



# WISCONSIN EPHEMERAL PONDS PROJECT

EPHEMERAL POND DATA FORM – 2008 Instruction Sheet

## A. Basin Location

If surveying a site previously mapped by the WDNR, record the ‘Station ID’ or ‘PEP ID’ noted on the map. On your first visit to a site, when possible, document the pond location by completing all location information (Station/PEP ID, PLSS, Written directions, and GPS coordinates. On subsequent visits you need only include the PEP or Station ID. Describe in written directions, provide compass bearings and approximate distances from permanent reference points (telephone poles, parking lots, trailheads, etc.) to help others find the pond on future surveys. Visit <http://dnrm.wisconsin.gov> to use a map tool to obtain geographic coordinates for your site if you do not use GPS.

## B. Observer Contact

Contact information should relate to the person leading the survey and is responsible for submitting the data form. Check ‘Yes’ if you have completed survey forms for this site during previous visits during the current season or in previous year.

## C. Land Owner Contact

You MUST obtain permission to enter any property PRIOR to conducting a survey. Check ‘Yes’ if the landowner has granted permission for access. Permission is also required to gain access to a public site by crossing private lands.

## D. Basin Physical and Hydrologic Status

Weather Conditions: Conduct surveys during daylight hours under weather conditions that allow for adequate visibility to assess the physical and hydrologic status of the ephemeral pond. Suitable weather conditions include days where winds are less than 12 mph, skies are partly cloudy or overcast, with light to no rain and water temperatures are 50° F or above. Record the appropriate wind and sky codes in the appropriate places. Weather Comment: Note any special weather conditions that may affect the results of the survey (for example: heavy smoke in air, ½ inch hail storm hit).

### Wind code:

- 0 <1 mph, calm
- 1 1-3 mph, vapor or smoke would drift
- 2 4-7mph, wind felt on face/leaves rustle
- 3 8-12mph, leaves/small twigs in constant motion
- 4 >12 mph, wind raises dust and small branches move

### Sky code:

- 0 clear or few clouds
- 1 partly cloudy or variable
- 2 cloudy or overcast
- 4 fog
- 5 drizzle
- 6 showers

### Basin Isolated:

When practical, walk the entire perimeter of the pond basin to determine where the basin edge is in relation to other surface water features, such as stream inlets or outlets or a larger waterbody such as a deep open marsh. If you can imagine a small fish swimming through any water connection, then the feature is connected. If you walk the entire perimeter of the basin and see no evidence of the pond being connected to other surface water, the pond is considered isolated, so circle Y. If the pond is not isolated, circle N. If N, also circle the type of connection that best describes what the pond basin is connected to. Are there other ponds in the area within view from this pond?: If there are other ponds within sight of the pond being surveyed, circle Y. Use comments section to describe any special circumstances (For example: “bank overflow shows water drains from this pond basin to the other,” or “a natural spring is flowing into this basin.”). Hydroperiod History: If your familiar with a particular pond from other years, do you know when it goes dry? If so, circle the period of the season that best describes when you have observed the pond to go dry in previous years. SW % Cover: Refer to the SW cover charts provided to estimate how much water is covers the entire pond basin. Circle the category of percent cover that best represents the portion of the total basin area that is occupied by ponded water. This includes all ponded areas with emergent vegetation. SW in contiguous pool?: When ponded water begins to draw down during late spring or summer, it often maintains a single receding pool of water. Circle Y if this is observed. In certain cases where the basin topography is not uniform, 2 or more separate pools may develop within the same basin. As a rule-of-thumb, any pool that is more than 1 meter diameter and is near the basin center should be considered. Water Depth: Use a slight downward hand pressure while holding the ruler perpendicular to the water surface. Do not ‘push’ the ruler down through the substrate. Record water depth to the nearest centimeter or ¼ inch. When conditions, or lack of suitable equipment don’t allow for a precise measure of water depth, an estimate is still useful. You may visually estimate the maximum depth by comparison to familiar structures in the water or by establishing a lower limit such as “more than 18 inches”. Check the appropriate box to indicate if the depth was measured or estimated. High Water Mark: The High Water Mark depth is most easily determined when there is water standing around trees in the basin since the presence of water often leaves a ‘high-water mark’ on the tree trunks where the water was its highest. The High Water Mark depth is the vertical distance from the low point of the basin to the elevation of these high-water marks. Water Temperature: Collect water temperature near the deep point of the basin preferably where the water and substrate have not been disturbed. Measure the water temperature within 3-5 inches from the water surface, as well as 3-5 inches of the pond bottom. Allow a minimum of 1 minute for your hand-held thermometer to stabilize prior to interpreting the temperature. Read the thermometer within 5-10 seconds once you pull it out of the water for an accurate measure. Circle C for Centigrade and F for Fahrenheit. Water PH, DO, and Cond.: Measuring the basin’s water pH, dissolved Oxygen and conductivity is optional. Water Color: Determine water color and clarity in a part of the pond that has not been disturbed and has good light. If necessary, slowly separate any floating vegetation that may be on the surface. % Canopy Cover: Collect this information beginning with the Late Spring (May 20 – June 5) survey period when leaves are full size. Refer to the canopy (trees and tall shrubs) cover chart provided to estimate how much of the basin area is covered by canopy (branches and leaves). Circle the category of % cover that best represents the portion of the total



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basin area covered by canopy. Trees in Basin: Circle Y when live standing trees are present within the pond basin. "Trees", as opposed to saplings or seedlings, have a diameter of at least 4 inches about 4 feet from the ground. If possible determine what tree species are dominant or most common. If there are standing dead trees only, write 'snags only' in the Dom. Sp. Space. Edge Defined: If you can clearly distinguish the pond basin's edge along the entire perimeter of the pond basin, circle Y for 'well defined'. Circle Y-Partial if it is only evident along portions of the pond basin. If the basin edge is not at all evident, then circle N for not defined. Basin Size: This is to be determined only one time and is should be done after the pond has gone dry or mostly dry. Basin length, width, and circumference are the L, W, and C and they are marked by the basin's edge. These three are measured ideally by using a forester's hip-chain that uses a string that is fed through a measuring dial. Basin size may also be measured using a long measuring tape or by pacing. On the data form, circle T if you used a forester's hip-chain or measuring tape and P if you estimated the lengths using the pace method. Substrate Moisture: Substrate moisture properties are evaluated after the pond is 'dry' or nearly dry exposing the material at the bottom of the basin to air. This often occurs during the 3rd or 4th survey periods, but can be influenced by heavy seasonal rains. Select 'saturated' if water pools around your boot when pressing down, 'moist' if the substrate is wet but does not exhibit pooling around your boot, and 'dry' if the material feels relatively dry to the touch. Substrate Cover Type: Many basins develop a substrate cover or layer of organic matter that settles to the pond basin. This material originates from leaves dropped from trees or by the annual growth of herbaceous plants. Check the box that best represents what type of material is covering the substrate of the pond basin. Select 'leaf' if for tree leaves, 'herb' for matter consisting mostly of dead grasses and forbs, or 'mix' if a combination of both are present. Select 'bare' if the pond bottom looks mostly like exposed mineral soil. Substrate (type): Substrate type is best evaluated once the pond is 'dry' or nearly dry exposing the basin substrate to air. SHOULD THIS SITE BE CONSIDERED A VEP?: Answer this question ONLY once you have completed all of the remaining parts on page 1 of this form. Use the information you collected during the survey and your understanding of the definition of an ephemeral pond to complete this section. Circle 'Y' if you believe this site should be considered as a Verified Ephemeral Pond (VEP). Circle 'N' if you believe it is not a VEP or 'Not Sure' if consultation or an additional survey is necessary prior to making a determination.

## E. Basin Sketch

Create a scaled drawing of the pond as viewed from above. Include features such as springs, intermittent streams, bank overflows, large rocks, locations used by amphibians, and the location where water depth was measured. When possible also collect a photo of the pond basin. Note on the map of where you stood as you took the photo. When possibly use colored tape to mark the spot so another photo can be collected from the same place at a different time of year.

## F. Adjacent Landuse

Determine the presence of each landuse type within 30 meters of the pond basin edge. Check 'yes' if present and 'no' if not present. For land use categories determined present, record the # that represents the land use type on the basin sketch in the approximate location.

## G. Basin Disturbance

For each disturbance type, circle the option that indicates either the presence, absence or unknown effects that may be detrimental to ephemeral pond health.

## H. Basin Vegetation

Refer to the vegetation cover charts provided to estimate how much area of the basin is covered by each vegetation type. Circle the category that best represents your estimate. If possible, determine the dominant species (most common) associated with each community type. An inventory of plant species is considered optional.

## I. Birds/Mammals Observed

List all birds or mammals observed within the pond basin as you approached the basin and while conducting the survey.

## J. Reptile Evidence Observed

List all reptiles observed within the pond basin as you approached the basin and while conducting the survey.

## K. Amphibian Evidence Observed

For amphibians and aquatic invertebrates, search the pond basin for a minimum of 30 minutes to detect species presence. These visual-encounter surveys (walking a careful and planned route through the pond to detect animals) are best done prior to any significant disturbance to the pond water column to avoid scaring animals into hiding. Record all amphibians and aquatic invertebrates observed while conducting the pond survey. For amphibians, place a check under the appropriate evidence category (adult, eggs, larvae, juvenile) for each amphibian species observed. For the calling frogs and toad, place a check under 'c' if the observation is based on hearing the call of the species. If observed by sight, place a check under 'v' (visual). If the species is observed in both manners, place a check under each category.

## L. Aquatic Invertebrate Evidence Observed

Place a check next to each macro-invertebrate species observed.

## M. Observer Comments

Include any comments that may help to understand the information collected and recorded in the data form. Observations of threatened and endangered species, other wildlife species, and any environmental hazards could also be noted here. If additional space is needed please include an attached sheet.