Working with Students, Citizens, Frogs, Bugs, and Kayaks

34th Annual Meeting
NEAEB

Wood-Pawcatuck Watershed Association
March 2010

Why Schools?

- Bolsters Science Curriculum
- Teaches Basic Science Skills
- Shows Science as Fun and Interesting
- Receptive Teachers
- Students bring knowledge back home to the community

Why Citizen Scientist?

- Projects serve to disseminate information
- Gives a sense of stewardship towards community resources
- People who are involved with real science tend to support conservation efforts

Things to consider

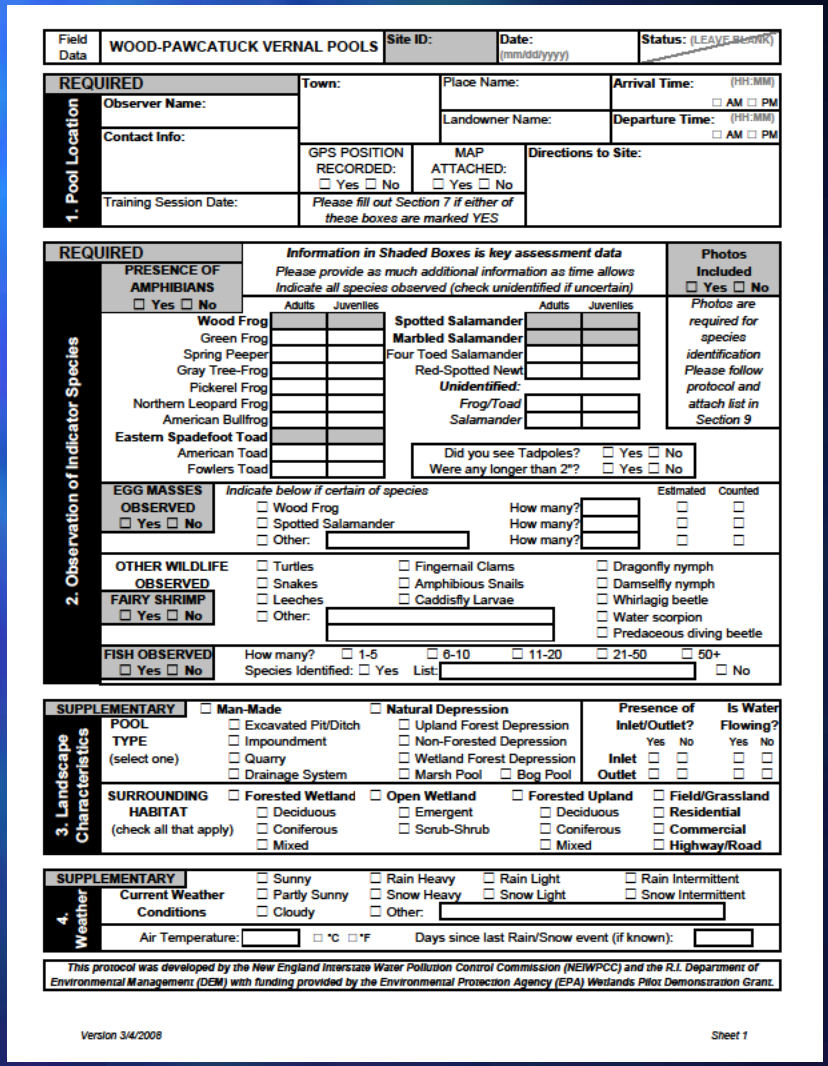
- Focus on what you know
- Make sure project is interesting
- Use what you got
- How data will be used
- What are the important take away points

Develop Program

- Identify needs (yours and community)
- Determine Goals & Objectives
- Identify Audience
- Develop Methods
- Implement
- Supervise
- Evaluate

Obstacles to Implementation

- School System Policies
- Curriculum Requirements
- Teachers commitment
- Transportation costs
- Substitute Teachers
- Complicated forms
- Complicated instructions



Field Data | WOOD-PAWCATUCK VERNAL POOLS | Site ID: | Date: (mm/dd/yyyy) | Status: (LEAVE BLANK)

REQUIRED — 1. Pool Location

Observer Name: | Town: | Place Name: | Arrival Time: (HH:MM) ☐ AM ☐ PM

Contact Info: | Landowner Name: | Departure Time: (HH:MM) ☐ AM ☐ PM

GPS POSITION RECORDED: ☐ Yes ☐ No | MAP ATTACHED: ☐ Yes ☐ No | Directions to Site:

Training Session Date: | *Please fill out Section 7 if either of these boxes are marked YES*

REQUIRED — 2. Observation of Indicator Species

Information in Shaded Boxes is key assessment data
Please provide as much additional information as time allows
Indicate all species observed (check unidentified if uncertain)

Photos Included ☐ Yes ☐ No — *Photos are required for species identification Please follow protocol and attach list in Section 9*

PRESENCE OF AMPHIBIANS ☐ Yes ☐ No

	Adults	Juveniles		Adults	Juveniles
Wood Frog			**Spotted Salamander**		
Green Frog			**Marbled Salamander**		
Spring Peeper			Four Toed Salamander		
Gray Tree-Frog			Red-Spotted Newt		
Pickerel Frog			***Unidentified:***		
Northern Leopard Frog			*Frog/Toad*		
American Bullfrog			*Salamander*		
Eastern Spadefoot Toad					
American Toad					
Fowlers Toad					

Did you see Tadpoles? ☐ Yes ☐ No
Were any longer than 2"? ☐ Yes ☐ No

EGG MASSES OBSERVED ☐ Yes ☐ No — *Indicate below if certain of species*

		Estimated	Counted
☐ Wood Frog	How many?	☐	☐
☐ Spotted Salamander	How many?	☐	☐
☐ Other:	How many?	☐	☐

OTHER WILDLIFE OBSERVED — ☐ Turtles ☐ Snakes ☐ Leeches ☐ Other: | ☐ Fingernail Clams ☐ Amphibious Snails ☐ Caddisfly Larvae | ☐ Dragonfly nymph ☐ Damselfly nymph ☐ Whirlagig beetle ☐ Water scorpion ☐ Predaceous diving beetle

FAIRY SHRIMP ☐ Yes ☐ No

FISH OBSERVED ☐ Yes ☐ No — How many? ☐ 1-5 ☐ 6-10 ☐ 11-20 ☐ 21-50 ☐ 50+ | Species Identified: ☐ Yes List: ☐ No

SUPPLEMENTARY — 3. Landscape Characteristics

POOL TYPE (select one) — ☐ Man-Made: ☐ Excavated Pit/Ditch ☐ Impoundment ☐ Quarry ☐ Drainage System | ☐ Natural Depression: ☐ Upland Forest Depression ☐ Non-Forested Depression ☐ Wetland Forest Depression ☐ Marsh Pool ☐ Bog Pool

	Presence of Inlet/Outlet? Yes	No	Is Water Flowing? Yes	No
Inlet	☐	☐	☐	☐
Outlet	☐	☐	☐	☐

SURROUNDING HABITAT (check all that apply)

☐ Forested Wetland	☐ Open Wetland	☐ Forested Upland	☐ Field/Grassland
☐ Deciduous	☐ Emergent	☐ Deciduous	☐ Residential
☐ Coniferous	☐ Scrub-Shrub	☐ Coniferous	☐ Commercial
☐ Mixed		☐ Mixed	☐ Highway/Road

SUPPLEMENTARY — 4. Weather

Current Weather Conditions: ☐ Sunny ☐ Partly Sunny ☐ Cloudy | ☐ Rain Heavy ☐ Snow Heavy | ☐ Rain Light ☐ Snow Light | ☐ Rain Intermittent ☐ Snow Intermittent | ☐ Other:

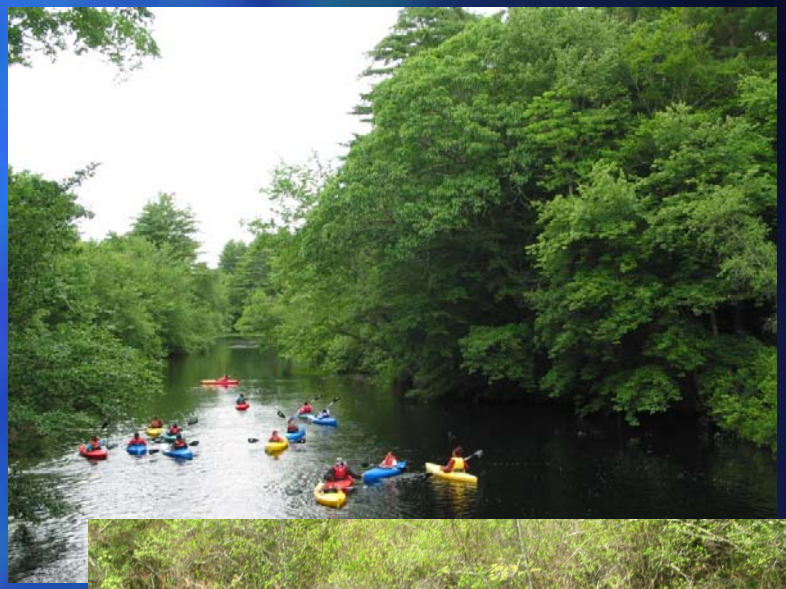
Air Temperature: ☐ °C ☐ °F — Days since last Rain/Snow event (if known):

This protocol was developed by the New England Interstate Water Pollution Control Commission (NEIWPCC) and the R.I. Department of Environmental Management (DEM) with funding provided by the Environmental Protection Agency (EPA) Wetlands Pilot Demonstration Grant.

Version 3/4/2008 — *Sheet 1*

School Program
Wood River Investigation

- Students spend a day examining parameters at one of 5 sites
  - Chemical – DO, pH, Nutrients
  - Physical – in stream assessment
  - Biological - macroinvertebrates
- Students assess human impacts along the shoreline from kayaks



Findings

- Students benefit from field trip experiences
- Information gets extrapolated to home and community
- Need motivated teachers to pull it off
- Good publicity for organization

Citizen Scientist

- URI Watershed Watch Water Quality Monitors
- Purple Loosestrife Survey
- Vernal Pool Assessments

Findings

- General public enjoys
  - Learning details behind projects
  - Learning new skills
  - Being part of a something useful
- Need good oversight of volunteer efforts
- Need quality control systems designed into project

Come Visit our Headquarters at
Barberville Dam on Arcadia Road,
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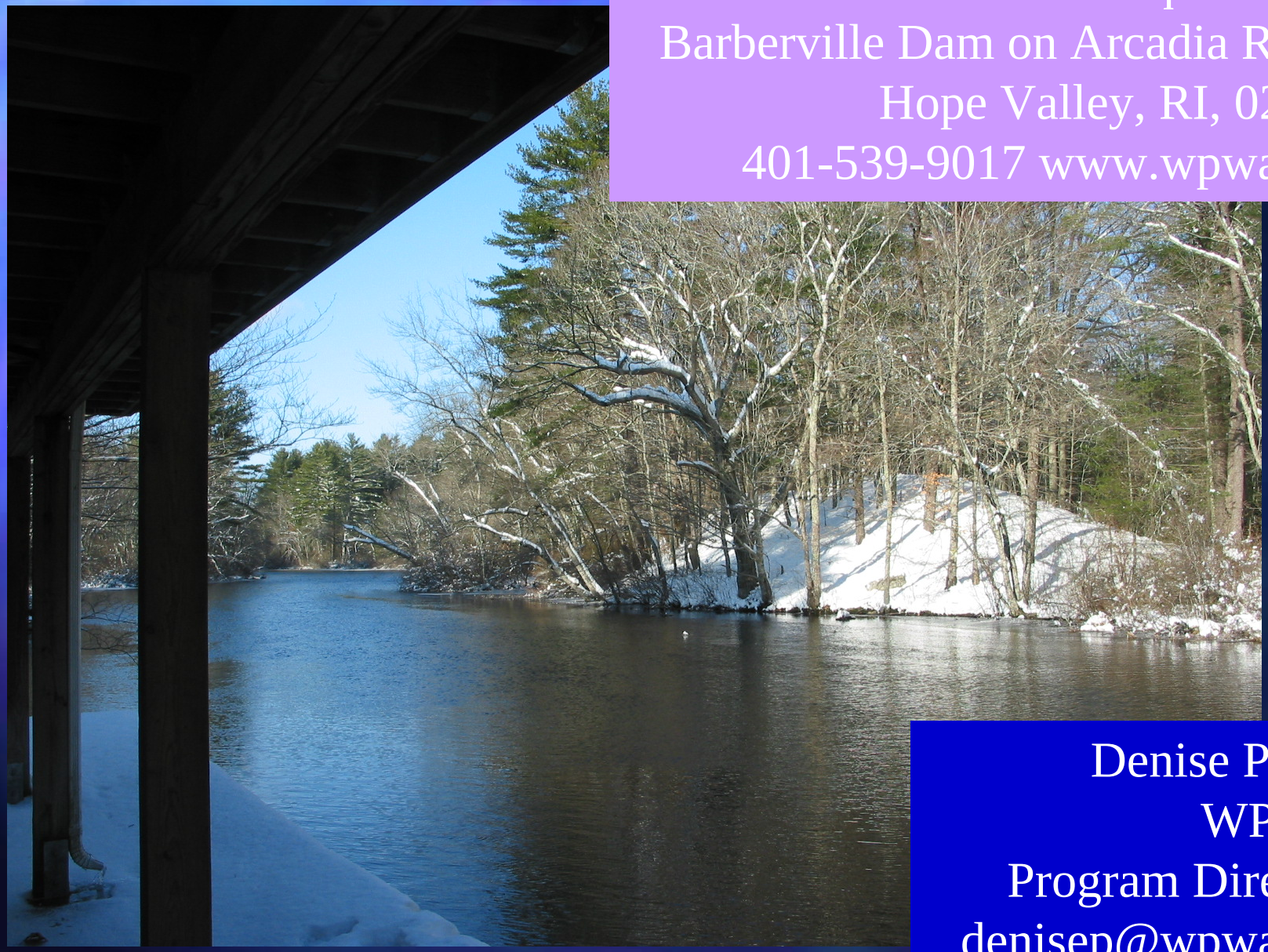

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