

Appendix B

Water Needs Assessments

Division: **West San Joaquin**
Agricultural Water Supply

Water Needs Assessment

District: 202030

Date: 1/23/2017

PANOCHE WD-DMC

Contractor's Water Supply Sources and Quantities (acre-feet)

Timeframe 1	Surface Water Supply							Groundwater Supply				Total Supply 13
	Reference Delivery 2	USBR Total Deliv/Max 3	SWP 4	Local 5	Local Source 6	Trsfrr/Rtrn /Recycle In 7	Trsfrr/ Out 8	District 9	Private 10	Safe Yield 11	Recharge 12	
1989 WC Plan	94,000	91,887	0	0		1,792	42	0	0		0	93,637
2012 WC Plan	94,000 *	46,827	0	1,083	CCID	2,691	16,318	2,073	10,000		0	46,356
2050	94,000 *	94,000	0	0		0	0	0	10,000		0	104,000

Contractor's Agricultural Water Demands

Maximum ProductiveAcres= 37,696

Timeframe 1	Crop Water Requirement (acre-feet) 15	District Irrig. Efficiency (%) 16	Effective Precip (acre-feet) 17	Reference Effective Precip (acre-ft) 18	Calculated Net Crop Water Req (acre-feet) 19	USBR Net Crop Water Req (acre-feet) 20	Average Irrigated Acres (acres) 21	Reference Irrigated Acres (acres) 22	Calculated FDR (AF/acre) 23	USBR FDR (AF/acre) 24	Conveyance Loss (acre-feet) 25	Total Ag Demand (acre-feet) 26
1989	80,707	75	6,555	10,676	98,869	96,082	35,661	35,586	2.77	2.70	7,903	106,772
2012	71,573	93	10,061	23,749	66,142	86,700	37,436	37,696	1.77	2.30	5,455	71,597
2050	109,448	93	13,248	13,248	103,441	103,441	37,696	37,696	2.74	2.74	7,349	110,790

Contractor's M&I Water Demands

Timeframe 1	Residential Water Demand			Nonresidential Water Demand			Loss	Ref Urban Per Capita Dmd (gpcd) 35	Calc Urban Per Capita Dmd (gpcd) 36	Total M&I Demand (acre-feet) 37	Total Ag+ M&I Dmd (acre-feet) 38	Unmet Demand (acre-feet) 39
	Population 28	Per Capita Demand (gpcd) 29	Total Demand (acre-feet) 30	Industrial (acre-feet) 31	Comm/ Instit (acre-feet) 32	Total Demand (acre-feet) 33	Unacc /Distr (acre-feet) 34					
1989						0	0			0	106,772	13,135
2012						0	0			0	71,597	25,241
2050						0	0			0	110,790	6,790

* Represents Maximum Contract Amount

Notes: Maximum productive acres is current as of 2011 GIS mapping data.

Division: **Delta****Water Needs Assessment**

District: 202100

Date: 1/23/2017

Agricultural and M&I Water Supply

SAN LUIS WD-DMC**Contractor's Water Supply Sources and Quantities (acre-feet)**

Timeframe 1	Surface Water Supply							Groundwater Supply				Total Supply 13
	Reference Delivery 2	USBR Total Deliv/Max 3	SWP 4	Local 5	Local Source 6	Trsfrr/Rtrn /Recycle In 7	Trsfrr/ Out 8	District 9	Private 10	Safe Yield 11	Recharge 12	
1989 WC Plan	128,591	106,092	0	0		13,038	1,864	0	10,000		0	127,266
2010 WC Plan	125,080 *	21,597	0	0		58,849	31,540	0	10,000		0	58,906
2050	125,080	125,080	0	0		0	0	0	10,000		0	135,080

Contractor's Agricultural Water Demands

Maximum Productive Acres= 53,166

Timeframe 1	Crop Water Requirement (acre-feet) 15	District Irrig. Efficiency (%) 16	Effective Precip (acre-feet) 17	Reference Effective Precip (acre-ft) 18	Calculated Net Crop Water Req (acre-feet) 19	USBR Net Crop Water Req (acre-feet) 20	Average Irrigated Acres (acres) 21	Reference Irrigated Acres (acres) 22	Calculated FDR (AF/acre) 23	USBR FDR (AF/acre) 24	Conveyance Loss (acre-feet) 25	Total Ag Demand (acre-feet) 26
1989	128,994	75	9,289	13,385	159,607	129,389	44,764	44,617	3.57	2.90	442	160,049
2010	87,530	98	13,671	33,495	75,366	105,800	35,509	53,166	2.12	1.99	776	76,142
2050	153,992	98	16,517	16,517	140,281	140,281	53,166	53,166	2.64	2.64	3,080	143,361

Contractor's M&I Water Demands

Timeframe 1	Residential Water Demand			Nonresidential Water Demand			Loss	Ref Urban Per Capita Dmd (gpcd) 35	Calc Urban Per Capita Dmd (gpcd) 36	Total M&I Demand (acre-feet) 37	Total Ag+ M&I Dmd (acre-feet) 38	Unmet Demand (acre-feet) 39
	Per Capita Demand (gpcd) 28	Total Demand (acre-feet) 29	Total Demand (acre-feet) 30	Industrial (acre-feet) 31	Comm/ Instit (acre-feet) 32	Total Demand (acre-feet) 33	Unacc /Distr (acre-feet) 34					
1989	0	0.0	0	0	0	0	0	0.0	0.0	0	160,049	32,783
2010	700	139.0	109	8	83	91	609	230.0	1,031.8	809	76,951	18,045
2050	1,042	166.2	194	12	124	136	907	166.0	1,059.8	1,237	144,598	9,518

* Represents Maximum Contract Amount

Notes: Historic transfers out includes M&I deliveries. Maximum productive acres is current as of 2011 GIS mapping data.