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To: ILRP Comments
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Subject: DPEIR Irrigated Lands Regulatory Program
Attachments: Comments by SDWA 9-27-10.pdf

South Delta Water Agency Comments are attached.

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September 27, 2010

Via E-Mail ILRPcomments@icfi.com

ILRP Comments
Ms. Megan Smith
830 K Street, Suite 400
Sacramento, CA

Re: DPEIR Irrigated Lands Regulatory Program

Dear Ms. Smith:

On behalf of the South Delta Water Agency ("SDWA") I am submitting the following comments to the above referenced draft PEIR. On behalf of SDWA, I participated extensively in the development and implementation of the current waiver program. I am on the steering committee for the San Joaquin Delta Water Quality Coalition, and also a board member of the San Joaquin County Resource Conservation District which is the parent organization for that coalition. I have not participated to the same degree in the recent efforts which have led to the PEIR or the accompanying recommended alternative set forth in the Staff Report.

With that said, there are a number of significant concerns/issues associated with the above referenced document. First and foremost is the addition of ground water to the program. Of course the issue of whether or not we seek to maintain and protect good water quality in our groundwater basins is not at issue. Everyone wants to have good water quality in both surface and ground water supplies. This is especially true given that most all users rely on groundwater during times of drought. However, the method of addressing ground water concerns is certainly important.

As proposed, the addition of ground water to local coalition responsibilities is untenable. Our coalition and the lands contained therein provides good examples as to why this is true. As part of the San Joaquin County Eastern Groundwater Banking Authority (a JPA containing

various interests and the County of San Joaquin), we have spent significant amounts of time and money evaluating the eastern County groundwater basin. Part of that evaluation included new and ongoing testing in cooperation with the USGS. Some of the results of those studies indicated a previously unimaginably complicated system in our area. One sample of a relatively shallow well indicated water with an age of 25,000+ years. Another, within a mile of the first and at a ***lower*** depth contained water that was less than 40 years old [these are not necessarily the exact numbers from the report, but are representative of what was found).

The conclusion drawn from these data are that understanding the groundwater system presents a difficult if not insurmountable challenge. As applied to the proposed ILP, it indicates that the first step of the program, to characterize the basin, is virtually impossible. How could one develop a system of wells and tests to fully understand an area where neighboring groundwaters have age differences of 25,000 years? How could one determine if agricultural drainage might potentially affect these radically different waters, or even if it currently was affecting them? The answer is that the scope of the testing program would far exceed the current budget of the coalition. Regardless of the Regional Board's mandates and preferences, the end result is that adoption of such a program as outlined in the PEIR and Staff Report would cause our coalition to fall apart as the radical increase in "voluntary contributions" would not be accepted by the paying participants.

Further, the proposed program appears to take a much too naive approach in addressing any groundwater problem. It seems to assume that simple adaptations in application of chemicals and irrigation practices can fully address water quality concerns. This is of course incorrect. Although better oversight and enforcement of application rates should be pursued, a farmer cannot simply decided to apply less fertilizer and still be profitable. The amount calculated to produce a certain yield and maintain plant health has limits; less applied results in less yield. Similarly, the Staff Report seems to assume that a farmer can adjust the amount of water applied to a crop to the point where there is no "excess" water to become tail water or seepage into the groundwater. Such assumptions ignore the physics of crop growth. Although it may be hypothetically possible to apply only such an amount of water in a certain way such that the plant uses all of that water, in practice that can never be done. In many if not most areas, the amount of water applied includes an amount necessary to flush the root zone of constituents such as salts. Applying less results in the buildup of those constituents in the soil to the detriment of current of future yields and crop health.

Given these sorts of practical limitations, any assumption that BMP's can be identified and implemented are unjustified. This leads to my next comment, dealing specifically with the Delta, a portion of which includes SDWA. Much of the Delta includes shallow groundwater. At the southern extremes, this ground water is just above, at, or slightly below sea level, and connected to the channel flows. The extent to which this groundwater moves, or is flushed out is

largely unknown. The data that does exist indicates that only under high flow events is the "groundwater" flushed out.

In addition, this groundwater's quality is a result of now over 50 years of CVP (with the help of the SWP) impacts on the San Joaquin River. The CVP reduced flows in the River, and by importing millions of toms of salt to the San Joaquin valley, caused high salt (imported, not naturally occurring) concentrations. The result is 50 years of salt buildup in the shallow groundwater in the southern Delta. When surface water is applied, the accompanying salts must be flushed out of the root zone. However, those flushed out salts do not exist the system (again, except in high flow events) and accumulate in the soil just below (most) of the root zones. Typically, the groundwater simply remains at its shallow level rising and falling with the tides, collecting and concentrating various constituents.

Since this ground water is directly connected to the surface waters, it could be described as potentially affecting the waters of the state under the proposed program. As such, characterizing this ground water, and developing a plan to monitor and improve it might be required. Such a result presents the southern Delta farmers with no viable options. Someone else ruined their water supply, which ruined their shallow ground water, but they must now address the problem on their own. Although such a course of action may comport with the SWRCB's efforts to destroy agriculture in the Delta in order to protect exports, it does not result in any improvement in water quality; the goal of the Regional Board.

Hence, the proposed addition of groundwater monitoring not only presents impossible tasks for the coalitions, but as conceived will not result in improved water quality. I assume staff's response will be that in developing WDR's or other regulatory guidelines for each coalition, these issues will be resolved. However, the history of the current waiver program suggests this will not occur. The ability of local users to convince the Regional Board staff that certain groundwater basins can or cannot be characterized, or that they pose no threat to the waters of the state is and will continue to be minimal. That is to say, it is extremely unlikely that our area will be able to convince staff that anything other than monitoring and improvement is required.

In addition to the above concerns, I would like to mention a few other, general concerns. The first is that the proposed program assumes that more "efficient irrigation" can address many water quality concerns. However, the PEIR makes no mention and contains no analysis of how decreases in runoff (or seepage) affects surface flows. Since the San Joaquin River is mostly runoff during many times (especially summers), encouraging farmers to apply less water will result in decreased flows not only on the mainstem, but also in many of the smaller drainages feeding the system. This trade-off may offset the supposed benefits by simply causing streams to run dry.

Other proposals for BMP's include using cover crops. At a time when the water supplies of the State are insufficient for current and future needs, the use of cover crops should be closely examined, as they by definition result in increased consumption of water.

I would also like to note that the PEIR does not mention the fish doubling requirements under the CVPIA when it lists federal fishery obligations. I also did not see any discussion of what the current (or proposed) nitrate objectives will be, or how meeting them relates to potential adverse impacts to the Delta food chain. I recall a recent study which concluded that the Delta food chain appeared to need additional nutrients in order to be healthy. I recall that the current San Joaquin contribution to Delta nutrient loads was being siphoned off by the export projects.

Finally, we would like to join in the comments being submitted on behalf of the other coalitions.

Very truly yours,

JOHN HERRICK