



# Private Sewage System Replacement or Rehabilitation Grant Program

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Prepared by

Kendra Bonderud

Wisconsin Legislative Fiscal Bureau  
One East Main, Suite 301  
Madison, WI 53703



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## Introduction

The private sewage system replacement or rehabilitation program, also referred to as the Wisconsin Fund, provides financial assistance to home and small business owners who meet certain income and eligibility criteria, to cover a portion of the cost of repairing or replacing failing private sewage systems. The Department of Commerce (Commerce) administers the program. This paper describes the requirements of the program. The program was appropriated \$2,999,000 in 2003-04 and \$2,999,000 in 2004-05 from the general fund.

There are two general types of systems utilized to treat and dispose of sewage--centralized sewage collection and treatment systems and "private sewage systems," also known as "private onsite wastewater treatment systems." Many areas are not served by centralized sewage systems, primarily rural areas or areas where the housing density is too low to justify a sewer system. In these areas, residential or commercial development requires the use of a private sewage system.

The private sewage system replacement or rehabilitation grant program was created in 1978 to provide funding to address the problem of system failures. Since 1978, the State has awarded \$77.2 million in grants to assist over 34,400 residences and businesses to replace or rehabilitate private sewage systems. The program is authorized in s. 145.245 of the statutes. Commerce has promulgated administrative rules for the program in Comm 87 of the Wisconsin Administrative Code.

Commerce estimates that there are approximately 778,500 private sewage systems in

the state. During the three calendar years 2001 to 2003, an average of 21,900 permits were issued annually for private sewage systems. Of these, about 60% (13,100) were for newly-constructed and 40% (8,800) were for replacement systems. In addition, an unknown number of homes that previously used private sewage systems are connected to centralized municipal wastewater treatment systems every year, and the private systems are no longer used.

Failing private sewage systems tend to produce health hazards, water pollution or both. Health hazards occur when a private sewage system does not operate properly, 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 systems 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 private sewage systems because of the organic pollutants added by the discharges from these systems.

In 1999 Wisconsin Act 9, a loan program component was created and funded from the segregated environmental improvement fund. Commerce and the Department of Administration (DOA) administer this program. To date, no counties have used the loan program.

Several appendices provide additional information about the distribution of grants in each county, the legislative history of the program, how a grant is calculated and how a typical private sewage system functions.

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### County Participation

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Wisconsin counties and Indian tribes may apply to Commerce to participate in the grant program to assist homeowners and small commercial establishments with the rehabilitation or replacement of failing private sewage systems. Counties participate because they are responsible for the regulation of private sewage system installations. The program is voluntary. Ashland, Bayfield, Crawford, Douglas, Florence and Milwaukee Counties are the only counties not participating in 2004-05. Three counties used to participate but have withdrawn. The counties and the last grant cycle of participation are: Bayfield (1997-98), Crawford (2000-01) and Florence (1999-00).

Milwaukee County does not perform private sewage system regulation functions, and the City of Franklin is the only participating governmental unit in that county. Indian tribes and bands are also eligible to participate in the program, and the Oneida Tribe participates. References to "counties" in this paper, therefore, also apply to the City of Franklin in Milwaukee County and the Oneida Tribe.

**County Responsibilities.** Counties that choose to participate in the program must:

1. Adopt a resolution stating that 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 private sewage systems constructed in the county after the date on which the county adopts the program (the maintenance program must include inspection or pumping of each system at least once every three years);

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' private sewage systems will be properly installed and maintained.

The owner of a failing private sewage system, either a homeowner or the owner of a small commercial establishment, may obtain grant application forms from the county after a determination of a failure of the private sewage system has been made. Sixty-three of 68 (66 counties, the City of Franklin and the Oneida Tribe) participating counties charge an application fee to homeowners to offset county administrative and maintenance costs. The fee averages \$105, and ranges from \$50 to \$325. Twenty-seven counties charge a fee to all applicants, and the other 36 counties charge an application fee only after applicants have been determined eligible for a grant. The county submits eligible applications to Commerce and disburses grant funds to eligible individuals. Appendix I shows the date each county entered the program, the distribution of grants made in each county in 2004-05 and the cumulative distribution amount.

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### Eligible Projects

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Replacement or rehabilitation of a private

sewage system serving a home or small commercial establishment may 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 or small commercial establishment is occupied at least 51% of the year by the owner;
4. The homeowner or business owner meets certain income criteria, (discussed in the next section);
5. The private sewage system is a category 1 or 2 failing private sewage system (see the next section for description of categories); and
6. A determination of failure is made prior to the rehabilitation or replacement of the failing private sewage 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 to inspect private sewage systems by Commerce; or (b) the owner has been ordered, in writing, to rectify a violation by the appropriate local governmental unit, DNR or Commerce.

Since the inception of the private sewage system grant program, program design and eligibility criteria have been modified by the Legislature a number of times. Appendix II describes these changes.

**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 receive the maximum eligible grant. The grant for homeowners with income between \$32,000 and \$45,000 is reduced by 30% of the amount by which the homeowner's income exceeds \$32,000, (which means that for each \$1 in income above \$32,000, the grant is decreased by 30 cents). Rental residential properties are not eligible. The grant formula is shown in Table 1.

**Table 1: Private Sewage System Program Grant Formula for Residential Properties**

Income	Grant Formula Amount
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 and occupied by the applicant when the determination of private sewage system failure was made; and (b) 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. In some years, grants for commercial establishments are prorated so that the total awards for commercial establishments does not exceed 10% of total funds available.

**Types of Failing Private Sewage Systems.** The types of failing private sewage systems are divided into three categories. Categories 1 and 2 are eligible for grant assistance. The types of systems are:

1. Category 1 systems are those which fail by 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 2 systems are those which fail by 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 1 systems.

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

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### **Grant Determination**

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Six categories of costs, called "work components," are eligible for reimbursement. The work components are:

1. Site evaluation and soil testing;
2. Installation of a replacement septic tank;
3. Installation of a pump chamber and lift pump or siphon;
4. Installation of a non-pressurized or in-ground pressure soil absorption area. The grant amount is based on systems sized according to either: (a) the percolation rate in minutes for water to fall one inch; or (b) soil morphological conditions, that is, the design loading rate in gallons per square foot per day;
5. Installation of an at-grade or mound soil absorption area; and or
6. Installation of a holding tank.

Costs allowable in determining grant funding may not exceed the costs of rehabilitating or replacing a private sewage 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 private sewage system 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. In addition, Comm 87 of the Wisconsin Administrative Code limits the maximum allowable grant to 60% of the total replacement cost or the amount determined in the grant funding tables, whichever is less.

Commerce 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. Commerce is required to revise the grant funding tables when it determines that 60% of current costs of private sewage system rehabilitation or replacement exceeds the amount in the tables by more than 10%. The tables may be revised no more than once every two years. The tables were revised in 1998 for applications received beginning on February 1, 1999. In 2004, Commerce revised the grant funding tables contained in Chapter Comm 87 of the Administrative Code, effective February 1, 2005, so that grant applications received on or after February 1, 2005, are eligible for funding in 2006-07 and subsequent years under the new funding tables. Appendix III illustrates examples of how the grant is calculated for various types of private sewage systems under the grant funding tables that are in effect through 2005-06 and under the revised grant funding tables that go into effect in 2006-07.

Commerce is required to withhold grant awards for applicants that the Department of Workforce Development determines are delinquent in their child support or maintenance payments until the applicant submits a certification



of full payment from the Clerk of Courts in the county where the child support or maintenance payments are delinquent or has a payment agreement on file at the county child support agency. For the grant cycles from 1997-98 through 2002-03, nine delinquent grant applicants did not provide the required certification by the December 31 of the calendar year of the grant cycle so their grants expired. (For example, for 2002-03, delinquent applicants had until December 31, 2003, to provide required certification to restore grant eligibility.) For the 2003-04 grant cycle, one applicant was delinquent in child support, and had until December 31, 2004, to provide the required certification. For 2004-05, two applicants are delinquent and have until December 31, 2005, to provide the required certification.

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### **Experimental Private Sewage System Grants**

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Beginning in 1994-95, up to 10% of private sewage system grant funding may be allocated for experimental private sewage systems. This equals \$299,900 of the \$2,999,00 appropriated in 2004-05 plus 10% of unobligated funds carried over from the prior year. Commerce is authorized to exempt grants for experimental systems from: (a) the statutory \$7,000 limit on private sewage system grants; (b) the requirement that the grant not exceed the costs of replacing or rehabilitating the system; (c) the requirement that the grant not exceed the least costly method of replacing or rehabilitating the system; (d) the formula that decreases the grant amount for applicants with income between \$32,000 and \$45,000; and (e) proration if the appropriation is insufficient to fund 100% of grants.

Administrative rule chapter Comm 87, specifies how Commerce will select, monitor and allocate the state share for experimental private sewage systems, effective with applications for grant funding in 2000-01. Prior to 2000-01, no awards for experimental private sewage systems were

available. Comm 87 authorizes Commerce to determine on a case-by-case basis the maximum allowable grant for the installation and monitoring of an experimental private sewage system, and to prorate available funds for experimental systems.

In the 2000-01 grant cycle, 11 property owners met eligibility requirements and received a final grant of \$138,677 (\$12,607 per property) to fund the installation of an experimental system consisting of a constructed wetland system to serve a small community. In addition, Commerce granted \$29,085 to monitor the system for up to five years from the date of installation, for a total of \$167,762 for installation and monitoring. A constructed wetland is an aquatic treatment system that typically consists of one or more lined cells that are planted with wetland type vegetative species. Wastewater flows from a septic tank through the cells where it is treated by microorganisms that are present on the plant roots and in the supporting media. The wastewater then is dispersed into soil where final treatment takes place. The vegetation in a wetland system releases some of the water as vapor into the atmosphere and also removes nitrogen and phosphorus via plant uptake and biological and chemical processes.

In 2001-02, Commerce awarded \$14,895 for a constructed wetland system serving one home. The grant included \$5,500 for installation of the system and \$9,395 for monitoring for up to five years. No experimental system grants have been awarded since then.

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### **Administration and Allocation System**

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**Funding Cycle.** Grant funds are allocated on an annual cycle. To receive funding, the owner of a failing private sewage system must submit an application to the county within three years after the county notifies the owner that the private sewage system has failed. The county reviews the application and makes an initial determination as

to whether the system and owner are eligible. For the 2004-05 funding cycle, county applications were due to Commerce before February 1, 2004. The county application includes a list of property owners approved by the county as eligible and the maximum state grant share for each property owner. Each county application is reviewed by the state. If any property owner listed in the county application did not meet the eligibility requirements, the grant award to the county is reduced accordingly. Commerce awarded 2004-05 grants to counties in August, 2004.

Counties may request partial grant payments as individual homeowners complete the required work. Commerce conducts a desk audit to: (a) verify that the county has inspected the system and signed off on 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. Commerce 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 2004-05 grant funds must be completed by December 31, 2005.

**Prioritization.** If approved applications exceed available funding, Commerce is required to prioritize funds to counties based on potential environmental harm associated with different types of private sewage system failures. Category one grants are paid in full before category two grants are eligible for any funding. If there are insufficient funds to provide payment for all category one grants, then these grants are prorated, and no funds are provided for category two systems. If funds are adequate to fully fund category one grants, then remaining funds are used for category two grants. If these cannot be fully funded from remaining funds, these grants are 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.

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## Funding

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Table 2 shows program appropriations and expenditures by fiscal year during the 15 years from 1990-91 through 2004-05.

**Table 2: Private Sewage System Grant Program, Appropriations and Expenditures 1990-91 through 2004-05**

Fiscal Year	Appropriation	Expenditures*
1990-91	\$3,700,000	\$2,990,900
1991-92	3,000,000	5,049,800
1992-93	3,000,000	3,153,700
1993-94	3,500,000	3,458,300
1994-95	3,500,000	3,287,300
1995-96	3,500,000	3,914,400
1996-97	3,500,000	3,499,600
1997-98	3,500,000	3,480,200
1998-99	3,500,000	3,571,900
1999-00	3,500,000	3,200,100
2000-01	3,500,000	3,585,700
2001-02	3,169,100	3,479,800
2002-03	2,999,000	2,852,800
2003-04	2,999,000	3,023,700
2004-05	2,999,000	3,044,900 **

\*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 awards made in August, 2004, including awards which are pending until further information is obtained from the applicant. Grants will be paid after work is completed, but no later than December 31, 2005. After the 2004-05 awards were made, approximately \$130,800 in unobligated funds remained to accommodate pending application determinations of eligibility, pending past awards, applications currently delinquent in child support or appeals of Department decisions.

The 2001-03 biennial budget act originally provided \$3.5 million annually for grants. Subsequently, in the spring of 2002, as part of general fund appropriation reductions made in many agencies in 2001 Act 109 (the 2001-03 budget adjustment act), the appropriation was reduced by \$330,900 to \$3,169,100 in 2001-02 and by \$501,000 to \$2,999,000 in 2002-03. In 2002-03, the awards were prorated to less than the appropriation, because some of the 2002-03 appropriation was reserved for payment of applications approved in the 2001-02 grant cycle. In 2003-04 and 2004-05, funding continued at the amount of \$2,999,000 in each year.

Grants made in 1999-00 through 2004-05 are summarized in Table 3. In the 1990s, the number of funded applications peaked at 1,808 in 1995-96 and have declined since to 847 in 2004-05.

Table 4 shows the total grant award amount for 2004-05 grants before and after the effect of income factoring. Applicants with income equal to or less than \$32,000 were eligible for the maximum grant amount. Before the effects of income factoring, applicants would have been eligible for \$3,231,200 in eligible work components. Applicants with income equal to or less than \$32,000 accounted for 78% of this amount, applicants with income between \$32,000 and \$45,000 accounted for 15% and small commercial establishments with income over \$45,000 accounted for 7%. After income factoring, applicants were eligible for \$3,077,700 in grants. Applicants with income equal to or less than \$32,000 were eligible for 81% of all grant award dollars, applicants with income between \$32,000 and \$45,000 were eligible for 12% of grant award dollars and applicants with income over \$45,000 (all small commercial establishments) were

**Table 3: Distribution of Private Sewage System Grant Applications and Awards**

	Eligible Applicants	Application Amount	Grant Amount	Grant as Percent of Application
<b>1999-00 Final</b>				
Category 1	1,123	\$3,112,494	\$3,099,526	100%*
Category 2	<u>54</u>	<u>95,205</u>	<u>94,987</u>	<u>100</u> *
Total	1,177	\$3,207,699	\$3,194,513	100%
<b>2000-01 Final</b>				
Category 1	1,203	\$4,323,718	3,612,039	84%*
Category 2	<u>51</u>	<u>116,286</u>	<u>0</u>	<u>0</u>
Total	1,254	\$4,440,004	\$3,612,039	81%
<b>2001-02 Final</b>				
Category 1	1,032	\$3,593,585	\$3,369,608	100%*
Category 2	<u>46</u>	<u>110,082</u>	<u>104,824</u>	<u>100</u> *
Total	1,078	\$3,703,667	\$3,474,432	100%
<b>2002-03 Final</b>				
Category 1	1,042	\$3,690,117	\$2,829,558	78%*
Category 2	<u>78</u>	<u>181,553</u>	<u>0</u>	<u>0</u>
Total	1,120	\$3,871,670	\$2,854,892	73%
<b>2003-04 Award</b>				
Category 1	890	\$3,235,900	\$3,015,024	97%*
Category 2	<u>34</u>	<u>79,151</u>	<u>0</u>	<u>0</u>
Total	924	\$3,315,051	\$3,015,024	91%
<b>2004-05 Award</b>				
Category 1	819	\$3,008,820	2,976,976	100%*
Category 2	<u>28</u>	<u>68,850</u>	<u>67,899</u>	<u>100</u>
Total	847	\$3,077,670	\$3,044,875	100%

\*The statutes limit grants for small commercial establishments to 10% of the total funds available in any fiscal year. Such grants were reduced by 5% in 1999-00, 16% in 2000-01, 21% in 2001-02, 13% in 2002-03, 20% in 2003-04 and 7% in 2004-05.

eligible for 7%. In 2004-05, 100% of the eligible grant funding was awarded for category one and category two systems. Eligible awards for small commercial establishments represented 11% of eligible awards, but were reduced by 7% to keep awards for those systems to less than 10% of the total funds available.

**Table 4: Distribution of Grants by Applicant's Income (2004-05)**

Applicant's Income	No. of Grants	Grant Before Income Factoring	Grant After Income Factoring	Prorated Grant Amount	Average Prorated Grant
\$0-32,000	669	\$2,506,762	\$2,506,762	\$2,491,998	\$3,725
32,001-33,000	24	92,050	88,803	88,205	3,675
33,001-34,000	11	40,482	35,850	35,850	3,259
34,001-35,000	19	75,470	60,321	60,321	3,175
35,001-36,000	13	55,450	40,732	40,732	3,133
36,001-37,000	11	41,150	27,342	27,342	2,486
37,001-38,000	9	37,025	23,811	23,549	2,617
38,001-39,000	10	42,125	23,112	23,112	2,311
39,001-40,000	6	25,850	14,533	14,374	2,396
40,001-41,000	7	30,275	17,734	17,104	2,443
41,001-42,000	3	16,175	7,350	7,350	2,450
42,001-43,000	5	20,775	5,398	5,398	1,080
43,001-44,000	4	20,025	5,976	5,976	1,494
44,001-45,000	2	11,125	3,451	3,451	1,726
45,001-362,500*	54	216,495	216,495	200,113	3,706
<b>TOTAL</b>	<b>847</b>	<b>\$3,231,234</b>	<b>\$3,077,670</b>	<b>\$3,044,875</b>	<b>\$3,595</b>

\*The annual gross revenue of a small commercial establishment may not exceed \$362,500 and is not factored to obtain the grant award. However, the statutes limit grants for small commercial establishments to 10% of the total funds available in any fiscal year. The applicants with income over \$45,000 were small commercial establishments.

**Table 5: Distribution of Grants by Grant Amount 2004-05**

Amount of Grant	Number of Grants	Amount	Average
\$1-500	9	\$1,926	\$214
501-1,000	9	6,336	704
1,001-1,500	11	13,820	1,256
1,501-2,000	33	59,190	1,794
2,001-2,500	201	471,413	2,345
2,501-3,000	60	169,218	2,820
3,001-3,500	134	446,178	3,479
3,501-4,000	66	248,605	3,767
4,001-4,500	53	222,540	4,199
4,501-5,000	95	438,955	4,621
5,001-5,500	148	801,139	5,413
5,501-6,000	20	113,434	5,672
6,001-6,500	2	12,531	6,266
6,501-7,000	6	39,590	6,598
<b>TOTAL</b>	<b>847</b>	<b>\$3,044,875</b>	<b>\$3,595</b>

In 2004-05, the average grant award was \$3,595 and 38% of grants were equal to or less than \$3,000. A total of 21% of grants exceeded \$5,000. The distribution of grants in 2004-05 by final grant amount (after proration) is shown in Table 5.

In 2004-05, grants were made for five types of private sewage systems listed in Table 6. (See Appendix IV for a description of how these systems function.) Mound systems accounted for 39% of grant awards and 52% of total award dollars. Mound systems are generally a more expensive system than others because of the need to build a mound on top of the soil. (See Appendix III for sample calculations of grants for different system types).

**Table 6: Distribution of Grants by Type of Replacement or Rehabilitated Private Sewage System -- 2004-05**

Type of System	Number of Grants	Amount	Average
Mound	332	\$1,582,502	\$4,767
In-Ground Pressure	126	444,335	3,526
Conventional	108	346,721	3,210
At-Grade	152	346,111	2,277
Holding Tank	122	308,987	2,533
Other	7	16,219	2,317
<b>TOTAL</b>	<b>847</b>	<b>\$3,044,875</b>	<b>\$3,595</b>

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**Loan Program**

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In 1999 Wisconsin Act 9, a private sewage system replacement and rehabilitation no-interest loan program was created within the environmental improvement fund. It may be used only in a year in which the Department of Commerce must prorate funds under the private sewage system replacement and rehabilitation grant program.

The program is provided \$1,500,000 segregated

revenue (SEG) from the environmental improvement fund. The fund primarily provides loans to municipalities to upgrade or replace wastewater treatment plants to meet state and federal requirements and investment earnings. Further information about the environmental improvement fund can be found in the Legislative Fiscal Bureau's informational paper entitled, "Environmental Improvement Fund."

In a year in which Commerce prorates funds under the private sewage system replacement and rehabilitation grant program, counties may apply to Commerce for a loan under the environmental improvement fund loan program. The county may only use a loan to increase the grant amount to eligible persons to the amount that the persons would have been eligible to receive under the grant program.

The loan amount may not exceed the difference between the amount the county would have received if Commerce had not prorated grants and the amount that the county did receive. If the amount available for loans under the program is insufficient to provide loans to all eligible counties in a year, Commerce is required to prorate loans in the same manner as under the grant program.

A no-interest loan may not be for a term longer than 20 years, as determined by DOA, and must be fully amortized no later than 20 years after the original date of the loan. In order to obtain a loan, a county must pledge any security required by DOA and demonstrate the financial capacity to assure sufficient revenues to repay the loan. Commerce and DOA will enter into a financial assistance agreement with an eligible county. DOA, in consultation with Commerce, may establish terms and conditions of a financial assistance agreement that relate to its financial management, including what type of municipal obligation is required for the repayment of the loan. DOA may consider relevant factors, including the type of obligation, the pledge of security and the county's creditworthiness. DOA is responsible for disbursing the loan to the county, and, in

consultation with Commerce, will establish procedures for disbursing loans.

If a county fails to make a principal repayment when due, DOA will place on file a certified statement of all amounts due. After consulting with Commerce, DOA could collect the past amounts due by deducting those amounts from any state payments due to the county or may add a special charge to the amount of state tax apportioned to and levied upon the county. Amounts collected will be deposited to the fund to which they are due and DOA will notify Commerce that it has done so.

As of January 1, 2005, no counties had applied for a loan under the program. Table 7 shows the amounts counties were eligible to apply for. The amounts equal the difference between the eligible and prorated final grant amount for 2000-01 through 2002-03, and the difference between the eligible and prorated award in 2003-04. In 2001-02 and 2004-05, grants were funded at 100% of the eligible amount and thus, there was no loan eligibility in those years.

**Table 7: Maximum No-Interest Loan Eligibility**

Year	Maximum Loan Amount
2000-01	\$595,148
2001-02	0
2002-03	989,396
2003-04	167,376
2004-05	0

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**Summary**

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The failure of private sewage systems is a statewide problem that can result in water pollution and health hazards. The private sewage system replacement or rehabilitation grant program provides partial funding for replacement or rehabilitation of systems serving owner-occupied homes or small commercial businesses in

participating counties if potential environmental harm exists, the homeowner meets certain income criteria, and other program requirements are met. This program, in conjunction with other grant programs administered by Commerce and DNR, is designed to reduce the problem of water pollution in order to provide cleaner lakes, rivers, streams

and groundwater in this state.

Since the program's inception in 1978-79, it has awarded \$77.2 million to assist over 34,400 residential owner-occupants and owners of small commercial establishments in replacing or repairing their private sewage system.

## APPENDIX I

### Private Sewage System Grants Award Summary by County

County	Year Entered Program	2004-05		Total to Date*		County	Year Entered Program	2004-05		Total to Date*	
		# of Systems	Amount	# of Systems	Amount			# of Systems	Amount	# of Systems	Amount
Adams	1992	10	\$30,000	224	\$586,859	Marathon	1979	26	\$96,175	1,049	\$2,074,331
Barron	1980	10	37,630	783	1,280,653	Marinette	1994	14	53,305	97	281,858
Bayfield**	1990	0	0	37	96,360	Marquette	1998	3	8,225	34	88,379
Brown	1990	17	82,905	339	1,110,611	Menominee	1993	0	0	1	1,797
Buffalo	1990	8	27,717	196	473,544	Monroe	1980	21	78,646	634	1,434,822
Burnett	1983	11	55,510	406	930,008	Oconto	1989	14	41,096	539	1,336,728
Calumet	1980	17	69,620	610	1,620,753	Oneida	1980	8	14,804	1,574	2,525,576
Chippewa	1990	13	49,052	522	1,159,135	Oneida Tribe	1991	0	0	3	10,856
Clark	1980	30	91,935	414	823,064	Outagamie	1989	21	91,294	392	1,190,522
Columbia	1986	12	47,397	723	1,410,992	Ozaukee	1982	10	48,604	345	936,105
Crawford**	1979	0	0	246	376,504	Pepin	1980	5	19,691	226	443,699
Dane	1980	18	61,789	1,740	4,132,058	Pierce	1980	4	13,950	602	1,321,726
Dodge	1986	8	36,050	762	2,023,133	Polk	1987	11	40,915	386	854,037
Door	1980	37	134,929	669	1,761,674	Portage	1980	11	28,920	1,024	2,002,978
Dunn	1990	9	35,024	310	833,268	Price	1986	2	5,750	185	467,427
Eau Claire	1991	8	24,625	453	1,185,716	Racine	1981	12	55,224	461	1,252,779
Florence**	1990	0	0	36	73,163	Richland	1980	21	64,945	639	1,359,695
Fond du Lac	1979	9	28,991	747	2,065,107	Rock	1985	12	51,118	243	606,569
Forest	1991	3	10,974	115	218,627	Rusk	1988	14	37,999	387	741,042
Franklin City	1991	0	0	4	13,416	St. Croix	1983	6	26,125	692	1,482,620
Grant	1981	38	116,106	679	1,288,215	Sauk	1980	25	96,385	1,145	2,661,904
Green	2003	20	81,661	65	226,902	Sawyer	1980	13	40,173	843	1,415,692
Green Lake	1984	3	11,288	266	547,468	Shawano	1991	18	65,963	639	1,457,516
Iowa	1980	22	68,648	646	1,429,271	Sheboygan	1984	9	39,907	375	990,620
Iron	1980	0	0	155	312,886	Taylor	2002	11	30,796	22	61,086
Jackson	1980	21	55,630	668	1,252,968	Trempealeau	1982	16	46,253	634	1,415,574
Jefferson	1990	2	9,707	145	443,867	Vernon	1980	23	75,977	438	980,054
Juneau	1984	22	85,168	602	1,699,686	Vilas	1979	8	32,303	551	955,087
Kenosha	1981	5	21,450	515	1,097,317	Walworth	1984	3	5,825	439	880,424
Kewaunee	1985	11	42,300	580	1,536,856	Washburn	1980	5	13,800	329	550,990
LaCrosse	1983	6	20,698	180	402,127	Washington	1979	15	60,109	1,153	2,744,452
Lafayette	1986	12	39,347	184	420,191	Waukesha	1979	5	21,007	1,520	3,211,265
Langlade	1980	2	5,750	375	580,459	Waupaca	1990	20	67,332	274	709,837
Lincoln	1991	20	69,314	262	611,147	Waushara	1999	3	9,909	21	66,277
Manitowoc	1985	18	82,482	727	2,106,449	Winnebago	1980	2	8,749	138	313,754
						Wood	1985	<u>34</u>	<u>119,904</u>	<u>1,035</u>	<u>2,212,297</u>
						TOTAL		847	\$3,044,875	34,454	\$77,170,829

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

\*\*These counties withdrew from participation (the last grant cycle is in parentheses): Bayfield (1997-98), Crawford (2000-01) and Florence (1999-00).

## APPENDIX II

### History of the Private Sewage System Replacement or Rehabilitation Grant Program

In Chapter 418, Laws of 1977, the Legislature created three grant programs to address water pollution problems. The major share of grant funding was devoted to point source pollution problems with the objective of bringing municipalities into compliance with federal and state pollution discharge laws. The point source program (which has since been replaced by the clean water fund program) addressed those problems most likely to arise in an urbanized area. A second initiative, the nonpoint source program, addresses those pollution abatement problems most typically associated with rural, agricultural areas. Finally, the creation of the private sewage system replacement or rehabilitation grant program provides funding for a set of problems found in developed but relatively less dense suburban and rural areas--private sewage system failures.

**Original Program.** The original private sewage system replacement or rehabilitation grant program was established in DNR. When the program was created, funding was set at three percent of the point source pollution abatement grant program. This provided approximately \$2,000,000 GPR per year for the first three years of the program.

The original statute determined that the state's share of private sewage system replacement or repair would be 60% of actual costs up to a maximum grant of \$3,000. There were no income limitations for residential or small commercial establishment owners. Small commercial establishments included business places with maximum daily waste flow of 300 gallons.

**1983 Wisconsin Act 545:** DNR was required to

develop grant funding tables which specified the 60% state share of actual costs for various types of systems or components of systems. These tables were based upon minimum size and other requirements specified in the state plumbing code. DNR implemented grant funding tables, which provided a "flat-rate" grant based on the size and type of the system and the type of soil to which the system would discharge. The grant funding tables were intended to simplify program administration by eliminating the need for the county and state to determine actual repair or replacement costs, and to create an incentive for the system owner to "shop" for system replacement or repair work based on costs, since paying reduced costs would not result in a reduced grant under the flat-rate system.

Act 545 set income limitations, for residential owners at the greater of \$27,000 adjusted gross income or 125% of the county median income, and for commercial businesses at the greater of \$27,000 net income or 125% of the county median income. It also redefined "small commercial establishment" to include business places with maximum daily waste flow of 2,100 gallons.

**1985 Wisconsin Act 29:** Income limitations for residential owners were increased to the greater of \$32,000 adjusted gross income or 125% of the county median income. The limit for commercial establishments was increased to the greater of \$32,000 net income or 125% of the county median income. The appropriation was also changed from a continuing to a biennial appropriation.

**1987 Wisconsin Act 27:** In 1987-88, the appropriation was changed from a biennial to an annual appropriation.



**1989 Wisconsin Act 31:** The state's maximum share of the replacement or rehabilitation costs was increased from \$3,000 to \$7,000. Income limits for residential owners were increased to the greater of \$45,000 adjusted gross income or 125% of the county median income. The income limit for commercial establishments was changed to \$362,500 annual gross revenues.

**1989 Wisconsin Act 326:** The appropriation was changed from an annual to a continuing appropriation, enabling approximately \$1,700,000 of 1989-90 funds to be retained by the program for future use. DNR was also required to update the grant funding tables and to revise them whenever it determined that 60% of current costs of private sewage system rehabilitation or replacement exceeds the amount in the tables by more than 10%, but not more often than once every two years.

Act 326 also modified the definition of a "small commercial establishment" to mean a commercial establishment, or place of business, with a maximum daily waste flow rate of less than 5,000 gallons (previously 2,100 gallons).

**1991 Wisconsin Act 39:** Administration of the program was transferred from DNR to DILHR effective August 15, 1991. DILHR was already responsible for issuing sanitary permits for private sewage systems. DILHR adopted DNR's administrative rule to implement the program as ILHR 87, effective March 1, 1992.

Act 39 also modified the income limitations for residential owners so applicants with adjusted gross income below \$32,000 receive the maximum eligible grant. The grant for households with income between \$32,000 and \$45,000 is reduced by 30% of the amount by which the household's income exceeds \$32,000, (which means that for each \$1 increase in income above \$32,000, the grant is decreased by 30 cents). No change was made to the income limitations for commercial establishments.

**1993 Wisconsin Act 16:** The date by which

applications must be submitted by counties to DILHR was changed from June 1 to February 1. Funding was increased from \$3.0 million to \$3.5 million in each year to address anticipated program demand.

Act 16 also allocated up to 10% of private sewage system grant funding for experimental private sewage systems, effective with applications funded from the 1994-95 appropriation. Based on the amounts appropriated for 1993-95, this provided up to \$350,000 in 1994-95. Act 16 authorized DILHR to exempt grants for experimental systems from: (a) the statutory \$7,000 limit on private sewage system grants; (b) the requirement that the grant not exceed the costs of replacing or rehabilitating the system; (c) the requirement that the grant not exceed the least costly method of replacing or rehabilitating the system; (d) the formula that decreases the grant amount for applicants with income between \$32,000 and \$45,000; and (e) proration if the appropriation is insufficient to fund 100% of grants. DILHR was directed to promulgate rules specifying how it would select, monitor and allocate the state share for experimental private sewage systems.

**1995 Wisconsin Act 27:** The program, along with DILHR's Safety and Buildings Division, which administered the program, was transferred from DILHR to the Department of Commerce effective July 1, 1996.

**1999 Act 9:** Effective with the 2001-02 grant cycle, eligibility requirements changed in two ways. First, the definition of annual family income was changed to include the federal adjusted gross income of the owner of the failing private sewage system and the owner's spouse. Second, a private sewage system is eligible for a grant if the system was installed before July 1, 1978, and the owner meets other eligibility requirements.

Act 9 also created a private sewage system replacement and rehabilitation loan program

within the environmental improvement fund. The program is provided with \$1,500,000 SEG from the environmental improvement fund. In years in which Commerce must prorate funds under the grant program, counties could apply to Commerce for a no-interest loan for not more than the difference between the amount the county would have received if Commerce had not prorated grants and the amount that the county did receive.

**2001 Act 109:** As part of broad-based general fund budget reductions made in many state

agencies, the private sewage system replacement or rehabilitation grant program appropriation was reduced from \$3,500,000 by \$330,900 to \$3,169,100 in 2001-02 and by \$501,000 to \$2,999,000 in 2002-03.

**2003 Act 169:** The act clarified that when calculating costs allowable in determining grant funding that may not exceed the costs of rehabilitating or replacing a private sewage system by the least costly method, a holding tank may not be used as the measure of the least costly method for rehabilitating or replacing a private sewage system other than a holding tank.

## APPENDIX III

### Examples of Calculation of Private Sewage System Grant Amount

	Total Eligible Grant Amount							
	Example 1		Example 2		Example 3		Example 4	
Component	Grant Awards 2000-01 thru 2005-06	Grant Awards Effective as of 2006-07*	2000-01 thru 2005-06	Effective as of 2006-07*	2000-01 thru 2005-06	Effective as of 2006-07*	2000-01 thru 2005-06	Effective as of 2006-07*
Site evaluation and soil testing	Flat \$250	Flat \$250	\$250	\$250	\$250	\$250	\$250	\$250
Installation or replacement of additional POWTS anaerobic treatment component	\$500 to \$950, depending on tank size	\$500 to \$950 depending on tank size	550	550	550	550	550	550
Installation of a POWTS dosing component and lift pump or siphon	\$1,100 to \$1,250, depending on number of bedrooms	\$1,100 to \$1,250, depending on number of bedrooms	1,200	1,200	1,200	1,200	1,200	1,200
Installation of a non-pressurized or in-ground pressure POWTS treatment or dispersal component	\$800 to \$2,275, depending on percolation rate and number of bedrooms	\$925 to \$2,275 depending on percolation rate and number of bedrooms	1,225	1,400	1,225	1,400	2,550	3,525
Installation of a high groundwater mound POWTS treatment or dispersal component	\$2,250 to \$3,775, depending on number of bedrooms	\$2,600 to \$4,775 depending on number of bedrooms	2,550	3,525	2,550	3,525	2,250	2,500
Installation of POWTS holding tank component	\$2,250 to \$3,775, depending on number of bedrooms	\$2,500 to \$4,750, depending on number of bedrooms	2,250	2,500	2,250	2,500	2,250	2,500
Total grant amount before income proration	\$2,025	\$2,200	\$3,225	\$3,400	\$4,550	\$5,525	\$2,500	\$2,750

POWTS = Private onsite wastewater treatment system.

\* The grant funding levels are revised to the levels shown effective with the 2006-07 grant year.

Example 1 = Replacement of a conventional system, 3-bedroom house.      Example 3 = Installation of a high groundwater mound system, 3-bedroom house.

Example 2 = Installation of an in-ground system, 3-bedroom house.      Example 4 = Installation of a holding tank, 3-bedroom house.

## APPENDIX IV

### Description of a Typical Private Sewage System

Private sewage systems collect and/or treat sewage on the premises of a residence or commercial establishment. Department of Commerce administrative rule Comm 83, effective July 1, 2000, refers to them as "private on-site wastewater treatment systems." The systems are sometimes referred to as private sewage systems or septic systems. The first stage of a typical private sewage 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 private sewage system.

If an absorption field can not 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 sewage 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 sewage 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 on-site 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 precalculated 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.

The revised Comm 83 code 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.