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3/17/17

Ms. Jeanine Townsend  
Clerk to the Board  
State Water Resources Control Board  
P.O. Box 100  
Sacramento, California 95814-0100

Re: Comments on Bay-Delta Water Quality Control Plan Amendment Phase I and SED

Dear Ms. Townshend,

I am a Legal Studies student at UC Santa Cruz currently taking a class on Water Policy in California. I greatly appreciate this opportunity to comment on the State Water Resources Control Board (Board's) *2016 Draft Revised Substitute Environmental Document in Support of Potential Changes to the Water Quality Control Plan for the Bay Delta: San Joaquin River Flows and Southern Delta Water Quality (SED)*. I understand that the Board is considering several alternatives that would put the unimpaired flow of the Stanislaus, Tuolumne, and Merced Rivers, depending on which alternative is chosen, at a range of 30% to 60% from the months of February to June.

Instead of selecting one of the currently proposed alternatives, I propose that the Board consider putting the unimpaired flow for the lower San Joaquin, Stanislaus, Tuolumne, and Merced Rivers at 75%. While this may sound like a radical choice, I feel that it is important for

the Board to put the health of our waterways as their top priority when making this decision. In fact, I will argue that setting unimpaired flow at 75% is one of the most rational choices that the Board can make and one that can be easily justified. The public trust doctrine, the California Constitution, and both State and Federal Endangered Species Acts (ESA) will point to having a 75% unimpaired flow as being the best choice.

For one thing, protecting these waterways is important to public trust. The public trust doctrine originally stated that waterways should be able to be accessed by the general public, without interference from private interests. Today, however, the public trust doctrine also includes environmental protections. One of the most famous examples of this doctrine in action is the Mono Lake case which was ruled back in 1983. The Mono Lake Committee brought a suit against the Los Angeles Department of Water and Power over their diversions of water that fed into Mono Lake. There the court decided that future water polices should “attempt, so far as feasible, to avoid or minimize any harm to those [public trust] interests”. Part of the reason that the public trust doctrine was used to protect the environment was because that was something the public could enjoy and the then current amount of water being diverted away from the lake was greatly interfering with the public’s enjoyment of the lake.

Similarly, the current levels of water being diverted from these three rivers is infringing on the public’s ability to enjoy these waterways. The 2010 expert report on the San Francisco Bay-Sacramento San Joaquin Delta concluded that 75% unimpaired flow, as the measure of total outflow, was required to “protect public trust values” of the wildlife and waterways. The flow criteria report found that for the lower San Joaquin River and its tributaries, unimpaired flow needed to be an absolute minimum of 60%. Currently our unimpaired flow of the Stanislaus, Tuolumne, and Merced Rivers varies, from 20% in dry years to 50% in wet ones. At

the very least this should signal to the Board that public trust resources are not being properly weighed under the current policy, since the recommended unimpaired flow is way above current flows. The amount of water these rivers are getting is well below what they would naturally be getting, which is having a significant impact on their ecosystem.

However, I understand that it is difficult to figure what is the best option in a situation like this because of the fact that so many people depend on the diverted water from these rivers. The flow helps to provide a variety of beneficial uses, both in agricultural and urban areas. In particular, many farmers in both the Central Valley and within the Delta need the water that comes from these rivers in order to grow their crops. However, it should be noted that a large amount of the water going to the Central Valley is going to farmers who are growers of almond trees. Recently there has been much debate over the growing of almonds. They take an extraordinary amount of water, about one gallon per almond for a combined use of 10% of total agricultural water use. Despite this, more almond farms have been planted within the last few years as more people realize their profit potential. These people would argue that growing these trees is a good use of water, and that the benefits that these trees provide outweigh the negative repercussions that the public will face.

Table ES-2 on page ES-22 of the executive summary of changes to the WQCP now being considered shows that if the flow objectives were set at 60% of unimpaired flow, the loss to farmers would be 689,000 acre-feet of water annually. Table 11-2 on page 11-42 shows that 115,054 acres that would “lose” water are planted in almonds and pistachios. The choice is not one between saving the salmon and their ecosystem and depriving farm families of their livelihood. Rather, the choice is whether agribusiness and hedge funds will continue to reap exorbitant profits from almonds, or whether the affected acreage will be re-planted with crops

that are reasonably grown in an arid climate thus allowing the salmon to recover. Viewed in this light, the choice before the Board is not difficult.

I will agree that the public trust doctrine is in the end about trying to balance the public interests with private ones. In this case though, I believe that the livelihood of the environment should be held to the uttermost importance. Protecting the environment will help the public overall, while farmers are in the end private interests whose livelihood helps fewer people. These farmers will, of course, still get water, but their interests have to be put second if we are to make any significant improvements to the Bay-Delta's health. While the public trust doctrine does not put itself above other laws in California, I believe that the California Constitution can help support my argument for a 75% unimpaired flow further.

In the California our water is so important to us that we have a section of our Constitution dedicated to it. In particular, Article 10 Section two says that water is to "be put to beneficial use to the fullest extent of which they are capable, and that the waste or unreasonable use ... of water be prevented, and that the conservation of such waters is to be exercised ... in the interest of the people and for the public welfare." While this could be interpreted as saying that water should be taken out of waterways in order to get the most benefit out of it, I will instead put forth the argument that this section proves that keeping water in the rivers is the best course of action. Part of the reason I argue this is again; decisions about water should keep the public welfare in mind. Harm to the public should be kept to a minimum when using water and any unreasonable use of water should not be tolerated.

This does raise the question then; does farming reflect the most beneficial use of water? Of course the argument could be made that we all need to eat and so that some food needs to be grown no matter what. And according to the California Department of Food and Agriculture

(CFDA), farms and ranches made around \$47 billion in 2015. Almonds in particular are the 2<sup>nd</sup> most profitable agricultural product in the state with over \$5 billion in profits. So agriculture makes a fair profit, and so that water is now being used in an economic way. Overall this makes using water for farming seem like a reasonable use of water.

However, there are a few problems with this line of thinking. One is that the profits made from farming do not make up a large amount of our overall economy. California's overall GDP is \$2.46 trillion. This makes agriculture around 19% of our GDP, and almond growing in particular a mere 2% of it. In addition, about 80% of almonds are exported out of California. So not only is growing something as water intensive as almonds harming the ecosystem of the Bay-Delta, but it is doing so to the benefit of a few, including hedge funds, and for an amount of money that in actuality doesn't add much to the overall economy. Instead, it makes a few rich people richer. And since Californians consume only 20% of almonds grown here, they will feel the negative repercussions of almond farming more than the benefits they provide. In contrast, keeping a larger unimpaired flow of water in the three rivers will have more overall benefit to the public. It will help preserve the environment, for which future generations can experience and enjoy. This will also help protect and preserve the various fish populations in the rivers. Protecting the fish populations also has economic value as well, since the fishing industry depends on them. Therefore using water to grow crops has a purely economic benefit, while keeping the river system healthy has multiple benefits that help a larger amount of people.

I am not saying that farming in California needs to be stopped in order to preserve the Bay-Delta or obey the mandate to double the salmon population. But I am arguing that the growing of a large amount of high water intensity crops, like almonds, is not a reasonable use of water in a state like ours. Farmers just have to be more responsible when choosing what crops to

grow. While others may argue for the opposite, I feel that a compelling case can be made from just the public trust doctrine and the California Constitution to support my recommendation of 75% unimpaired flow. However, there are a couple more laws that are designed specifically to protect wildlife and its habitat and it is the State and Federal versions of the ESA. They both require that endangered or threatened species must be protected, and are fairly strict about it.

Various fish within the Bay-Delta fall under both State and Federal protections, like the Chinook Salmon, Steelhead Trout, and Delta Smelt. All these fish need a certain amount of fresh water to survive and breed. Unfortunately, the amount of water we are giving them is not enough. The fish populations within the Bay-Delta have not recovered since 1995 when the Bay-Delta Water Quality Control Plan was first put into effect. In fact the salmon populations for 2008 and 2009 were so low that commercial salmon fishing had to be cancelled completely. This is a sign that more must be done to protect them, and achieve the mandate of doubling production, as what we are currently doing is barely keeping these fish populations from disappearing completely. If we permanently lose our fish populations by not protecting their ecosystem then there is going to be no way to get them back. They will be gone forever. This would be a huge ecological and economic disaster from which we could never truly recover.

There are many factors that affect the various fish populations in the Bay-Delta. They range from invasive species competing with the native species for resources, to the amount of pesticide run-off in the water from farms. The number one factor in deciding if fish can survive in the water is if there is any water at all. So while it is important to take various other considerations in mind when deciding on what's the best course of action for a healthy Bay-Delta, in the end unimpaired flow should be the hard baseline on which to build other requirements. For example, one important factor in having the Delta Smelt survive is to have a

certain point in the bay have a mix of fresh and salt water. To keep the mix just right there needs to be runoff from the fresh water rivers going into the Bay. Therefore it would be hard to keep the salinity in check if there was not a guaranteed flow of water out of these rivers.

While there are “God Squad” provision in the Federal ESA, California’s does not have one. So while some people could end up making an argument that the economic benefits of diverting water outweigh the benefits of preserving these species, there is no provision in the California ESA for such an argument. Therefore I feel confident that whatever supposed benefit there is in allowing these threatened and endangered species to further decline t has no place in this debate. And even if it was considered, as I mentioned before, I feel that the economic benefits of using the water (mostly for farming) do not outweigh all the benefits of preserving the environment. The Board will need to put a hard guideline in order to protect the fish as much as possible. Any ruling that has ambiguous language runs the risk of not being properly followed and putting these fish back in danger. And since I mentioned that a 75% flow was the recommended amount put forth by experts back in 2010 for outflow in general and 60% was stated as the minimum unimpaired flow for the lower San Joaquin River and its tributaries, it seems illogical to consider alternatives that allow for less than 60% of unimpaired flow on the LSR and its tributaries.

As the Board is making this decision, I hope you keep the arguments I have put forward in mind. A flow of 75% will be enough water to preserve the integrity of the Stanislaus, Tuolumne, and Merced Rivers. The public trust doctrine argues that harm to the public should be minimized when making decisions about water. Also, the California Constitution says that water should be used in a beneficial way that keeps the public’s interests in mind. Finally, the two ESA’s say that animals listed as endangered or threatened need to be protected with their

environments preserved as much as possible. All three of these laws therefore can support my claim that the high unimpaired flow I am arguing for is a logical choice to make in order to satisfy all applicable requirements. Preserving the ecosystem of these rivers helps to preserve the public interests, is an overall beneficial use of water, and helps to protect some animals listed under the ESA. Thank you for reading this comment, and I hope it has offered some insights into why a choice like this is the best one for our state.

Sincerely,

Thea Miller