

Wetland Bog Turtle Assessment Summary for the Pennsylvania Pipeline Project (PPP) – Chester County – 11/20/2016

Wetland ID	USFWS Cowardin Classification ¹	Coordinates	Crossing Method ²	Length of Centerline Crossing (feet) ³	PADEP Permanent Disturbance ⁴	PADEP Temporary Disturbance ⁵	PADEP & USACE Permanent Loss ⁶	Conversion Impact (acre) ⁷	Bog Turtle Assessment ⁸		Exceptional Value	Site Plan Sheet Number	Permit
									Phase I	Phase II			
A46	PEM	40.1472, -75.8272	Open Cut	16	0.015	-	-	-	1N	N/A	Scenic; EV Stream	4	Individual
B12	PEM	40.1436, -75.8217	Open Cut	-	0.001	-	-	-	1N	N/A	EV Stream	6	Individual
B13	PEM	40.1437, -75.8212	Open Cut	51	0.031	0.001	-	-	1N	N/A	EV Stream	6	Individual
B14	PEM	40.1437, -75.8204	Open Cut	31	0.024	-	-	-	1P	2N	EV Stream	6	Individual
B15	PEM	40.1246, -75.7921	Bore / Temporary Matting	131	0.162	-	-	-	1P	2N	-	15	Individual
B19	PEM	40.1029, -75.7571	Open Cut	345	0.479	-	-	-	1P	2N	-	24	Individual
B71	PFO	40.0306, -75.6195	HDD	304	0.021	-	-	-	1N	N/A	-	61	Individual
C33	PEM	40.1392, -75.8135	Open Cut	164	0.193	-	-	-	1N	N/A	EV Stream	9	Individual
C34	PEM	40.1390, -75.8127	Open Cut	11	0.005	-	-	-	1N	N/A	EV Stream	9	Individual
C35	PEM	40.1387, -75.8125	Open Cut	125	0.145	-	-	-	1N	N/A	EV Stream	9	Individual
C37	PEM	40.0635, -75.6809	HDD	288	0.020	-	-	-	1N	N/A	Wild Trout	44	Individual
	PFO	40.0633, -75.6809	HDD	32	0.002	-	-	-	1N	N/A	Wild Trout	44	Individual
C38	PEM	40.0845, -75.7211	Open Cut	65	0.077	-	-	-	1P	2N	BT Adj; Wild Trout	34	Individual
C40	PEM	40.0856, -75.7227	Open Cut	121	0.100	-	-	-	1P	2N	BT Adj; Wild Trout	33	Individual
C42	PEM	40.0705, -75.6936	Open Cut	465	0.334	-	-	-	1N	N/A	-	41	Individual
C43	PEM	40.0721, -75.6963	HDD	899	0.062	-	-	-	1P	O	-	40	Individual
	PFO	40.0717, -75.6970	HDD	720	0.048	-	-	-	1P	O	-	40	Individual
C47	PEM	40.0775, -75.7068	Open Cut	615	0.704	-	-	-	1P	2N	-	37	Individual
C48	PEM	40.0786, -75.7087	Open Cut	95	0.093	-	-	-	1P	2N	-	37	Individual
C49	PEM	40.1089, -75.7676	Open Cut	846	0.949	-	-	-	1N	N/A	-	21	Individual
H15	PEM	40.0995, -75.7505	Open Cut	198	0.125	-	-	-	1N	N/A	-	26	Individual
	PFO	40.0998, -75.7516	Open Cut	47	0.047	-	-	0.029	1N	N/A	-	26	Individual
H16	PEM	40.1003, -75.7522	Open Cut	41	0.041	-	-	-	1N	N/A	-	26	Individual
H17	PEM	40.0794, -75.7104	HDD	151	0.010	-	-	-	1P	2N	-	36	Individual
K21	PEM	40.0222, -75.6132	HDD	15	0.001	-	-	-	1N	N/A	-	64	Individual
Q75	PFO	40.0925, -75.7324	Bore	55	0.004	-	-	-	1N	N/A	-	30	Individual
Q76	PSS	40.0909, -75.7290	HDD	127	0.004	-	-	-	1N	N/A	-	31	Individual
Q77	PEM	40.0898, -75.7275	HDD	240	0.016	-	-	-	1N	N/A	-	32	Individual
			25 Wetlands	6,198 feet 1.174 miles	3.713 acres	0.001 acre	0 acre	0.029 acre					

Notes:

¹ Field classification based on Cowardin et al. 1979. PEM = palustrine emergent wetland, PSS = palustrine scrub-shrub wetland, PFO = palustrine forested wetland.

² Typicals of crossing procedures and methods can be found in Attachment 12 (Erosion and Sediment Control Plan).

³ A zero length of centerline crossing indicates the wetland is located in the construction right-of-way but is not directly crossed by the pipeline centerline.

⁴ Permanent disturbances are those areas affected by a water obstruction or encroachment that consist of both direct and indirect impacts that result from the placement or construction of a water obstruction or encroachment and include areas necessary for the operation and maintenance of the water obstruction or encroachment located in, along or across, or projecting into the wetland. Permanent disturbance impacts as HDD crossings are calculated on the width of the borehole (3 feet) multiplied by the length of the wetland crossing.

⁵ Temporary disturbances are those areas affected during the construction of a water obstruction or encroachment that consists of both direct and indirect impacts located in, along or across, or projecting into a watercourse, floodway or body of water that are restored upon completion of construction. This does not include areas that will be maintained as a result of the operation and maintenance of the water obstruction or encroachment located in, along or across, or projecting into the wetland. These areas consist of additional temporary workspaces and temporary access roads.

⁶ Loss of wetland acreages due to permanent fill.

⁷ For PSS located in the permanent and temporary disturbance areas, these areas will be replanted with wetland shrubs in accordance with the wetland restoration and mitigation plan. PFO located in temporary disturbance areas will be replanted with wetland tree species in accordance with the wetland restoration and mitigation plan. PFO located in the permanent ROW will be restored to the wetland condition, however PFO habitat is expected to be permanently converted to PEM habitat in these areas.

⁸ Bog turtle assessment classification as follows; 1P = Phase I Positive, 1N = Phase I Negative, 2N = Phase II Negative, 2P = Phase II Positive, 2FWS = USFWS determined Phase II was not needed, O = occupied, A = assumed occupied (access issues), Pending = awaiting survey results.

⁹ Wetlands listed above are impacted by construction, a list of wetlands within the 300 ft survey corridor that are not impacted can be provided upon request.