

# Improving your shoreline with native landscaping

## benefits

- ✓ add value to your landscape
- ✓ control runoff
- ✓ receive technical assistance
- ✓ receive financial reimbursement
- ✓ protect Lake Whatcom



### **maintain view & beach**

Improving landscaping can enhance your beach and view to and from the lake.



### **deter geese**

A native plant only has to be 30-inches high to deter geese, so you can still have your shoreline views and access.



### **add color**

Native plants are more diverse than ferns and salal! There are many native plants that offer beautiful color.



### **low maintenance**

You can have a beautiful yard and enjoy it too! Landscaping with native plants allows more time to enjoy your garden with less work.

## **Thinking about landscaping part of your shoreline?**

HIP reimburses up to \$1.60 per square foot of property that is converted from phosphorus-generating lawn to native landscaping! You can choose the aesthetic native plant buffer for your property, continue to enjoy your shoreline, and help protect Lake Whatcom all at the same time.

When you live along the shoreline, there isn't much room to absorb runoff from roofs, driveways, and lawns before it seeps into the lake. Creating a landscaped area with a thick mulch layer and native plants reduces the amount of phosphorus in runoff by more than 80 .



## What is meant by “native” plants and which ones are good for the shoreline?

Native plants are adapted to our environment, drought-resistant, require no fertilizer, and can establish themselves easily. There are more than 900 species of native plants—here are some you might find at your local nursery that are ideal for planting along freshwater shorelines:

plant name	type	sun or shade?	mature height	deters geese	frames views	deer resistant
Shore pine	evergreen tree	part sun	25-50'		★	★
Red-twig dogwood	deciduous tree	part to full sun	15'		★	
Pacific ninebark	tall shrub	part to full sun	13'		★	
Mock orange	medium shrub	sun or shade	9'	★	★	★
Clustered wild rose	low shrub	full sun	6'	★		★
Coastal strawberry	ground-cover	sun or shade	1'			★
Golden-eyed Grass	grass-like	full sun	1.5'	★		
Great camas flower	emergent	full sun	2'			
Maidenhair fern	fern	shade	2'			★

### 1 Project Design\*

- ✓ Define areas to plant
- ✓ Select plants
- ✓ Choose your favorite mulch

### 2 Review & Approval

- ✓ Complete project application\*
- ✓ Receive free permit

### 3 Construction & Installation\*

- ✓ Spread mulch
- ✓ Install plants

### 4 Maintain your system

- ✓ Weeding and watering for two years until plants are established.
- ✓ Other upkeep activities unique to your project.

\*A HIP-certified professional can be hired to help complete these tasks for you.

## enhance for ambiance

*Incorporating native landscaping adjacent to your shoreline can provide a private “room” while allowing full use of your beach. In some cases, it even expands the beach space.*



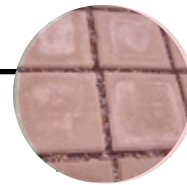
## QUESTIONS?

Find resources and request a free site visit at [www.lakewhatcomHIP.org](http://www.lakewhatcomHIP.org).

# Creating interest with native landscaping

## benefits

- ✓ improve your landscape
- ✓ control runoff
- ✓ receive technical assistance
- ✓ receive financial reimbursement
- ✓ protect Lake Whatcom



**functional features**  
A patio with an infiltration trench beneath can provide both a sitting area and water quality protection.



**walk in the wild**  
Stepping stone pathways through native landscaped areas can be an invitation to explore new features of your landscape.



**low maintenance**  
A thick layer of mulch provides less watering, no mowing and more time to relax and enjoy your healthy yard.



## native plant beauty

Native plants come in many colors and sizes to form a beautiful garden all year round.

## Add some excitement to your lawn!

Lawns can't absorb nutrients fast enough to keep them from washing away when it rains. Creating a landscaped area with a thick mulch layer and native plants reduces the amount of phosphorus in runoff by more than 80% and beautifies your yard.

Whether you're considering removing all or just portions of your lawn, native landscaping can provide interest, new features in your yard, and water quality protection. HIP reimburses up to \$1.60 per square foot of property that is converted from phosphorus-generating lawn to native landscaping; HIP can also provide reimbursement for landscape improvements that provide a water quality benefit.





## What is meant by “native” plants?

Native plants are adapted to our environment, drought-resistant, require no fertilizer, and can establish themselves easily. There are more than 900 species of native plants—the following list shows some of the most common plants you’d find at your local nursery.

plant name	type	sun or shade?	wet or dry soils?	flower or leaf color	bloom time	deer resistant
Shore pine	evergreen tree	full sun	wet	light green	none	★
Vine maple	deciduous tree	shade	dry	red/orange	early	★
Blue elderberry	tall shrub	full sun	dry	white	mid-summer	
Red-flowering currant	medium shrub	sun or shade	dry	red/pink	earliest	★
Oregon grape	low shrub	shade	wet or dry	dark green	later	★
Kinnikinnick (bearberry)	ground-cover	sun or shade	dry	dark green	mid-summer	★
Blue-eyed Grass	grass-like	full sun	wet	blue-purple	mid-summer	
Orange honeysuckle	vine	part sun	dry	orange	later	★
Sword fern	fern	shade	wet or dry	dark green	none	★

## 1 Project Design\*

- ✓ Define areas to plant
- ✓ Complete a plant list
- ✓ Choose your favorite mulch

## 2 Review and Approval

- ✓ Complete project application\*
- ✓ Receive free permit

## 3 Construction & Installation\*

- ✓ Spread mulch
- ✓ Install plants

## 4 Maintain your system

- ✓ Weeding and watering for two years until plants are established.
- ✓ Other upkeep activities unique to your project.

\*A HIP-certified professional can be hired to help complete these tasks for you.

### form and function

Native landscaping can be structured like any other landscaped garden, and provide the same aesthetic function. The bonus is the water quality protection benefit. You don't have to sacrifice the beauty and uses of your yard when including natives as part of your landscape.



## QUESTIONS?

Find resources and request a free site visit at [www.lakewhatcomHIP.org](http://www.lakewhatcomHIP.org).

# Installing a lakeside underground pollution filter

Clean Beach Filter

## benefits

- ✓ improve your landscape
- ✓ control runoff
- ✓ receive technical assistance
- ✓ receive financial reimbursement
- ✓ protect Lake Whatcom



### valuable views

Relax and enjoy your waterfront view with the assurance you are doing your part to keep Lake Whatcom clean.



### room to play

Right next to this grassy play area is a special mix of soil that filters pollution out of runoff from the surroundings.



### invisible infiltration

A sandy beach disguises a water quality protection system at Bloedel Donovan Park. You can enjoy your lakeside property and protect Lake Whatcom at the same time.

## Want a beach that provides enjoyment to you and clean water to our community?

Your beach can dramatically improve the quality of water entering Lake Whatcom. Pollution filter systems under your beach can be designed to treat the pollution running off of your property without interfering with your enjoyment of your lakefront retreat.

HIP-certified professionals can help you design and install these and other improvements that are eligible for reimbursement—up to \$1.60 per square foot of property improved to protect Lake Whatcom.



## How much space will my underground pollution filter take up?

It depends. Many factors, including the unique layout of your property and whether you are using pipes to convey runoff into the water treatment system, influence the size of your project. A HIP-certified designer can determine the appropriate size of your lakeside underground pollution filter.

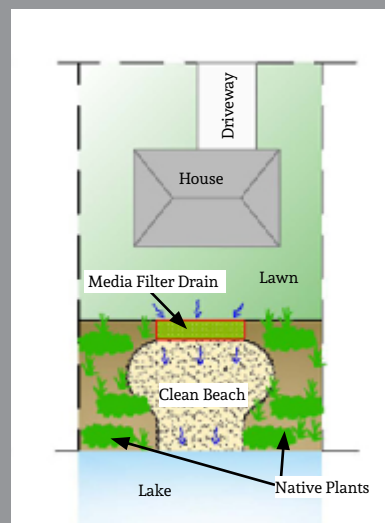
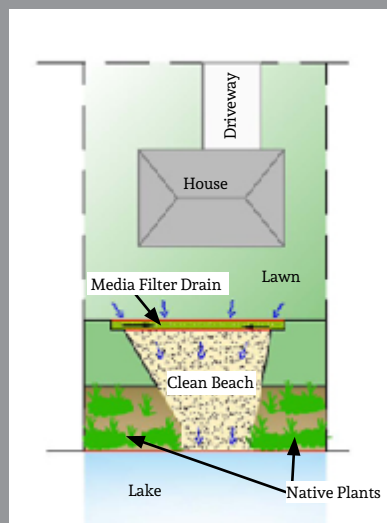
## Is your property outside of Bellingham city limits?



Photo by Anchor Environmental

*Lakeside properties outside of city limits may also install clean beach projects but must ensure that at least 70% of the shoreline includes native plants.*

*The beach area itself can be configured in many creative ways but the maximum beach length is 30% of your shoreline. Two examples of possible clean beach configurations are shown to the right.*



## 1 Project Design\*

- ✓ Choose location for filter
- ✓ Determine location of piping into and out of system, if applicable

## 2 Review and Approval

- ✓ Complete application\*
- ✓ Receive free permit

## 3 Construction & Installation\*

- ✓ Dig out existing soil
- ✓ Place pipes and drains, if applicable
- ✓ Install sand and filter media

## 4 Maintain your system

- ✓ Keep pipes and drains clean and replace sand when needed.
- ✓ Other upkeep activities unique to your project.

\*A HIP-certified professional can be hired to help complete these tasks for you.



## QUESTIONS?

Find resources and request a free site visit at [www.lakewhatcomHIP.org](http://www.lakewhatcomHIP.org).



# Installing an underground pollution filter

Upland Filter

## benefits

- ✓ improve your landscape
- ✓ control runoff
- ✓ receive technical assistance
- ✓ receive financial reimbursement
- ✓ protect Lake Whatcom



### garden compatible

Relax and enjoy your garden with the assurance you are doing your part to keep Lake Whatcom clean.



### room to play

Right next to this grassy area is a special rock and sand mix that filters pollution out of runoff from the surroundings.



### invisible infiltration

A gravel garden feature disguises an underground water quality protection system. You can add interest to your landscape and protect Lake Whatcom at the same time.

## Want a yard that provides enjoyment to you and clean water to our community?

Your yard doesn't need to look different to dramatically improve the quality of water entering Lake Whatcom. Underground pollution filter systems can be designed to treat the pollution running off of your property without interfering with the enjoyment of your backyard.

HIP-certified professionals can help you design and install these and other improvements that are eligible for reimbursement—up to \$1.60 per square foot of property improved to protect Lake Whatcom.



## How much space will my underground pollution filter take up?

It depends. Many factors, including the unique layout of your property and whether you are using pipes to convey runoff into the water treatment system, influence the size of your project. A HIP-certified designer can determine the appropriate size of your underground pollution filter. Generally, though, filtering systems have a smaller footprint than other HIP BMPs, like infiltration trenches.

### envision the possibilities



*Placing a pollution filter system below ground allows you to maintain space in your yard.*

*Underground pollution filters provide a blank slate for your creative landscaping ideas.*



## 1 Project Design\*

- ✓ Choose location for filter
- ✓ Determine location of piping into and out of system, if applicable

## 2 Review and Approval

- ✓ Complete application\*
- ✓ Receive free permit

## 3 Construction & Installation\*

- ✓ Dig out existing soil
- ✓ Place pipes and drains if applicable
- ✓ Install special filter material

## 4 Maintain your system

- ✓ Keep pipes and drains clean and replace filter material when needed.
- ✓ Other upkeep activities unique to your project.

\*A HIP-certified professional can be hired to help complete these tasks for you.



## QUESTIONS?

Find resources and request a free site visit at [www.lakewhatcomHIP.org](http://www.lakewhatcomHIP.org).



# Installing an underground pollution filter

Infiltration Trench

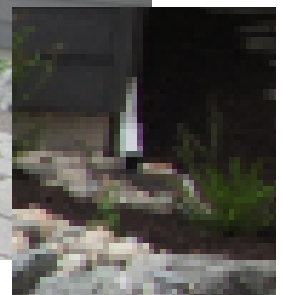
## benefits

- ✓ improve your landscape
- ✓ control runoff
- ✓ receive technical assistance
- ✓ receive financial reimbursement
- ✓ protect Lake Whatcom



### inviting spaces

A native plant border can create an aesthetic buffer between the patio and fence, framing the space to create ambiance.



### invisible infiltration

Downspouts route water away from your home into a facility that improves water quality.



### what pollution filter?

A patio disguises a water quality protection system. You can use your landscape creatively and protect Lake Whatcom.

## Considering a new patio to enjoy those summer evenings on?

You can dine, relax, entertain, and protect Lake Whatcom water quality all at the same time! In some cases, an inviting patio can be designed and installed with an underground pollution filter beneath it—proving that HIP-eligible projects can be integrated into your dream yard.

HIP-certified professionals can help you design and install these and other improvements that are eligible for reimbursement—up to \$1.60 per square foot of property improved to protect Lake Whatcom.



## How much space will my underground pollution filter take up?

It depends. Many factors, including soil permeability, the unique layout of your property, and the type of final surface you choose, influence the design principles used to calculate the system's size. It can be anywhere from the size of a patio you entertain on, to a walkway through your yard. A HIP-certified designer can determine the appropriate size you need.

### options abound



© Jaime Hooper

*A peagravel walkway can also function as an underground pollution filter. HIP-approved projects are easily combined with landscaping projects you might already be considering doing.*

*Rock and/or mulch can be used to cover the underground pollution filter to fulfill a variety of design aesthetics. How you want to utilize the aboveground space is typically the deciding factor.*



## 1 Project Design\*

- ✓ Confirm/test soil infiltration rate
- ✓ Choose location for filter
- ✓ Choose your surfacing material
- ✓ Lay out piping into and out of system

## 2 Review and Approval

- ✓ Complete application\*
- ✓ Receive free permit

## 3 Construction & Installation\*

- ✓ Dig out existing soil
- ✓ Place pipes and drains
- ✓ Install rock or sand
- ✓ Optional: place surfacing (gravel, pavers, river rock, etc.)

## 4 Maintain your system

- ✓ Keep pipes and drains clean and replace rock when needed.
- ✓ Other upkeep activities unique to your project.

\*A HIP-certified professional can be hired to help complete these tasks for you.



## QUESTIONS?

Find resources and request a free site visit at [www.lakewhatcomHIP.org](http://www.lakewhatcomHIP.org).

# Installing a Lake Whatcom rain garden

## benefits

- ✓ improve your landscape
- ✓ control runoff
- ✓ receive technical assistance
- ✓ receive financial reimbursement
- ✓ protect Lake Whatcom



© Stewardship Partners



Photo Credit: Stewardship Partners

### enhance your yard

Enhance curb appeal while removing nutrient pollution from our community's drinking water supply.



### create a sanctuary

Take a step away from your busy life into a relaxing garden retreat. Birds and butterflies will join you there.



### reduce maintenance

Landscaping with native plants allows more time to enjoy your garden with less work.

## Want to create beautiful gardens that filter pollution from your property?

Rain gardens add excitement to your landscape, help control runoff, and improve the quality of water draining from your property into Lake Whatcom. HIP-certified designers can help you craft your rain garden location, size, and plant composition while incorporating your preferences for the overall landscape.

HIP reimburses up to \$1.60 per square foot of property that filters phosphorus-containing runoff from roofs and driveways! Low maintenance rain gardens give you more time to enjoy your yard, attract beneficial pollinators, and help protect Lake Whatcom all at the same time.





## How much space will my rain garden take up?

It depends. Many factors, including soil permeability, the unique layout of your property, and the amount of lawn and impervious surfaces your property includes, influence the system's size. A HIP-certified designer can help you determine the appropriate size and shape of your rain garden.

### shape shifters



*An asymmetric border, also functioning as a rain garden, adds interest to an otherwise monotonous lawn.*

*HIP-approved projects are easily combined with landscaping projects you might already be considering.*

© Stewardship Partners

*Rain gardens come in many shapes and sizes depending on the needs of your individual property. At right, a newly planted rectangular rain garden collects and filters runoff.*



© Stewardship Partners

## 1 Project Design\*

- ✓ Confirm/test soil infiltration rate
- ✓ Choose location for rain garden
- ✓ Choose planting scheme for rain garden
- ✓ Design drainage system into and out of rain garden

## 2 Review and Approval

- ✓ Complete application\*
- ✓ Recieve free permit

## 3 Construction & Installation\*

- ✓ Dig out existing soil
- ✓ Place pipes and drains
- ✓ Add soil mix
- ✓ Install plants and mulch

## 4 Maintain your system

- ✓ Other upkeep activities unique to your project.

\*A HIP-certified professional can be hired to help complete these tasks for you.



## QUESTIONS?

Find resources and request a free site visit at [www.lakewhatcomHIP.org](http://www.lakewhatcomHIP.org).

# Installing an underground pollution filter

POST Filter\*

## benefits

- ✓ improve your landscape
- ✓ filter runoff
- ✓ receive technical assistance
- ✓ receive financial reimbursement
- ✓ protect Lake Whatcom



### small footprint

This small but mighty filter excels in tiny spaces. Even if you don't have a large yard, you can still help keep Lake Whatcom clean.



### big benefit

POST filters contain materials specifically designed to keep pollutants out of Lake Whatcom.



### invisible infiltration

Top your underground filter with a native plant garden or cover with a patio or gravel surface for entertaining.

## Limited on space but want a yard that provides clean water to our community?

Even with limited yard space you can still make big water quality improvements to Lake Whatcom. The POST filter can be installed underground, fits in tight spaces, and contains specially-designed materials that quickly filter runoff from roofs and pavement. Enjoy your yard while protecting Lake Whatcom at the same time.

HIP-certified professionals can help you design and install these and other improvements that are eligible for reimbursement—up to \$1.60 per square foot of property improved to protect Lake Whatcom.



\*POST Filters contain an advanced treatment media developed by the City of Bellingham

## How much space will my underground pollution filter take up?

POST filters are designed to fit into small spaces. The filter material is housed in a box sized to fit your site. To treat runoff from small roofs, the box is about the size of an oven. To treat bigger roofs, the box may be larger than a refrigerator. In many cases, the box is buried underground and covered with plants, rocks, a patio, or another surface of your choice.

### cutting edge treatment

Native plants, river rocks, or other decorative features.

Hardwood mulch

Primary media

Polishing media

Screen

Pea gravel

Perforated pipe and drain system

Pre-constructed box made of concrete, wood, plastic, or other material



*The POST filter uses state-of-the-art filtration material that not only effectively removes phosphorus and other pollutants from stormwater, but does it faster than other existing systems, saving money and getting us one big step closer to a healthy Lake Whatcom.*

## 1 Project Design\*

- ✓ Choose location for filter
- ✓ Determine location of piping into and out of system, if applicable

## 2 Review and Approval

- ✓ Complete application\*
- ✓ Receive free permit

## 3 Construction & Installation\*

- ✓ Dig out existing soil
- ✓ Place pre-constructed filter box
- ✓ Connect pipes and drains to a box
- ✓ Install special filter material

## 4 Maintain your system

- ✓ Keep pipes and drains clean and replace filter material when needed.
- ✓ Other upkeep activities unique to your project.

\*A HIP-certified professional can be hired to help complete these tasks for you.



## QUESTIONS?

Find resources and request a free site visit at [www.lakewhatcomHIP.org](http://www.lakewhatcomHIP.org).