

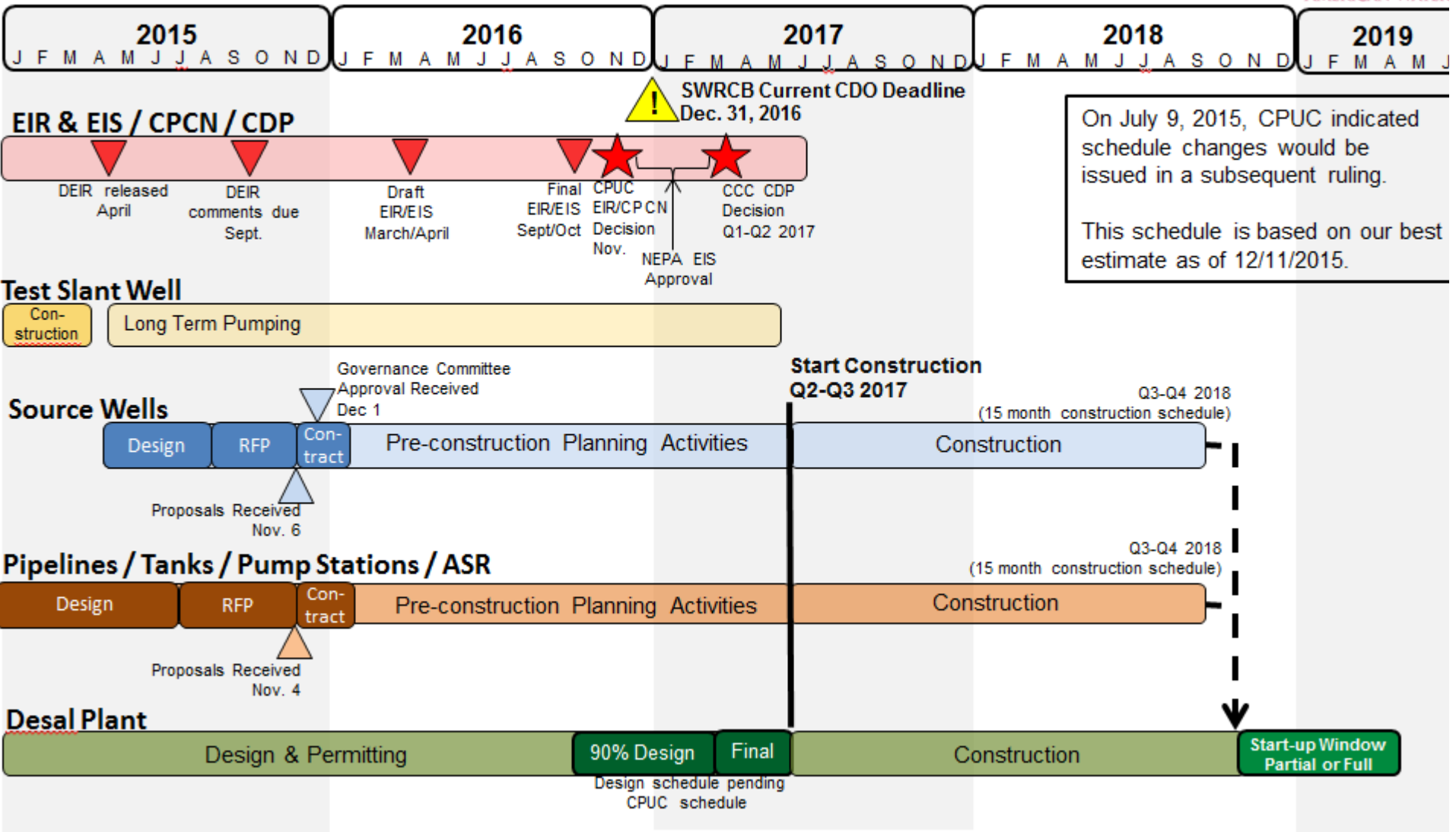


MPWSP Overview Schedule, Test Slant Well & General Update

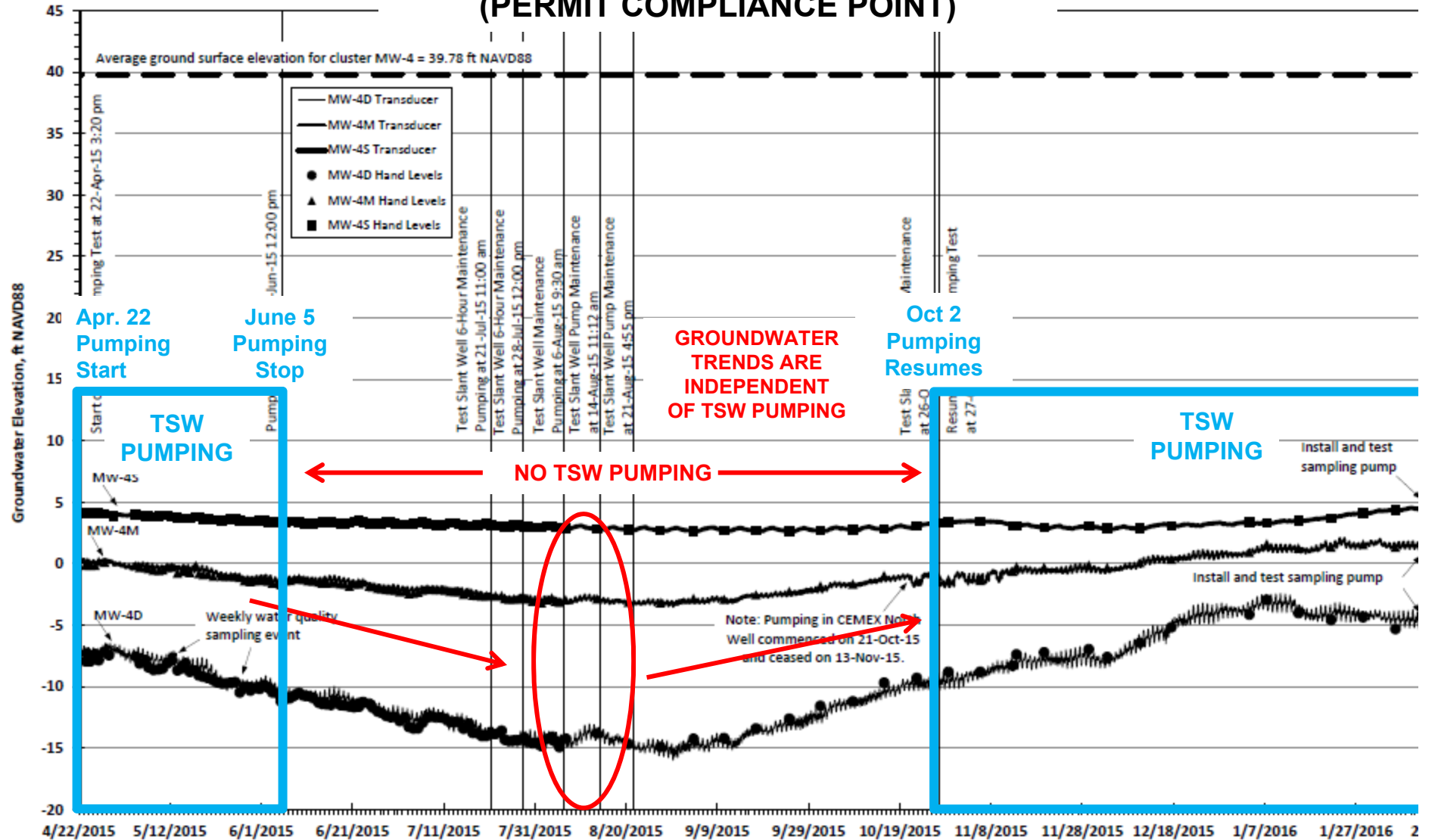
Presented to: MPWSP Governance Committee

Date: February 29, 2016

MPWSP Anticipated Schedule



GROUNDWATER ELEVATION @ MW #4 (PERMIT COMPLIANCE POINT)



SALINITY (EC) MEASUREMENT @ MW #4 (PERMIT COMPLIANCE POINT)

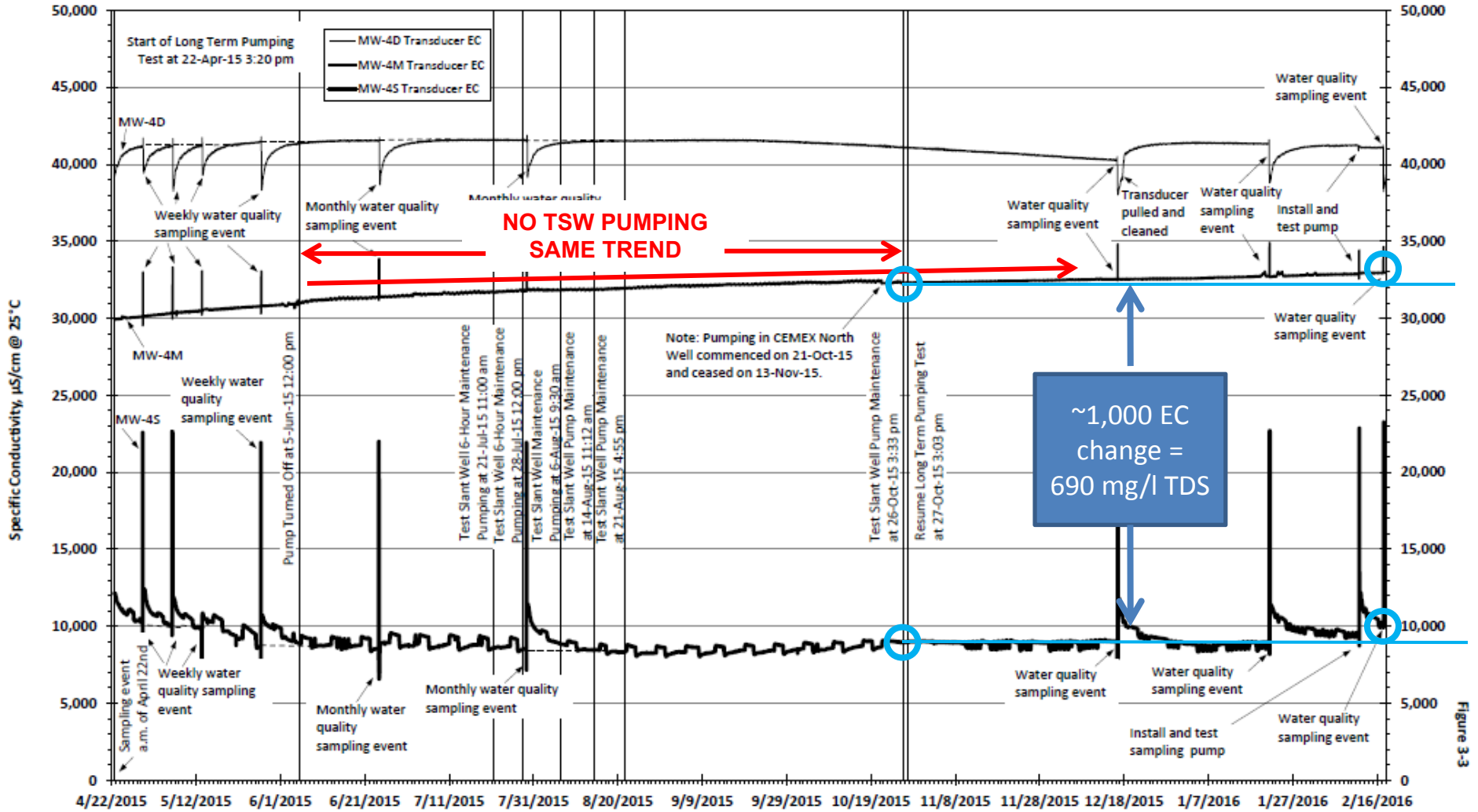
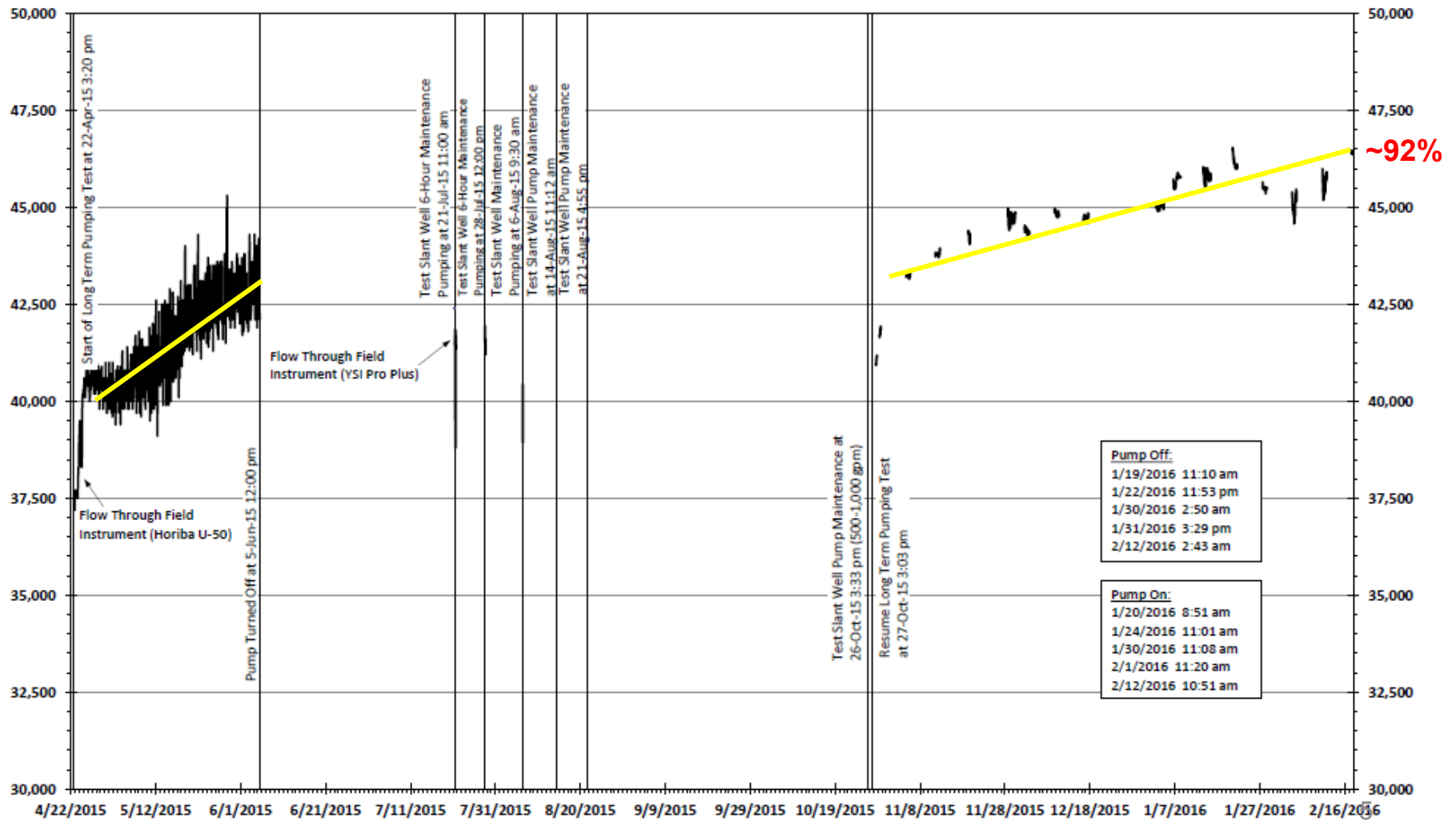


Figure 3-3

TEST WELL SPECIFIC CONDUCTIVITY





Initial assessment of an additional effort to value engineer the desal plant

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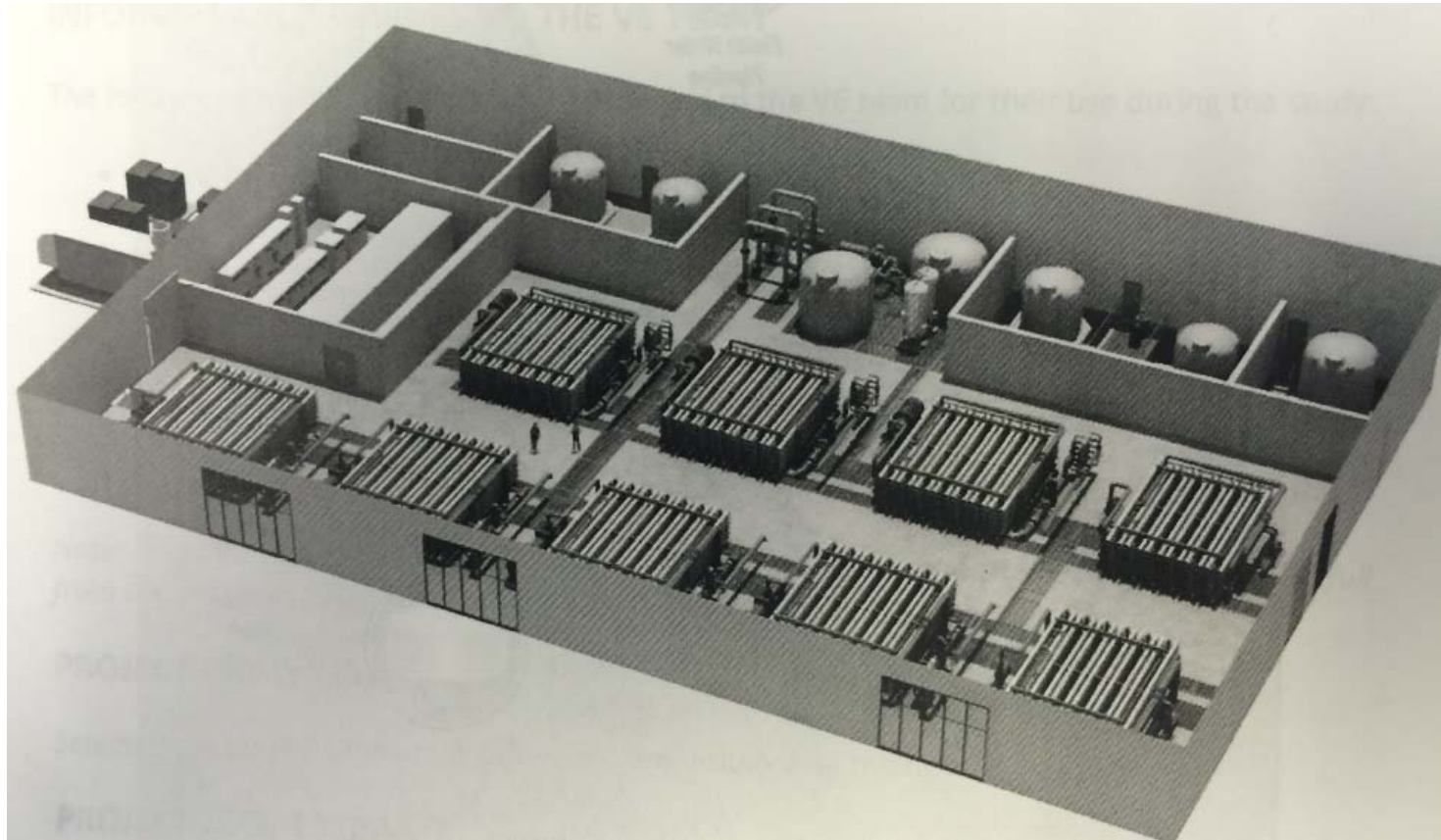
Desal Plant RFP Cost Summary



	BLACK & VEATCH		CDM SMITH		CH2MHILL		MWH	
	9.6 MGD	6.4 MGD	9.6 MGD	6.4 MGD	9.6 MGD	6.4 MGD	9.6 MGD	6.4 MGD
TOTAL FIXED DB	\$ 99,042,543	\$ 88,888,553	\$ 85,198,810	\$ 77,466,553	\$ 109,997,476	\$ 102,248,667	\$ 89,984,426	\$ 80,195,770
		\$ (10,153,990)		\$ (7,732,257)		\$ (7,748,809)		\$ (9,788,656)

- Average \$8.9M difference from 9.6 to 6.4 MGD
- All proposals featured the most cost efficient approach as a unified design that accommodated either 9.6 and 6.4

Desal Plant RO Building Layout



Impacts to current design stage

- Redesign cost for just the RO building alone will cost hundred of thousands of re-work due to:
 - Structure, mechanical, electrical, storm water, underground utilities design, RO piping, building energy calculations, 3D BIM, etc.
 - All drawings sheets need to be updated.
 - Months of redesign work required.
- Complicates permitting review and increases time with agencies as review is underway with existing design.
- Increases future design costs significantly as it requires advancing two different designs towards final.
- CDMS performed smaller vs. larger and determine it was more economical to design one facility than undertaking to size alternative designs. Same with the other proposals as well.

Summary



- Final VE study found no economical plant resizing opportunities for recommendation.
- Changes at current design stage have large impact to costs and time.
- Smaller RO building savings is minimal compared to redesign cost and time impacts.
- Most economical cost savings between plant sizes is captured in existing DB pricing