

CFWI Regulatory Team Discussion Document – Uniform Demand Calculation by Use Class (Utility)

A. Elements of Demand Calculation for Utility/Public Supply:

1. Existing Demand or Gross Water Use = Existing Permanent Population X Existing Gross Per Capita

- a. **Existing Demand** [defined as annual average gallons per day of potable water used for Selected Year]
Calculated as Existing Demand = Withdrawals + Imports – Exports – Treatment Loss

Commented [kja1]: Need to define whether Calendar Year or Fiscal Year.

Alternate calculation for Existing Demand = Metered “Finished” Water delivered to distribution system + Imports – Exports

- **Withdrawals:** Annual average gallons per day ground water, surface water and stormwater withdrawals as metered at the wellhead(s), wellfield’s departure point, or surface water intake.
- **Imported Water:** Annual average water imported or purchased from other supplier(s). Irrigation water, excluding reclaimed water, provided to the applicant’s service area by a separate utility shall be counted as imported water.
- **Exported Water:** Annual average gallons per day of water transferred in bulk quantities from your utility to other potable water suppliers. Determine quantities at the departure point from your service area.
- **Water Treatment Loss:** Annual average gallons per day which are lost in routine treatment for potability. Examples of treatment loss types are desalination reject, membrane cleaning, lime softening treatment loss and sand filtration backwash. Treatment losses are calculated as raw water into the plant minus treated water out of the plant.
- **Metered “Finished” Water:** Treated water out of the plant and measured by a meter at the point of entry to the distribution system.

Commented [kja2]: Need further discussion on how the permitting aspect of stormwater differs from reclaimed water. As stormwater is for non-potable use, should it be included?

- b. **Existing Permanent Population** will be utilized for/as a uniform planning and permitting base method described in (1) below, but allow for modification based on demonstration of appropriate circumstances to warrant correction using a consistent alternative method as described below in (2):

Commented [kja3]: Need further discussion on actual charge to subgroup whether for permitting or permitting and planning.

- 1) Uniform Base Method for Utility Service Area Residential Population: Total residential dwelling units served) multiplied by the census-based persons per household for the county (or utility, if available).

Utility service Area Residential Population is based upon **total** residential dwelling units, which include Single Family Residential, Multi-Family Residential (apartments, townhomes, condos, duplexes) and Mobile Homes, [as an annual average for a select year].

- 2) Alternative method: Use GIS-parcel layer that has permanent population included by county-level or utility service area level delineation for that year.
- 3) Alternative method for future consideration: SWFWMD has developed a process for calculating Total Functional Population, which is defined as “the served permanent population as adjusted by the seasonal resident, tourist, group quarters and net commuter population within a utility’s service area. This is calculated based on the dwelling units served by the utility.” If parcel-level estimates of population cohorts developed by BEBR become available, the utility would simply generate a total of these parcel-level estimate using the most recent service area boundary. Population residing in non-served areas within the utility boundary would need to be excluded.

Other factors for consideration of methods to incorporate include accounting for new large-scale developments that have accelerated timelines and/or were not included in BEBR drivers for population calculation.

Commented [YAGA4]: We probably need a documentation requirement here.

- c. **Uniform Gross Per Capita** is defined by the 2008 FDEP Guidance Memo as
- $$\frac{\text{Utility Service Area Finished Water Use}}{\text{Utility Service Area Residential Population}}$$

Again, Utility Service Area Residential Population is based upon **total** residential dwelling units, which include Single Family Residential, Multi-Family Residential (apartments, townhomes, condos, duplexes) and Mobile Homes.

- d. **Uniform Residential Per Capita** is defined by the 2008 FDEP Guidance Memo as
- $$\frac{\text{Utility Service Area Finished Water Use by Dwelling Units (or Total Residential Water Use)}}{\text{Utility Service Area Residential Population}}$$

Recommend per capita goals based on Uniform Residential Per Capita rate per water use permit in accordance with new legislation.

2. **Future Demand = Future Population X Future Gross Per Capita**

a. **Future Permanent Population:**

Option 1: Utilize County-level medium forecast of population from published BEBR-Medium projections for target year(s).

Option 2: Utilize historic growth rate at utility-level based on average of 5 years of historic population.

Future Uniform Gross Per Capita: Utilize the 5-year historic average of Uniform Gross Per Capita for planning and permitting but allow for modification based on demonstration of appropriate circumstances to warrant correction using a consistent alternative method: Examples to consider include:

Commented [kja5]: Depending on discussion above.

- Consideration of conservation goals
- Identified potential changes in demographics or planned development
- Other documented changes

Commented [kja6]: Check WMD rules for specific wording

B. **Domestic Self Supply (for planning quantities only) and Utility/Public Supply <100,000 gallons per day**

Recommend same uniform process for calculating existing and future demand.

Domestic Self Supply calculations would be for planning purposes only, not permitting.

Commented [kja7]: Need clarification on whether these should be included in this effort.

C. **Additional Concepts for Inclusion in Proposed Rule-making:**

1. Submittal of information by utilities to calculate uniform demand estimates. It is anticipated that the rule language should include the phasing in of providing the requested information to allow utilities to make necessary arrangements for compiling the data.
 - a. Submittal of elements listed above that are necessary to comply with calculating Existing and Future Demand (e.g. withdrawals, imported water, exported water, water treatment Loss);
 - b. Submittal of elements listed above that are necessary to comply with calculating Existing and Future Population (e.g. total residential units per year and annual population estimates);
2. Consideration of the use BEBR Medium estimates, population cohorts and projections at county/utility-level, (actual services provided by BEBR would depend upon funding). The RWSP Team is vetting this option for future planning efforts in the CFWI Area to have one consistent methodology and one agency

providing the data. The group generally supports any efforts for Legislative funding to have access to this data.

Commented [kja8]: Recommendations on wording are welcome 😊