

**REPORT OF THE  
JOINT SUBCOMMITTEE STUDYING**

**Combined Sewer Overflows  
in the Commonwealth**

**TO THE GOVERNOR AND  
THE GENERAL ASSEMBLY OF VIRGINIA**



**SENATE DOCUMENT NO. 28**

**COMMONWEALTH OF VIRGINIA  
RICHMOND  
1992**

**MEMBERS OF THE JOINT SUBCOMMITTEE**

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  
The Honorable Elizabeth H. Haskell  
The Honorable M. Caldwell Butler  
Mr. Frederick Deane, Jr.  
Ms. Mary Nightlinger  
Mr. S. Buford Scott  
Mr. Arthur R. Temple  
Mr. Peter Trexler

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**REPORT OF THE  
Joint Subcommittee Studying  
Combined Sewer Overflows in the Commonwealth  
Pursuant to Senate Joint Resolution No. 168**

To

The Governor and the General Assembly of Virginia  
Richmond, Virginia  
1992

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

I. INTRODUCTION

The 1989 Session of the General Assembly passed Senate Joint Resolution 198, which established a joint subcommittee to study (i) the need for combined sewer overflow (CSO) controls in Virginia's cities, (ii) the financial impact of the CSO control plans on these localities, and (iii) the appropriateness of providing state grant funds to those localities to assist them in implementing CSO controls. During its initial two years, the joint subcommittee has identified the nature and scope of the problem and documented the financial impact on the cities of correcting the problem. The work of the subcommittee is reported in Senate Documents 40 (1990) and 30 (1991). In 1991, pursuant to Senate Joint Resolution 168 (Appendix A-1), the joint subcommittee devoted much of its effort to (i) a review of the status of the CSO correction plans adopted by the cities of Lynchburg, Richmond and Alexandria, (ii) monitoring CSO-related federal legislation, and (iii) developing legislative proposals in anticipation of federal mandates.

II. SUBCOMMITTEE DELIBERATIONS

**A. Status of Combined Sewer Overflow Correction Plans**

Officials of the Cities of Lynchburg, Richmond and Alexandria testified as to their city's progress in implementing a CSO correction plan. Lynchburg has initiated a two dollar per month environmental protection charge on all utility customers and will continue to raise the sewer rates by at least 20 percent every two years to help finance the various CSO projects. During the past year significant progress has been made on the major components of Lynchburg's plan: (i) replacement of interceptors (\$9.3 million); (ii) rainleader disconnect program (\$1.2 million); and (iii) sewer separation (\$1.2 million). Two of the larger CSO outfall points have been eliminated. A contract will be awarded in the summer of 1992 to clear the interceptor along the river. This improvement will increase the capacity of the line, thereby providing for more storage and reducing the amount of waste discharged into the river.

Richmond completed Phase I of its CSO control program in December 1990. During the past year, with the upgrading of its wastewater treatment facilities, funded entirely through increased rates, Richmond has reduced the discharge of suspended solids and BODs (biochemical oxygen demand) to the James River by over 900 tons. According to city officials, the upgrading of these facilities has enabled the city to empty the Shockoe retention basin within two days of a rainfall while also meeting Virginia Pollution Discharge Elimination System (VPDES) permit requirements.

The city has begun Phase II of the CSO program, which calls for the following:

1. Installation of a CSO conveyance system that will mitigate the CSO problems in the southside park system;
2. Installation of two swirl concentrators which will treat 250 million gallons per day of previously untreated CSO discharge, thereby reducing the untreated overflow from the 1.3 inch design storm by over 60 percent;
3. Installation of a CSO conveyance system on the north side of the James River that will tie into the Shockoe system ahead of the bar screens; and
4. Installation of a swirl underflow storage system at the treatment plant which will be used in the operation of the swirls and the treatment plant.

City officials emphasized their commitment to upgrading the Shockoe retention basin as well as installing state-of-the-art technology. This will maximize both the storage capacity and the treatment effectiveness of the system during periods of wet weather. According to these officials, the costs of completing the Phase II projects is approximately \$80 million and will be financed entirely by Richmond ratepayers. It is estimated that it will take 12 years to complete Phase II but a significant portion could be completed within seven years. Testimony indicated from 1986 through 2004, the average household sewage bill in Richmond could increase by 196 percent.

Officials from Alexandria reported that they filed for an NPDES permit in October 1991 and expect the permit to be issued sometime after May 1992. In the meantime, the city will institute a flow monitoring program to obtain data on the volume of the city's overflows. This data will provide the basis for a work plan to correct the three CSO outfalls and eight miles of combined sewers. City officials are hopeful that the costs of the CSO projects will be significantly less than the initial estimate of \$60 million. The city is considering the feasibility of establishing a CSO utility fee as a means of financing the city's CSO projects.

#### B. CSO Partnership's Support for CSO Legislation

The CSO Partnership is a national organization that addresses the CSO problems faced by approximately 1200 communities throughout the United States. The Partnership's membership represents over sixty cities and wastewater authorities in 27 states, including all three Virginia CSO cities. Since the organization's creation in 1988, it has attempted to garner support in Congress for the passage of CSO control legislation as a part of the reauthorization of the federal Clean Water Act. Geline Williams, Chairman of the Partnership, informed the

subcommittee that her organization has been successful in having Rep. James R. Olin introduce CSO control legislation (H.R. 3477), among whose co-sponsors are the members of the Virginia congressional delegation. The bill (i) promotes the design and implementation of CSO controls that are reasonable and site-specific and (ii) creates a federal, state and local financial partnership to underwrite the costs of CSO controls based on the financial capability of the affected community.

Mr. Jim Highsmith of Rep. Olin's office briefed the subcommittee on the status of H.R. 3477. He indicated that the goal is to have the bill's language incorporated into the Clean Water Act, which is currently under consideration for reauthorization. H.R. 3477 represents an alternative to S. 1081, legislation introduced by Senator Max Baucus and characterized by Mr. Highsmith as "damaging and difficult for CSO cities to comply with." The Senate bill would require CSO cities to eliminate all CSOs within eight years. He questioned whether this could be accomplished in light of the range of CSO problems and the limited capacity of most cities to correct the problems in such a short time. Mr. Highsmith suggested that to be successful, legislation should allow for site-specific solutions and include a funding component which establishes a realistic timetable for financing the CSO control projects. The Olin bill, he noted, reflects both elements.

### C. Impact of CSOs on Downstream Users

Patricia Jackson, Executive Director of the Lower James River Association, voiced her organization's concern over the discharge of raw sewage into the James River by the City of Richmond. She called the city's CSO plan a "mid-range plan and not an extensive program for complete treatment or elimination of the CSOs." Her organization, along with several other environmental groups, filed a petition with the Environmental Protection Agency (EPA) objecting to Richmond's partial implementation of its CSO plan. Ms. Jackson believes that compliance with the Clean Water Act and the National CSO Strategy requires a schedule for completion of the entire CSO plan, and that such a schedule should not be tied to the availability of state or federal funds. She asked that Richmond commit to completion of the 12-year plan it originally proposed and which is not conditioned upon unforeseen funding. She suggested this commitment be part of the city's water discharge permit or the regional water quality management plan. Mr. Jackson recommended that before any state or federal funds are committed to the city for CSO control, a task force be established to fully explore the true costs for CSO control and the financial solutions available, and that its recommendations be reviewed by an independent financial analyst.

## III. FINDINGS AND RECOMMENDATIONS

The joint subcommittee recognizes that the costs of correcting their CSO problem exceed the financial capacity of most communities. Virginia's CSO cities have spent millions of dollars and continue to commit millions of dollars to developing and implementing their CSO control plans. The subcommittee finds the approach embodied in the CSO Partnership's proposal (H.R. 3477), patroned by Rep. Olin and supported by Virginia's congressional delegation, represents a cost-effective means of resolving the CSO problem. Therefore, the subcommittee recommends:

• That Congress enact legislation, whether in the form of H.R. 3477 or a similar initiative, that (i) promotes cost-effective control measures based on site-specific factors, (ii) allows flexibility in monitoring requirements and the time frames for implementation of the controls, and (iii) provides for a financial partnership between the federal, state and local governments to fund the costs of CSO controls. (Appendix B)

If Congress does pass CSO legislation which includes a financing component, it is important that Virginia have a mechanism in place which enables the state to accept federal funds and respond to any conditions which may be placed on the expenditures of these moneys, such as cost-sharing or matching grant requirements. The subcommittee therefore recommends:

• That the General Assembly establish the Combined Sewer Overflow Matching Fund, which would be a depository for (i) federal funds allocated for CSO control projects and (ii) state general fund moneys used to meet federal cost sharing requirements. The Virginia Resources Authority would manage the Fund, with the State Water Control Board responsible for making grants from the Fund to local governments for CSO control projects. (Appendix C)

Since it is anticipated that the current session of Congress will consider CSO legislation, there is a need to continue to monitor federal actions in this area. The subcommittee therefore recommends:

• That the work of the joint subcommittee be continued in order to (i) monitor federal activity in CSO matters and (ii) examine further the role that state government should play in providing financial assistance to those localities experiencing combined sewer overflows. (Appendix D)

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  
The Honorable Elizabeth H. Haskell  
The Honorable M. Caldwell Butler  
Mr. Frederick Deane, Jr.  
Ms. Mary Nightlinger  
Mr. S. Buford Scott  
Mr. Arthur R. Temple  
Mr. Peter Trexler

**APPENDIX A-1**  
**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	
<b>Agreed to By The Senate</b>	<b>Agreed to By The House of Delegates</b>
without amendment <input type="checkbox"/>	without amendment <input type="checkbox"/>
with amendment <input type="checkbox"/>	with amendment <input type="checkbox"/>
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Date: _____	Date: _____
_____ Clerk of the Senate	_____ Clerk of the House of Delegates



APPENDIX B-1

LD1783693

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2 SENATE JOINT RESOLUTION NO.....

3 Memorializing Congress to enact combined sewer overflow control  
4 legislation that provides flexibility, consideration of  
5 site-specific factors, and grant funding.

6  
7 WHEREAS, the Commonwealth of Virginia, like most states, has  
8 several cities which have combined sanitary sewerage and stormwater  
9 systems that, on occasion, result in the direct discharge of untreated  
10 sanitary sewage and stormwater into rivers and streams during and  
11 immediately following rainfall; and

12 WHEREAS, these combined sewer overflow ("CSO") problems are a  
13 long-standing condition of many older cities that have resulted from  
14 combined sewer construction practices which were, in many cases,  
15 state-of-the-art at the time of installation, but which, with today's  
16 wastewater treatment technologies, are now the source of CSOs; and

17 WHEREAS, the nature and extent of the CSO problem, as well as the  
18 effectiveness of CSO control methods and technologies, is  
19 site-specific, and varies among localities based upon such factors as  
20 population size and density, topography, geology, land use, geography,  
21 climate, system design, sanitary flow characteristics, and receiving  
22 waters; and

23 WHEREAS, nationwide technology-based standards for CSOs would not  
24 be cost effective, would be wasteful of the limited financial  
25 resources available, and could cause federal, state, and local CSO  
26 control efforts to be misdirected; and

1 WHEREAS, cities in Virginia with CSO problems have spent millions  
2 of dollars to date and continue to spend millions of dollars  
3 developing and implementing CSO control plans; and

4 WHEREAS, even with the application of site-specific factors, the  
5 cost of CSO control is estimated to be in the billions of dollars  
6 nationwide and in the hundreds of millions of dollars in the  
7 Commonwealth; and the cost is so great that, even with state grant  
8 funding, those cities with significant CSO problems face very serious  
9 financial burdens; and

10 WHEREAS, Congress is presently considering legislation that would  
11 establish CSO control requirements as part of the Clean Water Act  
12 reauthorization; now, therefore, be it

13 RESOLVED by the Senate, the House of Delegates concurring, that  
14 the Congress of the United States is hereby memorialized to enact H.R.  
15 3477, or similar CSO control legislation, that is cost-effective and  
16 takes into account site-specific factors, that provides flexibility  
17 with respect to monitoring requirements, the types of controls  
18 required of each local government and the time frames for  
19 implementation of those controls, and that provides for a partnership  
20 between the federal, state and local governments to fund the cost of  
21 CSO controls; and be it

22 RESOLVED FURTHER, that the Clerk of the Senate transmit copies of  
23 this resolution to the Speaker of the United States House of  
24 Representatives, the President of the Senate of the United States, and  
25 the members of the Virginia Delegation to the United States Congress  
26 that they may be apprised of the General Assembly's wishes in this  
27 matter.

APPENDIX C-1

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2 SENATE BILL NO. .... HOUSE BILL NO. ....

3 A BILL to amend the Code of Virginia by adding in Title 62.1 a chapter  
4 numbered 23.1, consisting of sections numbered 62.1-241.1 and  
5 62.1-241.2, relating to the establishment of the Combined Sewer  
6 Overflow Matching Fund.

7

8 Be it enacted by the General Assembly of Virginia:

9 1. That the Code of Virginia is amended by adding in Title 62.1 a  
10 chapter numbered 23.1, consisting of sections numbered 62.1-241.1 and  
11 62.1-241.2, as follows:

12 CHAPTER 23.1.

13 COMBINED SEWER OVERFLOW MATCHING FUND.

14 § 62.1-241.1. Definitions.--As used in this chapter, unless the  
15 context requires otherwise:

16 "Combined sewer overflow" or "CSO" means the discharge of  
17 untreated sanitary wastes, including industrial wastes and other  
18 wastes conveyed through a sanitary sewer system, and stormwater from  
19 combined stormwater and sanitary sewers.

20 § 62.1-241.2. Combined Sewer Overflow Matching Fund established;  
21 purposes.--There is hereby established the Combined Sewer Overflow  
22 Matching Fund ("Fund") to match federal money for purposes of  
23 providing grants to localities for CSO projects. The Fund shall be  
24 established out of the sums appropriated from time to time by the  
25 General Assembly for the purpose of matching federal funds allocated  
26 to Virginia for CSO controls. The Fund, and all income from the

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1 investment of moneys held in the Fund and any other sums designated  
2 for deposit to the Fund from any source, public or private, shall be  
3 set apart as a permanent and perpetual fund, subject to liquidation  
4 only upon the solution of Virginia's combined sewer overflow problems,  
5 as may be determined by the General Assembly. The Fund shall be  
6 administered and managed by the Virginia Resources Authority, subject  
7 to the right of the State Water Control Board, following consultation  
8 with the Authority, to direct the distribution of grants from the Fund  
9 to particular local governments. The State Water Control Board may  
10 establish such terms and conditions on any grant as it deems  
11 appropriate, and grants shall be disbursed from the Fund by the  
12 Virginia Resources Authority in accordance with the written direction  
13 of the State Water Control Board.

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APPENDIX D-1

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2 SENATE JOINT RESOLUTION NO.....

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

5  
6 WHEREAS, Senate Joint Resolution No. 198, passed during the 1989  
7 Session of the General Assembly, established a joint subcommittee to  
8 study (i) the need for combined sewer overflow (CSO) controls in  
9 Virginia's cities, especially the Cities of Richmond, Lynchburg, and  
10 Alexandria, (ii) the financial impacts of the combined sewer overflow  
11 control plans on these localities, and (iii) the appropriateness of  
12 providing state grant funds to those localities to assist them in  
13 implementing combined sewer overflow controls; and

14 WHEREAS, during its three years of deliberations, the Joint  
15 Subcommittee has (i) identified the nature and scope of the problem,  
16 (ii) documented the financial impact on the cities for correcting the  
17 problem, and (iii) recommended the creation of a CSO matching grant  
18 fund; and

19 WHEREAS, the 102nd Session of the United States Congress is  
20 considering legislation (HR 3477) that calls for a local, state and  
21 federal government partnership in financing such projects; and

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

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

7           The Joint Subcommittee shall complete its study and submit its  
8 findings and recommendations to the Governor and the 1993 Session of  
9 the General Assembly pursuant to the procedures of the Division of  
10 Legislative Automated Systems for the processing of legislative  
11 documents.

12           The Joint Subcommittee shall hold no more than two meetings.

13           The indirect costs of this study are estimated to be \$5,860; the  
14 direct costs of this study shall not exceed \$4,680.

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

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