

Landscaping Septic Systems

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Andrew Lazur, UME; lazur@umd.edu

Emily Ranson, Clean Water Action; eranson@cleanwater.org

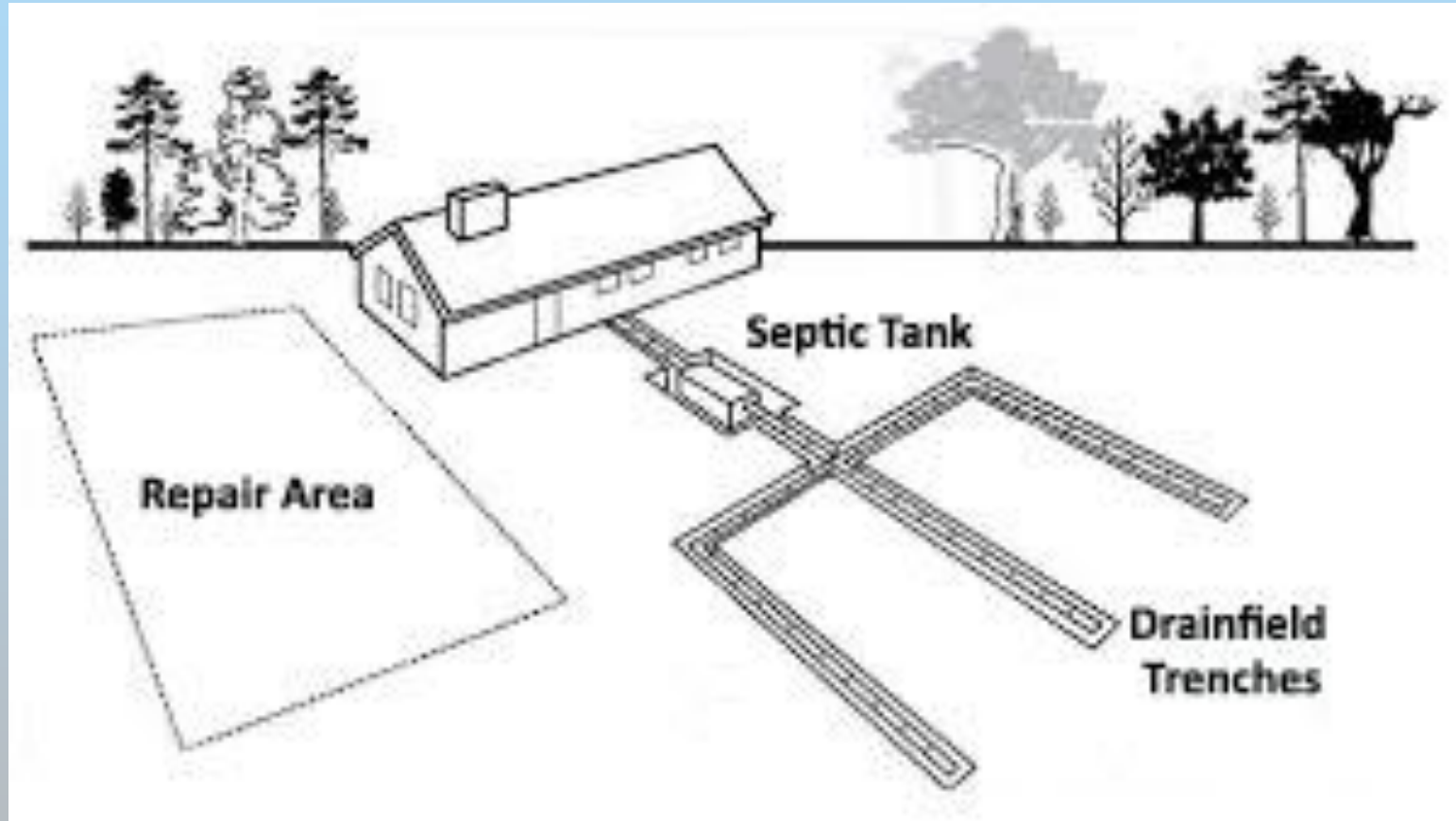


CLEAN WATER FUND

Overview

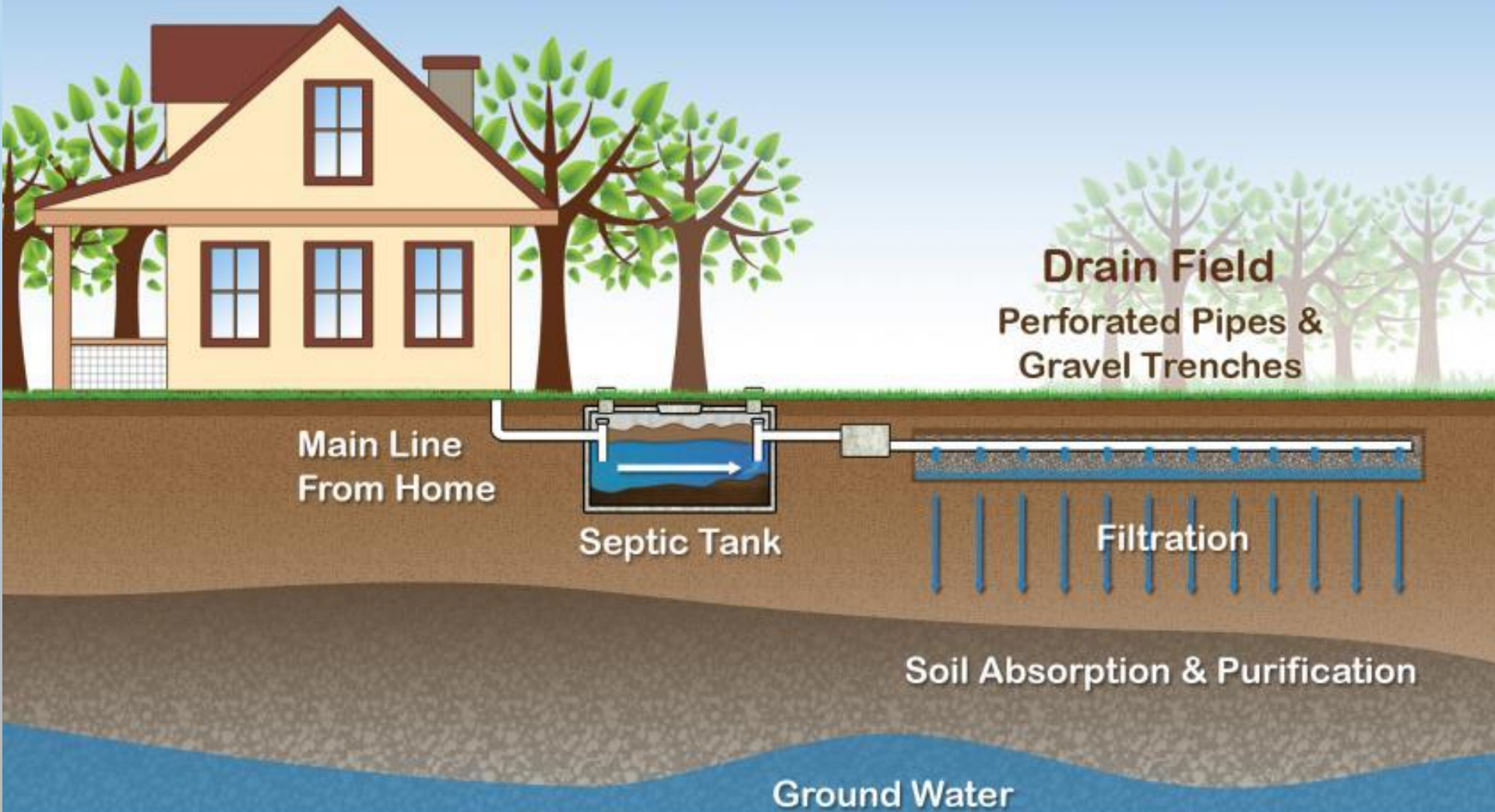
- 1) System Types and Considerations
- 2) Landscaping Strategies and Practices

Site and Septic System Design



Not sure where your system is? Contact your local county Health Department – Environmental Health office. They may have records and a site map from when the system was designed. If no records are available, consider hiring a septic company to help locate it.

Conventional Septic System



Drainfields - where soil treatment occurs



Conventional gravel trench



EZ Flow media tubes



Drip tube dispersal



Chambers



Sand Mound



Peat filter over gravel

Mound Septic System

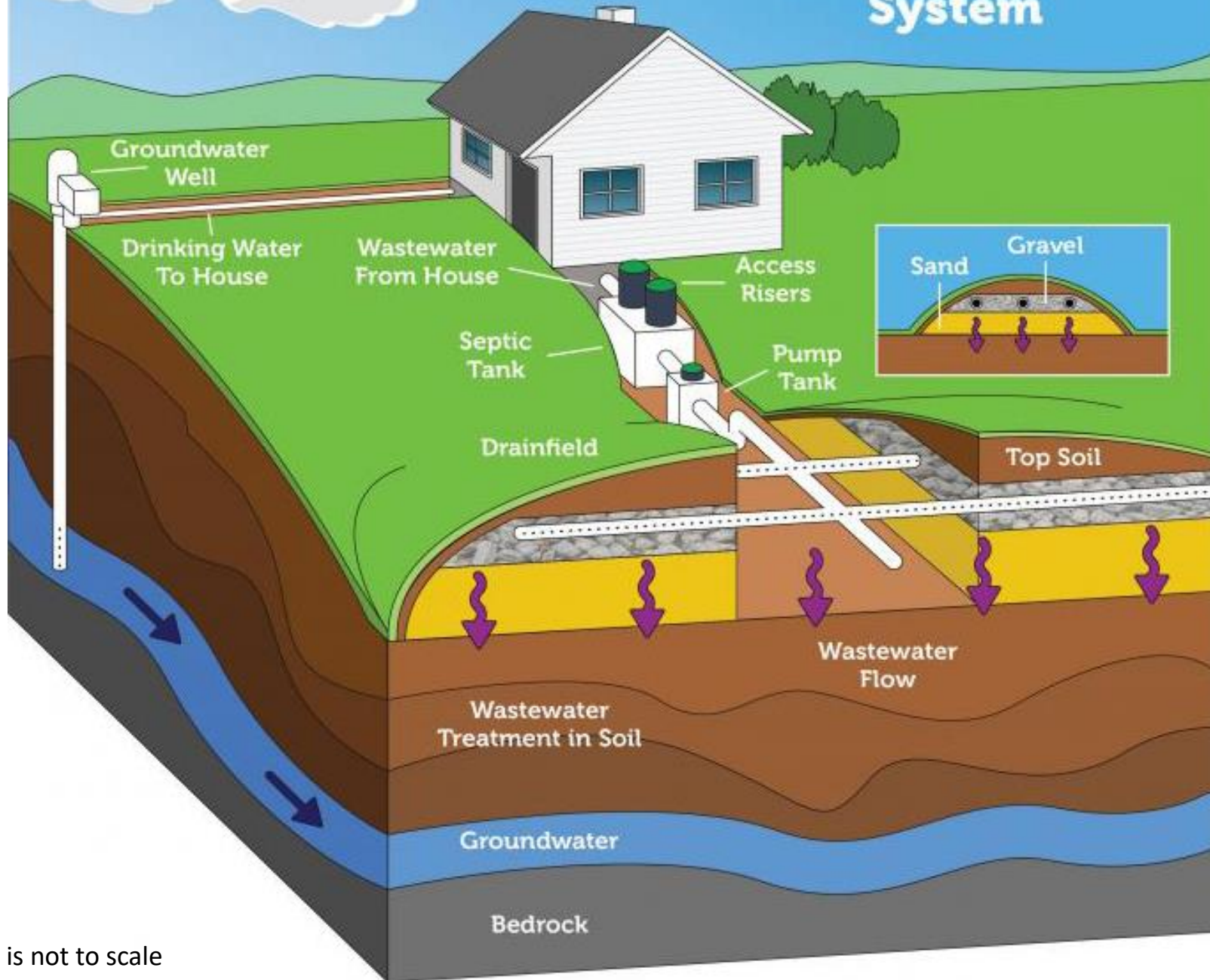


Diagram is not to scale

Source: EPA

Drip Distribution Septic System

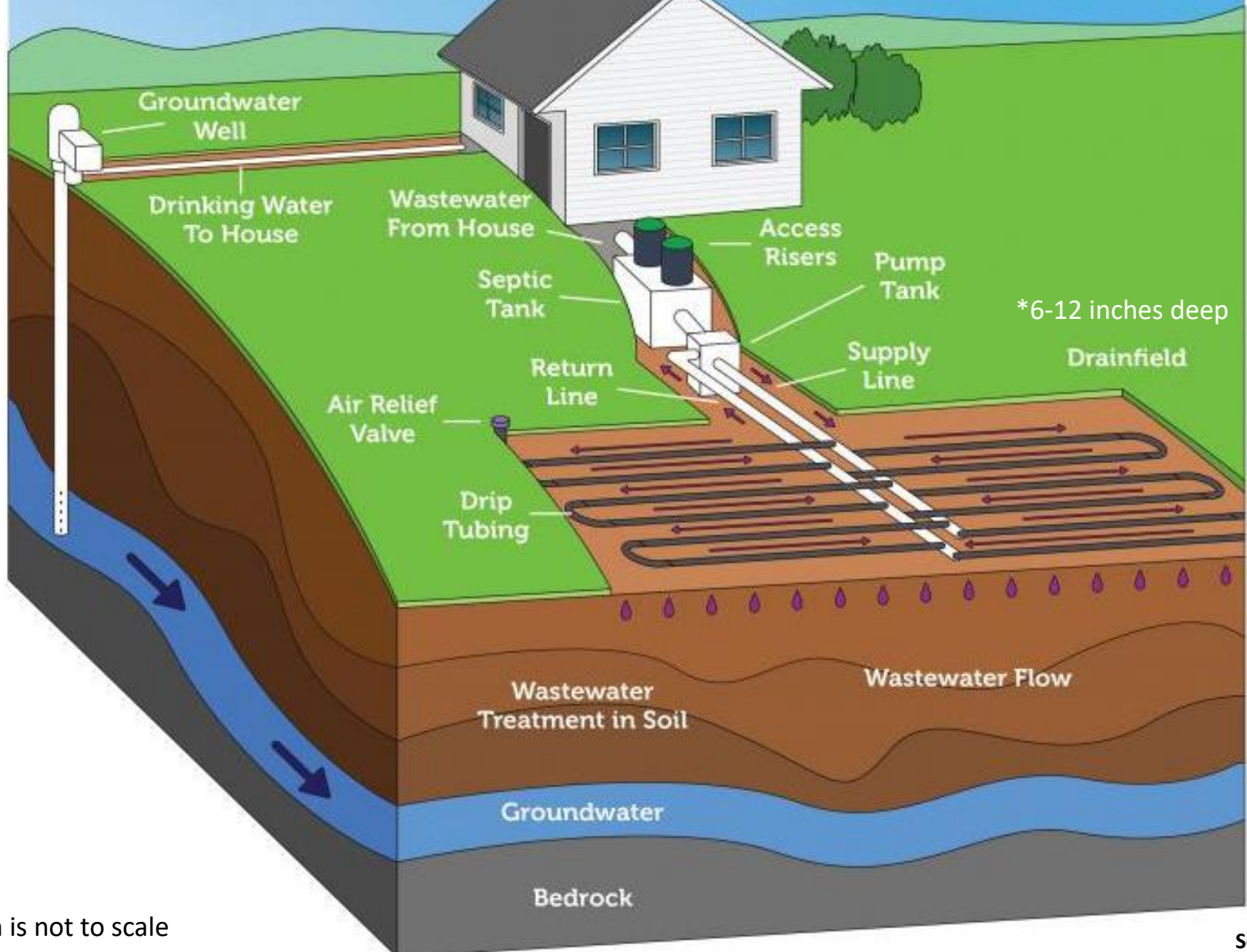


Diagram is not to scale

Source: EPA

What Are BAT Units?

- A Best Available Technology (BAT) septic unit is the best available technology for the removal of nitrogen and only replaces a septic tank as a component of a septic system
- These systems are required by MD law when systems in the critical area are replaced or upgraded. BATs may also be required outside of the critical area when site conditions are challenging
- The Bay Restoration Fund (BRF) grant program provides funding for installation of BAT systems with top priority given to failing systems in the critical area. Contact your county Health Dept. for application information



System Features and Landscaping Challenges



New BAT unit with electric supply



Elevated BAT Unit



Sand mound

Building Advisor.com



Drainfield inspection ports

Source: Onsite Installer

Landscaping Examples

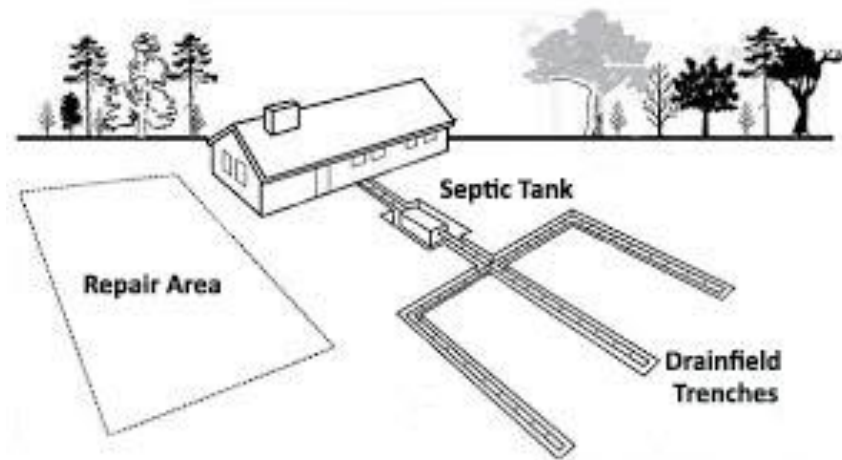
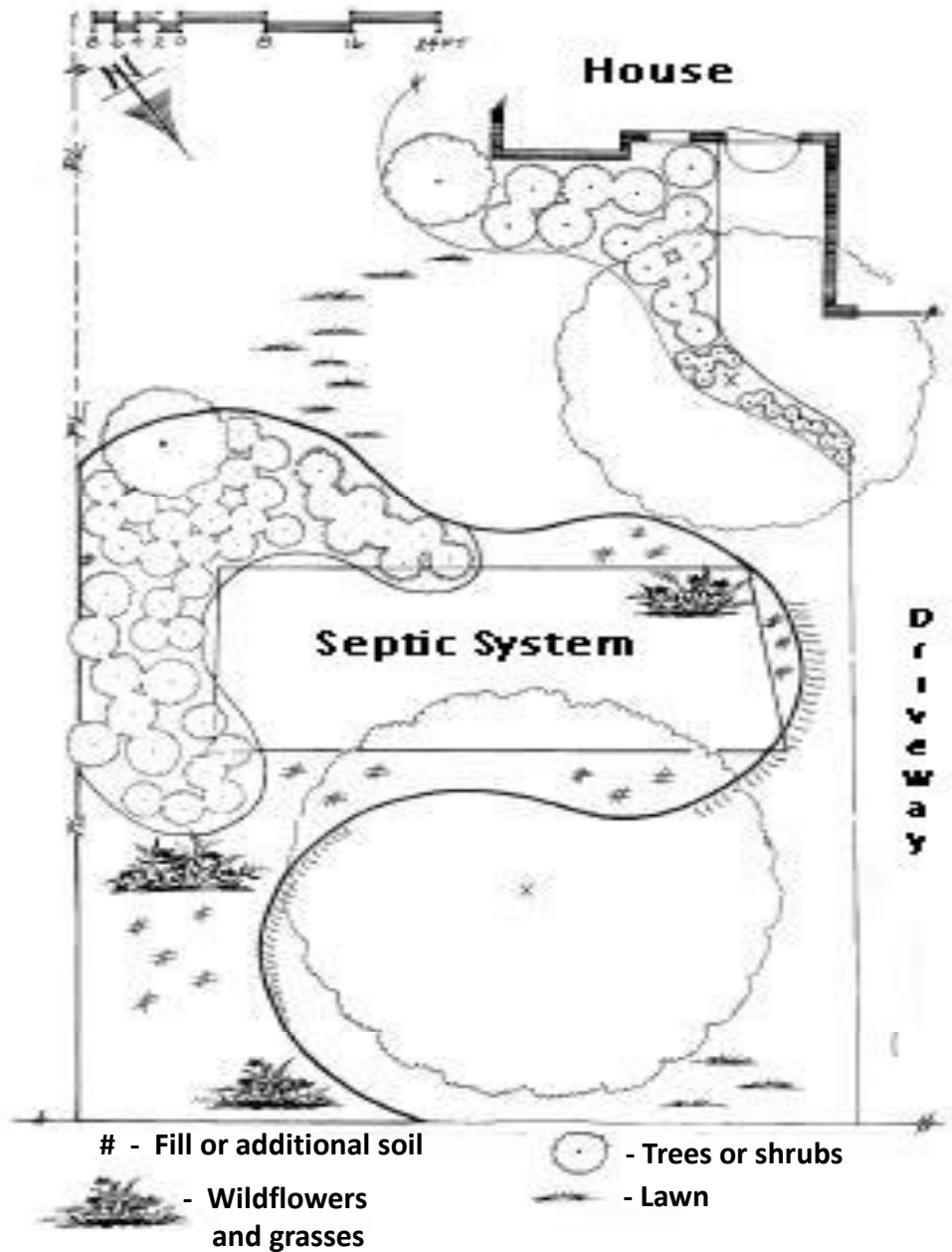


Landscape Examples – Possible Concerns

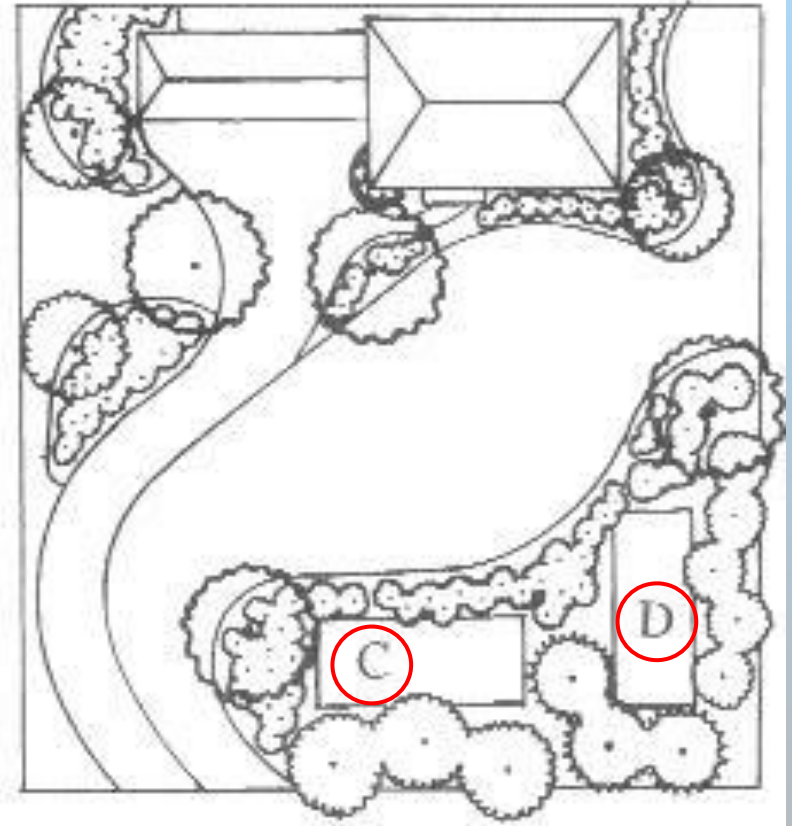
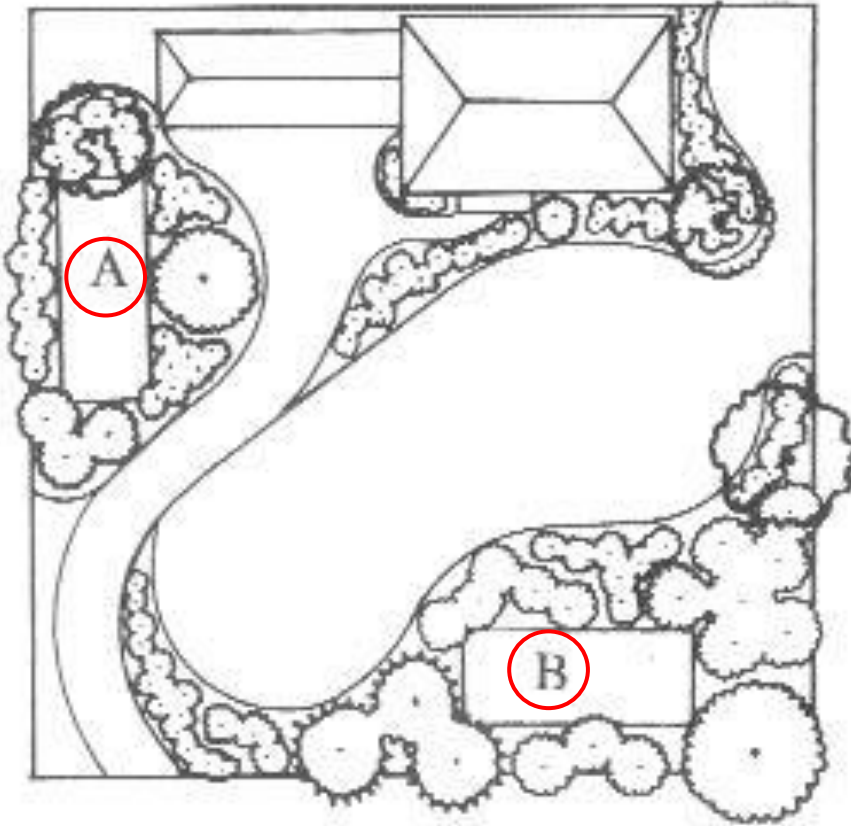
Trees/roots
on/near
mound?



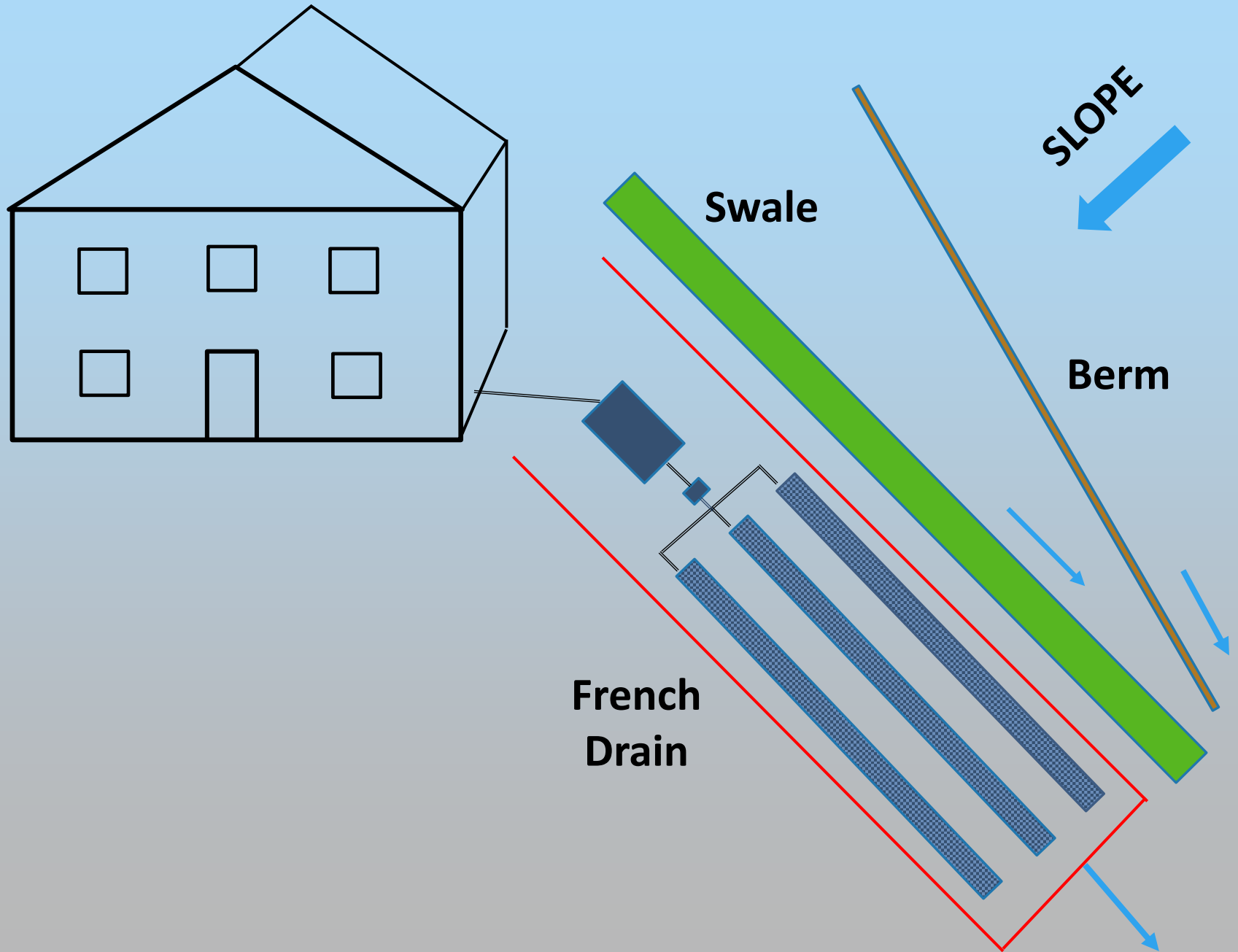
Septic Landscape Plan Example



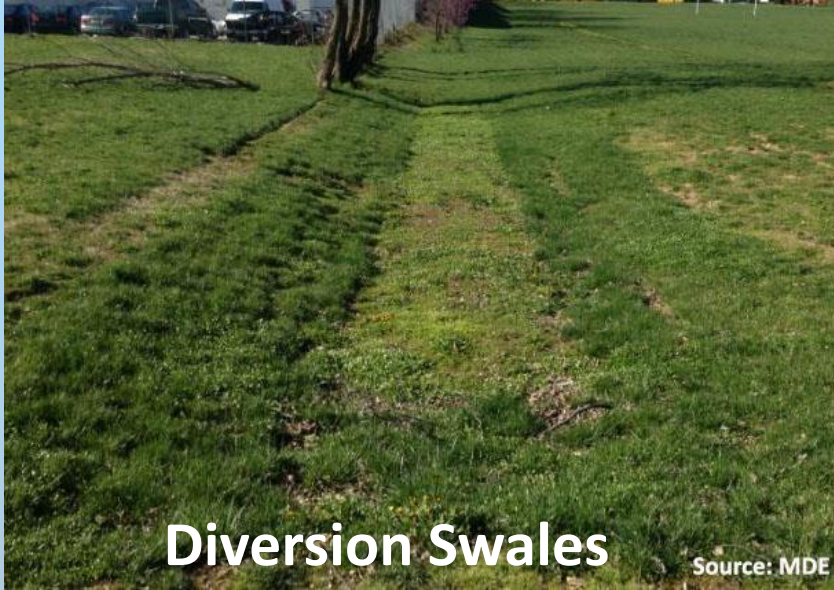
Example Locations for Mound System in Landscape



Stormwater Diversion/Landscape Considerations



Stormwater Diversion Features



Landscaped Berm

Tips for Landscaping Septic Systems



- Do not till drainfield before planting - lightly scarify surface only
- Slope water drainage away from tank and drainfield
- Establish grass or other acceptable shallow root vegetation on drainfield quickly to reduce erosion
- Leave ample access for service providers to pump and service tank/BAT system
- Do not drive over the drainfield (unless it is a compact track loader – no backhoes or tires!)
- Avoid planting trees near tank and drainfield (see list)
- Root barriers (planted deep) may help with some trees
- Consider lower maintenance plants with shallow or non-invasive roots*

Desirable Plant Species for Drainfields

Grasses:

Fescue

Lawn

Ornamental grasses -
sideoats grama

(*Bouteloua curtipendula*)

blue grama (*Bouteloua gracilis*)

little bluestem

(*Schizachyrium scoparium*)

prairie dropseed

(*Sporobolus heterolepis*)

June grass (*Koeleria macrantha*)



Grass-like:

Sedges (*Carex* spp.)

Sweet flag (*Acorus gramineus*)



Groundcovers for sun:

Carpet heathers (*Calluna Vulgaris*)

Moss Phlox (*P. subulata*)

Groundcovers for shade:

Bunchberry (*Cornus*)

Ferns, e.g. Christmas fern

Mosses

Pachysandra (not *P. terminalis*)

Sweet woodruff (*Galium
Odoratum*)

Wild ginger (*Asarum*)

Wintergreen (*Gaultheria*)

Wildflower meadow mixes

Plants for Dry Meadows

Beardtongue (*Penstemon digitalis*)-W

Bee balm (*Monarda didyma*)- W

Big bluestem (*Andropogon gerardii*)- G

Black-eyed susan (*Rudbeckia hirta*)- W

Blazingstar (*Liatris spicata*)- W

Canada wild rye (*Elymus canadensis*)- W

Common milkweed (*Asclepias syriaca*)- W

Butterflyweed (*Asclepias tuberosa*)- W

Evening primrose (*Oenothera biennis*)- W

Indian grass (*Sorghastrum nutans*)- G

Little bluestem (*Schizachyrium scoparium*)- G

New England aster (*Aster novae-angliae*)-W

New York ironweed (*Vernonia noveboracensis*)-W

Partridge pea (*Chamaecrista fasciculata*)- L

Purple coneflower (*Echinacea purpurea*)- W

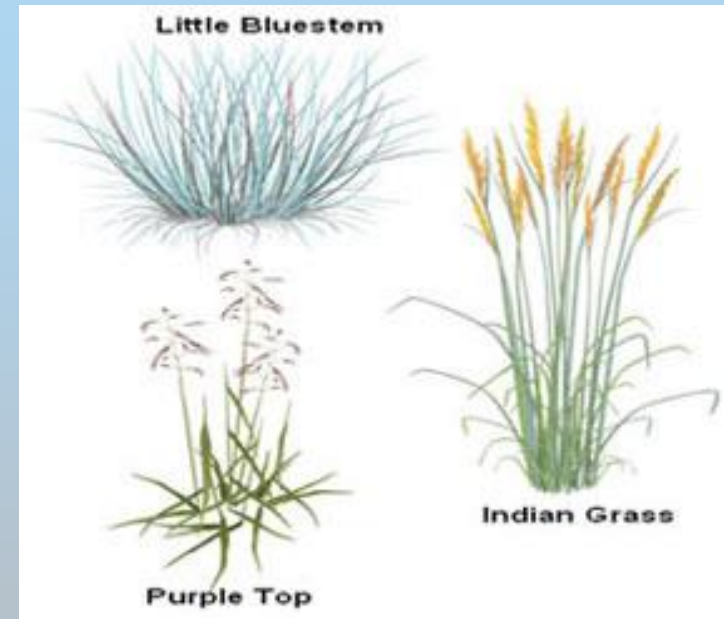
Purpletop (*Tridens flavus*)- G

Roundhead bush clover- (*Lespedeza capitata*)- L

Spotted beebalm (*Monarda punctata*)- W

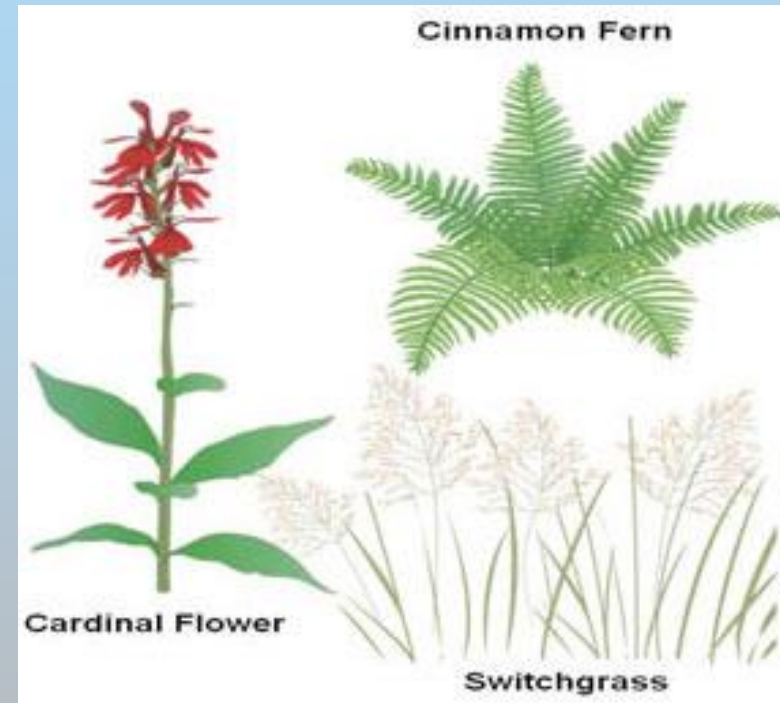
Sunflowers (*Helianthus annuus*) -W

Virginia wild rye (*Elymus virginicus*)- G



Plants for Wet Meadows

Cardinal flower (*Lobelia cardinalis*)- W
Cinnamon fern (*Osmunda cinnamomea*)- F
Eastern gamagrass (*Tripsacum dactyloides*)- G
Great blue lobelia (*Lobelia siphilitica*) - W
Joe Pyeweed (*Eupatorium dubium*)- W
Monkey flower (*Mimulus ringens*)- W
Rough goldenrod (*Solidago rugosa*)- W
Sensitive fern (*Onoclea sensibilis*) - F
Soft rush (*Juncus effusus*)- S
Switchgrass (*Panicum virgatum*)- G
Tall Meadow rue (*Thalictrum pubescens*)- W
Turk's cap lily (*Lilium superbum*)-W
Tussock sedge (*Carex stricta*)- S
White turtlehead (*Chelone glabra*)-S
Green-headed coneflower (*Rudbeckia laciniata*)- W



Selecting Trees for Planting Near Your Septic Drainfield

Not Recommended for Planting Near Drainfields

Beeches	Fagus spp.
Birches	Betula spp.
Elms	Ulmus spp.
Poplars	Populus spp.
Red Maple	Acer rubrum
Silver Maple	Acer saccharinum
Willows	Salix spp.
Oaks	Quercus spp.

Better Choices for Planting Near Drainfields (>25 feet)

Cherries	Prunus spp.
Crabapples	Malus spp.
Dogwoods	Cornus spp.
Hemlock	Tsuga spp.
Pines	Pinus spp.
Sourwood	Oxydendrum arboreum

Tips for Landscaping Septic Systems (continued)

- Mowing turf regularly increases evaporation from drainfield
- Don't mow when soil is wet to reduce/prevent compaction
- Do not cover drainfield with hard structure, fabric or plastic weed barriers or excessive mulch (soil needs to breathe)
- Don't plant a vegetable garden near system (only non-edible plants)
- Wear gloves when working over drainfield and near septic tank and practice sanitation
- Avoid irrigating area near tank and the drainfield

Septic System Resources

UME Well and Septic Education Program: <http://extension.umd.edu/well-and-septic>

County Health Dept. Contacts: <http://extension.umd.edu/well-and-septic/county-contacts>

Maryland Dept. of Environment – Onsite Systems Division:
<https://mde.maryland.gov/programs/Water/BayRestorationFund/OnsiteDisposalSystems/Pages/OnsiteSystems.aspx>

EPA Septic Smart: <https://www.epa.gov/septic>

Factsheets:

<http://www.clemson.edu/extension/hgic/plants/pdf/hgic1726.pdf>

<https://pubs.ext.vt.edu/426/426-617/426-617.html>

Andy Lazur (lazur@umd.edu)