

**CITY COUNCIL MEETING**  
Olympia, Washington  
May 5, 2009

**Cost Sharing Policy for Stormwater/Transportation on City Road Projects**

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**CITY MANAGER'S  
RECOMMENDATION:**

Move to approve the proposed cost sharing policy for the Storm and Surface Water Utility and Public Works Transportation on City Transportation projects as recommended by the Finance Committee.

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**FINANCE COMMITTEE  
RECOMMENDATION:**

The Finance committee felt that the proposed division of costs for stormwater management associated with non-motorized transportation projects was prudent, manageable, and adaptive. We will evaluate, in the next two CFP's, how effectively it is integrated into the financing of future projects. Costs are assigned well, and this should be an effective strategy to mitigate stormwater costs.

For managing porous pavement, staff has done an excellent job of analyzing costs, options, and responsibilities. We will need to monitor this as porous pavement use expands, but the proposed policy is sound.

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**STAFF CONTACT:**

Rich Hoey, Director of Water Resources, (360) 753-8495,  
[rhoey@ci.olympia.wa.us](mailto:rhoey@ci.olympia.wa.us)

**ORIGINATED BY:**

Public Works Department

**PRESENTERS AND  
OTHERS NOTIFIED:**

D. Michael Mucha, Director of Public Works  
David Riker, Director of Transportation, Public Works Department  
Andy Haub, Engineering and Planning Manager

**ATTACHMENTS:**

1. Utility Advisory Committee (UAC) Memorandum
2. Cost Sharing Policy Analysis

**BUDGET IMPACT/  
SOURCE OF FUNDS:**

The budget impact of the proposed cost sharing policy will vary depending on the scope of capital projects. Cost implications to the Storm and Surface Water (SSW) Utility and Transportation will be outlined as part of the annual Capital Facilities Plan.

**PRIOR COUNCIL/  
COMMITTEE REVIEW:**

The Finance Committee reviewed the proposed cost sharing policy on April 14, 2009. See committee recommendation above.

On April 2, 2009, the Utility Advisory Committee (UAC) also reviewed the proposed cost sharing policy. The UAC was generally supportive of the recommendations while expressing concerns about potential impacts on utility rate payers. The UAC recommendation can be found in the attached memorandum (Attachment 1).

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**BACKGROUND:**

As a result of higher-than-expected stormwater mitigation costs on sidewalk construction projects, the City Council, as part of the 2009 budget process, elected to make a one-time increase in the funding from the SSW Utility to the Transportation Line of Business for stormwater mitigation costs on transportation projects. Council also directed staff to analyze the roles and responsibilities of the SSW Utility and Transportation and make recommendations on the appropriate future allocation of costs for stormwater mitigation on capital projects. Staff's recommendations are found below.

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**ANALYSIS AND OPTIONS:**

Following analysis of various options and financial implications, staff recommends the following allocations of costs associated with: 1) Transportation Projects Triggering Stormwater Mitigation and 2) Porous Pavements. Additional information on the analysis of options can be found in the attached table (Attachment 2). These cost allocation policies are planned to be incorporated in the upcoming update to the Stormwater Master Plan.

**Transportation Projects Triggering Stormwater Mitigation**

- Transportation continues to pay for stormwater mitigation costs on transportation projects that add new impervious surfaces.
- On sidewalk projects that add curb and gutter and concentrate runoff from existing roadways, thereby resulting in high stormwater mitigation costs (defined as 25 percent or more of the total project costs), the SSW Utility and Transportation staff will seek alternative designs and present options to City Council. These options will include use of SSW Utility funding for all stormwater mitigation costs exceeding the 25 percent threshold, and include an analysis of implications to the utility.
- Other less common transportation projects (e.g., adding a turn lane) that trigger stormwater upgrades will continue to be paid for by Transportation. Staff is separately recommending changes to the retrofit elements of the Stormwater Drainage Manual.

Looking back on prior sidewalk projects, the 25 percent threshold highlighted above would have been triggered on the Division Street sidewalk project (stormwater costs at 53 percent). All other projects appear to have been well below the threshold.

As for upcoming sidewalk projects, staff has identified the need for further scoping of the projects to better quantify the extent of required stormwater mitigation. Based on current information, early estimates suggest the stormwater costs for the two projects scheduled in 2009 (Boulevard Road) and 2012 (Henderson Boulevard) will be below the proposed 25 percent threshold. Conversely, current estimates for West Bay Drive in 2013 and 22<sup>nd</sup> Avenue/Eastside Street in 2015 reflect stormwater costs in excess of 25 percent. Staff will refine the scope of these projects over the next year and will be better able to assess potential financial impact and options in time for the 2011-2016 Capital Facilities Plan.

### **Porous Pavements**

- With the exception of demonstration projects, Transportation will pay for newly installed porous pavements in roadways and sidewalks.
- The SSW Utility will pay for maintenance of the pavement for stormwater function (i.e., clean the surface to keep it porous).
- Transportation will pay for maintenance of the pavement for mobility function (e.g., filling potholes)
- As a joint facility, long-term rehab and replacement will be paid for through a cost-share between Transportation and the SSW utility. This cost share will be based on life cycle costs for “traditional” stormwater and transportation facilities.
- The SSW Utility and Transportation will jointly fund a porous pavement insurance fund designed to deal with expected failures of this new technology (\$25,000 from each program annually). This could be created through a percent contingency charge on all transportation and SSW Utility capital projects, or as a lump sum set-aside.

#### **Option 1:**

**Approve the proposed cost sharing policy for the Storm and Surface Water Utility and Public Works Transportation on City Transportation projects.**

#### **Implications:**

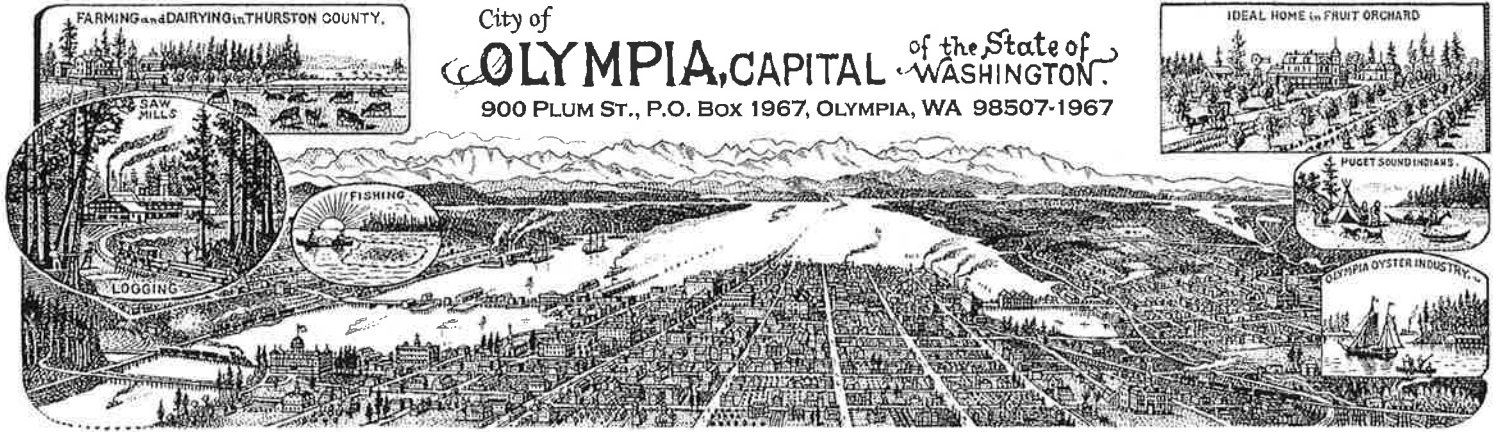
1. Provides greater clarity on roles and financial responsibilities between the SSW Utility and Public Works Transportation.
2. City Council will be presented with scope and financial options on sidewalk projects that have high stormwater mitigation costs.
3. Financial contribution from the SSW Utility to City Transportation projects may increase.
4. Proactively sets aside funding for failure of porous pavements.

#### **Option 2:**

**Return to City Council with additional analysis.**

#### **Implications:**

1. Staff provides analysis that better address Councils needs and concerns.



This letterhead is a replica of 1899 City of Olympia letterhead, which we are using in commemoration of the City's 150th Anniversary.

April 9, 2009

Councilmember Joe Hyer, Chair  
 Finance Committee  
 City of Olympia  
 PO Box 1967  
 Olympia, WA 98507-1967

Dear Finance Committee Members:

**SUBJECT: Storm and Surface Water/Transportation Funding Recommendations**

At the April 2, 2009, Utility Advisory Committee (UAC) meeting, the UAC reviewed the recommendations proposed jointly by City Storm and Surface Water (SSW) Utility and Transportation staff. As you are aware, the issue of use of SSW Utility funds for Transportation projects has come up several times over the past few years, most recently, in connection with the 2009 budget and transfer of SSW Utility funds for Transportation projects.

The UAC has previously expressed and still has concerns about any expenditure of SSW Utility funds for projects that are not SSW Utility-originated, especially given the relatively small size of the SSW Utility budget and the increasing pressures placed on the Utility by growth and additional regulatory requirements.

With regard to the recommendations put forward by staff, the UAC would like to thank and commend City staff from SSW and Transportation for their hard work and effort in putting together this proposal. We believe the recommendations as proposed are a reasonable and pragmatic approach to the issue and are consistent with previous discussions at UAC meetings.



COUNCILMEMBER CRAIG OTTAVELLI  
 COUNCILMEMBER RHENDA IRIS STRUB  
 COUNCILMEMBER KAREN MESSMER

COUNCILMEMBER JOAN MACHLIS  
 COUNCILMEMBER JOE HYER

MAYOR DOUG MAH  
 MAYOR PRO TEM JEFF KINGSBURY  
 CITY MANAGER STEVE HALL

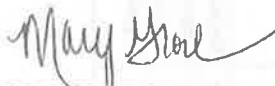


Councilmember Joe Hyer, Chair  
Finance Committee  
April 9, 2009  
Page 2

We are particularly supportive of the involvement of SSW Utility staff in working with Transportation staff to help identify alternative designs for stormwater management related to Transportation projects. This involvement will hopefully result in both reduced costs and innovative approaches, garnering the very best bang for the buck for citizens and taxpayers, and achieving the goals of both the Transportation project and the SSW Utility. In order to realize the full benefit of this approach, the UAC believes it is necessary for the City to allow additional flexibility with regard to requirements to meet existing roadway standards, especially where retrofit for sidewalk construction and limited space are involved.

If you have any questions, I can be reached at 360.754.1361 (cell) or you can contact Emily Lardner, Vice-chair, at 360.705.3678 (home). Neither Emily nor myself are able to attend the April 14, 2009, Finance Committee Meeting due to previous commitments, but this letter should serve to represent the full endorsement of the UAC for these proposals.

Sincerely,



**MARY GROEBNER**  
Chair  
Utility Advisory Committee



**EMILY LARDNER**  
Vice Chair  
Utility Advisory Committee

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cc: UAC Members  
D. Michael Mucha, P.E., Director of Public Works  
Jay Burney, Assistant Director of Public Works

**\*\*3/25/09\*\***

**TRANSPORTATION AND STORMWATER RESPONSIBILITIES – STORMWATER MITIGATION ON CAPITAL PROJECTS**

**Issue:** Appropriate allocation of Transportation-related stormwater mitigation costs between Transportation and the Storm and Surface Water Utility.

**Problem:** Stormwater mitigation costs have increased in recent years as a result of more rigorous requirements under the 2005 City and State Drainage Manuals. In particular, on a select number of sidewalk projects that included installation of curb and gutter, stormwater-related costs have been a large component of overall project costs.

**Water Resources Mission:** To provide and protect nature's water for a healthy community. **Storm and Surface Water Utility Purpose:** To provide environmental management services to the public so that floods are minimized, water quality is improved, and aquatic habitats are protected and enhanced.

**Transportation Mission:** Shaping our community through better transportation choices.

PROJECT SCENARIO	DRAINAGE MANUAL REQUIREMENT	WHO PAYS CURRENTLY	PROPOSED CHANGE	RATIONALE	ANALYSIS			OTHER OPTIONS
					NATURAL	FINANCIAL	SOCIAL	
<b>NEW IMPERVIOUS SURFACE</b>								
Road expansion project generates new stormwater	Triggers stormwater detention and treatment	Transportation <i>(with \$150K provided annually by SWW Utility)</i>	None	New stormwater must be mitigated.  Paid for by the project generating the stormwater.	Responsibly mitigates potential downstream environmental impacts.	Costs can be significant.  Stormwater mitigation, however, is a typical cost for road expansion projects.	Adds potential downstream private property flooding.	Utility Funding
Sidewalk project generates new stormwater	Triggers stormwater detention and treatment	Transportation	None	New stormwater must be mitigated.  Paid for by the project generating the	Responsibly mitigates potential downstream environmental impacts.	Limited impervious surfaces associated with sidewalks generally do not trigger large costs.	Adds potential downstream flooding.  Concern over the	Utility Funding

PROJECT SCENARIO	DRAINAGE MANUAL REQUIREMENT	WHO PAYS CURRENTLY	PROPOSED CHANGE	RATIONALE	ANALYSIS			OTHER OPTIONS
					NATURAL	FINANCIAL	SOCIAL	
				stormwater.		Use of porous pavements can eliminate need for stormwater ponds.	costs of sidewalk projects and pace of projects.	
<b>EXISTING IMPERVIOUS SURFACE</b>								
Sidewalk projects that include installation of new curb and gutter concentrates previously dispersed and infiltrated stormwater	Triggers stormwater detention and treatment	Transportation	When stormwater costs exceed 25% of total project costs, staff will prepare design and funding options for City Council that include:  1) Potential innovative design options that lower costs; and 2) Use of SSW funding for stormwater costs exceeding 25%.	<ul style="list-style-type: none"> <li>Triggers a process to explore design options that lower costs and still meet City goals for mobility and environmental protection.</li> <li>Cost share helps address high stormwater costs relative to the total costs of the project.</li> </ul>	New potential downstream impact needs to be mitigated.	Addition of curb and gutter has potential to significantly increase new sidewalk project costs.  High stormwater costs are an issue with a handful of projects, not a majority.	Sidewalks are constructed at a slower pace than originally estimated.	Transportation Funding  Utility Funding
Transportation project triggers stormwater upgrades to existing system (e.g., adding a bike lane or turn lane – something less than full reconstruction).  <i>NOTE: These retrofits are rarely triggered.</i>	Above certain thresholds, requires stormwater retrofit (to current standards) for entire project area.	Transportation	Transportation continues to pay for retrofit costs with following changes: <ul style="list-style-type: none"> <li>Incorporate annual inflationary increase on financial threshold.</li> <li>Set a cap on stormwater costs as a percentage of total project costs.</li> </ul> <b>To be addressed as part of the Drainage Manual Revision.</b>	Changes consistent with no-backsliding provision of the NPDES Phase II permit.	Addresses new impacts and provides improvement on existing condition.	Sets upper boundary for stormwater retrofit costs.  Threshold level will keep pace with inflationary – maintaining consistency on the types of projects that trigger retrofit.	Incremental improvement on existing stormwater management over time.  Retrofit costs can limit number of transportation projects implemented.	Utility Funding

TRANSPORTATION AND STORMWATER RESPONSIBILITIES -- POROUS PAVEMENTS

**Issue:** Responsibility and allocation of cost for porous pavements between Transportation and the Storm and Surface Water Utility.

**Problem:** Porous pavements serve multiple functions (mobility and stormwater management) and are therefore managed by both Transportation and the SSW Utility. Appropriate allocation of responsibilities and costs is therefore challenging.

**Water Resources Mission:** To provide and protect nature's water for a healthy community. **Storm and Surface Water Utility Purpose:** To provide environmental management services to the public so that floods are minimized, water quality is improved, and aquatic habitats are protected and enhanced.

**Transportation Mission:** Shaping our community through better transportation choices.

PROJECT SCENARIO	WHO PAYS CURRENTLY	PROPOSED CHANGE	RATIONALE	ANALYSIS			OTHER OPTIONS
				NATURAL	FINANCIAL	SOCIAL	
Installation of new porous pavements	Transportation <i>(occasionally SSW Utility)</i>	None	Project proponents are responsible for mitigation of newly created stormwater runoff.	Use of porous pavements – if risks are managed – can be an improved environmental condition over pipes and ponds.	Porous pavements can save on initial project costs when compared with traditional stormwater management (i.e., pipes and ponds)	If working correctly, porous pavements manage flows within the ROW and avoid downstream impacts.	<ul style="list-style-type: none"> <li>Do not install porous pavements.</li> <li>Difference in cost from traditional pavements paid by SSW Utility.</li> </ul>
Rehab/Replacement of porous pavements	Unknown	Cost share using typical life cycle cost comparison for "traditional facilities"	The facility serves multiple functions. Both transportation and SSW Utility would typical incur rehab/replacement costs on traditional facilities.	Rehab/Replacement needed to support stormwater function.	Rehab and replacement of porous pavements is more expensive than traditional pavements. Least costs streets approaches (i.e., thin overlays) are	Rehab/Replacement needed to support mobility function.	Transportation funds 100%  Utility funds 100%



PROJECT SCENARIO	WHO PAYS CURRENTLY	PROPOSED CHANGE	RATIONALE	ANALYSIS			OTHER OPTIONS
				NATURAL	FINANCIAL	SOCIAL	
Maintenance of porous pavements for stormwater function (i.e., cleaning)	Storm and Surface Water Utility <i>(Transportation currently does street sweeping)</i>	None	Stormwater utility rates (including those paid by Transportation) are intended to support O&M of the stormwater system.	Porous pavements must be regularly cleaned to ensure continued stormwater function.	not applicable. O&M costs are higher than traditional approaches.	Without backup systems, failure of porous pavements can create downstream flooding and environmental impacts.	<ul style="list-style-type: none"> <li>• Paid by Transportation.</li> <li>• Do not maintain.</li> </ul>
Maintenance of porous pavements for mobility function (e.g., pothole repair)	Transportation	None	Maintenance for mobility function is a typical responsibility of Transportation.	Structural integrity can affect stormwater function.	O&M costs are higher than traditional approaches.	Failure to maintain the roadway can affect mobility and lead to citizen complaints.	<ul style="list-style-type: none"> <li>• Paid by SSW Utility.</li> <li>• Do not maintain.</li> </ul>
Funding of a porous pavement failure	Unknown	Create an insurance fund to be equally funded by Transportation and the SSW Utility (\$25,000 each annually).  May be created through a % contingency charge on all transportation and SSW Utility capital projects.	Porous pavements have significant risks and benefits. As a "joint facility", it is appropriate for an insurance fund to be funded jointly.	Porous pavements, if they fail, can create unmitigated downstream environmental impacts.	Creation of an insurance fund can reduce future budget and rate "shock" when porous pavements fail. Porous pavements have a higher risk of failure.	Porous pavements can have a greater risk of structural failure that affects mobility.	<ul style="list-style-type: none"> <li>• No insurance fund. Deal with failures as they arise.</li> <li>• Funded 100% by either SSW Utility or Transportation.</li> </ul>

