

| North Butte Water Balance | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|----------------------|------------------|-----------------|--------------------|-----------------------|-------------------|--------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Assumes 9 Pore Volumes of Treatment (1 P.V. GWS and 8 P.V. RO) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 20-Jan-1820-Jan-18 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Year | | | | | | | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 |
| | | | | | | | | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | 2031 | 2032 | 2033 | 2034 | 2035 | 2036 | 2037 | 2038 | 2039 |
| Production Flows | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Total Production Flow (gpm) (end of year) | | | | | | | | 1100 | 500 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Production Bleed (gpm) | | | | | | | | 11 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Misc. GWS | | | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Control Bleed (gpm) | | | | | | | | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 5 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Restoration Flows | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | PV With Flare (Kgal) | GWS PV to Finish | RO PV to Finish | Average Flow (gpm) | Treatment Time (Yrs.) | | | | | | | | | | | | | | | | | | | | | | | | |
| North Butte | 64,000,000 | 64,000,000 | 512,000,000 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| MU 1 (gal) (RO) | 64,000 | 1 | 8 | 270 | 3.8 | | | | | | | | | | | | | | | | | | | | | | | | |
| GWS (gal) | | | | 68 | 1.9 | | | | | | | | | | | | | | | | | | | | | | | | |
| Total Disposal (gal) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| North Butte | 79,000,000 | 79,000,000 | 632,000,000 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| MU 2 (gal) (RO) | 79,000 | 1 | 8 | 288 | 4.4 | | | | | | | | | | | | | | | | | | | | | | | | |
| GWS (gal) | | | | 72 | 2.2 | | | | | | | | | | | | | | | | | | | | | | | | |
| Total Disposal (gal) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Total Restoration Disposal (gpm) | | | | | | | | 0 | 54 | 72 | 72 | 72 | 72 | 72 | 72 | 72 | 72 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Installed RO Capacity (gpm) (feed) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Feed (gpm) | Feed (Future) | | Premate Out | Concentrate (gpm) | Concentrate (gpm) | Availability | | | | | | | | | | | | | | | | | | | | | | |
| | 400 | | | | 80 | 60 | 288 | | | | | | | | | | | | | | | | | | | | | | |
| | 100 | | | | 80 | 15 | 72 | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | 0 | 0 | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | 0 | 0 | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | 0 | 0 | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | 0 | 0 | | | | | | | | | | | | | | | | | | | | | | | |
| Total RO Capacity (gpm) | 500 | 0 | | | 100 | 75 | | | | | | | | | | | | | | | | | | | | | | | |
| Deep Disposal Well Capacity (gpm) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Permitted | Current | Future | Online Time (95%) | | | | | | | | | | | | | | | | | | | | | | | | | |
| North Butte 1 | 150 | 100 | | 95 | | | | 95 | 93.6 | 92.2 | 90.8 | 89.4 | 88.1 | 86.8 | 85.5 | 84.2 | 82.9 | 81.7 | 80.5 | 79.3 | 78.1 | 76.9 | 75.7 | 74.6 | 73.5 | 72.4 | 71.3 | 70.2 | 69.1 |
| North Butte 2 | 75 | | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| North Butte 3 | | | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| North Butte 4 | | | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | 100 | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Total Available | | | | | | | | 95 | 93.6 | 92.2 | 90.8 | 89.4 | 88.1 | 86.8 | 85.5 | 84.2 | 82.9 | 81.7 | 80.5 | 79.3 | 78.1 | 76.9 | 75.7 | 74.6 | 73.5 | 72.4 | 71.3 | 70.2 | 69.1 |
| Total Production Bleed (gpm) | | | | | | | | 11 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Misc. Process Water | | | | | | | | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| Misc. GWS | | | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Control Bleed (gpm) | | | | | | | | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 5 | 5 | 0 | 0 | 0 | 10 | 10 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Restoration Disposal (gpm) | | | | | | | | 0 | 54 | 72.0 | 72.0 | 72.0 | 72.0 | 72 | 72 | 72.0 | 72 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Disposal Required (gpm) | | | | | | | | 24 | 72 | 85.0 | 85.0 | 85.0 | 85.0 | 85 | 85 | 80.0 | 80 | 3 | 3 | 3 | 10 | 10 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Total Disposal Balance | | | | | | | | 71 | 22 | 7 | 6 | 4 | 3 | 2 | 1 | 4 | 3 | 79 | 78 | 76 | 68 | 67 | 76 | 75 | 74 | 72 | 71 | 70 | 69 |
| Equivalent RO Feed Rate (gpm) | | | | | | | | 473 | 147 | 47 | 40 | 27 | 20 | 13 | 7 | 27 | 20 | 527 | 520 | 507 | 453 | 447 | 507 | 500 | 493 | 480 | 473 | 467 | 460 |