

PROPOSED TEXT OF REGULATION

Title 23. Waters

Division 3. State Water Resources Control Board and Regional Water Quality Control Boards

Chapter 3.5. Urban Water Use Efficiency and Conservation

Article 1. Urban Water Use Efficiency Standards, Objectives, and Performance Measures

Adopt new section 965:

§ 965. Definitions

Definitions used in this Article:

- (a) “Agricultural use” means “agricultural use” as defined in Government Code section 51201 (b), including irrigation of land, irrigation within green houses, frost protection, and heat control. Agricultural use does not include cleaning, processing, or other similar post-harvest activities.
- (b) “Animal type-classes” (T) means major categories of animal types based on similar water use and animal weight.
- (c) “Annual precipitation” means total annual precipitation, in inches per year. Annual precipitation will be updated annually by the Department and derived from Parameter-elevation Regressions on Independent Slopes Model data.
- (d) “Augmented Surface Water Reservoir” or “Augmented Reservoir” has the same meaning as “reservoir water augmentation” in section 13561 of the Water Code.
- (e) “Augmented Groundwater Basin” or “Augmented Basin” has the same meaning as indirect potable reuse or groundwater recharge in section 13561 of the Water Code.
- (f) “Board” means the State Water Resources Control Board.
- (g) “Budget” means the calculated efficient volume of water for a discrete category of water use associated with efficiency standards, variances, or provisions.
- (h) “California Simulation of Evapotranspiration of Applied Water” (Cal-SIMETAW) is a tool developed by the Department and the University of California, Davis to perform daily water balance and determine crop evapotranspiration, evaporation of applied water, and applied water for use in California water resources planning.
- (i) “Climate zones” means the California Energy Code climate zones as defined by zip code and listed in California Energy Commission Reference Joint Appendix JA2 (Title 24, Part 6, Section 100.1). There are 16 climate zones of California with established weather data.
- (j) “Climate-ready landscapes” are designed and maintained to reduce greenhouse gas emissions and weather more extreme conditions; they save water, reduce waste, nurture soil, sequester carbon, conserve energy, reduce urban heat, protect air and water quality, and create habitat for native plants and pollinators.
- (k) “Collaboration and Coordination best management practices” means formalized operational and institutional arrangements, such as cooperative agreements, with other entities to streamline requirements, data collection, or implementation of best management practices by coordinating with necessary entities.

- (l) “Commercial, industrial, and institutional” (CII) means all indoor and outdoor water used by all commercial water users, industrial water users, and institutional water users as respectively defined in Water Code section 10608.12 (e), (i) and (j). CII water use includes landscape water used for parks, medians, and other outdoor areas associated with CII.
- (m) “Common interest development” has the same meaning as in section 4100 of the Civil Code.
- (n) “Community service organization or similar entity” has the same meaning as in section 4110 of the Civil Code.
- (o) “Crop-specific landscape area” means residential agricultural landscapes disaggregated by each crop or crop-type grown within the supplier’s service area.
- (p) “Customer” has the same meaning as in section 10611.3 of the Water Code.
- (q) “Dedicated Irrigated Meter” (DIM) means a water meter that is operated and maintained by the supplier that exclusively measures the water a customer uses for irrigation.
- (r) “Department” means the Department of Water Resources.
- (s) “Direct Potable Reuse” (DPR) has the same meaning as in section 13561 of the Water Code. DPR does not require an environmental buffer.
- (t) “Disclosable Building” has the same meaning as in section 1681 in California Code of Regulations, title 20.
- (u) “Effective precipitation” (P_{eff}) means modeled effective precipitation or 25% of total precipitation, whichever is smaller, in inches per year. Modeled effective precipitation will be updated annually by the Department and derived from the Department’s Cal-SIMETAW model using Spatial CIMIS data. Total precipitation will be updated annually and derived from Parameter-elevation Relationships on Independent Slopes Model data.
- (v) “ENERGY STAR Portfolio Manager” means the tool developed and maintained by the United States Environmental Protection Agency to track and assess building performance.
- (w) “ENERGY STAR Portfolio Manager broad categories” means a superset of property types based on sector.
- (x) “ENERGY STAR Portfolio Manager property types” means a subgroup of ENERGY STAR Portfolio Manager broad categories.
- (y) “Equivalent Technologies” are technologies that are functionally equivalent to Dedicated Irrigation Meters in terms of accuracy and supplier data accessibility.
- (z) “High levels of TDS” means concentrations of Total Dissolved Solids above 900 mg/L.
- (aa) “Homeowners’ association” means an “association” as defined in section 4080 of the Civil Code.
- (bb) “Indirect Potable Reuse” (IPR) includes “Indirect potable reuse for groundwater recharge” and “reservoir water augmentation” as defined in section 13561 of the Water Code. IPR requires an environmental buffer, including a river, lake, reservoir, or a groundwater aquifer that is used as a source drinking water.
- (cc) “Irrigable Irrigated Area” is residential area of healthy vegetation where the vegetation appears to be in growth, not senesced, and is foliated. The area is presumed to be maintained and managed through active irrigation, comprising an irrigated hydro-zone. Non-vegetative features may be included.

- (dd) “Irrigable Not Irrigated Area” is residential area that is not currently being irrigated, but was irrigated in the past, or may be managed with irrigation in the future.
- (ee) “In-Lieu Technologies” are technologies that improve landscape water use efficiency by means other than the direct measure of water use. They include but are not limited to best management practices, audits, efficient irrigation devices, or irrigation budgets.
- (ff) “ LA_{crop} ” means the landscape area for a crop grown on residential landscapes included in the Department’s agricultural land mask and associated with an account the supplier categorizes as residential, in square feet.
- (gg) “Landscape efficiency factor” (LEF) means a factor applied at the supplier-level that adjusts net reference evapotranspiration for plant factors and irrigation efficiency, two major influences upon the amount of water that needs to be applied to the landscape.
- (hh) “Large landscapes” are landscapes known or estimated to individually use 500,000 or more gallons of water per year.
- (ii) “Livestock” has the same meaning as in section 3080 of the Civil Code.
- (jj) “Low-impact development” means new development or redevelopment projects that employ natural and constructed features that reduce the rate of stormwater runoff, filter out pollutants, facilitate stormwater storage onsite, infiltrate stormwater into the ground to replenish groundwater supplies, or improve the quality of receiving groundwater and surface water.
- (kk) “Mixed-Use Meter” means a water meter that is operated and maintained by the supplier and that measures the volume of water a customer uses indoors and outdoors.
- (ll) “Net reference evapotranspiration” or “Net ET_o ” is the difference between reference evapotranspiration and effective precipitation, in inches per year.
- (mm) “Net ET_o_{crop} ” means the net reference evapotranspiration for a supplier’s service area growing season, in inches per year.
- (nn) “Newly constructed residential landscapes” (RLA_{new}) means landscapes considered “new construction” pursuant to section 491, that were added to a supplier’s service area after the time period captured by the residential landscape data provided by the Department to the Board on October 3, 2022, or any subsequent update to the supplier’s residential landscape area by the Department.
- (oo) “Non-functional turf” means turf that is solely ornamental and not regularly used for human recreational purposes or for civic or community events. Non-functional turf does not include sports fields and turf that is regularly used for human recreational purposes or for civic or community events.
- (pp) Owner’s Agent means a person with authorization from a building owner to act on behalf of the building owner.
- (qq) “Plant factor” has the same meaning as in section 491.
- (rr) “Potable Reuse Water” includes water produced through both direct potable reuse and indirect potable reuse systems.
- (ss) “Potable Reuse Volume” (V_{PR}) is defined as the individual supplier’s volume of potable reuse water in acre-feet.

- (tt) "Potable Deliveries" (D_{RLI}) means the total potable volumes delivered to both residential properties and landscape irrigation, as reported to the Board pursuant to Health and Safety Code section 116530, in acre-feet.
- (uu) "Process water" has the same meaning as in section 10608.12 of the water code.
- (vv) "Reference evapotranspiration" or " ET_0 " has the same meaning as in section 491 and is expressed in inches per year. Reference evapotranspiration will be updated annually by the Department and derived from the Cal-SIMETAW model using Spatial CIMIS data.
- (ww) "Residential agricultural landscapes" means land on which agricultural use is occurring, that was included in the Department's agricultural land mask and that is associated with a service connection the supplier categorizes as residential, in square feet.
- (xx) "Residential landscape area" (RLA) means residential Irrigable Irrigated area plus approved Irrigable Not Irrigated area, in square feet.
- (yy) "Residential special landscape area" (RSLA) means residential areas dedicated solely to edible plants and residential areas irrigated with recycled water, in square feet.
- (zz) "Service area population" (P) means the service area population reported to the Board as "residential" pursuant to Health and Safety Code section 116530, less any population identified as "transient."
- (aaa) "Service Connection" (C) has the same meaning as in Health and Safety Code section 116275.
- (bbb) "Spatial California Irrigation Management Information System" (Spatial CIMIS) is a Department model that combines weather station data and remotely sensed satellite data to provide reference evapotranspiration information at a 2-km grid.
- (ccc) "Temporary provision" means an additional volume of water that an urban retail water supplier may request to add to its urban water use objective for a limited time for a specified beneficial use that will require less water over time.
- (ddd) "Turf" has the same meaning as in section 491.
- (eee) "Total potable water production" (T_{PW}) means all potable water that enters into a water supplier's distribution system, excluding water placed into storage and not withdrawn for use during the reporting period and excluding water exported outside the supplier's service area during the reporting period, as reported to the Board pursuant to Health and Safety Code section 116530. Total potable water production includes all non-revenue water, which has the same meaning as in section 638.1 and is equal to the sum of the supplier's unbilled authorized consumption and apparent and real losses.
- (fff) "Urban retail water supplier" or "supplier," for purposes of this article, has the same meaning as in section 980.
- (ggg) "Urban water use objective" (WUO) means an estimate of aggregate efficient water use for the previous year based on adopted water use efficiency standards and local service area characteristics for that year, as described in Water Code section 10609.20 and as calculated pursuant to section 966 (d).
- (hhh) "Variance" means an additional volume of water that an urban retail water supplier may request to add to its urban water use objective for a unique use that

has a material effect on an urban retail water supplier's urban water use objective.

Authority: Sections 1058, 10609.2, and 10609.10, Water Code.

References: Article X, Section 2, California Constitution; Sections 3080, 4080, 4100, and 4100, Civil Code; Section 51201, Government Code; Section 116275, Health and Safety Code; Sections 102, 104, 105, 350, 1122, 1123, 1124, 1846, 1846.5, 10608.12, 10609.2, 10609.10, 10609.20, 10611.3, and 13561, Water Code.

Adopt new section 966:

§ 966. Urban Water Use Objectives

- (a) Each urban retail water supplier shall calculate and comply with its urban water use objective no later than January 1, 2025, and by January 1 every year thereafter.
- (b) The calculation shall be based on the supplier's water use conditions for the previous state fiscal year.
- (c) The objective shall be composed of the sum of the following budgets:
 - (1) A budget for efficient indoor residential water use (R_{indoor}) as described in section 967.
 - (2) A budget for efficient outdoor residential water use ($R_{outdoor}$) as described in section 968.
 - (3) A budget for efficient water use on commercial, industrial, and institutional landscapes with dedicated irrigation meters or equivalent technology (CII_{DIM}) as described in section 969.
 - (4) A budget for efficient real water losses (L) as described in section 970.
 - (5) Budgets for any approved variances (V) and temporary provisions (Pr) as described in sections 967, 968, and 969.
 - (6) A bonus incentive for potable reuse (B_{PR}) as described in section 971.
- (d) The formula for calculating a supplier's urban water use objective (WUO), in gallons, is expressed mathematically as follows:

$$WUO = R_{indoor} + R_{outdoor} + CII_{DIM} + L + V + Pr + B_{PR}$$

- (e) If any system owned and operated by a supplier is lacking the data needed to calculate the budgets described in subdivision (c)(1) through (4), that system shall be excluded from the overall objective calculation until the requisite data is obtained. The requisite data must be obtained no later than July 1, 2028, for use in the 2030 reporting year.
- (f) For systems that do not meet the criteria to be considered an urban retail water supplier until after the effective date of this section, and for a system that hydraulically consolidates with a supplier, this section applies beginning five (5) years after the system meets the criteria to be considered a supplier or consolidates with a supplier.
- (g) Compliance with this section shall be assessed on the overall objective, not the individual budgets identified in subdivision (c), except for water loss, in which shall also be assessed individually pursuant to section 981.
- (h) If a supplier's calculated objective-based total use is larger than its target-based total use, the supplier's urban water use objective shall be its section 10608.20 target less excluded demands as described in paragraph (3). If the supplier's 10608.20 target is expressed in gallons per capita daily, the supplier shall multiply the target by its service area population for the reporting year and the number of days in the year.

(1) For purposes of this subdivision, objective-based total water use, in gallons, is the sum of excluded demands and the urban water use objective calculated pursuant to subsection (b).

(2) For purposes of this subdivision, target-based total water use, in gallons, is a supplier's 10608.20 target plus demands not included in the target. Demands not included in the 10608.20 target may include process water and recycled water.

(3) Excluded demands are those values provided by the supplier to the Board pursuant to Health and Safety Code 116530, for the following delivery categories: other; commercial and institutional; and industrial.

(i) Starting in 2035, a supplier meeting all the criteria in paragraphs (1) or (2) may, in calculating its budgets for efficient outdoor residential water use and for commercial, industrial, and institutional landscapes with dedicated irrigation meters, apply the standards described in sections 968(a)(2) and 969(a)(2) through 2040.

(1) (A) The average median household income of the supplier's service area is less than or equal to 80 percent of the median household income of California.

(B) The urban water use objective calculated by the supplier pursuant to subsection (b) would result in an objective that is 80 percent or less of the supplier's actual urban water use, calculated in accordance with section 10609.22.

(C) The annual reports the supplier has submitted since 2030, pursuant to section 975, show that the supplier is making continued progress, reducing its actual urban water use by an average of no less than 2 percent per year.

(D) The supplier shows to the satisfaction of the board that it is unable to meet its urban water use objective because of the applicable outdoor standards identified in sections 968 and 969.

(2) (A) The urban water use objective calculated by the supplier pursuant to section 966 would result in an objective that is 80 percent or less of the supplier's actual urban water use, calculated in accordance with section 10609.22.

(B) The annual reports the supplier has submitted since 2030, pursuant to section 975, show that the supplier is making continued progress, reducing its actual urban water use by an average of no less than 2 percent per year.

(C) The supplier verifies compliance with requirements of the G480 Water Conservation and Efficiency Program Operation and Management Standard established by the American Water Works Association.

(D) The supplier verifies compliance with the Standards for Tree City USA Recognition.

(E) The supplier manages a program dedicated to the creation and maintenance of climate-ready landscapes across its service area. Program elements shall include but are not limited to:

(i) The supplier verifies annual conversion of no less than 0.1 percent of turf area into climate-ready landscapes.

(ii) The supplier verifies use of a recognized, verifiable rating system, such as the ReScape Rated Landscape Scorecard or the Sustainable SITES Initiative, to assure its program is supporting climate-ready landscapes.

(iii) The supplier verifies creation of or participation in regional and local partnerships dedicated to the installation and maintenance of climate-ready landscapes.

(iv) The supplier provides dedicated funding for the creation and maintenance of climate-ready landscapes, with a minimum of 40 percent of program funds dedicated to low-income households and disadvantaged communities within the supplier's service area.

(v) The supplier dedicates no less than one full-time staff person to the creation and maintenance of climate-ready landscapes.

(F)The supplier shows to the satisfaction of the board that it is unable to meet the objective pursuant to section 966 because of the applicable outdoor standards identified in sections 968 and 969.

Authority: Sections 1058, 10609.2, and 10609.20, Water Code.

References: Article X, Section 2, California Constitution; Section 3080, Civil Code; Section 51201, Government Code; Sections 102, 104, 105, 350, 1122, 1123, 1124, 1846, 1846.5, 10608.12, 10608.20, 10609.2, 10609.10, 10609.12, and 10609.27, Water Code.

Adopt new section 967:

§ 967. Indoor Residential Water Use Standard

(a) (1) Each year, a supplier shall calculate its budget for residential indoor water use (R_{indoor}), in gallons, by multiplying the applicable standard (S_{indoor}) described in Water Code section 10609.4, subdivision (a) by the supplier's service area population (P), and by the number of days in the year. This formula is expressed mathematically as follows:

$$R_{\text{indoor}} = S_{\text{indoor}} \times P \times \text{days of year}$$

(2) For any reporting year that includes more than one standard, each applicable standard shall be multiplied by the number of days for which the standard applies pursuant to Water Code section 10609.4 that occur in the reporting period.

(b)(1) An urban retail water supplier may, in calculating its urban water use objective, include budgets for variances identified in paragraph (2) for residential indoor use, if:
(A) The supplier submits supporting information meeting the criteria described in subdivision (e); and

(B) The associated water use, for any individual variance, represents 5% or more of the sum of the budgets associated with the standards described in section 966 (c)(1) through (4).

(2) Variances may be requested annually for:

(A) Significant use of evaporative coolers

(B) Significant fluctuations in seasonal population

(c) Variances available pursuant to subdivision (b) shall be calculated as follows:

(1) A variance for water use associated with evaporative coolers (V_{EC}) represents the volume of water evaporative coolers used on operating days. Operating days (N_{DAYS}) are days when the average temperature in the supplier's service area was greater than 78 degrees Fahrenheit for at least one hour. V_{EC} shall be calculated by multiplying the number of evaporative coolers in the service area (N_{EC}) by the number of operating days

(N_{DAYS}), the average daily evaporative cooler operating hours (H_o), and the average daily evaporative rate (R_{EC}). This formula is expressed mathematically follows:

$$V_{EC} = N_{EC} \times N_{DAYS} \times H_o \times R_{EC}$$

(A) The number of evaporative coolers in the service area (N_{EC}) may be estimated based on a sample meeting the criteria specified in paragraph (D).

(B) The evaporative cooler operating hours (H_o) may be a daily average based on a sample meeting the criteria specified in paragraph (D). A supplier shall use the service area average operating hours or the daily maximum operating hours, whichever is lower.

(i) The service area wide average operating hours shall equal the average of all operating hours based on the sample.

(ii) The service area daily maximum operating hours shall equal the number of hours in a day when the temperature was above 78 degrees F within the supplier's service area.

(C) The evaporative cooler evaporation rate (R_{EC}) may be a daily average based on a sample meeting the criteria specified in paragraph (D). R_{EC} shall be calculated by multiplying the average air exchange rate (in gallons per hour) of the evaporative cooler units within the supplier's service areas (CFM), in cubic feet per minute, by the average daily difference in hourly wet and dry bulb temperatures (ΔT_{Bulb}), and by a representative efficiency rate of 80%. The product shall be divided by 8700, a factor used to convert British thermal units (BTU) to gallons of water. This formula is expressed mathematically follows:

$$R_{EC} = \frac{CFM \times \Delta T_{Bulb} \times 0.8}{8700}$$

(i) The average air exchange rate of the evaporative cooler units within the supplier's service areas (CFM) and the average daily difference in hourly wet and dry bulb temperatures (ΔT_{Bulb}) shall be calculated according to the Department's Methods for Estimating Residential Cooler Water Consumption and Prevalence using Account-Level Water and Energy Consumption Data dated April 15, 2022, or an alternative method that the supplier has demonstrated to the Department and the Board to be equivalent, or superior, in quality and accuracy.

(D) For the purposes of this section, the sample must represent at least 10,000, or ten percent of residential connections, whichever is smaller.

(2) A variance for water use associated with fluctuations in seasonal population (V_{SP}) shall be calculated by multiplying the number of dwelling units associated with seasonal occupancy (N_{DU}) by the occupancy rate (R_o) and by the residential indoor use standard for the given time period (S_{indoor}). This formula is expressed mathematically as follows:

$$V_{SP} = N_{DU} \times R_o \times S_{indoor}$$

(A) The number of dwelling units associated with seasonal occupancy (N_{DU}) shall be calculated according to the Department's Methods for Estimating Seasonal Populations

with Water and Energy Data or an alternative method that the supplier has demonstrated to the Department and Board to be equivalent, or superior, in quality and accuracy.

(B) The occupancy rate (R_O) shall be calculated by dividing the average number of seasonally occupied rooms (R_S) by the average number of rooms occupied by permanent residents (R_P) and multiplying the quotient by the average number of people per permanently occupied household (H_P) and the average number of days households are seasonally occupied (S_{DAYS}). This formula is expressed mathematically as follows:

$$R_O = \frac{R_S}{R_P} \times H_P \times S_{DAYS}$$

(i) The average number of days households are seasonally occupied (S_{DAYS}) shall be calculated according to the Department's Methods for Estimating Seasonal Populations with Water and Energy Data dated June 22, 2022, or an alternative method that the supplier has demonstrated to the Board and the Department to be equivalent, or superior, in quality and accuracy.

(C) Notwithstanding subdivision (b)(1)(B), a supplier is eligible for the variance for water use associated with fluctuations in seasonal populations if the supplier uses detailed daily or hourly AMI data to effectively identify dwelling units with seasonal population and the associated water use represents one percent or more of the sum of the budgets associated with the standards described in section 966 (c)(1) through (4). If the supplier uses detailed daily or hourly AMI data, then the occupancy rate (R_O) shall be calculated by multiplying the water used by seasonally occupied homes (W_{SO}) by the supplier's service area population (P) and dividing the product by the water used for permanently occupied homes (W_{PO}). The quotient shall be multiplied by the average number of days households are seasonally occupied (S_{DAYS}). This formula is expressed mathematically as follows:

$$R_O = \left(\frac{W_{SO} \times P}{W_{PO}} \right) \times S_{DAYS}$$

(i) The average number of days households are seasonally occupied (S_{DAYS}) shall be calculated according to the Department's Methods for Estimating Seasonal Populations with Water and Energy Data dated June 22, 2022, or an alternative method that the supplier has demonstrated to the Board and the Department to be equivalent, or superior, in quality and accuracy.

(d) An urban retail water supplier may request a temporary provision to respond to negative impacts to wastewater collection, treatment, and reuse systems, if the supplier shows to the satisfaction of the Board that meeting the objective pursuant to section 966 would require adhering to the applicable residential indoor standard identified in Water Code section 10609.4 and that meeting the budget for efficient residential indoor use is causing challenges within wastewater collection, treatment, and reuse systems.

(e) In order to receive approval for a variance or a temporary provision for a given reporting year, an urban retail water supplier must submit to the Board, by October 1, for review and approval by the Executive Director, or the Executive Director's designee, a request that includes the following components:

(1) Information showing how the request is warranted and protects beneficial water uses, shown by quantifying and substantiating each request; demonstrating that the water applicable to the request is water delivered by the supplier; and verifying that the approval of the request would not jeopardize the ability of a permittee within the supplier's service area to comply with existing permit requirements.

(2) If the request is denied, the volume of water associated with the variance or provision shall not be included in the objective.

Authority: Sections 1058, 10609.2, and 10609.20, Water Code.

References: Article X, Section 2, California Constitution; Section 51201, Government Code; Sections 102, 104, 105, 350, 1122, 1123, 1124, 1846, 1846.5, 10608.12, 10609.2, 10609.4, and 10609.10, Water Code.

Adopt new section 968:

§ 968. Outdoor Residential Water Use Standard

(a) (1) Through June 30, 2030, the standard for efficient residential outdoor use (S_{outdoor}) shall be a landscape efficiency factor of 0.80.

(2) Beginning July 1, 2030, and through June 30, 2035, the standard for efficient residential outdoor use shall be a landscape efficiency factor of 0.63.

(3) Beginning July 1, 2035, the standard for efficient residential outdoor use shall be a landscape efficiency factor of 0.55.

(4) The standard for efficient residential outdoor use for residential special landscape areas shall be a landscape efficiency factor of 1.0.

(5) The standard for newly constructed residential landscapes (S_{new}) shall be the same factor as identified in section 492.4 for residential areas.

(b) (1) Each year, an urban retail water supplier shall calculate its budget for efficient residential outdoor water use (R_{outdoor}), in gallons, by multiplying the applicable standard (S_{outdoor}) described in subdivision (a) by the square footage of residential landscape area (RLA) as described in subdivision (b)(2), net reference evapotranspiration (Net ET_0), and a unit conversion factor of 0.62. This formula is expressed mathematically as follows:

$$R_{\text{outdoor}} = S_{\text{outdoor}} \times \text{RLA} \times \text{Net } ET_0 \times 0.62$$

(2) Residential landscape area includes, for each supplier:

(A) The supplier's unique square footage of Irrigable Irrigated area provided by the Department to the Board on October 3, 2022, or any updates thereafter, minus any landscape area that the Department categorizes as residential but that the supplier categorizes as CII.

(B) Through June 30, 2027, a supplier may include in its residential landscape area up to twenty percent of the supplier's unique square footage of Irrigable Not Irrigated area

provided by the Department to the Board on October 3, 2022, if the supplier's actual urban water use for the reporting year, calculated in accordance with section 10609.22, is greater than the urban water use objective calculated pursuant to section 966 without inclusion of Irrigable Not Irrigated area.

(3) A supplier may, for each reporting year, use an alternative data source for reference evapotranspiration, effective precipitation, or its residential landscape area described in subdivision (b)(2), if it demonstrates to the Department and Board that the data is equivalent, or superior, in quality and accuracy to the data provided by the Department. Alternative data pursuant to this paragraph shall be reported pursuant to section 975.

(c) (1) Notwithstanding subdivision (b)(1), if an urban retail water supplier delivers water to residential special landscape areas, the supplier may calculate its budget for efficient residential outdoor use pursuant to this paragraph. Accounting for residential special landscape areas, the supplier may calculate its residential outdoor water use budget (R_{outdoor}), in gallons, by subtracting the square footage of residential special landscape areas (RSLA) from the square footage of residential landscape area (RLA) as defined in subdivision (b)(2) and multiplying the result by the applicable standard (S_{outdoor}) described in subdivision (a); then, by adding that value to the product of the standard for residential special landscape areas (S_{RSLA}) as described in subdivision (a)(4) and the square footage of residential special landscape areas (RSLA); and lastly, by multiplying that sum by net reference evapotranspiration (Net ET_0) and a unit conversion factor of 0.62. This formula is expressed mathematically as follows:

$$R_{\text{outdoor}} = (S_{\text{outdoor}} \times (\text{RLA} - \text{RSLA}) + S_{\text{RSLA}} \times \text{RSLA}) \times \text{Net ET}_0 \times 0.62$$

(2) In order to calculate a residential outdoor budget pursuant to this subdivision, a supplier may include residential special landscape areas only if the supplier submits supporting information meeting the criteria described in subdivision (i).

(d) (1) An urban retail water supplier may add to its residential outdoor budget calculated pursuant to (b)(1) or (c)(1) the volume of water associated with newly constructed residential landscapes. The budget for residential outdoor water use associated with newly constructed residential landscapes ($R_{\text{outdoor, new}}$), in gallons, is calculated by multiplying the standard (S_{new}) described in subdivision (a)(5) by the square footage of the supplier's newly added residential landscape area (RLA_{new}) as described in subdivision (d)(2), net reference evapotranspiration (Net ET_0), and a unit conversion factor of 0.62. This formula is expressed mathematically as follows:

$$R_{\text{outdoor, new}} = S_{\text{new}} \times \text{RLA}_{\text{new}} \times \text{Net ET}_0 \times 0.62$$

(2) The existence of newly constructed residential landscape area shall be demonstrated by referencing annual reporting required by section 495(b)(6), provided the report has disaggregated newly constructed residential landscapes from the total landscape area reported.

(e)(1) An urban retail water supplier may annually, in calculating its urban water use objective, include budgets for variances for residential outdoor water use if:

- (A) the supplier submits supporting information meeting the criteria described in subdivision (i); and
- (B) the associated water use, for any individual variance identified in paragraph (2)(A) through (C), represents 5% or more of the sum of the budgets associated with the standards described in section 966 (c)(1) through (4); or
- (C) the associated water use for the variance identified in paragraph (2)(D) plus the variance identified in section 969 (e)(2)(A), or the associated water use for the variance identified in paragraph (2)(E) plus the variance identified in section 969 (e)(2)(B), represents 5% or more of the sum of the budgets associated with the standards described in section 966 (c)(1) through (4).

(2) Variances may be requested annually for:

- (A) populations of horses and other livestock
- (B) water for dust control on horse corrals or other animal exercise arenas
- (C) water for irrigating agricultural landscapes that are within residential areas but have not been classified as irrigable irrigated by the Department
- (D) water used to respond to emergency events, not including drought
- (E) water for landscapes irrigated with recycled water containing high levels of TDS
- (F) water to supplement ponds and lakes to sustain wildlife as required by existing regulations or local ordinances

(f) Variances available pursuant to subdivision (e) shall be calculated as follows:

(1) A variance for water use associated with horses and other livestock ($V_{livestock}$), shall be calculated as the sum of water allocations for each animal type-class (T). The water allocation for an animal type-class shall be calculated by multiplying the daily water use of the animal type-class (V_T), as specified in paragraphs (A) through (D), by the number of animals (N_T), by the average number of days per year where water is provided to the animal type (D_T). This formula is expressed mathematically as follows:

$$V_{livestock} = \sum_T (V_T \times N_T \times D_T)$$

- (A) For sheep, llama, donkey, swine, and other medium-sized livestock between 200 and 500 pounds, the daily water use shall be the lesser of 8 gallons of water per day per animal or the amount specified in section 697.
- (B) For cattle, bulls, and other livestock greater than 500 pounds, the daily water use shall be 11 gallons of water per day per animal.
- (C) For horses and mules, the daily water use shall be 13 gallons of water per day per animal.
- (D) For milking cows, the daily water use shall be 16 gallons of water per day per animal.

(2) A variance for water use associated with dust control on horse corrals or other animal exercise arenas (V_{corral}) shall be calculated by multiplying the square footage of corrals or other animal exercise arenas (A_{corral}) by the number of days per year the corrals or other animal exercise arenas may be watered (N_w) pursuant to paragraph (B), by 0.021 feet of water per water day, and then by 7.48 gallons per cubic foot. This formula is expressed mathematically as follows:

$$V_{\text{corral}} = A_{\text{corral}} \times N_w \times 0.021 \times 7.48$$

(A) The square footage of corrals or other animal exercise arenas in the supplier's service area (A_{corral}) shall be either (1) the value provided as a separate corral mask (areas that are clear of vegetation and surrounded by a fence, and that have soil texture that is different from soil outside the fence, in square feet) by the Department to the Board on October 3, 2022, or any updates thereafter, or (2) alternative data, if the supplier demonstrates to the Department and Board that the data are equivalent, or superior, in quality and accuracy to the data provided by the Department.

(B) The number of days per year corrals or other animal exercise arenas (N_w) may be watered shall vary based on climate zone as follows:

(i) For climate zones 1 through 5 and 7, corrals or other animal exercise arenas shall be watered no more than 2 days per week.

(ii) For climate zones 6, 8 through 10, 12, and 16, corrals or other animal exercise arenas shall be watered no more than 3 days per week.

(iii) For climate zones 11 and 13 through 15, corrals or other animal exercise arenas shall be watered no more than 4 days per week.

(vi) If a supplier's service area spans multiple climate zones, the supplier shall, for the purposes of calculating this variance, use the climate zone that covers the majority of the supplier's service area. A supplier may, upon a showing to the satisfaction of the Board, use the climate zone that covers the majority of the square footage of corrals or other animal exercise arenas within the supplier's service area.

(3) A variance for water used to irrigate residential agricultural landscapes (V_{Ag}) shall be calculated by multiplying a unit conversion factor of 0.62 by the values provided by the Department for the following parameters: the landscape efficiency factor (LEF_{Ag}) as described in paragraph (B), the square footage of residential agricultural landscapes (LA_{Ag}), and the net reference evapotranspiration for the aggregated growing seasons associated with the crops grown on residential agricultural landscapes ($\text{Net ET}_{\text{O Ag}}$). This formula is expressed mathematically as follows:

$$V_{\text{Ag}} = \text{LEF}_{\text{Ag}} \times \text{LA}_{\text{Ag}} \times \text{Net ET}_{\text{O Ag}} \times 0.62$$

(A) Notwithstanding subdivision (e)(1)(B), if a supplier is using crop-specific landscape area, then the supplier may, in calculating its residential outdoor budget, include a variance for water used to irrigate residential agricultural landscapes if the associated water use for this variance represents 1% or more of the sum of the budgets associated with the standards described in section 966 (c)(1) through (4). A supplier using crop-specific landscape area shall calculate a variance for water used to irrigate residential agricultural landscapes (V_{ag}) by multiplying the square footage of the landscape area used for each crop (LA_{crop}) by each crop's unique efficiency factor (EF_{crop}) described in paragraph (C), by the net reference evapotranspiration associated with each crop's growing season ($\text{Net ET}_{\text{O crop}}$), and by a unit conversion factor of 0.62; and then summing the products for each crop. This formula is expressed mathematically as follows:

$$V_{\text{Ag}} = \sum_{\text{crop}} \text{EF}_{\text{crop}} \times \text{LA}_{\text{crop}} \times \text{Net ET}_{\text{O crop}} \times 0.62$$

(B) The landscape efficiency factor for residential agricultural landscapes (LEF_{ag}) shall be the lesser of:

(i) 1.0, or

(ii) The annual factor, calculated using data provided by the Department, as the average regional crop coefficient divided by the average regional irrigation efficiency. The average regional crop coefficient for the reporting year will be based on the most recent Statewide Crop Mapping dataset developed by the Department and the most recent crop coefficients identified in the Food and Agriculture Paper 24 or Paper 56 or the University of California Cooperative Extension Leaflet #21427 or Leaflet #21428. The irrigation efficiency shall be based on the Application Efficiency: Hydrologic Region 2010 values developed by the UC Davis Water Management Research Group or a comparable tool.

(C) Each crop's unique efficiency factor (EF_{crop}) shall be the lesser of:

(i) 1.0, or

(ii) Each crop's unique efficiency factor (EF_{crop}), calculated as the crop coefficient divided by efficiency of the irrigation system associated with that specific crop in the supplier's service area. The crop coefficient values shall be the most recent crop coefficients identified in the Food and Agriculture Paper 24 or Paper 56 or the University of California Cooperative Extension Leaflet #21427 or Leaflet #21428. The irrigation efficiency shall be based on the Application Efficiency: Hydrologic Region 2010 values developed by the UC Davis Water Management Research Group, or comparable tool if the supplier demonstrates to the Department that the tool is equivalent, or superior, in quality and accuracy.

(4) A variance for water used to respond to a state or local emergency declared in accordance with Government Code section 8558(b) or (c), not including a drought, shall be equal to the volume of water used to respond to the emergency event.

(A) To be eligible for this variance, a supplier shall provide documentation including, but not limited to, a copy of the emergency declaration pursuant to Government Code section 8558(b) or (c), official evacuation orders, official incident reports, a document describing or map showing impacted residential parcels, and records of the total volume of water used as part of the emergency response efforts.

(B) This variance shall not include water reported to the Board supporting a variance for unexpected adverse conditions pursuant to section 985.

(5)(A) A variance for the volume of water associated with landscapes irrigated with recycled water containing high levels of TDS (V_{HTDS}) shall be calculated by multiplying the applicable landscape efficiency factor (LEF_A) described in paragraph (i) or(ii) by the square footage of the landscape area irrigated with recycled water containing high levels of TDS (LA_{HTDS}), by net reference evapotranspiration ($Net ET_0$), and by a unit conversion factor of 0.62. This formula is expressed mathematically as follows:

$$V_{HTDS} = LEF_A \times LA_{HTDS} \times Net ET_0 \times 0.62$$

(i) The landscape efficiency factor (LEF_A) for landscapes using recycled water with TDS concentrations between 900 and 1,600 milligrams per liter (mg/L) shall be calculated by multiplying 0.000371 by the difference of the TDS concentration, in mg/L, of the applied recycled water and 900. This formula is expressed mathematically as follows:

$$LEF_A = 0.000371 \times (\text{Concentration of recycled water} - 900)$$

(ii) The landscape efficiency factor (LEF_A) for landscapes using recycled water with concentrations of TDS equal to or above 1,600 mg/L shall be 0.26.

(B) Notwithstanding subdivision (e)(1)(C), a supplier may include a variance for water used to irrigate landscapes with recycled water containing high levels of TDS for which the sum of the associated water use calculated pursuant to this paragraph and section 969 (e)(2)(B) represent 1 percent or more of the sum of budgets described in section 966(c)(1) through (4), if the supplier is using detailed plant based leaching requirements. A supplier using detailed, plant based leaching requirements shall calculate a variance for water used to irrigate landscapes with recycled water containing high levels of TDS (V_{HTDS}) by subtracting one from the applicable landscape efficiency factor (LEF_B) described below and multiplying the difference by the square footage of the landscape area irrigated with recycled water containing high levels of TDS (LA_{HTDS}), net reference evapotranspiration ($Net\ ET_0$), and a unit conversion factor of 0.62. This formula is expressed mathematically as follows:

$$V_{HTDS} = (LEF_B - 1) \times LA_{HTDS} \times Net\ ET_0 \times 0.62$$

(i) The landscape efficiency factor (LEF_B) for recycled water applied via sprinkler systems shall be calculated by dividing the plant factor (PF) described in paragraph (iii) by the product of 0.75 and the difference of one minus the plants' leaching requirement (LR) described in paragraph (iv). This formula is expressed mathematically as follows:

$$LEF_B = \frac{PF}{0.75 \times (1 - LR)}$$

(ii) The landscape efficiency factor (LEF_B) for recycled water applied via drip irrigation systems shall be calculated by dividing the plant factor (PF) as described in paragraph (iii) by the product of 0.81 and the difference of one minus the plants' leaching requirement (LR) as described in paragraph (iv). This formula is expressed mathematically as follows:

$$LEF_B = \frac{PF}{0.81 \times (1 - LR)}$$

(iii) The plant factor shall be that of the lowest water-using plant that is present in at least 30% of the landscaped area.

(iv) The leaching requirement (LR) shall be equal to the salinity of the recycled water (EC_{iw}) divided by the product of 5 and the difference between the plant's salinity threshold (EC_e) and the salinity of the recycled water (EC_{iw}). EC_{iw} shall be capped at 1,600 mg/L for salinity concentrations exceeding 1,600 mg/L. This formula is expressed mathematically as follows:

$$LR = \frac{EC_{iw}}{5 \times (EC_e - EC_{iw})}$$

(C) Suppliers delivering recycled water with high levels of TDS for landscape irrigation shall only be eligible for the variance if the following conditions are met:

- (i) The recycled water is produced by a wastewater treatment plant or water recycling treatment plant permitted to produce recycled water pursuant to California Code of Regulations, title 22;
- (ii) The facility that produces the recycled water has completed annual volumetric reporting requirements consistent with the Water Quality Control Policy for Recycled Water;
- (iii) The application of the recycled water complies with all applicable waste discharge requirements;
- (iv) The application of the recycled water does not violate the terms of local any salt or nutrient management plan;
- (v) The application of the recycled water adheres to the Board's Anti-Degradation Policy, Board Resolution No. 68-16 or any update thereto.

(6) A supplier may include a variance for water use associated with ponds and lakes for sustaining wildlife, if the pond or lake is required to be maintained by regulation or local ordinance. A variance for water associated with ponds or lakes required to be maintained by regulation or local ordinance ($V_{wildlife}$) shall be calculated by multiplying 1.1 by the square footage of applicable ponds and lakes, by reference evapotranspiration less annual precipitation, and by a unit conversion factor of 0.62. This formula is expressed mathematically as follows:

$$V_{wildlife} = 1.1 \times \text{Ponds and Lakes Area} \times (\text{ET}_0 - \text{Annual Precipitation}) \times 0.62$$

(g)(1) An urban retail water supplier may, in calculating its annual urban water use objective, include budgets for temporary provisions for residential outdoor use if the supplier submits supporting information meeting the criteria described in subdivision (i).

- (2) Temporary provisions may be requested for:
 - (A) water for existing pools, spas, and similar water features
 - (B) water for the planting of new, climate-ready trees
 - (C) water for the establishment of qualifying landscapes

(h) Temporary provisions available pursuant to subdivision (g) shall be calculated as follows:

(1) A temporary provision for existing pools, spas and similar water features is available beginning January 1, 2035, until January 1, 2040. This provision (Pr_{pool}) shall be calculated by multiplying the square footage of existing pools, spas, and similar water features (A_{pool}), by 0.08, by net reference evapotranspiration ($Net\ ET_0$), and by a unit conversion factor of 0.62. This formula is expressed mathematically as follows:

$$Pr_{pool} = A_{pool} \times 0.08 \times Net\ ET_0 \times 0.62$$

The square footage of existing pools, spas, and similar water features (A_{pool}) shall be either (A) the value provided by the Department to the Board on October 3, 2022, or any updates thereafter, or (B) alternative data, if the supplier demonstrates to the Department and Board that the data are equivalent, or superior, in quality and accuracy to the data provided by the Department.

(2) A temporary provision for the volume of water associated with planting climate-ready trees (Pr_{trees}) shall be calculated by multiplying the number of newly planted climate-ready trees (N_{trees}) by 0.85, by net reference evapotranspiration ($Net\ ET_0$), and by a unit conversion factor of 0.62. This formula is expressed mathematically as follows:

$$Pr_{trees} = N_{trees} \times 0.85 \times Net\ ET_0 \times 0.62$$

(A) A climate-ready tree is a tree that is well-adapted to face both present and future climatic challenges such as heat, drought, extreme weather events, and pests within the supplier's service area. Each newly planted climate-ready tree is assumed to occupy 1.0 square foot.

(B) A temporary provision for the volume of water associated with planting climate-ready trees applies for three reporting periods, starting with the reporting period in which the trees were planted.

(3) A temporary provision for the volume of water associated with the establishment of qualifying landscapes (Pr_{land}) as described in paragraph (3)(A), shall be calculated by multiplying the square footage of the qualifying landscapes (LA_{land}) by 0.85, by net reference evapotranspiration ($Net\ ET_0$), and by a unit conversion factor of 0.62. This formula is expressed mathematically as follows:

$$Pr_{land} = LA_{land} \times 0.85 \times Net\ ET_0 \times 0.62$$

(A) Qualifying landscapes are those that require temporary irrigation and are associated with low-impact development, ecological restoration, and mined-land reclamation projects.

(B) A temporary provision for water for the establishment of qualifying landscapes applies for three reporting periods, starting with the reporting period in which irrigation of the qualifying landscape begins.

(i) In order to receive approval for either a variance, a temporary provision, or the inclusion of special landscape areas for a given reporting year, an urban retail water supplier must submit to the Board, by no later than October 1, for review and approval by the Executive Director, or the Executive Director's designee, a request that includes the following:

(1) Information quantifying and substantiating each request, including showing how it protects beneficial uses of water; demonstrating that the amount of water requested was delivered by the supplier for the requested use; and verifying that the approval of the request would not jeopardize the ability of a permittee within the supplier's service area to comply with existing permit requirements; and

(2) A description of efforts to prioritize water for existing trees, including, but not limited to rebate, direct install, and educational programs focused on transitioning from turf- to tree-centric irrigation systems that promote deep and healthy root growth. Tree-centric irrigation systems include but are not limited to soaker hoses, deep drip watering stakes, drip tubing, and emitters.

(3) If the request is denied, the volume of water associated with the variance, provision, or special landscape area shall not be included in the objective.

Authority: Sections 1058 and 10609.2, Water Code.

References: Article X, Section 2, California Constitution; Section 3080, Civil Code; Sections 8558 and 51201, Government Code; Sections 102, 104, 105, 350, 1122, 1123, 1124, 1846, 1846.5, 10608.12, 10609.2, and 10609.6, Water Code.

Adopt new section 969:

§ 969. Standard for outdoor irrigation of landscape areas with dedicated irrigation meters or equivalent technology in connection with commercial, industrial, and institutional (CII) water use.

(a) (1) Through June 30, 2028, an urban retail water supplier's budget for commercial, industrial, and institutional landscapes with dedicated irrigation meters (S_{DIM}) shall be the supplier's actual deliveries associated with landscape irrigation reported to the Board pursuant to Health and Safety Code section 116530.

(2) Beginning July 1, 2028, and through June 30, 2030, the standard for CII landscapes with DIMs (S_{DIM}) shall be a landscape efficiency factor of 0.80.

(3) Beginning July 1, 2030, and through June 30, 2035, the standard for CII landscapes with DIMs (S_{DIM}) shall be a landscape efficiency factor of 0.63.

(4) Beginning July 1, 2035, the standard for CII landscapes with DIMs (S_{DIM}) shall be a landscape efficiency factor of 0.45.

(5) For CII landscapes with DIMs that are special landscape areas, the standard ($S_{DIM\ SLA}$) shall be a landscape efficiency factor of 1.0. The $S_{DIM\ SLA}$ shall be applied to CII landscapes with DIMs that are special landscape areas as defined in section 491 as well as CII landscapes with DIMs that are any of the following:

(A) Slopes designed and constructed with live vegetation as an integral component of stability;

(B) Ponds or lakes receiving supplemental water for purposes of sustaining wildlife, recreation, or other public benefit, excluding water reported to the Board supporting a variance for ponds and lakes for sustaining wildlife required to be maintained by regulation or local ordinance;

(C) Plant collections, botanical gardens, and arboretums;

(D) Public swimming pools and similar recreational water features; and

(E) Cemeteries built before 2015.

(6) The standard for CII landscapes with DIMs that are newly constructed landscapes shall be the same factor as identified in section 492.4 for non-residential areas.

(b) (1) Beginning July 1, 2028, an urban retail water supplier shall calculate its budget for commercial, industrial, and institutional landscapes with dedicated irrigation meters (CII_{DIM}) by multiplying the applicable standard (S_{DIM}) described in subdivision (a) by the measured total square footage of the irrigated area of CII landscapes with DIMs ($DIM\ LA$), by net reference evapotranspiration ($Net\ ET_0$), and by a unit conversion factor of 0.62. This formula is expressed mathematically as follows:

$$CII_{DIM} = S_{DIM} \times DIM\ LA \times Net\ ET_0 \times 0.62$$

(2) No later than July 1, 2028, and periodically thereafter, a supplier shall quantify the measured total square footage of the irrigated area of CII landscapes with DIMs ($DIM\ LA$) and describe and substantiate how that area was quantified. Annual updates shall

include the square footage of large landscapes for which suppliers have installed DIMs in accordance with section 973.

(3) A supplier may, for each reporting year, use alternative data sources for reference evapotranspiration and effective precipitation if the supplier demonstrates to the Department and Board that the data is equivalent, or superior, in quality and accuracy to the data provided by the Department. The alternative data shall be reported pursuant to section 975.

(c) (1) Notwithstanding subdivision (b)(1), if an urban retail water supplier delivers water to commercial, industrial, and institutional landscapes with dedicated irrigation meters that are special landscape areas, the supplier may calculate its budget for CII landscapes with DIMs as follows: Subtract the square footage of CII landscapes with DIMs that are special landscape areas (DIM SLA) from the total area of CII landscapes with DIMs (DIM LA). Then multiply the result by the applicable standard for CII landscapes with DIMs (S_{DIM}) described in subdivision (a). Add that value to the product of the standard for CII landscapes with DIMs that are special landscape areas ($S_{DIM\ SLA}$) described in subdivision (a)(4) and the square footage of CII landscapes with DIM that are special landscape areas (DIM SLA). Then, multiply that sum by net reference evapotranspiration (Net ET_0) and by a unit conversion factor of 0.62. This formula is expressed mathematically as follows:

$$CII_{DIM} = ((S_{DIM} \times (DIM\ LA - DIM\ SLA)) + (S_{DIM\ SLA} \times DIM\ SLA)) \times Net\ ET_0 \times 0.62$$

(2) In order to calculate an outdoor budget for CII landscapes with DIMs pursuant to this subdivision, a supplier may include special landscape areas for CII landscapes with DIMs only if the supplier submits supporting information meeting the criteria described in section 968 (i).

(d) (1) An urban retail water supplier may add to its budget for commercial, industrial, and institutional landscapes with dedicated irrigation meters (CII_{DIM}) calculated pursuant to (b)(1) or (c)(1) the volume of water associated with CII landscapes with DIMs that are newly constructed landscapes. The budget for CII landscapes with DIMs that are newly constructed landscapes ($C_{DIM, new}$), in gallons, is calculated by multiplying the standard (S_{new}) described in subdivision (a)(6) by the square footage of CII landscapes with DIMs that are newly constructed landscapes ($DIM\ LA_{new}$), by net reference evapotranspiration (Net ET_0), and by a unit conversion factor of 0.62. This formula is expressed mathematically as follows:

$$CII_{DIM, new} = S_{new} \times DIM\ LA_{new} \times Net\ ET_0 \times 0.62$$

(2) The existence of CII landscapes with DIMs that are newly constructed landscapes shall be demonstrated by referencing annual reporting required by section 495(b)(6), provided the report has disaggregated CII landscapes with DIMs that are newly constructed landscapes from the total landscape area reported.

(e) (1) An urban retail water supplier may annually, in calculating its urban water use objective, include budgets for variances for water use on commercial, industrial, and institutional landscapes with dedicated irrigation meters, if the supplier submits supporting information meeting the criteria described in section 968 (i), and if the

associated water use for the variance represents 5% or more of the sum of the budgets associated with the standards described in section 966 (c)(1) through (4). For purposes of meeting this 5% threshold, the associated water use for the variance identified in paragraph (2)(A) may be added to the associated water use for the variance identified in section 968 (e)(2)(D), and the associated water use for the variance identified in paragraph (2)(B) may be added to the associated water use for the variance identified in section 968 (e)(2)(E).

(2) Variances may be requested annually for:

- (A) water used to respond to emergency events, not including drought
- (B) water for landscapes irrigated with recycled water containing high levels of TDS
- (C) water to supplement ponds and lakes to sustain wildlife as required by existing regulations or local ordinances

(f) Variances available pursuant to subdivision (e) shall be calculated as follows:

- (1) A variance for water used to respond to a state or local emergency, not including a drought, shall be calculated in the manner described in section 968(f)(4).
- (2) A variance for water used for landscapes irrigated with recycled water containing high levels of TDS shall be calculated in the manner described in section 968(f)(5).
- (3) A variance for water used to supplement ponds and lakes to sustain wildlife as required by existing regulations or local ordinances shall be calculated in the manner described in section 968(f)(6).

(g)(1) An urban retail water supplier may annually, in calculating its urban water use objective, include budgets for temporary provisions for water use on commercial, industrial, and institutional landscapes with dedicated irrigation meters if the supplier submits supporting information meeting the criteria described in section 968 (i).

(2) Temporary provisions may be requested for:

- (A) water for the planting of new, climate-ready trees
- (B) water for the establishment of qualifying landscapes, as defined in section 968(h)(3)(A)

(h) Temporary provisions available pursuant to subdivision (g) shall be calculated as follows:

- (1) A temporary provision for the planting of new, climate-ready trees shall be calculated in the manner described in section 968(h)(2).
- (2) A temporary provision for water used for the establishment of qualifying landscapes that require temporary irrigation shall be calculated in the manner described in section 968(h)(3).

Authority: Sections 1058 and 10609.2, Water Code.

References: Article X, Section 2, California Constitution; Section 51201, Government Code; Sections 102, 104, 105, 350, 1122, 1123, 1124, 1846, 1846.5, 10608.12, 10609.2, 10609.8, and 10609.9, Water Code.

Adopt new section 970:

§ 970. Water Loss Standard

(a) Suppliers shall calculate system-specific standards for real water loss pursuant to section 982.

(b) (1) Each year, suppliers that own and operate a single system shall calculate their water loss budget ($B_{\text{water loss}}$) by multiplying the applicable water loss standard ($S_{\text{water loss}}$) calculated pursuant to section 982 by the number of days in the year, and, depending on the units associated with the standard calculated pursuant to section 982, by either the number of total service connections (C) or the length of the distribution system, in miles (M). These formulas are expressed mathematically as follows:

$$B_{\text{water loss}} = S_{\text{water loss}} \times C \times \text{days in the year}$$

OR

$$B_{\text{water loss}} = S_{\text{water loss}} \times M \times \text{days in the year}$$

(2) Suppliers that own and operate multiple systems shall calculate an aggregate annual water loss budget ($SB_{\text{water loss}}$) as described in paragraph (1) for each system and then by summing the estimated efficient water loss budgets associated with each system. This formula is expressed mathematically as follows, with $B_{\text{water loss}(1)}$ referring to the first system, $B_{\text{water loss}(2)}$ referring to the second system, etc.:

$$SB_{\text{water loss}} = \sum_{\substack{i \text{ in the set of} \\ \text{all the systems} \\ \text{of the supplier}}} B_{\text{water loss for system } (i)}$$

(c) Prior to a supplier’s initial compliance deadline specified in section 981, the supplier’s water loss budget may, alternatively, be equal to its previous year’s real water losses reported in its annual water loss audit submitted to the Department pursuant to Water Code section 10608.34 (c).

Authority: Sections 1058 and 10609.2, Water Code.

References: Article X, Section 2, California Constitution; Sections 102, 104, 105, 350, 1122, 1123, 1124, 1846, 1846.5, 10608.12, 10608.34, 10609.2, and 10609.12, Water Code.

Adopt new section 971:

§ 971. Bonus Incentive

(a) If an urban retail water supplier delivers water from a groundwater basin, reservoir, or other source that is augmented by potable reuse water, the supplier may add to its objective a bonus incentive. The bonus incentive shall be calculated pursuant to subdivision (b), in accordance with one of the following:

(1) If the potable reuse water is produced at an existing facility as defined in Water Code section 10609.20(d)(4), the bonus incentive shall not exceed 15% of the sum of the budgets described in section 966(c)(1) through (5).

(2) For all other facilities producing potable reuse water, the bonus incentive shall not exceed 10% of the sum of the budgets described in section 966(c)(1) through (5).

(b) The bonus incentive shall be calculated by multiplying the urban retail water supplier's potable reuse volume (V_{PR}) in gallons, calculated in accordance with paragraph (1) or (2) or the sum of both depending on where the potable reuse water is obtained, by the portion of total potable water production (T_{PW}) delivered to residential and landscape irrigation connections (D_{RLI}) for the reporting year. This formula is expressed mathematically as follows:

$$\text{Bonus Incentive} = V_{PR} \times \frac{D_{RLI}}{T_{PW}}$$

(1) A supplier shall calculate the volume of potable reuse water obtained from a groundwater source (V_{PRG}) by dividing the product of the loss factor for groundwater recharge and recovery (LF_G) and the volume of potable recycled water recharging the groundwater basin (R) by total groundwater basin extractions (V_{BP}). The quotient is then multiplied by the supplier's groundwater basin extraction (V_G). The formula is expressed mathematically as follows:

$$V_{PRG} = \left(\frac{LF_G \times R}{V_{BP}} \right) \times V_G$$

The loss factor for groundwater recharge and recovery (LF_G) shall be calculated according to the Department's Recommendations for Bonus Incentive Methods of Calculation and Supporting Data Requirements, dated September 22, 2022, or an alternative method that the supplier has demonstrated to the Department and Board to be equivalent, or superior, in quality and accuracy.

(2) A supplier shall calculate the volume of potable reuse water obtained from an augmented reservoir source (V_{PRS}) by dividing the product of the loss factor for evaporation and seepage (LF_S) and the volume of potable recycled water augmenting the reservoir (A) by the total volume of water produced from the augmented reservoir (V_{SWP}). The quotient is then multiplied by the volume of water the supplier derives from the augmented reservoir (V_{SW}), in acre-feet. The formula is expressed mathematically as follows:

$$V_{PRS} = \left(\frac{LF_S \times A}{V_{SWP}} \right) \times V_{SW}$$

Authority: Sections 1058 and 10609.20, Water Code.

References: Article X, Section 2, California Constitution; Sections 102, 104, 105, 350, 1122, 1123, 1124, 1846, 1846.5, 10608.12, 10609.2, 10609.20, and 10609.21, Water Code.

Adopt new section 972:

§ 972. Performance Measures: Commercial, Industrial and Institutional classification system

- (a) Urban retail water suppliers shall annually classify commercial, industrial and institutional customers in accordance with Energy Star Portfolio Manager’s broad categories.
- (b) In addition to Energy Star Portfolio Manager’s broad categories, suppliers shall identify every CII customer associated with:
 - (1) CII laundries
 - (2) Large landscapes
 - (3) Water recreation
 - (4) Car wash. For every CII customer that operates a car wash in addition to its primary service and for which the car wash accounts for the majority of that customer’s water use, the supplier shall also identify the customer’s Energy Star Portfolio Manager property type.
- (c) Each supplier shall classify at least twenty percent of its CII customers by 2026, at least sixty percent by 2028, and one hundred percent by 2030. After 2030, the supplier shall maintain at least a 95% classification rate, as measured on an annual basis.

Authority: Sections 1058 and 10609.10, Water Code.

References: Article X, Section 2, California Constitution; Sections 102, 104, 105, 350, 1122, 1123, 1124, 1846, 1846.5, 10608.12, 10609.2, and 10609.10, Water Code.

Adopt new section 973:

§ 973. Threshold for converting Commercial, Industrial and Institutional landscapes with mixed meters to Dedicated Irrigation Meters-- or employing in-lieu water management technologies

- (a) Each urban retail water supplier shall identify all commercial, industrial, and institutional large landscapes that have mixed-use meters and shall either install dedicated irrigation meters or employ in-lieu water technologies for these large landscapes as follows:
 - (1) Suppliers shall employ for large landscapes that do not have DIMs at least two of the following efficient water use technologies:
 - (A) Water budget-based rate structures
 - (B) Water budget-based management program without a rate structure
 - (C) Hardware improvements with enhanced performance and functions, including but not limited to metering technologies that allow suppliers to identify outdoor water use, smart irrigation controllers and pressure-regulated sprinkler spray heads
 - (D) Remote Sensing
 - (E) Landscape plant palette transformation programs, including green infrastructure such as swales or rain gardens that both reduce wet-weather runoff as well as offset irrigation needs
 - (F) Other efficient water use technologies, with proof of improved water use efficiency pursuant to section 975(d)(2)(E)(iv)
 - (2) Suppliers shall employ the following water management practices for large landscapes that do not have DIMs:
 - (A) Communications
 - (B) Irrigation systems maintenance
 - (C) Irrigation scheduling

(b) (1) Urban retail water suppliers shall estimate the volume of water used on commercial, industrial, and institutional landscapes with mixed-use meters (CII_{MUM}) by multiplying the area of those landscapes (LA_{LL}) by net reference evapotranspiration ($Net\ ET_0$), by a Landscape Efficiency Factor of 0.76, and by a unit conversion factor of 0.62. This formula is expressed mathematically as follows:

$$CII_{MUM} = LA_{LL} \times Net\ ET_0 \times 0.76 \times 0.62$$

(2) For purposes of this section, the area of the landscapes (LA_{LL}) shall include only landscapes associated with CII that have mixed-use meters and shall be quantified and substantiated by the supplier using data generated by the Department.

(3) Notwithstanding paragraph (2), a supplier may use data that it has demonstrated to the Department and Board to be equivalent or superior in quality and accuracy.

(c) For commercial, industrial, and institutional large landscapes that have mixed-use meters, suppliers shall make annual progress in either installing dedicated irrigation meters or employing in-lieu water technologies for these large landscapes, with at least twenty percent compliance by 2026, at least sixty percent compliance by 2028, and one-hundred percent compliance by 2030. After 2030, the supplier shall ensure at least 95% of large landscapes either have a dedicated irrigation meter installed or are employing in-lieu water technologies, as assessed on an annual basis.

Authority: Sections 1058 and 10609.10, Water Code.

References: Article X, Section 2, California Constitution; Sections 102, 104, 105, 350, 1122, 1123, 1124, 1846, 1846.5, 10608.12, 10609.2, and 10609.10, Water Code.

Adopt new section 974:

§ 974. Commercial, Industrial and Institutional water use best management practices for customers that exceed a recommended size, volume of water use, or other threshold

(a) Each supplier shall identify all disclosable buildings in their service area by January 1, 2025.

(b)(1) For every customer for which the square footage of its building meets the definition of a disclosable building in section 1681 of the California Code of Regulations at title 20, a supplier shall complete the following:

(A) For each meter, the supplier shall deliver to the building owner or Owner's Agent the last four characters of the meter serial number serving the building.

(B) For each meter, the supplier shall identify, aggregate, and provide all water use data, in monthly intervals, for at least the previous calendar year, and all available data for the calendar year in which data is requested, by one of the following methods:

(i) Suppliers not using ENERGY STAR Portfolio Manager's Data Exchange Services shall send the data to the building owner or Owner's Agent using the template provided by ENERGY STAR Portfolio Manager.

(ii) Suppliers using ENERGY STAR Portfolio Manager's Data Exchange Services shall provide the data by direct upload to the building owner's or Owner's Agent's ENERGY STAR Portfolio Manager account, or, at the building owner's or Owner's Agent's request,

send the data to the building owner or Owner's Agent using the template provided by ENERGY STAR Portfolio Manager.

(2) Suppliers shall make annual progress in providing the information in paragraph (1) to the owners or Owner's Agents of disclosable buildings and shall provide the information for at least twenty percent of disclosable buildings by 2026, at least sixty percent by 2028, and one hundred percent by 2030.

(c) For those customers at or above the 80th percentile for water use in each of the classification categories described in section 972, excluding process water, each supplier shall, by January 1, 2025, design and implement a conservation program that includes at least one of the best management practices from each of paragraphs (1) through (5):

(1) Outreach, Technical Assistance, and Education best management practices.

- (A) Direct contacts via site visits or phone calls
- (B) Informative or educational bill inserts
- (C) Conducting workshop or developing training videos
- (D) Webpage portals to access information, tools, and rebates
- (E) Cost-effectiveness analysis tools
- (F) Commercials or advertisements
- (G) Grass roots marketing
- (H) Community based social marketing
- (I) Other CII-best management practices derived from additional innovation and technology advancement that can be taken by suppliers, subject to Board approval

(2) Incentive best management practices.

- (A) Rebates and cost-sharing for replacing inefficient fixtures, equipment, irrigation systems or landscapes with water efficient ones
- (B) Certification or branding programs that recognize customers as water efficient
- (C) Value-added programs that offer additional benefits
- (D) Other CII-best management practices derived from additional innovation and technology advancement that can be taken by suppliers, subject to Board approval

(3) Landscape best management practices.

- (A) Landscape and irrigation management practices to promote improved water use efficiency
- (B) Irrigation system inspection and maintenance
- (C) Irrigation scheduling training
- (D) New development landscape inspection, workshops, and training
- (E) Other CII-best management practices derived from additional innovation and technology advancement that can be taken by suppliers, subject to Board approval
- (F) Programs to remove turf and replace it with climate-ready vegetation
- (G) Programs to decrease urban heat and reduce turf water use by planting trees
- (H) Programs to install green infrastructure such as swales or rain gardens that both reduce wet-weather runoff as well as offset irrigation needs.

(4) Collaboration and coordination best management practices.

- (A) Coordination with "green" building certification or recognition programs to promote water use efficiency

- (B) Coordination with land use authorities to check new landscapes design and implementation
- (C) Collaboration with non-governmental organizations on outreach and education
- (D) Collaboration with municipal arborists and tree planting organizations to expand and maintain urban forests.
- (E) Collaboration with stormwater agencies to install green infrastructure such as swales or rain gardens that both reduce wet-weather runoff as well as offset irrigation needs.
- (F) Other CII-best management practices derived from additional innovation and technology advancement that can be taken by suppliers, subject to Board approval

(5) Operational best management practices.

- (A) Infrastructure changes (for example, smart meter replacement programs)
- (B) Billing or data collection procedures (for example, data tracking, analysis, and reporting improvements)
- (C) Other operational best management practices to facilitate CII- best management practices program implementation and evaluation
- (D) Other CII-best management practices derived from additional innovation and technology advancement that can be taken by suppliers, subject to Board approval

(d) For those commercial, industrial, and institutional customers that are at or above the 97.5th percentile for water use, excluding process water, each supplier shall, by January 1, 2025, design and implement a conservation program that includes at least two of the best management practices from each of paragraphs (1) through (5) in subdivision (c).

(e) (1) Each urban retail water supplier shall ban the irrigation of non-functional turf with potable water on all commercial, industrial, and institutional (CII) landscapes in its service area by July 1, 2025.

(2) Notwithstanding paragraph (1), a supplier is not required to ban the irrigation of non-functional turf on CII landscapes in its service area that is necessary to ensure the health of trees and other perennial non-turf plantings or that is necessary to address an immediate health and safety need.

(3) Notwithstanding paragraph (1), a supplier may approve a request for continued irrigation of non-functional turf where the user certifies that the turf is a low water use plant with a plant factor of 0.3 or less, and demonstrates the actual use is less than 40% of reference evapotranspiration.

(4) For purposes of this subdivision, CII landscapes include homeowners' associations, common interest developments, community service organizations, and other similar entities but do not include the residences of these entities' members or separate interests, as defined in section 4185 of the Civil Code.

(f) Suppliers shall make annual progress in meeting the requirements of subdivisions (c) and (d), with compliance of at least twenty percent by 2026, at least sixty percent by 2028, and one hundred percent by 2030. After 2030, the supplier shall ensure at least 95% compliance, as assessed on an annual basis.

Authority: Sections 1058 and 10609.10, Water Code.

References: Article X, Section 2, California Constitution; Section 4185, Civil Code; Sections 102, 104, 105, 350, 1122, 1123, 1124, 1846, 1846.5, 10608.12, 10609.2, and 10609.10, Water Code.

Adopt new section 975:

§ 975. Reporting

(a) Each urban retail water supplier shall submit to the Board, no later than January 1, 2024, and by January 1 every year thereafter, the report required by Water Code section 10609.24. The report shall reflect the conditions of the previous state fiscal year.

(b) No later than January 1, 2025, and by January 1 every year thereafter, each urban retail water supplier shall submit to the Board, on a form provided by the Board, the supplier's urban water use objective calculated pursuant to section 966 along with relevant and supporting data. Relevant and supporting data include:

(1) For the residential indoor water use budget described in section 967, the following parameters:

(A) The volume of water associated with the residential indoor budget (R_{indoor}) calculated pursuant to section 967.

(B) Service area population. The service area population shall be the annual value reported to the Board pursuant to Health and Safety code section 116530.

(C) If the supplier has requested and received approval to include in its objective a budget associated with the evaporative cooler variance pursuant to section 967(b)(2), the following information:

(i) The volume of water associated with the variance (V_{EC}) calculated pursuant to section 967(c)(1)

(ii) The number of evaporative coolers in the service area (N_{EC})

(iii) The average daily operating hours (H_{o})

(iv) The average daily evaporative rate (R_{EC})

(v) The number of operating days as described in section 967(c)(1)

(vi) Documentation verifying adherence to the method described in section 967(c)(1)(C)

(vii) Information about the sampling procedure used to estimate the parameters described in section 967(c)(1), including the number of households sampled and the total number of residential connections, as reported to the Board pursuant to Health and Safety Code section 116530.

(D) If the supplier has requested and received approval to include in its objective a budget associated with the seasonal population variance pursuant to section 967(b)(2), the following information:

(i) The volume of water associated with the variance (V_{SP}) calculated pursuant to section 967(c)(2)

(ii) The number of dwelling units associated with seasonal occupancy (N_{DU})

(iii) The occupancy rate (R_{o})

(iv) Documentation verifying adherence to the method described in section 967(c)(2)(B) or (C).

(2) For the residential outdoor water use budget described in section 968:

(A) The volume of water associated with the residential outdoor budget (R_{outdoor}) calculated pursuant to section 968.

(B) Annual reference evapotranspiration and effective precipitation data provided by the Department, or alternative reference evapotranspiration or effective precipitation data meeting the criteria specified in section 968(b)(3).

(C) Residential landscape area data provided by the Department, or alternative residential landscape area data meeting the criteria specified in section 968(b)(3).

(D) Any residential special landscape area measured by the supplier and meeting the criteria specified in section 968 (i). For residential special landscape areas irrigated with recycled water, the supplier shall additionally indicate:

(i) The volume of recycled water applied by source

(ii) Each source of recycled water, identified with the GeoTracker Global Identification Number used for Annual Volumetric Reporting.

(E) Any residential landscape area associated with new construction and meeting the criteria specified section 968 (d)(2).

(F) If the supplier has requested and received approval to include in its objective a budget associated with the variance for horses and other livestock water use pursuant to section 968(e)(2):

(i) The volume of water associated with the variance ($V_{\text{livestock}}$) calculated pursuant to section 968(f)(1)

(ii) The number of animals according to each animal type-class

(iii) The average number of days per year that water is provided to each animal type.

(G) If the supplier has requested and received approval to include in its objective a budget associated with the variance for water associated with dust control on horse corrals or other animal exercise arenas pursuant to section 968(e)(2):

(i) The volume of water associated with the variance (V_{corral}) calculated pursuant to section 968(f)(2)

(ii) The square footage of corrals or other animal exercise arenas provided by the Department, or alternative data as specified in section 968(f)(2)(A).

(H) If the supplier has requested and received approval to include in its objective a budget associated with the variance to irrigate residential agricultural landscapes pursuant to section 968(e)(2), the volume of water associated with the variance (V_{ag}) calculated pursuant to section 968(f)(3) as well as the following information provided by the Department:

(i) The square footage of residential agricultural landscapes

(ii) Reference evapotranspiration and effective precipitation data for the aggregated growing seasons associated with the crops grown on residential agricultural landscapes

(iii) The average regional crop coefficient

(iv) The average regional irrigation efficiency.

(I) If the supplier has requested and received approval to include in its objective a budget associated with the variance to irrigate residential agricultural landscapes pursuant to section 968(e)(2) and if the variance is calculated using crop-specific landscape area:

(i) The volume of water associated with the variance (V_{ag}) calculated pursuant to section 968(f)(3)(A)

(ii) The landscape area associated with each crop, as estimated by the supplier

(iii) The reference evapotranspiration and effective precipitation data associated with each crop's growing season

(iv) The unique efficiency factor for each crop, calculated according to section 968(f)(3)(C).

(J) If the supplier has requested and received approval to include in its objective a budget associated with the variance for water used to respond to state or local emergency events pursuant to section 968(e)(2):

(i) The volume of water associated with the variance

(ii) The required documentation described in section 968(f)(4).

(K) If the supplier has requested and received approval to include in its objective a budget associated with the variance to irrigate landscapes with recycled water containing high levels of TDS pursuant to section 968(e)(2) and relied on the calculation method described in 968(f)(5)(A):

(i) The volume of water associated with the variance (V_{HTDS}) calculated pursuant to section 968(f)(5)(A)

(ii) The square footage of the special landscape area irrigated with recycled water containing high levels of TDS

(iii) The concentration of TDS, in mg/L

(iv) The GeoTracker Global Identification Number used for Annual Volumetric Reporting by the treatment plant responsible for producing the recycled water used

(v) The waste discharge identification number (WDID) for the Waste Discharge Requirements associated with the land application of treated recycled water with high levels of TDS

(vi) The permitted concentration of TDS, in mg/L

(vii) The permitted volume of applied recycled water, in gallons

(viii) An electronic copy of the associated salt and nutrient management plan, if applicable.

(L) If the supplier has requested and received approval to include in its objective a budget associated with the variance to irrigate landscapes with recycled water containing high levels of TDS pursuant to section 968(e)(2) and relied on the calculation method described in 968(f)(5)(B):

(i) The volume of water associated with the variance (V_{HTDS}) calculated pursuant to section 968(f)(5)(B);

(ii) The square footage of the landscape area irrigated with recycled water containing high levels of TDS;

(iii) The plant factor;

(iv) The leaching requirement;

(v) The salinity of the recycled water;

(vi) The plant threshold salinity;

(vii) The GeoTracker Global Identification Number used for Annual Volumetric Reporting by the treatment plant that produces the recycled water used;

(viii) The permit identification number for the Waste Discharge Requirements associated with the land application of treated recycled water with high levels of TDS;

(ix) An electronic copy of the associated salt and nutrient management plan, if applicable.

(M) If the supplier has requested and received approval to include in its objective the budget associated with the variance for water used to sustain wildlife in ponds and lakes pursuant to 968(e)(2):

- (i) the volume of water associated with the variance (V_{wildlife}), calculated pursuant to section 968(f)(6).
- (ii) the area of ponds and lakes, in square feet.

(N) If the supplier has requested and received approval to include in its objective a budget associated with the temporary provision for maintaining existing pools, spas, and other water features provision pursuant to section 968(g)(2):

- (i) The volume of water (Pr_{pool}) calculated pursuant to section 968(h)(1)
- (ii) The square footage of existing pools provided by the Department, or alternative data as specified in section 968(h)(1)(A).

(O) If the supplier has requested and received approval to include in its objective a budget associated with the temporary provision for new, climate-ready trees pursuant to section 968(g)(2):

- (i) The volume of water associated with the provision (Pr_{trees}), calculated pursuant to section 968(h)(2)
- (ii) The number of newly planted trees.

(P) If the supplier has requested and received approval to include in its objective a temporary provision associated with establishing qualifying landscapes pursuant to section 968(g)(2):

- (i) The volume of water associated with the temporary provision (Pr_{land}), calculated pursuant to section 968(h)(3)
- (ii) The square footage of qualifying landscapes receiving temporary irrigation.

(3) For the budget for commercial, industrial, and institutional landscapes with Dedicated Irrigation Meters described in section 969:

(A) The volume of water for CII landscapes with DIMs (CII_{DIM}) calculated pursuant to section 969.

(B) Annual reference evapotranspiration and effective precipitation data provided by the Department, or alternative reference evapotranspiration or effective precipitation data meeting the criteria specified in section 968(b)(3).

(C) The area of CII landscapes with DIMs measured by the supplier and meeting the criteria specified in section 969(b)(1).

(D) Any special landscape area measured by the supplier and meeting the criteria specified in section 969(a)(5). For CII landscapes with DIMs irrigated with recycled water, the supplier shall indicate:

- (i) The volume of recycled water applied by source
- (ii) Each source of recycled water, identified with the GeoTracker Global Identification Number used for Annual Volumetric Reporting.

(E) Any CII landscape area with DIMs associated with new construction and meeting the criteria specified section 969(d)(2).

(F) Any landscape area associated with a DIM that the Department classified as residential and included in the residential landscape area defined in section 968(b)(2), but that the supplier classifies as CII and has therefore subtracted from residential landscape area.

(G) If the supplier has requested and received approval to include in its objective a budget for the variance for water used to respond to state or local emergency events pursuant to section 969(f)(1), the volume of water associated with the variance and the required documentation described in section 968(f)(4).

(H) If the supplier has requested and received approval to include in its objective a budget for the variance to irrigate landscapes with recycled water containing high levels of TDS pursuant to section 969(f)(2) and has calculated a budget pursuant to section 968(f)(5)(A):

(i) The volume of water associated with the variance (V_{HTDS}) calculated pursuant to section 968(f)(5)(A)

(ii) The square footage of the landscape area irrigated with recycled water containing high levels of TDS

(iii) The concentration of TDS, in mg/L.

(I) If the supplier has requested and received approval to include in its objective a budget for the variance to irrigate landscapes with recycled water containing high levels of TDS pursuant to section 969(f)(2) and has calculated a budget pursuant to section 968(f)(5)(B),

(i) The volume of water associated with the variance (V_{HTDS}) calculated pursuant to section 968(f)(5)(B),

(ii) The square footage of the landscape area irrigated with recycled water containing high levels of TDS,

(iii) The plant factor,

(iv) The leaching requirement,

(v) The salinity of the recycled water,

(vi) The plant threshold salinity.

(J) If the supplier has requested and received approval to include in its objective a budget associated with the variance for water used to sustain wildlife in ponds and lakes pursuant to section 969(f)(3):

(i) The volume of water associated with the variance ($V_{wildlife}$), calculated pursuant to section 968(f)(6)

(ii) The area of ponds and lakes, in square feet.

(K) If the supplier has requested and received approval to include in its objective a budget associated with provision to plant new, climate-ready trees pursuant to section 969(g)(2):

(i) The volume of water associated with the temporary provision (Pr_{trees}), calculated pursuant to section 968(h)(2)

(ii) The number of newly planted trees.

(L) If the supplier has requested and received approval to include in its objective a budget associated with the provision for qualifying landscapes pursuant to section 969(g)(2):

(i) The volume of water associated with the temporary provision (Pr_{land}) calculated pursuant to section 968(h)(3)

(ii) The square footage of qualifying landscapes receiving temporary irrigation.

(4) For the budget for real water losses described in section 970:

(A) The volume of water in gallons per year associated with the real water loss budget ($B_{\text{water loss}}$) calculated pursuant to section 970.

(B) For systems with water loss standards expressed in units of gallons per connection per day, the supplier shall report the number of service connections for each system it owns and operates, as reported to the Department pursuant to Water Code section 10608.34.

(C) For systems with water loss standards expressed in units of gallons per miles per day, the supplier shall report the length of mains for each system it owns and operates, as reported to the Department pursuant to Water Code section 10608.34.

(5) For the bonus incentive described in section 971, the following parameters:

(A) The volume of the bonus incentive calculated pursuant to section 971(b) and subject to the limitations described in section 971(a).

(B) Annual total potable water deliveries (T_{PW}) reported to the Board pursuant to Health and Safety Code section 116530.

(C) Annual potable water deliveries to single-family residential, multi-family residential, and landscape irrigation (D_{RLI}) reported to the Board pursuant to Health and Safety Code section 116530.

(D) Volume of potable reuse water obtained from a groundwater source (V_{PRG}) for the reporting year, calculated pursuant to section 971(b)(1).

(E) The annual loss factor for recharge and recovery (LF_{G}). The supplier shall document that the loss factor was calculated and provided by the appropriate groundwater basin management authority in accordance with section 971(b)(1)(A).

(F) The total volume of potable recycled water recharged into the basin. The total volume of potable recycled water recharged into the basin shall be an annual average, calculated using the values provided to the Board through the Volumetric Annual Report, for the preceding five years, for each treatment plant producing recycled water used to recharge the basin. It shall be confirmed by the appropriate groundwater basin authority.

(G) The GeoTracker Global Identification Number used for Annual Volumetric Reporting by each treatment plant producing recycled water used to recharge the basin.

(H) The total volume of water extracted from the augmented groundwater basin (V_{BP}), to be obtained from the appropriate groundwater basin authority.

(I) The volume of water the supplier produces from the augmented basin (V_{G}) and the Primary Station Codes associated with the supplier's wells drawing from that basin, as reported to the Board pursuant to Health and Safety Code section 116530.

(J) The volume of potable reuse water obtained from an augmented surface water reservoir source (V_{PRS}) for the reporting year, calculated pursuant to section 971(b)(2).

(K) The annual loss factor for evaporation and seepage (LF_{S}). The supplier shall document that the loss factor was calculated and provided by the owner or operator of the augmented surface water reservoir.

(L) The total volume of potable recycled water used to augment the reservoir. The total volume of recycled water used to augment the reservoir shall be an annual average, calculated using the values provided to the Board through the Volumetric Annual Report, for the preceding five years, for each treatment plant producing recycled water used to augment the reservoir. It shall be confirmed by the appropriate surface water authority.

(M) The GeoTracker Identification Number used for Annual Volumetric Reporting by each treatment plant producing recycled water used to augment the surface water reservoir.

(N) The total volume of water obtained from the augmented reservoir (V_{SWP}), to be obtained from the owner or operator of the augmented surface water reservoir.

(O) The volume of water the supplier produces from the augmented reservoir (V_{SW}) and the Primary Station Codes associated with the intakes drawing from that reservoir, as reported to the Board pursuant to Health and Safety Code section 116530.

(6) If a supplier meets the criteria described in section 966(i)(1), the following:

(A) Average median household income of the service area, based on the most recent data from the United States Census Bureau's American Community Survey or an alternative source that the supplier has demonstrated to the Board to be equivalent, or superior, in quality and accuracy.

(B) The estimated volume of annual residential water deliveries associated with outdoor water use.

(7) If a supplier meets the criteria described in section 966(i)(2), the following:

(A) Estimated volume of annual residential water deliveries associated with outdoor water use.

(B) Verified compliance with the G480 Water Conservation and Efficiency Program Operation and Management Standard.

(C) Verified compliance with the Tree City USA standard.

(D) Climate-ready landscape program elements, including the following:

(i) The name of the rating system used

(ii) The names of the local and regional partnerships

(iii) The amount of annual funding dedicated to the program and the percentage dedicated to low-income households and disadvantaged communities within the service area

(iv) The annual percentage of turf area converted

(v) The annual estimated volume of water saved.

(E) The number of full-time staff dedicated to climate-ready landscape program.

(c) No later than January 1, 2024, and by January 1 every year thereafter, each urban retail water supplier shall submit to the Department and the Board, on a form provided by the Board, the actual urban water use for the previous state fiscal year, calculated in accordance with section 10609.22 along with relevant supporting data for:

(1) Demands relevant to the objective, including:

(A) (i) Annual deliveries to "Single-Family Residential" connections, as reported to the Board pursuant to Health and Safety Code section 116530

(ii) Annual deliveries to "Multi-Family Residential" connections, as reported to the Board pursuant to Health and Safety Code section 116530

(iii) The volume of annual deliveries to residential customers that are at or above the 90th percentile for residential water use across the supplier's service area.

(iv) Deliveries to residential landscapes with dedicated irrigation meters, where the supplier classifies those landscapes as residential, and the Department included those landscapes in the supplier's residential landscape area described in section 968(b)(2)

(v) Deliveries to landscapes the supplier categorizes as residential landscapes but were not included in the supplier's residential landscape area described in section 968(b)(2). The supplier shall report these deliveries separate from paragraph (A)(i) until residential landscape area is updated to include these landscapes pursuant to section 968(b)(2) or (b)(3).

(B) Aggregate annual deliveries to "Landscape Irrigation" connections, as reported to the Board pursuant to Health and Safety Code section 116530. This shall be limited to:

(i) Deliveries to commercial, industrial, and institutional (CII) landscapes with dedicated irrigation meters.

(ii) Deliveries to CII landscapes with DIMs that are associated with landscape area the Department included in the supplier's residential landscape area described in section 968(b)(2) but that the supplier categorizes as CII. If this condition is met, the supplier shall correspondingly adjust its residential landscape area pursuant to section 968(b)(2) or (b)(3).

(C) Aggregated real water losses, as reported in the water audits submitted to the Department pursuant to section 10608.34.

(2) Excluded demands, including:

(A) Aggregate annual water deliveries to "Commercial and Institutional" connections, as reported to the Board pursuant to Health and Safety Code section 116530. This includes deliveries to landscapes the supplier categorizes as commercial or institutional and that are served by mixed-used meters. If the Department included such landscapes in a supplier's residential landscape area described in section 968(b)(2), then the supplier shall correspondingly adjust its residential landscape area pursuant to section 968(b)(2) or (b)(3).

(B) Aggregate annual water deliveries to "Industrial" connections, as reported to the Board pursuant to Health and Safety Code section 116530. The supplier shall additionally estimate the percentage of aggregate annual water deliveries to "Industrial" connections that is process water, as defined by Water Code section 10608.12(p).

(C) Aggregate annual water deliveries to "Other" connections, as reported to the Board pursuant to Health and Safety Code section 116530.

(D) Aggregated apparent water losses, as reported in the water audits submitted to the Department pursuant to section 10608.34.

(d) No later than January 1, 2024, and by January 1 every year thereafter, each urban retail water supplier shall submit to the Department and the Board, for the previous state fiscal year, on a form provided by the Board, the following:

(1) Relevant and supporting data pursuant to section 972 including:

(A) The total number of commercial, industrial, and institutional customers served.

(B) The total number of CII customers classified pursuant to section 972.

(C) The number of CII customers falling into each of the classification categories specified in section 972 (a) and (b).

(2) For CII customers exceeding the threshold specified in section 973(a), the following:

(A) The number of customers with large landscapes.

(B) The aggregate volume of water estimated to be used by large landscapes.

(C) The aggregate square footage associated with large landscapes.

(D) The number of customers with large landscapes for which the supplier has converted a mixed-used meter to a dedicated irrigation meter.

(E) For large landscapes that supplier has employed in-lieu technologies as specified in section 973(a)(1) and (2):

(i) The number of large landscapes subject to section 973(a)(1) and (2)

(ii) The in-lieu technologies that have been employed

(iii) The estimated water savings

(iv) If the supplier has employed an efficient water use technology other than those listed in section 973(a)(1), a narrative description of the technology as well as estimated water savings.

(3) Relevant and supporting data pursuant to section 974, including:

(A) The number of customers that exceed the threshold defined in section 974(a)(2).

(B) The number of customers for which the supplier has provided the information required pursuant to section 974(a)(2).

(C) For each of the classification categories specified in section 972 (a) and (b), the number of customers exceeding the threshold defined in section 974 (b), as well as the following:

(i) The practices implemented pursuant to section 974(b)

(ii) The implementation status of those practices

(iii) The estimated water saved as a result of those practices

(D) The number of customers that exceed the threshold defined in sections 974 (c) as well as the following:

(i) The practices implemented pursuant to section 974(b)

(ii) The implementation status of those practices

(iii) The estimated water saved as a result of those practices.

Authority: Sections 1058 and 10609.28, Water Code.

References: Article X, Section 2, California Constitution; Section 116530, Health and Safety Code; Sections 102, 104, 105, 350, 1122, 1123, 1124, 1846, 1846.5, 10608.12, 10608.34, 10609.2, 10609.10, 10609.22, 10609.24, and 10728, Water Code.

Adopt new section 978:

§ 978. Urban Water Use Objectives – Enforcement

(a) The failure to provide the information requested under this article within the time provided in the order, or as specified under this article, is a violation subject to civil liability pursuant to Water Code section 1846 or 1846.5.

(b) A decision or order issued under this article or under Water Code section 10609.24, subdivision (c), section 10609.26, subdivisions (a) or (c), or section 10609.28 is subject to reconsideration under article 2 (commencing with section 1122) of chapter 4 of part 1 of division 2 of the Water Code.

(c) Orders issued under this article are effective upon issuance.

Authority: Sections 1058, Water Code.

References: Article X, Section 2, California Constitution; Sections 102, 104, 105, 350, 1122, 1123, 1124, 1846, 1846.5, 10609.24, 10609.26, 10609.27, 10609.28, 10617, and 10632, Water Code.

Title 23. Waters

Division 3. State Water Resources Control Board and Regional Water Quality Control Boards

Chapter 3.5. Urban Water Use Efficiency and Conservation

~~Article 1~~ Article 2. Water Loss Performance Standards for Urban Retail Water Suppliers

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~~Article 2~~ Article 3. Reporting

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...