

Legislation title: Amend City Code to allow Green Street Stewards to remove sediment from and plant vegetation in public green street facilities, and to discourage removal of dead plantings (Ordinance; amend Code Chapter 17.32)

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Purpose of proposed legislation and background information:

The City of Portland is responsible for maintaining the growing number of public green street facilities, and does so primarily using professional landscape crews. To augment this regular maintenance, BES started the Green Street Steward program in 2010. Green Street Stewards (GSS) are volunteer residents who register as a Steward with BES and perform basic maintenance of public green streets, including removing debris and leaves, keeping inlets open, and watering vegetation in summer. These efforts help keep green streets functioning properly and looking attractive in between visits by the City's professional maintenance crews. The GSS Coordinator trains Stewards on proper maintenance approaches and safety. In addition to helping with green street maintenance, the GSS Coordinator provides information and outreach to the Portland community about green streets and the GSS program in an effort to recruit more Stewards. Currently, Portland has approximately 145 Green Street Stewards looking after 354 public green streets, but the City's anticipated green street inventory for 2020 is 2,300 green streets, so the City's need for more GSS volunteers is growing.

This ordinance will amend PCC Chapter 17.32.070 B.8, which sets out the tasks Green Street Stewards may voluntarily perform in public green street facilities. First, the Code amendments will authorize GSS volunteers to perform additional tasks in some public green street facilities. Specifically, the amendments will allow Green Street Stewards to plant vegetation in a public green street after receiving written approval from BES, and the amendments will allow Stewards to remove sediment from public green streets. Second, the Code amendments will delete existing provisions that authorize Stewards to remove dead plantings, to discourage the removal of dormant plantings.

Through the Code changes described above, BES aims to:

- Provide GSS volunteers greater flexibility in caring for the green streets they adopt, with respect to customizing plantings and removing sediment;
- Encourage more residents and organizations to sign up as GSS volunteers and adopt Green Street facilities; and
- Protect dormant plants—which may be confused with dead plants—and the function of public green street facilities.

Financial and budgetary impacts:

This action results in no financial or budgetary impacts. The proposed code changes may result in bureau savings on green street facility maintenance costs, or may allow the City to maintain a greater number of public green streets without increasing maintenance costs. No new funds are needed to implement the code changes. Existing staff will incorporate proposed code changes into their regular Green Street Steward training.

Community impacts and community involvement:

Diverse Portland residents will benefit from the proposed changes to City Code.

- Different communities of people (age-specific, cultural, physical ability, ethnic, racial, religious, language, low-income, under-served populations, etc.) will benefit from facilities that receive more frequent maintenance and that may be planted with colorful plants. Much of the GSS work is already conducted in SE Portland where there are many green street facilities, and BES will place significant focus on finding Stewards east of I-205 to maintain and enhance facilities in these neighborhoods.
- The GSS program currently has partnerships with numerous businesses, homeowners and non-profits, such as Surfrider Portland Chapter, that help maintain many green street facilities around town.
- City livability (which contributes to a prosperous, educated, healthy, and equitable Portland) is enhanced through the addition of healthy, thriving vegetation that replaces impervious surfaces.

BES anticipates no community objections or concerns associated with the proposed Code changes. The proposed code changes provide Stewards with greater flexibility to care for adopted green street facilities. While the code changes delete a provision that on paper allows citizens to remove dead plantings with BES approval, BES has instructed Stewards to not remove dead plantings in an effort to protect dormant plants.

BES expects the following individuals to testify at Council on June 14, 2017, in support of the Green Street Stewards Program and the proposed changes to City Code: Ian Kennelly, volunteer with GSS Program and Portland Chapter of Surfrider Foundation; Maggie Woodward, Portland resident and GSS volunteer; Linda Nettekoven; and Charles Kingsley.

Budgetary Impact Worksheet

Does this action change appropriations?

YES: Please complete the information below.

NO: Skip this section

Fund	Fund Center	Commitment Item	Functional Area	Funded Program	Grant	Sponsored Program	Amount

Stormwater Cycling Tour Northeast Portland

A pedal-powered tour of some of the innovative ways Portlanders handle stormwater using green infrastructure



The Bureau of Environmental Services works with Portland residents and businesses to protect water quality, public health, and the environment through wastewater collection and treatment, sewer construction and maintenance, stormwater management, and stream and watershed restoration.

FOR MORE INFORMATION

503-823-7740

www.portlandoregon.gov/sustainablestormwater

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ENVIRONMENTAL SERVICES
CITY OF PORTLAND
working for clean rivers

Green Infrastructure

When it rains, stormwater washes over pavement and other surfaces, picking up pollutants. Green infrastructure mimics nature by using plants and soil to filter pollutants and allowing rain to soak into the ground.

On this tour, you will see—

ECOROOF



An ecoroof is a lightweight, low maintenance vegetated roof that soaks up rain and reduces stormwater runoff. Ecoroofs help cool the air and naturally insulate buildings to reduce energy use.

NATURESCAPING AND TREES



Naturescaping is landscaping with native plants. It requires less water and little or no fertilizers or pesticides. Along the route, notice the street trees and trees on private property. Trees have many stormwater benefits. A single

mature tree with a 30-foot crown can intercept over 700 gallons of rainfall annually.

PLANTERS, SWALES, AND RAIN GARDENS



Planters, swales, and rain gardens are landscaped areas that collect stormwater and filter it as it flows through plants and soil. There are many ways to direct stormwater to these facilities, including curb cuts in parking lots, open grates, rain drains, and disconnected downspouts.

GREEN STREETS



A green street uses plants and soil to slow, filter, and clean stormwater runoff from streets. Green streets convert stormwater from a waste directed into a pipe, into a resource that replenishes groundwater supplies. Green streets help protect

against sewer backups and combined sewer overflows.

OTHER TECHNOLOGIES



Porous paving, rainwater harvesting, innovative conveyance, art pieces, green walls, and disconnected downspouts are examples of other sustainable stormwater management technologies.



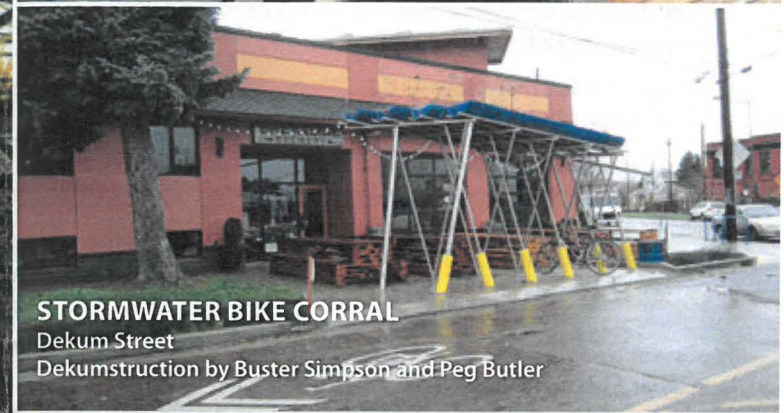
DISCONNECTED DOWNSPOUT

Fremont Street New Seasons Market
Photo and sculpture by Ivan McLeah



GREEN WALL

The Woodlawn



STORMWATER BIKE CORRAL

Dekum Street
Dekumstruction by Buster Simpson and Peg Butler



ECOROOF

Holman Pocket Park

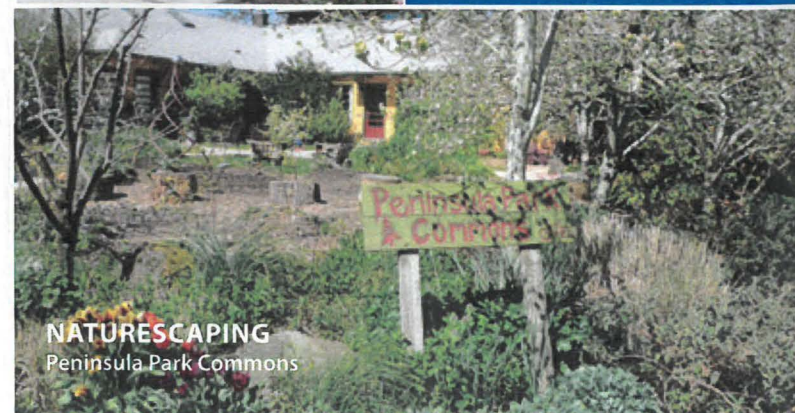
Get Involved!

Help keep Portland's green infrastructure looking its best! Become a Green Street Steward. Stewards adopt and help care for a green street planter by picking up trash, clearing openings, weeding and other general maintenance. Learn more or sign up at www.portlandoregon.gov/bes/greenstreetstewards



GREEN STREETS

Klickitat Park



NATURESCAPING

Peninsula Park Commons



TREES AND PLAZA

Albina Triangle

Northeast Portland Stormwater Cycling Tour

ROUTE DISTANCE: 11.5 MILES APPROXIMATE DURATION: 3 HOURS

- 1 New Seasons Market, 6400 N Interstate Ave** 🌿 🌳 🌿
Vegetated swales collect runoff from the parking lot.

Look up! Don't miss the flying salmon in the three disconnected downspouts above the main entrance.

- 2 Peninsula Commons, 6325 N Albina Ave** 🌿 🌳 🌿
This small, co-housing community has disconnected downspouts that drain to a naturescaped front yard. A green street collects stormwater from N Holman Street.
- 3 June Key Delta Community Center, 5940 N Albina St** 🌿 🌳 🌿
This former gas station turned community center captures and re-uses stormwater on site. The building consists of ecofriendly materials including salvaged glass, cargo containers, and recycled construction materials.
- 4 Classic Foods, 817 NE Madrona St** 🌿
Roof and parking lot runoff are captured by the stormwater planter.
- 5 The Woodlawn, 909 NE Oneonta St** 🌿 🌳
This 18-unit LEED-platinum mixed-use apartment building was constructed with primarily reclaimed and renewable materials. Roof rainwater collects in a big cistern and is used to irrigate the ecoroof and the 1,100-square-foot living wall.

- 6 Stormwater Bike Corral, 817 NE Dekum St** 🌿 🌳 🌿

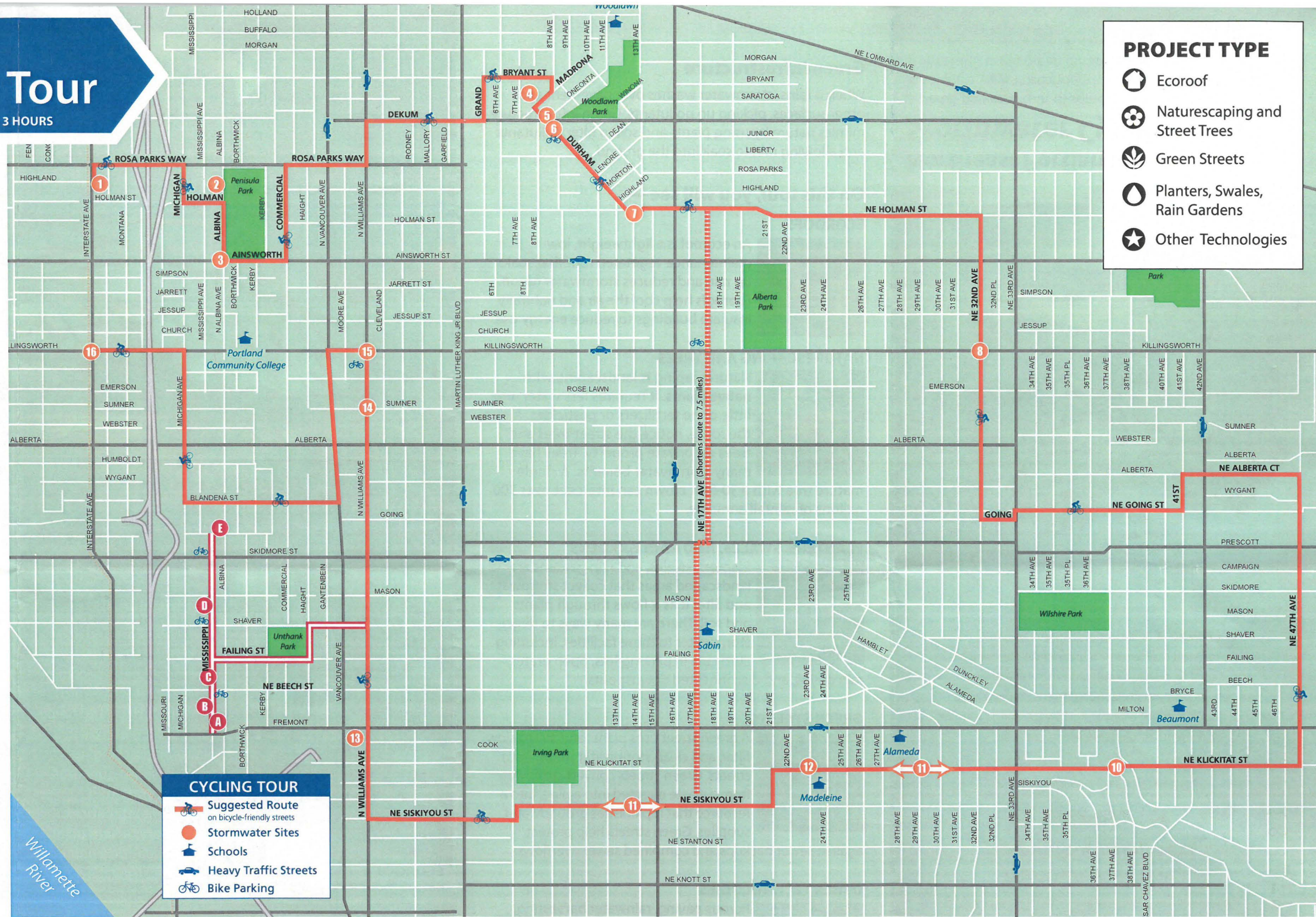
Art of stormwater!

The ecoroof above the bike parking collects stormwater from the adjacent building roof and the overflow is directed to the planter.

- 7 Holman Pocket Park, NE 13th and Holman** 🌿 🌳
Green streets surround the park and help create a pleasant and safe route for bikes and pedestrians. Community members added an ecoroof to the informational kiosk.
- 8 Condominiums, NE 31st Ave and Killingsworth St** 🌿 🌳
The ecoroofs provide wildlife habitat, cooler air, and rainwater collection. Disconnected downspouts deliver water from the roof to stormwater planters.
- 9 Cully Grove, NE 47th and Going St** 🌿 🌳 🌿
Green streets in front collect stormwater from the road, while ecoroofs manage the rain on the garages. There is shared community and garden space.
- 10 Klickitat Park, NE 38th and Klickitat** 🌿 🌳
Green streets helped transform this former traffic island into a pocket park and neighborhood amenity. Sections of Portland's "Big Pipe" provide bridges to the park.
- 11 NE Klickitat/Siskiyou Green Streets, From NE 38th to NE 7th Ave** 🌿 🌳
Green streets along this bike boulevard collect and treat stormwater from the road and help create a neighborhood greenway.
- 12 Madeleine Elementary School, NE Klickitat St and 23rd Ave** 🌿
These are examples of curbside green street planters.
- 13 New Seasons Market, 3445 N Williams Ave** 🌿 🌳
Multiple vegetative swales filter pollutants from the parking lot. Located on one of Portland's most popular bike routes, the store has ample bike parking and free lockers for your gear.

- 14 East Multnomah Soil and Water Conservation District, 5211 N Williams Ave** 🌿 🌳 🌿 🌳 🌿

See it all! An ecoroof over the entrance, artistically disconnected downspouts, rain gardens, permeable concrete and pavers in the parking lot and walkways, green wall on the bike shelter, and green streets on Vancouver Avenue manage stormwater runoff.



- 15 Ethos, 2 N Killingsworth St** 🌿 🌳 🌿

The fun, artistic downspout and small ecoroof above the door celebrate stormwater. A large cistern collects runoff from a portion of roof. Look up and you may see the wind turbines on the roof.

- 16 Killingsworth Station, N Killingsworth St and N Interstate Ave** 🌿 🌳 🌿 🌳 🌿 🌿
All stormwater is managed on site. Ecoroofs cover the carport structures. A swale captures stormwater from disconnected downspouts and parking area. A 16,000 square-foot ecoroof manages rain on the building's roof. Green streets take runoff from the street. Note the heritage tree on the corner and the native landscaping on site.

EXTRA! Mississippi Avenue Walking Tour

- Check out the ecoroof at **Por Que No** 🌿
- At the **ReBuilding Center**, stormwater planters along the building capture stormwater from the structures while pervious concrete in the parking area reduces runoff. 🌿 🌳
- Stop at **Mississippi Commons** to check out the creative way rainwater flows to the stormwater planter. It flows first into a steel basin, then along a trench system, and finally into the planter. A third downspout is piped below ground and bubbles up into the planter. 🌿
- At **Salty's Dog and Cat Shop** a small planter in front of the entrance captures the building's stormwater and a boardwalk allows you to step across into the store. 🌿
- The green streets surrounding the **Albina Triangle** collect stormwater from Albina, Mississippi and Prescott streets. Mature trees capture rain. 🌿 🌳

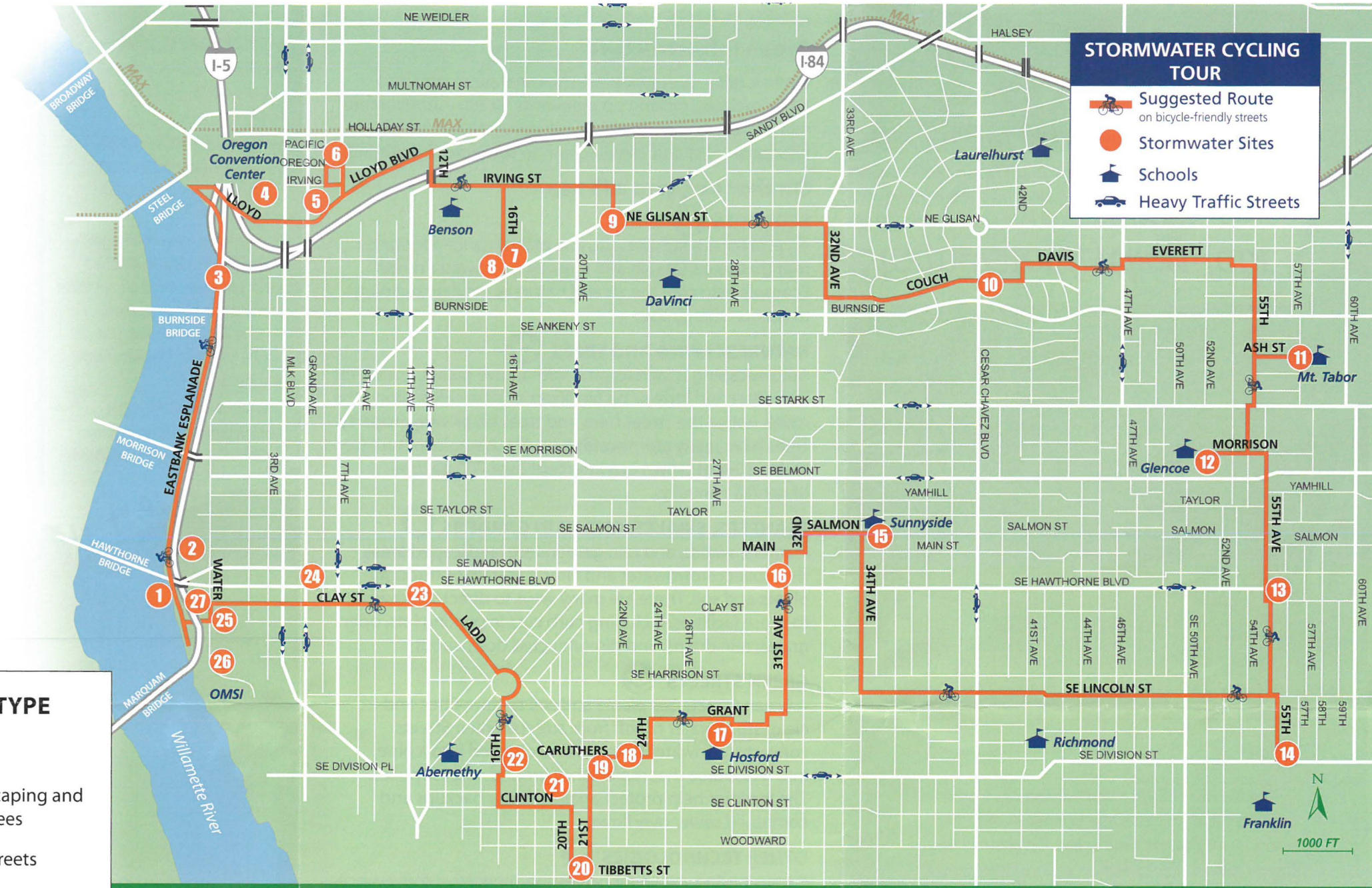
Stormwater Cycling Tour

13 MILES
Route distance

3 HOURS
Duration

STORMWATER CYCLING TOUR

-  Suggested Route on bicycle-friendly streets
-  Stormwater Sites
-  Schools
-  Heavy Traffic Streets



1 Willamette River—All of the techniques on the tour help protect the river. Stop for a few minutes at interpretive signs along the bike path to read about important issues affecting river health.

2 Parking lot swale
The parking lot between SE Madison and Salmon (east of the esplanade) drains to the swale.

3 Combined Sewer Overflow (CSO) Outfall Pipes along the bank
Sewage and stormwater from Portland's combined sewer system can overflow to the Willamette River during very heavy rainstorms. All the projects seen on this tour help control combined sewer overflows.

4 Convention Center
NE 1st Ave and Lloyd Blvd—The rain garden on the southwest side of the building treats and infiltrates runoff from 5.5 acres of roof. Treated overflow from the garden flows to the Willamette River.

5 Metro Regional Ecoroof and Green Street
600 NE Grand Ave (accessible during business hours)—The ecoroof uses an innovative conveyance system of gravel channels to collect overflow and direct it to the roof drain. Park your bike in the garage off Irving and check in at the front desk.

6 Liberty Centre Garage
NE Oregon St between 6th and 7th Ave—Stormwater planters along 6th and 7th avenues collect and filter runoff from the top level of the garage.

7 Buckman Heights Apartments
430 NE 16th Ave—The courtyard rain garden infiltrates runoff from the downspouts.

8 Buckman Terrace Apartments
NE 16th Ave and Sandy Blvd—See stormwater planters along NE 16th that are raised or level with the sidewalk. The sidewalk curves to protect mature trees. See an ecoroof above the front entryway, permeable pavers on the ground, and a swale along the building's west side.

9 Sandy Blvd and 22nd Ave Rain Garden
One of seven rain gardens along Sandy Blvd to NE 42nd that collect and treat street runoff.

10 Street Trees on Couch Street
A large Carolina poplar with Heritage Tree status is on NE Couch St between 39th and 41st.

11 Mt. Tabor Middle School
5800 SE Ash St—Disconnected downspouts direct stormwater into planters on the north and west edges of the building. The rain garden on the school's south side collects runoff from the roof and asphalt play area. Parking lot swales manage surface runoff, and a curb extension on SE 57th captures street runoff. Visit during non-school hours only.

12 Glencoe Elementary School
825 SE 51st Ave—Runoff flows into the parking lot swale on the east side of the school. Any overflow is directed to the rain garden across the street, which captures runoff from Morrison Street, 51st Avenue and the school driveway. Visit during non-school hours only.






13 Western Seminary
5511 SE Hawthorne Blvd—See a stormwater planter behind the grand yellow building on the Western Seminary campus. Park your bike and walk around to the east side parking lot to see a large planter and three-tiered rain gardens that manage stormwater from the upper parking lot at the east end of the site.

14 Café Au Play
5633 SE Division St—Take a coffee break at Café Au Play on Division. This non-profit coffee shop has numerous sustainable stormwater features (swales, downspout disconnection, pervious paving). Across 57th Avenue, a green street curb extension makes school crossings safer.

15 Sunnyside Environmental School
3421 SE Salmon St—Look for naturescaping and a cob structure with an ecoroof on the school's south side.

16 Hawthorne Hostel
3031 SE Hawthorne Blvd—Artful fish disperse roof runoff to planters that drain to cisterns for storage. The hostel uses the stored water to flush its toilets. Living walls and a bioswale filter any cistern overflow. The ecoroof is over the porch.

PROJECT TYPE

-  Ecoroof
-  Naturescaping and Street Trees
-  Green Streets
-  Planters, Swales, Rain Gardens
-  Other Technologies

17 Hosford Tree Hosford Middle School
2303 SE 28th Place—Friends of Trees, Hosford Middle School and the Bureau of Environmental Services worked together to plant the first street tree of the Tabor to the River program. Stop to admire the tree and plaque on Grant Street.

18 Residential Rain Gardens on Caruthers Street
Nine homeowners installed rain gardens on their property along Caruthers. The rain gardens are clustered between 22nd and 24th avenues.

19 Nuestra Cocina
SE 22nd Ave and Division St—This commercial retrofit project features a downspout disconnected to a stormwater planter, a porous concrete parking area, and an ecoroof on the trash shelter. A porous concrete parking lot is also across the street to the east. Around the corner a sculptural downspout flows to a planter.

20 People's Food Co-op
3029 SE 21st Ave—Look for two ecoroofs, downspouts that drain to an underground cistern, and green street facilities along Tibbetts and SE 21st.

21 New Seasons Market
SE 20th Ave and Clinton St—Interconnected swales collect runoff from the roof, outdoor plaza and parking lot. One downspout showers over a sculpture and another drains

to a stormwater planter. Green streets along Division collect runoff from the road.

22 St. Philip Neri
SE 16th Ave and Division St—This rain garden captures runoff from the parking lot via curb cuts and conveyance pipes.

23 12th Avenue and Clay Street Green Street
Landscaped curb extensions manage 74,000 gallons of stormwater annually while improving pedestrian and bike safety. This site marks the entrance to the Clay Green Street project, which provides a safer, greener route to the river for pedestrians and bicyclists.

24 Multnomah County Building
501 SE Hawthorne, 5th floor (accessible during business hours)—The 11,893 square foot ecoroof has

six inches of soil planted with grasses, wildflowers and sedum. Park your bike at the south entrance and check in at the front desk.

25 PCC Stormwater Education Plaza
1626 SE Water Ave—The plaza combines stormwater management with an interpretive exhibit and public art in the Central Eastside Industrial District. The rain garden at PCC's CLIMB Center for Advancement along SE Clay Street collects stormwater runoff from the center's roof and the adjacent street. There is also an ecoroof on top of the educational kiosk. Additionally, there are landscape swales in the parking lot, accessible from Water Avenue.

26 OMSI
1945 SE Water Ave—Landscaped swales in both parking lots have curb cuts that allow stormwater to flow in. This swale was the first in the city.

27 RiverEast
1515 SE Water Ave—Planters and swales manage runoff from the roof, parking lot, public plaza, and adjacent streets. Construction waste from the building remodel was recycled for the sculptures.



Stormwater Cycling Tour

A pedal-powered tour of some of the innovative ways Portlanders handle stormwater using green infrastructure

Green Infrastructure

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On the tour, you will see

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OTHER TECHNOLOGIES

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Resources

Bureau of Environmental Services. Learn about green infrastructure and stormwater management at www.portlandoregon.gov/bes

Tabor to the River integrates hundreds of sewer, green infrastructure, tree planting and other watershed projects to improve sewer system reliability, stop sewer backups in basements and street flooding, control combined sewer overflows (CSOs) to the Willamette River, and restore watershed health. Learn more about the program and how to get involved at www.portlandoregon.gov/bes/tabor

Community Watershed Stewardship Program (CWSP) Grants. Grants of up to \$10,000 to citizens and organizations to encourage watershed protection and enhancement at the local level. Learn more at www.portlandoregon.gov/bes/cwsp

Clean River Rewards. Learn how to save money on your stormwater utility bill and work for clean rivers and healthy watersheds at the same time. Information at www.cleanriverrewards.com

Green Street Stewards. Work with the city to care for Portland's green streets. www.portlandoregon.gov/bes/greenstreetstewards

STORMWATER POLLUTION

Particles. From vehicle exhaust, unburned hydrocarbons, soot, dirt, leaves, etc.

Vehicle wear and tear. Copper from brake pads, zinc, cadmium, rubber from tires, lead weights and metal bits

Vehicle spills, leaks and illegal dumping. Liquids with dissolved metal pollutants, motor oil, antifreeze and other petroleum products, solvents and dry materials that can release pollutants like phosphorus and nitrogen

Animal waste. Fecal bacteria

Garden products. Chemicals from fertilizers, herbicides and insecticides



ECOROOF



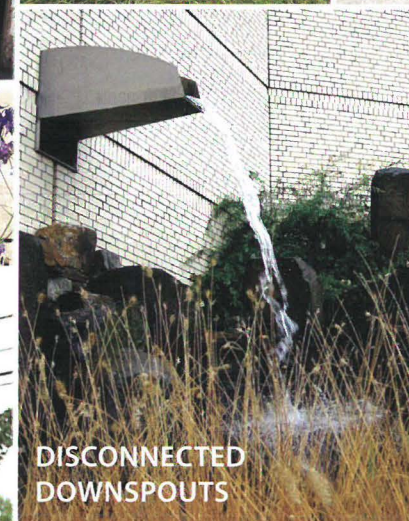
STREET TREES



PLAZA



NATURESCAPING



DISCONNECTED DOWNSPOUTS



PLANTERS



STORMWATER ART



RAIN GARDENS



GREEN STREETS



SWALES

The Bureau of Environmental Services works with Portland residents and businesses to protect water quality, public health, and the environment through wastewater collection and treatment, sewer construction and maintenance, stormwater management, and stream and watershed restoration.

FOR MORE INFORMATION

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