



IRR 2021 Sch A-11 F.Z23.XLSM
09/23/2020

CENTRAL VALLEY PROJECT
SCHEDULE OF ESTIMATED IRRIGATION DIRECT PUMPING OPERATION & MAINTENANCE COSTS
2021 IRRIGATION WATER RATES

A	B	C	D	E	F	G	H	I	J	K	L
2021 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								6,311			
Proberta WD										562	
Cow Creek Unit											
Bella Vista WD		3,452									
Tehama-Colusa Canal											
Colusa County WD			26,763								
Dunnigan WD				7,068							
Glenn Valley WD					977						
Kanawha WD						21,703					
Orland-Artois WD							17,965				
Westside WD							31,833				
Total Deliveries		3,452	26,763	7,068	977	21,703	17,965	31,833	6,311	562	
Est. 2021 Non-Recurring O&M Cost		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
Est. 2021 O&M Cost		\$ 78,151	\$ 494,015	\$ 8,326	\$ -	\$ 55,956	\$ 114,836	\$ 42,446	\$ 83,990	\$ 2,682	
Total (Sch. A-9)		\$ 78,151	\$ 494,015	\$ 8,326	\$ -	\$ 55,956	\$ 114,836	\$ 42,446	\$ 83,990	\$ 2,682	
Direct Pumping: 3/											
Cost Per A/F Remittance to WAPA			\$ 18.46			\$ 2.58	\$ 6.39				
Cost Per A/F Offset for Direct Pumping		\$ 22.64		\$ 1.18	\$ -			\$ 1.33	\$ 13.31	\$ 4.77	
Other PUE Remittance to WAPA: 3/											
Paid as Other PUE			\$ 132,376			\$ 14,994	\$ 30,771				
Paid thru Direct Pumping PUE			\$ 4.95			\$ 0.69	\$ 1.71				
Credit in O&M Rate for Other PUE			\$ (4.95)			\$ (0.69)	\$ (1.71)				

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A	B	C	D	E	F	G	H	I	J	K	L
	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										493	493
County of Tulare										856	856
Hills Valley ID										520	520
Kern-Tulare ID										8,447	8,447
Lower Tule River ID - CVC										4,436	4,436
Pixley ID										4,436	4,436
Tri-Valley WD										190	190
San Felipe Unit											
San Benito County WD							7,018		7,018		
Santa Clara Valley WD							10,701	10,701	10,701		
San Luis Canal											
Panoche WD - SLC	17,327										
San Luis WD - SLC		26,535									
Westlands WD - SLC			336,480	37,464	20,813	373,944					
Westlands WD - SLC (DD#2)			631	70	39	701					
Total Deliveries	17,327	26,535	337,111	37,534	20,852	374,645	17,719	10,701	17,719	19,378	19,378
							0.40				
Est. 2021 Non-Recurring O&M Cost	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -				\$ -	\$ -
Est. 2021 O&M Cost	\$ 849	\$ 823,170	\$ 3,943,770	\$ 665,750	\$ 95,847	\$ 4,705,367	\$ 124,465	\$ 37,593	\$ 213,693	\$ 67,917	\$ 182,398
Total (Sch. A-9)	\$ 849	\$ 823,170	\$ 3,943,770.26	\$ 665,750.37	\$ 95,846.58	\$ 4,705,367.00	\$ 124,465.47	\$ 37,593.46	\$ 213,693.23	\$ 67,917	\$ 182,398
Direct Pumping: 3/											
Cost Per A/F Remittance to WAPA		\$ 31.02				\$ 12.56	\$ 7.02	\$ 3.51	\$ 12.06		
Cost Per A/F Offset for Direct Pumping	\$ 0.05									\$ 3.50	\$ 9.41
Other PUE Remittance to WAPA: 3/											
Paid as Other PUE		\$ 220,576	\$ 1,056,771.17	\$ 178,394.21	\$ 25,683.01	\$ 1,260,848.00	\$ 33,351.72	\$ 10,073.53	\$ 57,261.15		
Paid thru Direct Pumping PUE		\$ 8.31				\$ 3.37	\$ 1.88	\$ 0.94	\$ 3.23		
Credit in O&M Rate for Other PUE		\$ (8.31)				\$ (3.37)	\$ (1.88)	\$ (0.94)	\$ (3.23)		

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2021 IRRIGATION WATER RATES

FOOTNOTES:

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

	Allocated 2021 Deliveries		
	Ratios	Westlands WD	DD#2
Westlands WD Relifts:			
High Side - Relift Pumps	0.50000	186,972	351
Low Side (LS) - Gravity Feed	0.39981	149,508	280
Subtotal	0.89981	336,480	631
Pleasant Valley PP:			
High Side - Relift Pump	0.05566	20,813	39
Coalinga Canal, LS - Gravity	0.04453	16,651	31
Subtotal (Pleasant Valley PP)	0.10019	37,464	70
Total - WWD Deliveries	1.0000	373,944	701

2/ Cross Valley Canal Estimated 2021 Project Use Energy Cost

			Dos Amigos PP	State Delta PP
<u>2021 PUE Estimate</u>				
Direct Billed			\$ 4,056,528	\$ 115,222
Cross Valley Canal 2021 Projected Cost			\$ 185,015	\$ 68,892
Total			\$ 4,241,543	\$ 184,113
	Deliveries	Ratio	Dos Amigos PP	State Delta PP
M&I	278	0.01414	\$ 2,617	\$ 974
Irrigation	19,378	0.98586	\$ 182,398	\$ 67,917
Total	19,656	1.00000	\$ 185,015	\$ 68,892

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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2021 IRRIGATION WATER RATES

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	169	N/A	100.00%		100.00%	\$	17,321	\$	17,321	\$	-					
Shasta D&R (Includes Jdg F Carr PH)	1,230	3,197	27.78%	72.22%	100.00%	\$	365,484	\$	101,543	\$	263,941					
Columbia Mowry (Based on Avg. KWH's)	105,541	623,141	14.48%	85.52%	100.00%	\$	25,474	\$	3,690	\$	21,784					
Folsom Pump Plant	32,519	N/A	100.00%		100.00%	\$	139,788	\$	139,788	\$	-					
New Melones Dam & Reservoir	25,500	21,969	53.72%	46.28%	100.00%	\$	-	\$	-	\$	-					
Gianelli WR Pump-Gen Plt	254,465	1,386,224	15.51%	84.49%	100.00%	\$	4,193,707	\$	650,429	\$	3,543,279					
Regen. Credit - San Luis PP	254,465	1,386,224	15.51%	84.49%	100.00%	\$	(3,000,947)	\$	(465,436)	\$	(2,535,511)					
SFU Gianelli WR PGP (Direct Pumping)	90,442	17,719	83.62%	16.38%	100.00%	\$	-	\$	-	\$	-					
Offseting Revenue for PUE Paid to WAPA										\$ 447,334	\$ 1,293,493					
Conveyance Pumping (Direct Bill):																
Corning Pumping Plant	N/A	7,653		100.00%	100.00%	\$	289,188	\$	-	\$	289,188					
Dos Amigos Pumping Plant	10,932	420,034	2.54%	97.46%	100.00%	\$	4,056,528	\$	102,896	\$	3,953,631					
O'Neill Pump-Gen Plt	101,790	439,382	18.81%	81.19%	100.00%	\$	2,380,701	\$	447,790	\$	1,932,911					
Regen. Credit - O'Neill Pump-Gen Plt	101,790	439,382	18.81%	81.19%	100.00%	\$	(54,304)	\$	(10,214)	\$	(44,090)					
Jones Pumping Plant	156,851	1,050,136	13.00%	87.00%	100.00%	\$	19,707,286	\$	2,561,019	\$	17,146,267					
In-Lieu of Jones Pumping							\$	115,222	\$	-	\$	115,222				
Total Conveyance Pumping Direct Bill										\$ 3,101,491	\$ 23,393,128					

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2021 IRRIGATION WATER RATES

A	B Acre-Feet		D Ratio of Acre-Feet			F	G	H For Water Ratesetting		I
	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	90,442	17,719	83.62%	16.38%	100.00%		\$ 759,754	\$ 635,288	\$ 124,465	
Contra Costa PP	86,856	-	100.00%		100.00%		\$ 1,130,719	\$ 1,130,719	-	
Colusa CWD (Incl. Arb./Will O&M Office)	127	26,763	0.47%	99.53%	100.00%		\$ 496,367	\$ 2,352	\$ 494,015	
Kanawha WD	17	21,703	0.08%	99.92%	100.00%		\$ 56,001	\$ 45	\$ 55,956	
Orland-Artois WD	N/A	17,965		100.00%	100.00%		\$ 114,836	-	\$ 114,836	
Pleasant Valley PP	-	16,682		100.00%	100.00%		\$ 665,750	-	\$ 665,750	
Pleasant Valley Relifts	N/A	20,852		100.00%	100.00%		\$ 95,847	-	\$ 95,847	
San Luis WD Relifts	438	26,535	1.62%	98.38%	100.00%		\$ 836,758	\$ 13,588	\$ 823,170	
Westlands WD Relifts	2,643	337,112	0.78%	99.22%	100.00%		\$ 3,974,693	\$ 30,923	\$ 3,943,770	
Coyote PP - Out of Basin	42,502	5,351	88.82%	11.18%	100.00%		\$ 336,218	\$ 298,624	\$ 37,593	
Pacheco PP - Out of Basin	90,442	17,719	83.62%	16.38%	100.00%		\$ 1,304,411	\$ 1,090,718	\$ 213,693	
								3,202,258	6,569,095	
Paid Directly As PUE to WAPA										
Glenn Valley WD	N/A	977		100.00%	100.00%		\$ -	\$ -	-	
Corning WD	N/A	6,311		100.00%	100.00%		\$ 83,990	\$ -	\$ 83,990	
Dunnigan WD	N/A	7,068		100.00%	100.00%		\$ 8,326	\$ -	\$ 8,326	
Westside WD	N/A	31,833		100.00%	100.00%		\$ 42,446	\$ -	\$ 42,446	
Proberta WD	N/A	562		100.00%	100.00%		\$ 2,682	\$ -	\$ 2,682	
Panoche WD - SLC	N/A	17,327		100.00%	100.00%		\$ 849	\$ -	\$ 849	
Pleasant Valley PP	5,123	-	100.00%		100.00%		\$ 204,464	\$ 204,464	-	
State-Delta PP - Cross Valley Canal (CVC)	278	19,378	1.41%	98.59%	100.00%		\$ 68,892	\$ 974	\$ 67,917	
Dos Amigos PP - CVC (Offset with Direct Pumping)	278	19,378	1.41%	98.59%	100.00%		\$ 185,015	\$ 2,617	\$ 182,398	
Wintu PP	3,985	3,452	53.59%	46.41%	100.00%		\$ 168,375	\$ 90,225	\$ 78,151	
City of Shasta Lake (Shasta PP)	1,181	-	100.00%		100.00%		\$ 9,422	\$ 9,422	-	
Offsetting Revenue for PUE Paid to WAPA								307,702	466,759	
Direct Pumping Total								\$ 3,509,959	\$ 7,035,855	
Reimbursable Billing							\$ 8,407			
Project General							\$ 10,512			
Nonreimbursable F&W							\$ (15,699)			
Nonreimbursable Demo Treatment							\$ 15,520			
							\$ 38,800,000	\$ 7,058,784	\$ 31,722,476	

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2021 IRRIGATION WATER RATES

A Ref	B Acre-Feet		D Ratio of Acre-Feet			G Total \$ <Meter Costs>	B Cost to Determine Ratio		D Ratio		F Distribution	
	M&I	Irrigation	M&I	Irrigation	Total		M&I	Irrigation	M&I	Irrigation	M&I	Irrigation
	<Sch A-12>	<Sch A-12>	(C/(C+D))	(D/(C+D))	(E+F)							
Friant D&R	169	N/A	100.00%		100.00%	\$ 17,321	\$ 17,321	\$ -				
Shasta D&R (Includes Jdg F Carr PH)	1,230	3,197	27.78%	72.22%	100.00%	\$ 365,484	\$ 101,543	\$ 263,941				
Columbia Mowry (Based on Avg. KWH's)	105,541	623,141	14.48%	85.52%	100.00%	\$ 25,474	\$ 3,690	\$ 21,784				
Folsom Pump Plant	32,519	N/A	100.00%		100.00%	\$ 139,788	\$ 139,788	\$ -				
New Melones Dam & Reservoir	25,500	21,969	53.72%	46.28%	100.00%	\$ -	\$ -	\$ -				
Gianelli WR Pump-Gen Plt	254,465	1,386,224	15.51%	84.49%	100.00%	\$ 4,647,102	\$ 720,748	\$ 3,926,354				
Regen. Credit - San Luis PP	254,465	1,386,224	15.51%	84.49%	100.00%	\$ (3,000,947)	\$ (465,436)	\$ (2,535,511)				
SFU Gianelli WR PGP (Direct Pumping)	90,442	17,719	83.62%	16.38%	100.00%	\$ -	\$ -	\$ -				
Offsetting Revenue for Storage PUE Paid to WAPA							\$ 447,334	\$ 1,293,493				
Offsetting Revenue for Direct Pumping PUE Paid to WAPA							\$ 307,702	\$ 466,759				
Offsetting Revenue for Unpaid Costs from Current B6A							\$ -	\$ 0				
Total Offsetting Revenue							\$ 755,035	\$ 1,760,252				

Determination of PUE sent to WAPA:

Based on Direct Pumping Cost:

Gianelli PGP - SFU	90,442	17,719				\$ 306,358	\$ 635,288	\$ 124,465	19.84%	1.89%	\$ 149,790	33,352
Contra Costa PP	86,856	-	100.00%		100.00%	\$ 1,130,719	\$ 1,130,719	\$ -	35.31%		\$ 266,603	
Colusa CWD (Incl. Arb./Will O&M Office)	127	26,763	0.47%	99.53%	100.00%	\$ 496,367	\$ 2,352	\$ 494,015	0.07%	7.52%	\$ 555	132,376
Kanawha WD	17	21,703	0.08%	99.92%	100.00%	\$ 56,001	\$ 45	\$ 55,956	0.00%	0.85%	\$ 11	14,994
Orland-Artois WD	N/A	17,965		100.00%	100.00%	\$ 114,836	\$ -	\$ 114,836		1.75%	\$ -	30,771
Pleasant Valley PP	5,123	16,682	23.50%	76.50%	100.00%	\$ 870,214	\$ -	\$ 665,750		10.13%	\$ -	178,394
Pleasant Valley Relifts	N/A	20,852		100.00%	100.00%	\$ 95,847	\$ -	\$ 95,847		1.46%	\$ -	25,683
San Luis WD Relifts	438	26,535	1.62%	98.38%	100.00%	\$ 836,758	\$ 13,588	\$ 823,170	0.42%	12.53%	\$ 3,204	220,576
Westlands WD Relifts	2,643	337,112	0.78%	99.22%	100.00%	\$ 3,974,693	\$ 30,923	\$ 3,943,770	0.97%	60.04%	\$ 7,291	1,056,771
Coyote PP - Out of Basin	42,502	5,351	88.82%	11.18%	100.00%	\$ 336,218	\$ 298,624	\$ 37,593	9.33%	0.57%	\$ 70,410	10,074
Pacheco PP - Out of Basin	90,442	17,719	83.62%	16.38%	100.00%	\$ 1,304,411	\$ 1,090,718	\$ 213,693	34.06%	3.25%	\$ 257,172	57,261
Total for Determining Rates to Remit to WAPA							\$ 3,202,258	\$ 6,569,095	100.00%	100.00%	\$ 755,035	\$ 1,760,252