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**Private Onsite Wastewater
Treatment System Grant Program**

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Private Onsite Wastewater Treatment System Grant Program

Introduction

The private onsite wastewater treatment system (POWTS) replacement or rehabilitation grant program, also referred to as the Wisconsin Fund, provides financial assistance to owners of a principal residence or small commercial establishment, and who meet certain income and eligibility criteria, to cover a portion of the cost of repairing or replacing failing private onsite wastewater treatment systems. A private onsite wastewater treatment system is a sewage treatment and disposal system serving a single structure with a septic tank and soil absorption field located on the same parcel as the structure. Many areas of Wisconsin are not served by centralized sewage systems, including rural areas or areas where the housing density is too low to justify a centralized sewer system. In these areas, residential or commercial development requires the use of a private onsite wastewater treatment system.

The POWTS replacement or rehabilitation grant program was created in 1978 to provide funding to address the problem of POWTS failures. The program is administered by the Department of Safety and Professional Services (DSPS). From 1978 to 2022 (2022-23 grant cycle), the state has awarded \$111.4 million in grants to assist 43,900 residences and businesses to replace or rehabilitate private onsite wastewater treatment systems. The program is appropriated \$1,680,000 in 2021-22 from program revenue transferred from the DSPS Division of Industry Services (safety and buildings) operations appropriation. The program revenue is received from sanitary permits and private onsite wastewater treatment system plan review fees, and other building permit, plan review, inspection, and credentialing activities.

Under 2017 Wisconsin Act 59, the grant program was to be repealed on June 30, 2021. Administrative code for the grant program (Chapter SPS 387) would have also been repealed on June 30, 2021. However, 2021 Wisconsin Act 67 amended 2017 Act 59 and extended the POWTS grant program by two years. Funding of \$1,680,000 for the 2021-23 biennium was subsequently provided for the program by the Joint Committee on Finance in October of 2021. Currently, the POWTS program is scheduled to sunset on June 30, 2023.

This paper describes the requirements of the program as provided by s. 145.245 of the statutes and as administered by DSPS under applicable rules of the Wisconsin Administrative Code. Several appendices provide additional information about the distribution of grants in each county (Appendix I), and how a typical private onsite wastewater treatment system functions (Appendix II). Additional detail about the legislative history of the program can be found in earlier versions of this informational paper on the Legislative Fiscal Bureau website.

POWTS Prevalence and Impacts

DSPS estimates that there are 774,000 POWTS in the state. Approximately 13,900 permits were issued statewide for POWTS during calendar year 2020 and 14,800 in 2021. DSPS indicates that about 48% of these permits were for newly-constructed systems and 52% were for replacement systems. The proportion of new and replacement systems may vary substantially by county from year to year. In addition, an unknown number of homes that previously used POWTS are con-

nected to centralized municipal wastewater treatment systems every year, and the private systems are no longer used. DSPS estimates of the number of POWTS have become more precise as counties complete inventories of such systems. Administrative rules for the installation and maintenance of all POWTS are found in Chapter SPS 383 of the Wisconsin Administrative Code.

Failing POWTS tend to produce health hazards by discharging untreated wastewater into groundwater, where it can contaminate drinking water supplies, or to the ground's surface, where persons coming into contact with it can be exposed to disease-bearing micro-organisms. Failing POWTS can also result in wastewater discharges directly into a stream or lake, resulting in water pollution. For example, the eutrophication of lakes (the process by which lakes "fill" with decomposed matter and become "marshy" in character) can be accelerated in many lakes surrounded by residences with failing POWTS because of the organic pollutants added by the discharges from these systems.

County Participation

Wisconsin counties and Native American tribes participate in the grant program to assist homeowners and small commercial establishments with the rehabilitation or replacement of failing onsite wastewater treatment systems. Counties participate because they are responsible for the regulation of POWTS installations. Participation in the grant program is voluntary. Twenty-three counties did not participate in the final year of the program: Barron, Buffalo, Burnett, Chippewa, Door, Eau Claire, Fond du Lac, Forest, Green, Green Lake, Jefferson, Kenosha, Lincoln, Oconto, Oneida, Polk, Portage, Sawyer, Shawano, St. Croix, Trempealeau, Washington, and Waukesha. Of the remaining participating counties, recipients in 35 were awarded grants. Appendix I details certain changes in participation

by counties over time.

Milwaukee County does not perform POWTS regulatory functions, and the City of Franklin is the only participating governmental unit in that county. Tribes and bands are also eligible to participate in the program, and the Oneida Tribe participates. References to "counties" in this paper also apply to the City of Franklin in Milwaukee County and the Oneida Tribe.

County Responsibilities. Counties in the program must:

1. Adopt a resolution stating the county will administer the program in compliance with state law and disburse state grant funds to eligible owners;
2. Agree to establish a program of inspection and maintenance for all new or replacement POWTS constructed in the county;
3. Establish a system of user charges and cost recovery, if the county considers this to be appropriate, which may include the cost of the grant application fee and the cost of supervising installation and maintenance; and
4. Certify that: (a) the individual owner eligibility requirements are met; (b) the grant funds will be properly disbursed; and (c) the recipients' POWTS will be properly installed and maintained.

All counties are responsible for adoption and enforcement of the POWTS maintenance program, regardless of whether a county has chosen to participate in the grant program. A county was required to conduct, complete, and maintain an inventory of all POWTS located within the jurisdiction, and complete the initial inventory before October 1, 2017. In October, 2018, all 71 counties, plus the City of Franklin and Oneida Tribe, had completed their initial inventory. Milwaukee County is not subject to this requirement.

Counties were required to develop and begin to

implement a POWTS maintenance program before October 1, 2019, which included the inventory, and a process for recording each inspection, evaluation, maintenance and servicing report for a POWTS. In October, 2018, all 71 counties subject to the requirement had a full or partial POWTS maintenance program (excluding Milwaukee County). Counties were required to meet the two deadlines for inventory and maintenance programs in order to be eligible for funding under the POWTS grant program.

The owner of a failing private onsite wastewater treatment system, either of a principal residence or a small commercial establishment, could obtain grant application forms from the county after a determination of a failure of the POWTS has been made. Some participating counties charge a fee to eligible applicants to offset county administrative and maintenance costs. DSPS has not tracked which counties charge a fee, and the fee amount, since 2014.

All applications would be initially reviewed at the county level. The county would submit eligible applications to DSPS. DSPS would make the final determination of eligibility and distribute grants to counties. The county would then disburse grant funds to eligible individuals. Appendix I shows the date each county entered the program, the distribution of grants made in each county in 2022-23, and the cumulative amount distributed.

Eligible Projects

Replacement or rehabilitation of a private onsite wastewater treatment system serving a home or small commercial establishment would be eligible for financial assistance if:

1. The system was installed before July 1, 1978;

2. The dwelling is not located in an area served by a municipal sewer;

3. The residence is occupied at least 51% of the year by the owner;

4. The small commercial establishment has a maximum daily wastewater flow rate of less than 5,000 gallons per day;

5. The owner of the principal residence or small commercial establishment meets certain income criteria, as discussed in the next section;

6. The system is a category one or two failing POWTS, as described in a subsequent section; and

7. A determination of failure is made prior to the rehabilitation or replacement of the failing private onsite wastewater treatment system. A "determination of failure" is defined as either: (a) a determination that the system is failing based on an inspection by an employee of the state or a governmental unit who is certified by DSPS to inspect private sewage systems; or (b) the owner has been issued a written enforcement order by the appropriate local governmental unit, DSPS, or the Department of Natural Resources (DNR) to correct a violation of the POWTS statutes and rules.

Residential Properties. The annual family income of a residential property owner may not exceed \$45,000. "Family income" is defined as the federal adjusted gross income of the owner and the owner's spouse for the taxable year prior to the year in which the determination of system failure is made.

Applicants with income below \$32,000 would receive the maximum eligible grant. The grant for homeowners with income between \$32,000 and \$45,000 would be reduced by 30% of the amount by which the homeowner's income exceeds \$32,000. This means that for each \$1 in income above \$32,000, the grant would decrease by 30 cents. Rental residential properties are not

eligible. The grant formula is shown in Table 1.

Table 1: Private Onsite Wastewater Treatment System Program Grant Formula for Residential Properties

<u>Income</u>	<u>Grant Formula Amount</u>
Under \$32,000	Full Eligible Grant
\$32,001 - \$45,000	Full Eligible Grant Minus [(Income - \$32,000) x 30%]
Over \$45,000	No Grant

Small Commercial Establishments. In order to be eligible for grant funds, a commercial establishment must have a maximum daily wastewater flow rate of less than 5,000 gallons per day. In addition: (a) the commercial establishment must have been owned by the applicant when the determination of POWTS failure was made; (b) the commercial establishment must not be located in an area served by a sewer; and (c) the annual gross revenue of the business that owns the commercial establishment may not exceed \$362,500. Income is defined as the gross revenue of the business for the taxable year prior to the year in which the determination of failure is made. There is no proration based on income for commercial establishments as there is for residential properties. In each fiscal year, grant funding for all commercial establishments cannot exceed 10% of the total funds available. DSPS has prorated grants for commercial establishments so that the total awards for commercial establishments do not exceed 10% of total funds available.

Types of Failing Private Onsite Wastewater Treatment Systems. The types of failing POWTS are divided into three categories. Categories one and two are eligible for grant assistance. The types of systems are:

1. Category one systems are those discharging sewage to surface water, groundwater, drain tiles, bedrock or zones of saturated soils. These are considered the most serious types of failure, and are given highest priority for grant assistance.

2. Category two systems are those discharging sewage to the surface of the ground. This type of failing system is eligible for a grant, but has a lower priority for funding than category one systems.

3. Category three systems are those causing the backup of sewage into the structure served. This type of failing system is not eligible for grant assistance.

Grant Determination

Costs allowable in determining grant funding cannot exceed the costs of rehabilitating or replacing a private onsite wastewater treatment system by the least costly method, except that a holding tank may not be used as the measure of the least costly method for rehabilitating or replacing a POWTS other than a holding tank. Statutes limit the state grant share to \$7,000, or the amount determined by the Department in grant funding tables, whichever is less. DSPS is required to prepare and publish grant funding tables that specify the maximum state share amounts for eligible work components and costs. The grant funding tables must be designed to pay approximately 60% of the average cost of rehabilitation or replacement. DSPS is required to revise the grant funding tables when it determines that 60% of current costs of private onsite wastewater treatment system rehabilitation or replacement exceeds the amount in the tables by more than 10%. The tables were revised effective July 1, 2018, for applications received for funding in 2019-20 and thereafter.

Seven categories of costs, called "work components," are eligible for reimbursement at grant amounts established in the grant funding tables in administrative code Chapter SPS 387. Prior to administrative rule changes in July, 2018 (through grant year 2018-19), the grant award for most

Table 2: Calculation of Private Onsite Wastewater Treatment System Grant Amount

Component	Grant Awards 2009-10 through 2018-19	Grant Awards Effective 2019-20 through 2022-23
Site evaluation and soil testing	Flat \$250	Flat \$250
Installation of replacement or additional POWTS anaerobic treatment component	\$500 to \$950, depending on tank size	\$2,280 to \$4,200, depending on design flow in gallons per day
Installation of a POWTS dosing component and lift pump or siphon	\$1,100 to \$1,250, depending on number of bedrooms	\$2,400 to \$3,600, depending on design flow in gallons per day
Installation of a non-pressurized or in-ground pressure POWTS treatment or dispersal component	\$1,400 to \$2,750, depending on percolation rate and number of bedrooms	\$3,300 to \$7,000, depending on design loading rate in gallons per square foot per day and design flow in gallons per day
Installation of an at-grade or mound POWTS treatment or dispersal component	\$2,550 to \$4,775, depending on number of bedrooms	\$5,400 to \$7,000, depending on type of design and design flow in gallons per day
Installation of POWTS holding tank tank component	\$2,800 to \$4,775, depending on number of bedrooms	\$3,900 to \$4,500, depending on estimated flow of gallons per day
Installation of replacement exterior grease interceptor	\$550 to \$900, depending on capacity in gallons	\$3,000 to \$4,500, depending on capacity in gallons

components varied depending on the number of bedrooms, tank size, or percolation rate. As of July, 2018 (beginning with grant year 2019-20), the grant award generally varies depending on the design flow of the system in gallons per day. Table 2 shows work components and the maximum award for each for grant years 2009-10 through 2022-23.

DSPS is required to withhold grant awards for applicants that the Department of Children and Families determines are delinquent in their child support or maintenance payments until the applicant either submits a certification of full payment from the Clerk of Courts in the county of delinquency or has a payment agreement on file at the county child support agency. Since the 1997-98 grant cycle, 11 delinquent grant applicants did not provide the required certification by December 31 of the calendar year of the grant cycle or enter into payment plans, so their grants expired. DSPS has not identified any applicants delinquent in child support since 2009-10.

Experimental POWTS Grants

Effective with the 2000-01 grant cycle, up to 10% of POWTS grant funding could be allocated for experimental private sewage systems. DSPS is authorized to exempt grants for experimental systems from several requirements related to the grant maximum amount, calculation and proration. Administrative rule Chapter SPS 387 specifies DSPS procedures for experimental POWTS grants.

In 2000-01 and 2001-02, \$182,657 was provided for two experimental constructed wetland systems, which received wastewater from septic tanks and dispersed it into soil for final treatment. No experimental system grants have been awarded since 2001-02.

Administration and Allocation System

Funding Cycle. Grant funds are allocated on an annual cycle. To receive funding, the owner of a failing private onsite wastewater treatment system would submit an application to the county within three years after the county notifies the owner that the POWTS has failed. The county would review the application and make an initial determination as to whether the system and owner are eligible. For the 2022-23 funding cycle, county applications were due to DSPTS before February 1, 2022, as required by statute. (No grant awards were made in 2021-22, as the program's extension under Act 67 and supplemental funding for the 2021-23 biennium were passed after the application deadline of February 1, 2021, for 2021-22 funding.)

The county application would include a list of property owners approved by the county as eligible and the maximum state grant share for each property owner. DSPTS would review each county application, and if any property owner listed in the county application did not meet the eligibility requirements, the grant award to the county would be reduced accordingly. DSPTS awarded 2022-23 grants to counties in October, 2022, for distribution to eligible property owners.

Counties may request partial grant payments as individual homeowners complete the required work. The Department conducts a desk audit to: (a) verify that the county has inspected the system and approved the final inspection; (b) ensure that each system meets the state plumbing code; and (c) verify that the type of work identified in the application is consistent with the work actually performed. DSPTS makes actual grant payments to the county after the replacement or repair work is completed. Each county is responsible for disbursing all grant awards to property owners. All work done with 2022-23 grant funds must be completed

by December 31, 2023.

Prioritization. If approved applications exceed available funding, DSPTS is required to prioritize funds to counties based on potential environmental harm associated with different types of POWTS failures. The Department has paid category one grants (discharge to waters) in full before category two grants (discharge to the surface of the ground) are eligible for any funding. If there are insufficient funds to provide payment for all category one grants, then these grants would be prorated, and no funds are provided for category two systems. If funds are adequate to fully fund category one grants, then remaining funds would be used for category two grants. If these cannot be fully funded from remaining funds, these grants would be prorated. Counties may not establish a backlog of claims in which applicants who would not receive 100% grant funding would be placed on a waiting list to receive funding in the next fiscal year.

DSPTS Administration. 2015 Wisconsin Act 55 deleted the position and funding specifically authorized for administration of the POWTS grant program. DSPTS administers the program with other existing POWTS regulatory and finance program staff.

Funding

Table 3 shows program appropriations and expenditures by fiscal year during the 15 years from 2008-09 through 2022-23.

Prior to 2015-16, the program was funded from the state general fund. Under 2015 Act 55, beginning in 2015-16, the source of funding for the program was converted from the general fund to program revenue. The source of the program revenue is a transfer from the Division of Industry Services (safety and buildings) general operations

Table 3: Private Onsite Wastewater Treatment System Grant Program, Appropriations and Expenditures

Fiscal Year	Appropriations	Expenditures*
2008-09	\$2,999,000	\$2,965,200
2009-10	2,815,000	2,748,600
2010-11	2,815,000	2,892,900
2011-12	2,338,600	2,358,800
2012-13	2,338,600	2,314,200
2013-14	2,338,600	2,322,600
2014-15	2,338,600	2,137,400
2015-16	1,645,000	1,550,200
2016-17	840,000	813,000
2017-18	840,000	676,000
2018-19	840,000	956,000
2019-20	1,025,000	1,045,000
2020-21	840,000	822,400
2021-22	0	33,100
2022-23	1,680,000	1,157,000**

*Expenditures vary from appropriations and annual awards due to carryover of unexpended funds from prior years and expenditures that are made in a fiscal year after awarded.

**Expenditures are preliminary awards made in October, 2022. Grants will be paid after work is completed, but no later than December 31, 2023.

appropriation, which receives revenue from sanitary permit and private sewage system plan review fees, and fees received from several other building permit, inspection, plan review, and credentialing activities.

The \$840,000 appropriated as base funding in most years since 2015-16 was intended to approximately equal the anticipated amount of revenue from sanitary permits and private sewage plan review fees, less budgeted expenditures for DSPS positions that administer POWTS regulations. Additional amounts authorized in 2015-16 and 2019-20 were intended to account for additional known grant requests in those years.

Grants awarded 2020-21 through 2022-23 are summarized in Table 4. The grant award amounts in Table 4 differ from the actual expenditures shown in Table 3 because funds are sometimes expended in a fiscal year following the year the

grant is awarded. Also, beginning in 2015-16, DSPS changed its method of proration and calculated separate proration percentages for residential and small commercial establishment awards.

In 2022-23, 165 category one grants received awards. Of these 165 awards, principal residences received 87%, and small commercial establishments received 13%. All 20 category two grants were for principal residences.

Table 5 shows the total grant award amount for 2022-23 grants based on applicant income. Applicants with income equal to or less than \$32,000 were generally eligible for the maximum grant amount. In years when funding is insufficient to cover all eligible applicants, grants may be prorated to account for available funding, which most recently occurred in 2020-21. Additionally, small commercial establishments have occasionally received further proration of grants to remain within available funding. In the 2022-23 grant cycle, DSPS indicates program funds were sufficient to cover all eligible grants, and no proration occurred. Applicants with income equal to or less than \$32,000 accounted for 78% of total funding awards, applicants with income between \$32,000 and \$45,000 accounted for 16%, and small commercial establishments with income over \$45,000 accounted for 6%.

The distribution of grants in 2022-23 by final grant amount for are shown in Table 6. In 2022-23, the average grant award was \$6,254. Grants equal to or less than \$3,000 constituted 1% of grants and accounted for 0.3% of the total award dollars. A total of 20% of grants were between \$3,001 and \$5,000, comprising 13% of awarded dollars. Finally, the majority of grants and award dollars were for amounts between \$5,001 and \$7,000, constituting 79% of grants and 87% of total award dollars.

In 2022-23, five types of private onsite wastewater treatment systems received funding, as listed in Table 7. (See Appendix II for a

description of how these systems function.) Mound systems accounted for 41% of grant awards and 43% of total grant dollars. Conventional systems accounted for the second highest percentage of awards, at 25%, and the third

highest total award dollars, at 24%. Mound systems are generally a more expensive system than others because of the need to build a mound on top of the soil.

Table 4: Distribution of Private Onsite Wastewater Treatment System Grant Applications and Awards

	Applicants	Application Amount	Prorated Grant Amount	Grant as Percent of Application	
				Principal Residences	Small Commercial Establishments*
2020-21 Award					
Category 1	290	\$1,831,430	\$823,807	47%	38%
Category 2	<u>4</u>	<u>23,800</u>	<u>0</u>	0	0
Total	294	\$1,855,230	\$823,807	NA	NA
2021-22 Award					
N/A (See 'Funding Cycle' on page 6.)					
2022-23 Award					
Category 1	165	\$1,030,731	\$1,030,731	100%	100%
Category 2	<u>20</u>	<u>126,251</u>	<u>126,249</u>	100	100
Total	185	\$1,156,982	\$1,156,980	NA	NA

*The statutes limit grants for small commercial establishments (SCE) to 10% of the total funds available in any fiscal year. The proration percentages shown were applied to eligible grants to remain within the 10% limit.

Table 5: Distribution of Grants by Applicant's Income -- 2022-23

Applicant's Income	Number of Grants	Max. Grant After Income Factoring	Average Grant
\$0-\$32,000	138	\$907,570	\$6,577
\$32,001-\$38,000	18	104,140	5,786
\$38,001-\$45,000	19	80,340	4,228
\$45,001-\$362,500*	<u>10</u>	<u>64,930</u>	6,493
Total	185	\$1,156,980	\$6,254

*Applicants with income over \$45,000 were small commercial establishments. The annual gross revenue of a small commercial establishment may not exceed \$362,500.

Table 6: Distribution of Grants by Amount of Grant -- 2022-23

Amount of Grant	Number of Grants	Amount	Average Grant
\$0	0	\$0	\$0
\$1-\$1,000	1	823	823
\$1,001-\$2,000	0	0	0
\$2,001-\$3,000	1	2,969	2,969
\$3,001-\$4,000	8	27,859	3,482
\$4,001-\$5,000	28	122,842	4,387
\$5,001-\$6,000	10	53,284	5,328
\$6,001-\$7,000	<u>137</u>	<u>949,203</u>	6,928
Total	185	\$1,156,980	\$6,254

Table 7: Distribution of Grants by Type of Replacement or Rehabilitated Private Onsite Wastewater Treatment System -- 2022-23

Type of System	Number of Grants	Amount	Average Grant
Mound	75	\$494,653	\$6,595
Conventional	46	280,568	6,099
In-Ground Pressure	44	291,552	6,626
Holding Tank	18	76,339	4,241
At Grade	<u>2</u>	<u>13,868</u>	6,934
Total	185	\$1,156,980	\$6,254

APPENDIX I

Private Onsite Wastewater Treatment System Grants -- Award Summary by County

County	Year Entered Program	2022-23		Cumulative Total*		County	Year Entered Program	2022-23		Cumulative Total*	
		# of Systems	Amount	# of Systems	Amount			# of Systems	Amount	# of Systems	Amount
Adams	1992	1	\$7,000	328	\$927,138	Marathon	1979	5	\$34,730	1,372	\$3,250,560
Barron	1980	0	0	865	1,587,322	Marinette	1994	2	13,550	148	472,479
Bayfield**	1990	0	0	65	187,140	Marquette	1998	1	7,000	91	301,291
Brown	1990	3	21,000	560	2,101,725	Menominee	1993	0	0	6	17,802
Buffalo	1990	0	0	301	818,664	Monroe	1980	5	35,000	817	2,144,547
Burnett	1983	0	0	520	1,309,725	Oconto	1989	0	0	677	1,857,211
Calumet	1980	10	66,686	862	2,726,942	Oneida	1980	0	0	1,620	2,657,659
Chippewa	1990	0	0	614	1,497,903	Oneida Tribe	1991	0	0	3	10,856
Clark	1980	1	6,723	577	1,300,189	Outagamie	1989	4	27,407	686	2,307,134
Columbia	1986	4	23,950	808	1,747,115	Ozaukee	1982	1	7,000	421	1,275,238
Crawford**	1979	19	122,246	339	774,920	Pepin	1980	1	6,430	249	533,195
Dane	1980	1	7,000	1,857	4,571,277	Pierce	1980	7	42,628	682	1,679,981
Dodge	1986	1	6,956	825	2,295,901	Polk	1987	0	0	437	1,037,822
Door	1980	0	0	1,016	3,130,605	Portage	1980	0	0	1,104	2,303,747
Dunn	1990	1	7,000	359	1,036,764	Price	1986	0	0	208	552,994
Eau Claire	1991	0	0	564	1,583,497	Racine	1981	4	25,663	551	1,686,423
Florence**	1990	0	0	36	73,163	Richland	1980	12	72,474	966	2,498,944
Fond du Lac	1979	0	0	895	2,712,692	Rock	1985	1	7,000	320	913,240
Forest	1991	0	0	153	333,256	Rusk	1988	6	36,600	532	1,201,128
Franklin City	1991	0	0	6	24,966	St. Croix	1983	0	0	722	1,611,198
Grant	1981	18	113,382	1,433	3,206,072	Sauk	1980	1	7,000	1,391	3,603,689
Green	2003	0	0	281	960,189	Sawyer	1980	0	0	969	1,764,264
Green Lake	1984	0	0	294	644,807	Shawano	1991	0	0	918	2,424,747
Iowa	1980	4	27,250	968	2,344,682	Sheboygan	1984	0	0	463	1,404,696
Iron	1980	5	19,538	180	400,601	Taylor	2002	19	94,542	178	547,546
Jackson	1980	5	33,417	827	1,776,747	Trempealeau	1982	0	0	739	1,751,072
Jefferson	1990	0	0	177	597,450	Vernon	1980	11	75,229	631	1,617,769
Juneau	1984	5	32,225	828	2,583,199	Vilas	1979	0	0	571	1,019,396
Kenosha	1981	0	0	593	1,432,692	Walworth	1984	1	7,000	467	996,702
Kewaunee	1985	8	52,607	972	3,300,605	Washburn	1980	0	0	422	819,358
La Crosse	1983	1	5,350	257	688,673	Washington	1979	0	0	1,261	3,233,855
Lafayette	1986	1	4,450	314	753,665	Waukesha	1979	0	0	1,584	3,505,725
Langlade	1980	0	0	413	687,594	Waupaca	1990	0	0	411	1,204,857
Lincoln	1991	0	0	397	1,034,251	Waushara	1999	0	0	56	204,148
Manitowoc	1985	3	17,653	1,205	4,178,956	Winnebago	1980	0	0	176	459,069
						Wood	1985	13	83,294	1,322	3,207,657
						Total		185	\$1,156,980	43,860	\$111,409,083

*Equals cumulative awards made. Actual expenditures may be less than awards.

**Florence County withdrew from participation in the 1999-00 grant cycle. Bayfield County withdrew in 1997-98 and rejoined the program effective with the 2007-08 grant cycle. Crawford County withdrew in 2000-01 and rejoined in 2018-19.

APPENDIX II

Description of a Typical Private Onsite Wastewater Treatment System

Private onsite wastewater treatment systems (POWTS) collect and/or treat sewage on the premises of a residence or commercial establishment. The systems are sometimes referred to as private sewage systems or septic systems. The first stage of a typical private onsite wastewater treatment system is a septic tank, where a natural settling and flotation process allows some solids to settle out, fats and oils to rise, and bacteria to partially decompose the pollutants and treat the wastewater.

The second stage of a typical system is an absorption field. Clarified wastewater flows by gravity or pump through a series of pipes with small holes in them designed to spread the wastewater evenly over a wide area. The pipes are buried beneath the surface of the ground, usually on a bed of gravel and sand. As the wastewater trickles through the soil beneath the field, it is cleansed of its remaining biological pollutants. Once the discharged water reaches the groundwater, it is adequately treated. Nitrates are partially treated in a typical POWTS.

If an absorption field cannot be installed, a holding tank is installed to hold wastewater for transport to off-site treatment. The holding tank has to be pumped out when it fills.

Private onsite wastewater treatment systems require soils that possess the correct properties. The soil must permit the wastewater to "percolate" or trickle through it fast enough to prevent the water from "ponding" and reaching the surface, but slowly enough that it can be treated before it

reaches groundwater. Even if the soils are adequate, the groundwater must not be too near the surface, or proper treatment with a standard system becomes impossible. Finally, private onsite wastewater treatment systems must be properly designed, installed, and maintained or they may malfunction, causing inconvenience, health risk, and expense to the owner. Siting a system on proper soils and using a system designed to assure even distribution are often adequate to overcome soils or groundwater contamination problems.

Other types of systems exist to allow onsite treatment where conditions are inadequate for in-ground gravity systems. The best-known of these is the "mound" system, which requires the construction of a soil absorption field of sand on top of existing soils. Another system is the "in-ground pressure distribution" system, which uses a pump to discharge a pre-calculated volume of wastewater to be evenly distributed from a septic tank to an absorption field. Another system is the "at-grade" system, which is a step between the in-ground pressure system and the mound system. It incorporates distribution piping laid on gravel on prepared ground (but no sand fill as in a mound system), that is then covered by a mound of soil.

Administrative code Chapter SPS 383 allows for other technologies that may permit treatment of wastewater to a higher level than is possible with a traditional septic tank and soil absorption system. These technologies provide the property owner with additional wastewater treatment options.