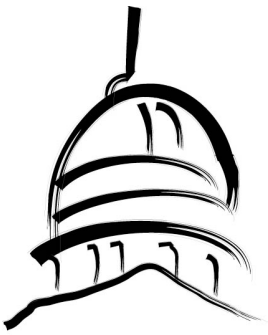
Private Sewage System Replacement or Rehabilitation Grant Program



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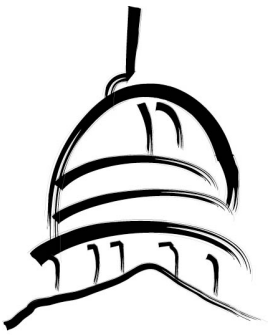

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Private Sewage System Replacement or Rehabilitation Grant Program

Introduction

The state provides financial assistance from the general fund 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 program was appropriated $3,169,100 in 2001-02 and $2,999,000 in 2002-03. The Department of Commerce (Commerce) administers the private sewage system replacement or rehabilitation grant program, also referred to as the Wisconsin Fund. This paper describes the requirements of the program.

There are two general types of systems utilized to treat and dispose of sewage--centralized sewage collection and treatment systems and on-site systems, which are called "private sewage 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.

Commerce estimates that there are approximately 747,000 private sewage systems in the state. There are approximately 20,000 permits issued annually for private sewage systems, and the number is declining. Of these, about 60% (13,200) are for newly constructed and 40% (8,800) are for replacement systems. 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.

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 $71.1 million in grants to assist over 32,700 residences and businesses to replace or rehabilitate private sewage 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 the loan 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.

County Participation

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 2002-03. Taylor County began participating with the 2001-02 grant cycle. Green County began participating with the 2002-03 grant cycle. 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 $100, and ranges from $50 to $200. Twenty-one counties charge a fee to all applicants, and the other 42 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 2002-03 and the cumulative distribution amount.

Eligible Projects

Replacement or rehabilitation of a private sewage system serving a home or small commercial establishment may be eligible for financial assistance if:

1. A system is eligible if it was installed before July 1, 1978. Prior to the 2001-02 grant cycle, eligibility was provided if the home or small commercial establishment was constructed and

inhabited 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 grant program, program design and eligibility criteria have been modified by the Legislature several 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. Prior to the 2001-02 grant cycle, "family income" was defined as the adjusted gross income of the owner and the owner's spouse, as computed for Wisconsin income tax purposes 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. In each fiscal year, grant funding for all commercial establishments cannot exceed 10% of the total funds available. There is no proration based on income for commercial establishments as there is for residential properties.

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.

Grant Determination

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 or additional 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. The state grant share is limited to $7,000, or the amount determined by the Department in grant funding tables, whichever is less.

Commerce is required to prepare and publish grant funding tables that specify the maximum state share limitations 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 last revised in 1998. At that time, Commerce revised the grant funding tables contained in Chapter Comm 87 of the Administrative Code so that grant applications received on or after February 1, 1999, were eligible for funding in 2000-01 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 went into effect in 2000-01.

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 2000-01, eight 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 2000-01, delinquent applicants had until December 31, 2001, to provide required certification to restore grant eligibility.) For the 2001-02 grant cycle, no applicants were delinquent in child support. For 2002-03, one applicant is delinquent and has until

December 31, 2003, to provide the required certification.

Experimental Private Sewage System Grants

Beginning in 1994-95, up to 10% of private sewage system grant funding may be allocated for experimental private sewage systems. This equals $316,900 of the $3,169,100 appropriated in 2001-02 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 that has been installed 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.

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.

Administration and Allocation System

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 2002-03 funding cycle, county applications were due to Commerce before February 1, 2002. The county application included 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 2002-03 grants to counties in August, 2002.

Counties may request partial grant payments as individual homeowners complete the required work. Commerce conducts a desk audit to ensure that each system meets the state plumbing code and 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 2002-03 grant funds must be completed by December 31, 2003.

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.

Funding

Table 2 shows program appropriations and expenditures by fiscal year from the program's inception.

Until 1985-86, the program was funded by a continuing appropriation, which allowed the carryover of unexpended funds from one fiscal year to the next. In 1981-82, the appropriation was item vetoed by the Governor to $0 because of the availability of funding carried forward from prior years.

Funding was substantially increased in 1985-86 to address program demand and the appropriation was converted to biennial, thus prohibiting carryover of unused amounts from one biennium to the next. However, changes in eligibility requirements caused a decrease in the number of grants and there was a $1.4 million lapse to the general fund at the end of 1986-87. In 1987-88, the appropriation was converted to annual. Beginning in 1989-90, funding was again provided through a continuing appropriation. The carryover of funding enabled the program to provide $5.0 million in grants in 1991-92.

Table 2: Private Sewage System Grant Program

Fiscal Year	Appropriation	Expenditures*
1978-79	$1,800,000	$0
1979-80	1,980,000	712,600
1980-81	1,967,400	2,199,300
1981-82	0	2,540,000
1982-83	2,500,000	2,664,200
1983-84	2,500,000	2,437,300
1984-85	2,500,000	2,502,600
1985-86	4,500,000	4,220,800
1986-87	3,000,000	1,941,800
1987-88	2,000,000	1,924,600
1988-89	2,000,000	2,004,300
1989-90	3,700,000	1,950,000
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	2,853,000**
TOTAL	$72,315,500	$70,622,200

*Expenditures vary from appropriations and annual awards due to carryover, lapse provisions of $1,400,000 in 1986-87, and expenditures that are made in a fiscal year after awarded.

**Expenditures are awards made in August, 2002, 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, 2003. After 2002-03 awards were made, approximately $225,000 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.

Beginning in 1993-94, funding was increased from $3.0 million to $3.5 million annually to address anticipated program demand. In 2001-02, grants were awarded by September, 2001. 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

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

	Eligible Applicants	Application Amount	Grant Amount	Grant as Percent of Application
1997-98 Final				
Category 1	1,441	$3,860,389	$3,474,163	90%
Category 2	39	68,626	0	0
Total	1,480	$3,929,015	$3,474,163	88%
1998-99 Final				
Category 1	1,295	$3,537,652	3,537,652	100%
Category 2	20	30,884	30,884	100
Total	1,315	$3,568,536	$3,568,536	100%
1999-00 Final				
Category 1	1,123	$3,112,494	$3,099,526	100%*
Category 2	54	95,205	94,987	100 *
Total	1,177	$3,207,699	$3,194,513	100%
2000-01 Final				
Category 1	1,203	$4,323,718	3,612,039	84%*
Category 2	51	116,286	0	0
Total	1,254	$4,440,004	$3,612,039	81%
2001-02 Award				
Category 1	1,036	$3,604,060	$3,381,333	100%*
Category 2	46	110,082	104,824	100*
Total	1,082	$3,714,142	$3,486,157	100%
2002-03 Award				
Category 1	1,053	$3,735,482	$2,854,892	78%*
Category 2	79	183,853	0	0
Total	1,132	$3,919,335	$2,854,892	73%

* 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 and 13% in 2002-03.

Table 4: Distribution of Grants by Applicant's Income (2002-03)

Applicant's Income	No. of Grants	Grant Before Income Factoring	Grant After Income Factoring	Prorated Grant Amount	Average Prorated Grant
$0-32,000	699	$2,629,535	$2,629,535	$2,015,639	$2,884
32,001-33,000	25	88,300	83,807	65,386	2,615
33,001-34,000	27	104,920	95,675	74,400	2,756
34,001-35,000	16	57,566	48,670	37,450	2,340
35,001-36,000	18	69,506	52,214	40,438	2,247
36,001-37,000	12	42,822	30,577	23,011	1,917
37,001-38,000	19	77,941	51,433	39,758	2,092
38,001-39,000	14	56,356	35,008	26,397	1,886
39,001-40,000	19	76,611	33,675	26,267	1,382
40,001-41,000	19	77,770	30,298	23,428	1,233
41,001-42,000	10	42,902	20,584	15,475	1,547
42,001-43,000	17	70,964	33,832	25,446	1,496
43,001-44,000	8	32,695	19,017	14,111	1,763
44,001-45,000	11	53,397	30,689	23,083	2,098
45,001-362,500*	139	566,795	540,468	404,603	2,910
TOTAL	1,053	$4,048,081	$3,735,482	$2,854,892	$2,711

*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.

$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.

Grants made in 1997-98 through 2002-03 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 1,053 in 2002-03.

Table 4 shows the total grant amount for 2002-03 grants before and after the effect of income factoring (only Category one applications). Applicants with income equal to or less than $32,000 are eligible for the maximum grant amount. Before the effects of income factoring, applicants would have been eligible for $4,048,100 in eligible work components. Applicants with income equal to or less than $32,000 accounted for 65% of this amount, applicants with income between $32,000 and $45,000 accounted for 21% and small commercial establishments accounted for 14%. After income factoring, applicants were eligible for $3,735,500 in grants. Applicants with income equal to or less than $32,000 were eligible for 70% of all grant award dollars, applicants with income between $32,000 and $45,000 were eligible for 16% of grant award dollars and small commercial establishments were eligible for 14%. In 2002-03, funding was prorated to award 78% of the eligible grant amount for category one systems, and no grant funds were available for category two systems.

In 2002-03, the average grant award was $2,711 and 63% of grants were equal to or less than $3,000. Eight grants exceeded $5,000 and 181 grants

Table 5: Distribution of Grants by Grant Amount 2002-03

Amount of Grant	Number of Grants	Amount	Average
$1-500	20	$6,154	$307
501-1,000	31	22,467	725
1,001-1,500	66	87,935	1,332
1,501-2,000	233	421,023	1,807
2,001-2,500	122	281,478	2,307
2,501-3,000	192	521,717	2,717
3,001-3,500	82	265,625	3,239
3,501-4,000	126	460,062	3,651
4,001-4,500	160	684,390	4,277
4,501-5,000	13	60,957	4,689
5,001-7,000	8	43,084	5,386
TOTAL	1,053	$2,854,892	$2,711

Table 6: Distribution of Grants by Type of Replacement or Rehabilitated Private Sewage System -- 2002-03

Type of System	Number of Grants	Amount	Average
Mound	428	$1,538,588	$3,595
In-Ground Pressure	167	415,293	2,487
At-Grade	159	382,518	2,406
Conventional	162	266,503	1,645
Holding Tank	131	238,024	1,817
Other	6	13,966	2,333
TOTAL	1,053	$2,854,892	$2,711

exceeded $4,000. The distribution of grants in 2002-03 by final grant amount (after proration) is shown in Table 5.

In 2002-03, 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 41% of grant awards and 54% 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). In 2002-03, conventional systems accounted for 15% of grant awards and 9% of dollars.

Loan Program

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 Informational Paper #61, "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 new 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.

In 2000-01, counties were eligible for no-interest loans of up to $595,148, which equals the difference between the eligible and prorated final grant amount. In 2001-02, all eligible grants were funded at 100% of the eligible amount so there was no loan eligibility. In 2002-03, counties are eligible for no-interest loans of up to $1,009,043, which is the difference between the eligible and prorated grant award amount. As of January 1, 2003, no counties had applied for a loan under the program.

Summary

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 $71.1 million to assist 32,700 residential owner-occupants and owners of small commercial establishments in replacing or repairing their private sewage system. Total expenditures have equaled $70.6 million.

APPENDICES

Several appendices provide additional program information. These include:

- Appendix I shows the year each county entered the program (was approved by the state as meeting all program requirements) and the distribution of grants in each county as of 2002-03.
- Appendix II describes the legislative history of the program and changes in eligibility requirements.
- Appendix III shows examples of how a grant is calculated for replacement or installation of various types of private sewage systems at a three-bedroom house.
- Appendix IV describes a typical private sewage system and how it functions.

APPENDIX I

Private Sewage System Grants Award Summary by County

County	Year Entered Program	2002-03 # of Systems	2002-03 Amount	Total to Date* # of Systems	Total to Date* Amount
Adams	1992	16	$31,565	203	$522,940
Barron	1980	17	53,007	763	1,209,925
Bayfield **	1990	0	0	37	96,360
Brown	1990	29	100,822	303	944,641
Buffalo	1990	16	38,458	179	420,138
Burnett	1983	23	61,093	376	811,125
Calumet	1980	26	81,741	579	1,489,870
Chippewa	1990	18	46,530	494	1,069,102
Clark	1980	27	61,229	368	683,394
Columbia	1986	17	41,829	696	1,320,036
Crawford **	1979	0	0	246	376,504
Dane	1980	31	90,156	1,708	4,019,715
Dodge	1986	7	26,316	744	1,945,824
Door	1980	31	92,596	615	1,562,226
Dunn	1990	18	51,108	294	764,784
Eau Claire	1991	19	55,238	426	1,099,748
Florence **	1990	0	0	36	73,163
Fond du Lac	1979	18	59,080	731	2,009,340
Forest	1991	6	13,455	103	186,350
Franklin City	1991	0	0	4	13,416
Grant	1981	31	64,792	607	1,095,094
Green	2003	19	52,102	19	52,102
Green Lake	1984	7	22,415	257	512,939
Iowa	1980	31	77,117	604	1,299,005
Iron	1980	0	0	151	303,644
Jackson	1980	20	37,160	627	1,141,982
Jefferson	1990	2	3,750	139	414,056
Juneau	1984	30	93,483	556	1,512,759
Kenosha	1981	9	37,637	506	1,060,225
Kewaunee	1985	16	47,489	551	1,424,474
La Crosse	1983	8	22,068	164	350,013
Lafayette	1986	10	24,361	159	332,883
Langlade	1980	7	10,610	366	556,232
Lincoln	1991	17	34,432	222	492,482
Manitowoc	1985	41	128,639	686	1,935,196
Marathon	1979	37	$105,672	989	$1,865,022
Marinette	1994	6	15,615	82	223,303
Marquette	1998	12	29,720	29	74,892
Menominee	1993	0	0	1	1,797
Monroe	1980	26	74,212	591	1,270,060
Oconto	1989	26	63,516	508	1,241,714
Oneida	1980	6	13,321	1,553	2,476,620
Oneida Tribe	1991	0	0	3	10,856
Outagamie	1989	18	57,288	354	1,034,132
Ozaukee	1982	9	28,867	325	850,244
Pepin	1980	11	26,260	213	392,026
Pierce	1980	4	10,072	592	1,283,199
Polk	1987	18	45,603	365	784,193
Portage	1980	13	35,946	999	1,929,913
Price	1986	10	31,401	177	446,192
Racine	1981	13	48,813	435	1,142,818
Richland	1980	21	45,697	597	1,224,496
Rock	1985	10	32,426	222	524,358
Rusk	1988	20	45,869	360	668,476
St. Croix	1983	8	25,132	682	1,439,141
Sauk	1980	23	66,181	1,093	2,461,689
Sawyer	1980	26	60,629	821	1,353,559
Shawano	1991	18	36,079	589	1,292,517
Sheboygan	1984	4	11,868	353	899,856
Taylor	2002	5	11,036	5	11,036
Trempealeau	1982	25	56,709	603	1,321,392
Vernon	1980	31	74,575	391	827,407
Vilas	1979	7	19,225	533	891,631
Walworth	1984	4	15,483	431	854,003
Washburn	1980	9	11,616	316	509,479
Washington	1979	12	36,276	1,122	2,612,978
Waukesha	1979	11	39,781	1,509	3,165,168
Waupaca	1990	9	26,508	245	612,859
Waushara	1999	6	11,793	13	40,226
Winnebago	1980	2	8,951	131	289,584
Wood	1985	26	72,474	981	2,019,466
TOTAL		1,053	$2,854,892	32,732	$71,147,989

*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.

APPENDIX III

Examples of Calculation of Private Sewage System Grant Amount

Component	Grant Awards Effective 2000-01*	Total Eligible Grant Amount Example 1	Example 2	Example 3	Example 4
Site evaluation and soil testing	Flat $250	$250	$250	$250	$250
Installation or replacement of additional septic tank	$500 to $950, depending on tank size	550	550	550	
Installation of a pump chamber and lift pump or siphon	$1,100 to $1,250, depending on number of bedrooms		1,200	1,200	
Installation of a non-pressurized or in-ground pressure soil absorption area	$800 to $2,275, depending on percolation rate and number of bedrooms	1,225	1,225		
Installation of a high groundwater mound soil absorption area	$2,250 to $3,775, depending on number of bedrooms			2,550	
Installation of holding tank	$2,250 to $3,775, depending on number of bedrooms				2,250
Total grant amount before income proration		$2,025	$3,225	$4,550	$2,500

* The grant funding levels were revised to the current levels effective with the 2000-01 grant year.

Example 1 = Replacement of a conventional system, 3-bedroom house.
Example 2 = Installation of an in-ground system, 3-bedroom house.
Example 3 = Installation of a high groundwater mound 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.