Backyard Rain Garden

Definition/Purpose

A *rain garden* is a shallow depression in the ground that captures runoff from a driveway, roof or lawn and allows it to soak into the ground, rather than running across roads <u>or other impervious surfaces</u>, capturing pollutants and delivering them to a stream. The rain garden absorbs and filters pollutants and returns cleaner water through the ground to nearby streams. Rain gardens can also reduce flooding <u>stormwater runoff</u> by sending the water back underground, rather than <u>o</u>into <u>impervious surfaces</u><u>the</u> <u>street</u>.

Policies

- 1. Rain gardens should retain water for less than three days after a storm event. If water poured into a hole dug one-foot deep is still there after three days (provided there has been no rain), the site should be designed as a backyard wetland or another site should be selected.
- If this BMP is treating more than 2500 ft² of impervious surfaces or an underdrain is required for proper drainage, design approval is required by a Professional Engineer (PE). A bioretention area with engineered soils may be required.
- 3. Grassed swales or filter strips should be considered as a method of pretreatment to reduce sediment loading.
- 4. Native plant species capable of tolerating the extreme moisture conditions typical of this practice are recommended. Invasive or noxious species are prohibited, with the exception of all common turf type grasses.

BACKYARD RAIN GARDEN		
Lifespan	5 years single-family home, 10 years all other properties	
BMP Units	SQUARE FEET	
Required Effects	 Total Nitrogen Removed Total Phosphorus Removed Total Suspended Solids Removed <u>Use CCAP BMP Water Quality Benefits Spreadsheet Tool</u> <u>Use CCAP BMP Water Quality Benefits Spreadsheet Tool</u> 	
JAA	Backyard rain garden/wetland JAA from the Commission Backyard raingarden design worksheet	

Supporting	N.C. Community Conservation Assistance Program (CCAP) Design Manual:
Standards	Backyard Rain Garden Design
	http://www.ncagr.gov/SWC/costshareprograms/CCAP/documents/Chapter5-
	BackyardRainGardenDesign.pdf
CS2 Reference	• NC-CSP-11 Signature Page
Materials	Map with BMP location
	Rain garden Checklist Form
	 <u>Backyard rain garden Operation & Maintenance plan</u>

Special Considerations:

Soils play a critical role in the function of backyard raingardens and backyard wetlands. Infiltration rates of the soils onsite will affect not only the plant materials, but adjustments to the size of the treatment volume will also help them function better and reduce maintenance. Please refer to Chapter 5 of the CCAP Design Manual for additional information.

<u>Standards</u>

N.C. Community Conservation Assistance Program (CCAP) Design Manual: Backyard Rain Garden Design http://www.ncagr.gov/SWC/costshareprograms/CCAP/documents/Chapter5-BackyardRainGardenDesign.pdf

Backyard Rain Garden

Definition/Purpose

A *rain garden* is a shallow depression in the ground that captures runoff from a driveway, roof or lawn and allows it to soak into the ground, rather than running across roads or other impervious surfaces, capturing pollutants and delivering them to a stream. The rain garden absorbs and filters pollutants and returns cleaner water through the ground to nearby streams. Rain gardens can also reduce stormwater runoff by sending the water back underground, rather than onto impervious surfaces.

Policies

- 1. Rain gardens should retain water for less than three days after a storm event. If water poured into a hole dug one-foot deep is still there after three days (provided there has been no rain), the site should be designed as a backyard wetland or another site should be selected.
- 2. If this BMP is treating more than 2500 ft² of impervious surfaces or an underdrain is required for proper drainage, design approval is required by a Professional Engineer (PE). A bioretention area with engineered soils may be required.
- 3. Grassed swales or filter strips should be considered as a method of pretreatment to reduce sediment loading.
- 4. Native plant species capable of tolerating the extreme moisture conditions typical of this practice are recommended. Invasive or noxious species are prohibited, with the exception of all common turf type grasses.

BACKYARD RAIN GARDEN		
Lifespan	5 years single-family home, 10 years all other properties	
BMP Units	SQUARE FEET	
Required Effects	 Total Nitrogen Removed Total Phosphorus Removed Total Suspended Solids Removed 	
AAL	Backyard rain garden/wetland JAA from the Commission Backyard raingarden design worksheet	
Supporting Standards	N.C. Community Conservation Assistance Program (CCAP) Design Manual: Backyard Rain Garden Design http://www.ncagr.gov/SWC/costshareprograms/CCAP/documents/Chapter5- BackyardRainGardenDesign.pdf	

CS2 Reference	NC-CSP-11 Signature Page
Materials	Map with BMP location
	<u>Rain garden Checklist Form</u>
	 Backyard rain garden Operation & Maintenance plan

Special Considerations:

Soils play a critical role in the function of backyard raingardens and backyard wetlands. Infiltration rates of the soils onsite will affect not only the plant materials, but adjustments to the size of the treatment volume will also help them function better and reduce maintenance. Please refer to Chapter 5 of the CCAP Design Manual for additional information.