

Putting Rain to Work in Your Landscape



by Eva Montane



**How to be resource smart &
reduce water bills while having a gorgeous,
firewise, low maintenance, functional landscape**

Water



- Without water we are nothing
- Life cannot exist without water
- Humans can't live more than 4 days without it

Why Conserve Water?

- Only 3% of the water on Earth is available to humans and dwindling
- Aridification of the West
- and so many more reasons you've been hearing about





Can we agree
water is
important?

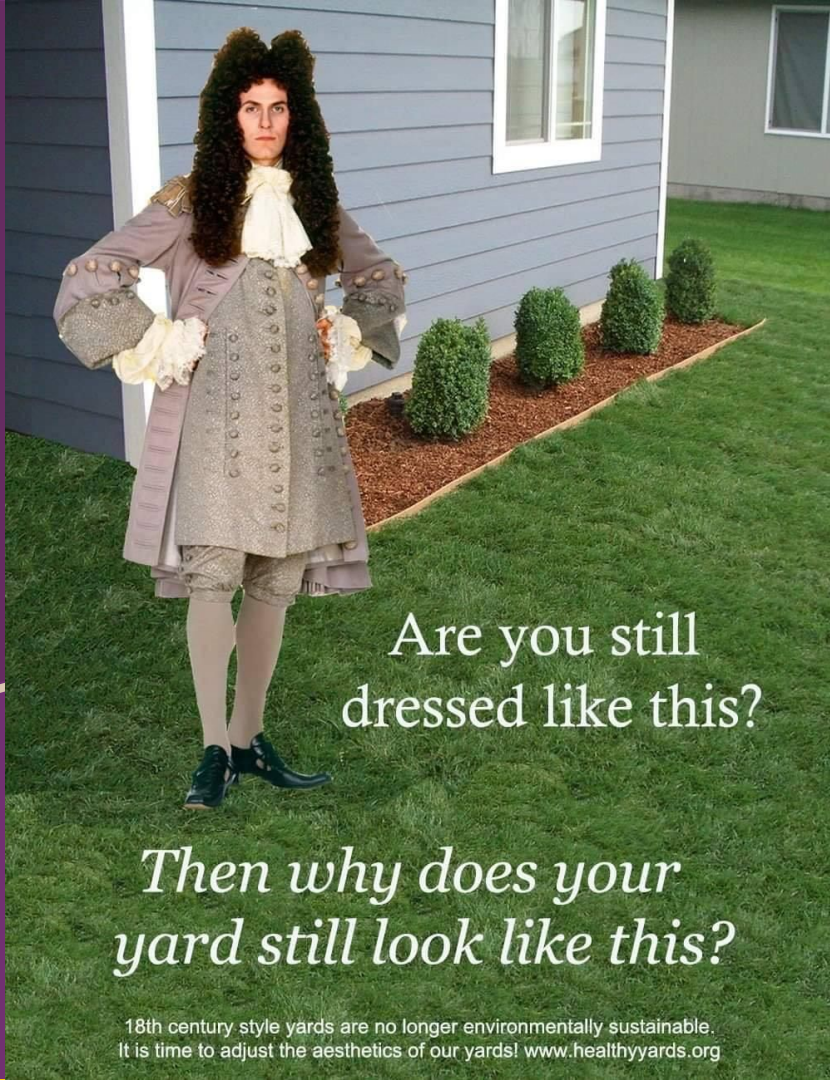


And yet...



- 50% of residential water is used on landscapes
- Most plant diseases and deaths are caused by overwatering
- Water does not = love!
 - Especially on waterwise landscapes

Ready for an
update?



Are you still
dressed like this?

*Then why does your
yard still look like this?*

18th century style yards are no longer environmentally sustainable.
It is time to adjust the aesthetics of our yards! www.healthyyards.org

Time to take a look at
how water is used



And how
we can do better

Rainwater is free!



It is regularly delivered free of charge

No need to pay to pump, deliver, or treat it

It's our primary renewable source of fresh water





Instead of using rainwater

The conventional habit is to invest in resource-intensive methods of acquiring lower quality, secondary sources of ground and surface water.



Collecting rainwater



Is as old as human
civilization

but then...

Technology

Made surface & groundwater (secondary sources in the hydrologic cycle) appear to be more:

- convenient
- profitable &
- dependable



than rain - the primary source - and waste became more common than conservation and a practice was made of draining rain away as if it were a problem.

Rainwater is
treated as a
nuisance.



To be quickly drained or diverted
to the storm drain, ditch, or
pollutant laden streets

There is a
simple solution!

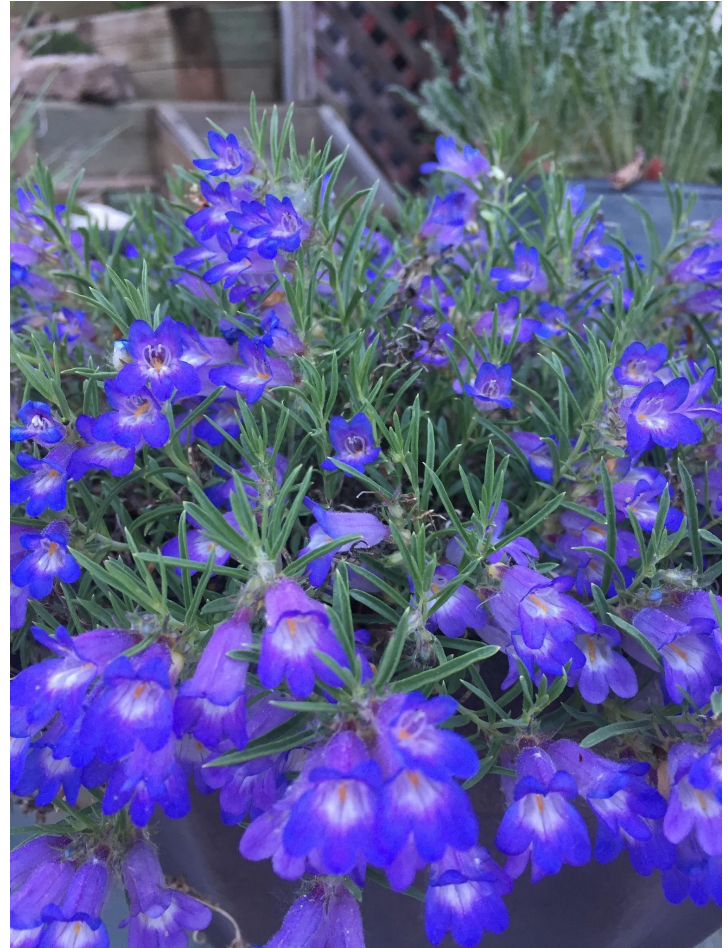


Harvest Rainwater and...

- Conserve a natural resource
- Save \$\$ on your water bills
- Protect our rivers and streams from runoff pollution
- Help your plants thrive; rainwater is preferable to municipal water which contains ammonia, fluoride, and chlorine
- Control moisture levels around a home's foundation
- Mitigate erosion
- Hydrate the land to increase fire-resistance



Plants
LOVE
Rain



Rain Barrels: “Active” Rainwater harvesting*

4Core offers a discounted group-buy program for residential rainwater barrels.

The rain barrels are offered at 50% off their retail price to help Durango put more rain to good use.



*110 gallons became legal in 2016



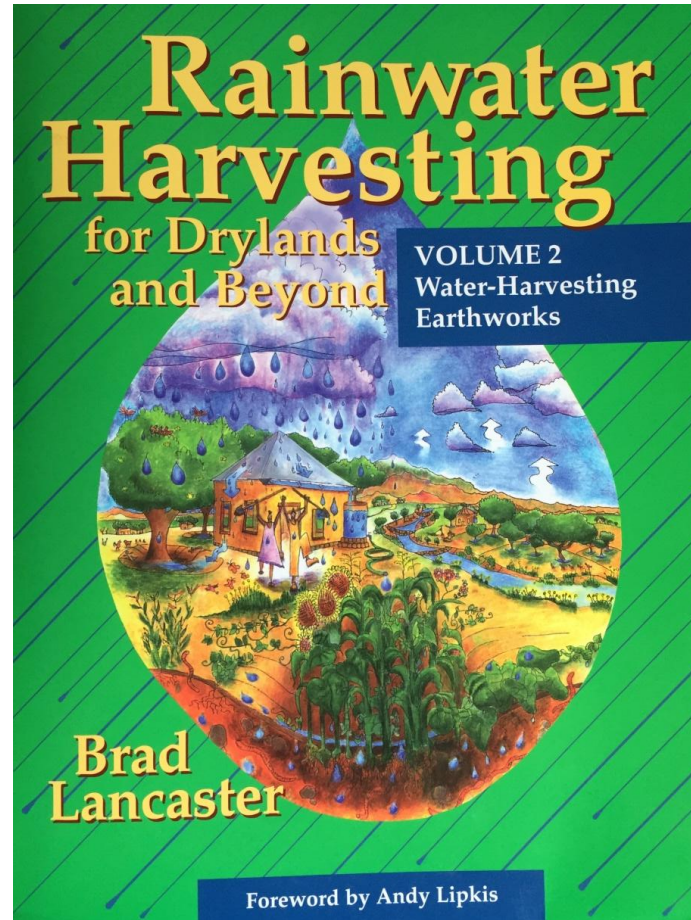
What are you going to water?



- Barrel needs to be higher than destination & nearby
- Requires technology, resource use (plastic barrels), and cleaning maintenance



Rainscapes/Earthworks



Landscape on Life Support

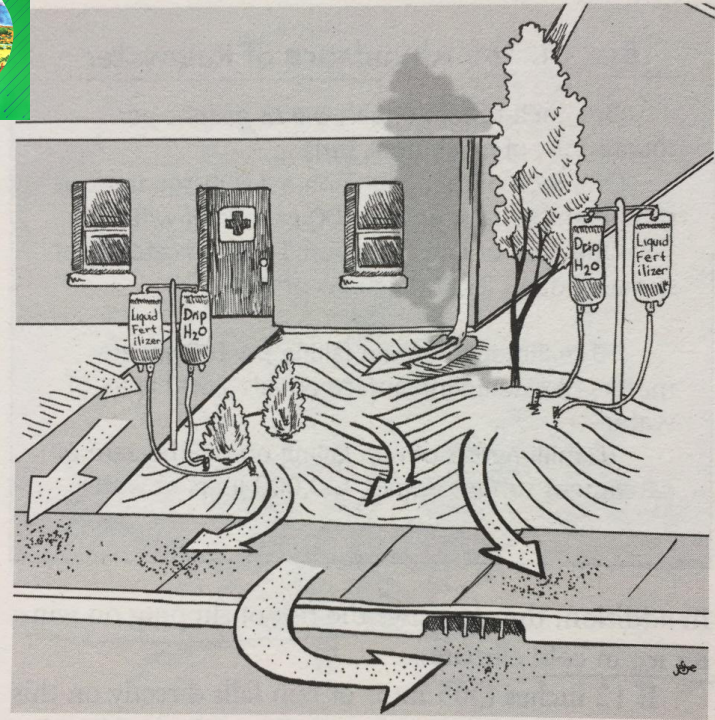
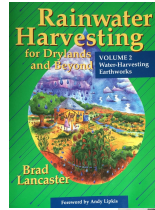


Fig. I.3A. A landscape on life support draining its resources away. Note the mounded planting areas and the hardscape and landscape draining *all* runoff to the street.



Sustainable Landscape

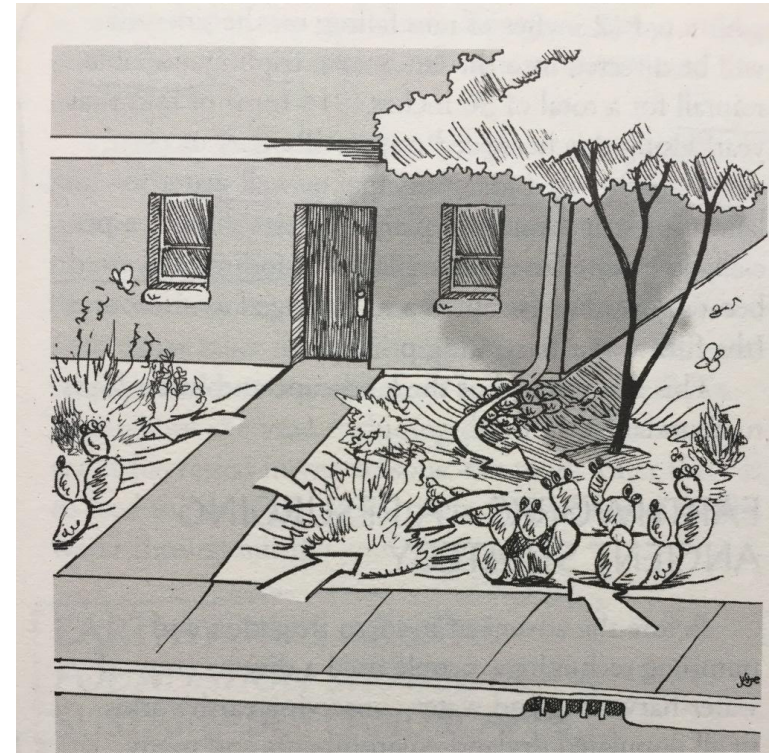
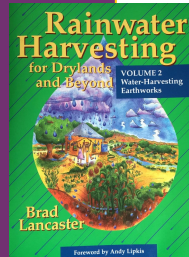


Fig. I.3B. A sustainable landscape harvesting and recycling on-site resources. Note the water-harvesting sunken, mulched planted areas, the native vegetation, and how the hardscape (sidewalks and roof) beneficially drains into the soil. The earthworks overflow from one to another, until only the *surplus* water—not all the flow—overflows to the street.

Rainscapes



- Conserve water by passively harvesting rain and hydrating the land
- Sculpt the land to hold rain longer so it can slowly be absorbed deeply

4. SLOW, SPREAD, AND INFILTRATE THE FLOW OF WATER

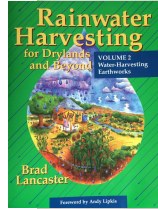
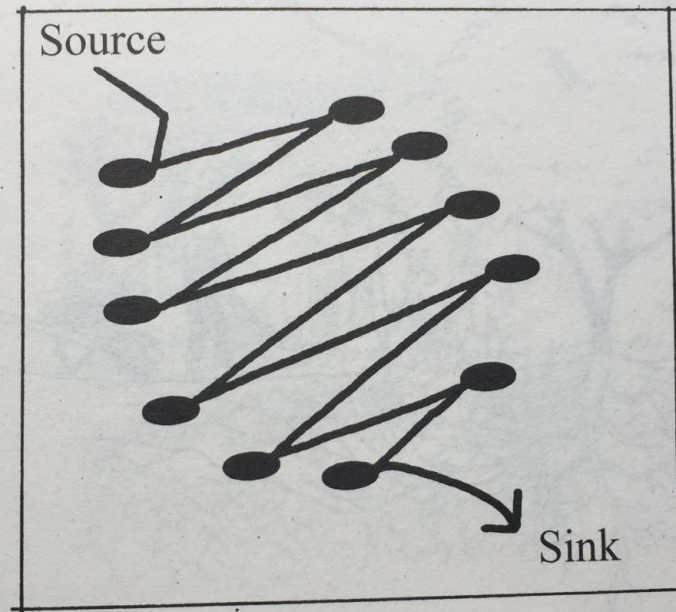


Fig. P.8. Zig-zag and calm the flowpath of water to reduce destructive erosion and increase the time and distance the water flows. This will increase infiltration into the soil from source (high point) to sink (low point). This practice achieves waterspread throughout the watershed.



Avoid watering the foundation



Infiltrate water 10 feet or farther from structures



Walk high

Plant low



Make sure planting areas are at a lower grade than paths and patios. The water drains off your hardscape this way into your planting areas and has the added benefit of keeping paths ice-free in winter.



Where water
settles,
life springs



Start at the top

- What's the top of your site's watershed?
- Start there and work your way down
- Can be done in phases - as long as you start high and work your way down

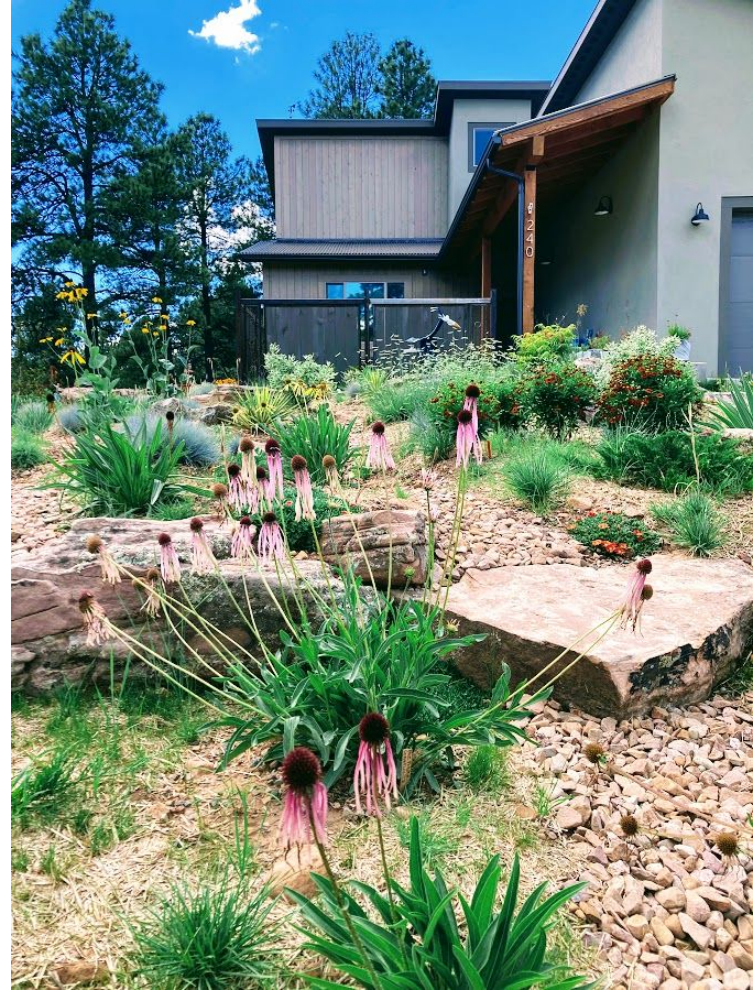


High on the Rooftop



Downspout Redirect

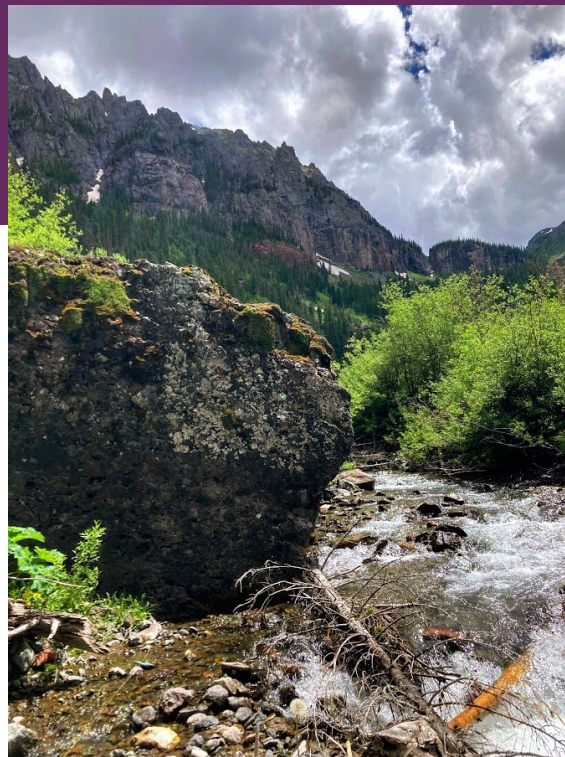
- Where do they outlet?
- Make use of water from your downspouts
 - instead of ushering it off your property, direct it to planting areas



Rainscapes

Reduce the impacts of dry seasons, droughts, and floods.

By optimizing the capture of rain we **buffer** our lands from changing climates and climatic extremes, while making our lands more **resilient**.





Hydrate the land

Our clay soils are hyrophobic; water moves over the surface rather than absorbing

SOLUTION:

- A slow drizzle from the sky or trickle from the hose
- Or shallow basins to increase infiltration



Plant native & adapted plants



- The plants - once established - can sustain themselves with the water provided by nature
- Group plants with similar water needs together.
- During extended drought, they'll appreciate some help from you
- Rain gardens direct water where its most useful, hand watering with a hose becomes much easier

Take Homes



- Banish the berm
- Walk high; plant low
- Downspout Redirects
- Slow, spread, and sink

Planting beds lower; hardscape higher



Start small & simple



Direct the
rain to
where it is
of benefit



Integrate into your landscape

- Firewise
- Resource efficient
- Increase biomass, biodiversity, to create habitat
- Biophilia - create beauty that draws you outside
- Functionality for your lifestyle needs
- Screen the uglies and reveal the beauties
- Low-maintenance
- Resilient
- Winter interest



Before



And freshly installed



Rainscapes are the ultimate Waterwise Landscape



2 years later



Winter Interest



Read more on our blog

ColumbineLandscapes.com





Thanks for your
attention



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Resources

- Watershed Management Group
watershedmg.org/
- *Rainwater Harvesting for Drylands and Beyond*
by Brad Lancaster
- Rainwater Collection in Colorado, CSU Extension Fact Sheet #6.707
- Fourcore.org



Weed mat is not
sustainable & should be avoided



I aspire to bring plants & people greater harmony together

- 3 YEARS AS VP OF LOCAL NATIVE PLANT SOCIETY
- CRESTED BUTTE WILDFLOWER FESTIVAL INSTRUCTOR FOR 12 YEARS
- CERTIFIED LANDSCAPE DESIGNER
- GARDEN WRITER AND SPEAKER



Can be artistic additions
to the landscape



3. START SMALL AND SIMPLE

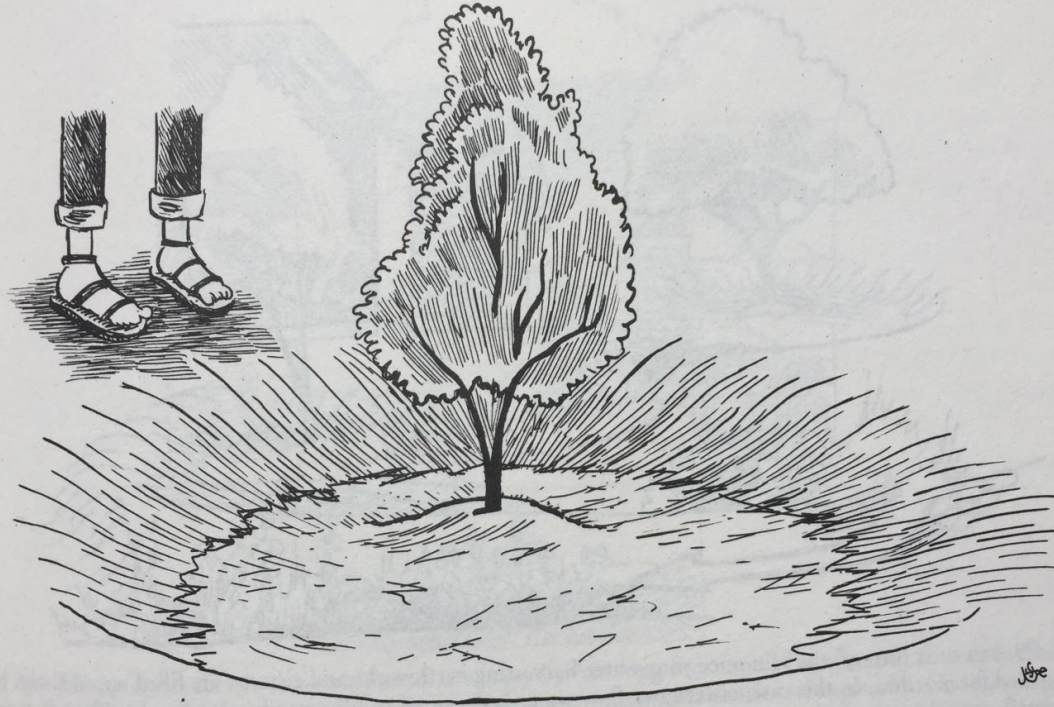


Fig. P.7. Small, simple systems of appropriate scale are easier to create and maintain than complex, extensive systems so starting small and simple makes it all more fun. As an added benefit, large numbers of small earthwork structures distributed throughout a watershed will be far more effective at hydrating the land than a small number of large-scale earthwork structures in just a few areas of the watershed.

