

Please use the City of COS Grass Buffer O&M template (and associated appendices)

<https://coloradosprings.gov/document/stormwaterfacilityimplan082409proceduresformsgbgs0.pdf>

A-1 Chipseal Operations and Maintenance Manual Grass Buffer

County Job No. COM-22-014

Grass buffers are densely vegetated strips of grass designed to accept sheet flow from upgradient development. Routine and non-routine maintenance is necessary to assure performance and enhance aesthetics. Grass buffers will not function if not properly designed or maintained. Bio-degradable pesticides may be required to limit insect problems. Frequent debris removal and grass-mowing can reduce aesthetic complaints.

A-1 Chipseal Contact Info

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1. A-1 Chipseal Grass Buffer Maintained by A-1 Chipseal.

Grass Buffer- The Grass Buffer will be used as a Receiving Pervious Area. The final drainage report for A-1 Chipseal covers the Runoff Reduction calculations for the Receiving Pervious Area (RPA).

2. Access

The Grass Buffer will be accessed from the A-1 Chipseal parking lot.

3. Inspections

Inspection and Frequency

Just before annual storm seasons (that is, April and may) inspect the grass buffer to insure that it continues to function as initially intended. Any bare areas found should be noted and repaired using native grasses. Items to record will include the mowing frequency of the vegetation.

4.0 Operations

No specific operating instructions are required.

5.0 Maintenance

Maintenance of the Grass Buffer (Receiving Pervious Area) shall be in accordance with the guidelines included in Table RPA-1, below.

Table RPA-1		
Required Action	Maintenance Objective	Frequency of Action

Inspection	Check for sediment accumulation and rill and gully development. Inspect vegetation for uniform coverage.	Routine – at least twice annually for uniform cover and traffic impacts.
Debris and litter removal	Remove litter and debris to prevent rill and gully development from preferential flow paths around accumulated debris, enhance aesthetics, and prevent floatables from being washed offsite.	Routine This should be done as needed based on inspection, but no less than two times per year.
Aeration	Aeration is done by punching holes in the ground using an aerator with hollow punches that pull the soil cores or "plugs" from the ground. Holes should be at least 2 inches deep and no more than 4 inches apart.	Routine – Should be performed at least once per year when the ground is not frozen.
Mowing	When starting from seed, mow native/drought-tolerant grasses only when required to deter weeds during the first three years. Following this period mowing of native/drought tolerant grass may stop or be reduced to maintain a length of no less than six inches.	Routine – Mowing of manicured grasses may vary from as frequently as weekly during the summer, to no mowing during the winter.
Added Fertilizer, Herbicide, and Pesticide Application	Use the minimum amount of biodegradable nontoxic fertilizers and herbicides needed to establish and maintain dense vegetation cover that is reasonably free of weeds. Fertilizer application may be significantly reduced or eliminated by the use of mulch-mowers, as	Nonroutine – Frequency of fertilizer, herbicide, and pesticide application should be on an as-needed basis only and should decrease following establishment of vegetation.

	<p>opposed to bagging and removing clippings. To keep clippings out of receiving waters, maintain a 25-foot buffer adjacent to open water areas where clippings are bagged. Hand-pull the weeds in areas with limited weed problems.</p>	
<p>Sediment removal</p>	<p>For Grass Buffers: Using a shovel, remove sediment at the interface between the impervious area and buffer</p> <p>For Grass Swales: Remove accumulated sediment near culverts and in channels to maintain flow capacity. Spot replace the grass areas as necessary.</p>	<p>Nonroutine – Remove sediment as needed based on inspection. Frequency depends on site-specific conditions. For planning purposes, it can be estimated that 3 to 10% of the swale length or buffer interface length will require sediment removal on an annual basis. Reseed and/or patch damage areas in buffer, sideslopes and/or channel to maintain healthy vegetative cover. Over time, and depending on pollutant load, portion of butter/sale may need to be rehabilitated due to sediment deposition. Periodic sediment removal will reduce the frequency of revegetation required. Expect turf replacement for the buffer interface area every 10 to 20 years.</p>
<p>Irrigation Schedule and Maintenance</p>	<p>Check for broken sprinkler heads and repair them, as needed. Do not overwater. Signs of overwatering and/or broken sprinkler heads may include soggy areas and unevenly distributed areas of lush growth. Completely drain and blowout the irrigation</p>	<p>Adjust irrigation schedules throughout the growing season to provide the proper irrigation application rate to maintain healthy vegetation. Less irrigation is typically needed in early summer and fall, with more irrigation needed during July and August. Native</p>

	<p>system before the first winter freeze each year. Upon reactivation of the irrigation system in the spring, inspect all components and replace damaged parts, as needed.</p>	<p>grass should not require irrigation after establishment, except during prolonged dry periods when supplemental, temporary irrigation may aid in maintaining healthy vegetation cover.</p>
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