

The Metropolitan Water District of Southern California

GENERAL MINERAL AND PHYSICAL ANALYSIS OF METROPOLITAN'S WATER SUPPLIES

TABLE D

February 2014

| CONSTITUENTS                          | UNITS | SOURCE WATERS |                    |              |              |                  |             |                     |              | TREATMENT PLANT EFFLUENTS |        |        |         |       |
|---------------------------------------|-------|---------------|--------------------|--------------|--------------|------------------|-------------|---------------------|--------------|---------------------------|--------|--------|---------|-------|
|                                       |       | LAKE HAVASU   | SAN JACINTO TUNNEL | LAKE MATHEWS | CASTAIC LAKE | SILVER-WOOD LAKE | LAKE PERRIS | DIAMOND VALLEY LAKE | LAKE SKINNER | WEY-MOUTH                 | DIEMER | JENSEN | SKINNER | MILLS |
| SILICA                                | mg/L  | 7.7           | 7.8                | 7.9          | 10.9         | 9.0              | 9.4         | 9.4                 | 8.1          | 7.7                       | 8.2    | 11.0   | 7.9     | 9.2   |
| CALCIUM                               | mg/L  | 72            | 72                 | 70           | 25           | 24               | 25          | 27                  | 69           | 67                        | 71     | 25     | 70      | 25    |
| MAGNESIUM                             | mg/L  | 25            | 25                 | 25           | 12           | 10               | 13          | 13                  | 25           | 24                        | 26     | 12     | 25      | 10    |
| SODIUM                                | mg/L  | 84            | 85                 | 84           | 63           | 70               | 62          | 55                  | 83           | 87                        | 90     | 66     | 90      | 76    |
| POTASSIUM                             | mg/L  | 4.3           | 4.3                | 4.4          | 2.7          | 2.5              | 3.1         | 3.3                 | 4.3          | 4.2                       | 4.4    | 2.7    | 4.3     | 2.6   |
| CARBONATE                             | mg/L  | 0             | 0                  | 0            | 0            | 0                | 0           | 0                   | 0            | 0                         | 0      | 0      | 0       | 0     |
| BICARBONATE                           | mg/L  | 163           | 160                | 160          | 101          | 95               | 109         | 102                 | 160          | 154                       | 146    | 102    | 156     | 95    |
| SULFATE                               | mg/L  | 222           | 219                | 220          | 48           | 48               | 46          | 62                  | 218          | 218                       | 229    | 52     | 209     | 57    |
| CHLORIDE                              | mg/L  | 81            | 81                 | 82           | 83           | 92               | 86          | 71                  | 82           | 81                        | 86     | 84     | 90      | 94    |
| NITRATE                               | mg/L  | 1.3           | 1.3                | 1.0          | 2.4          | 2.8              | 0.3         | 0.4                 | 1.1          | 1.0                       | 1.0    | 2.5    | 1.1     | 3.5   |
| FLUORIDE                              | mg/L  | 0.3           | 0.3                | 0.3          | 0.1          | 0.1              | 0.1         | 0.1                 | 0.3          | 0.9                       | 1.0    | 0.9    | 0.9     | 0.9   |
| TOTAL DISSOLVED SOLIDS (TDS)          | mg/L  | 579           | 576                | 575          | 298          | 306              | 299         | 292                 | 571          | 568                       | 590    | 307    | 576     | 326   |
| TOTAL HARDNESS AS CaCO <sub>3</sub>   | mg/L  | 283           | 280                | 277          | 114          | 102              | 117         | 123                 | 275          | 271                       | 282    | 112    | 278     | 106   |
| TOTAL ALKALINITY AS CaCO <sub>3</sub> | mg/L  | 134           | 131                | 131          | 83           | 78               | 89          | 84                  | 131          | 126                       | 120    | 84     | 128     | 78    |
| FREE CARBON DIOXIDE                   | mg/L  | 1.7           | 1.7                | 1.6          | 1.6          | 1.4              | 3.1         | 2.5                 | 1.9          | 2.1                       | 2.0    | 0.9    | 2.3     | 0.6   |
| pH                                    | pH    | 8.20          | 8.19               | 8.21         | 8.02         | 8.06             | 7.77        | 7.84                | 8.14         | 8.09                      | 8.09   | 8.29   | 8.06    | 8.42  |
| SPECIFIC CONDUCTANCE                  | µS/cm | 961           | 963                | 962          | 562          | 582              | 578         | 550                 | 953          | 943                       | 985    | 576    | 971     | 613   |
| COLOR                                 | CU    | --            | --                 | --           | --           | --               | --          | --                  | --           | --                        | --     | --     | --      | --    |
| TURBIDITY                             | NTU   | 0.68          | 0.38               | 0.70         | 0.61         | 0.78             | 0.69        | 0.19                | 0.45         | 0.05                      | 0.04   | 0.04   | 0.06    | 0.05  |
| TEMPERATURE                           | °C    | 12            | 12                 | 15           | 13           | 10               | 13          | 14                  | 13           | 15                        | 16     | 16     | 17      | 13    |
| BROMIDE                               | mg/L  | 0.07          | 0.04               | 0.05         | 0.27         | 0.31             | 0.27        | 0.20                | 0.05         | --                        | --     | --     | --      | --    |
| TOTAL ORGANIC CARBON                  | mg/L  | 3.00          | 2.98               | 3.10         | 2.30         | 2.38             | 3.52        | 2.45                | 2.94         | --                        | --     | --     | --      | --    |
| SATURATION INDEX                      | --    | --            | --                 | --           | --           | --               | --          | --                  | --           | 0.49                      | 0.49   | 0.18   | 0.49    | 0.20  |
| STATE PROJECT WATER                   | %     | 0             | 0                  | 0            | 100          | 100              | 100         | 97                  | 0            | 0                         | 0      | 100    | 0       | 100   |