

Community : _____

450 STORMWATER MANAGEMENT

451 Credit Points:

a. SMR

1. SZ

SZ = _____

2. DS

DS = _____

3. PUB

PUB = _____

SMR = the total of lines 1 through 3:

SMR = _____

b. SMP

1. The four prerequisites are met (80 points):

2. The plan is also based on the 100-year storm (25 points):

3. The community also manages peaks and volumes (40 points):

4. The community uses the 5-day event (25 points):

5. Identification of wetlands, etc. (15 points):

6. Protection of natural channels (10 points):

7. Requiring "soft" techniques for bank stabilization (10 points):

8. Coordination with the floodplain management plan (20 points):

SMP = the total of lines 1 through 8:

SMP = _____

452 Impact Adjustment:

a. Option 1: 1. rSMR = 1.0 2. rSMP = 1.0

b. Option 2: 1. rSMR = 0.25 2. rSMP = 0.25

c. Option 3: 1. $rSMR = \frac{aSMR}{aW} = \frac{\quad}{\quad}$ 2. $rSMP = \frac{aSMP}{aW} = \frac{\quad}{\quad}$

453 Credit Calculation:

a. $cSMR = SMR \times rSMR$ $cSMR =$ _____

b. $cSMP = SMP \times rSMP$ $cSMP =$ _____

c. FRX = _____ x _____ height in feet of lowest floor or opening, OR

50, where site plan accounts for drainage, OR

20, where positive drainage required

FRX = _____

d. ESC

ESC = _____

e. WQ

WQ = _____

Add the lines a—e above = _____

c450 = value above rounded to the nearest whole number:

c450 = _____

Enter this value on AW-720-1.

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AW-UF	Uncertain Flow Path Hazards

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454 Credit Documentation:

a. Stormwater Management Regulation (SMR):

- 1. A copy of the ordinance or law language regulating surface water runoff from new developments in the watershed. For SMR credit, the language must require that peak runoff from new developments be no greater than the runoff from the site in its pre-development condition. As an alternative to such a performance standard, the language may be based on criteria designed to produce the same result on a regional basis (e.g., a standard allowable discharge per acre based on a regional study). The margin next to where this appears in the ordinance must be marked "SMR."
 - Ordinance language from other communities within the watershed with the same or similar regulations. The margin next to where this appears in the ordinance must be marked "SMR," OR
 - Written assurance from a county, regional, or state agency that similar standards are in effect in the upstream communities.
 - Development and permit records that demonstrate enforcement.
- 2. SZ: The ordinance language that includes the types of development regulated to ensure that peak runoff from new developments be no greater than the runoff from the site in its pre-development condition. Include the part of the ordinance that specifies exemptions to this requirement. The margin next to where this appears in the ordinance must be marked "SZ."
 - Ordinance language from other communities within the watershed with the same or similar regulations. The margin next to where this appears in the ordinance must be marked "SZ," OR.
 - Provide written assurance from a county, regional, or state agency that similar standards are in effect in the upstream communities.
- 3. DS: The ordinance language that includes the design storm(s) used by the community for stormwater management regulation. This is the recurrence interval for the storm(s) that is/are regulated to prevent increased runoff due to development. If credit is based on language that does not include storm recurrence intervals, the community must provide an estimate of the recurrence intervals. The margin next to where this appears in the ordinance must be marked "DS."
 - Ordinance language from upstream communities within the watershed with the same or similar regulations. The margin next to where this appears in the ordinance must be marked "DS." OR
 - Provide written assurance from a county, regional, or state agency that similar standards are in effect in the upstream communities.
- 4. PUB: The ordinance language that shows that the community has the authority to inspect all private and public stormwater facilities and ensure that they are properly maintained. The margin next to where this appears in the ordinance must be marked "PUB."
 - Ordinance language that requires that all stormwater facilities be dedicated to the community." OR
 - Ordinance language that allows community staff to enter private property to inspect stormwater facilities, AND allows community staff to perform necessary maintenance." OR
 - Ordinance language that requires the owner(s) of private stormwater facilities to have them inspected at least annually by a registered engineer, to perform all maintenance indicated by such inspections, and to submit copies of all inspection reports and maintenance reports to the community.

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- ___ A list or map that shows the locations of all publicly and privately owned stormwater facilities for which the community is requesting PUB credit.
 - ___ Documentation that shows that all public and private stormwater facilities have been inspected at least annually. This documentation should include a standard operating procedure for inspections and records of actual inspections and maintenance. This documentation is similar to, and may be combined with, documentation for channel debris removal (CDR) in Activity 540.
5. Impact adjustment. EITHER
- ___ If the community uses Option 1, it must document that all of the watershed that affects the community is regulated to the same standard. This is true if there is a regional stormwater management standard applied by all upstream communities, or if the community is entirely on an island, and no other communities on the island drain into the community, or if the community's upstream boundaries exactly match the watershed boundaries. Provide an Impact Adjustment Map that shows the area regulated by the community (usually the community's boundaries) (marked "aSMR") and the boundaries of the watershed that affects the community (marked "aW"). aSMR and aW must be equal. OR
 - ___ If the community uses Option 2, rSMR = 0.25 and no documentation is required. OR
 - ___ If the community uses Option 3, it must provide an Impact Adjustment map. Provide an Impact Adjustment map that shows the area regulated by the community (usually the community's boundaries) (marked "aSMR") and the boundaries of the watershed that affects the community (marked "aW"). If areas within the upstream watershed are regulated by other communities, their boundaries must also be marked.
- b. Stormwater Master Plan (SMP):
1. SMP Prerequisites (one prerequisite is credit for SMR):
 - ___ a. Documentation that the community has adopted a stormwater management master plan for one or more of the watersheds that drain into the community. The margin next to where this appears in the documentation must be marked "SMP 1.a."
 - ___ c. The section of the plan that includes regulatory standards to manage future peak flows so that they do not increase over present values. The margin next to where this appears in the documentation must be marked "SMP 1.c."
 - ___ d. The section of the plan that includes regulatory standards to manage runoff from all storms up to and including at least the 25-year event. The margin next to where this appears in the documentation must be marked "SMP 1.c."
 2. SMP Credit (Basic credit is provided for meeting the prerequisites):
 - ___ b. Documentation that shows management of peak flows for all storms up to and including the 100-year storm. The margin next to where this appears in the documentation must be marked "SMP 2.b."
 - ___ c. Documentation that shows management of peak flows AND volumes so that they do not exceed present values. The plan must include either regulations that meet these criteria, or must be based on a rainfall/runoff model that achieves these results. The margin next to where this appears in the documentation must be marked "SMP 2.c."

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- ___ d. Documentation that shows management of the runoff from all storms up to and including the 5-day event. If a community can demonstrate that an event shorter than five days is the locally appropriate "worst-case" runoff event for stormwater management, it may receive the credit if it uses that event for its regulatory standard. The margin next to where this appears in the documentation must be marked "SMP 2.d."
- ___ e. Documentation that the plan identifies existing wetlands or other natural open space areas to be preserved from development to provide natural attenuation, retention, or detention of runoff. The margin next to where this appears in the documentation must be marked "SMP 2.e."
- ___ f. Documentation that the plan prohibits development, alteration, or modification of existing natural channels. The margin next to where this appears in the documentation must be marked "SMP 2.f."
- ___ g. Documentation that the plan requires that channel improvement projects use natural or "soft" approaches rather than gabions, riprap, concrete, or other "hard" techniques. The margin next to where this appears in the documentation must be marked "SMP 2.g."
- ___ h. Documentation that the plan was prepared in coordination with or as a part of the community's floodplain management plan credited under Activity 510. The margin next to where this appears in the documentation must be marked "SMP 2.h." EITHER
- ___ The Floodplain Management Plan is mentioned prominently in the stormwater master plan, and if references in the stormwater master plan demonstrate that it is intended to help implement the Floodplain Management Plan. OR
- ___ Hydrologic output from the stormwater master plan is used as input for the Floodplain Management Plan.

3. Impact adjustment. Either:

- ___ If the community uses Option 1, it must document that all of the watershed that affects the community is covered by its stormwater master plan(s). This is true if there is a regional stormwater management plan applied by all upstream communities, or if the community is entirely on an island, and no other communities on the island drain into the community, or if the community's upstream boundaries exactly match the watershed boundaries. Provide an Impact Adjustment Map that shows the area covered by the watershed master plan(s) (marked "aSMP") and the boundaries of the watershed that affects the community (marked "aW"). aSMP and aW must be equal. OR
- ___ If the community uses Option 2, rSMP = 0.25 and no documentation is required. OR
- ___ If the community uses Option 3, it must provide an Impact Adjustment Map. Provide an Impact Adjustment map that shows the area covered by the watershed master plan(s) (marked "aSMP") and the boundaries of the watershed that affects the community (marked "aW").

c. Freeboard in B, C, D, and X Zones (FRX):

- ___ A copy of the ordinance or law language that requires elevation of the lowest floor or lowest opening of new buildings. The margin next to where this appears in the documentation must be marked "FRX."
- ___ Development and building permit records that demonstrate enforcement.

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d. Erosion and sedimentation control regulations (ESC):

- ___ A copy of the ordinance or law language that requires developers or property owners to use techniques that prevent erosion and soil loss from exposed land. The ordinance(s) or law must designate an office or official responsible for receiving complaints and monitoring compliance and it must include enforcement and abatement provisions. The margin next to where this appears in the documentation must be marked "ESC."
- ___ Development and building permit records that demonstrate enforcement.

e. Water quality regulations (WQ):

- ___ A copy of the ordinance or law language that requires new developments to implement appropriate best management practices to improve water quality. The margin next to where this appears in the documentation must be marked "WQ."
- ___ Development and building permit records that demonstrate enforcement.

To facilitate verification of this activity, please provide the names of the CRS Coordinator and local stormwater manager if other than the CRS Coordinator:

CRS Coordinator		Local Stormwater Manager	
Name:	_____	_____	_____
Title:	_____	_____	_____
Phone:	_____	Fax:	_____
Address:	_____	_____	_____
E-mail:	_____	_____	_____

Comments:

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