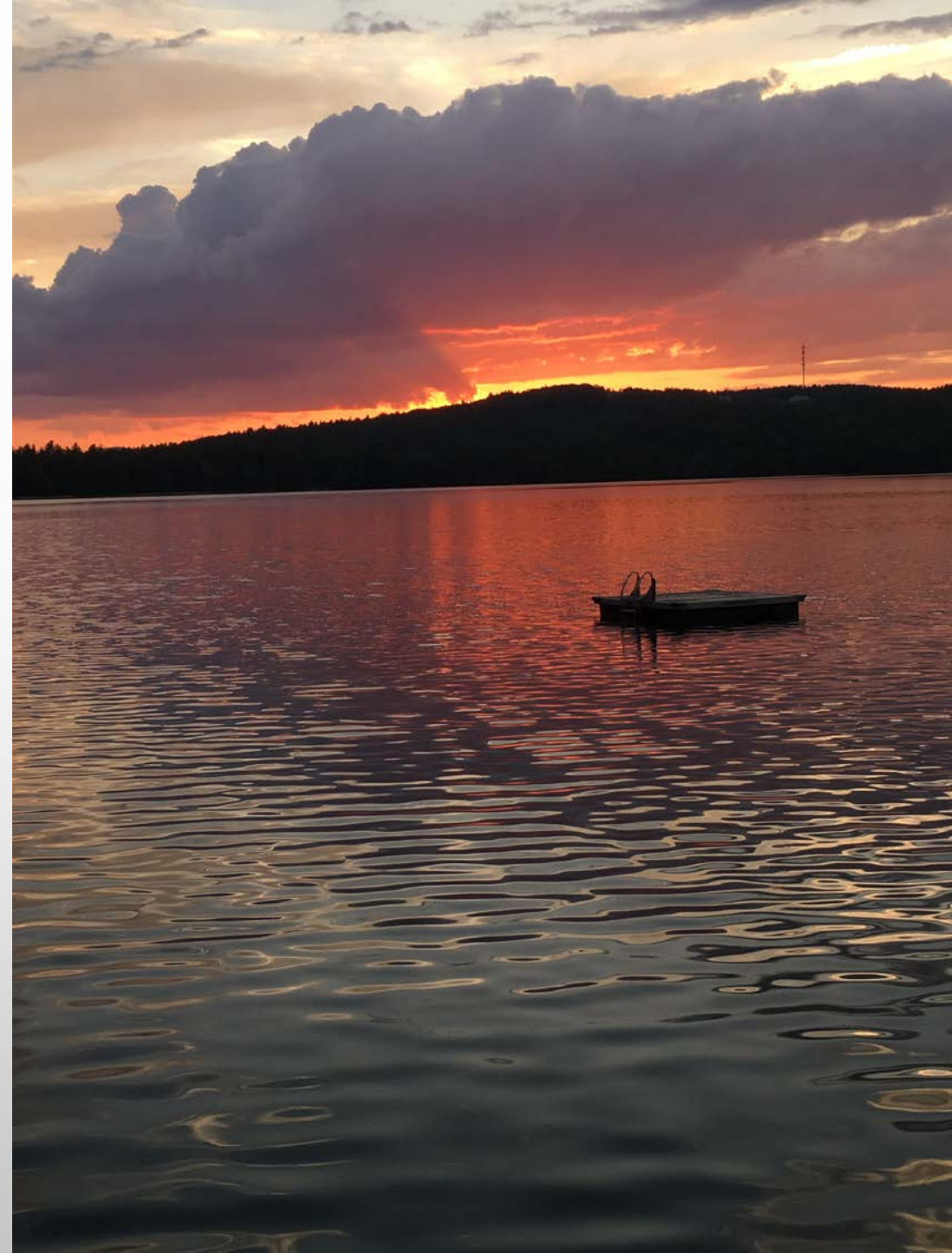





# SHORELAND PLANTINGS

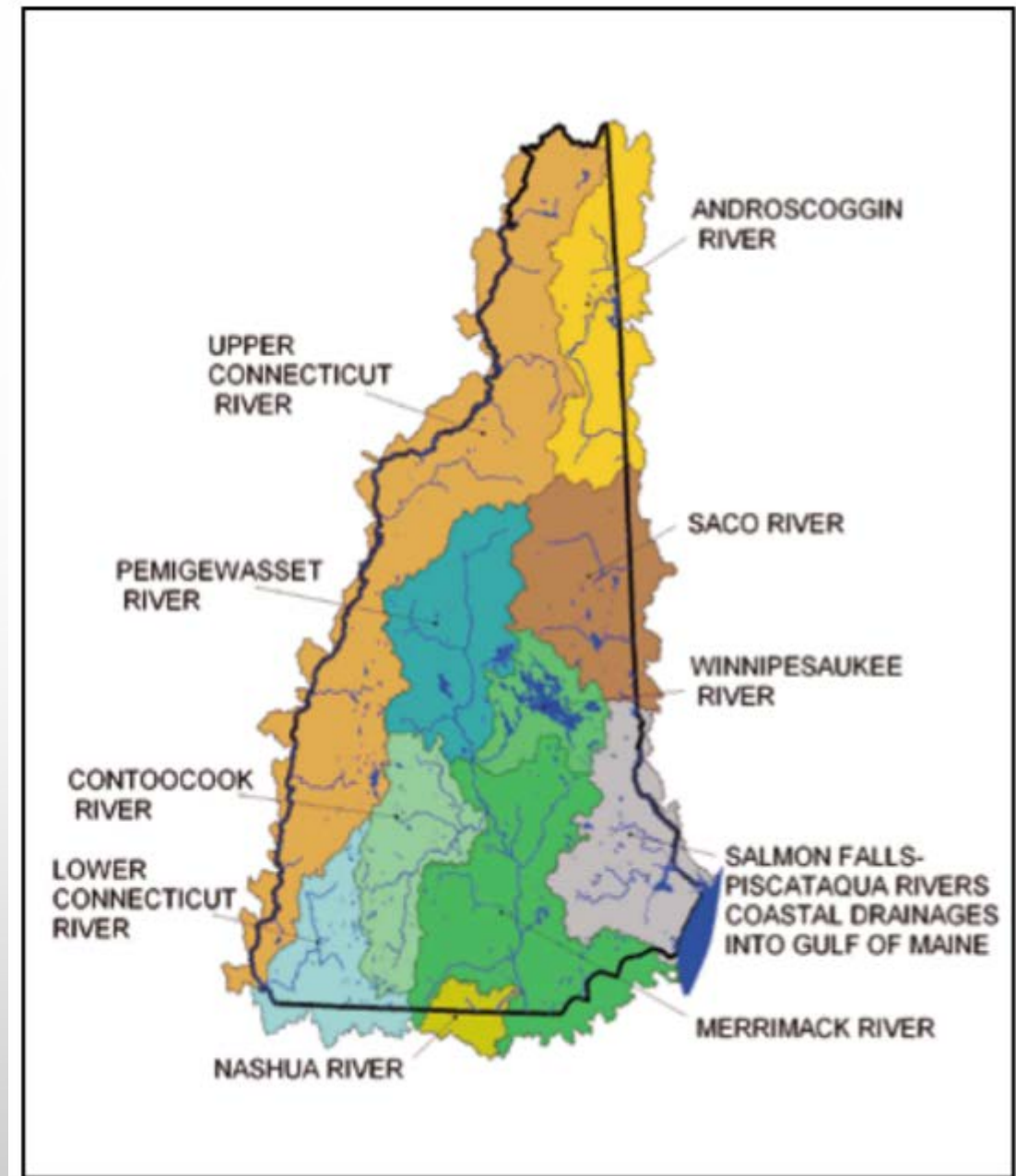
OR...THE LIFE AND TIMES  
OF A PRAGMATIC WATER  
DROPLET.



# Follow the path of least resistance

Examining water flows within your watershed.

Envision your property and think of the water droplet on the move from roof to lake.



# Hitchhikers

Oils & asphalt.

Salts, sand, detergents.

Fertilizers & pesticides.

Scat.

Particles of soil & sediment.



# Soil & Sediment

Each particle of soil carries naturally occurring minerals and also human-applied salts and chemicals.



Landscaping at the Water's Edge – Copyright UNH Cooperative Extension 2007 – used by permission.



# Runoff

As the individual water droplets coalesce, they pick up speed and follow the path of least resistance.

All of this baggage is carried into the lake.



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# Runoff

Runoff potential increases  
when...

- Slope increases ↗
- Permeability decreases ↘





# Permeability

Dependent on the physical characteristics of the soil.

Sand, Silt, Clay

Texture, tilth, aggregation,  
structure

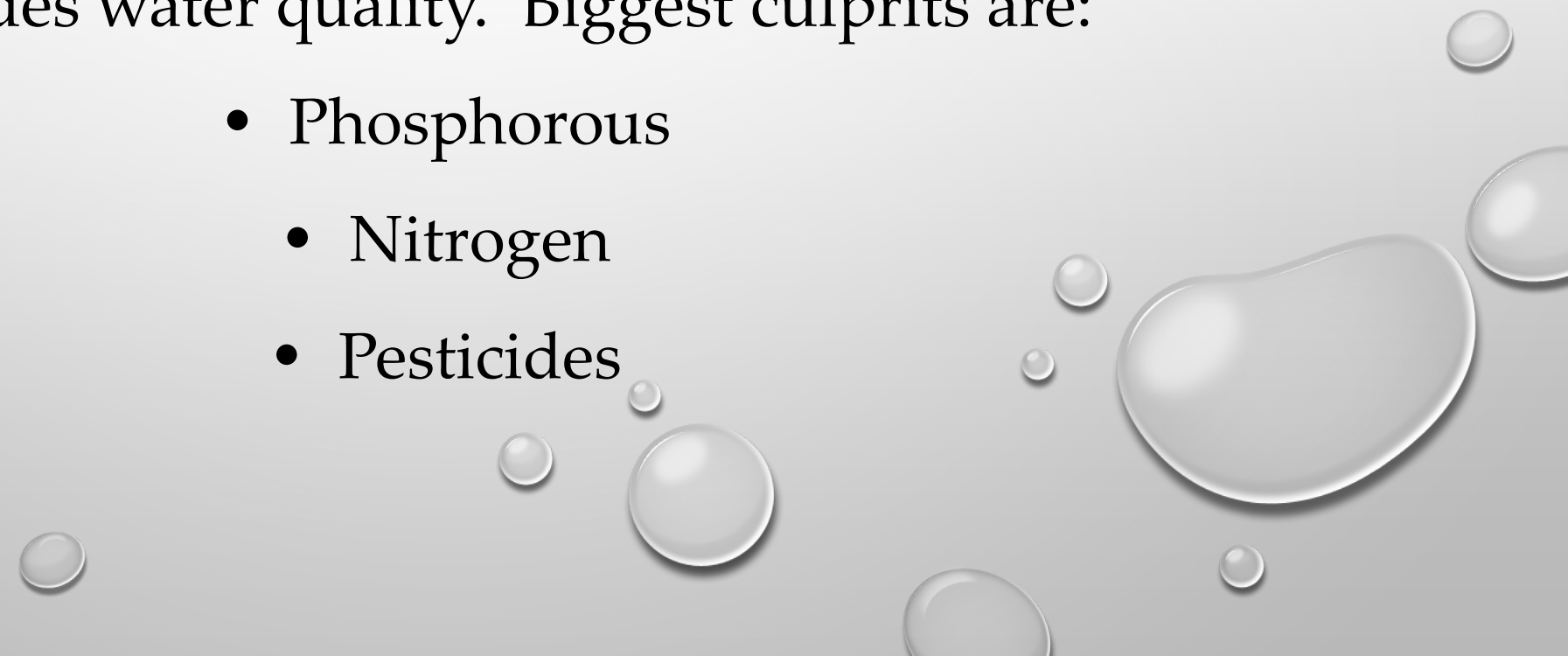




# Non point source pollution

Resulting from runoff.

Degrades water quality. Biggest culprits are:

- Phosphorous
  - Nitrogen
  - Pesticides
- 



# Other life options for the water droplet.

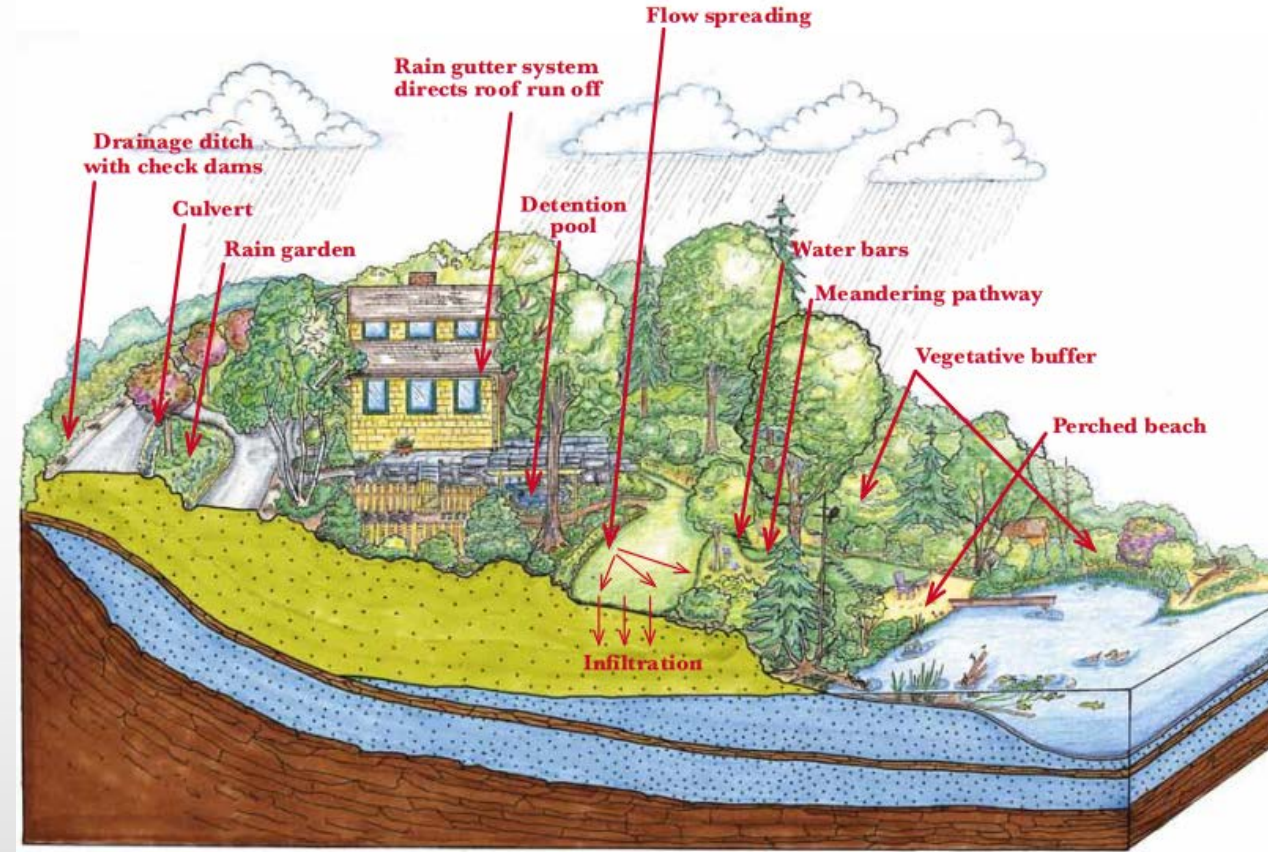
- Evaporation
- Infiltration
- Transpiration
  - Runoff



# Path of least resistance.

We can install roadblocks to runoff.

- Berm
- Check Dam
- Cut In
- Infiltration Trench
- Plunge Pool
- Rain Garden
- Swale
- Vegetative Buffer
- Water bar



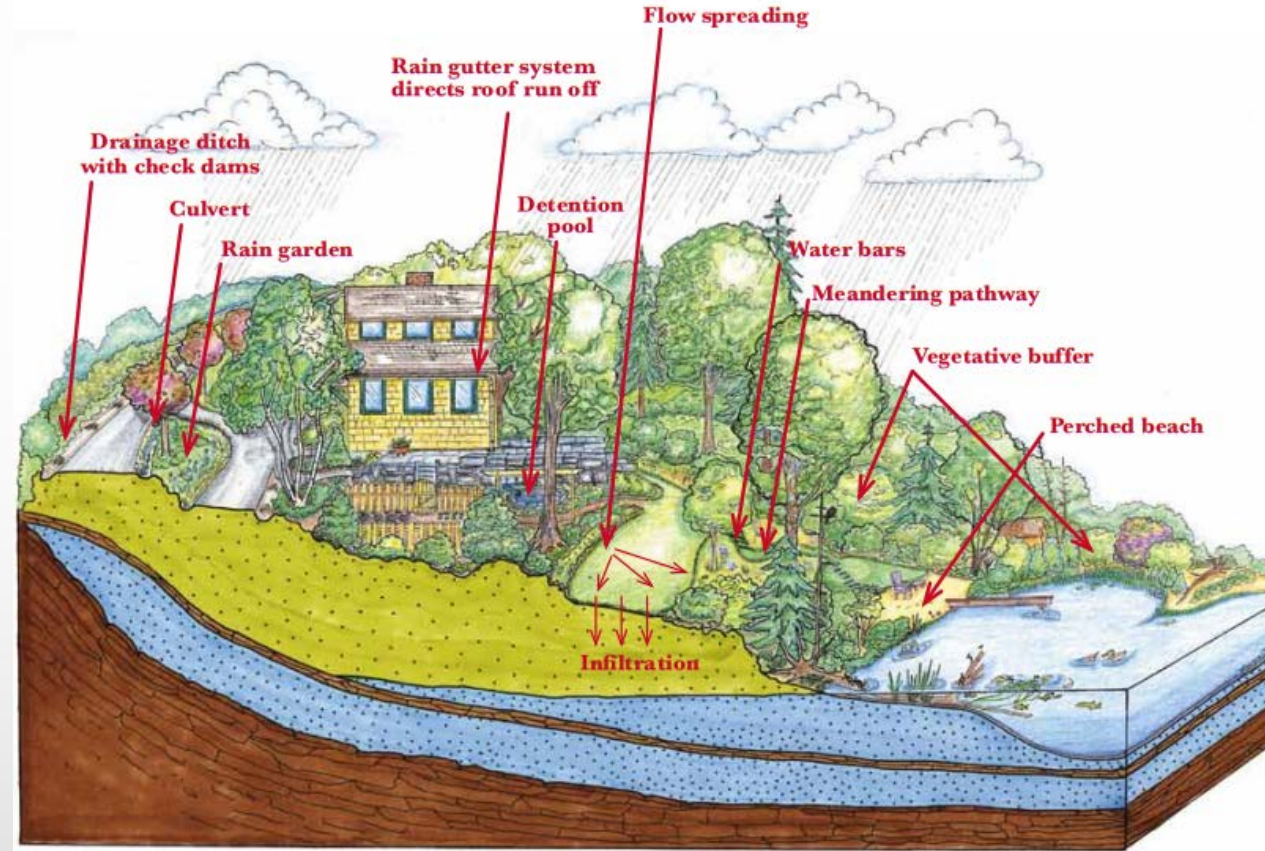
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# Path of least resistance.

We can install roadblocks to runoff.

- Berm
- Check Dam
- Cut In
- Infiltration Trench
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# Vegetative Buffer Shoreland Plantings

Plant roadblocks to slow down  
and stop runoff into our lakes.  
Change up the path of least  
resistance.





# Covering the soil.

- Plant canopies.
  - Mulch.



Figure 4-4a.

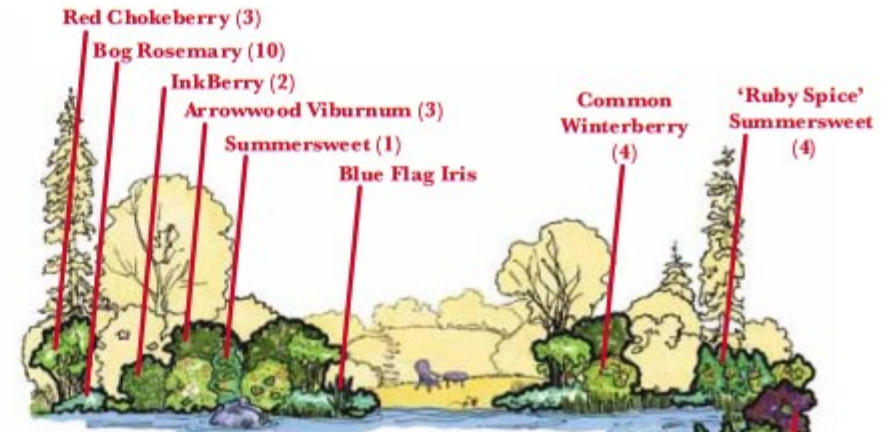
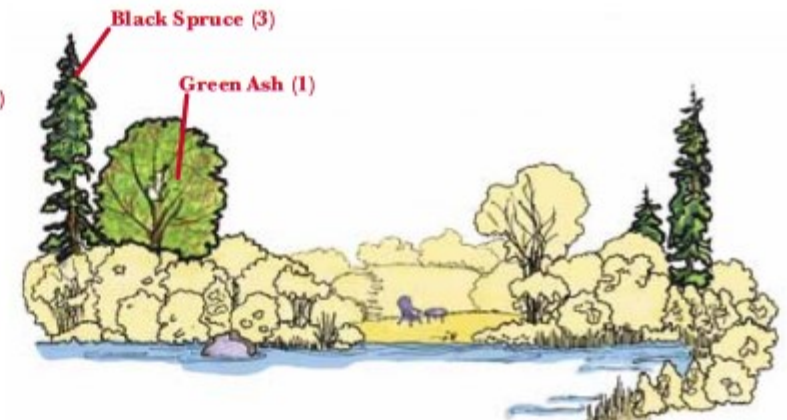
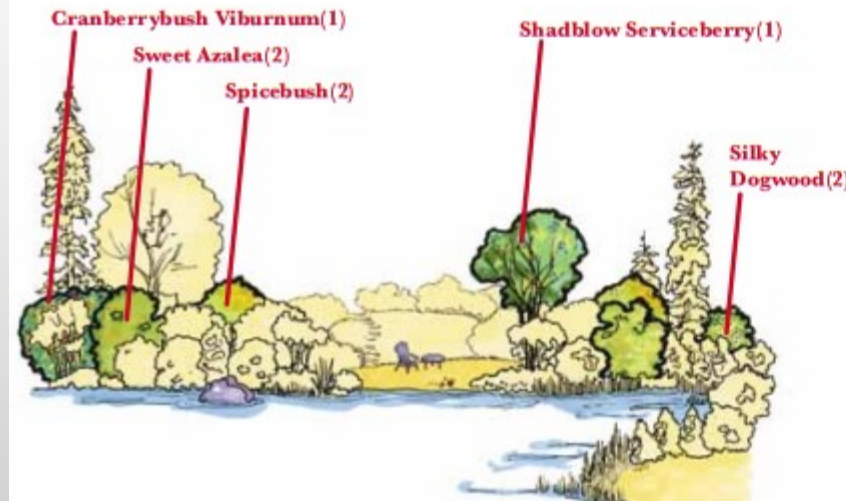


Figure 4-4b. Groundcovers and shrubs under ten feet mature height.



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# Plants!

- They look great.
- Add value to your property.
- Provide food and shelter for wildlife.
- Breathe in carbon and breathe out oxygen.
  - They slow down runoff.





# Vegetative buffers

- Blueberries
- Viburnum
- Winterberry
  - Ferns
- Summersweet
- Blue Flag Iris
- Sedges



*Ilex verticillata* - Winterberry

# Vegetative buffers

- Blueberries
- Viburnum
- Winterberry
- Ferns
- Summersweet
- Blue Flag Iris
- Sedges



Northern lady fern  
Marginal wood fern  
Ostrich fern  
Sensitive fern  
Interrupted fern  
Royal fern  
Cinnamon fern



# Vegetative buffers

- Blueberries
- Viburnum
- Winterberry
- Ferns
- Summersweet
- Blue Flag Iris
- Sedges



*Clethra alnifolia* -  
Summersweet



# Vegetative buffers

- Blueberries
- Viburnum
- Winterberry
  - Ferns
- Summersweet
- Blue Flag Iris
  - Sedges
- Bearberry
- Shadblow serviceberry
- Silky Dogwood
- Spicebush
- Sweet azalea
- Elderberry



*Arctostaphylos  
uva-ursi*  
Bearberry

# Vegetative buffers

- Blueberries
- Viburnum
- Winterberry
  - Ferns
- Summersweet
- Blue Flag Iris
  - Sedges
- Bearberry
- Shadblow serviceberry
- Silky Dogwood
- Spicebush
- Sweet azalea
- Elderberry



*Cornus  
canadensis*  
Bunchberry

# Vegetative buffers

- Blueberries
- Viburnum
- Winterberry
  - Ferns
- Summersweet
- Blue Flag Iris
  - Sedges
- Bearberry
- Shadblow serviceberry
- Silky Dogwood
- Spicebush
- Sweet azalea
- Elderberry



*Gaultheria*  
Wintergreen



# Vegetative buffers

- Blueberries
- Viburnum
- Winterberry
  - Ferns
- Summersweet
- Blue Flag Iris
  - Sedges
- Bearberry
- Shadblow serviceberry
- Silky Dogwood
- Spicebush
- Sweet azalea
- Elderberry



*Amelanchier*  
Shadblow  
serviceberry



# Vegetative buffers

- Blueberries
- Viburnum
- Winterberry
  - Ferns
- Summersweet
- Blue Flag Iris
  - Sedges
- Bearberry
- Shadblow serviceberry
- Silky Dogwood
- Spicebush
- Sweet azalea
- Elderberry



*Vaccinium sp.*  
Blueberry



# RSA 483-B

Comprehensive Shoreland Protection Act.

No removal of any natural groundcover  
within 50 feet of the shore.

[www.des.nh.gov/cspa](http://www.des.nh.gov/cspa)





# Planting

Small disturbance as possible.

No fertilizers or pesticides.

Mulch well after planting.





## Rain Garden

A rain garden is a depression in the ground vegetated with water-loving plant species.

[https://extension.unh.edu/resources/files/resource007271\\_REP10480.PDF](https://extension.unh.edu/resources/files/resource007271_REP10480.PDF)



Soak up the rain NH  
Rain garden slideshow.

[https://extension.unh.edu/resources/files/resource007270\\_REP10479.PDF](https://extension.unh.edu/resources/files/resource007270_REP10479.PDF)

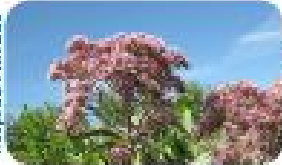




















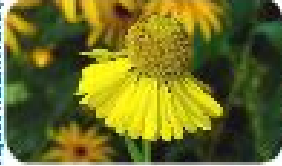










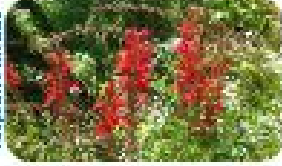






# Rain Garden

## Guide to

rain garden plants.

Soak up the Rain NH  
website.

<https://www4.des.state.nh.us/soaknh/lan/dscaper/>

Scientific Name Common Name		Rain Garden Zone			Soil Moisture	Light Exposure	Bloom Period & Color						Mature Size		USDA Hardiness Zone	Attractive to:
		Base	Slope	Berm			May	June	July	Aug	Sept	Oct	Height (feet)	Spread (feet)		
PERENNIALS																
	<i>Eutrochium</i> (formerly <i>Eupatorium</i> ) <i>purpureum</i> Sweet Joe Pye weed	•											3-6'	3'	3-8	
	<i>Gentiana clausa</i> Closed gentian or Meadow bottle gentian	•											1-3'	1-2'	3-8	
	<i>Geranium maculatum</i> Spotted crane's bill			•									1'	1-1.5'	4-8	
	<i>Helenium autumnale</i> Common sneezeweed	•											2-5'	3'	3-8	
	<i>Iris versicolor</i> Blue iris or Blue flag	•											2-3'	2-3'	2-7	
	<i>Lobelia cardinalis</i> Cardinal flower	•											2-4'	2'	3-8	



# Shoreland Plantings

Thanks for listening.

