The Green Street Steward's Maintenance Guide

Green Streets

are landscaped spaces that transform street surfaces into living stormwater management facilities. Green streets capture stormwater runoff and let water soak into the ground as plants and soil filter pollutants. Green Streets convert stormwater from a waste directed into a pipe, to a resource that replenishes groundwater supplies and protects urban watershed health. They also create attractive streetscapes and urban green spaces, provide natural habitat, and enhance pedestrian and bicycle safety.









Green Street Steward Program

Becoming a Green Street Steward is a rewarding way to care for your community and keep Portland's rivers clean.

This is your 'how-to' guide that describes the simple activities you can do to care for and maintain a Green Street near you. Before you begin, visit our website to adopt your Green Street and register as a Green Street Steward:

www.portlandonline.com/bes/GreenStreetStewards

Why Green Streets Matter

The City of Portland is committed to green development practices and sustainable stormwater management. Green Streets are an innovative and effective way to restore watershed health.

The health of our watersheds determines the health of rivers and streams. In creating our city on rivers and streams. over the last 150 years, we've covered our watersheds with streets, roofs, driveways and parking lots. In the process, we've changed the relationship between watersheds, rivers, and streams. Green Streets help protect and restore the Willamette and Columbia river systems.

Maintenance Responsibilities

Portland's Bureau of Environmental Services (BES) routinely monitors all Green Streets to determine the level of work needed to maintain healthy plants and ensure the facilities function properly. Green Street care is divided into two phases; a two-year establishment phase and long-term stewardship phase. The city welcomes your help maintaining green streets.

Two-year Plant Establishment Phase

Young plants have tender roots and can be susceptible to damage without regular care. During this phase, the city or site developer contracts with professional landscapers to care for and maintain Green Streets.

Professional Landscapers will:

- ✓ Check for proper Green Street function
- ✓ Remove sediment
- ✓ Clear curb openings and top of overflow drain
- ✔ Remove trash and debris
- ✓ Remove weeds
- ✔ Water

A watershed is an

area of land that

drains into a specific

body of water. Our

activities within a

watershed have a

- ✓ Trim trees and plants if necessary
- ✓ Replace or remove trees or plants if necessary

You can help the city - during the establishment phase by:

- ✓ Removing trash and debris
- ✓ Clearing curb openings and top of overflow drain; remove trash and push aside sediment
- ✓ Watering during periods of drought

Anatomy of a Green Street

- Capture and Treatment Area where stormwater flows and the water ponds
- Overflow Drain Not all Green Streets have one
- Curb Opening
 Also called an inlet or outlet where stormwater can enter and exit



Long-term Stewardship Phase

(after plants are established)

The city will continue to monitor and maintain Green Street facilities after the establishment phase, when plants are mature.

Landscape Professionals will:

- ✔ Check for proper Green Street function
- ✓ Remove sediment
- ✓ Clear curb openings and top of overflow drain
- ✓ Remove trash and debris
- ✔ Remove weeds
- ✓ Water if necessary
- ✓ Trim trees and plants if necessary
- ✓ Replace or remove trees or plants if necessary

You can help the city - during long-term stewardship phase by:

- ✔ Removing trash and debris
- ✔ Clearing curb openings and top of overflow drain; remove trash and push aside sediment
- ✓ Watering during periods of drought
- ✓ Removing weeds after completing a training course

Green Street Steward Activities

As a Green Street Steward, you can work for clean rivers and watershed health by caring for a Green Street near you.

Before you begin, you need to register and select a Green Street to adopt: portlandonline.com/bes/GreenStreetStewards

You can also view scheduled training opportunities and record your stewardship activities.

The Stewardship Activities Chart at right > summarizes simple volunteer Green Street activities you can perform (See pages 6-12 for maintenance how-to tips).

Green Street Stewardship Activities Chart

After registering and adoptinging a Green Street use this chart to clarify your activities. See the how-to steps on the following pages.

Green Street	BES / Contractor Activity		Stewardship Activity	
Care and Maintenance Activity	2 year Establishment Phase	Long Term Stewardship Phase	2 year Establishment Phase	Long Term Stewardship Phase
Clear curb openings of leaves, trash, debris. Push aside sediment.	YES	YES	YES	YES
Remove trash	YES	YES	YES	YES
Clear top of overflow drain (do not lift the grate)	YES	YES	YES	YES
Water only during periods of drought	YES	YES	YES	YES
Remove Weeds	YES	YES	NO	YES (with training)
Trim Trees and plants	YES	YES	NO	NO
Remove or Replace plants and trees	YES	YES	NO	NO
Remove Sediment	YES	YES	NO	NO
Structural Repairs	To report damage or other repair needs call 503-823-1424			

Please notify the city in cases of:

- ✓ Plants/trees that are damaged or need trimmed for safety 503-823-2940
- ✓ Standing water for more than 48 hours 503-823-1424
- ✓ Damage or vandalism to the facility 503-823-1424 or email: besstormwaterom@portlandoregon.gov
- ✓ Evidence of a substance spill 503-823-7180 or report by email to: officer@portlandoregon.gov
- ✓ Other Green Street Questions call 503-823-7740

SAFETY FIRST!

Before Maintaining Your Green Street Follow These Important Safety Guidelines:

- ✓ Make yourself visible. Wear bright colored clothing or a safety vest.
- Since Green Streets are next to the street, take extra caution and be aware of passing bicycles and vehicles.
- Wear sturdy shoes and thick gloves to help protect you from broken glass, sharp objects, pollutants, and other obvious or concealed hazards.
- Maintain your Green Street during daylight hours and avoid peak traffic times.
- ✓ Do not allow children less than 10 years of age to work with you; children 10-17 years of age must be accompanied by an adult volunteer. Keep in mind that adult supervision is critical when working within the street environment.
- ✓ Don't leave your tools unattended. Keep them out of the street and off the sidewalk so they don't pose a hazard.

The city is not responsible for damages or injuries incurred while maintaining Green Street facilities.



grabber tool for trash pick-up

bright clothes

Maintaining your Green Street's Function

Begin by: 1) registering as a Green Street Steward

2) selecting a Green Street to adopt

3) accepting the terms and conditions

The most important part of Green Street maintenance is to make sure Green Streets capture and filter stormwater. So check your Green Street regularly to assure water flows into the facility. Simply follow the maintenance steps below:

Clear Curb Openings

Clear curb openings so water can flow into the facility. Rake and remove leaves, trash and debris. Push aside, but do not remove, sediment to create a clear path for stormwater flow. The best time to clear curb openings is before or during a rain storm.





Clear Drains

Make sure that overflow drains aren't blocked. Remove leaves, debris and trash on top of grates. Do not lift grates.



Remove Trash

Pick up any trash you find and recycle if appropriate or throw into a trash can.





Watering

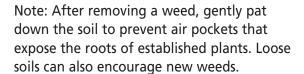
Although Green Street plants can tolerate our dry summer climate, they can benefit from additional watering during extended periods of summer drought or extreme heat. The

city welcomes your help with watering during these times. Please use a gentle, low pressure shower setting to avoid erosion, and don't water at a faster rate than the ground can soak it up.



Weed Removal – after the two-year establishment phase

Remove weeds after attending a training workshop and only after the two year establishment phase, when desirable plants are mature (check online for a training schedule). You can weed by hand or with a small hand held trowel, weed fork, or garden hoe. In order to eliminate weeds, it is important to try and remove their root systems. **Do not use chemical herbicides.**







If you are unsure whether a plant is a weed or invasive species, please do not remove it - because it may be a plant we want. City maintenance crews will address it on their next routine visit. Also, please do not remove plants that appear dead. City crews will evaluate these and replace if necessary.

See pages 15 -16 for a photo guide to help identify the most common invasive and unwanted weed species.

When you register as a Green Street steward you will be informed of the phase of your Green Street.

For more information visit: portlandonline.com/bes/GreenStreetStewards

What is Debris?

✓ Grass clippings

✓ Leaves

✓ Sticks

✓ Small branches

Remove debris by hand or with a rake. Gather debris into piles and put it in a yard-waste bin or other appropriate disposal container.

The most important times to remove debris and trash from your Green Street are before and after a storm. Heavy rains can cause trash and debris to collect around curb openings and overflow drains and block stormwater flow. Rake leaves from around your Green Street, especially in the fall when leaves can quickly clog inlets.







What is Sediment?

Sediment picked up by stormwater settles out as a fine, sand-like substance that can clog openings and reduce Green Street function. City crews routinely remove sediment and properly dispose of it as part of their standard maintenance practice.

Do not remove sediment. Simply push some aside to allow stormwater to flow into the facility. City crews will remove the sediment on their next visit.

push aside any sediment build-up at curb openings - city crews will remove



Please DO NOT:

The city selects plants and soil that work best for Green Street function. Any changes, alterations or additions to the Green Street may disrupt this function and the growth of plants. For these reasons, **please do not**:

- O Prune or trim plants and trees in the facility
- Add or replace plants
- Use chemical herbicides, fertilizers, or insecticides
- Modify or alter the facility's function or design
- ♦ Add or remove soil, compost, mulch, or fill
- Store tools, lumber or other items in the facility
- Nemove dead or dying plants
- Remove sediment



Green Street at SE 45th and Clay Street collecting runoff during a rainstorm

THANK YOU

Finally, give yourself a pat on the back for a job well done, and don't forget to tell us about it. Please record your activities online on your personal Green Street page so that we can keep track of your Green Street's needs.

portlandonline.com/bes/GreenStreetStewards

Plant Identification Resources Online:

Green Street Steward Program www.portlandonline.com/bes/GreenStreetStewards

GardenSmart Oregon: A Guide to non-invasive plants portlandonline.com/bes/gardensmart

East Multnomah Soil & Water Conservation District www.emswcd.org/weeds



Green Street in New Columbia Neighborhood



Desirable Plants (Do Not Remove)

The city uses native and specially selected plants that are adapted for Green Street conditions and that require minimal water and care. Native plants provide food and habitat for native birds and wildlife. The following are photos of commonly found, desirable plants selected for Green Streets:



Slough Sedge Carex obnupta



Kelsey dogwood Cornus kelseyii

Douglas Iris Iris douglassii







Problem Weeds to Remove



Pigweed Amaranthus sp.





Dandelion Taraxacum officinale









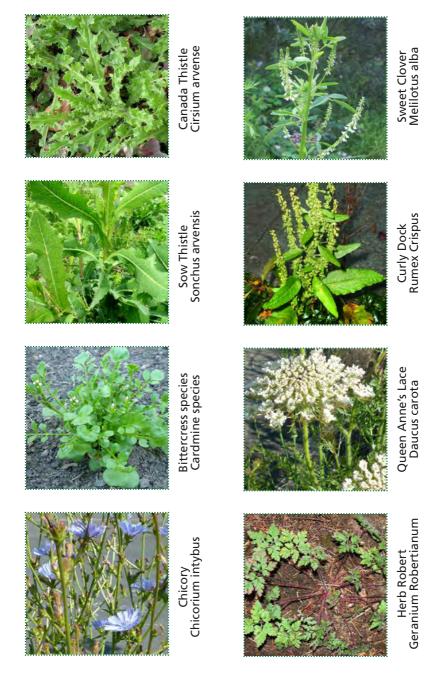
Clover Trifolium repens



Coastal Strawberry Fragaria chiloensis

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Problem Weeds continued



For more information and plant photos visit www.portlandonline.com/bes/GreenStreetStewards