



*Department of Health
and Human Services*

*Maine People Living
Safe, Healthy and Productive Lives*

Department of Health and Human Services
Maine Center for Disease Control and Prevention
286 Water Street
11 State House Station
Augusta, Maine 04333-0011
Tel: (207) 287-2070; Fax: (207) 287-4172
TTY Users: Dial 711 (Maine Relay)

MULTIPLICATION FACTORS FOR ESTIMATING THE POPULATION OF A PUBLIC WATER SYSTEM (PWS)

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Prepared By: N. Saunders
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PURPOSE: This policy specifies the method for using multiplication factors to determine the population served by a public water system. The number of people served water by a facility is used to determine if that facility is, or is not, a public water system, as well as for other determinations, such as the annual PWS Alternative Funding Mechanism (AFM) fee and sampling requirements. Therefore, this policy provides a system for consistent population calculations, so that records of these decisions reached as a result of this policy prove valuable and important to the DWP, if questions are posed.

BACKGROUND: Water systems which serve 25 or more persons for 60 days or more per year qualify as a public water system. Because determining the actual population served for the more than 1,800 public water systems regulated by the Drinking Water Program (DWP) is impractical and impossible to diligently track, the DWP has adopted the following policy. This policy determines population by using factors relating to the public water system's capacity to serve.

SCOPE: This policy applies to all Maine Public Water Systems

ORIGINATOR/OWNER: Roger Crouse/Nate Saunders

KEYWORDS: population; Bottled Water Exemption; PWS Pass-Fail Test, Parent-Child; Multiplication Factors Policy

DEFINITIONS:

Combined Water Systems: two or more water systems that are not "separate" (see definition of "Separate Water Systems").

Non-Community (NC): A Non-Transient-Non-Community (NTNC) or a Transient (T) PWS.

Parent and Child Water System: Separate* water systems on the same property, or rarely on abutting properties, that are owned by the same individual/company. (*unless an exception is approved by the DWP Director, See section 5. this document)

PWS: Public Water System

SDWIS: Safe Drinking Water Information System; the database used by the DWP to collect PWS data and information.

Seasonal System: (from 40 CFR 141 Subpart A – definitions) is a non-community water system that is not operated as a public water system on a year-round basis and starts up and shuts down at the beginning and end of each operating season.

Separate Water Systems: all parts of the well system (well, pumping, storage, treatment, and distribution piping) must be completely separate; two independent well systems may not share any infrastructure; two wells are not considered separate if the both enter the same structure. If two or more water systems are not "separate", then the combined water systems together are evaluated against PWS criteria.

RESPONSIBILITIES: All DWP personnel shall use this policy and the DWP Policy for Determining Classification and Overall Population to determine the population of a Maine Public Water System.

POLICY & PROCEDURE:

All population determinations and associated calculations (for new PWSs or changes to existing PWSs) must be recorded on the PWS Determination Form or in a sanitary survey written report. This

record is needed to document the sometimes complex decisions that are made on-site and in further discussions with representatives of water suppliers regarding population and PWS status.

Determining the population of public water systems involves the evaluation of many different scenarios including different business characteristics and facility operations; scenarios differ widely depending on the specific establishment being evaluated. This policy provides the detail necessary for making population decisions and calculations consistently across the State. Use the contents of this policy to identify circumstances most similar to the establishment being evaluated. Numerous specific examples and characteristics are cited. If the function of an establishment is not adequately described by the examples given here, identify an example(s) in this policy that is similar to the establishment being evaluated and involve DWP management to help make a final population determination.

1. Bottled Water Companies

Because the population served by commercial bottlers cannot be estimated accurately, minimum population values are used for each.

Services	=	1	(minimum)
Population	=	25	(minimum)

2. Community Water Systems

Community Water System (C): A public water system which serves at least 15 service connections used by year-round residents or regularly serves at least 25 year-round residents. (Year round is defined as permanent residence greater than six months.)

For this policy and procedure, 2.5 persons per household/connection is used consistently. The number 2.5 originally came from the US Census but after years of implementation has become a standard multiplier and is not changed with fluctuations of the US Census.

A. Municipalities, Districts, Companies, Associations, Waterworks

Services	=	Customers
Population	=	Services x 2.5

B. Manufactured Housing Communities (Mobile Home Parks)

Services	=	Number of licensed sites per Manufactured Housing Board licensing data
Population	=	Number of licensed sites x 2.5

The regulation of a Manufactured Housing Community (MHC), during new system approval or at any time, will be based on the number of sites the MHC is licensed for by the Manufactured Housing Board. If the MHC is licensed for 10 (ten) or more sites, the MHC will be regulated as an active community PWS, even if there are less than 10 sites occupied, homes on site, or sites developed. A MHC licensed for 10 or more sites with multiple, separate* well systems, each well systems serving 9 or less sites/homes, does not meet the criteria of a PWS. A MHC with a license for 9 (nine) or less sites does not meet the criteria of a PWS. See also the New System or Well Approval Policy & Procedure (DWP0068).

* For well systems to be considered as “separate”, all parts of the well system (well, pumping, storage, treatment, and distribution piping) must be completely separate; two independent well systems may not share any infrastructure; two wells are not considered separate if they both enter the same structure. For additional information on separating water systems to avoid PWS regulation, see the New System or Well Approval Policy and Procedure (DWP0068), and the Deregulation Policy and Procedure (DWP0045).

C. Apartment Complexes, Condominiums

Services = Living Units
Population = Living Units x 2.5

D. Senior Citizen Housing

Senior Citizen Housing facilities cater to elderly couples and individuals who live alone. It was determined that a multiplication factor of 1.5 individuals per dwelling unit would be a realistic estimate of the population served.

Services = Living Units
Population = Living Units x 1.5

E. Assisted Living Homes, Nursing Homes

Assisted Living Homes usually accommodate elderly individuals who live alone and require some medical supervision.

Services = Actual (minimum is one)
Population = # of Beds + # of staff

Note: if an Assisted Living Home or Nursing Home does not have 25 beds, the facility may still be a NTNC PWS with population = # of Beds plus total staff all shifts.

F. Residential Schools

Schools with dormitory facilities and/or housing served by the water system. Resident population must be present greater than six months. Otherwise, the system will be a NTNC or Transient public water system, depending on the system specifics. This classification is applicable to systems that are new to the Drinking Water Program or substantially changed after 10/9/07.

Services = Actual (minimum is one)
Population = Resident students plus resident staff

Notes:

1. For Determining PWS Classification of Community vs. Transient for a Water System Serving Condominiums, Homes, or Similar Housing Available More Than Six Months per Year, see Appendix C.

2. Vacant (unoccupied) living units (apartments, condominiums, homes, residential units, etc.,) are assigned a population of 2.5 per living unit. Only living units that are rendered uninhabitable (water service permanently physically disconnected) are not assigned a population of 2.5. See this policy (section 2.B) for calculating population of Manufactured Housing Communities (Mobile Home Parks).

3. Non-Transient, Non-Community Water Systems

Non-Transient Non-Community Water System (NTNC): A public water system that is not a community water system and that regularly serves at least 25 of the same persons for six months or more per year and may include, but is not limited to, a school, daycare, factory, industrial park, or office building.

Note: a water system operating for fewer than 6 months of the year cannot be a NTNC PWS.

Populations for non-transient, non-community water systems vary greatly and cannot be estimated accurately. Consequently, actual population counts will be used for these systems.

A. Schools, Childcares, including Before & After Care

Services = Actual (minimum is one)
Population = Students plus total staff, children on Childcare license plus total staff

Note: Childcares and Before & After Care facilities will be regulated based on the number of children the facility is licensed for, plus staff. A Childcare or Before & After Care facility must have a license that will total 24 or less when the number of children for which it is licensed and the number of staff are combined in order to not be a public water system.

Note on Before & After Care: If the combined total time of the Before & After care is less than 4 hours per child, then the Before & After Care population does not count as NTNC population. (EPA's definition of an NTNC system includes a population being present at least 4 hours a day, 4 days a week, 26 weeks per year). Most Before & After Care arrangements do not meet this qualification of NTNC population. But, if Before & After Care is not considered NTNC population, it is considered Transient population. For example, a child care facility with an NTNC population of 22, that also has Before & After care for 10 children, will be considered a Transient PWS with a population of 32. See the Policy for Determining Classification and Overall Population (DWP0008) for additional guidance on determining population for facilities with combined populations.

B. Offices, Businesses

Services = Actual (minimum is one)
Population = Total staff all shifts

C. Factories

Services = Actual (minimum is one)
Population = Total staff all shifts

D. Hospitals, Medical, and Dental Facilities with 25+ Staff

Note: for Hospitals, medical, and dental facilities with less than 25 staff persons, see the Transient, Non Community System calculations, this policy.

Services = Actual (minimum is one)
Population = total staff all shifts (assumes patients as “Transient” population, present less than six months)

Note: for patients present more than six months, see Assisted Living Homes, Nursing Homes calculations for Community Water Systems, this policy.

E. Eating and Lodging Establishments with a staff of 25 or more full-time equivalent (FTE) employees

FTE employees are calculated by the following:

$$\text{Total FTE} = \frac{\sum(\text{Number of hours worked by each employee per year})}{2080 \text{ hours/year/FTE}}$$

F. Miscellaneous Systems – Shopping Malls, Businesses, etc. with a staff of 25 or more full time equivalent (FTE) employees

FTE employees are calculated by the following:

$$\text{Total FTE} = \frac{\sum(\text{Number of hours worked by each employee per year})}{2080 \text{ hours/year/FTE}}$$

Notes on the use of Full Time Equivalent employees (FTE) in (E) and (F) above:

- FTE employees are considered for PWS classification and population determination when part-time employees are “regularly” present in a work force, e.g. a child care facility operating throughout the year (September to June) with regular part time employees. The EPA has provided guidance that NTNC population is present at least 4 hours per day, 4 days a week, 26 weeks per year. It is estimated that although some part time shifts are less than 4 hours, the majority of part time shifts are more than 4 hours. Therefore, the use of FTE’s for calculating population meets the intent of the EPA guidance on NTNC population. As an example, a child care facility that serves (combined) 23 children and full time staff, along with 4 part-time employees, each working a half-day throughout the year, will be an NTNC PWS with a population of $23 + \frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2} = 25$.
- Seasonal Staff Increase: Transient PWS with seasonal (less than six month) employee increases will not be changed from Transient to NTNC classification as a result of an FTE calculation. An example is a restaurant that has 20 full time employees throughout the year and adds an additional 5 full time staff or 10 part time staff from May through September (5 Months); when the seasonal staff increase of employees makes a total of 25 FTE staff or more, this restaurant will still remain a Transient PWS.

G. Churches with a School or Childcare

Note: Churches operating without any additional services/functions provided (such as a school, a childcare, or function room available for public events) are not regulated as public water systems.

Church with a School: NTNC Population = church staff + school staff + students

Church with a Childcare: NTNC Population = church staff + day care staff + # of children on childcare license

Notes:

- See detail on Before & After Care above to determine if this population would be considered NTNC population or Transient population.
- Population determination will be based on childcare license, not the current number of staff and children.

4. Transient, Non-Community Water Systems

Transient Non Community Water System (T or NC): A public water system (PWS) that serves at least 25 persons, but not necessarily the same persons, for at least 60 days per year and may include, but is not limited to, a highway rest stop, restaurant, motel, golf course, park, or campground.

For establishments serving a Transient population (other than eating facilities), a state license (Health Inspection Program, Dept of Agriculture, Childcare Licensing, etc.) will be used in determining if the establishment meets the criteria of a Transient PWS, and to determine the population served.

For Transient eating facilities or convenience stores, the PWS Pass/Fail Test is used to determine if the establishment meets PWS criteria. If the establishment meets PWS criteria, the establishment's state license will be used to determine the population served.

Historically, the DWP has used minimum seat # to determine if an establishment that serves food meets the PWS criteria. However, this practice resulted in the regulation of some facilities that did not provide tap water for human consumption and the failure to regulate some facilities which do provide tap water for human consumption.

In order to accurately determine if an eating facility is a public water system, a "pass/fail" test is used. This pass/fail test assumes that a facility selling or providing food will have at least 25 customers per day.

If the facility "passes" the test (considered a public water system) the DWP will then determine the population served using two Drinking Water Program (DWP) policies: this policy, Multiplication Factors Policy for Estimating the Population of a Public Water System DWP0084, and Policy for Determining Classification and Overall Population DWP0008.

See APPENDIX A for the Pass/Fail PWSTest

Justification for exempting eating facilities and convenience stores that use tap water only for hot drinks (hot coffee, hot tea, hot chocolate, hot cappuccino, etc.) from PWS regulation:

1. All of these facilities are either licensed by the Department of Agriculture or DHHS Health Inspection Program and are therefore required to test the water at least annually for bacteria or nitrates/nitrites.
2. The sheer volume of these establishments would overwhelm DWP staff resources and prevent staff from working with systems that could pose a much greater public health risk.

Populations for transient, non-community water systems vary greatly in type and size. However, populations can be estimated, based on service patterns and business types.

A. Eating Establishments with seating and multiple meal service (full service – 3 meals daily)

Full service eating establishments with seating facilities that provide multiple meal services (typically breakfast, lunch and dinner) are characterized by a consecutive turn over in customer seating. The Health Inspection Program bases license fees on the number of seats. The Subsurface Wastewater Unit also calculates waste disposal requirements (gallons used) based on the number of seats. It was determined that a multiplication factor of five individuals per seat was a conservative estimate of population served.

Services = Actual (minimum is one)
Seats = # of seats licensed by Health Inspection
Population = Seats x 5.0

B. Eating Establishments with seating and limited meal service (fewer than 3 meals daily)

Limited service eating establishments with seating facilities that serve fewer than 3 meals per day but have a consecutive turn over in customer seating.

Services = Actual (minimum is one)
Seats = # of seats licensed by Health Inspection
Population = Seats x 3.0

C. Eating Establishments with seating and single meal service (limited service, one meal, no turn over) - Senior Citizen Meal Sites, Commissaries, VFW Posts

For limited service eating establishments with seating that serve a single meal and have no turnover in customer seating, population served is based on the actual capacity of the facility (must serve 25 people per day for 60 days of the year).

Services = Actual (minimum is one)
Population = number of people served per day (25 or greater) at least 60 days per year

Note on eating facilities with combined seating types: It is not uncommon to have a facility that has a portion of their facility dedicated to 3 meals a day, and, in addition, has an event room (not regularly used) capable of handling a large population. In this, and other similar

situations, population can be calculated differently for different functions of the business, and then added. As examples:

Population for a Function Room = 1 per person/seat
Population for a Bar primarily open at night = 1 per person/seat

For a restaurant providing 3 meals a day with 25 seats that also has a function room (not regularly used) with a capacity of 50 seats, the population for this facility would be:

$$(25 \times 5) + 50 = 175$$

For a restaurant providing 3 meals a day with 25 seats that also has a bar area with 20 seats, used primarily in the evening (not used for meal seating during the day), the population for this facility will be:

$$(25 \times 5) + 20 = 145$$

Potential exception on calculating population for an “eating establishment” (only) in unorganized territories and very sparsely populated areas: In such areas, there are times when a population calculated, using the methods of this policy, simply does not reflect the expected population at an eating establishment. When an exception to these calculation methods is warranted, approval must be obtained from the DWP Field Inspection Team Manager and the reasoning and final determination must be captured thoroughly on a PWS Determination Form. Exceptions to the calculations in this policy are possible, but they should rarely occur. The “potential to serve” must be thoroughly considered when making population determinations. THIS EXCEPTION OPPORTUNITY CANNOT BE USED TO DETERMINE WHETHER A FACILITY IS OR IS NOT A PWS (SEE PWS PASS/FAIL TEST FOR THAT); AN EXCEPTION CAN ONLY BE USED TO ALLOW AN ALTERNATE FINAL POPULATION OF A PWS. In practice, this exception opportunity may result in using 3 or 2 people per seat instead of 5 people per seat in a restaurant.

D. Eating Establishments without seating

Services = Actual (minimum is one)
Population = Minimum population is 25

E. Lodging Establishments without food service

These facilities provide *temporary housing* (less than 6 months per year) for individuals ranging from the single traveler to families.

Hotels, Motels
Services = Actual (minimum is one)
Population = Rooms x 2.0

Cottages/Cabins:
Services = Actual (minimum is one)
Population = Bedrooms x 2.0

Timeshare/Condominium:
Services = Actual (minimum is one)

$$\text{Population} = \text{Units} \times 2.5$$

F. Combination Eating and Lodging Facilities

1. Lodging establishments with food service intended for individuals staying at the facility rather than the general public. Hotels, Motels, Bed & Breakfasts

$$\begin{aligned} \text{Services} &= \text{Actual (minimum is one)} \\ \text{Population} &= \text{Bedrooms} \times 2.0 \end{aligned}$$

2. Lodging establishments with food service intended for individuals staying at the facility and the general public. Hotels, Motels, and Bed & Breakfasts (these facilities will have an “Eating & Lodging” license from the Health Inspection Program).

Use the PWS Pass/Fail test to evaluate the “eating” facility and the bedroom calculation in F.1 above to evaluate the “lodging.” For overall PWS population, add the eating population and lodging population.

Note: If a Bed & Breakfast serves meals only to people staying at the Bed & Breakfast, the establishment will have a “Bed & Breakfast” license from the Health Inspection Program. For an establishment with a “Bed & Breakfast license, PWS determination is made based on the number of bedrooms in the establishment. If a Bed & Breakfast also serves meals to people who are not staying at the Bed & Breakfast (the general public), the establishment will have an “Eating and Lodging” license from the Health Inspection Program. If a Bed & Breakfast has an “Eating and Lodging” license from the Health Inspection Program, then the PWS Pass/Fail Test is also used to determine whether this establishment meets PWS criteria (PWS determination is no longer based on the number of bedrooms alone). For example, a Bed & Breakfast with an “Eating and Lodging” license with 5 lodging rooms that “passes” the PWS Pass/Fail test for “eating” needs to be regulated as a PWS based on the eating portion of their business.

G. Camping Facilities without Food Service: RV Camps, Campgrounds, Recreational Camps

$$\begin{aligned} \text{Services} &= \text{Actual (minimum is one)} \\ \text{Population} &= \text{Sites} \times 2.5 \text{ and/or } \text{bedrooms} \times 2.0 \end{aligned}$$

H. Camping Facilities with Food Service

1. RV Camps, Campgrounds, Recreational Camps

Although these facilities provide food services, those services are intended for individuals staying at the camp rather than the general public. Therefore food service is not considered to be a factor in estimating population.

$$\begin{aligned} \text{Services} &= \text{Actual (minimum is one)} \\ \text{Population} &= \text{Sites} \times 2.5 \text{ and/or } \text{bedrooms} \times 2.0 \end{aligned}$$

2. Boys and Girls Camps, Scout Camps, Church Camps, Sporting Camps

Because the population served by these camps varies greatly between individual facilities and because food service is intended for individuals staying at the camp rather than the general public, population is based on the actual capacity of the camp (total staff and campers).

Services = Actual (minimum is one)
Population = Camp capacity plus total staff all shifts

I. Drive-In Theaters

Services = Actual (minimum is one)
Population = Parking spaces x 2.0

J. Day Use Parks, State Parks, Beaches, Picnic Areas

Services = Actual (minimum is one)
Population = Parking spaces x 2.0

K. Miscellaneous Facilities, Day Use-Stores, Ski Areas, Fairgrounds, Airports

Services = Actual (minimum is one)
Population = Minimum population is 25 adjusted upward on a case-by-case basis

L. Golf Course with a clubhouse, without a restaurant

Services = Actual (minimum is one)
Population = 1 x # of seats in the clubhouse

Note: For a Golf Course with a restaurant, determine the population using Eating Establishment calculations to

M. Interstate Rest Areas and Border Crossings (that are not an NTNC)

Services = Actual (minimum is one)
Population = 25 fixed

N. Churches with a function room available for public events, or “Before & After Care” facilities with a population that does not meet NTNC criteria

Note: Churches operating without any additional services/functions provided (such as a school, a child care, or function room available for public events) are not regulated as public water systems.

Church with a Function Room Available for Public Events: A church that has a function room that is regulated by the Maine Health Inspection Program is also a public water system.

Transient Population = Church membership or average attendance at public events, whichever is greater

Church with Before & After Care:

Transient Population = Church Membership + Before & After Care staff + # of children on childcare license

Notes:

- See detail for Before & After Care under Section 3. Non-Transient, Non-Community Water Systems to determine if this population would be considered NTNC population or Transient population.
- Population determination will be based on childcare license, not the current number of staff and children.

O. Facilities with Bathrooms Only

Some facilities where the only water access is in the bathroom may not be regulated as a Public Water System (PWS). Such facilities have a population that is present for a short period of time (minutes), such as a rest area, gas station, or convenience store. Conversely, establishments that have a population present for longer periods of time must meet PWS regulations. For example, recreational facilities, campgrounds, and beach houses (with no other source of water nearby), must meet PWS regulations.

Facilities that have a population that is present for only a short period of time (minutes) where the only water access is in the bathroom are **not** considered a public water system unless:

1. There are cups in the bathroom
2. There is a drinking fountain in the bathroom
3. The facility is likely the only source of drinking water in the area. (No other facilities close by to access water or purchase beverages).

Examples of bathroom-only facilities which typically **do not** qualify as a public water system:

- Take-out facility that does not meet PWS criteria but has bathrooms available to the public
- A gas station with bathrooms
- A common meeting house (common to a group of condominiums) that does not have kitchen facilities but does have bathrooms available for the public or establishment occupants
- A border crossing with bathroom facilities only (no water fountain)
- A golf course only serving water from sinks in bathrooms and not in any other way and does not serve well water on the course.

Examples of bathroom-only facilities which typically **do** qualify as public water systems:

- Public beach or recreation area in which the bathroom is the only source of water in the area;
- Isolated Rest Areas;
- Community gathering facilities such as grange halls, recreation halls, snowmobile clubs, fish and game clubs, legion halls, etc. with 60 or more events per year. (Note: most of these types of facilities will have kitchen facilities also);

- Recreational facilities with a high likelihood of people drinking the water. For example, a gymnasium or soccer complex with 25 or more of participants (children/teens/athletes) and staff would be regulated, if the facility serves water from sinks in bathrooms only; and
- Campgrounds

P. Facilities with a Water Fountain

Facilities with a water fountain are considered a public water system unless there is clear proof that the water fountain cannot be accessed by the public or there is sufficient proof to show that 25 people for 60 days a year do not use the water fountain.

Q. Outside Spigots Available to the Public

Town offices or other buildings that have outside spigots are considered public water systems unless there is clear proof that the spigot is not accessed by 25 people for 60 days a year for drinking water.

Note: As a result of revision B of this policy, some facilities that were previously deregulated by the DWP will now meet the criteria of a public water system and will need to be re-regulated. For such facilities that have not substantially changed since being deregulated, including those facilities that have been deregulated for more than five years, the facility will be reregulated with pre-existing setbacks (no setback waivers will be required) and will not have to complete new well approval testing, unless new contamination sources have been established within 300 feet of the well since deregulation; the presence of new contamination sources will require the system to adhere to DWP setback policies and potentially additional sampling requirements. The monitoring requirements from the DWP WT-IS policy (DWP0072) will apply to facilities with insufficient setbacks.

R. Libraries

A library that is visited by 25 people per day, 60 days per year, by default is considered to be a public water system (PWS). Additional information such as a high tendency for children to frequent the library or that a school is nearby further supports regulating the library as a PWS. In less common situations where a library is in a rural setting with attendance barely meeting minimum PWS requirements, with no other activities that further justify regulation as a PWS, it may be determined that such a library is not a PWS.

S. Hospitals, Medical, and Dental Facilities with less than 25 Staff

Note: for Hospitals, medical, and dental facilities with more than 25 staff persons, see the Non-Transient Non-Community Water System calculations, this policy.

Services = Actual (minimum is one)
 Population = Beds plus total staff all shifts
 or
 Population = Examination Rooms x 8 plus total staff all shifts
 (Assumes 1 person per room per hour)

5. Parent and Child Water Systems

Parent and Child water systems are generally separate water systems on the same property with the following characteristics:

- Each system meets the criteria of being a PWS independently, unless an exception is approved by the DWP Director e.g., three independent water systems, interconnected (in a well house), each serving less than 25 people See definition of Separate Water Systems, this policy;
- Each system must operate independently;
- The systems maybe interconnected by hard pipe but must be separated with a closed valve;
- There may be more than one child system; and
- Usually Parent and Child systems have the same owner- initially they would have the same owner, but over time the ownership of each individual water system might change; however they would maintain their parent/child PWSID numbering.

Notes:

- a) Although rare, separate water systems on abutting properties (right next to each other) with the same owner may be considered Parent and Child PWS. In contrast, water systems on separate, non-abutting properties with the same owner are not considered Parent and Child PWS.
- b) Two independent distribution systems with separate owners, yet sharing the same well, are set up as “consecutive PWS”, not parent and child systems.

In SDWIS, Parent and Child PWSID#s are issued as follows:

- The Parent PWSID# is “ME00XXXXX
- The 1st Child PWSID# is ME01XXXXX
- The 2nd Child PWSID# is ME02XXXXX
- Etc.

For PWSID#s of the form ME000XXXX, the 1st Child PWSID# would be ME010XXXX
For PWSID#s of the form ME0000XXX, the 1st Child PWSID# would be ME0100XXX
Etc.

****NOTE:** The 1st digit after the ME in the PWSID# must always be a zero.

Because the population of the water system dictates the AFM Fee, the Field Inspector should use the following guidance when determining the population of the parent and child water systems:

A. In a facility where most, or all, of the population can, and will likely, access the parent and child water systems, the population of the parent system should equal the entire population of the facility. The child systems will have a base population of 25. As a result, the grand total of the population in SDWIS for the combined parent/child systems would equal the entire population, plus 25 times the number of child systems.

$$\text{Total Population} = \text{Parent Population} + 25 \times (\# \text{ of child systems})$$

Note: It would not make sense to split this type of system into two self-sustaining PWS's.

Transient PWS Example: An example of this type of facility would be a boys/girls camp where the dining facility is on one well and the sleeping areas/bathroom facilities are on another well. An additional example would be a campground with a water system(s) serving the camping area and a separate water system serving the common bathroom facility.

Community PWS Example: In the case of a facility that has a water system(s) serving individual units (sites, homes) and a separate water system serving a common area, the population of the water system(s) serving the individual units would equal the calculated population based on the number of units. The population of the common area would be 25. The sum population for all water systems would equal the calculated population for each water system serving individual units plus 25 (for the common area). An example would be a mobile home park or home owners association with more than one water system including a well serving a community center that all residents could access.

B. A facility which is divided into multiple water systems, each with their own unique population, should have the entire population divided appropriately between the parent/child systems. In this case, the sum of the population of each water system would equal the whole population served. These types of systems might include a campground with campsites that are separated enough so that campers in one area are generally not accessing the facilities in another area. A mobile home community with parent /child systems would also fall under this situation.

Total Population = Parent Population + 1st Child Population (...+ 2nd Child Population...etc.)

Note: This type of Parent and Child System could be split into self-sustaining PWSs.

6. Calculating Population for Systems with Seasonal Changes

For systems that have a seasonal change in population, the larger population is used to determine the overall PWS population. An example is a restaurant that has 100 seats and offers three meals per day in the summer time, yet scales back to 25 seats and two meals per day during the winter time. In this example the population will be $5 \times 100 = 500$. For systems with seasonal changes, averaging populations or using the lower population is not acceptable for population calculation.

7. Annual Operating Period (AOP):

The annual operating period needs to include all dates when events occur at a facility (advertised events, rentals of property, etc.) when use of the facility is available to the public and is not limited to serving less than 25 people per day for an extended period of time. The Annual Operating Period includes time when use "happens to be less than 25 people per day" and does not include time when facility use is "limited to less than 25 people per day". The Annual Operating Period for a Seasonal System allows one "active/inactive" cycle per year e.g., "active" 8 months of the year and "inactive" 4 months of the year. (See definition of Seasonal System, this document).

If an establishment owner or representative states that it is operation during a certain operating period, but it conflicts with internet or other publication or advertisement, which indicates a different operating period, the decision on operating period will be based on the advertised and published availability of the establishment.

Example of a Seasonal System with an AOP of less than 12 months:

A restaurant operates May through September and its water system also serves 3 one-bedroom cabins that are rented year-round. In this case, when the restaurant shuts down in September, the DWP Multiplication Factors Policy (DWP0084) shows the remaining three cabins have a population of six (6) total and do not meet the criteria of a PWS without the restaurant in operation. Therefore this system is allowed an AOP of May through September.

Example of a system that is not a Seasonal System and must have an AOP of 12 months:

A ski area operates its lift equipment December through February. During the rest of the year the facilities are available for public events such as weddings or sports competitions, and/or rentals of lodging facilities, and lift operation occurs for specific functions, not continuously (e.g. weekends during the summer and leaf peeping in the fall). In this case the ski area never has a period of the year where the population is specifically limited to less than 25 people per day and its AOP will be 12 months.

Note: For schools, see the Information Coordinator to determine the AOP.

8. Separating (Splitting) Water Systems to Avoid PWS Regulation:

For additional information on separating water systems to avoid PWS regulation, see the New System or Well Approval Policy and Procedure (DWP0068), and the Deregulation Policy and Procedure (DWP0045).

ASSOCIATED DOCUMENTS:

PWS Determination Form DWP0076

Policy for Determining Classification and Overall Population DWP0008

Maine DWP New System or Well Approval Policy and Procedure DWP0068

Maine Rules Relating to Drinking Water 10-144 Chapter 231

Sanitary Survey – Small System Procedure DWP0114

Sanitary Survey – Large System Procedure DWP0115

Water Testing for Non-Community PWS with Inadequate Setbacks from Leach Fields
DWP0072

Memorandum of Agreement between DEH Health Inspection Program and the Maine Dept. of Agriculture (See Electronic Field Manual, Section 22: Interagency Cooperation)

SUPERCEDED DOCUMENTS:

DWP Takeout Policy

RETENTION:

This document is retained per DWP record retention requirements.

REVISION LOG

Section	Page	Rev.	Date	Description Of Change	Approved by:
		Original	5/18/2004		Nancy Beardsley
		A	10/9/2007		Nancy Beardsley
		B	8/19/2010	Reformatted, add Pass/Fail PWS Test, PWS w/ combined functions, before & after care, info on FTEs, Policy on churches, cabins and rooms, limited exception process, bathrooms only, incorporating Takeout Policy.	Roger Crouse
4 Appdx A 2E	6 13 3	C	8/30/2010	Clarification on only washing food &/or dishes. Added "Nursing Homes" to "C" definitions, same as Assisted Living Homes	Roger Crouse
4, Appdx A	6-7, 13-14	D	5/2/2011	Clarification: regulated PWS only when water is an ingredient in "uncooked" food.	Roger Crouse
2 3 4 Appdx C	2,3, 3 5, 10 15	E	2/29/2012	Added policy on "C" to "T" transition, Manufactured Home Communities, NTNC & T regulation and population is based on State license, population set for golf courses, rest areas, and border crossings, Appndx C	Roger Crouse
Appdx B	16,17	F	6/12/2012	Added PWSID# line to BWE Form. Stated who to send completed BWE Form to. Added when BWE Form is required, not required	Roger Crouse
Definitions Section 5	1, 12-13	G	10/16/2012	Added section 5 on parent-child definition and population calculation. Minor grammatical corrections throughout document	Roger Crouse
Section "P" and	Pgs. 12 and 14	H	1/30/2013	Specifics on Libraries and calculating population on	Roger Crouse

"6" Added.				seasonal systems added.	
		I	3/18/2013	Revision I is not used	-----
Section 4 Appendix A and B	Pgs. 6, 15-18, 20	J	4/16/2013	Clarification on BWE, language and flowchart added, modified BWE Form. Added clarity to 4.F. Corrected lettering in section 4.	Roger Crouse
Section 4.O Appendix A and B	Pgs. 10,11	K	9/19/2013	Changes made to policy on bathrooms only facilities. Coffee and hot drinks removed as criteria for being a PWS. Removed signature of DEH Inspector from BWE form.	Roger Crouse
Several	Several	L	10/7/2014	Added Index; definition of "Separate Water System"; clarification on MHC regulation; PWS<6 Month cannot be an NTNC; clarification on FTEs and seasonal staff increases; clarification on recreational facilities and bathrooms only policy; clarification on parent/child facilities; added section Annual Operating Period; added associated documents; changed "daycare" term to "childcare". Added section on Separating (Splitting) Water Systems to Avoid PWS Regulation, Modified NTNC Pop calculation for hospitals, medical and dental facilities. Added T pop calculation for hospitals, medical and dental facilities.	Roger Crouse
Section 2	7	M	2/20/15	Added Section 2, Note 3 to document a previously implemented but undocumented vacant	Roger Crouse

				unit population assignment.	
Ref Docs Sec 2- Note 2 Appndx C	18 7 29	N	2/25/25	Removed reference to an obsolete policy DWP0004 – Actual Community Population, as requested by Roger Crouse	Nathan Saunders for Roger Crouse

APPENDIX A

MAINE DRINKING WATER PROGRAM PWS PASS/FAIL TEST

In order to accurately determine if an eating facility or a convenience store is a public water system, use the following “PASS/FAIL” test. This test assumes that a facility selling or providing food, in order to stay in business, will likely have at least 25 customers per day.

If the facility “passes” the test (considered a public water system) the DWP will then determine the population served using two Drinking Water Program (DWP) policies: this policy, Multiplication Factors Policy for Estimating the Population of a Public Water System DWP0084, and the Policy for Determining Classification and Overall Population DWP0008.

Pass/Fail PWSTest

The pass/fail test applies only to facilities which provide food service (restaurants, take outs, coffee shops, convenience stores, sandwich shops, etc.). If the facility does not provide food service, use one of the criteria found in this DWP policy to determine the population and whether or not the facility meets the minimum PWS criteria. A facility that provides food service but fails the test may still be a public water system based upon other activities at the facility. (e.g. a campground with a snack bar). The snack bar may not serve tap water but the campground will likely have running water available in bathrooms, showers, or at individual sites. In this case, the campground will still be evaluated to the public water system criteria, found in DWP Policy.)

- Does the facility serve **tap** water in any of the following forms? (If “yes”, the facility is a PWS):
 - Cups of water
 - Drinks made on-site: post mix soda, juices, lemonade, slushies, ice tea, etc.
 - Ice made on site and served to the public
 - Drinking water fountain
 - Cups provided in the restroom or near any other sink where the public can get a drink of water
 - Water used as an ingredient in uncooked foods made onsite (instant gelatin, powdered yogurt or ice cream)
 - Other activities where water is provided for human consumption

Notes:

- Washing food and/or dishes alone with an establishment’s tap water does not warrant PWS regulation; these activities are regulated by other agencies.
- An eating establishment or convenience store serving only hot drinks including coffee, tea, hot chocolate, cappuccino, etc., that is not serving tap water in any other way listed above, is exempt from being regulated as a public water system. For example, a coffee shop serving only hot drinks and not serving tap water in any other way listed above, is exempt from PWS regulation.
- Iced drinks can be made with a hot or cold process and are often combined with ice made on site. Regardless of the process used to make the cold drink, if the facility serves cold drinks made with tap water, the facility will be regulated as a PWS.
- Transient eating facilities and convenience stores are the only type of facilities that can sell/serve/offer bottled water as a means of preventing the facility from being a public water system. This enables these two types of establishments to make business decisions that will prevent them from being a PWS (see the following section on Bottled Water Exemption).

Appendix A, Page 1 of 4

If the eating facility or convenience store is a PWS based on the pass/fail test above (i.e. “passes”), refer PWS to the Drinking Water Program as a qualifying PWS needing New System Approval and population determination.

If the eating facility or convenience store “fails” the pass/fail test and has no other types of tap water services, then the facility is not a public water system, and no further analysis is needed.

Bottled Water Exemption

For eating facilities and convenience stores that choose to use bottled water to avoid serving tap water to the public, the Bottle Water PWS Exemption Form (Appendix B) must be signed by the facility owner or contact and kept on file with the DWP as evidence of the business decisions made that would prevent a system from being regulated as a PWS. Penalties for providing inaccurate information on this form are detailed on the Bottled Water PWS Exemption Form.

Clarification (see Flowchart below for Issuing a Bottled Water Exemption):

Definitions:

- “Bottled Water” is defined as purchased bottled water.
- “Convenience Store”: A Convenience Store is regulated by the Maine Department of Agriculture. A Convenience Store is an establishment where the predominant business (greater than 50%) is the sale of groceries, gasoline, or items other than food prepared on-site. An establishment where more than 50% of their business is food prepared on site is not considered a “Convenience Store”.

Notes:

- An Eating Facility is regulated by the DEH Health Inspection Program
 - A Convenience Store can still be a PWS: a Convenience Store will meet the criteria for being a PWS if tap water is served in more ways than just hot drinks.
 - The definition of a Convenience Store is based on the Memorandum of Agreement between the DEH Health Inspection Program and the Maine Dept. of Agriculture.
 - “Exempt from being regulated” means that a Bottled Water Exemption is not applicable (not needed).
1. If an eating facility or convenience store serves tap water in ways other than hot drinks (See Pass/Fail Test) and they eliminate, not by using bottled water, all ways of serving tap water to the public except serving hot drinks, then the facility is exempt from being regulated as a PWS.

An example would be a gas station serving coffee that has a slush machine. If they remove the slush machine, this facility will then be exempt from being regulated as a PWS.

2. If an eating facility or a convenience store serves tap water in ways other than hot drinks (See Pass/Fail Test) and they eliminate, by using bottled water, all ways of serving tap water to the public except serving hot drinks, then the facility needs to obtain a BWE to avoid being a PWS.

An example would be a gas station that serves coffee and has a slush machine, yet they decide that they will use bottled water for the slush machine, to avoid being a PWS. This facility needs to obtain a Bottled Water Exemption to avoid being a PWS.

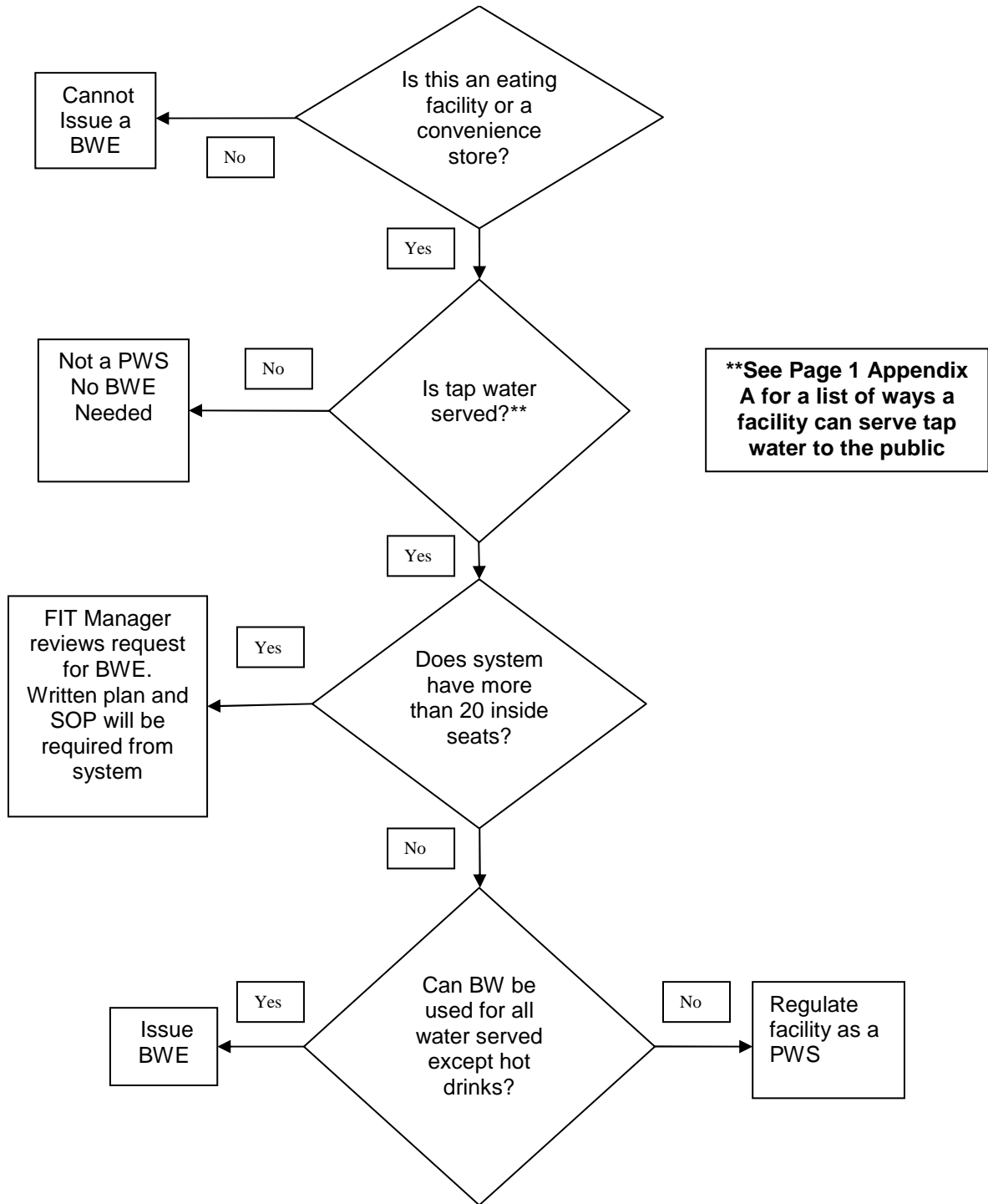
3. If an eating facility or a convenience store decides to continue to serve water in ways other than hot drinks (See Pass/Fail Test), then they must be regulated as a PWS for all ways that they serve water to the public, including hot drinks.

An example would be a small country store that serves coffee, has a slush machine, makes their own ice, and serves post-mix soda. If this facility decides that they want to continue all of these practices using their tap water, then this facility needs to be regulated as a PWS, and water used for all purposes including hot drinks needs to come from their regulated source; hot drinks are no longer exempt from regulation at this facility.

4. A bottled water exemption for an eating facility or convenience store with more than twenty (20) seats must be approved by the DWP Field Inspection Team Manager. For consideration for approval, the establishment must provide a detailed written description of how bottled water will be obtained (identification of at least two sources will be required) to continually meet the demand of the business, along with a written procedure for employees describing the necessary use of bottled water for all methods of serving water to the public. The written description and employee procedure provided will be evaluated and considered during the process of approving or disapproving a bottled water exemption for an eating facility or convenience store with more than 20 seats.

To determine if a facility is eligible for, or needs to obtain, a Bottled Water Exemption, see the flow chart below.

Flow Chart for Issuing a Bottled Water Exemption (BWE)



APPENDIX B

BOTTLED WATER PWS EXEMPTION FORM

This form is used to record the details of where bottled water will be used at a transient eating facility or convenience store to prevent regulation as a public water system. See Appendix A for determining who is eligible for a Bottled Water Exemption. This form is filled out by a Division of Environmental Health Inspector and establishment contact or owner.

Establishment Name: _____

Address: (Street & Town/City) _____

PWSID# (if applicable) _____ EST ID# (if applicable): _____

Dept of Ag ID # (if applicable): _____

Division of Environmental Health Inspector Name: _____

Contact Individual/Owner:

Name: _____ Telephone Number: _____

Describe how bottled water will be used at this transient eating facility or convenience store as a method of avoiding serving water to the public from an on-site source of water:

Maine law (17-A MRS453) makes unsworn falsification a Class D crime, punishable by up to 364 days of incarceration or up to a \$2000 fine (or both). You are guilty of unsworn falsification if you make any written false statement with the intent to deceive a public servant in the performance of his official duties.

Establishment Owner/Contact Signature: _____

Date: _____

Submit completed form to the DWP Field Inspection Team Manager. This form shall be kept on file with the Maine Drinking Water Program.

When is a Bottled Water Exemption (BWE) Form Required, or Not Required?

A BWE Form Is Not Required when an eating facility or a convenience store does not serve tap water at all, or only serves tap water in hot drinks such as coffee, tea, hot chocolate, cappuccino, etc.

1. An eating facility or a convenience store is found that does not serve tap water to the public in any way, or is selling hot drinks such as coffee, tea, hot chocolate, cappuccino, etc. made with their own tap water and does not serve water to the public in any other way (See PWS Pass/Fail test). This type of system is simply exempt from PWS regulation.
2. An eating facility or a convenience store is found that does serve tap water to the public in ways other than hot drinks such as coffee, tea, hot chocolate, cappuccino, etc. and removes (not by using bottled water) all ways tap water is served to the public other than hot drinks (See PWS Pass/Fail test). This type of system is simply exempt from PWS regulation.
3. While investigating an eating facility or convenience store to determine if it meets PWS criteria (using the PWS Pass/Fail Test) it is found that the facility is not serving water and currently sells bottled water. This is an example of an establishment that simply does not meet the criteria of a PWS. In this case the BWE Form is not required because the system is not a PWS and the establishment has not just made a business decision to use bottle water to avoid being a PWS. This scenario describes numerous takeout facilities and convenience stores throughout the State that do not serve water from their well yet do sell bottled water; we do not use a BWE Form for this type of establishment.

A BWE Form Is Required when an eating facility or convenience store is found to be serving tap water or plans to serve tap water, and a business decision is made to serve/use bottled water instead of tap water:

1. An eating facility or convenience store not currently regulated as a PWS is found to be serving water (after the fact system) or plans to serve water (proposed system) and a business decision is made by the establishment to use bottled water instead of using tap water, in order to avoid meeting the criteria of a PWS. In this case, it is necessary to capture how bottled water will be used as a substitute for tap water on the BWE Form. The form is signed by the establishment as a record of their plan to use bottled water.
2. An eating facility or a convenience store that is an active PWS makes a business decision to use bottled water instead of using tap water, in order to be deregulated. In this case, it is necessary to capture how bottled water will be used as a substitute for tap water on the BWE Form. The form is signed by the establishment as a record of their plan to use bottled water.

Note to the DHE Inspector: Issue a BWE only if you believe that the establishment can and will meet the plan for use of bottled water as written on the form. If you don't believe that an establishment can or will meet the plan as written, do not issue the BWE and escalate the issue to your direct manager.

Note: Upon receiving a completed BWE exemption form, the DWP Field Inspection Team Manager will:

1. Evaluates its use and provides feedback to the appropriate DHE Inspector as needed
2. Verify that the DEH Inspector has scanned and sent a copy of the signed BWE form to either the Health Inspector or DWP Field Inspector involved with this establishment –(whoever did not submit the form).
3. Have the form imaged by PWSID#, or by county as a Non-PWS.

Appendix C

For Determining PWS Classification of Community vs. Transient for a Water System Serving Condominiums, Homes, or Similar Housing Available More Than Six Months per Year

A community system is defined as a public water system which serves at least 15 service connections used by year-round residences or regularly serves at least 25 year-rounds residents. (Year round is defined as permanent residence greater than six months)

A water system serving 10 homes or condominiums is considered a Community PWS with a population of 10×2.5 people/connection = 25 people served. Each individual home or condo is considered a single service connection.

It is possible for a water system serving 10 or more homes or condos to be classified as a Transient PWS. This Appendix is provided to assist in classifying a water system serving homes (etc.) as Community or Transient:

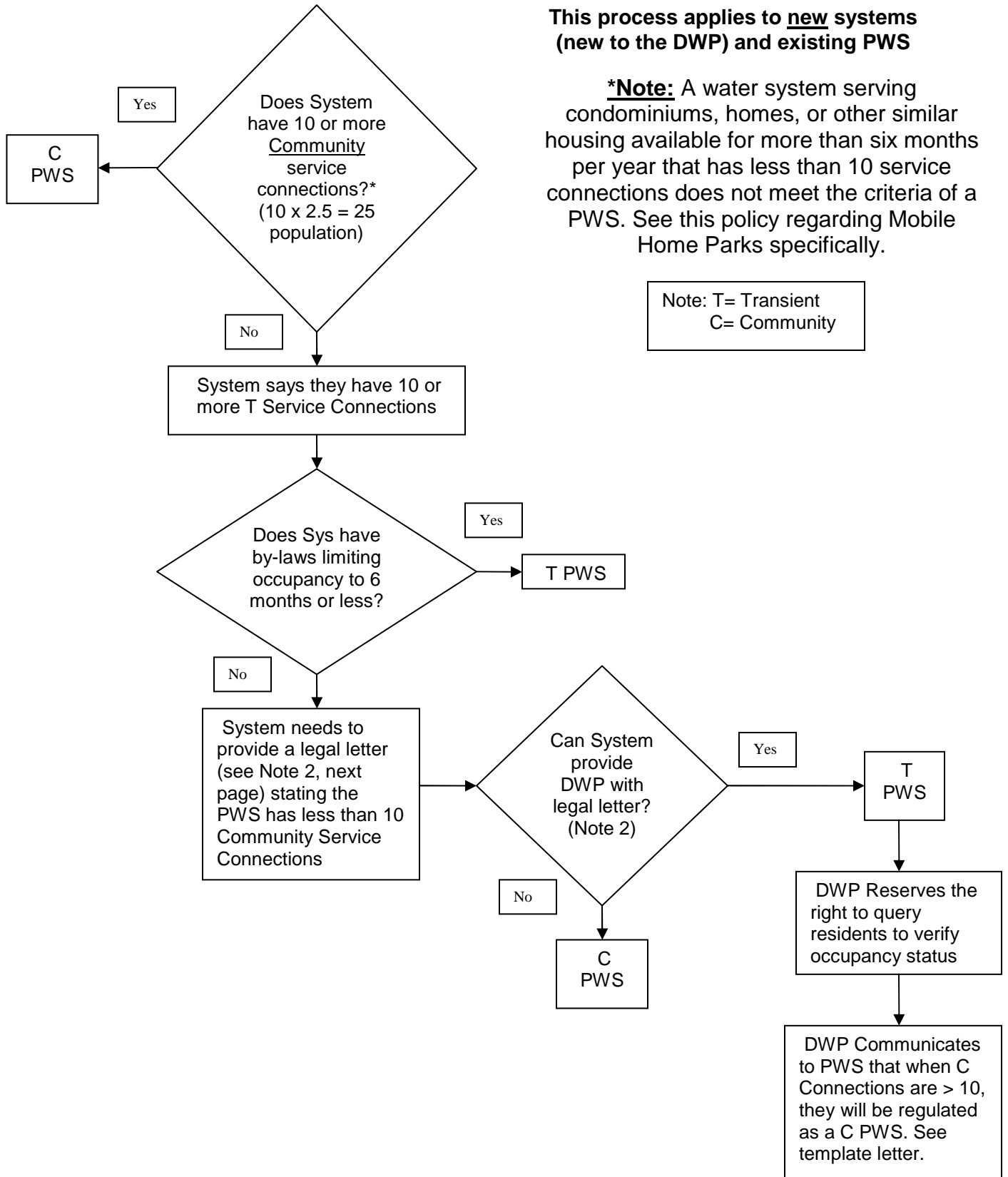
See Flow Chart Below

For Determining PWS Classification of Community vs. Transient for a Water System Serving Condominiums, Homes, or Similar Housing Available More Than Six Months per Year

This process applies to new systems (new to the DWP) and existing PWS

***Note:** A water system serving condominiums, homes, or other similar housing available for more than six months per year that has less than 10 service connections does not meet the criteria of a PWS. See this policy regarding Mobile Home Parks specifically.

Note: T= Transient
C= Community



Note 1: Reclassification from C to T is based on the number of “C” service connections being less than 10, and not based on the C population < 25 [“C” population is determined by service connections x 2.5 people/connection, not by actual C population count, except in the case of 10-14 “C” service connection when considering deregulation. See policy DWP0004.]

Note 2: The acceptable “legal letter” will be a written (hard copy) letter on association letterhead signed by ALL members of the system’s overseeing board. See template letter reference below.

Note 3: Upon each sanitary survey completed (every five years) at a Transient water system serving condos, homes, or similar housing available for more than 6 months per year, the Field Inspector will require the owner to generate an updated certification letter that reaffirms that there are less than 10 “C” service connections served by this water system. See template letter reference below. The letter must be signed by all board members (overseers) of the water system. If the system cannot provide this signed certification letter, then the system will be regulated as a community PWS.

See the Electronic Field Manual (Section 10) for Template letters used by the PWS and the DWP to administer the transition of a PWS from Community to Transient classification, and to recertify Transient classification every five years at the sanitary survey:

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