

IRR 2018 Sch A-11 F.Z20.XLSM  
09/22/2017

CENTRAL VALLEY PROJECT  
SCHEDULE OF ESTIMATED IRRIGATION DIRECT PUMPING OPERATION & MAINTENANCE COSTS  
2018 IRRIGATION WATER RATES

A	B	C	D	E	F	G	H	I	J	K	L
<b>2018 Projected Deliveries</b>											
		<b>Tehama-Colusa Canal Relifts</b>						<b>Corning Canal Relifts</b>			
<b>Facility/Contractor</b>	<b>Wintu PP</b>	<b>Colusa County WD</b>	<b>Dunnigan WD</b>	<b>Glenn Valley WD</b>	<b>Kanawha WD</b>	<b>Orland- Artois WD</b>	<b>Westside WD</b>	<b>Corning WD</b>	<b>Proberta WD</b>		
<b>Ref.</b>	<b>&lt;Sch A-12&gt;</b>	<b>&lt;Sch A-12&gt;</b>	<b>&lt;Sch A-12&gt;</b>	<b>&lt;Sch A-12&gt;</b>	<b>&lt;Sch A-12&gt;</b>	<b>&lt;Sch A-12&gt;</b>	<b>&lt;Sch A-12&gt;</b>	<b>&lt;Sch A-12&gt;</b>	<b>&lt;Sch A-12&gt;</b>		
<b>Corning Canal</b>											
Corning WD									8,307		
Proberta WD										1,546	
<b>Cow Creek Unit</b>											
Bella Vista WD			5,950								
<b>Tehama-Colusa Canal</b>											
Colusa County WD		33,153									
Dunnigan WD			6,650								
Glenn Valley WD				606							
Kanawha WD					24,442						
Orland-Artois WD						25,775					
Westside WD							22,750				
Total Deliveries		5,950	33,153	6,650	606	24,442	25,775	22,750	8,307	1,546	
Est. 2018 Non-Recurring O&M Cost		\$ -	\$ -	\$ -		\$ -	\$ -	\$ -	\$ -	\$ -	
Est. 2018 O&M Cost		\$ 69,079	\$ 367,580	\$ 7,412	\$ -	\$ 32,448	\$ 84,438	\$ 25,985	\$ 58,941	\$ 1,580	
Total (Sch. A-9)		\$ 69,079	\$ 367,580	\$ 7,412	\$ -	\$ 32,448	\$ 84,438	\$ 25,985	\$ 58,941	\$ 1,580	
<b>Direct Pumping: 3/</b>											
Cost Per A/F Remittance to WAPA			\$ 11.09			\$ 1.33	\$ 3.28				
Cost Per A/F Offset for Direct Pumping		\$ 11.61		\$ 1.11	\$ -			\$ 1.14	\$ 7.10	\$ 1.02	
<b>Other PUE Remittance to WAPA: 3/</b>											
Paid as Other PUE			\$ 138,587			\$ 12,234	\$ 31,836				
Paid thru Direct Pumping PUE			\$ 4.18			\$ 0.50	\$ 1.24				
Credit in O&M Rate for Other PUE			\$ (4.18)			\$ (0.50)	\$ (1.24)				

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	San Luis Canal Relifts						San Felipe Out-of-Basin				
	Westlands WD 1/									Cross Valley Contractors 2/	
Facility/Contractor	Panoche WD	San Luis WD	Westlands WD Relifts	Pleasant Valley PP	Pleasant Valley Relifts	Total	Gianelli PP	Coyote PP	Pacheco PP	State Delta PP	Dos Amigos PP
Ref.	<Sch A-12>	<Sch A-12>	<Sch A-12>	<Sch A-12>	<Sch A-12>	(E+F)				<Sch A-12>	<Sch A-12>
<b>Cross Valley Canal</b>											
County of Fresno										840	840
County of Tulare										1,387	1,387
Hills Valley ID										1,171	1,171
Kern-Tulare ID										18,655	18,655
Lower Tule River ID - CVC										10,886	10,886
Pixley ID										10,886	10,886
Tri-Valley WD										400	400
<b>San Felipe Unit</b>											
San Benito County WD							12,443			12,443	
Santa Clara Valley WD							10,059	10,059	10,059		
<b>San Luis Canal</b>											
Panoche WD - SLC	23,430										
San Luis WD - SLC		34,650									
Westlands WD - SLC			366,043	41,065	7,788	407,108					
Westlands WD - SLC (DD#2)			1,321	148	28	1,469					
Total Deliveries	23,430	34,650	367,364	41,213	7,816	408,577	22,502	10,059	22,502	44,224	44,224
Est. 2018 Non-Recurring O&M Cost	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -				\$ -	\$ -
Est. 2018 O&M Cost	\$ 1,068	\$ 590,317	\$ 2,576,556	\$ 567,867	\$ 75,479	\$ 3,219,902	\$ 240,135	\$ 25,387	\$ 262,151	\$ 61,323	\$ 229,705
Total (Sch. A-9)	\$ 1,068	\$ 590,317	\$ 2,576,556	\$ 567,867	\$ 75,479	\$ 3,219,902	\$ 240,135	\$ 25,387	\$ 262,151	\$ 61,323	\$ 229,705
<b>Direct Pumping: 3/</b>											
Cost Per A/F Remittance to WAPA		\$ 17.04				\$ 7.88	\$ 10.67	\$ 2.52	\$ 11.65		
Cost Per A/F Offset for Direct Pumping	\$ 0.05									\$ 1.39	\$ 5.19
<b>Other PUE Remittance to WAPA: 3/</b>											
Paid as Other PUE		\$ 222,565	\$ 971,430	\$ 214,101	\$ 28,458	\$ 1,213,989	\$ 90,537	\$ 9,571	\$ 98,838		
Paid thru Direct Pumping PUE		\$ 6.42				\$ 2.97	\$ 4.02	\$ 0.95	\$ 4.39		
Credit in O&M Rate for Other PUE		\$ (6.42)				\$ (2.97)	\$ (4.02)	\$ (0.95)	\$ (4.39)		

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2018 IRRIGATION WATER RATES

FOOTNOTES:

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

	Allocated 2018 Deliveries		
	Ratios	Westlands WD	DD#2
Westlands WD Relifts:			
High Side - Relift Pumps	0.26957	109,742	396
Low Side (LS) - Gravity Feed	0.62957	256,301	925
Subtotal	0.89913	366,043	1,321
Pleasant Valley PP:			
High Side - Relift Pump	0.01913	7,788	28
Coalinga Canal, LS - Gravity	0.08174	33,277	120
Subtotal (Pleasant Valley PP)	0.10087	41,065	148
Total - WWD Deliveries	1.0000	407,108	1,469

2/ Cross Valley Canal Estimated 2018 Project Use Energy Cost

	Dos Amigos PP	Stat Delta PP
<u>2018 PUE Estimate</u>		
Direct Billed	\$ 2,486,353	\$ 119,426
Cross Valley Canal 2018 Projected Cost	\$ 231,149	\$ 61,708
Total	<u>\$ 2,717,501</u>	<u>\$ 181,134</u>

	Deliveries	Ratio	Dos Amigos PP	State Delta PP
M&I	278	0.00625	\$ 1,444	\$ 385
Irrigation	44,224	0.99375	\$ 229,705	\$ 61,323
Total	<u>44,502</u>	<u>1.00000</u>	<u>\$ 231,149</u>	<u>\$ 61,708</u>

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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2018 IRRIGATION WATER RATES

A	B		C		D		E		F		G		H		I	
	Acre-Feet		Ratio of Acre-Feet						Total \$		For Water Ratesetting					
	M&I	Irrigation	M&I	Irrigation	Total				Total \$		M&I	Irrigation				
Ref	<Sch A-12>	<Sch A-12>	(C/(C+D))	(D/(C+D))	(E+F)		<Meter Costs>				(E*H)	(F*H)				
<b>Used in Schedule 9</b>																
<b>Storage:</b>																
Friant D&R	131	N/A	100.00%		100.00%	\$	16,355	\$	16,355	\$	-	\$	-			
Shasta D&R (Includes Jdg F Carr PH)	1,385	3,736	27.04%	72.96%	100.00%	\$	295,282	\$	79,852	\$	215,430					
Columbia Mowry (Based on Avg. KWH's)	90,622	590,248	13.31%	86.69%	100.00%	\$	23,928	\$	3,185	\$	20,744					
Folsom Pump Plant	36,472	N/A	100.00%		100.00%	\$	85,014	\$	85,014	\$	-					
New Melones Dam & Reservoir	30,482	25,900	54.06%	45.94%	100.00%	\$	-	\$	-	\$	-					
Gianelli WR Pump-Gen Plt	276,614	1,407,738	16.42%	83.58%	100.00%	\$	5,138,998	\$	843,957	\$	4,295,041					
Regen. Credit - San Luis PP	276,614	1,407,738	16.42%	83.58%	100.00%	\$	(3,790,676)	\$	(622,528)	\$	(3,168,149)					
SFU Gianelli WR PGP (Direct Pumping)	86,709	22,502	79.40%	20.60%	100.00%	\$	-	\$	-	\$	-					
Offsetting Revenue for PUE Paid to WAPA									<b>\$ 405,835</b>		<b>\$ 1,363,065</b>					
<b>Conveyance Pumping (Direct Bill):</b>																
Corning Pumping Plant	N/A	12,093		100.00%	100.00%	\$	183,937	\$	-	\$	183,937					
Dos Amigos Pumping Plant	10,776	467,913	2.25%	97.75%	100.00%	\$	2,486,353	\$	55,974	\$	2,430,379					
O'Neill Pump-Gen Plt	99,227	492,308	16.77%	83.23%	100.00%	\$	2,070,944	\$	347,389	\$	1,723,555					
Regen. Credit - O'Neill Pump-Gen Plt	99,227	492,308	16.77%	83.23%	100.00%	\$	(172,613)	\$	(28,955)	\$	(143,658)					
Jones Pumping Plant	155,943	1,162,465	11.83%	88.17%	100.00%	\$	12,720,355	\$	1,504,577	\$	11,215,778					
In-Lieu of Jones Pumping							\$ 119,426	\$	-	\$	119,426					
<b>Total Conveyance Pumping Direct Bill</b>									<b>\$ 1,878,985</b>		<b>\$ 15,529,417</b>					

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A	B		C		D		E		F		G		H		I	
Ref	Acre-Feet		Ratio of Acre-Feet			Total \$		For Water Ratesetting								
	M&I	Irrigation	M&I	Irrigation	Total	Total \$	M&I	Irrigation								
	<Sch A-12>	<Sch A-12>	(C/(C+D))	(D/(C+D))	(E+F)	<Meter Costs>	(E*H)	(F*H)								
<b>Used in Schedule 11 Page 1</b>																
<b>Direct Pumping:</b>																
Gianelli PGP - SFU	86,709	22,502	79.40%	20.60%	100.00%	\$ 1,165,490	\$ 925,356	\$ 240,135								
Contra Costa PP	93,653	-	100.00%		100.00%	\$ 926,810	\$ 926,810	\$ -								
Colusa CWD (Incl. Arb./Will O&M Office)	131	33,153	0.39%	99.61%	100.00%	\$ 369,031	\$ 1,451	\$ 367,580								
Kanawha WD	9	24,442	0.04%	99.96%	100.00%	\$ 32,460	\$ 12	\$ 32,448								
Orland-Artois WD	N/A	25,775		100.00%	100.00%	\$ 84,438	\$ -	\$ 84,438								
Pleasant Valley PP	-	33,397		100.00%	100.00%	\$ 567,867	\$ -	\$ 567,867								
Pleasant Valley Relifts	N/A	7,816		100.00%	100.00%	\$ 75,479	\$ -	\$ 75,479								
San Luis WD Relifts	1,853	34,650	5.08%	94.92%	100.00%	\$ 621,889	\$ 31,571	\$ 590,317								
Westlands WD Relifts	2,671	367,364	0.72%	99.28%	100.00%	\$ 2,595,290	\$ 18,733	\$ 2,576,556								
Coyote PP - Out of Basin	41,563	5,030	89.21%	10.79%	100.00%	\$ 235,178	\$ 209,791	\$ 25,387								
Pacheco PP - Out of Basin	86,709	22,502	79.40%	20.60%	100.00%	\$ 1,272,349	\$ 1,010,198	\$ 262,151								
								3,123,922	4,822,359							
<b>Paid Directly As PUE to WAPA</b>																
Glenn Valley WD	N/A	606		100.00%	100.00%	\$ -	\$ -	\$ -								
Corning WD	N/A	8,307		100.00%	100.00%	\$ 58,941	\$ -	\$ 58,941								
Dunnigan WD	N/A	6,650		100.00%	100.00%	\$ 7,412	\$ -	\$ 7,412								
Westside WD	N/A	22,750		100.00%	100.00%	\$ 25,985	\$ -	\$ 25,985								
Proberta WD	N/A	1,546		100.00%	100.00%	\$ 1,580	\$ -	\$ 1,580								
Panoche WD - SLC	N/A	23,430		100.00%	100.00%	\$ 1,068	\$ -	\$ 1,068								
Pleasant Valley PP	4,778	-	100.00%		100.00%	\$ 81,248	\$ 81,248	\$ -								
State-Delta PP - Cross Valley Canal (CVC)	278	44,224	0.62%	99.38%	100.00%	\$ 61,708	\$ 385	\$ 61,323								
Dos Amigos PP - CVC (Offset with Direct Pumping)	278	44,224	0.62%	99.38%	100.00%	\$ 231,149	\$ 1,444	\$ 229,705								
Wintu PP	4,192	5,950	41.33%	58.67%	100.00%	\$ 117,743	\$ 48,664	\$ 69,079								
City of Shasta Lake (Shasta PP)	1,333	-	100.00%		100.00%	\$ 18,472	\$ 18,472	\$ -								
<b>Offsetting Revenue for PUE Paid to WAPA</b>								150,214	455,093							
<b>Direct Pumping Total</b>								\$ 3,274,136	\$ 5,277,451							
Reimbursable Billing						\$ 7,005										
Project General						\$ 6,920										
Nonreimbursable F&W						\$ 40,122										
Nonreimbursable Demo Treatment						\$ 17,064										
						\$ 27,800,000	\$ 5,558,956	\$ 22,169,934								

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SCHEDULE OF ESTIMATED IRRIGATION DIRECT PUMPING OPERATION & MAINTENANCE COSTS  
2018 IRRIGATION WATER RATES

A	B	C	D	E	F	G
	Cost to Determine Ratio		Ratio		Distribution	
	M&I	Irrigation	M&I	Irrigation	M&I	Irrigation
Ref			(B/\$2,546,225)	(C/\$5,608,433)	(D*\$546,758)	(E*\$1,107,358)

Offsetting Revenue for Storage PUE Paid to WAPA	\$	405,835	\$	1,363,065
Offsetting Revenue for Direct Pumping PUE Paid to WAPA	\$	150,214	\$	455,093
<b>Total Offsetting Revenue</b>	<b>\$</b>	<b>556,049</b>	<b>\$</b>	<b>1,818,158</b>

**Determination of PUE sent to WAPA:**

**Based on Direct Pumping Cost:**

Gianelli PGP - SFU	\$	925,356	\$	240,135	29.62%	4.98%	\$	164,711	90,537
Contra Costa PP	\$	926,810	\$	-	29.67%		\$	164,969	
Colusa CWD (Incl. Arb./Will O&M Office)	\$	1,451	\$	367,580	0.05%	7.62%	\$	258	138,587
Kanawha WD	\$	12	\$	32,448	0.00%	0.67%	\$	2	12,234
Orland-Artois WD	\$	-	\$	84,438		1.75%	\$	-	31,836
Pleasant Valley PP	\$	-	\$	567,867		11.78%	\$	-	214,101
Pleasant Valley Relifts	\$	-	\$	75,479		1.57%	\$	-	28,458
San Luis WD Relifts	\$	31,571	\$	590,317	1.01%	12.24%	\$	5,620	222,565
Westlands WD Relifts	\$	18,733	\$	2,576,556	0.60%	53.43%	\$	3,334	971,430
Coyote PP - Out of Basin	\$	209,791	\$	25,387	6.72%	0.53%	\$	37,342	9,571
Pacheco PP - Out of Basin	\$	1,010,198	\$	262,151	32.34%	5.44%	\$	179,812	98,838
<b>Total for Determining Rates to Remit to WAPA</b>	<b>\$</b>	<b>3,123,922</b>	<b>\$</b>	<b>4,822,359</b>	<b>100.00%</b>	<b>100.00%</b>	<b>\$</b>	<b>556,049</b>	<b>\$</b> 1,818,158