



SSC Program (Appendix 12)
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SSC Program Point Approach



- Allow for comparisons of
 - A variety of project types
 - Differing project benefits
- Standardize quantification of qualifying projects
- Provide for simpler calculations than previous system
- Emphasize
 - Flexibility for permittees
 - Reducing negative impacts from existing MS4 discharges
 - Implementing basin or watershed plans
 - Project effectiveness as compared to minimum technical requirements
 - Addressing water quality impairments

Project Types

Qualifying	Non-qualifying
1. New flow control facility	• In-channel habitat and stream restoration.
2. New runoff treatment facility (or treatment and flow control facility)	• Fish barrier removal.
3. New LID BMPs	• Stabilization of down cutting.
4. Retrofit of existing treatment and/or flow control facility	• In-stream culvert replacement.
5. Property acquisition	• Mitigation projects otherwise required.
6. Maintenance with capital construction costs \geq \$25,000	
7. Restoration of riparian buffer	
8. Restoration of forest cover	
9. Floodplain reconnection projects	
10. Permanent removal of impervious surfaces	
11. Other actions to address stormwater runoff into or from the MS4 not otherwise required in SSC	



Current Level Of Effort

- Phase I Annual Report – SSC reporting
- Grant Project Comparison
- Comments on Preliminary draft SSC permit proposal

SSC Program Point Multipliers

Relevant Project Type #s	Project Achievement Description	Incentive Factors & SSC Points
#1 & #4	Flow Control	1.0 times Flow Control Equivalent area
#1 & #4	Flow Control in a known flow control problem area	1.5 times Flow Control Equivalent area
#2 & #4	Runoff Treatment	1.0 times Runoff Treatment Equivalent area
#2 & #4	Runoff Treatment in a known water quality problem area	1.5 times Runoff Treatment Equivalent area
#2 & #4	Achieves Enhanced or Phosphorus Treatment	2.0 times Runoff Treatment Equivalent area
#2 & #4	Meets WQ Standards for target Pollutant	2.5 times Runoff Treatment Equivalent area
#3	Provides LID Performance (i.e. On-site infiltration to manage low flows)	1.5 times LID Equivalent area

SSC Program Point Multipliers

Relevant Project Type #s	Project Achievement Description	Incentive Factors & Retrofit Incentive Points
#5	Property Acquisition	0.50 times acres acquired
#6 & #11	Maintenance with capital construction costs ≥ \$25,000 or other maintenance actions per SSC.7a.8.(e).	0.25 times the area served by the maintenance activity, or 0.25 times four miles sweeps (8 events/year), or 0.25 times the linear feet lines cleaned.
#7	Restoration of Riparian Buffer	0.35 times acres restored
#8	Restoration of Forest Cover	0.25 times acres restored
#9	Floodplain Reconnection	0.10 times acres reconnected, with a maximum of 200 points
#10	Permanent Removal of Impervious surfaces	1.0 times the area of impervious surface removed

Add 0.10 to the applicable multiplier for capital projects related to the MS4 which implement an Ecology-approved basin plan (refer to Permit Appendix 1, Section 7) or watershed-scale stormwater plan from the 2013-2018 Permit's Special Condition 55.C.5.c, or a TMDL (refer to Appendix 2) or an Ecology-approved adaptive management plan (refer to Permit's Special Condition 54f and Appendix 13).

Reporting

Table 1: SSC Project List Template

Comments	Receiving municipality name	Lat (Long (N))	Total SSC Program Points	Other Point Factor	Other Project Area: Ac or m ²	FC Point Factor	FC Equiv. Area	RT Point Factor	RT Equiv. Area	UD Point Factor	UD Equiv. Area	Basin Area (sq)	Cost Est.	Basin	Project Name

Level of Effort 300 SSC points

- 225 SSC Points for projects in Design Phase
- 75 SSC Points for Construction Projects or activities

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SSC Program Point Multipliers



- Compare the anticipated water quality (runoff treatment and flow control) benefit of the constructed project with anticipated water quality benefit if the project met new/redevelopment criteria (i.e. treat 91% annual average volume, flow duration curve)
- For each project, calculate the area of a basin that flows to the new BMP would meet new/redevelopment criteria and report that value.
- Calculate and achieve points at 60% design phase and again at Construction
- Could use the equivalent area and percent removal of TSS to calculate annual solids removal, but this is dependent on location and annual rainfall.

Flow Control (Type 1 and 4) Equivalent Area Process



1. Identify the volume of detention at the overflow installed for the project (ac-ft)
2. Determine the required New/Redevelopment Detention Volume (ac-ft) for full basin using WWHM
3. Divide the actual detention volume (2) by the required detention volume (3) to get the equivalent volume ratio
4. Multiply the equivalent volume ratio (3) by the required New/Redevelopment Detention volume from (1)



Runoff Treatment (Type 2 and 4) Equivalent Area Process

1. Determine the flow rate or volume used in the design of the BMP
2. Determine the required New/Redevelopment Runoff Treatment flow (cfs) or Volume (ac-ft) for full basin using WWHM
3. Determine the basin area that delivers the design flow rate or volume to the BMP
4. Divide the design basin area (3) by the required area (1) to get the equivalent area ratio
5. Multiply the equivalent area ratio (4) by the full basin area from (1)



LID Performance Standard (Type 3 and 4) Equivalent Area Process

1. Run WWHM to determine if the proposed BMPs meet the LID Performance Standard,
 - If they do, Equivalent Area Ratio = 1.0
2. If not, Reduce drainage basin area (while running WWHM) until you do meet the LID Performance Standard
3. Equivalent Area Ratio = Reduced area (2) / Original Area (1)
4. Multiply the equivalent area ratio (3) by the full basin area from (1)



Examples

- Existing Basin Contributing to BMP:
 - 7.0 acres landscaping, flat,
 - 3.0 acres hard surface roads and buildings,
 - Type C soil,
 - 0.3 in/hr native infiltration rate.



Example Flow Control Analysis (Type 1)

- Installing Detention BMP: 1.569 ac-ft at overflow
- New/Redevelopment Required pond volume at overflow = 2.302 ac-ft
- Equivalent Volume Ratio = $1.569 / 2.203 = 0.682$
- Flow Control Equivalent Area = $0.682 * 10$ acres = 6.82 acres
- SSC Points:
 - $6.82 * 1.0 = 6.82$ points if no flow control issue
 - $6.82 * 1.5 = 10.23$ points if in known flow control area




Example Runoff Treatment using flow rate sizing (Swale, MTD)

- Proposed Retrofit design flow rate BMP (on-line flow) = 0.035 cfs
- New/Redevelopment design flow rate BMP (on-line, from WWHM) = 0.0800 cfs
- Equivalent Treatment flow rate Ratio = $0.035 / 0.080 = 0.437$
- Runoff Treatment Equivalent Area = $0.437 * 10$ acres = 4.37 acres
- SSC Points:
 - $4.37 * 1.0 = 4.37$ points
 - $4.37 * 1.5 = 10.23$ points if in known water quality area
 - $4.37 * 2.0 = 8.74$ If providing Enhanced or Phosphorus treatment




Example Runoff Treatment using Volume sizing (Wet Pond/Wet Vault)

- Proposed Retrofit design Volume = 0.115 ac-ft
- New/Redevelopment Required WWHM design Volume = 0.1614 ac-ft
- Equivalent Treatment Volume Ratio = $0.115 / 0.1614 = 0.712$
- Runoff Treatment Equivalent Area = $0.712 * 10$ acres = 7.12 acres
- SSC Points:
 - $7.12 * 1.0 = 7.12$ points
 - $7.12 * 1.5 = 10.68$ points if in known water quality area



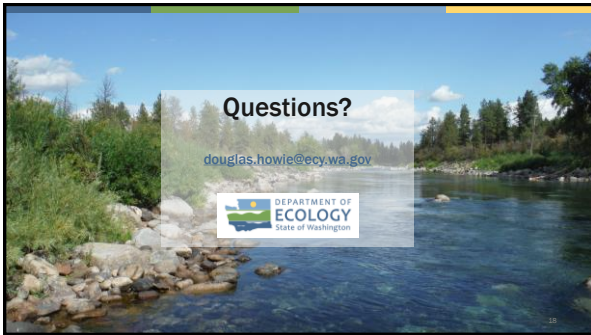
Example LID using Bioretention

- Proposed retrofit design surface area = 2,500 sq ft
- New/Redevelopment Required surface area to Meet LID Performance Standard = 2,900 sq ft
- Treatment ratio Proposed area (2) / Required area (1) = $2,500 / 2,900 = 0.862$
- LID Equivalent Area = $0.862 * 10 \text{ acres} = 8.62 \text{ acres}$
- SSC Points:
 - $8.62 * 1.5 = 12.93 \text{ points}$



Example Runoff Treatment for Bioretention

- Proposed retrofit design surface area = 2,500 sq ft
- New/Redevelopment Required surface area for 91% treatment= 3,500 sq ft
- Treatment ratio Proposed area (2) / Required area (1) = $2,500 / 3,500 = 0.714$
- Runoff Treatment Equivalent Area = $0.714 * 10 \text{ acres} = 7.14 \text{ acres}$
- SSC Points:
 - $7.14 * 1.5 = 10.71 \text{ points}$



Questions?

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