



Your Guide to Water-Wise Landscaping  
for the Inland Northwest

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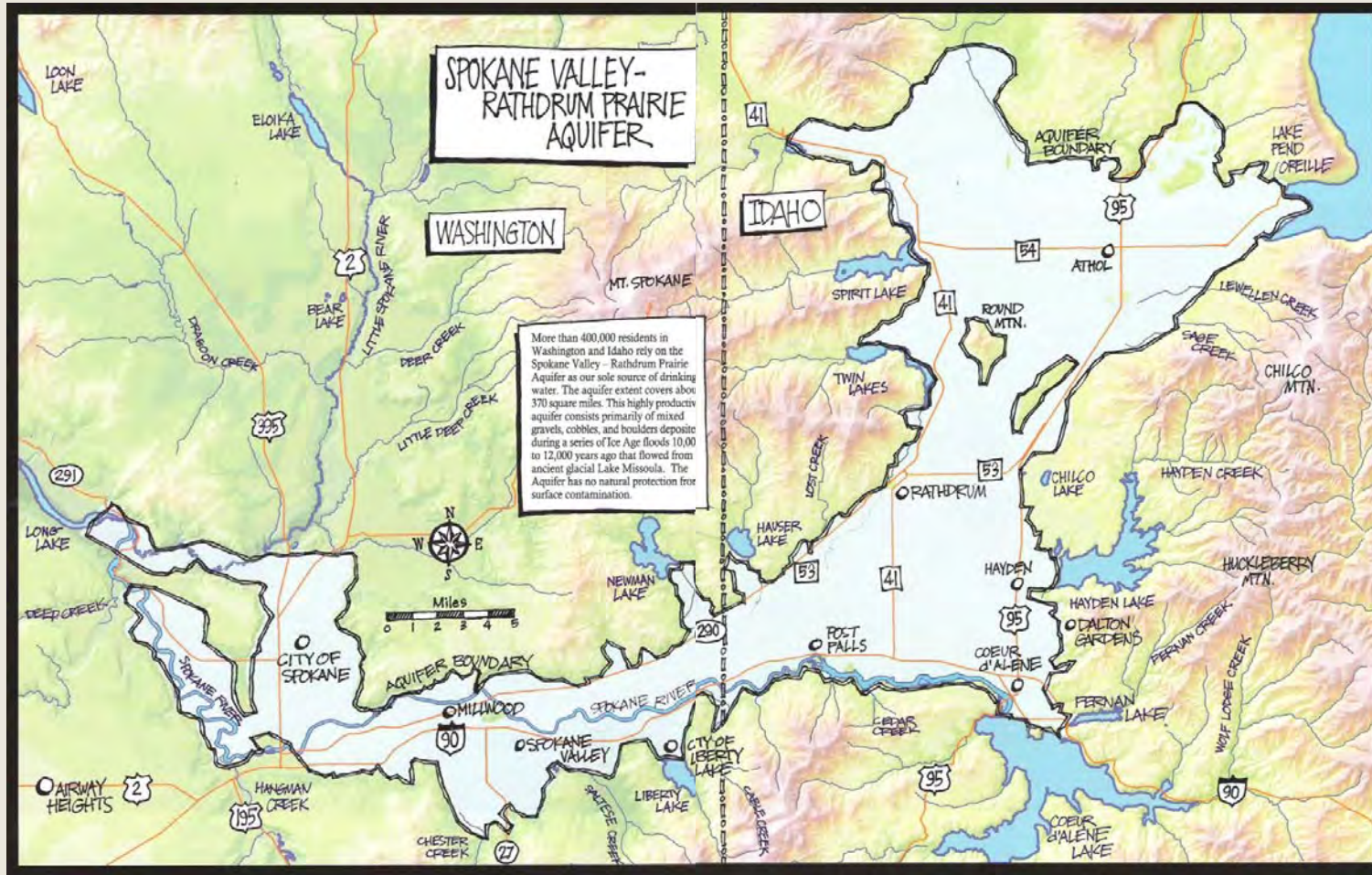
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# WHY SAVE WATER?

It's all about the river

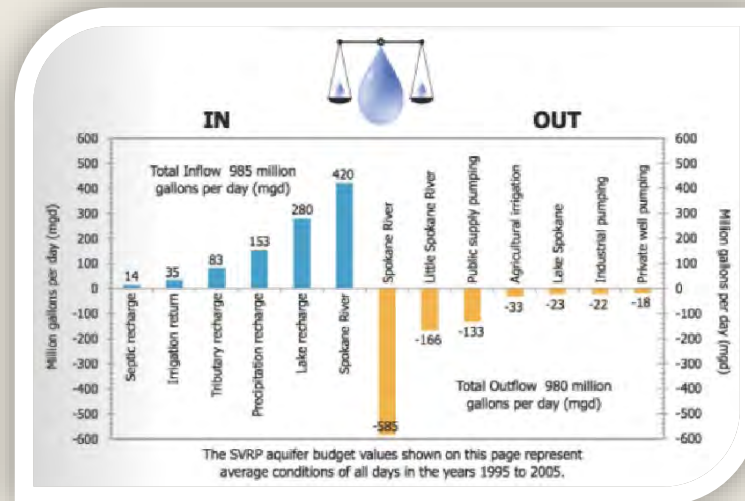


# Our Sole Water Source: The SVRP Aquifer



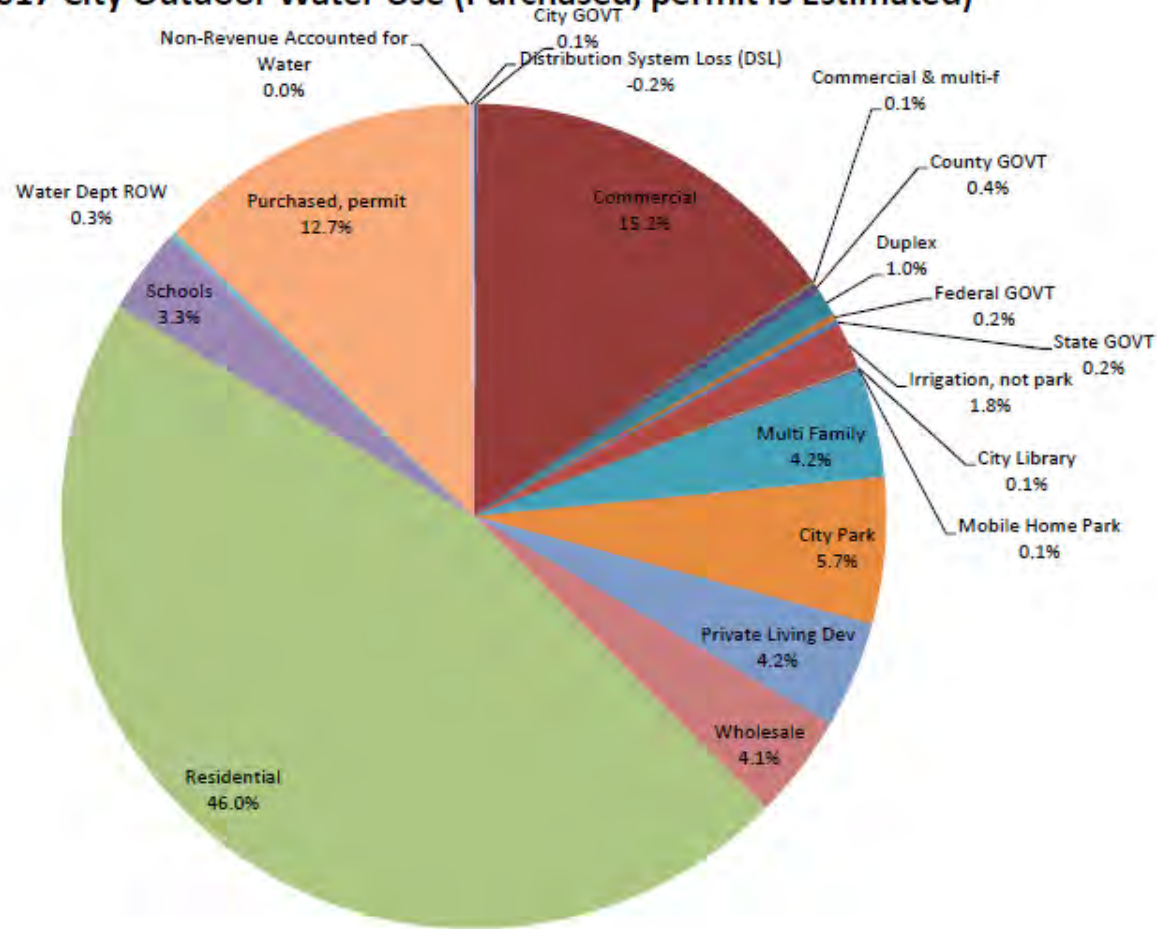
The Spokane Valley-Rathdrum Prairie Aquifer is recharged by precipitation, adjacent lakes, and the Spokane River. Almost 50% of the recharge comes from the river!

Pumping from the SVRP aquifer can lower the amount of groundwater that seeps into the Spokane River.



# Who Uses the Most?

2017 City Outdoor Water Use (Purchased, permit is Estimated)



2017 Residential Use in a nutshell:

- Total Residential Use: **8.9 Billion Gallons**
- Total Summer Use: **5.1 Billion Gallons**
  - *57.5% of all water is used outdoors*





**5.1 BILLION GALLONS ?!**  
**For the love of turf!**

# Introducing: SpokaneScape

## ■ What is a SpokaneScape?

- *A water-efficient landscape that has been designed specifically for Spokane residents*
- *Low-volume irrigation and drought tolerant plant material*
- *Beautifies your property, protects our natural resources, and reduces maintenance*

## ■ Landscape Replacement Rebate Program:

- ✓ *Replace existing turf with drought tolerant/native plantings and mulch*
- ✓ *Earn \$0.50/square foot up to \$500*
- ✓ *Minimum of 300 square feet*
- ✓ *Must be publicly visible*
- ✓ *Efficient watering method*



So you want  
me to get rid  
of my lawn...

What does a  
SpokaneScape  
look like?









Low  
Water  
Use?





Native  
Plants?





# This is a SpokaneScape

- ✓ Drought Tolerant Plants
- ✓ Bark Mulch
- ✓ Efficient Watering













## A SpokaneScape Can Add VALUE to Your Property



Before



After



## A SpokaneScape Can Add BEAUTY to Your Property



Before



After

# DESIGN: STEPS TO A BEAUTIFUL SPOKANESCAPE





# Where to Begin?

## Think About Your Goals

- Aesthetics
- Low-Maintenance
- Privacy Screening
- Gathering Place
- Shading and House Cooling
- Lower Water Use





# Features You May Want to Add:

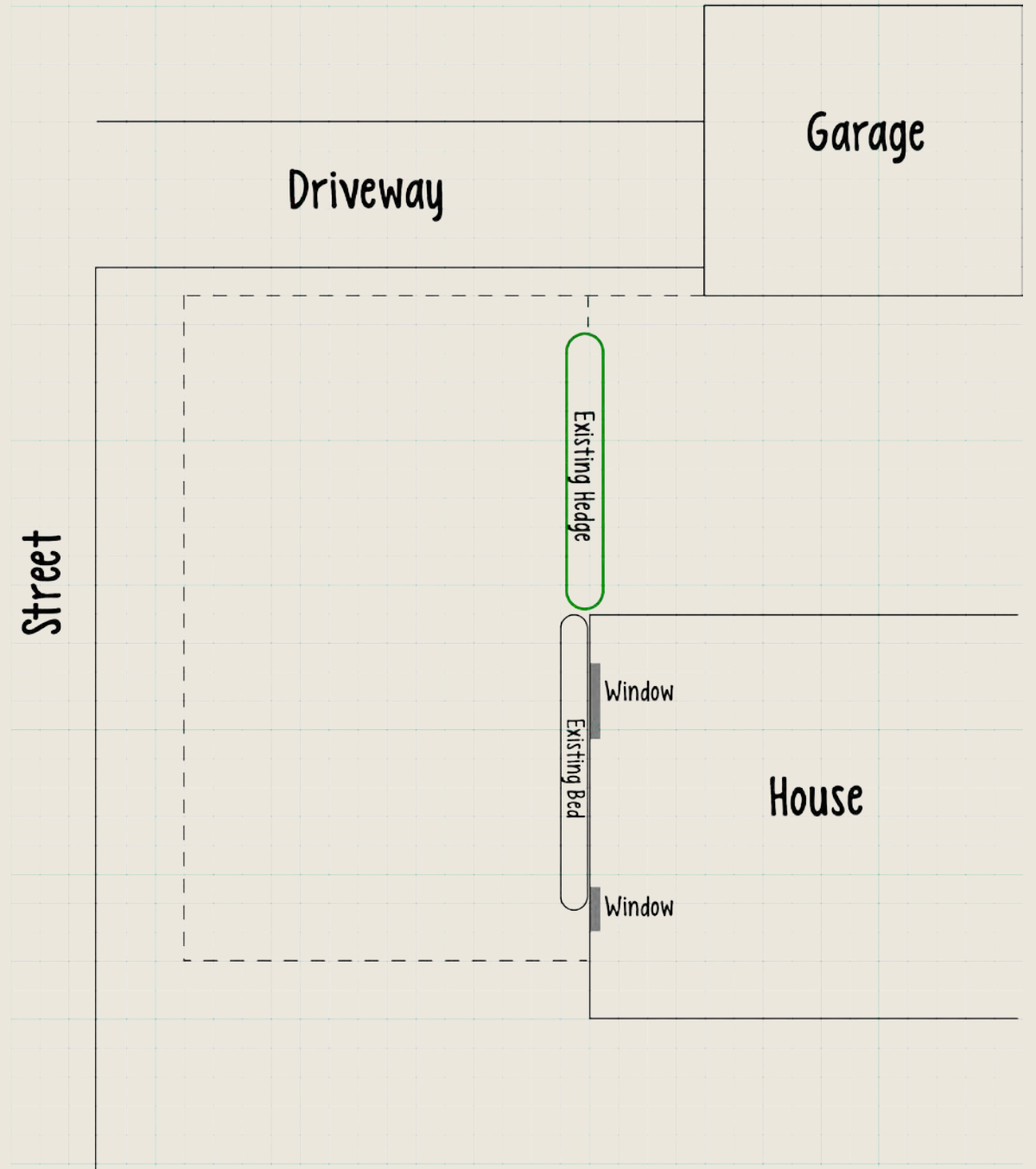
- Seating Area
- Walls
- Pergola
- Raised Gardens
- Fence
- Privacy Hedge
- Rocks
- Dry Stream Bed
- Pathways





# Start With a Sketch of the Existing Site

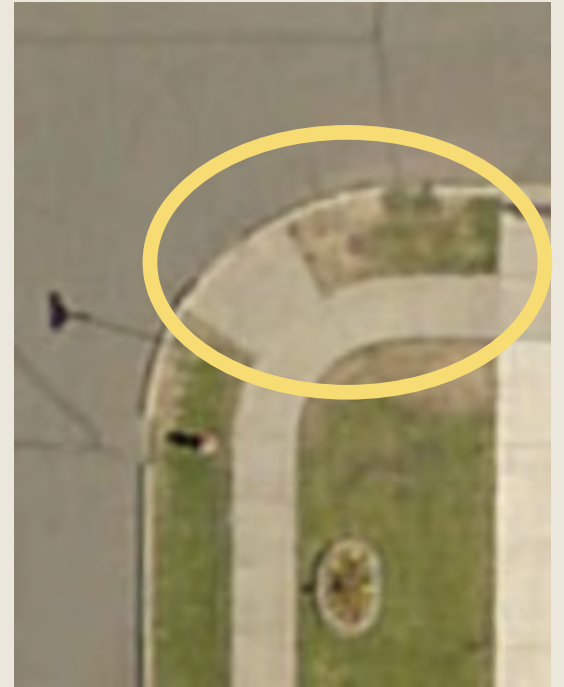
- ✓ Property lines
- ✓ Structures
- ✓ Windows
- ✓ Power Lines/Underground Utilities
- ✓ Existing plants
- ✓ Fences & Gates





# Think About Your Microclimates

- Note areas that are sunny or shady in the morning or afternoon.
- Any sloping or natural drainage pathways?
- Asphalt and concrete absorb greater amounts of solar heat than turf and mulch, and these surfaces radiate more heat during the day and into the evening.



Anything near asphalt or concrete will have a high microclimate. Have you ever noticed how much harder it is to keep these areas green?

# Design Example

- Identified Problem Areas
  - ✓ *This area needs lots of additional water compared to the rest of the yard due to no shade and its Southwest location*
- Microclimates
  - ✓ *Side of yard along street and area around driveway has a very high mc*
- Goals:
  - ✓ *Low Maintenance*
  - ✓ *Shading for house cooling*
  - ✓ *Privacy*
  - ✓ *Colorful*
  - ✓ *No additional water needed after plants are established*





# Inside Fence

- Start with the big stuff first
  - Selected trees to provide shade and privacy
  - Chose deciduous trees so that they won't block the sun in the winter
- Medium-Large Shrubs
  - Wanted to add color and fragrance and have an early bloomer
- Pathways
  - Using a groundcover and bark mulch for pathways to lead from the front to the back yard
- Features
  - After all this work, an area to sit and enjoy the SpokaneScape is deserved and a bench is added





# Parking Strip

- Being right next to the street and outside the fence, something super low maintenance and extremely hardy is desired
- Medium-Low Shrubs
  - *Mugo Pine*
- Tall Grass
  - *Karl Foerster*
- Mix of Perennials
  - *Lavender*
  - *Blanket Flower*
  - *Oregon Sunshine*





# Driveway

- Goals:
  - Zero to low maintenance
  - Needs to tolerate a high microclimate
  - Small in size
- A row of lavender is chosen- simple and pretty



- List all new plants in plan, leave out any existing plants
- Find plant **area** in guidebook or online
- Plant area at **maturity** –use key on application or calculate using plant area formula


(total area sf) x .25 = Y  
Y/27= \_\_\_\_cubic yards of mulch for  
3" depth

2




# Rebate Application is Almost Complete

- Be sure to fill out all the required information and list the current watering method and proposed method
- Watering method must be efficient
- Acceptable forms of watering:
  - *Drip lines*
  - *Drip Emitters*
  - *Micro-Sprays*
  - *Bubblers*
  - *Rotary Nozzles*
  - *By hand*



## Lawn Replacement Rebate Program 2018 Application Form



See Additional Pages for Complete Information

You may earn up to a \$500 credit on your utility bill after removing lawn in your yard and replacing it with water-smart plants and mulch. You may claim \$0.50 per square foot of lawn removed with a minimum of 300 square feet. Trading out your yard for artificial turf does not qualify.

**City of Spokane Account Info** (Property must have a water account with the City of Spokane to qualify)

City of Spokane Account Number Where Lawn Will Be Removed \_\_\_\_\_

Address (Must Match Account No.) \_\_\_\_\_

Name on Account \_\_\_\_\_ ☐ Owner ☐ Renter

Phone \_\_\_\_\_ Email \_\_\_\_\_

If Renter, Name of Property Owner \_\_\_\_\_ Owner Phone \_\_\_\_\_

Mailing Address (if different from above) \_\_\_\_\_

**Current Site Information** (Check areas to be converted and provide square footage and watering method)

LOCATION:	ESTIMATED SQUARE FEET (L x W)	CURRENT WATERING METHOD (spray, rotors, drip, etc.)	PROPOSED WATERING METHOD (Drip, bubblers, hand, etc.)
<input type="checkbox"/> Front	_____	_____	_____
<input type="checkbox"/> Back (must be publicly visible)	_____	_____	_____
<input type="checkbox"/> Parking Strip	_____	_____	_____
<input type="checkbox"/> Right Side Yard	_____	_____	_____
<input checked="" type="checkbox"/> Left Side Yard	1500	Rotors	Drip

**Proposed Site Information Checklist** -Please Initial Each

\_\_\_\_ My proposed project area is visible from a public area.

\_\_\_\_ My lawn has had regular irrigation over the past three years.

\_\_\_\_ I've attached a Landscape/Irrigation plan with a sketch to scale of the project area including the location of plants and type of irrigation. (See landscape requirements for converted areas on page 5 for more details)

\_\_\_\_ I've attached the Plant List and Area Calculations Form and my project area meets the minimum requirement of 50% plant coverage.

\_\_\_\_ I've attached 2 photos of the existing landscape in the proposed project area. (You may send pictures to the email address below.)

\_\_\_\_ I understand that the project must be maintained for a minimum of three years.

**Signature** (By signing my name I hereby agree to all terms and conditions set forth herein.)

Applicant / Owner Signature \_\_\_\_\_ Date \_\_\_\_\_

By participating in the program and accepting the rebates provided, you agree to maintain the converted area as lawn free and reduce your water use. You also thereby release the City of Spokane from any and all claims and causes of action that may arise out of removal of lawn from your property and/or the purchase, installation, and/or use of water efficient devices in connection with this Lawn Replacement Program. If not maintained correctly, installation of drought tolerant plants may not result in reduced water use.

**Mail or Deliver Form To:**  
 Water Stewardship Program  
 2701 N Waterworks St.  
 Spokane, WA 99212

**Resources & Questions:**  
[WaterStewardship.org](http://WaterStewardship.org)  
 Call: (509) 742-8177  
 Email: [hnickerson@spokanecity.org](mailto:hnickerson@spokanecity.org)

**For Office Use Only**  
 Received Date: \_\_\_\_\_  
 Inspection Date: \_\_\_\_\_

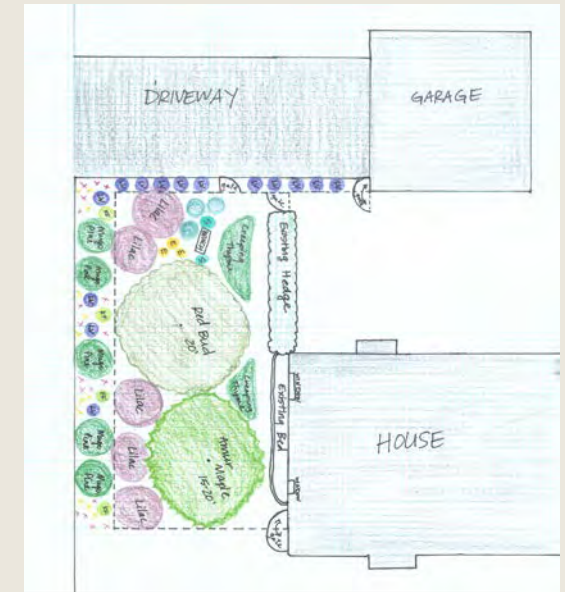
# Send Your Application In!



- Mail/Email Application and after its reviewed a site pre-inspection will be scheduled
- After site inspection, you may receive approval to begin work
- Now the fun can begin!

Make Sure to include:

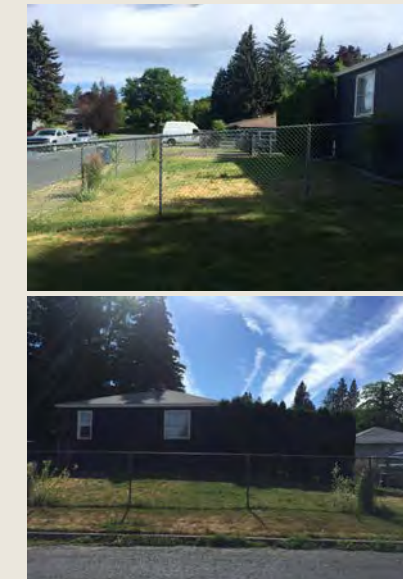
✓ Application Form



✓ Design Plan to Scale

PLANT NAME	QTY	PLANT AREA (sq. ft.)	PLANT AREA x QTY
Blanket Flower	18	1.25	18 x 1.25 = 22.5
Oregon Sunshine	12	1.5	12 x 1.5 = 18
Mugo Pine	5	28	140
Lavender	4	3	12
Karl Foerster	4	3	12
By DRIVEWAY			
Lavender	10	3	30
INSIDE GATE			
Lilac "Big Blue"	5	28	140
Bonanza "Lemon Yellow" Greenery	3	16	107
Spiraea	2	7	14
Karl Foerster	3	3	9
Creeping Thyme	30	1	30
Redbud	1	20	156
Amur Maple	1	18	129
<b>C. Total Plant Area:</b>			<b>955</b>

✓ Plant Area Calculator



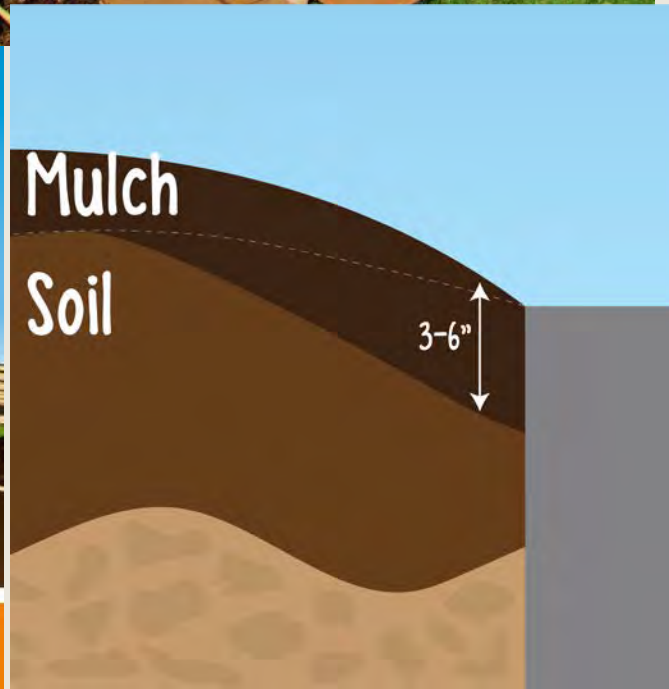
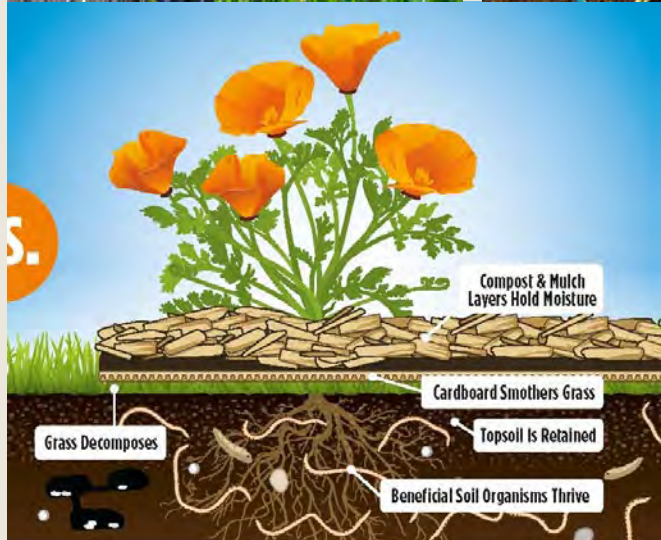
✓ Two Pics of Project Area



# TURF REMOVAL



# Sheet Mulching



- Remove several inches of turf and soil from the edges of your lawn to allow a space for the mulch to lay without sluffing off on your sidewalk, curb, lawn etc.
- Wet the lawn area to be removed and cover it with a few layers of newspaper or cardboard
- Water again and add an additional layer with a layer of compost in between
- Once layers are placed, water well and cover with 3-6" of mulch
- Can be planted in immediately, however waiting for the grass to die will make digging a bit easier



# Mechanical Stripping



- Can Rent
- Need to dispose of turf- can't go in your green bin
- Removes quality growing soil
- Consider using it to make mounds in your new landscape

# Solarization



- Water the grass well before placing plastic
- Make sure that the plastic cover is air tight, use rocks or soil to hold down edges
- Leave in place for 6-8 weeks



# SOIL PREP





# Grading

- Direct water away from your home
- Make small depressions where water can collect to slow runoff from your SpokaneScape to the street,
- Edging soil or stripping- use turf to make mounds



# Know Your Soil Type



## IDENTIFY YOUR SOIL TYPE *the jar test*

- 1 Fill a clear glass jar halfway with your soil sample.
- 2 Fill the remaining half with water, leaving 1" of air.
- 3 Attach lid, then shake the jar vigorously until you have broken up any clumps of soil.
- 4 Set the jar aside to rest, undisturbed, overnight.

After 24 hours your jar's contents will have settled into distinct layers:

SAND

SILT

CLAY

By examining the proportions of these layers, you can gain a sense of what type of soil you have, and what you need to add to improve your soil. Here are some examples to use for comparison. The middle jar is ideal soil:



25% clay  
25% silt  
50% sand



30% clay  
40% silt  
30% sand

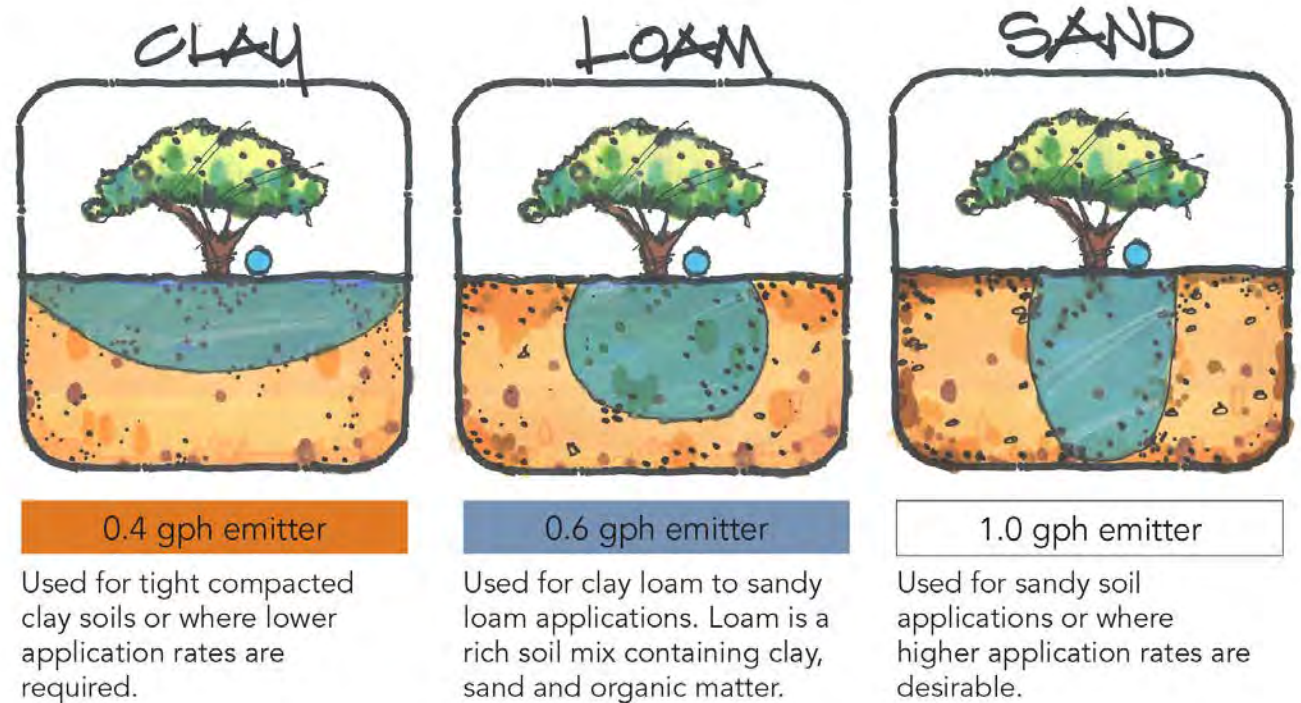


50% clay  
25% silt  
25% sand

# Watering for your Soil Type

- Over-watering:
  - Leaches nutrients from the areas around the roots
  - Starves the plant for oxygen

## How water moves through soil







# IRRIGATION



# Drip Irrigation Types

## Inline Emitter Tubing



Compression Fittings



Insert Fittings

- Slowly applies water directly to the soil where very little is lost to evaporation & run-off
- Because the water is applied to the soil and under mulch, blown-in weed germination is limited
- Simple to install, requires no trenching
- Requires a filter to keep the emitters from clogging
- Lays on to top of the soil and is covered with mulch
- Does not need to be blown out in the winter



# Drip Irrigation Types

## Drip Emitters

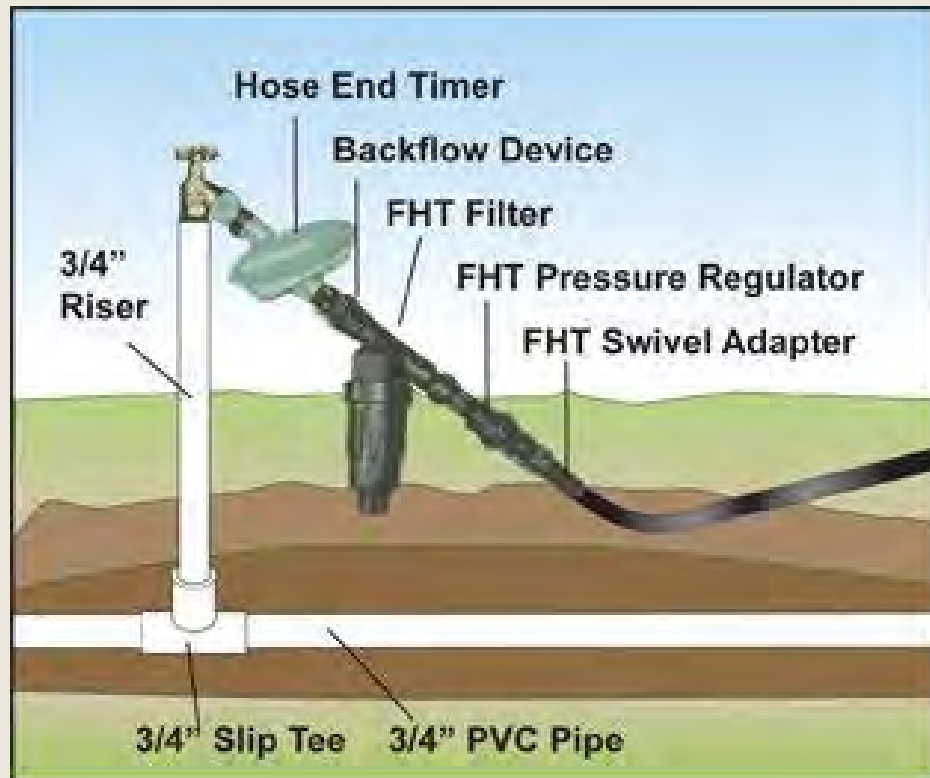


Emitters

- Slowly applies water directly to the soil where very little is lost to evaporation & run-off
- Waters desired plants only which helps to reduce weeds
- Simple to install, requires no trenching
- Requires a filter to keep the emitters from clogging
- Lays on to top of the soil and is covered with mulch
- Should not need to be blown out in the winter as you may pop emitters off.

# Drip Irrigation

## Install Driplines to Faucet



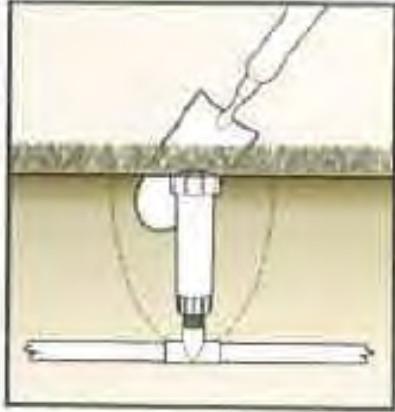
## Parts You Will Need

- Timer
- Backflow Device
- Filter
- Pressure Regulator
- Swivel Adapter
- Drip Tube

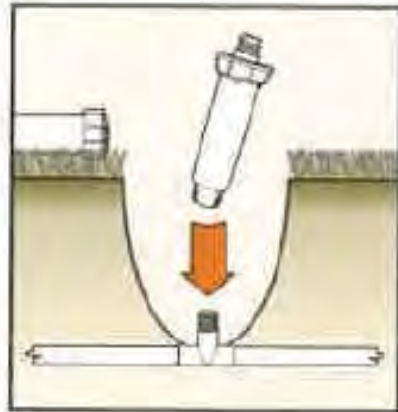
Very simple to install, and costs \$80-\$90



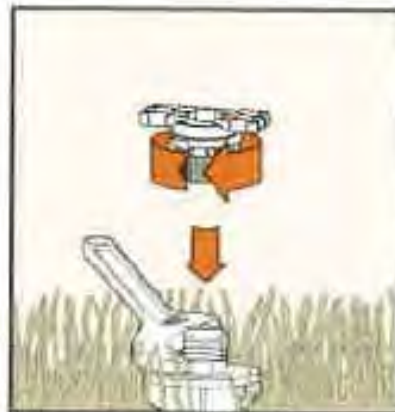
# How to retro-fit an existing sprinkler system



Dig & Remove  
Old Head



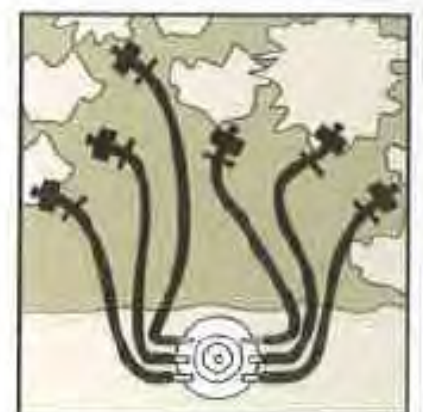
Install New  
Head



Attach Drip  
Manifold Or  
Drip Tube  
Adapter



Attach Tube,  
Emitter &  
Stake



Place Emitters  
at Plants



Drip Tube Adapter

# Update to Rotary Nozzles for More Efficient Water Use



Sprinkler Heads  
Misting & Overspray



Rotary Nozzles  
Large Water Droplets





# PLANTS



# WHAT TO LOOK FOR IN YOUR PLANT SELECTIONS

- Drought tolerant in our climate
- Non-Invasive
- Plants on Guidebook are pre-approved but if you have something you like that fits the qualifications put it on your application.





# MULCH

- Keeps moisture and temperatures consistent
- As it breaks down, mulch adds to the organic matter of your soil
- Helps reduce water runoff
- Suppresses weeds and saves you time!
- Types: wood chips, compost, decomposed granite, river rock, and bark.

Gravel



Rock Mulch



- Pricing- \$30-40 cubic yard or ton
  - Basalt Rock per ton: \$32 pick-up cost \$36 delivered
  - Native River Rock: \$30 pick \$33 delivered
  - Medium Bark: \$30 pick-up cost \$35 delivered
- \*Gravel is NOT rock mulch!



# MAINTENANCE





- Clean your filters
- Check emitters and equipment
- Use organic fertilizer or compost
- Weed by hand every few weeks
  - *Make sure to pull them before they go to seed*
  - *More mulch will help prevent weed growth*
- Winterize!

# Save & Celebrate!





# QUESTIONS?

Contact Hilary Nickerson at  
[hnickerson@spokanecity.org](mailto:hnickerson@spokanecity.org) or 509-742-8177