

M&I 2019 Sch A-11 F.Z21.XLSM  
09/25/2018

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

| A                                       | B                                | C                                  | D                                   | E                                    | F                                | G   | H   | I                                     | J                         | K                          |
|---|----------------------------------|------------------------------------|-------------------------------------|--------------------------------------|----------------------------------|---|---|---------------------------------------|---------------------------|----------------------------|
| Ref                                     | Projected 2019 Deliveries        |                                    |                                     |                                      |                                  |   |   |                                       |                           |                            |
|   | Contra Costa<br>PP<br><Sch A-12> | Dos Amigos<br>PP-CVC<br><Sch A-12> | Pleasant<br>Valley PP<br><Sch A-12> | San Luis<br>WD Relifts<br><Sch A-12> | State-<br>Delta PP<br><Sch A-12> | T-C Canal Relifts<br>Colusa County WD<br><Sch A-12> | T-C Canal Relifts<br>Kanawha WD<br><Sch A-12> | Westlands<br>WD Relifts<br><Sch A-12> | Wintu<br>PP<br><Sch A-12> | Shasta<br>PP<br><Sch A-12> |
| <b>Contra Costa Canal</b>               |                                  |                                    |                                     |                                      |                                  |   |   |                                       |                           |                            |
| Contra Costa WD                         | 92,994                           |                                    |                                     |                                      |                                  |   |   |                                       |                           |                            |
| <b>Cow Creek Unit</b>                   |                                  |                                    |                                     |                                      |                                  |   |   |                                       |                           |                            |
| Bella Vista WD                          |                                  |                                    |                                     |                                      |                                  |   |   |                                       | 4,216                     |                            |
| <b>Cross Valley Canal</b>               |                                  |                                    |                                     |                                      |                                  |   |   |                                       |                           |                            |
| County of Fresno                        |                                  | 86                                 |                                     |                                      | 86                               |   |   |                                       |                           |                            |
| County of Tulare                        |                                  | 192                                |                                     |                                      | 192                              |   |   |                                       |                           |                            |
| <b>San Luis Canal - Fresno</b>          |                                  |                                    |                                     |                                      |                                  |   |   |                                       |                           |                            |
| City of Coalinga                        |                                  |                                    | 4,823                               |                                      |                                  |   |   |                                       |                           |                            |
| Westlands WD                            |                                  |                                    |                                     |                                      |                                  |   |   | 2,721                                 |                           |                            |
| <b>San Luis Canal - Tracy</b>           |                                  |                                    |                                     |                                      |                                  |   |   |                                       |                           |                            |
| San Luis WD                             |                                  |                                    |                                     | 1,854                                |                                  |   |   |                                       |                           |                            |
| <b>Tehama-Colusa Canal</b>              |                                  |                                    |                                     |                                      |                                  |   |   |                                       |                           |                            |
| Colusa County WD                        |                                  |                                    |                                     |                                      |                                  | 133   |   |                                       |                           |                            |
| Kanawha WD                              |                                  |                                    |                                     |                                      |                                  |   |   | 10                                    |                           |                            |
| <b>Toyon Pipeline</b>                   |                                  |                                    |                                     |                                      |                                  |   |   |                                       |                           |                            |
| City of Shasta Lake                     |                                  |                                    |                                     |                                      |                                  |   |   |                                       |                           | 1,197                      |
| Total Deliveries                        | 92,994                           | 278                                | 4,823                               | 1,854                                | 278                              | 133   | 10  | 2,721                                 | 4,216                     | 1,197                      |
| Est. 2019 Non-Recurring O&M Cost        | \$ -                             | \$ -                               | \$ -                                | \$ -                                 | \$ -                             | \$ -  | \$ -  | \$ -                                  | \$ -                      | \$ -                       |
| Est. 2019 O&M Cost                      | \$ 682,024                       | \$ 3,036                           | \$ 123,264                          | \$ 40,341                            | \$ 199                           | \$ 1,842  | \$ 20   | \$ 31,121                             | \$ 62,402                 | \$ 729                     |
| Total (Sch. A-9)                        | \$ 682,024                       | \$ 3,036                           | \$ 123,264                          | \$ 40,341                            | \$ 199                           | \$ 1,842  | \$ 20   | \$ 31,121                             | \$ 62,402                 | \$ 729                     |
| <b>Direct Pumping: 1/</b>               |                                  |                                    |                                     |                                      |                                  |   |   |                                       |                           |                            |
| Cost Per A/F Remittance to WAPA         | \$ 7.33                          |                                    |                                     | \$ 21.76                             |                                  | \$ 13.84  | \$ 2.07                                       | \$ 11.44                              |                           |                            |
| Cost Per A/F Offset for Direct Pumping  |                                  | \$ 10.92                           | \$ 25.56                            |                                      | \$ 0.72                          |   |   |                                       | \$ 14.80                  | \$ 0.61                    |
| <b>Other PUE Remittance to WAPA: 1/</b> |                                  |                                    |                                     |                                      |                                  |   |   |                                       |                           |                            |
| Paid as Other PUE                       | \$ 186,990                       |                                    |                                     | \$ 11,060                            |                                  | \$ 505  | \$ 5  | \$ 8,532                              |                           |                            |
| Paid thru Direct Pumping PUE            | \$ 2.01                          |                                    |                                     | \$ 5.97                              |                                  | \$ 3.79   | \$ 0.57                                       | \$ 3.14                               |                           |                            |
| Credit in O&M Rate for Other PUE        | \$ (2.01)                        |                                    |                                     | \$ (5.97)                            |                                  | \$ (3.79)   | \$ (0.57)                                     | \$ (3.14)                             |                           |                            |

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2019 M&I WATER RATES

| A                                       | B                         | C                       | D                        | E | F | G | H | I | J | K |
|---|---------------------------|-------------------------|--------------------------|---|---|---|---|---|---|---|
|   | San Felipe Out-of-Basin   |                         |                          |   |   |   |   |   |   |   |
| Ref                                     | Gianelli PP<br><Sch A-12> | Coyote PP<br><Sch A-12> | Pacheco PP<br><Sch A-12> |   |   |   |   |   |   |   |
| <b>San Felipe Unit</b>                  |                           |                         |                          |   |   |   |   |   |   |   |
| San Benito County WD                    | 5,128                     |                         | 5,128                    |   |   |   |   |   |   |   |
| Santa Clara Valley WD                   | 83,917                    | 83,917                  | 83,917                   |   |   |   |   |   |   |   |
| Total Deliveries                        | 89,045                    | 83,917                  | 89,045                   |   |   |   |   |   |   |   |
| Est. 2019 Non-Recurring O&M Cost        | \$ -                      | \$ -                    | \$ -                     |   |   |   |   |   |   |   |
| Est. 2019 O&M Cost                      | \$ 703,083                | \$ 229,356              | \$ 662,984               |   |   |   |   |   |   |   |
| Total (Sch. A-9)                        | \$ 703,083                | \$ 229,356              | \$ 662,984               |   |   |   |   |   |   |   |
| <b>Direct Pumping: 1/</b>               |                           |                         |                          |   |   |   |   |   |   |   |
| Cost Per A/F Remittance to WAPA         | \$ 7.90                   | \$ 2.73                 | \$ 7.45                  |   |   |   |   |   |   |   |
| Cost Per A/F Offset for Direct Pumping  |                           |                         |                          |   |   |   |   |   |   |   |
| <b>Other PUE Remittance to WAPA: 1/</b> |                           |                         |                          |   |   |   |   |   |   |   |
| Paid as Other PUE                       | \$ 192,764.04             | \$ 62,882.37            | \$ 181,770.06            |   |   |   |   |   |   |   |
| Paid thru Direct Pumping PUE            | \$ 2.16                   | \$ 0.75                 | \$ 2.04                  |   |   |   |   |   |   |   |
| Credit in O&M Rate for Other PUE        | \$ (2.16)                 | \$ (0.75)               | \$ (2.04)                |   |   |   |   |   |   |   |

FOOTNOTES:

1/ 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 |  |
|-----|------------|------------|--------------------|-----------|-------|---------------|----------|-------|-----------------------|--|-----|--|------------|--|---|--|
| Ref | Acre-Feet  |            | Ratio of Acre-Feet |           | Total |               | Total \$ |       | For Water Ratesetting |  | M&I |  | Irrigation |  |   |  |
|     | <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%  | \$ 274,802     | \$ 69,965    | \$ 204,837     |
| Columbia Mowry (Based on Avg. KWH's) | 90,989  | 596,388   | 13.24%  | 86.76%  | \$ 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%  | \$ -           | \$ -         | \$ -           |
| Gianelli WR Pump-Gen Plt             | 267,738 | 1,273,366 | 17.37%  | 82.63%  | \$ 5,644,317   | \$ 980,594   | \$ 4,663,723   |
| Regen. Credit - San Luis PP          | 267,738 | 1,273,366 | 17.37%  | 82.63%  | \$ (3,800,000) | \$ (660,179) | \$ (3,139,821) |
| SFU Gianelli WR PGP (Direct Pumping) | 89,045  | 19,327    | 82.17%  | 17.83%  | \$ -           | \$ -         | \$ -           |

**Offsetting Revenue for PUE Paid to WAPA**

|                   |                     |
|-------------------|---------------------|
| <b>\$ 454,880</b> | <b>\$ 1,748,215</b> |
|-------------------|---------------------|

**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%  | \$ 4,498,099  | \$ 117,882   | \$ 4,380,217  |
| O'Neill Pump-Gen Plt                 | 101,586 | 422,018   | 19.40%  | 80.60%  | \$ 1,866,509  | \$ 362,128   | \$ 1,504,381  |
| Regen. Credit - O'Neill Pump-Gen Plt | 101,586 | 422,018   | 19.40%  | 80.60%  | \$ (72,804)   | \$ (14,125)  | \$ (58,679)   |
| Jones Pumping Plant                  | 156,967 | 1,074,304 | 12.75%  | 87.25%  | \$ 18,438,014 | \$ 2,350,547 | \$ 16,087,466 |
| In-Lieu of Jones Pumping             |         |           |         |         | \$ 53,015     | \$ -         | \$ 53,015     |

**Total Conveyance Pumping Direct Bill**

|                     |                      |
|---------------------|----------------------|
| <b>\$ 2,816,432</b> | <b>\$ 22,175,576</b> |
|---------------------|----------------------|

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|--|------------|------------|--------------------|-----------|---------|---------------|------------|--------------|-----------------------|--|----------------------|--|---------------------|--|----------------------|--|
| Ref  | Acre-Feet  |            | Ratio of Acre-Feet |           | Total   |               | Total \$   |              | For Water Ratesetting |  | M&I                  |  | Irrigation          |  |                      |  |
|  | <Sch A-12> | <Sch A-12> | (B/(B+C))          | (C/(B+C)) | (D+E)   | <Meter Costs> | (D*G)      | (E*G)        |                       |  |                      |  |                     |  |                      |  |
| <b>Used in Schedule 11 Page 1</b>                |            |            |                    |           |         |               |            |              |                       |  |                      |  |                     |  |                      |  |
| <b>Direct Pumping:</b>                           |            |            |                    |           |         |               |            |              |                       |  |                      |  |                     |  |                      |  |
| Gianelli PGP - SFU                               | 89,045     | 19,327     |                    |           |         | \$ 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   |                       |  |                      |  |                     |  |                      |  |
| <b>Paid Directly As PUE to WAPA</b>              |            |            |                    |           |         |               |            |              |                       |  | <b>2,350,770</b>     |  | <b>5,954,899</b>    |  |                      |  |
| 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 (City of Coalinga)            | 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    | \$ 3,036   | \$ 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     | \$ -         |                       |  |                      |  |                     |  |                      |  |
| <b>Offsetting Revenue for PUE Paid to WAPA</b>   |            |            |                    |           |         |               |            |              |                       |  | <b>189,630</b>       |  | <b>632,038</b>      |  |                      |  |
| <b>Direct Pumping Total</b>                      |            |            |                    |           |         |               |            |              |                       |  | <b>\$ 2,540,400</b>  |  | <b>\$ 6,586,936</b> |  |                      |  |
| Reimbursable Billing                             |            |            |                    |           |         | \$ 6,630      |            |              |                       |  |                      |  |                     |  |                      |  |
| Project General                                  |            |            |                    |           |         | \$ 9,196      |            |              |                       |  |                      |  |                     |  |                      |  |
| Nonreimbursable F&W                              |            |            |                    |           |         | \$ 38,847     |            |              |                       |  |                      |  |                     |  |                      |  |
| Nonreimbursable Demo Treatment                   |            |            |                    |           |         | \$ 17,914     |            |              |                       |  |                      |  |                     |  |                      |  |
|  |            |            |                    |           |         |               |            |              |                       |  | <b>\$ 36,395,026</b> |  | <b>\$ 5,811,712</b> |  | <b>\$ 30,510,727</b> |  |

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

**Determination of PUE sent to WAPA:**

**Based on Direct Pumping Cost:**

|   |                     |                     |                |                |                   |                     |
|---|---------------------|---------------------|----------------|----------------|-------------------|---------------------|
| 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%          | \$ 5.44           | 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             |
| <b>Total for Determining Rates to Remit to WAPA</b> | <b>\$ 2,350,770</b> | <b>\$ 5,954,899</b> | <b>100.00%</b> | <b>100.00%</b> | <b>\$ 644,510</b> | <b>\$ 4,591,695</b> |