Outdoor Water Conservation

Who is EMSWCD anyway?

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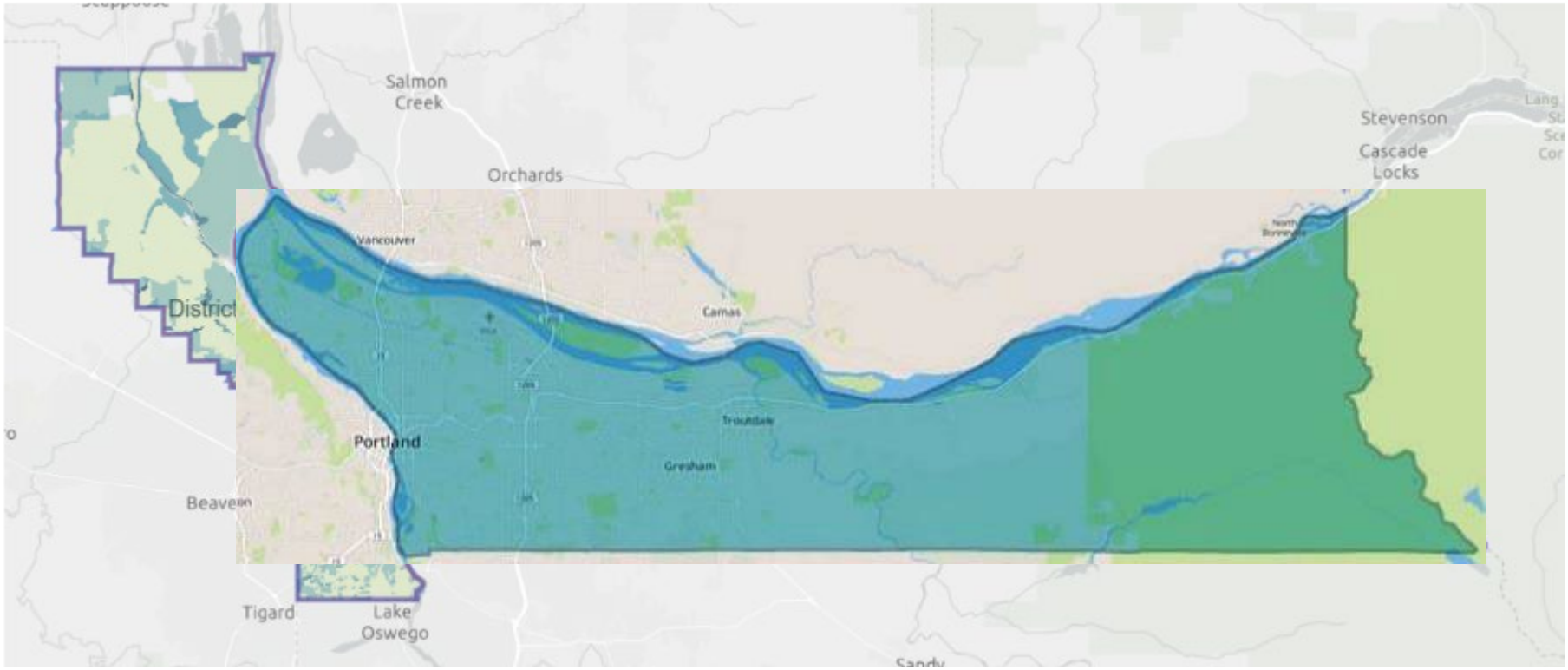


We help people care for land and water.

EAST MULTNOMAH soil & water conservation district

Conserving and protecting our water

IN THE NEWS:
APRIL 2022

https://www.theguardian.com/us-news/2022/apr/26/california-outdoor-watering-restrictions-drought?CMP=oth_b-aplnews_d-1

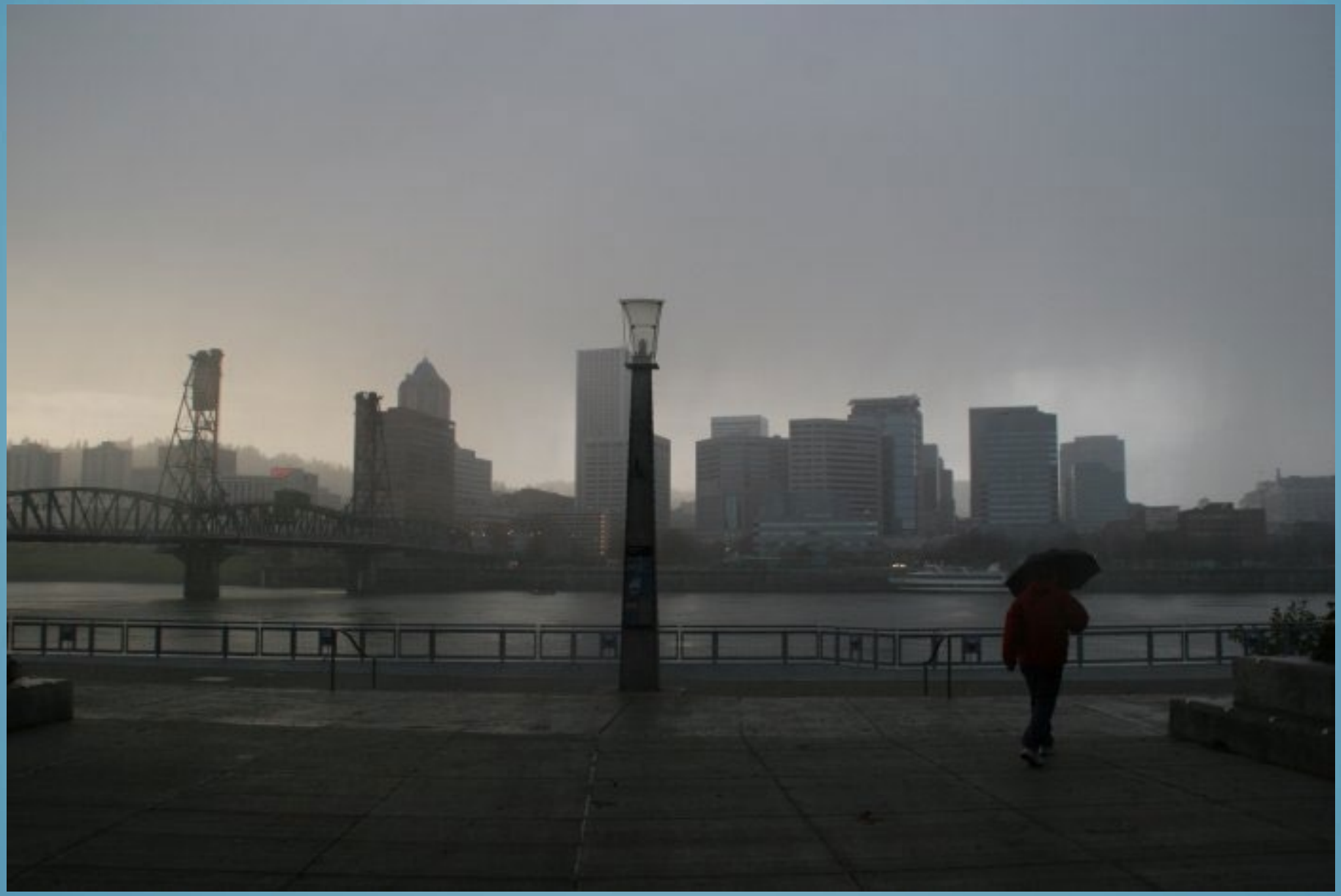
Parched southern California takes unprecedented step of restricting outdoor watering

The resolution will limit watering to just one day a week, affecting millions in Los Angeles, Ventura and San Bernardino counties

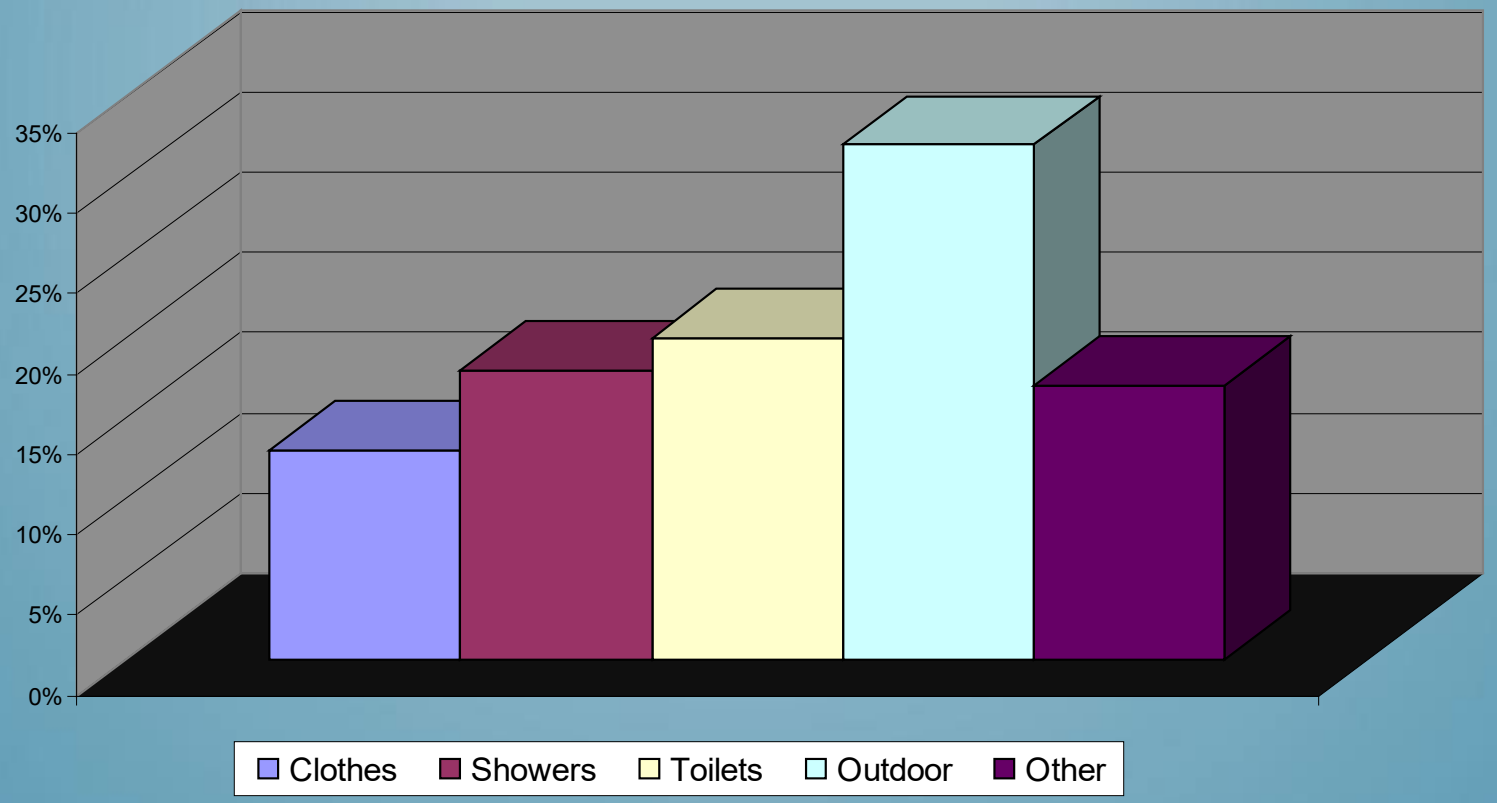
Southern California's new restrictions will limit outdoor watering to just one day per week for millions. Photograph: Frederic J Brown/AFP/Getty Images

Southern California officials declared a water shortage emergency Tuesday, and adopted new unprecedented restrictions on outdoor watering that will affect millions of people living in Los Angeles, Ventura and San Bernardino counties.

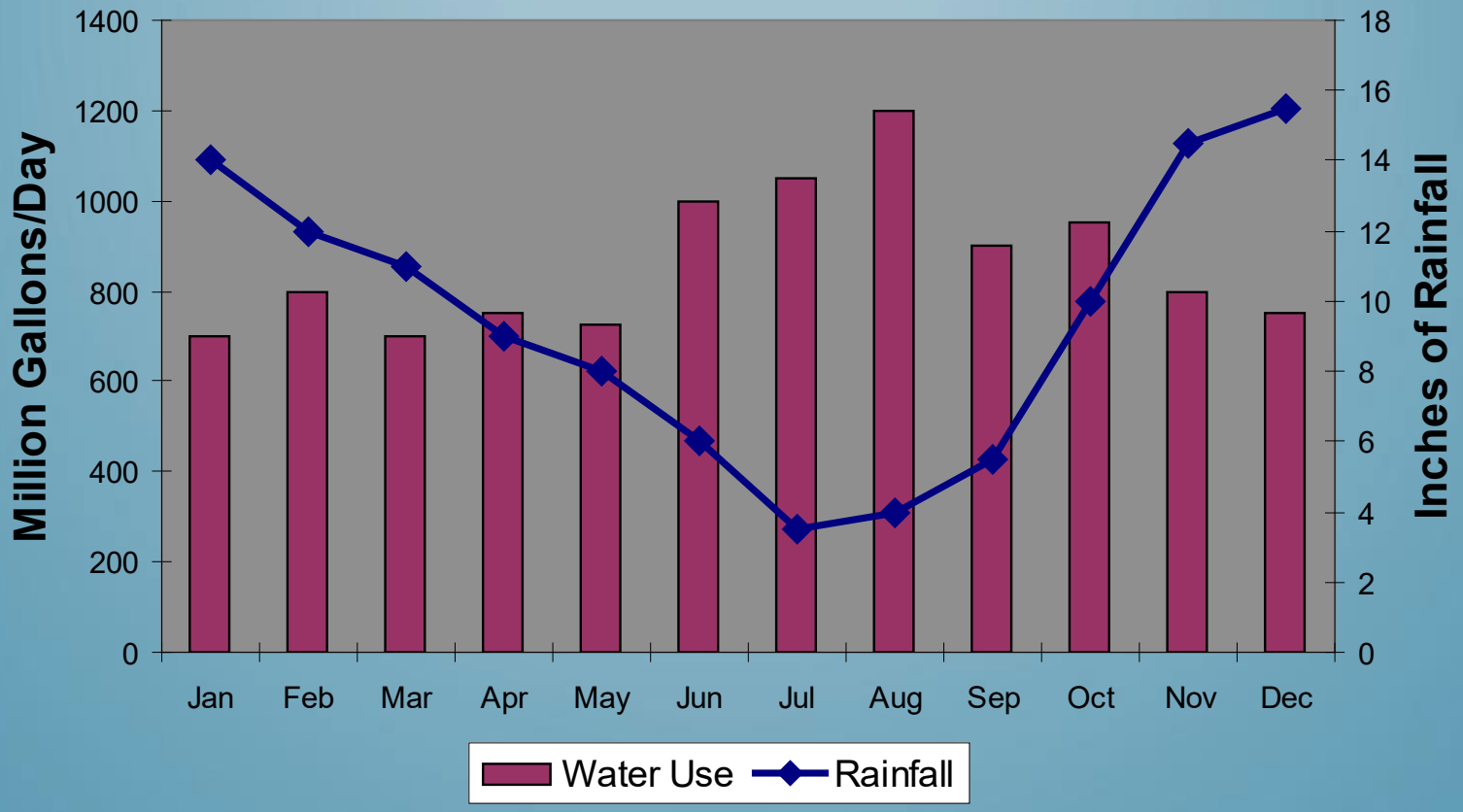
Metropolitan water district of southern California's resolution will limit outdoor watering to just one day per week for district residents supplied by a stressed system of canals, pipelines, reservoirs and hydroelectric power plants called the State Water Project, which supplies water from the Sacramento-San Joaquin River Delta to 27 million Californians and 750,000 acres of farmland.

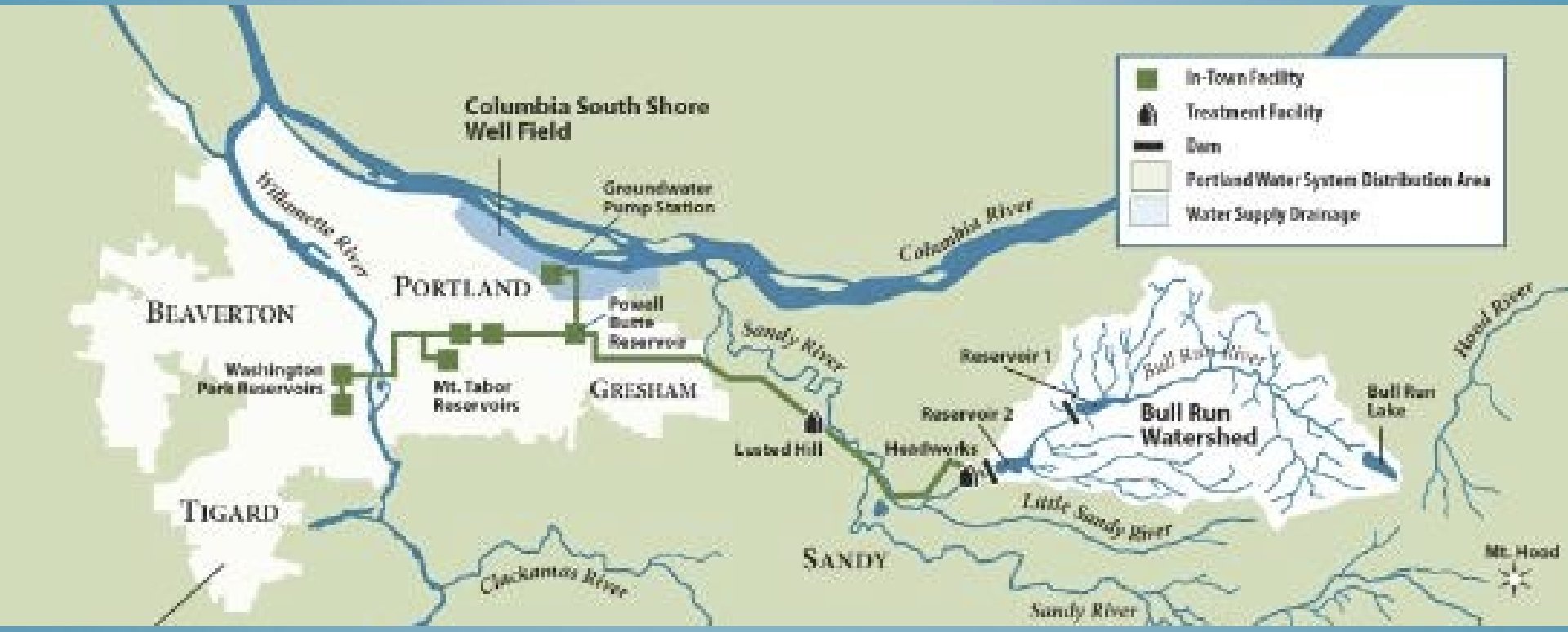


Typical Household Water Use Graph



Residential Water Use
vs.
Rainfall West of Cascades




In-Town Facility
Treatment Facility
Dam
Portland Water System Distribution Area
Water Supply Drainage
Columbia South Shore Well Field
Groundwater Pump Station
Willamette River
Columbia River
PORTLAND
BEAVERTON
Powell Butte Reservoir
Washington Park Reservoirs
Mt. Tabor Reservoirs
GRESHAM
Sandy River
Reservoir 1
Bull Run River
Bull Run Watershed
Reservoir 2
Bull Run Lake
Lusted Hill
Headworks
Hood River
TIGARD
Little Sandy River
SANDY
Mt. Hood
Clackamas River
Sandy River

ANOTHER ARTICLE ABOUT THE IMPORTANCE OF CONSERVING WATER

QUARTZ

CITIES UNDER WATER

The world's coastal cities are sinking, but not for the reason you think

https://qz.com/2155497/coastal-cities-are-sinking-faster-than-sea-level-rise/

SO, HOW CAN WE ALL START TO CONSERVE WATER?

Minimize Water Waste

We waste water when we water…

- too much (runs off or drowns the plants)
- too little
- too deep (and we lose it)
- when it's too hot (evaporation)
- when it's too windy (evaporation)
- …and by planting thirsty plants

Create Healthy Soil: Add Organic Matter!

Compost helps:

- retain water
- suppress weeds
- reduces erosion

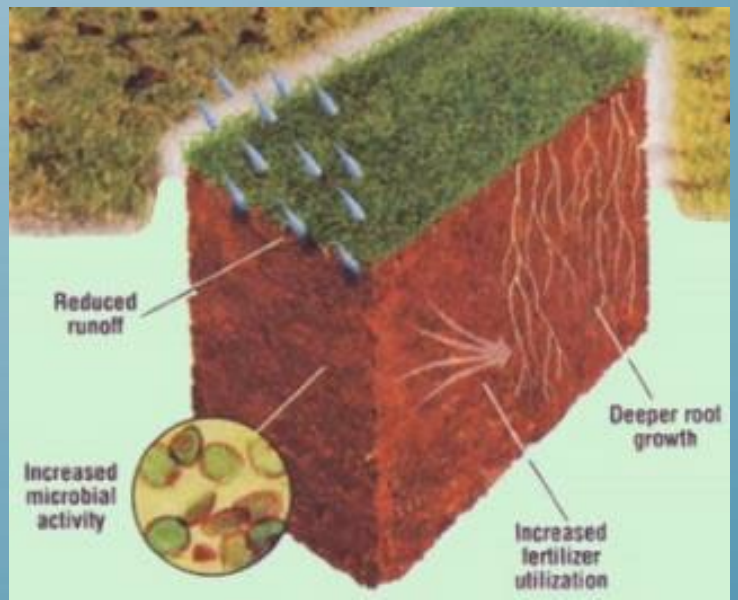
Organic matter balances soil structure:

- helps clay soils soak up water
- helps sandy soils retain water
- adds nutrients to soil
- helps to increase micro-life

Life in the Soil:
bacteria, invertebrates, mycorrhizal fungi, etc.

- Micro-life forms symbiotic relationships with plants and help plants take up the moisture and nutrients they need from the soil

- Micro-life also help aerate soil



Lawn

One of the most thirsty plants in the landscape

Evaluate Your Lawn Needs

- Where does lawn make sense?
- Where can you replace it with something more interesting?

WHILE YOU COULD CHOOSE ONE OF THESE OPTIONS…

… there are many reasons we don't recommend it!

Rethinking Your Lawn

- *Allow lawn to go dormant during dry months*
- *Remove any under-utilized lawn!*
- *Plant drought tolerant native plants and lawn mixes*

Consider Naturescaping

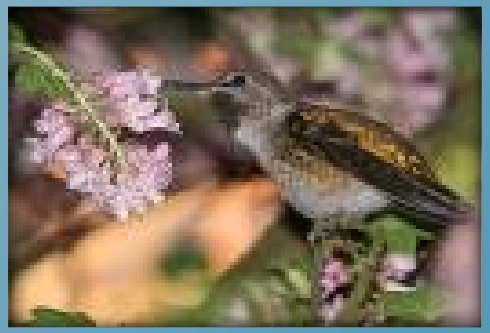
Naturescaping is the use of **Native Plants**

to create **Natural Landscapes**

that are **Water and Wildlife-friendly.**

Why are Native plants different than other types of plants?

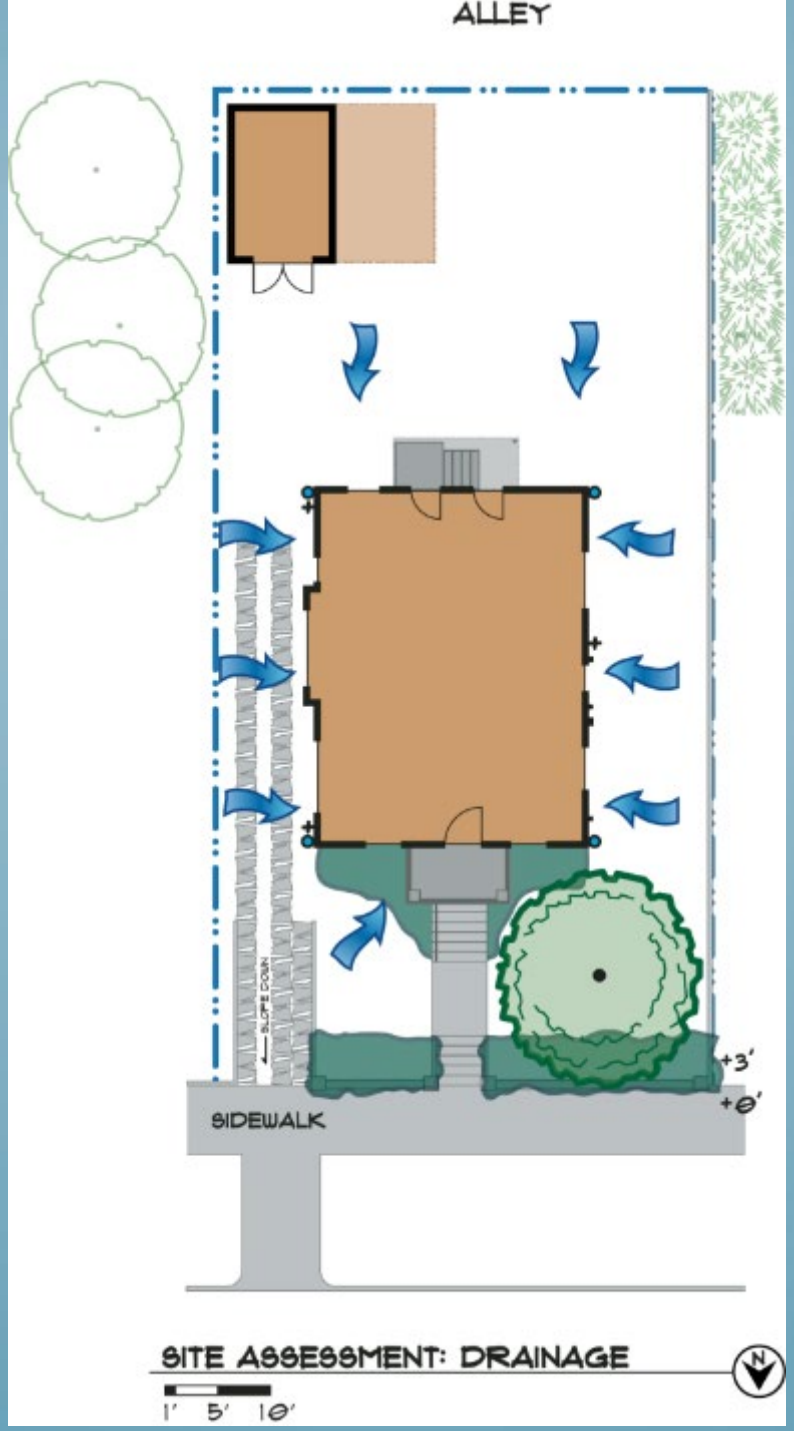
- Adapted to the local weather cycles (wet winter, dry summer)
- Many are resistant to, or tolerant of, the pests of this area.
- Adapted to the soils of this region.
- LOW maintenance
- Wildlife recognize the flowering and fruiting cycles of these plants.

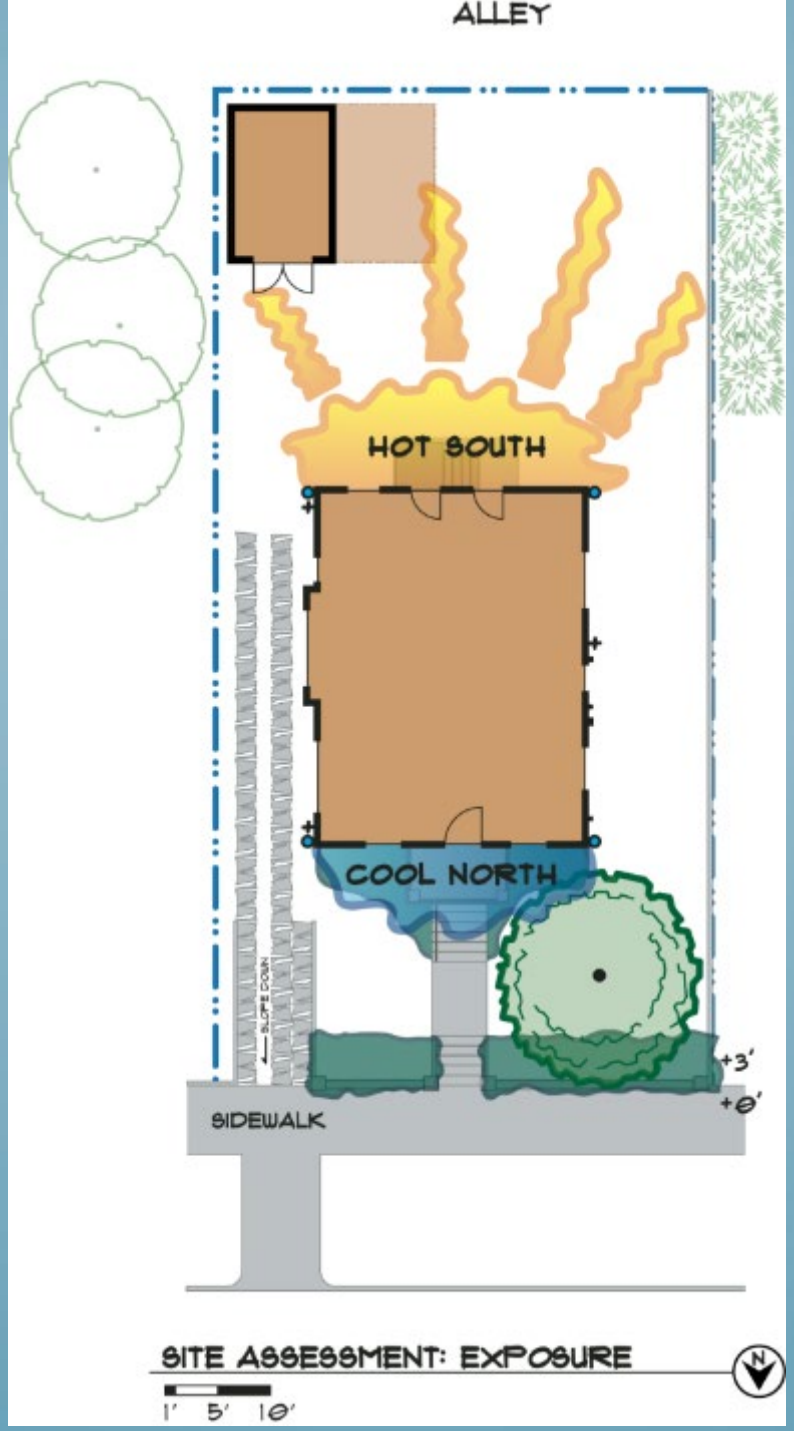


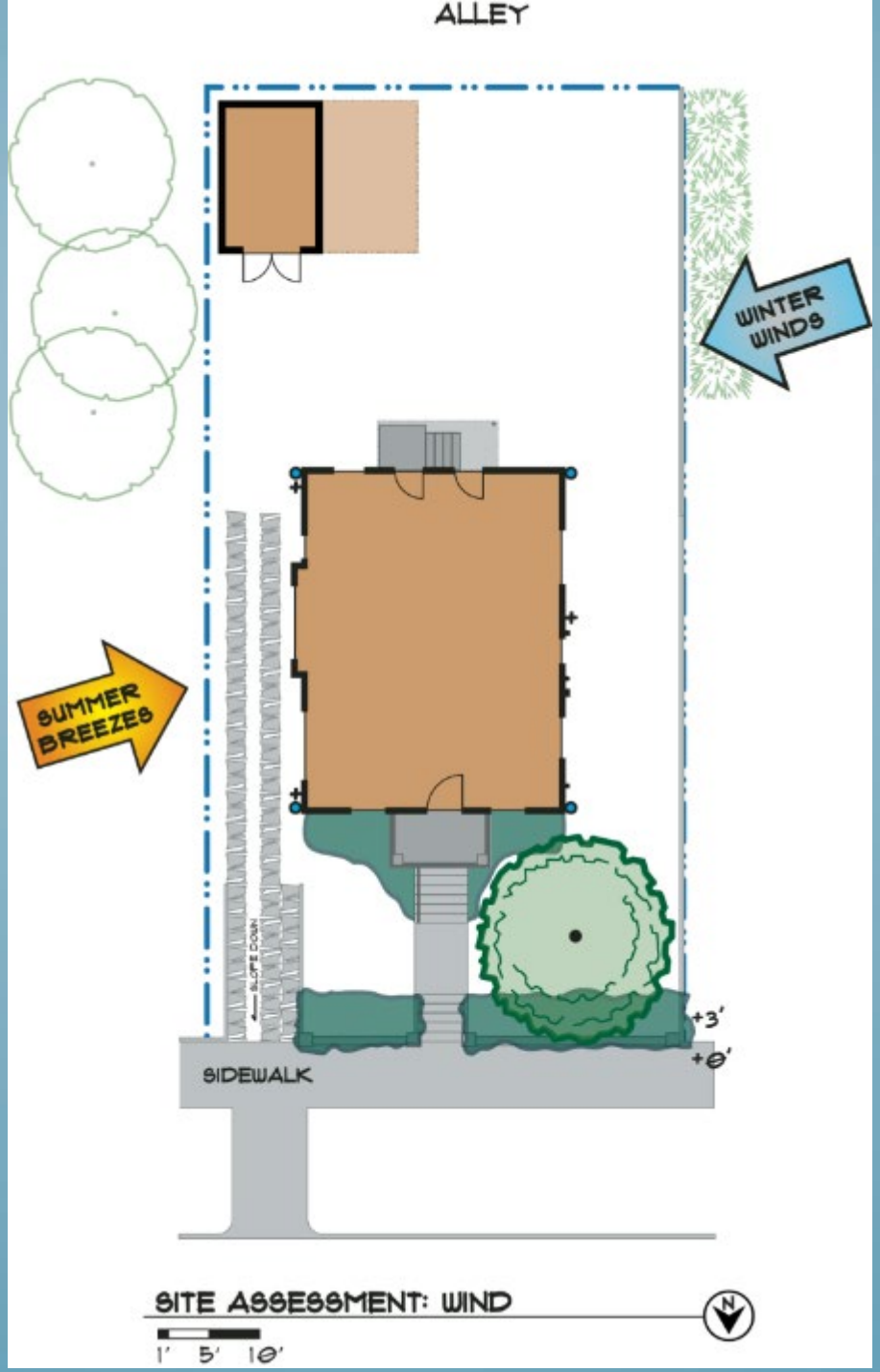

Do NO
Enter

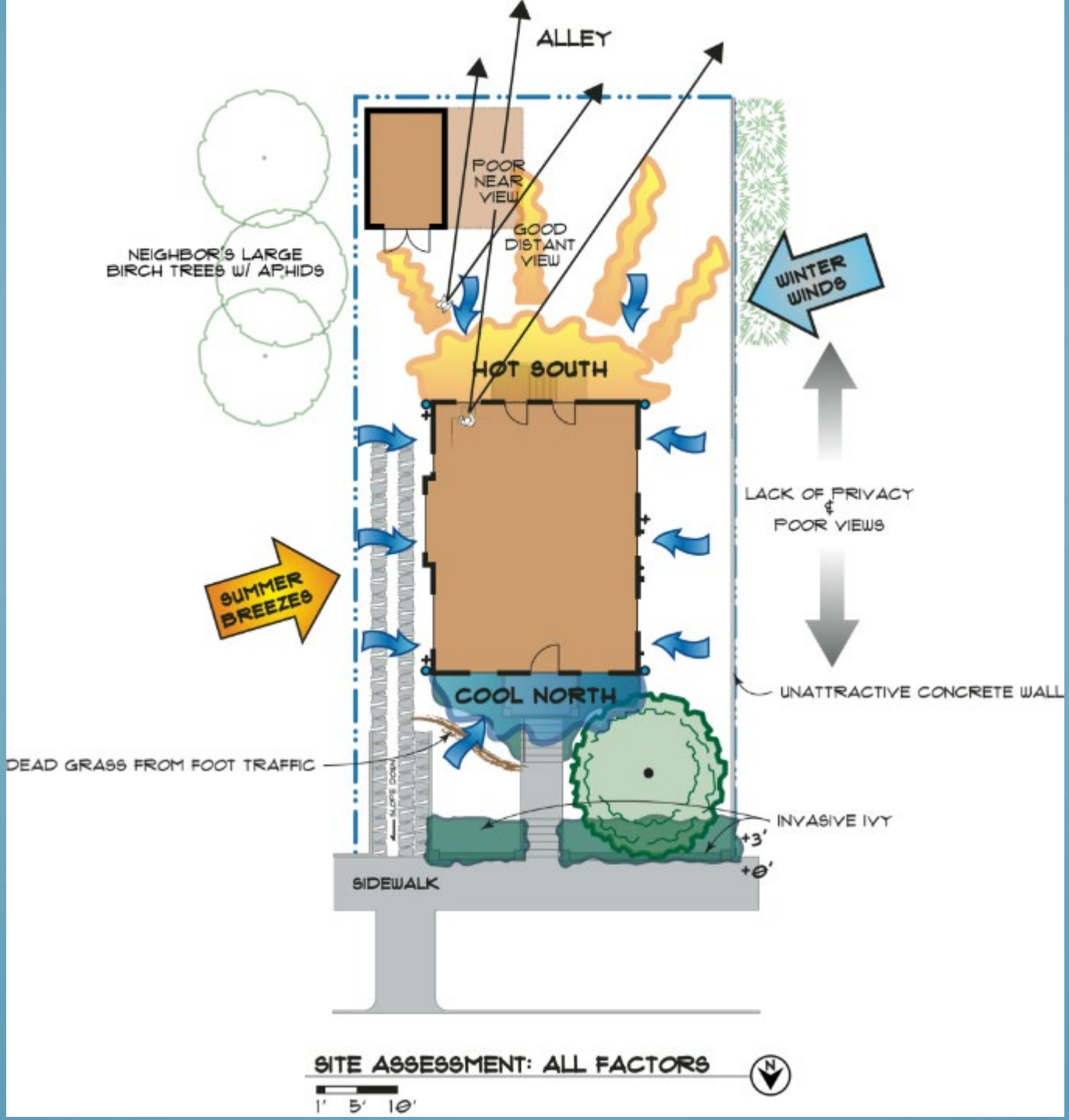
Choose native plants that are appropriate for your yard.

- Group plants together that require about the same amount of water
- Right plant, right place


ALLEY
SLOPE DOWN
+3'
+0'
SIDEWALK
SITE ASSESSMENT: DRAINAGE
N
1' 5' 10'


ALLEY
HOT SOUTH
COOL NORTH
SLOPE DOWN
+3'
+0'
SIDEWALK
SITE ASSESSMENT: EXPOSURE
N
1' 5' 10'


ALLEY
WINTER WINDS
SUMMER BREEZES
SLOPE DOWN
+3'
+0'
SIDEWALK
SITE ASSESSMENT: WIND
N
1' 5' 10'


ALLEY
POOR NEAR VIEW
GOOD DISTANT VIEW
NEIGHBOR'S LARGE BIRCH TREES W/ APHIDS
WINTER WINDS
HOT SOUTH
LACK OF PRIVACY & POOR VIEWS
SUMMER BREEZES
COOL NORTH
UNATTRACTIVE CONCRETE WALL
DEAD GRASS FROM FOOT TRAFFIC
INVASIVE IVY
+3'
+0'
SIDEWALK
SITE ASSESSMENT: ALL FACTORS
N
1' 5' 10'

USE THE FREE IRRIGATION THAT FALLS FROM THE SKY!

Conventional Stormwater Management wastes the free water from the sky!

STORMWATER SOLUTIONS

Keeping or using stormwater on site

Rain Gardens

Stormwater Planters

Rainwater Harvesting

Eco – Roofs / Green Roofs

Reducing Urban Heat Island Effect

Pervious Surfaces:
Parking Lots, Driveways & Pathways

Also reduce urban heat island effect



MULCH
FOR WEED SUPPRESSION AND MOISTURE RETENTION

Although some may do more harm than good!

ORGANIC
(DERIVED FROM PLANTS)
IS ALWAYS BEST!

IF IRRIGATION IS NECESSARY
(For example, vegetable gardens
or to get native plants established)
YOU HAVE SOME DECISIONS TO MAKE:

- Choose the appropriate tool
- Choose the appropriate time of day/night to water
- Choose the appropriate amount/duration

WHICH SHOULD I USE???
















HAND-WATERING:

ONLY WETS THE SURFACE = SHALLOW ROOT SYSTEM

SPRINKLERS:

ALLOW YOU TO WALK AWAY AND WATER DEEPER, BUT YOU RISK FORGETTING ABOUT THEM & WATERING AREAS THAT DON'T NEED WATER = MORE WEEDS & WATER WASTE

- ✓ **Drip / Soaker hoses:**
  deliver water right to the root
  (= minimal evaporation)

- ✓ **Maintain for efficiency:**
  - Plant densely, weed regularly
  - Use mulch to discourage weeds & retain moisture
  - Check drip system for proper function and coverage

Time watering to reduce evaporation

- Cool temperature + still air = low evaporation
- Be aware of moisture / mold relationship

NO MATTER WHICH DEVICE YOU CHOOSE…

USE A TIMER!

WEEKLY WATERING NUMBER:

The amount of water in inches that your lawn will need each week.

WEEKLY WATERING NUMBER

- **Lawns: 100% of WWN**
- **Shrubs and Perennials: 50% of the WWN**
  (newly planted plants may require more water)
- **Vegetables: 75% of the WWN**
  (new starts may require more water)

- **Trees: WWN is not recommended for trees.**
  Newly planted trees need regular watering for up to the first couple of years, while established trees may need a deep soak or two in summer.

IN CONCLUSION:

- Add more organic matter to your soil
- Protect your soil with organic mulch
- Reduce lawn and replace it with a variety of drought-tolerant native plants
- Choose the best time, method and duration for the plants that need irrigating

Visit our website:

www.EMSWCD.org