City of Biddeford
Conservation Commission
September 21, 2023 6:00 PM City Hall
Council Chambers & Zoom
https://biddeford.zoom.us/j/93351056705?pwd=YWtNUzRldktXUUxwSGswdERMVFFpdz09
Webinar ID #933 5105 6705 Passcode #394277

Status: Conservation Commission, Thursday, September 21, 2023, 6:00 PM, City Council Chambers & Zoom

1. **Secretary Report-No July Minutes**
2. **Adjustments to the agenda**
3. **Discussions**
   - 3.1. Mark Ward: Final Report on Clifford Park
     Clifford Park Report 2023 (Complete single file) (002).pdf
     VP_S_NanWhitten-5183-8185-Biddeford.pdf
     Invoice for Services-Clifford Park (Ward BCC 8-2023).pdf
   - 3.2. Clifford Park Leash Law collaboration
   - 3.3. Comp Plan Update
   - 3.4. BCC website workshop scheduling-Erikl
   - 3.5. Mapping and GIS workshop scheduling-Erik
4. **Other Business**
5. **Next Meeting-October 19, 2023 6:00 PM, City Council Chamber**
6. **Adjourn**

Results of Vernal Pool Assessments and Spotted Turtle Overwintering Habitat at Select Wetlands in Clifford Park, Biddeford, 2023

Wood frog egg masses and a female spotted turtle observed in Clifford Park wetlands in 2023

Final Report to the Biddeford Conservation Commission

Submitted by

Mark Ward

Ecological Consultant

28 Poor Farm Road

Bristol, ME 04539

Aug 8, 2023

Vernal Pool Assessments

On three dates in early 2023 (13 April, 28 April, and 11 May), I visited Clifford Park to assess the biological significance of wetlands identified in the Clifford Park Vernal Pool Status Assessment report submitted to the Biddeford Conservation Commission in November 2022.

On the April dates, I conducted egg mass counts for vernal pool breeding amphibians at each of four wetlands (Figure 1). The 13 April visit focused on wood frog egg mass counts (but included salamander counts as well), and the 28 April visit focused on spotted salamander egg mass counts when egg laying was likely completed (Table 1).

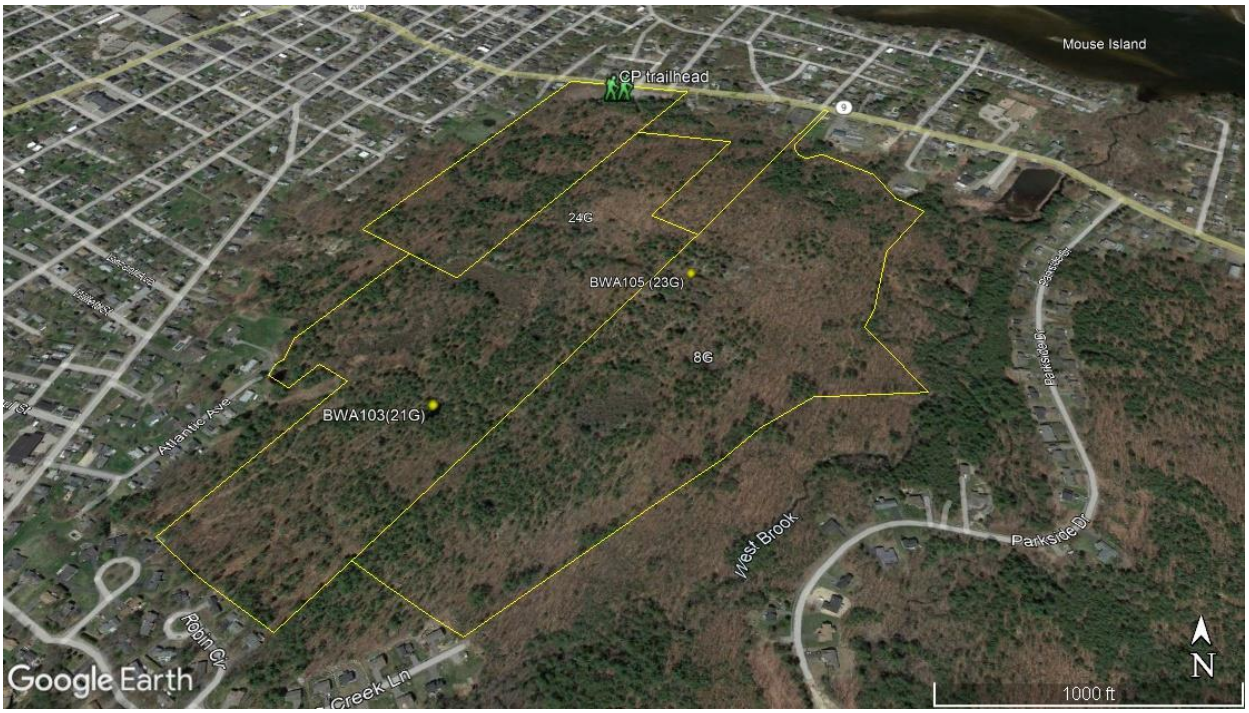

Figure 1. The locations of four wetlands at which egg mass counts were conducted in Clifford Park, 2023.

Amphibian egg mass counts at three of the four wetlands surveyed met the biological criterion threshold (40 egg masses for wood frogs and 20 egg masses for spotted salamanders) to warrant consideration for designation as significant vernal pools (Table 1). Those wetlands that meet the biological criterion threshold and that also meet associated physical criteria may be deemed by the state of Maine to be "Significant Vernal Pools" and enjoy certain protections as "Significant Wildlife Habitat." I completed and submitted significant vernal pool assessment forms for these three wetlands (Appendix I). The final determination of Significant Vernal Pool status was made by the Maine Department of Environmental Protection (DEP) on July 31, 2023 (Appendix II). The DEP found that BWA103 was not a significant vernal pool, as it was deemed to be a permanent wetland. The other two wetlands 8G and BWA105 were determined to be Significant Vernal Pools by the DEP (Table 1). These wetlands will be incorporated into the statewide database of significant vernal pools in Maine.

All three of these wetlands clearly support breeding by large numbers of amphibians. Management and policies for Clifford Park such as trail locations and the degree of use by humans and pets should take these considerations into account.

Table 1. Egg Mass Count Data and Significant Vernal Pool Assessments at Four Wetlands in Clifford Park, 2023. Numbers highlighted in yellow indicate counts that exceed the biological significance threshold for wood frogs (40 egg masses) or spotted salamanders (20 egg masses).

Wetland	***DEP wetland #***	***Wood Frog Egg Mass Counts***	***Salamander Egg Mass Counts***		***Results for Significant Vernal Pool Assessment***	***Latitude, Longitude (Dec Deg)***
Date of Visit		***4-13-23***	***4-13-23***	***4-28-23***		
BWA103 (21G)	2211	15	6	76	Meets biological criteria based on salamander egg mass counts and appears mostly natural; DEP determination that this wetland was NOT a significant vernal pool	43.48143, -70.45097
BWA105 (23G)	5183	53	6	28	Meets biological criteria based on both wood frog and salamander egg mass counts and is natural; DEP determined that this is a Significant Vernal Pool	43.48367, -70.44691
8G	5185	22	3	33	Meets biological criteria based on salamander egg mass counts but appears to be partially human modified; DEP determined that this is a Significant Vernal Pool	43.48220, -70.44674
24G		20	0	8	Does not meet biological criteria; Unnatural quarry pool; Not SVP, but nevertheless provides some value as amphibian breeding habitat	43.48481, -70.44881

Spotted Turtle Overwintering Habitat Assessment

On three dates in 2023, I conducted visual surveys for spotted turtles (a state-threatened species) at three wetlands that were identified in the Clifford Park Vernal Pool Status Assessment report of November 2022 as offering potential overwintering habitat for this species (Figure 2). My suspicion that spotted turtles might be overwintering within wetlands in Clifford Park was based on a documented record for this species at a small quarry pool in Clifford Park on April 28, 2020 (Figure 2). The early date of the 2020 observation suggested that there was likely a nearby overwintering wetland within Clifford Park from which this turtle had emigrated in April 2020.

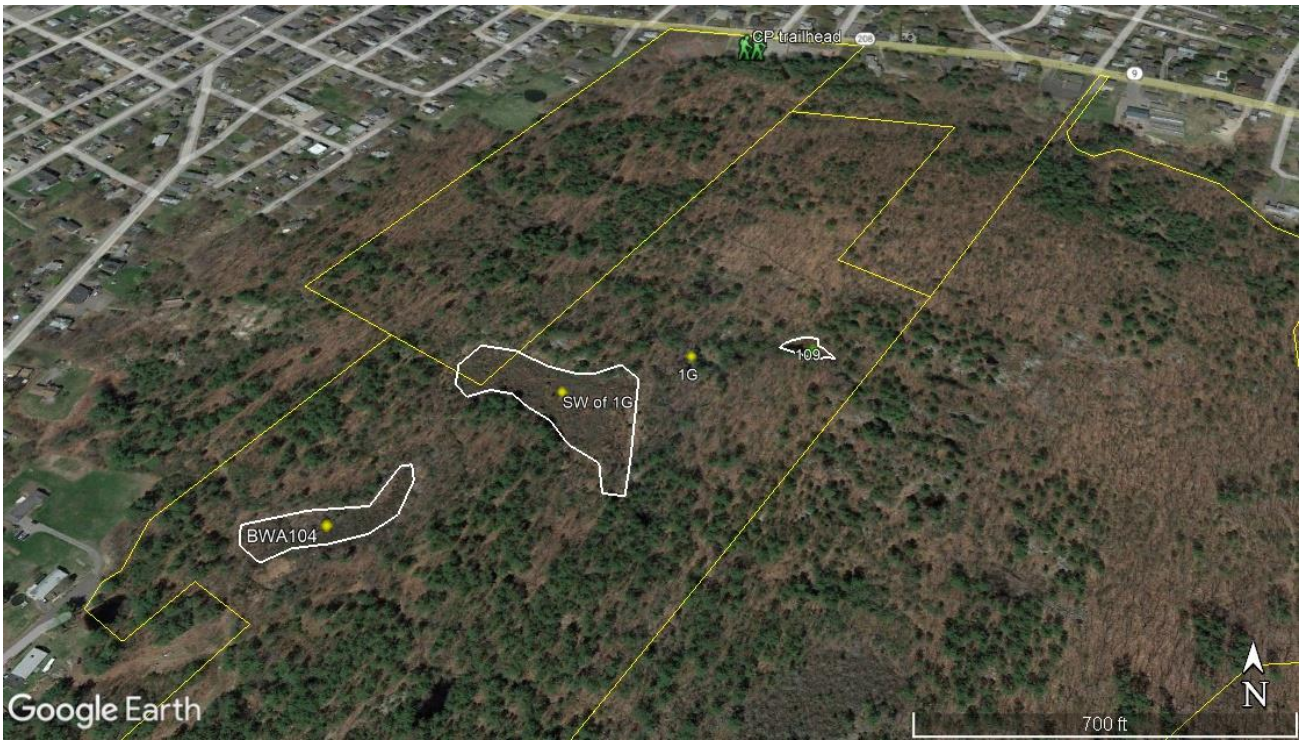

Figure 2. Three wetlands (white polygons) that were surveyed to assess their potential to serve as overwintering habitat for spotted turtles in Clifford Park in 2023. The point identified as 1G is the small quarry pool location at which a spotted turtle was observed in April 2020.

I conducted visual surveys for spotted turtles at all three wetlands BWA104, SW of 1G, and 109 on April 13, 2023 (Table 2). I conducted additional visual surveys for spotted turtles at the two wetlands that seemed to offer the greatest promise, BWA104 and 109, on April 28, 2023 and May 11, 2023 (Table 2). I observed, caught and photographed a female spotted turtle at wetland 109 on May 11, 2023 (Figure 3). The adult female turtle had not been notched, indicating that she is not a turtle that has been previously documented by state biologists. I completed a Rare Animal Form for this observation and have submitted it to the Maine Department of Inland Fisheries and Wildlife (Appendix III). The wetland in which this turtle was found seems to offer potential overwintering habitat for spotted turtles. This is the second documented occurrence of a spotted turtle in Clifford Park and the relatively early season date adds further support to the idea that spotted turtles are overwintering in Clifford Park.

Table 2. Results of surveys for spotted turtles at three wetlands in Clifford Park in 2023.

Wetland	*Latitude, Longitude Dec Deg*	*Survey Dates*	*Results*
BWA104	43.48249, -70.45199	4-13-23, 4-28-23, 5-11-23	This large wetland had adequate water levels and cover to potentially support overwintering by spotted turtles. No spotted turtles were observed on any of the three visits.
SW if 1G	43.48356, -70.45022	4-13-23	A large shrub dominated wetland with some red maple canopy. This wetland held very little standing water on the early season survey and was not revisited in 2023.
109	43.48408, -70.44804	4-13-23, 4-28-23, 5-11-23	An adult, female spotted turtle was observed in this wetland on May 11, 2023 This wetland may serve as overwintering habitat for spotted turtles.

Figure 3. A female spotted turtle basking in a wetland at Clifford Park that was subsequently caught. This female was too old to age, but based on the extreme wear on her plastron I estimate that she may be forty years old or more.

Spotted turtle individuals that are located within Clifford Park may represent a subpopulation of the spotted turtle population that is found farther east in the West Brook Habitat Block. We do not, at present, have any way to estimate the number of spotted turtles that may inhabit Clifford Park either year-round or seasonally. In general, spotted turtles do not fare well in areas of high recreational use. Because spotted turtles are semi-aquatic and use multiple wetlands over the course of the year, they move across upland habitats to access foraging wetlands, nesting grounds, estivation areas (upland locations where spotted turtles enter a summertime period of

dormancy), and overwintering wetlands. Unwanted encounters with humans may result in losses of individuals when a well-intentioned person might take a turtle home as a pet. More insidiously, this species is prized in the pet trade and subject to potential poaching pressures. Unwanted turtle encounters with pets may result in death by predation, loss of limbs, or other trauma. Understanding the nature of the subpopulation of spotted turtles at Clifford Park and maintaining connectivity with what is most likely a more significant population of this species to the east is critical if this species is to persist in Clifford Park.

Future Considerations

- Based on the results of the vernal pool work and the final DEP assessments of significance, consider incorporating the knowledge of significant vernal pools and their surrounding upland habitat where pool-breeding amphibians spend the bulk of the year into trail location and usage policies at Clifford Park.
- Consider additional effort for spotted turtles at Clifford Park (such as a trap-based assessment) to better estimate the size of the sub-population of this species in the Park. And perhaps consider trying to determine the degree to which this subpopulation is interacting with spotted turtles farther east in West Brook Block (though radio telemetry monitoring).

Appendix I
Significant Vernal Pool Assessment Forms Submitted

Maine State Vernal Pool Assessment Form

INSTRUCTIONS:

- **Complete all 3 pages of form thoroughly. Most fields are required for pool registration.**
- **Clear photographs of a) the pool AND b) the indicators (one example of each species egg mass) are required for all observers.**

Observer's Pool ID: 8G **MDIFW Pool ID:** _____

1. PRIMARY OBSERVER INFORMATION

a. Observer name: Mark Ward

b. Contact and credentials previously provided? ○ No (submit Addendum 1) ○ Yes

2. PROJECT CONTACT INFORMATION

a. Contact name: ○ same as observer ○ other Richard Rhames

b. Contact and credentials previously provided? ○ No (submit Addendum 1) ○ Yes

c. Project Name: Clifford Park Vernal Pool Assessment

3. LANDOWNER CONTACT INFORMATION

a. Are you the landowner? ○ Yes ○ No If no, was landowner permission obtained for survey? ○ Yes ○ No

b. Landowner's contact information (required)

Name: City of Biddeford/ Cons. Commission Phone: _____ E-mail: _____

Street Address: _____ City: Biddeford State: ME Zip: 04005

c. ☐ Large Projects: check if separate project landowner data file submitted

The Maine Department of Environmental Protection will e-mail official status letters to the project contact and landowner. Please check these data for completeness and accuracy to prevent delay in mailings. E-mail is the preferred method of notification; please provide e-mail addresses for the project contact and the landowner when available.

4. VERNAL POOL LOCATION INFORMATION

a. Location Township: Biddeford

Brief site directions to the pool (using mapped landmarks):

Located in Clifford Park. From the CP parking area on Pool St. (Rte 9), follow the black trail approximately 1/2mile south and east until the second intersection with the green trail. This pool is on the south side of the trail intersection

b. Mapping Requirements

i. USGS topographic map OR aerial photograph with pool clearly marked.

ii. GPS location of vernal pool (use Datum NAD83 / WGS84)

Longitude/Easting: -70.44674 Latitude/Northing: 43.48220

Coordinate system: Dec. degrees

Check one:

○ GIS shapefile
- send to VernalPool.MDIFW@maine.gov; observer has reviewed shape accuracy

○ (Best) The pool perimeter is delineated by multiple GPS points. (Excellent)
- Include map or spreadsheet with coordinates.

○ The above GPS point is at the center of the pool. (Good)

Maine State Vernal Pool Assessment Form

5. VERNAL POOL HABITAT INFORMATION

a. Habitat survey date (only if different from indicator survey dates on page 3): _____

b. Wetland habitat characterization

■ Choose the best descriptor for the landscape setting:

- ○ Isolated depression
- ○ Floodplain depression
- ○ Pool associated with larger wetland complex
- ○ Other: _____

■ Check all wetland types that best apply to this pool:

- ☐ Forested swamp
- ☐ Shrub swamp
- ☐ Peatland (fen or bog)
- ☐ Emergent marsh
- ☐ Wet meadow
- ☐ Lake or pond cove
- ☐ Abandoned beaver flowage
- ☐ Active beaver flowage
- ☐ Slow stream
- ☐ Floodplain
- ☐ Mostly unvegetated pool
- ☐ ATV or skidder rut
- ☐ Dug pond or borrow pit
- ☐ Roadside ditch
- ☐ Other: _____

c. Vernal pool status under the Natural Resources Protection Act (NRPA)

i. Pool Origin: ○ Natural ○ Natural-Modified ○ Unnatural ○ Unknown

If modified, unnatural or unknown, describe any modern or historic human impacts to the pool (**required**):

A pile of jagged edge quarried rocks sits beside this pool, but the water is very clear and much different than other "quarry" pools in Clifford Park

ii. Pool Hydrology

■ Select the pool's estimated hydroperiod AND provide rationale in box (**required**):

- ○ Permanent
- ○ Semi-permanent (drying partially in all years and completely in drought years)
- ○ Ephemeral (drying out completely in most years)
- ○ Unknown

Explain:

Although some buttonbush is present, pool is not very big or deep (generally knee deep but closer to 50-60cm at its deepest). There is only a small section of buttonbush suggesting to me that in most years the pool goes dry.

■ Maximum depth at survey: ○ 0-12" (0-1 ft.) ○ 12-36" (1-3 ft.) ○ 36-60" (3-5 ft.) ○ >60" (>5 ft.)

■ Approximate size of pool (at spring highwater): Width: 10 ○ m ○ ft Length: 20 ○ m ○ ft

■ Predominate substrate in order of increasing hydroperiod:

- ○ Mineral soil (bare, leaf-litter bottom, or upland mosses present)
- ○ Mineral soil (sphagnum moss present)
- ○ Organic matter (peat/muck) shallow or restricted to deepest portion
- ○ Organic matter (peat/muck) deep and widespread

■ Pool vegetation indicators in order of increasing hydroperiod (check all that apply):

- ☐ Terrestrial nonvascular spp. (e.g. haircap moss, lycopodium spp.)
- ☐ Dry site ferns (e.g. spinulose wood fern, lady fern, bracken fern)
- ☐ Moist site ferns (e.g. sensitive fern, cinnamon fern, interrupted fern, New York fern)
- ☐ Moist site vasculars (e.g. skunk cabbage, jewelweed, blue flag iris, swamp candle)
- ☑ Sphagnum moss (anchored or suspended)
- ☐ Wet site ferns (e.g. royal fern, marsh fern)
- ☑ Wet site shrubs (e.g. highbush blueberry, maleberry, winterberry, mountain holly)
- ☐ Wet site graminoids (e.g. blue-joint grass, tussock sedge, cattail, bulrushes)
- ☐ Aquatic vascular spp. (e.g. pickerelweed, arrowhead)
- ☐ Floating or submerged aquatics (e.g. water lily, water shield, pond weed, bladderwort)
- ☐ No vegetation in pool

■ Faunal indicators (check all that apply):

- ☐ Fish
- ☐ Bullfrog or Green Frog tadpoles
- ☐ Other: _____

iii. Inlet/Outlet Flow Permanency

Type of inlet or outlet (a seasonal or permanent channel providing water flowing into or out of the pool):

- ○ No inlet or outlet
- ○ Intermittent inlet or outlet
- ○ Permanent inlet or outlet (channel with well-defined banks and permanent flow)
- ○ Other or Unknown (explain): _____

Maine State Vernal Pool Assessment Form

6. VERNAL POOL INDICATOR INFORMATION

a. Indicator survey dates: 4/13/2023, 4/28/2023

b. Indicator abundance criteria and pool survey effort

- Is pool depression bisected by 2 ownerships (straddler pool)? ◉ Yes ◉ No
- Was the entire pool surveyed for egg masses? ○ Yes ◉ No; what % of entire pool surveyed? _____
- For each indicator species, indicate the exact number of egg masses, confidence level for species determination, and egg mass maturity. Separate cells are provided for separate survey dates.

INDICATOR SPECIES	Egg Masses (or adult Fairy Shrimp)									Tadpoles/Larvae[4]					
	Visit #1	Visit #2	Visit #3	Confidence Level[1]			Egg Mass Maturity[2]			Observed			Confidence Level[1]		
Wood Frog	22			3			F/M	H			X			3	
Spotted Salamander	3	33		3	3		F	M							
Blue-spotted Salamander															
Fairy Shrimp[3]															

1-Confidence level: 1 = <60%, 2 = 60-95%, 3 = >95%

2-Egg mass maturity: F= Fresh (<24 hrs), M= Mature (round embryos), A= Advanced (loose matrix, curved embryos), H= Hatched or Hatching

3-Fairy shrimp: X = present

4-Tadpoles/larvae: X = present

c. Rarity criteria

- Note any rare species associated with vernal pools. Observations should be accompanied by photographs.

SPECIES	Method of Verification*			CL**	SPECIES	Method of Verification*			CL**
	P	H	S			P	H	S	
Blanding's Turtle	☐	☐	☐		Wood Turtle	☐	☐	☐	
Spotted Turtle	☐	☐	☐		Ribbon Snake	☐	☐	☐	
Ringed Boghaunter	☐	☐	☐		Other:	☐	☐	☐	

*Method of verification: P = Photographed, H = Handled, S = Seen

**CL - Confidence level in species determination: 1= <60%, 2= 60-95%, 3= >95%

d. Optional observer recommendation:

☐ SVP ☑ Potential SVP ☐ Non Significant VP ☐ Indicator Breeding Area

e. General vernal pool comments and/or observations of other wildlife:

A small pool that meets the biological criteria for significance. The adjacent rock pile suggests that it may not be entirely natural, but it does not resemble any of the nearby bedrock lined "quarry" pools with dark, tannic waters.

Send completed form and supporting documentation to: VernalPool.MDIFW@maine.gov

NOTE: Digital submissions are preferred but if not possible, please mail to: Maine Department of Inland Fisheries and Wildlife
Attn: Vernal Pools
106 Hogan Road, Suite 1
Bangor, ME 04401

For MDIFW use only Reviewed by MDIFW Date: _____ Initials: _____

This pool is: ☐ **Significant** ☐ **Potentially Significant** but lacking critical data ☐ **Not Significant** due to: ○ does not meet biological criteria. ○ does not meet MDEP vernal pool criteria.

Comments:

Maine State Vernal Pool Assessment Form

INSTRUCTIONS:

- **Complete all 3 pages of form thoroughly. Most fields are required for pool registration.**
- **Clear photographs of a) the pool AND b) the indicators (one example of each species egg mass) are required for all observers.**

Observer's Pool ID: 8G **MDIFW Pool ID:** _____

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a. Observer name: Mark Ward

b. Contact and credentials previously provided? ○ No (submit Addendum 1) ○ Yes

2. PROJECT CONTACT INFORMATION

a. Contact name: ○ same as observer ○ other Richard Rhames

b. Contact and credentials previously provided? ○ No (submit Addendum 1) ○ Yes

c. Project Name: Clifford Park Vernal Pool Assessment

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a. Are you the landowner? ○ Yes ○ No If no, was landowner permission obtained for survey? ○ Yes ○ No

b. Landowner's contact information (required)

Name: City of Biddeford/ Cons. Commission Phone: _____ E-mail: _____

Street Address: _____ City: Biddeford State: ME Zip: 04005

c. ☐ Large Projects: check if separate project landowner data file submitted

The Maine Department of Environmental Protection will e-mail official status letters to the project contact and landowner. Please check these data for completeness and accuracy to prevent delay in mailings. E-mail is the preferred method of notification; please provide e-mail addresses for the project contact and the landowner when available.

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Brief site directions to the pool (using mapped landmarks):

Located in Clifford Park. From the CP parking area on Pool St. (Rte 9), follow the black trail approximately 1/2mile south and east until the second intersection with the green trail. This pool is on the south side of the trail intersection

b. Mapping Requirements

i. USGS topographic map OR aerial photograph with pool clearly marked.

ii. GPS location of vernal pool (use Datum NAD83 / WGS84)

Longitude/Easting: -70.44674 Latitude/Northing: 43.48220

Coordinate system: Dec. degrees

Check one:

○ GIS shapefile
- send to VernalPool.MDIFW@maine.gov; observer has reviewed shape accuracy

○ (Best) The pool perimeter is delineated by multiple GPS points. (Excellent)
- Include map or spreadsheet with coordinates.

○ The above GPS point is at the center of the pool. (Good)

Maine State Vernal Pool Assessment Form

5. VERNAL POOL HABITAT INFORMATION

a. Habitat survey date (only if different from indicator survey dates on page 3): _____

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■ Choose the best descriptor for the landscape setting:

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- ○ Pool associated with larger wetland complex
- ○ Other: _____

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- ☐ Shrub swamp
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- ☐ Wet meadow
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- ☐ Abandoned beaver flowage
- ☐ Active beaver flowage
- ☐ Slow stream
- ☐ Floodplain
- ☐ Mostly unvegetated pool
- ☐ ATV or skidder rut
- ☐ Dug pond or borrow pit
- ☐ Roadside ditch
- ☐ Other: _____

c. Vernal pool status under the Natural Resources Protection Act (NRPA)

i. Pool Origin: ○ Natural ○ Natural-Modified ○ Unnatural ○ Unknown

If modified, unnatural or unknown, describe any modern or historic human impacts to the pool (**required**):

A pile of jagged edge quarried rocks sits beside this pool, but the water is very clear and much different than other "quarry" pools in Clifford Park

ii. Pool Hydrology

■ Select the pool's estimated hydroperiod AND provide rationale in box (**required**):

- ○ Permanent
- ○ Semi-permanent (drying partially in all years and completely in drought years)
- ○ Ephemeral (drying out completely in most years)
- ○ Unknown

Explain:

Although some buttonbush is present, pool is not very big or deep (generally knee deep but closer to 50-60cm at its deepest). There is only a small section of buttonbush suggesting to me that in most years the pool goes dry.

■ Maximum depth at survey: ○ 0-12" (0-1 ft.) ○ 12-36" (1-3 ft.) ○ 36-60" (3-5 ft.) ○ >60" (>5 ft.)

■ Approximate size of pool (at spring highwater): Width: 10 ○ m ○ ft Length: 20 ○ m ○ ft

■ Predominate substrate in order of increasing hydroperiod:

- ○ Mineral soil (bare, leaf-litter bottom, or upland mosses present)
- ○ Mineral soil (sphagnum moss present)
- ○ Organic matter (peat/muck) shallow or restricted to deepest portion
- ○ Organic matter (peat/muck) deep and widespread

■ Pool vegetation indicators in order of increasing hydroperiod (check all that apply):

- ☐ Terrestrial nonvascular spp. (e.g. haircap moss, lycopodium spp.)
- ☐ Dry site ferns (e.g. spinulose wood fern, lady fern, bracken fern)
- ☐ Moist site ferns (e.g. sensitive fern, cinnamon fern, interrupted fern, New York fern)
- ☐ Moist site vasculars (e.g. skunk cabbage, jewelweed, blue flag iris, swamp candle)
- ☑ Sphagnum moss (anchored or suspended)
- ☐ Wet site ferns (e.g. royal fern, marsh fern)
- ☑ Wet site shrubs (e.g. highbush blueberry, maleberry, winterberry, mountain holly)
- ☐ Wet site graminoids (e.g. blue-joint grass, tussock sedge, cattail, bulrushes)
- ☐ Aquatic vascular spp. (e.g. pickerelweed, arrowhead)
- ☐ Floating or submerged aquatics (e.g. water lily, water shield, pond weed, bladderwort)
- ☐ No vegetation in pool

■ Faunal indicators (check all that apply):

- ☐ Fish
- ☐ Bullfrog or Green Frog tadpoles
- ☐ Other: _____

iii. Inlet/Outlet Flow Permanency

Type of inlet or outlet (a seasonal or permanent channel providing water flowing into or out of the pool):

- ○ No inlet or outlet
- ○ Intermittent inlet or outlet
- ○ Permanent inlet or outlet (channel with well-defined banks and permanent flow)
- ○ Other or Unknown (explain): _____

Maine State Vernal Pool Assessment Form

6. VERNAL POOL INDICATOR INFORMATION

a. Indicator survey dates: 4/13/2023, 4/28/2023

b. Indicator abundance criteria and pool survey effort

- Is pool depression bisected by 2 ownerships (straddler pool)? ○ Yes ○ No
- Was the entire pool surveyed for egg masses? ○ Yes ○ No; what % of entire pool surveyed? _____
- For each indicator species, indicate the exact number of egg masses, confidence level for species determination, and egg mass maturity. Separate cells are provided for separate survey dates.

INDICATOR SPECIES	Egg Masses (or adult Fairy Shrimp)									Tadpoles/Larvae[4]					
	Visit #1	Visit #2	Visit #3	Confidence Level[1]			Egg Mass Maturity[2]			Observed			Confidence Level[1]		
Wood Frog	22			3			F/M	H			X			3	
Spotted Salamander	3	33		3	3		F	M							
Blue-spotted Salamander															
Fairy Shrimp[3]															

1-Confidence level: 1 = <60%, 2 = 60-95%, 3 = >95%

2-Egg mass maturity: F= Fresh (<24 hrs), M= Mature (round embryos), A= Advanced (loose matrix, curved embryos), H= Hatched or Hatching

3-Fairy shrimp: X = present

4-Tadpoles/larvae: X = present

c. Rarity criteria

- Note any rare species associated with vernal pools. Observations should be accompanied by photographs.

SPECIES	Method of Verification*			CL**	SPECIES	Method of Verification*			CL**
	P	H	S			P	H	S	
Blanding's Turtle	☐	☐	☐		Wood Turtle	☐	☐	☐	
Spotted Turtle	☐	☐	☐		Ribbon Snake	☐	☐	☐	
Ringed Boghaunter	☐	☐	☐		Other:	☐	☐	☐	

*Method of verification: P = Photographed, H = Handled, S = Seen

**CL - Confidence level in species determination: 1= <60%, 2= 60-95%, 3= >95%

d. Optional observer recommendation:

☐ SVP ☑ Potential SVP ☐ Non Significant VP ☐ Indicator Breeding Area

e. General vernal pool comments and/or observations of other wildlife:

A small pool that meets the biological criteria for significance. The adjacent rock pile suggests that it may not be entirely natural, but it does not resemble any of the nearby bedrock lined "quarry" pools with dark, tannic waters.

Send completed form and supporting documentation to: VernalPool.MDIFW@maine.gov

NOTE: Digital submissions are preferred but if not possible, please mail to: Maine Department of Inland Fisheries and Wildlife
Attn: Vernal Pools
106 Hogan Road, Suite 1
Bangor, ME 04401

For MDIFW use only Reviewed by MDIFW Date: _____ Initials: _____

This pool is: ☐ **Significant** ☐ **Potentially Significant** but lacking critical data ☐ **Not Significant** due to: ○ does not meet biological criteria. ○ does not meet MDEP vernal pool criteria.

Comments:

Maine State Vernal Pool Assessment Form

INSTRUCTIONS:

- **Complete all 3 pages of form thoroughly. Most fields are required for pool registration.**
- **Clear photographs of a) the pool AND b) the indicators (one example of each species egg mass) are required for all observers.**

Observer's Pool ID: 8G **MDIFW Pool ID:** _____

1. PRIMARY OBSERVER INFORMATION

a. Observer name: Mark Ward

b. Contact and credentials previously provided? ○ No (submit Addendum 1) ○ Yes

2. PROJECT CONTACT INFORMATION

a. Contact name: ○ same as observer ○ other Richard Rhames

b. Contact and credentials previously provided? ○ No (submit Addendum 1) ○ Yes

c. Project Name: Clifford Park Vernal Pool Assessment

3. LANDOWNER CONTACT INFORMATION

a. Are you the landowner? ○ Yes ○ No If no, was landowner permission obtained for survey? ○ Yes ○ No

b. Landowner's contact information (required)

Name: City of Biddeford/ Cons. Commission Phone: _____ E-mail: _____

Street Address: _____ City: Biddeford State: ME Zip: 04005

c. ☐ Large Projects: check if separate project landowner data file submitted

The Maine Department of Environmental Protection will e-mail official status letters to the project contact and landowner. Please check these data for completeness and accuracy to prevent delay in mailings. E-mail is the preferred method of notification; please provide e-mail addresses for the project contact and the landowner when available.

4. VERNAL POOL LOCATION INFORMATION

a. Location Township: Biddeford

Brief site directions to the pool (using mapped landmarks):

Located in Clifford Park. From the CP parking area on Pool St. (Rte 9), follow the black trail approximately 1/2mile south and east until the second intersection with the green trail. This pool is on the south side of the trail intersection

b. Mapping Requirements

i. USGS topographic map OR aerial photograph with pool clearly marked.

ii. GPS location of vernal pool (use Datum NAD83 / WGS84)

Longitude/Easting: -70.44674 Latitude/Northing: 43.48220

Coordinate system: Dec. degrees

Check one:

○ GIS shapefile
- send to VernalPool.MDIFW@maine.gov; observer has reviewed shape accuracy

○ (Best) The pool perimeter is delineated by multiple GPS points. (Excellent)
- Include map or spreadsheet with coordinates.

○ The above GPS point is at the center of the pool. (Good)

Maine State Vernal Pool Assessment Form

5. VERNAL POOL HABITAT INFORMATION

a. Habitat survey date (only if different from indicator survey dates on page 3): _____

b. Wetland habitat characterization

■ Choose the best descriptor for the landscape setting:

- ○ Isolated depression
- ○ Floodplain depression
- ○ Pool associated with larger wetland complex
- ○ Other: _____

■ Check all wetland types that best apply to this pool:

- ☐ Forested swamp
- ☐ Shrub swamp
- ☐ Peatland (fen or bog)
- ☐ Emergent marsh
- ☐ Wet meadow
- ☐ Lake or pond cove
- ☐ Abandoned beaver flowage
- ☐ Active beaver flowage
- ☐ Slow stream
- ☐ Floodplain
- ☐ Mostly unvegetated pool
- ☐ ATV or skidder rut
- ☐ Dug pond or borrow pit
- ☐ Roadside ditch
- ☐ Other: _____

c. Vernal pool status under the Natural Resources Protection Act (NRPA)

i. Pool Origin: ○ Natural ○ Natural-Modified ○ Unnatural ○ Unknown

If modified, unnatural or unknown, describe any modern or historic human impacts to the pool (**required**):

A pile of jagged edge quarried rocks sits beside this pool, but the water is very clear and much different than other "quarry" pools in Clifford Park

ii. Pool Hydrology

■ Select the pool's estimated hydroperiod AND provide rationale in box (**required**):

- ○ Permanent
- ○ Semi-permanent (drying partially in all years and completely in drought years)
- ○ Ephemeral (drying out completely in most years)
- ○ Unknown

Explain:

Although some buttonbush is present, pool is not very big or deep (generally knee deep but closer to 50-60cm at its deepest). There is only a small section of buttonbush suggesting to me that in most years the pool goes dry.

■ Maximum depth at survey: ○ 0-12" (0-1 ft.) ○ 12-36" (1-3 ft.) ○ 36-60" (3-5 ft.) ○ >60" (>5 ft.)

■ Approximate size of pool (at spring highwater): Width: 10 ○ m ○ ft Length: 20 ○ m ○ ft

■ Predominate substrate in order of increasing hydroperiod:

- ○ Mineral soil (bare, leaf-litter bottom, or upland mosses present)
- ○ Mineral soil (sphagnum moss present)
- ○ Organic matter (peat/muck) shallow or restricted to deepest portion
- ○ Organic matter (peat/muck) deep and widespread

■ Pool vegetation indicators in order of increasing hydroperiod (check all that apply):

- ☐ Terrestrial nonvascular spp. (e.g. haircap moss, lycopodium spp.)
- ☐ Dry site ferns (e.g. spinulose wood fern, lady fern, bracken fern)
- ☐ Moist site ferns (e.g. sensitive fern, cinnamon fern, interrupted fern, New York fern)
- ☐ Moist site vasculars (e.g. skunk cabbage, jewelweed, blue flag iris, swamp candle)
- ☑ Sphagnum moss (anchored or suspended)
- ☐ Wet site ferns (e.g. royal fern, marsh fern)
- ☑ Wet site shrubs (e.g. highbush blueberry, maleberry, winterberry, mountain holly)
- ☐ Wet site graminoids (e.g. blue-joint grass, tussock sedge, cattail, bulrushes)
- ☐ Aquatic vascular spp. (e.g. pickerelweed, arrowhead)
- ☐ Floating or submerged aquatics (e.g. water lily, water shield, pond weed, bladderwort)
- ☐ No vegetation in pool

■ Faunal indicators (check all that apply):

- ☐ Fish
- ☐ Bullfrog or Green Frog tadpoles
- ☐ Other: _____

iii. Inlet/Outlet Flow Permanency

Type of inlet or outlet (a seasonal or permanent channel providing water flowing into or out of the pool):

- ○ No inlet or outlet
- ○ Intermittent inlet or outlet
- ○ Permanent inlet or outlet (channel with well-defined banks and permanent flow)
- ○ Other or Unknown (explain): _____

Maine State Vernal Pool Assessment Form

6. VERNAL POOL INDICATOR INFORMATION

a. Indicator survey dates: 4/13/2023, 4/28/2023

b. Indicator abundance criteria and pool survey effort

- Is pool depression bisected by 2 ownerships (straddler pool)? ○ Yes ○ No
- Was the entire pool surveyed for egg masses? ○ Yes ○ No; what % of entire pool surveyed? _____
- For each indicator species, indicate the exact number of egg masses, confidence level for species determination, and egg mass maturity. Separate cells are provided for separate survey dates.

INDICATOR SPECIES	Egg Masses (or adult Fairy Shrimp)									Tadpoles/Larvae[4]					
	Visit #1	Visit #2	Visit #3	Confidence Level[1]			Egg Mass Maturity[2]			Observed			Confidence Level[1]		
Wood Frog	22			3			F/M	H			X			3	
Spotted Salamander	3	33		3	3		F	M							
Blue-spotted Salamander															
Fairy Shrimp[3]															

1-Confidence level: 1 = <60%, 2 = 60-95%, 3 = >95%

2-Egg mass maturity: F= Fresh (<24 hrs), M= Mature (round embryos), A= Advanced (loose matrix, curved embryos), H= Hatched or Hatching

3-Fairy shrimp: X = present

4-Tadpoles/larvae: X = present

c. Rarity criteria

- Note any rare species associated with vernal pools. Observations should be accompanied by photographs.

SPECIES	Method of Verification*			CL**	SPECIES	Method of Verification*			CL**
	P	H	S			P	H	S	
Blanding's Turtle	☐	☐	☐		Wood Turtle	☐	☐	☐	
Spotted Turtle	☐	☐	☐		Ribbon Snake	☐	☐	☐	
Ringed Boghaunter	☐	☐	☐		Other:	☐	☐	☐	

*Method of verification: P = Photographed, H = Handled, S = Seen

**CL - Confidence level in species determination: 1= <60%, 2= 60-95%, 3= >95%

d. Optional observer recommendation:

☐ SVP ☑ Potential SVP ☐ Non Significant VP ☐ Indicator Breeding Area

e. General vernal pool comments and/or observations of other wildlife:

A small pool that meets the biological criteria for significance. The adjacent rock pile suggests that it may not be entirely natural, but it does not resemble any of the nearby bedrock lined "quarry" pools with dark, tannic waters.

Send completed form and supporting documentation to: VernalPool.MDIFW@maine.gov

NOTE: Digital submissions are preferred but if not possible, please mail to: Maine Department of Inland Fisheries and Wildlife
Attn: Vernal Pools
106 Hogan Road, Suite 1
Bangor, ME 04401

For MDIFW use only Reviewed by MDIFW Date: _____ Initials: _____

This pool is: ☐ **Significant** ☐ **Potentially Significant** but lacking critical data ☐ **Not Significant** due to: ○ does not meet biological criteria. ○ does not meet MDEP vernal pool criteria.

Comments:

Appendix II
DEP determinations of Vernal Pool Significance

STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION

JANET T. MILLS
GOVERNOR

MELANIE LOYZIM
COMMISSIONER

July 31, 2023

Richard Rhames
Biddeford Conservation Commission
205 Main Street
Biddeford, ME 04005

Re: Vernal Pool Significance Determination, Pool ID #s 5183, 5185–Biddeford

Dear Richard Rhames:

Vernal pools are temporary to semi-permanent wetlands occurring in shallow depressions that typically fill during the spring and dry during the summer or in drought years. They provide important breeding and foraging habitat for a wide variety of specialized wildlife species including several rare, threatened, and endangered species.

Based on your field surveys, it has been determined that the vernal pools identified above on the property of City of Biddeford are SIGNIFICANT. I have attached a copy of the database printout that verifies the State's findings with respect to our surveys.

As a significant vernal pool, all areas on the City of Biddeford property within 250 feet of the vernal pool depressions, known as the "critical terrestrial habitat", will be subject to the requirements of the Natural Resources Protection Act, 38 M.R.S.A. §§480-A to 480-FF, and the Significant Wildlife Habitat rules, 06-096 CMR 335.

The Department will ensure that the vernal pools' location and status is entered and mapped in the State's vernal pool database. Note that if the pool depression (only) crosses two or more property boundaries the abutter(s) are similarly subject to the requirements of the Natural Resources Protection Act and the Significant Wildlife Habitat rules.

The Department will notify the landowner of the pool status under separate cover. If you have any questions or need further clarification, please contact Mark Stebbins at 207-592-4810 or email at: Mark.N.Stebbins@maine.gov

Sincerely,

Robert Wood
Director, Bureau of Land Resources

cc. town file

STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION

JANET T. MILLS
GOVERNOR

MELANIE LOYZIM
COMMISSIONER

July 31, 2023

Richard Rhames
Biddeford Conservation Commission
205 Main Street
Biddeford, ME 04005

Re: Vernal Pool Significance Determination, Pool ID # 2211–Biddeford

Dear Richard Rhames:

Vernal pools are temporary to semi-permanent wetlands occurring in shallow depressions that typically fill during the spring and dry during the summer or in drought years. They provide important breeding and foraging habitat for a wide variety of specialized wildlife species including several rare, threatened, and endangered species.

Based on your field survey, it has been determined that the vernal pool identified above on the property of City of Biddeford is NOT SIGNIFICANT because either: 1. the feature does not meet the definition of a vernal pool under the Significant Wildlife Habitat rules, 06-096 CMR 335(9) or 2. the vernal pool does not meet the biological standards for exceptional wildlife use of the Significant Wildlife Habitat rules, 06-096 CMR 335(9)(B). Therefore, activities within 250 feet of the pool are not regulated under the Natural Resources Protection Act (NRPA) unless there are other protected natural resources nearby such as streams or freshwater wetlands. I have attached a copy of the database printout that verifies the State's findings with respect to your survey.

I want to also advise you that the pool area on the property can be considered a freshwater wetland and therefore direct pool alterations may require permitting under the NRPA.

The Department will notify the landowner of the pool status under separate cover. If you have any questions or need further clarification, please contact Mark Stebbins at 207-592-4810 or email at: Mark.N.Stebbins@maine.gov

Sincerely,

Robert Wood
Director, Bureau of Land Resources

cc. town file

AUGUSTA
17 STATE HOUSE STATION
AUGUSTA, MAINE 04333-0017
(207) 287-7688 FAX: (207) 287-7826

BANGOR
106 HOGAN ROAD, SUITE 6
BANGOR, MAINE 04401
207-941-4570 FAX: (207) 941-4584

PORTLAND
312 CANCO ROAD
PORTLAND, MAINE 04103
(207) 822-6300 FAX: (207) 822-6303

PRESQUE ISLE
1235 CENTRAL DRIVE, SKYWAY PARK
PRESQUE ISLE, MAINE 04769
(207) 764-0477 FAX: (207) 760-3143

WEBSITE: www.maine.gov/dep

IFW Recommendations for Significant Vernal Pool Determinations

The following is a list of pools and IFW's recommendations for whether or not they qualify as Significant Vernal Pools, one of Maine's Significant Wildlife Habitats.

Data current as of: Monday, July 31, 2023

IFW's Pool ID: 5183 Twp: Biddeford
Observer's ID: 8G
UTM Coordinates of Pool Center: 383004 E, 4815381 N
ProjectType: Clifford Park Vernal Pool Assessment

Landowner:	Nan Whitten - City of Biddeford	Contact:	Richard Rhames - Biddeford Conservation Commission
	205 Main Street		205 Main Street
	Biddeford, ME 04005		Biddeford, ME 04005
	(207) 571-0700 Nan.Whitten@biddefordmaine.or		(207) 571-0700 rerhames@gmail.com

Survey Date: 4/13/2023 Additional Survey Dates: 04/28/2023
IFW's Recommendation: GREEN: SIGNIFICANT
IFW Comments: Pool provides significant habitat for spotted salamanders and some habitat for wood frogs.

IFW's Pool ID: 5185 Twp: Biddeford
Observer's ID: BWA105
UTM Coordinates of Pool Center: 383004 E, 4815553 N
ProjectType: Clifford Park Vernal Pool Assessment

Landowner:	Nan Whitten - City of Biddeford	Contact:	Richard Rhames - Biddeford Conservation Commission
	205 Main Street		205 Main Street
	Biddeford, ME 04005		Biddeford, ME 04005
	(207) 571-0700 Nan.Whitten@biddefordmaine.or		(207) 571-0700 rerhames@gmail.com

Survey Date: 4/13/2023 Additional Survey Dates: 04/28/2023
IFW's Recommendation: GREEN: SIGNIFICANT
IFW Comments: Pool provides significant habitat for wood frogs and spotted salamanders.

IFW Recommendations for Significant Vernal Pool Determinations

The following is a list of pools and IFW's recommendations for whether or not they qualify as Significant Vernal Pools, one of Maine's Significant Wildlife Habitats.

Data current as of: Monday, July 31, 2023

IFW's Pool ID: 2211 Twp: Biddeford

Observer's ID: BWA103

UTM Coordinates of Pool Center: 382664 E, 4815304 N

ProjectType: Clifford Park Vernal Pool Assessment

Landowner:	Nan Whitten - City of Biddeford	Contact:	Richard Rhames - Biddeford Conservation Commission
	205 Main Street		205 Main Street
	Biddeford, ME 04005		Biddeford, ME 04005
	(207) 571-0700 Nan.Whitten@biddefordmaine.or		(207) 571-0700 rerhames@gmail.com

Survey Date: 4/13/2023 Additional Survey Dates: 04/28/2023

IFW's Recommendation: RED: NOT SIGNIFICANT, does not meet the vernal pool definition

IFW Comments: Pool previously surveyed in 2013 and determined to be not significant due to permanent hydrology.During this survey, pool provides some habitat for wood frogs and significant habitat for spotted salamanders but does not meet MDEP vernal pool criteria (permanent hydrology and potentially unnatural origin - quary activity).

Appendix III
Rare Animal Survey Form Submitted

RARE ANIMAL SURVEY FORM

Maine Department of Inland Fisheries and Wildlife
650 State Street, Bangor, ME 04401
Phone: (207) 941-4440

INSTRUCTIONS: Complete one form per visit.

COMPLETED BY: Mark Ward **DATE:** 7/17/2023

SURVEY SITE: Clifford Park **TOWNSHIP**: Biddeford

NEW EO (check): UPDATE (check):

DELORME PAGE and GRID (e.g. 04B2): 03C2

ELEMENT INFORMATION

Common Name: Spotted Turtle Scientific Name: *Clemmys guttata*

SURVEYOR INFORMATION

Survey Date: 5/11/2023 Time (24-hr clock): 11:00

Surveyors (principal surveyor first, include first & last name and contact information):

Mark Ward, Ecological Consultant, 28 Poor Farm Road, Bristol, ME 04539; 207-350-6537
Laura Kintz, Maine Department of Inland Fisheries and Wildlife

IDENTIFICATION

Photos taken? Yes Notes and repository: See embedded images
Specimen collected? No Specimen number and repository: Click here
Identification problems? No Explain: Click here

ELEMENT OCCURRENCE INFORMATION

Observation type: Sight: ☐ Vocalization: ☐ Handled: ☒ Collected: ☐ Other (explain): Click here
Observed abundance (include age & sex): 1 Adult female, too old to age, not previously notched
Estimated abundance (and basis for estimate): Click here
Evidence of reproductive and/or other behaviors: Click here
Miscellaneous notes:

We observed this turtle basking upon our arrival and watched for about 15 minutes before attempting the successful capture. We did not observe any other spotted turtles in this wetland on this date, nor did we observe any spotted turtles in this wetland on either of two previous visits on April 13, 2023 and April 28, 2023, when weather conditions were favorable to observe basking spotted turtles.

HABITAT DESCRIPTION

Describe the specific habitat or micro-habitats where this animal occurs. Convey a mental image of the habitat and its features including: land forms, aquatic features, vegetation, slope, aspect, soils, associated plant and animal species, natural disturbances.

The wetland in which this turtle was observed is a documented Significant Vernal Pool (DEP#2212) based on past amphibian egg mass counts. The wetland is ~60m x ~25m and is likely semi-permanent. Patches of buttonbush are common as are areas dominated by emergent sedges (*Carex* cf. *utriculata*). Sphagnum is common both suspended in the water column and anchored to the substrate. I suspect this wetland to be an overwintering site for spotted turtles.

Threats and/or management concerns:

Significant use of recreational trails in Clifford Park by people on foot and on mountain bikes. Walkers in the park commonly are accompanied by dogs.

DIRECTIONS

Provide detailed directions to this element occurrence (versus the survey site) using a readily locatable and relatively permanent landmark as a starting point. Refer to nearby landmarks, roads, and villages. Include distances, compass directions (North, South, etc.)

The wetland is within Clifford Park and can be relatively easily accessed from the Clifford Park parking area on Pool Street (Rte 9). Follow the black trail southeastward ~500m to the trailside 1G quarry pool (see GPS coords below) then head NE about 100m off trail to wetland

Owner (if known, indicate name of owner(s), address, and phone number):

City of Biddeford

LOCATION OF OBSERVATION

Source 1: 43.48402° UTM-N / **Lat-N** 70.44810° UTM-E /**Long-W** **NAD83**/WGS84

(Preferred format: UTM xxxxxxE xxxxxxxN or decimal degrees xx.xxxxx or degrees, minutes, seconds xxº xx' xx.x")

GPS Source 1 comment: CG893 point where turtle was caught. Taken with Garmin eTrex GPS unit (+/- 5m error)

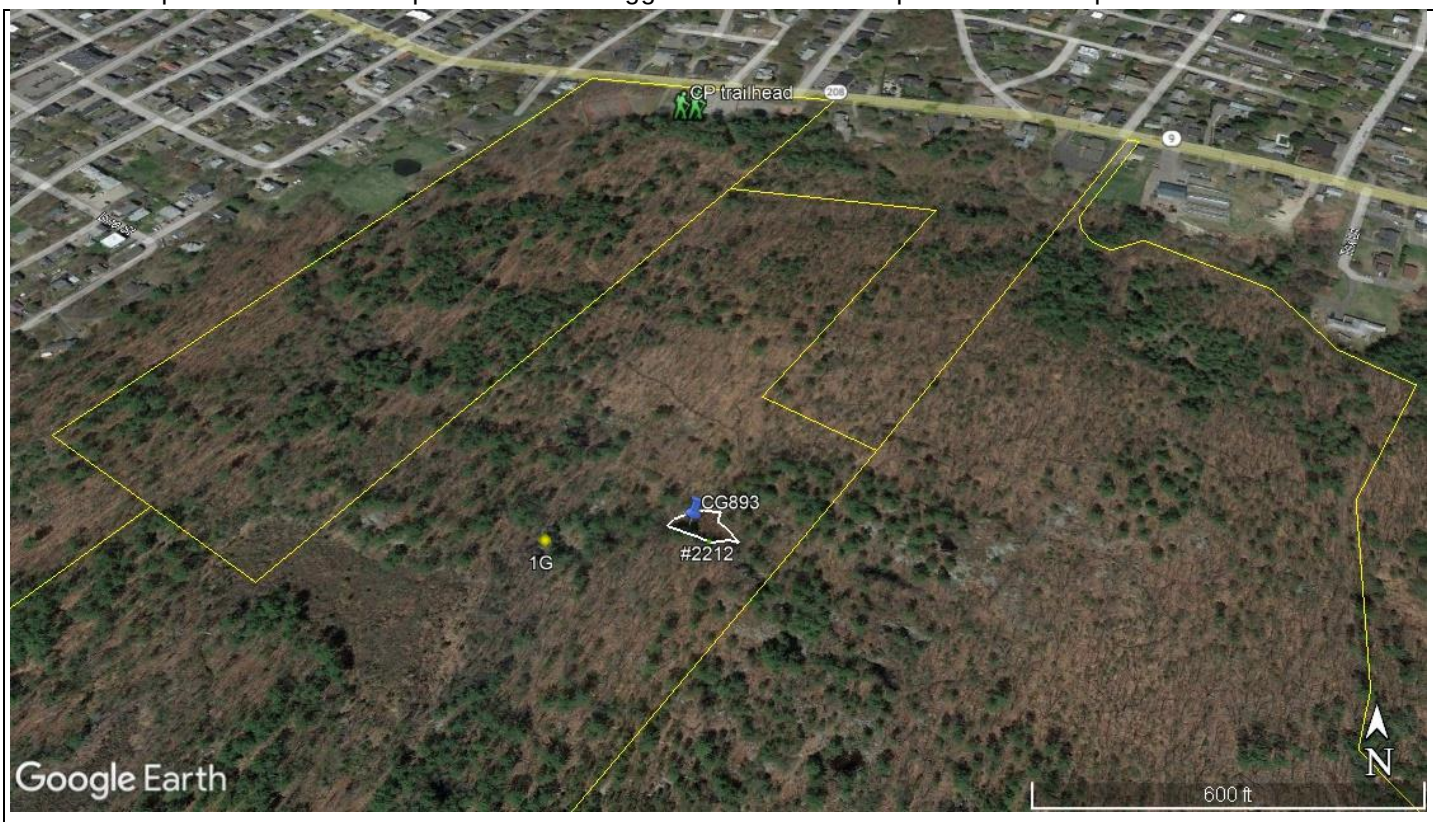
Source 2: 43.48239° UTM-N / Lat-N 70.44907 UTM-E / Long-W NAD83/WGS84

(Preferred format: UTM xxxxxxE xxxxxxxN or decimal degrees xx.xxxxx or degrees, minutes, seconds xxº xx' xx.x")

GPS Source 2 comment: 1G—a nearby quarry pool where a spotted turtle was observed on 4/28/2020 by Grace Glynn

LOCATION GRAPHIC

Insert aerial photo or scanned map with features flagged. Hand drawn maps are also acceptable.



Location graphic caption: The location of a spotted turtle (CG893) in Clifford Park on May 12, 2023 and a nearby quarry pool (1G) where a spotted turtle was observed by Grace Glynn on April 28, 2020.

Insert additional graphics (maps, animals, or habitats).

Graphic caption: The female spotted turtle observed basking from the shore

Graphic caption: The female turtle after being captured.

Insert additional graphics (maps, animals, or habitats).

Graphic caption: The carapace of 893 showing the incorporation of an existing deep chip into the notch on the “100” scute.

Graphic caption: The very worn plastron of 893 suggests that this is an old turtle.

STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION

JANET T. MILLS
GOVERNOR

MELANIE LOYZIM
COMMISSIONER

July 31, 2023

Nan Whitten
City of Biddeford
205 Main Street
Biddeford, ME 04005

Re: Vernal Pool Significance Determination, Pool ID #s 5183, 5185–Biddeford

Dear Nan Whitten:

Vernal pools are temporary to semi-permanent wetlands occurring in shallow depressions that typically fill during the spring and dry during the summer or in drought years. They provide important breeding and foraging habitat for a wide variety of specialized wildlife species including several rare, threatened, and endangered species.

After conducting a field survey at your request, it has been determined that the vernal pools identified above on your property are SIGNIFICANT. I have attached a copy of the database printout that verifies the State's findings with respect to our surveys.

As significant vernal pools, all areas on your property within 250 feet of the vernal pool depressions, known as the "critical terrestrial habitat", will be subject to the requirements of the Natural Resources Protection Act, 38 M.R.S.A. §§480-A to 480-FF, and the Significant Wildlife Habitat rules, 06-096 CMR 335.

The Department will ensure that the vernal pools' location and status is entered and mapped in the State's vernal pool database. Note that if the pool depression (only) crosses two or more property boundaries the abutter(s) are similarly subject to the requirements of the Natural Resources Protection Act and the Significant Wildlife Habitat rules.

If you have any questions or need further clarification, please contact Mark Stebbins at 207-592-4810 or email at: Mark.N.Stebbins@maine.gov

Sincerely,

Robert Wood
Director, Bureau of Land Resources

cc. town file

IFW Recommendations for Significant Vernal Pool Determinations

The following is a list of pools and IFW's recommendations for whether or not they qualify as Significant Vernal Pools, one of Maine's Significant Wildlife Habitats.

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	Biddeford, ME 04005		Biddeford, ME 04005
	(207) 571-0700 Nan.Whitten@biddefordmaine.or		(207) 571-0700 rerhames@gmail.com

Survey Date: 4/13/2023 Additional Survey Dates: 04/28/2023
IFW's Recommendation: GREEN: SIGNIFICANT
IFW Comments: Pool provides significant habitat for spotted salamanders and some habitat for wood frogs.

IFW's Pool ID: 5185 Twp: Biddeford
Observer's ID: BWA105
UTM Coordinates of Pool Center: 383004 E, 4815553 N
ProjectType: Clifford Park Vernal Pool Assessment

Landowner:	Nan Whitten - City of Biddeford	Contact:	Richard Rhames - Biddeford Conservation Commission
	205 Main Street		205 Main Street
	Biddeford, ME 04005		Biddeford, ME 04005
	(207) 571-0700 Nan.Whitten@biddefordmaine.or		(207) 571-0700 rerhames@gmail.com

Survey Date: 4/13/2023 Additional Survey Dates: 04/28/2023
IFW's Recommendation: GREEN: SIGNIFICANT
IFW Comments: Pool provides significant habitat for wood frogs and spotted salamanders.

Invoice for Services
Clifford Park Vernal Pool Assessment
Submitted by Mark Ward
Ecological Consultant
August 2023

Services Rendered: Completion and Submission of Rare Animal and Vernal Pool Significance forms for Clifford Park survey work, drafting Clifford Park Report, and revision of report to include final DEP determinations.

Expenses
Rare Animal and Vernal Pool Survey Forms (June/July): 3 hrs X $45= $135
Drafting Report for BCC (July): 7 hrs X $45 = $315
Revising and Finalizing Report with DEP determinations (August): 1hr X $45 = $45
Total $495

Amount requested: **$487.25**

Contractor's Address and Phone #:
Mark Ward
Ecological Consultant
28 Poor Farm Road
Bristol, ME 04539
207-350-6537