SWEETWATER SPRINGS WATER DISTRICT

TO: Board of Directors **AGENDA NO. V-B**

FROM: Steve Mack, General Manager

Meeting Date : July 7, 2016

SUBJECT: DISCUSSION/ACTION RE EL BONITA WELL FIELD INUNDATION PREPARATIONS

RECOMMENDED ACTION: Receive a presentation by the General Manager regarding meeting with Division of Drinking Water staff on flooding impacts on the El Bonita Well Field and the Guerneville Water Supply System.

FISCAL IMPACT: none

DISCUSSION:

The El Bonita Well Field is at a relatively low level near the Russian River. It is the source of water for the Guerneville Water Supply System of Sweetwater Springs Water District. When the River water elevation gets to 29 feet the well field starts to become inundated. Flood stage for the Russian River at Guerneville is officially at 32 feet elevation. The near flooding in March raised an issue that is concerning to staff - we learned in preparation for anticipated flooding of the El Bonita Well Field that the State Division of Drinking Water would expect the District to issue boil water notices if the wells at that location need to be operated while under water. We had thought that we had addressed that issue to the State's satisfaction (the last large inundation and boil water notice was in 2006 and was due to flood water infiltrating the raw water line because of a leak in the raw water line from the wells) but we learned during this last event we had not.

We had a meeting with State staff on April 28, 2016, to discuss this matter. The State staffs' concern is that they are concerned that flood waters could contaminate the pumped water by negative pressures somewhere along the piping that is under the flood waters. Our position is that District water is continually monitored for turbidity which should show increased turbidity and that we have a plan for addressing this situation, that boil water notices are a hardship for everyone, if not needed, and we want to find out what we can do to satisfy the Division of Drinking Water staff so that boil water notices are only used when needed. At the end of that meeting we agreed that District staff would work on solutions. We offered to get our well maintenance people involved which State staff stated was a good idea.

Since that meeting staff have been looking at alternatives and have gotten our well maintenance consultants involved. Ron Foster, owner of Ground Water Well and Pump has been working on a letter to the Division of Drinking Water to state his opinion of what we are doing provides safe water during inundations. This letter is in the process of being sent to the Division of Drinking Water. Mr. Foster believes,

based on years of high-level work, that our operation provides safe water during inundations.

Other alternatives that District staff are looking into include:

Raising the well heads. This is similar to what is done in some vineyards. It may not satisfy the Division of Drinking water staff because the plumbing would still be exposed to inundation and their concern appears to be infiltration of contaminate water at joints - there would still be some exposed to contaminated water.

Raising the vaults and satisfactorily waterproof them. This proposal would raise the vaults 3-4 feet in preparation of a flood event. Floods higher than 36-37 feet would inundate the vaults and may require boil water notices, but those are less frequent and also involve other major disruptions within the service area. Boil water notices in these situations appear to be more acceptable and may be required in any event because of the other disruptions - loss of power, contaminated water infiltration in other locations.

Our next step is a meeting with Ron Foster and Division of Drinking Water staff. After that we will have a much better idea on how to proceed.