

Appendix G

Sample O&M Plans for Basins and Swales

Stormwater Management Plan Update

Wolcott, Connecticut

Operations and Maintenance Plan

Basins

<p>Facility Description. A basin is a densely planted, gently sloping depression. Stormwater enters via pipe or sheet flow, temporarily ponds, and infiltrates within 24hrs. Some basins include an overflow outlet to a drywell or storm or sewer line.</p>	
What To Look For	What To Do
<p>Structural Components, including the inlets and outlets/overflows, shall freely convey stormwater.</p>	
<ul style="list-style-type: none"> ➤ Clogged inlets or outlets ➤ Cracked drain pipes 	<ul style="list-style-type: none"> ➤ Remove sediment and debris to maintain 50% conveyance capacity at all times. ➤ Replace when cracks are greater than 1".
<p>Vegetation, including all plants on the Portland Plant List, shall cover 90% of the facility.</p>	
<ul style="list-style-type: none"> ➤ Dead or strained vegetation ➤ Weeds ➤ Tall Grass 	<ul style="list-style-type: none"> ➤ Manually remove sediment accumulation at base of plants. ➤ Replant per planting plan or substitute w/ Portland Plant List, per current SWMM. Vegetation should consist of 50% grasses or grass-like plants. <ul style="list-style-type: none"> ○ Irrigate as needed. Mulch annually. Do not apply fertilizers. ➤ Manually remove weeds. Do not use pesticides. Remove all plant debris. ➤ Mow grass to 4-9" in height.
<p>Growing/Filter Medium, including soil, pea gravel, or like material, shall sustain healthy plant cover and infiltrate w/in 24hrs.</p>	
<ul style="list-style-type: none"> ➤ Exposed soil ➤ Erosion ➤ Slope slippage ➤ Ponding 	<ul style="list-style-type: none"> ➤ Cover with plants and mulch. ➤ Fill, lightly compact, and restore splash block/rock at inlet(s) ➤ Stabilize 3:1 slopes with plantings from Portland Plant List. ➤ Rake, till, or amend to restore infiltration rate.
<p>Maintenance Schedule:</p> <p><i>Summer.</i> Make necessary structural repairs. Improve filter medium as needed. Remove sediment. Irrigate as needed. Mow.</p> <p><i>Fall.</i> Replant exposed soil and replace dead plants. Mow. Remove sediment and plant debris.</p> <p><i>Winter.</i> Monitor infiltration rate. Clear inlets and outlets/overflows before & after winter.</p> <p><i>Spring.</i> Remove sediment and plant debris. Weed as necessary. Replant exposed soil and replace dead plants. Mulch. Correct erosion w/ splash block and/or additional plants.</p>	
<p>Maintenance Records. Record date, description, and contractor (if applicable) for all structural repairs, landscape maintenance, and facility cleanout activities.</p>	
<p>Monitoring Log.</p> <p><i>Access.</i> Maintain ingress/egress to design standards.</p> <p><i>Infiltration/Flow Control.</i> All facilities should drain w/in 24hrs. Record time/date and weather & site conditions when ponding occurs.</p> <p><i>Pollution Prevention.</i> All sites should implement best management practices to prevent hazardous or solid wastes, or excessive oil and sediment from contaminating stormwater. Contact SPCR at 503-823-7180 for immediate assistance responding to spills. Record time/date and weather & site conditions if site activities contaminate stormwater.</p> <p><i>Vectors (mosquitoes & rodents).</i> Stormwater facilities shall not harbor mosquito larvae or rats that pose a threat to public health or that undermine the facility structure. Monitor standing water for small wiggling sticks perpendicular to the water's surface. Note holes/burrows in and around facilities. Call Multnomah County Vector Control at 503-988-3464 for immediate assistance to eradicate vectors. Record time/date and weather & site conditions when vector activity observed.</p>	

Operations and Maintenance Plan

Swales

<p>Facility Description. Swales are elongated, gently sloping depressions with dense vegetation. As runoff flows along the length of the swale, the vegetation slows, filters, and infiltrates stormwater. Check dams slow flow and prevent erosion. High flows of stormwater may connect to storm or sewer lines or drywell.</p>	
What To Look For	What To Do
<p>Structural Components, including the inlets and outlets/overflows, shall freely convey stormwater.</p>	
<ul style="list-style-type: none"> ➤ Clogged inlets or outlets ➤ Cracked drain pipes 	<ul style="list-style-type: none"> ➤ Remove sediment and debris from catch basins, trench drains, curb inlets and pipes to maintain 50% conveyance capacity at all times. ➤ Replace when cracks are greater than 1".
<p>Vegetation, including all plants on the Portland Plant List, shall cover 90% of the facility.</p>	
<ul style="list-style-type: none"> ➤ Dead or strained vegetation ➤ Tall grass ➤ Weeds 	<ul style="list-style-type: none"> ➤ Manually remove sediment accumulation from base of plants. ➤ Replant per planting plan or substitute w/ Portland Plant List, per current SWMM. Vegetation should consist of 50% grasses or grass-like plants. <ul style="list-style-type: none"> ○ Irrigate as needed. Mulch banks annually. Do not apply fertilizers. ➤ Mow to 4-6" 1-2 times each year. ➤ Manually remove weeds. Do not use pesticides. Remove all plant debris.
<p>Growing/Filter Medium, including soil, pea gravel or like material, shall sustain healthy plant cover and infiltrate w/in 48hrs.</p>	
<ul style="list-style-type: none"> ➤ Exposed soil ➤ Gullies ➤ Slope slippage ➤ Ponding 	<ul style="list-style-type: none"> ➤ Cover with plants. ➤ Fill, lightly compact, and install flow spreader/plant vegetation to disperse flow. <ul style="list-style-type: none"> ○ Replace 3-5" deep rock check dams at 12-20ft intervals. ➤ Stabilize 3:1 slopes with plantings from Portland Plant List. ➤ Rake, till, or amend to restore infiltration rate.
<p>Maintenance Schedule:</p> <p><i>Summer.</i> Make necessary structural repairs. Improve filter medium as needed. Clear drain. Mow. Irrigate as needed.</p> <p><i>Fall.</i> Replant exposed soil and replace dead plants. Remove sediment and plant debris.</p> <p><i>Winter.</i> Monitor infiltration/flow through rates. Clear inlets and outlets/overflows to maintain conveyance.</p> <p><i>Spring.</i> Remove sediment and plant debris. Weed as necessary. Replant exposed soil and replace dead plants. Mulch.</p>	
<p>Maintenance Records. Record date, description, and contractor (if applicable) for all structural repairs, landscape maintenance, and facility cleanout activities. Keep work orders and invoices on file and make available upon request of the City inspector.</p>	
<p>Monitoring Log.</p> <p><i>Access.</i> Maintain ingress/egress to design standards.</p> <p><i>Infiltration/Flow Control.</i> All facilities should drain w/in 48 hrs. Record time/date and weather & site conditions when ponding occurs.</p> <p><i>Pollution Prevention.</i> All sites should implement best management practices to prevent hazardous or solid wastes, or excessive oil and sediment from contaminating stormwater. Contact SPCR at 503-823-7180 for immediate assistance responding to spills. Record time/date and weather & site conditions if site activities contaminate stormwater.</p> <p><i>Vectors (mosquitoes & rodents).</i> Stormwater facilities shall not harbor mosquito larvae or rats that pose a threat to public health or that undermine the facility structure. Monitor standing water for small wiggling sticks perpendicular to the water's surface. Note holes/burrows in and around facilities. Call Multnomah County Vector Control at 503-988-3464 for immediate assistance to eradicate vectors. Record time/date and weather & site conditions when vector activity observed.</p>	