WATER WISE WEDNESDAY

WORKSHOPS

4/9 - DIY Drip Irrigation and Watering Practices

But first, a Moment for Backflow!

Public Service Announcement from the Water Department

SAFE WATER'S THE GOAL, BACKFLOW CONTROL!

Irrigation Backflow Preventers are required by the State of Washington to safeguard our drinking water.

CITY OF SPOKANE

But first, a Moment for Backflow!

Public Service Announcement from the Water Department

SAFE WATER'S THE GOAL, BACKFLOW CONTROL!

What is Backflow & Why do I Need to Prevent it?

Backflow happens when water reverses direction, potentially carrying harmful contaminants like fertilizers, pesticides, and bacteria into your clean water. This can occur in sprinkler systems, garden hoses, or other home connections.

Installing and maintaining a backflow prevention device is essential to keeping your water, and your community's, safe.

SCAN ME!

Visit SpokaneWater.org by scanning the QR code or call 509.625.7969 for more info

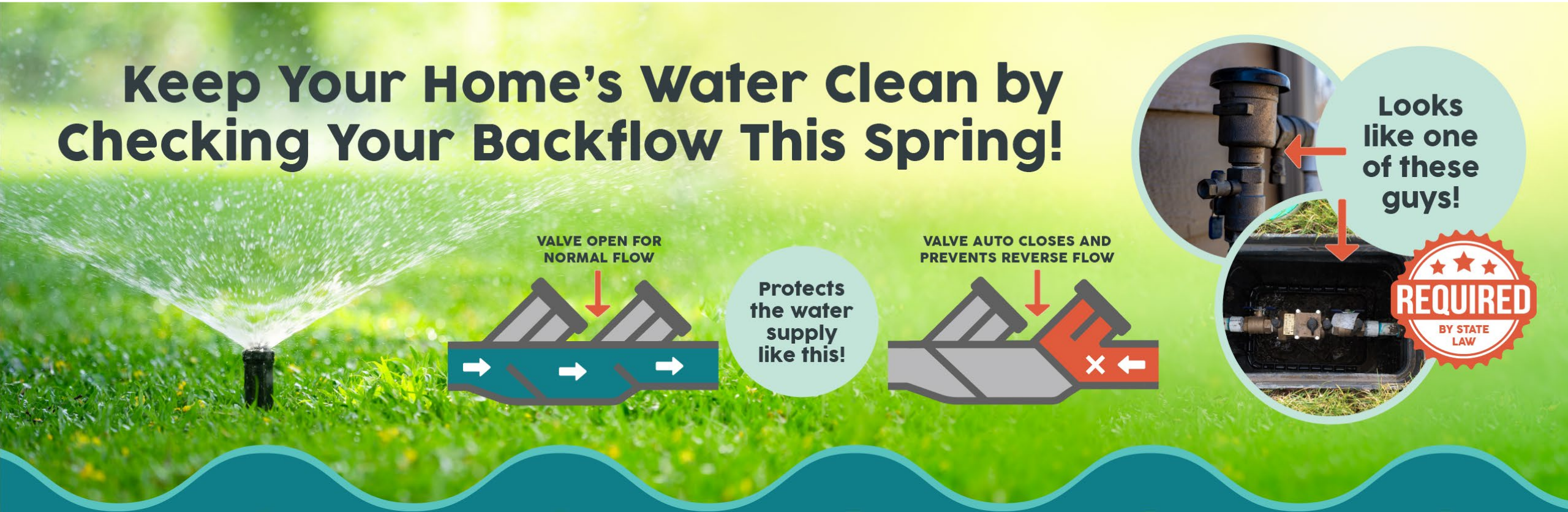
Be Water Wise: Take Action Today!

- **Check your sprinkler system** for backflow preventers.
- **Schedule a backflow test** with a licensed professional to ensure your device is working.
- **Install backflow prevention** if your system isn't equipped.

But first, a Moment for Backflow!

Public Service Announcement from the Water Department

Keep Your Home's Water Clean by Checking Your Backflow This Spring!



SAFE WATER'S THE GOAL, BACKFLOW CONTROL!

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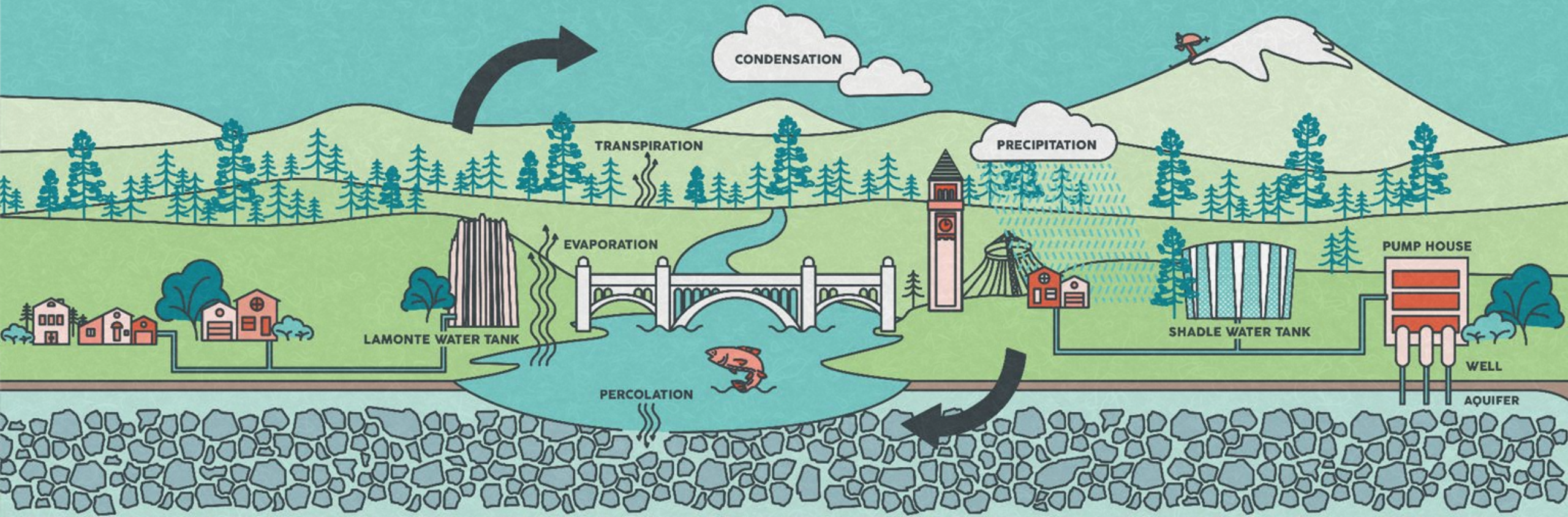
CITY OF SPOKANE

For More Info Visit the Cross Connection Page on the City of Spokane Website

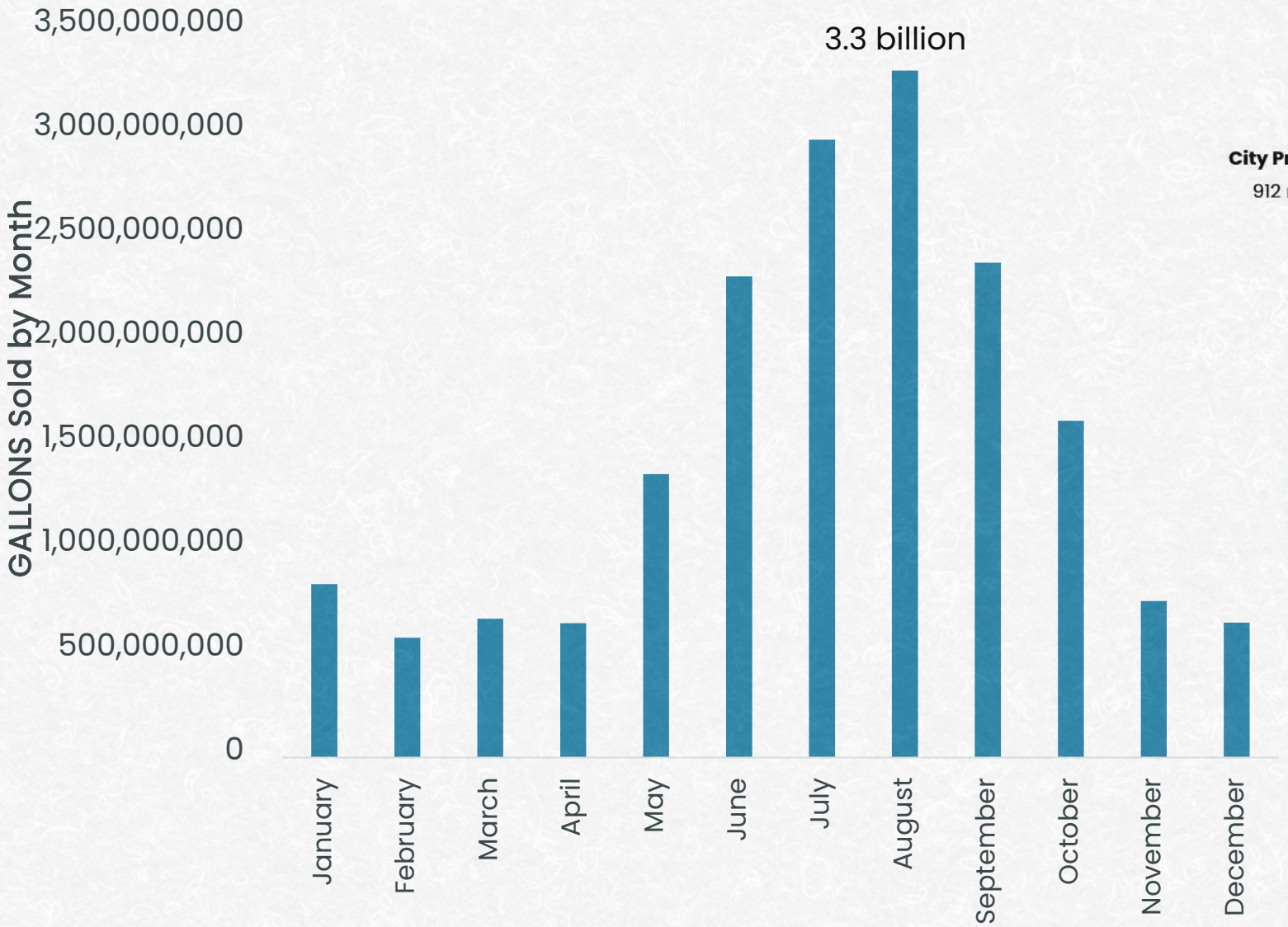
CITY OF SPOKANE PUBLIC WORKS

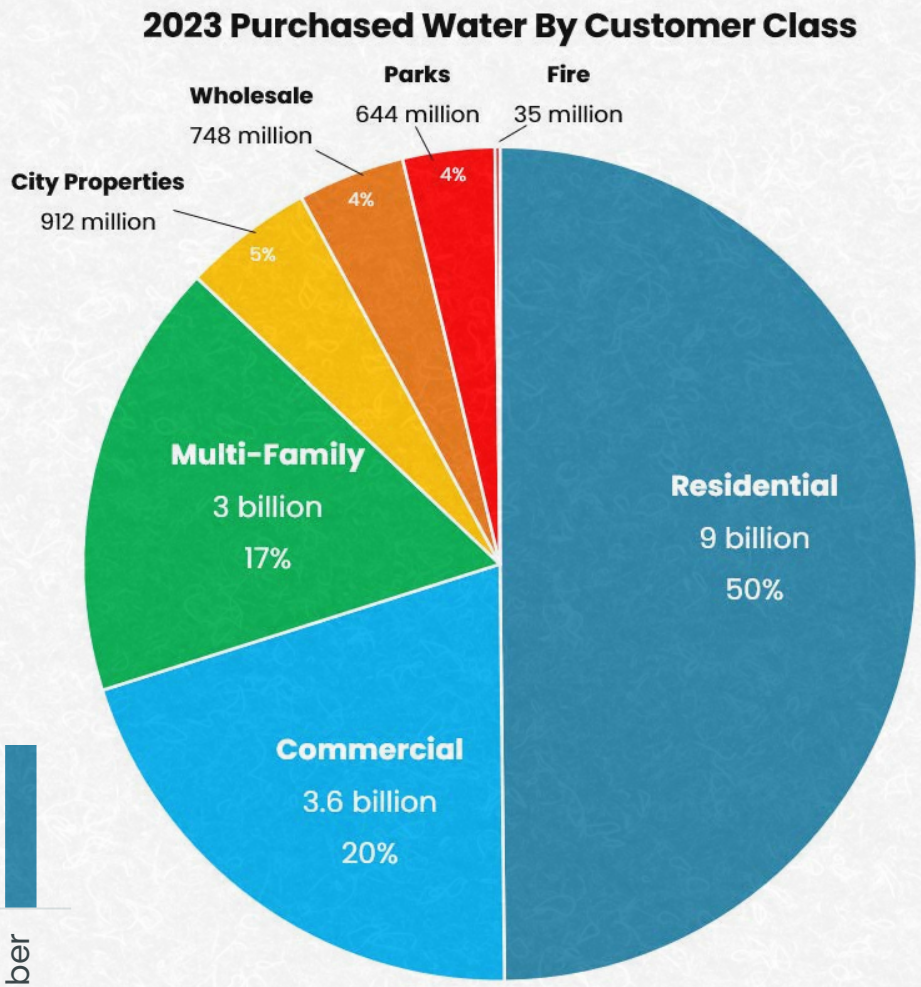
WATER WISE SPOKANE



Why Save Water and Why SpokaneScape?

Why SpokaneScape?

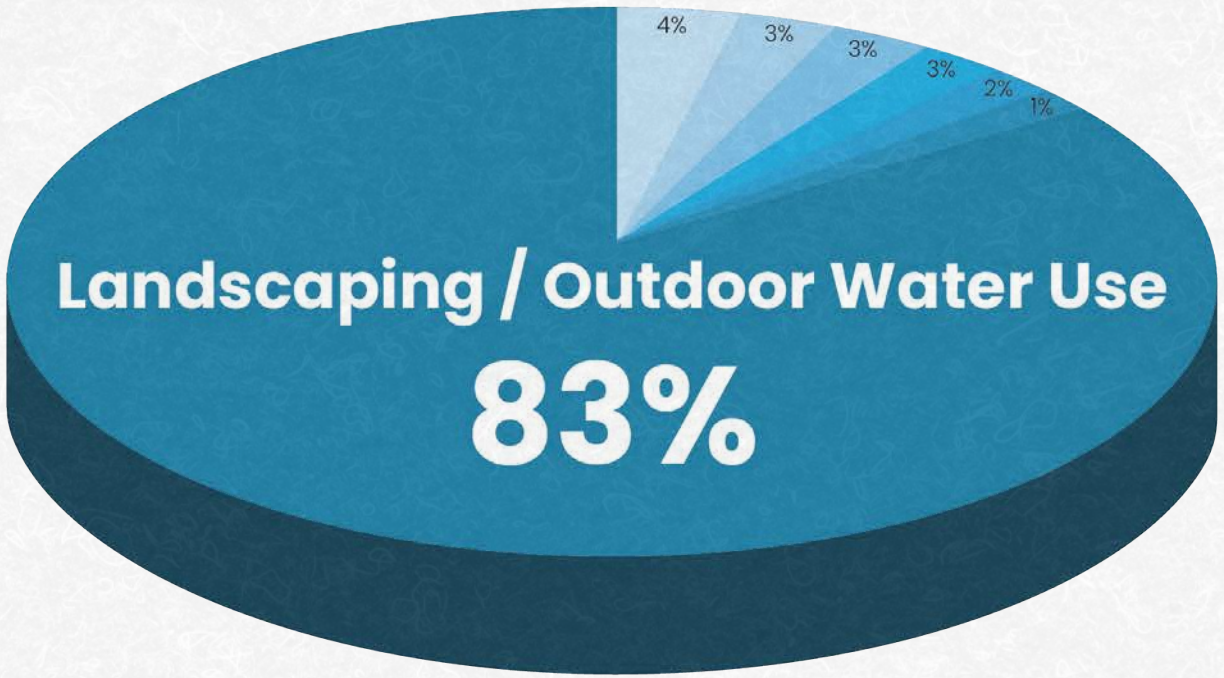




Water Use in the City of Spokane

Outdoor watering of lawns and gardens makes up approximately 83% of average home water use in Spokane

Where do We Use Water the Most?



- Toilet 27 gallons
- Shower 27 gallons
- Faucet 21 gallons
- Clothes Washer 19 gallons
- Leaks 14 gallons
- Other 9 gallons
- Landscaping 553 gallons

Data is representative of average consumption; your water use may vary.

Why Save Water?

Protect the River

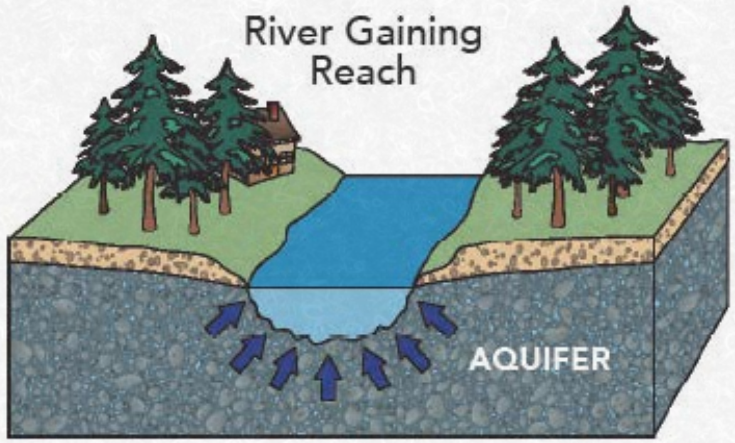


Figure 2: Water flows into the river through the bottom or through springs on the banks of the river.

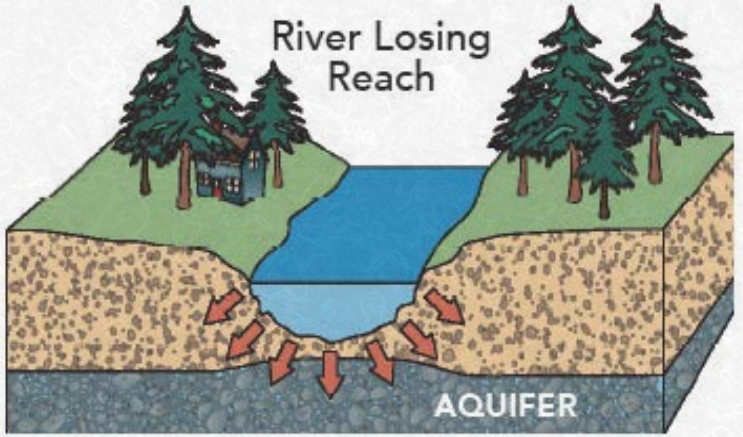


Figure 3: In these areas the water seeps out of the bottom of the river and recharges the SVRP aquifer.

Point:

We can do something better with our square footage of land that functions harmoniously within our environment and supports our ecology.

Eligibility and Requirements

Eligibility

1. Must be a City of Spokane Water Department Customer

2. 

Project is visible from the street

3. 

Project has at least 300 square feet of lawn to be replaced with native and drought tolerant plants

Requirements

- Replace existing grass with native / drought tolerant plants
- 50% Plant Coverage of Project Area
- Mulch depth of 4” – 6”
- Efficient watering method
- Permeable surfaces & treatments

SPOKANESCAPE

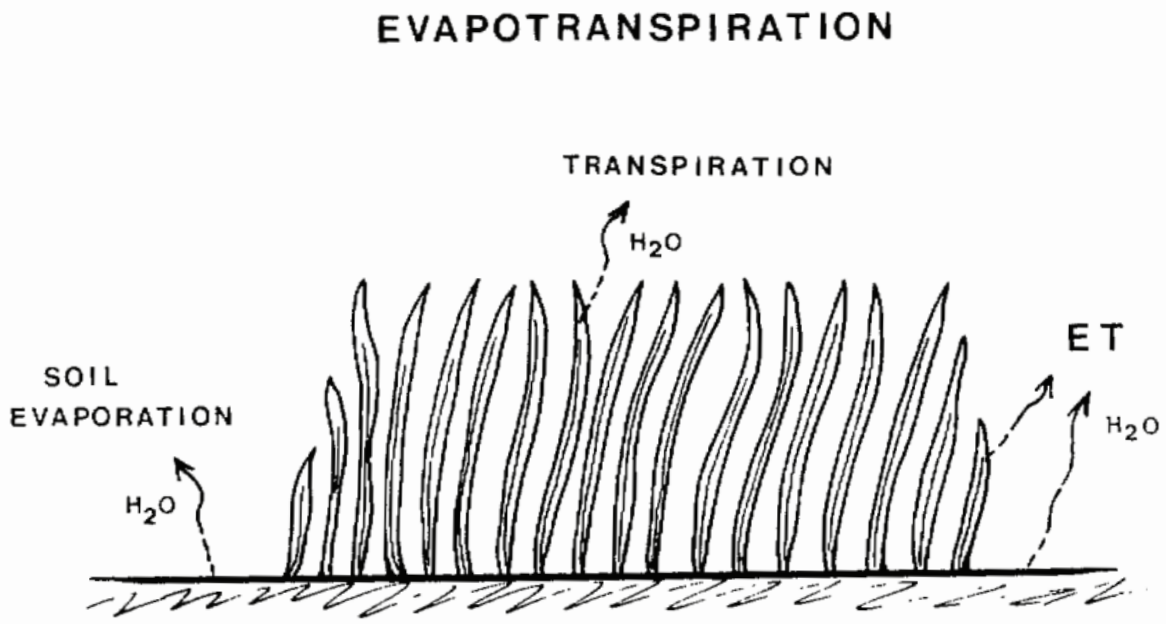
Requirements

- Replace existing grass with native / drought tolerant plants
- 50% Plant Coverage of Project Area
- Mulch depth of 4” – 6”
- **Efficient watering method**
- Permeable surfaces & treatments

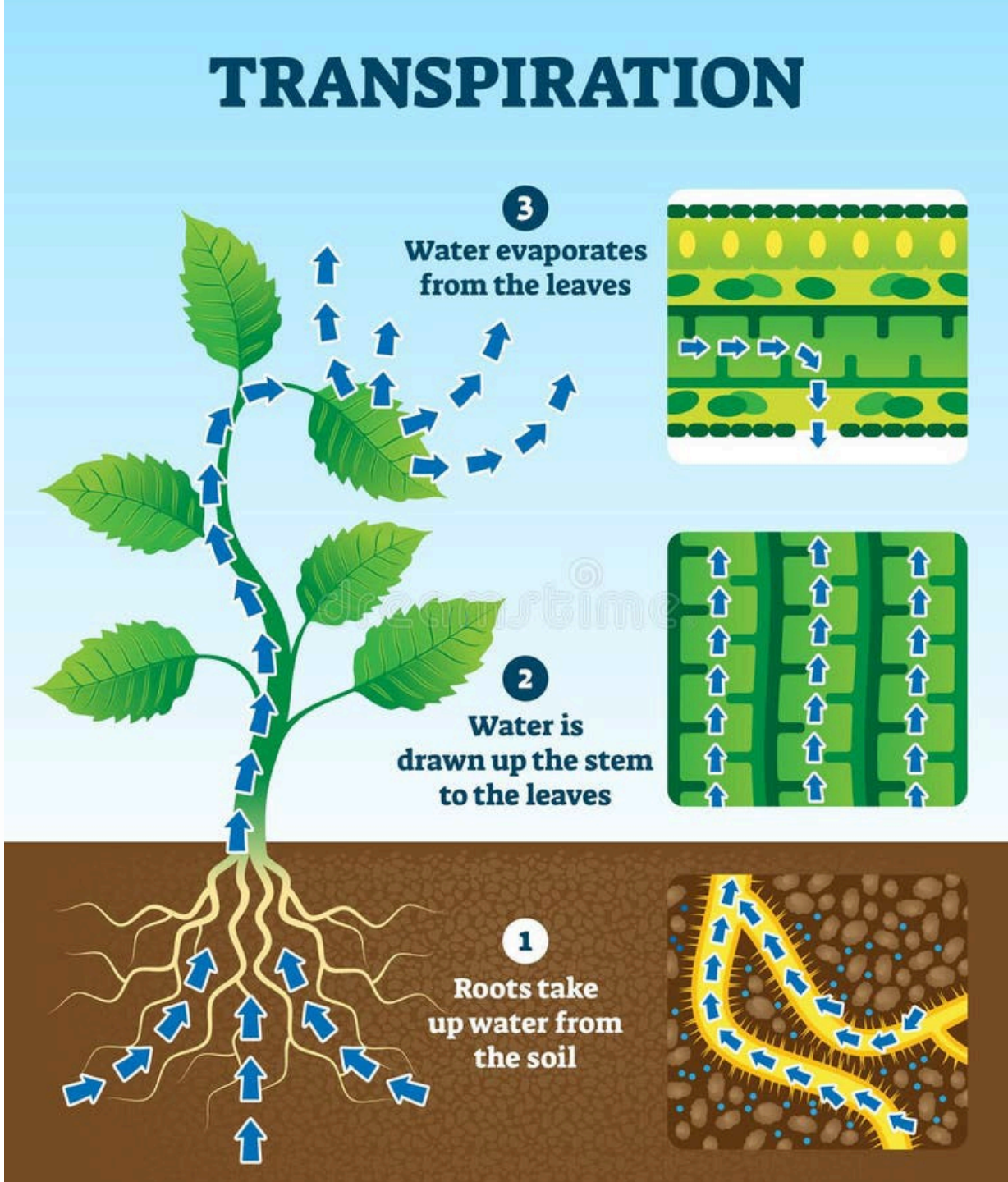
SPOKANESCAPE

WHAT IS THE PURPOSE OF IRRIGATION?

HOW PLANTS USE WATER



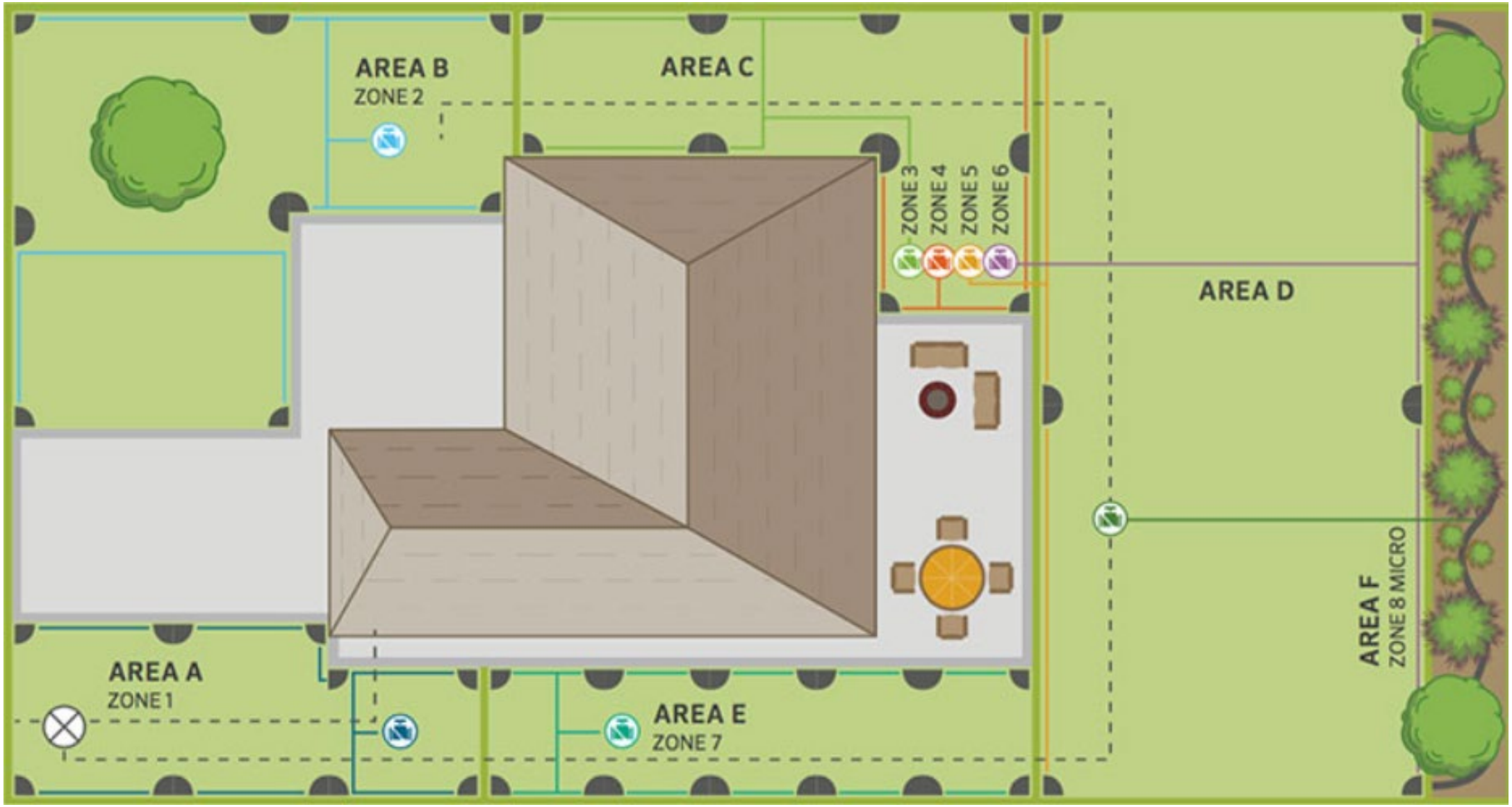
Watering replaces evaporation and transpiration.



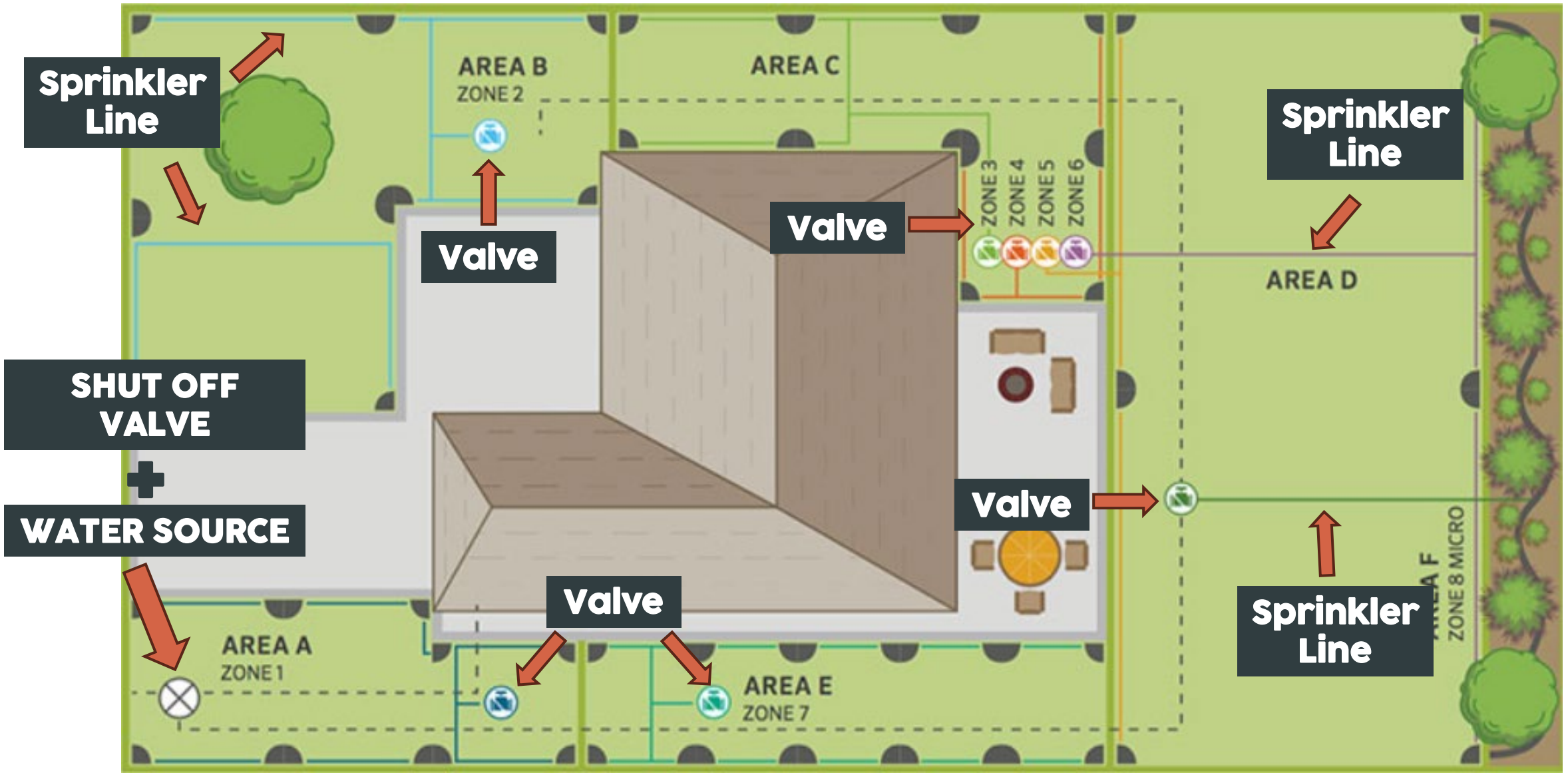
- Grass needs 1.5” per week
- 16.5” precipitation per year in Spokane
  - Our natural rain fall could support grass for about 11 weeks.

CREATE A PLAN

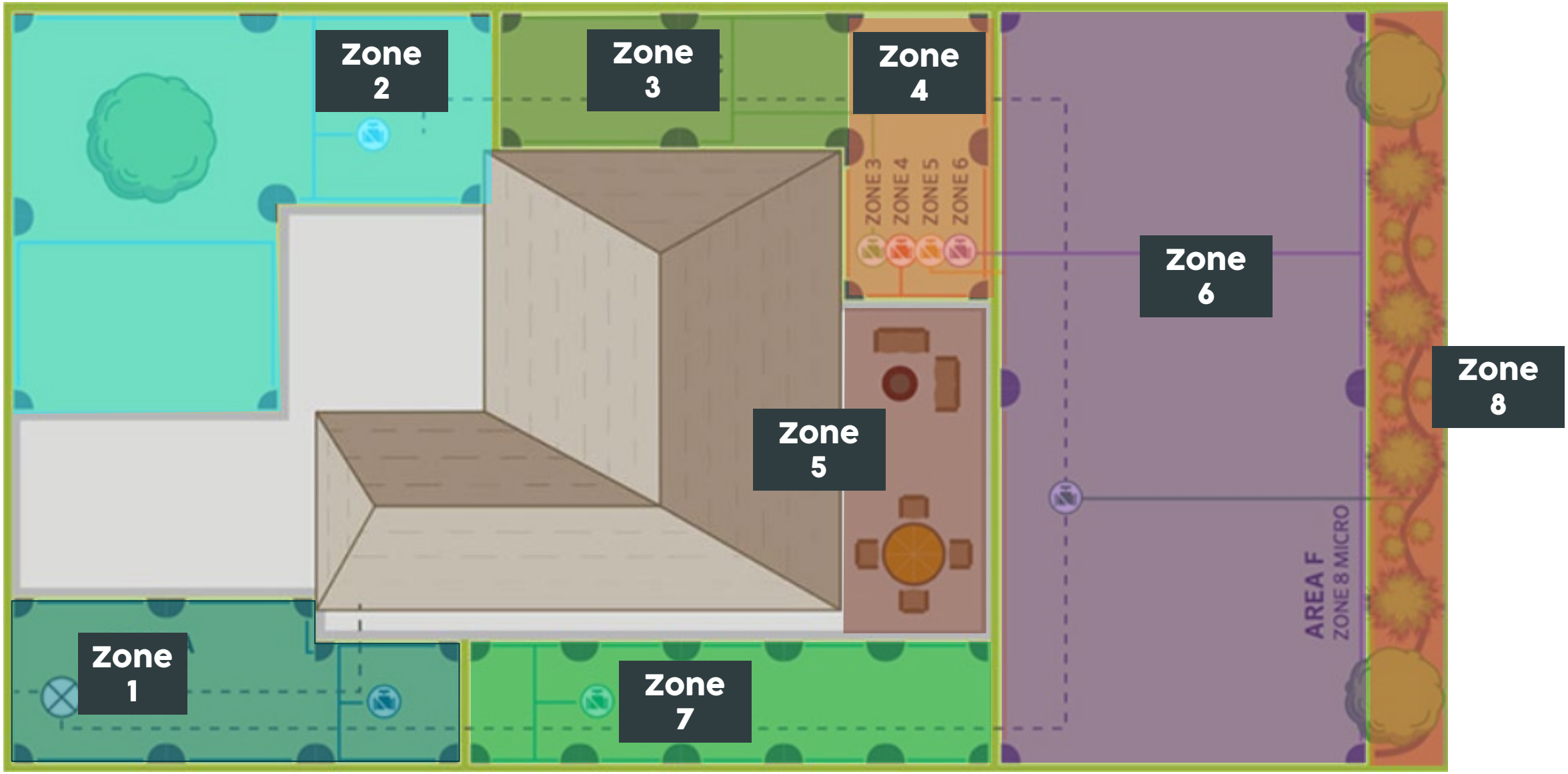
SPRINKLER ZONE MAP



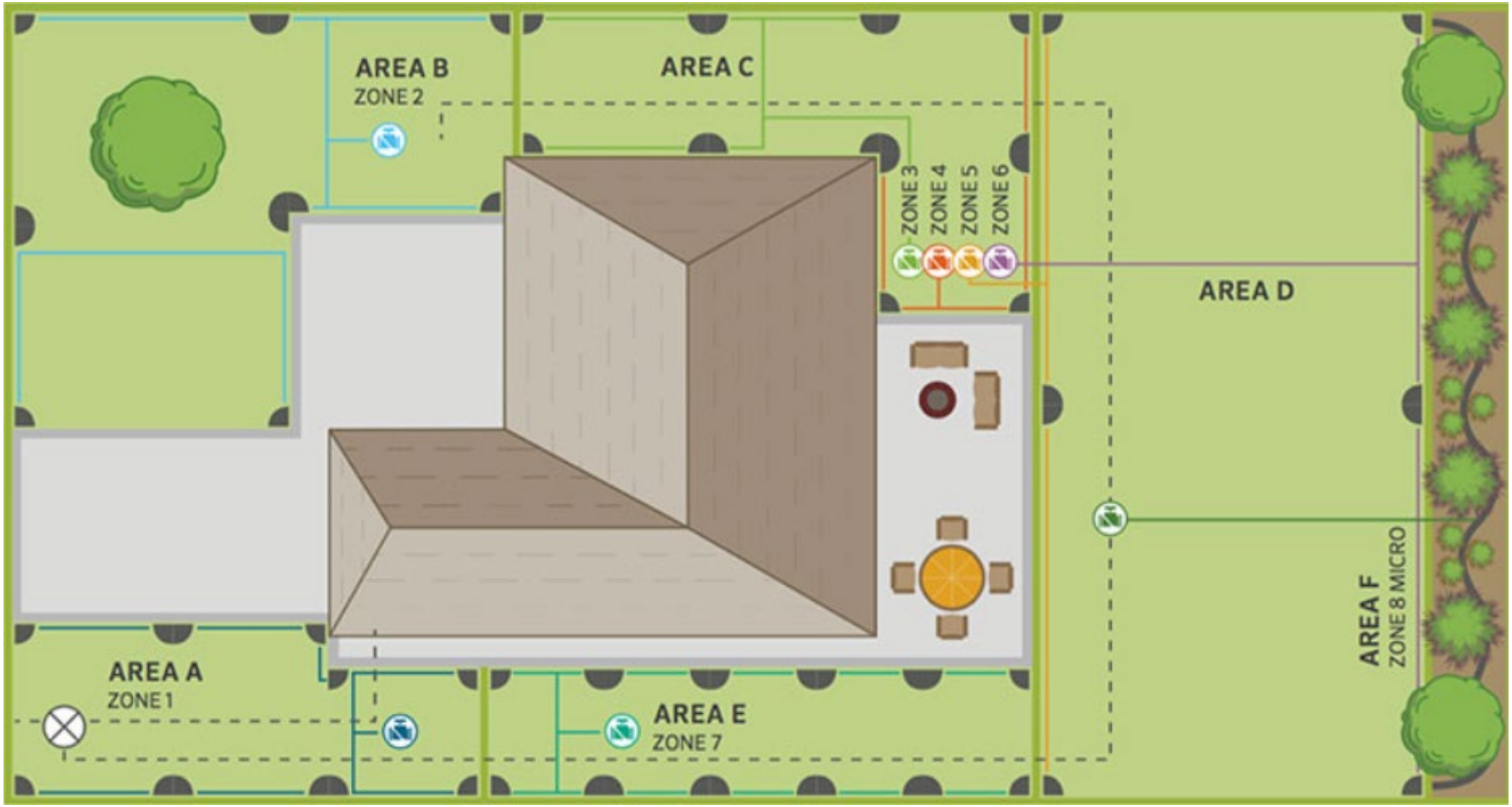
KNOW YOUR SOURCE



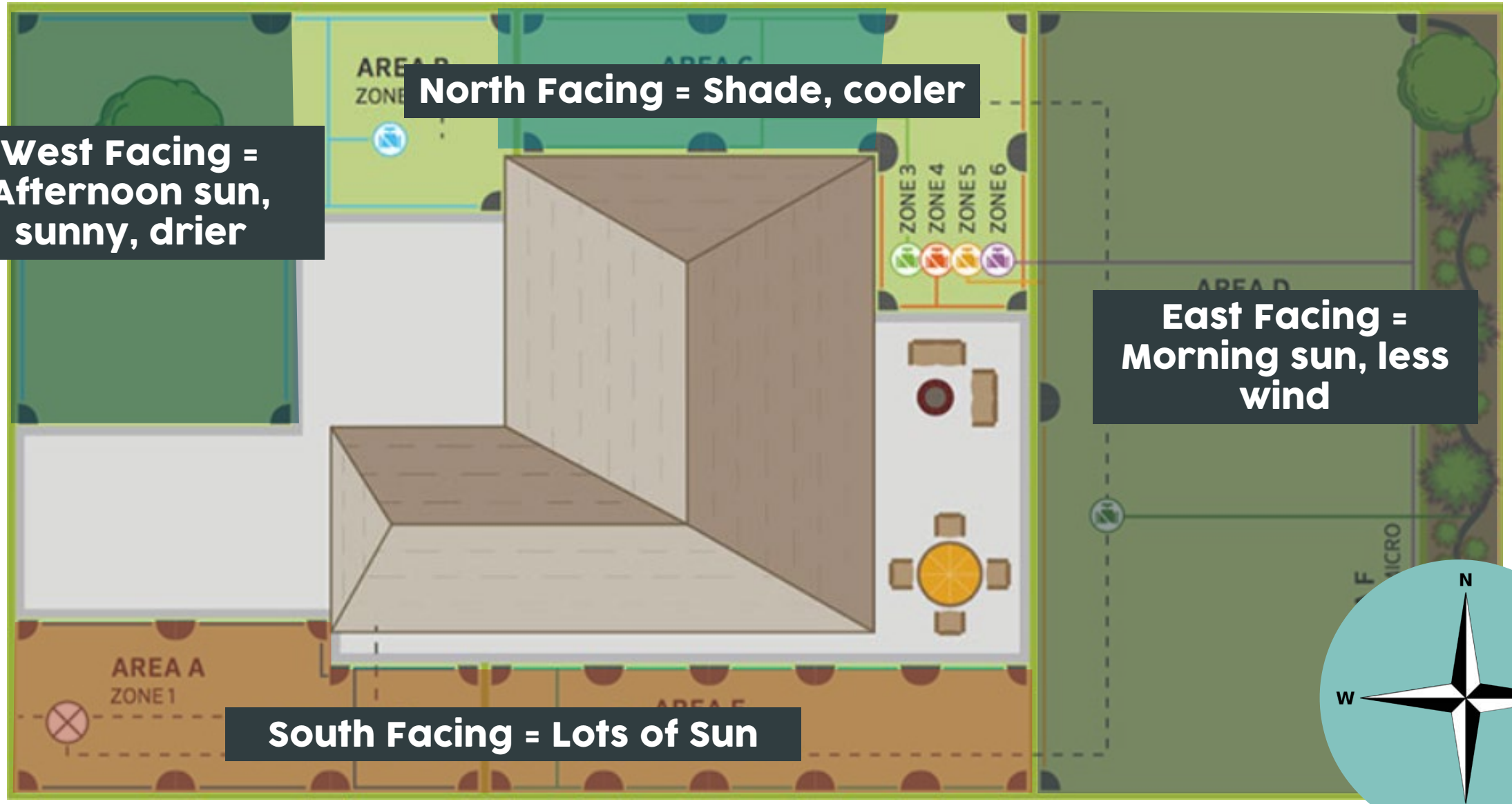
KNOW YOUR ZONES



MARK SPRINKLER HEADS



KNOW YOUR MICROCLIMATES



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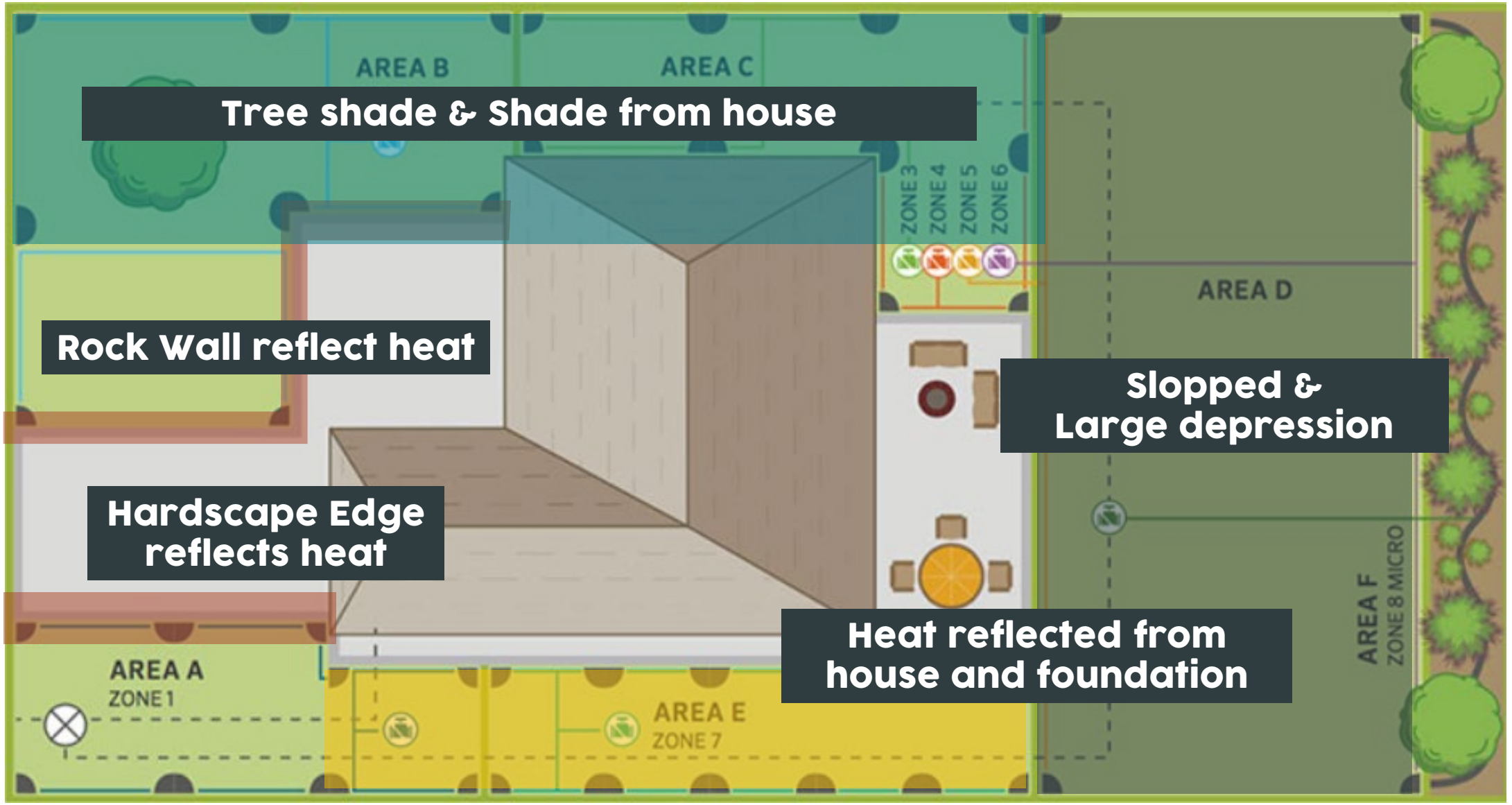
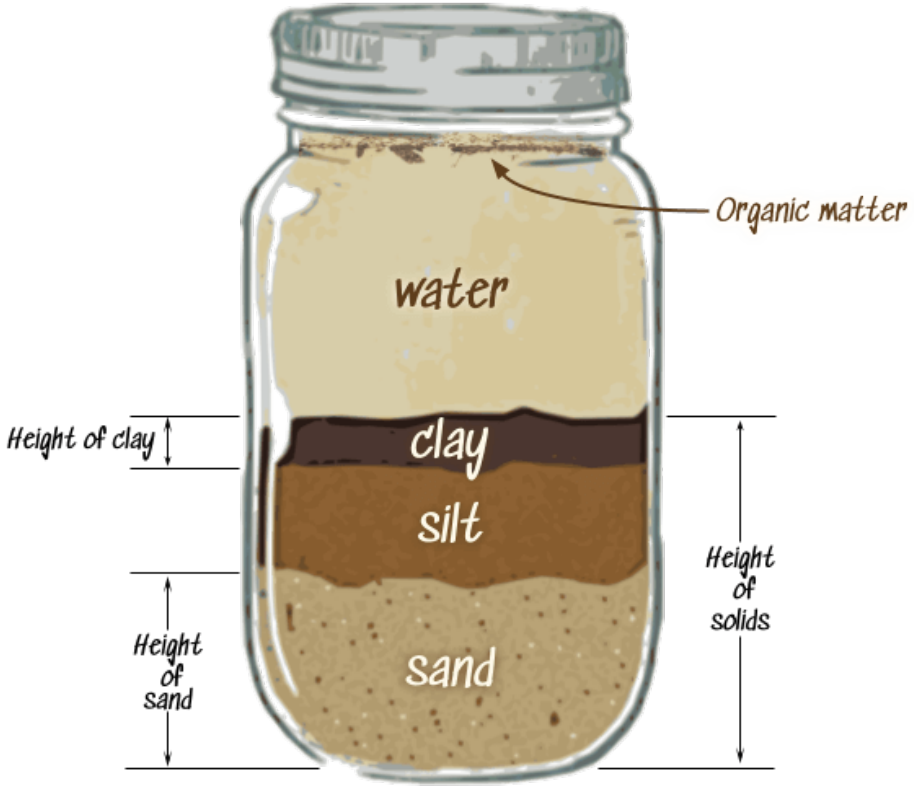


KNOW YOUR SOILS

HOW TO TEST YOUR SOIL

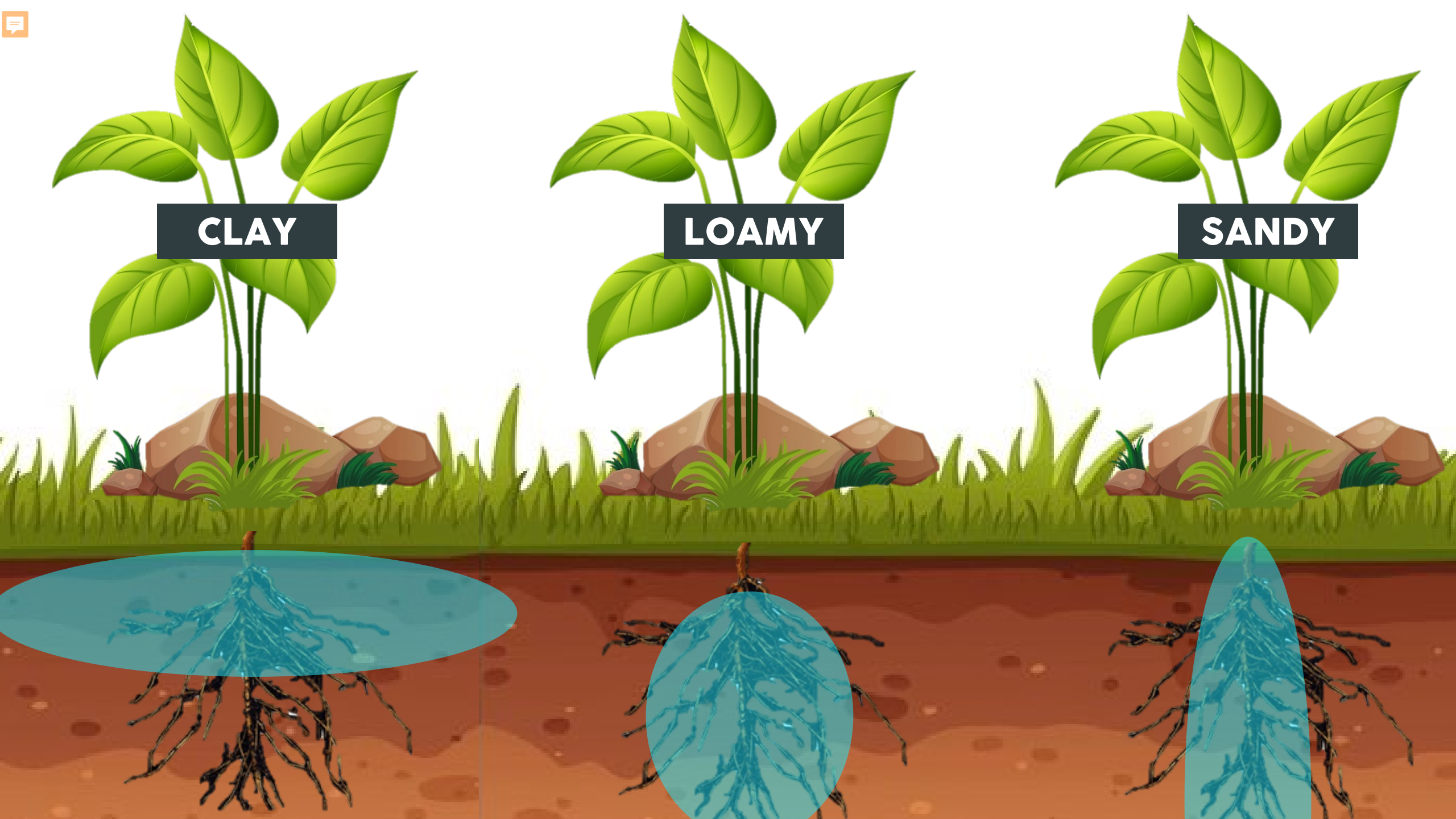
1. Clump and Ribbon

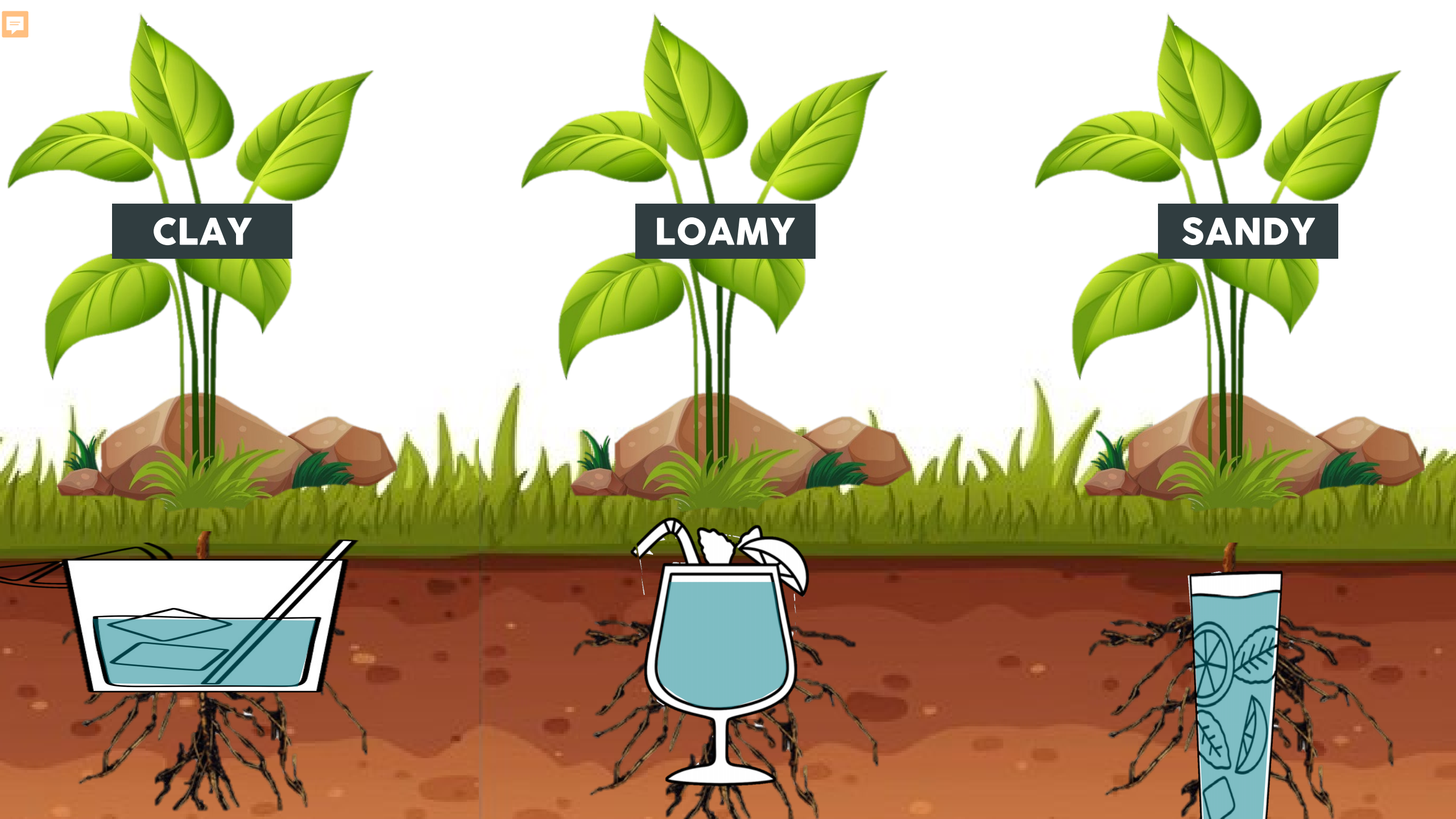
2. Jar Test



3. WSU Master Gardeners

WASHINGTON STATE UNIVERSITY EXTENSION
MASTER GARDENER VOLUNTEER


CLAY
LOAMY
SANDY


CLAY
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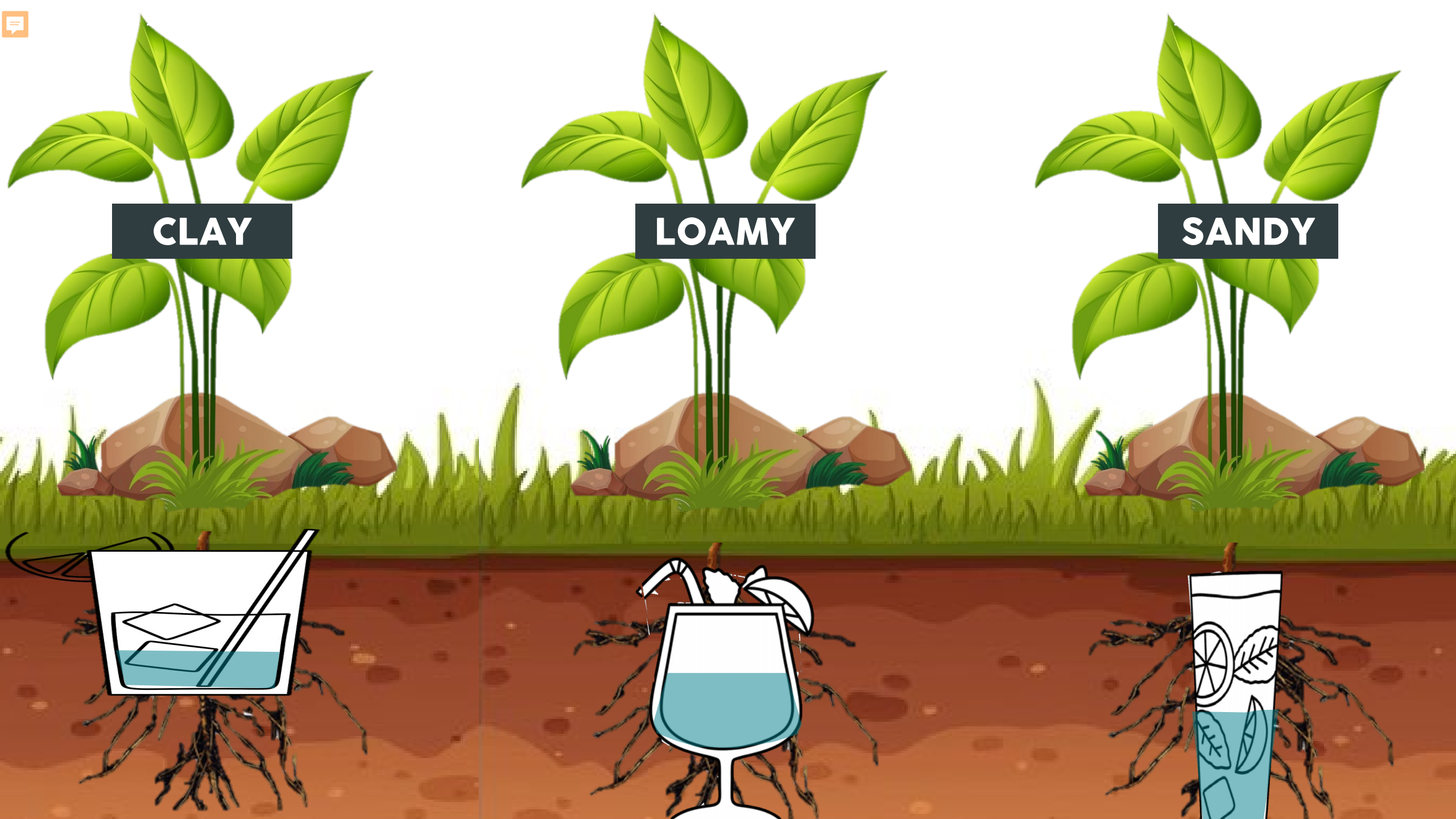
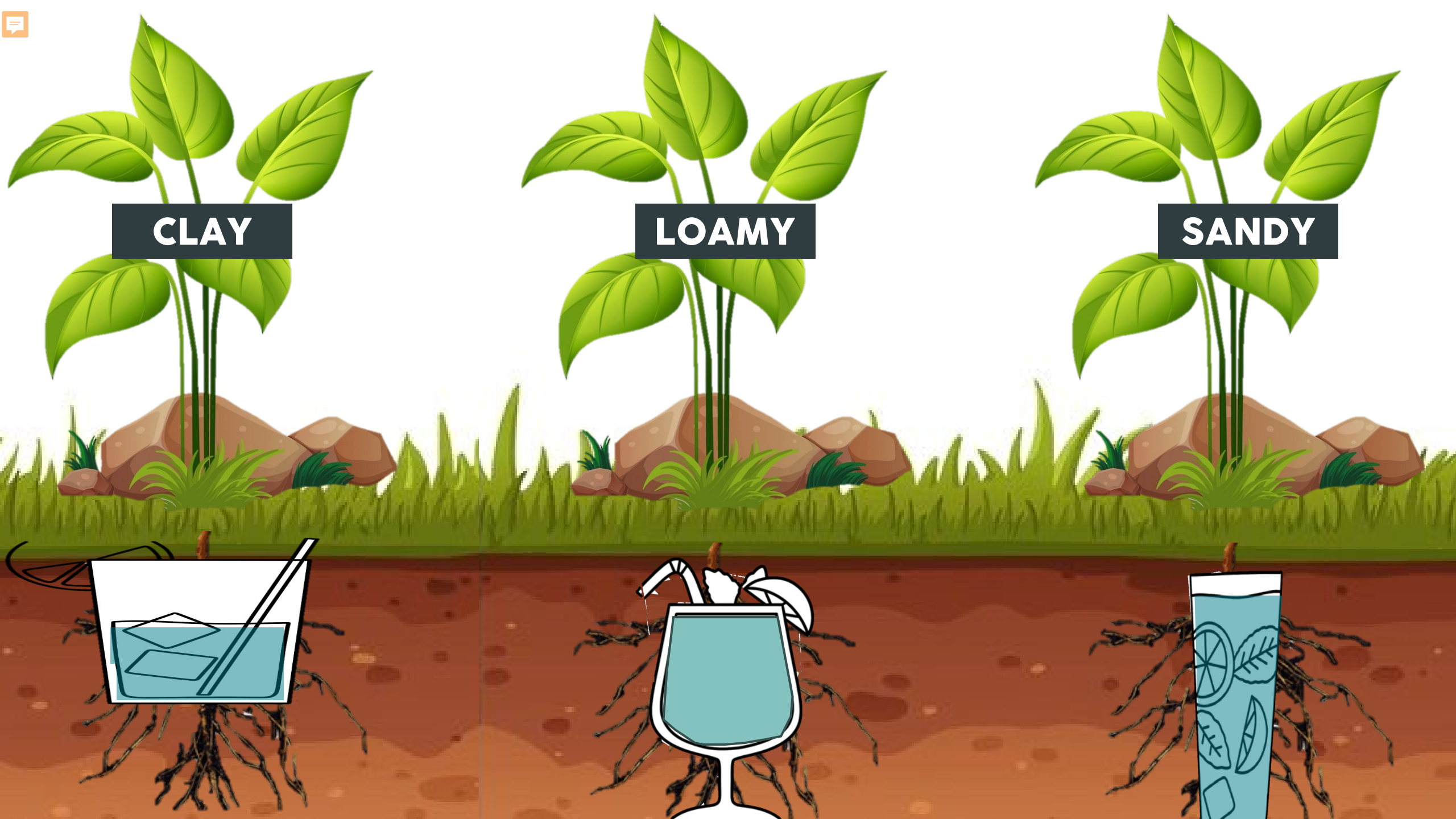
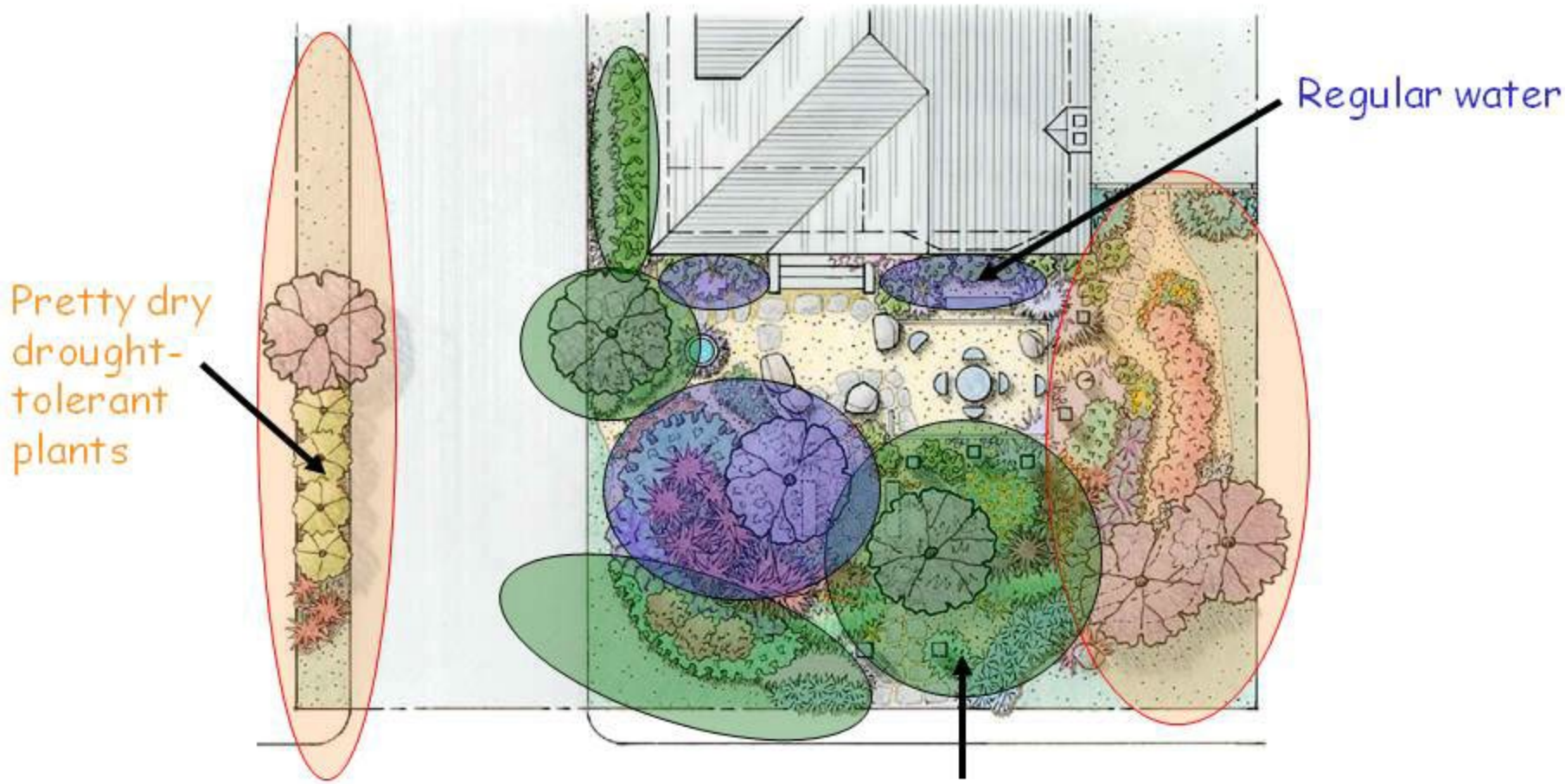

CLAY
LOAMY
SANDY


CLAY
LOAMY
SANDY

Planning 'Water Use Zones' should be an early step in planning your garden



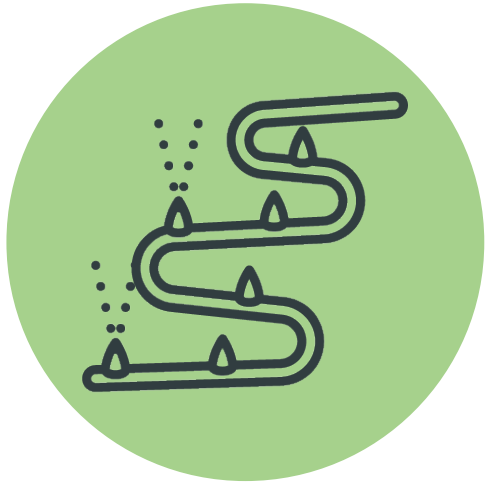
©Project SOUND

Other things to plan for...

3 MAIN WATERING METHODS

HANDWATERING

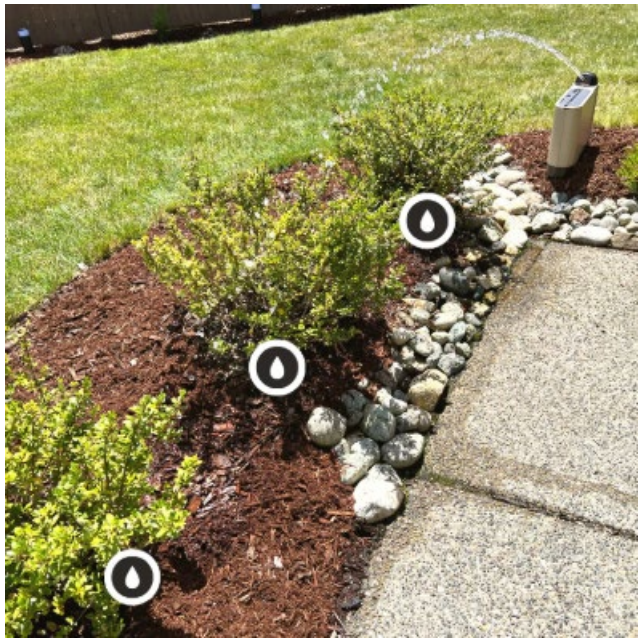
ROTARY NOZZLES



DRIP IRRIGATION

NEW!

Smart Sprinklers & Irrigation Systems



HANDWATERING

PROS

- Cheapest option
- Less labor
- Less maintenance
- Less waste & overwatering
- Water more precisely
- Routinely inspecting landscape

CONS

- Requires more time & effort
- Inconsistent watering

ROTARY NOZZLE

PROS

- Easy to retrofit
- Covers large area
- Low operating pressure
- Adjustable
- Slowly apply water allowing water to absorb
  - Reduced wind effect
  - Reduced evaporation

CONS

- Watering everywhere
- Maintenance
  - Monitor for leaks
  - Will require adjustment
  - Clogging


SINGLE-EMITTER


MICROSPRAY


INLINE & SOAKER HOSE

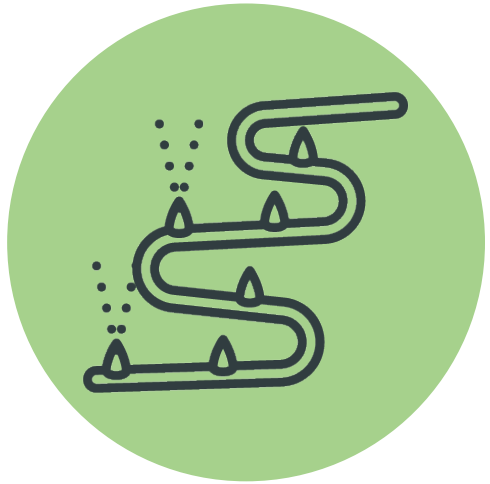
DRIP IRRIGATION

PROS

- Convenient
- Customizable & Modular
- Precise watering
- Low operating pressure
- Apply water to the root
- Slowly apply water allowing water to absorb
  - Minimal wind effect
  - Minimal evaporation

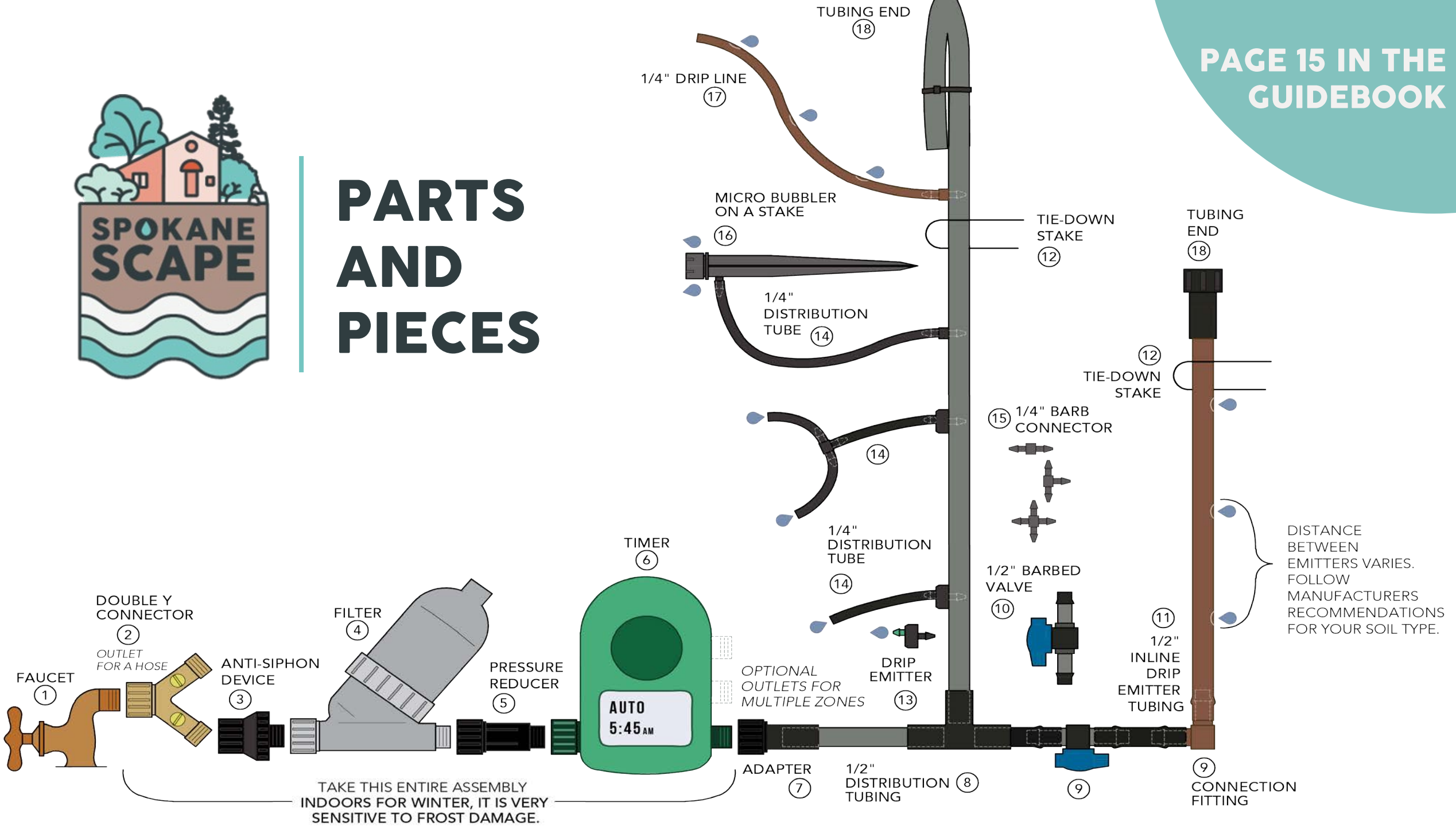
CONS

- Upfront cost
- Maintenance
  - Monitor for leaks
  - Will require adjustment
  - Clogging



PARTS AND PIECES

PAGE 15 IN THE GUIDEBOOK



To get you started...

DRIP EMITTERS

- Small Plants: 0.5 to 1 GPH emitter
- Shrubs: 1 to 2 GPH emitter
- Tress: Drip Rings

<u>You will need to experiment the first few years!</u>

OVERWATERING

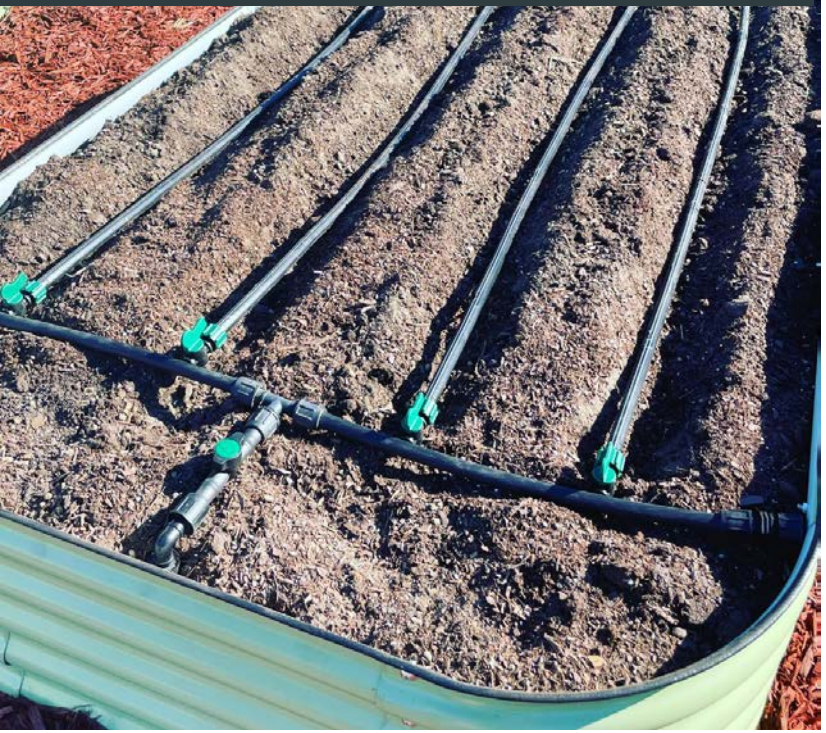
- Yellowing and mushy leaves
- Wilting leaves
- Browning and rotting roots
- Bad smell from soil

UNDERWATERING

- Yellowing leaves
- Wilting leaves
- Losing coloring/turning brown
- Slow growth

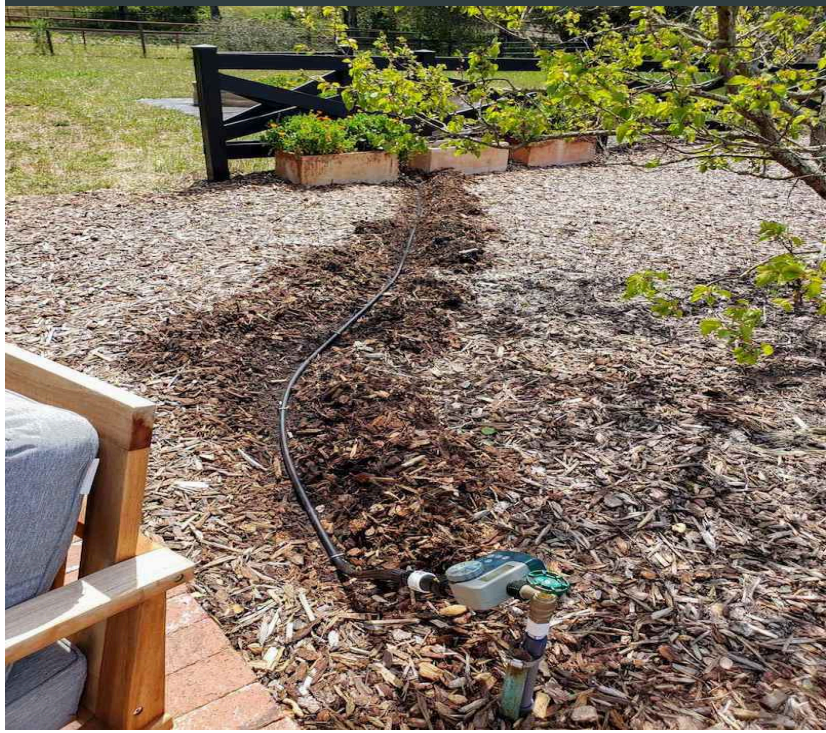
DRIP INSTALLATION

TRENCHING



USE STAKES

Drip under Mulch



PLACEMENT IS KEY

Rule of Thumb 

Tubing Size	Max. Run Length	Max. GPH
1/4"	30 feet	30 GPH
1/2"	**200 feet**	**200 GPH**
3/4"	480 feet	480 GPH
1"	960 feet	960 GPH

Example Calculation

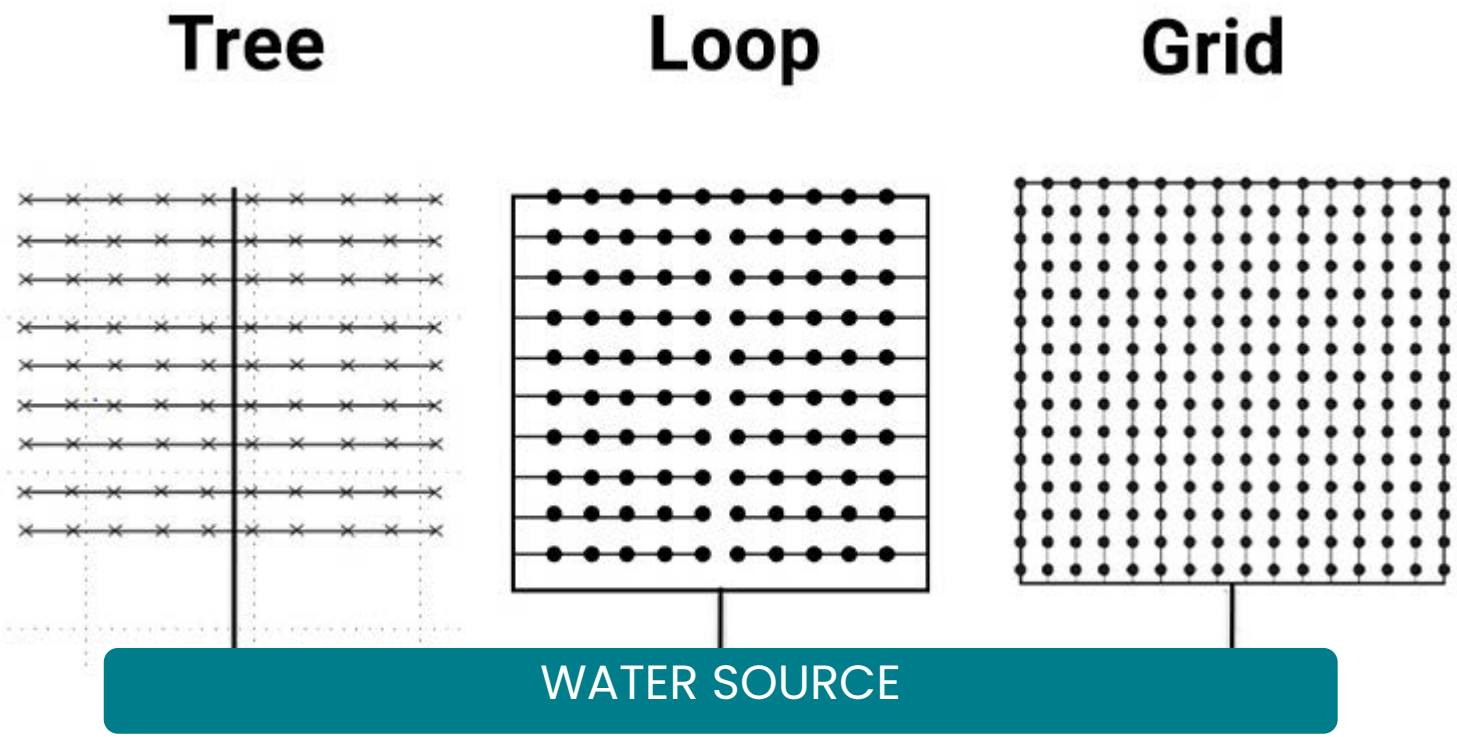
- 40 x .5 GPH Emitter = **20 GPH**
- 20 x 1 GPH Emitter = **20 GPH**
- 2 x 10 GPH Emitter = **20 GPH**

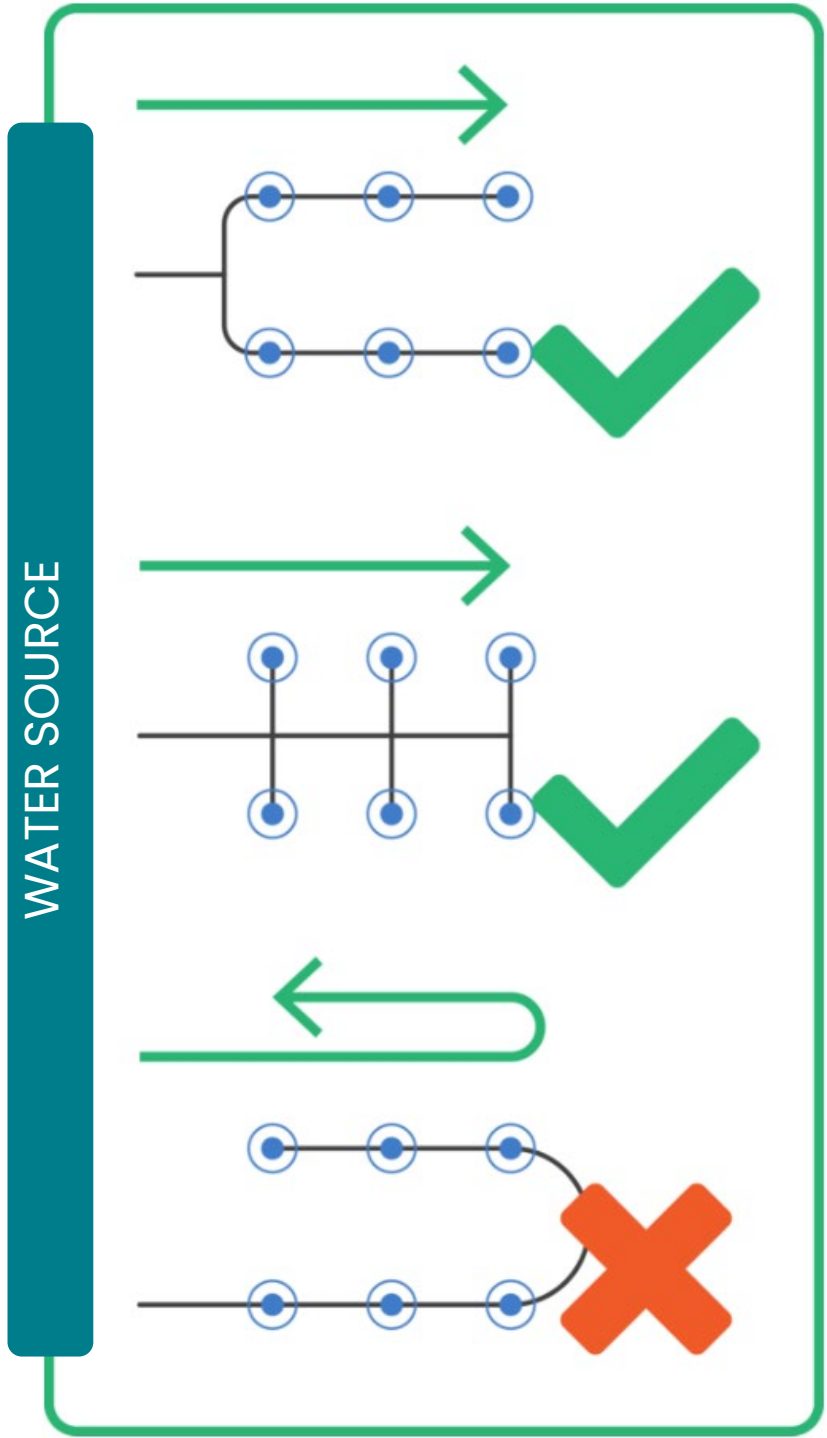
20 GPH + 20 GPH + 20 GPH = 60 GPH total


KISS

SPRINKLER DESIGN

- Keep sprinkler runs as short as possible.
- Minimize bends or turns as this can reduce pressure.
- Looping can help equalize pressure.





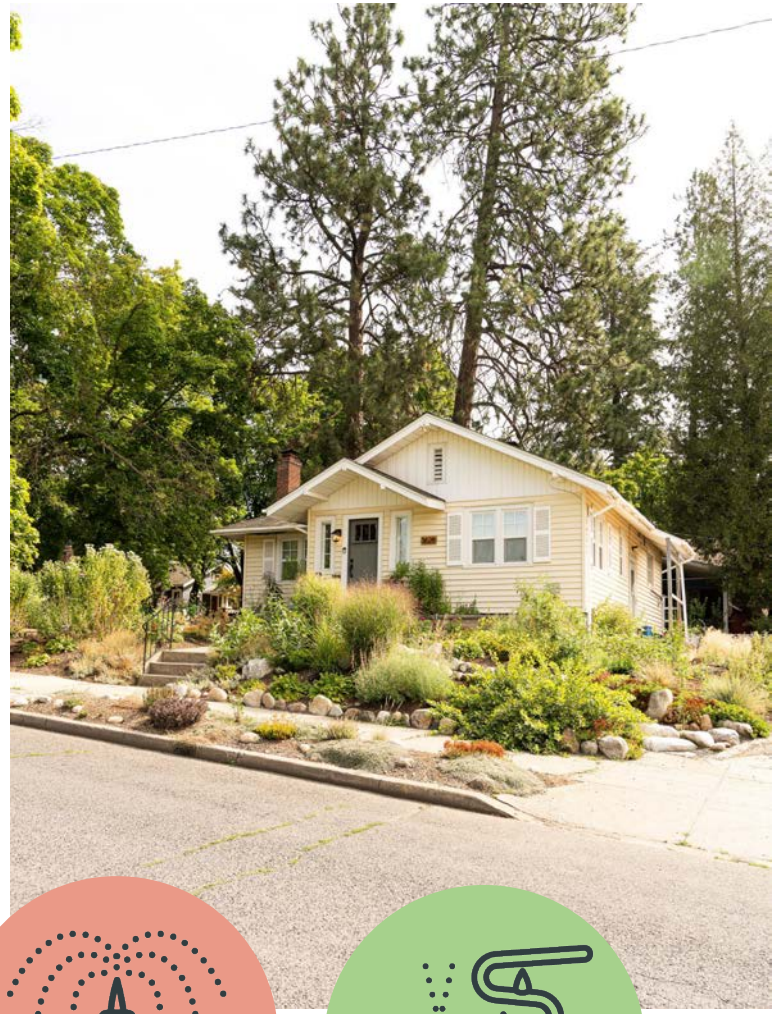
Routine Maintenance

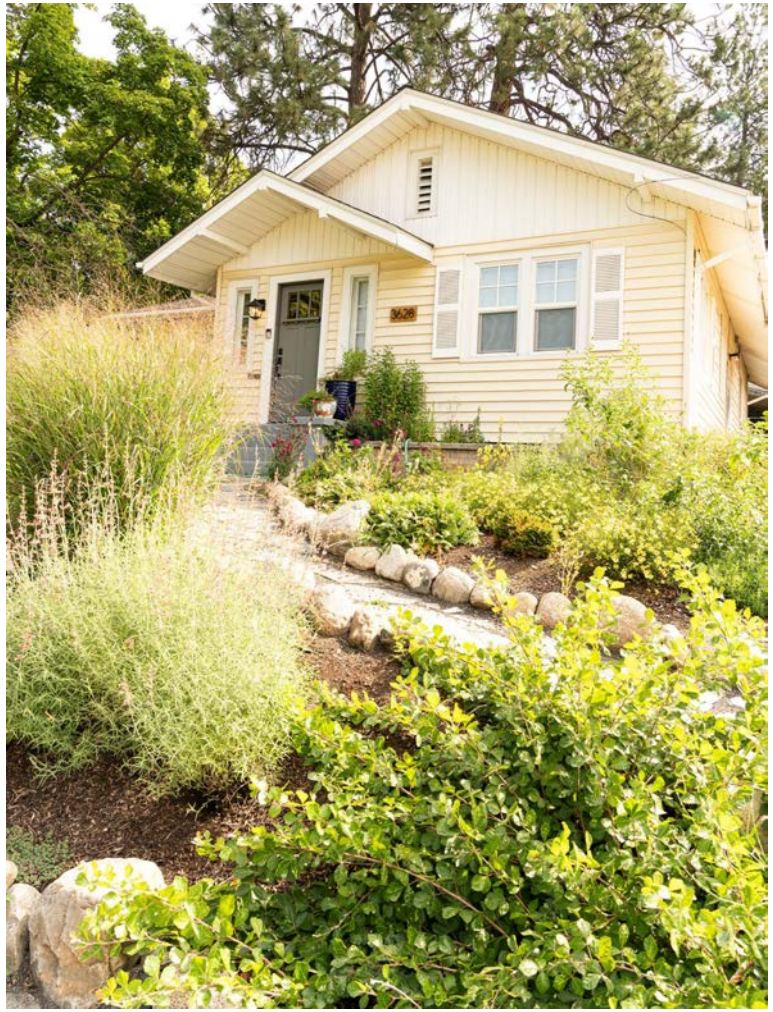
- Monthly sprinkler inspection.
  - Check after you've mowed or when you're pulling weeds.
  - Look for signs of damage, pooling water, geysers, dry spots, etc.
- Clean filters and screens to prevent clogging.
- Make sure drip lines or sprinklers are adjusted properly.
- Winterize and blow your system.

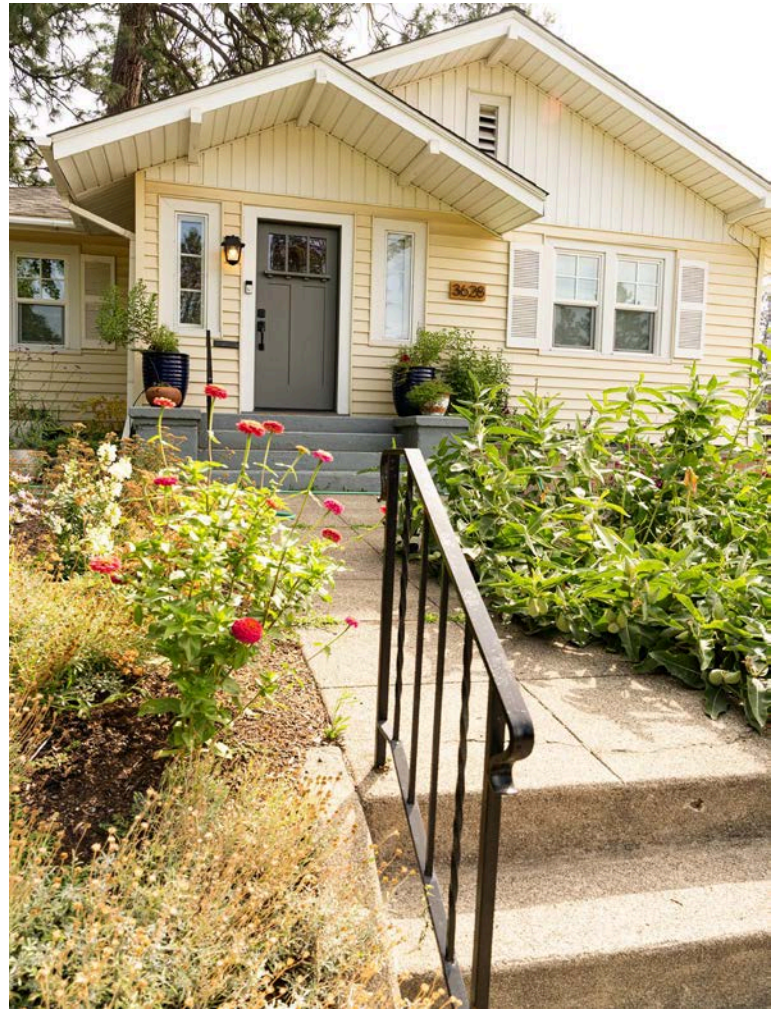
The Irrigation Decision Dilemma


2109


6121

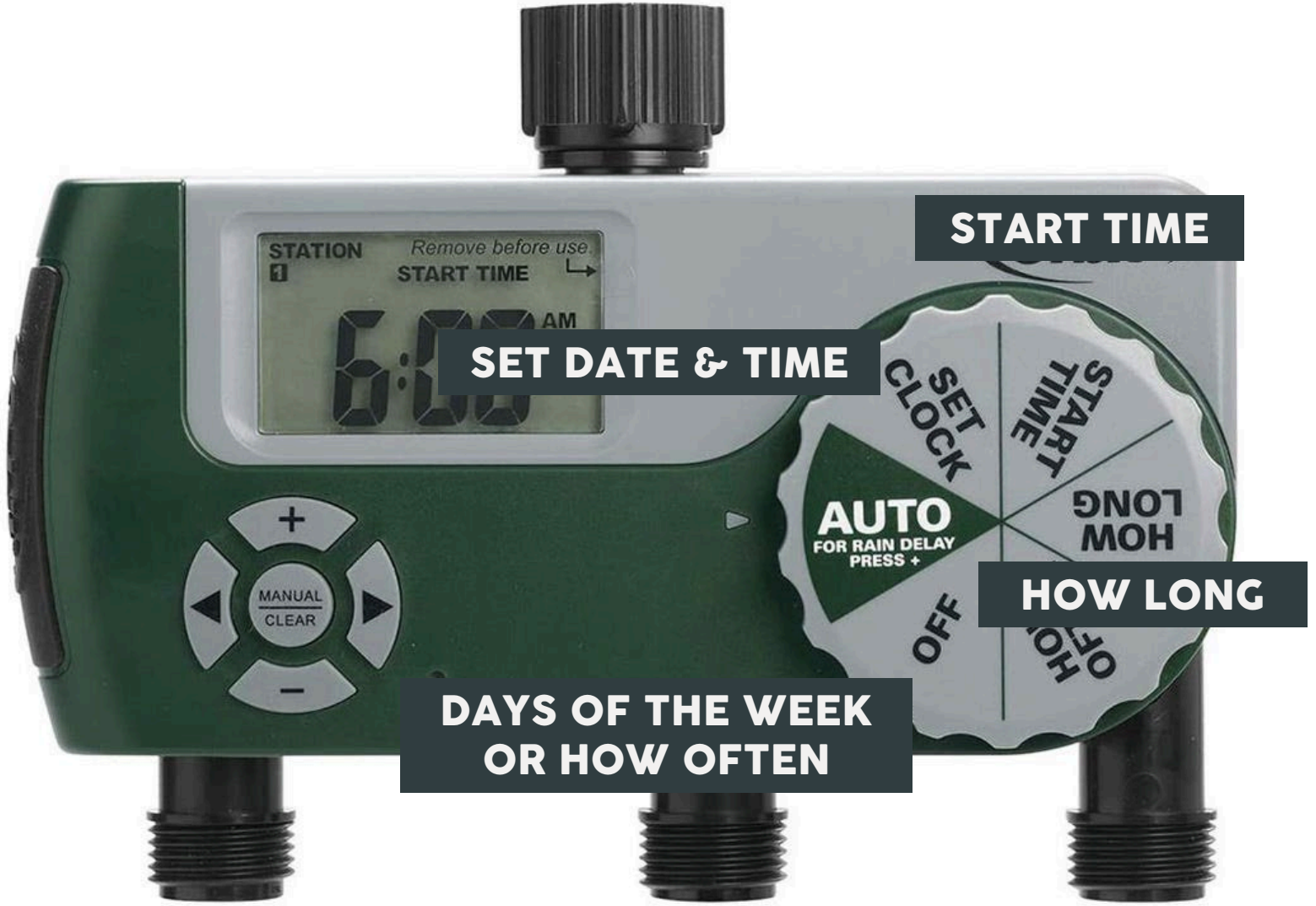




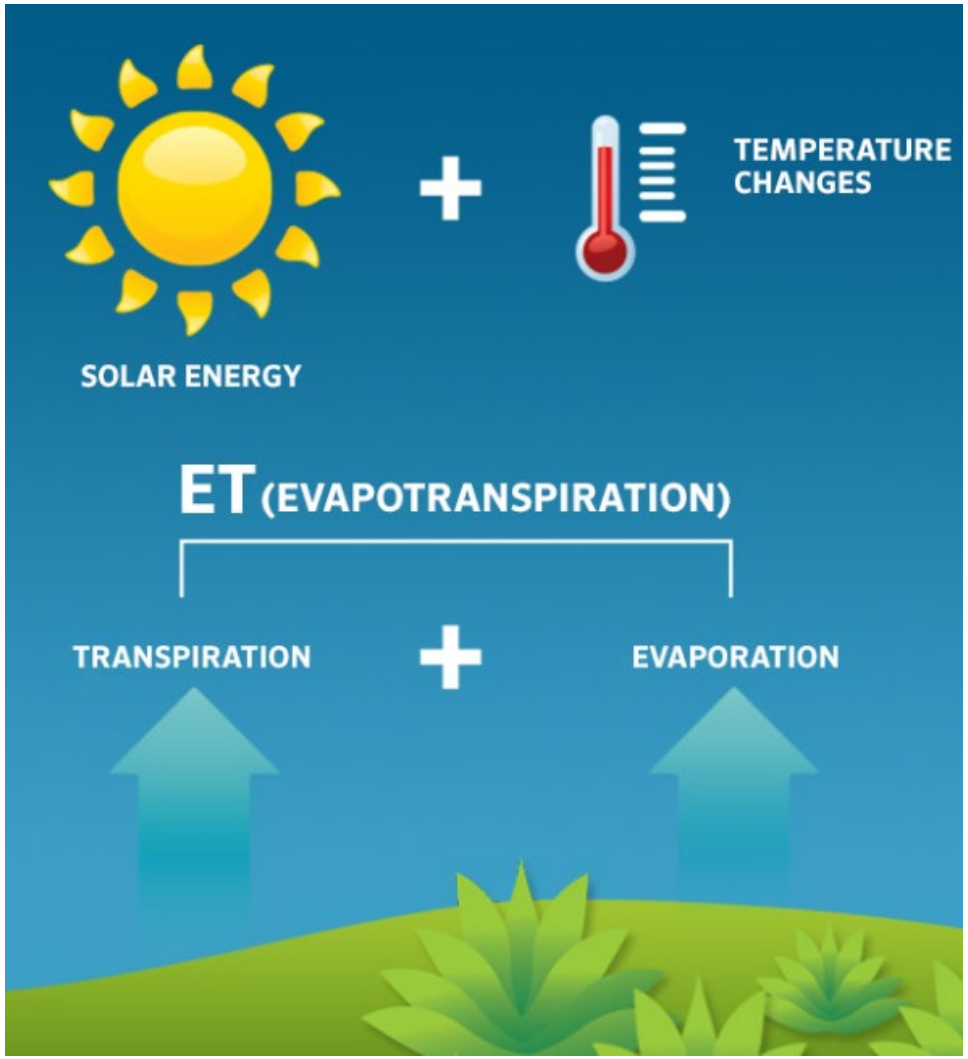


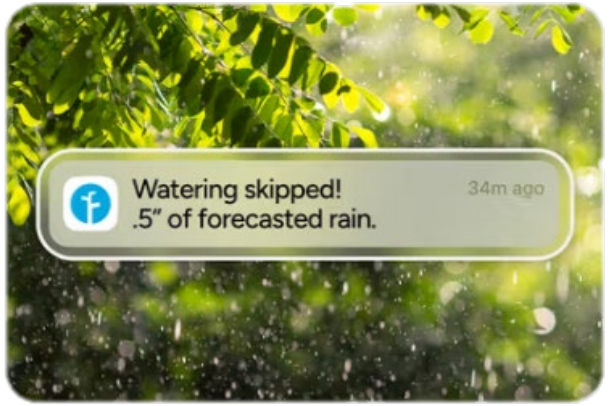
Controllers

MANUAL CONTROLLER



SMART CONTROLLER





Rain Delay or Skip

Autom
Adjustm

We have a $100 Smart Controller Rebate!

WATER WISE WISDOM
WATERING SCHEDULE

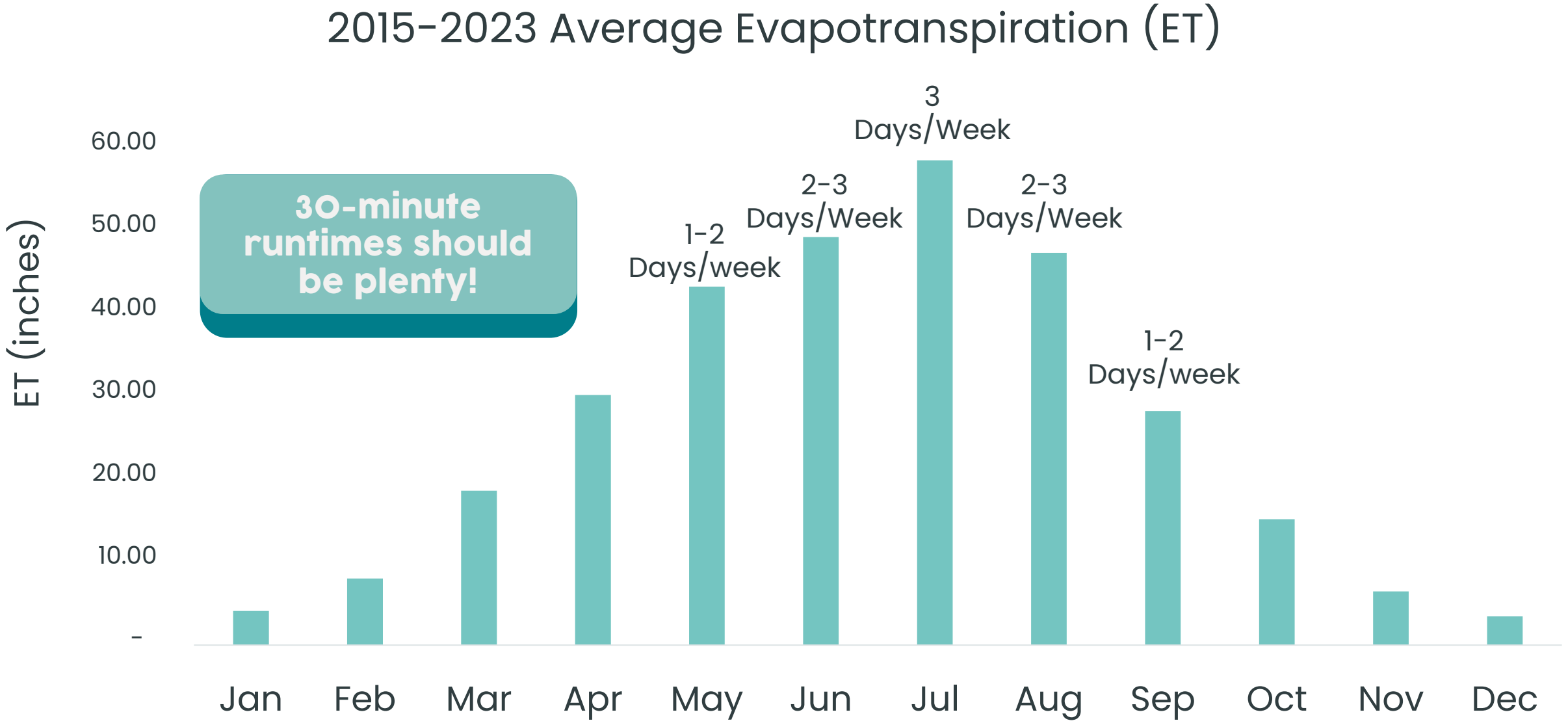
NO IRRIGATION: Plants rely on natural precipitation and generally need no additional water once established. Great for areas that are unwatered!

VERY LOW-WATER: Plants need more water than natural precipitation. A deep watering once or twice a month should be sufficient.

LOW-WATER: Plants generally need to be watered once a week. This is still 50% less than conventional landscapes.

MODERATE WATER: Plants need watering more than once a week during the heat of summer. Using drip irrigation on these plants is ideal.

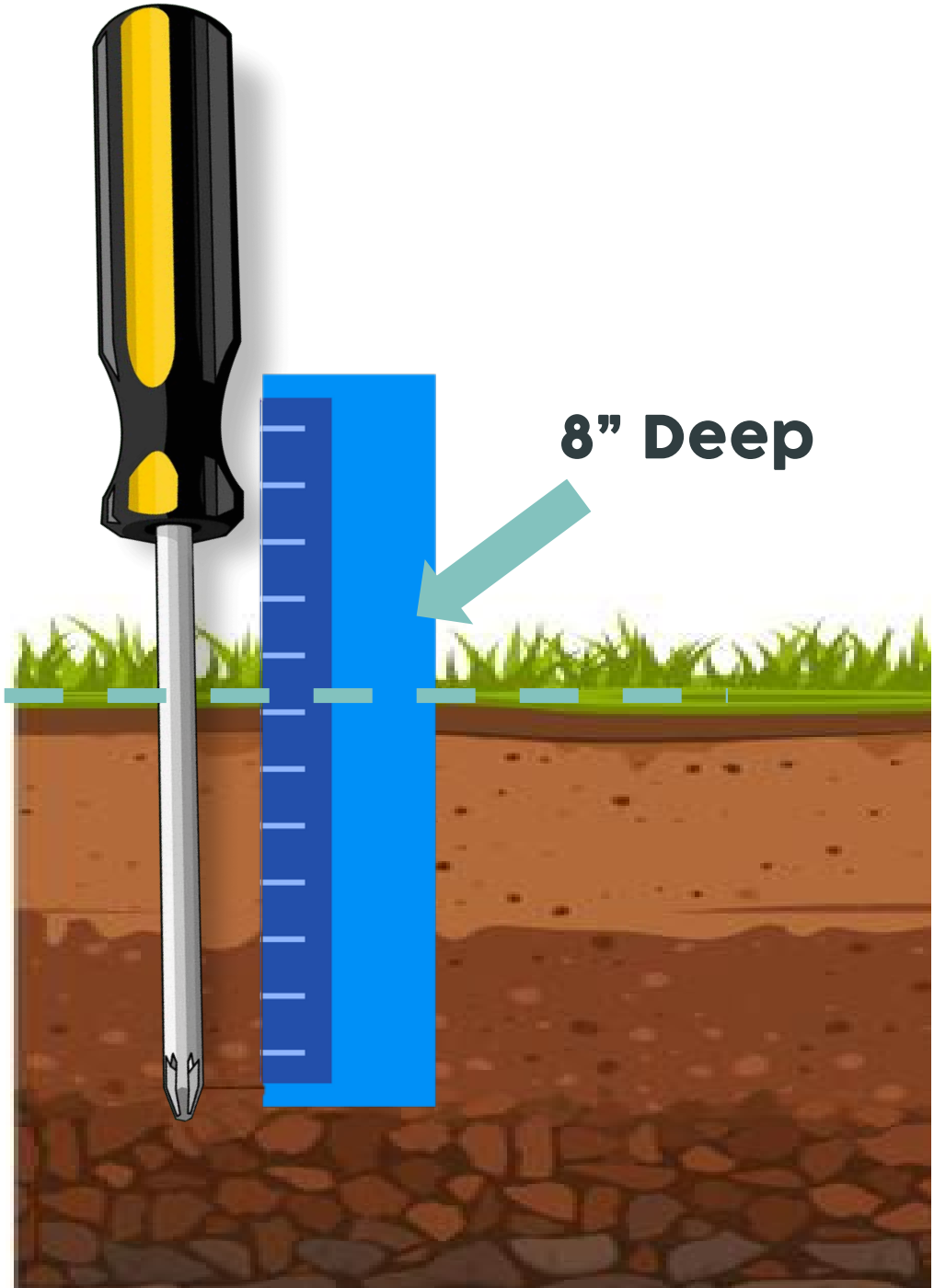
WATER WISE WISDOM
WATERING SCHEDULE



SCREWDRIVER TEST

My favorite part of gardening

SCREWDRIVER TEST



Summer Watering Schedule

Additional Rebate Opportunities

UP TO **$100**

SMART IRRIGATION CONTROLLERS

UP TO **$200**

SPRAY-TO-DRIP CONVERSION

UP TO **$200**

ROTARY NOZZLES

Residential Rebates

Smart Water Monitors

High-Efficiency Toilet

Spray-to-Drip Conversion

Irrigation Controller

Review Terms and Conditions for rebates at **WaterWiseSpokane.org**

Water Efficiency Check Ups

- Top to bottom inspection and assessment of sprinkler system to inspect for leaks, overspray, damages
- Create a personal water budget and irrigation schedule
- Determine landscape's water needs.
- Controller programming assistance

Thank you for coming!

QUESTIONS?

WATER WISE WEDNESDAY WORKSHOPS