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**CLEAN RIVER WORKS**

# **WILLAMETTE RIVER STAKEHOLDERS TASK FORCE**

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ISSUES FOR CONTROLLING  
WILLAMETTE RIVER  
COMBINED SEWER OVERFLOWS  
DECEMBER 1996



**ENVIRONMENTAL SERVICES  
CITY OF PORTLAND**

*Printed on recycled paper*

December 19, 1996

Dear Members of the City Council

The Willamette River Stakeholders Task Force, appointed by my office last summer, has completed its first phase of work, and I'm pleased to forward its initial report to the City Council for its review and acceptance

As you may recall, the Task Force consists of 23 local citizens and public agency representatives who have been asked to work as a review board to the Bureau of Environmental Services' Willamette Predesign Project, a two-year, technical and policy review of the City's plan to improve the water quality of the Willamette River, especially through the reduction of combined sewer overflows. The Task Force is charged, specifically, with making recommendations to the City and the Bureau on how best to implement the plan to ensure high water quality in the river at the lowest possible cost to the ratepayer.

In this report, the Task Force has identified issues and recommended actions for addressing those issues. *A chief guiding principle that emerges is "using an integrated approach for improving Willamette River water quality." The Task Force feels strongly that as the City develops a plan to control CSOs on the river, it must also look at other issues affecting water quality, like stormwater, toxins and chemical pollutants. Methods of controlling these pollutants must also be integrated. These methods include*

- *expanding cornerstone projects,*
- *developing new green solutions,*
- *optimizing the existing sewer system,*
- *coordinating with other Bureaus to include water quality controls in their projects for maximum benefit of ratepayers' money, and*
- *providing education on water quality benefits from the various control methods*

*The integration of all the above information and techniques should result in the predesign product*

The Task Force is confident that the recommended actions will be integrated into the technical team's predesign work and when necessary, be raised as a broader Bureau policy issues

This spring, the Task Force will begin phase two its new chair, Bill Hutchison, meeting regularly over the subsequent 18 months to assure public involvement and participation in the framing of technical and policy questions and responses as the project proceeds

Thank you for supporting the efforts of the Willamette River Stakeholders Task Force as it examines ways to control combined sewer overflows more effectively in the river. I'm confident the Task Force will continue to represent, with broad public participation, community values and public interests in the river. The City Council will be kept informed as the Task Force carries out its charge.

Sincerely,

Commissioner Mike Lindberg, Chair  
Willamette River Stakeholders Task Force

# WILLAMETTE RIVER STAKEHOLDERS TASK FORCE

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## EXECUTIVE SUMMARY

### RECOMMENDATION:

The Willamette River Stakeholders Task Force unanimously recommends the City Council authorize the following actions to guide the Bureau of Environmental Services' Willamette River Basin Pre-Design Project. These actions are intended to address issues raised by the public and members of the Task Force.

The Task Force identified nine issues to be addressed as part of the Willamette River Basin Pre-Design Project. *A chief guiding principle that emerges is "using an integrated approach for improving Willamette River water quality." The Task Force feels strongly that as the City develops a plan to control CSOs on the river, it must also look at other issues affecting water quality, like stormwater, toxins and chemical pollutants. Methods of controlling these pollutants must also be integrated. These methods include*

- *expanding cornerstone projects,*
- *developing new green solutions,*
- *optimizing the existing sewer system,*
- *coordinating with other Bureaus to include water quality controls in their projects for maximum benefit of ratepayers' money, and*
- *providing education on water quality benefits from the various control methods*

*The integration of all the above information and techniques should result in the predesign product.*

These issues were identified through public involvement activities (workshops, polling, etc.) and Task Force discussion. The following is a brief summary of these issues and the Task Force's recommended actions to address each of them. A more detailed description of these issues is included in the full report.

Each issue recommendation is grouped to indicate whether or not it is in the current predesign scope of work or will require other Bureau or City support to address the issue.

## 1. WHAT CONSTITUTES A CLEAN AND HEALTHY RIVER?

There is a need to define the Portland community standard for a clean and healthy river. Although regulatory requirements provide a base criteria for a clean river, community perceptions and expectations should also help define a standard. Over the past several years, water quality has consistently been identified as a high priority for Portland citizens and an integral part of the region's quality of life. It will be important to blend the regulatory requirements with the community's vision for a clean and healthy river.

The Task Force recommends the following actions:

### Within the Scope of Work

- 1 Determine the relationship of CSOs to the health and cleanliness of the Willamette River. How much cleaner and healthier is the river if Portland removes CSOs?
- 2 Explore using the Governor's Task Force report card format as a possible model for evaluation of river water quality improvement efforts as a result of the City's CSO program.
- 3 Define a clean and healthy river in terms of regulatory requirements and beneficial uses as a foundation for a vision of a clean and healthy river.

## 2. REMOVAL OF STORMWATER FROM THE COMBINED SEWER SYSTEM

Stormwater is the primary cause of combined sewer overflows (CSOs). Since CSOs consist of approximately 80% stormwater and 20% wastewater, stormwater removal from the combined sewer system is an integral part of addressing the CSO problem. The Bureau's "Cornerstone" projects are helping to remove as much as 40% of the stormwater runoff from the sewer system by installing sumps, separating sewer lines, disconnecting residential downspouts, and diverting streams out of the CSO sewer system. To date, the Cornerstone projects have removed approximately 750-million gallons or 12- 15% of total annual stormwater volumes from the combined sewer system. Citizen input has suggested that residents are willing to implement individual efforts to reduce stormwater entering the sewer system. Efforts to remove stormwater from the combined sewer system will continue to be critical to reducing CSOs in the Willamette River.

The Task Force recommends the following actions

#### **Within the Scope of Work**

- 1 Review how Portland can maximize and expand the benefits of the Cornerstone projects less stormwater entering the system, resulting in greater cost effectiveness in reducing CSOs
- 2 Explore other methods for removing stormwater from the combined sewer system which are not currently employed by Portland
- 3 Understand separate relationships of residential, commercial and industrial issues related to stormwater, place more emphasis on developing business-oriented cornerstone projects
- 4 Maximize detention of water within the sewer system when upgrading or expanding to reduce peak volumes at treatment facilities
- 5 Examine water quality impacts of different Cornerstone project approaches
- 6 Determine which other Bureau or City projects, beyond CSO projects that may be appropriate for diverting stormwater from the system
- 7 Include stormwater reduction and treatment wherever possible in CSO solutions
- 8 Pursue changes in City Building Codes to require home and business owners to identify stormwater removal opportunities when planning development projects

### **3. AN INTEGRATED APPROACH FOR PORTLAND'S RIVER CLEAN-UP**

Combined sewer overflows are only one contributor of pollutants to the Willamette River in Portland. Stormwater runoff from industrial and non-point sources, including roads and parking lots, contribute to river pollution within the City limits adding oils, metals and other toxic chemicals. Upstream sources of pollution, from other cities, agricultural lands and industries are also contributors. In addition to the combined sewer overflow reduction projects, the City of Portland has other river clean-up and pollution prevention efforts underway including a stormwater, industrial source control and public education programs. A more integrated approach to addressing water quality clean-up efforts in Portland along with CSOs could increase cost-effectiveness and efficiency.

The Task Force recommends the following actions

**Within the Scope of Work**

- 1 Review and coordinate with other City-wide capital projects to identify cost savings opportunities for reducing CSOs through the use of shared City resources
- 2 Raise public awareness about all water quality issues affecting the river, including pollutants in CSOs, stormwater, agricultural, commercial and industrial runoff
- 3 Coordinate CSO-policy issues with other BES and City watershed programs to develop a more integrated approach for designing and implementing the CSO program
- 4 Identify how the impacts and expected outcomes of CSO projects relate to other BES and City programs

**4. IMPACT ON UPSTREAM AND DOWNSTREAM RIVER USERS**

Although Portland's combined sewer overflows contribute over six billion gallons of combined wastewater and stormwater to the Willamette River annually, pollutants in the river come from a multitude of sources both within and outside the City. The over 100 mile Willamette River Basin physically encompasses a broad range of jurisdictions and uses which impact the water quality of the river. The City of Portland currently participates in inter-jurisdictional planning efforts to help determine the extent of pollutants contributed from upstream communities and in the Portland harbor. City and regional strategic planning efforts, specifically Portland Future Focus and the Regional Urban Growth Goals & Objectives (RUGGO), have called for inter-governmental coordination of environmental enhancement efforts. There is a need to understand the full contribution of upstream polluters and the impact on downstream communities.

The Task Force recommends the following actions

**Within the Scope of Work**

- 1 Explore options for collaborative pollution reduction efforts with upstream contributors to increase water quality and decrease CSO project cost including sharing information and seeking representatives of the basin to become involved in the work of the Task Force
- 2 Create and/or engage in timely basin-wide efforts, including the Governor's Healthy Streams Initiative

**Bureau or City Issue**

- 1 Coordinate with basin-wide or state-wide agencies and committees to address upstream pollution sources and impact on Portland's downstream user

**5. KNOWING MORE ABOUT RIVER POLLUTANTS**

While stormwater removal activities will reduce the volume of combined sewer overflows (CSOs), collection and treatment will still be necessary for a large amount of combined sewage. CSOs are a significant contributor to elevated bacteria concentrations in the lower Willamette River. However, current data is insufficient to determine the level of other pollutants in combined sewer overflows, including toxics or metals. Questions also arise about the pollutant load entering the Portland harbor from upstream. Finally, the water quality impact from the City's proposed overflow treatment facility, which is to begin operation on the Willamette River in 2006 has not been determined yet. This information is needed to determine the impact of identified pollutants in the effluent on fish and wildlife habitat as well as humans.

The Task Force recommends the following actions

**Within the Scope of Work**

- 1 Review research data available on water pollutants, like oils, metals and toxic chemicals to determine impacts on the Willamette River
- 2 Examine impact of identified pollutants on humans, fish, and wildlife and look at the designated beneficial uses by coordinating with Willamette River Study

- 3 Identify pollutants and optimize their removal by the CSO projects
- 4 Consider level of control desired in addressing pollution sources
- 5 Explore all CSO treatment technologies, including disinfection, and seek technologies that minimize negative impacts on humans, fish and wildlife

#### **Bureau or City Issue**

- 1 Identify high priority pollutants (pollutants that are most harmful to water quality) that are entering the river and focus on controlling those pollutants from both point and non-point sources
- 2 Consider the river as a potential drinking water source for Portland and what water quality and policy efforts may be required to make the water safe for consumption

### **6. FUNDING AND AFFORDABILITY OF CSO PROJECTS**

As currently planned, City of Portland ratepayers will pay for the great bulk of the cost of Portland's Combined Sewer Overflow (CSO) projects, estimated to be \$700 million (in 1993 dollars). The City will initially finance these projects using bonds and paying back the debt over the next 35 years through sewer rates. City sewer rates are projected to increase 12% annually for the next four years, after which the rates will continue to rise, but at a lower rate. Recent research conducted on behalf of the Public Utility Rates Board (PURB) indicates that even if the CSO projects are not built, City sewer rates would continue to rise due to other capital improvement and maintenance needs. Recent sewer rate increases, initial construction projects, and on-going public education efforts have heightened public awareness of the CSO projects, raising concerns of affordability and equitability for ratepayers and especially low income residents. A review of CSO projects, their costs and revenue sources is needed to minimize fiscal impacts on rates, while maximizing community benefit opportunities.

The Task Force recommends the following actions

#### **Within the Scope of Work**

- 1 Review Public Utility Review Board (PURB) information on rates and the comprehensive paper on low income rates



- 2 Review EPA's affordability guidance document to see how the CSO project compares with EPA criteria

### **Bureau or City Issues**

- 1 Find ways to diversify funding sources to help pay for CSO projects, including corporate sponsorships and federal or state grants
- 2 Explore the "polluter pays" principle in the context of how ratepayers can control and receive rate benefits by preventing pollution in their homes and businesses
- 3 Research other utility programs for ideas on consumer incentive approaches
- 4 Examine provisions for low-income ratepayers, including reviewing the results of the City's citizens committee on this issues and providing resources for low-income ratepayers to receive assistance reducing home water usage and pollution
- 5 Obtain more information on the City's 8% utility license fee and the potential for directing revenues from the fee to help pay for CSO projects
- 6 Consider the impacts of Measure 47 on the river-clean effort, specifically the anticipated indirect impact of revenue on the utility license fee
- 7 Strive for ratepayer equity in the development of the CSO funding plan

## **7. THE RIVER AND ADJACENT LAND USES**

Currently the Willamette River and its banks have multiple uses for Portland residents and businesses affecting economic development, environmental quality, and general quality of life. As City and regional development becomes more dense, increased demand for the river is expected to expand concurrently. There is a need to develop a fuller understanding of how these uses affect the river water quality and how they relate to CSO discharge points as the demand for more use and access grows along the finite riverbank.

The Task Force recommends the following actions:

### **Within the Scope of Work**

- 1 Analyze impacts of land use patterns on water quality related to CSOs
- 2 Explore the potential for increasing access areas and recreational opportunities, like walking, biking and fishing along the river shore

- 3 Identify and incorporate impact of future riverfront residential and commercial development activities (e g , North Macadam, Eastbank Corridor) into the predesign study and compare analysis to the CSO program objectives

## **8. PROTECTION OF FISH AND WILDLIFE**

The Willamette River serves as habitat for a wide range of fish and wildlife including birds, beavers and other animals, assorted aquatic life, and vegetation. The water quality of the Willamette River affects the ability of these fish and wildlife to live in the area. All of the wildlife are inter-connected as part of an ecological system. Ensuring adequate and quality habitat for fish and wildlife also benefits the overall health and welfare of the river, and consequently is a benefit for the surrounding community. Any plan to address the CSO problem needs to ensure this habitat is maintained and/or enhanced.

The Task Force recommends the following actions:

### **Within the Scope of Work**

- 1 Define the impact that CSOs have on wildlife and aquatic habitat in and around the river
- 2 Coordinate CSO projects with the Governor's Willamette River Task Force Report Card project, and other broader watershed activities, including fish and wildlife protection and tributary improvements
- 3 Identify and protect both aquatic and land animals supported by the river and initiate research on their potential of being placed on the endangered species listings

## 9. PUBLIC EDUCATION AND INVOLVEMENT

Extensive public education and involvement efforts are warranted to inform and involve Portland citizens about the impact of the CSO projects and their costs to City sewer ratepayers. Ratepayers should be provided with the information they need to fully understand why the CSO projects are necessary, how much they will cost, *how they relate to the overall water quality of the river*, and what benefits will be achieved. In addition, genuine and diverse opportunities should be generated to involve interested citizens in the projects' planning and implementation. All efforts should be aimed at broadening the stakeholder ownership of the river's problems and efforts to resolve them.

The Task Force recommends the following actions:

### **Within the Scope of Work**

- 1 Broaden outreach on Portland's CSO efforts to river basin stakeholders, including upstream and downstream communities, to increase awareness of Portland's efforts to improve river water quality
- 2 Develop Task Force sponsored, independent and scientific public opinion polls during the course of the Willamette River Pre-Design project
- 3 *In public education materials and processes, describe CSO projects in the context of other watershed activities*
- 4 Continue to promote CSO projects to the general public through media channels
- 5 Attract broader public interest in the Predesign Project by identifying multiple community benefit opportunities
- 6 Meet public information needs about the Predesign Project, using a variety of approaches and independent (from BES) channels

### **Bureau or City Issue**

- 1 Disseminate more information about the true cost of the program, including relationship to all sewer costs (operational, employee salaries, watershed programs, etc.)
- 2 Increase youth and adult interaction with the river. Find corporate funding to support educational boat trips for school-aged children as well as adults

- 3 Expand public education of river pollutants and watershed programs (Fanno, Balch, Johnson and Tryon Creeks) by increasing educational opportunities and by involving the public in key Bureau decisions
- 4 Ensure that as CSO project costs and activities increase, public information and involvement expand reciprocally

### **Background and Charge of the Task Force**

In 1990, the City of Portland began planning efforts to control combined sewer overflows (CSOs). A CSO is a mixture of stormwater and raw sewage that negatively impacts the River's water quality. An agreement between the City and the State, called the Amended Stipulation and Final Order was signed in 1994, and calls for overflows to the Columbia Slough to be virtually eliminated by December 2000, and overflows to the Willamette River to be drastically reduced by 2011.

The Task Force divided its activities into two phases. The first phase has focused on gathering and reviewing a variety of information provided in Environmental Services CSO reports and summaries, citizen polls and in recent city-wide public workshops to hear citizen priorities for the Willamette River. From this valuable information and several Task Force discussions, Issues for Controlling Willamette River Combined Sewer Overflows Report was developed.

The project's technical team will incorporate these issues into data gathering and analysis necessary for the predesign work. As the Task Force begins the second phase of its work, it will continue to utilize the Issues Report as they work with the technical team. The Task Force will meet over the next eighteen months to ensure that these issues and others raised through public dialogue are incorporated into each key decision point of technical team predesign work.

**Task Force Charge**

In keeping with previous public involvement outreach efforts on BES Capital Improvement Projects and with strong recommendation from bureau employees, consultants and national representatives working on CSO projects who participated in the 1996 Willamette River Basin CSO Program Review, a twenty-three person Task Force, was appointed in September of 1996 by Portland City Commissioner, Mike Lindberg. The charge, accepted by members of the Task Force is as follows:

- Review Portland's plan for controlling combined sewer overflows (CSO's) into the Willamette River, and to
- Make recommendations to the Portland City Council and the City's Bureau of Environmental Services on how to best implement the plan, giving full consideration to community values and the need to maintain community support for this public investment. The plan should ensure high water quality in the river at the lowest possible cost to the ratepayer.

The Task Force met monthly from September through December 1996 and established a subcommittee drafted the Key Issues Report with continuous review and feedback from the full Task Force. Subcommittee members used information and feedback from their fellow Task Force members, citizen polls and workshop results, projected rate information and water quality information provided by BES and the Department of Environmental Quality to develop the draft final report. This report was presented for approval at the December 17, 1996 Task Force meeting and adopted for submittal to the City Council.

## DRAFT #4

### ISSUES FOR CONTROLLING WILLAMETTE RIVER CSO

(Please note *Italicized text* has been modified from the previous draft)

#### 1. WHAT CONSTITUTES A CLEAN AND HEALTHY RIVER?

**Problem Statement:** The definition of a healthy or clean Willamette River is not clear. There are numerous factors, both scientific and subjective, that can be used to define whether the river is healthy or clean. Empirical benchmarks such as fecal coliform bacteria, toxics, turbidity, pH, and dissolved oxygen can provide a framework for understanding water quality. However, interpretation of this data can vary depending upon individual perspectives. Other more subjective factors such as aesthetics (what the river looks like) can also vary in interpretation depending upon individual viewpoint. Nonetheless, there is a need to define the Portland community's standard for a healthy and clean river, the public is increasingly concerned as it becomes aware of impacts of combined sewer overflows, stormwater and toxins on the water quality of the river. It will be important to blend the regulatory requirements with community expectations of a clean and healthy river.

**Research Results:** From a regulatory perspective, a healthy and clean Willamette River means state and federal water quality guidelines have been met. These water quality benchmarks include levels of dissolved oxygen, temperature, turbidity, pH, total dissolved gases, total dissolved solids, fecal coliform bacteria, E coli bacteria, toxics, and chlorophyll-a.

At "Testing the Waters" workshops, conducted by the Bureau in October and November 1996, as well as other public meetings, participants have offered their vision of a clean and healthy river as one which is "fishable and swimmable." In addition, protection of wildlife habitat and aquatic life is also seen as very important in safeguarding the health of the river.

Water quality has continued to be a high priority for Portland area residents for the past several years. In 1990, the Portland Future Focus Strategic Plan noted the public's increasing concern for water quality and a willingness to pay for improvements.

"Public awareness of continuing stream and groundwater pollution has accelerated the demand to address water quality problems. A 1989 survey indicated that a large portion of people surveyed would support a service increase to enhance the area's water quality."

Between 1989 and 1995, results of four separate polls indicated increasing public sentiment that water quality is the most important aspect of environmental quality for the City of Portland to address. The following indicates the percentage of respondents who feel that water quality is the most important environmental priority for the City.

1989	12%
1992	35%
1993	39%
1995	47%

In 1994, comments received from the Metro 2040 tabloid and hotline responses indicated concern about preserving water quality. Many of these comments advocated addressing erosion control and runoff problems.

Finally, importance of water quality to the Portland community was also seen during the 1996 "public pulse" survey, conducted at open houses to gather comments on the draft regional transportation policies, when 62% of the participants strongly agreed with the statement "I would be willing to accept an additional home in my neighborhood if it means being able to protect streams, green spaces and floodplains."

#### **RECOMMENDED ACTIONS:**

##### **Within the Scope of Work**

- 1 Determine the relationship of CSOs to the health and cleanliness of the Willamette River, How much cleaner and healthier is the river if Portland removes CSOs?
- 2 Explore using the Governor's Task Force report card format as a possible model for evaluation of river water quality improvement efforts as a result of the City's CSO program
- 3 Define a clean and healthy river in terms of regulatory requirements and beneficial uses as a foundation for a vision of a clean and healthy river



## 2. REMOVAL OF STORMWATER FROM THE COMBINED SEWER SYSTEM

**Problem Statement:** Stormwater is the primary cause of CSOs. Nearly every time it rains, stormwater entering into the combined sewer systems causes overflows into the Willamette River and Columbia Slough. CSOs consist of approximately 80% stormwater and 20% wastewater. For this reason, stormwater removal from the combined sewer system is an integral part of addressing the CSO problem. The Bureau's "Cornerstone" projects are helping to remove as much as 40% of the stormwater runoff from the sewer system by installing sumps, separating sewer lines, disconnecting residential downspouts, and diverting streams out of the CSO sewer system.

In the combined sewer area of the city, nearly 2500 sumps have been installed in six CSO basins and design work continues throughout the City. Construction of separate storm sewers has been completed in the St. Johns area and is nearly complete in the Fiske "B" basin, both in North Portland. Planning studies and engineering design for separation work are underway for the Oswego, and Oregonian basins, also in North Portland, and Sellwood basins in Southeast Portland, as well as the Rivergate industrial area.

More than 1200 homes have disconnected their roof downspouts from the combined sewer system, removing 21 million gallons of runoff. Homeowners themselves disconnected nearly half of these downspouts, receiving compensation on an average of \$150 per residence. The rest were disconnected by volunteer workers. Most downspout disconnections to date have been made on a voluntary basis, but some future work may have to be mandatory if goals are not achieved. Tanner Creek in northwest Portland is the only stream diversion currently underway. Construction work on this project that's concurrent with the west side light rail project has been substantially completed, planning and design for the next phase of the Tanner Creek diversion is underway. Efforts to remove stormwater from the combined sewer system will continue to be critical to reducing CSOs in the Willamette River.

**Research Results:** To date, the Cornerstone projects have removed approximately 750-million gallons or 12- 15% of total annual stormwater volumes from the combined sewer system.

A recent telephone survey indicated a majority of ratepayers understand they can and are willing to reduce pollution in the river through individual actions. A strong majority (82%) of respondents indicated that individual households have some control over the amount of pollution they create. 79% of the same group was willing to disconnect home downspouts from the City's sewer system to help control sewer overflows in the Willamette River and Columbia Slough. In addition, 88% of those polled thought the City should provide more information to the public about what individuals could do to reduce pollution in area streams and rivers. Finally, when asked what the most important thing one household could do to reduce the current level of pollution in Portland area rivers and streams responses included: no hazardous chemicals down the drain (16%), recycle (14%), watch what you put down the drain (11%), water conservation (10%), and use fewer/reduce the use of pesticides and fertilizers (6%).



In "Testing the Waters" workshops in October and November 1996, participants in small group discussions indicated the need to educate residents and businesses about how they can help prevent water pollution. In addition, some participants offered suggestions on how additional stormwater could be removed from the sewer system, including capturing rainwater in barrels and filtering it for household use, and using stormwater for industrial purposes.

Polling and other public input suggest that ratepayers view CSOs as a serious problem which needs to be addressed. In a 1992 poll, 94% of those surveyed felt that 170 CSOs per year were "not acceptable." In the same poll, the participants were asked how many overflows would be acceptable. The responses:

- no overflows 35%
- 1-2 overflows per year 28%
- 10-50 overflows per year 26%
- more than 50 per year 3%

A 1993 poll produced similar results with 34% (the majority) supporting the elimination of all CSOs and 27% for "most" CSOs. In a 1996 telephone poll, 80% of the respondents agreed with the statement, "It is important for the City to stop the sewer overflows into the Willamette River and Columbia Slough."

In the "Testing the Waters" workshops, 45% of the participants felt the City should remove most of the CSOs (above 90%) while 43% indicated they would support eliminating all (99% - 100%) of CSOs. After being informed that the elimination of CSOs may still leave other pollutants in the river, 49% indicated they would still support eliminating most CSOs (above 90%).

## **RECOMMENDED ACTIONS:**

### **Within the Scope of Work**

- 1 Review how Portland can maximize and expand the benefits of the Cornerstone projects: less stormwater entering the system, resulting in greater cost effectiveness in reducing CSOs
- 2 Explore other methods for removing stormwater from the combined sewer system which are not currently employed by Portland
- 3 Understand separate relationships of residential, commercial and industrial issues related to stormwater, place more emphasis on developing business-oriented cornerstone projects
- 4 Maximize detention of water within the sewer system when upgrading or expanding to reduce peak volumes at treatment facilities
- 5 Examine water quality impacts of different Cornerstone project approaches
- 6 Determine which other Bureau or City projects, beyond CSO projects that may be appropriate for diverting stormwater from the system
- 7 Include stormwater reduction and treatment wherever possible in CSO solutions
- 8 Pursue changes in City Building Codes to require home and business owners to identify stormwater removal opportunities when planning development projects

### 3. AN INTEGRATED APPROACH FOR PORTLAND'S RIVER CLEAN-UP

**Problem Statement:** Combined sewer overflows are only one contributor of pollutants to the Willamette River in Portland. Stormwater runoff from industrial and non-point sources, including roads and parking lots, contribute to river pollution within the City limits adding oils, metals and other toxic chemicals. Upstream sources of pollution, from other cities, agricultural lands and industries are also contributors. In addition to the combined sewer overflow reduction projects, the City of Portland has other river clean-up and pollution prevention efforts underway including a stormwater, industrial source control and public education programs. A more integrated approach to address water quality clean-up efforts in Portland along with CSOs could increase cost-effectiveness and efficiency.

**Research Results:** The majority of citizens participating in the "Testing the Waters" workshops indicated that CSOs are a serious problem for the river which needs to be addressed. However, many participants also expressed concern for other sources of water pollution within the city. Stormwater runoff and accidental industrial spills are cited as serious concerns. This survey corroborates earlier views expressed in telephone polling conducted by the City. In 1993 and 1995, CSOs were cited along with accidental industrial spills and runoff from industrial sites as chief causes for water quality problems in the river.

#### RECOMMENDED ACTIONS:

##### Within the Scope of Work

1. Review and coordinate with other City-wide capital projects to identify cost savings opportunities for reducing CSOs through the use of shared City resources.
2. Raise public awareness about all water quality issues affecting the river, including pollutants in CSOs, stormwater, agricultural, commercial and industrial runoff.
3. Coordinate CSO policy issues with other BES and City watershed programs to develop a more integrated approach for designing and implementing the CSO program.
4. Identify how the impacts and expected outcomes of CSO projects relate to other BES and City programs.

#### 4. IMPACT ON UPSTREAM AND DOWNSTREAM RIVER USERS

**Problem Statement:** Although overflows contribute over four billion gallons of combined wastewater and stormwater to the Willamette River annually, pollutants in the river come from a multitude of sources both within and outside the City. The Willamette River Basin physically encompasses a broad range of jurisdictions and uses which impact the water quality of the river. Upstream cities, industries, and agricultural operations contribute direct and non-point source pollutants including sewage, stormwater runoff, industrial waste, herbicide and pesticides residues. Downstream in the Columbia River, other communities receive the combined pollutants from all of the upstream communities. The City of St. Helens and Rainier receive drinking water from the Columbia River using underground collectors and may be subject to pollutants coming from upstream. There is a need to understand the full contribution of upstream polluters and the impact on downstream communities.

**Research Results:** The City of Portland is participating in inter-jurisdictional planning efforts to help determine the extent of pollutants contributed from upstream communities and in the Portland harbor. Representatives from the City of Portland are participating in the Willamette River Study and Governor's Willamette River Water Quality Task Force which are looking at a basin-wide approach to addressing pollutants in the river. In addition, the City's Willamette River Pre-Design project will include research efforts to more accurately determine the pollutant levels entering the Portland harbor, what contaminants are contributed from CSOs, and the projected water quality impact from the new overflow treatment facilities.

A majority of participants in the recent "Testing the Waters" workshops perceive that upstream river pollution is a serious problem. Several participants registered concerns about what communities are receiving downstream (from Portland). At the same time, most of the participants believe that over half of the river's water quality problem originates in the City. Public discussions have frequently cited the need to approach the river's water quality as a basin-wide issue, not just a Portland problem.

The Portland Future Focus strategic planning process also highlighted the need for area governments to integrate their efforts "to improve environmental quality, and to enhance the quality of life" in the region. "Portland must work cooperatively with other regional governments to adopt regional strategies that reduce unnecessary demands on public infrastructure and services, and protect the region's environment."

The Regional Urban Growth Goals & Objectives (RUGGO) also stresses the need for local coordination of water quality efforts. "Planning and management of water resources should be coordinated in order to improve the quality and ensure sufficient quantity of surface water and groundwater available to the region."

**RECOMMENDED ACTIONS:****Within the Scope of Work**

- 1 Explore options for collaborative pollution reduction efforts with upstream contributors to increase water quality and decrease CSO project cost including sharing information and seeking representatives of the basin to become involved in the work of the Task Force
- 2 Create and/or engage in timely basin-wide efforts, including the Governor's Healthy Streams Initiative

**BES or City Issue**

- 1 Coordinate with basin-wide or state-wide agencies and committees to address upstream pollution sources and impact on Portland's's downstream user

## 5. KNOWING MORE ABOUT RIVER POLLUTANTS

**Problem Statement:** While stormwater removal activities will reduce the volume of combined sewer overflows (CSOs), collection and treatment will still be necessary for a large amount of combined sewage. Scientific evidence gathered during the facilities planning phase of the CSO projects shows CSOs are a significant contributor to elevated bacteria concentrations in the lower Willamette River. CSOs also contribute scum, floating solids, oil films, and other offensive aesthetic conditions. However, current data is insufficient to determine the level of other pollutants in combined sewer overflows, including toxics or metals. Questions also arise about the pollutant load entering the Portland harbor from upstream.

Finally, the water quality impact from the City's proposed overflow treatment facility which is to begin operation on the Willamette River in 2006, has not been determined yet. Benchmarks for water quality standards will need to be evaluated to determine the ability for the treatment facility to meet state and federal discharge requirements. These benchmarks focus on turbidity, toxics, metals, dissolved oxygen, nutrients, and disinfection. All of this information is needed to determine the impact of identified effluent pollutants on humans, fish and wildlife habitat.

**Research Results:** The Willamette Pre-Design project will help establish the level of pollutants contributed by CSOs and upstream sources, as well as the ability of effluent from the overflow treatment facility to meet state water quality standards in the river. Initial investigations will determine the level of pollutants from upstream. This baseline data will be used to gather more accurate information regarding the pollutant impact of CSOs including bacteria, toxics, and dissolved oxygen. Based on this information, the project team will be able to develop a short list of technical alternatives for more detailed analysis. Subsequently, the project team will be able to make a technically-based recommendation regarding the necessary technology to treat the Willamette River CSOs.

Most of the "Testing the Waters" workshop participants cited combined sewer overflows, stormwater runoff, and accidental industrial spills as the key perceived pollutant sources for the Willamette River in Portland. Many of the participants said they would like more information on the sources and seriousness of pollutants in the river. The CSO projects, some stakeholders say, should identify and maximize reduction of the number of pollutants from CSOs and any related treatment facilities.

### RECOMMENDED ACTIONS:

#### Within the Scope of Work

- 1 Review research data available on water pollutants, like oils, metals and toxic chemicals to determine impacts on the Willamette River
- 2 Examine impact of identified pollutants on humans, fish, and wildlife and look at the designated beneficial uses by coordinating with Willamette River Study

**Within the Scope of Work (continued)**

- 3 Identify pollutants and optimize their removal by the CSO projects
- 4 Consider level of control desired in addressing pollution sources
- 5 Explore all CSO treatment technologies, including disinfection, and seek technologies that minimize negative impacts on humans, fish and wildlife

**Bureau or City Issue**

- 1 Identify high priority pollutants (pollutants that are most harmful to water quality) that are entering the river and focus on controlling those pollutants from both point and non-point sources
- 2 Consider the river as a potential drinking water source for Portland and what water quality and policy efforts may be required to make the water safe for consumption

## 6. FUNDING AND AFFORDABILITY OF CSO PROJECTS

**Problem Statement:** As currently planned, City of Portland ratepayers will pay for the great bulk of the cost of Portland's Combined Sewer Overflow (CSO) projects, estimated to be \$700 million (in 1993 dollars). The City will initially finance these projects using bonds and paying back the debt over the next 35 years through sewer rates.

City sewer rates are projected to increase 12% annually for the next four years, after which the rates will continue to rise, but at a lower rate. Recent research conducted on behalf of the Public Utility Rates Board (PURB) indicates that even if the CSO projects are not built, City sewer rates will continue to rise. Other stormwater and wastewater infrastructure projects will still be necessary to maintain and update the current sewer system as well as pay off other City debts. It is estimated that the fiscal impact of the CSO projects on sewer rate increases is minimal compared to the impact of other capital improvement projects, debt service, and inflation factors.

The funding plan was developed following recommendations of the 1992 Clean River Funding Task Force, which proposed guiding principles including fairness and equity, affordability, cost effectiveness, and public acceptance. The task force concluded that CSO infrastructure improvements are beneficial system-wide and a basic charge should be levied to all City ratepayers. It also advocated the principle of "polluter pays" be a key part of any funding plan.

Recent sewer rate increases, initial construction projects, and on-going public education efforts have heightened public awareness of the CSO projects, raising concerns of affordability for ratepayers and especially low income residents. Public discussions have generated suggestions for diversifying and modifying funding sources including corporate sponsorships, federal and state grants, system development charges, and the gas tax. A review of CSO projects, their costs and revenue sources is needed to minimize fiscal impacts on rates, while maximizing community benefit opportunities.

**Research Results:** City sewer fees appear to be the most reliable and appropriate funding source to generate enough revenue and address the principles set out by the 1992 Clean River Funding Task Force. Other sources of revenue have been sought by the City but the results have been limited.

One outside source has been federal funds. The Tanner Creek project should receive \$9 million in federal EPA grant funds, as earmarked by Congress, to supplement its \$21 million budget. A \$10 million dollar EPA grant has been received by the City to enhance the Columbia Slough and approximately \$3.7 million of the funding has been directed toward CSO projects. However, for local sewer improvements, increasingly limited federal and state funds make it unlikely the City will obtain many, if any, additional grants.

Since roads contribute to the CSO problem by generating more stormwater which carry pollutants (petroleum products, toxic metals, suspended solids), the gas tax is also cited as a potential



revenue source. It could be argued that road surfaces fall under the operation and maintenance nature of stormwater management. However, the gas tax is effectively limited to roadway expenditures and the demand for those funds is great with a significant backlog of state and local transportation projects.

Corporate sponsorships are another proposed funding alternative but cannot be expected to generate significant revenue to impact the project costs. Some corporations may feel they have already contributed through their own sewer rates.

Another proposal is system development charges, which are currently implemented on new development to capture some of the cost of growth within the City.

In regard to financial assistance, the Bureau of Environmental Services (BES) currently has a low-income discount program for eligible sewer ratepayers. The program currently allows a flat rate water and sewer discount of approximately \$24 a quarter for low-income owners and renters of single family homes. Eligibility is determined by household size and income. For example, a family of four would be eligible if its household income is less than \$1950 per month. BES also has assistance programs for low-income residents who need help with one-time plumbing problem, need temporary help making payments, conservation measures, payment extensions, interest and penalty write-offs. A citizen committee is currently evaluating the low income assistance program and will be making recommendations to the Portland City Council by December 1996.

Surveys over the past four years suggest ratepayers are willing to pay a little more to eliminate or reduce the number of CSOs.

- In 1992, 40% of the respondents in a telephone poll were willing to pay \$30 more per month to reduce the number of CSOs to 1 or 2 times per year. Of this group, 33% were willing to pay \$50 more per month.

- In a poll a year later, ratepayers indicated willingness to forego a complete solution to CSOs if it will be less costly to them. Less than half surveyed said they were willing to pay an additional \$20 per month to eliminate CSOs. However, when asked about a \$10/month option to eliminate some CSOs, 58% of the participants were amenable.

In focus groups conducted in April 1996, participants raised concerns about increasing sewer rates. A majority of the participants said current rates were too high. However, about half of the same group were willing to incur a "similar" increase (as the past three years) after discussing the CSO program and its benefits.



In a recent telephone poll 59% of the respondents expressed a willingness to pay \$6 more per quarter to help keep Portland's rivers and streams clean. Finally, in "Testing the Waters" workshops, approximately 60% of the participants indicated a willingness to pay an additional \$10 to \$25 per month to eliminate most CSOs (above 90% reduction). The variance between these results may be attributed to the high education levels and self selection process of those citizens who participated in "Testing the Waters".

Metro's Future Vision Report offers similar cost guidelines as those recommended by the 1992 Clean River Funding Task Force. It states, "Ensure that the costs of growth and change are borne by those who receive the benefits." In addition, the report recommends, "Develop fair and equitable funding mechanisms and investment strategies for all public infrastructure needed to support growth and to keep infrastructure and service levels from declining as growth occurs."

## **RECOMMENDED ACTIONS:**

### **Within the Scope of Work**

- 1 Review Public Utility Review Board (PURB) information on rates and the comprehensive paper on low income rates
- 2 Review EPA's affordability guidance document to see how the CSO project compares with EPA criteria

### **BES or City Issues**

- 1 Find ways to diversify funding sources to help pay for CSO projects, including corporate sponsorships and federal or state grants
- 2 Explore the "polluter pays" principle in the context of how ratepayers can control and receive rate benefits by preventing pollution in their homes and businesses
- 3 Research other utility programs for ideas on consumer incentive approaches
- 4 Examine provisions for low-income ratepayers, including reviewing the results of the City's citizens committee on this issues and providing resources for low-income ratepayers to receive assistance reducing home water usage and pollution
- 5 Obtain more information on the City's 8% utility license fee and the potential for directing revenues from the fee to help pay for CSO projects
- 6 Consider the impacts of Measure 47 on the river-clean effort, specifically the anticipated indirect impact of revenue on the utility license fee
- 7 Strive for ratepayer equity in the development of the CSO funding plan

## 7. THE RIVER AND ADJACENT LAND USES

**Problem Statement:** Currently the Willamette River and its banks have multiple uses for Portland residents and businesses affecting economic development, environmental quality, and general quality of life. It is used for recreation, commercial transport, large industrial property and residential sites, wildlife habitat, and as a view corridor in the City. Recreation uses range from riverfront parks, pedestrian and biking paths along the river, fishing, sailing, rowing, boating, jet skiing, and swimming in the river. As City and regional development becomes more dense, increased demand for the river is expected to expand concurrently. There is a need to develop a fuller understanding of how these uses affect the river water quality and how they relate to CSO discharge points as the demand for more use and access grows along the finite riverbank.

**Research Results:** At "Testing the Waters" workshops, a strong majority of the participants said they frequently enjoyed the river for its aesthetic qualities. Many in these groups indicated they walked, biked, hiked, or jog in sight of the river at least once a month. However, a limited minority indicated they used the river on a frequent or occasional basis for other types of recreation such as fishing, boating (non-motorized and motorized), or swimming. Commercial traffic on the Willamette River is significant. In 1995 the Port of Portland received 1024 commercial vessels.

In both Portland Future Focus and Metro's Future Vision projects, citizens expressed their strong support for the natural resources, including the river, of the city and region.

"We value the beauty and accessibility of our natural surroundings. We embrace a commitment to preserve and enhance the quality of our air, water, land, open space, wildlife, and wildlife habitat. We value an urban environment enhanced by parks, natural areas, and recreational opportunities that are accessible to all citizens." (Portland Future Focus)

"We value natural systems for their intrinsic value, and recognize our responsibility to be stewards of the region's natural resources." (Future Vision Report)

"We value the conservation and preservation of natural and historic resources. Widespread land restoration and redevelopment must precede any conversion of land to urban uses to meet our present and future needs." (Future Vision Report)

**RECOMMENDED ACTIONS:****Within the Scope of Work**

- 1 Analyze impacts of land use patterns on water quality related to CSOs
- 2 Explore the potential for increasing access areas and recreational opportunities, like walking, biking and fishing along the river shore
- 3 Identify and incorporate impact of future riverfront residential and commercial development activities (e g , North Macadam, Eastbank Corridor) into the predesign study and compare analysis to the CSO program objectives

## 8. PROTECTION OF FISH AND WILDLIFE

**Problem Statement:** The Willamette River serves as habitat for a wide range of fish and wildlife including birds, beavers and other animals, assorted aquatic life, and vegetation. The water quality of the Willamette River affects the ability of these fish and wildlife to live in the area. All of the wildlife are inter-connected as part of an ecological system. Ensuring adequate and quality habitat for fish and wildlife also benefits the overall health and welfare of the river, and consequently is a benefit for the surrounding community. Any plan to address the CSO problem needs to ensure this habitat is maintained and/or enhanced. It will be important to more closely define "habitat" as it relates to the Willamette River.

**Research Results:** A strong majority of participants at "Testing the Waters" workshops indicated that protecting wildlife habitat and aquatic life are the top reasons for addressing the CSO problem. In addition, a majority of the workshop participants also indicated that the river as an environment for wildlife habitat and aquatic life is the most important use of the river to sustaining the quality of life in Portland. In addition, a 1993 poll suggested the strongest reason for reducing the number of CSOs is environmental.

### RECOMMENDED ACTIONS:

#### Within the Scope of Work

- 1 Define the impact that CSOs have on wildlife and aquatic habitat in and around the river
- 2 Coordinate CSO projects with the Governor's Willamette River Task Force Report Card project, and other broader watershed activities, including fish and wildlife protection and tributary improvements
- 3 Identify and protect both aquatic and land animals supported by the river and initiate research on their potential of being placed on the endangered species listings

## 9. PUBLIC EDUCATION AND INVOLVEMENT

**Problem Statement:** Extensive public education and involvement efforts are warranted to inform and involve Portland citizens about the impact of the CSO projects and their costs to City sewer ratepayers. Ratepayers should be provided with the information they need to fully understand why the CSO projects are necessary, how much they will cost, how they relate to the overall water quality of the river and what benefits will be achieved. In addition, genuine and diverse opportunities should be generated to involve interested citizens in the projects' planning and implementation. It is also important to educate and involve the City's youth in the decisions that affect their future. All efforts should be aimed at broadening the stakeholder ownership of the river's problems and efforts to resolve them.

**Research Results:** Since the Facilities Planning phase for the CSO projects in 1991-1994, public education and involvement activities conducted by BES have been on-going about CSOs. Informational materials have been mailed and distributed to ratepayers through sewer bill inserts and multiple direct mailings. Citizen task forces and committees have been established and completed to help set principles for developing and funding the CSO projects, site new overflow treatment facilities on the Willamette River, and guide the planning for major CSO projects, including the consolidation conduit or "Big Pipe" in North Portland. Public meetings and workshops have been held at key decision-making points on several major projects. A speakers bureau has helped to keep this issue in front of key interest and civic groups in the City over the past two years.

On the broader water quality front, the Bureau has created and promoted a Clean Rivers public information program over the past two years to raise awareness. Public polls and other surveys have been conducted almost annually to better understand the public choices related to the CSOs. Most recently, in addition to the Willamette River Stakeholders Task Force, six "Testing the Waters" workshops have been held throughout the City to help gauge the public values related to the Willamette River CSOs. Participants in these workshops stressed the need to continue public education and involvement. Many participants noted the importance of educating the public, both residents and businesses, about all water quality issues, not just CSOs. A large number of the participants, approximately 45%, felt information and education programs are the best way to motivate Portland residents to help improve water quality in the Willamette River.

### **Within the Scope of Work**

- 1 Broaden outreach on Portland's CSO efforts to river basin stakeholders, including upstream and downstream communities, to increase awareness of Portland's efforts to improve river water quality
- 2 Develop Task Force sponsored, independent and scientific public opinion polls during the course of the Willamette River Pre-Design project
- 3 In public education materials and processes, describe CSO projects in the context of other watershed activities
- 4 Continue to promote CSO projects to the general public through media channels
- 5 Attract broader public interest in the Predesign Project by identifying multiple community benefit opportunities
- 6 Meet public information needs about the Predesign Project, using a variety of approaches and independent (from BES) channels

### **Bureau or City Issue**

- 1 Disseminate more information about the true cost of the program, including relationship to all sewer costs (operational, employee salaries, watershed programs, etc )
- 2 Increase youth and adult interaction with the river Find corporate funding to support educational boat trips for school-aged children as well as adults
- 3 Expand public education of river pollutants and watershed programs (Fanno, Balch, Johnson and Tryon Creeks) by increasing educational opportunities and by involving the public in key Bureau decisions
- 4 Ensure that as CSO project costs and activities increase, public information and involvement expand reciprocally

**RESOURCE LIST\***

- A Amended Stipulation and Final Order,
- B 1994 Collaborative Process Report,
- C Memorandum of Agreement (Dry Weather),
- D Executive Summary of the 1993 Interim Controls Report,
- E Executive Summary of the 1994 CSO Management Plan,
- F Overflow Treatment Facility Siting Task Force Recommendation Report,
- G Willamette River Water Quality Information,
- H Financial Impact of the CSO Program,
- I Public Opinion Polls on Water Quality, CSO's and Sewer Rates,
- J Related Public Values Goals, Objectives and Action Plans,
- K Willamette River Basin CSO Program Review Report Summary,
- L Components of Project Average Monthly Sewer Bills, and
- M Testing the Waters Public Workshop Summary

\* Note Resources are provided in Council staff briefing books and are on file with the Bureau of Environmental Services



# WILLAMETTE RIVER STAKEHOLDERS TASK FORCE

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WILLAMETTE RIVER  
COMBINED SEWER OVERFLOW  
COMMUNITY ISSUES REPORT  
DECEMBER 1996



ENVIRONMENTAL SERVICES  
CITY OF PORTLAND

*Printed on recycled paper*





CITY OF  
**PORTLAND, OREGON**  
OFFICE OF PUBLIC UTILITIES

Mike Lundberg, Commissioner  
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December 19, 1996

Dear Members of the City Council

The Willamette River Stakeholders Task Force, appointed by my office last summer, has completed its first phase of work, and I'm pleased to forward its initial report to the City Council for its review and acceptance

As you may recall, the Task Force consists of 23 local citizens and public agency representatives who have been asked to work as a review board to the Bureau of Environmental Services' Willamette Predesign Project, a two-year, technical and policy review of the City's plan to improve the water quality of the Willamette River, especially through the reduction of combined sewer overflows (CSOs). The Task Force is charged, specifically, with making recommendations to the City and the Bureau on how best to implement the plan to ensure high water quality in the river at the lowest possible cost to the ratepayer.

In this report, the Task Force has identified issues and recommended actions for addressing those issues. Our recommended guiding principles for the Willamette River Predesign Project, are developing an integrated approach to improve the river's water quality, expanding public education and information activities and maximizing opportunities for the public to get involved in planning and design decisions and the implementation of the resulting plan.

The Task Force feels strongly that as the City develops a plan to control CSOs on the river, it must consider other issues affecting water quality, such as stormwater, toxins and chemical pollutants. Methods of controlling these pollutants must also be integrated in the City's efforts on river water quality including

- expanding "Cornerstone" (stormwater removal) projects,
- developing new green solutions,
- optimizing the existing sewer system's capacity, and
- coordinating with other bureaus to include water quality controls in their projects for maximum benefit of ratepayers' money

The Task Force is confident that recommended actions will be integrated into the technical team's predesign work and when necessary, be raised as broader Bureau policy issues.

This spring, the Task Force will begin phase two with its new chair, Bill Hutchison, meeting regularly over the subsequent 18 months to assure public involvement and participation in the framing of technical and policy questions and responses as the project proceeds

Thank you for supporting the efforts of the Willamette River Stakeholders Task Force as it examines ways to control combined sewer overflows more effectively in the river. The Task Force sees its focus on the river as part of the larger public investment in the future of this community. I'm confident the Task Force will continue to represent, with broad public participation, community values and public interests in the river. The City Council will be kept informed as the Task Force carries out its charge.

Sincerely,

  
Commissioner Mike Lindberg, Chair  
Willamette River Stakeholders Task Force

**WILLAMETTE RIVER  
STAKEHOLDERS TASK FORCE**

35561

**Members**

Mike Lindberg, Chair  
Bill Hutchison, Vice-chair  
Gail Achterman  
Brian Bannson  
Domonic Boswell  
Eleanor Clark  
Don Francis  
Elise Anfield  
Bruce Hansen  
  
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**Organization**

Commissioner of Public Works, City of Portland  
Tooze, Shenker, Duden, Cremer, Frank & Hutchison  
Clean River Funding Committee  
Southeast Uplift Neighborhood Association Coalition  
Urban League of Portland  
Mid-County Representative  
Willamette River Keepers  
Office of Mayor Vera Katz  
Swan Island Business Owner & Willamette River  
Fisherman  
  
Irvington Neighborhood Association  
Hercules Corporation  
Northwest Natural Gas  
Audubon Society  
Portland State University  
  
Office of Commissioner Gretchen Kafoury  
Portland Utilities Review Board  
City of Portland Environmental Services Director  
Department of Environmental Quality Director  
Wacker Siltronics  
Office of Commissioner Charlie Hales  
Southwest Business Association President  
Floating Home Community & CBWTP CAC Member  
Corbett/Terwilliger/Lair Hill

## TASK FORCE BACKGROUND

### BACKGROUND:

In 1990, the City of Portland began planning efforts to control combined sewer overflows (CSOs). A CSO is a mixture of stormwater and raw sewage that negatively impacts the Willamette River's water quality. An agreement between the City and the State, called the Amended Stipulation and Final Order (ASFO) was signed in 1994, and calls for overflows to the Columbia Slough to be virtually eliminated by December 2000, and overflows to the Willamette River to be drastically reduced by 2011. The ASFO calls for a total CSO reduction of 96.4%.

In keeping with previous public involvement outreach efforts on BES Capital Improvement Projects and with strong recommendation from bureau employees, consultants and national representatives working on CSO projects who participated in the 1996 Willamette River Basin CSO Program Review, a twenty-three person Task Force, was appointed in September of 1996 by Portland City Commissioner, Mike Lindberg.

**Task Force Charge:** The charge, accepted by members of the Task Force is as follows:

- Review Portland's plan for controlling combined sewer overflows (CSO's) into the Willamette River, and to
- Make recommendations to the Portland City Council and the City's Bureau of Environmental Services on how to best implement the plan, giving full consideration to community values and the need to maintain community support for this public investment. The plan should ensure high water quality in the river at the lowest possible cost to the ratepayer.

**Task Force Process:** The Task Force divided its activities into two phases. The first phase has focused on gathering and reviewing a variety of information provided in Environmental Services CSO reports and summaries, citizen polls and in recent city-wide public workshops to hear citizen priorities for the Willamette River. From this valuable information and several Task Force discussions, Willamette River Combined Sewer Overflow Community Issues Report was developed.

As the Task Force begins the second phase of its work, it will continue to utilize the Community Issues Report as they work with the technical team. The project's technical team will incorporate these issues into data gathering and analysis necessary for the predesign work. The Task Force will meet over the next eighteen months to ensure that these issues and others raised through public dialogue are incorporated into each key decision point of technical team predesign work.

The Task Force met monthly from September through December 1996 and established a subcommittee which drafted the Community Issues Report with continuous review and feedback from the full Task Force. Subcommittee members used information and feedback from their fellow Task Force members, citizen polls and workshop results, projected rate information and water quality information provided by BES and the Department of Environmental Quality to develop the draft final report. This report was presented for approval at the December 17, 1996 Task Force meeting and adopted for submittal to the City Council.

## **RECOMMENDATIONS:**

The Willamette River Stakeholders Task Force recommends the City Council authorize the following actions to guide the Bureau of Environmental Services' Willamette River Basin Pre-Design Project. These actions are intended to address nine issues identified by the public and members of the Task Force.

These issues were identified through public involvement activities, including a 1996 community values workshops, previous public opinion polls conducted by BES and other agencies in the region and Task Force discussion. Each recommended action is grouped to indicate whether or not it is in the current scope of work for the predesign project or will require other Bureau or City support to address the issue.

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## WILLAMETTE RIVER COMBINED SEWER OVERFLOW COMMUNITY ISSUES REPORT

### 1. WHAT CONSTITUTES A CLEAN AND HEALTHY RIVER?

**Problem Statement:** The definition of a healthy or clean Willamette River is not clear. There are numerous factors, both scientific and subjective, that can be used to define whether the river is healthy or clean. Empirical benchmarks such as fecal coliform bacteria, toxics, turbidity, pH, and dissolved oxygen can provide a framework for understanding water quality. However, interpretation of this data can vary depending upon individual perspectives. Other more subjective factors such as aesthetics (what the river looks like) can also vary in interpretation depending upon individual viewpoint. Nonetheless, there is a need to define the Portland community's standard for a healthy and clean river, the public is increasingly concerned as it becomes aware of impacts of combined sewer overflows, stormwater and toxins on the water quality of the river. It will be important to blend the regulatory requirements with community expectations of a clean and healthy river.

**Research Results:** From a regulatory perspective, a healthy and clean Willamette River means state and federal water quality guidelines have been met. These water quality benchmarks include levels of dissolved oxygen, temperature, turbidity, pH, total dissolved gases, total dissolved solids, fecal coliform bacteria, E coli bacteria, toxics, and chlorophyll-a.

At "Testing the Waters" workshops, conducted by the Bureau in October and November 1996, as well as other public meetings, participants have offered their vision of a clean and healthy river as one which is "fishable and swimmable." In addition, protection of wildlife habitat and aquatic life is also seen as very important in safeguarding the health of the river.

Water quality has continued to be a high priority for Portland area residents for the past several years. In 1990, the Portland Future Focus Strategic Plan noted the public's increasing concern for water quality and a willingness to pay for improvements.

"Public awareness of continuing stream and groundwater pollution has accelerated the demand to address water quality problems. A 1989 survey indicated that a large portion of people surveyed would support a service increase to enhance the area's water quality."

Between 1989 and 1995, results of four separate polls indicated increasing public sentiment that water quality is the most important aspect of environmental quality for the City of Portland to address. In each poll, respondents were given a choice of four issues including water quality, air quality, garbage and recycling management, or wildlife habitat. The following table indicates the percentage of respondents who chose water quality as the most important environmental priority for the City and the percentages for other issues.

	<u>1995</u>	<u>1993</u>	<u>1992</u>	<u>1989</u>
<b>Water quality</b>	<b>47%</b>	<b>39%</b>	<b>35%</b>	<b>12%</b>
Air quality	17	25	27	25
Garbage/Recycling Mgt	17	19	18	33
Wildlife habitat	8	6	9	3
Other	6	NA	NA	25
Don't Know	3	11	3	3

In 1994, comments received from the Metro 2040 tabloid and hotline responses indicated concern about preserving water quality. Many of these comments advocated addressing erosion control and runoff problems.

Finally, importance of water quality to the Portland community was also seen during the 1996 "public pulse" survey, conducted at open houses to gather comments on the draft regional transportation policies, when 62% of the participants strongly agreed with the statement "I would be willing to accept an additional home in my neighborhood if it means being able to protect streams, green spaces and floodplains."

## **RECOMMENDED ACTIONS:**

### **Within the Scope of Work**

- 1 Determine the relationship of CSOs to the health and cleanliness of the Willamette River, How much cleaner and healthier is the river if Portland removes CSOs to the level specified by the Amended Stipulation and Final Order?
- 2 Determine the definition of a clean and healthy river in terms of regulatory requirements and beneficial uses
- 3 Develop an effective method to measure long term Willamette River water quality improvements that is consistent with methods used in other basins



## 2. REMOVAL OF STORMWATER FROM THE COMBINED SEWER SYSTEM

**Problem Statement:** Stormwater is the primary cause of CSOs. Nearly every time it rains, stormwater entering into the combined sewer systems from residential and business roof drains, roads, streets and other impervious sources causes overflows into the Willamette River and Columbia Slough. CSOs consist of approximately 80% stormwater and 20% wastewater. For this reason, stormwater removal from the combined sewer system is an integral part of addressing the CSO problem. The Bureau's "Cornerstone" projects are targeting to remove as much as 40% of the stormwater runoff from the sewer system by installing sumps, separating sewer lines, disconnecting residential downspouts, and diverting streams out of the CSO sewer system.

In the combined sewer area of the city, nearly 2500 sumps have been installed in six CSO basins and design work continues throughout the City. Construction of separate storm sewers has been completed in the St. Johns area and is nearly complete in the Fiske "B" basin, both in North Portland. Planning studies and engineering design for separation work are underway for the Oswego, and Oregonian basins, also in North Portland, and Sellwood basins in Southeast Portland, as well as the Rivergate industrial area.

More than 1200 homes have disconnected their roof downspouts from the combined sewer system, removing 21 million gallons of runoff. Homeowners themselves disconnected nearly half of these downspouts, receiving compensation on an average of \$150 per residence. The rest were disconnected by volunteer workers. Most downspout disconnections to date have been made on a voluntary basis, but some future work may have to be mandatory if goals are not achieved. Tanner Creek in northwest Portland is the only stream diversion currently underway. Construction work on this project that's concurrent with the west side light rail project has been substantially completed, planning and design for the next phase of the Tanner Creek diversion is underway. Opportunities exist for businesses to reduce the amount of stormwater they put into the combined system, although these opportunities have not been aggressively promoted or pursued to date. Efforts to remove stormwater from the combined sewer system will continue to be critical to reducing CSOs in the Willamette River.

**Research Results:** To date, the Cornerstone projects have removed approximately 750-million gallons or 12- 15% of total annual stormwater volumes from the combined sewer system.

A recent telephone survey indicated a majority of ratepayers understand they can and are willing to reduce pollution in the river through individual actions. A strong majority (82%) of respondents indicated that individual households have some control over the amount of pollution they create. 79% of the same group was willing to disconnect home downspouts from the City's sewer system to help control sewer overflows in the Willamette River and Columbia Slough. In addition, 88% of those polled thought the City should provide more information to the public about what individuals could do to reduce pollution in area streams and rivers. Finally, when asked what the most important thing one household could do to reduce the current level of pollution in Portland area rivers and streams responses included: no hazardous chemicals down

the drain (16%), recycle (14%), watch what you put down the drain (11%), water conservation (10%), and use fewer/reduce the use of pesticides and fertilizers (6%)

In "Testing the Waters" workshops in October and November 1996, participants in small group discussions indicated the need to educate residents and businesses about how they can help prevent water pollution. In addition, some participants offered suggestions on how additional stormwater could be removed from the sewer system, including capturing rainwater in barrels and filtering it for household use, and reusing stormwater industrial and commercial applications.

Polling and other public input suggest that ratepayers view CSOs as a serious problem which needs to be addressed. In a 1992 poll, 94% of those surveyed felt that 170 CSOs per year were "not acceptable." In the same poll, the participants were asked how many overflows would be acceptable. The responses:

- no overflows 35%
- 1-2 overflows per year 28%
- 10-50 overflows per year 26%
- more than 50 per year 3%

A 1993 poll produced similar results with 34% (the majority) supporting the elimination of all CSOs and 27% for "most" CSOs. In a 1996 telephone poll, 80% of the respondents agreed with the statement, "It is important for the City to stop the sewer overflows into the Willamette River and Columbia Slough."

In the "Testing the Waters" workshops, 45% of the participants felt the City should remove most of the CSOs (above 90%) while 43% indicated they would support eliminating all (99% - 100%) of CSOs. After being informed that the elimination of CSOs may still leave other pollutants in the river, 49% indicated they would still support eliminating most CSOs (above 90%).

## **RECOMMENDED ACTIONS:**

### **Within the Scope of Work**

- 1 Review how Portland can maximize and expand the benefits of the Cornerstone projects less stormwater entering the system, resulting in greater cost effectiveness in reducing CSOs
- 2 Explore other methods for removing stormwater from the combined sewer system which are not currently employed by Portland
- 3 Understand separate relationships of residential, commercial and industrial issues related to stormwater, place more emphasis on developing business-oriented cornerstone projects and pollution reduction incentive programs
- 4 Maximize detention of water within the sewer system when upgrading or expanding to reduce peak volumes at treatment facilities
- 5 Examine water quality impacts, including groundwater, of different Cornerstone project approaches

**Within the Scope of Work (continued)**

- 6 Determine which other Bureau or City projects, beyond CSO projects, that may be appropriate for diverting stormwater from the system
- 7 Include stormwater reduction and treatment wherever possible in CSO solutions to further reduce pollutants reaching the Willamette River
- 8 Change City Codes to incorporate stormwater management standards for development or re-development as adopted by Council
- 9 Provide incentives for citizens and businesses to take individual action to reduce the amount of stormwater entering the sewer system.

### 3. AN INTEGRATED APPROACH FOR PORTLAND'S RIVER CLEAN-UP

**Problem Statement:** Combined sewer overflows are only one contributor of pollutants to the Willamette River in Portland. Stormwater runoff from industrial, commercial and non-point sources, including roads and parking lots, contribute to river pollution within the City limits adding oils, metals and other toxic chemicals. Upstream sources of pollution, from other cities, agricultural lands and industries are also contributors. In addition to the combined sewer overflow reduction projects, the City of Portland has other river clean-up and pollution prevention efforts underway including a stormwater, industrial source control and public education programs. Coordination with other sources of pollution and City bureaus, while addressing water quality clean-up efforts in Portland, could increase cost-effectiveness and efficiency.

**Research Results:** In polls conducted in 1993 and 1995, CSOs were cited along with accidental industrial spills and runoff from industrial sites as chief causes for water quality problems in the river. A majority of citizens participating in the "Testing the Waters" workshops were consistent with the poll results, indicating CSOs are a serious problem for the river which needs to be addressed. However, many participants expressed concern for other sources of water pollution within the city. Stormwater runoff and accidental industrial spills are cited as serious concerns.

#### RECOMMENDED ACTIONS:

##### Within the Scope of Work

1. Review and coordinate with other City-wide capital projects to identify cost savings opportunities for reducing CSOs through the use of shared City resources.
2. Coordinate CSO policy issues with other BES and City watershed programs to develop a more integrated approach for designing and implementing the CSO program.
3. Identify how the impacts and expected outcomes of CSO projects relate to other BES and City programs.

#### 4. IMPACT ON UPSTREAM AND DOWNSTREAM RIVER USERS

**Problem Statement:** Although overflows contribute over four billion gallons of combined wastewater and stormwater to the Willamette River annually, pollutants in the river come from a multitude of sources both within and outside the City. The Willamette River Basin physically encompasses a broad range of jurisdictions and uses which impact the water quality of the river. Upstream cities, industries, and agricultural operations contribute direct and non-point source pollutants including sewage, stormwater runoff, industrial waste, herbicide and pesticides residues. Downstream in the Columbia River, other communities receive the combined pollutants from all of the upstream communities. The City of St. Helens and Rainier receive drinking water from the Columbia River using underground collectors and may be subject to pollutants coming from upstream. There is a need to understand the full contribution of upstream polluters and the impact on downstream communities.

**Research Results:** The City of Portland is participating in inter-jurisdictional planning efforts to help determine the extent of pollutants contributed from upstream communities and in the Portland harbor. Representatives from the City of Portland are participating in the Willamette River Study and Governor's Willamette Basin Task Force which are looking at a basin-wide approach to addressing pollutants in the river. In addition, the City's Willamette River Pre-Design project will include research efforts to more accurately determine the pollutant levels entering the Portland harbor, what contaminants are contributed from CSOs, and the projected water quality impact from the new overflow treatment facilities.

A majority of participants in the recent "Testing the Waters" workshops perceive that upstream river pollution is a serious problem. Several participants registered concerns about what communities are receiving downstream (from Portland). At the same time, most of the participants believe that over half of the river's water quality problem originates in the City. Public discussions have frequently cited the need to approach the river's water quality as a basin-wide issue, not just a Portland problem.

The Portland Future Focus strategic planning process also highlighted the need for area governments to integrate their efforts "to improve environmental quality, and to enhance the quality of life" in the region. "Portland must work cooperatively with other regional governments to adopt regional strategies that reduce unnecessary demands on public infrastructure and services, and protect the region's environment."

METRO's 1994 Region 2040 Concepts for Growth Report to the City Council, indicated that survey respondents were most concerned about transportation, public safety, land use, growth and the environment. All of these concerns are impacted by or impact upstream and downstream users.

The Regional Urban Growth Goals & Objectives (RUGGO) also stresses the need for local coordination of water quality efforts "Planning and management of water resources should be coordinated in order to improve the quality and ensure sufficient quantity of surface water and groundwater available to the region "

## **RECOMMENDED ACTIONS:**

### **Within the Scope of Work**

- 1 Explore options for collaborative pollution reduction efforts with upstream contributors to increase water quality and decrease CSO project cost including sharing information and seeking other basin polluters to become involved in the work of the Willamette River Stakeholders Task Force
- 2 Create and/or engage in timely basin-wide efforts, including the Governor's Healthy Streams Initiative

### **BES or City Issue**

- 1 Coordinate with basin-wide or state-wide agencies and committees to address upstream pollution sources and impact on Portland's's downstream user

## 5. KNOWING MORE ABOUT RIVER POLLUTANTS

**Problem Statement:** While stormwater removal activities will reduce the volume of combined sewer overflows (CSOs), collection and treatment will still be necessary for a large amount of combined sewage. Scientific evidence gathered during the facilities planning phase of the CSO projects shows CSOs are a significant contributor to elevated bacteria concentrations in the lower Willamette River. CSOs also contribute scum, floating solids, oil films, and other offensive aesthetic conditions. In addition, while it's known that CSOs contribute toxics and metals to receiving waters, current data is insufficient to determine the levels of toxics and metals in CSOs. Questions also arise about the pollutant load entering the Portland harbor from upstream.

Finally, the water quality impact from the City's proposed overflow treatment facility which is to begin operation on the Willamette River in 2006, has not been determined yet. Benchmarks for water quality standards will need to be evaluated to determine the ability for the treatment facility to meet state and federal discharge requirements. These benchmarks focus on turbidity, toxics, metals, dissolved oxygen, nutrients, and disinfection. All of this information is needed to determine the impact of identified effluent pollutants on humans, fish and wildlife habitat.

**Research Results:** The Willamette Pre-Design project will help establish the level of pollutants contributed by CSOs, non-point and upstream sources, as well as the ability of effluent from the overflow treatment facility to meet state water quality standards in the river. Initial investigations will determine the level of pollutants from upstream. This baseline data will be used to gather more accurate information regarding the pollutant impact of CSOs including bacteria, toxics, and dissolved oxygen. Based on this information, the project team will be able to develop a short list of technical alternatives for more detailed analysis. Subsequently, the project team will be able to make a technically-based recommendation regarding the necessary technology to treat the Willamette River CSOs.

Most of the "Testing the Waters" workshop participants cited combined sewer overflows, stormwater runoff, and accidental industrial spills as the key perceived pollutant sources for the Willamette River in Portland. Many of the participants said they would like more information on the sources and seriousness of pollutants in the river. The CSO projects, some stakeholders say, should identify and maximize reduction of the number of pollutants from CSOs and any related treatment facilities.

### RECOMMENDED ACTIONS:

#### Within the Scope of Work

1. Examine impact of identified pollutants on humans, fish, and wildlife and look at the designated beneficial uses by coordinating with Willamette River Study
2. Review research data available on water pollutants, like oils, metals and toxic chemicals to determine impacts on the Willamette River

**Within the Scope of Work (continued)**

- 3 Identify pollutants and optimize their removal by the CSO projects
- 4 Consider level of control desired in addressing pollution sources
- 5 Explore promising CSO treatment technologies, including disinfection, and seek technologies that minimize negative impacts on humans, fish and wildlife

**Bureau or City Issue**

- 1 Identify high priority pollutants (pollutants that are most harmful to water quality) that are entering the river and focus on controlling those pollutants from both point and non-point sources
- 2 Consider the river as a potential drinking water source for Portland and what water quality and policy efforts may be required to make the water safe for consumption Any activities regarding this issue should be incorporated with and coordinate with work related to the Regional Water Supply Plan



## 6. FUNDING AND AFFORDABILITY OF CSO PROJECTS

**Problem Statement:** As currently planned, City of Portland ratepayers will pay for the great bulk of the cost of Portland's Combined Sewer Overflow (CSO) projects, estimated to be \$700 million (in 1993 dollars). The City will initially finance these projects using bonds and paying back the debt over the next 35 years through sewer rates.

City sewer rates are projected to increase 12% annually for the next four years, after which the rates will continue to rise, but at a lower rate. Recent research conducted by the Bureau of Environmental Services indicates that even if the CSO projects are not built, City sewer rates will continue to rise. Other stormwater and wastewater infrastructure projects will still be necessary to maintain and update the current sewer system as well as pay off other City debts thereby increasing rates. It is important to remember that sewer rate increases are impacted by CSO projects and increased sewer system operation and maintenance costs. It is estimated that the fiscal impact of the CSO projects on sewer rate increases is minimal compared to the impact of other capital improvement projects, debt service, and inflation factors.

The funding plan was developed following recommendations of the 1992 Clean River Funding Task Force, which proposed guiding principles including fairness and equity, affordability, cost effectiveness, and public acceptance. The task force concluded that CSO infrastructure improvements are beneficial system-wide and a basic charge should be levied to all City ratepayers. Sewer rates do not reflect the amount of pollution a rate payer contributes to the system, therefore, individual rate payer fees based on the amount of pollution they contribute can not adequately be determined. The "polluter pays" system in this case does not always work.

Recent sewer rate increases, initial construction projects, and on-going public education efforts have heightened public awareness of the CSO projects, raising concerns of affordability for ratepayers and especially low income residents. Public discussions have generated suggestions for diversifying and modifying funding sources including corporate sponsorships, federal and state grants, system development charges, and the gas tax. A review of CSO projects, their costs and revenue sources is needed to minimize fiscal impacts on rates, while maximizing community benefit opportunities.

**Research Results:** City sewer fees appear to be the most reliable and appropriate funding source to generate enough revenue and address the principles set out by the 1992 Clean River Funding Task Force. Other sources of revenue have been sought by the City but results have been limited.

One outside source has been federal funds. The Tanner Creek project should receive \$9 million in federal EPA grant funds, as earmarked by Congress, to supplement its \$21 million budget. A \$10 million dollar EPA grant has been received by the City to enhance the Columbia Slough and approximately \$3.7 million of the funding has been directed toward CSO projects. However, for local sewer improvements, increasingly limited federal and state funds make it unlikely the City will obtain many, if any, additional grants.

Since roads contribute to the CSO problem by generating more stormwater which carry pollutants (petroleum products, toxic metals, suspended solids), the gas tax is also cited as a potential revenue source. It could be argued that road surfaces fall within the nature of operation and maintenance for stormwater management. However, the gas tax is effectively limited to roadway expenditures and the demand for those funds is great with a significant backlog of state and local transportation projects.

Corporate sponsorships are another proposed funding alternative but cannot be expected to generate significant revenue to impact the project costs. Some corporations may feel they have already contributed through their own sewer rates. Another proposal is system development charges, which are currently implemented on new development to capture some of the cost of growth within the City.

In regard to financial assistance, the Bureau of Environmental Services (BES) currently has a low-income discount program for eligible sewer ratepayers. The program currently allows a flat rate water and sewer discount of approximately \$24 a quarter for low-income owners and renters of single family homes. Eligibility is determined by household size and income. For example, a family of four would be eligible if its household income is less than \$1950 per month. BES also has assistance programs for low-income residents who need help with one-time plumbing problems, need temporary help making payments, conservation measures, payment extensions, or interest and penalty write-offs. A City committee with representatives from the Office Fiscal Administration, the Bureau of Environmental Services and the Water Bureau is currently evaluating the low income assistance program and will be making recommendations to the Portland City Council by December 1996.

Surveys over the past four years suggest ratepayers are willing to pay a little more to eliminate or reduce the number of CSOs.

- In 1992, 40% of the respondents in a telephone poll were willing to pay \$30 more per month to reduce the number of CSOs to 1 or 2 times per year. Of this group, 33% were willing to pay \$50 more per month.
- In a poll a year later, ratepayers indicated willingness to forego a complete solution to CSOs if it will be less costly to them. Less than half surveyed said they were willing to pay an additional \$20 per month to eliminate CSOs. However, when asked about a \$10/month option to eliminate some CSOs, 58% of the participants were amenable.

In focus groups conducted in April 1996, participants raised concerns about increasing sewer rates. A majority of the participants said current rates were too high. However, about half of the same group were willing to incur a "similar" increase (as the past three years) after discussing the CSO program and its benefits.

In a recent telephone poll 59% of the respondents expressed a willingness to pay \$6 more per quarter to help keep Portland's rivers and streams clean. Finally, in "Testing the Waters" workshops, approximately 60% of the participants indicated a willingness to pay an additional \$10 to \$25 per month to eliminate most CSOs (above 90% reduction). The variance between these results may be attributed to the high education levels and self selection process of those citizens who participated in "Testing the Waters"

Metro's Future Vision Report offers similar cost guidelines as those recommended by the 1992 Clean River Funding Task Force. It states, "Ensure that the costs of growth and change are borne by those who receive the benefits." In addition, the report recommends, "Develop fair and equitable funding mechanisms and investment strategies for all public infrastructure needed to support growth and to keep infrastructure and service levels from declining as growth occurs."

## **RECOMMENDED ACTIONS:**

### **Within the Scope of Work**

- 1 Review the information on rates and the comprehensive paper on low income rates, prepared for the Public Utility Review Board (PURB)
- 2 Review EPA's affordability guidance document to see how the CSO project compares with EPA criteria

### **BES or City Issues**

- 1 Find ways to diversify funding sources to help pay for CSO projects, including corporate sponsorships and federal or state grants
- 2 Explore the "polluter pays" principle in the context of how ratepayers can control and receive rate benefits by preventing pollution in their homes and businesses
- 3 Research other utility programs for ideas on consumer incentive approaches
- 4 Examine provisions for low-income ratepayers, including reviewing the results of the City's citizens committee on this issues and providing resources for low-income ratepayers to receive assistance reducing home water usage and pollution
- 5 Obtain more information on the City's 8% utility license fee and the potential for directing revenues from the fee to help pay for CSO projects
- 6 Consider the impacts of Measure 47 on the river-clean effort, specifically the anticipated indirect impact of revenue on the utility license fee
- 7 Strive for ratepayer equity in the development of the CSO funding plan

## 7. THE RIVER AND ADJACENT LAND USES

**Problem Statement:** Currently the Willamette River and its banks have multiple uses for Portland residents and businesses affecting economic development, environmental quality, and general quality of life. It is used for recreation, commercial transport, large industrial property and residential sites, wildlife habitat, and as a view corridor in the City. Recreation uses range from riverfront parks, pedestrian and biking paths along the river, fishing, sailing, rowing, boating, jet skiing, and swimming in the river. As City and regional development becomes more dense, increased demand for the river is expected to expand concurrently. There is a need to develop a fuller understanding of how these uses affect the river water quality and how they relate to CSO discharge points as the demand for more use and access grows along the finite riverbank.

**Research Results:** At “Testing the Waters” workshops, a strong majority of the participants said they frequently enjoyed the river for its aesthetic qualities. Many in these groups indicated they walked, biked, hiked, or jogged in sight of the river at least once a month. However, a limited minority indicated they used the river on a frequent or occasional basis for other types of recreation such as fishing, boating (non-motorized and motorized), or swimming. Commercial traffic on the Willamette River is significant. In 1995 the Port of Portland received 1024 commercial vessels.

In both Portland Future Focus and Metro’s Future Vision projects, citizens expressed their strong support for the natural resources, including the river, of the city and region.

“We value the beauty and accessibility of our natural surroundings. We embrace a commitment to preserve and enhance the quality of our air, water, land, open space, wildlife, and wildlife habitat. We value an urban environment enhanced by parks, natural areas, and recreational opportunities that are accessible to all citizens.” (Portland Future Focus)

“We value natural systems for their intrinsic value, and recognize our responsibility to be stewards of the region’s natural resources.” (Future Vision Report)

“We value the conservation and preservation of natural and historic resources. Widespread land restoration and redevelopment must precede any conversion of land to urban uses to meet our present and future needs.” (Future Vision Report)

### RECOMMENDED ACTIONS:

#### Within the Scope of Work

- 1 Analyze impacts of land use patterns on water quality related to CSOs
- 2 Explore the potential for increasing access areas and recreational opportunities, like walking, biking and fishing along the river shore
- 3 Identify and incorporate impact of future riverfront residential and commercial development activities (e.g., North Macadam, Eastbank Corridor) into the predesign study and compare analysis to the CSO program objectives

## 8. PROTECTION OF FISH AND WILDLIFE

**Problem Statement:** The Willamette River serves as habitat for a wide range of fish and wildlife including birds, beavers and other animals, assorted aquatic life, and vegetation. The water quality of the Willamette River affects the ability of these fish and wildlife to live in the area. All of the wildlife are inter-connected as part of an ecological system. Ensuring adequate and quality habitat for fish and wildlife also benefits the overall health and welfare of the river, and consequently is a benefit for the surrounding community. Any plan to address the CSO problem needs to ensure this habitat is maintained and/or enhanced. It will be important to more closely define "habitat" as it relates to the Willamette River.

**Research Results:** The State of Oregon Marine Board has a tri-annual survey which documents basin-wide Willamette River Activity. The survey indicates that in 1995, in Multnomah County, there were approximately 64,713 fishing activities (number of time the river was used for fishing) and 240,366 recreational activities (number of time the river was used for sailing, water skiing, cruising, paddling, etc.) Basin wide in 1995, there were approximately 204,845 fishing activities and 918,429 recreational activities. In addition, a 1993 Bureau of Environmental Services poll suggested the strongest reason for reducing the number of CSOs was environmental concerns. A strong majority of participants at "Testing the Waters" workshops indicated that protecting wildlife habitat and aquatic life are the top reasons for addressing the CSO problem. In addition, a majority of the workshop participants also indicated that the river as an environment for wildlife habitat and aquatic life is the most important use of the river to sustaining the quality of life in Portland.

### RECOMMENDED ACTIONS:

#### Within the Scope of Work

- 1 Define the impact that CSOs have on wildlife and aquatic habitat in and around the river
- 2 Coordinate CSO projects with the Governor's Willamette Basin Task Force, and other broader watershed activities, including fish and wildlife protection and tributary improvements
- 3 Identify and protect both aquatic and land plants and animals supported by the river and review existing information for their potential of being placed on the Federal and State Endangered or Threatened Species listing in the Willamette Valley

## 9. PUBLIC EDUCATION AND INVOLVEMENT

**Problem Statement:** Extensive public education and involvement efforts are warranted to inform and involve Portland citizens about the impact of the CSO projects and their costs to City sewer ratepayers. At the same time, it's essential to raise public awareness about all water quality issues affecting the river, including pollutants in CSOs, stormwater, agricultural, commercial and industrial runoff. Ratepayers should be provided with the information they need to fully understand why the CSO projects are necessary, how much they will cost, how they relate to the overall water quality of the river and what benefits will be achieved. In addition, genuine and diverse opportunities should be generated to involve interested citizens in the projects' planning and implementation. It is also important to educate and involve the City's youth in the decisions that affect their future. All efforts should be aimed at broadening the stakeholder ownership of the river's problems and efforts to resolve them.

**Research Results:** Since the Facilities Planning phase for the CSO projects in 1991-1994, public information, education and involvement activities conducted by BES have been on-going about CSOs. Informational materials have been mailed and distributed to ratepayers through sewer bill inserts and multiple direct mailings. Citizen task forces and committees have been established and completed to help set principles for developing and funding the CSO projects, site new overflow treatment facilities on the Willamette River, and guide the planning for major CSO projects, including the consolidation conduit or "Big Pipe" in North Portland. Public meetings and workshops have been held at key decision-making points on several major projects. A speakers bureau has helped to keep this issue in front of key interest and civic groups in the City over the past two years.

On the broader water quality front, the Bureau has created and promoted a Clean Rivers public information program over the past two years to raise awareness. Public polls and other surveys have been conducted almost annually to better understand the public choices related to the CSOs. In addition the Willamette River Stakeholders Task Force, held six "Testing the Waters" workshops throughout the City to help gauge public values as they relate to the Willamette River CSOs. Participants in these workshops stressed the need to continue public education and involvement. Many participants noted the importance of educating the public, both residents and businesses, about all water quality issues, not just CSOs. A large number of the participants, approximately 45%, felt information and education programs are the best way to motivate Portland residents to help improve water quality in the Willamette River.

### Within the Scope of Work

- 1 Broaden outreach on Portland's CSO efforts to river basin stakeholders, including upstream and downstream communities, to increase awareness of Portland's efforts to improve river water quality
- 2 Develop Task Force sponsored, independent and scientific public opinion polls during the course of the Willamette River Pre-Design project



**Within the Scope of Work (continued)**

- 3 In public education materials and processes, describe CSO projects in the context of other watershed activities (and water quality improvement efforts sponsored by the City, other public agencies, and private interests)
- 4 Continue to promote CSO projects to the general public through media channels
- 5 Attract broader public interest in the Predesign Project by identifying multiple community benefit opportunities
- 6 Meet public information needs about the Predesign Project, using a variety of approaches and independent (from BES) channels

**Bureau or City Issue**

- 1 Disseminate more information about the true cost of the program, including relationship to all sewer costs (operational, employee salaries, watershed programs, etc )
- 2 Increase youth and adult interaction with the river Find corporate funding to support educational boat trips for school-aged children as well as adults
- 3 Expand public education of river pollutants and watershed programs (Fanno, Balch, Johnson and Tryon Creeks) by increasing educational opportunities and by involving the public in key Bureau decisions
- 4 Ensure that as CSO project costs and activities increase, public information and involvement expand reciprocally
- 5 Collaborate with non-profits, businesses and community groups to involve them in the implementation of the CSO solution

**RESOURCE LIST\***

- A Amended Stipulation and Final Order,
- B 1994 Collaborative Process Report,
- C Memorandum of Agreement (Dry Weather),
- D Executive Summary of the 1993 Interim Controls Report,
- E Executive Summary of the 1994 CSO Management Plan,
- F Overflow Treatment Facility Siting Task Force Recommendation Report,
- G Willamette River Water Quality Information,
- H Financial Impact of the CSO Program,
- I Public Opinion Polls on Water Quality, CSO's and Sewer Rates,
- J Related Public Values Goals, Objectives and Action Plans,
- K Willamette River Basin CSO Program Review Report Summary,
- L Components of Project Average Monthly Sewer Bills, and
- M Testing the Waters Public Workshop Summary

\* Note Resources are provided in Council staff briefing books and are on file with the Bureau of Environmental Services



**RESOLUTION No.**

**35581**

ACCEPT the Issues for Controlling Willamette River Combined Sewer Overflows Report from the Willamette River Stakeholders Task Force and provide direction to the Bureau of Environmental Services on the integration of the issues into the Willamette Predesign Project (Resolution)

WHEREAS, combined sewer overflows (CSOs) are a major contributor to the continuing pollution in the Willamette River and Columbia Slough, and

WHEREAS, the terms of a Stipulation and Final Order, signed on August 5, 1991 and amended on August 11, 1994, by the City of Portland, the Oregon Department of Environmental Quality and the Oregon Environmental Quality Commission, set performance and schedule standards to control CSOs, and

WHEREAS, the City and its team of consultants have prepared a CSO Facilities Plan which identifies, in concept, appropriate CSO control technologies and develops recommendations for implementation, and

WHEREAS, the CSO Facilities Plan needs to be further refined for the Willamette River CSO control solutions by entering into the predesign stage of the project, and

WHEREAS, a major goal of the Willamette River CSO Predesign Project is to seek public input in the refining of the solution to ensure that the solution meets the public's expectations and will be supported by ratepayers, and

WHEREAS, the Commissioner of Public Utilities appointed a citizen task force, known as the Willamette River Stakeholders Task Force, charged with reviewing the plan for controlling Willamette River combined sewer overflows and making recommendations to City Council and the Bureau of Environmental Services on how to best implement the plan, giving full consideration to community values and the need to maintain community support for this public investment, and

WHEREAS, the Willamette River Stakeholders Task Force has reviewed current and previous public surveys to determine areas of interest and or issues that the general public has in relationship to the removal of CSO's and other pollutants of concern from the Willamette River, and

WHEREAS, the Willamette River Stakeholders Task Force developed recommended actions that they would like to see included in the Willamette River Predesign Project or as part of a Bureauwide effort or, in some cases, statewide effort,

NOW THEREFORE, BE IT RESOLVED that the City Council accepts the Issues for Controlling Willamette River Combined Sewer Overflows Report submitted by the Willamette River Stakeholders Task Force, attached as Exhibit A, and extends its gratitude and appreciation to the Task Force Members for the thoughtful recommendations contained within the Issues Report, and

BE IT FURTHER RESOLVED, the City Council directs the Bureau of Environmental Services (BES) to incorporate the recommended actions, where applicable, into the Willamette River Predesign Project

**ADOPTED** by the Council, **DEC 19 1996**

Commissioner Mike Lindberg  
Lissa Druback  
December 10, 1996

**BARBARA CLARK**  
Auditor of the City of Portland

By   
Deputy

2005

Agenda No

RESOLUTION NO

35581

Title

Accept the Issues for Controlling Willamette River Combined Sewer Overflows Report from the Willamette River Stakeholders Task Force and provide direction to the Bureau of Environmental Services on the integration of the issues into the Willamette Predesign Project (Resolution)

INTRODUCED BY	Filed
Commissioner Mike Lindberg	<b>DEC 12 1996</b>
NOTED BY COMMISSIONER	Barbara Clark Auditor of the City of Portland
Affairs	By <u>Cay Kershner</u> Deputy
Finance and Administration	For Meeting of _____
Safety	ACTION TAKEN
Utilities <u>MDA / JMD</u>	
Works	
BUREAU APPROVAL	
Bureau Environmental Services	
Prepared by Lissa Druback Date 12/10/96	
Budget Impact Review <u>mm</u>	
Completed <u>mm</u> X Not Required	
Bureau Head Dean C. Marriott, Director <u>DC Marriott</u>	

AGENDA		FOUR-FIFTHS AGENDA	COMMISSIONERS VOTED AS FOLLOWS		
				YEAS	NAYS
Consent	Regular X	Hales	Hales	✓	
NOTED BY		Kafoury	Kafoury	✓	
City Attorney	<u>HH</u>	Lindberg	Lindberg	✓	
City Auditor		Sten	Sten	✓	
City Engineer		Katz	Katz	✓	