



**Clarification of Public Water Systems
Definition**

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I. PURPOSE:

The purpose of this policy is to clarify the definitions of public water systems (PWSs) in order to determine which systems should be regulated.

II. BACKGROUND:

The original guidance for this topic was changed to conform to the USEPA definition of a PWS and how to quantify the population for a PWS. To assure consistency, the Division of Drinking and Ground Waters (DDAGW) wants to clarify the definitions of public water systems. Since the original drafting of this policy, questions have been raised regarding regulation and deregulation of PWSs specifically as it relates to determining populations served and service connections. While some are straightforward, other situations are more difficult. Many USEPA documents, Ohio EPA documents and national and local court cases were used to assist in producing this document. It attempts to clarify procedure and identify tools that may be used to determine actual or potential populations or service connections at a public water system.

The primary purpose of this policy is to determine if a water system meets the criteria to be regulated as a PWS. Portions of this policy may in some cases also be used to calculate population that determines specific requirements, such as monitoring frequencies, PWS classification and/or License to Operate (LTO) fees. However, because the primary purpose of the policy is to determine if a water system meets the threshold for being regulated, the population determined using this policy is likely to be more accurate for lower populations and may become less appropriate at higher populations. As such, other sources of information may be more applicable for determining population for larger facilities, such as a community's local census data or information on a specific community's household size. It should also be noted the definition of "service connection" in Ohio Administrative Code (OAC) rule 3745-81-01 is different than the definition in OAC rule 3745-84-01. The intent of the definitions serves two different purposes. The LTO definition is intended to determine a licensing fee. The definition in 3745-81-01 is intended to set thresholds for regulatory requirements.

III. APPLICABLE REFERENCE DOCUMENTS:

1. Federal Register 1401(4)
2. USEPA Memorandum "Definitions of Types of Public Water Systems and Populations Served by Those Systems" August 21, 1991
3. USEPA Memorandum – WSG 12 "Definitions of a Public Water System" July 12, 1978

4. USEPA Memorandum – WSG 12A “May a Community Public Water System Raise the Defense in an Enforcement Proceeding that it is not a ‘Public Water System’, Under § 1401(4) of the SDWA, Because it Does Not Provide Water for Human Consumption?” June 20, 1978
5. USEPA Memorandum – WSG34 “Definition of a Non-Transient, Non-Community Water System” September 16, 1987
6. USEPA Memorandum – WSG H3 “Definition of Service Connection” January 1988
7. USEPA Memorandum – WSG H18 “Definition of a PWS (Homes with Individual Wells)” June 1998
8. USEPA Memorandum – WSG H22 “Meaning of “Human Consumption” and “Graywater Uses” as it Relates to Public Water Systems” August 1989
9. USEPA Memorandum – WSG 66A “Definitions of Types of Public Water Systems and Populations Served by Those Systems” August 21, 1991 (Ohio EPA has declined to implement the four hour recommendation)
10. USEPA Memorandum – WSG 118 “Submetering Water Systems” March 13, 1998
11. USEPA Letter to Wisconsin Department of Natural Resources, RE: Definition of a Public Water System , November 2004
12. USEPA Court Case: United States of America vs. Roy L. Merritt, March 1994, Civil No. 94CV026
13. Indiana Court Case: The Indiana Department of Environmental Management vs. Construction Management Associates, L.L.C., Hilltop Farms I.L.P., and Hilltop Farms II L.P., and Moss Well Drilling, Inc., July 18, 2008, Case No: 52A02-0711-CV-994
14. State of Ohio Court Case: State of Ohio, ex rel Nancy Rogers, Attorney General vs. Joel Helms, dba Countryview South Apartments, et al., December 2008, Case Nos: CV 2007 07 4993, CV 2000 07 3102
15. State of Wisconsin Chapter NR 809
16. State of Indiana Administrative Code Title 327, Article 8
17. State of Michigan Administrative Code R 325
18. State of Ohio Court Case: State of Ohio vs. Deer Lake Mobile Park Inc., et al., May 24, 2011, Case No: 11 M 000168

IV. GUIDANCE:

The following guidance was established to have consistent working definitions of the different types of public water systems and to provide additional guidance when, despite rule application, a definitive determination of whether or not a facility is a PWS is not easily made.

An actual population count is preferable, but a potential population should be taken into account if determining whether to regulate or not. In the interest of public health, reasonable access to water should be considered. A determination of whether a facility can restrict access to the water may need to be made. As you evaluate whether a system should be regulated, all the information should be looked at cumulatively. If any of the information evaluated meets the regulatory criteria, then the system should be regulated. In some cases, determining regulation may involve a process of documentation over time. Any documentation collected during the investigation must be kept in the file.

Public Water System: If a system meets the definition of a PWS – 15 service connections or 25 people 60 days per year – it will be further defined as a community (CWS), nontransient noncommunity (NTNCWS), or transient noncommunity water system (TNCWS). Listed below are situations considered by DDAGW. If regulation as a PWS cannot be determined or agreed upon, the PWS Definition Workgroup must be provided all the collected documentation for consideration and final determination.

A. Community Water System (CWS)

1. Any water system with 15 active or inactive residential service connections (as defined in 3745-81-01), whether the residence is currently occupied or not, will be regulated as a CWS. Active or inactive service connections could include apartments (whether rented or not) or mobile home park connections (whether occupied by a mobile home or not). The intent is to include transitory residences and occupants. If removal of service connections is being pursued for de-regulation as a PWS, plans should be submitted for approval. In these cases, a service connection must be severed at the main (in accordance with approved plans) in order to be decommissioned and not counted as an inactive or active service connection as a means to cease regulation as a PWS. (See Reference number 18.)
2. For a PWS with less than 15 service connections of a residential nature that appears to have 25 people but the owner claims the system serves less than 25 people, acceptable documentation could include leases, actual counts, occupancy permits, maximum number of manufactured homes or manufactured home lots for which the manufactured home park is licensed for by the licensing agency¹, and/or any other documentation acceptable by the PWS Definition Workgroup. If a system is currently active, with a PWSID, the Ohio EPA Public Water System Deactivation Request Form must be included in the documentation. (See Deactivation Procedure.)
3. Existing public water systems that seek to add sources or split the distribution system to avoid regulation by Ohio EPA, such that individual sources independently serving individual structures are owned by the same entity, will be considered a public water system if the total service connections or population meets the definition (e.g., apartments or complexes). For example, if you have 6 apartment buildings with 8 units each, and the owner proposes to serve each building by individual wells, you would look at the total population of the 6 apartment buildings and count each apartment unit as a service connection for purposes of determining whether or not the system is a regulated PWS. In this case, it would be a PWS based on service connections (6 x 8 = 48) and

¹ House Bill 487, Ohio Manufactured Homes Commission to license “Mobile Home Parks.” (www.omhc.ohio.gov)

population (2.44 individuals/service connection based on the average household size in OAC Rule 3745-81-01), and this equation ($48 \times 2.44 = 117.12$). Therefore, splitting a PWS by a single owning entity (a person or organization as referenced in the Federal Register 1401(4)) will not eliminate regulation by Ohio EPA. (See Reference number 13 for more information.)

B. Nontransient, Noncommunity Water System (NTNCWS)

1. Schools, pre-schools and day care centers will be classified as NTNCWSs if they meet the NTNCWSs public water system definition of regularly serving an average of at least twenty-five of the same persons over six months per year. These systems were specifically identified by USEPA in explaining the definitions of public water systems, as systems that were intended to be regulated as nontransient, noncommunity water systems, regardless of the specific days of attendance (for example, children that are in attendance less than 5 days/week) (see Reference 9). The population will be the total sum of enrolled students and staff. If a school, pre-school or day care does not meet the criteria for a NTNCWS based on the number of students and staff, the total population (including parents and other people) that have access to the water should be considered to determine if it may be a transient, noncommunity water system (TNCWS).
2. Places of employment determined to be a PWS where at least 25 employees are expected to be in attendance from day-to-day and have access to water at least 4 days per week for at least 6 months out of the year will be regulated as NTNCWSs (see Reference 9). At least 25 of the same people must have access to water on a given day, regardless of the amount of time spent at the facility. For example, even though a business may employ more than 25 people, at least 25 of the same people must be present at the business at least 4 days per week for at least 6 months per year to be classified as a NTNCWS. Daily employees or “the same people” counted as the population is key in this determination. Payroll or tax documentation records may be needed.

C. Transient, Noncommunity Water System (TNCWS)

1. To be classified as a TNCWS, the system must be open at least 60 days per year and regularly serve(s) an average of 25 individuals (not necessarily the same individuals). Those individuals have regular opportunity or access to the water (see Reference 9). It can be any 60 days out of the year, but must be at least 60 days.
 - a. Regularly serves an average of at least twenty-five individuals means the median of the highest 60 day population count is considered. The median (mid-point number) will be used to address “regularly” serving the average and is an effort to minimize outliers skewing the average. To calculate, take the 60 highest daily population counts and list from highest to lowest. Since there are 60 days, an even number, add the middle two days, 30 and 31, and divide by 2. If the quotient is equal to or over 25, it is a regulated TNCWS. Submission of documents, as specified in the rule, may be required for the determination of the highest 60 days of population count.
2. A transient population can be determined in several ways. None of them may provide definitive numbers; however, staff should approach determining the transient population by first asking the owner. If the owner provides a population over 25 then this may be all

that is needed. If the owner provides a population less than 25, but it appears to be a facility that would likely have at least 25 people per day, the defaults provided in 3745-81-01 will be used to determine if Ohio EPA may need to regulate the system. More investigation may still be necessary to arrive at a population number. Getting supporting information for the number of people the owner claims, or contacting other regulating entities (such as the health department, manufactured homes commission for mobile home parks, building code enforcement, fire marshal, jobs and family services for a daycare, liquor control commission for bars) would be the next step.

Note: While this policy is designed to provide clarification for determining regulation of a system, there may be circumstances when some of the approaches used in the transient portion of this policy could be used to determine other threshold populations, such as requiring a certified operator, determining monitoring frequencies or LTO fees. If the district can't determine population for additional requirements with the documentation provided, the PWS Definition Workgroup may provide an evaluation of the information. The information should be forwarded to the Workgroup for consideration.

If the owner disputes the population determined by rule, e.g. seating capacity, the following adequate documentation will be accepted. Any and all information should be collected and considered to determine the actual and potential population.

- i. Food Service Operations, Retail Food Establishments (including operations/establishments selling liquor for onsite consumption): Wholesale and/or retail receipts for one year. Unless the receipts quantify the number of people served, the PWS Definition Workgroup will evaluate the receipts. Examples include restaurants and bars.
 - ii. Religious Establishments: Attendance records for one year and calendar of events.
 - iii. Point of Purchase facilities – gas stations: In general, a factor of 1 register receipt will equal one person.
 - iv. Other Point of Purchase facilities such as retail establishments, car dealerships, etc. with the potential to serve large populations through restrooms (where receipts do not indicate population served): The PWS Definition Workgroup will use to the extent possible receipts to extrapolate potential population served and will determine a population in other cases where receipts are not available or representative. In rare circumstances, the workgroup may request an actual count done by Ohio EPA.
 - v. Any other documentation acceptable by the PWS Definition Workgroup.
 - vi. If a system is currently regulated, with a PWS ID, the Ohio EPA Public Water System Deactivation Request Form must be included in the documentation. (See Deactivation Procedure.)
3. Human consumption determination: A facility, such as a Food Service Operation or Retail Food Establishment, qualifies as a PWS only if it meets the 60 days/ 25 people or 15 service connections and serves water to its patrons, provides water for human

consumption (such as water for hand washing, which is commonly supplied in public restrooms), or uses water in food preparation and/or for the washing of food contact surfaces and/or utensils.

- a. In accordance with Chapter 4101:1-29 of the Administrative Code (Ohio Building Code, Plumbing Systems), Section 2901.1 governs the erection, installation, alteration, repairs, relocation, replacement, addition to, use or maintenance of plumbing equipment and systems. Section 2902.4 of Chapter 4101:1-29 requires a public toilet facility in structures and tenant spaces intended for public use. Therefore, newer establishments can't eliminate a restroom to avoid regulation.
 - b. A facility that only processes and manufactures packaged food falls under the regulations of the Department of Agriculture and does not equate to preparing food items.
4. Agricultural Labor Camp: Any water supply system serving an agricultural labor camp as defined in Section 3733.41 of the Revised Code is a public water system. The reported population should always be at least 25 individuals regardless of the actual population.

V. APPENDICES:

Appendix 1: Example of a median population calculation.

Appendix 2: Flowchart for determining PWS, CWS, NTNCWS, TNCWS

VI. HISTORY:

The Division of Drinking and Ground Waters initial guidance was issued on June 1, 1998, and was revised and reissued as a policy on June 9, 2014.

Appendix 1

Example of a Median Population Calculation

To use cash register receipts to determine the population count for a sample facility that is open 89 days a year, take the 60 highest daily population counts of the year and place them in order from highest to lowest as shown below. There are also 3 full time employees at the facility each day.

To determine the median, add days 30 and 31 ($24 + 24 = 48$) and divide by 2 ($48/2 = 24$). Add in the 3 employees and the final ($24 + 3 = 27$) result is a population count of 27. In this case, the facility would be classified as a PWS since the median number plus the employees is greater than 25. Using the median instead of the average excludes outliers of very high and low populations of limited durations.

If a system has very high numbers for days 1 through 29 (for example 15,000) and drops to 22 on days 30 and 31 with relatively low numbers from days 32 to 60, they should be considered by district management or referred to the PWS Definition Workgroup for final designation.

In the case of population counts of 25 people for 31 days and 1 or 2 for the remaining days will end in a final designation of being a PWS because the median is 25. These cases may need further research or referral to the PWS Definition Workgroup for review since they may be added to the OEPA books erroneously.

Traditional averaging (adding up all the population counts for the 60 days and dividing by 60) is not used because there are cases where there may be outliers that skew the final quotient. Using the median excludes outliers and allows for a more even handed approach toward the business community.

Day	Count
1	1867
2	1509
3	1254
4	69
5	69
6	69
7	68
8	68
9	68
10	67
11	67
12	67
13	67
14	67
15	67
16	59
17	59
18	58
19	58
20	58
21	57
22	57
23	57
24	57
25	57
26	37
27	37
28	36
29	28
30	24
31	24
32	... and so on to day 60.

Appendix 2

Flowchart for Determining PWS, CWS, NTNCWS, TNCWS

