

County of Asotin

Regional Stormwater Program



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STORMWATER ADVISORY GROUP
October 6, 2009
Clarkston School District Admin Office
1294 Chestnut Street, Clarkston
5:30 - 7:30 p.m.

AGENDA

1. SW Program Utility Fee Development Process
2. Full Time Equivalent
3. Review Construction and Post-Construction Permit Requirements
4. Discuss Ordinance Policy Issues
5. Public Comment
6. Next Meeting(s)



Serving: Asotin County



City of Asotin



City of Clarkston

Stormwater Program Utility Fee Development Process

- Step 1** - Evaluate requirements of Permit
- Step 2** - Gap analysis and proposed cost estimate by Otak, Inc.
- Step 3** - Staff evaluation of gap analysis and cost estimate (**July 2009**)
 - Review permit requirements
 - Review existing and future staffing needs
 - Evaluate existing equipment
 - Evaluate equipments needs
 - Develop responsible cost estimate to stay in compliance with Permit
- Step 4** - Impervious surface area measurements (**January 2010**)
 - Program cost estimates
 - Credits, discounts
 - Policy issues
- Step 5** - Utility fee (**February 2010**)
 - Program cost estimates
 - Fee schedule
 - Credits, discounts
 - Policy issues
 - Management issues and structure
- Step 6** - Public comment (**March 2010**)
- Step 7** - Elected officials review (**April and May 2010**)
 - Public hearings
- Step 8** - **Consider for adoption (June 2010)**
 - Implement billing as adopted

Full Time Equivalent (FTE)
\$100,000 per FTE

Includes:

Actual

SW Staff Salary	\$ 50,187.48
SW Staff Benefits - 34% of salary	\$ 17,063.74
Overhead - 14% of S&B	\$ 9,415.17
<ul style="list-style-type: none"> • Office supplies • Telephone • Lights/utilities • Vehicles • Support staff • Postage • Paper • Office equipment • Office rent • _____ • _____ 	
Subtotal	\$ 76,666.39
Travel & Travel	\$ 2,086.95
Educational materials – Printing, website, advertising	\$ 4,936.37
Educational materials - Postage	\$ 1,783.31
Legal department - Jane's time only	\$ 1,208.12
Staff costs from other departments	\$ 21,821.72
Equipment – monitoring, mapping	\$ 9,541.31
Software	\$ 3,260.24
Meetings – room rental, equipment rental	\$ 114.11
Unanticipated costs - includes County Permit fee	\$ 1,630.15
Subtotal	\$ 46,382.28
Total	\$ 123,048.67

2.5 FTE x \$77,000	\$ 192,500.00
Admin Expenses	\$ 50,000.00
Total FTE	\$ 242,500.00
Cost/FTE	\$ 97,000.00

4. Construction Site Stormwater Runoff Control

All Permittees shall develop, implement and enforce a program to reduce pollutants in any stormwater runoff to the MS4 from construction activities that disturb one acre or more, and from construction projects of less than one acre that are part of a common plan of development or sale.

Public and private projects, including projects proposed by the Permittee's own departments and agencies, shall comply with these requirements. The Permittee shall determine a process for ensuring proper project review, inspection, and compliance by its own departments and agencies.

The minimum performance measures are:

- a. No later than three years from the effective date of this permit, all Permittees shall develop and adopt an ordinance or other regulatory mechanism to require erosion and sediment controls, and other construction-phase stormwater pollution controls at new development and redevelopment projects. The ordinance or other regulatory mechanism shall include sanctions to ensure compliance. The ordinance or other regulatory mechanism shall have an effective date of no later than four years after the effective date of this permit.
 - i. The ordinance or other regulatory mechanism shall apply, at a minimum, to construction sites disturbing greater than or equal to one acre and to construction projects of less than one acre that are part of a common plan of development or sale. Pursuant to S5.A.2., in adopting this ordinance or other regulatory mechanism, existing local requirements to apply stormwater controls at smaller sites, or at lower thresholds than required pursuant to S4.B.4.a.ii., shall be retained.
 - ii. The ordinance or other regulatory mechanism shall require construction operators to adhere, at a minimum, to the requirements of Appendix 1, Core Element #2, including preparation of *Construction Stormwater Pollution Prevention Plans* (Construction SWPPPs) and application of BMPs as necessary to protect water quality, reduce the discharge of pollutants to the MEP, and satisfy state AKART requirements.
 - All Permittees shall adopt requirements for construction site operators to implement appropriate erosion and sediment control BMPs.
 - All Permittees shall adopt requirements for construction site operators to control waste such as discarded building materials, concrete truck washout, chemicals, litter, and sanitary waste at the construction site that may cause adverse impacts to water quality.
 - Permittees shall document how the requirements of the ordinance or other regulatory mechanism protect water quality, reduce the discharge of pollutants to the MEP, and satisfy state AKART requirements. Documentation shall include:
 - How stormwater BMPs were selected;

- The pollutant removal expected from the selected BMPs;
- The technical basis which supports the performance claims for the selected BMPs; and
- How the selected BMPs will comply with applicable state water quality standards and satisfy the state requirement to apply AKART prior to discharge.

Permittees who choose to use the BMP selection, design, installation, operation and maintenance standards in the *Stormwater Management Manual for Eastern Washington* (2004), or another technical stormwater manual approved by Ecology, may cite this reference as the sole documentation that the ordinance or regulatory mechanism is protecting water quality, reducing the discharge of pollutants to the MEP, and satisfying state AKART requirements.

- iii. The ordinance or other regulatory mechanism shall include appropriate, escalating enforcement procedures and actions.
 - iv. The Permittee shall develop an enforcement strategy and implement the enforcement provisions of the ordinance or other regulatory mechanism.
 - v. The ordinance shall include a provision for access by qualified personnel to inspect construction-phase stormwater BMPs on private properties that discharge to the MS4.
- b. No later than four years from the effective date of this permit, all Permittees shall adopt and implement procedures for site plan review which incorporate consideration of potential water quality impacts.
- i. Prior to construction, Permittees shall review Construction SWPPPs for, at a minimum, all construction sites that disturb one acre or more, or are less than one acre and are part of a common plan of development or sale, to ensure that the plans are complete pursuant to the requirements of Appendix 1, Core Element #2. The Construction SWPPP review shall be performed by qualified personnel and shall be performed in coordination with S5.B.5.b.i. review of *Stormwater Site Plans*.
 - To comply with this provision, Permittees shall keep records of all projects disturbing more than one acre, and all projects of any size that are part of a common plan of development or sale that is greater than one acre, that are approved after the effective date of this permit. Permittees shall keep records of these projects for five years or until construction is completed, whichever is longer.
 - If the Permittee chooses to allow construction sites to apply the “Erosivity Waiver” in Appendix 1, Core Element #2, the Permittee is not required to review Construction SWPPPs for individual sites applying the waiver.
 - ii. Permittees shall provide adequate training for all staff involved in permitting, planning, and review to carry out these provisions. The training

records to be kept include dates, activities or course descriptions, and names and positions of staff in attendance.

- c. No later than four years from the effective date of this permit, all Permittees shall adopt and implement procedures for site inspection and enforcement of construction stormwater pollution control measures.
- i. Each Permittee shall adopt a procedure for keeping records of inspections and enforcement actions by staff, including inspection reports, warning letters, notices of violations, and other enforcement records.
 - ii. Permittees shall provide adequate training for all staff involved in plan review, field inspection and enforcement to carry out the provisions of this SWMP component. The training records to be kept include dates, activities or course descriptions, and names and positions of staff in attendance.
 - iii. All new construction sites that disturb one acre or more, or are part of a common plan of development or sale shall be inspected at least once by qualified personnel.
 - To comply with this provision, Permittees shall keep records of all projects disturbing more than one acre, and all projects of any size that are part of a common plan of development or sale that is greater than one acre, that are approved after the effective date of this permit.
 - Permittees shall keep project records for five years or until construction is completed, whichever is longer.
 - Compliance with this inspection requirement will be determined by the Permittee having and maintaining records of an inspection program that is designed to inspect all sites. Compliance during this permit term will be determined by the Permittee achieving an inspection rate of at least 80% of the sites.
- d. From the effective date of this permit, all Permittees shall provide information to construction site operators about training available on how to install and maintain effective erosion and sediment controls and how to comply with the requirements of Appendix 1 and apply the BMPs described in Chapter 7 of the *Stormwater Management Manual for Eastern Washington (2004)*, or another technical stormwater manual approved by Ecology.
- Permittees shall keep copies of information provided to construction site operators; and, if information is distributed to a large number of design professionals at once, the dates of the mailings and lists of recipients.
- e. All Permittees shall adopt and implement procedures for receipt and consideration of information submitted by the public. This includes, but is not *limited* to, publicly listing and publicizing a hotline or other telephone number for public reporting of spills and other illicit discharges pursuant to S5.B.3.d.ii. above.

- f. If the Permittee chooses to allow construction sites to apply the “Erosivity Waiver” in Appendix 1, Core Element #2, the Permittee shall keep a record of all construction sites that provide notice to the Permittee of their intention to apply the waiver. The Permittee shall investigate complaints about these sites in the same manner as it will investigate complaints about sites that have submitted Construction SWPPPs for review pursuant to S5.B.4.b.i. above.

5. Post-Construction Stormwater Management for New Development and Redevelopment

All Permittees shall develop, implement and enforce a program to address post-construction stormwater runoff to the MS4 from new development and redevelopment projects that disturb one acre or more, and from projects of less than one acre that are part of a common plan of development or sale. The program shall ensure that controls to prevent or minimize water quality impacts are in place.

Public and private projects, including projects proposed by the Permittee’s own departments and agencies, shall comply with these requirements. The Permittee shall determine a process for ensuring proper project review, inspection, and compliance by its own departments and agencies.

The minimum performance measures are:

- a. No later than three years from the effective date of this permit, all Permittees shall develop and adopt an ordinance or other regulatory mechanism that requires post-construction stormwater controls at new development and redevelopment projects. Pursuant to S5.A.2., in adopting this ordinance or other regulatory mechanism, existing local requirements to apply stormwater controls at smaller sites, or at lower thresholds than required pursuant to S5.B.5.a.ii., shall be retained. The ordinance or other regulatory mechanism shall include sanctions to ensure compliance. The ordinance or other regulatory mechanism shall have an effective date of no later than four years after the effective date of this permit.
 - i. The ordinance or other regulatory mechanism shall apply, at a minimum, to new development and redevelopment sites that discharge to the MS4 and that disturb one acre or more or are less than one acre and are part of a common plan of development or sale.
 - ii. The ordinance or other regulatory mechanism shall require project proponents and property owners to adhere to the minimum technical requirements in Appendix 1 and shall include BMP selection, design, installation, operation, and maintenance standards necessary to protect water quality, reduce the discharge of pollutants to the MEP, and satisfy state AKART requirements.
 - All Permittees shall adopt a policy of encouraging project proponents to maintain natural drainages to the maximum extent possible, including reducing the total amount of impervious surfaces created by the project.

- f. If the Permittee chooses to allow construction sites to apply the “Erosivity Waiver” in Appendix 1, Core Element #2, the Permittee shall keep a record of all construction sites that provide notice to the Permittee of their intention to apply the waiver. The Permittee shall investigate complaints about these sites in the same manner as it will investigate complaints about sites that have submitted Construction SWPPPs for review pursuant to S5.B.4.b.i. above.

5. Post-Construction Stormwater Management for New Development and Redevelopment

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Public and private projects, including projects proposed by the Permittee’s own departments and agencies, shall comply with these requirements. The Permittee shall determine a process for ensuring proper project review, inspection, and compliance by its own departments and agencies.

The minimum performance measures are:

- a. No later than three years from the effective date of this permit, all Permittees shall develop and adopt an ordinance or other regulatory mechanism that requires post-construction stormwater controls at new development and redevelopment projects. Pursuant to S5.A.2., in adopting this ordinance or other regulatory mechanism, existing local requirements to apply stormwater controls at smaller sites, or at lower thresholds than required pursuant to S5.B.5.a.ii., shall be retained. The ordinance or other regulatory mechanism shall include sanctions to ensure compliance. The ordinance or other regulatory mechanism shall have an effective date of no later than four years after the effective date of this permit.
 - i. The ordinance or other regulatory mechanism shall apply, at a minimum, to new development and redevelopment sites that discharge to the MS4 and that disturb one acre or more or are less than one acre and are part of a common plan of development or sale.
 - ii. The ordinance or other regulatory mechanism shall require project proponents and property owners to adhere to the minimum technical requirements in Appendix 1 and shall include BMP selection, design, installation, operation, and maintenance standards necessary to protect water quality, reduce the discharge of pollutants to the MEP, and satisfy state AKART requirements.
 - All Permittees shall adopt a policy of encouraging project proponents to maintain natural drainages to the maximum extent possible, including reducing the total amount of impervious surfaces created by the project.

- Permittees should consider including provisions to allow non-structural preventive actions and source reduction approaches such as Low Impact Development (LID) techniques, measures to minimize the creation of impervious surfaces and measures to minimize the disturbance of native soils and vegetation. Provisions for LID should take into account site conditions, access and long term maintenance.
- All Permittees shall adopt requirements for project proponents and property owners to implement appropriate runoff treatment, flow control, and source control BMPs considering the proposed land use at the site to minimize adverse impacts to water quality.
 - Each Permittee shall define a specific hydrologic method or methods for calculating runoff volumes and flow rates to ensure consistent sizing of structural BMPs in their jurisdiction and to facilitate plan review. Permittees may allow proponents of unique or complex projects to use other methodologies.
 - To meet the requirements of Appendix 1, Core Element #5, Permittees may choose to apply the criteria in Chapter 2.2.5 of the *Stormwater Management Manual for Eastern Washington (2004)*, or portions thereof, and the methods described in Chapters 4 and 6 of the *Stormwater Management Manual for Eastern Washington (2004)*.
- All Permittees shall adopt requirements to ensure adequate ongoing long-term operation and maintenance of the BMPs approved by the Permittee.
- Permittees shall document how the requirements of the ordinance or other regulatory mechanism protect water quality, reduce the discharge of pollutants to the MEP, and satisfy state AKART requirements. Documentation shall include:
 - How stormwater BMPs were selected;
 - The pollutant removal expected from the selected BMPs;
 - The technical basis which supports the performance claims for the selected BMPs; and
 - How the selected BMPs will comply with applicable state water quality standards and satisfy the state requirement to apply AKART prior to discharge.

Permittees who choose to use the BMP selection, design, installation, operation and maintenance standards in the *Stormwater Management Manual for Eastern Washington (2004)*, or another technical stormwater manual approved by Ecology, may cite this reference as the sole documentation that the ordinance or regulatory mechanism is protecting water quality, reducing the discharge of pollutants to the MEP, and satisfying state AKART requirements.

- iii. The ordinance or other regulatory mechanism shall include provisions for both construction-phase and post-construction access for Permittees to inspect stormwater BMPs on private properties that discharge to the MS4. If deemed necessary for post-construction access, the ordinance or other regulatory mechanism may, in lieu of requiring that continued access be granted to the Permittee's staff or qualified personnel, instead require private property owners to provide annual certification by a qualified third party that adequate maintenance has been performed and the facilities are operating as designed to protect water quality.
- iv. The ordinance or other regulatory mechanism shall include appropriate, escalating enforcement procedures and actions.
- v. The Permittee shall develop an enforcement strategy and implement the enforcement provisions of the ordinance or other regulatory mechanism.
- b. No later than four years from the effective date of this permit, all Permittees shall adopt and implement procedures for site plan review which incorporate consideration of potential water quality impacts.
 - i. Prior to construction, Permittees shall review *Stormwater Site Plans* for, at a minimum, all new development and redevelopment sites that meet the thresholds in S5.B.5.a.i. to ensure that the plans include stormwater pollution prevention measures that meet the requirements in S5.B.5.a.ii.

To comply with this provision, Permittees shall keep records of all projects disturbing more than one acre, and all projects of any size that are part of a common plan of development or sale that is greater than one acre, that are approved after the effective date of this permit. Permittees shall keep records of these projects for five years or until construction is completed, whichever is longer.
 - ii. The site plan review shall be performed by qualified personnel and shall include review of *Construction Stormwater Pollution Prevention Plans* where required pursuant to S5.B.4.b.i.
- c. No later than four years from the effective date of this permit, all Permittees shall adopt and implement procedures for site inspection and enforcement of post-construction stormwater control measures.
 - i. All Permittees shall adopt a procedure for keeping records of inspections and enforcement actions by staff, including inspection reports, warning letters, notices of violations, and other enforcement records. At a minimum, inspection and enforcement procedures shall be applied to all new development and redevelopment sites that meet the thresholds in S5.B.5.a.i.
 - ii. Structural BMPs shall be inspected at least once during installation by qualified personnel.
 - iii. Structural BMPs shall be inspected at least once every five years after final installation, or more frequently as determined by the Permittee to be

- necessary to prevent adverse water quality impacts, to ensure that adequate maintenance is being performed. The inspection shall be performed by qualified personnel.
- iv. Recommended operation and maintenance standards for structural BMPs in the *Stormwater Management Manual for Eastern Washington (2004)*, or another technical stormwater manual approved by Ecology, shall be met. If a BMP is not inspected, the Permittee is not in violation of this provision unless a violation of water quality standards occurs due to lack of operation and maintenance of the facility.
 - v. If a site is inspected and problems are identified, the Permittee is not in violation of this provision, provided the Permittee requires and confirms that necessary operation, maintenance and/or repair to correct the problem is performed as soon as practicable.
- d. Permittees shall provide adequate training for all staff involved in permitting, planning, review, inspection, and enforcement to carry out the provisions of this SWMP component.
 - e. From the effective date of this permit, all Permittees shall provide information to design professionals about training available on how to comply with the requirements of Appendix 1 and apply the BMPs described in the *Stormwater Management Manual for Eastern Washington (2004)*, or another technical stormwater manual approved by Ecology.
 - f. To comply with these provisions, Permittees shall keep records of all projects disturbing more than one acre that are approved on or after the effective date of the ordinance or other regulatory mechanism (but no later than four years from the effective date of this permit); and all projects of any size that are part of a common plan of development or sale that is greater than one acre, that are approved after the effective date of this permit.
 - i. Permittees shall keep project records for five years or until construction is completed, whichever is longer, with the following exceptions: approved site plans and O&M plans shall be kept as needed to comply with the ongoing inspection requirements of this permit.
 - ii. The training records to be kept (for d, above) include dates, activities or course descriptions, and names and positions of staff in attendance.
 - iii. Permittees shall keep copies of information that is provided to design professionals (for e, above); and, if information is distributed to a large number of design professionals at once, the dates of the mailings and lists of recipients.
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T2h			
No.	NPDES II Stormwater Runoff Control Policy Issues	Consultant Initial Recommendations	Rationale Why?
General Requirements			
1	Will the City/County regulate these policies using a separate Erosion/Sediment Control Permit or Stormwater Facility Permit?	No. Incorporate stormwater design requirements into the overall development approval process.	City/County should incorporate provisions of erosion/sediment control and stormwater design requirements into the overall development approval process. The City/County should not issue a building permit, grading permit, or site plan approval until the provisions of the stormwater runoff control ordinance have been met.
2	If applicable, how much will the Permit application filing fee cost?	Incorporate stormwater review costs into overall development review fees. May need to increase development fees accordingly. -or- +C20	The fee should cover City/County cost to review the plans and stormwater report, plus any time to inspect the property and installed facilities before, during, and after construction. If City/County expects to hire an outside engineer to perform these tasks, then requiring developers to reimburse for the consulting fees ensures full cost recovery. Development review fees should also recover the cost to provide /acquire NPDES II required training for plan reviewers and site inspectors.
3	What size of site should be regulated for erosion and sediment control?	The Cities and County must regulate all new development and redevelopment sites that discharge to the MS4 and that disturb one acre or more or are less than one acre and are a part of a common plan of development or sale. However, given the development patterns in the area, the Cities/County should regulate smaller development sites for construction control, but do so using a simpler submittal and review process.	The one acre threshold is consistent with the Phase II Permit. However, the jurisdictions should choose a lower threshold to apply construction erosion and sediment controls since these smaller developments have a history of causing water quality concerns. The particular threshold size, plan preparation, and review process needs to be developed more during future ordinance development work.
4	What size of development should be regulated for Post-Construction Stormwater Management?	All new development and redevelopment sites that discharge to the MS4 and that disturb one acre or more, or are less than one acre and are a part of a common plan of development or sale.	The one acre threshold is consistent with the Phase II Permit. However, each jurisdiction can choose a lower threshold if they feel smaller developments pose a threat to water quality. Pullman, for example, is looking at requiring runoff control for projects that add 5,000 or more square feet of impervious surface (consistent with the Western Washington Phase II Permit).

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No.	NPDES II Stormwater Runoff Control Policy Issues	Consultant Initial Recommendations	Rationale Why?
5	Which activities will be exempt from this ordinance?	<ul style="list-style-type: none"> -Forest practices regulated under Title 22 WAC. -Commercial agriculture (though not construction of impervious surfaces), -Oil and gas field activities or operations. -Select road and parking area maintenance, and -"Any emergency activity that is immediately necessary for the protection of life, property, or natural resources." Partially Exempt: <ul style="list-style-type: none"> -Underground utility projects, -Select road and parking area maintenance, and -Safety improvement projects that do not enhance traffic capacity. 	Exempt activities are from Appendix 1 of the Phase II Permit and are consistent with the <i>Stormwater Management Manual for Eastern Washington</i> and <i>Construction Stormwater General Permit</i> . The permit does not explicitly list emergency activities as exempt, though those activities are listed as exempt in EPA's model.
6	Which stormwater design manual will developers be required to follow?		"Permittees who choose to use the BMP selection, design, installation, operation and maintenance standards in the <i>Stormwater Management Manual for Eastern Washington</i> (2004), or another technical stormwater manual approved by Ecology, may cite this reference as the sole documentation that the ordinance or regulatory mechanism is protecting water quality, reducing the discharge of pollutants to the MEP, and satisfying state AKART requirements" (Phase II Permit). At this time, the only manual approved by Ecology is the <i>Spokane Regional SW Manual</i> . Other manuals are in development (i.e. Yakima area). However these manual may contain region specific requirements that would create problems for direct adoption and application in the Asotin County area. Note the need to include Appendix 1 of the NPDES II permit, and UIC guidance not in the E. WA Manual.
7	Which requirements will construction operators be required to adhere to in order to comply with this ordinance?	Construction operators must adhere to, at a minimum, the requirements of Appendix 1, Core Element #2 of the Phase II Permit.	The requirements in Appendix 1, Core Element #2 of the Phase II Permit are the same as those in the State Construction Stormwater General Permit issued by Ecology and the <i>Stormwater Management Manual for Eastern Washington</i> .

T2h			
No.	NPDES II Stormwater Runoff Control Policy Issues	Consultant Initial Recommendations	Rationale Why?
8	Will the City/County require a bond or construction guarantee prior to the start of construction?	Yes. However the any bond required should be related to the overall development application, not specific to stormwater issues.	<p>The City/County should have, at minimum, a maintenance bond that provides funding to stabilize the site in the event the contractor does not install or maintain proper erosion control practices after clearing the site. Maintenance bonds are typically 10-15% of the estimated site work cost. A performance bond is used for infrastructure work that the contractor intends to do after the final plat has been recorded. For example, a builder may elect to postpone sidewalk construction until after housing lots have been constructed. The City/County could require a performance bond of 100-120% of the estimated cost of the sidewalk construction. This gives the City/County the money to do the work if the contractor does not come back and finish.</p> <p>In either case, bonding requirements should be part of the City/County development code and not necessarily addressed in the stormwater ordinance.</p>
Stormwater Pollution Prevention Plans			
9	As part of the City/County's site plan review process, when will developers be required to submit their Stormwater Pollution Prevention Plan (SWPPP)?	During submittal of a Construction Site Erosion and Sediment Control Permit, Building Permit, Grading Permit, or Site Plan Approval application (if applicable).	It will be necessary to review all submitted SWPPPs before issuance of a building or grading permit. Construction should not be allowed to begin until the SWPPP is approved by the City/County. A simplified SWPPP might be prepared for sites disturbing less than an acre.
10	Will the City/County require all SWPPPs to be prepared by a licensed professional engineer, landscape architect, or professional inerosion and sediment control?	All SWPPPs for sites meeting the NPDES II regulatory thresholds must be prepared by a professional engineer. The Cities/County should consider allowing CESCL trained contractors prepare a reduced SWPPP for sites below the regulatory thresholds as long as engineering calculations are not needed.	"State law requires that engineering work be performed by or under the direction of a professional engineer licensed to practice in Washington State. Plans involving construction of treatment facilities or flow control facilities (detention ponds or infiltration basins), structural source control BMPs, or drainage conveyance systems generally involve engineering principles and shall be prepared by or under the direction of a licensed engineer. Construction Stormwater Pollution Prevention Plans (SWPPPs) that involve engineering calculations must also be prepared by or under the direction of a licensed engineer" (<i>Stormwater Management Manual for Eastern Washington</i>). For smaller sites (less than 1 acre for instance) the Citis and County should define simplified submittal requirements where a non-engineer can complete the submittal - these might be limited to selecting and applying TESC BMPs where calculations are not needed.

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No.	NPDES II Stormwater Runoff Control Policy Issues	Consultant Initial Recommendations	Rationale Why?
11	What should a SWPPP contain?	At a minimum the SWPPP for any site meeting the NPDES II regulatory thresholds must include the elements outlined by Ecology in the Washington State Construction Stormwater General Permit or in the <i>Stormwater Management Manual for Eastern Washington</i> . The requirements for smaller sites is at the discretion of the Cities and County.	The the City/County should include any additional information they desire in the SWPPP submittal requirements, though the state guidelines are consistent with accepted practice.
12	Who will be in charge of reviewing all submitted SWPPPs?	A qualified employee of the City/County or a hired engineer (consultant) working under the direction of the City/County.	Each jurisdiction should designate a staff engineer to be the lead in reviewing Stormwater Site Plans (SSPs), including the SWPPP elements. If the City/County does not have a qualified engineer on staff, then hiring an on-call consultant engineer to conduct development reviews is a common and recommended practice. It may be appropriate for one of the local governments to provide plan review and inspection services on behalf of the others. However this should be done under an inter local agreement (ILA) that makes sure NPDES II requirements are met and costs are covered.
13	Will the City/County allow developers to apply for an Erosivity Waiver?	Yes, the erosivity waiver should be allowed. However it's use should still come with expectations and the ability for the Cities/County to take enforcement and require a permit if problems arise on a site. The timing of the erosivity waiver should also be looked at and adjusted if needed.	Only if conditions listed in Appendix 1, Core Element # 2, of the Permit are met. The waiver allows smaller projects to avoid preparing a SWPPP if their site does not have high potential for erosion. Projects must be less than 5 acres, constructed in dry climates, in dry months, and with short durations of disturbed soil. Short duration projects in Asotin County may qualify.
14	Will the City/County require phasing of construction sites?	Phasing should be encouraged (but not required) for large projects where the practice can reduce the erosion potential.	Phasing construction can reduce erosion by exposing smaller areas of soil at a single time. However, phasing can cost developers more money and may also cost the City/County more money in reviewing phased plans and inspecting phased project sites. As such, phasing should be encouraged for large projects with high erosion potential. Smaller projects should be encouraged to maintain the shortest disturbed soil time possible.
Stormwater Site Plans			
15	As part of the City/County's site plan review process, when will developers be required to submit their Stormwater Site Plan (SSP)?	During submittal of a Construction Site Erosion and Sediment Control Permit, Building, or Grading Permit application.	It will be necessary to review all submitted SSPs before issuance of a building or grading permit. Construction should not be allowed to begin until their SSP is approved by the City/County.

T2h			
No.	NPDES II Stormwater Runoff Control Policy Issues	Consultant Initial Recommendations	Rationale Why?
16	Will the City/County require all SSPs to be prepared by a licensed professional engineer, landscape architect, or professional in erosion and sediment control?	Yes - by a professional engineer.	"State law requires that engineering work be performed by or under the direction of a professional engineer licensed to practice in Washington State. Plans involving construction of treatment facilities or flow control facilities (detention ponds or infiltration basins), structural source control BMPs, or drainage conveyance systems generally involve engineering principles and shall be prepared by or under the direction of a licensed engineer" (<i>Stormwater Management Manual for Eastern Washington</i>).
17	What should a SSP contain?	All elements outlined by in Chapter 3 of the <i>Stormwater Management Manual for Eastern Washington</i> . The City/County has the discretion to require additional information in complex circumstances.	Adopting the <i>Stormwater Management Manual for Eastern Washington</i> except where superceded by Appendix 1 of the NPDES II Permit or current UIC guidance will satisfy the Phase II Permit requirement to "document how the requirements of the ordinance... protect water quality, reduce the discharge of pollutants to the MEP, and satisfy the state AKART requirements." (Phase II Permit)
18	Will the City/County require submittal of a Concept SSP and a Final SSP?	Not for all projects. A Concept SSP could be required for large, multiphased projects at the discretion of the City/County.	A Concept SSP should be required with the planning application of complex projects to show that the developer has taken the stormwater requirements into consideration and that the general plan has the ability to adequately mitigate for stormwater impacts. A final site plan (required for all projects that meet the threshold criteria) will the detailed design and calculations for the proposed BMPs.
19	Who will be in charge of reviewing all submitted SSPs?	A qualified employee of the City/County or a hired engineer (consultant).	Each jurisdiction should designate a staff engineer to be the lead in reviewing SSPs. If the City/County does not have a qualified engineer on staff, then hiring an on-call consultant engineer to conduct development reviews is a common and recommended practice. It may be appropriate for one of the local governments to provide plan review and inspection services on behalf of the others. However this should be done under an inter local agreement (ILA) that makes sure NPDES II requirements are met and costs are covered.
Conveyance Systems			
20	What conveyance standard (design flow) should be required for open channels, culverts, and pipe systems?	Open Channels/Ditches: 10-year flow with 0.5 ft freeboard; Culverts: 25-year flow; Pipe systems/gutters/drainage inlets: 10-year flow or 50-year flow in sag conditions.	Conveyance system design is not included in the Phase II Permit or the <i>Stormwater Management Manual for Eastern Washington</i> . Design flows listed here are based on the WSDOT Hydraulics Manual. Recommend referencing the WSDOT Hydraulics Manual for additional conveyance system design criteria.

T2h			
No.	NPDES II Stormwater Runoff Control Policy Issues	Consultant Initial Recommendations	Rationale Why?
21	Are there other conveyance design requirements or restrictions that should be included in the ordinance?	To be provided by each the City/County. -or- Reference the WSDOT Hydraulics Manual for conveyance system design requirements.	Elements to consider: -Restrictions on discharge to irrigation canals; -Required calculations for pipe systems, gutter flows and drainage inlets; -Allowable pipe materials; -Minimum pipe slopes or maximum channel velocities; -Maximum inlet or junction spacing in pipe networks.
Drywells			
22	What design standards or reference document should be used for the design and installation of drywells and other Underground Injection Control (UIC) facilities?	<i>Guidance for UIC Wells that Manage Stormwater</i> published by DOE and most recently revised in Dec 2006. Also require that all new UICs be registered with DOE. In addition, infiltration trenches have specific design requirements in addition to the document above.	Drywell design is not addressed in the Phase II Permit. UICs are regulated by the RCW 90.48 and Chapter 173-200 WAC - Water Quality Standard for Grounwaters of the State of Washington. The newer technical guidance documents published by Ecology replaces the UIC information in the <i>Stormwater Management Manual for Eastern Washington</i> .
Inspections			
23	Who will be in charge of inspecting each construction site to ensure compliance with this ordinance?	An employee of the City/County (or hired consultant under city/county direction) who is a Certified Erosion and Sediment Control Lead (CESCL), or a Certified Professional in Erosion and Sediment Control (CPESC).	Some developers hire their own equally accredited site inspectors, but this is a requirement for contractors. However, the City/County should have their own staff or thier own consultant perform inspections. It is especially important for the [Jurisdiction] to maintain control of inspections for facilities that will become public property after construction.It may be appropriate for one of the local governments to provide plan review and inspection services on behalf of the others. However this should be done under an inter local agreement (ILA) that makes sure NPDES II requirments are met and costs are covered.
24	How much will the inspection fee(s) cost the developer?	Incorporate the inspection fee into the overall permit fee. -or- Require developers to directly reimburse for inspections performed by a hired consulting engineer.	See issue No. 2 above.

T2h			
No.	NPDES II Stormwater Runoff Control Policy Issues	Consultant Initial Recommendations	Rationale Why?
25	How often will inspections be required during construction?	At least one inspection during construction to ensure proper installation and maintenance of erosion/sediment control facilities and one inspection at final construction to check installation of structural BMPs. Consider also requiring a pre-construction site inspection to review the erosion/sediment control plan with the contractor.	"All new construction sites that disturb one acre or more, or are part of a common plan of development or sale shall be inspected at least once by qualified personnel." (Phase II Permit) "Structural BMPs shall be inspected at least once during installation by qualified personnel." (Phase II Permit). Inspection requirements for smaller sites may be reduced depending on City/County preference.
26	Will the City/County conduct at least one unannounced site inspection during the course of construction?	Possibly, at the discretion of the City/County.	Unannounced site inspections may be a good idea to ensure compliance with this ordinance. Contractors may be good about installing erosion/sediment controls but may not be maintaining them as they should. The ordinance should not explicitly require an unannounced inspection, as some projects are too small to need this additional inspection.
27	How many construction sites will be inspected?	All construction sites should be inspected according to this ordinance, but at a minimum, 95% of all regulated construction sites will need to be inspected.	"Compliance with the NPDES Phase II inspection requirement will be determined by the Permittee having and maintaining records of an inspection program that is designed to inspect all sites, and by the Permittee achieving an inspection rate of at least 95% of the sites" (Phase II Permit).
28	How often will inspections be required for structural BMPs after project completion?	Every two years to ensure proper condition and ongoing O&M is being done.	The Post-construction section of the Phase II Permit calls for inspections at least once every five years. However, the Operations and Maintenance section states, "A minimum of 95% of all known stormwater treatment and flow control facilities...shall be inspected at least twice: once no later than three years from the effective date of this permit and again before the expiration date...." (Phase II Permit)
Operations and Maintenance			
29	Will the City/County require an Operation and Maintenance Plan for each development?	Yes.	Where structural BMPs are required, property owners shall operate and maintain the facilities in accordance with an Operation and Maintenance (O&M) plan that is prepared in accordance with the provisions in Chapters 5 and 6 of the <i>Stormwater Management Manual for Eastern Washington</i> (Phase II Permit).
30	Will the City/County require an O&M agreement showing the financial plan for long term O&M funding for each development?	Yes.	Unless the City/County assumes responsibility for maintenance and repair of BMPs, such an agreement will be needed to ensure that the BMPs will continue to function properly after installation and protect water quality.

T2h			
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31	Would the City/County be willing to accept dedication of existing or future stormwater BMP to include City/County responsibility for maintenance and repair?	Yes/No - no official recommendation.	Other municipalities go either way on this issue. Some will not accept public ownership of privately constructed facilities because they do not want to take on the maintenance responsibility. Others require all stormwater facilities to be transferred to public ownership because they want to control the facility and ensure that maintenance is actually performed. With limited public resources, it may be best to discourage (but not prohibit) transfer to public ownership. See next question.
32	How will the City/County verify that maintenance is being performed on privately owned facilities?	The City/County should set up a maintenance verification program that requires owners to submit annual inspection records conducted by a third party.	Two methods are common: 1. City/County obtains right of entry and performs annual inspections of private stormwater facilities. Notice of required maintenance are sent to owners following inspections. 2. City/County requires owners to submit records of annual inspections conducted by a third party. This method cuts inspection costs for the City/County and is consistent with the language in the Phase II Permit.
33	For those parties responsible for the operation and maintenance of stormwater BMPs, how long shall they retain records of the installation and of all maintenance and repairs?	Ensure consistency with other records retention requirements for engineered systems, considering the need to access records for NPDES II permit requirements.	"The duration of any records retention requirement should be determined by a City/County to parallel any such requirements for street, gutter or sewer infrastructure; a duration of twenty-five (25) years is not uncommon" (Iowa Model). This issue is not clear in the Phase II Permit, as the permit term only runs through February 2012.
Enforcement			
34	If a construction violation is found during site inspection, how much time does the developer have to take corrective action?	Upon receipt of violation(s) notice, developer should immediately commence corrective action and complete the corrective action within 24 hours.	Erosion and sediment control violations require immediate action. Non-compliance should result in a stop work order until the proper controls are in place.
35	If a person or entity fails to maintain a BMP, what actions should the City/County take to maintain the facility in proper working order and protect water quality?	In non-emergency situations, the City/County should notify the responsible party in writing. The responsible person shall then have thirty (30) days to perform necessary maintenance and repairs. If the work is not completed or the problem becomes a danger to public safety or public health, the City/County should conduct the necessary repairs and assess the owner(s) for the cost of repair work and any penalties.	This method focuses on keeping property owners responsible for maintenance and repairs. Most owners will comply with the ordinance and perform proper maintenance once educated about the requirements. The few that do not comply will need a monetary incentive to do so. The method of collecting payment should be consistent with other areas of the City/County code - perhaps placing a lien on the property if payment is not made within an agreed upon or legislated time frame.

T2h			
No.	NPDES II Stormwater Runoff Control Policy Issues	Consultant Initial Recommendations	Rationale Why?
36	What enforcement action, or code, will be followed when a violation of the ordinance occurs?	Specific to the City/County.	Enforcement steps should be consistent with other code enforcement activities within the City/County. Continued non-compliance should result in civil penalties and fines.
37	How will appeals be handled?	Specific to the City/County.	Appeals of violations to the stormwater code should be handled in the same way as all other code violation appeals within the City/County. This avoids confusion or uneven responses and maintains consistency within the City/County.