

	OFFICE OF DRINKING WATER AND MUNICIPAL ASSISTANCE POLICY AND PROCEDURE		DEPARTMENT OF ENVIRONMENTAL QUALITY
Original Effective Date: October 12, 2007 Revised Date: August 1, 2016 Reformatted Date: August 1, 2016	Subject: Classification of Public Water Supplies		Category:
	Program Name: Public Water Supply Supervision Program		<input type="checkbox"/> Internal/Administrative <input type="checkbox"/> External/Non-Interpretive <input checked="" type="checkbox"/> External/Interpretive
	Number: ODWMA-399-013	Page: 1 of 8	Type: <input type="checkbox"/> Policy <input type="checkbox"/> Procedure <input checked="" type="checkbox"/> Policy and Procedure

A Department of Environmental Quality (DEQ) Policy and Procedure cannot establish regulatory requirements for parties outside of the DEQ. This document provides direction to DEQ staff regarding the implementation of rules and laws administered by the DEQ. It is merely explanatory; does not affect the rights of or procedures and practices available to the public; and does not have the force and effect of law. DEQ staff shall follow the directions contained in this document.

PURPOSE:

A classification system for public water supplies is established under the Michigan Safe Drinking Water Act, 1976 PA 399, as amended (Act 399), being MCL 325.1001 *et seq.* (Act 399 Rules), and the administrative rules promulgated thereunder, being R 325.10101 *et seq.* Public water systems are classified by the population served or the nature of their customer base. For instance, Type I (community) systems are categorized by the number of living units served or the number of people served on a year-round residential basis. Type II (noncommunity) systems are categorized by the population served as well as by the number of days service is provided.

The reference manual titled, *Suggested Practices for Water Works*, which was developed for state and local regulatory staff to implement the requirements of Act 399, contains a section that establishes a reasonable approach to estimating population. However, changing trends in development have made the calculation of the number of year-round residents difficult. Therefore, updated guidance is necessary. Some issues need clarification so that consistent criteria can be applied and classification will be uniform across the state. This policy is to identify these issues and establish the method or approach the Office of Drinking Water and Municipal Assistance (ODWMA) will use for water systems that may have unusual or unique service characteristics.

AUTHORITY:

Regulatory authority over public water systems is performed by the ODWMA, with Part 5 of the administrative rules of Act 399 establishing the classification of public water systems. The ODWMA provides direct oversight for Type I systems and delegates the authority over Type II water systems to local health departments (LHDs) under Section 16 of Act 399. LHDs may also regulate Type III supplies. All water wells must comply with the Well Construction Code provisions in both Act 399 and the Groundwater Quality Control Rules, promulgated under Part 127, Water Supply and Sewer Systems, of the Public Health Code, 1978 PA 368, as amended, as well as applicable state and local plumbing codes.

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STAKEHOLDER INVOLVEMENT:

The April 1, 2015, revisions of this policy and procedure incorporated the Attorney General Memorandum, dated July 9, 2003. It was not necessary to engage stakeholders for this minor change. It reflects our long-standing practice.

The August 2016 revision of this policy and procedure added seasonal system classification. Stakeholder involvement was part of the rule promulgation process for the updates to Act 399 to incorporate the Revised Total Coliform Rule.

DEFINITIONS:

Employee – For purposes of classification as nontransient noncommunity public water systems, a person shall be counted as an employee if they are present an average of four hours per day for four days per week. Employees not meeting these criteria shall be counted as transient customers.

Full Capacity – For purposes of classification, full capacity is the number of permanent beds available for the people housed in a facility, such as students in a dormitory, prisoners in a penal institution, residents in a nursing home or foster care home, patients in a psychiatric institution, etc. This number does not include cots, daybeds, or roll-away beds that may be used in times of overcrowding or for short-term visitors who are staying overnight with a resident.

Categorized Based on the Number of Permanent Beds – For the purpose of classification, “categorized based on the number of beds” is the respective industry standard of measurement for the size of a facility, such as the number of prisoners a prison facility can house, the number of patients for which a nursing home can care, or the number of students a dormitory may house.

Living Unit – A house, apartment, or other domicile occupied or intended to be occupied on a day-to-day basis by an individual, family group, or equivalent.

Year-Round Service – The ability of a supplier of water to provide drinking water on a continuous basis to a living unit or facility.

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A breakdown of the classification of public water systems is summarized in the table below:

Types of Public Water Systems

Classification		Description	Examples	
Public Water System	Type I Community	Provides year-round service to ≥ 15 living units OR to ≥ 25 residents	Municipalities, subdivisions, apartments, condominiums, nursing homes, manufactured housing communities	
	Type II * Noncommunity	Nontransient	Serves ≥ 25 of the SAME individuals on an average daily basis for ≥ 6 months/yr (and is not a Type I)	Places of employment, schools, day care centers, bottled water sources
		Transient	Serves ≥ 25 individuals or ≥ 15 service connections on an average daily basis for ≥ 60 days/yr (and is not a Type I)	Hotels, restaurants, campgrounds, churches, highway rest stops
	Type III	Public water system that is not a Type I or Type II	Subdivisions, apartments, condominiums, or duplexes with 2-14 living units, facilities serving < 25 individuals or open < 60 days per year	
Private Water System		Serves a single living unit	Single family home	

* Type II public water systems are also classified according to their average water production during the month of maximum water use. A Type IIa system produces 20,000 or more gallons per day and a Type IIb system produces less than 20,000 gallons per day.

Type I Public Water System – A Type I public water system provides year-round service to no fewer than 15 living units or regularly provides year-round service to no fewer than 25 residents. A resident is an individual who owns or occupies a living unit. Type I public water systems are also called community water supplies.

Type II Public Water System – A Type II public water system provides service on an average daily basis to 25 or more individuals or 15 or more service connections for no less than 60 days per year, but does not meet Type I criteria. Type II public water systems are called noncommunity supplies. Type II public water systems are also classified according to their average water production during the month of maximum water use. A Type IIa system produces 20,000 or more gallons per day, and a Type IIb system produces less than 20,000 gallons per day.

Type III Public Water System – Type III public water systems are all other water systems that serve more than a single family residence but are not Type I or Type II supplies.

POLICY:

Classifying a Public Water System as Type I: Public water systems that provide year-round service to 15 or more living units inhabited by the same individuals shall be classified as Type I public water systems, regardless of the number of individuals present. Facilities that are licensed, regulated, rented, leased, sold, or otherwise categorized based on the number of beds

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at full capacity shall be classified as Type I public water systems if their full capacity is 25 or more beds, regardless of the number of beds occupied on any given day. These facilities include, but are not limited to: nursing homes, homes for the aged or indigent, adult foster care homes, dormitories, penal institutions, and psychiatric institutions, if they provide year-round service.

Determining Population of a Type I Water Supply: For the purposes of population-specific rules, the following methods will be utilized to determine the population of a Type I water supply that is not categorized based on the number of beds, in order of accuracy and preference:

1. Actual count of residents in small Type I water supplies.
2. Most recent U.S. Census information for Type I water supplies where distribution system extent is the same as the census unit.
3. An estimate based upon best available information from the water supply, which may include the use of a multiplier based on the average number of persons per service connection and approved by the ODWMA.

Classifying a Public Water System as Type II: Public water systems that are not Type I public water systems, but serve 25 or more people or 15 or more service connections for at least 60 days per year, shall be classified as a Type II public water system. These facilities include, but are not limited to: schools, daycare centers, campgrounds, restaurants, seasonal resorts, hotels, churches, and licensed facilities with fewer than 25 permanent beds and with 25 or more residences, employees, and visitors. Type II public water systems are also classified according to their average water production during the month of maximum water use.

Classifying a Public Water System as Type III: Public water systems that are not Type I or Type II public water systems are classified as Type III. These facilities include, but are not limited to: duplexes, apartments or condominiums serving 2 to 14 living units, facilities serving less than 25 individuals or open less than 60 days, and adult foster care homes with fewer than 25 residents and employees.

Bottled Water Sources: Sources for water bottling operations that are not community supplies are classified as Type II public water systems and shall be considered nontransient.

Condominiums: Condominium developments subdivided into living units are classified by the number of living units having year-round service that are incorporated under a single legal entity. Unless an acceptable legal mechanism restricts owner occupancy to less than six months per year, a condominium development consisting of 15 or more living units having year-round service will be classified as a Type I public water system. If less than 15 living units are present, the development is classified as a Type III system unless there are more than 25 individuals present on 60 or more days, in which case it will be classified as a Type II public water system.

If the condominium development is subdivided into something other than living units, such as commercial units, the water system will be classified by the total number of employees expected to be present throughout the development on an average daily basis at least 60 days per year.

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If that number is 25 or more, the system will be classified as a Type II water supply. If it is 25 or more employees/people, the system will be classified as a nontransient noncommunity water supply. If it is less than 25 employees/people, it will be considered a Type III water supply.

Condominium Hotels: Condominium hotels or other facilities that provide housing for more than 25 guests or serve fluctuating populations, such as seasonal housing, resorts, time-share condominiums, extended-stay hotels, and short-term apartments, will be classified as Type II public water systems if they legally restrict the length of stay for owners of the individual units to less than six months per year. The limitation shall be in a mechanism that discloses to anyone intending to purchase, lease, rent, sublet, or otherwise enter into an agreement for the purpose of residing in the domicile, even if the intent is to reside for a time less than six months. The purpose is to ensure that prospective purchasers or renters fully understand that the domicile may not be sold or rented for occupancy on a continuous basis or for a period greater than six months per year. Appropriate mechanisms legally restricting the length of stay and disclosing the limitation to prospective **buyers** may include, but are not limited to: deed restrictions, association constitutions, and disclosure documents that are also used to disclose contamination on the property, structural problems, or other concerns normally required by common real estate law to disclose. Examples of mechanisms that do not provide sufficient restrictions on the length of stay and disclosure for prospective **buyers** are association bylaws or contracts to rent, lease, or purchase the domicile or time-share to occupy the domicile.

Condominium hotels or other facilities that continuously supply 15 or more living units without providing acceptable legal restrictions on the length a resident may occupy a unit will be classified as Type I public water systems.

Living Units (Seasonal vs. Year-round): Vacant or unoccupied living units will be counted in the number of year-round living units for determining classification of the water system if water service is maintained for possible, intermittent, or immediate occupancy. Living units that have their service shut off and service line drained for winter months will not be counted for the classification of a Type I public water supply.

Seasonal vs. Year-round Noncommunity Water Supplies: Under the 2016 revised total coliform rule, seasonal noncommunity supplies must be identified. A seasonal noncommunity supply is one that is not operated on a year-round basis and starts up and shuts down at the beginning and end of each operating season. Examples of a seasonal noncommunity supply include, but are not limited to, campgrounds, golf courses, ice cream parlors, parks, beaches, and marinas. "Serving the public" means serving anyone other than one's own family, no matter how few (e.g., a couple of employees are "the public").

In an effort to provide direction on determining if a noncommunity water supply should be classified as a seasonal supply, the Seasonal Supply Determination Chart for Noncommunity Public Water Supplies is located at

http://www.michigan.gov/documents/deg/ODWMA_NCWS_SeasonalDetermination_495093_7.pdf. If a facility has multiple sources with individual Water Supply Serial Numbers (WSSN),

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determination of seasonal or year-round status is made per WSSN. The LHD should consult with the DEQ on those systems where the classification is difficult to determine.

Even if a system is designated as year-round and a portion of the water supply is used seasonally and depressurized, the system must follow R 325.11110 of the Act 399 Rules for that portion of the water supply that was depressurized. This shall be identified in the approved sample siting plan.

Grade A Dairy Farms: Sources for Grade A Dairy Farms constructed or reconstructed on or after April 1, 1994, are classified as Type III public water systems. However, if the farm has 25 or greater employees on an average day, the farm would be classified as a Type IIa or Type IIb nontransient public water system.

Small Transient Facilities: The key consideration for transient type facilities should be the availability or opportunity to consume water. If a small transient facility does not have a public drinking fountain, post mix pop, juices, soups, or coffee vending, the patrons should not be counted as consumers. Individuals that only have access to water in a restroom setting are not intended to be included as persons served in the definition of Type II public water systems.

The same principle applies to small transient facilities with a food license. If the facility has no offering or availability of drinking water to customers, they should be classified as a Type III water supply. Water that comes in contact with food or food preparation surfaces must be from an approved source, but that does not necessarily make the facility a Type II public water supply.

Changing the Classification of a Public Water System: Changes in classification should be avoided. Every attempt should be made during initial contact with developers to determine the residential nature of a facility and an ultimate build-out capacity. In doing so, the initial water system construction can be made to accommodate future changes in system capacity and reclassification when future phases are constructed. Requirements for well isolation and construction, along with ownership and oversight, are just a few items that vary significantly based on classification and for which it will be difficult to achieve compliance after initial water system installation.

If condominium hotels, resorts, time-share condominiums, etc., later decide to convert ≥ 15 living units to allow for year-round occupancy, then the public water system shall meet Type I construction standards. If the system does not meet Type I construction standards at the time it becomes a Type I public water system, then the ODWMA shall consider the public water system a "new" system for the purpose of capacity development and shall ensure the public water system has technical, financial, and managerial capacity to operate as a Type I community water system, including the possibility of having to install wells that comply with Type I construction and isolation standards.

The ODWMA will not reclassify public water systems from one year to the next based on the current occupancy or vacancy rates. A Type I system serving 15 or more living units whose

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population becomes less than 25 people will not be reclassified as a Type III system. However, if we are notified that a Type III system serving 2 to 14 living units is serving a population of 25 or more, ODWMA staff will confirm the population and reclassify the system as a Type I water system if they confirm a year-round residential population of 25 or more. Reclassification of systems providing service to a changing number of living units will only occur if the facility provides documentation to that effect.

Reclassification of facilities categorized based on the number of permanent beds will only occur if the number of beds has changed.

Any reclassification of a public water system shall be made in writing to the owner, with copies of this notice provided to the appropriate regulatory agency if the oversight responsibility is also changing.

Contiguous Property: According to R 325.10503 of the Act 399 Rules, two or more waterworks systems owned or operated by the same person at the same general location not individually meeting the definition of a community supply or a noncommunity supply, but collectively meeting the definition of a community supply or a noncommunity supply, shall be considered by the ODWMA to be a single public water supply for classification purposes. This determination is unrelated to the ODWMA determination of contiguous for annual fee invoicing.

PROCEDURES:

Step	Who	Does What
1	ODWMA District Staff for the Community Program or LHD Personnel for the Noncommunity Program	Establishes the classification of the public water system based on documentation provided by the owner/developer. Notifies owner/developer of responsibilities should subsequent change in population or service characteristics result in a change of classification. Monitors supply for changes that may affect classification. Makes timely entry into Safe Drinking Water Information System.
2	Public Water Supply	Provides the ODWMA or LHD with documentation of a change in the population served, the number of living units served, the full capacity of the facility, or the occupancy restrictions for living units served by the public water system.
3	ODWMA District Staff for the Community Program or LHD Personnel for the Noncommunity Program	Determines if documentation is sufficient to change the classification of an existing public water system. Consults with other regulatory agency if a change in classification is warranted. Documents the change in classification in writing and notifies appropriate regulatory agency if oversight responsibility changes.

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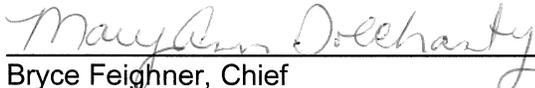
Step	Who	Does What
4	Supplier of a Public Water System Serving or Intending to Serve Residents for Less Than 60 Days or Six Months Per Year	Provides appropriate documentation legally restricting residents from staying in the living unit for more than 60 days or more than six months per year and sufficiently discloses the restriction to prospective purchasers or renters.
5	ODWMA District Staff for the Community Program or LHD Personnel for the Noncommunity Program	Determines if the documentation legally restricts residents from staying in the living unit for more than 60 days or more than six months per year and sufficiently discloses the restriction to prospective purchasers or renters.

REFERENCES:

Michigan Safe Drinking Water Act, 1976 PA 399, as amended

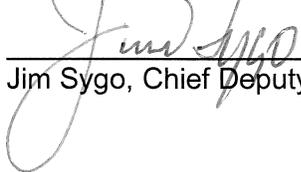
Attorney General Memorandum, dated July 9, 2003, RE: Regulation of Dairy Farms Under the Safe Drinking Water Act

OFFICE CHIEF APPROVAL:



for Bryce Feighner, Chief
Office of Drinking Water and Municipal Assistance

CHIEF DEPUTY DIRECTOR APPROVAL:



Jim Sygo, Chief Deputy Director

DEPARTMENT OF
ATTORNEY GENERAL
MEMORANDUM

July 9, 2003

TO: A. Michael Leffler
Assistant in Charge
Environment, Natural Resources and Agriculture Division

FROM: Joshua W. Gubkin
Assistant Attorney General
Environment, Natural Resources and Agriculture Division

RE: Regulation of Dairy Farms Under the Safe Drinking Water Act

Dairy Farms as Public Water Supplies

The Farm Bureau and DEQ have had much less discussion regarding dairy farms categorization as public water supplies than they have about the known major source issue. The most telling statutory language I have found is within the Manufacturing Milk Law Act, 2001 PA 267 ("MMLA"). Section 130(9) of the MMLA clearly provides how dairy farms are to be regulated:

(9) The owner or operator of a milkhouse or milkroom shall ensure all of the following:

* * *

(h) That the dairy farm water supply complies with the safe drinking water act, 1976 PA 399, MCL 325.1001 to 325.1023, or, if the water supply is not new or reconstructed after April 1, 1994, the water supply is annually tested by a laboratory approved by the department and found to be of safe and satisfactory quality and in compliance with guidelines established by the department of community health. MCL 288.690

Section 130(9) should end discussion on the subject from either side. As the Safe Drinking Water Act ("SDWA") only regulates public water supplies, if the water supply was constructed or reconstructed after April 1, 1994, it is a public water supply. Water supplies that existed prior to April 1, 1994, which have not been altered since that date, are not regulated by the SDWA. This statutory provision effectively grandfathers older dairy farms.

Absent Section 130(9) of the MMLA, whether dairy farms are "public water supplies" is based solely on the definition provided in the SDWA. The SDWA provides a broad definition for public water supply:

"Public water supply" means a waterworks system that provides water for drinking or household purposes to persons other than the supplier of the water, and does not include either of the following:

- (i) A waterworks system that supplies water to only 1 living unit.
- (ii) A waterworks system that consists solely of customer site piping.

Considering the broad definition of public water supply, the true question is whether dairy farm waterworks systems fall under one of the two exceptions.

Under the SDWA, a commercial dairy farm could not fall under the first exception as a living unit.

"Living unit" means a house, apartment, or other domicile occupied or intended to be occupied on a day to day basis by an individual, family group, or equivalent.

Although the house of a small family farm might meet the definition for living unit, when you start expanding out from the home to commercial areas of the farm and including employees that are regularly present, but do not occupy the house, any use of the living unit exception falls apart.

The customer site piping exception was for large facilities that did not have their own wells, but contain large amounts of their own piping. Examples include universities and some major industrial complexes. The public water supply for these facilities is often a municipality that the facility has connected to with their extensive site piping. The facility is not the public water supply, but there are additional regulations customer site piping systems must undergo in order to ensure proper maintenance of that waterworks system and protect the people it serves. Dairy farms clearly do not fall under this exception either.

In conclusion, the regulation of dairy farm water supplies is provided in the MMLA. This statute provides a distinction between newer and older water supplies, with those built or reconstructed after April 1, 1994 needing to comply with the SDWA. Older supplies need only be tested annually and comply with guidelines established by the department. Without this exemption in the MMLA, all dairy farms would be regulated as public water supplies as they would not fall under an exception taking them out of such regulation.

Known Major Sources of Contamination

"Contamination" means "the act or process of contaminating" or "one that contaminates." "Contaminate" means "to make impure or unclean by contact or mixture."¹ The definition of contamination used in R 325.10812 is critical to the way it is interpreted.

¹ Definitions for "contamination" and "contaminate" are from The American Heritage College Dictionary, 308 (4th Ed. 2002).

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Substituting in the first definition of contamination, the subject phrase, "known major sources of contamination," reads as "known major sources of the act or process making something impure or unclean by contact or mixture. On the other hand, under the second definition, the phrase becomes "known major sources of one that makes impure or unclean by contact or mixture." Large waste lagoons are a known major source of manure. Manure is a form of contamination that either makes or is making things impure or unclean by contact or mixture, depending on the definition used.

The MDEQ interprets R 325.10812 to indicate that contamination, in this case manure, makes things impure or unclean by contact or mixture. It is an interpretation where the manure does not have to escape to be a form of contamination. Manure is contamination because it has the ability to contaminate, or make impure, whatever it comes in contact with. This is a very fine, but important distinction from the other definition, which indicates there is active contaminating going on.

Simply put, contamination does not have to be existing contamination. It can be anything that is able to contaminate. Manure is able to contaminate. Therefore, it is a form of contamination. The lagoon is the source of that contamination. A large lagoon is a known major source of contamination and therefore would require an 800-foot minimum isolation distance.

On its face, the interpretation expounded by the Farm Bureau is justifiable. However, when interpreted in the context of the history of the rulemaking, of the program, and of the potential health impacts of large waste lagoons, the pro-active reading of the MDEQ carries more merit. Animal waste can contain organisms with profound health consequences if they are in drinking water. The results of contamination of drinking water from fecal material can be disastrous, as were the cases in Milwaukee, Wisconsin and Walkerton, Ontario. The acute nature of contamination from animal waste and the volume of waste commonly accumulated, justifies a substantial separation between manure storage sites and water supplies before contamination escapes from lagoons in order to protect public health.

The MDEQ's interpretation is further supported by the examples provided in R 325.10812. The examples provided are not the types of contamination such as wastes, leechate, or chemicals. Instead, R 325.10812 uses examples like large-scale waste disposal sites, sanitary landfills, and chemical storage facilities. This focuses on the source of those types of contamination instead of on the type of contamination itself. Likewise, MDEQ focuses on the lagoons as a known major source of manure.

By looking at escaped contamination instead of the source, the size of a potential threat becomes irrelevant. There would be no regulation to protect against potential threats other than the 75-100 foot, general isolation distances provided for in R 325.10808, regardless of the size of the threat or how great the potential for contamination to escape is. Only a major source of existing contamination would increase isolation distances beyond 100 feet. Therefore, a well could be placed within 75 feet of a poorly constructed, six million gallon lagoon of manure just as easily as could a lagoon constructed to the highest engineering standards available. Considering the history of manure lagoons and the health risks involved with contamination of the drinking water supply, the Farm Bureau's interpretation is not prudent.

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The MDEQ has made a reasonable interpretation of R 325.10812. If the statute can be read both ways, the interpretation should be left to agency discretion. In this case, after considering the phrasing of the statute, the goals of the SDWA, and the potential health affects of large manure lagoons, defining these lagoons as known major sources of contamination is a position supported in fact and law.

JWG/sd

S:ATTORNEYS/GUBKIN/MEMO-LEFFLER