**REPORT OF THE JOINT SUBCOMMITTEE STUDYING** 

# Pollution from Untreated Sewage Discharges and Failing Septic Tanks

TO THE GOVERNOR AND THE GENERAL ASSEMBLY OF VIRGINIA



# **SENATE DOCUMENT NO. 28**

COMMONWEALTH OF VIRGINIA RICHMOND 1989 MEMBERS OF THE JOINT SUBCOMMITTEE

Daniel W. Bird, Jr., Chairman

Glenn R. Croshaw, Vice-Chairman

Madison E. Marye

Watkins M. Abbitt, Jr.

John A. Rollison

STAFF

LEGAL AND RESEARCH

Norma E. Szakal, Staff Attorney

Brenda H. Edwards, Research Associate

Stephen B. Evans, Intern

Marcia Ann Melton, Secretary

ADMINISTRATIVE AND CLERICAL Office of the Clerk, Senate of Virginia REPORT OF THE JOINT SUBCOMMITTEE STUDYING POLLUTION FROM UNTREATED SEWAGE DISCHARGES AND FAILING SEPTIC TANKS

# TABLE OF CONTENTS

| I.   | Origin of the Study                       | Page 1  |
|------|---|---------|
| п.   | Background of the Controversy             | Page 2  |
| ш.   | Significance of the Study                 | Page 4  |
| IV.  | The Work of the Joint Subcommittee        | Page 6  |
| v.   | Findings of the Joint Subcommittee        | Page 8  |
| VI.  | Recommendations of the Joint Subcommittee | Page 12 |
| VII. | Conclusion                                | Page 14 |
|      | Appendices                                | Page 16 |

### REPORT OF THE JOINT SUBCOMMITTEE STUDYING POLLUTION FROM UNTREATED SEWAGE AND FAILING SEPTIC TANKS TO THE GOVERNOR AND THE GENERAL ASSEMBLY OF VIRGINIA RICHMOND, VIRGINIA JANUARY, 1989

To: The Honorable Gerald L. Baliles, Governor of Virginia, and The General Assembly of Virginia

# I. ORIGIN OF THE STUDY

For generations, inadequate disposal of sewage has been a fact of life in certain areas of Virginia, notably the southwestern portion of the state. Although public health officials have been concerned about this problem for at least twenty years, it has only been in the last ten years that the problem has become a matter of primary concern to some local governments and citizens as the demography of the Commonwealth has undergone dramatic changes.

Concerns related to water quality were transmitted to members of the General Assembly with growing frequency over the last year by local government officials and citizens experiencing problems. In order to address these problems, Senate Joint Resolution No. 32, patroned by Senator Daniel W. Bird, was introduced and approved during the 1988 Session. Senate Joint Resolution No. 32 called for a study of "water quality problems resulting from untreated sewage discharges and failing septic tanks, especially in the southwestern portion of the Commonwealth." Pursuant to this resolution, the Joint Subcommittee was established consisting of two members of the Senate Committee on Agriculture, Conservation, and Natural Resources and three members of the House Committee on Conservation and Natural Resources. The members appointed were: Senators Daniel W. Bird, Jr., of Wytheville and Madison E. Marye of Shawsville, and Delegates Watkins M. Abbitt, Jr. of Appomattox, Glenn R. Croshaw of Virginia Beach and John A. Rollison III of Woodbridge. Senator Bird served as chairman and Delegate Croshaw served as vice-chairman.

#### **II. BACKGROUND OF THE CONTROVERSY**

In 1919, the Board of Health was granted the authority to regulate "the method of disposition of garbage or sewage and any other refuse matter." (See Section 1487 of the 1919 Code.) However, it was not until 1972 that the Board was given the specific authority to require septic tank permits prior to beginning construction of any building. (See §32-9, 1972 Code.) The regulations governing permitting of onsite sewage facilities were first approved in 1962 under the Board's authority to regulate the disposal of sewage. These regulations were revised in 1963 and 1971. In 1980, a major revision of the regulations was promulgated by the Board which provided a more specific, technical approach to the permitting of septic tanks and the disposal of septage. Since the 1980 revision of the regulations, the disposal of sewage and the permitting of onsite systems have been involved in constant, although varied, controversy in Virginia. Many of the issues that have surfaced in recent years are a direct result of the desire to use soils that are marginal or inappropriate for traditional septic systems and the fact that many of the failing systems belong to people who cannot afford to repair them.

The controversy addressed by this subcommittee has a long-standing history. From the earliest days, settlements and isolated houses in some parts of the state were served by open privies, pit privies or the practice of piping waste water into the nearest stream or other water way. In the southwestern part of Virginia, many mining towns or company towns have never been served by any approved sewage disposal systems. There are also an unknown number of unpermitted septic systems in some areas of the state. It is possible that many of these unpermitted systems would not qualify for a permit and that houses should never have been built on some sites because the soil will not support the traditional system, the possibility of access to a central system is remote and alternative onsite systems which will work under the circumstances may be expensive or unavailable at this time. In areas served by central systems, there are still houses that are not hooked up to the systems and are relying on septic systems.

The practice of allowing effluent to flow into the waters has never been safe for human or animal health. In the past, when the population was sparse, the stress placed on the environment by these practices was not so egregious. However, changing conditions, e.g., increases in population densities, increases in loading rates and increases in disposal of chemicals and nutrients, have rendered this practice dangerous for man and animals and a disincentive for economic growth in those areas in which it continues. In some areas of the state, the levels of fecal coliform as well as chemicals such as nitrogen in public waters are well above acceptable standards.

In the southwestern part of the Commonwealth, 93% of monitored miles of streams do not meet the bacterial standards for primary contact recreation, i.e., swimming. In fact there is a statewide problem with bacterial contamination as over 50% of the monitored stream miles in Virginia have unacceptable levels of fecal coliform. The levels of fecal coliform are indications of other potentially serious problems such as unacceptable levels of viruses, parasites and toxins. Although modern society prefers to believe that water-borne diseases are phenomena of the past, these diseases are still prevalent and dangerous, e.g., cholera, meningitis, polio, salmonellosis, shigellosis, hepatitis, giardiasis, and other organisms causing illness or even death.

In the southwestern area, 60 to 100% of the households are served by onsite sewage systems. Most of these systems are traditional septic tanks and drainfields. There are a few low pressure systems, mound systems, small package plants, etc. If the municipalities served by public sewage systems are removed from the calculations of the percentage of households on onsite sewage systems, the figure would be 90% or more. Similar figures would apply to a number of other areas of the Commonwealth.

# **III. SIGNIFICANCE OF THE STUDY**

The importance of water quality cannot be overemphasized as it relates

to the health and environment of the community as well as the economic viability of the community and the state at large. Geographically, a substantial portion of Virginia is still locked into onsite sewage disposal and it must be recognized that onsite systems are limited, provide a major source of pollution and do not promote economic growth.

The costs to the individual citizen for modern sewage and drinking water facilities (whether onsite or central) are substantial and will undoubtedly increase significantly unless the proper planning and investments are made now. Funding of sewerage projects appears to have been given a lower priority by the federal government than in the past. It should also be noted that funding for drinking water facilities from the federal government has been insignificant.

The state has initiated some efforts to support drinking water projects. The Virginia Resources Authority was established in 1984 and the Virginia Water Supply Revolving Fund in 1987. However, the Water Supply Revolving Fund was not funded in 1987 and received only minimal support in 1988. There have also been some state-funded special purpose grants for drinking water projects, for example, funding for the Virginia Water Project, and general fund appropriations to support research in alternative onsite sewage disposal systems. However, this support has been far from adequate to address the water quality problems that already exist or to prevent these problems from getting worse. Although federal funding is expected to continue, it is not anticipated that these funds will be targeted on the kinds of communities or problems that this study addressed. Most experts are of the opinion that onsite sewage disposal issues and the problems of small and economically stressed communities will have to be solved through the cooperative efforts of state and local governments and local citizens. Further, it appears that no single solution to the problem will be possible because of the variety of conditions which have created the problem, e.g., the lack of any sewage disposal system, the close proximity of the houses in some communities, old wells serving old houses, old septic systems serving old houses, failing septic systems that are unpermitted, houses with inadequate onsite systems that are not connected to available central systems, etc. A multifaceted approach consisting of projects focused on research and education as well as funding programs and committed cooperation between the state and the localities may be needed. This is, therefore, a strategic time in history for this subcommittee and the General Assembly to examine possible methods for alleviating and preventing pollution of Virginia's waters through proper disposal of waste water.

## IV. THE WORK OF THE JOINT SUBCOMMITTEE

During the first meeting of the Joint Subcommittee, the following objectives were approved:

1. To examine the feasibility of establishing an interstate effort to clean up certain water basins which would be similar in scope to the Chesapeake Bay Commission. 2. To examine the feasibility of substantially increasing the funding for the research in alternative onsite sewage systems (conducted at Virginia Polytechnic Institute and State University for the Department of Health).

3. To examine the feasibility of establishing a method for funding the installation of onsite sewage systems for individuals and small communities.

4. To examine the feasibility of enforcing connections to central systems in communities with such systems.

5. To examine the projects presently being conducted by the State Water Control Board, the State Department of Health and the Virginia Water Project (not a state agency) to determine the most appropriate allocation of funds for a resolution of this problem.

6. To examine the possibility of providing the Virginia Water Project with additional funds for small community water projects.

7. To determine the need for additional data to substantiate the parameters of the problem.

8. To determine the need for additional monitoring or testing of Virginia's water quality, particularly the quality of ground water.

In order to achieve these objectives, the Joint Subcommittee received comments and presentations from the State Department of Health, the State Water Control Board and the Virginia Water Project as well as from staff. The Joint Subcommittee became convinced that there is a major crisis brewing in Virginia, particularly in the southwestern area of the Commonwealth, related to onsite sewage disposal.

#### V. FINDINGS OF THE JOINT SUBCOMMITTEE

The federal government has reduced its efforts to fund central sewer and water projects and has never been interested in the onsite sewage problems. The pollution of ground water, rivers and streams from untreated sewage in some parts of Virginia is disgraceful and yet questions concerning state and local responsibilities in this area have primarily focused on permitting of septic tanks and drainfields. Virginia still has some small communities in which pipes run out the backdoors and into the streams. There are some other communities with central collection systems, but no treatment facilities! The levels of fecal coliform in some of the rivers and streams are well above the acceptable standards of the Environmental Protection Agency and the State Water Control Board. In fact, swimming should not take place in some of these waters, but does.

The impact on economic development of inadequate water and sewage treatment in the areas of the state which depend primarily on onsite sewage and water is immense. Business and industry do not appear to be as interested in localities with water and sewage disposal problems as they are in those localities with well managed central systems. In spite of this barrier to economic development, the Commonwealth has largely ignored funding for onsite sewage programs, because untreated septage has been viewed as a local problem. For example, funding of research into alternative systems has never been generous.

During the 1988 Session, legislation was enacted to authorize the State Board of Health to establish a fee schedule for applications for wells (\$25) and onsite sewage systems (\$50). A substantial portion of the funds generated by this legislation was committed to programs other than onsite water and sewage programs within the Department of Health. Further, the Department of Health also requested funding to hire 54 additional sanitarians. Originally, the funding for the additional sanitarians was to have been appropriated from general funds. However, the funding of the 54 additional sanitarians for the Health Department was moved from general appropriations to the fee bill funds during the budget process last session.

The Joint Subcommittee wishes to note that local governments have no legal responsibility to assist people in the maintenance of onsite sewage facilities. With the growth of alternative onsite systems, especially in certain areas of the state, there is growing concern about the potential for pollution of waters if these alternative systems are not maintained properly. In addition, concerns about the pollution of ground water from untreated septage have generated suggestions that regional or local service districts or management authorities should be established to monitor and control this problem before it becomes a crisis.

The Joint Subcommittee examined the question of whether the Virginia Water and Sewer Authorities Act (Chapter 28 of Title 15.1, §15.1–1239.1 et seq.) would authorize the establishment of onsite sewage management projects. Although this question has not been resolved to the satisfaction of the Joint Subcommittee, there does not appear to be any language in the Act which would prevent these activities. However, the Joint Subcommittee realizes that local governments only view these authorities as mechanisms for the building and management of centralized facilities. Further, the costs of initiating such projects in terms of social and political change as well as money may be substantial.

Locally issued bonds for central water and sewage facilities are usually amortized through user fees. However, the subsidization of water and sewage infrastructure through tax revenues has been substantial over the last twenty years. The Joint Subcommittee wishes to emphasize that citizens with onsite facilities are taxpayers and that these citizens have never been afforded any significant assistance with the management and maintenance of their onsite facilities. It must be realized, in the opinion of the Joint Subcommittee, that when a homeowner installs onsite drinking water and sewage facilities, he relieves the local government of the potential financial obligation for providing these services. The homeowner assumes all of the obligations – legal, financial and managerial – for the provision of these services for his home.

Although local governments have assumed substantial responsibilities for developing and managing central water and sewer systems in populous areas, local governments do not have, at this time, any legal obligation for assisting the homeowner with onsite facilities. The Department of Health does respond to the homeowner, if he contacts the Department, to assist with finding solutions for problems with failing systems. However, it must be clearly understood that the Department of Health does not routinely monitor onsite sewage facilities to determine if they are functioning properly. In addition, the State Water Control Board has only limited ability to monitor the quality of ground water.

Often the homeowner with a failing system is not knowledgeable about

the workings of onsite sewage systems. He may be unaware of the seriousness of the potential pollution from such failing systems. In addition, he may not be financially able to remediate the problem. Because of this lack of sophistication on the part of homeowners, it appears that government resources will be necessary to assist these homeowners with finding solutions. The state must assume its share of the financial and management obligations for onsite facilities. Local governments must assume their social obligation for the management and maintenance of onsite water and sewer facilities.

Substantial efforts will probably be necessary to convince local government officials that they should assume responsibilities in this area, especially in view of the attitudes of many local citizens that any involvement by any level of government in the management of onsite facilities would be an invasion of their privacy. Further, local governments are struggling at this time to maintain essential services and would rightfully resent any efforts to require them to allocate funds to programs which do not have obvious need. Therefore, it appears to the Joint Subcommittee that it will be necessary for state funding to be provided to initiate local activities in the management of onsite sewage facilities. The Joint Subcommittee fully understands that requests for funding of new programs must be carefully documented and that such requests should be presented to the General Assembly during a biennium budget session rather than a short session.

For these reasons, the Subcommittee has concluded that comprehensive planning should be initiated for the future management of onsite water and sewage systems and that additional study of these problems with involvement from local governing bodies and citizens will be necessary. The Joint Subcommittee is of the opinion that certain components of this future study related to pollution from small package plants and other alternative onsite systems should be undertaken by the State Water Control Board in cooperation with the Department of Health. Further, the Joint Subcommittee wishes to express its strong support for the activities of the Virginia Water Project and to emphasize that the Virginia Water Project should be provided the funding to conduct certain vitally needed activities related to developing consensus among local government officials and stimulating the initiation of state and local efforts to manage onsite sewage systems.

# VI. RECOMMENDATIONS OF THE JOINT SUBCOMMITTEE

For the above stated reasons, the Joint Subcommittee recommends that the following objectives be established to resolve the many problems related to pollution from untreated sewage and failing septic systems:

1 That the report of the Virginia Water Project entitled "Water for Tomorrow" be used as base line data along with such data as are already available from the Department of Health and the State Water Control Board to identify the scope of the problem of pollution of Virginia's waters by untreated sewage and failing septic systems

2 That the Virginia Water Project be given state financial support for conducting the following activities

a) An assessment of local attitudes which might include a survey of the documentation available through applications for grants and loans to build central sewage treatment facilities in order to ascertain commitment of local government officials to the management of water and the prevention of pollution of water.

b) The conducting of a series of statewide conferences for elected officials and other community representatives to evaluate the many problems related to onsite disposal of sewage and onsite water systems, assess past efforts, examine future needs and develop a plan of action outlining state and local responsibilities for the management of onsite sewage and water systems in order to preserve the quality of life for the many communities in Virginia which are not serviced by central sewage treatment facilities, and

c) The conducting of a limited number of pilot projects related to the management and maintenance of onsite water and sewage systems in areas of the Commonwealth with severe problems with pollution from untreated sewage and failing onsite systems which should include field assessments of the existing and potential pollution

3. That a permanent, integrated program for the remediation of onsite sewage problems be established and provided adequate funding by the Commonwealth

4 That various funding mechanisms for onsite drinking water and sewage programs be assessed and that a stable funding source be identified and committed to the permanent, integrated program, e.g., the feasibility of requiring that moneys collected through the application fees for well and onsite sewage construction be deposited into a special fund committed to alleviating problems related to onsite water and sewage

5 That the State Water Control Board, in cooperation with the Department of Health, be directed to develop and identify quality indicators appropriate to the physiographic provinces of the various areas of the Commonwealth and to identify cost effective testing available for such indicators

6 That the feasibility of requiring the establishment of service districts or management authorities for the monitoring of onsite systems, particularly alternative systems, be examined at the earliest possible time that it appears such a mandate is financially and politically viable

The Joint Subcommittee further recommends that those activities proposed to be conducted by the Virginia Water Project should be supported with funds directly appropriated for these purposes in the 1990 biennium budget and that the Virginia Water Project be given the authority to enter into cooperative arrangements for the execution of this program with planning district commissions and other organizations engaging in environmental activities.

#### **VII. CONCLUSION**

In the opinion of the Joint Subcommittee, it is essential that Virginia begin planning for ways to remedy the pollution problems related to failing septic tanks and untreated sewage. The gradual and cumulative effects of pollution from these sources have not created a dramatic crisis such as the kepone disaster; therefore, most people do not recognize the potential for environmental damage from pollution from failing septic tanks and untreated sewage. For some years, however, this situation has been a ticking time bomb which will not wait much longer to explode. It is the Joint Subcommittee's hope that solutions to these problems will be developed at the local level, rather than as mandates from the state level. However, the Subcommittee realizes that much work will be necessary to build a consensus from the grass roots of the Commonwealth concerning the appropriate steps to alleviate these problems.

Further, it seems that no one solution will be possible. A multifaceted approach, the Subcommittee believes, which will include, but may not be limited to, surveys of ground water quality, identification of proper management policies, the implementation of appropriate maintenance services for alternative and other onsite facilities, research in alternative onsite sewage facilities, projects to remedy existing drinking water deficits and projects to assist individuals and communities in ameliorating existing and future onsite sewage disposal problems.

The Joint Subcommittee is of the opinion that it will take much time for the entire state to be converted to centralized facilities and that, indeed, such a conversion may never take place. In view of this prediction, the Joint Subcommittee wishes to emphasize that it is unquestionable that strenuous efforts are needed to avoid disaster and that these efforts *must be initiated now*. The Joint Subcommittee wishes to acknowledge the assistance of the State Department of Health, the State Water Control Board and the Virginia Water Project.

> Respectfully submitted, Senator Daniel W. Bird, Jr., Chairman Delegate Glenn R. Croshaw, Vice-Chairman Senator Madison E. Marye Delegate Watkins M. Abbitt, Jr. Delegate John A. Rollison

# APPENDICES

Senate Joint Resolution No. 32, 1988 - Enabling legislation

Memorandum: Budgeting of Environmental Fees for FY 1988-90

Domestic Wastewater Disposal Practices in Virginia: Percent of Households Served by Onsite Wastewater Disposal Facilities

Water for Tomorrow, Totals for Virginia \*

Senate Joint Resolution No. 160, 1989

Senate Joint Resolution No. 161, 1989

Senate Joint Resolution No. 201, 1989

\* Reprinted by permission of the Virginia Water Project

#### SENATE JOINT RESOLUTION NO 32

Establishing a joint subcommittee to study pollution from untreated sewage discharges and failing septic tanks.

Agreed to by the Senate, March 11, 1988

Agreed to by the House of Delegates, March 9, 1988

WHEREAS, the Commonwealth's waters constitute one of its most precrous natural resources, and

WHEREAS, these waters are used to supply drinking water, to support fish and other forms of aquatic life, to provide recreational opportunities, and to foster economic development, and

WHEREAS, it is important that these waters be protected, so that their natural quality can be maintained, or where necessary, restored, and

WHEREAS, state programs already regulate and provide support for discharges from municipal and industrial treatment plants into these state waters; and

WHEREAS, some areas of the state, especially southwest Virginia, continue to suffer the effects of failing septic tanks or sewage discharges that go from individual family homes directly into state waters; and

WHEREAS, these problems must be overcome if water quality is to be restored and maintained in these areas, now, therefore, be it

RESOLVED by the Senate of Virginia, the House of Delegates concurring, That a joint subcommittee is established to study water quality problems resulting from untreated sewage discharges and failing septic tanks, especially in the southwestern portion of the Commonwealth. The State Water Control Board and other agencies of the Commonwealth are requested to provide assistance to the subcommittee. The subcommittee shall consist of two members of the Senate Committee on Agriculture, Conservation, and Natural Resources, appointed by the Senate Committee on Privileges and Elections, and three members of the House Committee shall complete its work prior to the 1989 Session. The indirect costs of this study are estimated to be \$10,650, the direct costs of this study shall not exceed \$3,600.



# COMMONWEALTH of VIRGINIA

C M G BUTTERY M D COMMISSIONER Department of Health Richmond, Virginia 23219 January 12, 1988

MEMORANDUM

To: Norma Szakal, Staff Attorney Division of Legislative Services

From: Robert B. Stroube, M.D., M.P.H. Deputy Commissioner for Community Health Services

Subject: Budgeting of Environmental Fees for FY 1988-90

The members of SJR 32 requested information on the budgeting of the revenue projected from fees for permit applications for onsite sewage disposal systems and private wells. The revenue is budgeted in accordance with the Appropriations Act as follows:

| <u>Program</u> | Purpose                         | <u>FY 1989</u> | <u>FY 1990</u> |
|----------------|---------------------------------|----------------|----------------|
| 406            | Central Ofc. Health<br>Planning | 164,000        | 0              |
| 440            | Increase Sanıtarıans            | 581,529        | 887,770        |
| 430            | Family Planning                 | 284,701        | 0              |
| 440            | Soil Scientist/Research         | 417,500        | 417,500        |
| 557            | Radon Program                   | 62,200         | 54,700         |
|                |                                 |                |                |

TOTAL: \$1,509,930 \$1,359,970

The biennial total is \$2,869,900. In the first year of the biennium \$2,421,199 supports environmental health programs and only \$448,701 supports programs not related to environmental health. Please note in the second year of the biennium all the budgeted revenue supports environmental health programs in which sanitarians deliver services.

I support budgeting all revenue from these fees to support the services delivered by sanitarians. It will be accomplished in FY 1990.

# Domestic Wastewater Disposal Practices in Virginia Percent of Households Served by On-Site Wastewater Disposal Facilities

# 50.1 - 75.0%

| Albemarle    | Lunenburg     | Smyth        |
|--------------|---------------|--------------|
| Alleghany    | Mecklenburg   | Spotsylvania |
| Augusta      | Nottoway      | Stafford     |
| Bath         | Orange        | Suffolk      |
| Clarke       | Page          | Sušsex       |
| Culpeper     | Prince Edward | Tazewell     |
| Frederick    | Prince George | Warren       |
| Giles        | Pulaski       | Wise         |
| Henry        | Rockingham    | Wythe        |
| King William | Shenandoah    | York         |

## 75.1 - 90.0%

| Amherst    | Franklin      | Northampton   |
|------------|---------------|---------------|
| Appomattox | Grayson       | Patrick       |
| Brunswick  | Hanover       | Pittsylvania  |
| Campbell   | Highland      | Richmond      |
| Dickenson  | Isle of Wight | Rockbridge    |
| Dinwiddie  | King George   | Russell       |
| Essex      | Lancaster     | Scott         |
| Fauguier   | Lee           | Washington    |
| Fluvanna   | Middlesex     | Westmorelanmd |

# 90.1 - 100%

| Accomack     | Charlotte      | Louisa         |
|--------------|----------------|----------------|
| Amelia       | Craig          | Madison        |
| Bedford      | Cumberland     | Mathews        |
| Bland        | Floyd          | Nelson         |
| Botetourt    | Gloucester     | New Kent       |
| Buchanan     | Goochland      | Northumberland |
| Buckingham   | Greene         | Powhatan       |
| Caroline     | Greenville     | Rappahannock   |
| Carroll      | Halifax        | Southampton    |
| Charles City | King and Queen | Surry          |

# Prepared by the Bureau of Wastewater Engineering Division of Water Programs Department of Health June 19, 1985

# **Totals For Virginia**

| Population    | 1980 Census 5,346 818 1985 est 5,702,000 %               | change +669   | <i>lo</i> |           |
|---------------|--|---------------|-----------|-----------|
|               |  | Counties      | Cities    | Both      |
| Median famil  | y income (1979)  |               |           |           |
| Families belo | w the poverty level                                      | 71,651        | 57,368    | 129 019   |
| Number of ho  | ouseholders 65 and over                                  |               |           |           |
| •             | below the poverty level                                  | 14,731        | 9,899     | 24 630    |
| Number of ye  | ear round housing units                                  | 1,230,548     | 769,548   | 2,000 096 |
| Year round h  | ousing units   |               |           |           |
|               | on public or private water system                        | 726,263       | 743,159   | 1,469.422 |
| •             | . with individual drilled well                           | 332,606       | 21,051    | 353 657   |
| ••            | with individual dug well                                 | 98,018        | 3,781     | 101 799   |
| •             | . with some other water source                           | 73,657        | 1,066     | 74,723    |
|               | without complete plumbing for exclusive use              | 87,836        | 12,694    | 100 530   |
| ••            | without any plumbing                                     | 50,479        | 2,712     | 53 191    |
| ••            | . with 1/2 bath or none                                  | 92,475        | 14,814    | 107,289   |
| •             | served by public sewer                                   | 607,762       | 707 517   | 1,315.279 |
| •             | with septic tank or cesspool                             | 510,343       | 56 108    | 566 451   |
|               | with other sewage disposal means                         | 84,944        | 5,2389    | 90 232    |
| Estimated nut | mber of homes with failing or inadequate disposal system | ms 40 665     | 4,559     | 45 224    |
| Estimated nu  | mber of systems not correctable with present technology  | 7,095         | 1,133     | 8.228     |
| Estimated nu  | mber of inadequately constructed individual drilled well | s 164,487     | 6,318     | 170 805   |
| Estimated nu  | mber of individual dug wells not using approved constru  | iction 65,001 | 2,938     | 67,939    |

# Costs (In Thousands)

| Estimated cost of drainfield construction            | 61,491    | 6,125     | 67 616    |
|--|-----------|-----------|-----------|
| Estimated cost to upgrade individual drilled wells   | 122,908   | 3.509     | 126 417   |
| Estimated cost of approved individual water supply   | 314 830   | 6,812     | 321 642   |
| Combined individual costs                            | 504 826   | 14,466    | 519 292   |
| Total current water needs (public systems) 1986      | 225 187   | 402 243   | 627 430   |
| Total future water needs (public systems) 2005       | 804 642   | 466 695   | 1,271 337 |
| Total current wastewater needs (public systems) 1986 | 393 331   | 400 604   | 793 935   |
| Total future wastewater needs (public systems) 2005  | 550 518   | 442 856   | 993 374   |
| Total present needs 1986                             | 1,121,659 | 821,259   | 1,942 918 |
| Total future needs 2005                              | 1,859,197 | 927 723   | 2,786 920 |
| Total needs (present - 2005)                         | 2,976 431 | 1,749 086 | 4,725 517 |

# 1989 SESSION

LD5882105

# SENATE JOINT RESOLUTION NO. 160

### Offered January 23, 1989

Requesting local governments to initiate on-site sewage management districts.

# Patron-Bird

#### Referred to the Committee on Rules

WHEREAS, the impact on economic development of inadequate water and sewage treatment in the areas of the Commonwealth which depend primarily on on-site sewage and water is immeasurable; and

WHEREAS, business and industry do not appear to be as interested in localities with water and sewage disposal problems; and

WHEREAS, at this time, local governments in rural areas wish to promote economic , reveloment in order to improve the living standard of their residents; and

WHEREAS, the Joint Subcommittee Studying Pollution from Untreated Sewage J Discharges and Failing Septic Tanks wishes to emphasize that many areas of the Commonwealth are served entirely by on-site systems for the disposal of wastewater; and

9 WHEREAS, there are houses and communities in the Commonwealth which do not have 0 adequate sewage disposal systems or do not have any sewage disposal systems; and

1 WHEREAS, there are also an unknown number of unpermitted and failing septic 2 systems in Virginia; and

3 WHEREAS, local governments do not have at this time any legal responsibility for 4 managing the maintenance of onsite sewage disposal systems; and

5 WHEREAS, the joint subcommittee does not believe that additional local mandates are 6 indicated at this time; however, the joint subcommittee is convinced that the management 7 of proper operation and maintenance of on-site sewage disposal systems, particularly 18 alternative systems such as small wastewater treatment package plants, will be essential for 19 the well-being of the Commonwealth, its citizens and the preservation of its waters; now, 10 therefore, be it

RESOLVED by the Senate, the House of Delegates concurring, That local governments are hereby requested to initiate on-site sewage management districts in order to promote conomic growth and preserve the environment as well as to protect the health and safety of their people.

35

Page 21

LD9129105

#### 1 SENATE JOINT RESOLUTION NO. 161 2 Offered January 23, 1989 3 Requesting the State Water Control Board, in cooperation with the Department of Health, 4 to study the problems associated with small package treatment systems and other 5 alternatives for onsite sewage disposal. 6 7 Patron-Bird 8 9 Referred to the Committee on Rules 10 11 WHEREAS, the Joint Subcommittee Studying Pollution from Untreated Sewage and 12 Failing Septic Tanks has come to believe that the Commonwealth must develop initiatives 13 to contain pollution from inadequate onsite disposal of sewage, and 14 WHEREAS, there are many areas of the Commonwealth in which the soils are not 15 appropriate for the traditional septic and drainfield system; and 16 WHEREAS, the Department of Health has been encouraged by past studies conducted 17 by the General Assembly to promote the use of alternative systems in these areas and 18 under other circumstances in which the traditional septic system cannot be used, and 19 WHEREAS, the joint subcommittee is of the opinion that additional data on the 20 operation of alternative systems, particularly small package plants which are privately 21 owned and maintained, and 22 WHEREAS, the joint subcommittee understands that such systems are effective and 23 reliable means of wastewater treatment if they are properly operated and maintained; and 24 WHEREAS, however, the joint subcommittee has been informed that all to frequently 25 the homeowner does not understand the importance of proper maintenance of his 26 treatment system and does not take the necessary steps to assure that the system is 27 working properly, now, therefore, be it 28 RESOLVED by the Senate of Virginia, the House of Delegates concurring, That the State 29 Water Control Board is hereby requested to study, in cooperation with the Department of 30 Health, the problems associated with small package treatment systems and other 31 alternatives for onsite sewage disposal. The Board and the Department are further 32 requested to specifically address the following issues (i) the means for assuring proper 33 operation and maintenance of small package treatment systems, (ii) how funds can be 34 provided to small communities for the construction of wastewater treatment systems; and 35 (111) the appropriate management system for onsite sewage by the state and local 36 governments in order to prevent the pollution of Virginia's aquifers, groundwater, rivers, 37 streams and other bodies of water 38 29

1989 SESSION

# **1989 SESSION**

LD6880105

| 1        | SENATE JOINT RESOLUTION NO. 201  |
|----------|--|
| 2        | Offered January 24, 1989   |
| 3        | Expressing the sense of the General Assembly concerning the work of the Virginia Water   |
| 4        | Project and its future projects.   |
| 5        |  |
| 6        | Patron-Bird  |
| 7<br>8   | Deferred to the Committee on Bules   |
| о<br>9   | Referred to the Committee on Rules   |
| 10       | WHEREAS, the Joint Subcommittee Studying Pollution from Untreated Sewage   |
| 11       | Discharges and Failing Septic Tanks has received expert assistance from the staff of the   |
| 12       | Virginia Water Project; and  |
| 13       | WHEREAS, the Virginia Water Project has improved the lives of countless Virginians by  |
|          | assisting them with obtaining clean drinking water; and  |
| 15       | WHEREAS, clean water in sufficient quantities is crucial to the economic well-being of   |
| 16       | the Commonwealth and its citizens; and   |
| 17       | WHEREAS, the efforts of the Virginia Water Project in protecting the quality of the  |
| 18       | water in the Southwestern part of Virginia have been untiring and committed; and   |
| `9       | WHEREAS, the Virginia Water Project has published an assessment of Virginia's water  |
| 20       | needs in a report entitled "Water for Tomorrow"; and   |
| 21<br>22 | WHEREAS, the continued efforts on the part of this organization are desirable in<br>assisting the Commonwealth and the State Water Control Board and the Department of |
| 23       | Health, the two agencies responsible for protecting its waters; now, therefore, be it  |
| 24       | RESOLVED by the Senate of Virginia, the House of Delegates concurring, That the  |
| 25       | work of the Virginia Water Project and its future projects are hereby declared to be   |
| 26       | essential to protecting the groundwater and waterways of the Commonwealth and in   |
| 27       | planning the future management of water and disposal of sewage. The General Assembly   |
| 28       | expresses its support for the following plan.  |
| 29       | 1. The use of the report "Water for Tomorrow" as baseline data for determining the   |
| 30       | parameters of problems related to pollution of water through disposal of untreated septage;  |
| 31       | 2. A survey of the documentation available through applications for grants and loans to  |
| 32<br>33 | 0  |
|          | government officials to the management of water and the prevention of pollution of water; and  |
| 35       | 3. The conducting of a series of statewide conferences for elected officials and other   |
|          | community representatives in order to evaluate the many problems related to onsite   |
| 37       |  |
| 38       | develop a plan of action outlining recommendations for state and local responsibilities for  |
| 39       | the management of onsite sewage and water systems in order to preserve the quality of  |
| 40       | life for the many communities in Virginia which are not served by central sewage   |
| 41       | treatment facilities, and, be it   |
| 42       | RESOLVED FURTHER, That the Joint Subcommittee Studying Pollution from Untreated  |
| 13       | Sewage Discharges and Failing Septic Tanks expresses its desire to seek financial support  |
| 44       | for the implementation of the above plan in the 1990 biennium  |
| 45       |  |
| 46       | Page 23  |
|          |  |