reap some of the benefits of those payments back? The agricultural contractors who need water could under this system negotiate contracts for say several year periods, four or five years in a row with the contractors who have large surpluses instead of being dependent on unstable surplus water supplies under the current system. So that the benefit for agriculture could actually be more stable, larger supplies of water. The unit price of surplus water to agriculture would rise compared to the unit price of surplus water currently but the unit price of this surplus water in agriculture would very likely be far below the price of that water than if you build SB 200. So this is potentially a much cheaper source of water for agriculture as well. Agricultural contractors would also have a disincentive to underestimate their entitlement needs in planning future water projects. This means that they would no longer be able to plan by underestimating entitlement and trying to rely on large surpluses which in the past has produced this subsidy situation. Now this was envisioned in the initial design of the State Water Project I want to mention.

The contracts that were prepared in 1960 for the State Water Project said quite specifically that contractors were not to be allowed to underestimate their entitlements in order to rely on large surpluses. In fact, I would like to just read you one sentence from DWR's 1961 analysis, their understanding of the original purpose of the State Water Project. "Provisions are included to discourage any contractor from avoiding full repayment for project facilities by setting its annual entitlements unrealistically low and relying on less expensive surplus water to make up deficiencies."

What happened to that provision was that it was changed in 1973 after intense lobbying by the Kern County Water Agency. A renegotiation of the surplus water provisions was effected which prohibited the DWR from crediting the contractors with surplus for their capital costs that went into developing the facilities that deliver surplus water. But it was envisioned in the original design of the State Water Project and that's precisely the purpose of what Assemblyman Bates is trying to do in AB 2249. It's basically a return to a system that was originally intended.

DWR has another complaint about the proportional yield system which I want to address. They claim that the payment should not be tied to the ultimate entitlements. That is to the share that each contractor would have when the Project is fully built out because the entitlements are built up at an irregular rate. I mentioned this earlier that MWD won't develop its full entitlement until after the year 2000 while the agricultural contractors will develop it sometime probably before the year 2000. So what they say is that if you fix the payment shares at that ultimate figure you're ignoring the real usage of water beforehand.

Well, from an economic standpoint, you don't go out and say, I only need to use the living room and dining room of this house today, so my mortgage is only going to cover the living room and dining room and eventually when I have several children I am going to need all of the bedrooms so then I'd like to extend my mortgage payments to cover the whole house. A house, like a water project, is a long-term, durable, fixed capital investment. So from the very beginning you plan around some concept about what your optimal ultimate usage is going to be. Well that's clearly what all the water contractors have done. MWD thinks that ultimately it's going to need 48 percent of the State Water Project so it should be paying for it right now. To the extent that they get more water when they need it in the interim you allow them to redistribute it on that market mechanism. So the point is that you wouldn't, both from an operational standpoint and from an equity standpoint, you would not want to adjust the proportional shares from year to year just because there's this schedule of build-up. The Project will operate far beyond the point at which all the entitlements are built to their ultimate point. It should also be noted, however, that if DWR had its way and the contractors were actually paying proportional to what they have received in the last ten years, MWD would have paid about 30 percent of the State Water Project, not the 48 percent it's been charged. In other words, even DWR's recommended system hasn't been implemented and that just has exacerbated the subsidies.

So I guess I would sum up by saying that in response to the proportional yield proposal is never that it's not a good system basically or that it's not equitable. Most people admit

that you should pay for what you receive. The complaints by the water people and by the DWR are always things like, it's unworkable, the contracts are set in stone, nothing can ever be changed. Well that's clearly not the case if you look at the fact that the surplus water system was changed from its original design. It's a question of political will really to do it and what we see is that there is a drastically inequitable system here. The majority of the people in this state are paying for other people's water and the political will, will be there when the people find out about it. It is in the interest, it seems to me, of the policymakers of this state to grab this bull by the horns and do it before it really turns into the scandal that it is.

CHAIRMAN WATERS: Thank you. Are there any questions?

Mr. Bates.

ASSEMBLYMAN BATES: Yeah. Michael and Richard, .... we know that the subsidies occur, we know that they're in place right now and both my testimony and your testimony is the extent of that which inevitably leads to waste. Can you have any estimates of what could be saved by putting the market system in place by eliminating the subsidies and eliminating waste?

MR. STORPER: Well,.....DWR in its testimony today, speculated that in 1985 agricultural contractors would be paying \$60 million more a year in their capital costs if the proportional yield system were implemented. That \$60 million would.....well let's say at least 48 percent of that \$60 million would be accruing to the people of Metropolitan Southern California. There's a savings right there. The ultimate savings, however, would come in the way it would provide an incentive for increased efficiency and

and that's actually something that Professor Walker is going to address, is what is the future of the State Water Project look like if you have a proportional yield system and you have an incentive for efficient evaluation of the way to meet water needs.

ASSEMBLYMAN BATES: I guess my question is more to the point, how much water would you estimate would be generated by using the current water that we have in agriculture using it more efficiently through a market mechanism. Would it in fact create new water that would be available by eliminating the waste and....

MR. STORPER: Oh, there is no question that there would be large transfers of water from the Metropolitan Water District to the agricultural areas of the valley and quite possibly on the market system transfers from other areas of the state as well. This has been estimated by some other people who have done research on it to be at a minimum 2 million acre feet a year by the year 2000. That was done by Gardner and his colleagues at Davis.

ASSEMBLYMAN BATES: By going the market approach it's conceivable we could generate as much as 2 million acre feet without building any new projects?

MR. STORPER: Oh yeah. There's no doubt. Now again, it's important to clarify that not all of that would come from the MWD, obviously because MWD doesn't have that kind of water to transfer, the transfer system as a whole with appropriate economic incentives behind it would clearly generate very large quantities of water for agriculture.

MR. WALKER: Mr. Chairman, I would like to say a few more words about future project planning in light of our testimony.

Pursuing now this question of future project planning

and of the adequacy of supplies for the future I want to look at the year 2000 and see what the need is in this medium term projection for SB 200, Phase II Peripheral Canal package given a proportionate yield system. I would like to begin with the question of MWD's water needs for the year 2000. Now the key issue here is always dry year yield. That is always the basis of state water planning and occurs only about 1 in 7 years on the average. That's firm yield. Now MWD has a supply by its own estimates of 3.1 million acre feet in the year 2000. 1.25 million acre feet from local supplies in ground water, about 1 million acre feet of entitlements from the SWP, (State Water Project), 400,000 acre feet from the Colorado River and 450,000 acre feet generated by the L.A. municipal system. Now the demand estimate by MWD for the year 2000 is 3.6 million acre feet. Now that would appear to leave us with a half million acre foot shortage and a need for building further projects. We would like to question that. There are two solutions here. First is conservation. If the Metropolitan area of Southern California were simply to implement DWR's suggested mandated conservation levels of 15 percent which are done without any sacrifice by anyone simply by installation of certain facilities like low flow shower heads and the like, that would cut their water demand by over a half million acre feet in 2000, which would leave us once again with a clear account. On the other side there is additional question of additional supply from the Colorado River a firm supply. Now we need here a half million acre feet. There are a couple of places that could come from. On the.....first there is at times a Colorado River surplus.



Will it be there in the year 2000? It looks like there is a very good chance of that if not perfect reliability. First of all on the side of run-off there has never been a critical year in the historic record, a critical year at the same time in the Colorado River basin as in the Sacramento River basin so you rarely would have an overlap of shortage, of critical shortage in any year in those two basins. Southern Colorado River has been running quite high lately with ample storage and its own managers of the Colorado River system estimate that normally there will be a surplus well into the two thousands. There is even possible excess storage in the Colorado River, the nature of the land formations where the reservoirs are and also there will be more run-off than is predicted because not all use in the upper basin and lower basin is ....consumptive use.....is excess water goes back into the river. Now MWD has first priority on that kind of surplus should it occur. So there's a very likely possibility of extra Colorado River water there. Another side of the question is will the other states take all of the water that they have coming to them under the Colorado River compact and under the 1964 Supreme Court decision. MWD assumes they will and that they will be cut down to only 400,000 acre feet by the year 2000. It is almost certain that those states will not have the facilities by that time to use that water or even by the year 2020. I can quote no better authority than the California Water Atlas which has the name of our governor very prominently featured on its title page which says that there is no prospect of full utilization of Colorado River water even by the year 2020. Now, the third source of Colorado River water is the California

share itself. California has .... is limited to firm water yield of 4 1/2 million acre feet under the ruling of the Supreme Court over 15 years ago. Now MWD assumes the worst. It assumes that all the cuts of California water, virtually all the cuts will come from its share. Now why is that? This is a strange thing. The State of California now gets over 5 million acre feet. When it is cut back to 4 1/2 million acre feet why should all of that come out of MWD? Right now agricultural users in Imperial, Coachilla and Palos Verdes Valleys take over 4 million acre feet a year. MWD takes about 800,000 acre feet. Why should MWD suffer a cut of 50 percent of its water while they will simply go down to just a bit under 4 million acre feet or a very small percentage reduction. That's because in 1931 MWD in an act of great largess agreed to give away its rights to firm a percentage of firm water yield on the Colorado River. This is a so-called Seven Party Agreement of 1931. That agreement is said to be set in stone but of course it is just an agreement amongst agencies, it could be changed. Could MWD get that extra 1/2 million acre feet the 1 in 7 years, the 1 in 7 dry years? That would simply require a cut in agricultural use in the Colorado basin in the California share of 12 percent, 1 out of every 7 years. That's not a very severe cutback. MWD could pay amply for that water. Let me give you just a few figures on that. MWD already pays \$60.00 an acre foot by our calculations for water it never receives. Several thousand acre feet a year I might add. So it's already paying \$60.00 an acre foot just to subsidize Kern County. Now the cost of SB 200 water is estimated from anything from \$200-\$400 an acre foot, considerably higher.

Imperial-Coachilla Valley pays about \$4.50 an acre foot only to the Colorado River storage system of the federal government. The current return on an acre of alfalfa, that is just its market value per acre foot of water in California is \$67.00 and it's only slightly \$7.00 more than MWD pays in its subsidy per acre foot to Kern County. The cost of water saved from the recent effort to line the Coachilla Canal, a portion of the Coachilla Canal which leaks quite a considerable amount, about a third of the water goes down it each year a couple hundred thousand acre feet, they will save an estimated 140,000 acre feet at a cost of several million dollars. It works out to about \$45.00 an acre foot. That is a price that MWD could easily afford to pay. It could easily afford to pay the return on alfalfa grown in those areas and take the water and use it in a dry year and then in the ordinary year it would be available again for agriculture. So, in conclusion....

MR. STORPER: It can only afford to pay that if you have a proportional yield system that allows those revenues first to be returned to the MWD and that's how the key to MWD being able to take advantage of other local water supplies is first readjustment of its economic situation within the State Water Project and its therefore only that way that MWD could develop the payment capacity to get more of that Colorado River water. They are all linked together.

MR. WALKER: So in conclusion there is no severe problem for the Metropolitan Water District in meeting its water needs for the year 2000. MWD appears to agree with us. In fact they are .. now I understand engaged in a.....at least the staff is.....

engaged in negotiations and has written up an agreement to yield out its critical year water, State Water Project, to Kern County which is an amazing thing and it's exactly what they did in 1976-1977. Their critical water yield, it was given up to the valley and it is what they do in the Colorado Water, is give up a great deal of water they could otherwise have. So if MWD is willing to give up this water it would seem to be an admission that it doesn't really need State Water Project water in critical years and can depend on the Colorado River.

CHAIRMAN WATERS: Pardon me, Senator Garamendi?

SENATOR JOHN GARAMENDI: Why don't you finish this?

MR. WALKER: In fact the need for the SB 200 package in the medium term future is probably nil from the point of view of Metropolitan Southern California. MWD simply has to assert its right to state water, to proportionate yield, to begin some conservation efforts and not to assume all is lost in the Colorado. Indeed it should reclaim its rights to the California share of the Colorado River firm yield. Now I want to turn to agricultural water supply in the Kern County water area in the year 2000. Would you like to.....

SENATOR GARAMENDI: Yes, I think this is an appropriate point. In your discussion of the Imperial Irrigation District's water losses you said for several million dollars they could line their canals and save \$150 - \$148 thousand of acre feet of water

MR. WALKER: This is already being done, there is already a lining project on a portion of the canal.

SENATOR GARAMENDI: You came up with a cost of some

\$67.00 per acre foot.

MR. WALKER: \$45.00 an acre foot I believe is the figure. I have it written down.

SENATOR GARAMENDI: That's a one-year cost.

MR. WALKER: No that's an annualized cost. A capital cost equivalent. It would be the same way you calculate cost of the water yield from a dam or anything else.

SENATOR GARAMENDI: Okay. I was curious how you arrived at that calculation. Is that the total amount of water that can be saved in the.....by the Imperial Irrigation district?

MR. WALKER: No. No that's a very small portion. That is their first effort to implement any water savings seriously that I know of.

SENATOR GARAMENDI: I was reading the document that the Imperial Irrigation District put out and they were claiming that they could save perhaps as much as 400,000 acre feet of water.

MR. STORPER: I don't know if you are aware of this but there is a landowner down on the shores of the Salton Sea that petitioned the DWR to investigate why his land was getting flooded out by the increasing size of the Salton Sea. DWR's southern district came back and said, low and behold, it's because there is waste of agricultural water and excess run-off why couldn't we implement some.....why couldn't for example the MWD put up some money for conservation measures and take the water and it would obviously provide benefits by saving good agricultural land as well.

MR. WALKER: I think the figure was nearly a million acre feet.....

SENATOR GARAMENDI: Has the final report of that MWD

document been issued?

MR. STORPER: DWR?

SENATOR GARAMENDI: Excuse me, DWR.

MR. STORPER: Yes it is issued.

SENATOR GARAMENDI: The final report?

MR. STORPER: The final.....I'm not sure whether it was the draft or the final....

SENATOR GARAMENDI: My understanding is that the final report is scheduled to be issued sometime June 15th.

MR. STORPER: Oh, very interesting.

MR. WALKER: So I'm simply indicating there that there is a savings potential at a reasonable cost. Alright just to finish up quickly here on agricultural water supply. This seems to be.....this is the area.....if MWD does not need SB 200 then it must be in the agricultural areas. Certainly something has to change there if we move to proportionate yield system. Now Kern County agriculture has been weaned on subsidized water as our research indicates and so it has developed a fairly large thirst. Now this can only continue if the project continues to be too large and there are surpluses and if MWD continued to be willing to underwrite the costs of overbuilding, and Phase II will.....or SB 200 will continue the situation well into the Twenty-first Century. Now if the subsidy ends, if the proportionate yield system is what we go to, what are Kern's options? Well the first option which sounds very grim is that they would cut back on acreage, they could learn to live without irrigation water in dry or critical years. That would not be the end of the world but obviously that

would have some negative impact. Now alternatively there are many things they could do. First they could invest in more projects to augment supply. We're not saying that that is infeasible simply that it would only be fair and efficient if the agricultural users pay the proportionate share of the costs of additional facilities. Third, they can invest in water savings equipment, more efficient, irrigation equipment, more labor, more experiments, new varieties, new practices. There has not been really enough research at all. They could underwrite some of that and fourth they could pay for water transfers for those with more abundant supplies and less productive uses. That could either be from northern areas in the Sacramento Valley, in fact Kern County has already been looking for people who are interested in selling water up there and they have found people who are interested though there are problems under the existing legal framework. Second, they could ship water from the Imperial Valley. Simply they could take MWD, they could buy MWD's critical water yield and MWD could then buy Colorado River water from the Imperial Valley. Also there could possibly be some transfers from the Central Valley Project. Now we have not said.....and I want to emphasize this.....either that there should be necessarily no more water development under AB 2249, that Kern County agriculture is terribly inefficient or should not exist or it's terribly efficient in use or that Kern County agriculture is marginal. All we said that it is up to Kern County to prove everything it claims about its productivity which is probably considerable and that agriculture can pay its way. If so they can go ahead and expand. But we have said, first, that

Kern County has not been paying its way and the people of Southern California can fairly ask that it do so. Second, that there are three ways of developing more water only one of which is building more projects. Conservation and transfers are also methods, not costless but still important methods that can be cheaper than projects, and third that there is some economic surplus water in this state. Now this is not the same as DWR's surplus but surplus in the sense that much water could be found through more efficient use and transfer from one use to another at a cost below that of most new projects.

CHAIRMAN WATERS: Senator Garamendi.

SENATOR GARAMENDI: In your discussion of the options available to Kern County under your proposal you stated the four reasons.....four options.....

MR. WALKER: Right.

SENATOR GARAMENDI: .....that Kern County could utilize to meet the critical dry year where they would be without water. You did not discuss the option of storing water in their underground water basins which I thought was one of the reasons they were supposed to get water in the first place.

MR. STORPER: One of the things they could do with water that they would be willing to purchase from other users under the transfer system would be to inject it into the ground and draw it back during the irrigation season. We did not mention that but it's one of the ways you could use it and it would be a very good way considering the state of ground water basins down there right now.



MR. WALKER: Yes, and ground water reform would be really necessary for the whole policy.

CHAIRMAN WATERS: Yes, Mr. Cramer.

ASSEMBLYMAN JIM CRAMER: Just so I clearly understand what your underlying statement is. You're saying that if you charge more for the cost of water in Kern County or major users such as that that you expect one of three things to happen. One, a more efficient use of the water. Two, sort of euphemistically saying with a charge to some other kind of crop, you know for its production or you just don't use water. Is that the underlying thing that you are saying to me as you talk about agriculture in California?

MR. STORPER: One other option would be that they could opt to construct new water projects as well. What we are really saying is that it's up to them what our duty is to make them pay for what they get and then let them decide what they can afford.

ASSEMBLYMAN CRAMER: You expect that not to be transferred to any other consumer as that cost occurs? I mean here you are trying to protect me in Southern California and I much appreciate it, but I assume that at some point in time I'm still going to end up paying.

MR. STORPER: Well, most of the.....you're getting into a very big subject there which is how does the cost of water impact the cost of food and other agricultural commodities. Hard to say. There are a lot of levels between the production of a raw agricultural commodity and when it reaches you in the supermarket or in a clothing store in the form of cotton. You can't know

in advance because there .... for example, they could go to a more efficient production technique which would offset the higher cost of water. So there is no way definitively to predict what the impact would be, but given that it's a competitive economic system you would assume that some efficiencies would be achieved and that the full cost of increased water would not be passed along directly to the consumer.

ASSEMBLYMAN CRAMER: But as we make and as you plead to us to make a major policy decision or excuse me a change of direction of substance this can't be speculated just as the statements .... as I listen to you saying that well maybe we can get Colorado River water as a supplement for Southern California needs or maybe we can take from the Imperial Valley or a lot of other speculative things and before I make a policy judgment or substantial major policy change I'd want to be satisfied that the long range planning available for these things is firm.

MR. STORPER: Well what we can promise however, what we do know is that there would be millions of dollars a year saved by the people of Southern California by being able to go on the proportional yield system and that is definitely a bird in the hand. I suspect that those definite savings are.....well those savings are more definite than any speculation one could make about increases in prices of commodities from Kern County. The other thing that to point out is that Kern County production certainly could just serve Southern California or California only. It goes all over the world. Why should we, in California, and particularly the people of Southern California, be subsidizing

the whole rest of the world in the form of the agricultural production by providing cheap input. It just doesn't make any sense. Most of that benefit is gonna leak out to other places and not be returned.

CHAIRMAN WATERS: Are you through Mr. Cramer?

ASSEMBLYMAN CRAMER: I think that the importance of agriculture in California it's obvious is not the basis for a debate here today.

MR. STORPER: No absolutely. No one here is attacking the benefits that California agriculture provides to the state's economy, but it is in the interest of the entire state to have California agriculture be as efficient and competitive as possible and the example of Detroit is a good one here. A permissive environment for any industry doesn't pay off in the long run only in the short from an economic standpoint. So if you cushion the blows for an industry by artificially depressing the prices of things they need to produce it ultimately comes back to haunt them and that may not be in the long-term interest of the state's economy and I think that most of the economic forecasters would agree with that conclusion.

CHAIRMAN WATERS: Senator Garamendi and then we are going to move along to the next witness.

SENATOR GARAMENDI: General question. The figures and information that you provided are of great interest. Have you written .... do you have written testimony and are these figures available in written form? I don't trust my notes.

MR. WALKER: Yes, they are.

MR. STORPER: Yes, we'll provide the committee with a copy of our papers.

SENATOR GARAMENDI: Secondly, your figures appear to be based on the existing capital outlays. Do you have figures that are based upon the capital outlays that might be assumed under SB 200?

MR. STORPER: We don't have them worked out in precisely the way we do for the past because the costs of SB 200 are moving very.....

SENATOR GARAMENDI: Very imprecise.

MR. STORPER: .....You don't know what it's gonna cost.

SENATOR GARAMENDI: Then all of these figures are historical figures based upon money that has been spent and do not include any of the potential additional costs associated with SB 200 and all of its facilities.

MR. STORPER: Right. I gave those percentages of payments versus yield and those you know if you multiplied those against the real costs you'd get the real figures in the future. It is clear that the subsidies in the future will be many, many times higher than what we have documented for the last 10 years because those facilities cost many times what has already been put in place.

SENATOR GARAMENDI: The amount of money that has been invested, capital outlay of the California water project to date is approximately how much?

MR. WALKER: \$2.5 billion I believe.

SENATOR GARAMENDI: If we used some of the later

estimates that DWR is presently using for the cost of SB 200 I think it's somewhere around \$5 billion.

MR. STORPER: Well, they are estimating \$5 billion in costs for those facilities that they expect to complete by the year 2000. That's not the cost of SB 200 package. The cost of the whole package if you add it up goes considerably beyond \$5 billion.

MR. WALKER: It goes over \$20 billion. And that's DWR's own figures. If you just carried them out to the end of the project and not stop at year 2000.

SENATOR GARAMENDI: Well let's just assume the year 2000 for a moment. That's a twofold increase over the figures that you are using.

MR. WALKER: Also for a per acre foot yield would be much less efficient. You'll get about half of the water out of the second stage.

SENATOR GARAMENDI: Thank you.

CHAIRMAN WATERS: Okay. Thank you very much.

MR. STORPER: Thank you.

CHAIRMAN WATERS: Phillip LeVeen, an agricultural economist from Berkeley.

PHILLIP LeVEEN: My name is Phil LeVeen and I am an agricultural economist. I have..... hold a Ph.D. in economics from the University of Chicago. I studied under the revered Milton Friedman. Premarket enterprise-type people who now run our federal government and the..... my current activity is Director of Public Interest Economics which is a non-profit research foundation

mainly located in Washington.

I have recently completed a study for the Ford Foundation reviewing the political, economic, and legal impediments to rational resource water development throughout the west and many of the findings that I have come to in evaluating the more general problems of western water resource development apply even more specifically in California.

Assembly bill 2249 would, if implemented, address some important obstacles that we have already identified this morning and I'm here primarily to underline some of these in more general terms than the previous two witnesses and to try to call the committee's attention to some of the very general processes and perhaps deal with Assemblyman Cramer's concerns about water prices and food prices.

Let me just begin by saying that because of the size of water resource development projects there is probably no other sector of the state's or nation's economy that is more regulated. Water resource development has been the most regulated perhaps of all of our activities and I think the time has come to really examine the effects of these regulations and to consider deregulation as we are considering this same kind of concept throughout many of our other bureaucratic activities. By instituting markets and market mechanisms to provide incentives to change future water resource development we are going a long way towards this kind of deregulation.

Let me make a couple of comments first about overall planning of water resource development such as takes place in

California at least in the past and suggest why this planning contains some very serious flaws and how this bad kind of planning leads I feel to overdevelopment of .... premature development of water resources to the detriment of the state's economy. We had I think all of us today in 1981 looking back on the last 10 years of rapidly rising energy crisis have seen the dynamic adjustments that an economy can make when it is affected by rising energy costs. These same kinds of energy costs rises should have influenced the prices of water indicates that ground water this has been the case but in the case of much of the surface water that's been....that is delivered in California energy costs which are a major component of costs have not been incorporated. Energy cost rises have not been incorporated. This is because the current policy is to maintain very cheap low energy costs and to pump irrigation water from land of the state to the next. These days are coming to an end. We can no longer charge irrigators 2 1/2 mils per kilowat-hour when the cheapest alternatives may be 20 to 30 times higher than that. And as we build new projects and have to pump more water it will be at these new higher costs that we are going to incur and this is going to be reflected in water prices. New projects we've been told already are very expensive. An array of projects that was described at an Asilomar Conference on California Water Problems in the Future indicate that a new water project development will cost between \$100.00 and \$500.00 an acre foot depending upon which of the projects is selected in the future. At a \$100.00 per acre foot for water very few farmers will be able to farm many of the crops that they now farm, that is if they

actually have to pay that \$100.00 an acre foot. And this is just an .... only if this water price is in some way subsidized to these users will it be possible to profitably use new water project delivered water. I think that this is a key consideration without the subsidies that Storper and Walker have just described and if in fact Kern County is required to pay full costs of new water resource development as well as to pay the full cost of added energy costs which are inevitable in the next 10 to 20 years. In my mind we are going to see the very rapid rise in water prices to those producers. At those new higher prices of water we are going to discover all kinds of adjustments just as we discovered users of energy have made over the last 20 years .... excuse me in the last 10 years. We cannot determine today all those adjustments. We are dealing with a very dynamic system when .... if in 1972 we had tried to anticipate all the reactions that would be made to high energy costs it would have been very difficult to do so. We do know that utilities completely overstated the future demand for energy. I believe the Water Resource Department .... the Department of Water Resources for example, probably the Metropolitan Water District as well, have overstated the demand, future demand, for water in the same way. I have participated in a small ad hoc committee that is evaluating the Department of Water Resources planning for future water demand. Past practices have not included the price of water in their projections. That would be .... that might be a defensible mechanism methodology when water prices are very low and don't change very much just as it might have been defensible for the utilities to project energy demands



when the price of oil was \$3.00 a barrel. But when the price jumps from \$3.00 to \$40.00 a barrel, just as I think the price of water will do over the next 10 years, we've had to make dramatic re-evaluations in this process.

The Department of Water Resources is aware of these limits. I should add, however, all of the planning documents that justify the need for all of this water are based on a mechanistic extrapolation of past growth without reference to the increased costs of delivering water or to dynamic changes which are occurring within the agricultural economy which is obviously the main source of demand. We know that as energy costs rise farmers themselves are put under a lot of pressure for a lot of different reasons. Higher transportation costs for example are having a major impact on the livestock feeding operations in California. Increasingly, more and more of the livestock that used to be fed in California is now being fed in the midwest and the finished meat is being brought in in boxes. This is a much more efficient alternative to grazing the livestock here given the increased costs of transportation. Similar types of trends will probably increase with regard to vegetable and fruit production in California which will increasingly lose its comparative advantage to other parts of the country because of the long distances that food must be transported and the increasing costs of that transportation. These are all changes that are going to occur. None of them have yet been incorporated into the planning of future water demand.

So we are capable it seems to me at this point in time

of making the same kinds of massive mistakes that some of the Detroit auto makers made when they decided not to build smaller cars 5 or 6 years ago. We, I think, have to recognize that our thinking is basically premised on 1950 and 1960 economic realities rather than 1980, 1990 economic realities which are vastly different. This can I think lead to a whole series of massive things which will then not only affect the users of water but everyone in the state one way or another. I think that if we work to encourage more reasonable economic criteria for evaluating future water project developments such as those sketched out in 2249. Some of these kinds of mistakes could be avoided.

Cost benefit analysis can help to identify the alternative methods of development the possible kinds of changes that we can expect over the next several years and to determine when it is we should really be building projects. It may well be that some sort of major water resource development is still .... will still be economically viable at some time in the future. If world food demand rises rapidly driving food prices up relative to energy costs and other costs so that farmers could effectively afford the \$100.00 an acre foot of water than it would seem to me of course a new water resource development may become economically justifiable. But that isn't the case today. And it doesn't appear to be the case of the future. Yes, food prices are higher but so are energy costs and the costs of water resource development. So the ratio of food price to water cost has not risen sufficiently to justify these kinds of developments. Let me while I am on the subject of food prices and water costs address this

problem that is frequently brought up if we don't build new water resource projects somehow we are all going to be paying \$50.00 for our watermelons. Put the thing in perspective. Kern County is a small part of the agricultural economy of the nation. It is even a relatively small part of the agricultural economy of California. There are 9 million irrigated acres in California roughly, Kern County represents about 10 percent of that total. Kern County is not going out of production as a result of not building new projects. I think this would be misleading to say it was but I think that the more fundamental economic reality is to recognize this and I think I am very sympathetic with farmers because they alone in our economic system almost today are what we call in neo-classical economics as, "price takers". They cannot influence the price of their crops in the marketplace. What determines the price of their crops in the marketplace is simple supply and demand. This is not true of General Motors, it is not true of the seed dealers, it is not true of the fertilizer dealers or the tractor dealers the farmers deal with. It is not true of the food processors. Because they have to take the price that exists in the marketplace they are in affect competing with producers all over the World. If a farmer in Kern County is now growing cotton and his costs were to rise there is no way he could force those higher crops onto the marketplace. If he did he would simply lose his market because he is competing with farmers all over the rest of California, all over the rest of this country and all over the rest of the world. He represents a very tiny portion of the total food or fiber that is being grown. Therefore, the

ultimate costs of increasing water prices will be borne by current water users in agriculture. I think that explains why they are so avidly in favor of new projects. What this means ultimately is the adjustment mechanisms that will be accompanying higher water prices in agriculture will be somewhat lower incomes in Kern County to the extent that they cannot deflect these rising costs through more efficient irrigation techniques or profit exchanges and ultimately what it will mean is that agriculture of land prices in Kern County will fall relative to what they would have otherwise done. So I think that we are dealing with the main impact of restricting water resource development on the state's economy will be in terms of the wealth of the landowners themselves. A relatively small group of people many of whom are large corporations.

This will in other words, I feel, have no measureable impact on food prices in the marketplace. Let me say a little more about what I think the key here is in terms of how we can improve the economic planning for the future. Obviously requiring cost benefit analyses none of which have ever been conducted on the State Water Project is important. To my knowledge there has never been, as Tom Bates said earlier, a comprehensive study of the overall economic benefits of the State Water Project. There were some private analyses done at the introduction of the original State Water Project in the late 1950's. None of them showed that the project was justified. I think if we were to do a retroactive analysis we would find those results were to hold. Now if in fact users are required to prove that these benefits

of proposed resource development are greater than whatever the alternatives from meeting that are and that those benefits are great enough to offset the costs then I think resource development should go ahead. But until we have got to that point I don't think we are .... we should encourage more resource development.

The position I am articulating here is consistent with that of virtually every reputable water resource economist in the nation. This is not some strange idea that has suddenly been fostered. If you go back to the literature of water resource development you will find that economists starting with some UCLA economists Jack Herschlifer and DeHavilland in 1958 were advocating the very same principles at that time as I am saying to you today and which are represented in his bill. This is an idea whose time has come and mainly because the economic situation that we face today has so drastically changed. We no longer can afford very expensive projects which do not pay off. They do not pay their way. This is true in a variety of ways that we are .... in a variety of areas that we're dealing with and we, I think, have to recognize these realities and they will be brought into this process through implementing this bill. Thank you.

CHAIRMAN WATERS: Thank you very much. Before we proceed I'd like to introduce Dave Kelley from Hemet. Glad to have you with us Dave. Did you have trouble finding this place too? We've got a slight change in the agenda here. We are going to go to John Burnham. He is an economist formerly with Metropolitan Water District and then we'll have Stu Pyle from the Kern County Water Agency following him.

MR. JOHN T. BURNHAM: My name is John T. Burnham. I'm an economist with a master's degree only, unfortunately. I worked for over 16 years with the Metropolitan Water District from which I retired as principle economist on May the 1st. In that employment I had extensive opportunities to become familiar with the economics of water and the other aspects of the water industry and with the Southern California area itself. I got my economics degree before economics became so thoroughly mathematized as it seems to be today, and as a result I hope you won't be too disappointed if I don't give you a lot of numbers and projections and models and things of that type. I think that trends and tendencies are much more reliable than specific numbers in any case. I have to say that the views I am expressing are my own and of course do not reflect those of the MWD. I strongly support those parts of the bills before you that will require more of the costs of water to be paid by the water users directly as part of their water charge. As I understand it the bill provides for that in regard to the State Water Project and also provides that in regard to individual agencies and their charges to their individual customers. This trend or this movement is a classic example of allowing the free market to determine what is the best solution to needs to the economy as opposed to the bureaucratic-autocratic determination and imposition of a solution and these days this type of activity is more in step with our times and with the reduction of governmental interference with individual choice. I have long been concerned about the problem or the possibility that people using water in the MWD service areas specifically are using it for uses for it is worthless to them

than it costs the entire community to bring it in. Under those circumstances waste is inevitable. More money is being used than should be and more water is being used than it should be and more money is being spent. If the full cost of the water to the community were charged to the user directly in his water bill this could not happen because every individual stops using something when the cost becomes more than the benefit he derives from it. In the case of individual domestic users this is a subjective evaluation. In the case of farmers and businesses they have their accountants and their economists that tell them when that point has been reached and when they should change. Whichever you are you stop using a commodity, water in this case, at the proper time in one of two ways; you either stop using it entirely by foregoing the benefits that would be derived from it or you find a substitute, in the case of water that would be by means of recycling in some industries or by waste water reclamation. I believe that full cost pricing is the ideal way of insuring conservation. It allows each personal firm to make his own decisions. It does not substitute our values for those other individual values. It does not require a massive bureaucracy for enforcement. There is no chance for evasion, favoritism or inefficiency. I'd like to reflect with a moment on what happens when you have non-full cost pricing. When water, or anything, especially water in this case is underpriced this leads to a higher apparent demand for water, that in turn leads to an earlier apparent need to build additional facilities then we go on to in reality having more unused facilities and the existence of unused facilities is used as an excuse for not recovering our full costs

because we have all of these unused facilities. The users shouldn't have to pay for them and this in turn leads to less than full cost prices which goes back to the beginning of the cycle and we keep on rolling along. In regard to MWD in Southern California the full cost pricing provisions of these bills would, I believe, result in reduced costs to the MWD service area. First of all, there would be reduced costs to MWD to pay toward the State Project. An enormous part of the MWD budget goes to pay the State Water Project contract costs because the state contractors would pay more nearly their fair share of the Delta water charge costs which MWD has been paying. Not only that, but increased costs which would incur to other contractors would tend to reduce their use of water deferring the need for additional construction of supply facilities that everyone has to pay for.

At another level there would be from full cost pricing within the MWD service area there would be a reduction in MWD's demand. Nobody can tell you how much that reduction would be. It might be 5 percent, it might be 15 percent or something more or less or in between. The coefficient of price elasticity of demand factors is so variable from use to use, from person to person, from location to location, and so the only way we could really find out about that would be to try to. But in any case less water demand would mean less pumping with the last or highest priced cost of power required for pumping. So there would certainly be these two sources of reduction of costs to MWD. At the same time MWD's deliveries would also be reduced and this would tend to reduce their need to build additional supplies and



additional distribution facilities themselves probably. But the MWD water deliveries that would have been foregone, they would have been lost, would only have been those wasteful uses where the value was less than the cost. Ultimately the Southern California economy would be better off because of it. As I say it is impossible to quantify those effects until it is actually done. All we can do is foresee the direction of the effects, the possibility of the delay of the need for construction of facilities and lower long-term costs for the economy.

What about adverse effects on the Metropolitan Water District itself? I believe that the real demand for MWD water is sufficient that there will be no significant dislocation, I can't prove that. No one knows what a certain increase in the cost of water would cause in terms of reduced deliveries. But sales probably would decline some. Costs would also decline for both reasons and hence the results probably would only be a minor financial dislocation for MWD.

I'd like to clarify a couple of other points. Raising the MWD water rates, for instance, will not increase what the people pay for water. The increase in water revenues would be more than made up for by the decrease of taxes. Secondly, there is no question as has often been raised that non-water users within the MWD service area would benefit, would have some un-earned benefits as a result of reducing the tax burden for MWD. It seems to me that it is more important to give water users a proper signal of what the cost of their water is so that they can make a decision which is good both for them and for the economy of the area that it is to recover benefits from these non-water

using beneficiaries.

I also support the water transfer provisions of the bill because this of course provides another way of insuring full cost pricing. If you could sell something for a certain price, but failed to do that then you have in effect paid that price for it by foregoing the money. This is healthy because the water then will tend to flow to where it will do our state and our economy the most good, and specifically this may help to pay the way for transfers from such areas as Imperial Irrigation District to MWD, in case of need. This would be much cheaper than some other proposed sources and it would be beneficial to all parties. One item of concern has come to mind about this as to whether it is appropriate to allow such transfers to occur at less than the full cost that the seller has to pay for that water.

In conclusion the provisions of the bills that tend toward more nearly full cost pricing of water directly to all users and those which facilitate the transfer of water rights from one user or group to another will benefit both in the short and long run. First and most importantly, the people of Southern California in general. Second, the Southern California economy and third, the economy of the entire state. Unquestionably, in the short run, there may be some losers. Those might be the big users of subsidized water but it is possible; I think likely, that their loss will be in the short run only and in the long run they too will benefit. Thank you.

CHAIRMAN WATERS: Thank you very much. Any questions from the Committee?

ASSEMBLYMAN DAVID G. KELLEY: You mentioned that water

from the Imperial Irrigation District could be transferred to the Metropolitan Water District. Would you elaborate on that please?

MR. BURNHAM: If the appropriate institutional adjustments were made it would be possible for Imperial Irrigation District to sell say 300,000 acre feet of water for one year to MWD, allow MWD to withdraw it from the river through the Colorado River Adqueduct to make up water that was not available otherwise.

ASSEMBLYMAN KELLEY: How much water does the IID use now?

MR. BURNHAM: It is my impression that they use an excess of three million acre feet a year.

ASSEMBLYMAN KELLEY: What's their entitlement from the river?

MR. BURNHAM: The number that sticks in my mind is 3.85 million, but I'm not sure that that is just theirs! It may include others too.

ASSEMBLYMAN KELLEY: IID has an entitlement of 2.3 million acre feet from the Colorado River. IID is now using 2.6 million acre feet. They are 300,000 acre feet over what their entitlement is. Any reduction in water savings in IID will go back to the Department of Interior for allocation as they see fit. It cannot be sold to the Metropolitan Water District. Any water saved under the 2.3 million acre feet that they are entitled from the river will be utilized in additional acreage coming under irrigation production in the Imperial Valley. It's their water, they have that right to the Colorado River. They cannot sell that water outside of the district.

MR. BURNHAM: Obviously, I had a misunderstanding. When I was referring to IID I was, I believe, intending to speak about

all of those agencies in Imperial County.

ASSEMBLYMAN KELLEY: There's only...the Imperial Irrigation District is...

MR. BURNHAM:...and Coachella Valley...

ASSEMBLYMAN KELLEY:...Coachella Valley receives its water from the All American Canal and they are entitled to the water that they receive from that under contractual basis from the agency.

MR. BURNHAM: I'm aware of that. As I said, this would only occur if there were appropriate institutional changes made that were beneficial for all of the parties involved.

ASSEMBLYMAN KELLEY: Do you see that forthcoming?

MR. BURNHAM: I am not in touch with the political realities of this type of thing. All I can say is I think it might be beneficial to everybody if it were worked out.

ASSEMBLYMAN KELLEY: If the Imperial Irrigation District were to conserve below their 2.3 million feet entitlement they would bring additional acreage under production which is in the district right now that is not receiving water. They would service their people before they'd sell the water outside the district.

MRL BURNHAM: Well, as an economist I would have to say that would possibly depend on how much they were offered for that otherwise.

ASSEMBLYMAN KELLEY: Oh...maybe, but let me ask you another question. In your earlier remarks you mentioned that conservation would best come about by pricing of water. Right? Did I understand you correctly then?

MR. BURNHAM: In the long term.

ASSEMBLYMAN KELLEY: At what level, how much an acre foot would you say would be adequate for conservation?

MR. BURNHAM: Well, my ideal is to have the price of water equal the cost of providing that water and that will vary from location to location and depending upon the supply of water and what have you. So I cannot give you one dollar value that will...

ASSEMBLYMAN KELLEY: Do you know for a fact that today's price of water is not equal to what is required for conservation?

MR. BURNHAM: Today's price of water as sold by MWD is not the full cost as I define it, of that water.

ASSEMBLYMAN KELLEY: Well, but when the ultimate consumer receives the water on the ranch or whatever and we're talking on agriculture in this particular set of circumstances, I know for a fact in my particular situation and other areas that I am involved in when you reach the price of \$250 an acre foot for water for agriculture you have gone very, very high and beyond what agriculture can receive as far as sales of its product to pay for that water. So I'm asking you where do you see it? We're at that price level in certain areas of California right now.

MR. BURNHAM: It is certain that if the price of water were lower for agriculture in many areas there would be more water used in agriculture. It is also probably true that if the price were to increase even higher there would be even less water used in agriculture so I don't see...

ASSEMBLYMAN KELLEY: I don't agree with that. If you have tree crops in you're not going to use less water simply

because the prices of the trees deteriorate as a result of using less water. You're going to use the amount that's required to maintain the life of the tree and produce a crop and you're going to use the amount of water that's required to keep the soil healthy so it's a viable tree and a viable product is produced.

MR. BURNHAM: I have to agree with you completely and that is where the problem between short term and long term comes into play that you have to try to guess what it's going to be and that's very difficult. But you cannot turn it on and off day by day or even year by year and that's a problem with conservation and the entire situation.

ASSEMBLYMAN KELLEY: Thank you.

CHAIRMAN WATERS: Thank you very much. Mr. Stu Pyle from the Kern County Water Agency. Stu, glad to have you with us.

MR. STUART PYLE: My name is Stuart Pyle. I am the engineer-manager of the Kern County Water Agency, and it seems like Kern County has been the particular focus of the remarks before this committee today. I would think that if the Committee takes those remarks seriously, I would suggest that you would convene a hearing similar to this in Kern County. We have a Cal State University or Cal State College in Bakersfield which may be difficult for some people to find. I don't think parking will be quite the difficulty that you find here, but, nevertheless, I'm sure the people in Kern County would be more than pleased, or perhaps they would be less than pleased, to hear what is being said about the state of agriculture in Kern County and the effects of the State Water Project. In reviewing this bill, I didn't undertake to make a complete defense of the water industry or

agricultural industry in Kern County. I came prepared to make a few remarks on AB 2249 and AB 2250, and I'll make those remarks and maybe a few more about some of the answers...

CHAIRMAN WATERS: Stu, let me assure you that we didn't mean to pick on Kern County at this point and we'd be happy to consider a hearing in that area; however, this is general information and everybody has the right to say exactly what they want to here. We are just gathering information...

MR. PYLE: But, nevertheless, I don't think people in the San Joaquin Valley realize the severe and bitter attack that agriculture in California is under today and it seems to have grown out of the environmental movement and other social movements for social reform which evidently are intent on destroying the water industry in California and thereby having a severe impact on agriculture, on the productive capability of the state, on ability of this state to have jobs for its people, to have a viable economy and some of the remarks made about the...everything is centered on the surplus water in Kern County all grew out of the contract between the state contractors and the Department of Water Resources for the contracts. Now, our people and the agency that I represent, are working under the terms of those contracts. We are not trying to put it to the state or the taxpayers or anybody. We feel that the terms of that contract are rather severe and let me just, departing from this bill for a minute, give you an example of the effect of the costs of water today. As you may know, San Luis Dam has experienced a problem in a slip on the inside of the Dam. They are not going to be able to store water in there for this winter. Hopefully, repairs will get

them into shape that they can get some water in there during the spring runoff period. In the interim, we're trying to figure out how our people can get through next year. Our order for water in Kern County Water Agency from the State Project would be about 1.2 million acre feet of water if we would have...if the state had full entitlement and surplus waters available to us. Next year, we have a firm entitlement of 745,000 acre feet of water and some other water that we have available from the state making about 800,000 acre feet of water available to the Agency. We're talking to...through the Department of Water Resources, the Metropolitan Water District and other parties, to see if some water can be transferred from Metropolitan Water District to Kern County other valley contractors as well as to the Bureau of Reclamation contractors who are evidently, have a harder time making up next year's water supply than we do.

It appears that the direct cost of that transfer would be about \$30 an acre foot. That seems to be the number that we are talking about. At one time it had been discussed in terms of fifty, but it looks like thirty is about it. In Kern County Water Agency we're trying to negotiate with our water district 14 that we sell water to see how many of those districts would want additional water at \$30 an acre foot and we're finding that there is very little response to our request. That farmers are faced with the cost of State Project water which is going to be for them in the range of \$30 an acre foot with no surplus water. There will be no surplus water available next year. So...and we are obligated to make those payments regardless of the amount of water that we receive...



ASSEMBLYMAN KELLEY: Stu, is that the price delivered at the ranch or is that the price that the water company...

MR. PYLE: That's the price that the agency sells the water to the water districts. Then by the time a water district delivers it to a farmer it's going to be between \$45 and \$70 an acre foot.

ASSEMBLYMAN KELLEY: The grower pays...

MR. PYLE: So the grower's paying \$45 - \$70 plus his on-farm costs so you can see that...

ASSEMBLYMAN KELLEY: Delivery charged the grower, \$45 to \$70.

MR. PYLE: Yes, and there are a variety of payment methods of water tolls and assessments, so it's hard to...

ASSEMBLYMAN KELLEY: Plus taxes. This \$45 - \$70 would be plus taxes.

MR. PYLE: Some of that payment may come back in taxes or assessments by which the district will collect a part of their payments. But there are a variety of payment systems. But the point that I was trying to make is that given the cost of water and given the state of the agricultural industry the prices are down and so forth, that there is not very much demand for additional water at the costs that we are talking about. Let me also say on the costs of water and on the serious outlook for farmers in the State Project, that our current bill, which is easiest to talk about between the Kern County Agency and the Department of Water Resources, is about \$35 million which...that's our combined... all of our costs for which we receive roughly a million acre feet of water. So you can see that that's within the \$35 range for an

acre foot of water that we receive.

As the power costs begin to go up in 1983, those costs are going to go up to about \$45 million a year and by the year 1990, we're talking about a total water bill to the Kern County Water Agency from the state in terms of \$100 million a year, which means that our farmers who are receiving about a million acre feet and paying \$35 an acre...\$35 million for it now, are going to have to pay \$100 million or about \$100 an acre foot for water in the State Water Project by 1990. I think there are many of us who wonder just how agriculture is going to stand up in the face of those costs. Those are the costs that are being estimated as a result of SB 200 and the costs of projects therein. They're substantially higher than the original cost of the Project, so if anybody thinks that you can just keep increasing the cost of water to the farmer and they will continue to buy it, that's a myth. I think we're seeing a very hardening, a resistance to buy water at increased cost and I think over this next ten year period, we could very likely see people who rely on the State Project in serious trouble with the cost of water which you projected. I might say that when you talk about Kern County you know, it is easy to lump everybody into one big bucket, but you have people in Kern County who rely on the State Project at the costs I have or they rely on the Central Valley Project of costs which may be \$3.50 an acre foot or they may have Kern River water which has only their water rights, delivery costs associated with it or they may have to pump from the groundwater and again you get into costs that are in the \$20 to \$30 range.

ASSEMBLYMAN BATES: Can I ask a question then? Given

those projected costs, why would we then want to build a...the Peripheral Canal package? Wouldn't that in fact add to those costs and wouldn't...

MR. PYLE: No. We have a fixed schedule of costs under our contract and for that the agency and the people in Kern County are obligated to meet those payments. To meet those payments we have to have a viable agriculture that can produce and pay...

ASSEMBLYMAN BATES: But you indicated that the costs are going to go to \$100 an acre...

MR. PYLE: If we get our entitlement. Now the State Project can only deliver about 2.3 million acre feet of water in its current condition and as we get out into the next one or two years, the total of all of the demands of Kern and Metropolitan and the other contractors will be equal to, or exceed 2.3...

ASSEMBLYMAN BATES: What would you estimate the costs of the new water under the Senate Bill 200 package? How much per acre foot would you say the true cost of that...

MR. PYLE: The cost that I just quoted you that Kern County Water Agency will have to pay in 1990 includes the cost of the Peripheral Canal and construction to that. They...although the Peripheral Canal would not be constructed until 1990, but unless we get our full amount of water or as close to it as possible the cost per acre foot becomes astronomical.

ASSEMBLYMAN BATES: What would you estimate it would be, I mean just without the subsidies, without the...just the true cost of the...

MR. PYLE: I've heard questions of subsidies have been alleged here by other parties and yourself and I don't think they

are actually proved. I think you have to go back to and determine the way those contracts were negotiated and...

ASSEMBLYMAN BATES: Well, you can subsidize a contract too, but \$25 million a year goes every year for the entitlements oil fund to the State Water Project. I mean that's a subsidy.

MR. PYLE: But, it may be a subsidy in your mind, it is not a subsidy in our mind because the contractors will pay that back...

ASSEMBLYMAN BATES: How much have they paid back since the 1960's?

MR. PYLE: Now again you are talking about the terms of the contract that were set up and the...the money will eventually be paid back in the terms of the contract up through 2020. So the state has a very secure investment of that money in the State Water Project. It will receive it back with interest and that's more than it can say for other monies that come in through...

ASSEMBLYMAN BATES: But we haven't seen a nickel yet and you know we...

MR. PYLE: You have our promise to pay and that Kern County and the Metropolitan Water District are kept viable the state will receive its money back prior to the year 2025.

ASSEMBLYMAN BATES: I don't want to bet on it. You're talking about, you know, going to \$100 an acre foot, which may cause all kinds of dislocation. What planning have you done to anticipate the \$100 foot dislocation of the farmers?

MR. PYLE: Well, you see, I think you just had a gentleman up here who talked about farmers as being a rather free enterprise group. That they have to respond to both their costs

and their prices and we do everything we can to make available to them the information as to what the costs will be over the future and they do a lot of things. They look around for the highest producing crop. Well, they found almonds are a good high producing crop, well they flooded the almond market so now they're going to look for something else, but I do trust farmers that they, given the resources, that they will find crops and that they will find a way to make a living with the money. But, I wouldn't sit here and say that there are not going to be serious dislocations among the farmers who are relying on the State Water Project. I would also point out to those who say the subsidies go to the big oil companies, and so on and so forth, that when the serious dislocations come they hit the small independent farmer who is not well capitalized like the big, whereas a corporate farmer or an investment supported farmer or whatever.

ASSEMBLYMAN BATES: When you say that the transfer mechanism would be a cheaper way to move water than paying for the Senate Bill 200 package...

MR. PYLE: Let me actually get some of my remarks about your bill. If I could just...the first part has to do with state board planning. I'd like to say that we would very much oppose placing the planning function for State Water Project in the State Water Resources Control Board. In the 1960's the Legislature separated the water rights function and the planning function between the Department of Water Resources and the State Water Rights Board and has kept them separate since then and I think it would be a mistake to go back to that. So, we would oppose the bill on that, we would oppose the benefit cost provisions as

stated herein because of the attempt of offsetting those with losses that may occur from fisheries, wildlife scenic values, pollutants, and so on and so forth, because it's our understanding that the planning would be done so all such items as termed dis-benefit would be mitigated in the project planning and those mitigations are one of the things which are driving the costs of projects very high, so we would oppose that entire section. On interbasin transfers as said here, we're certainly in favor of interbasin transfers. We have certainly tried to accomplish some of those by approaching people in Northern California to see if we could not work out some interbasin transfers. I'm not sure that the provisions in this bill are necessary. I am going to have one of our attorneys look at it quite seriously, and we will give you our comments on to what extent we believe legislation would be needed to implement interbasin transfers. One of our attorneys believes that the State Water Resources Control Board can do many of these things that are in here if a willing buyer of water were to go there together, that those could be taken care of. But, nevertheless, some legislation may be necessary along that line, but we would not support it within the package of 2249.

As regards the proportionate sharing of water within the state contract, we would oppose that. Here's an attempt of the Legislature to legislate and modify a contract between the state and a number of parties and we just do not believe that that's...fair is the word my kinds use with me...

ASSEMBLYMAN BATES: Do you think it was fair that... these are public entities right? This is a public...a state is a public body, isn't it? Public entities are making the transfers...

MR. PYLE:...and the public entities entered into the contracts...

ASSEMBLYMAN BATES: Why do the public entities enter... break your change of contracts in 1960 and go to the 1973 contracts. How do they justify...

MR. PYLE: I'm not exactly sure what the...

ASSEMBLYMAN BATES: If you made that change, why can't you change that?

MR. PYLE:...I'm not exactly sure what's intimated in the 1973 surplus water amendment. We felt that the surplus water amendment that we signed imposed certain restrictions on the taking of surplus water. It required us to pay additional amounts if we took an amount that was equal to our contract entitlement at that time. So it was put into effect by the Department to limit the amount of surplus water to be taken and if a contractor took more than that he had to make additional payments, so it did result in our agency paying additional for our money during a certain period of time.

ASSEMBLYMAN BATES: How would you justify, if you were a Los Angeles resident, the fact that you've subsidized through taxpayers through their property taxes and through their water rates, the tune of, what was testified here earlier, \$175 million over the last decade and roughly \$30 million a year...

MR. PYLE: I would justify it that the parties who make those charges would have to read the contracts and agree that the terms of the sale of the water and the payments made under those contracts are the condition that prevails. Now, if something that is different is needed certainly it's going to have to be gotten...

ASSEMBLYMAN BATES: Wouldn't you say that' fortuitous for people in Kern County to have that kind of subsidy and what would you do if they were to allow the true cost that Los Angeles people are paying now...

MR. PYLE: The State Water Project probably never would have been built if the agreement regarding surplus water had not come about...

ASSEMBLYMAN BATES: It was the 1960 contract that specified a totally different intent...

MR. PYLE: The arrangements for surplus water were agreed to by the Director of Water Resources at that time with the full knowledge and agreement of Governor Pat Brown at that time, and the provisions for payment of agricultural water and M and I water and the build-up provisions for all the...

ASSEMBLYMAN BATES: That's not what was testified here and brought into evidence by...

MR. PYLE: I do object to the testimony that was submitted here and I think you should hold this hearing in Bakersfield.

ASSEMBLYMAN BATES: Well, what difference does that make?

MR. PYLE:...and the background of how this contract came into being. This contract was negotiated over many, many years in the late 1950's and the early 1960's and it prevails as an instrument in law and if you feel that it should be changed, I recognize that you are trying to do that. We feel that it should not be changed and we will certainly resist it all the way through.

ASSEMBLYMAN BATES: Thirty Million dollar handout. I don't know why you wouldn't.



CHAIRMAN WATERS: Mr. Bates, why don't we allow Stu to finish his statement. He has a point of view here which I'm sure the Committee is interested in hearing. At least, I am.

MR. PYLE: As I said, we would not be in favor of the sharing of the shares and proportionate use aspects of the contract and even though it seems to be indicated as immoral, it would result in extremely higher costs, either higher costs or lower water use, between the period from now to 1990. After 1990, when the surplus water provision is largely overcome, I'm not sure it would make too much difference. There may be circumstances where some arrangement of that would be beneficial to the Kern County Water Agency. We have in the past prevailed on the Department of Water Resources to allow temporary transfers between contractors and we feel that there is a mechanism within the Department and within the contract for them to bury the allocations between contractors, to balance the payments between contractors, and we do not feel that legislation is necessary in that regard.

CHAIRMAN WATERS: I was under the impression, Stu, that to do that inbasin transfer, is going to take legislation to accommodate that. Now you say that is being done; are you certain?

MR. PYLE: The Department of Water Resources may change the allocations of water to any contractor in a given year. We have what we call a build-up level of increasing demand and at times, we have asked the Department to increase that. I don't think we have ever asked to lower it. But, we have asked them to increase it at times and other contractors have suggested that they would be willing to lower their contract if the amount in effect would be transferred to us and we would pick up all of the

costs that they would otherwise have. The Department has not agreed to any of those and some of the reasons have been the uncertainty in regard to water demands and the situation regarding SB 346 which was going on at that particular time. But we certainly agree that it would be beneficial to all contractors to have some method of transferring, but again, I believe the contract is adequate to cover those contingencies.

There are a couple of sections in the Act which require or provide for water conservation, water reclamation and so forth. There have been some statements made here today that, let me just use the term, "enormous quantities of water could be made available into the state system, if only the farmers in Kern County were more efficient." Well, we have more than one report that's being generated and, by the University of California in one of the terms and by the Department of Agriculture through the UC facility at Riverside, and both of these show that water efficiency, the use of water in Kern County, is extremely high. It's probably higher than anyplace else in the state. I think that you'll find that particularly in the State Water Project that there has been a high degree of investment in sophisticated facilities, drip and sprinkler and moving sprinkler and so on and so forth that deficiency is high in the State Project, probably higher than it should be in some regions and there continue to be demands and I don't see that there is any way that water conservation planning is going to turn back water to the Department of Water Resources. Even when Kern County uses all of the water available to it, it still has a residual overdraft in its area and we just don't feel that conservation in agriculture is going to offset the need for future developments.

ASSEMBLYMAN BATES: On that point, I was out of the room for a little while, but I don't think that anybody here has implied that Kern County water users are not using it efficiently. There are other parts of San Joaquin Valley and agriculture in general is the contention that was being made. The only comment that I've heard of anybody saying it hasn't been used efficiently was; I was recently on a television show where somebody called in and said that they had driven through Bakersfield on Friday when it was raining a torrent rain and people had their sprinklers on, but..

MR. PYLE:...we got about a quarter of an inch...

ASSEMBLYMAN BATES: But, in any case, I don't think anybody is implying that we recognize that you've brought the State Water Project water and have gone on line and generally speaking it has been very efficiently used. But, it is the rest of agriculture that we are concerned with.

MR. PYLE: And then last, on AB 2250, we have some remarks about the money from tidelands oil and I believe that's going to be a necessary element of the Department's financing of the works under SB 200 and we do not support this legislation. We do not believe that it should go ahead with that earlier action of the Legislature to dedicate some of the income from tideland oils to development of another resource. Water resources should be continued. Mr. Waters, I would hope that I can generate some remarks on paper and forward them to you.

CHAIRMAN WATERS: I would like to have those. The Committee would like to have them.

MR. PYLE: I will be in touch with another member of this Committee, Mr. Rogers, and I do think in view of the high

feeling on this subject, that a hearing in Bakersfield would be entertaining if nothing else.

ASSEMBLYMAN KELLEY: Stu, let me ask you one question. In your contracts with the state, I don't know what your contract calls for, but you mentioned earlier in your comments that you have about 1.2 million acre feet that you're going to use this year. Is that right?

MR. PYLE: If...left to a good water supply to the state we would order about 1.2 million acre feet.

ASSEMBLYMAN KELLEY: What does your contract call for? Or what does your agreement with the state call for?

MR. PYLE: Our firm entitlement with the state is 745,000 acre feet in 1982 so...

ASSEMBLYMAN KELLEY: So you're buying over and above what your contract...

MR. PYLE: Yes, and we have a basic need of between 900,000 acre feet and one million acre feet. In this year, 1981, we're delivering about 1.2 million acre feet and about 100,000 acre feet of that is going into groundwater recharge and so...

ASSEMBLYMAN KELLEY: So is that additional water being purchased from another contractor or where does that come from?

MR. PYLE: The water over our firm entitlement comes from the Department of Water Resources and it's water that they have in the system, it's in storage or it's diverted as unregulated flows in the Delta.

ASSEMBLYMAN KELLEY: So that water that does generate income to the state then otherwise if it would remain in storage it would not generate income to the state?

MR. PYLE: I can't say that it would generate income for the state because we pay for just the cost of power for O & M pumping the water. So there is no residual funding that goes to the state as a result of delivering that water.

ASSEMBLYMAN KELLEY: Okay, thank you.

CHAIRMAN WATERS: Thank you. We'll adjourn until 1:30.

AFTERNOON

CHAIRMAN WATERS: The Assembly Water, Parks and Wildlife Committee will please come back to order and we have presentation by the Rand Corporation; Charles Phelps and Nancy Moore, would you please proceed?

MR. CHARLES PHELPS: Dr. Moore will present a very brief summary of some of the past work we have done on water use efficiency in California, and then I will make some very brief comments after that discussion on the particular bills under consideration and how our work might apply to it.

DR. NANCY MOORE: Thank you, our studies' emphasis was on improving water use efficiency in California and by efficiency, we mean in the economic sense, rather than in the sense of physically how much water you are applying to a crop; rather how you value it versus how other people value it in your use.

Now, we are going to focus on agricultural water use and this is primarily because they are the biggest users in the state with 85 percent of the water. They are a very powerful local interest and they are really the place where we have a leverage for major conservation and changes.

Now one of the things I feel illustrates what I might call water use inefficiencies or what tends to lead towards that,

is the magnitude of California's water price or cost disparity. What we find is that some people have old water prices that they are paying something like \$3.00 and \$3.50 per acre foot of water. We've got some users paying \$30 an acre foot for water and we've got new water prices for new projects coming in at \$300. Basically, a factor of 100 over what apparently some people pay and this price disparity that exists throughout the state affects farm profits and water use in California and let's just first look at an example of how it affects farm profits.

If we take two farms that are exactly the same, they're in the same area, in fact they're right next door to each other, they are on the same size. They happen to grow the same crops and by the way, I would like to say that these examples that I'm using of farms are basically illustrious examples to make some points. They're not made to represent exactly what's going on in certain areas of the state at this time, or to show the kinds of things that could happen in the state. So, we've got two farms next door to each other. They're the same size and they grow the same crops. So they have the same profits on the right-hand side for producing the crops. The difference is they've got the same amount of water, but they pay different amounts for their water.

One you see pays \$10 an acre, which refers to reasonable water prices and the other pays \$40 an acre, a difference of \$30 between the two. So, the water costs vary substantially. Now, if the farmers are, in fact, saying, is their cost of farming will be the same and the only place where this is going to differ is in the water crops that each farmer pays and you could see the bottom line is the difference in having say in this example,

\$10 versus \$40 for water is \$60 thousand in terms of farm profit. It really makes a big difference to farming in terms of water price the farmer pays for his water.

Now, let's look at how it affects water use, but I'm going to go back to price again. A lot of people have alluded to this today but what we find is that the price people pay for water varies a lot by what areas they're in. For example, around the Delta area, you see surface and groundwater in ranges of \$2.00, \$5.00, \$20, you move southward to Kern County, water prices to what people pay raises substantially and also, if you look in the Imperial Valley areas, you find that water prices are relatively low compared to what some other people pay. This has a substantial impact on water use. It just so happens if you look at, now this is farmland used for watering crops, you see that in the areas where water is cheaper, a larger portion of the crops are water intensive, and if the water prices should increase, you see the production in the Kern area only 14 percent of the water is in water intensive crops. So what a farmer pays for his water does make a difference as to what types of crops he grows. You get down to the Imperial area and we are seeing water a little less expensive, and the percentage of water and crops tends to raise substantially.

In fact, if you look at the kinds of crops grown in California, you find that three of the four top crops in terms of total water use, and we rate them, three of the four top crops are water intensive crops. They represent 30 percent of the water in the state, and in fact, if the farmers had incentives, if they choose to grow other crops, say sugar beets, they could cut their

water usage as much as 25 percent to just these three water intensive crops which have to be alfalfa, pasture and rice. The amount of water saved would equal 3.5 million acre feet, the kind of water that the state is talking about in terms of new facilities.

So, we're really talking in terms of the amount tied up in water intensive crops in a lot of water. I'm talking about a lot of water. Another thing a lot of people don't always understand about the State of California, a lot of people talk about the State Water Project and CVP and groundwater, it turns out there is a large amount of water in this state, or a fair amount. It's developed by local water districts, and by cities. And they built those projects a long time ago. It's just like someone who acquired a house 30 years ago, the price was very small, most of those projects are already paid for, those people take rules for their water and they paid the full cost of it. The problem is that they bought it a long time ago.

So there's a lot of cases in the state where you don't have these kinds of subsidies going on, but you still have the problems of people paying very little for their water.

Now, this disparity that I mentioned in water prices will grow with no major or legal institutional changes. I'm talking about like the State Water Project. These expensive facilities when we're talking about energy increases. We're going to have a lot of increases in some water costs. Some of those water users that have those old projects, their costs are going to go up at all, there're probably going to drop. What's going to happen in this variance in water price, it increases the cost of insufficient use in terms of water systems. It tends to increase from the



groundwater overdraft, because you have people that pay so much more than others in terms of overdraft, don't use their groundwater much. It increases pressures among other things for water use regulations. Our problem is that it's not an easy problem to solve, and we put a lot of thought into that and some of the alternative solutions we came up with were to increase the cost of water. Another alternative was regulation of farming practices and third was water sales. I'm going to talk a little more about increasing the cost of water and water sales.

When you increase the price of water, you run into a lot of what we call political problems. One is, that whenever that farmer is making \$60 thousand a year more than the other one, you increase the price of water to him and he's going to lose that. What you're talking about is the large losses to farmers. Now someone might say that that farmer got, you know, he doesn't deserve it, but the problem is frequently the value of that cheap water could be capitalized into the land and so what happens is that farmer who has cheap water, his farming costs might actually be higher if he's a new farmer, because when he bought the farm, he paid his mortgage for the fact that people ought to farm with cheap water. So when you raise the price of water to him, you're sometimes penalizing him way above what you might rightfully want to do. Another problem that you have is running water to his property. The water agencies just raised the price of his water. They're going to make a lot of money. What are they going to do with it, they are several purpose entities most of them. How are they going to dissipate those profits that they make? And there's some legal issues associated with that in terms of the non-profit

agency. And in the fact in many agencies if the farmers did come back and save water, it's illegal to export. So it's not an easy problem just to raise the price of water, and another option I want to discuss a little more in detail is the establishment of a water market. This basically requires three key features that we feel are extremely important.

The first is it requires provision in some state law prohibiting sales. You're not going to sell water unless it's legal. It also requires well-defined property rights. You have to have the pink slip to your water. You can't sell it if you don't own it. And thirdly, and also extremely important, you have to have the proper incentives to sell the water. The farmers are not going to want to part with their water, cut back or rotate their crops but you don't compensate them for, because right now with their resources, they're growing the most economic crops possible.

I'd like to give you an example of what happens with the water market. First, I'm going to start with two farms again with no water market. This time we're going to have a farm in what I'll call in a water rich area, and a farm in a water poor area. What happens is that they are growing different types of crops. We pick rice as an example. One farm is growing a water intensive crop. The other is growing tomatoes and dry wheat. What happens is one has a lot more water, the rice farmer, and he pays a lot less for it. The tomato farmer only has two thousand acre feet and he is paying a lot more. And if you subtract their cost of farming, you find that they are both making a profit. What happens with the water market with this kind of thing? These

are the kind of transfers that we see with crop shifts. The farmers who are growing tomatoes really want to grow more tomatoes. And so he propositions the rice farmer, hey, I'll buy some of your water. So the rice farmer says, that sounds good to me, I'll cut down on my irrigated rice and I'll grow some of my sack flour into tomatoes. I'll shift and expand this crop. So, one farmer shifts, both farmers shift crops. And the rice farmer sells some of his water, first has to pay for it, both paying a nominal fee. So he sells it, the price we pick was at \$25 an acre foot, that amounted to \$75 thousand to the rice farmer. The farmer that bought the water still has to pay to move it, so their paying full cost, but if you get down to the profit line, you find that both farmers make more profit by having a water market, changing their crops and shifting than not. Those are the kinds of transactions that we feel are the kinds that could occur if these kinds of restraints and the conditions that we mentioned on the water markets are implemented.

Now, a lot of people talk about water market, by God, areas are going to dry up. There's going to be no farming. We feel that's probably not the case, what's going to happen is, the majority of the transfers will occur to be failures. During wet years some of the farmers have plenty. When they really need it is during the dry years, so the kind of things that might happen, maybe during the dry years, the farmer loses his rice, but chooses to sell all its water, the remainder he may invest in new water safety equipment. He might sell some of that water to an orchard or an amusement park. There are water using entities in the state that are losing water if they can't water their crops or orchards

and things. Basically, this transaction takes place, the farmer is again better off than the person that tries, in this case, an amusement park that wants to save their investment, their profits decrease, but they still make out okay and they preserve their investments for a year.

It's not clear that whole areas will dry up permanently with water sales. Now, if you do get them water transfers a lot of issues this covers and we'll discuss in more detail. You get some benefits, obviously we feel it's going to ease the water scarcity because those areas that want more water will be able to get it, and those areas will have to release. It will equalize the water value, it won't equalize necessarily some farmer's escape water. Some farmers may still pay over \$2.00 an acre for water, but they will value it because they have options of selling it.

I think there's a lot of farmers out there that are growing water intensive crops who, if offered somewhere below the \$300 or so we're talking about in terms of their price, they'd be willing to shift their crops. Also, we conservatively estimated that the cities the state as a whole, is about a quarter of a billion dollars a year, in terms of the welfare of the state, if you have water sales. There are obviously a lot of profits associated with the water market.

One of the biggest is the application of rights. If the farmer got to have the pink slip, how are you going to get it to him. That's a very critical problem. Another problem I think is return flows, food prices and groundwater. People are going to sell their water, their surface water, they might in fact turn

to groundwater rates and management problems. Basically, what it comes down to, is each user pumping adds to the pumping costs other users are going to get a base of. Unfortunately, the individual pumpers ignore the cost that they impose on others. The bottom line is that this extra pumping costs associated with that, costs the state users about \$59 million per year we estimated in terms of water tables are lower than they should be. Let me give you an example of that. Something that's happening in California a number of times. Talking about extra pumping cost. Let's start out with the basin. Some of the people in the basin pumping and some of the people in the basin not pumping. What we've done frequently in the past we brought in surface water from the groundwater users because their table is low, and lo and behold the surface water is more cheaper, these people started pumping and the groundwater table starts to rise. The cost of groundwater simply has fallen into the table so what happens is you start getting other people entering the market. New users come in, because the water higher suddenly becomes cost effective for these people to start pumping and the groundwater table eventually falls and you have no way of controlling this without some form of groundwater management.

Your water table is always going to go back down again. Now we thought a lot about ways to achieve groundwater control, so that the mechanisms that have to be taxed are pump taxes. But, there's some political issues with that. What are you going to do with the tax receipts which could be substantial. Another way to achieve groundwater control is quotas. There's also political issues with that as the same as for surface water.

How are you going to allocate the flows? That's a very important issue. And both of these systems we talked about in terms of groundwater management, have been successful in Southern California, but there are definitely problems associated with the implementing of specific plans within the state. Chuck is going to talk more about some of the implementation associated with these kinds of recommendations.

MR. CHUCK PHELPS: I would like to follow-up on Dr. Moore's presentation with some comments directed more specifically to Assembly Bill 2249. What we view are perhaps some important aspects of achieving the fully active water market and all the benefits that would follow from that, that haven't been fully addressed in the bill. What it might take to achieve all of these benefits.

I think the first thing to make clear is that a lot of people described our proposed water market from the Rand study as a "pie in the sky" idea and I'd really like to emphasize that's not the case at all. In fact, there's some very active water markets in some scale, even in the State of California and occurring quite commonly elsewhere.

In Southern California managed groundwater basins, the permits to pump groundwater are bought and sold, and what's the equivalent of groundwater market quite actively. There are in a few cases in California mutual water companies which the sale of the shares in the water company effecting the ability to buy and sell water. And finally, during the drought years the Bureau of Reclamation's water bank provided clear evidence about the benefits of a water market and, in fact, the people would change their

water using patterns when faced with the correct economic incentives and supply water into a water market. There are active water markets in the State of Utah, in New Mexico, for example, coming now in Arizona. Interestingly, particularly in Utah, the concept of a water district is almost non-existent. Because almost all of the water development has been through mutual water companies.

In effect, the people using the water had the ability to buy and sell the right to use that water by selling their shares in the mutual water companies. We feel this is quite important. Similarly, in New Mexico, there has been very clearly established property rights to the water that provide a clean economic incentive to water users to adjust their water use in order to be able to gain returns. And finally, a very major change in the water law in Arizona for both surface and groundwater was achieved in the last few years which I think both goes much more towards an efficient water-using system in Arizona previously had, and also suggest that it is politically feasible at least under some circumstances, to achieve a much larger form of water law than would be necessary to achieve an active water market in California.

Turning to the proposed legislation of Assembly Bill 2249, the most striking thing about this to Dr. Moore and myself, is that while the issue of providing correct incentives for using water of the ability to buy and sell water freely cross-water users have been carried out quite effectively in the proposed legislation for State Water Project water. At least as we understand the legislation, it does not address the capabilities of

selling water that arises from other sources. For example, Dr. Moore's slide showed there are five million acre feet of water within California for the water rights are held by local water districts. There's another about seven million acre feet where the water rights are held by cities and other types of water development authorities.

In these organizations, the proposed legislation would not affect the ability of individual water users, farmers within those agencies to deem the benefits of conserving water, because there's no clear assignment of the water title to them in that legislation. For example, this morning, the discussion about what Imperial Irrigation District might do in response to desires in Metropolitan Water District to buy water. And I think it's quite clear was suggested that if there was a conservation of water in IID that water would flow back into the IID and would be used by other farmers, perhaps the same farmers expanding their acreage within the IID. No individual farmer within that district has a clean title of water, and hence, nobody has the ability to -- or the incentive to cut back on his own water use fully and make it available to the MWD or some other buyer. So the question of providing incentives elsewhere outside the State Water Project is I think is quite importantly been left out of the proposed legislation here.

The question obviously, another important area where that arises in federal bureau water and separate issues arise in trying to get the Bureau of Reclamation water into a water market because of the authorizing federal legislation that would be necessary. What I would like to propose to you, what perhaps



might be a small experiment that could be conducted in the State of California to learn more about what the effects would be of establishing a water market outside the realm of the State Water Project. I think perhaps even when the framework of the proposed legislation it could be done, is to have or several local water districts provide a clean clear title of the water to the users within those districts and then proceed to let them continue to grow the crops as they have with the water they've had or make it available for use elsewhere.

But the provision of the title within those local water districts I think is an important aspect of it, would be most important on those water districts which now face very low prices of water, so to be able to supply into those districts which now face relatively high prices of water. The State Water Project contractors are by and large facing higher prices of water than many in the state. And hence, we'd expect them to be net buyers of water, not net sellers of water in a fully active water market. The legislation that's been proposed only gives those currently high price water users the ability to sell their water and we, in fact, expect them to want to be buyers. So, as Mr. Pyle testified this morning, they were trying to buy some water in Kern County, for example, and I'd expect this, they would want to buy, not sell water. The people who I would most expect to be selling water are those that have very low cost applies right now, being very large water intensive crop mix uses. I expect to see some changes from them in their water use.

So, I would propose, in fact, an experiment might be conducted. Perhaps it could be done without any legislation by

the Department of Water Resources and should accommodate some water districts that would be in a typical water supplying area. I think it's important to do that consider what the effects will be on groundwater management in those areas. I think it's quite clear that if you get an inter-basin transfer of water, such as a water market would certainly lead to, there will be more pressure on groundwater pumping within those areas. I suggest the importance of putting in groundwater controls, even those areas which are not currently being overdrafted. If we were to conduct such an experiment as I'm proposing here, you would want it to be of a relatively long period of time; say five to ten years. One to accommodate the prospects of the drought year somewhere during the course of the experiment.

Second, so that the participants in the experiment would have incentives to go into some of the long-range transfers of their behavior, long-range changes in their behavior. In anticipation of this experimental condition would sustain for the entire time. It would be important to guarantee the participants in such an experiment that they would have undisturbed property rights or access to the water when the experiment terminated, if it was not carried out to the full term policy. And finally, it would be important to have careful evaluation of such an experiment to gain the full benefits and knowledge to the state. We think that perhaps experimenting with a limited water market, at the local water district level, might be a reasonable step to proceed with, before the state moves on to a fully active water market that extends not only with the State Water Project contracting agencies, but on current legislation proposals, but in

fact, every water user in the state. Thank you.

CHAIRMAN WATERS: Any questions by the Committee? If not, we'll proceed right along. I'd like to have Chris Reed from Santa Monica City Council member.

MR. CHRIS REED: Good afternoon, it's a pleasure to be here. I want to make it clear in the beginning, I'm here on behalf of myself, not on behalf of the City Council, because we have not as a council had an opportunity to review either one of these bills. However, the City Council has in the past, taken several policy positions with regard to water pricing, with regard to our own agency from whom we buy water, the Metropolitan Water District, and we are also a charter member of the Metropolitan Water District, and I think it would be distinct and safe to say that basically, the City Council of the City of Santa Monica, has opposed for at least the past six years, the water pricing policies in the Metropolitan Water District. We believe that they are unfair. Therefore, I feel very comfortable supporting in principle, the change in the way we sell water in the State of California. And, while I am not an economist nor a water expert, I can't really give you detailed analysis of Mr. Bates' bill, but I can give you my gut feeling as a person who buys water for my home and as a local elected official, that we have to clean up our act in this area. We have to be more fair in our price policies, we have to have incentives for conservation and we have to stop some of the abuses that appear to me to be going on around the State of California with regard to the use and sale of water.

I've been following this issue for the six years that

I've been a member of the City Council. Primarily in unsuccessfully arguing with the Metropolitan Water District. I have always felt that it was terribly unfair to the taxpayers of the State of California, and of the member agencies of MWD that we basically have supplied a system which is delivering surplus, quote, unquote, water very cheaply to agricultural users in the central valley. I don't think it's right or appropriate that that "surplus water" to be sold at bargain basement prices. I think that all the users of the water ought to pay the cost of the water.

In our city, we have over the past six years, made several significant changes in the way we sell water to our customers, the people of our city.

When I was elected, we had a descending block rate structure, which was very typical of utilities in the good-old-days. The more you use, the less you pay for. In 1977, we changed that to a flat rate structure. So that everybody pays the same, no matter how much they use. And this year, effective July 1st, we have adopted an ascending rate structure, so that the more water you use, the more you pay in increments of use. We have not yet seen the results of that water rate adoption, other than a lot of complaints about increased water bills. But we haven't seen the results in terms of how much has the water use gone down. But, I can tell you that when we went from a descending rate structure to a flat rate structure, the water use in our city went down significantly. And the primary conservers were industrial people in the city who immediately recognized that it became economical for them to either reuse their water, clean it and reuse it, or adopt other practices in their industry that would

allow them to use yet less water. And our Gold Star water reducer was Papermate Industries who has a major production facility in our city. They reduced the amount of water that they were buying by something like 50 or 60 percent.

I have always felt that there's a very close correlation to cost of the water and the ability to people to conserve it. I think that the agency to which our city belongs does not really recognize that or give it full credence. We have continually pointed out to them the unfairness in categorizing one to five acre pieces of property for agricultural rates on water, if those people have an agricultural use, and growing of citrus or avocado trees is deemed to be appropriate. Therefore, we have lots of small acreage parcels, mostly in Malibu and North San Diego County, where people are receiving water at a flat agricultural rate, which they are using not only for agricultural purposes, but also to fill their swimming pool, for their regular household uses.

I know this to be a fact, because I know people who live in the Fallbrook area on two acre parcels deriving these benefits. It's a big giggle for them and it cost them a lot less to fill their swimming pool than it cost somebody in the San Fernando Valley to fill their swimming pool. I do not think that's fair and never have thought that's fair. I have despaired of the Metropolitan Water District's ability to come to grips with this. I don't think they ever will. It's just the structure of that agency, they're not going to be able to do it. Primarily, because most of them are not elected officials. So they don't get the kinds of pressures that you get and we get when we're elected officials.

So, I think that we are turning to the Legislature to solve this problem and it certainly is not going to be an easy problem to solve. And you probably aren't even going to solve it in this session because it's very emotionally charged issue and it has a lot of financial ramifications and everybody gets scared when you talk about changing the way you distribute and sell water. But I want you to know that I support this effort. I think Assemblyman Bates should be commended for at least surfacing the bills and getting the discussion going. I hope that we can, at some point in the near future, achieve real fairness in the way that water is priced in this state, and that we can have a true incentive for conservation. I think that charging for the water what it actually costs us to move it around and distribute it will, in fact, enhance efforts towards conservation more than anything else. Thank you very much for this opportunity.

CHAIRMAN WATERS: Thank You. Chuck Shoemaker, Deputy Director, Department of Water Resources.

MR. CHUCK SHOEMAKER: Good afternoon, Mr. Chairman.

CHAIRMAN WATERS: I'm going to have to ask you, Chuck, starting with you, to speed it up.

MR. SHOEMAKER: I did hope that I'd be fogged in. I sent with your staff my statement so you should have it already. Just let me highlight a couple of things. And I'll confine myself to the bills and not to a lot of the other items that have been discussed.

On AB 2249, there are provisions of that bill that we think are worth pursuing. Particularly water conservation provisions. We're in accord with the spirit of sections two and

five in the bill, and we are in fact currently preparing a water conservation program that will identify opportunities within the State Water Project. We also support sections six to eleven, would implement a number of recommendations of the Governor's Commission. To eliminate statutory prohibitions on sale of surplus water by local agencies. However, we really are in basic opposition to AB 2249. I won't go into a lot of details, but the transfer of the planning process to the State Board, we don't believe would be at all wise for reasons that are in my statement. The allocation of costs within the State Water Project is the kind of changes that, particularly the way they are made in this bill, could really put the Project in financial jeopardy and we just cannot condone that. We do point out that we even think legally it's beyond the reach of the Legislature to do so -- one would be impacting on the contract with our bond holders. That was one of the big issues involved in the Burns-Porter Act and the reason for the statewide election on that issue. That sweeping restructuring that is proposed here really just is intended it appears to encourage water transfers among the project contractors. We have no problem with that, in fact, we do it and the approach in 2249 we think really is unnecessary, unworkable and not realistic.

Currently, for example, we are, as Mr. Pyle mentioned, trying to work out a transfer this year where we would exchange water that the Metropolitan Water District would otherwise be entitled to users in the San Joaquin Valley. We have a long-standing exchange where the Metropolitan Water District delivers Colorado River water to one of our contractors to Coachella

Valley Water District. And that exchange, that's on the books and has been around for a long time. So that's an ongoing kind of exchange that's been made.

I guess the bigger problem is that bill seems to miss a point that, well you heard from the people around here that, the real problem in California is not transfers among project contractors, State Water Project contractors, they pay at least a realistic \$20 per acre foot for their water, and those transfers can be paid and are being made.

The real challenge is to promote transfers to the Project, of water from other users who are not part of the State Water Project. And there's a lot of people that are paying as little as \$3.50 per acre foot for something that's similar. You know the disparity between those water users, particularly in agricultural sectors, that can get water for \$3.50, they're competing in the same markets with our contractors that are paying very high prices. \$40 - \$50 - \$60 an acre foot. And 2249 doesn't do anything to get at that kind of transfer issue. As you know, we've long advocated that something be done about the Bureau of Reclamation pricing, but that, once again, gets to the federal level.

Finally, I'd like to comment on 2250. We're very much opposed to that bill, also. The tideland oil money that the State Water Project has received and since its inception, and in fact, prior to the passage of the Burns-Porter Act, it is an integral part of the financing of the State Water Project and it's necessary for providing capital for those provisions of the Project that, particularly in the future, that we cannot finance



either by revenue bonds or by excess revenues for the water contractors. I think it includes such things as Suisun Marsh facilities and recreational facilities and we just believe it is important and its relatively modest investment by the State of California and the State Water Project from one resource to another. What usually isn't even thought about, I guess, is the fact that it is a State Water Project. The contractors don't own it, the state owns it. Now, it won't help you fellows any, but there will come a time after the turn of the century when the Project -- most of the features are paid off, and it will still be a working project and water can be sold and the excess revenues utilized for whatever purpose the State of California, at that time, decides it wants. Who knows? Now, it could be the decision will be made at that time to sell water very cheaply, or maybe we'll sell it for a lot and use it for some other purpose that's deemed appropriate by the citizens of the State of California.

And, I think the investment of tideland monies is really a relatively modest thing, but it is an integral part of the financing of the Project, and losing that source of revenue would have an adverse impact on being able to construct things such as the Suisun Marsh facility, things of that nature. It would undoubtedly be reflected in the revenue bond rating, at least the interest rates we would pay, and perhaps on the overall rating of those revenue bonds, which I don't like to speculate what that does to, for example, the state general obligation bond rating, as it stands now, our revenue bond rating is very good. It's comparable to the state's GO bonds rating for reasons we won't go into here. We are in a solid financial footing and

we believe that that tideland money is very important. I don't have anything further.

CHAIRMAN WATERS: Thank you, Chuck. I'd like to ask Jim Markle and Randy Kanouse.

MR. JIM MARKLE: Mr. Chairman, I'm Jim Markle. Lead water rights attorney for the State Water Board for reasons that will immediately become apparent, I will be very brief.

Our Board members have discussed especially AB 2249 at great length. There has been no consensus on the part of the Board that would permit them to take a portion on any provisions of the bill. That may have something to do with the fact that we have currently an even number of Board members on the Board.

I would like to make two comments, however, in response to things that have been said by prior witnesses and I think they will accurately reflect Board policy. The Board endorses certain of the rules of AB 2249, the emphasis on water conservation and wastewater reclamation is one of those goals. The Board, itself, is doing very considerable within its existing authorities, public interest authorities, to encourage water conservation on the part of new water rights applicants.

With respect to transfers, Mr. Goldberg and other witnesses have indicated a desire to go beyond the Filante bill, I believe was Mr. Goldberg's characterization of what is hoped to be done in the area of transfers and the Board encourages water transfers and transfers of water rights; certainly it does not discourage them. There is an old water rights principle I think that ought to be put out on the table in discussing water rights transfers, however, and the Legislature should face this

issue I think. In considering legislation to free up water transfers, that principle is that to the extent of transfers of water or water rights, involves a change in point of diversion or place of use or purpose of use, which very often transfers do.

There is a criteria in approving such transfers and that is that no other lawful user of water be injured by that transfer. That old principle, I think, should be dealt with in considering freeing up water transfers.

That would conclude my comments.

ASSEMBLYMAN KELLEY: What is a transfer?

MR. MARKLE: Mr. Kelley, to me a transfer would be the movement of water from one place of use essentially to another place of use. I would have to couple that by saying I would consider it would have to be used by another user as well.

ASSEMBLYMAN KELLEY: In other words, water that was taken from say, groundwater basin, one mile, would be considered a transfer?

MR. MARKLE: I tend to think of transfers in surface water terms, I suppose the transfer of the sale, the conveyance of an overlying owner's right to his underlying groundwater to a non-overlying place of use would be a transfer.

The principle I stated applies to surface water and that was the entire thrust of my statement.

MR. KELLEY: The transfer is water, regardless of where you get the water. Underground, surface, however, you're transferring water from an underground basin to another area, that's definitely a transfer.

MR. MARKLE: Yes, I would regard it as such, Mr. Kelley.

ASSEMBLYMAN KELLEY: Then there is a transfer when well water is pumped and sold off of the land. You create a problem.

MR. MARKLE: Yes, that is a transfer.

MR. KELLEY: Right.

CHAIRMAN WATERS: Mickey Allen, he is with the Association of California Water Agencies.

MR. LOUIS B. ALLEN: Mr. Chairman, members, I'm Mickey Allen, I'm Assistant Executive Director of the Association of California Water Agencies. I do not have a prepared statement and probably will not take more than an hour or an hour and a half to go through the outline I have here, but I'll shorten that a little bit.

Basically, Mr. Chairman, I would say that we would agree with the statements that Chuck Shoemaker has made in opposition of the bill. We have previously conveyed our opposition on both bills to the Committee and to the author.

The provisions of the bill that transfer water planning functions to the State Water Resources Control Board we feel to be inappropriate. The Department has its role at the present time and not just for the State Water Project, but for statewide planning in general. The State Board has a planning role also, but that is a water quality planning role.

The other side of the Board's duties are to sit as an impartial quasi judicial body in the administered, administration of California's water rights laws. If they are also the water project planning agency, we feel that this transfer would create a substantial and undesirable conflict of interest and destroy their ability to sit as an impartial body.

With regard to the provisions on interbasin transfer, we feel that these provisions really vest total management control at the local level in the State Board, because of the controls they would exercise over what the local agency could do. Water conservation is presently a reality. The agencies we represent supply approximately 85 percent of the surface water used in California. About 90 percent of these agencies currently have ongoing water conservation programs. We are at the present time in our own office, our Board is budgeted \$20 thousand for next year to establish a water conservation library where our members or anyone else who wants to, can use this to get new ideas, to get ideas on how to expand their programs.

We are into this, our members are into it. With regard to the transfer of water and water rights, the basic provisions that are in AB 2249 were enacted as a part of AB 1147 of last year. We work with Assemblyman Filante on that, we think that that bill was a good bill. AB 2249 does not really expand upon what is in -- was in AB 1147 except in one area. And that is to take away from the water user, the right to petition the court if he feels that he is going to be injured by a proposed transfer and his sole remedy is damages I believe in condemnation. We don't feel that to be appropriate either.

Chuck covered the provisions relayed in the State Water Project and the allocation of supplies. We do not believe that the bill really goes to the point of the free market in water rights; we're not certain that that is desirable.

There are many, many implications, economic and social of permitting a free market system. And there was reference

made a little while ago to, well you might want to go from the high water user in a rice production and transfer that water someplace else to higher use, well I happen to be a rice farmer, yes, rice does have a high water demand; however, the consumptive use is not that much greater than any other crop and it's less than some.

What happens though, if I choose to transfer my rice to someone else, we have to keep in mind that what runs off of my fields is someone else's water supply, and when I transfer my water, I'm also taking away someone else's water.

Last, there's been some, and I'll cut this short, there has been some discussion of the provisions of the bill that relate to removal of the limitations on a water district from transferring their supplies. Present law permits them to transfer supplies, but only water that is surplus to the needs of that agency.

And I would remind the Committee that these are not private businesses. These are public agencies created by the people within those agencies to meet the needs of the people within those agencies. And they have a fiduciary responsibility to carry that out, and if not, they're in real trouble. Because I can't see anyone remaining on a board of directors of a water district very long if he's selling the water of that, water that is needed within that district to someone else.

We can talk about voluntary transfers and I think we ought to keep in mind where this water is coming from. Recently, it was a proposal between Kern County interests and people in Yuba County, whereby the Kern County people would fund the

construction of the Marysville Dam and have the use of that water in an interim period of time until the people of Yuba County needed that. That was placed on the ballot and was voted on last June. The people of Yuba County turned that proposal down by a 4 to 1 margin, they had no interest in transferring their water to Kern County, even though they didn't need it right now and even though the Kern County interests were willing to transfer or to finance the facility which those people would later own and have the rights to. Last, I would concur with the comments of Mr. Shoemaker on AB 2250 relating to the California Water Fund money.

CHAIRMAN WATERS: Thank you Mickey. I would like to call on Victor Gleason and Carl Fossette from the Board of Directors Metropolitan Water District.

MR. CARL FOSSETTE: Mr. Chairman, I have a short one-page statement to express our views, very briefly and in no depth, because we do know that the time is getting away and then I'd appreciate it if you would call on Vic Gleason.

I'm Carl Fossette, Vice Chairman of the Board of the Metropolitan Water District. Vic Gleason sitting beside me is Deputy General Counsel for the District.

The two State Water Project bills that are the subject of the hearing, Assembly Bill 2249 and Assembly Bill 2250 are of particular concern to Metropolitan because Metropolitan must increasingly rely on the State Project to supply vital public water supplies for most of Southern California's people.

In our view, these two bills will severely impair the State Water Project. AB 2249 would effectively take our State Water Project contract and cut it into a 160 or more smaller

contracts. That would not only seriously degrade Southern California's water supply planning efforts, but would be viewed with alarm by the bondholders who look to our contract and the 30 other contracts as security for more than \$2 billion of outstanding bonds. AB 2249 would also impose a disruptive new level of state regulations by the State Water Resources Control Board. This not only is unnecessary, but would preempt existing authority of local communities throughout the state.

In essence, we believe these bills would effectively block completion of the State Water Project in its ability to meet the needs of more than two-thirds of the state's population and the irrigation needs of an important part of this farm lands.

Mr. Gleason has a more detailed statement which I'm sure he will be as brief as possible. Thank you.

MR. VIC GLEASON: We also have submitted that statement to the Committee and so it will be available for you; it is available for you for reference and I'll just mention a couple of points in it.

One point is that we feel very strongly that this bill would have serious financial and constitutional implications. We feel that the effect of the AB 2249 especially if enacted would repudiate the State Water Project contracts. At the very least, they would drastically disrupt the financial and management integrity of the Project and undermine the Burns-Porter Act on contracts. Similar to what Mr. Shoemaker has indicated.

That action by the state would be a serious breach of faith with 15 million people who are to be served by the Project furthermore, we feel it would contravene the constitutional



requirements of Article 16 sections that limits state indebtedness. The Supreme Court has carefully noted in its decision that validated the Burns-Porter Act and the State Water Project contracts. That section prohibits repeal of provisions of the Burns-Porter Act that would impair, if that appeal would impair water contracts prior to the time that the Burns-Porter Act bonds are fully repaid.

We have specific concerns with respect to the individual sections again both concerns are summarized in the written statement. I might mention a couple of points with respect to AB 2250. We certainly again concur in the statements that the Department has presented to you earlier this afternoon regarding that bill. But we would also note that the tideland revenues for that appropriation of \$25 million, essentially come from the oil and gas production in Southern California. Those revenues have been used in the past to finance substantial facilities, educational facilities and particularly in Northern California through the COFPHE Fund and to our knowledge those funds are not only used for other facilities in other areas in the state, but there is no intent or contemplation of repaying to the Fund the use of those monies for other areas in the state.

One last item I might mention, is that there was some reference earlier this morning regarding the Colorado River water rights that Metropolitan has. If we can clarify that, we would provide whatever help we can. Our Colorado River supply is controlled by contracts with the United States Secretary of the Interior.

In 1963, when the U. S. Supreme Court finally, in effect,

adjudicated the rights to the Colorado River among lower basin states, Arizona, California and Nevada, it made two major rulings that affected that specifically. It said, Number One; that the Boulder Canyon Project Act gave the Secretary of the Interior the authority to allocate within California the rights to the use of California's share of Colorado River water. That was important to Metropolitan because we had previously, as you've heard earlier, contracted with the United States for a share of that Colorado River water.

In effect, the '63 decision says that our water right is that contract and that contract is controlled by the United States. Within that contract, there is a priority among the California contractors that was in effect worked up in the late '20's, early '30's. Seven party priority agreement, which gives priority to the agencies on the River who were first using the water, those happen to be agricultural agencies, Palos Verde Irrigation District, Imperial Irrigation District for irrigating in the last century. There are some other smaller districts, they also had been irrigating for a long time. Consequently, in our contract with the United States, we have the fourth and fifth priority.

The second point, second ruling in that 1963 Supreme Court decision that is of particular importance to Metropolitan, is that the Court limited California's share of the Colorado River supply to 4.4 million acre feet, lower than what we had contemplated prior to that time. And it just so happens that the priorities within California total more than 4.4 million acre feet. And being fourth and fifth on the priority list, the

cutback to 4.4 takes a large percentage, something like 60 percent of Metropolitan shares. Our rights under the contracts, if you total those two priorities, come to 1.2 million acre feet, approximately. Under the 1963 decision, cutting California back to 4.4, Metropolitan would be left with only 550 thousand acre feet of that 4.4. We would lose 662 thousand. That is based on the assumption that there is a total available water supply to the lower basin of 7.5 million acre feet.

ASSEMBLYMAN KELLEY: It's not that 7.5 million acre feet available to you at the lower basin states. Are you reduced proportionately based upon what there is reduced in that total amount?

MR. GLEASON: No. There was subsequent congressional action that gives that 4.4 a protection against Arizona's uses, so we have a protection against theirs. The 550 thousand acre feet that remains within 4.4 that is attributable to this, Metropolitan's share is itself subject to further reduction as earlier federal rights are identified. Currently, Indian rights on the River have an earlier date, a priority than Metropolitan's rights. And, those Indian rights as they are quantified will reduce our 550 to something below that. That quantification is currently in litigation right now and we don't know what the final figure will be.

CHAIRMAN WATERS: That has not been established yet, Indian rights?

MR. GLEASON: There was a preliminary establishment, what we thought was the final establishment, in the 1964 decree and then in subsequent present protected rights determination a couple of years ago. Since that time, some of the Indian tribes

and the United States have reopened the 1963 decision, and have and are now asking for substantially larger portions of -- I would gather at the present time we're, it appears at least something like 50 to 60 thousand acre feet at least will go to the Indians out of our 550 thousand, possibly substantially more.

If there were any other questions in these matters...

CHAIRMAN WATERS: Any questions of the Committee?

ASSEMBLYMAN KELLEY: When Arizona takes their share of the water when the Project is completed, you'll be reduced down to roughly 650 thousand acre fee, right?

MR. GLEASON: Close to 550.

ASSEMBLYMAN KELLEY: Your reduction will be 600? So you have 550 thousand left, then you have your State Water Project deliveries coming in. What amount is that of your total?

MR. GLEASON: It varies, roughly we've been now operating on a 50/50 split, we've been getting about half our water from the Colorado River and half from the State Water Project. There are fairly complex management reasons for doing that. Power costs and other factors; salinity and the respect to water supplies. As the requirements within Metropolitan vary, and as they vary upwards, the share will change. Right now, we are taking more than 550 thousand acre feet from the Colorado River, so that when in the middle '80's we do lose the additional over that, we will have to take that increment from the State Water Project system and we'll be using more State Project water at the time.

ASSEMBLYMAN KELLEY: Your entitlement in the State Water Project, what is that total entitlement?

MR. GLEASON: Well, the ultimate entitlement is

something over two million acre feet, and sometime early in the next century.

ASSEMBLYMAN KELLEY: But that's based upon the project that it's completed state.

MR. GLEASON: Yes.

ASSEMBLYMAN KELLEY: With a project, maybe 50 percent completed, according to the statement here, the project has a total capacity 4.2 million acre feet, upon completion, but you're only 50 percent completed, so you have roughly two million, or a little over two million acre feet coming from the State Water Project, but yet you have entitlements to that amount on the Project, is that not correct?

MR. GLEASON: The way the contract would work out, we are -- entitlements we're going to build up schedules as Mr. Shoemaker just indicated. As of today, our entitlements under the contracts, the delivery quantities identified, are less than the two million, we would not reach that two million acre foot entitlement until the time in the next century, probably.

But our share of the two million, 2.1 or two million whatever it is right now, of the total State Water Project current supply, depends on the year there is a provision in the contract that does deal with allocating those kinds of relationships if we get into a -- when we get into a crunch.

ASSEMBLYMAN KELLEY: When the water goes to Arizona, then you have to make up the difference with the State Water Project water, you will be drawing from what would be considered your full entitlement of the share based on the completion of the Project at the time, or will it not be sufficient?

MR. GLEASON: It would not be based on completion of the Project as of that time. It would be based on completion of the Project as of that particular -- the status of the Project as of the particular year in which the reduction of the supply occurred. I think Mr. Fossette has a question.

MR. FOSSETTE: It is my understanding, Mr. Kelley, that with the facilities now in place, the State Water Project could not have and Chuck Shoemaker can correct me if this is not true. That the most Metropolitan could expect from the State Water Project would be million acre feet a year. And then you add, what we are guessing would be 400 thousand from the Colorado River, and we're at 1.4 million acre feet a year. In the year that ended June 30th, Metropolitan sold a million, four hundred sixty-two thousand acre feet of water. So as of now, when Arizona comes on street, we'll be bumping our heads on the ceiling as far as our water requirement...

ASSEMBLYMAN KELLEY: Well, you would be 600 thousand acre feet short? So that's going to leave some facilities upstream somewhere a little bit short of water, am I correct?

MR. FOSSETTE: Or we're going to be short.

CHAIRMAN WATERS: In view of the suggestions that were made this morning about, and I was going to ask this question to you but you pretty well answered it, some of the feeling here maybe by some of the witnesses that you were possibly overstating your needs and demands for water, and obviously that's not true in your opinion and you're going to need every bit you could get, I guess. Mr. DuBois from the California Farm Bureau.

MR. BILL DuBOIS: Thank you, Mr. Chairman. My name is

Bill DuBois and I'm Director of National Resources for the California Farm Bureau Federation.

I will make a very short statement which summed up will say that we would oppose both of the bills that are the subject of your hearing today. In that regard, I'd like to make a few comments about the ideas that are presented in the bill. One of them is that we have no problems with permitting market transfers provided they're done correctly and we don't see an impediment to doing that under the present law. But I would like to point out that the most significant market transfer that has taken place to date, is that of the Los Angeles Department of Water and Power from the Owen Valley. And it appears that their market transfer may not have been as firm as they anticipated that it was several decades back. And if future market transfers are going to result in the type of social conflict that that market transfer has resulted in, I don't think any part of agriculture wants any part of market transfer. So we better clean up what's going on right now before we wade into more mess as the result of market transfers.

On conservation, there was a discussion between one of the Committee members here and a witness, to the extent that higher prices would not result in lower use rates and I want to express my philosophy on this. That this is not the case that if prices come up on water, less water will be used, there's no two ways about it.

There will be a slight decrease in the amount that some people use to raise a crop. But probably the most significant reduction in use will be from those people who determine that it

doesn't pay to farm anymore and so they'll quit. Now, on the matter of transferring the authority from the Department of Water Resources to the State Water Resources Control Board as to whether a project is to be built. I think that it ought to be pointed out that the Department of Water Resources has not now exercised the authority that it has, it has elected instead to request the people and the Legislature more specifically, to impose the authority on them, and they did that through the vehicle of Senate Bill 200.

The concept of pooled or utility water pricing - if it is thought all the way through, it is interesting indeed, because what will result is great benefit to the people who now occupy, who now hold water rights and greatly lessen the opportunity to those people who have yet to acquire water supplies. And of course, this will be reflected very quickly and very markedly in the market value of farmland which does and does not have water rights.

Assemblyman Bates characterized his bill as being a substitute for Senate Bill 200. And our comment on that issue is that the California Farm Bureau Federation does not see any need for either SB 200 or Assemblyman Bates' bills. Thank you very much. We think we're better off without the three bills.

CHAIRMAN WATERS: Thank you, Bill.

MR. DuBOIS: Certainly there are other ways to get water through the Delta than the Peripheral Canal. Now we don't say the other ways are better than the Peripheral Canal. In fact, the Peripheral Canal very obviously is the preferred vehicle as far as the Department of Fish and Game is concerned. I think it's



a matter of some conjecture as to whether it's the most economical method of getting water through the Delta, as far as the consumers of water are concerned, and as far as the interests of the Delta people on the scene are concerned. And certainly they ought to be considered also. But, as we see it, the demise of SB 200 is not in anyway a limitation on the State Water Project.

MR. ROBERT GOTTLIEB: My name is Bob Gottlieb, I'm a member of the Board of Directors of the Metropolitan Water District in Santa Monica. I will make a few remarks but I don't -- I'm not speaking on behalf of the Metropolitan Water District. The remarks are my own.

I would like to say one quick thing about this business of the Colorado River, since it came up in previous testimony by staff and the Vice Chairman of MWD. I felt there was a misleading impression that was made in terms of the discussion of what water would be available as early as 1985 in the central Arizona project when in line, if indeed it went in line, that year. There was a document that was prepared by the staff of the Metropolitan Water District and it was two analysts from the bond buyers community, from the Wall Street community in preparation for what has turned out to be a \$100 million revenue anticipation that just went before the market. This took place in January 27, 1981. It was a municipal buyer conference. The first question that came up to the staff was in fact the question of the impact of the loss of the entitlements to the Colorado River when the Central Arizona Project went on line, as well as the potential loss of water rights in Mono and Owens bases, as well as the continued delay and/or deferral of construction of the Peripheral Canal. Well,

the response of the staff was substantially different from the response received at that time discussing this matter before the Wall Street community. I'll just read you the passage that I have discussing this situation on the Colorado River.

As with any project of its size and complexity, the Central Arizona Project could be expected to go on line in phases over a period of time so that there is draws against entitlements won't occur in one single event. The impact upon the MWD will be transitional and the maximum loss of entitlement of about 700 thousand acre feet annually, which was the figure that we heard earlier, could translate the estimated shortages in firm supply to meet projected demands in any dry year after 1990 of about 240 thousand acre feet, which is obviously substantially different than 700 thousand acre feet, and in any dry year after the year 2000, of 490 thousand acre feet. The staff went on to say that there is no anticipated shortages in wet years.

That the shortfall as I said, is pointed out is substantially less than the figure that has to do with the entitlement loss. They then went on to discuss ten alternatives, ten various possibilities that would, and I quote, "existing and planned approaches to accommodate these supply impairments". They include a number of programs which the MWD has undertaken including the interruptable pricing program which can generate up to 200 thousand acre feet of water a year, when there is a discontinuation of the sale of replenishment water. It was designed precisely to deal with the supply problem in the future. There are a number of other items that the MWD staff did present and I think that creates quite a substantially different point

of view than one which focuses on the loss of the entitlements and uses the figure 600 or 700 thousand acre feet.

The other thing I wanted to bring up concerns, well there are two things I would like to bring up quickly; one is focusing on previous testimony as to who benefits from what I see as some of the existing inequities in the state water system and who does not benefit. I try to speak from the point of view from the public interest and from the point of view of the urban consumer, who in water deliberations is tended to be lost in terms of finding out what water management objectives are instituted, that point of view tends to fall by the wayside.

In terms of who benefits in the range of subsidies that occur in 1972 to 1979, involving the water users particularly in Kern County. I have specific information that I think puts a profile on those figures. In information that was gathered from public records in Kern and Kings County by researchers and economists at the University of California at Davis, they came up with the following figures, that in five water districts in Kern and Kings Counties, Bellridge Water Storage District, the Birenda Mesa Water District, Dudley Ridge Water District, the Lost Hills Water District, the Wheeler Ridge Maracopa Water Storage Water District, that approximately two-thirds of the entire supply of the state water system was used by those five water districts. Identifying the users within the districts, they came up with, the researchers came up with the following figures: Acreage involving more than five thousand acres, 5,212 acres or greater there are only eight owners who have used, or planted crops on 227 thousand acres of which in those five water districts, there

are 384 thousand acres that are to be planted; that is two-thirds of the acreage. Those eight companies which I think ought to be identified for the purpose of the previous discussion, include Chevron, a subsidiary of Standard Oil, which has put 37 thousand acres under irrigation from the use of the State Water; Tejon Ranch, which is 50 percent controlled by the Tunsmeier Company in the Chandler family; the Getty Oil Company, which has had interests over a number of years in those five water district areas; Shell Oil, through its subsidiary of Eldridge Oil Company, which is the fourth largest user, they have 31 thousand acres, the other two have 35 thousand acres. There is a joint venture, which is called the McCarthy Joint Venture, which is 75 percent owned by Prudential Insurance Company, and 25 percent owned by a family partnership including Leland and Richard McCarthy, they have 25 thousand acres. The Blackwell Land Company which was formed by a syndicate set up in New York by the Laissez Faire people and is controlled by three international syndicates, one called by Midhurst Corporation, which is a subsidiary of S. Pearson & Son in England, second is the Switzerland conglomerate put together by the Dreyfuss people and the third is a subsidiary of IFI International in Luxemburg, called Unifen. They control 70 percent of the Blackwell Land Company which in turn controls...

CHAIRMAN WATERS: Pardon me, do you have copies of that. Supply them to the Committee.

MR. GOTTLIEB: I could supply them to the Committee. The title of the study is New Lands for Agriculture of the California State Water Project.

CHAIRMAN WATERS: If you could sum up now in a couple

of minutes.

MR. GOTTLIEB: Just the last two owners are Tenneco West and Southern Pacific Land Company, together these eight companies control two-thirds of the water much of which is the surplus water in the five districts that in turn control over 60 percent of the state water, what you have is eight companies controlling 40 percent of all the water that goes to the state water system. There is a clear identification of who benefits.

Let me conclude by saying who does not benefit. Who does not benefit are the users and the taxpayers in the urban areas, particularly in Southern California. There's a statement I recently heard that identifies the state water system, that the water comes from, which might be considered a new version of the trickle-down theory; the water comes from Northern California and gets used in Central California and gets paid for by Southern California. I think this is appropriate to the situation we have. I think those inequities begin to be addressed in the legislation, AB 2249 and AB 2250, and I'll make copies available.

CHAIRMAN WATERS: Thank you very much. Any questions?

MS. DOROTHY GREEN: My statement isn't very long. My name is Dorothy Green, Coordinator of Water. I won't go into who we are, basically in the public interest. Our studies have led us to many of the conclusions embodied in the proposed legislation under consideration here today, and we wholeheartedly support those bills. We are grateful to Assemblyman Bates for introducing this fundamental, far-sighted legislation, especially grateful since most of us live in the Los Angeles area, and we who live in Los Angeles have suffered the most financially at the hands of the

water lobby. Those who have solved all of their own so-called water supply needs by building more ditches and dams while depending upon urban populations to pay the costs.

We particularly commend Assemblyman Bates for delineating a process for planning for the future. If the criteria spelled out in AB 2249 that requires a detailed justification of any new project, a full analysis of all costs and benefits, and of the costs of alternatives have been in place 20 years ago, we would not have met the tests of reasonable, beneficial, efficient, equitable and in the public interest, and Southern California, especially Los Angeles, would not now be stuck with paying the bill. If this sounds strange, just consider the process by which the State Water Project was developed.

All of the state's water resources were catalogued in the Department of Water Resources in Bulletin No. I, all the irrigable land in the state was catalogued in the Department of Water Resources Bulletin No. II and Bulletin No. III, presented us with the melting of the two, the California water plan.

No analysis of real demand, how much people are willing to buy at what price, it was just assumed that the economic demand would be there for all of the water. No real cost benefit analysis was performed, only an analysis that compared the cost of the State Water Project with the next most costly water supply system. The cost plugged into that analysis included only the aqueduct systems south of the Delta, not the cost of Oroville Dam or any facilities in the Delta itself, which are major components of the project.

Environmental costs now evident in the drastic decline

in the fisheries and of water quality within the Delta, and the impact on farming, sport and commercial fishing, recreational boating and other industries depended on Delta water were never considered.

Even the total costs of the Project were misrepresented to the voters in 1960 where we voted on \$1.75 billion bond issue. People were lead to believe that this bond issue would build the entire State Water Project, despite clear knowledge by politicians and water bureaucrats that it would cost more than twice that amount. The \$1.75 billion dollar figure was decided politically as being the biggest number the voters would buy. Now our politicians and water bureaucrats want to spend many times that amount and more, in order to complete this project.

Equity, probably the most important component of any new project is a joke. Despite state law that requires the user to pay, the people of Southern California have been paying for a system even now double the capacity that we need. In order to give a tremendous break in water costs, the magnificent subsidy to a handful of corporations, busily putting new land under irrigation, while writing off their costs on their federal tax bills. Southern Californians have paid for 70 percent of the system built so far and have received only 24 percent of the water delivered.

The taxpayers of Los Angeles have been victimized more than the rest of Southern California, because we have our own water supply system from the eastern Sierra, and are full property taxpayers of the Metropolitan Water District. Because Los Angeles taxpayers have paid 30 percent of the taxes collected by the

Metropolitan Water District, we are entitled to 30 percent of its water. Yet, Metropolitan provides us with a minor amount of supplemental water, about five to eight percent of our needs. This tax burden has been called an insurance policy against the day when Los Angeles needs additional water. This very expensive insurance premium has been used to subsidize the growth of Orange and San Diego counties. When the State Water Project was being sold to us, we were promised that the City of Los Angeles would not have to build any additional water facility of its own; the Metropolitan Water District, and the State Water Project would provide. However, no sooner had the votes been counted in 1960, than our city fathers began a campaign to build the second barrel of the Los Angeles aqueduct. This need and unneeded aqueduct if promises were to be believed, was planned, financed and completed before the State Water Project could begin to deliver water to Southern California.

Again, the citizens of Los Angeles were fooled by water development interests. The incredible litany of lies and broken promises, and I have not given you the entire litany of lies and broken promises, only those that apply specifically to Southern California that have brought us the State Water Project would never have happened, if the provisions of AB 2249 had been law; neither would be voting on SB 200 in June. Answers to all of the five E Questions would have been answered in detail before the projects were even presented to the Legislature for its consideration. The five "E's" are economy, efficiency, energy, environment and equity.

Economy, the cost and benefits would be fully and



completely analyzed, who pays and who benefits, predetermined. The cost of water to be produced would be known, and therefore, customer, for the water would know the cost of new water ahead of time. They would not be surprised at the cost, as state contractors were, and they would know if they really wanted to buy in.

Efficiency, all the alternatives of supply options would be closely examined and these cost alternatives would be implemented first, and more efficient alternatives include conservation, especially in the agricultural sector where we use groundwater management.

Energy, State Water Project was built in a time seemingly limitless with very cheap energy. Energy costs were not a major factor; the State Water Project is now the single biggest user. The Metropolitan Water District, the second in the state. Energy is now expensive and growing moreso. It is a major foreign policy in balance of trade concerns to us all, therefore, a consideration must also be given to the quantity of additional energy needed and what effect this would have on the energy needs and costs in the state as a whole.

Environment, all the environmental costs borne by the area from which the water is drawn and the impact of those environmental costs on local business and industry, would be fully evaluated ahead of time. Not as is presently the case. Studies of San Francisco Bay are scheduled to run concurrently with the construction of the Peripheral Canal if SB 200 is approved by the voters. Negative studies of life within the Delta are ignored.

Equity; the most important of the five "E's". The Bates bills would put an end to the tideland oil and gas subsidy

paid into the California water fund, making this money available to the general fund. By ending the concept of surplus water and assigning shares in the State Water Project based on each agency's contract and financial commitment to the Project, the giant subsidy provided to Kern County agriculture courtesy to Southern California, and especially Los Angeles taxpayers would end. The Metropolitan Water District could sell any part of its entitlement in excess of its current needs, instead of the state making its water available under a long-term contract and surplus. In other words, all the questions raised 20 years ago could not have been brushed aside as they were then by the Director of Water Resources, Harvey O'Banks, who said over and over again, build and ask questions later.

More, could the Governor of the State, Pat Brown, get away with his oft-quoted statement, better to have water with problems than problems without water. All the problems and costs would be resolved ahead of time, nor would the DWR and other water interests be busy pushing SB 200, which would double the capacity of the self-same State Water Project of a cost of an additional \$20 billion or more, figures at what interest rate with what cost overruns, with what cost benefit analysis to back it up, with the financial analysis of the credit-worthiness of the Project, with what analysis of water cost for the future that are credible and therefore, how much new water can even be sold. And what about comparing cost of alternatives, we don't have answers to any of these questions. the citizens of California deserve to have all of these answers before projects are authorized, and not be dependent on the vagueness of a political ballot measure campaign to

to flush out the answers. Ballot measure campaigns are notorious for playing to the emotions and not dealing with facts. Just witness the scare-tactic campaign now being waged by the water lobby on behalf of SB 200. With the enactment of Assemblyman Bates' bills, we would know exactly what we are getting and cease to be victimized. Thank you very much.

ASSEMBLYMAN BATES: Dorothy, thank you for all the nice comments. I should, for the record, say that I was raised in Southern California; maybe that's why I am sympathetic.

CHAIRMAN WATERS: Thank you very much. Chris Margileth representing the American Association of University Women.

MS. CHRIS MARGILETH: Thank You. I'm Chris Margileth and I'm on the Legislative Program Committee of the California State Division, American Association of University Women.

Mr. Chairman and Committee members, the California State Division of AAUW recognizes the need to articulate and adopt a comprehensive water policy, which will adequately serve the true needs of California citizens, industry and agriculture. At the same time, protecting the ecological balance of all systems and conserving resources for the future.

Thus, we view the provisions in AB 2249, requiring the development and periodic update of a plan for meeting the state's water needs, as a step in the right direction. Our Water Study Committee, in preparing its 1981 study on California Water Resources, found that equitable water distribution, maximum conservation and realistic pricing to reflect the true cost of water, are all necessary components of efficient water management. The Committee also found that many current laws and institutions are

outmoded or inadequate for the most efficient and universally beneficial water resource management.

We therefore support statutory changes, such as those embodied in AB 2249. We believe that allowing for voluntary transfer of water among users would result in better utilization and conservation of water and would contribute to maximum efficiency and fairness of distribution during periods of special need, as during the drought.

However, we are concerned that water rights transfers not be undertaken unless the interests of other holders of rights to the water in question, as well as their area of origin, are properly protected. It's further our position that water planning should meet water needs of the state using water conservation, desalination, wastewater reclamation and other technological processes. These should be given priority over additional water importation processes. We therefore support the lease cost, first approach to new water projects required by AB 2249.

In addition to conservation and reclamation, we also support legislation which encourages the conjunctive use of surface and groundwater and which encourages groundwater management areas under regional control. Although some agencies have and do conjunctively use and store groundwater and surface water, most groundwater management when it does occur, has resulted from lengthy and expensive court proceedings. The Governor's Commission on Water Rights recommended that doctrines established in Case Law should be codified. We believe that AB 2249 takes a much needed step in this direction by requiring the inclusion of improved groundwater management and conjunctive use of ground and surface

water as possible alternatives to water appropriation systems. Thank you for the opportunity to present the views of California Division of ASUW in support of the provisions of AB 2249.

CHAIRMAN WATERS: Thank you very much. Does anyone else feel compelled to testify today? Thank you very much for coming and I thank the Committee for its indulgence. I thank my staff for coming down. Tom, you have a question?

ASSEMBLYMAN BATES: I really wanted to thank you personally and members of the Committee for sitting through the hearing and listening to this discussion. I hope that we'll be able to have copies of the transcript, that we can at least have the tape copies and make that available to people Thank you.

CHAIRMAN WATERS: Thank you all again for coming. This meeting is adjourned.

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