

Commenter, Jurisdiction	Chapter	Section	Comment and Suggested Revision	Comment Response
Jackie Caldwell, City of Vancouver	Overall	N/A	The draft outline looks good, inclusive of all of the topic information. I don't have any comments at this time. Great work!	Thank you!
Abbey Stockwell, Ecology	1	Purpose	<p>This outline looks good and covers a lot! Couple thoughts:</p> <ul style="list-style-type: none"> -Could climate considerations be included for scheduling and routing -Add EJ considerations re: scheduling/routing/parking enforcement - wet weather practices 	<p>Climate considerations will be described in Section 4.3.3 Scheduling and Section 5.1.1 Considerations When Designing Street Sweeping Routes. No change proposed to the Final Manual Outline.</p> <p>EJ considerations will be described in Sections 4.3.3 Scheduling, 4.8.3 Parking Restrictions and Enforcement, and 5.1.1 Considerations When Designing Street Sweeping Routes. No change proposed to the Final Manual Outline.</p> <p>A new subsection was added to Section 4.8 Other Program Considerations to describe best practices during wet weather.</p>
Foroozan Labib, Ecology	1	Purpose	<p>Sweeping effectiveness in removing smaller particles would likely be impacted by wet weather. Rain/runoff can wash a lot of smaller particles off the street, and these smaller particles could be temporarily attached to larger wet particles accumulating in catch basins downstream. This in turn could influence the decanting operations and their pollutant removal efficacy.</p>	<p>Noted. This will be considered when describing impacts of wet weather in Section 4.8.2.</p>
Larry Schaffner, Thurston County	1	1.3	<p>Be sure to also include a description of <i>Appendix 6 - Street Waste Disposal</i></p>	<p>Added, "...including Appendix 6 - Street Waste Disposal," to the Section 1.3 description.</p>
Abbey Stockwell, Ecology	1	1.3	<p>This might be just be MS4 Permit requirements</p>	<p>Revised to MS4 Permit Requirements.</p>

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Larry Schaffner, Thurston County	1	1.4	Include a list and brief description of any appendices' content.	Added, "...including appendices," to the Section 1.4 description.
Larry Schaffner, Thurston County	2	2.2.2	To the extent possible, it would also be informative to describe how the characteristics differ based on factors such as roads serving different land use types, AADT levels and/or road classifications (e.g., local, collector, arterial, etc.), areas with significant tire wear, and geographical and seasonal differences.	Added, "This section also describes how street waste characteristics differ based on factors such as road classifications, AADT levels, land use types, areas with significant tire wear, geographical area, and season," to section description.
Larry Schaffner, Thurston County	2	2.2.3	Should also include the removal efficiency differences of the various street sweeping technologies.	This topic will be described either in Section 2.2.3 Removal Efficiency or Section 4.6.1 Equipment Selection. No proposed change to Final Manual Outline.
Douglas Howie, Ecology	2	2.2.3	Cite existing studies	A list of existing studies that will be used to develop Chapter 2 content was added to the Final Manual Outline.
Sue Barclift, City of Olympia	2	2.2.4	Title is not clear - Perhaps "Street Pollutant Transport"	Revised title to "Street Pollutant Transport."
Larry Schaffner, Thurston County	2	Tables	To the extent that data exists, include table(s) summarizing the characterizations should also depict comparative differences on factors such as roads serving different land use types, AADT levels and/or road classifications (e.g., local, collector, arterial, etc.), areas with significant tire wear, and geographical and seasonal	Added, "Tables summarizing differences of street waste characteristics based on factors such as road classifications, AADT levels, land use types, areas with significant tire wear, geographical area, and season."
Larry Schaffner, Thurston County	3	3.3	Suggest folding this in as a subsection to 3.4 since it will be one of the considerations for identifying and selecting high-priority street sweeping areas.	Folding Section 3.3 into a subsection of Section 3.4 will be considered when developing Chapter 3.
Abbey Stockwell, Ecology	3	3.3	The permit refers to priority areas	Revised all instances of "high-priority" to "priority."

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Larry Schaffner, Thurston County	3	3.5	Suggest folding this in as a subsection to 3.4.	Folding Section 3.5 into a subsection of Section 3.4 will be considered with developing Chapter 3.
Douglas Howie, Ecology	3	3.5	Industrial areas, areas with significant construction activity.	Added, "...roads that serve commercial or industrial land use, areas with significant construction activity,..." to the Section 3.5 description.
Larry Schaffner, Thurston County	3	Tables	Table should focus on summarizing applicable MS4 Permit requirements related to <u>identify high-priority street sweeping areas</u> .	Revised table description to, "Table summarizing applicable MS4 Permit requirements related to identifying priority street sweeping areas. "
Larry Schaffner, Thurston County	4	4.2	Also suggest including street sweeping waste disposal.	Added, "...and street waste disposal," to the Section 4.2 description.
Douglas Howie, Ecology	4	4.2	Including publicly owned parking areas	Added publicly owned parking areas to the Section 3.5 description.
Larry Schaffner, Thurston County	4	4.3	Suggest including a subsection on street sweeping waste disposal.	Added new Section 4.3.4 Street Waste Disposal. This section will provide a high-level overview of street waste disposal and reference Chapter 7.
Sue Barclift, City of Olympia	4	4.3.2	Consider differences in program size for staffing needs	Differences in program size for staffing needs will be described in Section 4.3.2. No change proposed to the Final Manual Outline.
Douglas Howie, Ecology	4	4.3.2	Include both operation and maintenance staffing, include need for parts storage	Added a new subsection to Section 4.3 Program Elements, titled "Operations and Maintenance," which describes operations and maintenance practices for street sweeping programs, including sufficient storage for street sweepers and associated equipment. Operations and maintenance staffing will be described in Section 4.3.2 Staffing.

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Sue Barclift, City of Olympia	4	4.3.5	Suggest training opportunities. I don't know of any training courses except by the dealer or manufacturer. Some of them aren't feasible to attend. I've been considering developing operator training aimed at water quality sweeping. Current training focuses on how to operate the sweeper.	Training opportunities will be suggested based on findings from literature in Section 4.3.7. No change proposed to the Final Manual Outline.
Douglas Howie, Ecology	4	4.6	There is a correlation between sweeping and vactoring catch basins that should be discussed in this document. I don't know if this is the best place to insert the vactor issue, but it needs to be included here somewhere.	Section 2.2 will include a brief paragraph describing the correlation between street sweeping and vactoring catch basins. Analysis and discussion beyond this is outside of our scope of work.
Sue Barclift, City of Olympia	4	4.6.2	Be sure to include cold weather sweeper storage to keep the water in the water tank and hoses from freezing.	Cold weather sweeper storage will be included in Section 4.6.2. No change proposed to Final Manual Outline.
Larry Schaffner, Thurston County	4	4.7	Recognize that this doesn't necessarily need to be a binary choice. Rather it could be a hybrid where contracting supplements the in-house program. Hence, discussing supplemental contracting would be useful here.	Revised the first sentence of the section description to, "Compares the jurisdictional workload between performing in-house street sweeping and contracting out a portion of or all street sweeping services."
Sue Barclift, City of Olympia	5	5.5	I started with our policies – we sweep our bike paths every 2 weeks which is most of our arterials.	Considering policies when designing street sweeping routes was added to Section 5.5.1.
Larry Schaffner, Thurston County	5	5.5.3	In what context in "basin" used in this subsection (or perhaps it would be best not to refer to "basin" and just leave it as "area")?	Revised subsection title to, "Areas."

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Douglas Howie, Ecology	5	5.5	This may be a good place to describe the issues with decant water collecting in the sweeper and how to dispose of it as efficiently as possible while still meeting the permit discharge requirements.	Challenges with decant water collecting in the sweeper and how to efficiently dispose of it while still meeting the MS4 Permit discharge requirements will be described in Sections 5.5.1, 5.6, and 7.3.1.
Sue Barclift, City of Olympia	5	5.6	Mention the issue of sweeping during rain events & wet roads in general. Water fills the hopper quickly & it's not feasible to decant often (can fill after sweeping 10 blocks). Also, the hose attached to the hopper releases water and releases fines that were collected.	Challenges of sweeping during rain events will be included in Section 5.6. The section description includes, "...sweeping during leaf season, inclement weather, and minimizing trips to the dewater/decant facility."
Sue Barclift, City of Olympia	5	5.6	Need to consider scheduling conflicts such as garbage/recycle pickup days and special events - school schedules, construction, paving, street painting. Work with other depts for seasonal scheduling.	Scheduling conflicts will be described in Section 4.3.3. No change proposed to the Final Manual Outline.
Larry Schaffner, Thurston County	5	5.6	Another challenges involve minimizing traffic disruptions and strategies for dealing with alternative parking options during sweeping operations.	The section description was revised to include minimizing traffic disruptions. Strategies for dealing with alternative parking options will be described in Section 4.8.3.
Douglas Howie, Ecology	5	5.6	Include parked vehicles along curb line	The section description was revised to include parked vehicles along the curb line.
Mark Melton, Ecology	5	5.6	Consider including snow and inclement weather	The section description was revised to include inclement weather.
Don McQuilliams, Bellevue WA	5	5.6	Add pavement deficiencies to the problems list (i.e. roots lifting pavement or settling uneven pavement).	The section description was revised to include pavement deficiencies.

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Larry Schaffner, Thurston County	6	6.2	Please elaborate on the relevance/purpose regarding "who may potentially collect data."	Who may potentially collect data and its importance will be described in Section 6.2. No change proposed to the Final Manual Outline.
Larry Schaffner, Thurston County	6	6.3	Beyond MS4 Permit-driven documentation and reporting, suggest including considerations related to business-related drivers (e.g., improving program efficiency and efficacy).	Beyond MS4 Permit-driven documentation and reporting, such as metrics related to business-related drivers will be included in Section 6.4.2. No change proposed to Final Manual Outline.
Douglas Howie, Ecology	6	6.4	Note that documentation for meeting permit requirements for sweeping and obtaining SMED points are related but different.	Noted. Additional documentation will be described in Section 6.4.2. No change proposed to Final Manual Outline.
Jim Crawford/King County Roads	6	6.4.1	Include Health Dept Tracking and Reporting Requirements under Solid Waste Handling Standards. (Storage & inspection requirements & annual tracking of amounts generated and disposed). Source: WAC Title 173 Chapter 173-350	The section description was revised to include WAC Title 173 Chapter 173-350 Solid Waste Handling Standards.
Jim Crawford/King County Roads	7	7.2	Appendix 6 AND WAC Title 173 Chapter 173-350-320	The section description was revised to include WAC Title 173 Chapter 173-350-320.
Don McQuilliams, Bellevue WA	7	7.2	Add permitting requirements around operation of a decant facility beyond the NPDES requirements (i.e. wastewater discharge permit, industrial landfill permit).	Added, "This section also describes potentially applicable wastewater discharge and industrial landfill permits," to the Section 7.2 description.
Larry Schaffner, Thurston County	7	7.3	Information could also be useful in calculating street waste disposal costs.	Using information in Section 7.3 to calculate street waste disposal cost will be described and reference Chapter 8. No change proposed to Final Manual Outline.

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Sue Barclift, City of Olympia	7	7.3.1	Be sure to add a disclaimer for your spreadsheet. This is so hard to predict due to weather (snow/no snow, rain/storm frequency and operator availability (vacations, sick leave, operator retention)).	A disclaimer will be added to all tools/spreadsheets developed as part of this manual.
Douglas Howie, Ecology	7	Purpose	Not just a decant facility. What happens when sweeping during rain events and need to unload water from the sweeper without going to the decant facility? This is a serious issue that needs to be discussed.	The Purpose of the chapter was revised to include, "Provide guidance for disposing of street sweeping waste, both liquids and solids." A new section titled Street Sweeping Waste Treatment and Disposal was added to Chapter 7 that describes the treatment and disposal of street sweeping liquid and solid waste.
Larry Schaffner, Thurston County	8	8.3	If not covered in Chapter 7, suggest touching upon costs related to decant and street waste disposal.	Decant and street waste disposal costs will be included in Chapter 7. No change proposed to Final Manual Outline.
Sue Barclift, City of Olympia	8	8.4	Encourage funding for the planning stage - decant facility design and enhanced street sweeping plan before applying for a street sweeper grant.	Encouraging funding for the planning stage will be included in Section 8.4. No change proposed to Final Manual Outline.
Larry Schaffner, Thurston County	8	8.4	Will this cover funding associated with operations, capital, both?	Funding described in Section 8.4 will include funding associated with operations and capital. This topic will be added to the list of potential case studies. No change proposed to Final Manual Outline.