

USFWS / PFBC Bog Turtle Habitat Evaluation Field Form¹
(revised 06/01/2006)

Project/Property Name: _____

Project type: _____

Applicant/Landowner Name: _____

County: _____ Quad: _____ Township/Municipality: _____

PNDI # _____ Potential conflict with USFWS species? Y N

ACTION AREA²

Action area size: _____ Does the Phase 1 survey include all wetlands in the action area? Y N³

WETLAND ID: _____ **PHOTOS TAKEN:** Yes No **WETLAND SIZE:** _____ acres

Wetland size estimation – If actual acreage is not known at time of investigation, check one:

< 0.1 acre 0.1-0.5 acre >0.5 to <1 acre 1-2 acres 2-4 acres 5+ acres 10+ acres

WETLAND LOCATION: Lat _____ Long _____

(approximate center of wetland) GPS Datum (check one): NAD 27 NAD 83 WGS 84

SURVEY CONDITIONS & LIMITATIONS

Date of survey: _____ Time In: _____ Time Out: _____

Last precipitation: < 24 hours 1-7 days > 1 week unknown Drought conditions? Y N Unknown

How much of this wetland is located *off-site* (i.e., outside the property boundaries or right-of-way)?

- none of it – the entire wetland is within the property boundaries (skip next 2 questions)
- some of it – _____ acres or _____ % of the wetland appears to be located off-site

If part of this wetland continues off-site, how much of the *off-site portion* was surveyed (on foot)?

- none of it all of it part of it (_____ % or _____ acres of the off-site portion)

How much of the *off-site portion* of this wetland is visible (e.g., from the subject property or from a public road)?

- all of it part of it (at least _____ acres) none of it

Are there any wetlands located off-site and close enough to be affected by this project? Y N Unknown

If yes, *could* they be potential bog turtle habitat? Y N Unknown

Describe surrounding landscape (wetlands, forest, subdivision, agricultural field, fallow field, etc.):

WETLAND CHARACTERISTICS

Wetland type(s) present and % cover: PEM _____ PSS _____ PFO _____ POW _____

Y N Are there any signs of disturbance to *hydrology* (ditching, filling, ponds, roads, etc.)? If yes, describe

Y N Are there any signs of disturbance to *vegetation* (mowing, pasturing, burning, etc.)? If yes, describe

Project Name _____

Wetland _____ (con't)

Hydrology

- Y N Springs or seeps visible or likely? Watercress present? Yes No
- Y N Spring houses in or adjacent to wetland?
- Y N Saturated soils present? If yes, year-round? Likely Unlikely Unknown
- Y N Water visible on surface? Check all that apply: small puddles/depressions (____" deep)
 rivulets (____" deep) larger pools/ponds (____" deep)
- Y N Evidence of flooding? If yes, describe indicators _____

Soils Mapping Unit (optional): _____

Field observations confirm mapped type? YES NO Unknown

| Soils – PEM Portion of Wetland | | | |
|---------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <i>Mucky</i> ⁴ ? <input type="checkbox"/> YES <input type="checkbox"/> NO | How much of it (PEM) is mucky ? <input type="checkbox"/> <10% <input type="checkbox"/> 10-29% <input type="checkbox"/> 30-49% <input type="checkbox"/> 50-70% <input type="checkbox"/> >70% | Mucky soils range in depth from: _____ to _____" | Most of the mucky part(s) of the wetland can be probed ⁵ : <input type="checkbox"/> 3-5" <input type="checkbox"/> 6-8" <input type="checkbox"/> 9-11" <input type="checkbox"/> ≥12" |
| <i>Non-mucky</i> ⁶ ? <input type="checkbox"/> YES <input type="checkbox"/> NO | How much of it (PEM) is non-mucky ? <input type="checkbox"/> <10% <input type="checkbox"/> 10-29% <input type="checkbox"/> 30-49% <input type="checkbox"/> 50-70% <input type="checkbox"/> >70% | | |

| Soils – PSS and PFO Portions of Wetland | | | |
|-----------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <i>Mucky</i> ⁴ ? <input type="checkbox"/> YES <input type="checkbox"/> NO | How much of it is mucky ? <input type="checkbox"/> <10% <input type="checkbox"/> 10-29% <input type="checkbox"/> 30-49% <input type="checkbox"/> 50-70% <input type="checkbox"/> >70% | Mucky soils range in depth from: _____ to _____" | Most of the mucky part(s) of the wetland can be probed ⁵ : <input type="checkbox"/> 3-5" <input type="checkbox"/> 6-8" <input type="checkbox"/> 9-11" <input type="checkbox"/> ≥12" |

Wetland Vegetation (characterize the wetland as a whole)

Check (X) if present (≥ 5% areal coverage), and also circle if dominant (≥ 20% coverage).

- sedges rushes skunk cabbage cattail sweet flag jewelweed sphagnum moss
- sensitive fern rice cutgrass tearthumb reed canary grass *Phragmites* purple loosestrife
- alder dogwood red maple willow poison sumac multiflora rose _____

Additional dominant species: _____

Herptiles

Were any bog turtles observed? YES⁷ NO If yes, how many? _____

Other herptiles observed previously observed: _____

Additional Comments/Observations: (use additional sheets if necessary)

INVESTIGATOR'S OPINION

- YES NO UNSURE The hydrology criterion⁸ for bog turtle habitat is met.
- YES NO UNSURE The soils criterion⁸ for bog turtle habitat is met.
- YES NO UNSURE The vegetation criterion⁸ for bog turtle habitat is met.
- YES NO UNSURE This wetland is potential bog turtle habitat.

I certify that to the best of my knowledge, all of the information provided herein is accurate and complete.

Investigator's Name (print) _____ Investigator's Signature _____ Date _____

Contact info: _____

ENDNOTES – Bog Turtle Habitat Evaluation Form

- 1 Non-agency field form, to be used by consultants with training and expertise in Phase 1 bog turtle surveys.
- 2 The action area includes all areas that will be affected directly or indirectly by the action and not merely the immediate area involved in the action. For example, if the proposed action is a wetland fill to accommodate access to a proposed development, then the development is included in the action area.
- 3 The Phase 1 survey should include all wetlands in the action area. Contact the USFWS if you have questions about the extent of the action area for a particular project.
- 4 Soils are considered “mucky” if one can probe them to a depth of ≥ 3 ".
- 5 Probing is done with an approximately 1" diameter, blunt-ended pole (e.g., a wooden broom handle).
- 6 Soils are considered “non-mucky” if one can probe them to a depth of < 3 ".
- 7 Report observations of bog turtles to the USFWS and PFBC within 48 hours.
- 8 See “BOG TURTLE HABITAT CRITERIA” (below)

BOG TURTLE HABITAT CRITERIA

Compare your Phase 1 survey observations to the habitat criteria below.

Suitable hydrology. Bog turtle wetlands are typically spring-fed with shallow surface water or saturated soils present year-round, although in summer the wet area(s) may be restricted to near spring head(s). Typically these wetlands are interspersed with dry and wet pockets. There is often subsurface flow. In addition, shallow rivulets (less than 4 inches deep) or pseudo-rivulets are often present. In some cases, the source of a wetland’s hydrology is difficult to determine because springs and seeps are not visible. However, the *influence* of springs and seeps will be apparent (e.g., presence of saturated soils year-round).

Suitable soils. Usually a bottom substrate of permanently saturated organic or mineral soils. These are often soft, mucky-like soils (this does not refer to a technical soil type); you will usually sink to your ankles (3-5 inches) or deeper, although in degraded wetlands or summers of dry years this may be limited to areas near spring heads or drainage ditches. In some portions of the species’ range, the soft substrate consists of scattered pockets of peat instead of muck. In the areas of the wetland where saturated soils are present, you will be able to probe them to a depth of at least 3 inches, but pockets of 5 to 12 inches are likely to be present. During drought conditions, the extent and depth of mucky soils may be dramatically reduced over non-drought conditions, with soft, saturated soils being limited to areas near springs or seeps.

Suitable vegetation. Dominant vegetation of low grasses and sedges (in emergent wetlands), often with a scrub-shrub wetland component. Common emergent vegetation includes, but is not limited to: tussock sedge (*Carex stricta*), soft rush (*Juncus effusus*), rice cut grass (*Leersia oryzoides*), sensitive fern (*Onoclea sensibilis*), tearthumbs (*Polygonum* spp.), jewelweeds (*Impatiens* spp.), arrowheads (*Sagittaria* spp.), skunk cabbage (*Symplocarpus foetidus*), panic grasses (*Panicum* spp.), other sedges (*Carex* spp.), spike rushes (*Eleocharis* spp.), grass-of-Parnassus (*Parnassia glauca*), shrubby cinquefoil (*Dasiphora fruticosa*), sweet-flag (*Acorus calamus*), and in disturbed sites, reed canary grass (*Phalaris arundinacea*) or purple loosestrife (*Lythrum salicaria*). Common scrub-shrub species include alder (*Alnus* spp.), red maple (*Acer rubrum*), willow (*Salix* spp.), tamarack (*Larix laricina*), and in disturbed sites, multiflora rose (*Rosa multiflora*). Some forested wetland habitats are suitable given hydrology, soils and/or historic land use. These forested wetlands include red maple, tamarack, and cedar swamps.