

**REPORT OF THE WASTEWATER TREATMENT AND  
DISPOSAL SYSTEMS JOINT SUBCOMMITTEE  
TO  
THE GOVERNOR  
AND  
THE GENERAL ASSEMBLY OF VIRGINIA**

**HOUSE DOCUMENT NO.7**

**COMMONWEALTH OF VIRGINIA  
DIVISION OF PURCHASES AND SUPPLY  
RICHMOND  
1979**

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DIVISION OF LEGISLATIVE SERVICES

**Report of the Wastewater Treatment and**

**Disposal Systems Joint Subcommittee**

**To**

**The Governor and the General Assembly of Virginia**

**Richmond, Virginia**

**December, 1978**

To: Honorable John N. Dalton, Governor of Virginia

and

The General Assembly of Virginia

**I. CREATION OF COMMISSION**

The Joint Subcommittee to Study Wastewater Treatment and Disposal Systems was created pursuant to House Joint Resolution No. 142 which was passed during the 1978 Session of the General Assembly. The patron of this legislation and Chairman of the Joint Subcommittee was Delegate Bonnie L. Paul. The resolution is as follows:

**HOUSE JOINT RESOLUTION NO. 142**

Creating a joint subcommittee to study wastewater treatment and disposal systems.

WHEREAS, the Commonwealth of Virginia has many small communities and rural areas where conventional sewer treatment facilities are not practical for the collection and treatment of household wastes due to the high expense involved; and

WHEREAS, because of the impracticality of conventional sewer systems in such areas, the primary alternative becomes the septic tank/drainfield system; and

WHEREAS, fifty percent of the land in Virginia has severe soil limitations which result in the rejection of five to ten percent of all applications received for on-site sewage disposal systems; and

WHEREAS, sixty percent of the areas with severe soil limitations are located where disposal would threaten to contaminate ground water used for drinking and recreation purposes; and

WHEREAS, due to the scarcity of drainable land, there is an increasing demand for development on higher quality soils, particularly burdening the already diminishing lands suitable for agricultural usage; and

WHEREAS, although optional sewage treatment facilities do exist, for a variety of reasons they have not been approved for use in this State; and

WHEREAS, the Technical Resource Office of Virginia Polytechnic Institute and State University, the State Health Department and the State Water Control Board have commenced independent

activity to investigate alternatives to conventional sewage treatment facilities and septic tank/drainfield systems; and

WHEREAS, a coordinated program must be developed in order to solve this growing problem; now, therefore, be it

RESOLVED by the House of Delegates, the Senate concurring, That a joint subcommittee is hereby created to study the problems associated with individual residential wastewater treatment and disposal systems with the goal of developing a recommended program allowing alternative systems when necessary.

The joint subcommittee shall be composed of eight legislative members, two of whom shall be members of the Health, Welfare and Institutions Committee of the House appointed by the Chairman thereof, two of whom shall be members of the Conservation and Natural Resources Committee of the House appointed by the Chairman thereof, two of whom shall be members of the Conservation and Natural Resources Committee of the House appointed by the Chairman thereof, two of whom shall be members of the Agriculture, Conservation and Natural Resources Committee of the Senate appointed by the Chairman thereof.

Personnel from the Technical Resource Office of the Extension Division of Virginia Polytechnic Institute and State University, the State Health Department, and the State Water Control Board shall assist the Joint Subcommittee in its duties.

The Joint Subcommittee shall report its findings, along with suggested recommendations, to the Governor and the General Assembly not later than November one, nineteen hundred seventy-eight.

The resolution notes that many small communities in rural areas have significant problems in securing acceptable wastewater treatment and disposal systems because: 1) conventional central sewage treatment facilities are cost prohibitive; and 2) the primary alternative to the septic tank/drainfield systems is limited to sites on which the soil will support the system. The primary alternative is the septic tank system which can only be permitted on a case by case basis in 50% of the State in which the soil will support the system. Many homeowners have been investigating alternative systems but have met with considerable problems in obtaining approval from the Health Department or State Water Control Board.

The Joint Subcommittee was created to study the problems associated with individual residential systems with regard to the possibility of developing a statewide program for increased usage whenever possible.

## II. MEMBERSHIP

The members from the Senate and House of Delegates are as follows: Delegate Bonnie L. Paul, Chairman, Harrisonburg; Senator James T. Edmunds, Vice Chairman, Kenbridge; Senator Howard P. Anderson, Halifax; Delegate J. Paul Councill, Franklin; Delegate J. Samuel Glasscock, Suffolk; Delegate Joan S. Jones, Lynchburg; Delegate Glenn B. McClanan, Virginia Beach; and Delegate Mary Sue Terry, Stuart. Susan T. Gill of the Division of Legislative Services drafted the Joint Subcommittee's report and recommended legislation.

## III. PUBLIC HEARING AND MEETINGS

The Joint Subcommittee met a total of four times, one of which was a statewide public hearing, to receive input from various citizens, manufacturers and state agencies concerned with the wastewater treatment and disposal problem.

The Joint Subcommittee held a statewide public hearing on August 3, 1978 in Richmond to receive testimony from homeowners, manufacturers of alternate systems, local and State officials, planning district commissions, and other interested persons as to problems and viable solutions in the area of wastewater treatment and disposal.

The testimony reflected the following points of interest and recommendations to the Joint Subcommittee:

William F. Neale, Jet Aeration Company. The few innovative systems in use in Virginia today were bootlegged in. He feels that the Health Department will not approve his company's systems because they are a mechanical device.

They have found it easier to deal with each county individually than through the State, i.e., Health Department.

Delegate George P. Beard, Jr., His county has a section of land totaling 11 acres without percolation so that it cannot be developed. He would like to see Health Department approval of alternate systems.

Charles E. Traverse, Alternative Wastewater Management and Association. He and his association view the Health Department as an obstacle to permitting alternative systems which will be allowed occasionally on a case by case basis. In North Carolina no units have been installed; in Maryland, only a few. His recommendations are as follows:

a) Amend the law to declare that public policy encourages different methods of wastewater treatment and discharge for differing circumstances and therefore requires consideration of all proven technologies including on-site individual systems.

b) Amend the law to provide that public funds for a centralized sewage treatment facility may not be expended without a documented determination that on-site individual systems are not feasible alternatives.

c) Amend the law to direct the State Water Control Board and State Health Department to judge on-site individual alternatives on the basis of performance criteria in issuing licenses and permits and to prohibit the limitation of such alternatives only to certain kinds of uses.

d) Amend the law to instruct the State Water Control Board and State Health Department to: conduct a continuing program of research and demonstration to evaluate the operating characteristics of various alternatives under varying circumstances; rewrite its present regulations oriented essentially toward conventional centralized treatment and septic tank/drainfield systems; issue a manual governing the eligibility, installations, use, and maintenance of individual on-site alternatives; and conduct annual conferences and seminars on the findings of its research and demonstrations.

e) Amend the law to provide that public policy in Virginia encourages public bodies to apply, on behalf of private owners, for federal grant assistance for the purchase of individual on-site alternatives where such would be cost effective and where appropriate guarantees can be made for their proper maintenance. (Failure to take advantage of applicable provisions of the Clean Water Act of 1977 could lose millions of dollars otherwise available to Virginia homeowners and could extend modern wastewater treatment technology to thousands of Virginia homes which cannot now afford it.)

f) Increase budget of State Water Control Board and State Health Department to provide them the personnel necessary to expand their activities relative to individual on-site alternatives and to discharge the functions recommended above.

Neal Barber, Middle Peninsula Planning District Commission. Shellfish contamination is a problem often the result of faulty septic tanks. Sanitarians are not always soil scientists which causes problems. Enforcement and funding (federal) are also obstacles to sound wastewater disposal practices. Recommendations: A) Hasten Health Department draft to allow consideration of alternative systems; B) Improve local capability in soil evaluation; C) Research needed regarding Best Management Practices Manual for Wastewater Treatment; D) A lead agency in the State is needed to monitor research; E) Encouragement to review enabling legislation allowing localities to develop wastewater treatment systems; F) Strong educational program is needed for consultants and designers of individual systems; G) Hardship program needed for those who cannot afford to make improvements on their systems.

Everytime Middle Peninsula Planning District Commission has requested funding for research projects, they have been turned down.

Thomas H. Garber, Consulting Engineers, Wastewater Specialists. P.L. 92-217 is the first Congressional attempt to assist rural and small communities of less than 3,500 and was enacted in December, 1977 to begin funding in December, 1978. Some small communities are on the verge of being declared health hazards without prompt assistance.

Recommends establishment of on-site or homeowners wastewater treatment and disposal research center at Virginia Polytechnic Institute and State University under independent professional direction from State/federal funds.

Merrill B. Glasser, Alternative Wastewater Management Association. Fifteen years ago aerobic wastewater treatment systems for individual homes were introduced in Maryland. They were originally used to replace failing systems, later on building lots where soil and geologic conditions were marginal. Many improvements have been made to these since they were first introduced, but Health Departments are skeptical. Few states have approved widespread use. Health Departments claim data available from testing labs does not address itself to how systems react under direct household use and to the ability of individual components to withstand prolonged use. Garrett Company Home Aeration Wastewater Treatment Project has undertaken to answer these questions.

Allan N. Young, Cromaglass Corporation, Wastewater Treatment Systems. Conventional systems are supplementary because of environmental effacement when central sewers cause an increase in congested areas resulting in pollutants of solid and liquid wastes. Conventional systems also decrease groundwater table and increase pollution and point of discharge. GAO states that only 30% of municipal treatment systems meet EPA standards. Clean Water Act and National Sanitation Foundation Std.#40 (first national standard on aerobic treatment systems) mandates operation and maintenance under either public service district or by private contractor. This provision negates the charge that small treatment systems will not be properly maintained.

Other manufacturers testified that they had experienced similar problems in the approval of their products for the treatment and disposal of wastewater.

Dr. Harry J. Pence, Staff Engineer, Technical Resources, Virginia Polytechnic Institute and State University, has formulated a proposed individual waste treatment program geared toward the small communities which was presented for consideration to the Subcommittee at its June, 1978, meeting. The text of Dr. Pence's proposal is as follows:

In many small communities and rural areas conventional sewer and treatment facilities are not practical for the collection and treatment of household wastewater. The large initial costs for such systems must be absorbed by a relatively small population. The result is excessive sewer rates per year, in some cases as high as \$300 to \$400 per household.

The alternative to conventional sewer systems is the septic tank/drainfield system. These systems are inexpensive but are quite limited in their application. Drainfields cannot be used in locations with impermeable soils or high water tables. It is estimated that only 32 percent of the land in the nation is suitable for septic systems.

The implications of this problem are twofold. First, a certain portion of potential building sites cannot be developed and prime agricultural land is placed in high demand for housing development. Secondly, the location of development affects county budgets. Low-density population areas and widely dispersed subdivisions generally require higher per capita expenditures than high density and compact areas.

There are a number of optional sewage treatment systems available. However, these systems have had very limited application.

Since 1972, the Extension Division through Technical Resources and Dr. Harry Pence has been studying this problem. Dr. Pence has collected detailed information for most of these optional systems and has disseminated such information to regulatory officials, engineers, and citizens in Virginia as well as many other states.

Dr. Pence is completing the second year of a detailed performance evaluation of evapotranspiration. This project is funded by the National Science Foundation and is being performed in cooperation with the Health Departments in Virginia, Delaware, Maryland, North Carolina, South Carolina, Tennessee and West Virginia. Experimental evapotranspiration systems have been installed in each of these states and have been or will be monitoring for a full year. This project will provide detailed performance data with which the State Health Departments can make policy decisions regarding the future use of evapotranspiration systems for individual wastewater disposal. In addition, the project will provide specific design criteria for evapotranspiration systems.

Delegate Paul met with Dr. Pence and Dr. Robert Pusey to discuss Virginia Tech's involvement in the problem of individual wastewater treatment in Virginia. She was interested in a program which could provide current information on optional treatment and disposal systems and provide performance data for the Health Department to make informed decisions on the use of such systems in Virginia.

As a result of Delegate Paul's interest, Dr. Pusey and Dr. Pence met with the following individuals to explore the need for such a program and faculty interest:

Dr. Thomas Hutcheson, Head, Agronomy

Mr. Edward Hale, Ext. Special, Ag. Engineering

Dr. William Cox, Research Associate

Dr. Paul King, Professor, Civil Engineering

The consensus of this group was to proceed in the planning for such a program.

A planning session was held on September 22, 1977. Participants in this meeting included representatives from the departments above as well as Home Economics, Agricultural Economics, the State Water Control Board, and the Virginia Health Department. The following objectives were identified:

1. Collect, catalog, and disseminate available information on individual wastewater treatment systems. Develop brochures as appropriate.
2. Observe and report performance of demonstration projects and operational systems in other states.
3. Conduct workshops and training sessions for regulatory officials, sanitarians, engineers, equipment manufacturers and general public to provide information on performance, economics, design criteria, new developments and application of alternative systems.
4. Perform demonstrations in cooperation with the Virginia Department of Health and State Water Control Board to provide performance data and design criteria for alternative systems that have promise for application in Virginia.
5. Conduct surveys and studies of conventional septic systems and soils which would result in improved standards and better utilization practices.
6. Investigate and evaluate options for ownership and management of treatment systems (service authorities, sanitation districts, etc).
7. Provide a central point of contact for information relating to individual treatment systems and for interfacing with other states.

The major effort of this program is extension oriented, i.e., information dissemination, workshops, training sessions and demonstrations. Therefore, if the program is implemented, it is recommended that the Extension Division have the responsibility for direction of the program. Since Technical Resources has conducted the bulk of this activity in the past, it is suggested that Dr. Pusey provide the overall coordination and management of the program. This role would coincide with his present responsibility as coordinator of extension activities related to environmental quality. Dr. Pence would

be expected to direct the day-to-day operation of the program.

It is anticipated that some of the activities of the program would be research oriented. Appropriate arrangements would be worked out with the Research Division to handle these activities.

The budgetary requirements for this proposed program are twofold. First, a base cost for establishing and maintaining a program office is necessary. This office should be staffed by a full-time professional and secretary. The budget for this activity would be \$40,000 for FY 1978-79, \$40,000 for FY 1979-80.

The second function of the proposed program is to conduct demonstrations of appropriate wastewater technology to obtain performance data and establish design criteria. The amount needed for demonstrations is for FY 1978-79 the sum of \$50,000; for FY 1979-80 the sum of \$100,000.

#### **IV. STATE REGULATIONS AND PERMITTING OF WASTEWATER TREATMENT AND DISPOSAL SYSTEMS**

The Health Department sets standards for permitting wastewater treatment and disposal systems that will protect the public health of Virginia's citizens. Dr. J. B. Kenley, Mr. William J. Meyer and Dr. J. B. Jackson made follow-up statements as follows in reply to the comments made at public hearings.

The treatment and/or disposal of sewage are separate problems, particularly when considering onsite disposal.

The treatment of sewage usually does not pose any insurmountable problem when there is an acceptable place to discharge the treated wastewater.

In the last few years numerous manufacturers of aerobic treatment plants have developed systems capable of serving the individual home or business or clusters of homes and businesses which, when properly operated and maintained, will treat sewage adequately for discharge to most waterways; in some instances advance wastewater treatment is required to remove nitrates and phosphates. In nearly all instances the treated wastewater for discharge requires chlorination.

Therefore, regulations or policies related to the discharge of treated wastewater concern themselves with the following:

1. An approved point of discharge, requiring a federal NPDES (National Pollutant Discharge Elimination System) permit from EPA (Environmental Protection Agency) on an individual basis. Most lots do not have access to a stream.
2. An approved method of treatment (in most cases treatment is aerobic).
3. Operations and maintenance.
4. Testing and surveillance.

These systems when properly designed are permitted by the Health Department and the State Water Control Board.

In addressing the treatment and discharge of wastewater the Sewerage Regulation [§ 62.1-44.19(8) of the Code of Virginia] became effective February 1, 1977 and is currently being utilized.

In addressing Soil Disposal Systems, the Rules and Regulations of the Board of Health Governing the Disposal of Sewage (§ 32-6 and § 32.9 of the Code of Virginia) are primarily designed to specifically address On-site Sewage Disposal Systems where streams are not available. These regulations address septic tanks and their components for the disposal of the wastewater from the septic tank to the soil; the privy when wastewater is not of significance.



Also, they address the waste stabilization pond, the imhoff tank, sand filters, trickling filters, systems of dosing and distribution, chlorination facilities and sewage pumps. Nearly 100% of the applications for on-site disposal are for septic tank systems with the soil being used as the final place for treatment and disposal. The Health Department considers the abovementioned systems as alternatives to the septic tank. Therefore, nothing contained in the regulations bans any sewage system which has been demonstrated as of equal efficiency as those that are specifically alluded to in the rules and regulations.

The disposal of treated wastewater into soils is limited only by the nature and characteristic of the soil at the proposed site. If the soils are suitable and the site is acceptable to the applicant's needs a permit is issued. When a soil has a limitation and the limitation can be overcome, the permit is issued describing the limitation and what must be done to overcome it. This becomes part of the requirement of the permit and must be completed as part of the system before final approval of the system is granted.

When the soils have limitations that cannot be overcome, a permit is denied. Should one be denied a permit the information related to the application findings and conclusions are reviewed by the Supervisor or Health Director. The policy of the department, after having evaluated the problem, is to describe their findings, the limitations and the reason for rejection. These are given to the applicant in writing for his record. Also, the written report serves as a base from which the applicant can work to challenge the department findings and conclusions. The applicant can obtain his own experts to evaluate the site and compare the findings of the department with their findings and conclusions. If the department findings and conclusions are not the same as those of the applicant's or his representative, a total review of the applicant's proposal and site is made. If no agreement can be reached, including any alternative or innovative system that might be proposed, the applicant can appeal to the Commissioner.

The right of appeal is available to anyone grieved by the department's action. The policy of the department is for the individual to appear before the Local Health Director and present any information, including any innovative or alternative system which he believes might solve his problem. At the local hearing the case is totally reviewed. This may include a revisit to the site. Using the facts and findings the Local Health Director summarizes the case and writes an opinion. Should the person still be grieved he is advised of the appeal to the Commissioner. The appeal procedures are as outlined in the Administrative Process Act.

If an alternative or innovative system is to be used, a determination must be made as to what the alternative or innovative system was designed to serve and to determine if it is applicable to the applicant's wastewater problem. For example, if the application is for a home site with an estimated water use of 600 gallons a day, the only place of disposal is the soil. Should the soil be unsuitable for use, it becomes evident that the treatment of these wastes will not solve the disposal problem. Therefore, an aerobic system which gives a very high degree of treatment to home wastes will not solve the disposal problem since treating the wastewater does not change the soils nature or characteristic. Treatment, except in rare instances, will not solve problems associated with disposal in soils and many of the innovative systems are directed toward treatment, not disposal. It might be possible to reduce the volume of water at the home by using water saving devices or by recycling wastewater through the commode. Conceivably one could reduce the water used in the home by as much as 50%. However, if the soil is not amendable to the absorption of water and the limitation associated with the soil response cannot be overcome, the alternative and innovative methods considered would not be approved.

The policy developed by the Health Department for the use of alternative or innovative systems is as follows:

- A. To examine the information related to the application e.g., type waste to be disposed of, volume of wastes, peak flows, etc.
- B. To examine the site where the system is to be installed for size, soil type, position in the landscape, etc.
- C. To determine if the principles of treatment and disposal as they relate to the design are valid for the application and site conditions.

D. If all the conditions cited are compatible to approve the system. In some instances it may be necessary to advise the applicant of other alternatives that might be available for use under the same set of circumstances, particularly if there is a known alternative that is equally effective and less costly to install.

E. To issue a permit to install.

F. If the system is not approvable, determine if some other system is applicable and acceptable to the site conditions, to proceed as before approval.

G. If no alternative is available and the original application is denied, the reasons for denial must be given in writing. Again the applicant may decide to appeal the decision and the appeal procedures would be applicable.

Another policy of the department is to allow experimental systems, but under limited conditions. If a system is failing, creating a health hazard or nuisance, the Health Department believes it has the right and obligation to attempt to correct and/or improve the situation. Therefore, the policy steps are as follows:

1. Assuming there is no known or proven method for correction owing to the current state of the arts, the Health Department considers whatever innovative technique that seems to have a reasonable possibility for functioning on the specific site and for the applicant's use. The design for the system may originate in the department or may be submitted by the applicant or his representative.

2. Representatives from the department will review the principles involved and the plans and specifications or any supporting evidence which might show how the system will operate.

3. The department requires concurrence by the owner, the owner being made fully knowledgeable of the expectations of the experimental nature of the system and the potential for success or failure. A requirement that a local schedule be devised to monitor the system is essential to report operation and maintenance events. Also, it may be essential for the manufacturer to perform tests. The Health Department normally seeks services from one of the colleges or universities in the testing and evaluation of the system. Where testing was required it would have to be determined who would pay for the testing and for how long the testing period would continue as well as those methods to be used to evaluate and pass final judgment on the system.

4. In the event of success, standards and criteria for use and design would be developed by the department and the information disseminated to the field offices for their use. Ultimately these would be made part of the regulations.

5. In the event of failure, a review of all conditions would be made to determine the cause of failure. If in the opinion of the evaluators the cause was correctable the experiment could proceed. However, if the failure was not correctable the system would be declared unacceptable.

Since there are established standards for treating and discharging wastewater, the use of experimental systems has not been of great consequence to the Health Department. However, for soil disposal systems the above methods have been used and are currently examining a variety of systems, or combinations of systems. These include Aerobic Systems, Evapotranspiration Systems, Evapotranspiration and Infiltration Systems (mounds), Spray Irrigation Systems, Amoration Chambers, Incentrating Devices, Oil and Water Cariage Recycling Systems, Pressure Distribution Systems, and Water Saving Devices. With the assistance of the Virginia Polytechnic Institute and State University (Department of Agronomy) the Health Department has a cooperative agreement to study the soils and their potential use for wastewater disposal and the movement of biological and chemical pollutants through soils. It is expected that these studies will have a future bearing on standards and criteria, including distances from fixed objects, treatment, and the installation and use of on-site sewage disposal systems.

The Health Department will review with producers' representatives their product and the data related to its use and operation. A staff within the Department is charged with meeting these representatives to receive input on problems and areas of improvement. If the data is supported by a reputable independent testing organization and meets the standards which are applicable to the

product, its parts, and its end products (treated wastewater), the department will acknowledge the workability of the product. However, until there is an application for the product's use, only after determining the specific conditions can the application be approved or disapproved. Furthermore, if in the opinion of the department's agent, there is an alternative system which will effectively do the job for the applicant and that alternative system is cheaper to install, operate, and maintain the agent will so advise the applicant. It is not the policy of the department to endorse specific products, but rather to approve certain principles and their applications. In the course of amending the Rules and Regulations Governing On-site Sewage Disposal Systems many of these policies will be recommended for incorporation therein. The Health Department is now in the process of amending the current rules and regulations with the intention of being more flexible while encouraging the use of alternative systems when appropriate.

In summary, the Health Department believes that the subject of treatment of wastewater and disposal of wastewater are two separate subjects and must be reviewed in light of the specific proposal that the applicant is making and the site to which the system will be applied. Many of the problems associated with treatment have been solved, particularly for home systems. However, the problem of disposal into soils remains as a monumental problem when the soil has limitations and is therefore unsuitable with no current engineering techniques to overcome the limitations.

## V. CONCLUSIONS AND RECOMMENDATIONS

The Joint Subcommittee, in the course of its deliberations, made the following conclusions and recommendations:

1. It was found that many homeowners do not know of or understand the appeal process available to them when an application for a wastewater treatment and disposal system is denied by the Health Department. Information should be made available to each applicant subsequent to the denial of the permit as to the appeal procedure available through the Administrative Process Act.

2. It was noted by the Committee that the pressures of development of suitable land, e.g. land that will support a septic tank system, is taking much of the land also suitable for agriculture. As the amount of agricultural land lessens and development increases, a pattern develops wherein cluster developments appear around expensive municipal systems which often become overloaded. The availability of alternate systems would take some of the pressure off of the already diminishing agricultural lands and ease the competition of suitable soil for housing which would at present not support the septic tank system. The Committee found that technology is rapidly being developed which will enable mechanical devices to be used as an alternative to the septic tank, but only with a program of operation and maintenance. Rather than propose legislation at this time, the Subcommittee agreed to support the concept of the Health Department amendments to the current rules and regulations governing on-site sewage disposal systems so as to allow greater flexibility and encourage experimentation with alternative systems.

The Joint Subcommittee rejects the concept of State government operating and maintaining individual residential treatment systems. It was found that enabling legislation is currently sufficient for sanitary districts to be established in one or more localities to create a program of operation and maintenance of alternative systems, when needed. The Health Department is currently revising its rules and regulations regarding wastewater treatment and disposal systems with an eye toward greater flexibility to allow experimentation with alternative systems. The technology is presently being developed wherein a mechanical device may be used where a septic tank permit is denied today. The Committee strongly encourages the Health Department to look toward future technological developments for greater flexibility in the use of alternative systems.

4. There is currently available under the Clean Water Act (PL 95-217) a provision that permits the funding of small decentralized sewage systems for rural areas, but vigorously encourages the design, construction and operation of innovative, cost effective sanitation systems as alternatives to conventional collection and treatment systems where such conventional facilities are unrealistically expensive.

Section 205(h). For those states with a rural population of 25% or more, beginning in fiscal year 1979 (October 1, 1978), EPA is directed to set-aside 4% of the total yearly EPA allocation for each state. This set-aside fund is to be available only for alternatives to conventional sewage treatment

works in municipalities having a population of less than 3,500, or with the approval of EPA, for the highly dispersed sections of larger municipalities. For those more urban states with rural populations of less than 25%, a set-aside for alternative systems may be established (up to 4% of the total state's yearly allocation) if such action is requested by the Governor.

The four percent set-aside is not additional money on top of what a particular state would normally receive. The set-aside is taken out of the state's regular allocation and funds available to the state for regular sewage projects will be diminished by the exact amount of the set-aside.

The Joint Subcommittee strongly recommends that the State Water Control Board earmark these federal funds for small communities interested in alternative wastewater treatment and disposal systems. The Joint Subcommittee does not recommend at this time large expenditures of state monies for a new program of research in alternative systems other than research needed by the Health Department. The possible use of federal money under PL 95-217 and the resulting increase in use and experimentation by private owners monitored by the Health Department will serve as a basis to evaluate the need for state expenditures in the future.

5. It was the Committee's decision to reconstitute a Joint Subcommittee by resolution during the 1979 Session of the General Assembly in order to monitor the development of the Health Department rules and regulations as to wastewater treatment and disposal systems which are due in draft form in 1979. (See Appendix I.)

At the present time the Joint Subcommittee approves of the necessary caution exercised by the Health Department relative to public health of the citizens of the Commonwealth in granting permits for wastewater treatment and disposal systems.

The Joint Subcommittee considers cooperation and communication between the Health Department and other agencies and the manufactureres of wastewater treatment and disposal systems to be essential to the development of alternative systems for acceptable and practical use in Virginia.

Respectfully submitted,

Bonnie L. Paul, Chairman

James T. Edmunds, Vice-Chairman

Howard P. Anderson

J. Paul Council, Jr.

J. Samuel Glasscock

Joan S. Jones

Glenn B. McClanan

Mary Sue Terry

## APPENDIX I

### HOUSE JOINT RESOLUTION NO.....

Continuing the Wastewater Treatment and Disposal Systems Subcommittee.

WHEREAS, the Wastewater Treatment and Disposal Systems Subcommittee was created during the nineteen hundred seventy-eight session of the General Assembly pursuant to House Joint Resolution No. 142 to study the problems associated with individual residential wastewater treatment and disposal systems with the intent of recommending a program allowing alternative systems when appropriate; and

WHEREAS, the Subcommittee recognizes the problems, particularly in small communities, in securing acceptable wastewater treatment and disposal systems because central sewage treatment facilities are cost prohibitive and septic tank/drainfield systems are limited to sites on which the soil will support the system; and

WHEREAS, many producers of alternative systems have met with considerable difficulty in gaining approval at the State level of these systems; and

WHEREAS, the Health Department, which issues permits for wastewater treatment and disposal systems, maintains that each decision to issue a permit must be made on a case-to-case basis while reviewing both treatment and disposal as separate and distinct features of the situation, and that all the necessary care is taken to protect the public health of the citizens of the Commonwealth; and

WHEREAS, the Health Department is in the process of revising its rules and regulations relating to wastewater treatment and disposal systems and should have these available for review in nineteen hundred seventy-nine; now, therefore, be it

RESOLVED by the House of Delegates, the Senate concurring, That the Wastewater Treatment and Disposal Systems Subcommittee is continued.

The current membership of the Subcommittee shall continue to serve. If any vacancies occur, appointments shall be made by the Chairman of the Health, Welfare and Institutions Committee of the House of Delegates, the Chairman of the Conservation and Natural Resources Committee of the House of Delegates and the Chairman of the Agriculture, Conservation and Natural Resources Committee of the Senate, as appropriate.

The Subcommittee shall make any recommendations it deems necessary prior to the nineteen hundred eighty Session of the General Assembly.

## APPENDIX II

Comments - Delegate Glenn B. McClanan

I approve the report of the Wastewater Treatment Subcommittee, with the following additional comments to be attached to and made a part of the report, as follows:

1. The State Health Department shall be directed to use all reasonable efforts to inventory, and keep current in the future, all reasonable alternative systems to the traditional septic tank as they are developed around the world.
2. That the State Health Department and all other appropriate state agencies shall encourage and provide reasonable assistance to the development of innovative and workable alternatives to the traditional septic tank.
3. That upon the denial of a septic tank permit, this information about reasonable alternatives thereto shall be made available by every local health department to the applicant whose permit is denied, and reasonable assistance shall be given to the applicant to find a workable system under the circumstances appertaining.
4. A strong presumption shall exist in Virginia that no person will be denied the desired use of their property because of the lack of the availability of a workable waste containment system, realizing that necessary containment and a sanitary ground water system are both attainable public goals and not mutually exclusive.

