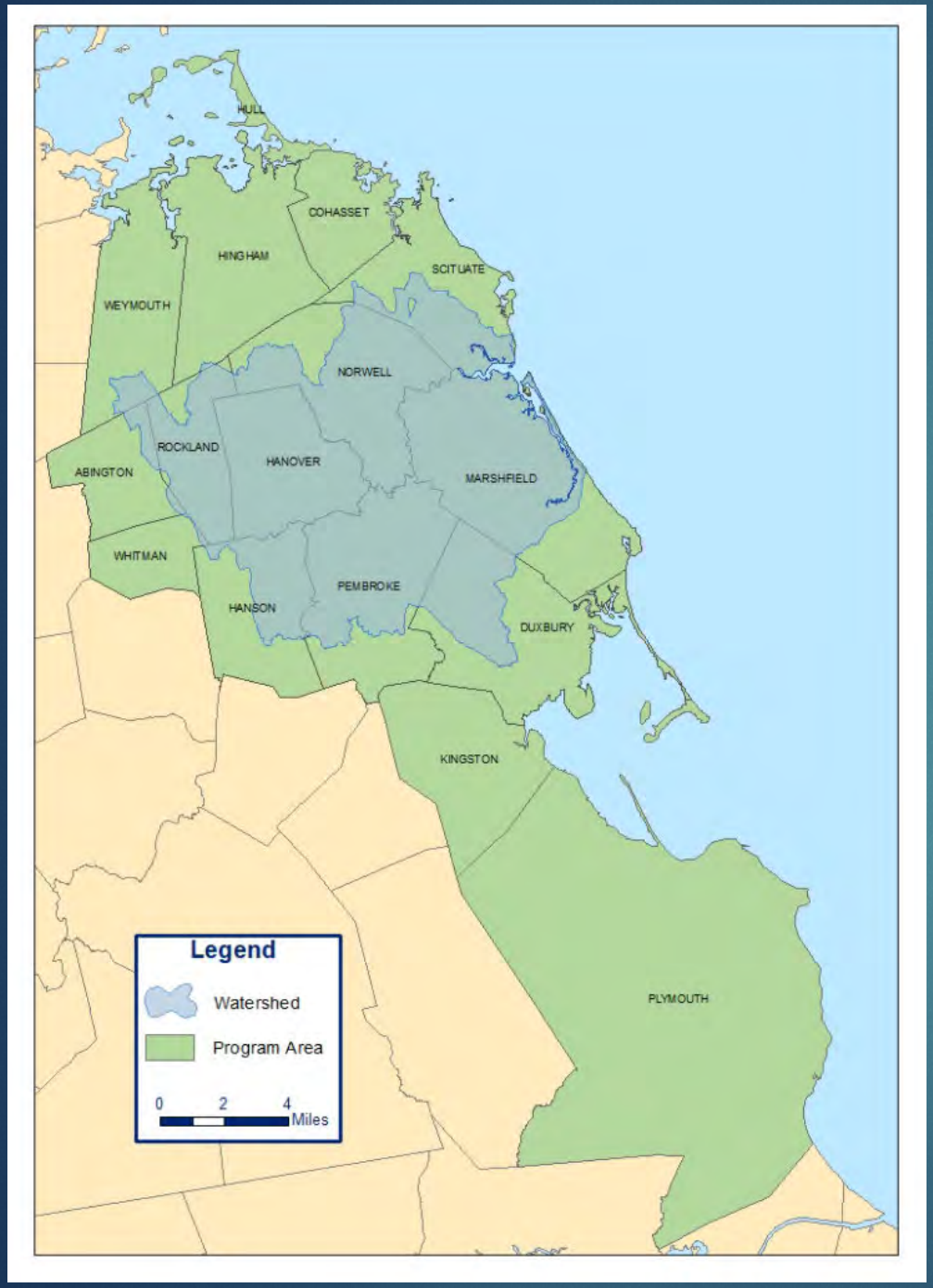
North and South Rivers Watershed Association



NSRWA
nsrwa.org

What is a watershed?

73,000 acres, 114 square miles

Founded 1970

Non-profit

50 years of protecting our waters for now and the future

Watershed plus program area

Top Three Issues

- Dams that prevent fish passage
- Water withdrawals drying up streams
- Stormwater pollution

Climate Change Paradox

Housatonic River

Floods

Westfield River

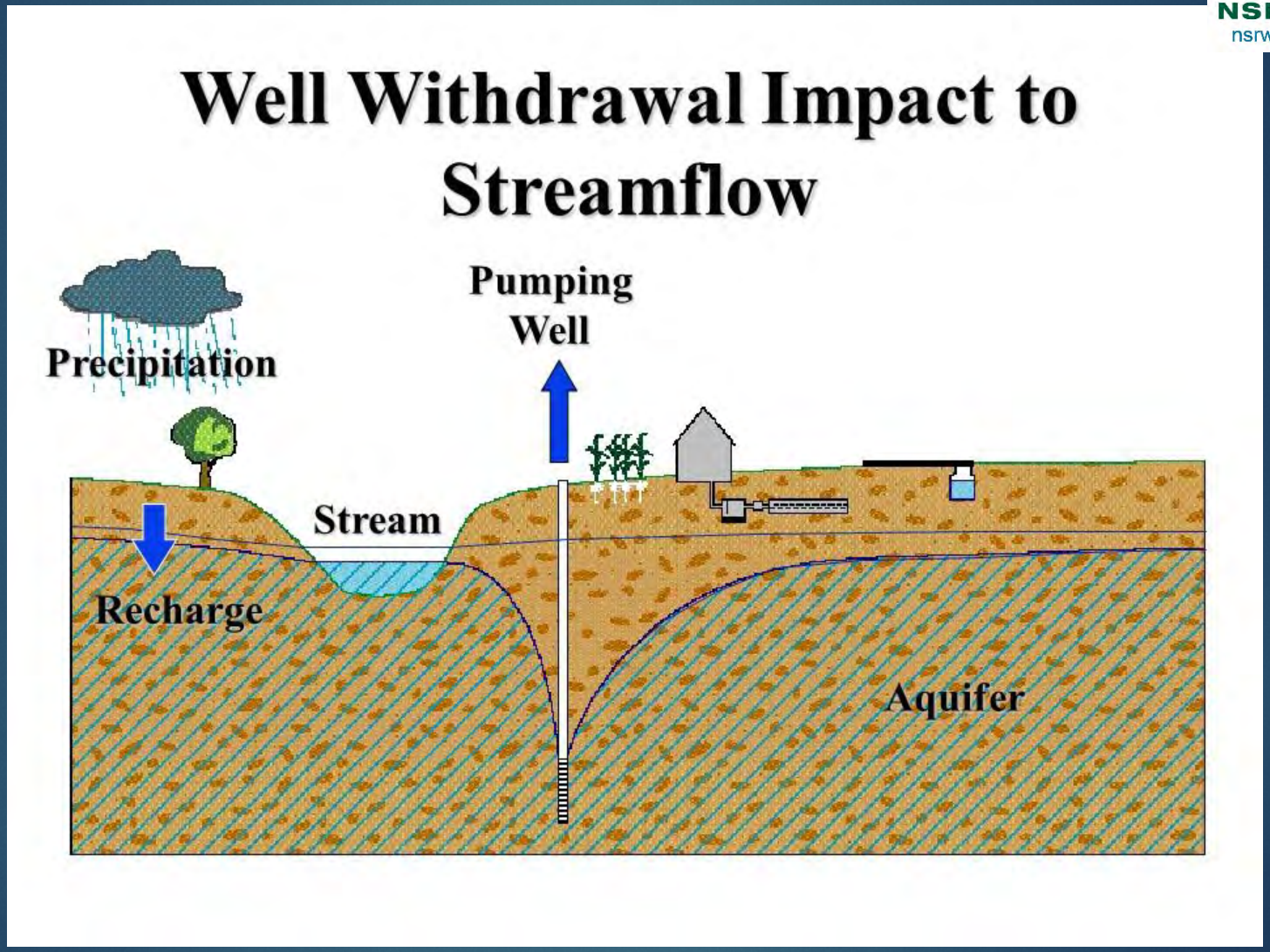
Droughts

Problem: Water withdrawals impact streamflows

Scituate Reservoir
on the First Herring Brook

Third Herring Brook

Summer Withdrawals Almost Double



Stormwater Runoff

Rain or snow, not absorbed by plants and soil that travels across land to the nearest waterbody.

-Once only 10%, now 60-90%

- Stormwater runoff is a major concern in our watershed
- Runoff from residential areas often contain excess fertilizers, pesticides, trash, oil, animal and yard waste
- Flows across impervious surfaces
- Lawns can generate up to 90% as much runoff as pavement.
- Where does this runoff go?


Uncle Ray's
SOUR & ONION
POTATO CHIPS

Healthy surface waters = healthy water supply

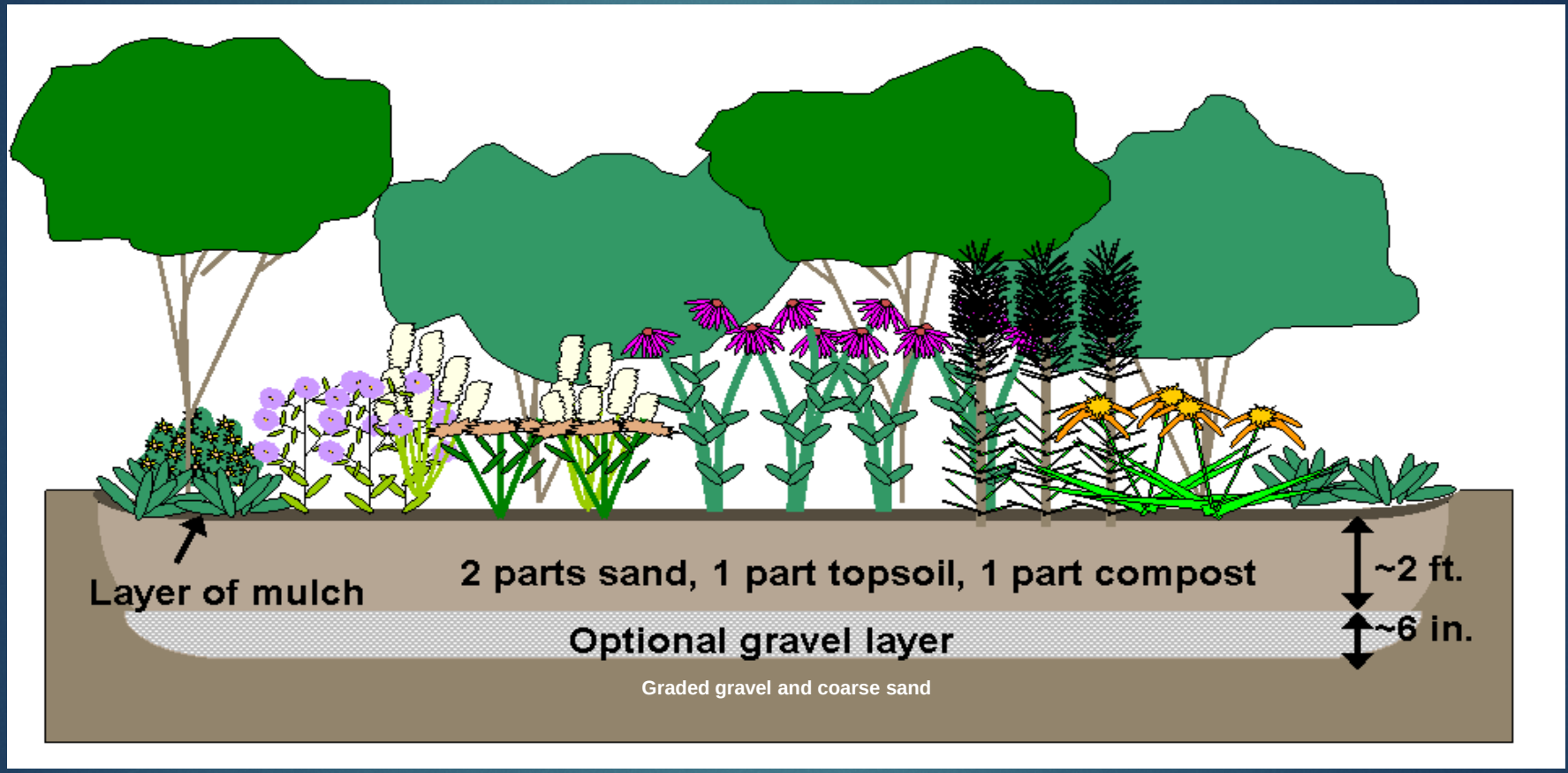
Building a rain garden can help with these issues

Why Rain Gardens?

- Help prevent polluted stormwater from entering our waterways.
- Help replenish our aquifers
- Easy and inexpensive to install and maintain
- Help control flooding
- Wildlife habitat
- Improve water quality
- Customizable and beautiful
- Fun outdoor family project!

RECHARGE!

Rain Gardens Reduce *RUNOFF* and *RECHARGES* groundwater



How to build a Rain Garden!

- Pick a location. At least 10ft away from building foundations, underground utilities, and septic system drainfields. Or an area were water pools during storms, but not a wetland!

- Calculate drainage area and divide by the depth of the garden. Many variables – guidelines not rules!

Example : For Roof that is 20 ft x 20 ft / 10” depth of garden = 40 sq ft

Or use this handy calculator
http://raingardenalliance.org/right/calculator

- Call Dig Safe at 811 or (888) 344-7233 72 Hrs before digging if using an excavator.
- Any shape you want, about 6 inches lower in center than edges. Avoid damaging tree roots.
- Check drainage. Dig a 6in hole, fill with water, if there's still water after 24hrs choose new location. It is important that it drains. Add gravel to bottom if needed.
- Ideal soil mixture: 2 parts sand, 1 part topsoil, 1 part compost. 2ft depth but can vary.
- Plants: Choose native plants that can tolerate wet and dry roots and are adapted to the conditions you are putting them. More on this from Wild Ones!
- Add 2-3 inch layer of mulch to help retain moisture and prevent weeds.

Rain Garden Care
Water……Weed……Mulch

- Water every other day for first 2-3 weeks until growing well.
- The first year or two may need additional water if seasonally dry.
- Well established roots will no longer need additional watering.
- Maintain a 2-3 inch layer of mulch. (1 cubic yard of mulch will cover 100 sq ft with 2-3 inch layer).
- Water should drain and not pool for more than 24 hours.

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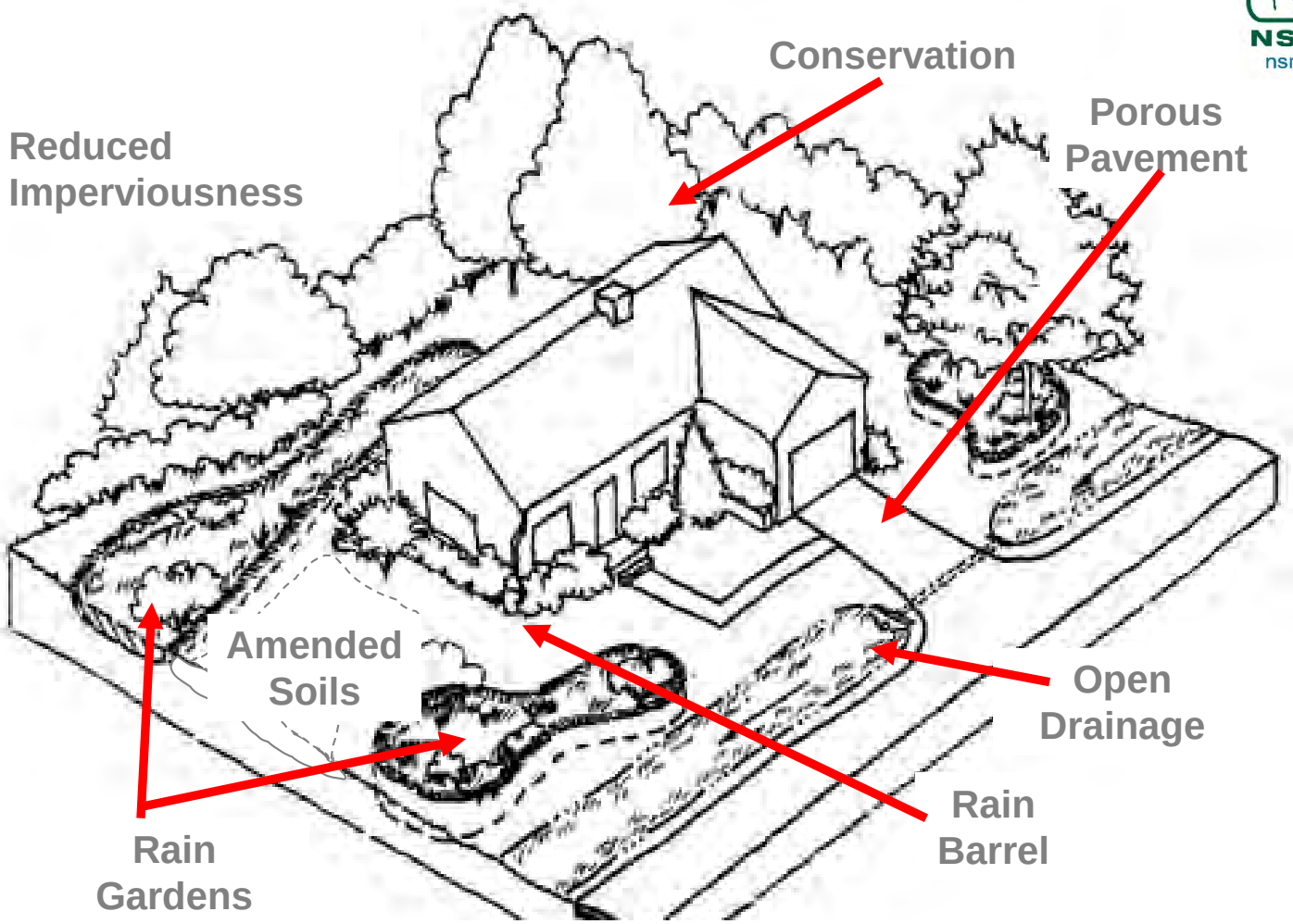

NSRWA

Additional “Green” Gardening Tips

- Water only at dawn
- Water only when lawn is thirsty – Water to a depth 6”/once per week.
- Mow with a sharp blade
- Leave grass clippings on the lawn
- Keep your grass at least 3 inches tall (credit card). Tall grass shade weeds. Less mowing = Less weeding = Less Work
- Use permeable pavers and porous asphalt
- Rake up a brush pile and leave it for winter
- Create a mini-meadow, let grass grow tall for winter
- Native trees and shrubs
- Don’t deadhead or cut everything down at the end of the season
- Compost, create your own soil

watersmartsouthshore.org

Clean and plentiful water is just too important to pollute and waste!

Additional resources can be found at

WaterSmartSouthShore.org

Download our Greenscapes Guidebook

NSRWA
nsrwa.org

WaterSMART
WaterSmartSouthShore.org