Dewatering – impacts on farming

1. Local Agencies of the North Delta (LAND)
2015 comments on the BDCP/WaterFix
Complete document here:
http://restorethedelta.org/wp-content/uploads/2015/11/LAND-WaterFix-Alt.-4A-Cmnt-Ltr-10.30.15.pdf

p 11
RDEIR/S Section 4.3.3/ DEIR/S Chapter 7 – **Groundwater**

In a parallel illustration, lowering that same water table 3 feet might not affect those same drinking water wells, but could require significantly (dozens to hundreds of acre-feet per farm) more river water pumping to maintain irrigation on a field, which was reliant on underseepage, a very common scenario. In the Delta, it is very common to have water from the levees or even adjacent islands essentially percolate up into the neighboring fields. (DWR, 2014.) When that water is cut off, a farmer has to place new pumps in the river, a massive economic cost with extensive permitting timelines, replace pumps, or run pumps for far longer. In this case, the environmental impacts include the need to spend more money to pump over the levee, greater energy use and carbon emissions, and greater loss to evaporation from having to use above ground systems to replace the highly efficient seepage. This is yet another obvious and common situation in the Delta, ignored in the environmental analysis.

In a final illustration, lowering the same water table 3 feet changes the drainage system elevations (hydraulic head) and could result in the loss of drainage capacity from one field to the next. This directly affects the beneficial reuse of agricultural water from one field from one river intake to the next field downgradient, which would have otherwise received the recharge of the non-consumptively used water for growing crops or salt control. Drainage within an island can be understood as a series of miniature ship locks, each lock holding the water table to maintain the next, but each entirely reliant on inches of relative height to control that water, rather than feet.

2. County of Sacramento
2014 Comments on BDCP
Complete document here:
http://northdeltacares.org/wp-content/uploads/2016/06/Sacramento-County-BDCP-Comments-June-2014.compressed.pdf

pp 47-48

Compensating farmers for production losses attributable to a reduction in available groundwater supplies, as proposed by the mitigation measure, is inadequate because it does not "maintain water supplies" and thus fails to meet the

performance criteria set forth in the mitigation measure. Moreover, the affected area includes many permanent crops, including fruit trees. These crops are an essential part of the Delta economy, as well as a defining aspect of its visual and historic character. If agricultural water supply and groundwater levels are significantly affected for up to 10 [now 14] years of construction, plus an unknown period of time following construction for supplies to recharge and recover, it is reasonable to assume that these permanent crops will be lost, which will have secondary impacts to agriculture, wildlife, and the aesthetics, economy and essential character of the Delta communities. The DEIR/EIS must be revised to include actual analysis of the extent of impacts to local water supply, including evidence and analysis relating to the availability, adequacy and means of providing any "temporary alternative water supply" to both municipal and agricultural uses, as well as the attendant secondary impacts that will result if water supply is significantly depleted for an extended period of time.

3. North Delta CARES

Agricultural water impacts

- Less agricultural surface water supply available from existing diversion intakes in rivers and sloughs if surface water levels are lowered from removal of 9,000 cfs at three new WaterFix intakes in North Delta and another 6,000 cfs into Yolo Bypass at Fremont Weir.
- Less availability of agricultural groundwater supplies if well water levels are lowered 20 feet for 14 years from 24/7 dewatering during WaterFix construction.