Negative Results

Phase 1 Habitat Assessment Report For

Bog Turtle (Glyptemys muhlenbergii)

Franklin Hill Subdiv Rev

Development, Residential, Subdivision containing more than two lots and/or single-family units PNDI Search ID: PNDI-750438

Prepared for:

RKR Hess, a division of UTRS, Inc. 112 North Courtland Street East Stroudsburg, PA 18301

Prepared by:

Marlin D. Corn & B. Scott Fiegel Ecological Associates, LLC P.O. Box 181 Oley, PA 19547 (610) 987-6585

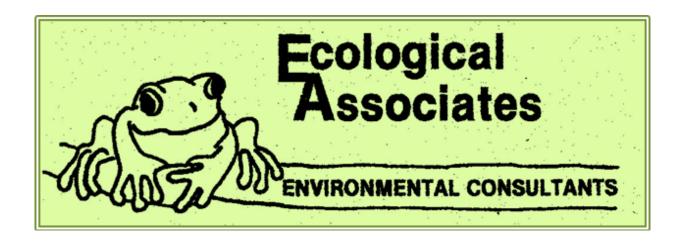


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Background

A Phase 1 Bog Turtle Habitat Assessment was conducted at the above-referenced project site in response to a project review by the Pennsylvania Department of Conservation and Natural Resources (PNDI) dated January 18, 2022. The bog turtle (*Glyptemys muhlenbergii*), federally listed as a threatened species by the United States Fish & Wildlife Service (USFWS) and as an endangered species by the Pennsylvania Fish & Boat Commission (PFBC), is known from the general region of the subject site. Ecological Associates, LLC (EA) was retained to perform a *Phase 1 Bog Turtle Habitat Assessment*; to identify and determine if any wetlands within the project boundaries and surrounding area for a distance of at least three hundred feet (Action Area), provide potential bog turtle habitat. The survey was conducted on March 28, 2022, with a return visit on April 28, 2022, by Marlin Corn, a PFBC recognized bog turtle surveyor, in accordance with PFBC and USFWS guidelines for the bog turtle.

Project Location and Description

The 17.40-acre project site is in Smithfield Township, Monroe County, Pennsylvania. The northeastern portion of the property is bordered by Hidden Valley Drive, and Franklin Hill Road borders the southeastern portion. This location lies within the Blue Mountain Section of the Ridge and Valley Physiographic Province. Most of the immediate surrounding area is predominantly forested, with scattered agricultural plots and single-home residences. A large single-home subdivision is located approximately ½ mile to the southwest, and development increases towards East Stroudsburg, less than two miles to the southwest. The associated PNDI receipt shows the GPS coordinates for the approximate center of the site as 41.018904° N, -75.147034° W (NAD83). The subject site is an old farmstead. The original barn is still present, near the remains of the original farmhouse foundation. Roughly one-third of the property remains cleared in the central and northeastern portions. A small blueberry orchard is located near the barn, and a narrow hedgerow of trees bisects an approximately 2.50-acre open field. A gravel road runs northwest from Franklin Hill Road, bisecting most of the tract. This was the original farm access road. A house built in the 1970s is located at the north end of this road. Another house, also built in the 1970s, is located adjacent Hidden Valley Road in the northeastern portion. One to several new units are being considered for construction, with possible renovations to the barn, though no construction plans currently exists. Though the PNDI receipt is based on the entire property boundary, according to the landowner, any construction will likely be restricted to areas north and east of the afore-mentioned hedgerow which bisects the field. Please refer to Appendix A for a topographic map and a Google Earth satellite image of the subject site. Please refer to Appendix B for an Existing Features Plan.

Soils

According to the USDA-NRCS Web Soil Survey, soils within the project Action Area include Alden mucky silt loam (Ad), Bath channery silt loam, 3 to 8 percent slopes (BaB), Benson Rock outcrop complex, 0 to 8 percent slopes (BeB), Benson Rock outcrop complex, 8 to 25 percent slopes (BeC), Chippewa and Norwich silt loams, 0 to 5 percent slopes (CmA), Mardin channery silt loam, 3 to 8 percent slopes (MaB), Mucky Peat, deep (Mp) and water (W). Please refer to Appendix C for an aerial image with soil mapping overlay and details of the location, taken from the USDA-NRCS Web Soil Survey website.

Habitat Assessment Methodology

Wetlands detected within the Action Area were investigated to determine if soil, hydrology, and vegetation criteria for bog turtle habitat are met. All work was completed in accordance with the USFWS Guidelines for Bog Turtle Surveys (revised April 29, 2020). Prior to the survey all field gear was decontaminated using the protocols outlined in *Northeast Partners for Amphibian and Reptile Conservation Disinfection of Field Equipment to Minimize Risk of Spread of Chytridiomycosis and Ranavirus* (February 2014). This report provides information relating to the suitability of the habitat at the site to support Bog Turtles. <u>Habitat assessments do not determine the presence or probable absence of Bog Turtles</u>, only the presence or absence of potentially suitable habitat. Appendix D contains a zoomed aerial image with the project and buffer zone boundaries, wetland polygons, and with numbered photo points which corresponds to Appendix E (Site Photographs).

Phase 1 Bog Turtle Habitat Assessment Results

Temperature at the start of the first survey (10:30 a.m.), on March 28, 2022, was 26F, with overcast skies and moderate northwesterly winds. The most recent measurable precipitation was two days previous the survey. Temperature at the start of the second visit (12:15 p.m.), on April 28, 2022, was 51F with clear skies. A large wetland area, designated W-1, was found to be associated with the western portion of the subject site and extends westward for approximately ¼ mile. Most of W-1 appears to be a low-lying forest with several open water ponds, with profuse growth of Spatterdock (Nuphar lutea, OBL) covering much of the surface. Some, or all, of these open water areas are naturally occurring, with no constructed dams apparent, and appear to reflect the current local water table. No currents or upwelling of spring water were detected anywhere in the surveyed portions of the W-1. All the portions on the subject property are PFO with no open water. A single outflow was located, running beneath Franklin Hill Road, immediately south of the subject property. In reviewing satellite imagery, this appears to the only outlet for all of W-1. It also represents the southeastern end of a linear trench (approximately 400 ft. long by 10 ft. wide) that had been excavated at some point in the past, possibly in attempt to drain part of the wetland. This runs adjacent and parallel to the western edge of the subject property. The depth of this trench could not be determined but was more than four feet. The outlet flows southeast to feed a pond on a neighboring property beyond the Action Area, but the water in observed portions of the outflow appear to be stagnant at the time of the surveys. Mats of string algae and duckweed (Wolffia spp., OBL) were observed on the water surface here, as in much of the wetland.

Most of W-1 in the Action Area is currently flooded because of beaver activity. The property owner reported that the beavers constructed a dam approximately three years ago, near the point the outflow exits the wetland beneath Franklin Hill Road, and that previously no standing water was present in the PFO or PEM portions of the project site. The beavers are reported to have recently been trapped out and the dam removed, and water appeared to have receded several feet from the edge. However, since the removal of the beaver dam, apparent human damming efforts have been reported. Because of the damming, the ponds have overflowed into the surrounding areas, with more than 95% of the wetland within the Action Area inundated. Water levels throughout the investigated portions of the wetland ranged 1-4 feet and averaged approximately two feet. The area appears to have essentially merged into one large water body with some small drier 'islands' of slightly elevated topography. Studying aerial images, two small areas along the western edge of the Action Area have the appearance of potential PSS or PEM areas. but these are also currently under water. The broken stems of last year's bulrush (Schoenoplectis spp., OBL) and water shield (Brasenia schreberi, OBL) present throughout these areas suggest they were likely water-covered to some degree prior to beaver flooding. Some very small areas of elevated PEM habitat were found at the edge of these areas. A few scattered specimens of soft rush and a couple of unidentified sedge species were present at these locations. Water in all areas appeared to be stagnant, with no movement detected at the surface, or below the substrate when probing. A stormwater pipe beneath Franklin Hill Road diverts some surface runoff into the southeastern corner of the PEM portion.

Soil mapping indicates the soils associated with wetland W-1 are dominated by Mucky Peat, deep (Mp), but with Alden mucky silt loam (Ad) dominating the PFO portion on the subject property. Because of the soil mapping the surveyor was expecting to encounter mucky soils throughout the wetland but was surprised by a lack of mucky soils in terms of bog turtle habitat. Footing was firm in all areas, including in the open water areas, at least to the depth it was possible to wade (approximately three feet). Soils were probed an average depth of only two inches except in a few locations where a probe could be forced 4-6 inches with great effort.

The more recently flooded PFO areas are forested with a limited variety of hardwood tree species, all which are now dead and breaking down, many beyond the point of identification but it is apparent red maple (*Acer rubrum*, FAC) was the dominant tree. The flooded ground covered beneath a mat of dead limbs and branches. Other identified tree species including wild black cherry (*Prunus serotina*, FACU), American holly (*Ilex opaca*, FACU), ash trees (*Fraxinus* spp.) and a white-barked birch species (*Betula* spp.). Essentially all shrubs were dead and breaking down beyond the point of identification, except a severe infestation of barberry (*Berberis* spp.) dominates most of the understory on the subject property. Other identifiable species at the edge

of the flood zone include multiflora rose (*Rosa multiflora*, FACU), spicebush (*Lindera benzoin* FACW-) and highbush blueberry (*Vaccinium corymbosum*, FACW-). Noted vines growing at the eastern edge of the PFO include poison-ivy (*Toxicodendron radicans*, FAC), Oriental bittersweet (*Celastrus orbiculatus*), Virginia-creeper (*Parthenocissus quinquefolia*, FACU), Virgin's Bower (*Clematis virginiana*, FAC) and greenbrier (*Smilax* spp., FAC). Herbaceous plants were conspicuously absent in the PFO, including species normally expected in a PFO such as skunk cabbage. At the eastern edge of W-1 is a PEM area, approximately 0.60 acre in size, which makes up part of a field on the subject property. This field was formerly used for hay cutting but in recent years is being periodically cut during the growing season for maintenance. Due to cutting, many vegetative species could not be identified, but most appear to be various grasses, likely including a variety of non-native species due to the field's history of hay production. The most common identifiable species were soft rush (*Juncus effusus*, FACW+) and stilt grass (*Microstegium vimineum* FAC). Other noted species include reed canary-grass (*Phalaris arundinacea* (FACW+), dock (*Rumex* spp.), sensitive fern (*Onoclea sensibilis*, FACW) and a couple of specimens of common cat-tail (*Typha latifolia* OBL) present.

A 1-acre pond, designated wetland W-2, is located on the northern edge of the Action Area. Wetland W-2 is a pond which appears to be spring-fed; no inflow was observed, and water was flowing out of the western end. The open water is ringed by a band of tree growth. Identified species included black willow (*Salix nigra* FACW+), black birch (*Betula lenta*, FACU), wild black cherry (*Prunus serotina*, FACU), swamp white oak (*Quercus bicolor* FACW+), white pine (*Pinus strobus*) and eastern red-cedar (*Juniperus virginiana*, FACU). A small patch of PEM (approximately 800 sq. ft.) is located on either side of the outflow, with couple of specimens of tussock sedge (*Carex stricta*, OBL), wool-grass (*Scirpus cyperinus* FACW) and some unidentified grasses were present. The soil was saturated here but the substrate had a high rock content and could only be probed an average of 1-3 inches. The east end of the pond is maintained with regular cutting. This area is topographically separated from the subject property by an elevated northeast-southwest running ridge.

Summary of Detected Wetlands

Wetland ID	Lat/Long Coordinates (approximate center) Degree-decimal 83 datum)	Approximated Size of Entire Wetland	Wetland Types & Amount of Each*	Extent of Saturated ('Mucky') Soils (by Wetland Type)*	Designated Survey Area*	Bog Turtle Habitat?*
W-1	41.017518, -75.149472	22 Acres (Approximately 8.60 acres in Action Area)	POW 12% PEM 6% PFO 82%	n/a 0% >1%	None None None	No
W-2	41.020532, -75.148844	1 acre	POW 90% PFO >9% PEM <1%	n/a 0% 0%	None None None	No

^{*}Applies to surveyed portions of wetlands (Action Area) only. The remainder of W-1 was not surveyed due to lack of access.

Wetland W-1

Classification: 12% POW, 6% PEM, 82% PFO (applies to surveyed portion only).

Approximate size of entire wetland: 22 acres

Wetland W-1 previously consisted of several separate ponds separated by forested areas and possibly some small PSS/PEM areas at the western edge of the Action Area. Due to damming, the majority of W-1 was flooded at the time of the surveys, including all the forested portion on the subject site. Approximately 15% of W-1 is PEM, periodically cut for maintenance.

Hydrology: Yes

Wetland W-1 appears to be driven by subsurface hydrology associated with the POW portions of this wetland; no inflowing streams are present. However, the water appeared stagnant, with no currents or subsurface water flow detected. Additionally, the water associated with the project site appears to be spillover from the ponds due to the beaver activity.

Soils: No

Though soils of W-1 are hydric, and in the forested portion contain a high amount of organic matter, none of the Action Area had truly mucky soils in terms of bog turtle habitat; all areas were firm to walk on and could only be probed an average of two inches. No tunnels were observed.

Vegetation: No

Most of W-1 is currently flooded and herbaceous vegetation was absent in all PFO area. Some small elevated PEM areas near the two POW areas had some herbaceous vegetation, including a couple of sedge species, but diversity was low, growth was sparse, and the areas were too small to support bog turtle ecology. The PEM portion on the subject site has a low species diversity dominated by grasses and is routinely cut. It is unknown but possible some areas which meet the vegetative criteria are present in the western portions of W-1, but this area is well beyond three hundred feet from the project site.

Potential Bog Turtle Habitat: No

Though subsurface hydrology appears to be the primary driver of wetland W-1, the true extent within the PFO portion of the Action Area is unclear due to recent flooding caused by beaver activity. All waters appear to be stagnant with no surface or subsurface flow detected. Soils throughout the Action Area are firm. Appropriate vegetation for bog turtle ecology is absent.

Wetland W-2

Classification: 90% POW, <1% PEM, >9% PFO

Approximate size of entire wetland: 1 acre

Wetland W-2 is a pond which appears to be spring-fed; no inflow was observed, and water was flowing out of the western end.

Hydrology: Yes

Wetland W-1 appears to be driven primarily by subsurface hydrology.

Soils: No

Soils at the edges of the pond area saturated, but rocky and could only be probed an average of 2-3 inches.

Vegetation: No

A small PEM area at the south end of the pond contains some plant species associated with bog turtle habitat, but this area is far too small to support a bog turtle population.

Potential Bog Turtle Habitat: No

Subsurface hydrology is present but appropriate vegetation and soils for bog turtle ecology are absent in the portion of wetland W-1 within the Action Area, and no PEM habitat could be seen beyond the Action Area using binoculars. It is unknown if suitable habitat is present in distant portions of W-1, but if so it would likely be at least 900 feet from areas of proposed construction.

Herpetological Observations

A spotted turtle (Clemmys guttata) was found in the western portion of the Action Area during the April 28 visit.

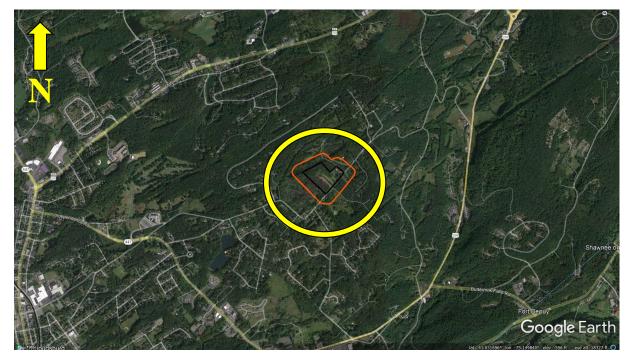
Findings and Recommendations

A Bog Turtle Phase 1 Habitat Assessment was completed at the above-referenced project site in accordance with regulatory agency recommendations. Based on the scope of work and the information described above, Ecological Associates, LLC relates the following:

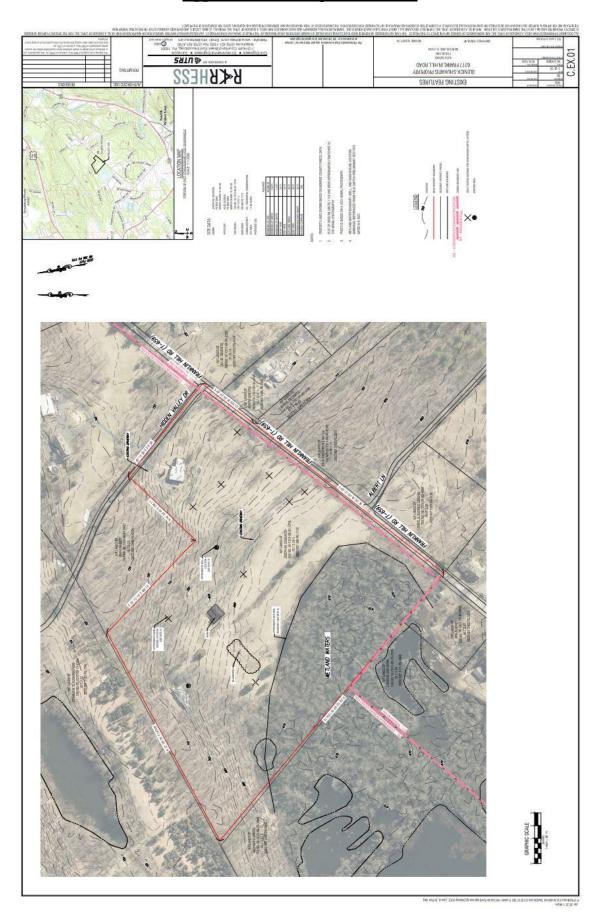
- No mucky soils were encountered in the Action Area; all substrate was firm to walk on and could be probed only to an average of two inches.
- None of the Action Area has vegetated areas consistent with bog turtle habitat.
- While it is unknown if potential bog turtle habitat is present in the western portion of Wetland W-1, any such areas would be well beyond the Action Area and over 900 feet from any proposed construction.
- Because mucky soils and suitable vegetation for bog turtles is not present within or beyond the 300-foot buffer, no impacts to bog turtles are anticipated by this project.

Appendix A: Topographic map and aerial image showing project location.

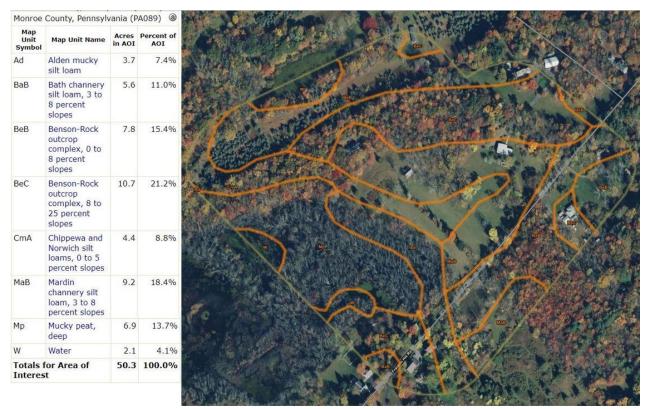




Appendix B: Existing Features Plan



Appendix C: Soil Mapping Information



The soil map encompasses the approximate boundaries of the project Action Area. Images obtained from the USDA-NRCS Web Soil Survey.

Appendix D: Satellite Imagery with Wetlands and Photo Points Marked

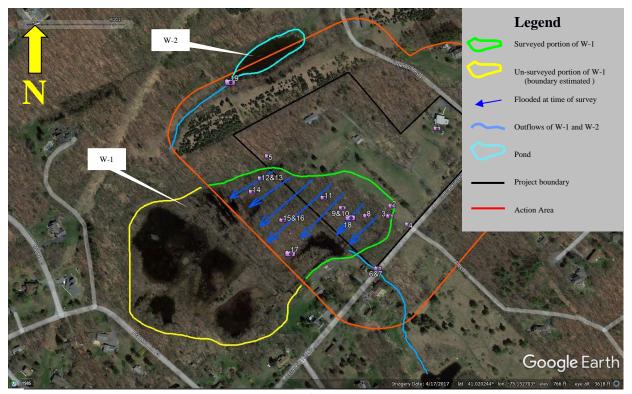


Image with polygons showing approximate boundaries of wetlands. Numbers represent photo points which correspond to images in Appendix D (Site Photographs). An older (2017) winter satellite image is used because the normal POW areas are more clearly seen.

Appendix E: Site Photographs



Photo 1: View from current house, facing southwest. Photo taken 3-28-22.



Photo 2: View of wetland W-1, facing southwest. Photo taken 3-28-22. Flooding has receded several feet since removal of the beaver dam this year.



Photo 3: View of PEM portion of Wetland W-1, facing north. Photo taken 3-28-22.



Photo 4: View of stormwater pipe, facing southeast. Photo taken 3-28-22.



Photo 5: View of Wetland W-1, facing southeast. Photo taken 3-28-22.



Photo 6: View of wetland outflow, facing west into wetland. Photo taken 4-28-22.



Photo 7: View of wetland outflow, facing east on opposite side of Franklin Hill Road. Photo taken 4-28-22.



Photo 8: View of wetland W-1 showing profuse tree die-off, facing south. Photo taken 4-28-22.



Photo 9: View of wetland W-1, facing west.





Photo 11: View of Wetland W-1, facing east. Photo taken 4-28-22.



Photo 12: View of an elevated, unflooded portion of wetland W-1, facing west. This area encompassed approximately 200 sq. ft. Photo taken 4-28-22.



Photo 13: View of substrate, same location as Photo 12.



Photo 14: View of wetland W-1, facing southwest. Photo taken 4-28-22.



Photo 15: View of another elevated, unflooded locations in wetland W-1, facing south. This location encompassed approximately 150 sq. ft. Photo taken 4-28-22.



Photo 16: View of substrate, same location as Photo 15.



Photo 17: View of wetland W-1, facing south. Photo taken 4-28-22.



Photo 18: Spotted turtle found in wetland W-1. Photo taken 4-28-22.



Photo 18: View of a pond, designated wetland W-2, facing northeast. Photo taken 3-28-22.

Appendix F: Bog Turtle Habitat Survey Data Forms

	Phase 1 Bog Turtle Habitat Survey Data Form for the Northern Population Range (Revised April 29, 2020) Please do not edit document. Wetland ID: 40 -1
	Property/Project Name Franklia Hill Subdivision Rev Coordinates 41. 017518, -75, 149472 Project Type 2 + units
	Entity Requesting Phase 1 Survey Alice Olenick
	County/Township/Municipality Moncoe / Sun the Field
	Lead Surveyor Marlin Corn Affiliation Ecological Associates
	Other Assistants Present
	Date of Survey 3-28-22 Time In 10 30 a.m., Time Out 120 p.m. Air Temp. 26 (3° C°
	Last Precipitation _ < 24 hours _ 1-7 days _ > 1 week _ unknown Drought conditions? _ Yes _ No _ Unknown
	Drought Index*1 (Circle): none D0 D1 D2 D3 D4 Wetland Photos Taken Yes _ No (Provide photo location map)
	Notes (e.g., details about drought, flood, abnormally dry, and/or snow/ice conditions, and any other seasonal conditions observed): -No+ DD on Second vieit - LHS his since prevous ra
	Wetland Size acres, if known # Wetlands w/in Project Area ² in action area
	Estimate wetland size (acres) _ < 0.1 _ 0.1 - 0.5 _ 0.5 - 1 _ 1 - 2 _ 2 - 4 _ 5+ \$\frac{1}{2}\$ 10+
	Estimate % Canopy Cover*3 0% ≤ 5 6-20 \(\times \) 21-40 41-60 > 60
	Hydrology and Soils (check all that apply): use additional pages to further discuss pertinent general wetland information
	∠Springs/SeepsSpringhouseTrib/StreamPondStormwaterIron BacteriaWatercressWater Visible on Surface Evidence of FloodingYesNo If yes, (Seasonal Flooding 4 Routine Flooding 5)
	Rivulets (inches deep) Subsurface Tunnel/Rivulets Tire Ruts (inches deep)
	Small Puddles/Depressions (inches deep)Saturated soils present? If yes, year-round? 🗹 Likely Unlikely Unk
	Yes No Are there any signs of disturbance to <u>hydrology</u> (e.g., drainage ditches, tile drainages, berms, culverts, fill material, ponds, roads, beaver activity)? PFO 15 Floaded by cecent beaver dam
	- Original Pow areas have overflowed due to damming - vast majorily of wetland is flooded.
	Estimate time period (in years) of disturbance*: s 56-1011-20/> 20
1	For ditches that may be present, is there bog turtle habitat? If yes, describe:
ď	or dicties that may be present, is there bog turbe habitat? If yes, describe:
-	(*) Depotes reference to the final control leferonts of
	 (*) Denotes reference to the Supplemental Information document that provides more details on this particular question. Each wetland must have a separate Phase 1 habitat assessment data form completed. Determine percent cover of abundant species for the wetland, not by wetland type. Abundant species are those that are most prominent.
	in the wetland and have the highest percent of coverage compared to other species.

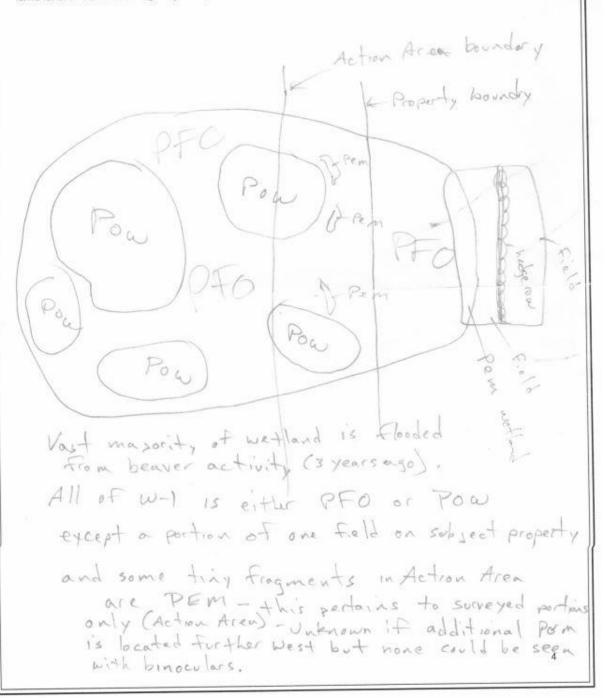
Q025 BMC M				Wetland II	W-1
Yes _ No Are	e there any signs of d	isturbance to <u>vegetat</u>	ion (e.g., mowing, pasturir	ng, burning)? If yes,	describe;
			y cut for		
		7000	7 00. 10.	- alance	unce
ite (scale of 1-4) i	level of vegetation dis	sturbance* (Circle): 1	. Light to moderate graz	ing or mowing 2	No grazing mowing
urning observed ⁶	3. Moderate to high	grazing or mowing	4. Mowing occurs durin	ng bog turtle active	season
oil types present*					
	Ad, MP	. C. A			
	A-1.	1			35 56 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5
ow much suitable	habitat is in this wet	land? Estimate acreag	ge or percentage: Mo	ee underc	urrent condu
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S Portion of Wet	land:			in,	in.
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			% for each wetland typ	e e lieted about tou	d - dd - st
ou observe that a	re not listed in table	in the "notes" space i	nsovided below or in th	e listeu abovej an	a add other species
			provided below of in th	e extra table cells	65
Alder Spp.	Common Reed	y Jewelweed	Rice Cutgrass	⊀ Spicebush	Willow spp.
Alnus spp.	Common Reed Phragmites australis		8.039.0	1	
Alnus spp. Alder-leaved Buckthorn	Phragmites australis Dogwood Spp.	Jewelweed Impatiens capensis Mile-A-Minute	Rice Cutgrass Leersla oryzoldes Rough-leaved Goldenrod	Spicebush Lindera benzain Spike-Rush	Willow spp. Sally spp. Waally-fruited Sedge
Alnus spp. Alder-leaved	Phragmites australis	Jewelweed Impatiens capensis	Rice Cutgrass Leersla oryzoides	Spicebush Lindera benzain	Willow spp. Sall's spp. Waally-fruited Sedge Carex lasiocarpa
Alhus spp. Alder-leaved Buckthorn Rhamnus alnifalia American Elm	Phragmites australis Dogwood Spp. Cornus spp. Duck Potato	Jewelweed Impatiens capensis Mile-A-Minute Persicaria perfaliata Multiflora Rose	Rice Cutgrass Leensla aryzoides Rough-leaved Goldenrod Solidago patula * Sensitive Fern	Spicebush Lindera benzain Spike-Rush Eleocharis palustris Swamp Rose	Willow spp. Sally spp. Waally-fruited Sedge
Alous spp. Alder-leaved Buckthorn Rhomnus alnifolia American Elm Ulmus americana	Phragmites australis Dogwood Spp. Cornus spp. Duck Potato Sagittaria latifalia	Jewelweed Impatiens capensis Mile-A-Minute Persicaria perfaliata Multiflora Rose Rosa multiflora	Rice Cutgrass Leersla aryzoides Rough-leaved Goldenrod Solidago patula * Sensitive Fern Onaclea sensibilis	Spicebush Lindero benzain Spike-Rush Eleocharis palustris Swamp Rose Rosa palustris	Willow spp. Salik spp. Waally-fruited Sedge Carex lasiocarpa Waally Bulrush or Waally Bulrush or Waalgrass Scirpus cyperinus
Alhus spp. Alder-leaved Buckthorn Rhamnus alnifalia American Elm	Phragmites australis Dogwood Spp. Cornus spp. Duck Potato	Jewelweed Impatiens capensis Mile-A-Minute Persicaria perfaliata Multiflora Rose	Rice Cutgrass Leensla aryzoides Rough-leaved Goldenrod Solidago patula * Sensitive Fern	Spicebush Lindera benzain Spike-Rush Eleocharis palustris Swamp Rose	Willow spp. Sally spp. Waally-fruited Sedge Carex lasiocarpa Waally Bulrush or Waally Bulrush or
Alnus spp. Alder-leaved Buckthorn Rhomnus alnifolia American Elm Ulmus americana Arrowhead	Phragmites australis Dogwood Spp. Carnus spp. Duck Patato Sagittaria latifalia Eastern Red Cedar	Jewelweed Impatiens capensis Mile-A-Minute Persicaria perfoliata Multiflora Rose Rosa multiflora Poison Sumac Toxicodendron vernix	Rice Cutgrass Leersla aryzaides Rough-leaved Goldenrod Solidago patula Sensitive Fern Onaclea sensibilis Shrubby Cinquefall Dasiphara fruticosa	Spicebush Lindero benzain Spike-Rush Eleocharis palustris Swamp Rose Rasa palustris Sweetflag Acorus colomus	Willow spp. Sally spp. Waally-fruited Sedge Carex lasiocarpa Waally Bulrush or Waalgrass Scirpus cyperinus Yellow-Green Sedge Cyperus esculentus Gresses
Alnus spp. Alder-leaved Buckthorn Rhomnus alnifolia American Elm Ulmus americana Arrawhead Sagittaria latifolia	Phragmites australis Dogwood Spp. Carnus spp. Duck Patato Sagittaria latifolia Eastern Red Cedar Juniperus virginiana	Jewelweed Impatiens capensis Mile-A-Minute Persicaria perfaliata Multiflora Rose Rosa multiflora Poison Sumac	Rice Cutgrass Leersla aryzaides Rough-leaved Goldenrod Solidago patula * Sensitive Fern Onaclea sensibilis Shrubby Cinquefoil	Spicebush Lindero benzain Spike-Rush Eleocharis palustris Swamp Rose Rosa palustris Sweetflag	Willow spp. Sally spp. Waally-fruited Sedge Carex lasiocarpa Waally Bulrush or Waalgrass Scirpus cyperinus Yellow-Green Sedge Cyperus esculentus Grasses Dock
Alnus spp. Alder-leaved Buckthorn Rhamnus alnifolia American Elm Ulmus americana Arrowhead Sagittaria latifolia Carpetgrass	Phragmites australis Dogwood Spp. Cornus spp. Duck Patato Sagirtaria iatifolia Eastern Red Cedar Juniperus virginiana Eastern Tamarack	Jewelweed Impatiens copensis Mile-A-Minute Persicaria perfaliata Multiflora Rose Rosa multiflora Poison Sumac Toxicodendron vernix Porcupine Sedge	Rice Cutgrass Leersia aryzaides Rough-leaved Goldenrod Solidago patula Sensitive Fern Onaclea sensibilis Shrubby Cinquefail Dasiphara fruticosa Skunk Cabbage Symplocarpus foetidus	Spicebush Lindero benzoin Spike-Rush Eleocharis polustris Swamp Rose Rosa palustris Sweetflag Acorus colomus Tearthumb Spp. Polygonum spp.	Willow spp. Sally spp. Waally-fruited Sedge Carex lasiocarpa Waally Bulrush or Waalgrass Scirpus cyperinus Yellow-Green Sedge Cyperus esculentus Grasses
Alnus spp. Alder-leaved Buckthorn Rhomnus alnifolia American Elm Ulmus americana Arrowhead Sagittaria latifolia Carpetgrass Axonopus fissifolius	Phragmites australis Dogwood Spp. Cornus spp. Duck Potato Sagittaria latifalia Eastern Red Cedar Juniperus virginiana Eastern Tamarack Larix Jaricina	Jewelweed Impatiens copensis Mile-A-Minute Persicaria perfoliata Multiflora Rose Rosa multiflora Polson Sumac Toxicodendron vernix Porcupine Sedge Carex hystericina	Rice Cutgrass Leersia aryzoides Rough-leaved Goldenrod Solidago patula Sensitive Fern Onaclea sensibilis Shrubby Cinquefail Dasiphara fruticasa Skunk Cabbage	Spicebush Lindero benzoin Spike-Rush Eleocharis palustris Swamp Rose Rosa palustris Sweetflag Acorus colamus Tearthumb Spp.	Willow spp. Sally spp. Waally-fruited Sedge Carex lasiocarpa Waally Bulrush or Waalgrass Scirpus cyperinus Yellow-Green Sedge Cyperus esculentus Passes Dock Lab. blue berry
Alnus spp. Alder-leaved Buckthorn Rhomnus alnifolia American Elm Ulmus americana Arrowhead Sagittaria latifolia Carpetgrass Axonopus fissifolius Cattail Typha spp. Cinnamon Fern	Phragmites australis Dogwood Spp. Carnus spp. Duck Patato Sagittaria latifalia Eastern Red Cedar Juniperus virginiana Eastern Tamarack Larix Jarkina Grass-of-Parnassus	Jewelweed Impatiens capensis Mile-A-Minute Persicaria perfaliata Multiflora Rose Rosa multiflora Polson Sumac Toxicodendron vernix Porcupine Sedge Carex hystericina Purple Loosestrife	Rice Cutgrass Leersia aryzaides Rough-leaved Goldenrod Solidago patula Sensitive Fern Onaclea sensibilis Shrubby Cinquefail Dasiphara fruticosa Skunk Cabbage Symplocarpus foetidus Smooth Sawgrass Cladium mariscaides	Spicebush Lindero benzoin Spike-Rush Eleocharis palustris Swamp Rose Rosa palustris Sweetflag Acorus calamus Tearthumb Spp. Polygonum spp. Tussock Sedge Carex stricta	Willow spp. Sally spp. Waally-fruited Sedge Carex lasiocarpa Waally Bulrush or Waally Bulrush or Waally Scirpus cyperinus Yellow-Green Sedge Cyperus esculentus Grasses Dock hab blue berry Waguns Dawe
Allous spp. Alder-leaved Buckthorn Rhomnus alnifolia American Elm Ulmus americana Arrowhead Sagittaria latifolia Carpetgrass Axonopus fissifolius Cattail Typha spp. Cinnamon Fern Osmundastrum cinnamomeum	Phragmites australis Dogwood Spp. Cornus spp. Duck Potato Sagittaria latifalia Eastern Red Cedar Juniperus virginiana Eastern Tamarack Larix larikina Grass-of-Parnassus Parnassia glauca Inland sedge Carex interior	Jewelweed Impatiens capensis Mile-A-Minute Persicaria perfaliata Multiflora Rose Rosa multiflora Poison Sumac Toxicodendron vernix Porcupine Sedge Carex hystericina Purple Loosestrife Lythrum salicaria	Rice Cutgrass Leersia aryzaides Rough-leaved Goldenrod Solidago patula Sensitive Fern Onaclea sensibilis Shrubby Cinquefail Dasiphara fruticosa Skunk Cabbage Symplocarpus foetidus Smooth Sawgrass Cladium mariscaides	Spicebush Lindero benzoin Spike-Rush Eleocharis polustris Swamp Rose Rosa palustris Sweetflag Acorus colamus Tearthumb Spp. Polygonum spp. . Tussock Sedge	Willow spp. Salix spp. Waolly-fruited Sedge Carex lasiocarpa Woolly Bulrush or Woolgrass Scirpus cyperinus Yellow-Green Sedge Cyperus esculentus Grasses Dock Laberty Wrgins Cawley Carberty Privet Am Helly
Alaus spp. Alder-leaved Buckthorn Rhomnus alnifolia American Elm Ulmus americana Arrowhead Sagittaria latifolia Carpetgrass Axonopus fissifolius Cattail Typha spp. Cinnamon Fern Osmundastrum	Phragmites australis Dogwood Spp. Cornus spp. Duck Patato Sagirtaria iatifolia Eastern Red Cedar Juniperus virginiana Eastern Tamarack Larix Jarkina Grass-of-Parnassus Parnassia glauca Inland sedge Carex interior Japanese Stiltgrass	Jewelweed Impatiens capensis Mile-A-Minute Persicaria perfoliata Multiflora Rose Rosa multiflora Poison Sumac Toxicodendron vernix Porcupine Sedge Carex hystericina Purple Loosestrife Lythrum salicaria Red Maple Acer rubrum Reed Canary Grass	Rice Cutgrass Leersia aryzaides Rough-leaved Goldenrod Solidago patula Sensitive Fern Onaclea sensibilis Shrubby Cinquefoil Dasiphara fruticosa Skunk Cabbage Symplocarpus foetidus Smooth Sawgrass Cladium mariscaides Soft Rush or Common Rush Juncus effusus Sphagnum Moss	Spicebush Lindero benzoin Spike-Rush Eleocharis polustris Swamp Rose Rosa palustris Sweetflag Acorus calamus Tearthumb Spp. Polygonum spp. . Tussock Sedge Carex stricta Viburnum Spp. Viburnum spp.	Willow spp. Salix spp. Waolly-fruited Sedge Carex lasiocarpa Woolly Bulrush or Woolgrass Scirpus cyperinus Yellow-Green Sedge Cyperus esculentus Grasses Dock Laberry Virgins Cawley Carbarry Privet Am. Helly Green brider
Allous spp. Alder-leaved Buckthorn Rhomnus alnifolia American Elm Ulmus americana Arrowhead Sagittaria latifolia Carpetgrass Axonopus fissifolius Cattail Typha spp. Cinnamon Fern Osmundastrum cinnamomeum Common Boneset Eupatorium perfoliatum	Phragmites australis Dogwood Spp. Carnus spp. Duck Patato Sagittaria iatifalia Eastern Red Cedar Juniperus virginiana Eastern Tamarack Larix Jarkina Grass-of-Parnassus Parnassia glauca Inland sedge Carex interior Japanese Stiltgrass Microstegium viminaum	Jewelweed Impatiens capensis Mile-A-Minute Persicaria perfoliata Multiflora Rose Rosa multiflora Poison Sumac Toxicodendron vernix Porcupine Sedge Carex hystericina Purple Loosestrife Lythrum salicaria Red Maple Acer rubrum Reed Canary Grass Phalaris arundinacea	Rice Cutgrass Leersia aryzaides Rough-leaved Goldenrod Solidago patula Sensitive Fern Onaclea sensibilis Shrubby Cinquefoil Dasiphara fruticosa Skunk Cabbage Symplocarpus foetidus Smooth Sawgrass Cladium mariscaides Soft Rush or Common Rush Juncus effusus Sphagnum Moss Sphagnum spp.	Spicebush Lindero benzain Spike-Rush Eleocharis polustris Swamp Rose Rosa palustris Sweetflag Acorus colamus Tearthumb Spp, Polygonum spp. Tussock Sedge Carex stricta Viburnum Spp, Viburnum spp.	Willow spp. Sails spp. Waally-fruited Sedge Carex lasiocarpa Waally-fruited Sedge Carex lasiocarpa Waally-fruited Sedge Carex lasiocarpa Waally-fruited Sedge Waally-fruited Sedge Waally-fruited Sedge Cyperus exculentus Grasses Dock hab blockerry Virguas Dawley Virguas Dawley Virguas Dawley Carbarry Privet Am Helly Green Grasses Privet
Alnus spp. Alder-leaved Buckthorn Rhomnus alnifolia American Elm Ulmus americana Arrowhead Sagittaria latifolia Carpetgrass Axonopus fissifolius Cattail Typha spp. Cinnamon Fern Osmundastrum cinnamomeum Common Boneset Eupatorium perfoliatum	Phragmites australis Dogwood Spp. Cornus spp. Duck Potato Sagittario Iotifolia Eastern Red Cedar Juniperus virginiana Eastern Tamarack Larix Iaricina Grass-of-Parnassus Parnassia glauca Inland sedge Corex interior Japanese Stiltgrass Microstegium vimineum al plant species (e.g.,	Jewehweed Impatiens capensis Mile-A-Minute Persicaria perfoliata Multiflora Rose Rosa multiflora Polson Sumac Toxicodendron vernix Porcupine Sedge Carex hystericina Purple Loosestrife Lythrum salicaria Red Maple Acer rubcum Reed Canary Grass Phalaris arundinacea sedge, rush, grass, shrul	Rice Cutgrass Leersia aryzaides Rough-leaved Goldenrod Solidago patula Sensitive Fern Onaclea sensibilis Shrubby Cinquefail Dasiphara fruticosa Skunk Cabbage Symplocarpus foetidus Smooth Sawgrass Cladium mariscaides Saft Rush or Common Rush Juncus effusus Sphagnum Moss Sphagnum spp. b, tree species):	Spicebush Lindera benzain Spike-Rush Eleocharis palustris Swamp Rose Rosa palustris Sweetflag Acorus colomus Tearthumb Spp, Polygonum spp. Tussack Sedge Carex stricta Viburnum Spp, Viburnum spp. White turtlehead Chelone glabra	Willow spp. Sally spp. Waally-fruited Sedge Carex lasiocarpa Waally Bulrush or Waalgrass Scirpus cyperinus Yellow-Green Sedge Cyperus esculentus Grasses Dock hab bluckerry Vrguns Cawe Karberry Privet Am. Helly Green briar Charry Prisan 144
Allous spp. Alder-leaved Buckthorn Rhomnus alnifolia American Elm Ulmus americana Arrowhead Sagittaria latifolia Carpetgrass Axonopus fissifolius Cattail Typha spp. Cinnamon Fern Osmundastrum cinnamomeum Common Boneset Eupatorium perfoliatum Notes on addition	Phragmites australis Dogwood Spp. Carnus spp. Duck Patato Sagittaria iatifalia Eastern Red Cedar Juniperus virginiana Eastern Tarnarack Larix Jarkina Grass-of-Parnassus Parnassia glauca Inland sedge Carex interior Japanese Stiltgrass Micrastegium vimineum al plant species (e.g.,	Jewelweed Impatiens capensis Mile-A-Minute Persicaria perfoliata Multiflora Rose Rosa multiflora Poison Sumac Toxicodendron vernix Porcupine Sedge Carex hystericina Purple Loosestrife Lythrum salicaria Red Maple Acer rubrum Reed Canary Grass Phalaris arundinacea	Rice Cutgrass Leersia aryzaides Rough-leaved Goldenrod Solidago patula Sensitive Fern Onaclea sensibilis Shrubby Cinquefoil Dasiphara fruticosa Skunk Cabbage Symplocarpus foetidus Smooth Sawgrass Cladium mariscaides Saft Rush or Common Rush Juncus effusus Sphagnum Moss Sphagnum Moss Sphagnum spp. b, tree species):	Spicebush Lindera benzain Spike-Rush Eleocharis palustris Swamp Rose Rosa palustris Sweetflag Acorus colomus Tearthumb Spp, Polygonum spp. Tussack Sedge Carex stricta Viburnum Spp, Viburnum spp. White turtlehead Chelone glabra	Willow spp. Sails spp. Waally-fruited Sedge Carex lasiocarpa Waally-fruited Sedge Carex lasiocarpa Waally-fruited Sedge Carex lasiocarpa Waally-fruited Sedge Waally-fruited Sedge Waally-fruited Sedge Cyperus exculentus Grasses Dock hab blockerry Virguas Dawley Virguas Dawley Virguas Dawley Carbarry Privet Am Helly Green Grasses Privet

⁶ No grazing, mowing, or burning is given a "2" rank as this is considered more harmful to bog turtle wetlands than Rank 1 (light to moderate grazing or mowing). Light to moderate habitat management is beneficial to suppressing succession of native and non-native plant species.

				Wetland ID:	w-
Des.	surrounding landscape (e.g.,	wetlands, forest, subdivision	, agricultural field, fallow f	ield, etc.):	
	Forest	, agriculture	A fields, s	icathered h	29200
How mu	h of this wetland is located None of it – the entire Some of it – Ac	off-site (i.e., outside the pe e wetland is within the pro- cres or <u>60</u> % of the wet	roperty boundaries or r operty boundaries and appears to be locat	ight-of-way)? red off-site = 40°	lout of A
If part of	this wetland continues off-s				. 599
	None of it All of i	t <u></u> Part of it (acre	s or% of the off-sit	te portion)	
Is there p	otential bog turtle habitat w	vithin 300 feet*?Yes	∠ No _ Unk Habita	at off-site?Yes	_No X Unk
	w did you conclude this?				
	bog turtles observed?Y ps observed?N	lo If yes, which ones?	(68)	are conducting the sur "Report bog turtle obs	vey in to handle bog turn erwitions to your local F
Yes Yes Yes Yes Yes	NoUnsure The hyNoUnsure The soiNoUnsure The ve;NoUnsure This we	drology criterion for bog tils criterion for bog turtle getation criterion for bog etland HAS potential bog t	urtle habitat is met. turtle habitat is met. turtle habitat is met. urtle habitat (fair to goo	*Report bog turde obs Field Office and state of department of the observed of the observed of the observed observed observed of the observed observ	vey in to handle bog turn erwitions to your local F
Yes Yes Yes Yes Yes Yes Yes Ye	NoUnsure The hy NoUnsure The soi NoUnsure The ver NoUnsure This we NoUnsure This we	drology criterion for bog tils criterion for bog turtle getation criterion for bog tetland HAS potential bog tetland HAS p	urtle habitat is met. habitat is met. turtle habitat is met. urtle habitat (fair to goo urtle habitat (low to ver	*Report bog turdle abs Field Office and states od quality). y low quality).	way in to haridle bog turi erwaltions to your lacel F viddife office within 48 h
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^{**}Important** Please include all Phase 1 data forms in a final Phase 1 bog turtle habitat assessment report (see Attachment 3 in *Guidelines for Bog Turtle Surveys* for checklist) and submit to your local state wildlife agency and U.S. Fish and Wildlife Service Field Office (see Attachment 1 in *Guidelines for Bog Turtle Surveys*).

Additional space for notes, color photos, or maps/sketch of wetland (or attach printed map with each wetland type carefully outlined; include all wetland types [PEM, PSS, PFO, POW/PUB], streams/ditches, north arrow, property/project borders, and areas of core bog turtle habitat. Include color photos for each wetland assessed and separate Phase 1 data forms for each when submitting to agencies, as well as any reptile and amphibian species you encounter, if possible.



Phase 1 Bog Turtle Habitat Survey Data Form for the Northern Population Range (Revised April 29, 2020) Please do not edit document.	PNDI # (for PA): 750438
Property/Project Name Franklin Hills Shalv, Rev Coordinates Project Type 2+	.1
50 T W 1 T T T T T T T T T T T T T T T T T	27,10
Entity Requesting Phase 1 Survey Alice Oleans	_
County/Township/Municipality Monroe/Sm. thise d	
Lead Surveyor Mas Lora Affiliation &	cological Associate
Other Assistants Present	/
Date of Survey 3 - 28 - 27 Time In 10 50 R.m. Time Out 1 30 Pu	Air Temp. Z6 4° C°
Last Precipitation _ < 24 hours <u>X</u> 1-7 days>1 week unknown Drought condition	ns? Yes XNo Unknown
Drought Index*1 (Circle): none DO D1 D2 D3 D4 Wetland Photos Taken Yes _ N	
Notes (e.g., details about drought, flood, abnormally dry, and/or snow/ice conditions, and any other	er seasonal conditions observed):
Wetland Size acres, if known # Wetlands w/in Project Area ² Z Act	ion Area)
Estimate wetland size (acres) _ < 0.1 _ 0.1 - 0.5 _ 0.5 - 1 × 1 - 2 _ 2 - 4	
Estimate % Canopy Cover*3 0% ≤ 5 6-20 21-40 41-60 > 6	
Hydrology and Soils (check all that apply): use additional pages to further discuss pertinent	
Springs/SeepsSpringhouseTrib/StreamPondStormwaterIron Ba	
Water Visible on Surface	Flooding ⁴ Routine Flooding ⁵)
Rivulets (inches deep) Subsurface Tunnel/Rivulets Tire Ruts (inche	s deep)
Small Puddles/Depressions (inches deep) X_Saturated soils present? If yes, year-	-round? x Likely Unlikely U
X Yes No Are there any signs of disturbance to <u>hydrology</u> (e.g., drainage ditches, tile dr ponds, roads, beaver activity)?	
pond	
Estimate time period (in years) of disturbance*: _ ≤ 5 _ 6-10 _ 11-20 ½ > 20	
For ditches that may be present, is there bog turtle habitat? If yes, describe:	
¹ (*) Denotes reference to the Supplemental Information document that provides more details on the Each wetland must have a separate Phase 1 habitat assessment data form completed.	his particular question.
Determine percent cover of abundant species for the wetland, not by wetland type. Abundant species for the wetland, not by wetland type.	cies are those that are most promine
Determine percent cover of abundant species for the wetland, not by wetland type. Abundant species in the wetland and have the highest percent of coverage compared to other species. Seasonal flooding in wetlands/streams can occur as a result of price species.	cies are those that are most promin

Seasonal flooding in wetlands/streams can occur as a result of spring snow melt/heavy rain that increases water levels in these systems.
 Routine flooding refers to tidally-influenced wetland/stream systems or the occurrence of normal rain patterns throughout the year.

		2000 to Mall of 2007 1
Wetland	ID-	W-2

→Yes _	No	Are there any signs of disturbance	to.	vegetation (e	.g., mowing	, pasturing, burning)	If yes	, describe:
. *		Manze I	4	else	of	Northeast	1	

Wetland Info

Rate (scale of 1-4) level of vegetation disturbance* (Circle): 1. Light to moderate grazing or mowing 2. No grazing, mowing, burning observed⁶ (3) Moderate to high grazing or mowing 4. Mowing occurs during bog turtle active season

Soil types present*:

How much suitable habitat is in this wetland? Estimate acreage or percentage:

Wetland Type	% of Total Wetland	% of Wetland Type w/Muck	Avg. Muck Depth	Max. Muck Depth
PEM Portion of Wetland:	< 1%	_ 0_	2 in,	3 in.
PSS Portion of Wetland:		-	in.	in,
PFO Portion of Wetland:	>9%	0	2- in.	3 in.
POW/PUB Portion of Wetl	and:90	un Known	2_ in.	3 in.

CIRCLE all vegetation* from list below that is dominant (≥ 20% for each wetland type listed above) and add other species you observe that are not listed in table in the "notes" space provided below or in the extra table cells.

Alder Spp. Alnus spp.	Common Reed Phragmites australis	Jewelweed Impatiens capensis	Rice Cutgrass Leersia oryzaides	Spicebush Lindera benzoin	Willow spp. Salir spp.
Alder-leaved Buckthorn Rhamnus alnifolia	Dogwood Spp. Cornus spp.	Mile-A-Minute Persicaria perfoliata	Rough-leaved Goldenrod Solidago patula	Spike-Rush Eleocharis palustris	Woolly-fruited Sedge Carex lasiocarpa
American Elm Ulmus americana	Duck Potato Sagittaria latifolia	Multiflora Rose Rosa multiflora	Sensitive Fern Onoclea sensibilis	Swamp Rose Rosa palustris	Woolly Bulrush or Woolgrass Scirpus cyperinus
Arrowhead Sagittaria latifolia	Eastern Red Cedar Juniperus virginiana	Poison Sumac Toxicodendron vernix	Shrubby Cinquefoil Dasiphora fruticosa	Sweetflag Acorus calamus	Yellow-Green Sedge Cyperus esculentus
Carpetgrass Axonopus fissifolius	Eastern Tamarack Larix laricina	Parcupine Sedge Carex hystericina	Skunk Cabbage Symplocarpus foetidus	Tearthumb Spp. Polygonum spp.	slack birch
Cattail Typha spp.	Grass-of-Parnassus Parnassia glauca	Purple Loosestrife Lythrum salicaria	Smooth Sawgrass Cladium mariscoides	X. Tussock Sedge Carex stricta	reducedor grassos
Cinnamon Fern Osmundastrum cinnamomeum	Inland sedge Carex interior	Red Maple Acer rubrum	Soft Rush or Common Rush Juncus effusus	Viburnum Spp. Viburnum spp.	/
Common Boneset Eupatorium perfoliatum	Japanese Stiltgrass Microstegium vimineum	Reed Canary Grass Pholoris orundinacea	Sphagnum Moss Sphagnum spp.	White turtlehead Chelone glabra	

Notes on additional plant species (e.g., sedge, rush, grass, shrub, tree species):

⁶ No grazing, mowing, or burning is given a "2" rank as this is considered more harmful to bog turtle wetlands than Rank 1 (light to moderate grazing or mowing). Light to moderate habitat management is beneficial to suppressing succession of native and non-native plant species.

Wetland ID: 4 - Z
Describe surrounding landscape (e.g., wetlands, forest, subdivision, agricultural field, fallow field, etc.):
Forest, agriculture, scattered homes
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 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 (acres or % of the off-site portion) Is there potential bog turtle habitat within 300 feet*? Yes No Unk Habitat off-site? Yes Unk If yes, how did you conclude this?
 Were any bog turtles observed?YesXNoIf yes, how many? are conducting the survey in to handle bog turt Other herps observed?YesX NoIf yes, which ones? **Report bog turtle observations to your local FI
Were any bog turtles observed?YesXNoIf yes, how many? are conducting the survey in to handle bog turtle. Other herps observed?YesX NoIf yes, which ones? **Report bog turtle observations to your local FI.
Were any bog turtles observed?YesXNoIf yes, how many?
Were any bog turtles observed?YesXNoIf yes, how many?
Were any bog turtles observed? Yes XNo If yes, how many? **Report bog turtle conducting the survey in to handle bog turtle her before within 48 her conducting the survey in to handle bog turtle her before within 48 her conducting the survey in to handle bog turtle her possible of the widdle office within 48 her conducting the survey in to handle bog turtle her possible of the possible to the possible of the possible of the possible to the possible of the possible of the possible to the possible of the pos
Were any bog turtles observed? Yes XNo If yes, how many? Other herps observed? Yes X No If yes, which ones? Yes No Unsure The hydrology criterion for bog turtle habitat is met. Yes X No Unsure The soils criterion for bog turtle habitat is met. Yes X No Unsure The vegetation criterion for bog turtle habitat is met. Yes X No Unsure The vegetation criterion for bog turtle habitat is met. Yes X No Unsure This wetland HAS potential bog turtle habitat (fair to good quality). Yes X No Unsure This wetland HAS potential bog turtle habitat (low to very low quality). Yes X No Unsure This wetland HAS potential bog turtle habitat (low to very low quality). Yes X No Unsure This wetland HAS potential bog turtle habitat. Whose (How did you reach this opinion?): Notes (How did you reach this opinion?): Lead Surveyor – please sign below certifying to the best of your knowledge that all of the information provided herein is accurate and complete.
Other herps observed?YesX NoIf yes, which ones? **Seport tog turtle observations to your local FV Field Office and state wild life office within 48 hr YesNoUnsureThe hydrology criterion for bog turtle habitat is met. YesX NoUnsureThe vegetation criterion for bog turtle habitat is met. YesXNoUnsureThis wetland HAS potential bog turtle habitat (fair to good quality). YesXNoUnsureThis wetland HAS potential bog turtle habitat (low to very low quality). YesXNoUnsureThis wetland HAS potential bog turtle habitat (low to very low quality). Yhis wetland does NOT have potential bog turtle habitatUNSURE if suitable habitat is present. Notes (How did you reach this opinion?):

^{**}Important** Please include all Phase 1 data forms in a final Phase 1 bog turtle habitat assessment report (see Attachment 3 in *Guidelines for Bog Turtle Surveys* for checklist) and submit to your local state wildlife agency and U.S. Fish and Wildlife Service Field Office (see Attachment 1 in *Guidelines for Bog Turtle Surveys*).

Phase 1 Bog Turtle Habitat Survey Data Form for the Northern Population Range Wetland ID: (Revised April 29, 2020) Additional space for notes, color photos, or maps/sketch of wetland (or attach printed map with each wetland type carefully outlined; include all wetland types [PEM, PSS, PFO, POW/PUB], streams/ditches, north arrow, property/project borders, and areas of core bog turtle habitat. Include color photos for each wetland assessed and separate Phase 1 data forms for each when submitting to agencies, as well as any reptile and amphibian species you encounter, if possible.

Appendix G: PNDI Receipt

Pennsylvania Department of Conservation and Natural Resources PNDI Receipt: project_receipt_franklin_hill_subdiv_rev_750438_FINAL_1.pdf Project Search ID: PNDI-750438

1. PROJECT INFORMATION

Project Name: Franklin Hill Subdiv Rev Date of Review: 3/29/2022 11:55:39 AM

Project Category: Development, Residential, Subdivision containing more than 2 lots and/or 2 single-family

units

Project Area: 17.40 acres County(s): Monroe

Township/Municipality(s): SMITHFIELD TOWNSHIP

ZIP Code

Quadrangle Name(s): EAST STROUDSBURG

Watersheds HUC 8: Middle Delaware-Mongaup-Brodhead

Watersheds HUC 12: Marshalls Creek Decimal Degrees: 41.018904, -75.147034

Degrees Minutes Seconds: 41° 1' 8.560" N, 75° 8' 49.3208" W

2. SEARCH RESULTS

Agency	Results	Response
PA Game Commission	No Known Impact	No Further Review Required
PA Department of Conservation and Natural Resources	No Known Impact	No Further Review Required
PA Fish and Boat Commission	No Known Impact	No Further Review Required
U.S. Fish and Wildlife Service	Potential Impact	MORE INFORMATION REQUIRED, See Agency Response

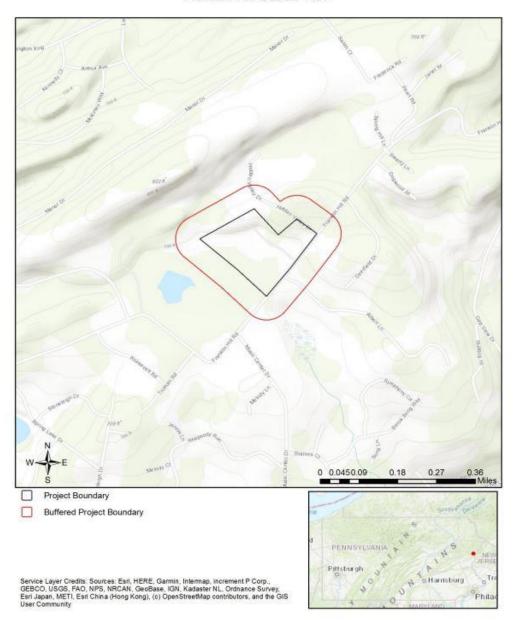
As summarized above, Pennsylvania Natural Diversity Inventory (PNDI) records indicate there may be potential impacts to threatened and endangered and/or special concern species and resources within the project area. If the response above indicates "No Further Review Required" no additional communication with the respective agency is required. If the response is "Further Review Required" or "See Agency Response," refer to the appropriate agency comments below. Please see the DEP Information Section of this receipt if a PA Department of Environmental Protection Permit is required.

Franklin Hill Subdiv Rev



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Franklin Hill Subdiv Rev



RESPONSE TO QUESTION(S) ASKED

Q1: Accurately describe what is known about wetland presence in the project area or on the land parcel by selecting ONE of the following. "Project" includes all features of the project (including buildings, roads, utility lines, outfall and intake structures, wells, stormwater retention/detention basins, parking lots, driveways, lawns, etc.), as well as all associated impacts (e.g., temporary staging areas, work areas, temporary road crossings, areas subject to grading or clearing, etc.). Include all areas that will be permanently or temporarily affected -- either directly or indirectly -- by any type of disturbance (e.g., land clearing, grading, tree removal, flooding, etc.). Land parcel = the lot(s) on which some type of project(s) or activity(s) are proposed to occur.

Your answer is: Someone qualified to identify and delineate wetlands has investigated the site, and determined that wetlands ARE located in or within 300 feet of the project area. (A written report from the wetland specialist, and detailed project maps should document this.)

Q2: The proposed project is in the range of the Indiana bat. Describe how the project will affect bat habitat (forests, woodlots and trees) and indicate what measures will be taken in consideration of this. Round acreages up to the nearest acre (e.g., 0.2 acres = 1 acre).

Your answer is: The project will affect 1 to 39 acres of forests, woodlots and trees.

Q3: Is tree removal, tree cutting or forest clearing of 40 acres or more necessary to implement all aspects of this project?

Your answer is: No

3. AGENCY COMMENTS

Regardless of whether a DEP permit is necessary for this proposed project, any potential impacts to threatened and endangered species and/or special concern species and resources must be resolved with the appropriate jurisdictional agency. In some cases, a permit or authorization from the jurisdictional agency may be needed if adverse impacts to these species and habitats cannot be avoided.

These agency determinations and responses are **valid for two years** (from the date of the review), and are based on the project information that was provided, including the exact project location; the project type, description, and features; and any responses to questions that were generated during this search. If any of the following change: 1) project location, 2) project size or configuration, 3) project type, or 4) responses to the questions that were asked during the online review, the results of this review are not valid, and the review must be searched again via the PNDI Environmental Review Tool and resubmitted to the jurisdictional agencies. The PNDI tool is a primary screening tool, and a desktop review may reveal more or fewer impacts than what is listed on this PNDI receipt. The jurisdictional agencies **strongly advise against** conducting surveys for the species listed on the receipt prior to consultation with the agencies.

PA Game Commission

RESPONSE:

No Impact is anticipated to threatened and endangered species and/or special concern species and resources.

PA Department of Conservation and Natural Resources RESPONSE:

No Impact is anticipated to threatened and endangered species and/or special concern species and resources.

PA Fish and Boat Commission

RESPONSE:

No Impact is anticipated to threatened and endangered species and/or special concern species and resources.

U.S. Fish and Wildlife Service

RESPONSE:

Information Request: Conduct a Bog Turtle Habitat (Phase 1) Survey in accordance with USFWS Guidelines for Bog Turtle Surveys (April 2020). Evaluate all wetlands within 300 feet of the project area, which includes all areas that will be impacted by earth disturbance or project features (e.g., roads, structures, utility lines, lawns, detention basins, staging areas, etc.). IF THE PHASE 1 SURVEY IS DONE BY A QUALIFIED BOG TURTLE SURVEYOR (see https://www.fws.gov/northeast/pafo/endangered/surveys.html): 1) Send positive results to USFWS for concurrence, along with a project description documenting how impacts will be avoided. OR, conduct a Phase 2 survey and send Phase 1 and 2 results to USFWS for concurrence. 2) Send a courtesy copy of negative results to USFWS (label as "Negative Phase 1 Survey Results by Qualified Bog Turtle Surveyor: USFWS Courtesy Copy"). USFWS approval of negative results is not necessary when a qualified surveyor does the survey in full accordance with USFWS guidelines. IF THE PHASE 1 SURVEY IS NOT DONE BY A QUALIFIED SURVEYOR: Send ALL Phase 1 results to USFWS for concurrence, and if potential habitat is found, also send a project description documenting how impacts will be avoided. As a qualified bog turtle surveyor, I Martin Corn (name) certify that I conducted a Phase 1 survey of all wetlands in and within 300 feet of the project area on 4-28-22 (date) and determined that bog turtle habitat is absent.

WHAT TO SEND TO JURISDICTIONAL AGENCIES

*If information was requested by USFWS, applicants must email, or mail, project information to IR1_ESPenn@fws.gov to initiate a review. USFWS will not accept uploaded project materials.

Check-list of Minimum Materials to be submitted:

____Project narrative with a description of the overall project, the work to be performed, current physical characteristics of the site and acreage to be impacted.

A map with the project boundary and/or a basic site plan(particularly showing the relationship of the project to the physical features such as wetlands, streams, ponds, rock outcrops, etc.)

In addition to the materials listed above, USFWS REQUIRES the following

SIGNED copy of a Final Project Environmental Review Receipt

The inclusion of the following information may expedite the review process.

Color photos keyed to the basic site plan (i.e. showing on the site plan where and in what direction each photo was taken and the date of the photos)

Information about the presence and location of wetlands in the project area, and how this was determined (e.g., by a qualified wetlands biologist), if wetlands are present in the project area, provide project plans showing the location of all project features, as well as wetlands and streams.

4. DEP INFORMATION

The Pa Department of Environmental Protection (DEP) requires that a signed copy of this receipt, along with any required documentation from jurisdictional agencies concerning resolution of potential impacts, be submitted with applications for permits requiring PNDI review. Two review options are available to permit applicants for handling PNDI coordination in conjunction with DEP's permit review process involving either T&E Species or species of special concern. Under sequential review, the permit applicant performs a PNDI screening and completes all coordination with the appropriate jurisdictional agencies prior to submitting the permit application. The applicant will include with its application, both a PNDI receipt and/or a clearance letter from the jurisdictional agency if the PNDI Receipt shows a Potential Impact to a species or the applicant chooses to obtain letters directly from the jurisdictional agencies. Under concurrent review, DEP, where feasible, will allow technical review of the permit to occur concurrently with the T&E species consultation with the jurisdictional agency. The applicant must still supply a copy of the PNDI Receipt with its permit application. The PNDI Receipt should also be submitted to the appropriate agency according to directions on the PNDI Receipt. The applicant and the jurisdictional agency will work together to resolve the potential impact(s). See the DEP PNDI policy at https://conservationexplorer.con/rpa.gov/content/resources.

5. ADDITIONAL INFORMATION

The PNDI environmental review website is a preliminary screening tool. There are often delays in updating species status classifications. Because the proposed status represents the best available information regarding the conservation status of the species, state jurisdictional agency staff give the proposed statuses at least the same consideration as the current legal status. If surveys or further information reveal that a threatened and endangered and/or special concern species and resources exist in your project area, contact the appropriate jurisdictional agency/agencies immediately to identify and resolve any impacts.

For a list of species known to occur in the county where your project is located, please see the species lists by county found on the PA Natural Heritage Program (PNHP) home page (www.naturalheritage.state.pa.us). Also note that the PNDI Environmental Review Tool only contains information about species occurrences that have actually been reported to the PNHP.

6. AGENCY CONTACT INFORMATION

PA Department of Conservation and Natural Resources

Bureau of Forestry, Ecological Services Section 400 Market Street, PO Box 8552 Harrisburg, PA 17105-8552

Email: RA-HeritageReview@pa.gov

PA Fish and Boat Commission

Division of Environmental Services 595 E. Rolling Ridge Dr., Bellefonte, PA 16823 Email: RA-FBPACENOTIFY@pa.gov

U.S. Fish and Wildlife Service

Pennsylvania Field Office Endangered Species Section 110 Radnor Rd; Suite 101 State College, PA 16801 Email: IR1_ESPenn@fws.gov NO Faxes Please

PA Game Commission

Bureau of Wildlife Habitat Management
Division of Environmental Planning and Habitat
Protection
2001 Elmerton Avenue, Harrisburg, PA 17110-9797
Email: RA-PGC_PNDI@pa.gov

NO Faxes Please

7. PROJECT CONTACT INFORMATION

Name:		100-11	
Company/Business Name: Address:			
City, State, Zip:		1050	
Phone:()	Fax:()	712 /3335
size/configuration, project type	e, answers to questions) is changes, or if the answer	s true, accurate s to any question	luding project location, project and complete. In addition, if the project type ons that were asked during this online review
applicant/project proponent siç	gnature		date