

WaterFix Proposed Project is Not in Public Interest

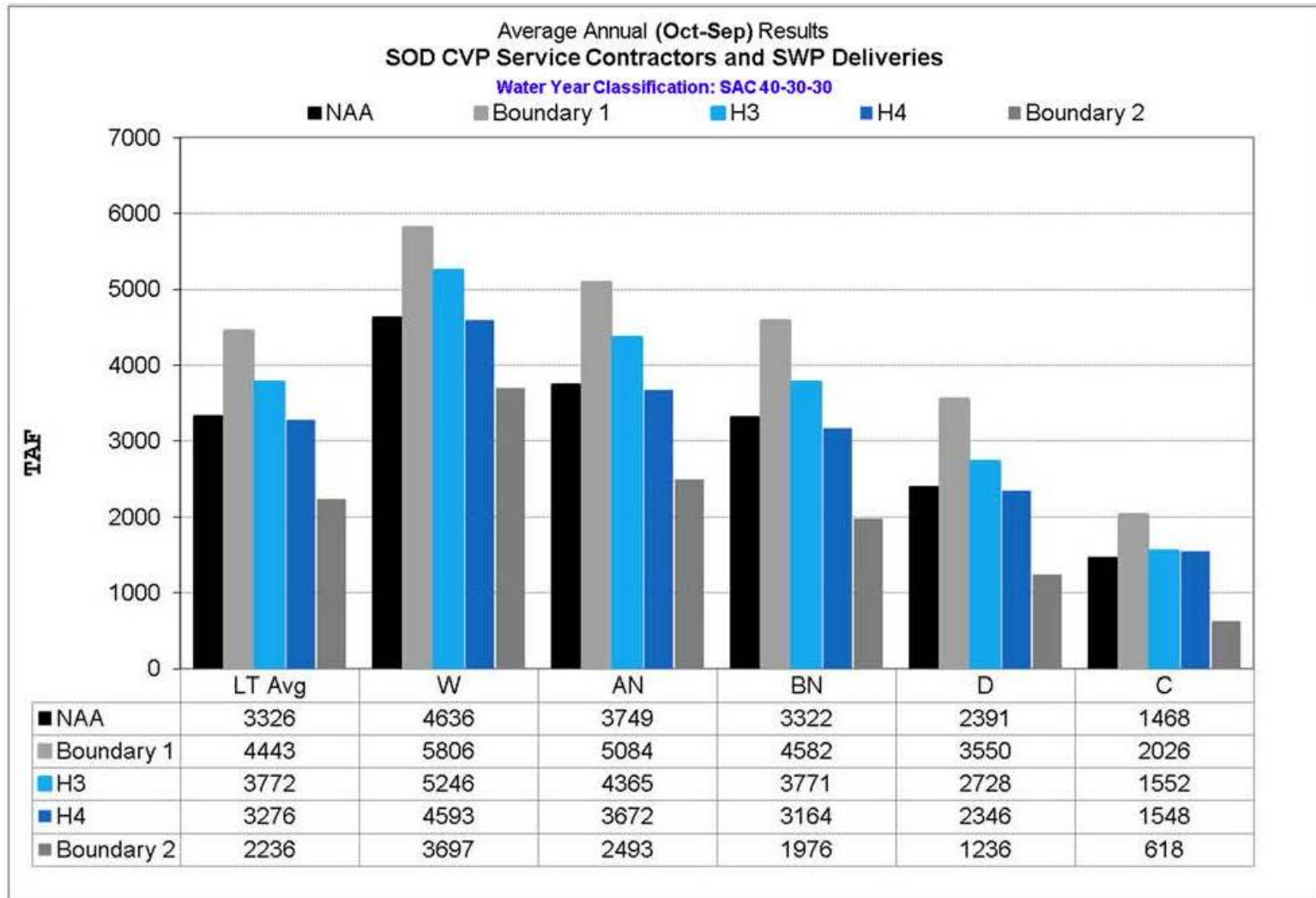
Richard A. Denton, Ph.D., P.E.

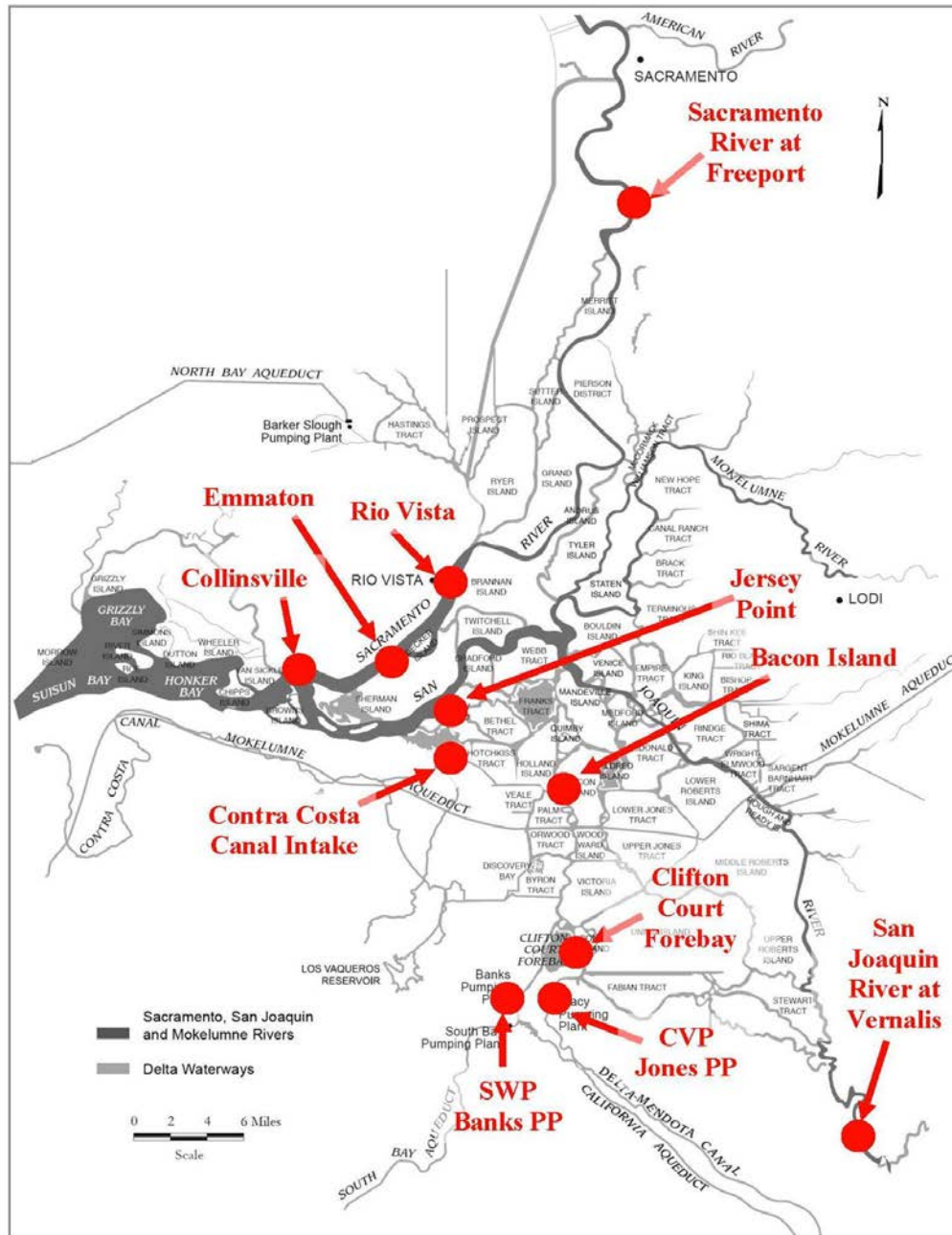
Richard Denton & Associates

**On behalf of Contra Costa County, Contra Costa
County Water Agency, and Solano County**

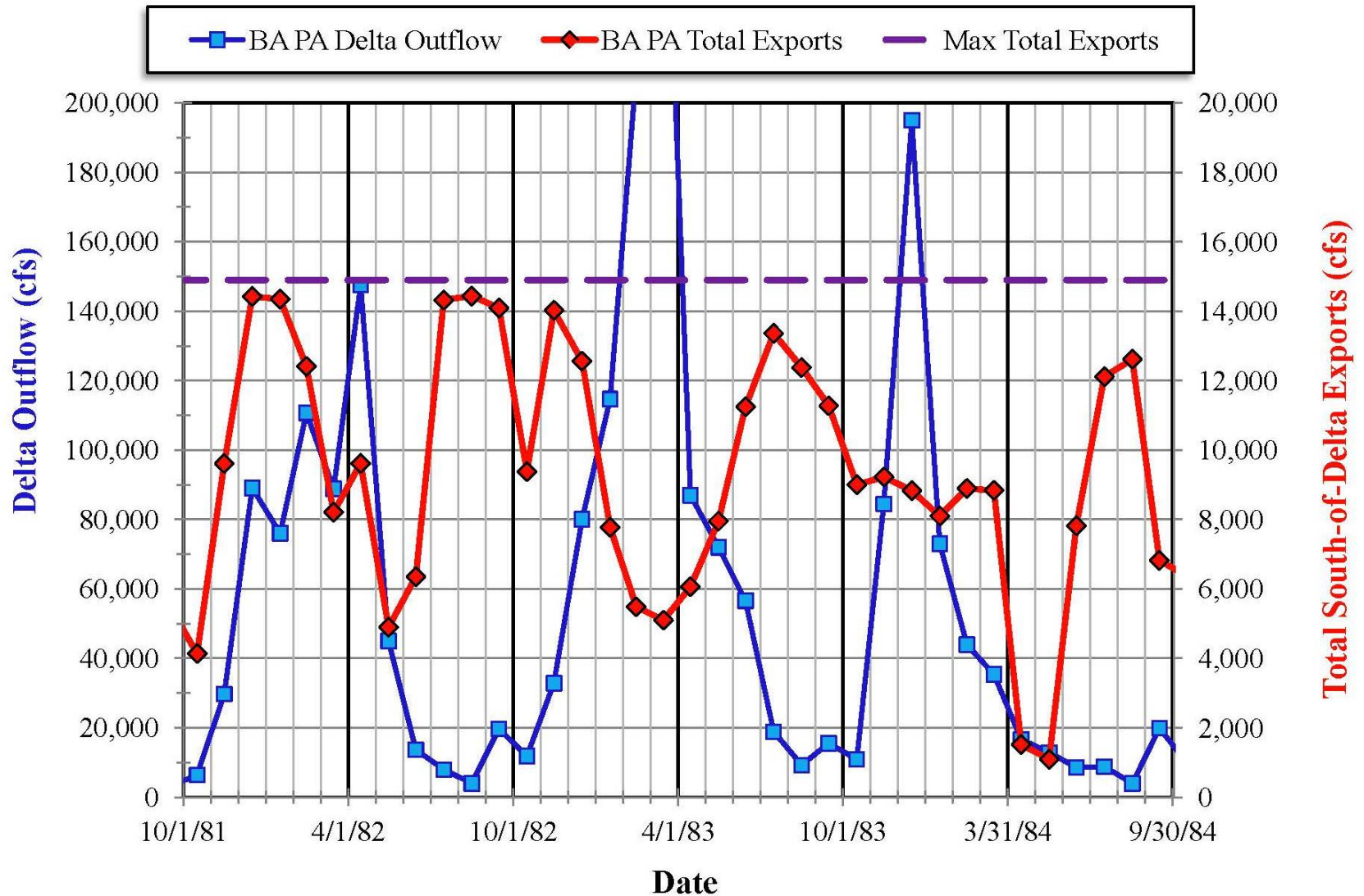
**CWF Hearing before SWRCB
Sacramento, 2018**

Figure 10. Simulated Combined SWP and CVP South of Delta Water Service Contractor Deliveries



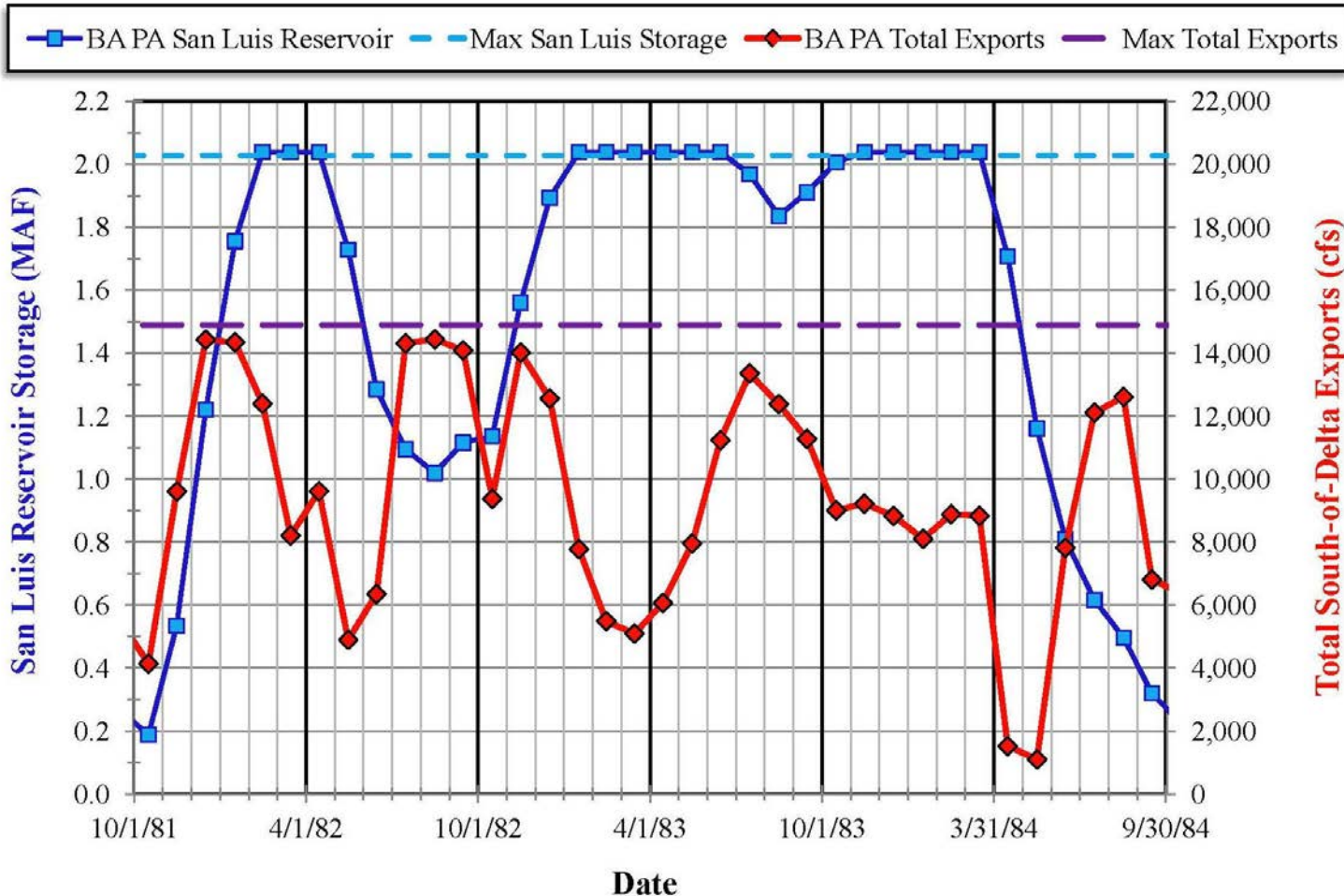


Total South-of-Delta Exports and Delta Outflow



South-of-Delta exports reduce once San Luis Reservoir is full

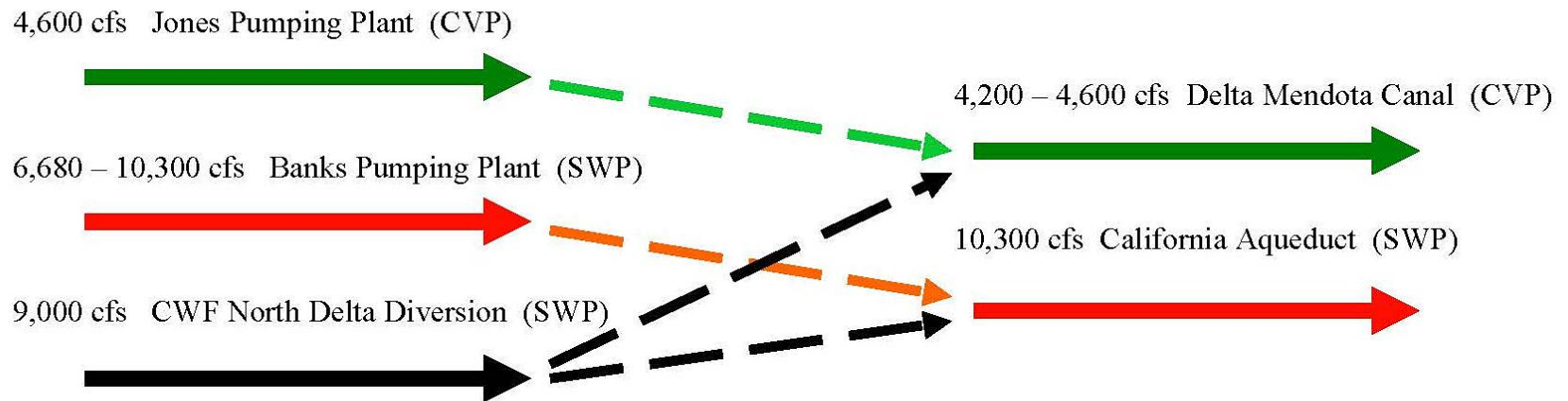
Total SOD Exports and San Luis Reservoir Storage



Exports are Constrained By Aqueduct and DMC Capacity and South-of-Delta Export-Area Storage

Delta Diversion Points with CWF

Conveyance to South-of-Delta Export Area



Maximum diversion capacity is **23,900 cfs**, but maximum south-of-Delta conveyance capacity is only **14,900 cfs**.

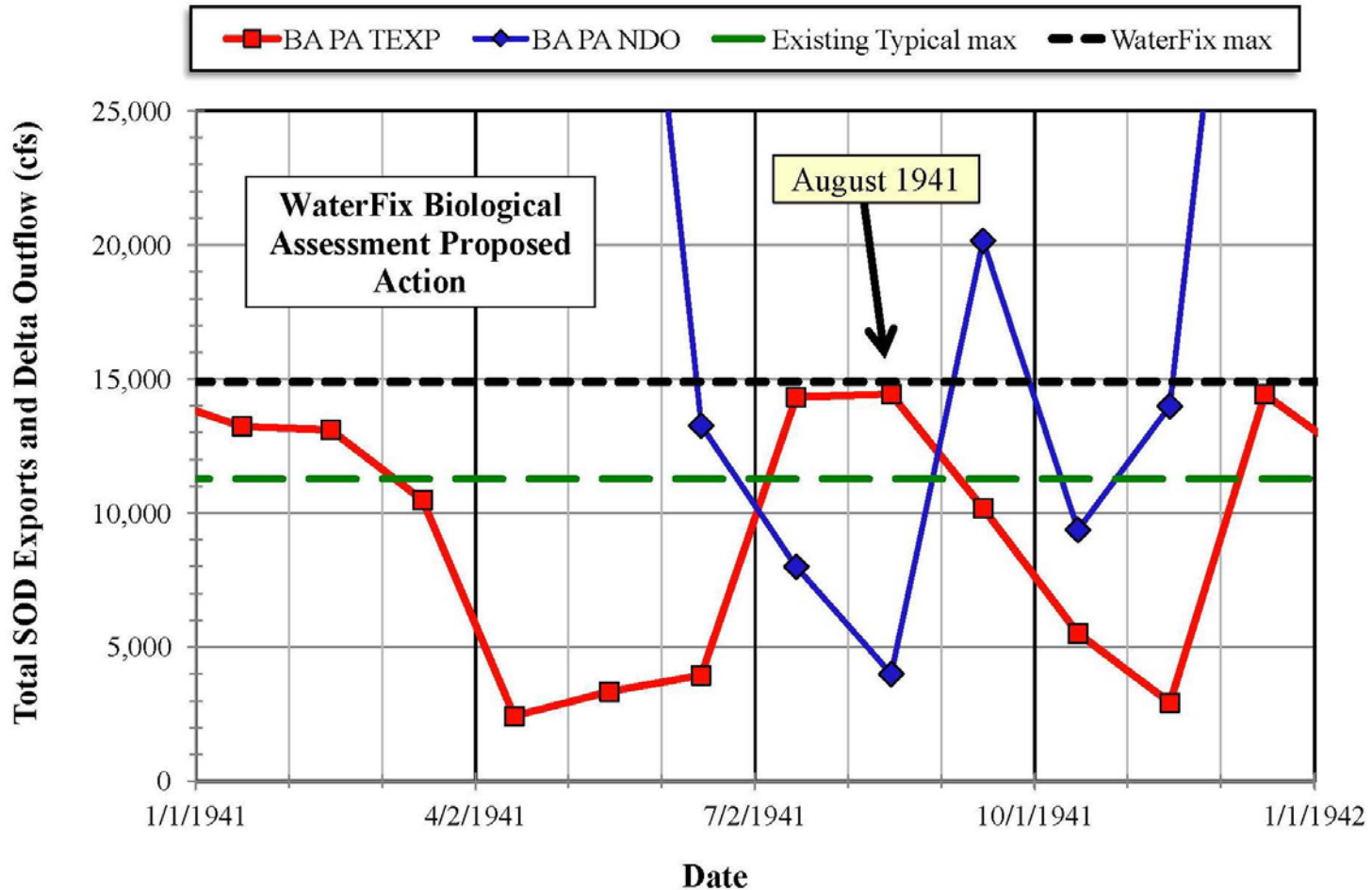
Maximum diversion capacity under **existing system** (typical) is $4,600 + 6,680 \text{ cfs} = \mathbf{11,280 \text{ cfs}}$

Maximum **SWP** diversion capacity under **existing system** (typical) is **6,680 cfs**

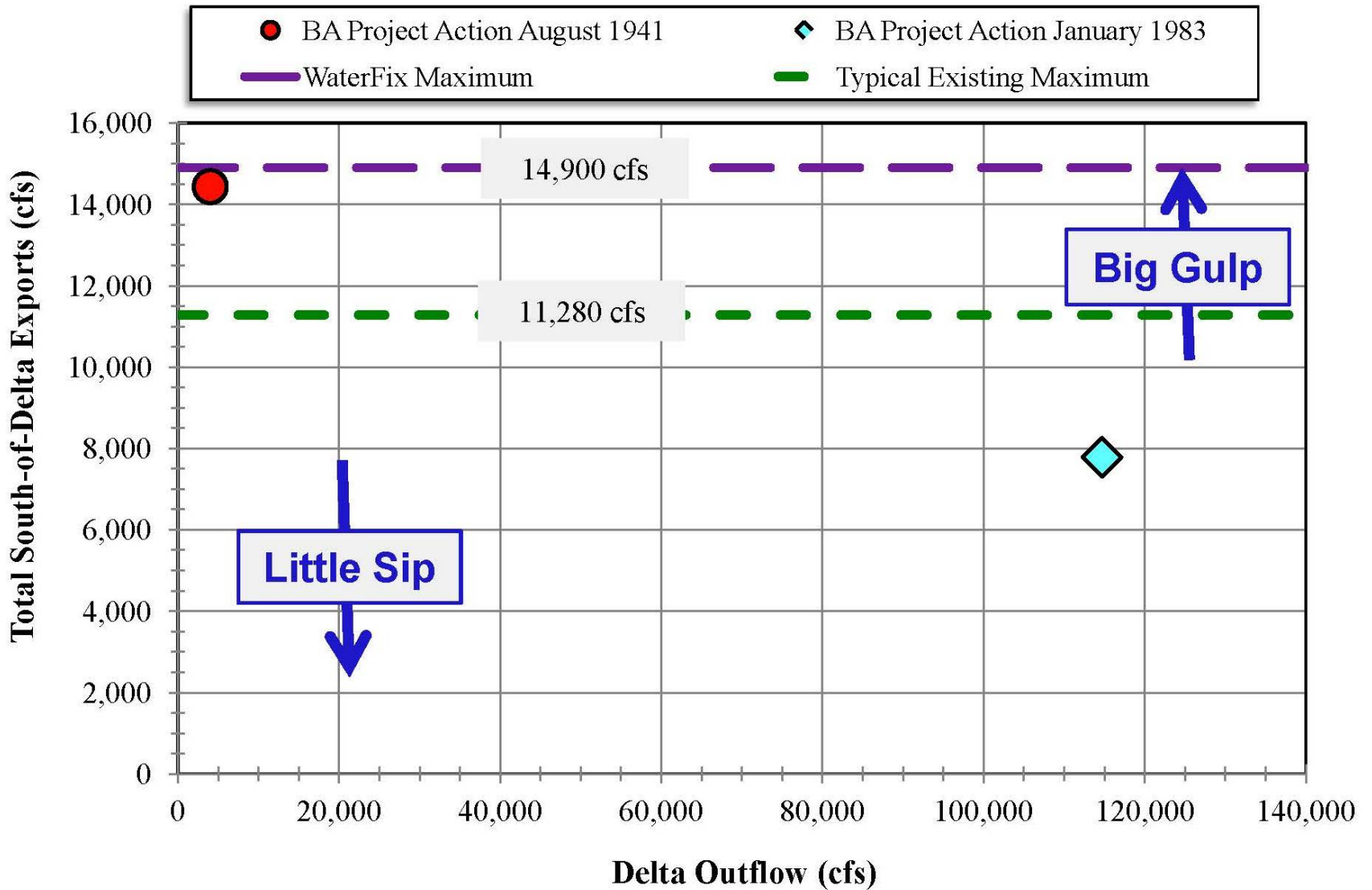
Maximum **SWP** diversion capacity with WaterFix is **10,300 cfs** *[limited by Aqueduct capacity]*

Proposed Project Would Increase Exports During Dry Months

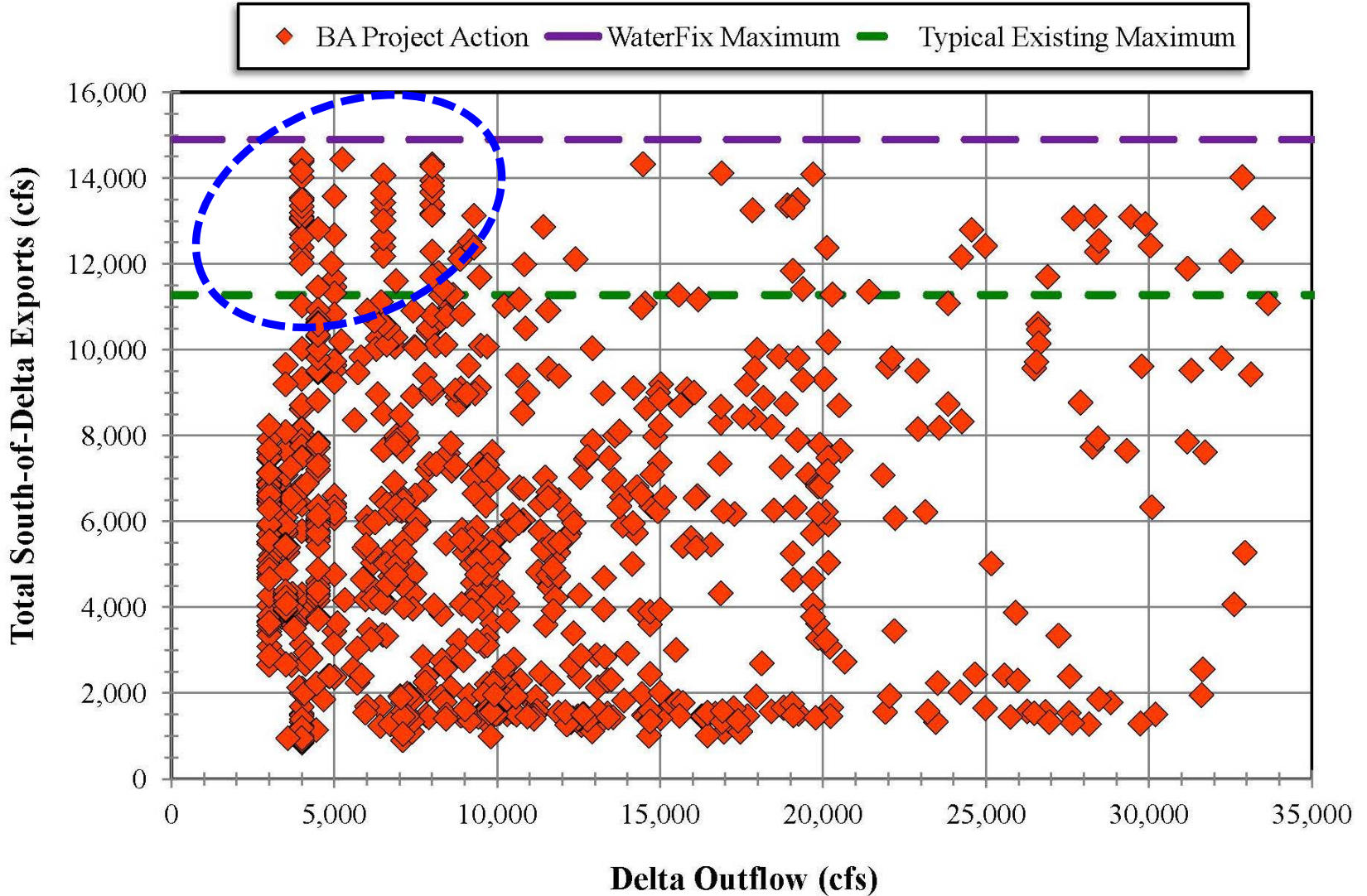
Total South-of-Delta Exports and Delta Outflow



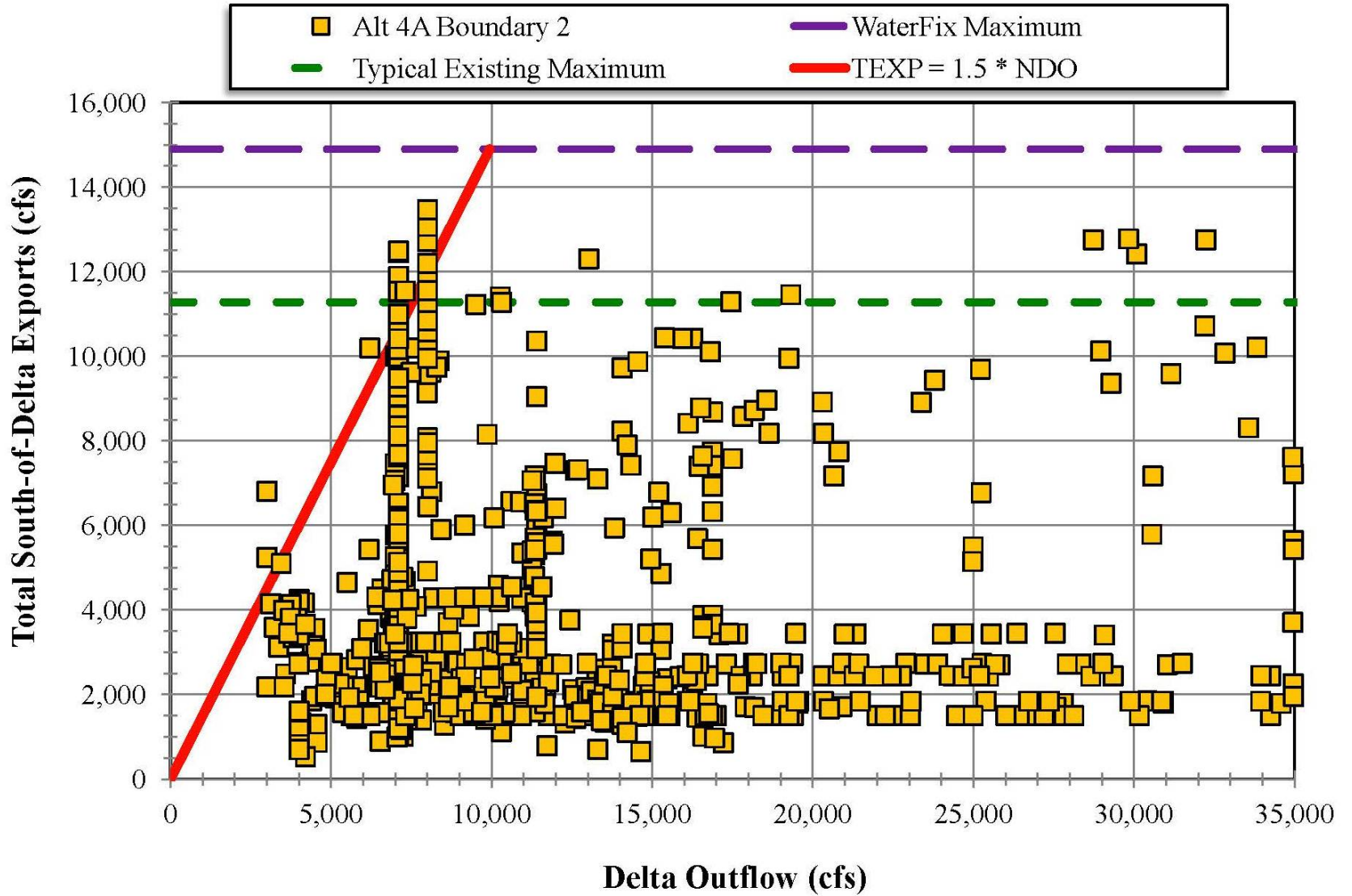
Total South-of-Delta Exports - BA PA



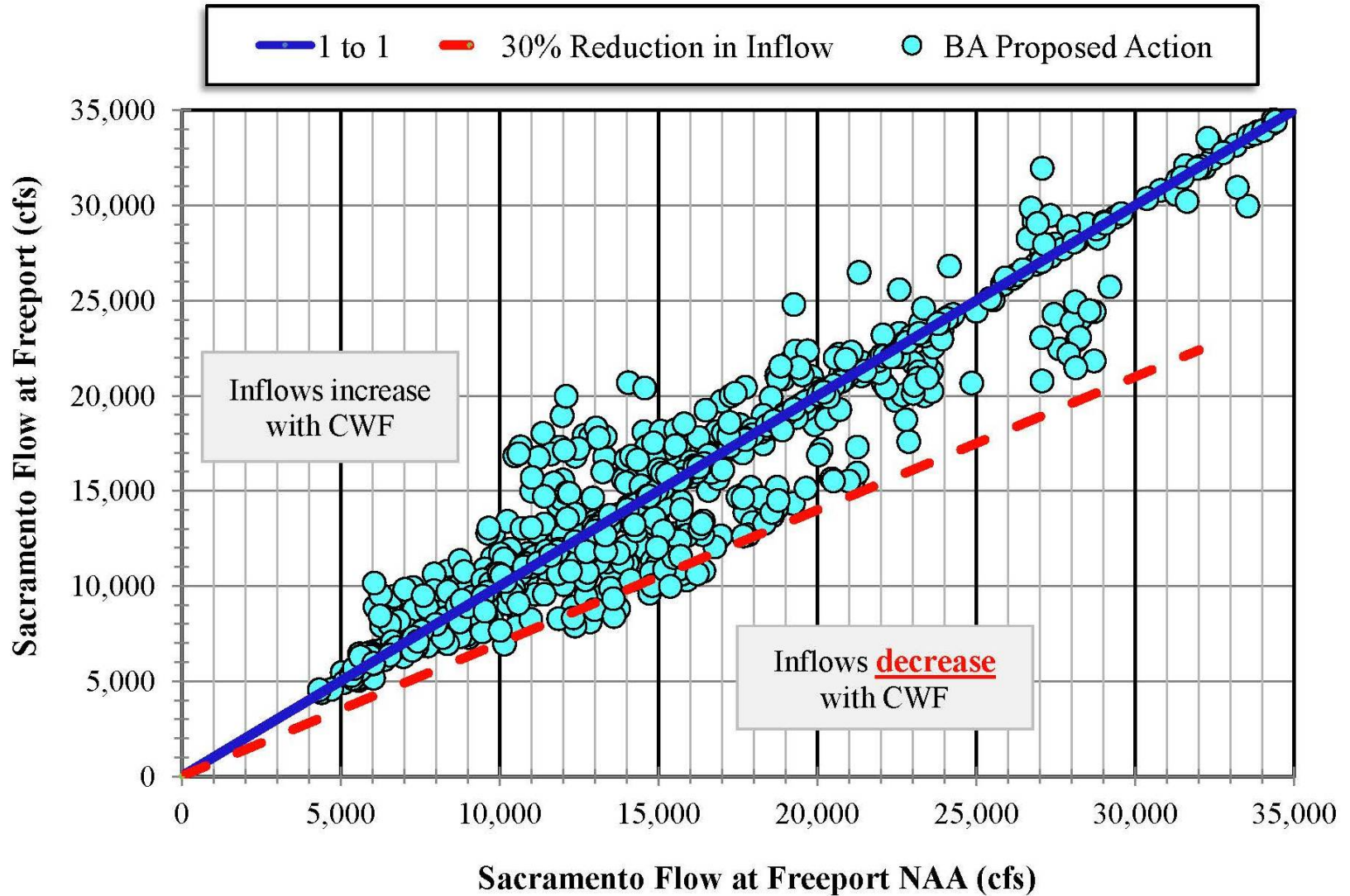
Total South-of-Delta Exports - BA PA



Total South-of-Delta Exports - 4A Boundary 2

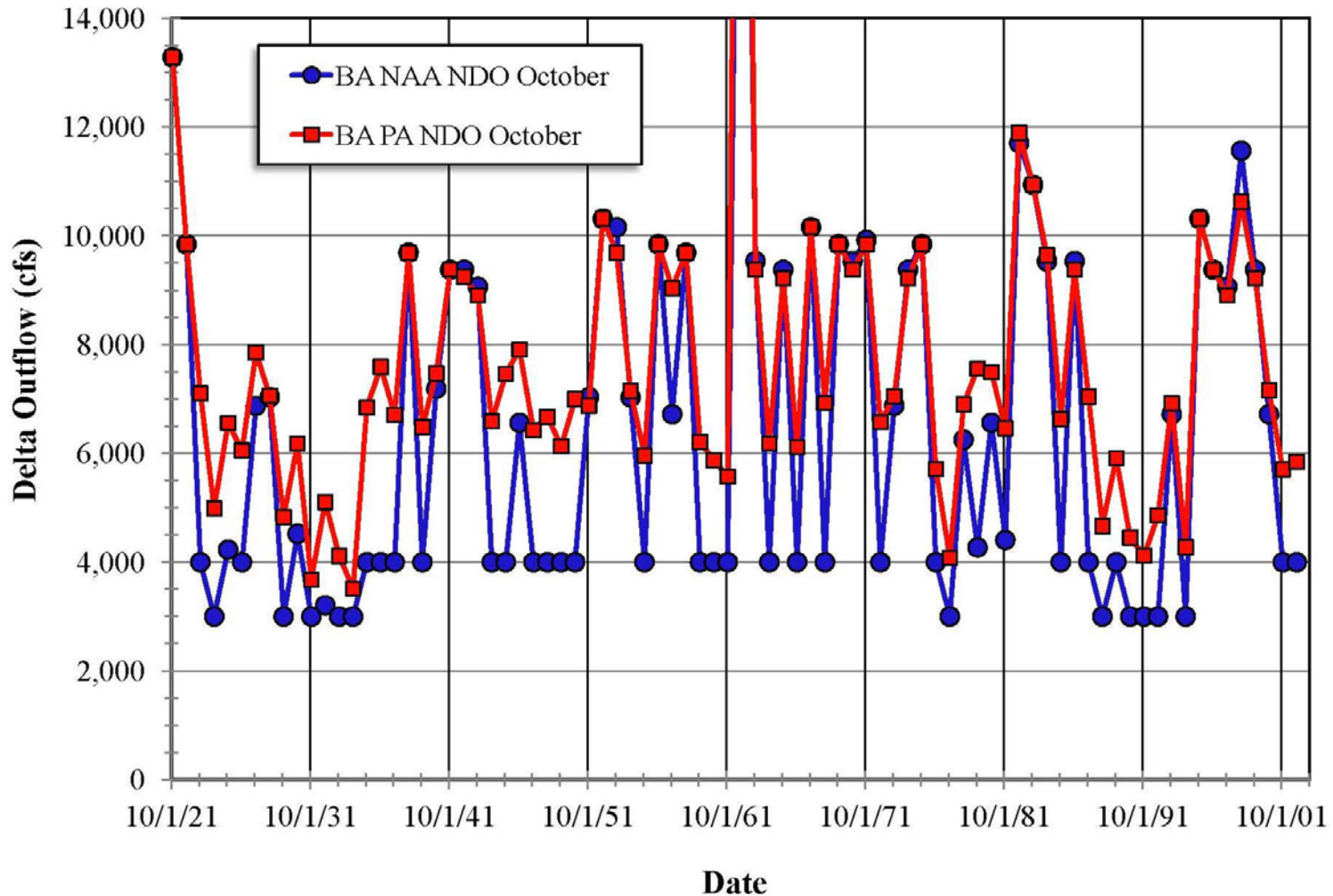


Sacramento Inflow to Delta at Freeport

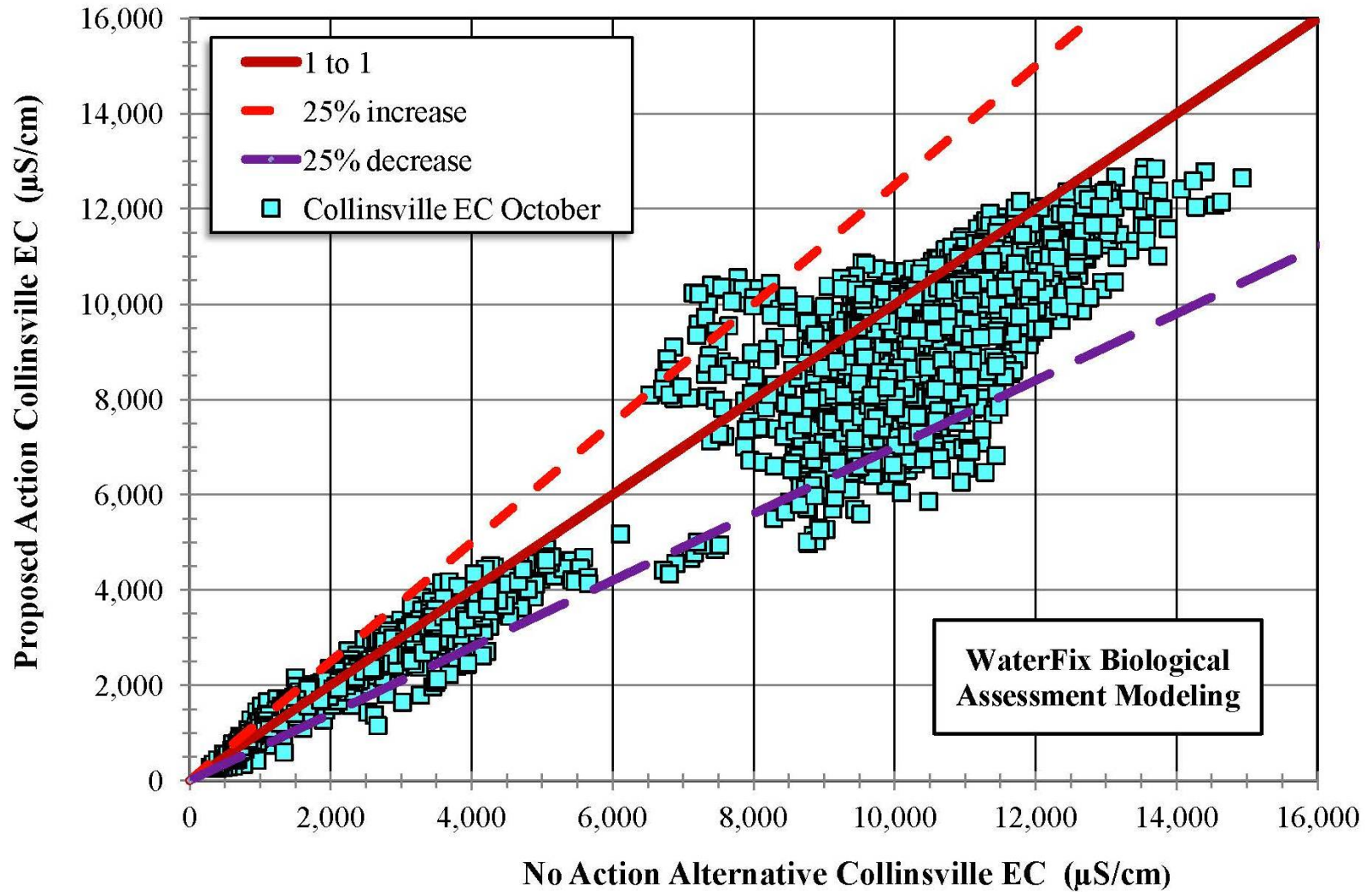


Delta Outflow in October is Unrealistically High

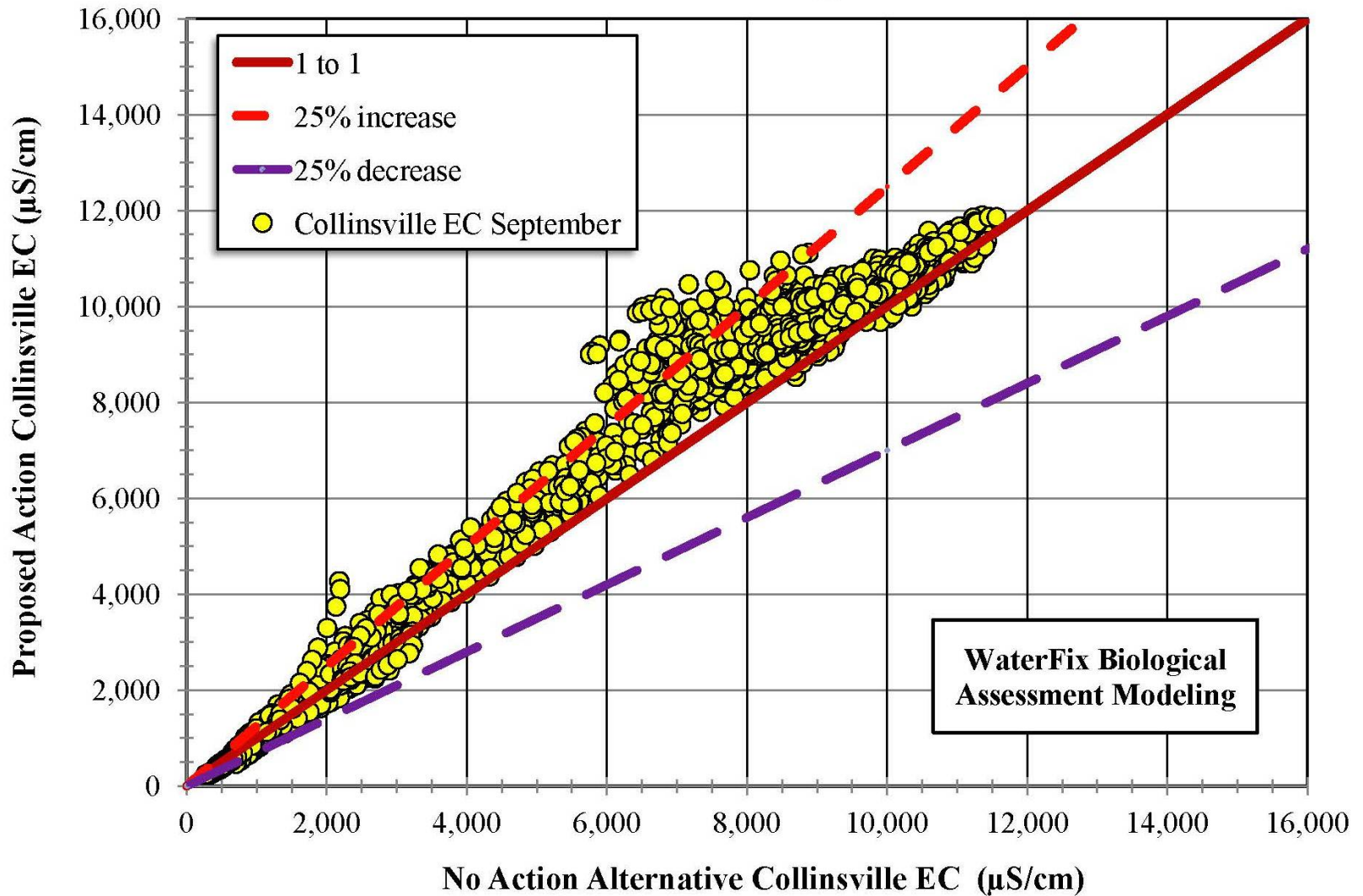
Delta Outflow - October



Collinsville EC - October

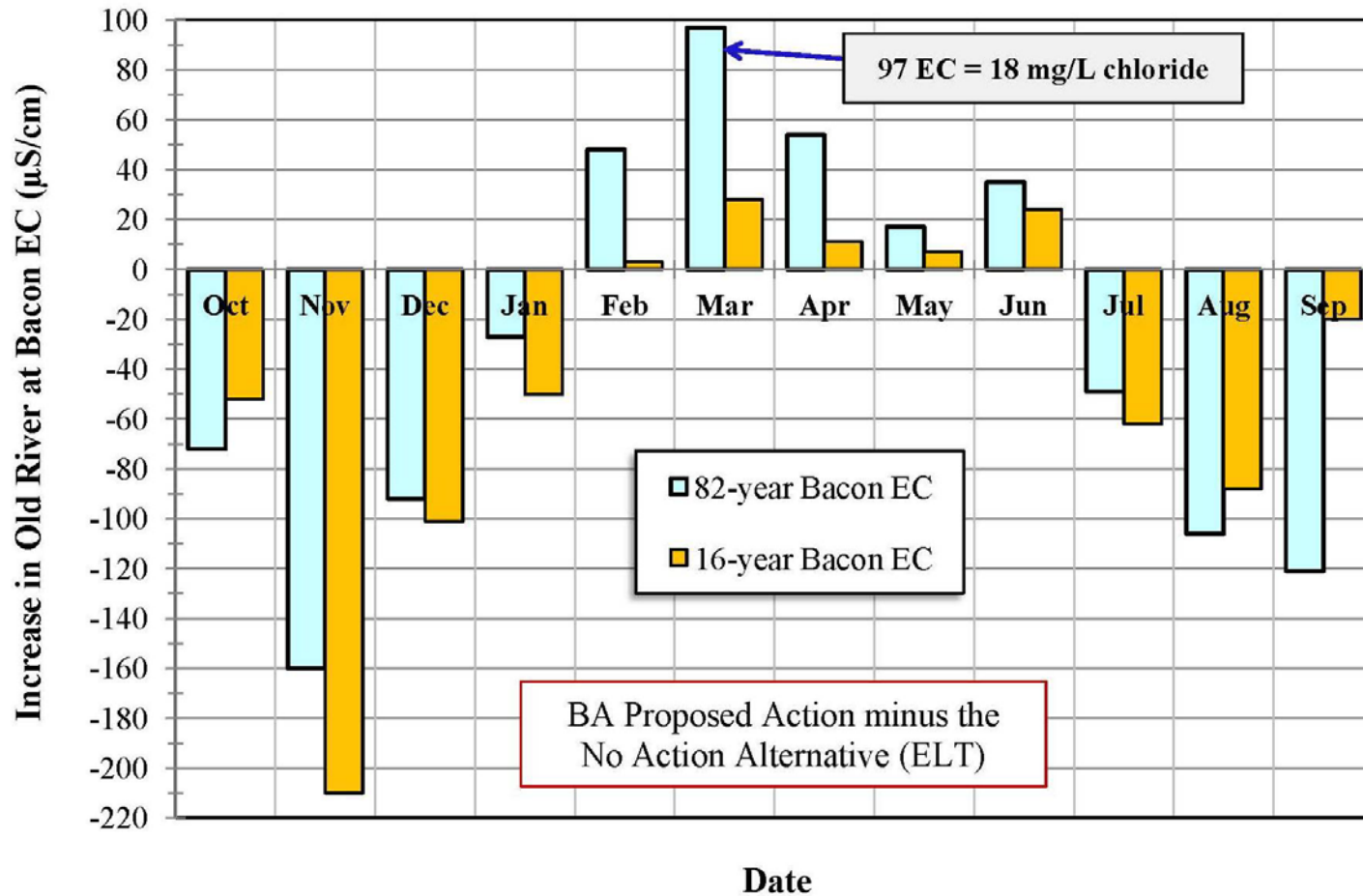


Collinsville EC - September

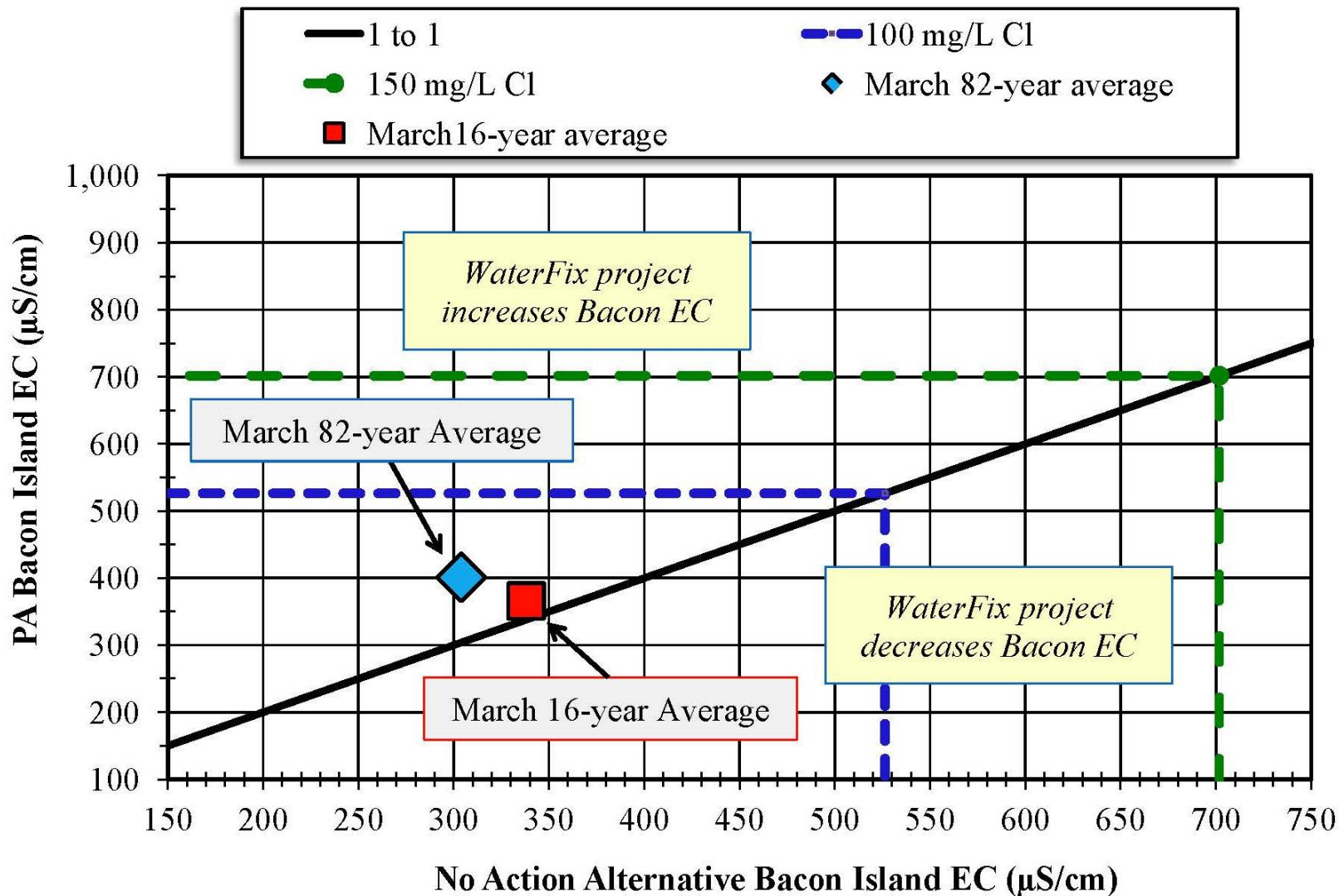


Water Quality Changes Using 16-Year and 82-Year Averaging are Quite Different

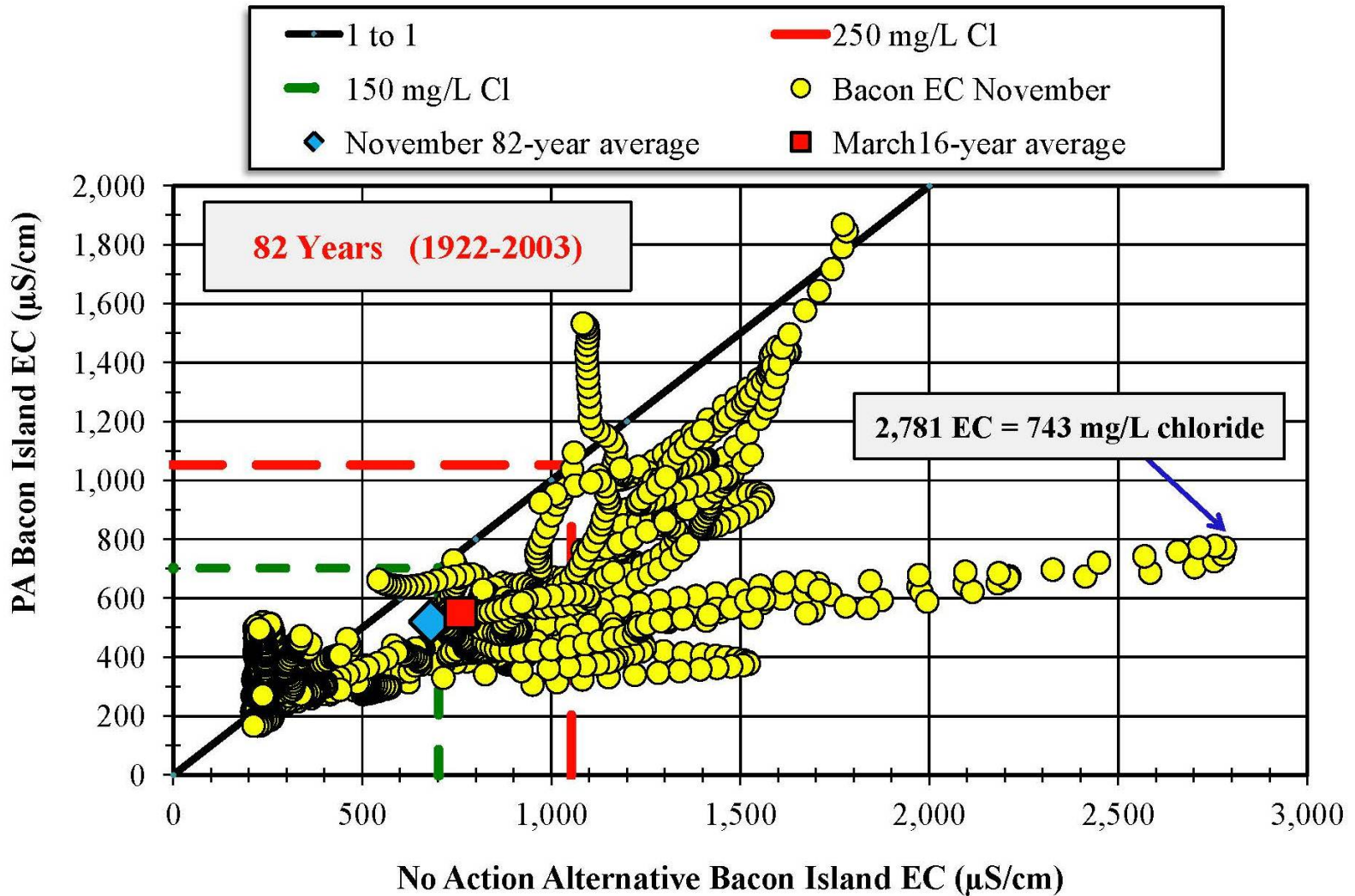
Old River at Bacon Island EC



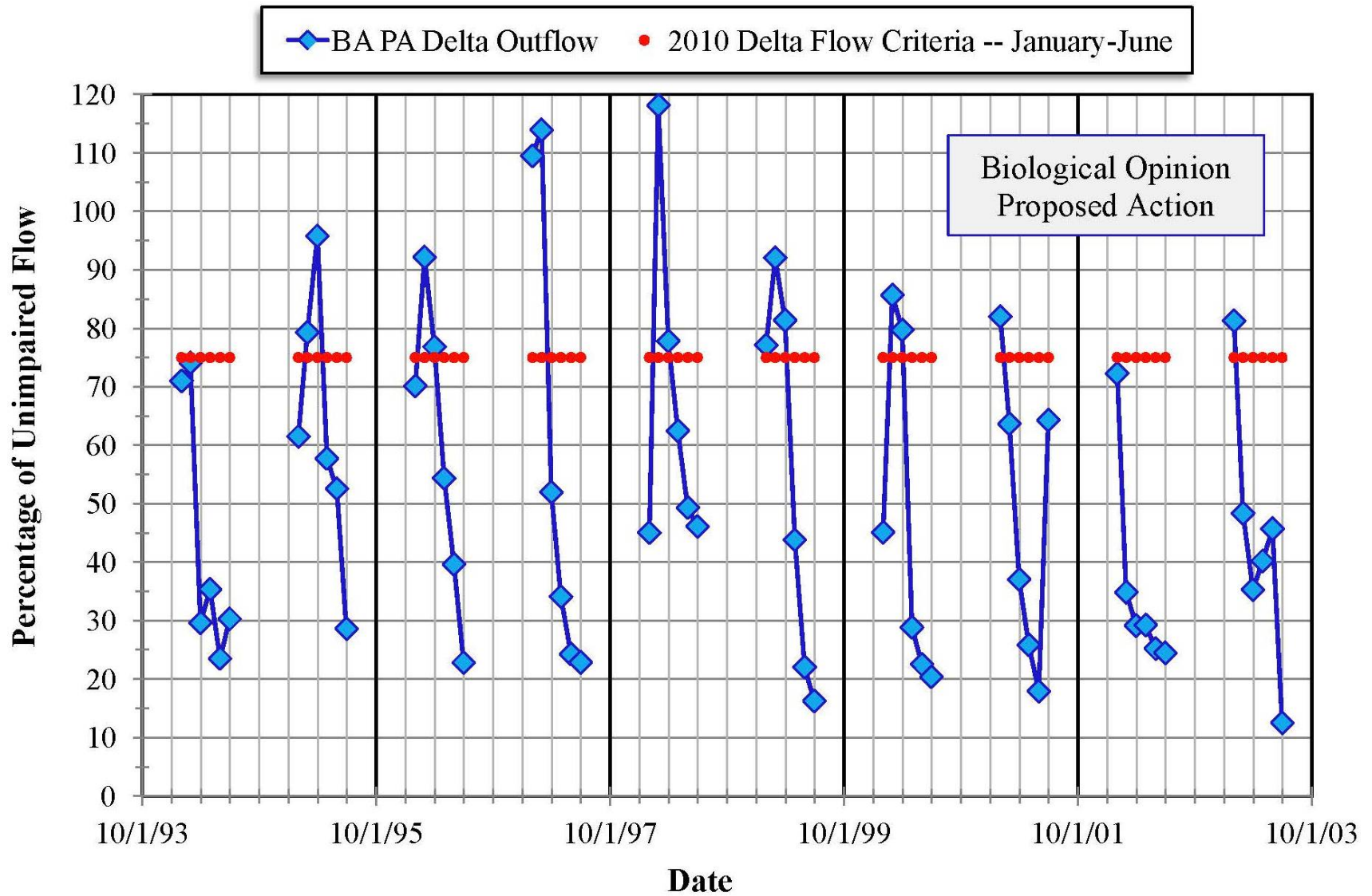
Old River at Bacon Island EC - March



Old River at Bacon Island EC - November



Delta Outflow as Percentage of Unimpaired Flow



Principles for Developing Permit Terms

1. Set specific limits on operation of proposed project.
2. Ensure proposed project exports less water in drier periods.
3. Consider limiting use of north Delta intakes and tunnels to times when Delta outflows are consistent with 2010 Delta Flow Criteria.
4. Ensure proposed project does not reduce Sacramento inflows to Delta.
5. Require new environmental analyses of Bay-Delta impacts, and a new water rights hearing, if future changes to SWP and CVP systems allow greater use of WaterFix facilities.

Conclusions

1. Close evaluation of simulated modeling of WaterFix project indicates project is not in public interest.
2. Modeling is fatally flawed because simulated outflows in October with the project are unrealistically high.
3. This in turn means the potential adverse impacts to Delta water quality are underestimated.
4. Unless new modeling is completed, SWRCB will lack the basis to make a properly informed decision about the key hearing questions.
5. If petition change is granted, SWRCB should consider principles for developing permit terms proposed in my testimony.