First Amendment

Cooperative Agreement to Protect Water Quality and Encourage the Conjunctive Uses of Imported Water in the Santa Ana River Basin

This First Amendment to the Cooperative Agreement to Protect Water Quality and Encourage the Conjunctive Uses of Imported Water in the Santa Ana River Basin (**First Amendment**) is entered into and effective this ___ day of _____, 2019 by and among the California Regional Water Quality Control Board, Santa Ana Region (**Regional Board**) and the entities listed in paragraph 11(n) of the Cooperative Agreement to Protect Water Quality and Encourage the Conjunctive Uses of Imported Water in the Santa Ana River Basin, dated January 18, 2008, (**Cooperative Agreement**). The Regional Board and each of the entities listed in paragraph 11(n) of the Cooperative Agreement are individually sometimes referred to here as a **Party** and are collectively referred to as the **Parties**.

Recitals

A. On January 18, 2008, the Parties entered into the Cooperative Agreement and, since that time, the Parties have collectively implemented the terms of the Cooperative Agreement. Paragraph 3 of the Cooperative Agreement provides that the Cooperative Agreement will automatically renew for periods of ten years unless a Party provides notice of withdrawal at least one year before the termination of the then-current term of the Cooperative Agreement; no Party provided such notice prior to January 18, 2017. Accordingly, the current term of the Cooperative Agreement will end on January 18, 2028.

B. Paragraph 4 of the Cooperative Agreement requires the re-computation of the current ambient water quality of the groundwater management zones within the Santa Ana River Watershed every three years; the modeling of groundwater quality, specifically Total Dissolved Solids (**TDS**) and Total Inorganic Nitrogen (**TIN**), in the groundwater management zones where the recharge of imported water takes place every six years; and summary reports every three years.

C. For the management zones that are located upstream of Prado Dam, the water quality modeling and summary reports prepared over the initial ten-year term of the Cooperative Agreement indicate that the water quality of water imported from the State Water Project (**SWP**) is equal to or better than the water quality objectives set forth in the Basin Plan for the Santa Ana Region for those management zones where SWP is the sole imported water recharged.

D. For the Orange County Management Zone, imported water used for groundwater recharge includes SWP supplies and Colorado River supplies; the water quality modeling and summary reports prepared over the initial ten-year term of the Cooperative Agreement indicate that the water quality resulting from the blending of imported water

and recycled water from the Groundwater Replenishment System is equal to or better than the water quality objectives set forth in the Basin Plan for the Santa Ana Region for that management zone.

E. The Basin Monitoring Program Task Force (**Task Force**) performs the necessary calculations to estimate ambient TDS and TIN concentrations in each groundwater management zone in the Santa Ana River watershed every three years based on field data. The Task Force does not perform the modeling of future groundwater quality conditions that is required by paragraph 4 of the Cooperative Agreement. The Task Force's work to estimate ambient TDS and nitrate TIN is conducted independently of the provisions of paragraph 4 of the Cooperative Agreement.

F. The Task Force also is responsible for updating the Santa Ana River Wasteload Allocation Model every ten years to estimate TDS and TIN concentrations in the Santa Ana River and its tributaries upstream of Prado Dam and in Reach 2 of the Santa Ana River in Orange County, which estimates also include a projection of surface water quality in these areas for twenty years into the future.

G. There is some overlap between the modeling and analysis performed by the Task Force, as described in Recitals E and F above, and the requirements for water quality monitoring and modeling that were established in paragraph 4 of the Cooperative Agreement.

H. The Parties desire to consolidate modeling and analysis to the greatest extent possible, consistent with engaging in the best scientific and engineering analysis possible and consistent with fully protecting the groundwater basins of the Santa Ana River Watershed in the manner described in the Santa Ana River Basin Plan.

I. In certain groundwater management zones, the Regional Board has approved "maximum benefit" programs (**Maximum Benefit Programs**) to allow the discharge of recycled water with quality worse than the antidegradation water quality objective, *provided* that such discharges are part of a comprehensive water management program that will not result in long-term harm to the groundwater basin or downstream beneficial uses. Such Maximum Benefit Programs include a series of commitments by the agencies involved, including but not limited to: the construction of a desalter for recycled water or groundwater, upgrading a wastewater treatment plant, annual monitoring and reporting of surface water and groundwater quality, and the periodic modeling projection of groundwater quality.

J. Many of the Parties are also working together to combine existing computer groundwater models, including but not limited to the models that were identified in paragraph 5(b) of the Cooperative Agreement, into a single model that will be capable of modeling groundwater flows from the Yucaipa area in the upper portion of the Santa Ana River watershed to Prado Dam. This model, termed the **Integrated Groundwater Flow Model**, will be able to model both surface water and groundwater flows. The Integrated

Groundwater Flow Model may, in the future, be enhanced so that it is also capable of modeling TDS and TIN and also could, in the future, be extended up the Temescal Wash. The Integrated Groundwater Flow Model, as augmented by TDS and TIN modeling, whether or not it is extended up Temescal Wash, is known as the Integrated Flow and Quality Model (**IFQM**).

K. As indicated in Recital H above, the Parties wish to avoid any duplicative modeling and also wish to avoid any duplication of the work required pursuant to the Maximum Benefit Programs with work that is required under the Cooperative Agreement. The Parties believe that the development and use of the IFQM would accomplish these modeling goals, at a potentially lower cost, for all areas upstream of Prado Dam.

L. The Parties wish to work with the Task Force to integrate the water quality modeling efforts for the Wasteload Allocation and the Cooperative Agreement described above so as to: (i) use the best available science in making decisions, (ii) reduce any duplicative efforts and inefficiencies, and (iii) be able to make decisions, to the extent feasible, based on a consensus of all Parties.

M. Since the water quality of water imported from the SWP is currently equal to or better than the water quality objectives for TDS and nitrate-nitrogen (Salinity objectives hereafter) set forth in the Basin Plan for the Santa Ana Region for management zones where SWP is the sole imported water recharged, the Parties seek to reduce the frequency of reporting and modeling requirements in the Cooperative Agreement for those management areas.

N. For management zones where imported water is blended with other sources of water (such as recycled water) and such blended water has a water quality equal to or better than the water quality objectives set forth in the Basin Plan for the Santa Ana Region, the Parties seek to reduce the frequency of reporting and modeling requirements in the Cooperative Agreement for those management areas, provided that the water blended with imported water is not a source of water already accounted for in the salt management program for the management zone.

O. The Parties wish to memorialize their mutual agreements in the form of this First Amendment to the Cooperative Agreement.

Agreements

1. *Relationship to Cooperative Agreement*

Save as expressly amended by this First Amendment, all provisions of the Cooperative Agreement shall continue in full force and effect. In the event of any express inconsistency between the terms of this First Amendment and the Cooperative Agreement, the provisions of this First Amendment shall control.

2. *Exclusion of Colorado River Water Deliveries*

The Parties agree that no provision of this First Amendment shall apply to the monitoring, reporting or modeling performed by any Party with regard to deliveries or use of water from the Colorado River, unless there are other sources of recharge water available for blending with Colorado River water such that blend of imported water and other recharge sources results in concentrations that are better than the water quality objectives set forth in the Basin Plan. Deliveries or use of Colorado River water for imported water recharge shall be subject to the monitoring, reporting and modeling requirements of the Cooperative Agreement prior to this First Amendment, unless the blend of imported water and other recharge sources results in concentrations that are better than the water quality objectives set forth in the Basin Plan, in which case the requirements of paragraph 6 would apply. To be an acceptable source of blend water, the water blended with imported water cannot be a source of water already accounted for in the salt management program for the management zone. Water from the Colorado River that is blended with another source may not be used for recharge if it exceeds the Salinity Objectives in the Basin Plan for the Santa Ana Region, unless the Recharging Party implements an offset program approved by the Regional Board. The Parties may, but need not, choose to amend the timing or the frequency of reporting of such deliveries, in the future, to better conform with monitoring and reporting schedules adopted under this First Amendment.

3. *Use of the IFQM*

The Parties agree that the IFQM shall be deemed to be an accepted model pursuant to paragraph 5(b) of the Cooperative Agreement, *provided that* the IFQM is subjected to independent peer review and will be modified to address any issues identified by that peer review, and *provided further that* it can be demonstrated with reasonable certainty that the relative error of the modified IFQM's calibration for the groundwater management zone(s) in question for a reasonable base period is ±10%, or less, when compared with existing groundwater data. The Parties that intend to use the IFQM agree that they will fund any and all enhancements that may be needed to develop the IFQM and to use it for modeling purposes. The Task Force shall have no obligation to contribute to such efforts.

4. *Use of Modeling and Reporting by a Maximum Benefit Programs*

Any Party that has entered into an agreement with the Regional Board to implement a Maximum Benefit Program shall be exempt from the reporting requirements of paragraph 4 of the Cooperative Agreement so long as they are subject to the reporting requirements of their Maximum Benefit Program.

5. *Use of Modeling and Reporting by the Task Force*

The Parties operating in groundwater basins that do not have a Maximum Benefit Program may contract with the Task Force (or a consultant retained by the Task Force) to satisfy the monitoring, reporting and modeling requirements of paragraph 4 of the Cooperative Agreement by means of the modeling and reporting efforts and schedule of the Task Force described in Recitals E and F above and the use of the IFQM (upon approval by the Parties) provided that: (i) the Party desiring to utilize the Task Force modeling is a member in good standing of the Task Force, and (ii) the modeling prepared by the Task Force meets the requirements of this First Amendment and the Cooperative Agreement.

6. *Monitoring and Modeling Schedule for Recharge Using SWP Water*

The monitoring and reporting requirement established by paragraph 4 of the Cooperative Agreement is hereby modified to require the Parties using water imported solely from the SWP for recharge to submit reports every five years, beginning on July 18, 2021. The modeling projection requirement established by paragraph 4.c of the Cooperative Agreement is hereby modified to require the twenty-year projections to be completed every ten years beginning on July 18, 2020. In the unlikely event that the concentrations of SWP increase such that they are greater than the Salinity Objectives set forth in the Basin Plan for the Santa Ana Region, the Parties in the management zones where SWP is the sole water used for recharged shall notify the Regional Board within 48 hours and shall revert back to and adhere to the monitoring, reporting, and modeling requirements in the Cooperative Agreement as contained in the Cooperative Agreement prior to this First Amendment.

7. Monitoring and Reporting Requirement for Agency Accounting for Blending of Imported Water

In the case where a recharging agency desires to account for blending imported water with other sources of recharge water such that the blend of imported water and other recharge sources results in concentrations that are better than the Salinity Objectives set forth in the Basin Plan, the monitoring and reporting requirement established by paragraph 4 of the Cooperative Agreement is hereby modified to require the Parties using such blended water for recharge to submit reports every five years, beginning on July 18, 2021. The modeling projection requirement established by paragraph 4.c of the Cooperative Agreement is hereby modified to require the twenty-year projections to be completed every ten years beginning on July 18, 2020. the recharging agency shall monitor and report the water quality of the imported water and the

other sources of recharge water that are relied upon for blending. The Parties using such blended water for recharge shall notify the Regional Board if the blended water concentrations exceed Salinity Objectives set forth in the Basin Plan for the Santa Ana Region within 48 hours and shall immediately discontinue use of the blended water for recharge, unless the Recharging Party implements an offset program approved by the Regional Board.

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD

BY: _____
Title:

APPROVED AS TO FORM:

By: _____

CITY OF CORONA

BY: _____
Title:

APPROVED AS TO FORM:

By: _____

CITY OF RIVERSIDE

BY: _____
Title:

APPROVED AS TO FORM:

By: _____

EASTERN MUNICIPAL WATER DISTRICT

BY: _____
Title:

APPROVED AS TO FORM:

By: _____

ELSINORE VALLEY MUNICIPAL WATER DISTRICT

BY: _____
Title:

APPROVED AS TO FORM:

By: _____

ORANGE COUNTY WATER DISTRICT

BY: _____
Title:

APPROVED AS TO FORM:

By: _____

SAN BERNARDINO VALLEY
MUNICIPAL WATER DISTRICT

BY: _____
Title:

APPROVED AS TO FORM:

By: _____

SAN GORGONIO PASS
WATER AGENCY

BY: _____
Title:

APPROVED AS TO FORM:

By: _____

WESTERN MUNICIPAL
WATER DISTRICT

BY: _____
Title:

APPROVED AS TO FORM:

By: _____

CITY OF SAN BERNARDINO
Mmunicipal WATER DEPARTMENT

BY: _____
Title:

APPROVED AS TO FORM:

By: _____