

# Issue Paper 2: Methods and Issues in Determining Service Area Population

## Overview

Service area population is needed to calculate a retail water supplier's base daily water per capita use, base daily CII water use, and compliance daily per capita water use. These metrics, in turn, are used for determination of and compliance with interim and 2020 urban water use targets. Since the SBx7-7 urban water use targets are based on per capita reduction, service area population is a critical component of many of the methodologies, calculations and targets.

## Key paragraphs pertaining to determining service area population

The sections of SBx7-7 most relevant to determination of service area population are:

*From CWC § 10608.20*

*(f) When calculating per capita values for the purposes of this chapter, an urban retail water supplier shall determine population using federal, state, and local population reports and projections.*

*(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.*

## DWR staff understanding of the legislation

The legislation requires an urban retail water supplier to use federal, state, and local population reports and projections when determining its service area population. Beyond this, however, the legislation is not specific. It gives the Department authority to develop consistent methodologies and criteria for determining service area population.

## Issues to be considered

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

- 1) How should service area population be determined when:

- a. Service area boundary does not match up with political boundaries used by federal, state, and local population reports and projections
  - b. A retail supplier serves large transient population (e.g. college, seasonal homeowners, vacation rentals)
  - c. A supplier's service area boundary changes between base period and target periods (e.g. service area consolidation, acquisition, annexation)
  - d. A supplier does not have 10 or more years of historical population data needed to determine historical GPCD.
- 2) What are acceptable methods for using federal, state, and local population estimates to interpolate service area population?
- a. Can retail suppliers develop and use person-per-connection multipliers?
  - b. How should suppliers employ census block/tract population data?
  - c. Can suppliers use GIS methods that rely on proportioning population by area?
  - d. Can suppliers use methods adopted by other regulatory agencies for reporting service area population (e.g. CIWMB for AB 939, UWMPA – see below)?
- 3) Can suppliers use different methods and/or data sources to determine base period and target period service area population?
- 4) How much discretion will suppliers have in determining service area population? The following is a range of possible options, from very prescriptive to not very prescriptive:
- a. Require suppliers to use a Department-approved prescriptive methodology(s).
  - b. Allow suppliers to determine service area population provided estimates satisfy very basic data and methodological requirements to be determined by the Department.
  - c. Allow suppliers to determine service area population and place burden of proof on supplier that the method and data satisfy SBx7-7 requirements.

Allow suppliers to determine service area population provided estimates are based on federal, state, or local population reports and projections (note: this is the approach taken by the UWMPA).

**Examples of service area population definitions and standards used in other regulatory settings**

Following are some examples of service area population definitions and estimation standards used in other regulatory settings. These examples are presented for informational and illustrative purposes only. Their inclusion in this paper does not imply endorsement or recommendation.

***California Integrated Waste Management Board (CIWMB) Population Definition:***

The CIWMB employs the following definition of service area population for the purpose of determining per capita solid waste loads and reduction targets:

*Population: The January 1 estimate of the number of inhabitants occupying a jurisdiction as prepared by the California Department of Finance (DOF) for each non-Census year (calendar year ending with a digit other than zero). "Population" also means the April 1 U.S. Census count for each Census year (calendar year ending with the digit zero).*

- *Population includes each person at the place where the person lives and sleeps most of the time. This place is not necessarily the same as the person's voting residence or legal residence.*
- *Noncitizens that are living in the United States are included, regardless of their immigration status.*
- *Persons are included regardless of characteristics such as: college student, commuter worker, domestic worker or live-in nanny, foreign national, homeless, hospital or nursing home patient, prisoner, intermittent resident or "snow-bird," military member, tourist or undocumented worker.*
- *The fundamental goal is to count each person once, only once, and in the correct "usual residence" location according to U.S. Census residence rules.*

*Population is used in the adjustment method because it strongly influences residential waste generation. Every ten years the U.S. Census Bureau counts the number of people living in each California city and county. The most recent census count was done in 2000. The California Department of Finance (DOF) estimates city and county January 1st population for the years between Census counts, e.g., 1991-1999 and 2001-2009. The Board's Electronic Annual Report (EAR) uses population data from DOF's E-4 Population Estimates for Cities, Counties and the State, 2001-2005, with 2000 DRU Benchmark, released in May each year. For 1990-1999 population data, see Revised Historical City, County and State Population Estimates, 1991-2000, with 1990 and 2000 Census Counts. Jurisdictions may use either jurisdiction- or county-level population when estimating waste generation tons, then a diversion rate.*

***Urban Water Management Planning Act Service Area Population Requirement:***

The UWMPA has minimal requirements for determining service area population. Section 10631 states that:

*A plan shall be adopted in accordance with this chapter and shall do all of the following:*

*(a) Describe the service area of the supplier, including current and projected population, climate, and other demographic factors affecting the supplier's water management planning. The projected population estimates shall be based upon data from the state, regional, or local service agency population projections within the service area of the urban water supplier and shall be in five-year increments to 20 years or as far as data is available.*

***Southwest Florida Water Management District***

Section D of Southwest Florida Water Management District Water Use Permit User Manual provides an example of a very prescriptive and rigorous methodology for calculating service area population.

<http://www.swfwmd.state.fl.us/data/demographics/estimating-population.php>

[http://www.swfwmd.state.fl.us/files/database/site\\_file\\_sets/14/WUP\\_Complete\\_Manual\\_as\\_of\\_110209\\_2009042\\_SB2080.pdf](http://www.swfwmd.state.fl.us/files/database/site_file_sets/14/WUP_Complete_Manual_as_of_110209_2009042_SB2080.pdf)