

APPENDIX C

MWDOC's Reduced Delta Reliance Reporting



MWDOC's

REDUCED DELTA RELIANCE REPORTING

C.1 Background

Under the Sacramento-San Joaquin Delta Reform Act of 2009, state and local public agencies proposing a covered action in the Delta, prior to initiating the implementation of that action, must prepare a written certification of consistency with detailed findings as to whether the covered action is consistent with applicable Delta Plan policies and submit that certification to the Delta Stewardship Council. Anyone may appeal a certification of consistency, and if the Delta Stewardship Council grants the appeal, the covered action may not be implemented until the agency proposing the covered action submits a revised certification of consistency, and either no appeal is filed, or the Delta Stewardship Council denies the subsequent appeal.

An urban water supplier that anticipates participating in or receiving water from a proposed covered action such as a multi-year water transfer, conveyance facility, or new diversion that involves transferring water through, exporting water from, or using water in the Delta should provide information in their 2015 and 2020 Urban Water Management Plans (UWMPs) that can then be used in the covered action process to demonstrate consistency with Delta Plan Policy WR P1, Reduce Reliance on the Delta Through Improved Regional Water Self-Reliance (WR P1).

WR P1 details what is needed for a covered action to demonstrate consistency with reduced reliance on the Delta and improved regional self-reliance. WR P1 subsection (a) states that:

(a) Water shall not be exported from, transferred through, or used in the Delta if all of the following apply:

(1) One or more water suppliers that would receive water as a result of the export, transfer, or use have failed to adequately contribute to reduced reliance on the Delta and improved regional self-reliance consistent with all of the requirements listed in paragraph

(1) of subsection (c);

(2) That failure has significantly caused the need for the export, transfer, or use; and

(3) The export, transfer, or use would have a significant adverse environmental impact in the Delta.

WR P1 subsection (c)(1) further defines what adequately contributing to reduced reliance on the Delta means in terms of (a)(1) above.

(c)(1) Water suppliers that have done all the following are contributing to reduced reliance on the Delta and improved regional self-reliance and are therefore consistent with this policy:

(A) Completed a current Urban or Agricultural Water Management Plan (Plan) which has been reviewed by the California Department of Water Resources for compliance with the applicable requirements of Water Code Division 6, Parts 2.55, 2.6, and 2.8;

(B) Identified, evaluated, and commenced implementation, consistent with the implementation schedule set forth in the Plan, of all programs and projects included in the Plan that are locally cost effective and technically feasible which reduce reliance on the Delta; and

(C) Included in the Plan, commencing in 2015, the expected outcome for measurable reduction in Delta reliance and improvement in regional self-reliance. The expected outcome for measurable reduction in Delta reliance and improvement in regional self-reliance shall be reported in the Plan as the reduction in the amount of water used, or in the percentage of water used, from the Delta watershed. For the purposes of reporting, water efficiency is considered a new source of water supply, consistent with Water Code section 1011(a).

The analysis and documentation provided below include all of the elements described in WR P1(c)(1) that need to be included in a water supplier's UWMP to support a certification of consistency for a future covered action.

C.2 Summary of Expected Outcomes for Reduced Reliance on the Delta

As stated in WR P1 (c)(1)(C), the policy requires that, commencing in 2015, UWMPs include expected outcomes for measurable reduction in Delta reliance and improved regional self-reliance. WR P1 further states that those outcomes shall be reported in the UWMP as the reduction in the amount of water used, or in the percentage of water used, from the Delta.

The expected outcomes for MWDOC's regional self-reliance were developed using the approach and guidance described in Appendix C of DWR's Urban Water Management Plan Guidebook 2020 – Final Draft (Guidebook Appendix C) issued in March 2021. The data used in this analysis represent the total regional efforts of Metropolitan, MWDOC, and its member agencies and were developed in conjunction with Metropolitan as part of the UWMP coordination process.

The following provides a summary of the near-term (2025) and long-term (2045) expected outcomes for MWDOC's Delta reliance and regional self-reliance. The results show that as a region, MWDOC, Metropolitan, and its member agencies are measurably reducing reliance on the Delta and improving regional self-reliance, both as an amount of water used and as a percentage of water used.

Expected Outcomes for Regional Self-Reliance for MWDOC

- Near-term (2025) – Normal water year regional self-reliance is expected to increase by 243 TAF from the 2010 baseline; this represents an increase of about 37 percent of 2025 normal water year retail demands (Table C-2).
- Long-term (2040) – Normal water year regional self-reliance is expected to increase by nearly 265 TAF from the 2010 baseline, this represents an increase of about 38 percent of 2045 normal water year retail demands (Table C-2).

C.3 Demonstration of Reduced Reliance on the Delta

The methodology used to determine MWDOC's reduced Delta reliance and improved regional self-reliance is consistent with the approach detailed in DWR's UWMP Guidebook Appendix C, including the use of narrative justifications for the accounting of supplies and the documentation of specific data sources. Some of the key assumptions underlying MWDOC's demonstration of reduced reliance include:

- All data were obtained from the current 2020 UWMP or previously adopted UWMPs and represent average or normal water year conditions.
- All analyses were conducted at the service area level, and all data reflect the total contributions of MWDOC and its member agencies in conjunction with information provided by Metropolitan.
- No projects or programs that are described in the UWMPs as "Projects Under Development" were included in the accounting of supplies.

Baseline and Expected Outcomes

In order to calculate the expected outcomes for measurable reduction in Delta reliance and improved regional self-reliance, a baseline is needed to compare against. This analysis uses a normal water year representation of 2010 as the baseline, which is consistent with the approach described in the Guidebook Appendix C. Data for the 2010 baseline were taken from MWDOC's 2005 UWMP as the UWMPs generally do not provide normal water year data for the year that they are adopted (i.e., 2005 UWMP forecasts begin in 2010, 2010 UWMP forecasts begin in 2015, and so on).

Consistent with the 2010 baseline data approach, the expected outcomes for reduced Delta reliance and improved regional self-reliance for 2015 and 2020 were taken from MWDOC's 2010 and 2015 UWMPs respectively. Expected outcomes for 2025-2040 are from the current 2020 UWMP. Documentation of the specific data sources and assumptions are included in the discussions below.

Service Area Demands without Water Use Efficiency

In alignment with the Guidebook Appendix C, this analysis uses normal water year demands, rather than normal

water year supplies to calculate expected outcomes in terms of the percentage of water used. Using normal water year demands serves as a proxy for the amount of supplies that would be used in a normal water year, which helps alleviate issues associated with how supply capability is presented to fulfill requirements of the UWMP Act versus how supplies might be accounted for to demonstrate consistency with WR P1.

Because WR P1 considers water use efficiency savings a source of water supply, water suppliers such as MWDOC needs to explicitly calculate and report water use efficiency savings separate from service area demands to properly reflect normal water year demands in the calculation of reduced reliance. As explained in the Guidebook Appendix C, water use efficiency savings must be added back to the normal year demands to represent demands without water use efficiency savings accounted for; otherwise the effect of water use efficiency savings on regional self-reliance would be overestimated. Table C-1 shows the results of this adjustment for MWDOC. Supporting narratives and documentation for the all of the data shown in Table C-1 are provided below.

Table C -1

| Service Area Water Use Efficiency Demands | 2010 | 2015 | 2020 | 2025 | 2030 | 2035 | 2040 |
|---|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Service Area Water Demands with Water Use Efficiency | 616,714 | 552,487 | 482,879 | 486,747 | 495,958 | 502,014 | 501,487 |
| Non-Potable Water Demands | 124,590 | 122,568 | 121,721 | 107,634 | 109,508 | 112,542 | 112,677 |
| Potable Service Area Demands with Water Use Efficiency | 492,124 | 429,919 | 361,158 | 379,113 | 386,450 | 389,472 | 388,810 |
| Total Service Area Population | 2010 | 2015 | 2020 | 2025 | 2030 | 2035 | 2040 |
| Service Area Population | 2,197,120 | 2,295,946 | 2,342,740 | 2,411,727 | 2,473,392 | 2,518,117 | 2,532,393 |
| Water Use Efficiency Since Baseline | 2010 | 2015 | 2020 | 2025 | 2030 | 2035 | 2040 |
| Per Capita Water Use (GPCD) | 200 | 167 | 138 | 140 | 139 | 138 | 137 |
| Change in Per Capita Water Use from Baseline (GPCD) | | (33) | (62) | (60) | (60) | (62) | (63) |
| Estimated Water Use Efficiency Since Baseline | | 84,341 | 163,583 | 161,080 | 167,555 | 174,551 | 178,410 |
| Total Service Area Water Demands | 2010 | 2015 | 2020 | 2025 | 2030 | 2035 | 2040 |
| Service Area Water Demands with Water Use Efficiency | 616,714 | 552,487 | 482,879 | 486,747 | 495,958 | 502,014 | 501,487 |
| Estimated Water Use Efficiency Since Baseline | - | 84,341 | 163,583 | 161,080 | 167,555 | 174,551 | 178,410 |
| Service Area Water Demands without Water Use Efficiency | 616,714 | 636,828 | 646,462 | 647,827 | 663,513 | 676,565 | 679,897 |

Service Area Demands with Water Use Efficiency

The service area demands shown in Table C-1 represent the total retail water demands for MWDOC's service area and include municipal and industrial demands, agricultural demands, recycled, seawater barrier demands, and storage replenishment demands. These demand types and the modeling methodologies used to calculate them are described in Section 4.3 of MWDOC's 2020 UWMP.

Non-Potable Water Demands

The non-potable water demands shown in Table C-1 represent demands for non-potable recycled water, water used for surface reservoir storage, and replenishment water for groundwater basin recharge and seawater barrier demands. In accordance with section C.3.6 of the UWMP Guidebook, MWDOC characterizes demands for groundwater basin recharge and seawater barrier demands as indirect uses of water. In order to avoid double counting of water use these supplies are generally excluded from demand projections, since they are already captured as part of MWDOC's retail water demand. Additionally, non-potable supplies have a demand hardening effect due to the inability to shift non-potable supplies to meet potable water demands. When water use efficiency or conservation measures are implemented, they fall solely on the potable water users. This is consistent with the approach for water conservation reporting used by the State Water Resources Control Board.

Total Service Area Population

MWDOC's total service area population as shown in Table C-1 come from the Center for Demographic Research, with actuals and projections further described in Section 3.4 of the 2020 MWDOC UWMP.

Water Use Efficiency Since Baseline

The water use efficiency numbers shown in Table C-1 represent the formulation that MWDOC utilized, consistent with Appendix C of the UWMP Guidebook approach.

Service area demands, excluding non-potable demands, are divided by the service area population to get per capita water use in the service area in gallons per capita per day (GPCD) for each five-year period. The change in per capita water use from the baseline is the comparative GPCD from that five-year period compared to the 2010 baseline. Changes in per capita water use over time are then applied back to the MWDOC service area population to calculate the estimated WUE Supply. This estimated WUE Supply is considered an additional supply that may be used to show reduced reliance on Delta water supplies.

The demand and water use efficiency data shown in Table C-1 were collected from the following sources:

- Baseline (2010) values – MWDOC's 2005 UWMP, Table 2-2-1-A and Table 2-2-1-A
- 2015 values – MWDOC's 2010 UWMP, Table 2-10
- 2020 values – MWDOC's 2015 UWMP, Table 2-3
- 2025-2040 values – MWDOC's 2020 UWMP, Table 4-1

It should be noted that the results of this calculation differ from what MWDOC calculated under MWDOC's 2020 UWMP Section 5.2 pertaining to the Water Conservation Act of 2009 (SB X7-7) due to differing formulas.

C.4 Supplies Contributing to Regional Self-Reliance

For a covered action to demonstrate consistency with the Delta Plan, WR P1 subsection (c)(1)(C) states that water suppliers must report the expected outcomes for measurable improvement in regional self-reliance. Table C-2 shows expected outcomes for supplies contributing to regional self-reliance both in amount and as a percentage. The numbers shown in Table C-2 represent efforts to improve regional self-reliance for MWDOC's entire service area and include the total contributions of MWDOC and its member agencies. Supporting narratives and documentation for all of the data shown in Table C-2 are provided below.

The results shown in Table C-2 demonstrate that MWDOC’s service area is measurably improving its regional self-reliance. In the near-term (2025), the expected outcome for normal water year regional self-reliance increases by 126 TAF from the 2010 baseline; this represents an increase of about 19.3 percent of 2025 normal water year retail demands. In the long-term (2040), normal water year regional self-reliance is expected to increase by more than 265 TAF from the 2010 baseline; this represents an increase of about 38 percent of 2040 normal water year retail demands.

Table C-2 – Supplies Contributing to Regional Self Reliance

| Water Supplies Contributing to Regional Self-Reliance (Acre-Feet) | 2010 | 2015 | 2020 | 2025 | 2030 | 2035 | 2040 |
|--|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| Water Use Efficiency | - | 84,341 | 163,583 | 161,080 | 167,555 | 174,551 | 178,410 |
| Water Recycling | 34,393 | 41,690 | 42,330 | 52,017 | 53,891 | 59,926 | 57,043 |
| Stormwater Capture and Use | - | - | - | - | - | - | - |
| Advanced Water Technologies | 66,083 | 100,347 | 94,235 | 130,000 | 130,000 | 130,000 | 130,000 |
| Conjunctive Use Projects | - | - | - | - | - | - | - |
| Local and Regional Water Supply and Storage Projects | - | - | - | - | - | - | - |
| Other Programs and Projects the Contribute to Regional Self-Reliance | - | - | - | - | - | - | - |
| Water Supplies Contributing to Regional Self-Reliance | 100,476 | 226,377 | 300,148 | 343,097 | 351,446 | 364,477 | 365,453 |

| Service Area Water Demands without Water Use Efficiency | 2010 | 2015 | 2020 | 2025 | 2030 | 2035 | 2040 |
|--|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Service Area Water Demands without Water Use Efficiency | 616,714 | 636,828 | 646,462 | 647,827 | 663,513 | 676,566 | 679,880 |

| Change in Regional Self Reliance (Acre-Feet) | 2010 | 2015 | 2020 | 2025 | 2030 | 2035 | 2040 |
|---|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Water Supplies Contributing to Regional Self-Reliance | 100,476 | 226,377 | 300,148 | 343,097 | 351,446 | 364,477 | 365,453 |
| Change in Water Supplies Contributing to Regional Self-Reliance | | 125,901 | 199,672 | 242,621 | 250,970 | 264,001 | 264,977 |

| Change in Regional Self Reliance (As a Percent of Water Demand w/out WUE) | 2010 | 2015 | 2020 | 2025 | 2030 | 2035 | 2040 |
|--|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Water Supplies Contributing to Regional Self-Reliance | 16.3% | 35.5% | 46.4% | 53.0% | 53.0% | 53.9% | 53.8% |
| Change in Water Supplies Contributing to Regional Self-Reliance | | 19.3% | 30.1% | 36.7% | 36.7% | 37.6% | 37.5% |

Water Use Efficiency

The water use efficiency information shown in Table C-2 is taken directly from Table C-1 above.

Water Recycling

The water recycling values shown in Table C-2 reflect the total recycled water production in MWDOC’s service area as described in Section 6.6 of MWDOC’s UWMP.

Advanced Water Technologies

The advanced water technologies data shown in Table C-2 include total indirect potable reuse for the Orange County Groundwater Replenishment System (GWRS) production in MWDOC’s service area as described in more detail in Section 6.6 of MWDOC’s UWMP.

C.5 Reliance on Water Supplies from the Delta Watershed

Metropolitan’s service area as a whole, reduces reliance on the Delta through investments in non-Delta water supplies, local water supplies and demand management measures. Quantifying MWDOC’s and its member agencies investments in self-reliance, locally, regionally, and throughout Southern California is infeasible for the reasons as noted in Section C.6. Due to the regional nature of these investments, MWDOC is relying on Metropolitan’s regional accounting of measurable reductions in supplies from the Delta Watershed.

The results shown in Table A.11-3 demonstrate that Metropolitan’s service area, including MWDOC, is measurably reducing its Delta reliance. In the near-term (2025), the expected outcome for normal water year reliance on supplies from the Delta watershed decreased by 301 TAF from the 2010 baseline; this represents a decrease of 3 percent of 2025 normal water year retail demands. In the long-term (2045), normal water year reliance on supplies from the Delta watershed decreased by 314 TAF from the 2010 baseline; this represents a decrease of just over 5 percent of 2045 normal water year retail demands.

**Table C-2
Metropolitan Reliance on Water Supplies from the Delta Watershed**

| Water Supplies from the Delta Watershed (Acre-Feet) | Baseline (2010) | 2015 | 2020 | 2025 | 2030 | 2035 | 2040 | 2045 |
|--|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|
| CVP/SWP Contract Supplies | 1,472,000 | 1,029,000 | 984,000 | 1,133,000 | 1,130,000 | 1,128,000 | 1,126,000 | 1,126,000 |
| Delta/Delta Tributary Diversions | - | - | - | - | - | - | - | - |
| Transfers and Exchanges of Supplies from the Delta Watershed | 20,000 | 44,000 | 91,000 | 58,000 | 52,000 | 52,000 | 52,000 | 52,000 |
| Other Water Supplies from the Delta Watershed | - | - | - | - | - | - | - | - |
| Total Water Supplies from the Delta Watershed | 1,492,000 | 1,073,000 | 1,075,000 | 1,191,000 | 1,182,000 | 1,180,000 | 1,178,000 | 1,178,000 |

| Service Area Demands without Water Use Efficiency (Acre-Feet) | Baseline (2010) | 2015 | 2020 | 2025 | 2030 | 2035 | 2040 | 2045 |
|---|-----------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Service Area Demands without Water Use Efficiency Accounted For | 5,493,000 | 5,499,000 | 5,219,000 | 4,925,000 | 5,032,000 | 5,156,000 | 5,261,000 | 5,374,000 |

| Change in Supplies from the Delta Watershed (Acre-Feet) | Baseline (2010) | 2015 | 2020 | 2025 | 2030 | 2035 | 2040 | 2045 |
|---|-----------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|
| Water Supplies from the Delta Watershed | 1,492,000 | 1,073,000 | 1,075,000 | 1,191,000 | 1,182,000 | 1,180,000 | 1,178,000 | 1,178,000 |
| Change in Supplies from the Delta Watershed | NA | (419,000) | (417,000) | (301,000) | (310,000) | (312,000) | (314,000) | (314,000) |

| Percent Change in Supplies from the Delta Watershed (As a Percent of Demand w/out WUE) | Baseline (2010) | 2015 | 2020 | 2025 | 2030 | 2035 | 2040 | 2045 |
|--|-----------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Percent of Supplies from the Delta Watershed | 27.2% | 19.5% | 20.6% | 24.2% | 23.5% | 22.9% | 22.4% | 21.9% |
| Change in Percent of Supplies from the Delta Watershed | NA | -7.6% | -6.6% | -3.0% | -3.7% | -4.3% | -4.8% | -5.2% |

C.6 Metropolitan Member and Sub-Member Agency Infeasibility of Accounting Supplies from the Delta Watershed

Metropolitan’s member agencies and retail subagencies individually contribute to reduced reliance on the Delta in two ways. First, through the development of local projects and demand management measures in their own service areas, and second through their investments in regional projects and programs through Metropolitan. Regional investments are funded through revenues from water purchases from Metropolitan or one or more of its member agencies. Metropolitan uses a portion of revenues from those purchases to fund projects and programs that contribute to the region’s reduced reliance on Delta water supplies. Because some or all of these regional investments may not be constructed or implemented directly in a particular water supplier’s service area, a water supplier’s demands on Metropolitan or one or more of its member agencies will not accurately reflect that water supplier’s total contributions to reduced reliance on

supplies from the Delta watershed. It is infeasible for a water supplier that makes investments in regional projects and programs to quantify its individual contributions to reduced reliance and reflect them properly in its demands on Metropolitan or one or more of Metropolitan's member agencies.

The following discussions outline how regional funding is provided through Metropolitan's local resources and conservation incentive programs and how funding for those programs is collected through Metropolitan's water rates. The history and participation of Metropolitan's member agencies and the local agencies that purchase water from Metropolitan's members in local resource and demand management in the region has spanned more than four decades, and thus makes accounting of these contributions at the individual agency level infeasible for those agencies to calculate.

Local Resources Programs

In 1982, Metropolitan began providing financial incentives to its member agencies to develop new local supplies to assist in meeting the region's water needs. Because of Metropolitan's regional distribution system these programs benefit all member agencies regardless of project location because they help to increase regional water supply reliability, reduce demands for imported water supplies, decrease the burden on Metropolitan's infrastructure, reduce system costs and free up conveyance capacity to the benefit of all the agencies that rely on water from Metropolitan. For example, the Groundwater Replenishment System (GWRS) operated by the Orange County Water District, is the world's largest water purification system for indirect potable reuse and was funded, in part, by Metropolitan's local resource program and its Member Agencies. Annually, GWRS produces approximately 103,000 acre-feet of reliable, locally controlled, drought-proof supply of high-quality water to recharge the Orange County Groundwater Basin and protect it from seawater intrusion. GWRS is a premier example of a regional project that significantly reduced the need to utilize imported water for groundwater replenishment in the Metropolitan Service area, increasing regional and local supply reliability and reducing the region's reliance on imported supplies, including supplies from the State Water Project.

Metropolitan's local resource programs have evolved through the years to better assist Metropolitan's member agencies in increasing local supply production. The following is a description and history of the local supply incentive programs.

Local Projects Program

In 1982, Metropolitan initiated the Local Projects Program (LPP), which provided funding to member agencies to facilitate the development of recycled water projects. Under this approach, Metropolitan contributed a negotiated up-front funding amount to help finance project capital costs. Participating member agencies were obligated to reimburse Metropolitan over time. In 1986, the LPP was revised. Changing the up-front funding approach to an incentive-based approach. Metropolitan contributed an amount equal to the avoided State Water Project pumping costs for each acre-foot of recycled water delivered to end-use consumers. This funding incentive was based on the assumption that local projects resulted in the reduction of water imported from the Delta and the associated pumping cost. The incentive amount varied from year to year depending on the actual variable power cost paid for State Water Project imports. In 1990, Metropolitan's Board increased the LPP contribution to a fixed rate of \$154 per acre-foot, which was calculated based on Metropolitan's avoided capital and operational costs to convey, treat, and distribute water, and included considerations of reliability and service area demands.

Groundwater Recovery Program

The drought of the early 1990s sparked the need to develop additional local water resources, aside from recycled water, to meet regional demand and increase regional water supply reliability. In 1991, Metropolitan conducted the Brackish Groundwater Reclamation Study which determined that large amounts of degraded groundwater in the region were not being utilized. Subsequently, the Groundwater Recovery Program (GRP) was established to assist the recovery of otherwise unusable groundwater degraded by minerals and other contaminants, provide access to the storage assets of the degraded groundwater, and maintain the quality of groundwater resources by reducing the spread of degraded plumes.

Local Resources Program

In 1995, Metropolitan's Board adopted the Local Resources Program (LRP), which combined the LPP and GRP into one program. The Board allowed for existing LPP agreements with a fixed incentive rate to convert to the sliding scale up to

\$250 per acre-foot, similar to GRP incentive terms. Those agreements that were converted to LRP are known as “LRP Conversions.”

Competitive Local Projects Program

In 1998, the Competitive Local Resources Program was established. The competitive program encouraged development of recycled water and recovered groundwater through a process that emphasized cost-efficiency to Metropolitan, timing new production according to regional need while minimizing program administration cost. Under the competitive program, agencies requested an incentive rate up to \$250 per acre-foot of production over 25 years under a Request for Proposals (RFP) for the development of up to 53,000 acre-feet per year of new water recycling and groundwater recovery projects. In 2003, a second RFP was issued for the development of an additional 65,000 acre-feet of new recycled water and recovered groundwater projects through the LRP.

Seawater Desalination Program

Metropolitan established the Seawater Desalination Program (SDP) in 2001 to provide financial incentives to member agencies for the development of seawater desalination projects. In 2014, seawater desalination projects became eligible for funding under the LRP and the SDP was ended.

2007 Local Resources Program

In 2006, a task force comprising member agency representatives was formed to identify and recommend program improvements to the LRP. As a result of the task force process the 2007 LRP was established with a goal of 174,000 acre-feet per year of additional local water resource development. The new program allowed for an open application process and eliminated the previous competitive process. This program offered sliding scale incentives of up to \$250 per acre-foot, calculated annually based on a member agency’s actual local resource project costs exceeding Metropolitan’s prevailing water rate.

2014 Local Resources Program

A series of workgroup meetings with member agencies was held to identify the reasons why there was a lack of new LRP applications coming into the program. The main constraint identified by the member agencies was that the \$250 per acre-foot was not providing enough of an incentive for developing new projects due to higher construction costs to meet water quality requirements and to develop the infrastructure to reach end-use consumers located further from treatment plants. As a result, in 2014, the Board authorized an increase to the maximum incentive amount, provided alternative payment structures, included onsite retrofit costs and reimbursable services as part of the LRP and added eligibility for seawater desalination projects. The current LRP incentive payment options are structured as follows:

- Option 1 – Sliding scale incentive up to \$340/AF for a 25-year agreement term
- Option 2 – Sliding scale incentive up to \$475/AF for a 15-year agreement term
- Option 3 – Fixed incentive up to \$305/AF for a 25-year agreement term

On-site Retrofit Programs

In 2014, Metropolitan’s Board also approved the On-site Retrofit Pilot Program which provided financial incentives to public or private entities toward the cost of small-scale improvements to their existing irrigation and industrial systems to allow connection to existing recycled water pipelines. The On-site Retrofit Pilot Program helped reduce recycled water retrofit costs to the end-use consumer which is a key constraint that limited recycled water LRP projects from reaching full production capacity. The program incentive was equal to the actual eligible costs of the on-site retrofit, or \$975 per acre-foot of up-front cost which equates to \$195 per acre-foot for an estimated five years of water savings (\$195/AF x 5 years) multiplied by the average annual water use in previous three years, whichever is less. The Pilot Program lasted two years and was successful in meeting its goal of accelerating the use of recycled water.

In 2016 Metropolitan’s Board authorized the On-site Retrofit Program (ORP), with an additional budget of \$10 million. This program encompassed lessons learned from the Pilot Program and feedback from member agencies to make the program more streamlined and improve its efficiency. As of fiscal year 2019/20, the ORP has successfully converted 440 sites increasing the use of recycled water by 12,691 acre-feet per year.

Stormwater Pilot Programs

In 2019, Metropolitan's Board authorized both the Stormwater for Direct Use Pilot Program and a Stormwater for Recharge Pilot Program to better understand stormwater in Southern California. These pilot programs are intended to encourage the development, monitoring, and study of new and existing stormwater projects by providing financial incentives for their construction/ retrofit and monitoring/reporting costs. These pilot programs will help evaluate the potential water supply benefits delivered by stormwater capture projects and provide a basis for potential future funding approaches. Metropolitan's Board authorized a total of \$12.5 million for the stormwater pilot programs (\$5 million for the District Use Pilot and \$7.5 million for the Recharge Pilot).

Current Status

Today, nearly one-half of the total recycled water and groundwater recovery production in the region is developed with an LRP incentive by Metropolitan. During fiscal year 2019/20, Metropolitan provided about \$13 million for production of 71,000 acre-feet of recycled water for non-potable and indirect potable uses. Metropolitan provided about \$4 million to support projects that produced about 50,000 acre-feet of recovered groundwater for municipal use. Since 1982, Metropolitan has invested \$680 million to fund 85 recycled water projects and 27 groundwater recovery projects that have produced a cumulative total of about 4 million acre-feet.

Conservation Programs

Metropolitan's regional conservation programs and approaches have a long history. Decades ago, it was recognized that demand management would be an important part of balancing regional supplies and demands. By reducing the demand for water, water conservation efforts were seen as a way to reduce the need of imported supplies and offset the need to transport or store additional water into or within the Metropolitan service area. The actual conservation of water takes place at the retail consumer level. Regional conservation approaches have proven to be effective at reaching retail consumers throughout the service area and successfully implementing water saving devices, programs, and practices. Regional investments in demand management programs, of which conservation is a key part along with local supply programs, benefit all member agencies regardless of project location. These programs help to increase regional water supply reliability, reduce demands for imported water supplies, decrease the burden on the district's infrastructure and reduce system costs, and free up conveyance capacity to the benefit of all system users.

Incentive-Based Conservation Programs

Conservation Credits Program

In 1988, Metropolitan's Board approved the Water Conservation Credits Program (Credits Program). The Credits Program is similar in concept to the Local Projects Program (LPP). The purpose of the Credits Program is to encourage local water agencies to implement effective water conservation projects through the use of financial incentives. The Credits Program provides financial assistance for water conservation projects that reduce demands on Metropolitan's imported water supplies and require Metropolitan's assistance to be financially feasible.

Initially, the Credits Program provided 50 percent of a member agency's program cost, up to a maximum of \$75 per acre-foot of estimated water savings. The \$75 Base Conservation Rate was established based Metropolitan's avoided cost of pumping SWP supplies. The Base Conservation Rate has been revisited by Metropolitan's Board and revised twice since 1988, from \$75 to \$154 per acre-foot in 1990 and from \$154 to \$195 per acre-foot in 2005.

In fiscal year 2019/20 Metropolitan processed more than 30,400 rebate applications totaling \$18.9 million.

Member Agency Administered Program

Some agencies also have unique programs within their service areas that provide local rebates that may differ from Metropolitan's regional program. Metropolitan continues to support these local efforts through a member agency administered funding program that adheres to the same funding guidelines as the Credits Program. The Member Agency Administered Program allows member agencies to receive funding for local conservation efforts that supplement, but do not duplicate, the rebates offered through Metropolitan's regional rebate program.

Water Savings Incentive Program

There are numerous commercial entities and industries within Metropolitan's service area that pursue unique savings opportunities that do not fall within the general rebate programs that Metropolitan provides. In 2012, Metropolitan designed the Water Savings Incentive Program (WSIP) to target these unique commercial and industrial projects. In addition to rebates for devices, under this program, Metropolitan provides financial incentives to businesses and industries that created their own custom water efficiency projects. Qualifying custom projects can receive funding for permanent water efficiency changes that result in reduced potable demand.

Non-Incentive Conservation Programs

In addition to its incentive-based conservation programs, Metropolitan also undertakes additional efforts throughout its service area that help achieve water savings without the use of rebates. Metropolitan's non-incentive conservation efforts include:

- residential and professional water efficient landscape training classes
- water audits for large landscapes
- research, development and studies of new water saving technologies
- advertising and outreach campaigns
- community outreach and education programs
- advocacy for legislation, codes, and standards that lead to increased water savings

Current Status

Since 1990, Metropolitan has invested \$824 million in conservation rebates that have resulted in a cumulative savings of 3.27 million acre-feet of water. These investments include \$450 million in turf removal and other rebates during the last drought which resulted in 175 million square feet of lawn turf removed. During fiscal year 2019/20, 1.06 million acre-feet of water is estimated to have been conserved. This annual total includes Metropolitan's Conservation Credits Program, code-based conservation achieved through Metropolitan-sponsored legislation; building plumbing codes and ordinances; reduced consumption resulting from changes in water pricing; and pre-1990 device retrofits.

Rate Structure

Metropolitan's regional demand management programs and approaches have a long history. Decades ago, it was recognized that demand management would be an important part of balancing regional supplies and demands. Developing new local projects and increasing water conservation efforts were seen as ways to reduce the need of increased imported supplies and offset the need to transport or store additional water into or within the Metropolitan service area, reducing infrastructure costs.

The actual production and use of local resources and conservation of water under Metropolitan's demand management programs takes place at the member agency or end-user level, meaning they produce or conserve water for their own use, and the water is not Metropolitan's. Metropolitan determined decades ago that regional investments in demand management—both conservation and local resource development—benefit all member agencies regardless of project location. These programs help to increase regional water supply reliability, reduce demands for imported water supplies, decrease the burden on Metropolitan's infrastructure and reduce system costs, and free up conveyance capacity to the benefit of all system users.

Infeasibility of Accounting

The accounting of the regional investments that contribute to reducing Metropolitan's reliance on the Delta is straightforward to calculate and report at the regional aggregate level. However, any similar accounting is infeasible at the individual member or sub-member agency level. As described above, the region (through Metropolitan) makes significant investments in resources and programs that reduce reliance on the Delta. In fact, all of Metropolitan's investments in Colorado River supplies, groundwater and surface storage, local resources development and demand management measures that reduce reliance on the Delta are collectively funded by revenues generated from the member agencies (and their subagencies) through rates and charges. The relative contributions for a member agency may be able

to be approximately quantified or estimated by proxy through relative water purchases, however making an estimate of any quantifiable savings in gallons or acre-feet is not feasible. Water purchases cannot, with any accuracy or precision, be tied to the actual projects or programs that deliver water to the collective member agencies and their subagencies. Additionally, using water purchases as a proxy for member agency and subagencies would result in projects and programs done outside of the Metropolitan incentive programs to be omitted and discounted. Accounting at the regional level allows for the incorporation of these local supplies and water use efficiency programs done by member agencies and subagencies in both the regional programs and their own specific local programs. Projects and programs each have different online dates, useful lives, production, incentive rates and contributions that cannot be matched to the demands or supply production history of an individual agency, or consistently across the agencies within Metropolitan's service area. As shown above, despite that infeasibility, Metropolitan's members and their subagencies have together made substantial contributions to the region's reduced reliance.

C.7 2015 UWMP Appendix

The information contained in this Appendix C is also intended to be a new Appendix H attached to MWDOC's 2015 UWMP consistent with WR P1 subsection (c)(1)(C) (Cal. Code Regs. tit. 23, § 5003). MWDOC provided notice of the availability of the draft 2020 UWMP (including this Appendix C which will also be a new Appendix H to its 2015 UWMP) and 2020 WSCP and the public hearing to consider adoption of both plans in accordance with CWC Sections 10621(b) and 10642, and Government Code Section 6066, and Chapter 17.5 (starting with Section 7290) of Division 7 of Title 1 of the Government Code. The public review drafts of the 2020 UWMP, Appendix H to the 2015 UWMP, and the 2020 WSCP were posted prominently on MWDOC's website, mwdoc.com. The notice of availability of the documents was sent to MWDOC's member agencies, as well as cities and counties in MWDOC's service area. In addition, a public notice advertising the public hearing was published in the OC Register on May 3 and 10, 2021. Copies of: (1) the notification letter sent to the member agencies, cities, and county in MWDOC's service area, and (2) the notice published in the newspapers are included in the 2020 UWMP Appendix L. Thus, this Appendix C to MWDOC's 2020 UWMP, which will be adopted with MWDOC's 2020 UWMP, will also be recognized and treated as Appendix H to MWDOC's 2015 UWMP.

C.8 References

<http://www.mwdh2o.com/WhoWeAre/Board/Board-Meeting/Board%20Archives/2017/12-Dec/Reports/064863458.pdf>
[http://www.mwdh2o.com/PDF About Your Water/Annual Achievement Report.pdf](http://www.mwdh2o.com/PDF%20About%20Your%20Water/Annual%20Achievement%20Report.pdf)
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