
Determining Public Water System Classification

Accurately characterizing population and connections

Daniel Hough
Small Water System Compliance Specialist



DRINKING WATER SERVICES
Public Health Division

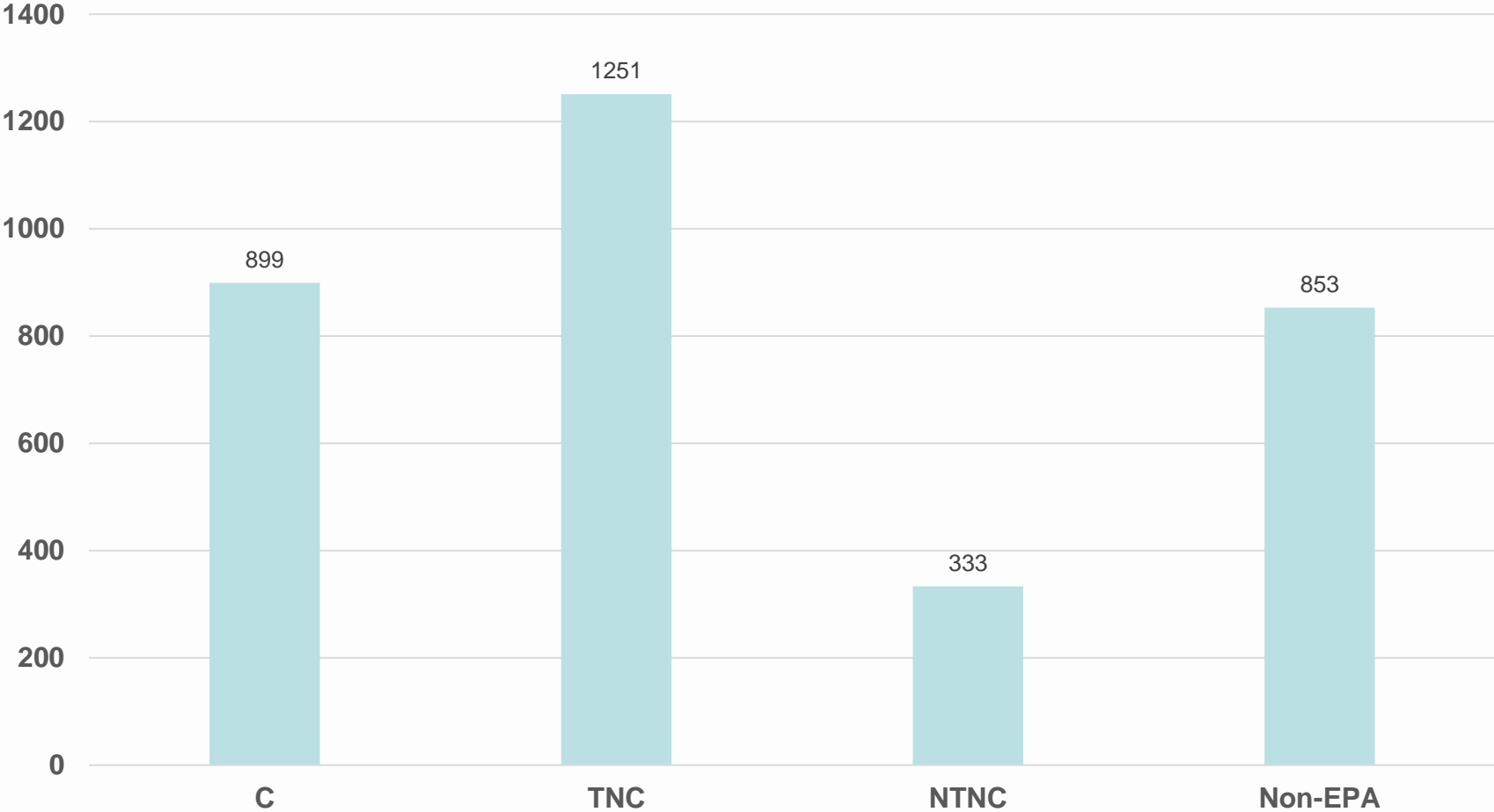
“Public Water System”

OAR 333-061-0020(107): "Public Water System" means a system for the provision to the public of piped water for human consumption, if such system has more than three service connections, or supplies water to a public or commercial establishment that operates a total of at least 60 days per year, and that is used by 10 or more individuals per day. Public water system also means a system for the provision to the public of water through constructed conveyances other than pipes to at least 15 service connections or regularly serves at least 25 individuals daily at least 60 days of the year. A public water system is either a "Community Water System," a "Transient Non-Community Water System," a "NTNC Water System" or a "State Regulated Water System."

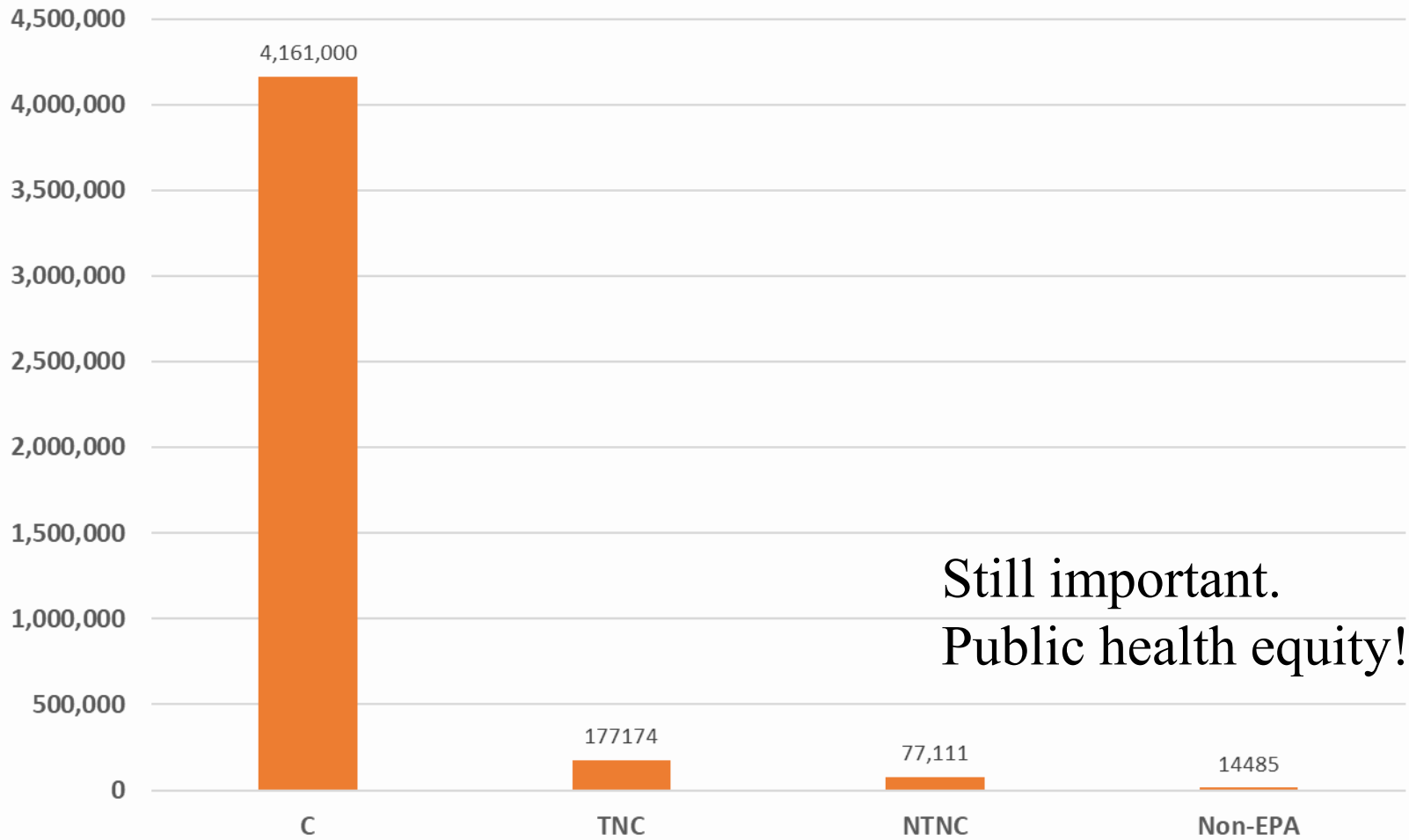
PWS Definition Clarifications

- The “public” is all people, even if the system isn’t open to the public (e.g., a private business with no on-site customers).
- “Public” or “commercial” establishments encompasses all establishments and connection types, independent of public or private ownership. “Public” doesn’t mean government buildings only.
- The minimum 60 days per year of operation do not have to be consecutive days.
- Each individual day during the operation period doesn’t have to be >10 population, but the average daily people with potential access does have to be >10 during the operating period.
- Only days water is available for consumption count toward the 60 days.

3,336 Systems in Oregon by Type



3,336 Systems in Oregon by Population



Still important.
Public health equity!

“Service Connection”

OAR 333-061-0020(122): "Service Connection" means the piping connection by means of which water is conveyed from a distribution main of a public water system to a user's premises. For a community water system, the portion of the service connection that conveys water from the distribution main to the user's property line, or to the service meter, where provided, is under the jurisdiction of the water supplier.

- Property ownership and boundaries are irrelevant to determining number of system connections.
- For all system types, a connection is a structure with piped water that people have access to consume.

“Community Water System”

OAR 333-061-0020(25): "Community Water System" means a public water system that has 15 or more service connections used by year-round residents, or that regularly serves 25 or more year-round residents.

- “Year-round residents” doesn’t mean they have to be there every day of the year, it means those residents consider the system their primary residence.

“Transient Non-Community Water System”

OAR 333-061-0020(25): "Transient Non-Community Water System" or "TNC" means a public water system that serves a transient population of 25 or more persons.

- The listed population should be the average of the peak 60 days of use. Otherwise, a system could average its way out of being public.
- “Transient” means a person who is staying or working in a place for only a short time. This could be overnight (e.g. a traveler at a lodging facility).
- Some TNC systems have year-round residents (e.g. merchant living above a store). Each resident counts as one person in the total.
- “Serves” should be read as “makes water available for consumption.” A patron of a store who does not drink the water still counts in the population if they walk through the door and have access to the water for consumption (directly or in prepared food products).

“Non-Transient Non-Community Water System”

OAR 333-061-0020(85): "Non-Transient Non-Community Water System" or "NTNC" means a public water system that regularly serves at least 25 of the same persons over 6 months per year.

- The population should be the average of the peak 6 months of use.

“Seasonal Water System”

OAR 333-061-0020(118): "Seasonal water system" means a water system operated as a non-community (TNC or NTNC) public water system only part of each year and that is started up at the beginning and shut down at the end of each operating season.

- Fitting for systems with periods of a quarter or more during which time the system is closed (common for campgrounds).
- Unless a system closes to the public entirely for a period of at least one month, it probably should not be classified as seasonal.

Focus on classification thresholds

- Determining the population of larger communities with a partially transient population can be tricky (e.g., costal communities with substantial tourism).
 - Try to estimate accurately (residents + average daily visitors).
 - Focus on whether the system is near a threshold that would change the classification or sampling requirements (e.g., population = 10, 25, 1,000, 2,500, 3,300, 500; connections = 4, 15).
- Watch out for 14 connection and/or 24 population systems.
 - Use recon tools like aerial images, Zillow, websites, and facebook to help determine if the listed stats are accurate.

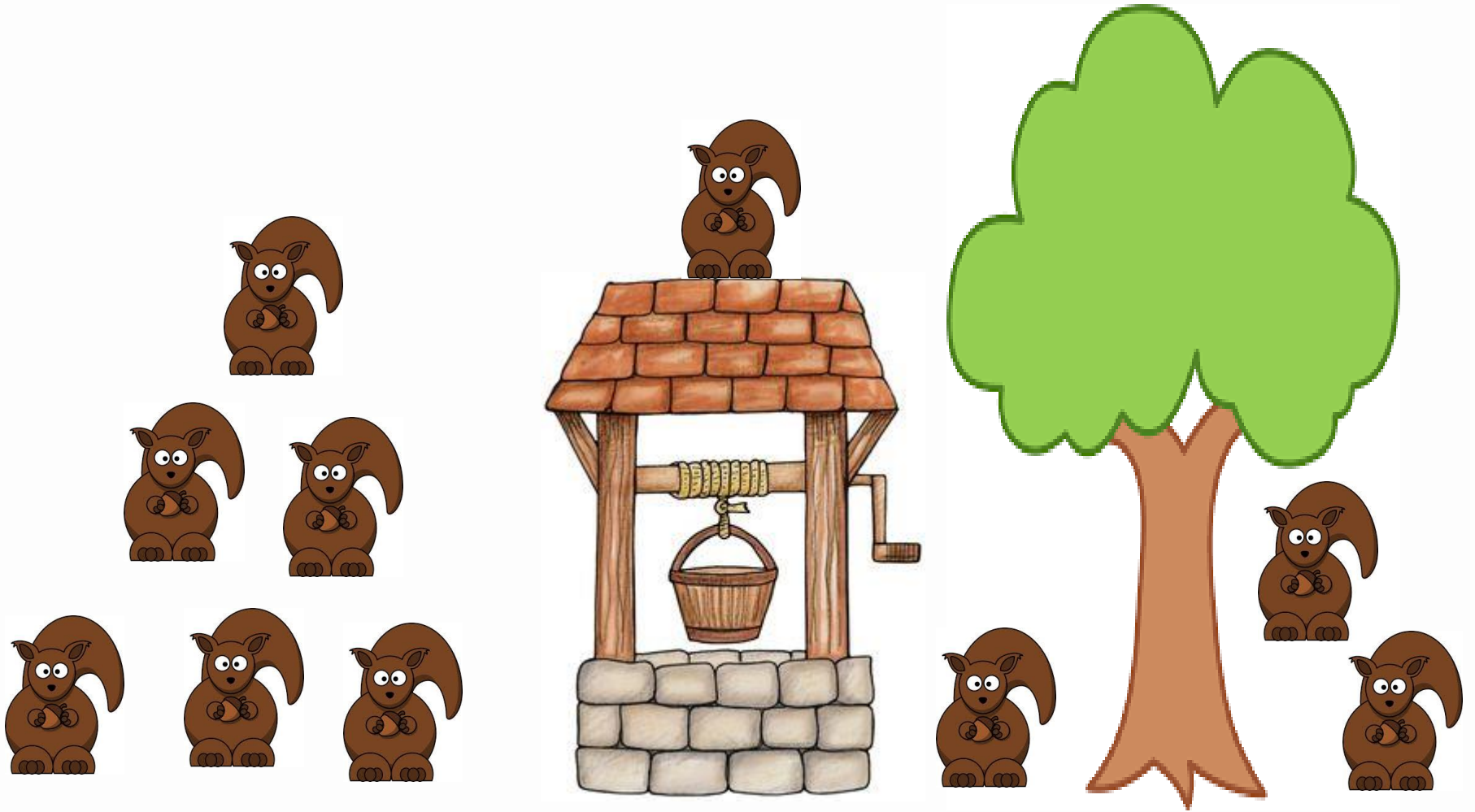
Other Licensed Facilities

- Systems that do not meet the definition of a PWS but are still subject to some drinking water rules by reference.
 - Bed & breakfasts
 - Daycares
 - Restaurants
 - Motels
 - Mass gathering facilities
 - Farm labor housing
- These systems should not currently be listed as public water systems just for the convenience of tracking sample results (although that option is being explored).

Examples



- *“It's very important in life to know when to shut up. You should not be afraid of silence”*
- *“Please phrase your answer in the form of a question.”*



What is, not a PWS?

75,000 Burners, one week...

What is not a PWS?



A church that is only open on Sundays

- It probably doesn't exist (most churches have other events like weddings, bible studies, and community meetings).
- It's safe to assume that a church operates for a minimum of 60 days, unless they really try to demonstrate otherwise.
- Church populations should be listed as average Sunday attendance, not diluted by two people in the office five days per week.
- Consider a church that has a Sunday attendance of 150 people, and two people in the office the other days of the week...
- **Do not** average the population over the week: $(150+(2 \times 6))/7$ days = 23 people per day (this would be a Non-EPA).
- **Do** consider the population to be the average Sunday attendance = 150 (note that looking at the peak 60 days would only average this down to 130, not changing the classification).
- **What is a TNC system? Alex!**

A year-round campground that only has 5-10 visitors per day during the fall & winter, but 30-50 visitors per day for the rest of the year

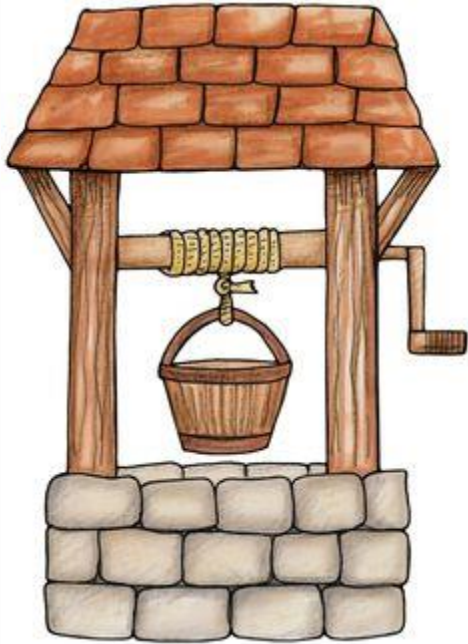
- Classify the system based on the peak 60 days.
- A system population shouldn't be "diluted" with averaging to change the classification (from TNC to Non-EPA).
- Even though this system might fall below 10 patrons for two quarters, it is still open to the public and is therefore not "seasonal."
- System should only be considered seasonal if they shut down.
- In this example the system should probably have a listed population of 40, v. the diluted annual population of ~24, which would change the classification to Non-EPA.
- **What is a TNC system? Alex!**

A school with 25 students and 3 teachers for nine months per year, and summer camps with 8 students and 2 teachers for 3 months per year.

- Classify the system based on the peak 6 months.
- A system population shouldn't be "diluted" with averaging to change the classification (from NTNC to Non-EPA).
- This system should have a listed population of 28, not a diluted population of 24, which would change the classification to Non-EPA.
- **What is an NTNC system? Alex!**

Take-homes

- New updated guidance documents will be released soon.
- There are seemingly infinite variations that don't fit neatly in a box.
- There's no perfect system classification algorithm.
- If you are trying to figure out complex hybrid transient & resident populations, averaging of populations, seasonality, or anything else that isn't clear, please contact regional DWS staff, or me.



Not a PWS – Only 8 opossums

This has been a tough year of isolation for us all, but we've had the opportunity to meet new and unconventional friends and learn new things in the process.



Daniel's backyard opossum, "Maggie"

daniel.hough@dhsoha.state.or.us

DRINKING WATER SERVICES
Public Health Division

Oregon
Health
Authority