RECLAMATION
Managing Water in the West

U.S. Department of the Interior
Bureau of Reclamation

IRR 2019 Sch A-11 F.Z21.XLSM
09/25/2018

CENTRAL VALLEY PROJECT
SCHEDULE OF ESTIMATED IRRIGATION DIRECT PUMPING OPERATION & MAINTENANCE COSTS
2019 IRRIGATION WATER RATES

A	B	C	D	E	F	G	H	I	J	K	L
	2019 Projected Deliveries										
			Tehama-Colusa Canal Relifts							**Corning Canal Relifts**	
Facility/Contractor	**Wintu PP**		**Colusa County WD**	**Dunnigan WD**	**Glenn Valley WD**	**Kanawha WD**	**Orland-Artois WD**	**Westside WD**		**Corning WD**	**Proberta WD**
Ref.	**<Sch A-12>**		**<Sch A-12>**	**<Sch A-12>**	**<Sch A-12>**	**<Sch A-12>**	**<Sch A-12>**	**<Sch A-12>**		**<Sch A-12>**	**<Sch A-12>**
Corning Canal											
Corning WD										8,009	
Proberta WD											1,234
Cow Creek Unit											
Bella Vista WD	5,100										
Tehama-Colusa Canal											
Colusa County WD			30,188								
Dunnigan WD				8,223							
Glenn Valley WD					921						
Kanawha WD						23,756					
Orland-Artois WD							23,869				
Westside WD								32,635			
Total Deliveries	5,100		30,188	8,223	921	23,756	23,869	32,635		8,009	1,234
Est. 2019 Non-Recurring O&M Cost	$ -		$ -	$ -		$ -	$ -	$ -		$ -	$ -
Est. 2019 O&M Cost	$ 75,494		$ 417,689	$ 6,591	$ -	$ 49,241	$ 99,444	$ 41,387		$ 65,499	$ 1,764
Total (Sch. A-9)	$ 75,494		$ 417,689	$ 6,591	$ -	$ 49,241	$ 99,444	$ 41,387		$ 65,499	$ 1,764
Direct Pumping: 3/											
Cost Per A/F Remittance to WAPA			$ 13.84			$ 2.07	$ 4.17				
Cost Per A/F Offset for Direct Pumping	$ 14.80			$ 0.80	$ -			$ 1.27		$ 8.18	$ 1.43
Other PUE Remittance to WAPA: 3/											
Paid as Other PUE			$ 322,071			$ 37,969	$ 76,679				
Paid thru Direct Pumping PUE			$ 10.67			$ 1.60	$ 3.21				
Credit in O&M Rate for Other PUE			$ (10.67)			$ (1.60)	$ (3.21)				

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	San Luis Canal Relifts						San Felipe Out-of-Basin				
			Westlands WD 1/							Cross Valley Contractors 2/	
Facility/Contractor **Ref.**	**Panoche WD <Sch A-12>**	**San Luis WD <Sch A-12>**	**Westlands WD Relifts <Sch A-12>**	**Pleasant Valley PP <Sch A-12>**	**Pleasant Valley Relifts <Sch A-12>**	**Total AF (D+E) Cost (D+E+F)**	**Gianelli PP**	**Coyote PP**	**Pacheco PP**	**State Delta PP <Sch A-12>**	**Dos Amigos PP <Sch A-12>**
Cross Valley Canal											
County of Fresno										720	720
County of Tulare										1,189	1,189
Hills Valley ID										1,004	1,004
Kern-Tulare ID										15,990	15,990
Lower Tule River ID - CVC										9,331	9,331
Pixley ID										9,331	9,331
Tri-Valley WD										343	343
San Felipe Unit											
San Benito County WD							10,665		10,665		
Santa Clara Valley WD							8,662	8,662	8,662		
San Luis Canal											
Panoche WD -SLC	20,083										
San Luis WD - SLC		29,700									
Westlands WD - SLC			313,751	35,198	6,676	348,949					
Westlands WD - SLC (DD#2)			1,132	127	24	1,259					
Total Deliveries	20,083	29,700	314,883	35,325	6,700	350,208	19,327	8,662	19,327	37,907	37,907
Est. 2019 Non-Recurring O&M Cost	$ -	$ -	$ -	$ -	$ -	$ -				$ -	$ -
Est. 2019 O&M Cost	$ 222	$ 646,190	$ 3,601,963	$ 731,604	$ 88,599	$ 4,422,165	$ 152,599	$ 23,674	$ 143,896	$ 27,172	$ 413,909
Total (Sch. A-9)	$ 222	$ 646,190	$ 3,601,963	$ 731,604	$ 88,599	$ 4,422,165	$ 152,599	$ 23,674	$ 143,896	$ 27,172	$ 413,909
Direct Pumping: 3/											
Cost Per A/F Remittance to WAPA		$ 21.76				$ 12.63	$ 7.90	$ 2.73	$ 7.45		
Cost Per A/F Offset for Direct Pumping	$ 0.01									$0.72	$10.92
Other PUE Remittance to WAPA: 3/											
Paid as Other PUE		$ 498,263	$ 2,777,396	$ 564,124	$ 68,317	$ 3,409,837	$ 117,666	$ 18,254	$ 110,955		
Paid thru Direct Pumping PUE		$ 16.78				$ 9.74	$ 6.09	$ 2.11	$ 5.74		
Credit in O&M Rate for Other PUE		$ (16.78)				$ (9.74)	$ (6.09)	$ (2.11)	$ (5.74)		

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2019 IRRIGATION WATER RATES

FOOTNOTES:

1/ Westlands WD & Westlands WD DD#2 (DD#2) deliveries are based on firm supplies:

		Allocated 2019 Deliveries	
	Ratios	**Westlands WD**	**DD#2**
Westlands WD Relifts:			
High Side - Relift Pumps	0.26957	94,065	339
Low Side (LS) - Gravity Feed	0.62957	219,686	793
Subtotal	0.89913	313,751	1,132
Pleasant Valley PP:			
High Side - Relift Pump	0.01913	6,676	24
Coalinga Canal, LS - Gravity	0.08174	28,523	103
Subtotal (Pleasant Valley PP)	0.10087	35,198	127
Total - WWD Deliveries	1.0000	348,949	1,259

2/ Cross Valley Canal Estimated 2019 Project Use Energy Cost

	Dos Amigos PP	Stat Delta PP
2019 PUE Estimate		
Direct Billed	$ 4,498,099	$ 53,015
Cross Valley Canal 2019 Projected Cost	$ 416,944	$ 27,371
Total	$ 4,915,043	$ 80,386

	Deliveries	Ratio	Dos Amigos PP	State Delta PP
M&I	278	0.00728	$ 3,035	$ 199
Irrigation	37,907	0.99272	$ 413,909	$ 27,172
Total	38,185	1.00000	$ 416,944	$ 27,371

3/ Project Use Energy payment is being remitted to Western Area Power Authority for storage and direct pumping based on the deliveries of a select few contractors. The rates for the select few contractors are reduced as a credit in the O&M rates. All contractors will ultimately pay for the storage and direct pumping service but as an offset to the amount paid by the select few.

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A	B	C	D	E	F	G	H	I
	Acre-Feet		**Ratio of Acre-Feet**				**For Water Ratesetting**	
	M&I	**Irrigation**	**M&I**	**Irrigation**	**Total**	**Total $**	**M&I**	**Irrigation**
Ref	**<Sch A-12>**	**<Sch A-12>**	**(B/(B+C))**	**(C/(B+C))**	**(D+E)**	**<Meter Costs>**	**(D*G)**	**(E*G)**
Used in Schedule 9								
Storage:								
Friant D&R	129	N/A	100.00%		100.00%	$ 16,160	$ 16,160	$ -
Shasta D&R (Includes Jdg F Carr PH)	1,276	3,736	25.46%	74.54%	100.00%	$ 274,802	$ 69,965	$ 204,837
Columbia Mowry (Based on Avg. KWH's)	90,989	596,388	13.24%	86.76%	100.00%	$ 22,448	$ 2,971	$ 19,476
Folsom Pump Plant	32,851	N/A	100.00%		100.00%	$ 45,368	$ 45,368	$ -
New Melones Dam & Reservoir	29,790	22,200	57.30%	42.70%	100.00%	$ -	$ -	$ -
Gianelli WR Pump-Gen Plt	267,738	1,273,366	17.37%	82.63%	100.00%	$ 5,644,317	$ 980,594	$ 4,663,723
Regen. Credit - San Luis PP	267,738	1,273,366	17.37%	82.63%	100.00%	$ (3,800,000)	$ (660,179)	$ (3,139,821)
SFU Gianelli WR PGP (Direct Pumping)	89,045	19,327	82.17%	17.83%	100.00%	$ -	$ -	$ -
Offseting Revenue for PUE Paid to WAPA							**$ 454,880**	**$ 1,748,215**
Conveyance Pumping (Direct Bill):								
Corning Pumping Plant	N/A	11,162		100.00%	100.00%	$ 209,175	$ -	$ 209,175
Dos Amigos Pumping Plant	10,796	401,148	2.62%	97.38%	100.00%	$ 4,498,099	$ 117,882	$ 4,380,217
O'Neill Pump-Gen Plt	101,586	422,018	19.40%	80.60%	100.00%	$ 1,866,509	$ 362,128	$ 1,504,381
Regen. Credit - O'Neill Pump-Gen Plt	101,586	422,018	19.40%	80.60%	100.00%	$ (72,804)	$ (14,125)	$ (58,679)
Jones Pumping Plant	156,967	1,074,304	12.75%	87.25%	100.00%	$ 18,438,014	$ 2,350,547	$ 16,087,466
In-Lieu of Jones Pumping						$ 53,015	$ -	$ 53,015
Total Coveyance Pumping Direct Bill							**$ 2,816,432**	**$ 22,175,576**

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A	B	C	D	E	F	G	H	I
	Acre-Feet		Ratio of Acre-Feet				For Water Ratesetting	
	M&I	Irrigation	M&I	Irrigation	Total	Total $	M&I	Irrigation
Ref	<Sch A-12>	<Sch A-12>	(B/(B+C))	(C/(B+C))	(D+E)	<Meter Costs>	(D*G)	(E*G)
Used in Schedule 11 Page 1								
Direct Pumping:								
Gianelli PGP - SFU	89,045	19,327	82.17%	17.83%	100.00%	$ 855,683	$ 703,083	$ 152,599
Contra Costa PP	92,994	-	100.00%		100.00%	$ 682,024	$ 682,024	$ -
Colusa CWD (Incl. Arb./Will O&M Office)	133	30,188	0.44%	99.56%	100.00%	$ 419,531	$ 1,842	$ 417,689
Kanawha WD	10	23,756	0.04%	99.96%	100.00%	$ 49,261	$ 20	$ 49,241
Orland-Artois WD	N/A	23,869		100.00%	100.00%	$ 99,444	$ -	$ 99,444
Pleasant Valley PP	-	28,626		100.00%	100.00%	$ 731,604	$ -	$ 731,604
Pleasant Valley Relifts	N/A	6,700		100.00%	100.00%	$ 88,599	$ -	$ 88,599
San Luis WD Relifts	1,854	29,700	5.88%	94.12%	100.00%	$ 686,531	$ 40,341	$ 646,190
Westlands WD Relifts	2,721	314,883	0.86%	99.14%	100.00%	$ 3,633,083	$ 31,121	$ 3,601,963
Coyote PP - Out of Basin	41,959	4,331	90.64%	9.36%	100.00%	$ 253,029	$ 229,356	$ 23,674
Pacheco PP - Out of Basin	89,045	19,327	82.17%	17.83%	100.00%	$ 806,880	$ 662,984	$ 143,896
Paid Directly As PUE to WAPA							2,350,770	5,954,899
Glenn Valley WD	N/A	921		100.00%	100.00%		$ -	$ -
Corning WD	N/A	8,009		100.00%	100.00%	$ 65,499	$ -	$ 65,499
Dunnigan WD	N/A	8,223		100.00%	100.00%	$ 6,591	$ -	$ 6,591
Westside WD	N/A	32,635		100.00%	100.00%	$ 41,387	$ -	$ 41,387
Proberta WD	N/A	1,234		100.00%	100.00%	$ 1,764	$ -	$ 1,764
Panoche WD - SLC	N/A	20,083		100.00%	100.00%	$ 222	$ -	$ 222
Pleasant Valley PP	4,823	-	100.00%		100.00%	$ 123,264	$ 123,264	$ -
State-Delta PP - Cross Valley Canal (CVC)	278	37,907	0.73%	99.27%	100.00%	$ 27,371	$ 199	$ 27,172
Dos Amigos PP - CVC (Offset with Direct Pumping)	278	37,907	0.73%	99.27%	100.00%	$ 416,944	$ 3,035	$ 413,909
Wintu PP	4,216	5,100	45.25%	54.75%	100.00%	$ 137,897	$ 62,402	$ 75,494
City of Shasta Lake (Shasta PP)	1,197	-	100.00%		100.00%	$ 729	$ 729	$ -
Offseting Revenue for PUE Paid to WAPA							189,630	632,038
Direct Pumping Total							$ 2,540,400	$ 6,586,936
Reimbursable Billing						$ 6,630		
Project General						$ 9,196		
Nonreimbursable F&W						$ 38,847		
Nonreimbursable Demo Treatment						$ 17,914		
						$ 36,395,026	$ 5,811,712	$ 30,510,727

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A	B	C	D	E	F	G
	Cost to Determine Ratio		**Ratio**		**Distribution**	
	M&I	Irrigation	M&I	Irrigation	M&I	Irrigation
Ref						
Offseting Revenue for Storage PUE Paid to WAPA	$ 454,880	$ 1,748,215				
Offseting Revenue for Direct Pumping PUE Paid to WAPA	$ 189,630	$ 632,038				
Offsetting Revenue for Unpaid Costs from Current B6A	$ 0	$ 2,211,442				
Total Offsetting Revenue	$ 644,510	$ 4,591,695				

Determination of PUE sent to WAPA:

Based on Direct Pumping Cost:

	B	C	D	E	F	G
Gianelli PGP - SFU	$ 703,083	$ 152,599	29.91%	2.56%	$ 192,764	117,666
Contra Costa PP	$ 682,024	$ -	29.01%		$ 186,990	
Colusa CWD (Incl. Arb./Will O&M Office)	$ 1,842	$ 417,689	0.08%	7.01%	$ 505	322,071
Kanawha WD	$ 20	$ 49,241	0.00%	0.83%	$ 5	37,969
Orland-Artois WD	$ -	$ 99,444		1.67%	$ -	76,679
Pleasant Valley PP	$ -	$ 731,604		12.29%	$ -	564,124
Pleasant Valley Relifts	$ -	$ 88,599		1.49%	$ -	68,317
San Luis WD Relifts	$ 40,341	$ 646,190	1.72%	10.85%	$ 11,060	498,263
Westlands WD Relifts	$ 31,121	$ 3,601,963	1.32%	60.49%	$ 8,532	2,777,396
Coyote PP - Out of Basin	$ 229,356	$ 23,674	9.76%	0.40%	$ 62,882	18,254
Pacheco PP - Out of Basin	$ 662,984	$ 143,896	28.20%	2.42%	$ 181,770	110,955
Total for Determining Rates to Remit to WAPA	$ 2,350,770	$ 5,954,899	100.00%	100.00%	$ 644,510	$ 4,591,695