

Issue Paper 1: Methods and Issues in Determining Gross Water Use

Overview

Gross water use is defined in the legislation cited below. Gross water use divided by service area population divided by 365 days per year determines a water agencies base daily per capita use.

Key paragraphs in SBx7-7 pertaining to determining gross water use

From CWC §10608.12

(g) "Gross water use" means the total volume of water, whether treated or untreated, entering the distribution system of an urban retail water supplier, excluding all of the following:

- (1) Recycled water that is delivered within the service area of an urban retail water supplier or its urban wholesale water supplier.
- (2) The net volume of water that the urban retail water supplier places into long-term storage.
- (3) The volume of water the urban retail water supplier conveys for use by another urban water supplier
- (4) The volume of water delivered for agricultural use, except as otherwise provided in subdivision (f) of Section 10608.24.

(l) "Process water" means water used for producing a product or product content or water used for research and development, including, but not limited to, continuous manufacturing processes, water used for testing and maintaining equipment used in producing a product or product content, and water used in combined heat and power facilities used in producing a product or product content. Process water does not mean incidental water uses not related to the production of a product or product content, including, but not limited to, water used for restrooms, landscaping, air conditioning, heating, kitchens, and laundry.

(m) "Recycled water" means recycled water, as defined in subdivision (n) of Section 13050, that is used to offset potable demand, including recycled water supplied for direct use and indirect potable reuse, that meets the following requirements, where applicable:

- (1) For groundwater recharge, including recharge through spreading basins, water supplies that are all of the following:
 - (A) Metered.
 - (B) Developed through planned investment by the urban water supplier or a wastewater treatment agency.
 - (C) Treated to a minimum tertiary level.
 - (D) Delivered within the service area of an urban retail water supplier or its urban wholesale water supplier that helps an urban retail water supplier meet its urban water use target.
- (2) For reservoir augmentation, water supplies that meet the criteria of paragraph (1) and are conveyed through a distribution system constructed specifically for recycled

water.

From CWC §10608.20

(h).(1) The department through a public process and in consultation with the California Urban Water Conservation Council, shall develop technical methodologies and criteria for the consistent implementation of this part, including, but not limited to, both of the following:

(A) Methodologies for calculating base daily per capita water use, baseline commercial, industrial, and institutional water use, compliance daily per capita water use, gross water use, service area population, indoor residential water use, and landscaped area water use.

*(i).(1) The department shall adopt regulations for implementation of the provisions relating to **process water** in accordance with subdivision (l) of Section 10608.12, subdivision (e) of Section 10608.24, and subdivision (d) of Section 10608.26.*

From CWC §10608.24

*(e) When developing the urban water use target pursuant to Section 10608.20, an urban retail water supplier that has a substantial percentage of industrial water use in its service area, may exclude **process water** from the calculation of **gross water use** to avoid a disproportionate burden on another customer sector.*

(f).(1) An urban retail water supplier that includes agricultural water use in an urban water management plan pursuant to Part 2.6 (commencing with Section 10610) may include the agricultural water use in determining gross water use. An urban retail water supplier that includes agricultural water use in determining gross water use and develops its urban water use target pursuant to paragraph (2) of subdivision (b) of Section 10608.20 shall use a water efficient standard for agricultural irrigation of 100 percent of reference evapotranspiration multiplied by the crop coefficient for irrigated acres.

(2) An urban retail water supplier, that is also an agricultural water supplier, is not subject to the requirements of Chapter 4 (commencing with Section 10608.48), if the agricultural water use is incorporated into its urban water use target pursuant to paragraph (1).

DWR staff understanding of the legislation

Gross water use is the total amount of water entering a retail water supplier's distribution system, excluding the net volume of water placed in long-term storage, and conveyed through the distribution system to:

- A retail customer
- Another water supplier,
- An agricultural user,

- and recycled water.

At its discretion, a retail water supplier can choose to include agricultural water deliveries in the calculation of gross water use. Doing so requires that the retail supplier also factor agricultural water use into its calculation of its interim and 2020 water use targets and compliance daily water use.

A water supplier with a substantial percentage of industrial water use may consider excluding process water use from the calculation of gross water use. The legislation directs the Department to adopt regulations for implementing provisions of the law relating to process water use. The legislation does not exclude distribution system water loss and other unaccounted water from the gross water use calculation.

Issues to be considered

The following key issues have been identified from the legislation and the listening sessions:

- 1) What determines the beginning of a retail urban water supplier's distribution system? Are there standard industry definitions to distinguish the portions of the distribution system related to storage versus transmission?
- 2) What constitutes long-term storage?
 - a. Is water used for groundwater recharge counted as long-term storage?
 - b. Must water placed in or taken from long-term storage meet a minimum residency time?
- 3) What adjustments should be made to gross water use calculations to account for changes in service area boundary (e.g. service area consolidation, acquisition, annexation):
 - a. During the 10 to 15 year base period?
 - b. Between the end of the identified base period and target years?
- 4) How should average gross water use be calculated if a water supplier does not have 10 years of water use data for its service area (e.g. if service area created less than 10 years ago, or if service area merged with one or more other areas less than 10 years ago).
- 5) Regulations for implementing provisions relating to process water will need to address, among other things:
 - a. Meaning of "substantial percentage" of industrial water use in a service area

- b. Procedures for estimating process water use within the broader category of industrial water use
- c. Should the “process water” exclusion be limited to CII customers where process water is sub-metered, and the customer does not draw water from a private well?