

Saving our wild areas
- one yard at a time

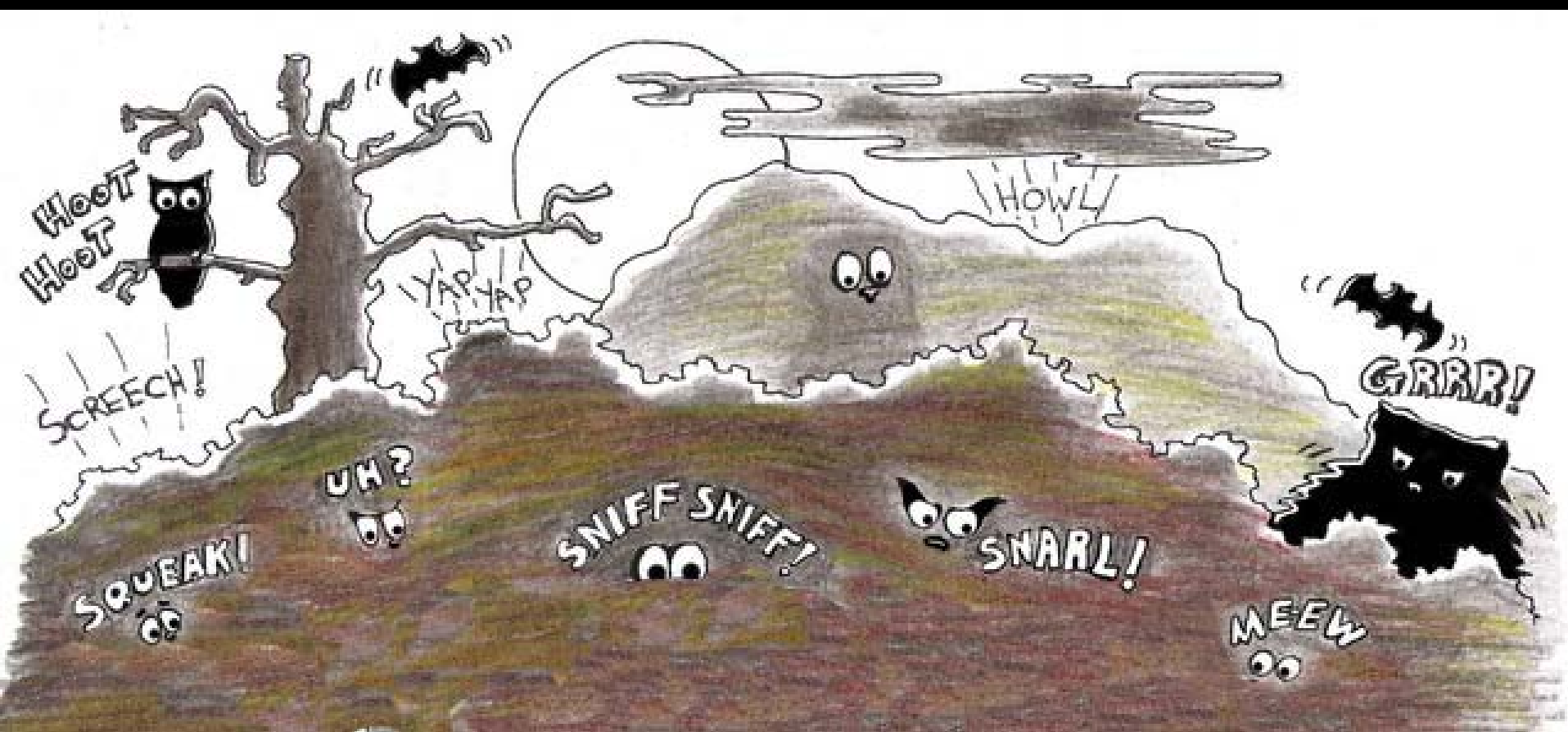


*A member of
The Children's Museum Family*









Hoot
Hoot

YAP
YAP

SCREECH!

UH?
[eyes]

SQUEAK!
[eyes]

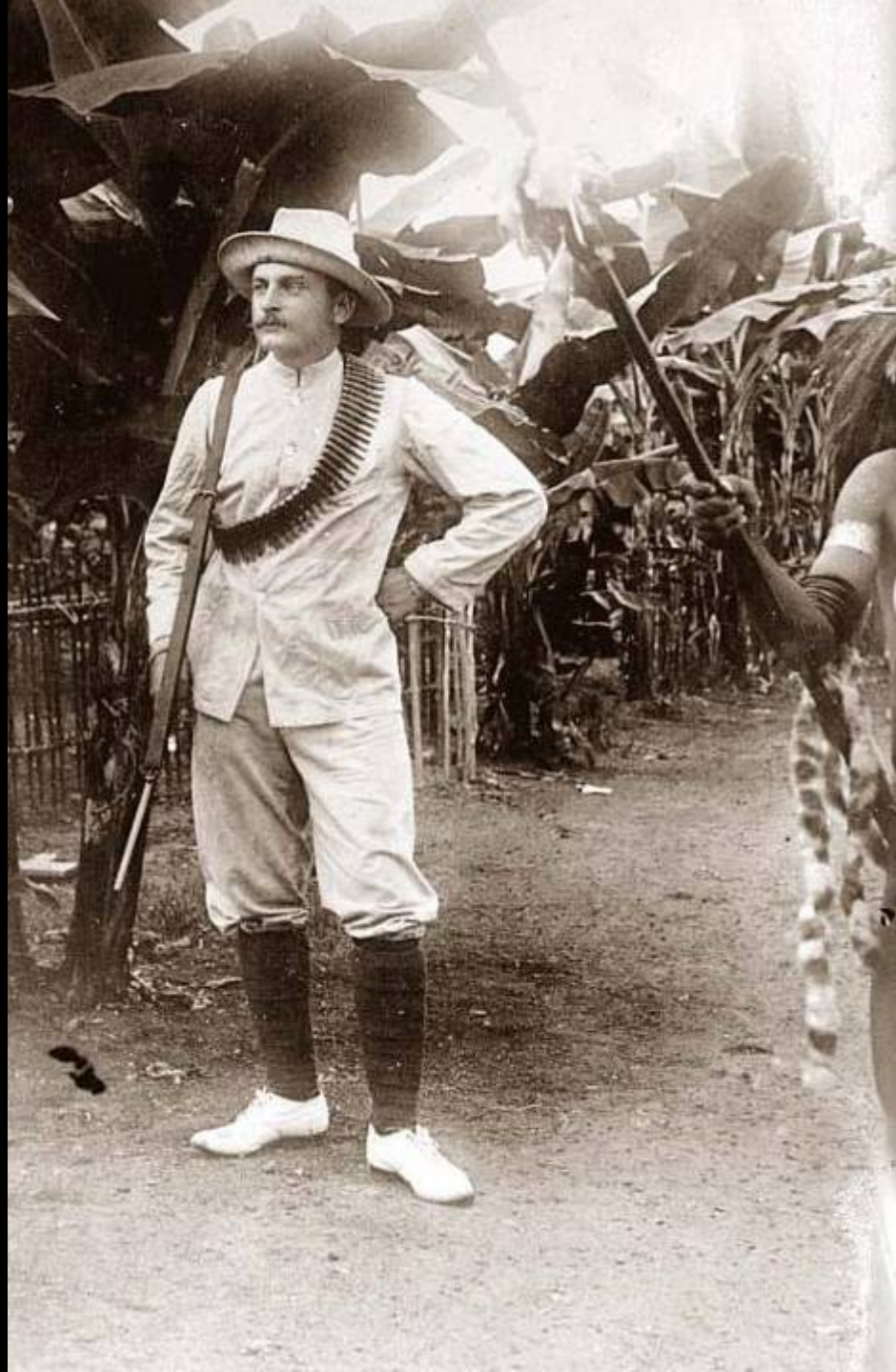
SNIFF SNIFF!
[eyes]

SNARL!
[eyes]

MEOW
[eyes]

GRRR!
[eyes]

HOWL



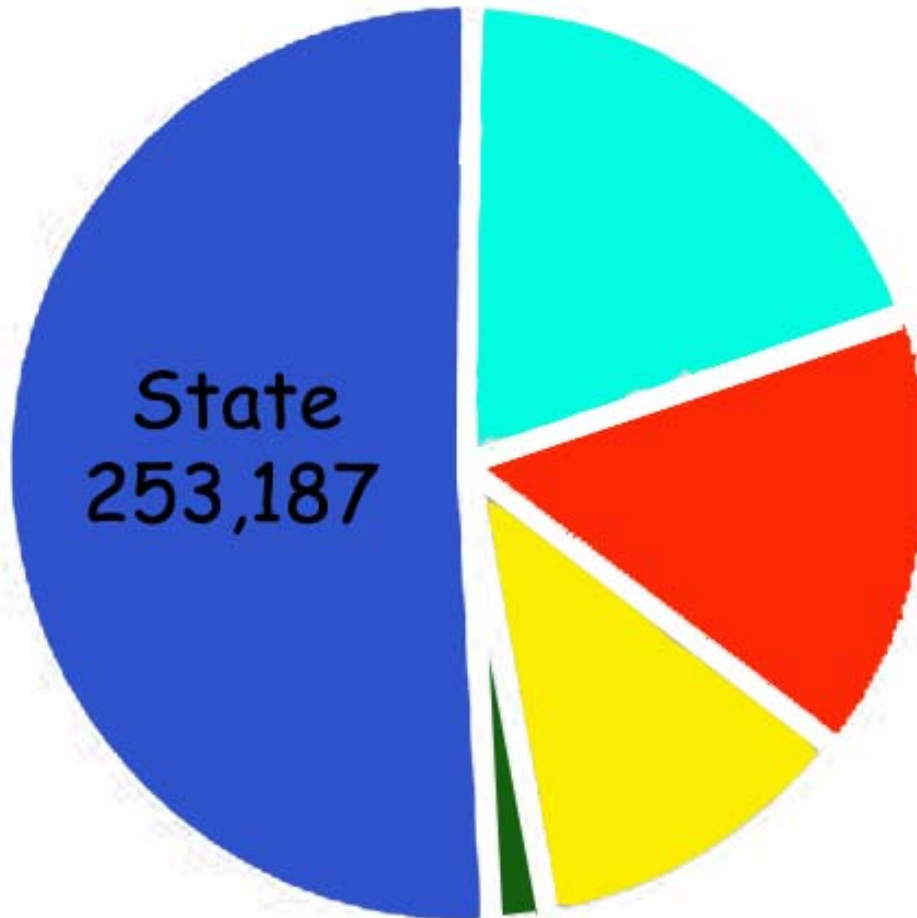
Nature Trail







Acres of Preserved Land by Ownership



Federal 10,000

**The Connecticut
Green Plan Goal
21% Open Space
by 2023**

CEQ - 2008 Report

Macricostas Preserve Meadow in Washington, CT Steep Rock Land Trust

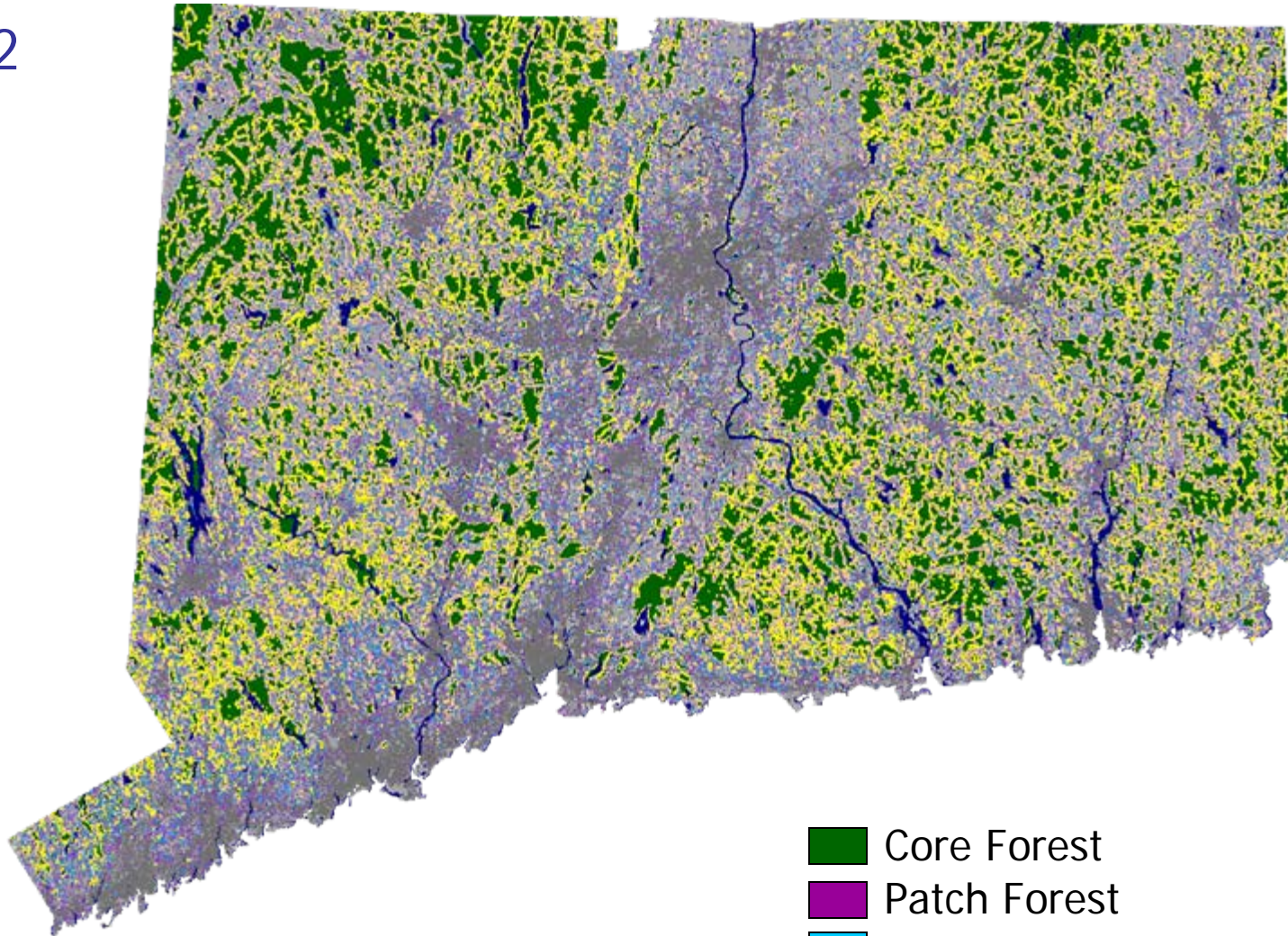


94 Land Trusts in Connecticut

Is 21% open space enough?

Forest Fragmentation

2002



www.clear.uconn.edu

- Core Forest
- Patch Forest
- Transitional Forest
- Perforated Forest
- Edge Forest

**Connecticut's
Endangered, Threatened
and
Special Concern Species
2004**



State of Connecticut
Department of Environmental Protection
2004

- 600 listed species
- Grassland species
 - Thicket species
 - Wetland species



Developed
landscape
25%

LAND COVER

- Developed
- Turf & Grass
- Other Grass
- Agricultural Field
- Deciduous Forest
- Coniferous Forest
- Water
- Non-forested Wetland
- Forested Wetland
- Tidal Wetland
- Barren
- Utility (Forest)

2006 land use map
CLEAR



Noé Conservation

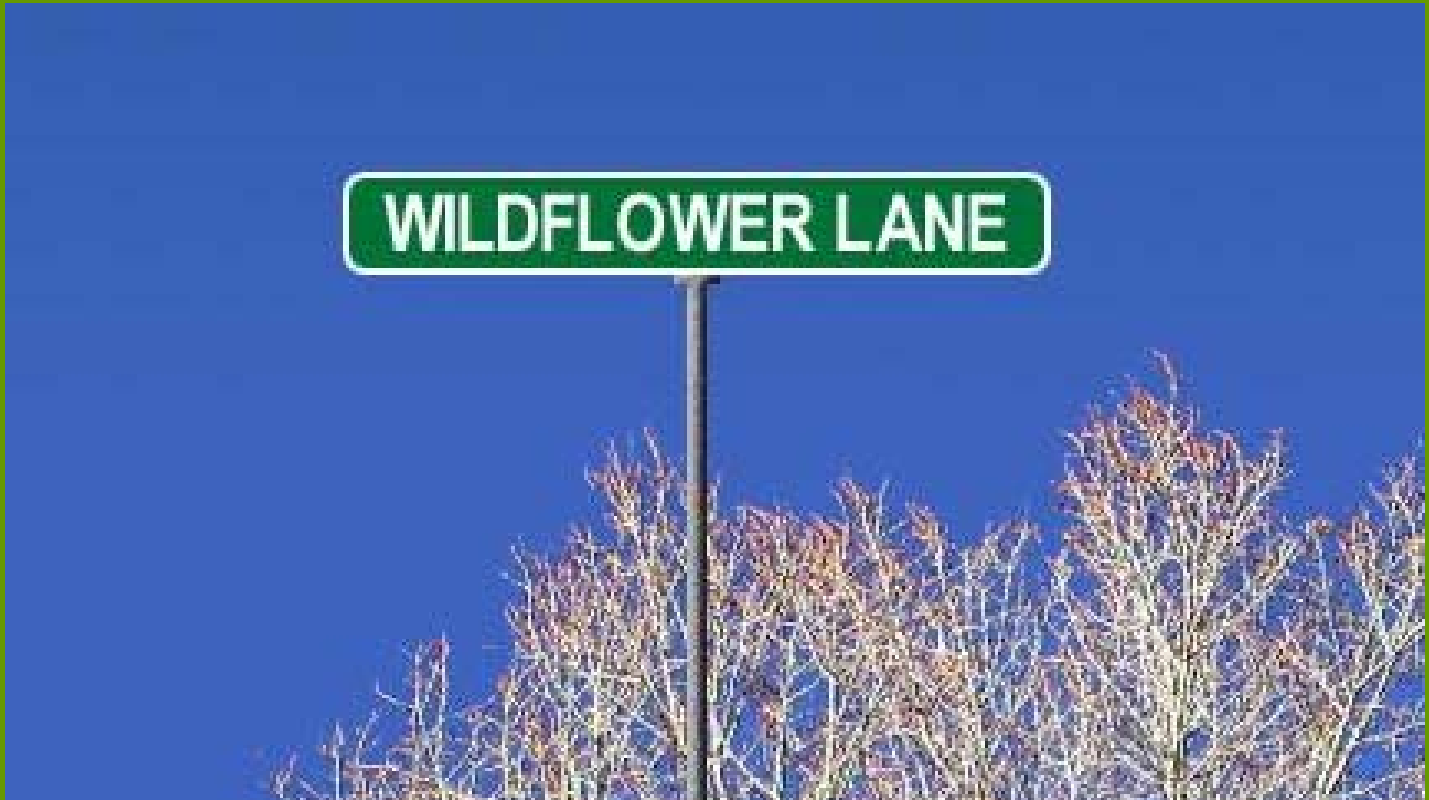
France has 13 million gardeners
and four times more acres of gardens
than nature preserves



Peacock butterfly
on brambles

Caterpillars
on nettles





We like the concept of nature









Bear feeder?



Bird-proof
squirrel feeder?

Biodiversity



But is this
really
biodiversity?





Butterfly bush
- Nectar source only



Milkweeds

- Nectar source for adults
- host plant for caterpillars



500,000 to 1.2 million
tons of birdseed
purchased annually
in the US











Organic
CANADIAN SPHAGNUM

PEAT MOSS

All Natural Solution

Lawns, Flower Beds, Compost Beds,
Edges of Meadows and Vegetable Gardens



5.5 cubic feet 155 liters

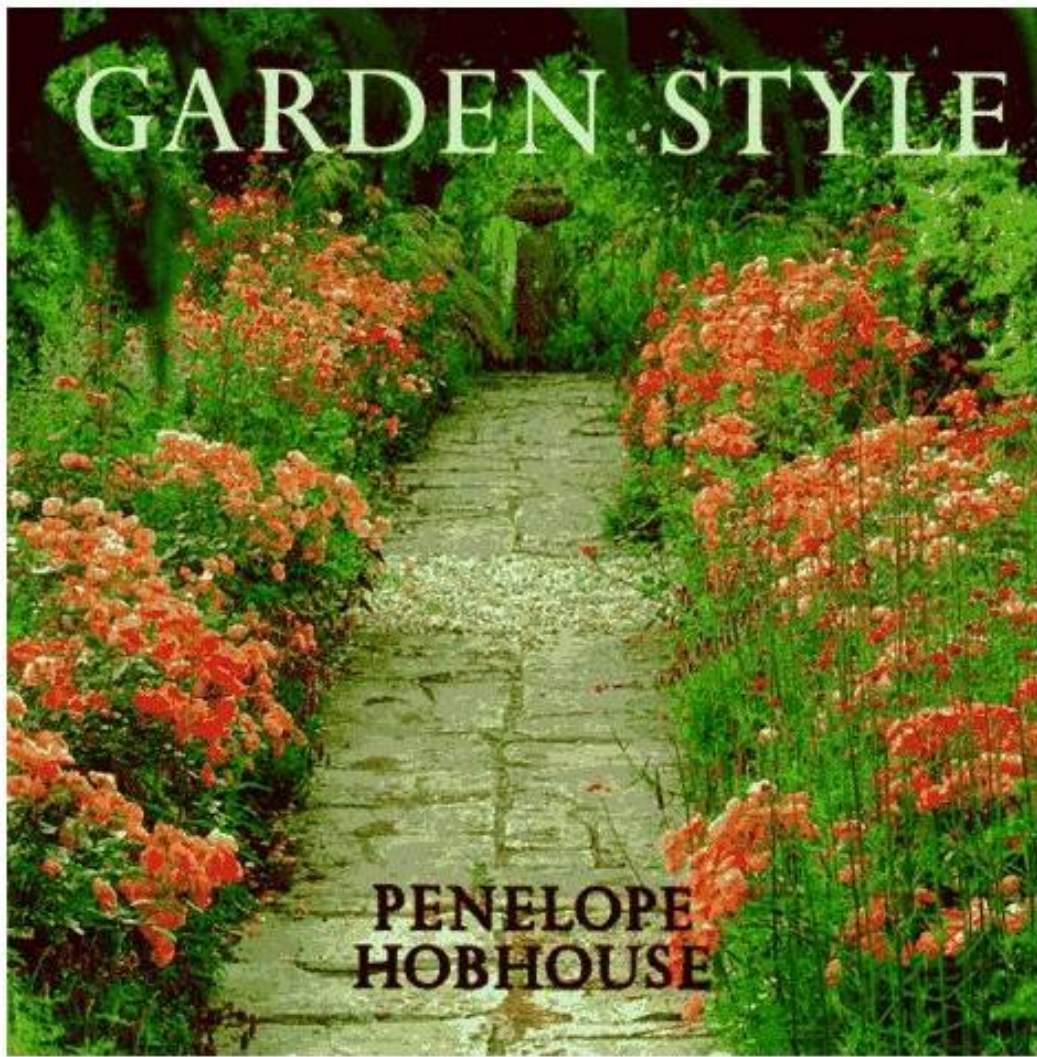








GARDEN STYLE



**PENELOPE
HOBHOUSE**



Versailles



Victorian gardens

City Beautiful Movement



*"A good
Lawn builds
Morale"*



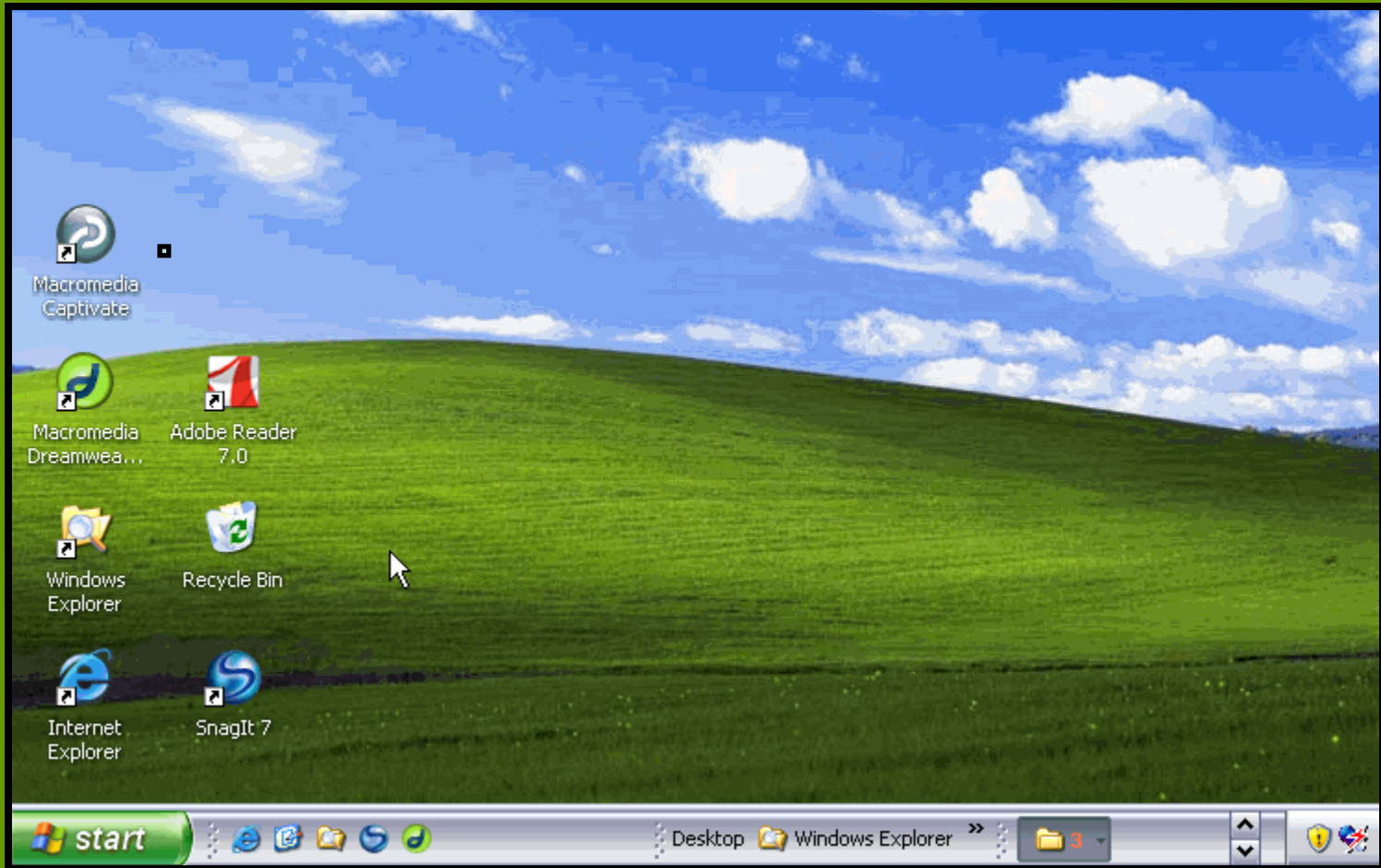
OUTDOOR LIVING
REQUIRES A SEED
MIXTURE ADAPTED TO
YOUR GROWING CONDITIONS

Your local Woodruff dealer carries
the mixture adapted to your local
soil and climate requirements. High
content of perennial grasses for
permanent, weed-deterrent growth.

ASK FOR

WOODRUFF
Adapted LAWN Seed
F. H. WOODRUFF & SONS, Inc., MILFORD, CONN.





Lawn is the "Default"
Landscape Setting



Source: CLEAR



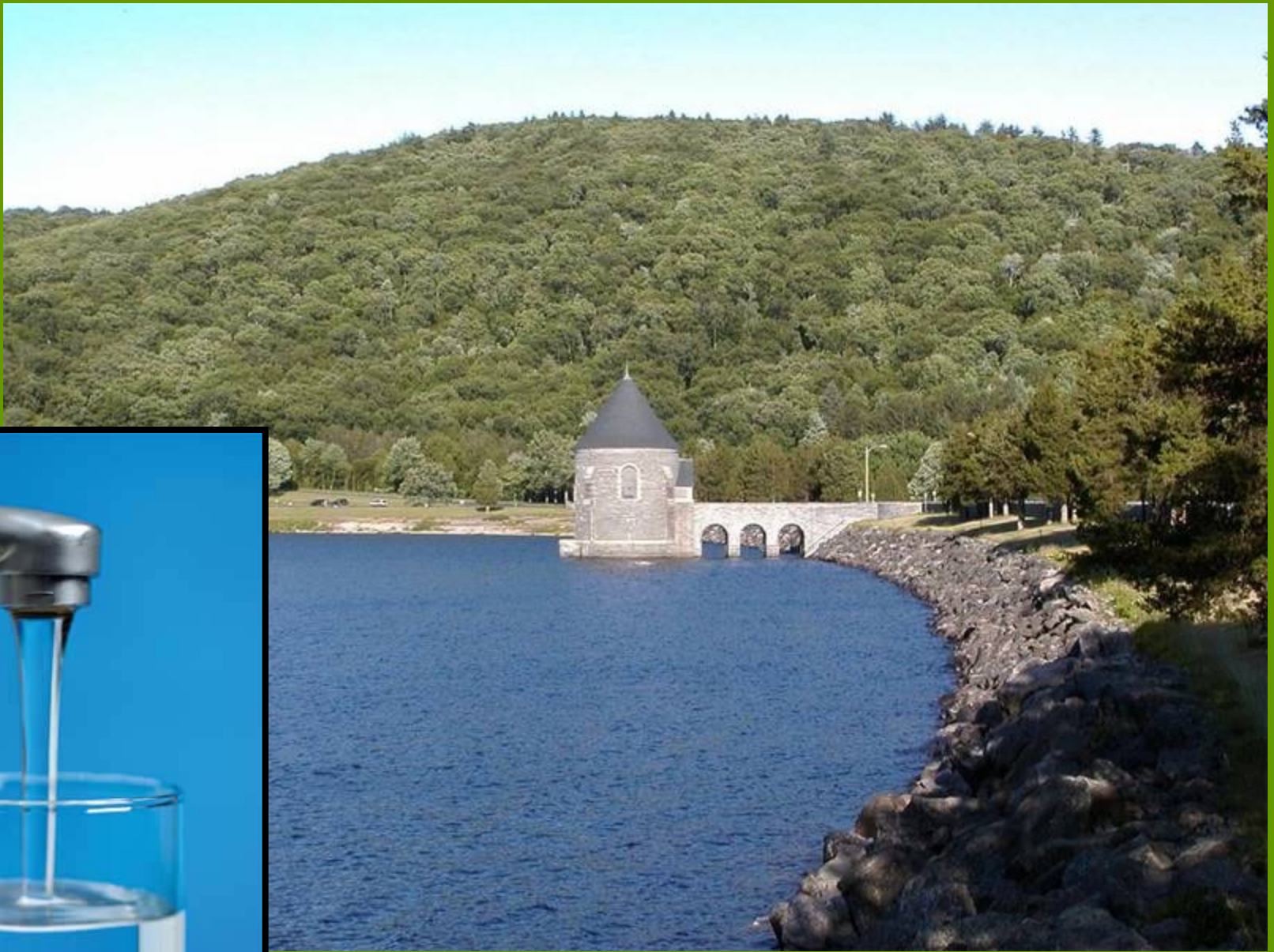
Source: CLEAR



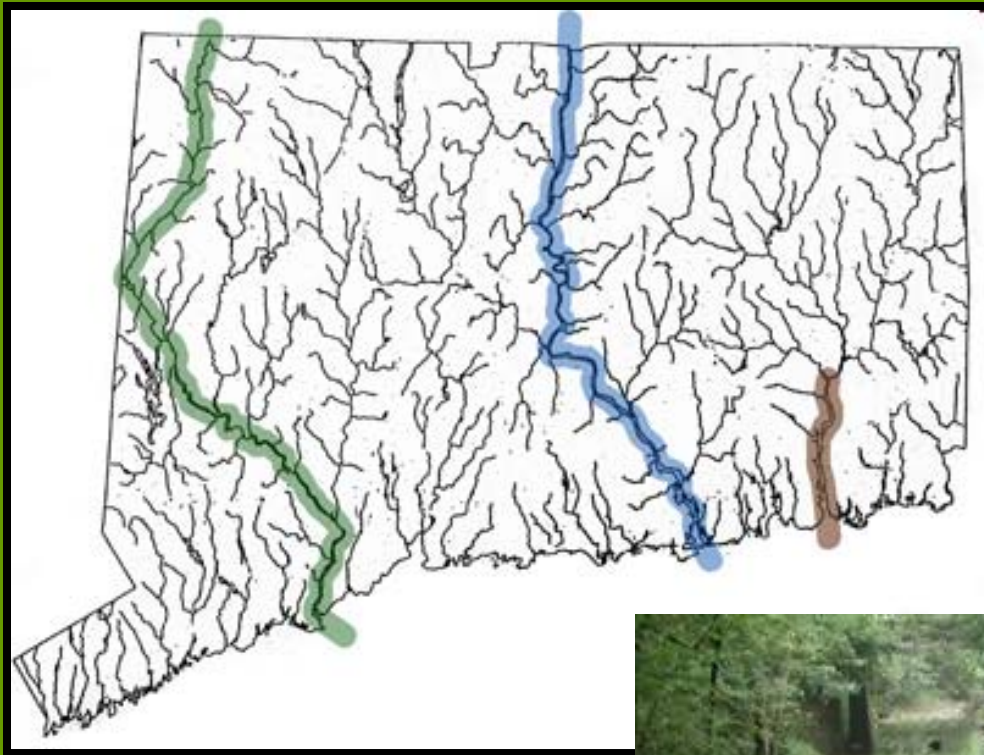


**60% of US drinking water
used to water lawns**

**In some CT towns,
summer water use is 5 times
winter water use**



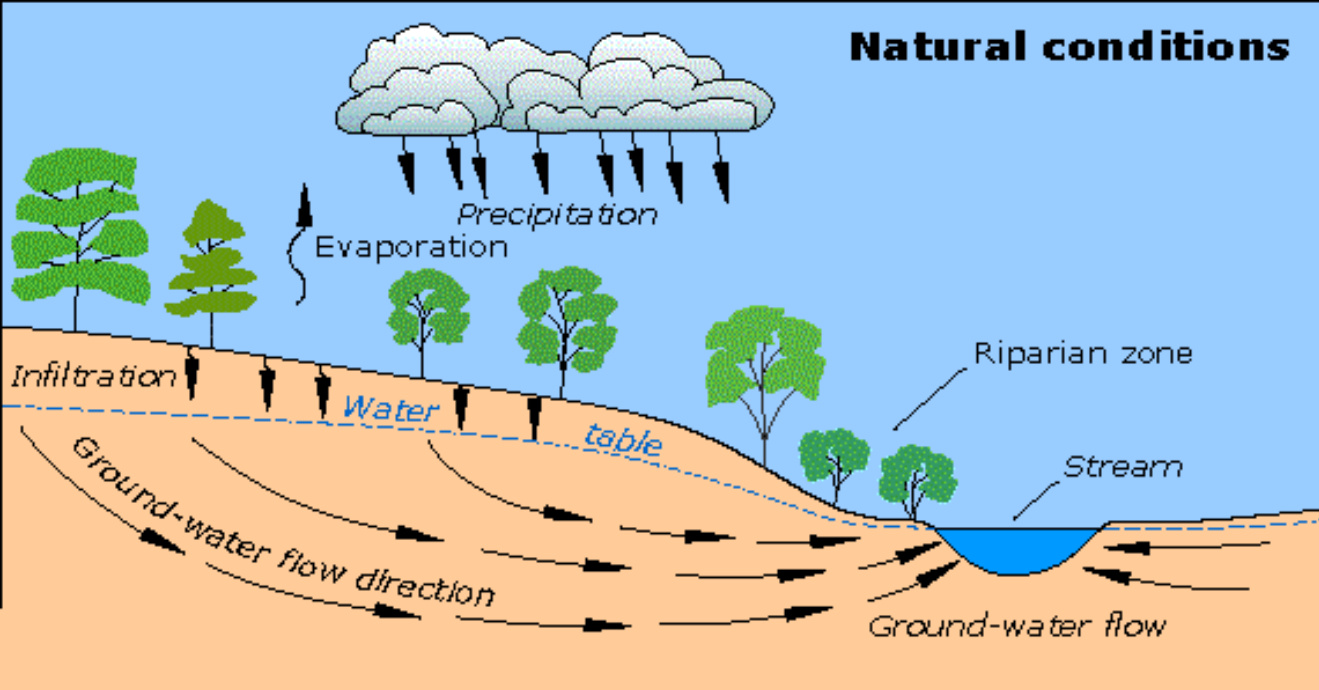
Barkhamsted Reservoir



No public water
withdrawals
from rivers
downstream of
sewage treatment
or industrial outfalls

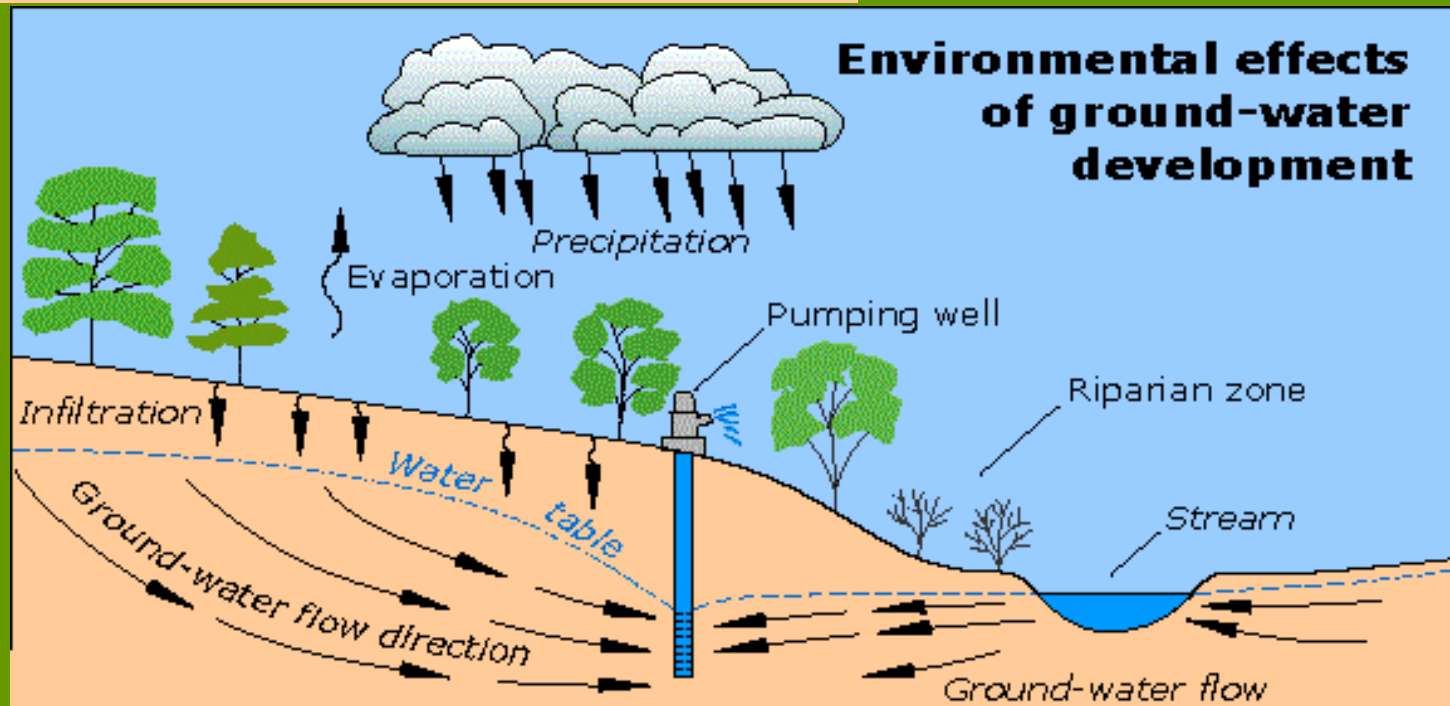


Natural conditions



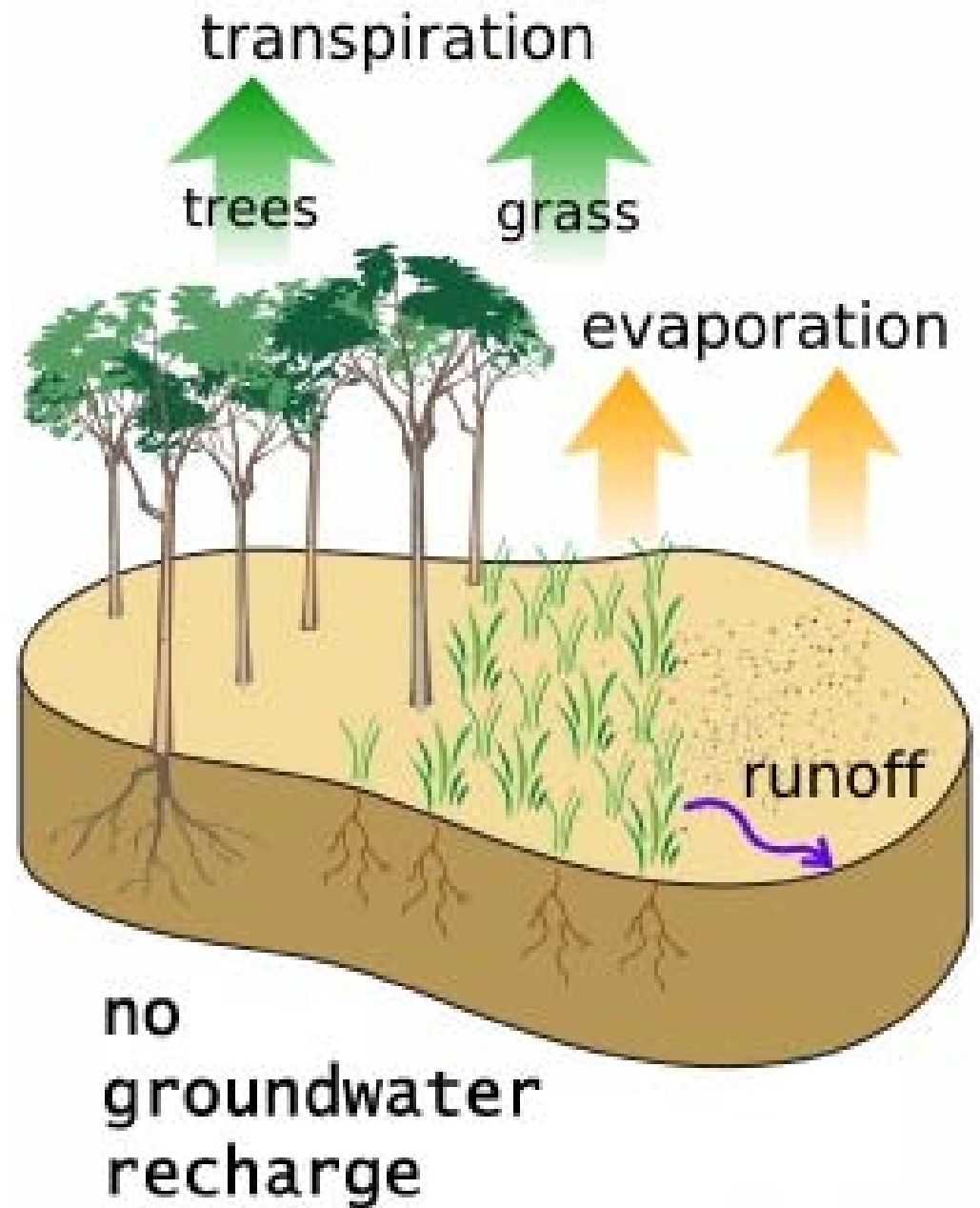
Groundwater flows to streams

Environmental effects of ground-water development



Groundwater diverted from streams





• OUR BEST ANNUAL PROGRAM •



Herbicides



Insecticides



August to
NOVEMBER!

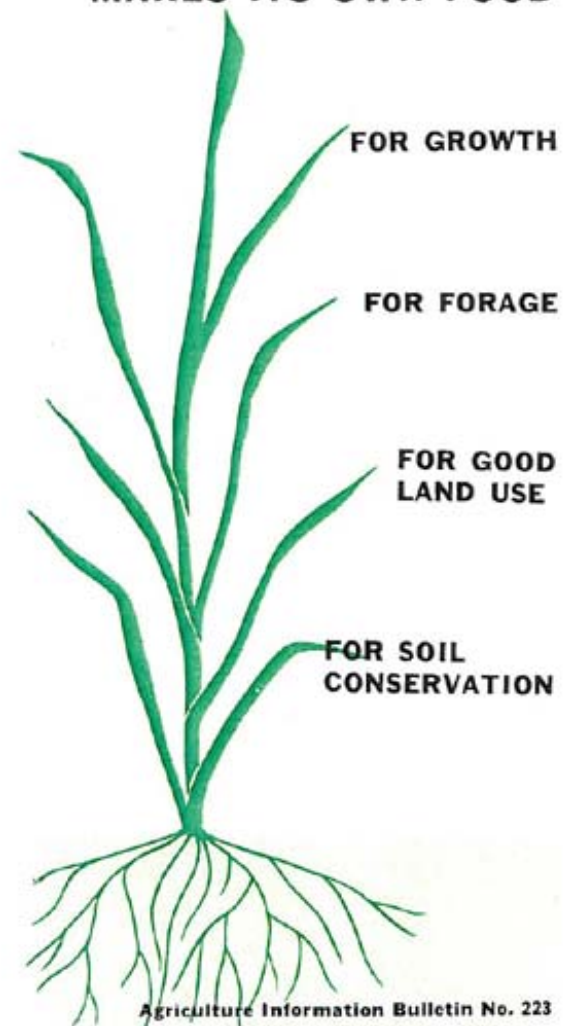


Organic lawn additives



GRASS

MAKES ITS OWN FOOD



Agriculture Information Bulletin No. 223
Soil Conservation Service
U.S. DEPARTMENT OF AGRICULTURE

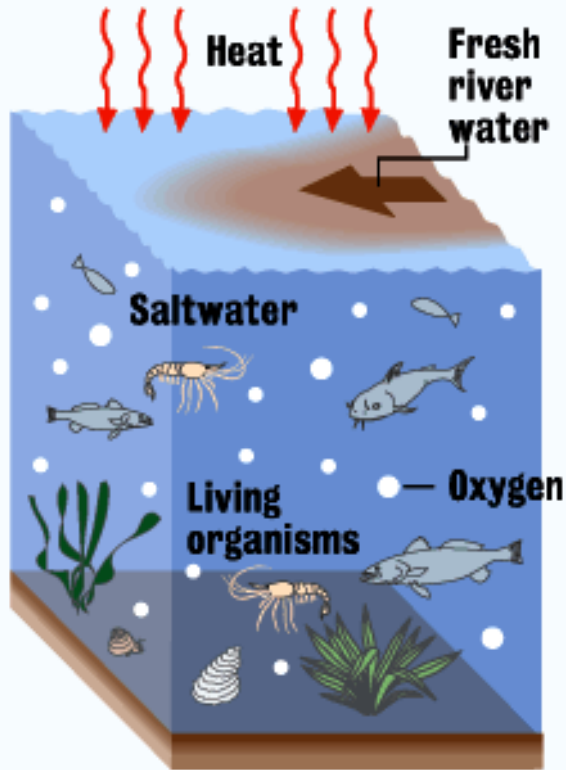


Remember when you're fertilizing your lawn,
you're not just fertilizing your lawn

Source: Puget Sound Consortium



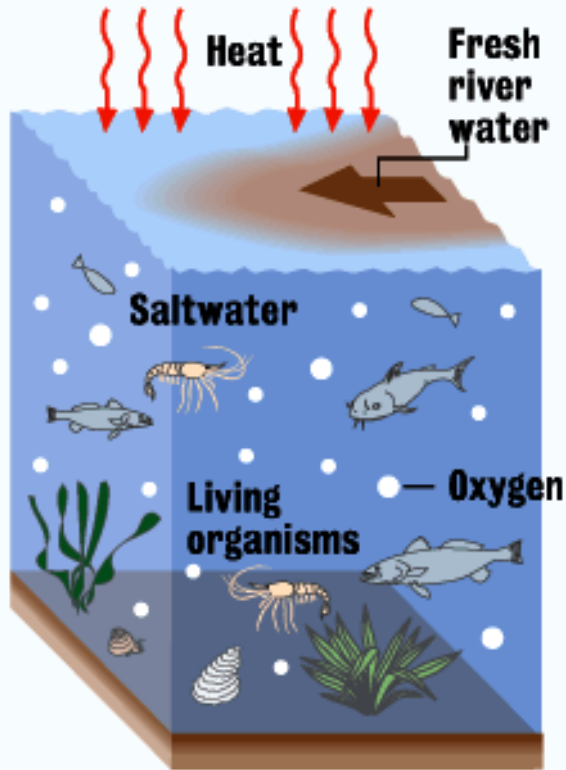
HOW THE DEAD ZONE FORMS



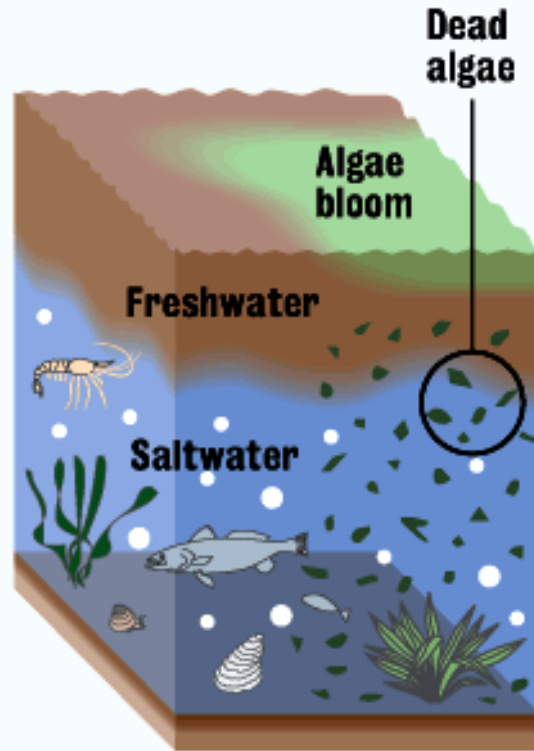
1

From Dan Swenson, The Times - Picayune

HOW THE DEAD ZONE FORMS



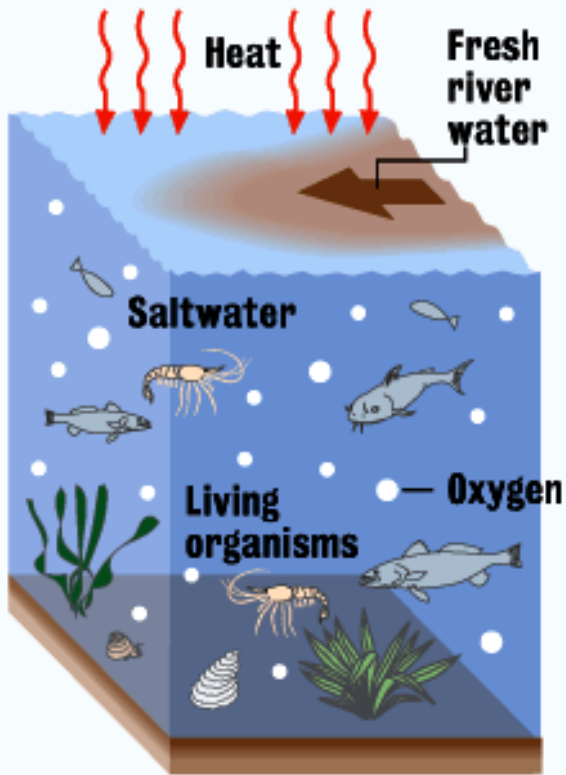
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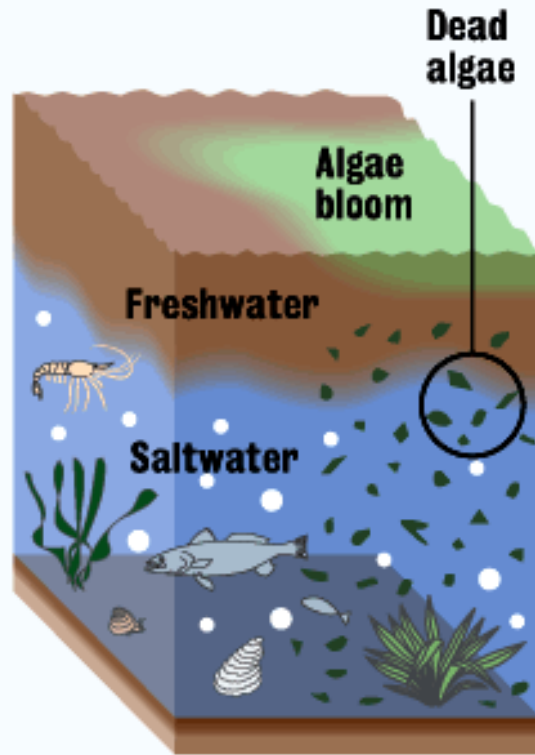
2

From Dan Swenson, The Times - Picayune

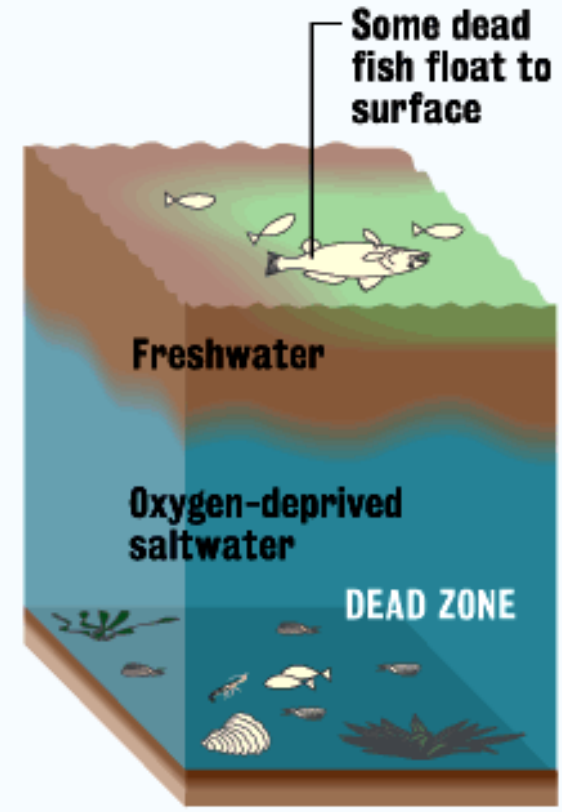
HOW THE DEAD ZONE FORMS



1



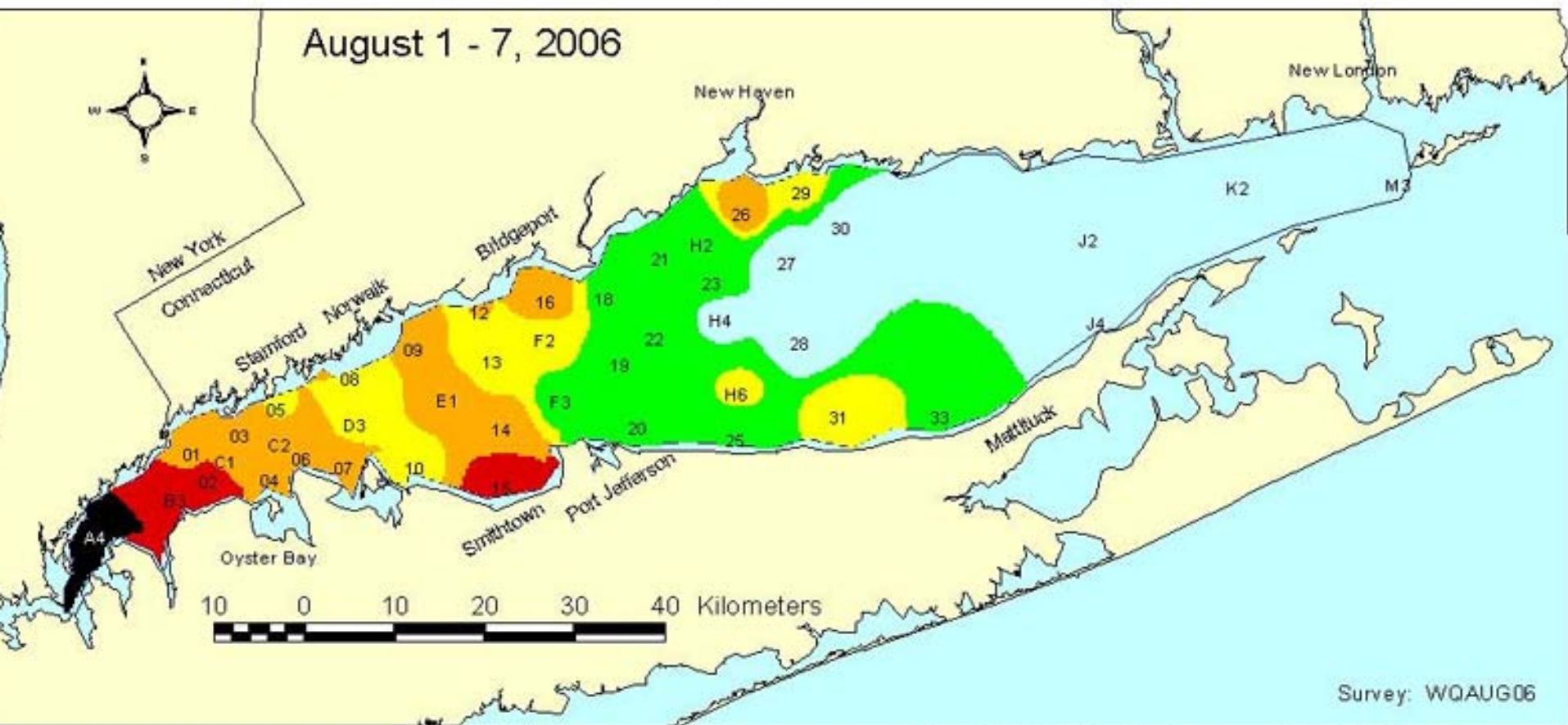
2



3

From Dan Swenson, The Times - Picayune

Dissolved Oxygen in Long Island Sound Bottom Waters



| Dissolved Oxygen | Severity of impact |
|------------------|---------------------------------------|
| 0.0 - 0.99 mg/L | Severe |
| 1.0 - 1.99 mg/L | Moderately severe |
| 2.0 - 2.99 mg/L | Moderate |
| 3.0 - 3.49 mg/L | Marginal |
| 3.5 - 4.79 mg/L | Interim management goal |
| 4.8 + mg/L | Excellent - Supportive of marine life |



The Black Sea "dead zone" disappeared between 1991 and 2001 after fertilizers became too expensive after the decline of the USSR

More types of pesticides found in urban streams than agricultural streams.

More pounds of pesticides applied in urban areas than agricultural areas.

Source: USGS



Environmental effects of the most commonly used home/garden pesticides

EPA (2001)

| Pesticide | Toxic to birds | Toxic to fish & water organisms | Toxic to bees |
|---------------------|----------------|---------------------------------|---------------|
| Insecticides | | | |
| Carbaryl | | X | X |
| Malathion | X | X | X |
| Herbicides | | | |
| Benfluralin | X | X | |
| 2,4-D | X | X | X |
| Dacthal | | X | X |
| Glyphosate | | X | |
| MCPP | | X | |
| Pendimethalin | | X | |



Audubon Society estimates that millions of songbirds die annually after consuming pesticides





"If you buy the notion that we have to accept a certain amount of risk from pesticides to safeguard the food supply, that's one thing. But with lawns, people are applying carcinogens simply for the sake of aesthetics. That's got to change."



Michael Surgan, Ph.D.
Chief Scientist
NY State Attorney General
Environ. Protection Bureau



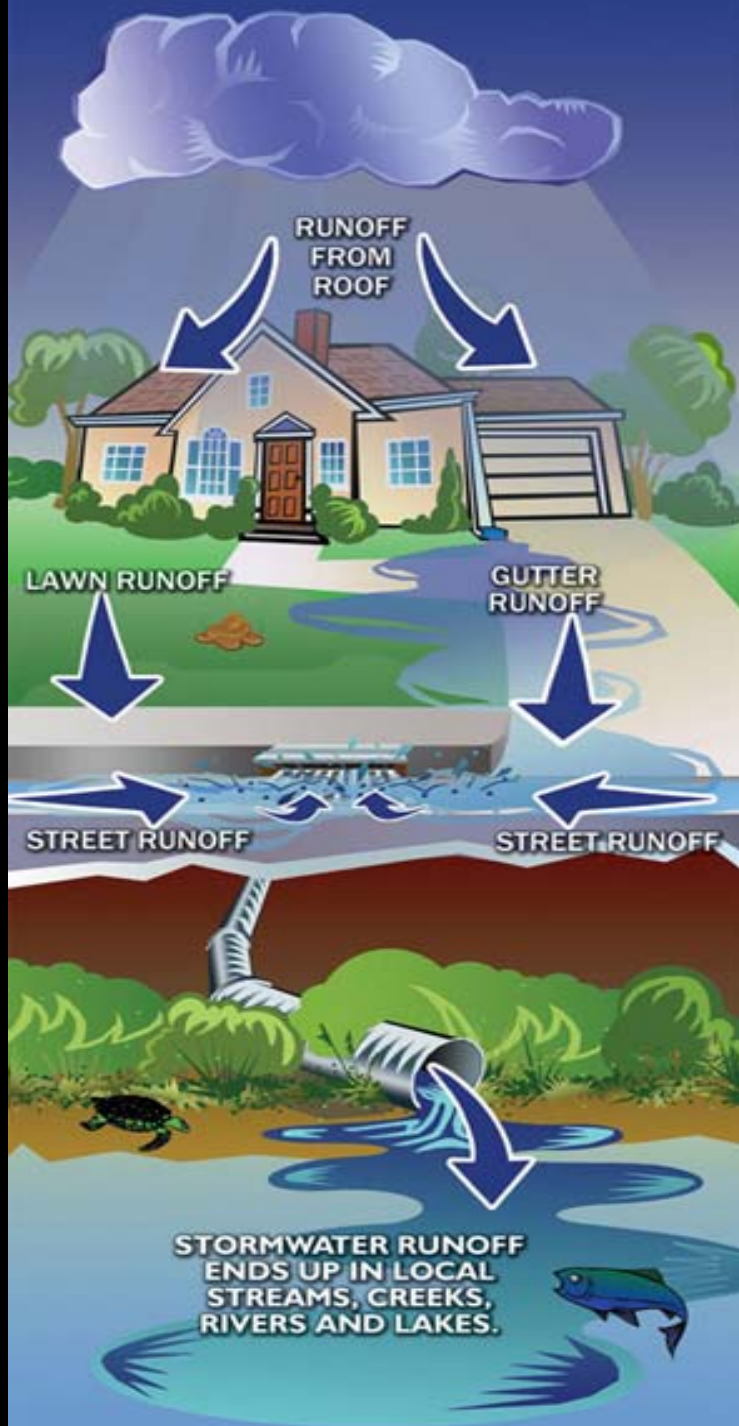
Lawn chemicals are now banned in more than half of Canada and not sold in Home Depot and other major retail chains

“You can tell a
good gardener by
how little he buys”

- Roger Swain



You can tell how well
a garden is designed
by how little irrigation
it needs



Our yards are designed to shed water as quickly as possible

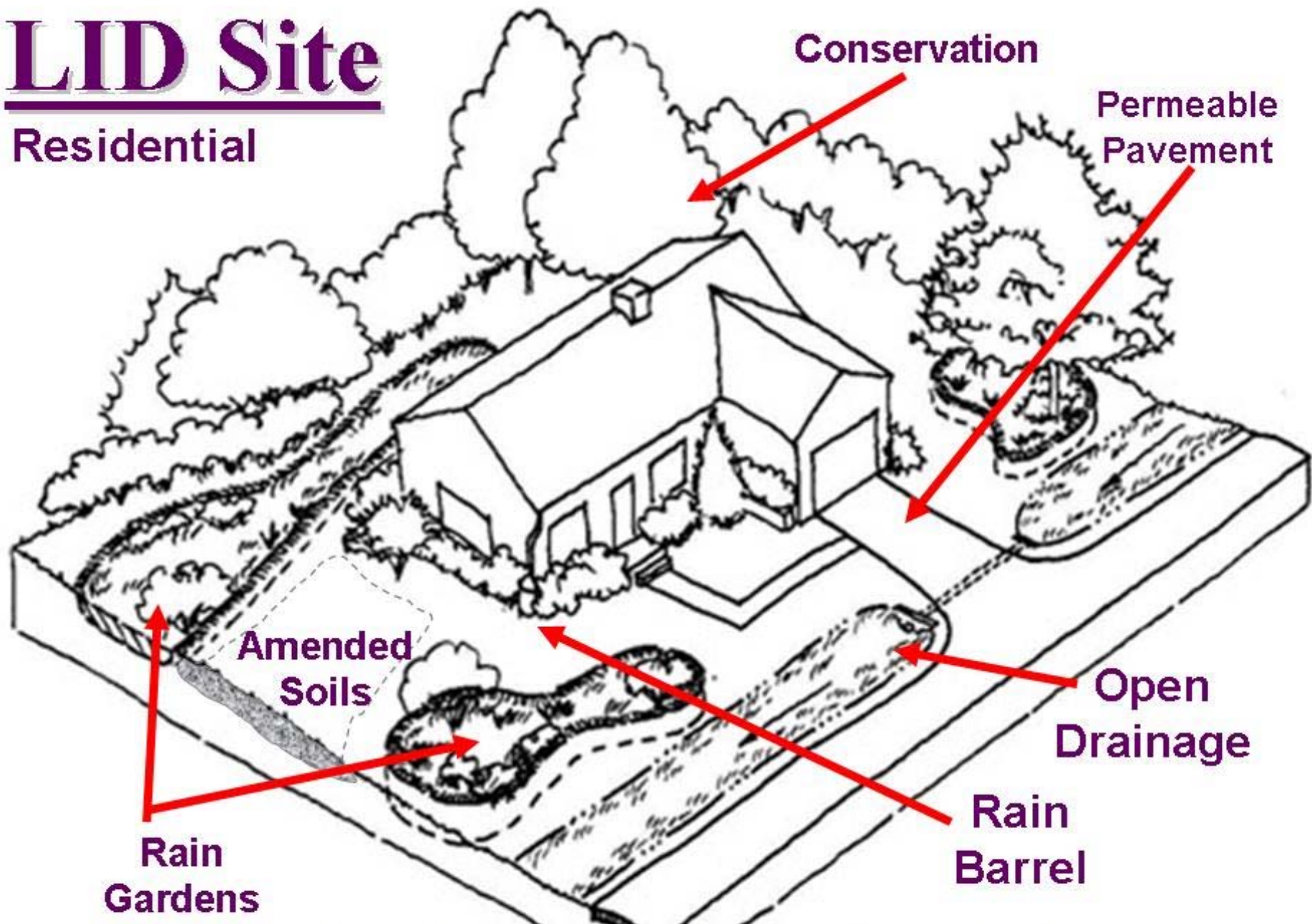
Graphic: North Carolina Dept. of Environment & Natural Resources

Our urban and suburban streams are either flood or run dry



LID Site

Residential

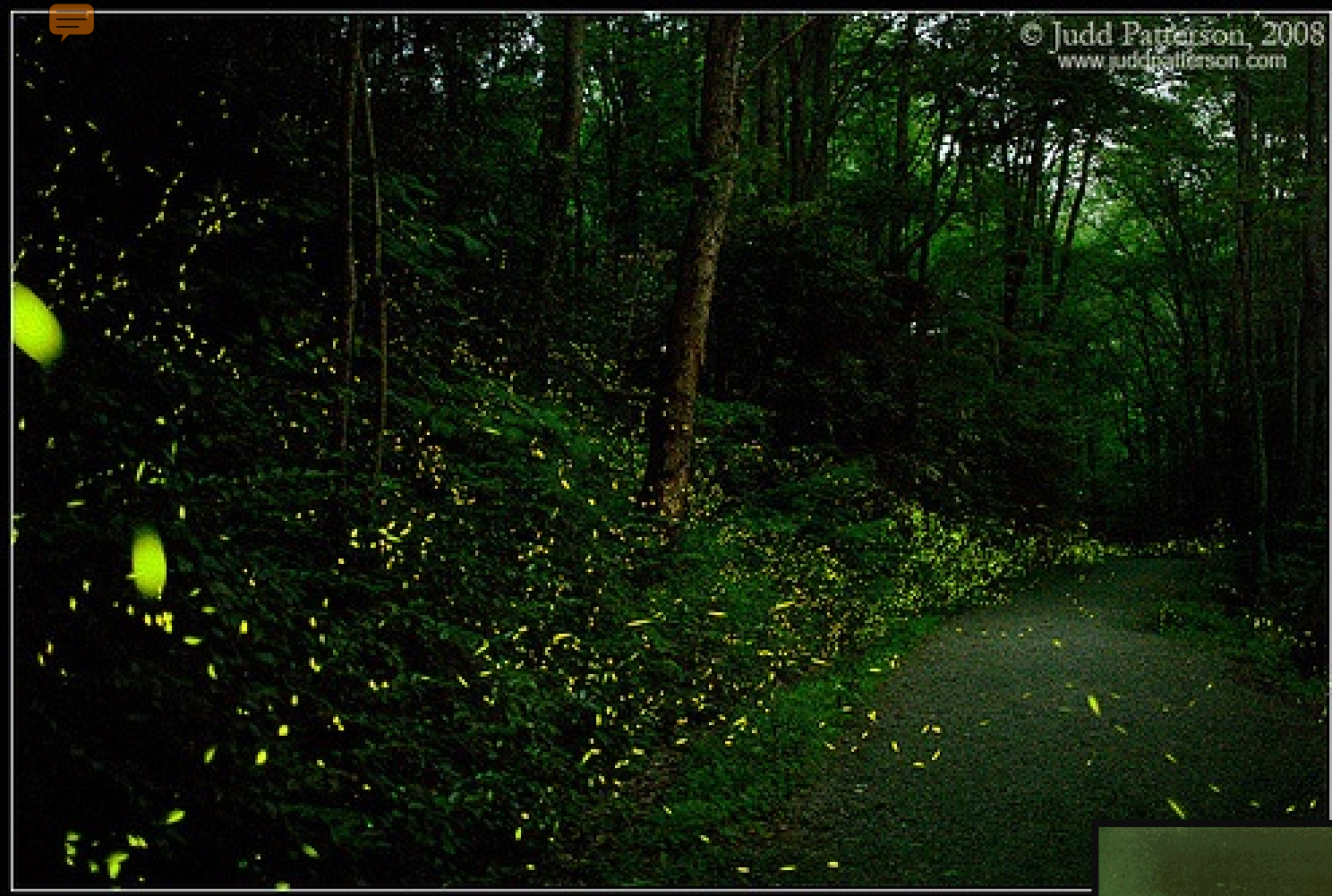


Create a Hydrologically Functional Lot









Fireflies!





Autumn Olive



Winged Euonymus







Scotch Broom
Cytisus scoparius





SIMSBURY LAND TRUST



*A member of
The Children's Museum Family*

Winged euonymus

Autumn olive

European privet

Multiflora rose

Bush honeysuckles

Common buckthorn

Japanese barberry

Japanese knotweed

Oriental bittersweet

Garlic mustard

Bittercress ...



American chestnuts

Missing from our landscape



Harvard Forest Fisher Museum diorama

PAWLING NATURE RESERVE

of

THE NATURE

CONSERVANCY

ESTABLISHED
IN 1959 AS A
REFUGE FOR PLANTS AND WILDLIFE
AND A LIVING MUSEUM FOR MAN'S USE

Help us preserve for the future this heritage from the past.



New England
Wildflower Society
Garden in the Woods

Roaring Brook
Nature Center
Native Plant
Bird &
Butterfly
Garden



Blackledge River Nursery - Marlborough, CT (100%)*

Broken Arrow Nursery - Hamden (35%)

Earth Tones Native Plant Nursery - Woodbury (100%)

Natural Attraction Project - Griswold (50%)

Prides Corner Farms - Lebanon (25%)

Summer Hill Nursery - Madison (40%)

Sunny Border Nurseries - Kensington (25%)

White Flower Farms - Litchfield (20%)

* % native plants





Spicebush Swallowtail





Fear of Insects Cure Subliminal Album



WWW.REALSUBLIMINAL.COM

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BRINGING NATURE HOME



How Native Plants
Sustain Wildlife
in Our Gardens

DOUGLAS W. TALLAMY



Native woody plants produce 35 times more caterpillar biomass than non-native woody plants



Luna



Clearwing
Sphinx Moth

Caterpillars
are
baby bird food





Native plants provide:

- the right nutrition
- the right size
- at the right time





Hybridized rose

Native rose



If you were a bee,
which flower would
you visit ?

Ultraviolet



How we see
a flower

How a bee
may see a flower

Variety, not biodiversity

Japanese maple

Chinese tree peony

Sweet woodruff (Europe)

Chamaecyparis (Japan)

Candytuft (Spain)

Daylily (Central Asia)

Clematis (India, Java)



So what should we plant?



Unfragmented forests
should be greater
than 500 acres



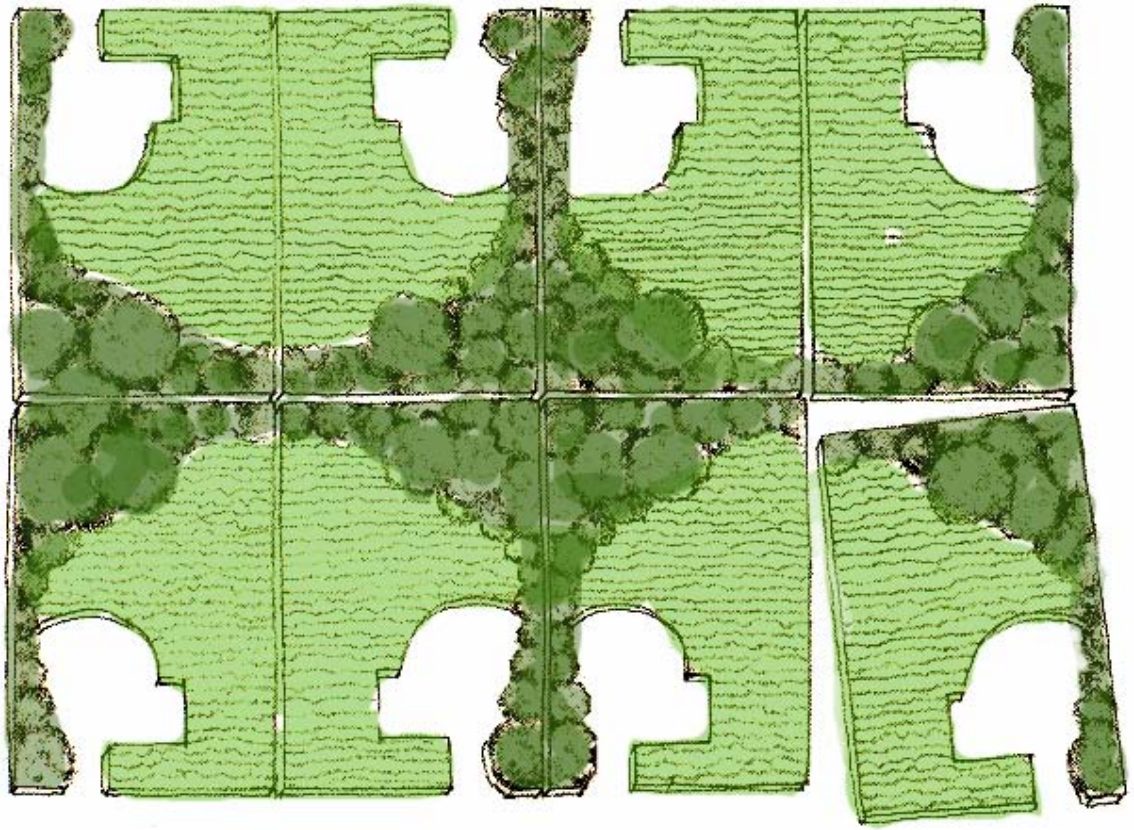
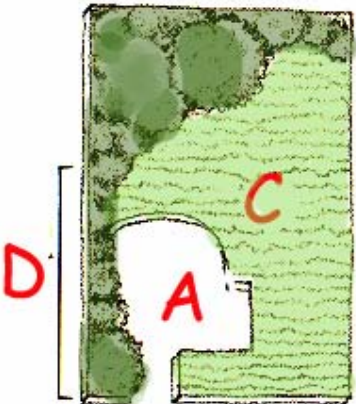
Thickets



Meadows



future suburbia:
lawn or terrace



From Noah's Garden
By Sara Stein



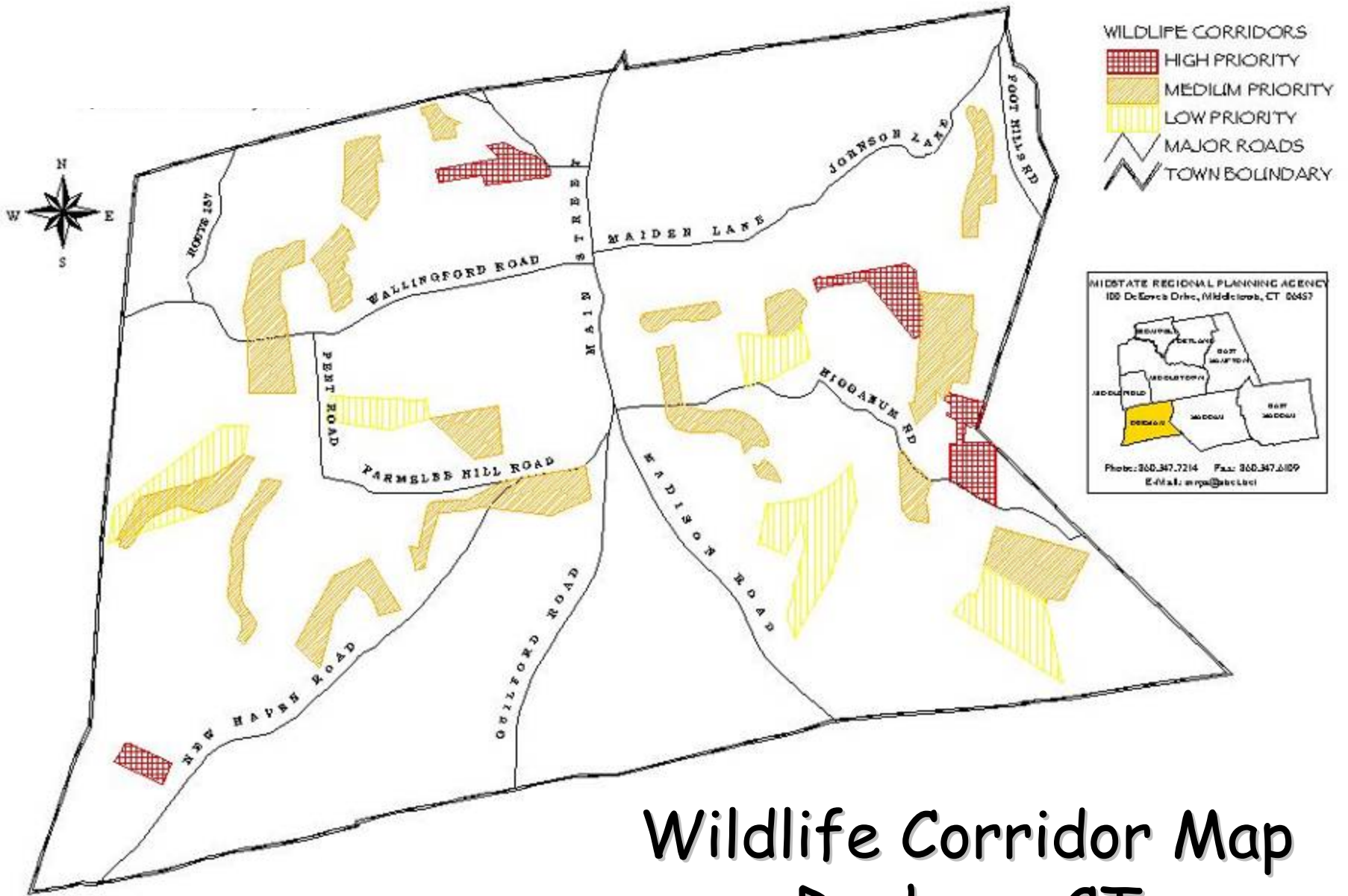
Habitat "stepping stones"

**Traditional
development**



**Low Impact
Development**

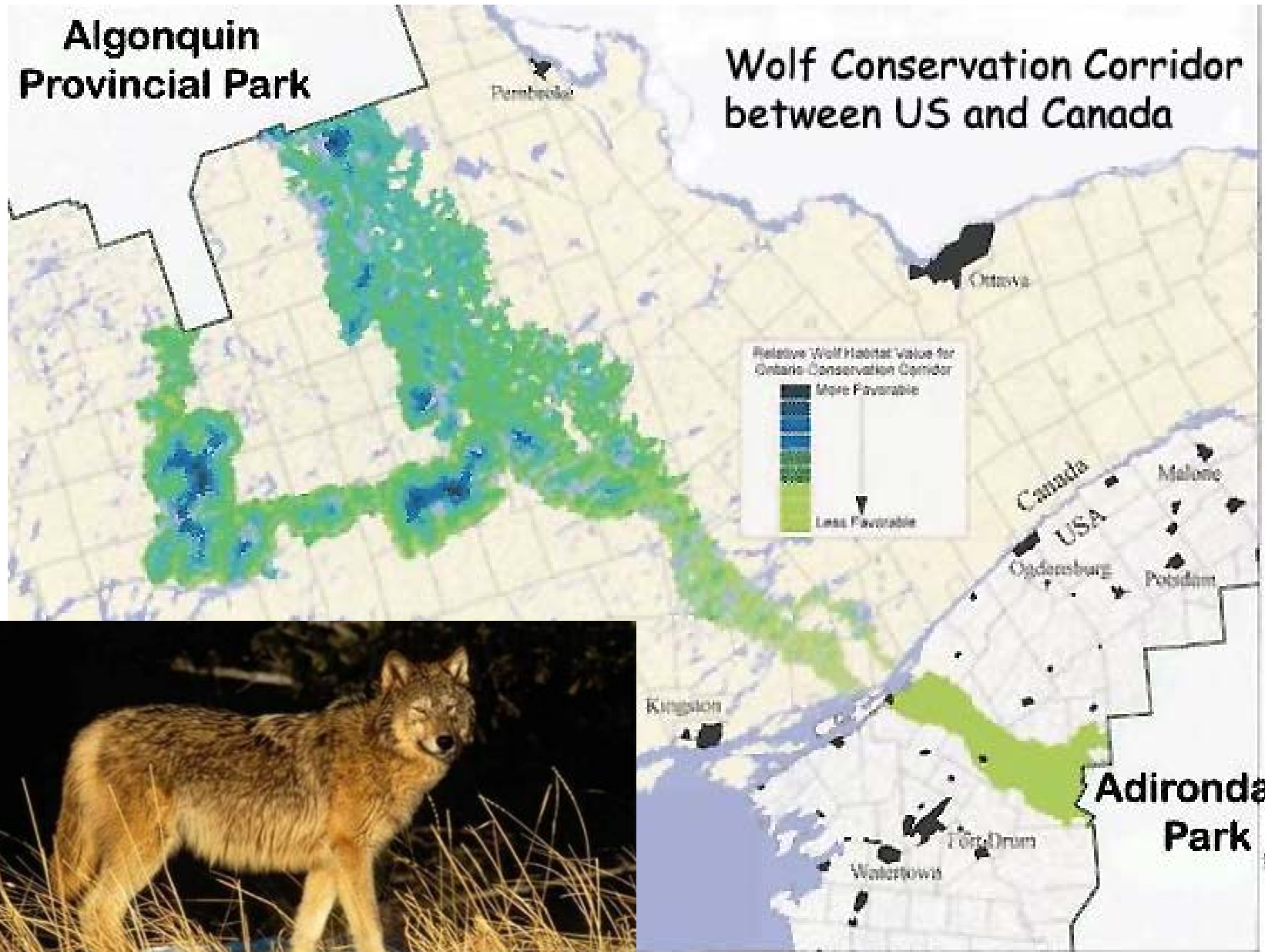




**Wildlife Corridor Map
Durham, CT**

Algonquin Provincial Park

Wolf Conservation Corridor between US and Canada



NOAH'S GARDEN

RESTORING THE

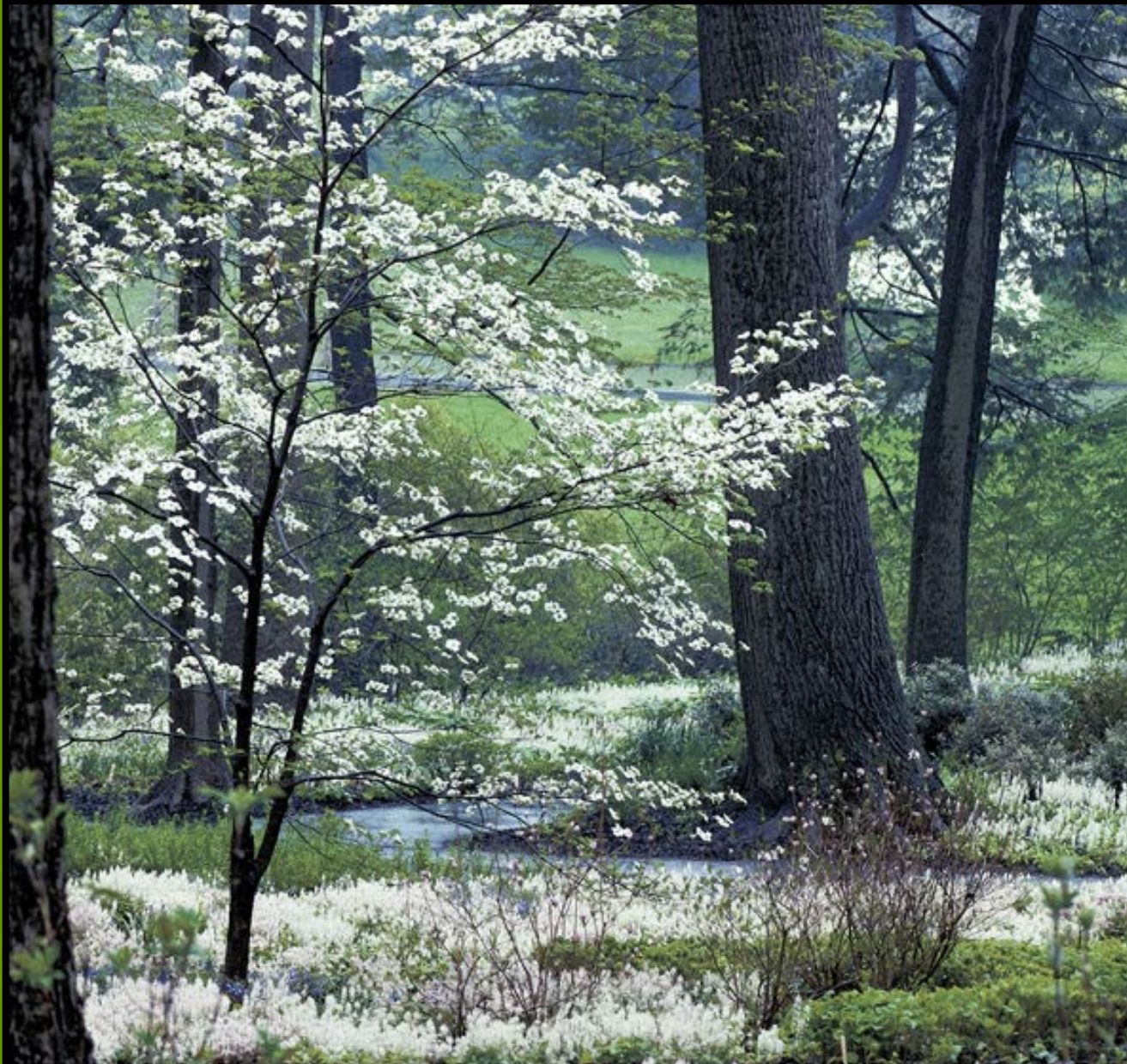


ECOLOGY

OF OUR

OWN BACK YARDS

SARA STEIN

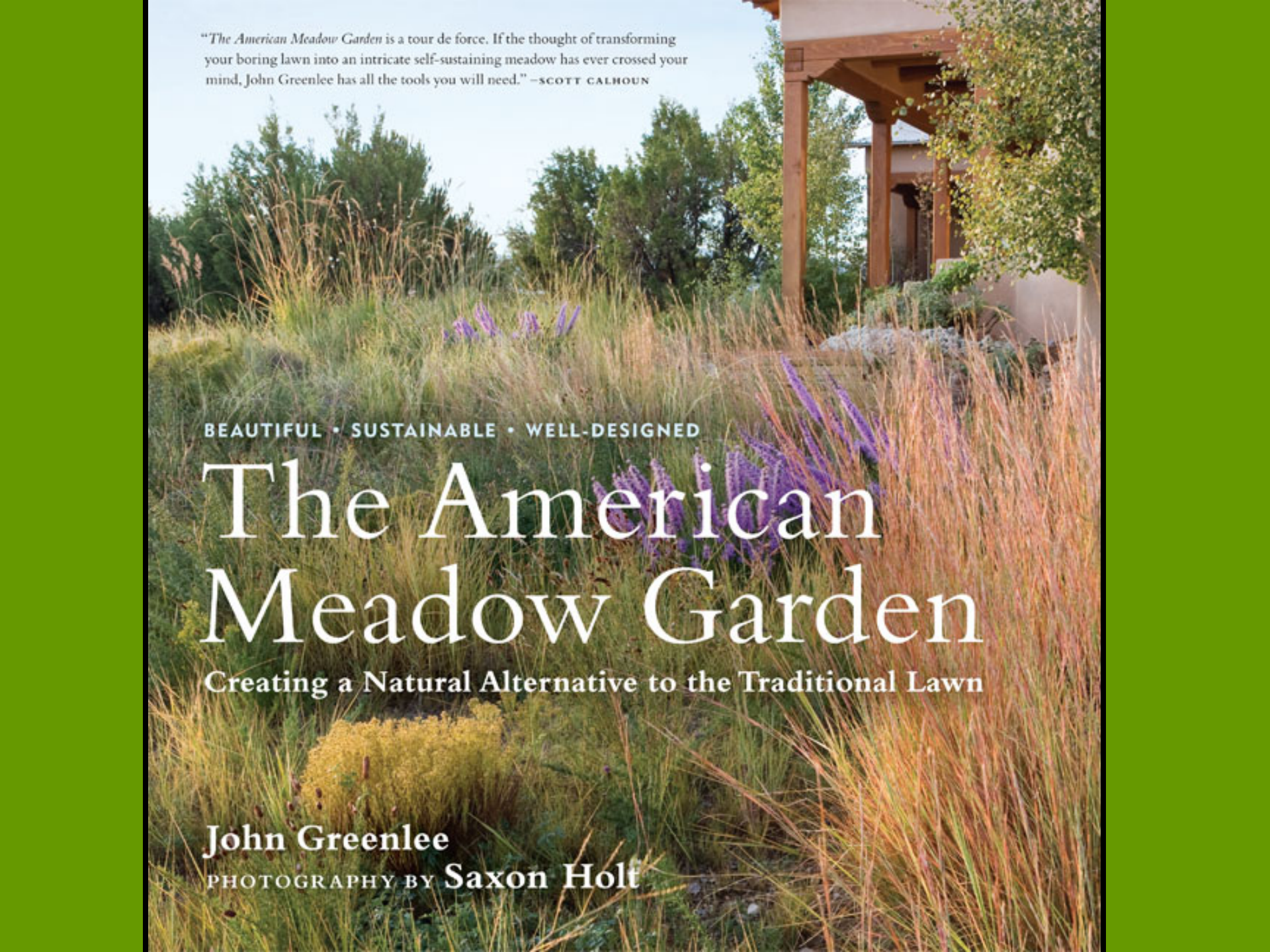


The American Woodland Garden

Capturing the Spirit of the Deciduous Forest



Text and photography by Rick Darke



"The American Meadow Garden is a tour de force. If the thought of transforming your boring lawn into an intricate self-sustaining meadow has ever crossed your mind, John Greenlee has all the tools you will need." —SCOTT CALHOUN

BEAUTIFUL • SUSTAINABLE • WELL-DESIGNED

The American Meadow Garden

Creating a Natural Alternative to the Traditional Lawn

John Greenlee

PHOTOGRAPHY BY **Saxon Holt**



Nigel Dunnett and Andy Clayden

RAIN GARDENS

Managing water sustainably in the garden and designed landscape

Chicago City Hall roof garden





High Line Park New York City



