# Information Item

Water Supply Technical Advisory Committee

**Meeting Date:** June 18, 2023

## Topic

Developing shared definitions for selected water supply planning terms.

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| **District(s), Member(s):** | All |
| **Policy/Legal Reference:** | Minnesota statute 473.1565 |
| **Staff Prepared/Presented:** | Lanya Ross, Environmental Analyst, 651-602-1803 |
| **Division/Department:** | Environmental Services |

## Introduction

Several terms are used by water supply utilities and local governments, Met Council, Minnesota Department of Health (MDH) and Minnesota Department of Natural Resources (DNR) in local comprehensive plans, local water supply plans, and wellhead protection and source water protection plans. A review of how these terms are used highlighted that these terms are not consistently defined or understood across organizations. This situation has created difficulties for our community partners to understand the different terms and definitions that are being used by the various agencies for permitting compliance and planning. This situation can also lead to misunderstanding about plan expectations, reduces the quality of data used to track conditions and program effectiveness, and reduces trust in planning efforts.

Some key terms that need more consistently understood definitions are on the following pages.

## Committee input requested

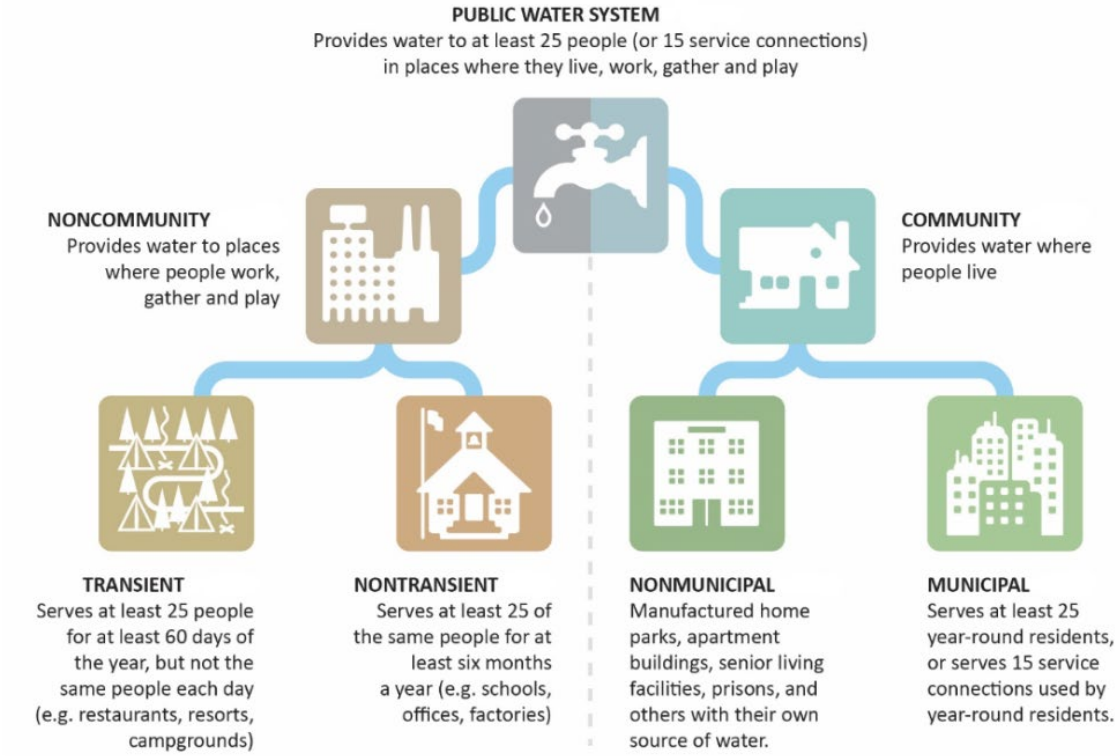
TAC is asked to review and recommend revisions to definitions for the following terms related to water systems and water use. The terms on the following pages are based on MDH and DNR language.

Committee input will be shared with communications staff at Met Council, DNR, and MDH to update the terms and definitions. The updated terms and definitions will be included in the final 2050 Water Policy Plan (including the Metro Area Water Supply Plan), and in updated guidance for water supply-related planning, implementation and tracking.

## Water supply system terms

MAWSAC and TAC propose using MDH terms and definitions when referring to water supply systems in the 2050 Water Policy Plan, the Metro Area Water Supply Plan, and in guidance for local plan updates. These terms are consistent with the federal Safe Drinking Water Act. Figure 1 illustrates the different water supply systems, which are also defined below in alphabetical order below. An additional term has also been proposed for non-public wells.

*Figure 1. Public water system classifications (from Minnesota Department of Health)*




**Community public water systems** provide water where people live.

**Municipal community public water systems** serve at least 25 people year-round residents or serve 15 service connections used by year-round residents.

**Noncommunity public water systems** provide water in places where people work, gather and play.

**Nonmunicipal community public water systems** include entities like manufactured home parks, apartment buildings, senior living facilities, prisons, and others with their own source of water.

**Nontransient noncommunity public water systems** serve at least 25 of the same people at least 6 months a year (examples: schools, offices, and factories).

**NEW TERM: Private wells** can provide water for a range of different purposes. Private drinking water wells provide indoor and outdoor water for normal household purposes such as drinking, food preparation, bathing, washing clothes and dishes, flushing toilets, and watering lawns and gardens. Private non-drinking water wells provide indoor and outdoor water for activities like industrial processing, agriculture, and irrigation.

**Public water systems** provide water to at least 25 people (or 15 service connections) in places where they live, work, gather and play. All public water suppliers in Minnesota that operate a public water distribution system that provide water to more than 1,000 people and all communities with a municipal community public water system in the seven-county Twin Cities metropolitan region, must submit a local water supply plan to the Minnesota Department of Natural Resources for approval. Metro regional communities must also submit this plan to Met Council as part of the local comprehensive plan update.

**Transient noncommunity public water systems** serve at least 25 people for at least 60 days but not the same people each day (examples: restaurants, resorts, and campgrounds).

## Water use terms

The following terms are used in the local water supply plan template (Table 2) for reporting historical water use. Table 2 can be found online in the Minnesota Department of Natural Resources' local water supply plan template at https://files.dnr.state.mn.us/waters/watermgmt_section/appropriations/plan_template.pdf

These data are used by local, regional, and state utilities and agencies for multiple analyses. However, stakeholders have commented that there isn't widespread understanding about how to report this information and that the requested information doesn't always represent their water supply system.

### Key elements that support regional water demand projections

***Population served*** is the number of people who are served by the community's public water supply system. This includes the number of people in the community who are connected to the public water supply system, as well as people in neighboring communities who use water supplied by the community's public water supply system. It should not include residents in the community who have private wells or get their water from neighboring water supply.

***Total water delivered*** is the sum of residential, commercial, industrial, institutional, water supplier services, wholesale and other water delivered.

***Average daily demand*** is the total water pumped during the year divided by 365 days.

***Total per capita demand*** is the total amount of water withdrawn from all water supply sources during the year divided by the population served divided by 365 days.

### Key terms that support water efficiency programs and emergency response planning

***C/I/I water delivered*** is the sum of water delivered (sold) for commercial/institutional or industrial purposes.

> **Commercial/institutional water use** is the water used by motels, hotels, restaurants, office buildings, commercial facilities and institutions (both civilian and military). Consider maintaining separate institutional water use records for emergency planning and allocation purposes. Water used by multifamily dwellings, apartment buildings, senior housing complexes, and mobile home parks should be reported as Residential Water Use.
>
> **Industrial water use** is water used for thermonuclear power (electric utility generation) and other industrial uses such as steel, chemical and allied products, paper and allied products, mining, and petroleum refining.
>
> **NEW TERM: Institutional water use** includes water used by civilian and military institutions other than for water supplier services. This is water used by government, public and private educational institutions, churches and places of worship, and other organizations within the public domain such as hospitals or prisons. Tracking this information separately from commercial water use can support better emergency planning.

***Date of Maximum Daily Demand*** is date of the maximum (highest) water demand. Typically this is a day in July or August.

***Maximum daily demand*** is the maximum (highest) amount of water used in one day.

***Percent unmetered/unaccounted*** is the volume of water withdrawn from all sources minus the volume of water delivered. This value represents water "lost" by miscalculated water use due to inaccurate meters, water lost through leaks, or water that is used but unmetered or otherwise undocumented. Water used for public services such as hydrant flushing, ice skating rinks, and public swimming pools should be reported under the category "Water Supplier Services".

***Residential per capita demand*** is the total residential water delivered during the year divided by the

population served divided by 365 days.

***Residential water delivered*** is the same as residential water use. This is the amount of water used for normal household purposes such as drinking, food preparation, bathing, washing clothes and dishes, flushing toilets, and watering lawns and gardens. Should include all water delivered to single family private residences, multi-family dwellings, apartment buildings, senior housing complexes, mobile home parks, etc.

***Total connections*** refers to the number of connections to the public water supply system.

***Total water pumped*** is the cumulative amount of water withdrawn from all water supply sources during the year.

***Water used for non-essential*** is water used for lawn irrigation, golf course and park irrigation, car washes, ornamental fountains, and other non-essential uses.

***Wholesale deliveries*** is the amount of water delivered in bulk to other public water suppliers.

***Water supplier services*** is water used for public services such as hydrant flushing, ice skating rinks, public swimming pools, city park irrigation, back-flushing at water treatment facilities, and/or other uses.