



Water Resources • Flood Control • Water Rights

## MEMORANDUM

**DATE:** July 8, 2015

**TO:** Melinda Terry, Manager - North Delta Water Agency

**FROM:** Gary Kienlen and Sara Harper

**SUBJECT:** Notice of Contract Criteria Violations and DWR's Implementation of Compliance Actions

The purpose of this memorandum is to inform the North Delta Water Agency (Agency) and water users within the Agency that salinity levels at the Three Mile Slough monitoring location are currently exceeding the criteria established in the Agency's 1981 Contract<sup>1</sup> (Contract) with the Department of Water Resources (DWR). The following memorandum summarizes the actions DWR is to improve water quality conditions and regain compliance. More information relative to current water quality conditions, including a map of monitoring locations within the Agency is attached.

Water quality data available from CDEC (California Data Exchange Center) shows significant increases in salinity, as measured by Electrical Conductivity (EC), at the Contract monitoring locations in the Sacramento River at Three Mile Slough and Rio Vista during the past few weeks. The 14-day Mean EC at the Three Mile Slough monitoring location reached 2.67 mS/cm on July 5, 2015 exceeding the current Contract Criteria of 2.63 mS/cm. The 14-day Mean EC at Rio Vista rose to 0.76 on July 6th, but is still in compliance with the Contract Criteria of 0.87 mS/cm at this location. Water quality at other monitoring locations specified in the Contract, the Mokelumne River at Terminus and in the San Joaquin River at San Andreas Landing, do not show similar spikes in salinity and are currently within the Contract Criteria. Figures showing the latest water quality conditions and Contract Criteria for these four locations are attached.

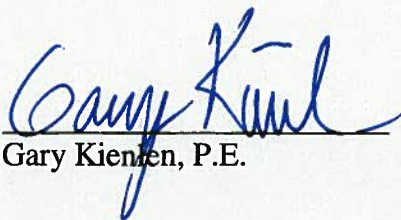
Formal notification of the Contract violation at Three Mile Slough was provided to DWR on July 6, 2015 with a request that DWR identify the actions they would implement to bring Sacramento River water quality conditions back into compliance with the Agency's Contract. The notification also identified and expressed concern that unless State Water Project (SWP) and/or Central Valley Project (CVP) operations are modified, it is likely that within the next few days EC levels will also exceed the Decision 1641 salinity standard of 2.78 mS/cm at Three Mile Slough (as modified by the State Water Resources Control Board in the recent TUCP).

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<sup>1</sup> Contract Between the State of California Department of Water Resources and North Delta Water Agency for the Assurance of A Dependable Water Supply of Suitable Quality.

Coordination with DWR staff on Monday July 6, 2015 provided an update regarding current Delta water quality conditions and SWP operations. DWR cited unanticipated increases in upstream demands and depletion losses, tidal energy, and wind action as factors resulting in the rising salinity over the last week. DWR operations staff acknowledged the exceedance of the Contract Criteria on July 5, 2015, and the likely exceedance of the current modified D-1641 salinity standard at Three Mile Slough on July 7-8, 2015. DWR identified an increase in water releases at Oroville Dam from 3,000 cfs to 3,250 cfs and decrease exports from the Delta to minimum human health and safety standards as actions that will be implemented to comply with the Agency's Contract Criteria. In addition, DWR identified that the U.S. Bureau of Reclamation intends to increase releases from Folsom Dam, but would keep the Delta Cross Channel Gates open for recreation and to maintain water quality in the interior Delta. A subsequent review of the SWP/CVP operations indicate these changes occurred on July 7, 2015.

Based on observed water quality conditions and discussions with DWR staff, there is concern that salinity in the Sacramento River will likely continue to exceed the Contract Criteria at Three Mile Slough over the next few days; however, it is anticipated an improvement in water quality will occur once the effects from changes in SWP/CVP operations are realized in the Delta. The level and timing of the improvement to water quality is unknown at this time; and therefore, MBK will continue to closely monitor conditions and provide the Agency updates on water quality and compliance with the Contract Criteria as conditions change. In addition, all water users are advised to monitor salinity data on the CDEC website; <http://cdec.water.ca.gov/queryDaily.html> for daily data or <http://cdec.water.ca.gov/queryQuick.html> for real-time/hourly data. A map and table (key to the map) identifying the Station IDs and locations for many of the monitoring locations within the Agency are attached. New stations have recently been added and are available on CDEC that may not be represented in the attached map and table. An updated map and table will be provided in the near future to include these additional stations.

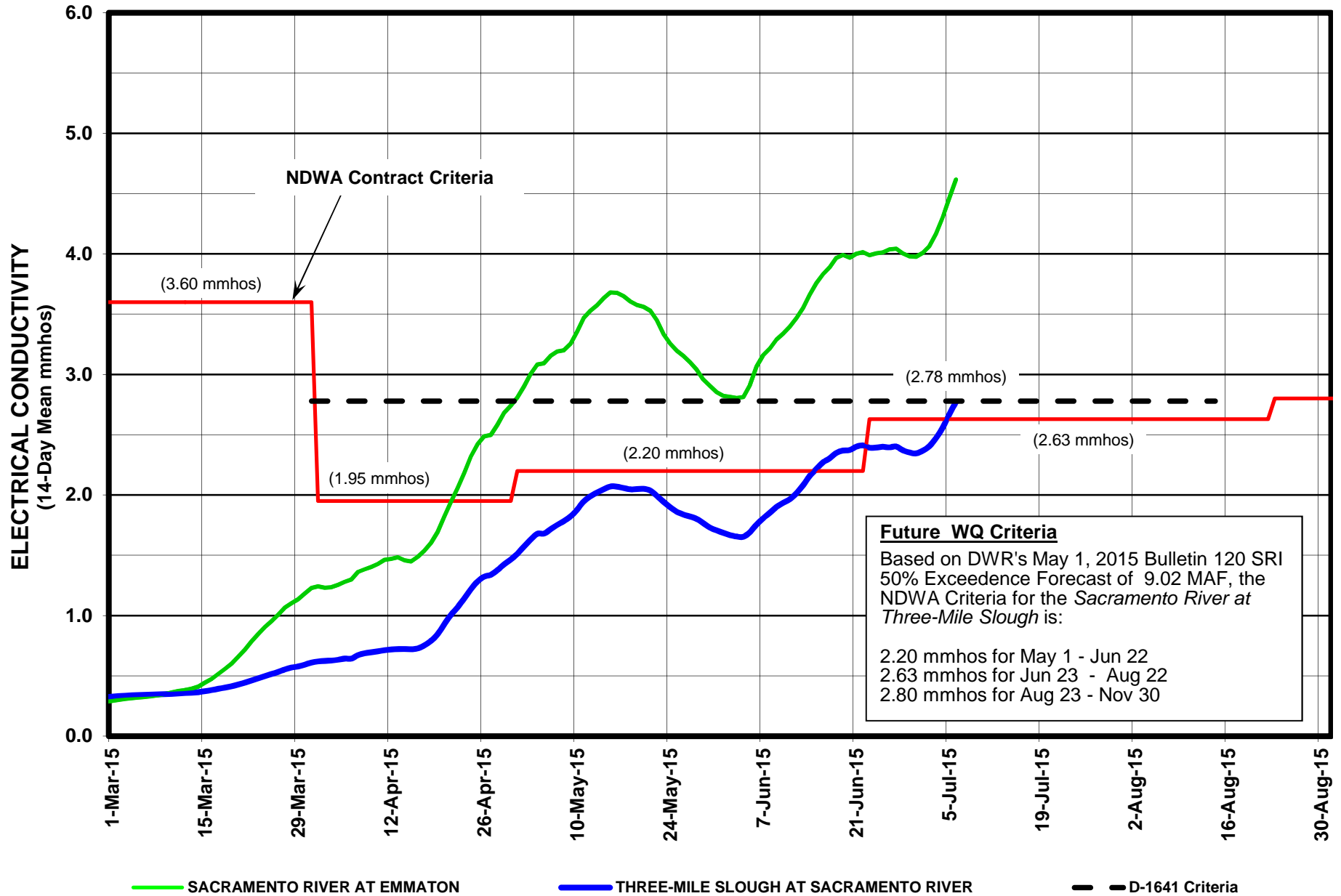


Gary Kienten, P.E.

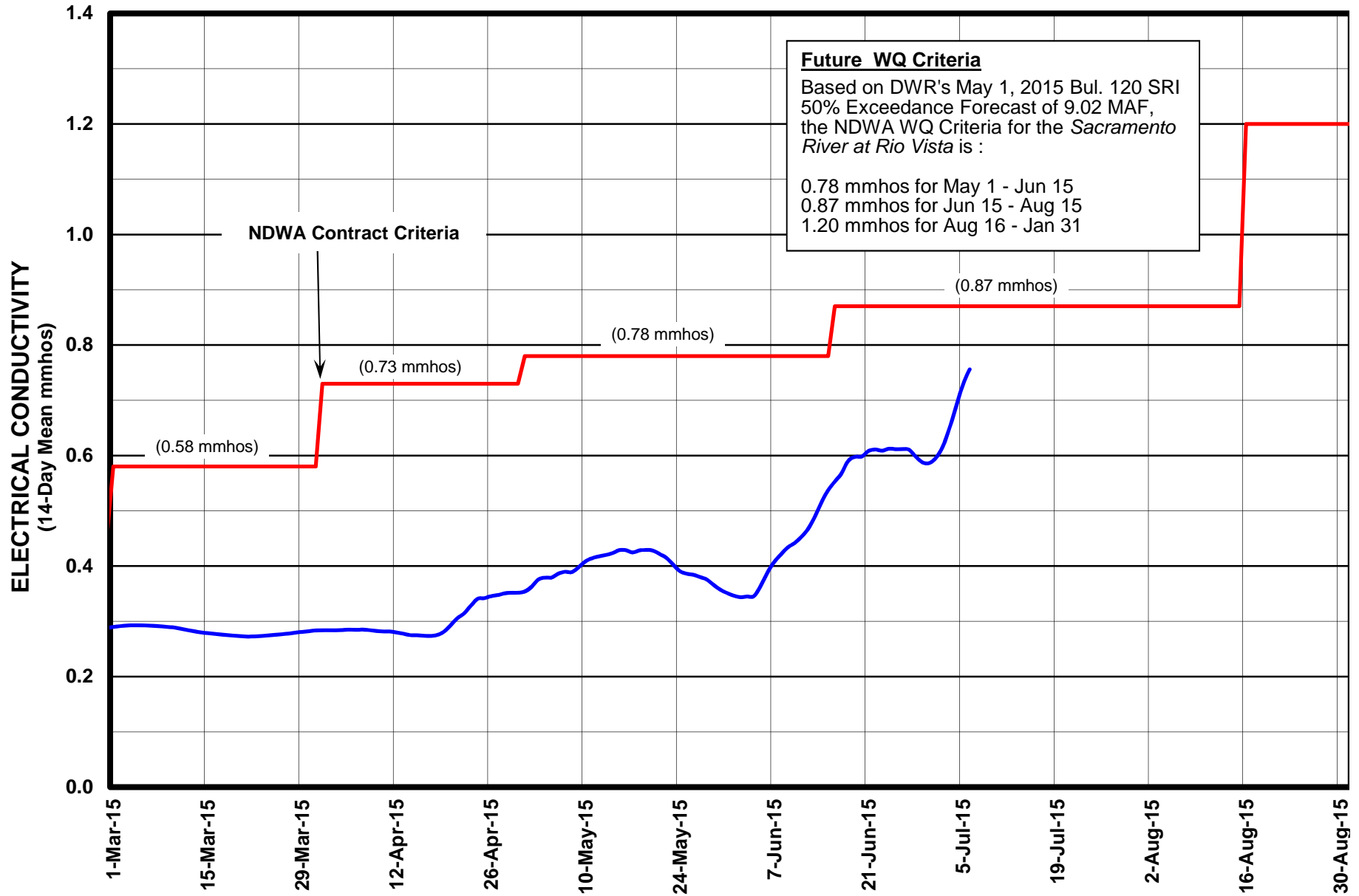
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Sara Harper, P.E.

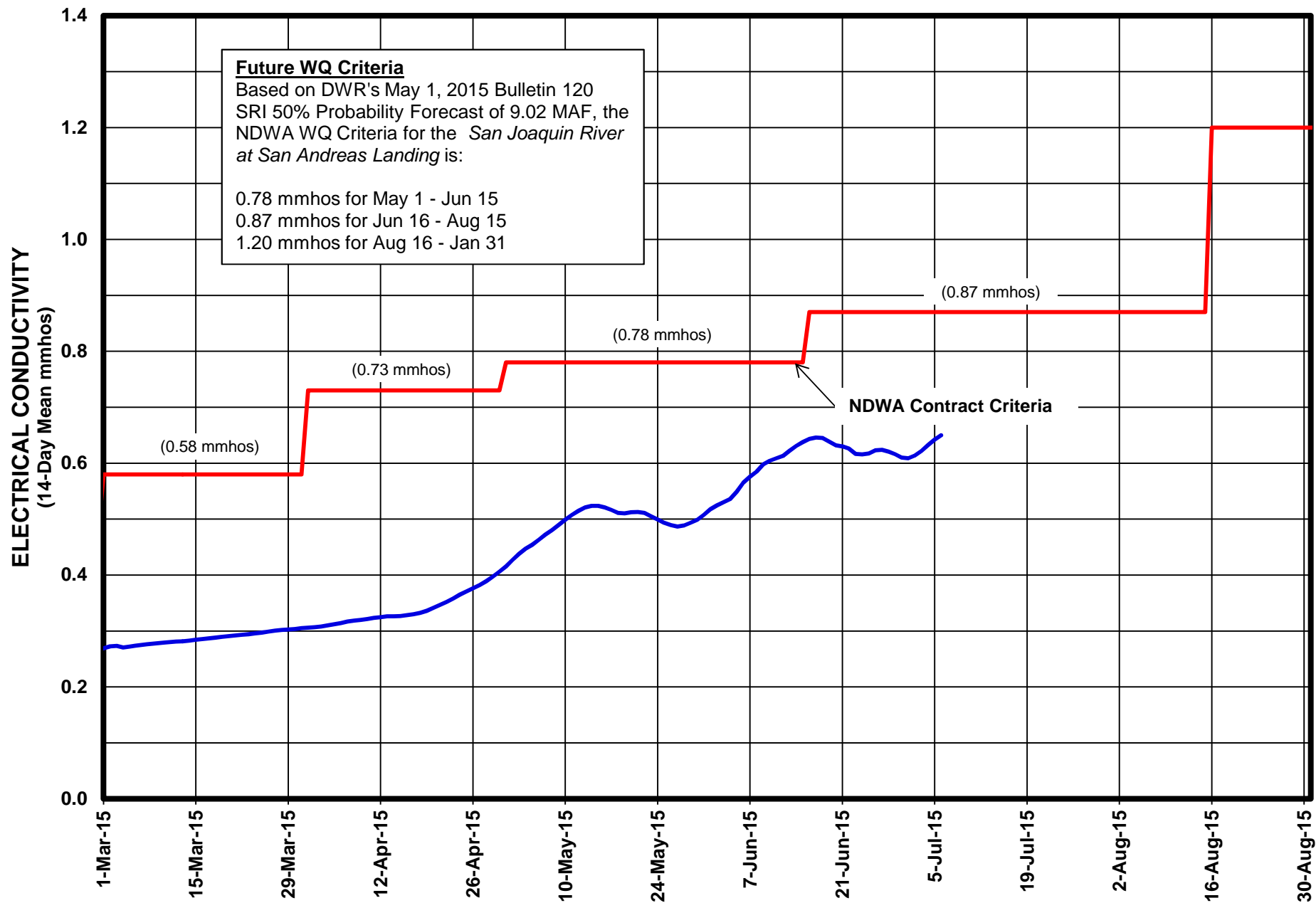
# NORTH DELTA WATER AGENCY SACRAMENTO RIVER AT THREE-MILE SLOUGH



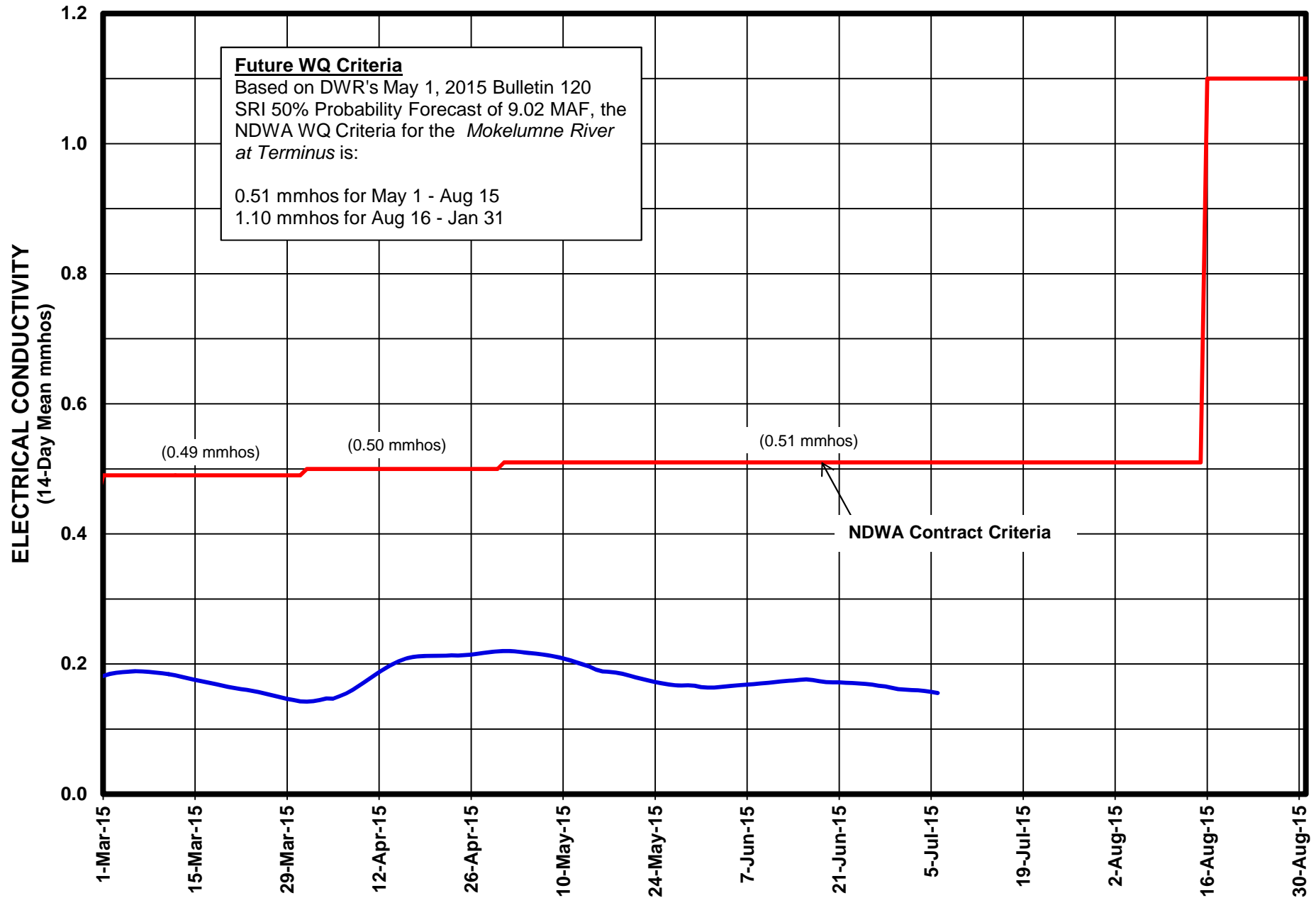
# NORTH DELTA WATER AGENCY SACRAMENTO RIVER AT RIO VISTA

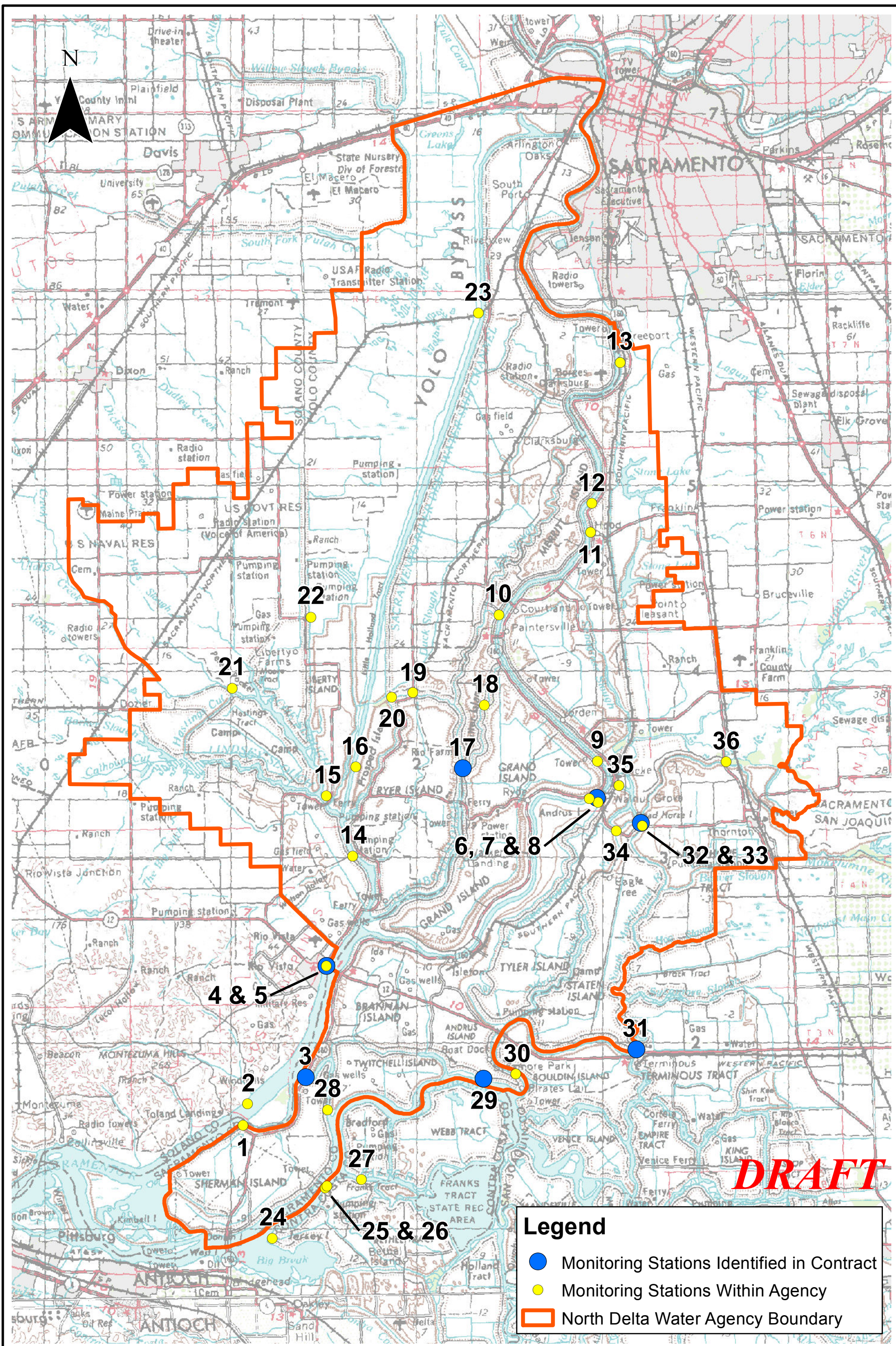


# NORTH DELTA WATER AGENCY SAN JOAQUIN RIVER AT SAN ANDREAS LANDING



# NORTH DELTA WATER AGENCY MOKELUMNE RIVER AT TERMINUS (STATEN ISLAND)





**CDEC Stations within NDWA**

<b>Map ID No</b>	<b>CDEC Station ID</b>	<b>Station Name</b>	<b>EC</b>	<b>Velocity</b>	<b>Flow</b>	<b>Stage</b>
1	EMM	Emmaton	X			
2	SDI	Sacramento River at Decker Island	X	X	X	
3	TMS	Three Mile Slough	X			
4	RVB	Sacramento River at Rio Vista	X			
5	RIV	Rio Vista	X			X
7	GSS	Georgiana Slough at Sacramento River	X	X	X	X
8	GES	Sacramento Blw Georgiana Slough	X	X	X	X
9	SDC	Sacramento R above Delta Cross Channel		X	X	X
10	SUT	Sutter Slough at Courtland		X	X	X
11	SRD	Sacramento River at Hood (USGS)		X	X	X
12	SRH	Sacramento River at Hood	X			
13	FPT	Sacramento River at Freeport	X	X	X	X
14	RYI	Cache Slough at Ryer Island	X	X	X	X
15	LIB	Liberty Island @ Approx Center S End	X	X	X	X
16	DWS	Deep Water Ship Channel	X	X	X	X
18	SSS	Steamboat Slough btw Sac R and Sutter Sl		X	X	X
19	HWB	Miner Slough at Hwy 84 Bridge	X	X	X	X
20	MFV	Miner Slough at Five Points				X
21	CCS	Cache Slough	X			
22	LIR	Liberty Island - RD 2068				X
23	LIS	Yolo Bypass at Lisbon		X	X	X
24	BLP	Blind Point	X			
25	SJJ	San Joaquin River at Jersey Point	X	X	X	X
26	JER	Jersey Point	X			
27	FAL	False River	X	X	X	X
28	TSL	Threemile Slough at San Joaquin River	X	X	X	X
29	SAL	San Joaquin River at San Andreas Landing	X			
30	MOK	Mokelumne R @ San Joaquin River	X	X	X	
31	STI	Staten Island on SF Mokelumne River (Terminous)	X			
33	SMR	South Mokelumne River at W Walnut Grove Rd	X	X	X	X
34	NMR	North Mokelumne River at W Walnut Grove Rd	X	X	X	X
35	DLC	Delta Cross Channel btw Sac R & Snodgrass	X	X	X	X
36	BEN	Mokelumne R NR Thornton (Benson's Ferry)				X