

## MAINTAINING STORMWATER CONTROL MEASURES *Guidance for Private Owners & Operators*

### STORMWATER CONTROL MEASURES

#### Non-Structural SCMs: Riparian & Wetland Setbacks and Conservation Areas

Riparian and wetland setbacks require the protection of vegetation, soils and drainage patterns in these naturally sensitive areas to protect water quality and wildlife habitat. Local government ordinances or resolutions specify widths and terms of protection and use within these areas. Setback and easement boundaries are often demarcated in the field with signage. Conservation areas are often protected through a conservation easement that dictates terms of use and maintenance of a specific area often with the intent to maintain existing natural conditions for water quality and habitat protection. Maintenance typically requires an annual inspection for encroachment into or disturbance within the boundaries of the designated setbacks or easement areas. Inspection of vegetation to control non-native or invasive species may also be required with periodic reporting requirements often detailed in the terms of the easement or local ordinance or resolution requirements.

Additional non-structural SCMs involve educational efforts, management strategies, and planning alternatives by communities and are often associated with the way land is used and managed. Limiting the frequency of fertilizer applications for lawn areas or holding household hazardous waste disposal events are two examples of non-structural SCMs which provide public awareness to the community about how to reduce their contributions to stormwater pollution.

Implementing these practices can have a long-lasting effect on the health of the local environment and can significantly reduce maintenance costs for structural SCMs.



*Stable riparian area and floodplain vegetation **filtering pollutants** from stormwater runoff prior to entering sensitive streams. Credit: Chagrin River Watershed Partners, Inc.*

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***Encroachment** and vegetation removal within protected riparian area. Note resulting erosion of streambanks along residential properties due to encroachment. Credit: Chagrin River Watershed Partners, Inc.*

*Shallow rooting depth of turf grass provides limited streambank stability. **Woody vegetation** is preferred. Credit: Summit Soil & Water Conservation District*



#### MAINTENANCE REQUIRED WHEN:

- Encroachment into riparian and wetland setback boundaries or conservation easement boundaries observed.
- Vegetation removal or disturbance is observed.
- Significant populations of non-native or invasive plants are observed.
- Significant soil erosion of stream banks or natural areas observed due to lack of vegetation.

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#### ROUTINE AND NON-ROUTINE MAINTENANCE

- Fertilizer Application: Apply slow-release fertilizer per manufacturer's specifications.
- System Component Repair: Repair or replace damaged system components based on manufacturer's specifications.

#### **Non-Structural SCMs: Riparian & Wetland Setbacks and Conservation Areas**

##### *Routine Maintenance:*

- Encroachment: Inspect boundaries and internal areas of riparian and wetland setbacks or conservation areas for encroachment, damaged vegetation or soil-disturbing activities. Report non-compliance issues to appropriate regulatory authority or conservation easement holder.
- Vegetation Management: Inspect plant health seasonally to ensure vigorous growth and protection from soil erosion.

##### *Non-Routine Maintenance:*

- Invasive Vegetation: Treat and remove invasive vegetation from riparian and wetland setbacks or conservation areas per the terms of setback regulations or conservation easement agreements.
- Sign Replacement: Replace riparian and wetland setback or conservation area boundary signs if damaged, vandalized or removed.

#### **Rain Barrels & Cisterns**

##### *Routine Maintenance:*

- Leaks: Inspect system components for leaks at all connections and joints per manufacturer's specifications.
- Clogging: Inspect system components for clogging at all connections and joints per manufacturer's specifications.
- Winterization: Properly winterize rain barrels and cisterns to protect connections, pipes and storage containers from freeze damage.

## Non-Structural Stormwater Control Measure Inspection and Maintenance Checklist

<b>Facility:</b>			
<b>Location/Address:</b>			
<b>Date:</b>	<b>Time:</b>	<b>Weather Conditions:</b>	<b>Date of Last Inspection:</b>
<b>Inspector:</b>		<b>Title:</b>	
<b>Rain in Last 48 Hours</b> <input type="checkbox"/> Yes <input type="checkbox"/> No <b>If yes, list amount and timing:</b>			
<b>Non-structural SCM Type:</b> <input type="checkbox"/> riparian setback <input type="checkbox"/> wetland setback <input type="checkbox"/> conservation area <input type="checkbox"/> other, specify:			
<b>Pretreatment:</b> <input type="checkbox"/> vegetated filter strip <input type="checkbox"/> level spreader <input type="checkbox"/> gravel verge <input type="checkbox"/> other, specify:			
<b>Site Plan or As-Built Plan Available:</b> <input type="checkbox"/> Yes <input type="checkbox"/> No			

Inspection Item		Comment	Action Needed
<b>1. PRETREATMENT</b>			
Sediment has accumulated.	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		<input type="checkbox"/> Yes <input type="checkbox"/> No
Trash and debris have accumulated.	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		<input type="checkbox"/> Yes <input type="checkbox"/> No
Erosion or scouring is visible	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		<input type="checkbox"/> Yes <input type="checkbox"/> No
<b>2. UNAUTHORIZED ACTIVITY</b>			
There is unauthorized dumping of yard waste, litter or debris.	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		<input type="checkbox"/> Yes <input type="checkbox"/> No
There are unauthorized structures or construction activity.	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		<input type="checkbox"/> Yes <input type="checkbox"/> No
There is unauthorized removal of vegetation or trees.	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		<input type="checkbox"/> Yes <input type="checkbox"/> No
There are unauthorized recreational activities or motorized vehicles.	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		<input type="checkbox"/> Yes <input type="checkbox"/> No
<b>3. VEGETATION</b>			
Vegetation is dying or diseased.	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		<input type="checkbox"/> Yes <input type="checkbox"/> No
Invasive vegetation is present.	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		<input type="checkbox"/> Yes <input type="checkbox"/> No
<b>4. NON-STRUCTURAL AREA</b>			
The boundaries are clearly marked.	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		<input type="checkbox"/> Yes <input type="checkbox"/> No
Signage is visible and intact.	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		<input type="checkbox"/> Yes <input type="checkbox"/> No
Other:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		<input type="checkbox"/> Yes <input type="checkbox"/> No
<b>Additional Notes</b>			
<b>Wet weather inspection needed</b> <input type="checkbox"/> Yes <input type="checkbox"/> No			

**Site Sketch:**