



Wicked Awesome Puddles

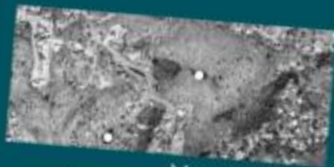
Vernal Pool Fundamentals

Matt Burne
Walden Woods Project
Vernal Pool Association

A Field Guide to
the animals of
Vernal Pools



Leo P. Kenney
Matthew R. Burns



Massachusetts
Aerial Photo Survey of
Potential Vernal Pools

Spring 2001

 Natural Heritage
& Endangered Species
Program
Massachusetts
Division of Fisheries & Wildlife



Most Images courtesy of the
Vernal Pool Association
www.vernalpool.org



































A man wearing a light-colored waders, a dark long-sleeved shirt, a cap, and sunglasses is standing in a shallow pond. He is looking down at something in his hands. The pond is surrounded by trees and vegetation, and the water reflects the surrounding environment.

Evaluating vernal pools typically
means getting in the pool!

Equipment:

- Boots
- Net
- Polarized glasses
- Camera.

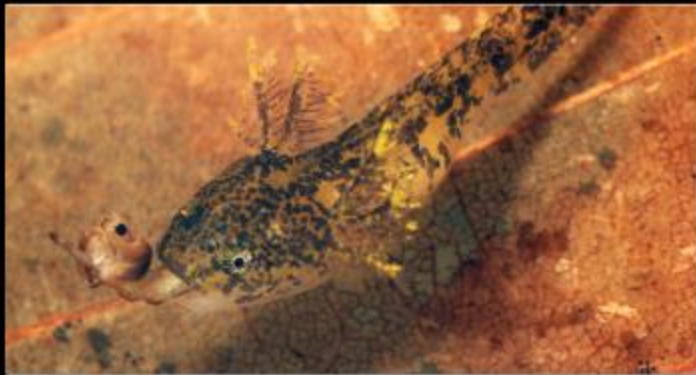








All the salamanders feed upon insects, which they devour in great numbers, and hence their utility cannot be questioned."
- D.H. Storer, 1839

































Suzanne Niles



















The very pools, now, soon after the ice has melted, so transparent and of glassy smoothness and full of animal and vegetable life, are interesting and beautiful objects.

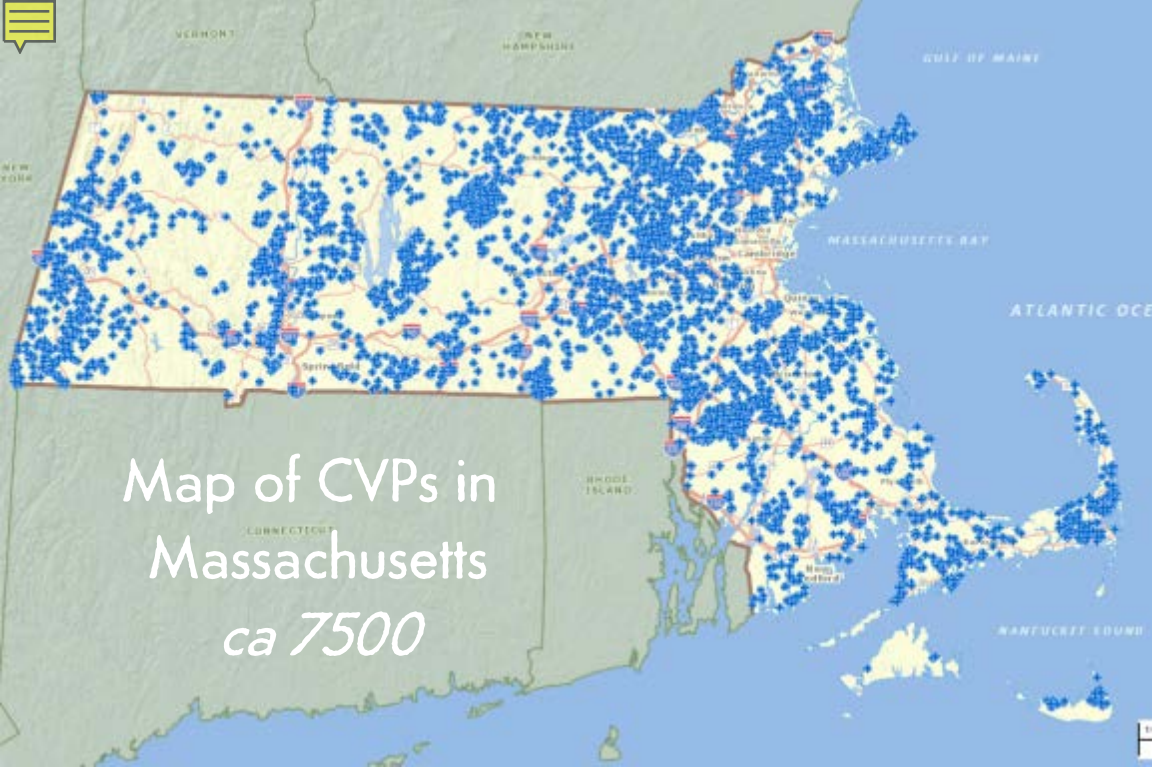
— *Henry D. Thoreau, 16 April, 1855*



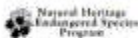
Protecting Vernal Pools: First Step

Finding them all

- Certified Vernal Pools
- Potential Vernal Pools
- Site visits



Map of CVPs in
Massachusetts
ca 7500



Massachusetts Department of Environmental Protection
Bioscience Resource Project
Bioscience Resource Project
Bioscience Resource Project



Disclaimer

This map was prepared for informational purposes only. It is not intended to be used for legal or regulatory purposes. The map is based on the best available information at the time of preparation. The map is not a warranty, representation, or guarantee of accuracy. The map is not a substitute for a field survey. The map is not a substitute for a professional opinion. The map is not a substitute for a professional opinion.

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CONCORD Priority Habitats and Estimated Habitats

Priority Habitats, for use with the MA Endangered Species Act Regulations (321 CMR 10)
Estimated Habitats, for use with the MA Wetlands Protection Act Regulations (310 CMR 10)
Effective October 1, 2006

Priority Habitats of Rare Species

Habitats of rare or endangered species (Habitats of rare or endangered species)

Habitats of rare or endangered species (Habitats of rare or endangered species)

Habitats of rare or endangered species (Habitats of rare or endangered species)

Priority Habitats of Rare Species and other Estimated Habitats of Rare Species

Habitats of rare or endangered species (Habitats of rare or endangered species)

Habitats of rare or endangered species (Habitats of rare or endangered species)

Habitats of rare or endangered species (Habitats of rare or endangered species)

Consolidated Wetland Protection of July 14, 2006

Wetland

Town Boundary

Transportation

United States Highway

State Route Highway

Major Road

Railroad



Massachusetts Department of Environmental Protection
Bioscience Resource Project
Bioscience Resource Project



Vernal Pool Certification

Obligate Species Method

- Document pool with water
- Document breeding evidence of obligate species

Facultative Species Method

- Document pool with water and dry (prove lack of fish)
- Document breeding evidence of at least two facultative species



Obligate Species Method

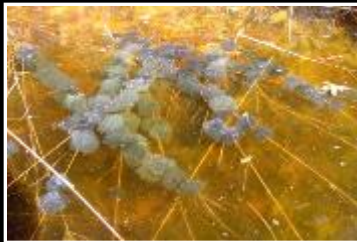
Courting adults



Egg masses



Larvae



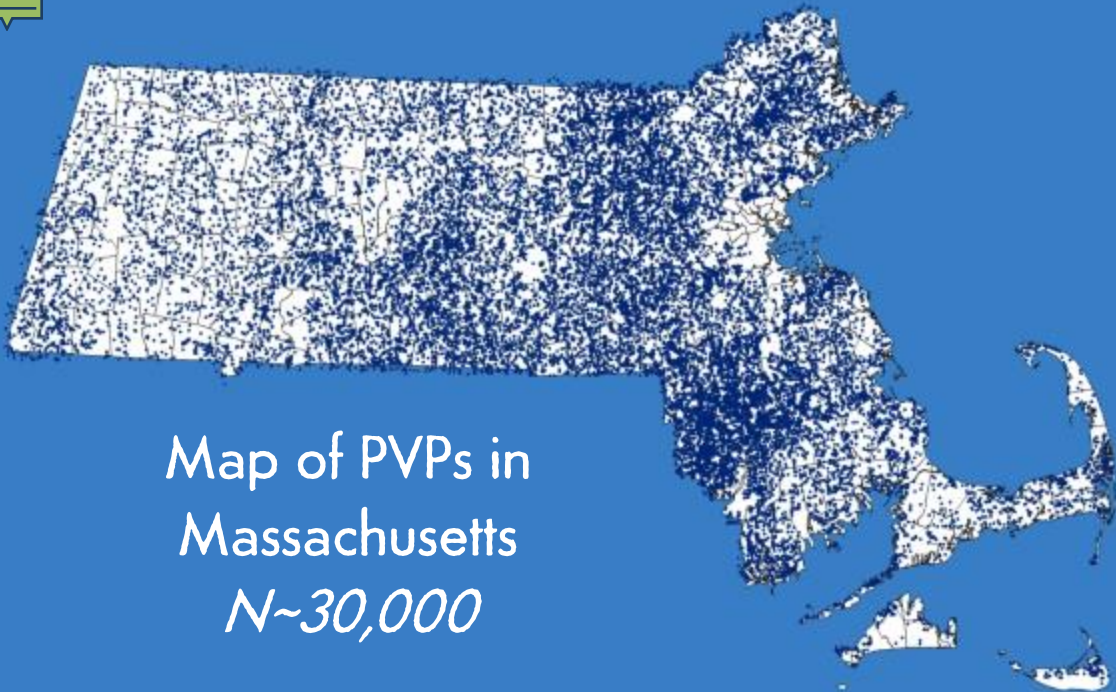


NHESP VPRS

Vernal Pool and Rare Species
Reporting System



Map of PVPs in
Massachusetts
 $N \sim 30,000$





**Vernal pools may be
protected even if they
are not certified.**



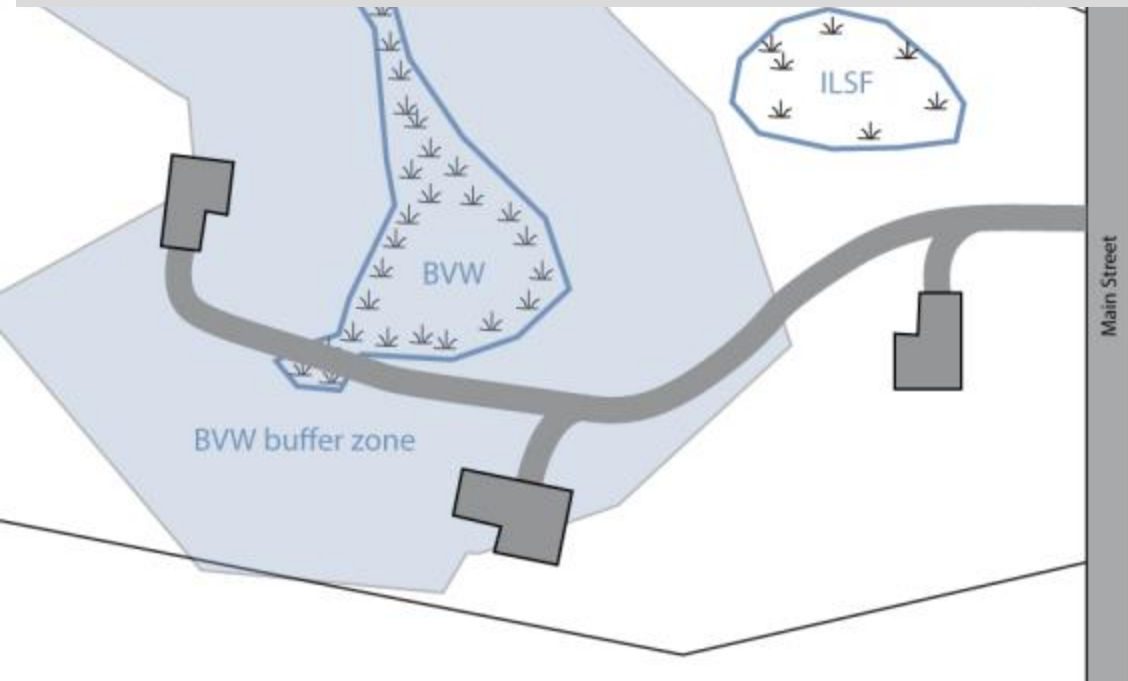
Commission's Discretionary Authority

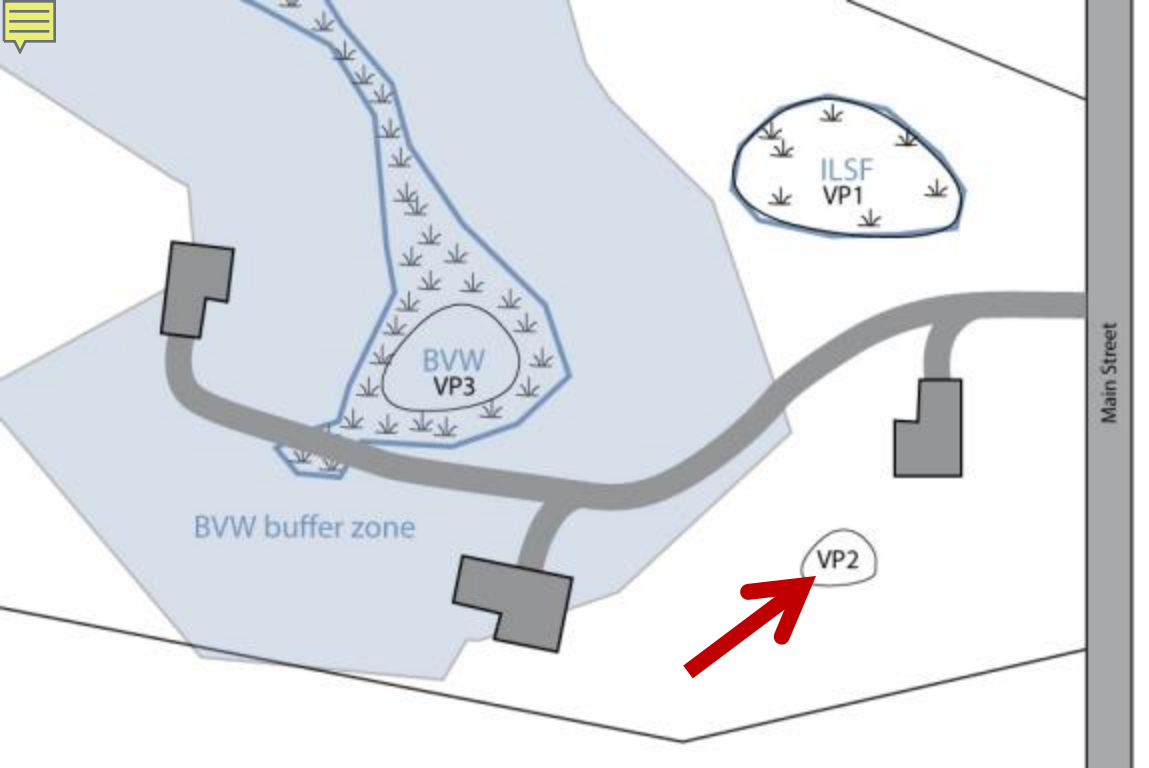
10.53: General Provisions

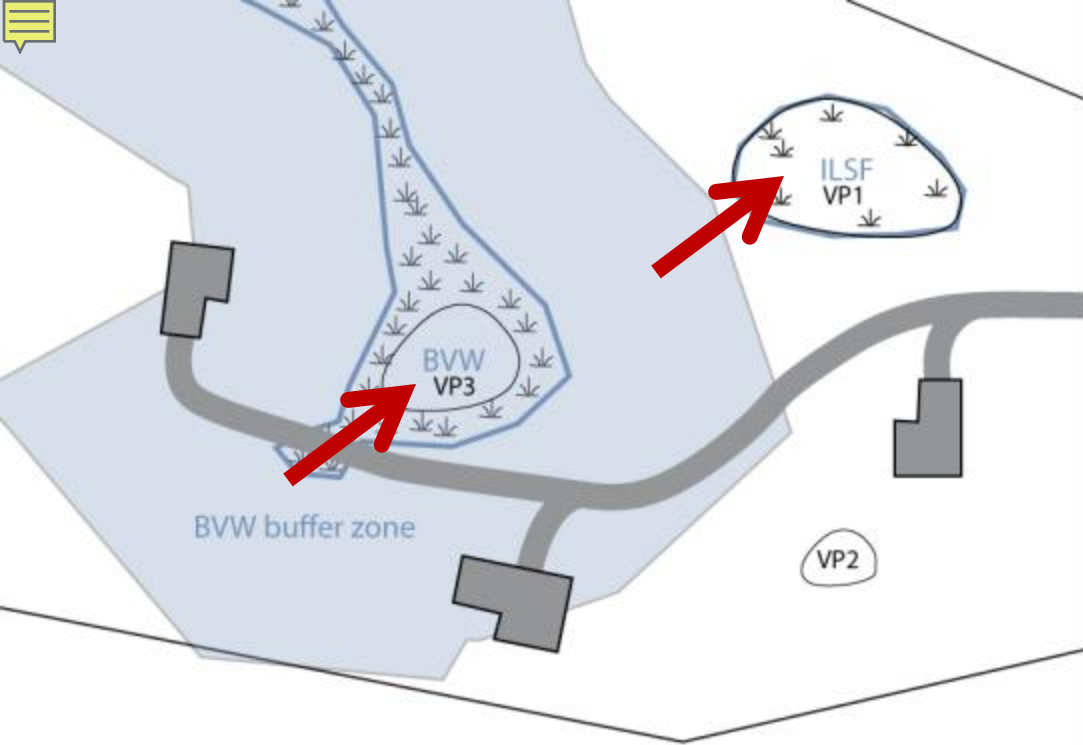
- (1) If the issuing authority determines that a resource area is significant to an interest (*ie, a functional value*) identified in [the Act] for which no presumption is stated ... the issuing authority shall impose such conditions as are necessary to contribute to the protection of such interests.



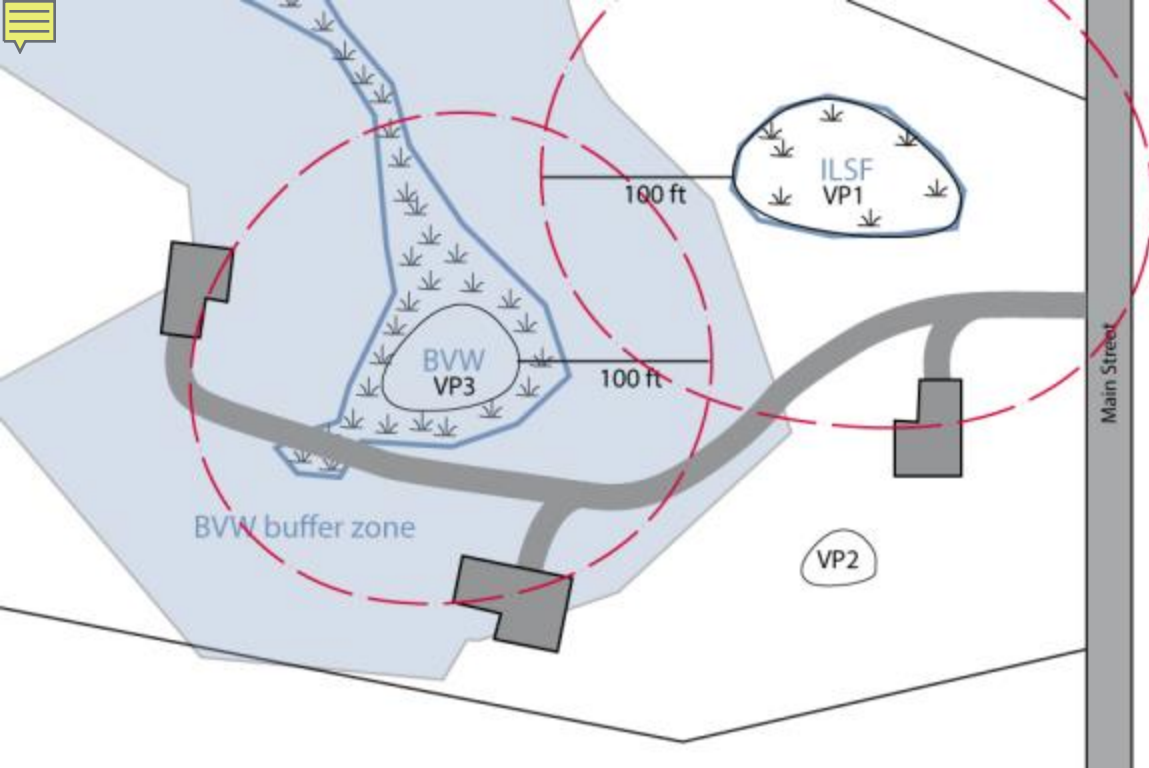
Hypothetical Project Proposal

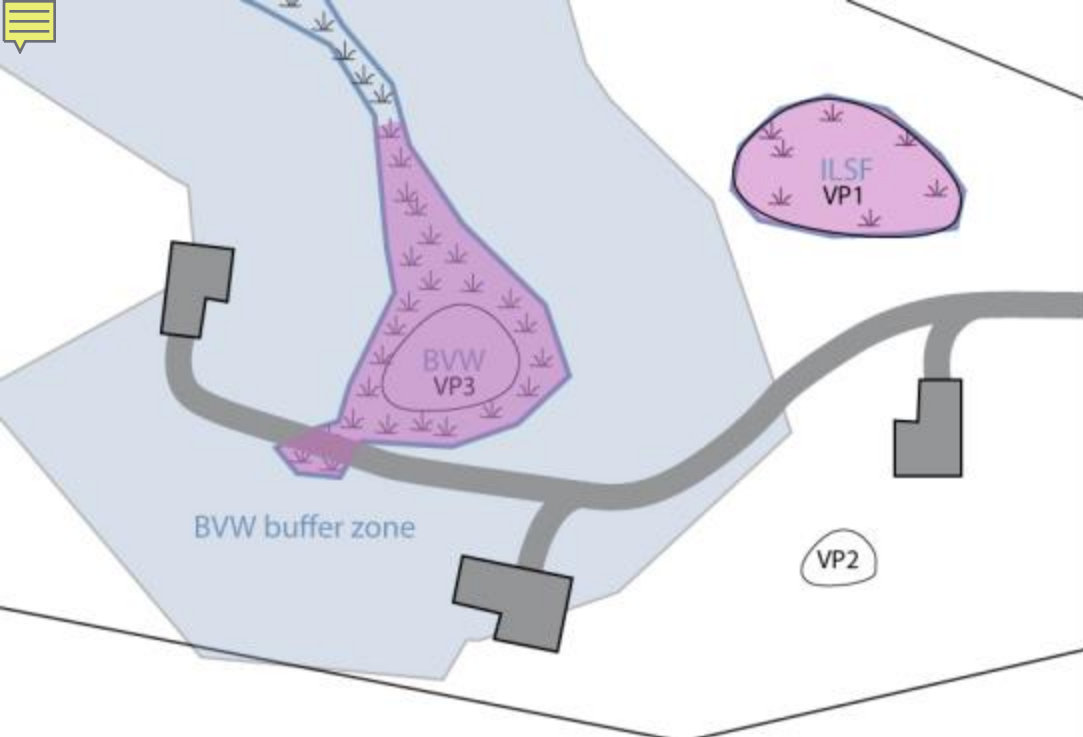




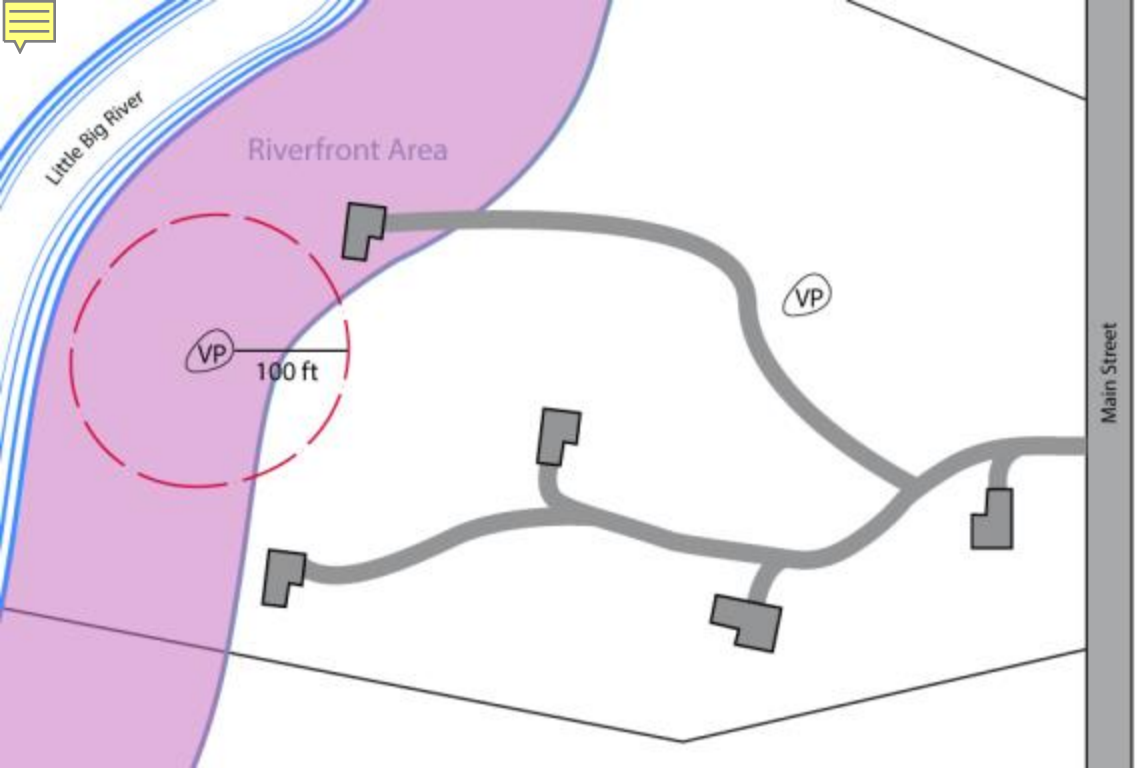


Main Street





Main Street













M. Marchand





17 Lots
2875' of
road





20 Lots
1400' of
road









ATTENTION
THIS ROAD WILL
BE CLOSED

FOR TWO NIGHTS
IN
MARCH OR APRIL
FOR
SALAMANDER
AND FROG
MIGRATION







Thank you

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[@vernalpoolassociation](#)