REPORT OF THE
JOINT SUBCOMMITTEE STUDYING

Combined Overflows in the Commonwealth

TO THE GOVERNOR AND
THE GENERAL ASSEMBLY OF VIRGINIA

SENATE DOCUMENT NO. 30

COMMONWEALTH OF VIRGINIA
RICHMOND
1991

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Delegate Franklin P. Hall
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Joint Subcommittee Studying
Combined Sewer Overflows in the Commonwealth
Pursuant to Senate Joint Resolution No. 68
to
The Governor and the General Assembly of Virginia
Richmond, Virginia
1991

TO: The Honorable L. Douglas Wilder, Governor,
and
The General Assembly of Virginia

I. INTRODUCTION

The 1989 Session of the General Assembly established a joint subcommittee (HJR 198) to (i) study the need for combined sewer overflow (CSO) controls in Virginia's cities, (ii) evaluate the financial impact of CSO control plans on localities, and (iii) determine the appropriateness of providing state grant funds to localities to assist them in implementing CSO controls. During its first year, the subcommittee received information documenting the costs of implementing CSO controls in Virginia's cities (Lynchburg, Richmond, Alexandria, and Covington) to be approximately $500 million. After reviewing the rate-making, tax-raising, and debt-issuing capacities of these cities, the subcommittee concluded that the costs of such control projects, in several instances, exceeded the locality's ability to finance the needed improvements. Recognizing that the Commonwealth as well as the federal government must play a role in funding CSO controls, the subcommittee, in its second year of operation (under SJR 68), sought to determine the likelihood and extent of federal funding available to Virginia localities for resolving CSO-related problems.

II. SUBCOMMITTEE DELIBERATIONS

A. Status of CSO Control Plans

Officials of the Cities of Richmond, Lynchburg and Alexandria provided the subcommittee with an update of their CSO control plans. Richmond officials, after further analysis, concluded that an additional three to four million dollars could be committed to the CSO project, thereby increasing their projected expenditures from $25 million to approximately $28-$29 million ($31.9 million in 1990 dollars). A series of meetings were held with the Environmental Protection Agency (EPA) during which the agency indicated a concern regarding the fecal coliform levels in the James River resulting from CSO discharges. The City agreed to expend an additional six million dollars for chlorination and dechlorination of the sewage before it is discharged into the river. This will increase the City's financial commitment for CSO correction to approximately $38 million (in 1990 dollars). The EPA has not formally accepted Richmond's plan. The agency has raised questions as to whether such technologies as chlorination/declorination will enable the City to meet required water quality standards.

Lynchburg's Director of Public Utilities informed the subcommittee that the City had completed its $1.5 million CSO study which determined that the most cost-effective approach is separation. The plan consists of three components: (i) interceptor replacement, (ii) rainleader disconnection, and (iii) separation. Officials reported that three interceptor replacement projects are under construction at a cost of $7.2 million. The City recently completed a $600,000 sewer separation project in an urban renewal area. In January 1991, work began on the disconnection program at a contracted cost of $1.5 million. Thus, during the past year, the City committed a total of $9.5 million in local funds for CSO correction.

The City of Alexandria has three CSO outfalls which overflow during wet weather. It will cost $60 million to complete the City's proposed separation project. In August 1990, the City contracted with an engineering firm to conduct a study and recommend possible alternatives to the expensive procedure of separating the combined sewer system. City officials also indicated that they will continue to meet with the State Water Control Board (SWCB) to discuss procedures to place the three CSO outfalls under the provisions of the City's water quality discharge permit.

B. Federal Role in Providing Financial Assistance for CSO Controls

1. EPA's Strategy

In an effort to control pollution resulting from CSOs, the EPA embarked upon a strategy which has as its cornerstone the requirement that states submit CSO permitting plans to EPA's regional offices by January 15, 1990. Local governments are required to design and implement measures to reduce pollutant discharges from CSOs. The EPA's Director of the Office of Water Enforcement and Permits, James Elder, testified that 30 states have submitted their plans. Twenty states indicated that they have no CSOs or that they have been controlled, permitted, or are under order to correct a water quality problem resulting from CSOs. A three-page "state status sheet," which appears as Attachment A of this report, identifies the number of discharge points and the approval status by the EPA.

Environmental Protection Agency officials estimated, in testimony before Congress, the cost of meeting water quality standards for CSOs to be at $50 to $80 billion. This figure is based on an extrapolation from an EPA needs survey in which 320 out of the 1,200 CSO communities estimated the cost of correcting their CSO problems to be $16 billion. The EPA's national strategy attempts to recognize the financial impact of CSO controls by encouraging communities to adopt the minimum control technologies--those which do not require significant expenditures. These technologies could include the following:

- Minimizing operation and maintenance of the treatment plant to ensure that pipes are well maintained;

- Enhancing pretreatment programs so that flows to the plant could be increased;

- Eliminating dry weather discharges;

- Increasing storage capacity of the collection interceptor system which would reduce the number of overflows; and

- Implementing technologies to deal with solids and "floatables."

In addition, Virginia could consider the adoption of wet weather standards for incorporation into existing water quality standards. Currently, water quality standards are established based on low-flow conditions and do not recognize the assimilative capacity of water bodies during storm events. The EPA has taken the position that because sewer separation is the most costly alternative in correcting a CSO problem, it should be undertaken as a last resort; however, the agency acknowledges that it might be appropriate in some cities because of site-specific conditions.

2. Prospects for Federal Assistance for CSO Controls

Currently, the federal government's financial commitment to CSO correction is very limited. Federal law gives the governor of a state discretionary authority to divert up to 20 percent of a state's federal wastewater construction grant allocation for CSO collection system improvements. Virginia has chosen not to exercise this option. Instead, it has used the federal grant award solely to capitalize the Virginia Water Facilities Revolving Fund which provides much needed low-interest loans to communities to upgrade their sewage treatment facilities as required by the National Municipal Policy Act.

During the recently concluded 101st Session of Congress, two CSO-related measures were considered, but neither included a provision for financial assistance. The Coastal Zone Protection Act of 1990 (S 1178), introduced by Senator George Mitchell, mandated the elimination of CSOs within a ten-year period. This would have required communities to institute measures adequate to control discharges resulting from a one-year/six-hour storm event. The Mitchell bill was attractive to some because of its minimum uniform standard for all communities experiencing CSO problems. The bill was opposed by the regulated community because of what it viewed as its lack of flexibility. The opponents took the position that the imposition of a national technology standard would mean that such factors as impact on water quality and site-specific conditions would not be considered during the permitting process. The second piece of legislation, the Coastal Defense Initiative of 1990, also known as the Studds-Nowak bill (HR 2647), was viewed as less onerous and, therefore, more acceptable to the CSO communities. It would have required an EPA inventory of all CSOs. The inventory was to include a list of CSOs, the amount and nature of discharges, and their effect on water quality. Such an inventory, according to the bill's supporters, would have provided an assessment of the costs of CSO controls and offered a needed perspective on the nature and extent of the problem.

Although both measures were rejected during the last session of Congress, the affected committees recognized the need to inform both federal and state officials as to the extent of the problem and what impact it would have on the financial condition of their communities. They have formed an organization, the CSO Partnership, whose goal is to ensure that any federal mandate regarding CSO control "not fiscally cripple state and local jurisdictions . . ." Specifically, the Partnership's position is that mandates on local governments to eliminate or control CSOs should be accompanied by financial assistance "over and above" that which is already dedicated to pressing environmental problems. Representatives of the

Partnership, appearing before the subcommittee, indicated that, "at a minimum, the federal share should be made in relation to the ability of a local jurisdiction's ability to pay. The remaining amount should be shared between the state loan program and the locality." In the absence of any federal financing proposal, the Partnership anticipates sponsoring CSO legislation during the 102nd Congressional Session. A preliminary draft of the proposed legislation was presented to the subcommittee. The proposal would amend §402 (permit program) of the Clean Water Act and is designed to supersede all other provisions of federal law that involve the regulation of CSOs as point-source discharges. It emphasizes the site-specific nature of CSOs and includes a federal grant program. The grants would be made on the basis of financial need and water quality benefit.

The proposed Combined Sewer Overflow Act (Attachment B) would require each locality with CSOs to (i) notify the EPA or the state of the existence of CSOs and generally describe the CSOs within three months of the effective date of the Act, (ii) complete a study and prepare a recommended CSO control plan, (iii) file a complete permit application, and (iv) comply with permits issued under the Act. The EPA must issue permit regulations within two years of the Act's effective date. These regulations would (i) take into account the site-specific nature of CSOs, (ii) recognize the need for flexibility on a case-by-case basis, and (iii) be cost effective. Both the EPA and the states would have responsibility for issuing and enforcing the provisions of the permit.

Permits for CSOs would be issued in two phases. Phase I permits would be issued within six months of the effective date of the Act. These permits would require elimination of dry weather overflows, proper operation and maintenance of the system so as to minimize wet weather overflows, maximum use of existing facilities, and implementation of the CSO study and plan requirements. The Phase II permit would be the so-called "final permit" and incorporates all the requirements imposed on the locality. This permit would contain either technology-based and/or water-quality based requirements. The technology-based requirements are site-specific and are to be applied on a case-by-case basis. The minimum requirements are similar to those imposed by the Phase I permit (i.e., proper operation and maintenance, elimination of dry weather overflows, etc.). These requirements would be imposed on all permittees regardless of cost. The Phase II permit may also require the imposition of additional technology-based control measures if it can be demonstrated that they will be cost-effective. Control measures typically could involve the installation of more expensive add-on technologies such as sewer separation, treatment, or conveyance. Unlike the EPA's strategy of requiring compliance within a fixed date, the Partnership-sponsored legislation proposes that compliance with these additional measures be achieved "as expeditiously as practicable," taking into account a locality's financial capability and the availability of grant funds. According to proponents of the legislation, the locality would not relieved of its obligation to install the needed controls but rather, it would be required to establish a time frame for installation of the technology. The more money which is available to the locality, the sooner the controls would be required to be implemented.

The proposal includes water quality-based requirements to the extent they would need to be imposed in order to bring the permittee into compliance with water quality standards. Similarly, the implementation of these requirements is tied to financial capability and the availability of grant funding, with compliance schedules incorporated into the permit. The legislation also provides for the establishment of wet-weather water quality standards and a variance from the water quality standards where it is demonstrated that there is no reasonable relationship between the economic

and social costs and the benefits which would result from compliance with the standards.

The legislation contemplates financial assistance to CSO communities through a grant program which would be appropriated at levels comparable to those authorized by the federal government for the state revolving loan funds. Grant moneys would be allocated to the states in the following amounts:

FY	1991	-	$ .5 billion
FY	1992	-	$1.0 billion
FY	1993	-	$1.5 billion
FY	1994	-	$2.0 billion
FY	1995 and after	-	$2.5 billion

There would be two conditions for receiving federal grant moneys. First, there must be a commitment from the state to underwrite at least 20 percent of the CSO control costs eligible for federal grant funding. Second, the locality must have committed local revenues to the limit of its financial capacity. Grant funding would be available only for that portion of CSO control that is beyond the financial capability of each local government. The legislation provides for the promulgation of regulations which would establish guidelines for determining financial capability.

III. FINDINGS AND RECOMMENDATIONS

While the joint subcommittee previously has acknowledged that "funding for correction of combined sewer overflows is beyond the capabilities of the cities alone," it is reluctant at this time, in the absence of federal assistance, to recommend that the state's resources be expended for the financing of CSO projects. In light of Virginia's current fiscal condition and short-term outlook, it is evident that any solution to an estimated $500 million problem will require a sharing of the costs by all levels of government. Thus, the subcommittee looks with interest to the 102nd Congress and the proposals it will have before it to address this nationwide environmental problem. Upon the adoption by the federal government of a specific approach, whether it be the one suggested by the CSO Partnership or some other financial alternative, the subcommittee is prepared to formulate a state financial strategy which would complement any federal initiative.

Therefore, it is recommended: *That the Joint Subcommittee Studying Combined Sewer Overflows be continued in order to (i) monitor congressional action and (ii) develop an appropriate mechanism for providing financial assistance. (Attachment C)*

Respectfully submitted,

Senator Benjamin J. Lambert III
Senator Joseph V. Gartlan, Jr.
Senator Elliot S. Schewel
Delegate A. Victor Thomas
Delegate Franklin P. Hall
Delegate Harry J. Parrish
Delegate Lacey E. Putney
The Honorable Paul W. Timmreck
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Mr. Frederick Dean, Jr.
Ms. Mary Nightlinger
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Mr. Peter Trexler

IV. ATTACHMENTS

Attachment A	-	Status of CSO Strategy Approvals
Attachment B	-	Combined Sewer Overflow Control Act
Attachment C	-	Senate Joint Resolution No. 168

ATTACHMENT A

Status of Strategy Approvals
(current as of 10/22/90)

Region/State	# of Systems	CSO Points	State Strategy Submitted
Region 1	**156**	**1409**	
Maine	61	351	YES
Massachusetts	26	388	YES (CA)
Connecticut	13	242	YES (APP)
New Hampshire	22	164	YES (APP)
Rhode Island	3	95	YES (APP)
Vermont	31	169 *	YES (APP)
Region 2	**118**	**1481**	
New York	90	1200	YES (CA)
New Jersey	28	281	YES (CA)
Region 3	**205**	**2282**	
D.C.	1	55	YES
Delaware	3	38	YES
Maryland	7	74	YES
Pennsylvania	140	1260	YES
Virginia	4	155	YES
West Virginia	50	700	YES
Region 4	**30**	**286**	
Georgia	5	31 *	YES (APP)
Kentucky	22	206	YES (CA)
Tennessee	3	49	YES
Mississippi	0	0	NSR
Alabama	0	0	NSR
North Carolina	0	0	NSR
South Carolina	0	0	NSR?
Florida	0	0	NSR
Region 5	**478**	**4682 ***	
Illinois	135	1015 *	YES
Indiana	141	1100 *	YES (CA)
Michigan	85	594 *	YES (APP)
Ohio	109	1593 *	YES
Wisconsin	2	275 *	NSR/CSS
Minnesota	6	105 *	NSR/CSS
Region 6	**2**	**?**	
Arkansas	1	?	NSR/CSS
Louisiana	0	0	NSR
New Mexico	1	0	NSR/CSS
Oklahoma	0	0	NSR
Texas	0	0	NSR

Region/State	# of Systems	CSO Points	State Strategy
Region 7	**39**	**213**	
Iowa	19	82	YES
Kansas	3	17	YES (APP)
Missouri	14	91	YES (APP)
Nebraska	3	23	YES (APP)
Region 8	**2**	**2**	
Montana	1	?	YES (APP)
South Dakota	1	2	YES (APP)
North Dakota	0	0	NSR?
Colorado	0	0	NSR?
Wyoming	0	0	NSR?
Utah	0	0	NSR?
Region 9	**2**	**39**	
California	2	39	YES (APP)
Nevada	0	0	NSR
Arizona	0	0	NSR
Hawaii	0	0	NSR
Region 10	**15**	**270**	
Oregon	4	?	YES
Idaho	2	0	NSR/CSS
Washington	11	270	YES (APP)
Alaska	0	0	NSR?
TOTALS:	1049	10664	(see summary)

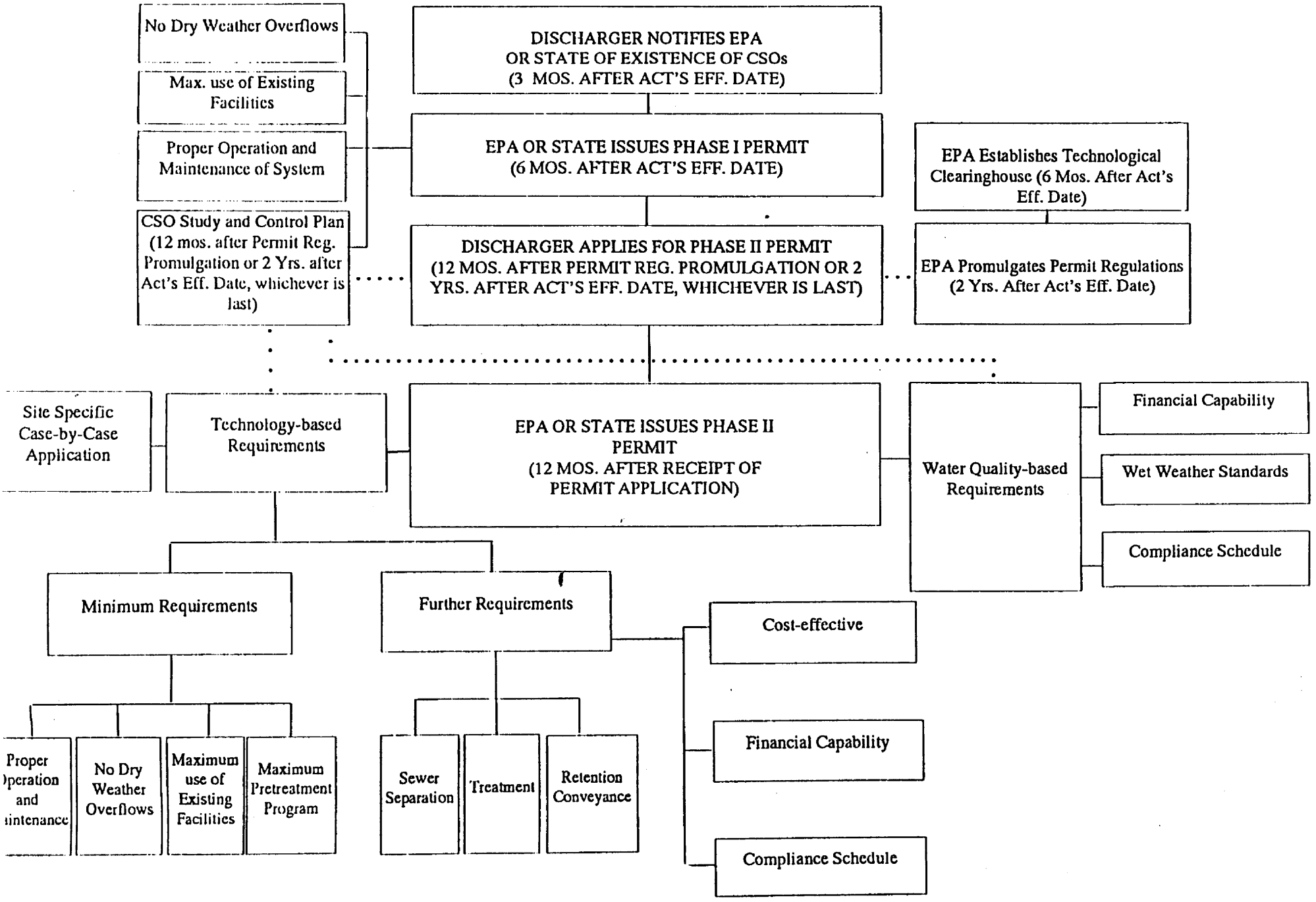
Summary:

States which submitted actual strategies: 30
States which are not required to submit a strategy (either no CSO systems or no overflows from systems): 21
State strategies unconditionally approved: 13
State strategies conditionally approved: 5
Unapproved (but required) strategies: 12

NOTES:

*	=	information obtained from the 1982 Needs Survey, Category V, CSO database
APP	=	strategy approved
CA	=	conditionally approved
NSR	=	States that reported "No Strategy Required" in response to the National CSO Control Strategy and documented this fact
NSR/CSS	=	States that reported "No Strategy Required" but have combined sewer systems
NSR?	=	States for which it is believed that no strategy is required but which have not yet provided documentation

THE CSO PARTNERSHIP
COMBINED SEWER OVERFLOW CONTROL ACT



ATTACHMENT C

1991 SESSION

LD9036128

SENATE JOINT RESOLUTION NO. 168

Offered January 14, 1991

Continuing the Joint Subcommittee Studying Combined Sewer Overflows in the Commonwealth.

Patrons—Lambert, Macfarlane, Schewel, Russell, Benedetti and Phillips; Delegates: Hall, Eck, Ealey and Cunningham, J.W.

Referred to the Committee on Rules

WHEREAS, Senate Joint Resolution No. 68, passed during the 1990 Session of the General Assembly, continued the Joint Subcommittee Studying Combined Sewer Overflows in the Commonwealth and directed it to examine and consider the imposition of a water charge or fee and the amount of revenue which might be raised by such a mechanism; and

WHEREAS, the cost of implementing combined sewer overflow controls is beyond the financial capabilities of most cities and states; and

WHEREAS, national attention has been focused on the adoption of a nationwide combined sewer overflow policy; and

WHEREAS, the 102nd Session of the United States Congress is expected to consider legislation that will call for a local, state, and federal government partnership in financing such projects; and

WHEREAS, the Joint Subcommittee wishes to examine further the role that state government should play in providing financial assistance to those localities experiencing combined sewer overflows; now, therefore, be it

RESOLVED by the Senate, the House of Delegates concurring, That the Joint Subcommittee Studying Combined Sewer Overflows in the Commonwealth is hereby continued. The membership of the Joint Subcommittee shall remain the same with any vacancy being filled by the Senate Committee on Privileges and Elections, the Speaker of the House of Delegates or the Governor, as appropriate.

The Joint Subcommittee shall complete its study and submit its findings and recommendations to the 1992 Session of the General Assembly pursuant to the procedures of the Division of Legislative Automated Systems for the processing of legislative documents.

The indirect costs of this study are estimated to be $11,070; the direct costs of this study shall not exceed $10,800.

Implementation of this resolution is subject to subsequent approval and certification by the Joint Rules Committee. The Committee may withhold expenditures or delay the period for the conduct of the study.

Official Use By Clerks	
Agreed to By The Senate	**Agreed to By The House of Delegates**
without amendment ☐	without amendment ☐
with amendment ☐	with amendment ☐
substitute ☐	substitute ☐
substitute w/amdt ☐	substitute w/amdt ☐
Date: _____	Date: _____
Clerk of the Senate	Clerk of the House of Delegates