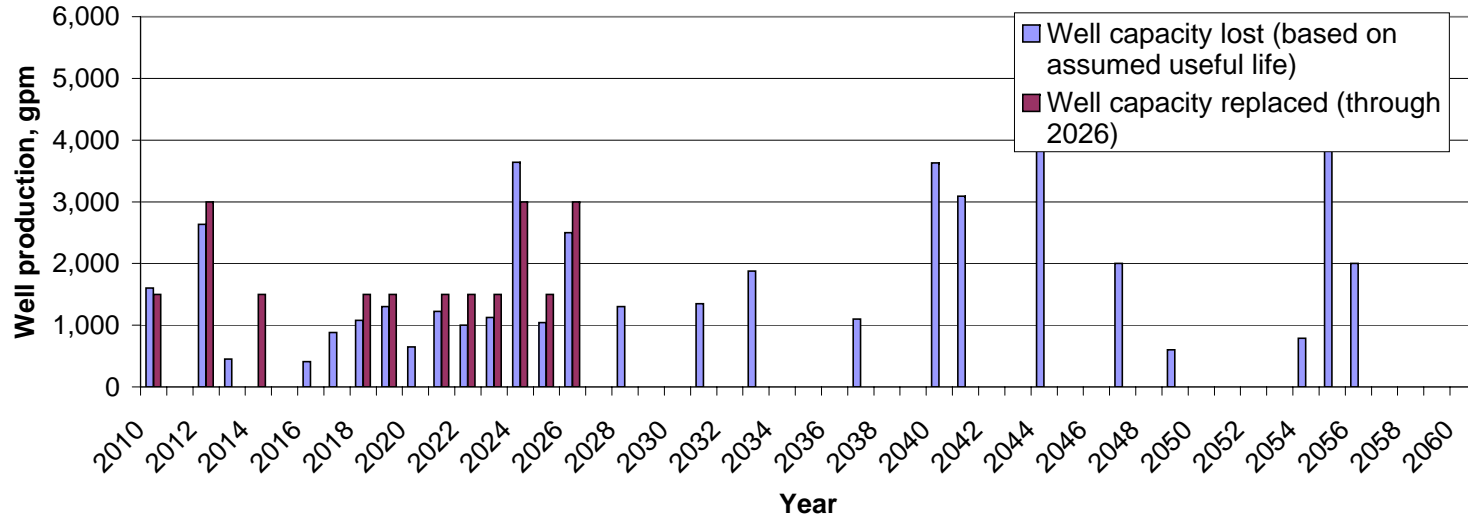
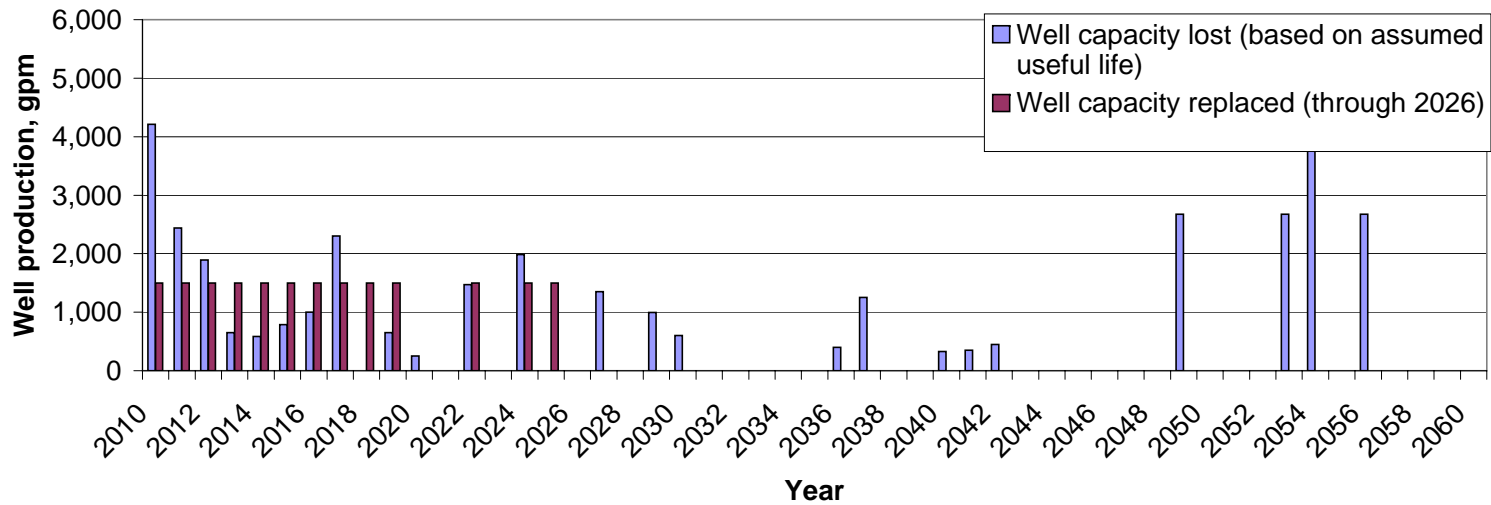


Well Replacement Detailed Calculations and Assumptions

NSA Well Capacity Lost and Replaced



SSA Well Capacity Lost and Replaced



Well Replacement Schedule

| Service area/subarea/well name | Date of Construction | WAMP Ranking Points (95 total possible) | Replacement year |
|--------------------------------|----------------------|-----------------------------------------|------------------|
| NSA | | | |
| Arbors at Antelope | | | |
| Capehart 1Ca | 1958 | 47 | |
| Capehart 2C | 1958 | 57 | |
| Capehart 3C | 1960 | 53 | |
| McClellan Business Park | | | |
| | 0 | 0 | |
| McClellan Park #10 | 1945 | 51 | |
| Subarea NSA 1 | | | |
| | 0 | 0 | |
| Antelope #N35a | 2001 | 19 | |
| Don Julio #N24 | 1976 | 37 | |
| Hillsdale #N5 | 1959 | 43 | |
| Monument #N26 | 1984 | 37 | |
| Poker #N32-Aa | 1989 | 31 | |
| Poker #N32-Ba | 1989 | 28 | |
| Poker #N32-C | 1989 | 35 | |
| Sutter #N25 | 1976 | 37 | |
| Walerga #N33a | 1989 | 33 | |
| Subarea NSA 2 | | | |
| Cabana #N15a | 1969 | 45 | 2022 |
| Oakdale #N17 | 1972 | 31 | |
| Orange Grove #N14 | 1968 | 35 | |
| Subarea NSA 3 | 0 | 0 | |
| Barrett Meadows #N31a | 1957 | 43 | 2012 |
| Verner #N36a | 2009 -- | | |
| Cameron #N9 | 1964 | 48 | 2024 |
| Cypress #N20a | 1973 | 45 | |
| Engle #N3a | 1942 | 51 | 2010 |
| Evergreen #N1 | 1957 | 51 | |
| Field #N8 | 1961 | 43 | |
| Freeway #N23 | 1975 | 39 | |
| Jamestown #N27 | 1958 | 39 | 2021 |
| Merrihill #N29a | 1957 | 43 | 2012 |
| Palm #N6 | 1960 | 39 | |
| Parkoaks #N30 | 1958 | 37 | 2023 |
| River College #N22 | 1975 | 35 | |
| Rosebud #N7 | 1961 | 40 | |
| St. John #N12 | 1966 | 43 | |
| Walnut #N10a | 1964 | 43 | 2019 |

Well Replacement Schedule

| Service area/subarea/well name | Date of Construction | WAMP Ranking Points (95 total possible) | Replacement year |
|--------------------------------|----------------------|-----------------------------------------|------------------|
| Subarea NSA 4 | 0 | 0 | |
| Bainbridge/Holmes #59Aa | 2000 | 27 | |
| Cottage #N34a | 1992 | 24 | |
| Fairbairn/Karl #56Aa | 2000 | 16 | |
| Galbrath/Antelope Woods #64 | 1968 | 37 | |
| La Cienga/Melrose #34 | 1956 | 66 | |
| Melrose/Channing #27 | 1953 | 49 | 2018 |
| Thirty Second/Elkhorn #58 | 1964 | 56 | |
| Thomas/Elkhorn #39a | 1957 | 41 | 2014 |
| Watt/Elkhorn #31Aa | 1985 | 31 | |
| Weddigen/Gothberg #52 | 1959 | 39 | 2024 |

Well Replacement Schedule

| Service area/subarea/well name | Date of Construction | WAMP Ranking Points (95 total possible) | Replacement year |
|--------------------------------|----------------------|-----------------------------------------|------------------|
| SSA | | | |
| Subarea SSA 1 | 0 | 0 | |
| Albatross/Iris #41 | 1957 | 47 | |
| Auburn/Norris #33Aa | 2001 | 22 | |
| Auburn/Yard #40a | 1957 | 49 | 2011 |
| Auburn/Yard #40A | 2000 | 18 | |
| Balmoral/Yorktown #19 | 1951 | 56 | |
| Becerra/Marconi #42 | 0 | 0 | |
| Becerra/Woodcrest #24 | 1952 | 58 | 2013 |
| Bell/El Camino #5 | 1980 | 62 | |
| Bell/Marconi #4Ba | 1994 | 24 | |
| Calderwood/Marconi #13 | 1949 | 51 | 2012 |
| Eastern/Woodside Church #66a | 1972 | 38 | |
| Eden/Root #32A | 1999 | 26 | |
| Edison/Traux #43 | 1957 | 54 | |
| El Prado/Park Estates #2A | 1964 | 46 | |
| Greenwood/Marconi #26 | 1953 | 56 | |
| Hernando/Santa Anita #12 | 1950 | 52 | 2018 |
| Jamestown/Middleberry #45 | 1957 | 53 | |
| Marconi North/Fulton #23 | 1952 | 58 | |
| Marconi South/Fulton #14 | 1949 | 63 | 2017 |
| Merrily/Annadale #65 | 1972 | 31 | |
| Morse/Cottage Park #37 | 1957 | 53 | |
| Ravenwood/Eastern #9 | 1949 | 53 | 2019 |
| Red Robin/Darwin #28 | 1954 | 50 | |
| Rockbridge/Keith #30 | 1954 | 49 | |
| Rubicon/Seely #7 | 1939 | 65 | |
| Watt/Auburn #38 | 1957 | 45 | |
| West/Becerra #22 | 1951 | 57 | |
| Whitney/Concetta #60 | 1965 | 39 | |
| Subarea SSA 2 | 0 | 0 | |
| Enterprise/Northrop#75 | 1999 | 22 | |
| Riding Club/Ladino #18 | 1951 | 57 | 2014 |
| Thor/Mercury #25 | 1952 | 51 | 2015 |
| Ulysses/Mercury #35 | 1956 | 50 | 2016 |
| Watt/Arden #20Aa | 1969 | 38 | 2024 |

Well Replacement Schedule

| Service area/subarea/well name | Date of Construction | WAMP Ranking Points (95 total possible) | Replacement year |
|--------------------------------|----------------------|-----------------------------------------|------------------|
| Subarea SSA 3 | 0 | 0 | |
| Columbia/Fair Oaks #50 | 1955 | 69 | |
| Copenhagen/Arden #47 | 1959 | 45 | |
| River Walk/NETP #72 | 1998 | 28 | |
| River Walk/NETP East #73a | 1999 | 16 | |
| River Walk/NETP South #74 | 1998 | 18 | |
| River Drive/Jacob #71a | 1998 | 17 | |
| Stewart/Lyndale #55A | 1999 | 30 | |
| Sudbury/Elsdon #51 | 1955 | 59 | |
| Subarea SSA 4 | 0 | 0 | |
| Fulton/Fair Oaks #76 | 1960 | 50 | 2022 |
| Hillsdale/Cooper #69R | 1977 | 45 | |
| Jonas/Sierra Mills #46a | 1958 | 59 | 2010 |
| Kubel/Armstrong 3A | 1962 | 51 | |
| Larch/Northrop #77 | 1971 | 47 | |
| Northrop/Dornajo #68R | 1989 | 37 | |
| Sierra/Blackmer #70 | 1976 | 47 | |

WAMP = Groundwater Well Asset Management Plan

Capital Needs Analysis
Well Replacement Schedule

| Service area/subarea/well | Assumed well useful life | Date of Construction | Ranking Points (95 total) | 2009 Well capacity | 2010 | | | 2011 | | | 2012 | | | 2013 | | | 2014 | | | 2015 | | | 2016 | | | 2017 | | |
|-----------------------------------|--------------------------|----------------------|---------------------------|----------------------------|----------------------------|--------------------|---------------------------|----------------------------|--------------------|---------------------------|----------------------------|--------------------|---------------------------|----------------------------|--------------------|---------------------------|----------------------------|--------------------|---------------------------|----------------------------|--------------------|---------------------------|----------------------------|--------------------|---------------------------|----------------|--------------------|---------------------------|
| | | | | | Well loss, gpm | Well Replaced, gpm | Well Replacement Cost, \$ | Well loss, gpm | Well Replaced, gpm | Well Replacement Cost, \$ | Well loss, gpm | Well Replaced, gpm | Well Replacement Cost, \$ | Well loss, gpm | Well Replaced, gpm | Well Replacement Cost, \$ | Well loss, gpm | Well Replaced, gpm | Well Replacement Cost, \$ | Well loss, gpm | Well Replaced, gpm | Well Replacement Cost, \$ | Well loss, gpm | Well Replaced, gpm | Well Replacement Cost, \$ | Well loss, gpm | Well Replaced, gpm | Well Replacement Cost, \$ |
| Arbors at Antelope | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Capehart 1C ^a | 55 | 1958 | 47 | 450 | 0 | | | 0 | | | 0 | | | 450 | | | 0 | | | 0 | | | 0 | | | 0 | | |
| Capehart 2C | 60 | 1958 | 57 | 400 | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | |
| Capehart 3C | 60 | 1960 | 53 | 650 | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | |
| <i>Subarea totals</i> | | | | 1,500 | 0 | 0 | \$0 | 0 | 0 | \$0 | 0 | 0 | \$0 | 450 | 0 | \$0 | 0 | 0 | \$0 | 0 | 0 | \$0 | 0 | 0 | \$0 | 0 | 0 | \$0 |
| McClellan Business Park | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| McClellan Park #10 | 60 | 1945 | 51 | 675 | 675 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | |
| <i>Subarea totals</i> | | | | 675 | 675 | 0 | \$0 | 0 | 0 | \$0 | 0 | 0 | \$0 | 0 | 0 | \$0 | 0 | 0 | \$0 | 0 | 0 | \$0 | 0 | 0 | \$0 | 0 | 0 | \$0 |
| Subarea NSA 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Antelope #N35 ^a | 55 | 2001 | 19 | 2,000 | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | |
| Don Julio #N24 | 65 | 1976 | 37 | 1,190 | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | |
| Hillsdale #N5 | 65 | 1959 | 43 | 850 | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | |
| Monument #N26 | 65 | 1984 | 37 | 600 | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | |
| Poker #N32-A ^a | 55 | 1989 | 31 | 2,000 | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | |
| Poker #N32-B ^a | 55 | 1989 | 28 | 1,800 | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | |
| Poker #N32-C | 65 | 1989 | 35 | 790 | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | |
| Sutter #N25 | 65 | 1976 | 37 | 1,900 | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | |
| Walterga #N33 ^a | 55 | 1989 | 33 | 1,275 | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | |
| <i>Subarea totals</i> | | | | 12,405 | 0 | 0 | \$0 | 0 | 0 | \$0 | 0 | 0 | \$0 | 0 | 0 | \$0 | 0 | 0 | \$0 | 0 | 0 | \$0 | 0 | 0 | \$0 | 0 | 0 | \$0 |
| Subarea NSA 2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Cabana #N15 ^a | 53 | 1969 | 45 | 1,000 | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | |
| Oakdale #N17 | 65 | 1972 | 31 | 1,100 | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | |
| Orange Grove #N14 | 65 | 1968 | 35 | 1,200 | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | |
| <i>Subarea totals</i> | | | | 3,300 | 0 | 0 | \$0 | 0 | 0 | \$0 | 0 | 0 | \$0 | 0 | 0 | \$0 | 0 | 0 | \$0 | 0 | 0 | \$0 | 0 | 0 | \$0 | 0 | 0 | \$0 |
| Subarea NSA 3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Barrett Meadows #N31 ^a | 55 | 1957 | 43 | 750 | 0 | | \$ 250,000 | 0 | | \$ 400,000 | 750 | 1,500 | \$ 1,400,000 | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | |
| Verner #N36 ^a | 65 | 2009 | -- | 1,500 | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | |
| Cameron #N9 | 60 | 1964 | 48 | 1,300 | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | |
| Cypress #N20 ^a | 55 | 1973 | 45 | 1,300 | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | |
| Engle #N3 ^a | 50 | 1942 | 51 | 925 | 925 | 1,500 | \$2,050,000 | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | |
| Evergreen #N1 | 60 | 1957 | 51 | 880 | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 880 | | |
| Field #N8 | 65 | 1961 | 43 | 1,200 | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | |
| Freeway #N23 | 65 | 1975 | 39 | 1,030 | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | |
| Jamestown #N27 | 63 | 1958 | 39 | 1,225 | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | |
| Merrihill #N29 ^a | 55 | 1957 | 43 | 1,285 | 0 | | \$ 250,000 | 0 | | \$ 400,000 | 1,285 | 1,500 | \$ 1,400,000 | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | |
| Palm #N6 | 65 | 1960 | 39 | 1,040 | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | |
| Parkoaks #N30 | 65 | 1958 | 37 | 1,125 | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | |
| River College #N22 | 65 | 1975 | 35 | 1,000 | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | |
| Rosebud #N7 | 65 | 1961 | 40 | 1,300 | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | |
| St. John #N12 | 65 | 1966 | 43 | 1,350 | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | |
| Walnut #N10 ^a | 55 | 1964 | 43 | 1,300 | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | \$ 250,000 |
| <i>Subarea totals</i> | | | | 18,510 | 925 | 1,500 | \$2,550,000 | 0 | 0 | \$800,000 | 2,035 | 3,000 | \$2,800,000 | 0 | 0 | \$0 | 0 | 0 | \$0 | 0 | 0 | \$0 | 0 | 0 | \$0 | 880 | 0 | \$250,000 |
| Subarea NSA 4 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bainbridge/Holmes #59Aa | 55 | 2000 | 27 | 2,950 | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | |
| Cottage #N34 ^a | 55 | 1992 | 24 | 2,000 | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | |
| Fairbairn/Karl #56A ^a | 55 | 2000 | 16 | 2,400 | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | |
| Galbrath/Antelope Woods #64 | 65 | 1968 | 37 | 675 | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | |
| La Cienga/Melrose #34 | 60 | 1956 | 66 | 410 | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | |
| Melrose/Channing #27 | 65 | 1953 | 49 | 680 | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | |
| Thirty Second/Elkhorn #58 | 60 | 1964 | 56 | 650 | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | |
| Thomas/Elkhorn #39 ^a | 55 | 1957 | 41 | 600 | 0 | | | 0 | | | 600 | | \$ 250,000 | 0 | | | \$ 400,000 | | | 1,500 | | \$1,400,000 | 0 | | | 0 | | |
| Watt/Elkhorn #31A ^a | 55 | 1985 | 31 | 1,600 | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | |
| Weddigen/Gothberg #52 | 65 | 1959 | 39 | 840 | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | |
| <i>Subarea totals</i> | | | | 12,805 | 0 | 0 | \$0 | 0 | 0 | \$0 | 600 | 0 | \$250,000 | 0 | 0 | \$400,000 | 0 | 1,500 | \$1,400,000 | 0 | 0 | \$0 | 410 | 0 | \$250,000 | 0 | 0 | \$400,000 |
| NSA Total | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Total | | | | | 1,600 | 1,500 | \$2,550,000 | 0 | 0 | \$800,000 | 2,635 | 3,000 | \$3,050,000 | 450 | 0 | \$400,000 | 0 | 1,500 | \$1,400,000 | 0 | 0 | \$0 | 410 | 0 | \$250,000 | 880 | 0 | \$650,000 |
| | | | | Total well capacity | Total well capacity | | | Total well capacity | | | Total well capacity | | | Total well capacity | | | Total well capacity | | | Total well capacity | | | Total well capacity | | | | | |
| NSA Total well capacity | | | | 49,195 | 49,095 | | | 49,095 | | | 49,460 | | | 49,010 | | | 50,510 | | | 50,510 | | | 50,100 | | | 49,220 | | |

Capital Needs Analysis
Well Replacement Schedule

| Service area/subarea/well | Assumed well useful life | Date of Construction | Ranking Points (95 total) | 2009 Well capacity | 2010 | | | 2011 | | | 2012 | | | 2013 | | | 2014 | | | 2015 | | | 2016 | | | 2017 | | |
|------------------------------|--------------------------|----------------------|---------------------------|--------------------|----------------|--------------------|---------------------------|----------------|--------------------|---------------------------|----------------|--------------------|---------------------------|----------------|--------------------|---------------------------|----------------|--------------------|---------------------------|----------------|--------------------|---------------------------|----------------|--------------------|---------------------------|----------------|--------------------|---------------------------|
| | | | | | Well loss, gpm | Well Replaced, gpm | Well Replacement Cost, \$ | Well loss, gpm | Well Replaced, gpm | Well Replacement Cost, \$ | Well loss, gpm | Well Replaced, gpm | Well Replacement Cost, \$ | Well loss, gpm | Well Replaced, gpm | Well Replacement Cost, \$ | Well loss, gpm | Well Replaced, gpm | Well Replacement Cost, \$ | Well loss, gpm | Well Replaced, gpm | Well Replacement Cost, \$ | Well loss, gpm | Well Replaced, gpm | Well Replacement Cost, \$ | Well loss, gpm | Well Replaced, gpm | Well Replacement Cost, \$ |
| Subarea SSA 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Albatross/Iris #41 | 65 | 1957 | 47 | 600 | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | |
| Auburn/Norris #33A* | 55 | 2001 | 22 | 2,675 | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | |
| Auburn/Yard #40* | 50 | 1957 | 49 | 675 | 675 | \$ 250,000 | | 1,500 | \$ 1,800,000 | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | |
| Auburn/Yard #40A | 65 | 2000 | 18 | 2,525 | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | |
| Balmoral/Yorktown #19 | 60 | 1951 | 56 | 950 | 0 | | | 950 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | |
| Becerra/Marconi #42 | | | | 0 | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | |
| Becerra/Woodcrest #24 | 60 | 1952 | 58 | 590 | 0 | | | 0 | | \$ 250,000 | 590 | | \$ 400,000 | 0 | 1,500 | \$ 1,400,000 | 0 | | | 0 | | | 0 | | | 0 | | |
| Bell/EI Camino #5 | 60 | 1980 | 62 | 330 | 0 | | | 0 | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | |
| Bell/Marconi #4B* | 55 | 1994 | 24 | 2,675 | 0 | | | 0 | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | |
| Calderwood/Marconi #13 | 60 | 1949 | 51 | 820 | 820 | \$ 250,000 | | 0 | \$ 400,000 | | 1,500 | \$ 1,400,000 | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | |
| Eastern/Woodside Church #66* | 55 | 1972 | 38 | 1,350 | 0 | | | 0 | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | |
| Eden/Root #32A | 65 | 1999 | 26 | 1,905 | 0 | | | 0 | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | |
| Edison/Traux #43 | 60 | 1957 | 54 | 850 | 0 | | | 0 | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | |
| El Prado/Park Estates #2A | 65 | 1964 | 46 | 995 | 0 | | | 0 | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | |
| Greenwood/Marconi #26 | 60 | 1953 | 56 | 650 | 0 | | | 0 | | 0 | | | 650 | | | 0 | | | 0 | | | 0 | | | 0 | | | |
| Hernando/Santa Anita #12 | 60 | 1950 | 52 | 540 | 540 | | | 0 | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | \$ 250,000 | 0 | | \$ 400,000 | |
| Jamestown/Middleberry #45 | 60 | 1957 | 53 | 750 | 0 | | | 0 | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 750 | | | |
| Marconi North/Fulton #23 | 60 | 1952 | 58 | 550 | 0 | | | 0 | | 550 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | |
| Marconi South/Fulton #14 | 60 | 1949 | 63 | 570 | 570 | | | 0 | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | \$ 250,000 | 0 | \$ 400,000 | 1,500 | \$ 1,400,000 |
| Merrily/Annadale #65 | 65 | 1972 | 31 | 1,250 | 0 | | | 0 | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | |
| Morse/Cottage Park #37 | 60 | 1957 | 53 | 700 | 0 | | | 0 | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | |
| Ravenwood/Eastern #9 | 60 | 1949 | 53 | 625 | 625 | | | 0 | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | \$ 250,000 |
| Red Robin/Darwin #28 | 60 | 1954 | 50 | 585 | 0 | | | 0 | | 0 | | | 0 | | | 585 | | | 0 | | | 0 | | | 0 | | | |
| Rockbridge/Keith #30 | 65 | 1954 | 49 | 650 | 0 | | | 0 | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | |
| Rubicon/Seely #7 | 60 | 1939 | 65 | 180 | 180 | | | 0 | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | |
| Watt/Auburn #38 | 65 | 1957 | 45 | 500 | 0 | | | 0 | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | |
| West/Becerra #22 | 60 | 1951 | 57 | 650 | 0 | | | 650 | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | |
| Whitney/Concetta #60 | 65 | 1965 | 39 | 600 | 0 | | | 0 | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | |
| Subarea totals | | | | 25,740 | 3,410 | 0 | \$500,000 | 1,600 | 1,500 | \$2,450,000 | 1,140 | 1,500 | \$1,800,000 | 650 | 1,500 | \$1,400,000 | 585 | 0 | \$0 | 0 | 0 | \$250,000 | 0 | 0 | \$650,000 | 2,300 | 1,500 | \$2,050,000 |
| Subarea SSA 2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Enterprise/Northrop#75 | 65 | 1999 | 22 | 1,150 | 0 | | | 0 | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | |
| Riding Club/Ladino #18 | 60 | 1951 | 57 | 840 | 0 | | | 840 | | 0 | | \$ 250,000 | 0 | | \$ 400,000 | 0 | 1,500 | \$1,400,000 | 0 | | | 0 | | | 0 | | | |
| Thor/Mercury #25 | 60 | 1952 | 51 | 750 | 0 | | | 0 | | 750 | | | 0 | | \$ 250,000 | 0 | | \$ 400,000 | 0 | 1,500 | \$ 1,400,000 | 0 | | | 0 | | | |
| Ulysses/Mercury #35 | 60 | 1956 | 50 | 1,000 | 0 | | | 0 | | 0 | | | 0 | | | 0 | | \$ 250,000 | 0 | | \$ 400,000 | 1,000 | 1,500 | \$ 1,400,000 | 0 | | | |
| Watt/Arden #20A* | 55 | 1969 | 38 | 1,100 | 0 | | | 0 | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | |
| Subarea totals | | | | 4,840 | 0 | 0 | \$0 | 840 | 0 | \$0 | 750 | 0 | \$250,000 | 0 | 0 | \$650,000 | 0 | 1,500 | \$2,050,000 | 0 | 1,500 | \$1,800,000 | 1,000 | 1,500 | \$1,400,000 | 0 | 0 | \$0 |
| Subarea SSA 3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Columbia/Fair Oaks #50 | 60 | 1955 | 69 | 500 | 0 | | | 0 | | 0 | | | 0 | | | 0 | | | 500 | | | 0 | | | 0 | | | |
| Copenhagen/Arden #47 | 65 | 1959 | 45 | 885 | 0 | | | 0 | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | |
| River Walk/NETP #72 | 65 | 1998 | 28 | 1,850 | 0 | | | 0 | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | |
| River Walk/NETP East #73* | 55 | 1999 | 16 | 3,500 | 0 | | | 0 | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | |
| River Walk/NETP South #74 | 65 | 1998 | 18 | 2,700 | 0 | | | 0 | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | |
| River Drive/Jacob #71* | 55 | 1998 | 17 | 2,675 | 0 | | | 0 | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | |
| Stewart/Lyndale #55A | 65 | 1999 | 30 | 2,000 | 0 | | | 0 | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | |
| Sudbury/Elsdon #51 | 60 | 1955 | 59 | 285 | 0 | | | 0 | | 0 | | | 0 | | | 0 | | | 285 | | | 0 | | | 0 | | | |
| Subarea totals | | | | 14,395 | 0 | 0 | \$0 | 0 | 0 | \$0 | 0 | 0 | \$0 | 0 | 0 | \$0 | 0 | 0 | \$0 | 785 | 0 | \$0 | 0 | 0 | \$0 | 0 | 0 | \$0 |
| Subarea SSA 4 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Fulton/Fair Oaks #76 | 60 | 1960 | 50 | 250 | 0 | | | 0 | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | |
| Hillsdale/Cooper #69R | 65 | 1977 | 45 | 450 | 0 | | | 0 | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | |
| Jonas/Sierra Mills #46* | 50 | 1958 | 59 | 800 | 800 | 1,500 | \$2,050,000 | 0 | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | |
| Kubel/Armstrong 3A | 60 | 1962 | 51 | 370 | 0 | | | 0 | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | |
| Larch/Northrop #77 | 65 | 1971 | 47 | 400 | 0 | | | 0 | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | |
| Northrop/Dornajo #68R | 65 | 1989 | 37 | 1,600 | 0 | | | 0 | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | |
| Sierra/Blackmer #70 | 65 | 1976 | 47 | 350 | 0 | | | 0 | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | |
| Subarea totals | | | | 4,220 | 800 | 1,500 | \$2,050,000 | 0 | 0 | \$0 | 0 | 0 | \$0 | 0 | 0 | \$0 | 0 | 0 | \$0 | 0 | 0 | \$0 | 0 | 0 | \$0 | 0 | 0 | \$0 |
| SSA Total | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Total | | | | 49,195 | 4,210 | 1,500 | \$2,550,000 | 2,440 | 1,500 | \$2,450,000 | 1,890 | 1,500 | \$2,050,000 | 650 | 1,500 | \$2,050,000 | 585 | 1,500 | \$2,050,000 | 785 | 1,500 | \$2,050,000 | 1,000 | 1,500 | \$2,050,000 | 2,300 | 1,500 | \$2,050,000 |
| SSA total well capacity | | | | 49,195 | 46,485 | | | 45,545 | | | 45,155 | | | 46,005 | | | 46,920 | | | 47,635 | | | 48,135 | | | 47,335 | | |
| Grand total | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Total | | | | 89 | 5,810 | 3,000 | \$5,100,000 | 2,440 | 1,500 | \$3,250,000 | 4,525 | 4,500 | \$5,100,000 | 1,100 | 1,500 | \$2,450,000 | 585 | 3,000 | \$3,450,000 | 785 | 1,500 | \$2,050,000 | 1,410 | 1,500 | \$2,300,000 | 3,180 | 1,500 | \$2,700,000 |
| Total number of wells | | | | 89 | 98,390 | 95,580 | 82 | 94,640 | 80 | 94,615 | 81 | 95,015 | 81 | 97,430 | 82 | 98,145 | 81 | 98,235 | 80 | 96,555 | 77 | | | | | | | |

*Identified as key well in the Section 12. Infrastructure Reliability Plan of the Master Plan.

Capital Needs Analysis
Well Replacement Schedule

| Service area/subarea/well | Assumed well useful life | Date of Construction | Ranking Points (95 total) | 2009 Well capacity | 2018 | | | 2019 | | | 2020 | | | 2021 | | | 2022 | | | 2023 | | | 2024 | | | | |
|-----------------------------------|--------------------------|----------------------|---------------------------|--------------------|----------------------------|--------------------|---------------------------|----------------------------|--------------------|---------------------------|----------------------------|--------------------|---------------------------|----------------------------|--------------------|---------------------------|----------------------------|--------------------|---------------------------|----------------------------|--------------------|---------------------------|----------------------------|--------------------|---------------------------|-------|--------------|
| | | | | | Well loss, gpm | Well Replaced, gpm | Well Replacement Cost, \$ | Well loss, gpm | Well Replaced, gpm | Well Replacement Cost, \$ | Well loss, gpm | Well Replaced, gpm | Well Replacement Cost, \$ | Well loss, gpm | Well Replaced, gpm | Well Replacement Cost, \$ | Well loss, gpm | Well Replaced, gpm | Well Replacement Cost, \$ | Well loss, gpm | Well Replaced, gpm | Well Replacement Cost, \$ | Well loss, gpm | Well Replaced, gpm | Well Replacement Cost, \$ | | |
| Arbors at Antelope | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Capehart 1C ^a | 55 | 1958 | 47 | 450 | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | | |
| Capehart 2C | 60 | 1958 | 57 | 400 | 400 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | | |
| Capehart 3C | 60 | 1960 | 53 | 650 | 0 | | | 0 | | | 650 | | | 0 | | | 0 | | | 0 | | | 0 | | | | |
| <i>Subarea totals</i> | | | | | 400 | 0 | \$0 | 0 | 0 | \$0 | 650 | 0 | \$0 | 0 | 0 | \$0 | 0 | 0 | \$0 | 0 | 0 | \$0 | 0 | 0 | \$0 | | |
| McClellan Business Park | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| McClellan Park #10 | 60 | 1945 | 51 | 675 | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | | |
| <i>Subarea totals</i> | | | | | 0 | 0 | \$0 | 0 | 0 | \$0 | 0 | 0 | \$0 | 0 | 0 | \$0 | 0 | 0 | \$0 | 0 | 0 | \$0 | 0 | 0 | \$0 | | |
| Subarea NSA 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Antelope #N35 ^a | 55 | 2001 | 19 | 2,000 | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | | |
| Don Julio #N24 | 65 | 1976 | 37 | 1,190 | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | | |
| Hillsdale #N5 | 65 | 1959 | 43 | 850 | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | \$ 250,000 | 850 | | \$ 400,000 | | |
| Monument #N26 | 65 | 1984 | 37 | 600 | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | | | | | |
| Poker #N32-A ^a | 55 | 1989 | 31 | 2,000 | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | | | | | |
| Poker #N32-B ^a | 55 | 1989 | 28 | 1,800 | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | | | | | |
| Poker #N32-C | 65 | 1989 | 35 | 790 | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | | | | | |
| Sutter #N25 | 65 | 1976 | 37 | 1,900 | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | | | | | |
| Walerqa #N33 ^a | 55 | 1989 | 33 | 1,275 | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | | | | | |
| <i>Subarea totals</i> | | | | | 0 | 0 | \$0 | 0 | 0 | \$0 | 0 | 0 | \$0 | 0 | 0 | \$0 | 0 | 0 | \$0 | 0 | 0 | \$250,000 | 850 | 0 | \$400,000 | | |
| Subarea NSA 2 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Cabana #N15 ^a | 53 | 1969 | 45 | 1,000 | 0 | | | 0 | | | 0 | | \$ 250,000 | 0 | | \$ 400,000 | 1,000 | 1,500 | \$ 1,400,000 | 0 | | | | | | | |
| Oakdale #N17 | 65 | 1972 | 31 | 1,100 | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | | | | | |
| Orange Grove #N14 | 65 | 1968 | 35 | 1,200 | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | | | | | |
| <i>Subarea totals</i> | | | | | 0 | 0 | \$0 | 0 | 0 | \$0 | 0 | 0 | \$250,000 | 0 | 0 | \$400,000 | 1,000 | 1,500 | \$1,400,000 | 0 | 0 | \$0 | 0 | 0 | \$0 | | |
| Subarea NSA 3 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Barrett Meadows #N31 ^a | 55 | 1957 | 43 | 750 | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | | | | | |
| Verner #N36 ^a | 65 | 2009 | -- | 1,500 | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | | | | | |
| Cameron #N9 | 60 | 1964 | 48 | 1,300 | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | \$ 250,000 | 0 | \$ 400,000 | 1,300 | 1,500 | \$ 1,400,000 |
| Cypress #N20 ^a | 55 | 1973 | 45 | 1,300 | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | | | | | |
| Engle #N3 ^a | 50 | 1942 | 51 | 925 | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | | | | | |
| Evergreen #N1 | 60 | 1957 | 51 | 880 | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | | | | | |
| Field #N8 | 65 | 1961 | 43 | 1,200 | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | | | \$ 250,000 | | |
| Freeway #N23 | 65 | 1975 | 39 | 1,030 | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | | | | | |
| Jamestown #N27 | 63 | 1958 | 39 | 1,225 | 0 | | | 0 | | \$ 250,000 | 0 | | \$ 400,000 | 1,225 | 1,500 | \$ 1,400,000 | 0 | | | 0 | | | | | | | |
| Merrihill #N29 ^a | 55 | 1957 | 43 | 1,285 | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | | | | | |
| Palm #N6 | 65 | 1960 | 39 | 1,040 | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | | | | | |
| Parkoaks #N30 | 65 | 1958 | 37 | 1,125 | 0 | | | 0 | | | 0 | | | 0 | | \$ 250,000 | 0 | | \$ 400,000 | 1,125 | 1,500 | \$ 1,400,000 | 0 | | | | |
| River College #N22 | 65 | 1975 | 35 | 1,000 | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | | | | | |
| Rosebud #N7 | 65 | 1961 | 40 | 1,300 | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | | | \$ 250,000 | | |
| St. John #N12 | 65 | 1966 | 43 | 1,350 | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | | | | | |
| Walnut #N10 ^a | 55 | 1964 | 43 | 1,300 | 0 | | \$ 400,000 | 1,300 | 1,500 | \$ 1,400,000 | 0 | | | 0 | | | 0 | | | 0 | | | | | | | |
| <i>Subarea totals</i> | | | | | 0 | 0 | \$400,000 | 1,300 | 1,500 | \$1,650,000 | 0 | 0 | \$400,000 | 1,225 | 1,500 | \$1,650,000 | 0 | 0 | \$650,000 | 1,125 | 1,500 | \$1,800,000 | 1,300 | 1,500 | \$1,900,000 | | |
| Subarea NSA 4 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bainbridge/Holmes #59Aa | 55 | 2000 | 27 | 2,950 | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | | | | | |
| Cottage #N34 ^a | 55 | 1992 | 24 | 2,000 | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | | | | | |
| Fairbairn/Karl #56A ^a | 55 | 2000 | 16 | 2,400 | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | | | | | |
| Galbraith/Antelope Woods #64 | 65 | 1968 | 37 | 675 | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | | | | | |
| La Cienga/Melrose #34 | 60 | 1956 | 66 | 410 | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | | | | | |
| Melrose/Channing #27 | 65 | 1953 | 49 | 680 | 680 | 1,500 | \$ 900,000 | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | | | | | |
| Thirty Second/Elkhorn #58 | 60 | 1964 | 56 | 650 | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 650 | | | | |
| Thomas/Elkhorn #39 ^a | 55 | 1957 | 41 | 600 | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | | | | | |
| Watt/Elkhorn #31A ^a | 55 | 1985 | 31 | 1,600 | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | | | | | |
| Weddigen/Gothberg #52 | 65 | 1959 | 39 | 840 | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | \$ 250,000 | 0 | | \$ 400,000 | 840 | 1,500 | \$ 1,400,000 | | |
| <i>Subarea totals</i> | | | | | 680 | 1,500 | \$900,000 | 0 | 0 | \$0 | 0 | 0 | \$0 | 0 | 0 | \$0 | 0 | 0 | \$250,000 | 0 | 0 | \$400,000 | 1,490 | 1,500 | \$1,400,000 | | |
| NSA Total | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <i>Total</i> | | | | | 1,080 | 1,500 | \$1,300,000 | 1,300 | 1,500 | \$1,650,000 | 650 | 0 | \$650,000 | 1,225 | 1,500 | \$2,050,000 | 1,000 | 1,500 | \$2,300,000 | 1,125 | 1,500 | \$2,450,000 | 3,640 | 3,000 | \$3,700,000 | | |
| Total well capacity | | | | | Total well capacity | | | Total well capacity | | | Total well capacity | | | Total well capacity | | | Total well capacity | | | Total well capacity | | | Total well capacity | | | | |
| NSA Total well capacity | | | | | 49,195 | | | 49,640 | | | 49,840 | | | 49,190 | | | 49,965 | | | 50,340 | | | 49,700 | | | | |

Capital Needs Analysis
Well Replacement Schedule

| Service area/subarea/well | Assumed well useful life | Date of Construction | Ranking Points (95 total) | 2009 Well capacity | 2018 | | | 2019 | | | 2020 | | | 2021 | | | 2022 | | | 2023 | | | 2024 | | | |
|------------------------------|--------------------------|----------------------|---------------------------|--------------------|-----------------------|--------------------|---------------------------|---------------------|-----------------------|---------------------------|---------------------|--------------------|---------------------------|---------------------|---------------------|---------------------------|-----------------------|--------------------|---------------------------|---------------------|-----------------------|---------------------------|---------------------|--------------------|---------------------------|--|
| | | | | | Well loss, gpm | Well Replaced, gpm | Well Replacement Cost, \$ | Well loss, gpm | Well Replaced, gpm | Well Replacement Cost, \$ | Well loss, gpm | Well Replaced, gpm | Well Replacement Cost, \$ | Well loss, gpm | Well Replaced, gpm | Well Replacement Cost, \$ | Well loss, gpm | Well Replaced, gpm | Well Replacement Cost, \$ | Well loss, gpm | Well Replaced, gpm | Well Replacement Cost, \$ | Well loss, gpm | Well Replaced, gpm | Well Replacement Cost, \$ | |
| Subarea SSA 1 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Albatross/Iris #41 | 65 | 1957 | 47 | 600 | 0 | | | 0 | | | 0 | | | 0 | | | 600 | | | 0 | | | 0 | | | |
| Auburn/Norris #33A* | 55 | 2001 | 22 | 2,675 | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | |
| Auburn/Yard #40* | 50 | 1957 | 49 | 675 | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | |
| Auburn/Yard #40A | 65 | 2000 | 18 | 2,525 | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | |
| Balmoral/Yorktown #19 | 60 | 1951 | 56 | 950 | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | |
| Becerra/Marconi #42 | | | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | |
| Becerra/Woodcrest #24 | 60 | 1952 | 58 | 590 | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | |
| Bell/EI Camino #5 | 60 | 1980 | 62 | 330 | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | |
| Bell/Marconi #4B* | 55 | 1994 | 24 | 2,675 | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | |
| Calderwood/Marconi #13 | 60 | 1949 | 51 | 820 | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | |
| Eastern/Woodside Church #66* | 55 | 1972 | 38 | 1,350 | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | |
| Eden/Root #32A | 65 | 1999 | 26 | 1,905 | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | |
| Edison/Traux #43 | 60 | 1957 | 54 | 850 | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | |
| El Prado/Park Estates #2A | 65 | 1964 | 46 | 995 | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | |
| Greenwood/Marconi #26 | 60 | 1953 | 56 | 650 | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | |
| Hernando/Santa Anita #12 | 60 | 1950 | 52 | 540 | 0 | 1,500 | \$ 1,400,000 | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | |
| Jamestown/Middleberry #45 | 60 | 1957 | 53 | 750 | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | |
| Marconi North/Fulton #23 | 60 | 1952 | 58 | 550 | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | |
| Marconi South/Fulton #14 | 60 | 1949 | 63 | 570 | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | |
| Merrily/Annadale #65 | 65 | 1972 | 31 | 1,250 | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | |
| Morse/Cottage Park #37 | 60 | 1957 | 53 | 700 | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | |
| Ravenwood/Eastern #9 | 60 | 1949 | 53 | 625 | 0 | | \$ 400,000 | 0 | 1,500 | \$ 1,400,000 | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | |
| Red Robin/Darwin #28 | 60 | 1954 | 50 | 585 | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | |
| Rockbridge/Keith #30 | 65 | 1954 | 49 | 650 | 0 | | | 650 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | |
| Rubicon/Seely #7 | 60 | 1939 | 65 | 180 | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | |
| Watt/Auburn #38 | 65 | 1957 | 45 | 500 | 0 | | | 0 | | | 0 | | | 0 | | | 500 | | | 0 | | | 0 | | | |
| West/Becerra #22 | 60 | 1951 | 57 | 650 | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | |
| Whitney/Concetta #60 | 65 | 1965 | 39 | 600 | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | |
| Subarea totals | | | | 25,740 | 0 | 1,500 | \$1,800,000 | 650 | 1,500 | \$1,400,000 | 0 | 0 | \$0 | 0 | 0 | \$0 | 1,100 | 0 | \$0 | 0 | 0 | \$0 | 0 | 0 | \$0 | |
| Subarea SSA 2 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Enterprise/Northrop#75 | 65 | 1999 | 22 | 1,150 | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | |
| Riding Club/Ladino #18 | 60 | 1951 | 57 | 840 | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | |
| Thor/Mercury #25 | 60 | 1952 | 51 | 750 | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | |
| Ulysses/Mercury #35 | 60 | 1956 | 50 | 1,000 | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | |
| Watt/Arden #20A* | 55 | 1969 | 38 | 1,100 | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | \$ 250,000 | 0 | | \$ 400,000 | 1,100 | 1,500 | \$ 1,400,000 | |
| Subarea totals | | | | 4,840 | 0 | 0 | \$0 | 0 | 0 | \$0 | 0 | 0 | \$0 | 0 | 0 | \$0 | 0 | 0 | \$250,000 | 0 | 0 | \$400,000 | 1,100 | 1,500 | \$1,400,000 | |
| Subarea SSA 3 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Columbia/Fair Oaks #50 | 60 | 1955 | 69 | 500 | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | |
| Copenhagen/Arden #47 | 65 | 1959 | 45 | 885 | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 885 | | | |
| River Walk/NETP #72 | 65 | 1998 | 28 | 1,850 | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | |
| River Walk/NETP East #73* | 55 | 1999 | 16 | 3,500 | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | |
| River Walk/NETP South #74 | 65 | 1998 | 18 | 2,700 | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | |
| River Drive/Jacob #71* | 55 | 1998 | 17 | 2,675 | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | |
| Stewart/Lyndale #55A | 65 | 1999 | 30 | 2,000 | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | |
| Sudbury/Elsdon #51 | 60 | 1955 | 59 | 285 | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | |
| Subarea totals | | | | 14,395 | 0 | 0 | \$0 | 0 | 0 | \$0 | 0 | 0 | \$0 | 0 | 0 | \$0 | 0 | 0 | \$0 | 0 | 0 | \$0 | 885 | 0 | \$0 | |
| Subarea SSA 4 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Fulton/Fair Oaks #76 | 60 | 1960 | 50 | 250 | 0 | | | 0 | | | 250 | | \$ 250,000 | 0 | | \$ 400,000 | 0 | 1,500 | \$ 1,400,000 | 0 | | | 0 | | | |
| Hillsdale/Cooper #69R | 65 | 1977 | 45 | 450 | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | |
| Jonas/Sierra Mills #46* | 50 | 1958 | 59 | 800 | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | |
| Kubel/Armstrong 3A | 60 | 1962 | 51 | 370 | 0 | | | 0 | | | 0 | | | 0 | | | 370 | | | 0 | | \$ 250,000 | 0 | | \$ 400,000 | |
| Larch/Northrop #77 | 65 | 1971 | 47 | 400 | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | |
| Northrop/Dornajo #68R | 65 | 1989 | 37 | 1,600 | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | |
| Sierra/Blackmer #70 | 65 | 1976 | 47 | 350 | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | |
| Subarea totals | | | | 4,220 | 0 | 0 | \$0 | 0 | 0 | \$0 | 250 | 0 | \$250,000 | 0 | 0 | \$400,000 | 370 | 1,500 | \$1,400,000 | 0 | 0 | \$250,000 | 0 | 0 | \$400,000 | |
| SSA Total | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Total | | | | 49,195 | 0 | 1,500 | \$1,800,000 | 650 | 1,500 | \$1,400,000 | 250 | 0 | \$250,000 | 0 | 0 | \$400,000 | 1,470 | 1,500 | \$1,650,000 | 0 | 0 | \$650,000 | 1,985 | 1,500 | \$1,800,000 | |
| | | | | | Total well capacity | | | Total well capacity | | | Total well capacity | | | Total well capacity | | | Total well capacity | | | Total well capacity | | | | | | |
| SSA total well capacity | | | | 49,195 | 48,835 | | | 49,685 | | | 49,435 | | | 49,435 | | | 49,465 | | | 49,465 | | | | | 48,980 | |
| Grand total | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | 1,080 | 3,000 | \$3,100,000 | 1,950 | 3,000 | \$3,050,000 | 900 | 0 | \$900,000 | 1,225 | 1,500 | \$2,450,000 | 2,470 | 3,000 | \$3,950,000 | 1,125 | 1,500 | \$3,100,000 | 5,625 | 4,500 | \$5,500,000 | |
| | | | | | Total number of wells | | Total well capacity | | Total number of wells | | Total well capacity | | Total number of wells | | Total well capacity | | Total number of wells | | Total well capacity | | Total number of wells | | Total well capacity | | Total number of wells | |
| | | | | 89 | 98,390 | | 98,475 | | 77 | | 99,525 | | 77 | | 98,625 | | 75 | | 98,900 | | 75 | | 99,430 | | 73 | |

*Identified as key well in the Section 12. Infrastructure Reliability Plan of the Master

Meter Retrofit and Replacement Detailed Calculations and Assumptions

Meter Retrofit Cost Calculations and Assumptions

Unmetered Connections By Size and Location

| Meter Size | Backyard | Frontyard | NR | Total |
|------------|----------|-----------|----|-------|
| 0.75 | 12963 | 7482 | 11 | 20456 |
| 1 | 82 | 1424 | 4 | 1510 |
| 1.5 | 40 | 32 | 0 | 72 |
| SF | 4 | 20 | 0 | 24 |
| MF | 0 | 1 | 0 | 1 |
| Com | 0 | 25 | 1 | 26 |
| Inst | 0 | 4 | 0 | 4 |

Unmetered Connections Meter Retrofit Cost Assumptions

| Meter Size | No. of Unmetered Customers with Backyard Mains | No. Unmetered Frontyard | Total Unmetered No. of Meters (less 400 backyard 3/4" meters per year that will be covered by the main replacement project) | Cost/meter | Total Cost | Total Cost per year (2010-2022) | Total no. of meters installed per year (years 2010-2022) |
|------------|------------------------------------------------|-------------------------|-----------------------------------------------------------------------------------------------------------------------------|-------------|---------------|---------------------------------|----------------------------------------------------------|
| 3/4" | 12,978 | 7,502 | 15,280 | \$ 1,600.00 | \$ 24,448,000 | \$ 1,880,615 | 1,175 |
| 1" | 86 | 1,425 | 1,511 | \$ 1,700.00 | \$ 2,568,700 | \$ 197,592 | 116 |
| 1.5" | 41 | 61 | 102 | \$ 1,800.00 | \$ 183,600 | \$ 14,123 | 8 |
| Total | 13,105 | 8,988 | 16,893 | -- | \$ 27,200,300 | \$ 2,092,331 | 1,299 |

Notes:

- Meter costs include service line replacements.
- Annual meter retrofit costs assume consistent annual implementation of all unmetered customers over the next 13 years, Years 2010 through 2022.

Assumptions:

- assume SF is 3/4" meter
- assume MF is 1" meter
- assume Comm is 1.5" meter
- assume Inst is 1.5" meter
- assume unrecorded (NR) main locations are backyard

Meter Replacement Cost Calculations and Assumptions

Historical Meters Installed by Year and Meter Cost and Lifetime for Replacement Estimate

| Meter Size | Cost per meter for replacement/repair | Meter lifetime (years) | No. meters installed by year | | | | | | | | | |
|------------|---------------------------------------|------------------------|------------------------------|------|------|------|------|------|------|------|---|--|
| | | | 2009 | 2008 | 2007 | 2006 | 2005 | 2004 | 2003 | 2002 | | |
| 5/8" | \$ 210 | 15 | 14 | 5 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | |
| 3/4" | \$ 225 | 15 | 480 | 1407 | 1842 | 1380 | 1249 | 1774 | 2069 | 1773 | | |
| 1" | \$ 285 | 15 | 57 | 243 | 148 | 79 | 385 | 288 | 75 | 84 | | |
| 1.5" | \$ 480 | 15 | 27 | 65 | 39 | 35 | 65 | 25 | 28 | 34 | | |
| 2" | \$ 610 | 15 | 13 | 57 | 33 | 47 | 55 | 34 | 33 | 42 | | |
| 3" | \$ 1,525 | 15 | 9 | 39 | 35 | 25 | 21 | 4 | 4 | 15 | | |
| 4" | \$ 2,175 | 15 | 6 | 22 | 9 | 10 | 7 | 2 | 1 | 2 | | |
| 6" | \$ 3,175 | 15 | 0 | 3 | 4 | 0 | 0 | 0 | 0 | 0 | | |
| 8" | \$ 7,600 | 15 | 0 | 1 | 0 | 3 | 0 | 2 | 0 | 0 | | |
| 10" | \$ 11,750 | 15 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | | |

| No. meters installed by year | | | | | | | | | | | | |
|------------------------------|------|------|------|------|------|------|------|------|------|------|-----------------|--|
| 2001 | 2000 | 1999 | 1998 | 1997 | 1996 | 1995 | 1994 | 1993 | 1992 | 1991 | older than 1990 | |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| 845 | 1022 | 551 | 273 | 324 | 610 | 398 | 194 | 194 | 298 | 2 | 4 | |
| 185 | 106 | 137 | 56 | 377 | 95 | 71 | 111 | 79 | 7 | 1 | 8 | |
| 200 | 93 | 20 | 15 | 196 | 25 | 26 | 24 | 13 | 5 | 0 | 2 | |
| 217 | 143 | 25 | 15 | 445 | 30 | 40 | 45 | 33 | 4 | 4 | 2 | |
| 36 | 27 | 4 | 2 | 39 | 0 | 4 | 4 | 2 | 0 | 0 | 0 | |
| 11 | 6 | 1 | 1 | 13 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | |
| 4 | 1 | 1 | 0 | 9 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | |
| 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |

Assumptions:

- Meters sized 5/8"-1.5" are replaced, not repaired
- Repair and replacement costs include materials and labor.
- Meter lifetime based on recent studies showing that meters lose accuracy after approx. 2MG of flow.

Meter Replacement and Repair Projected Costs

| Meter Size | Annual Meter Replacement and Repair Projected Costs | | | | | | | | | | | | | | | |
|---------------|-----------------------------------------------------|------------------|------------------|-----------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------|------------------|------------------|------------------|--|
| | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | # | 2022 | 2023 | 2024 | |
| 5/8" | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ 210 | \$ 1,050 | \$ 2,940 | |
| 3/4" | \$ 245,250 | \$ 137,250 | \$ 72,900 | \$ 61,425 | \$ 123,975 | \$ 229,950 | \$ 190,125 | \$ 398,925 | \$ 465,525 | \$ 399,150 | \$ 281,025 | \$ 414,450 | \$ 316,575 | \$ 108,000 | | |
| 1" | \$ 78,945 | \$ 27,075 | \$ 107,445 | \$ 15,960 | \$ 39,045 | \$ 30,210 | \$ 52,725 | \$ 23,940 | \$ 21,375 | \$ 82,080 | \$ 109,725 | \$ 42,180 | \$ 69,255 | \$ 16,245 | | |
| 1.5" | \$ 33,600 | \$ 12,000 | \$ 94,080 | \$ 7,200 | \$ 9,600 | \$ 44,640 | \$ 96,000 | \$ 16,320 | \$ 13,440 | \$ 12,000 | \$ 31,200 | \$ 18,720 | \$ 31,200 | \$ 12,960 | | |
| 2" | \$ 78,080 | \$ 18,300 | \$ 271,450 | \$ 9,150 | \$ 15,250 | \$ 87,230 | \$ 132,370 | \$ 25,620 | \$ 20,130 | \$ 20,740 | \$ 33,550 | \$ 20,130 | \$ 34,770 | \$ 7,930 | | |
| 3" | \$ 15,250 | \$ - | \$ 59,475 | \$ 3,050 | \$ 6,100 | \$ 41,175 | \$ 54,900 | \$ 22,875 | \$ 6,100 | \$ 6,100 | \$ 32,025 | \$ 53,375 | \$ 59,475 | \$ 13,725 | | |
| 4" | \$ 2,175 | \$ - | \$ 28,275 | \$ 2,175 | \$ 2,175 | \$ 13,050 | \$ 23,925 | \$ 4,350 | \$ 2,175 | \$ 4,350 | \$ 15,225 | \$ 19,575 | \$ 47,850 | \$ 13,050 | | |
| 6" | \$ 3,175 | \$ - | \$ 28,575 | \$ - | \$ 3,175 | \$ 3,175 | \$ 12,700 | \$ - | \$ - | \$ - | \$ - | \$ 12,700 | \$ 9,525 | \$ - | | |
| 8" | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ 7,600 | \$ - | \$ - | \$ 15,200 | \$ - | \$ - | \$ 7,600 | \$ - | | |
| 10" | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ 11,750 | \$ - | \$ - | | |
| Total: | \$456,475 | \$194,625 | \$662,200 | \$98,960 | \$199,320 | \$449,430 | \$570,345 | \$492,030 | \$528,745 | \$539,620 | \$502,750 | # | \$593,090 | \$577,300 | \$174,850 | |

Notes:

- Meter retrofits will start needing to be replaced and fixed in year 2020.
- Potential future increases in materials and labor costs are not included.
- Shaded cells are cost assumptions