

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

Wetland ID	USFWS Cowardin Classification ¹	Coordinates	Crossing Method ²	Length of Centerline Crossing (feet) ³	PADEP Permanent Impact ⁴	PADEP Temporary Impact 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			
Pond-B3	PuB	40.2254, -75.9507	HDD	234	0.016	-	-	-	N/A	N/A	Wild Trout	54	Individual
W35	PEM	40.1758, -75.8733	Open Cut/ Bore	252	0.241	0.001	-	-	1N	N/A	n/a	81	Individual
W48A	PEM	40.2609, -75.9959	Open Cut	-	0.001	-	-	-	1N	N/A	Wild Trout	40	Individual
W301	PEM	40.2000, -75.9117	Open Cut	55	0.020	-	-	-	1N	N/A	EV Stream; Wild Trout	68	Individual
W302	PEM	40.2292, -75.9567	Open Cut	63	0.058	-	-	-	1N	N/A	Wild Trout	53	Individual
AM2	PEM	40.2575, -75.9911	Open Cut	50	0.046	0.006	-	-	1P	O	BT A/O, Wild Trout	84	Individual
A37	PEM	40.1698, -75.8632	Open Cut	67	0.005	-	-	-	1N	N/A	n/a	84	Individual
A45	PEM	40.1648, -75.8550	HDD	92	0.123	-	-	-	1P	2N	n/a	86	Individual
A49	PEM	40.2901, -76.0929	Open Cut	73	0.050	-	-	-	1P	2N	n/a	3	Individual
B16	PEM	40.2865, -76.1013	Open Cut	-	0.007	-	-	-	1N	N/A	n/a	1	Individual
B18	PEM	40.2864, -76.1009	Open Cut	19	0.010	-	-	-	1P	2N	n/a	1	Individual
B21	PEM	40.2928, -76.0879	Open Cut	108	0.109	-	-	-	1P	2N	Wild Trout	4	Individual
B22	PEM	40.2933, -76.0871	Open Cut	273	0.290	-	-	-	1P	2N	Wild Trout	4	Individual
B24	PEM	40.2952, -76.0829	Open Cut	77	0.057	-	-	-	1P	2N	Wild Trout	5	Individual
B27	PEM	40.2285, -75.9554	Open Cut	91	0.059	-	-	-	1N	N/A	Wild Trout	53	Individual
B28	PEM	40.2283, -75.9556	Open Cut	34	0.027	-	-	-	1N	N/A	Wild Trout	53	Individual
B29	PEM	40.2289, -75.9565	Open Cut	147	0.180	-	-	-	1N	2N	Wild Trout	53	Individual
B30	PEM	40.2294, -75.9566	Open Cut	-	0.001	-	-	-	1P	2N	Wild Trout	53	Individual
B31	PEM	40.2297, -75.9572	Open Cut	8	0.005	-	-	-	1N	N/A	PADEP	53	Individual
B32	PEM	40.2348, -75.9652	Open Cut	118	0.081	-	-	-	1N	N/A	Wild Trout	51	Individual
B33	PEM	40.2341, -75.9648	Bore / Temporary Matting	31	0.019	-	-	-	1P	2N	Wild Trout	51	Individual
B40	PEM	40.2810, -76.0287	Open Cut	43	0.047	-	-	-	1P	2N	n/a	28	Individual
B42	PEM	40.2969, -76.0795	Bore / Temporary Matting	70	0.112	-	-	-	N/A	N/A	Wild Trout	6	Individual
B43	PEM	40.2997, -76.0738	Open Cut	51	0.023	-	-	-	1N	N/A	Wild Trout	7	Individual
B44	PEM	40.3048, -76.0640	Open Cut	11	0.008	-	-	-	1N	N/A	Wild Trout	10	Individual
B48	PEM	40.3069, -76.0598	Open Cut	36	0.035	-	-	-	1N	N/A	n/a	11	Individual
B49	PSS	40.3161, -76.0422	Open Cut	-	0.018	-	-	-	1N	N/A	Wild Trout	15	Individual
BA10	PEM	40.1666, -75.8578	Bore / Temporary Matting	29	0.017	-	-	-	1N	N/A	n/a	85	Individual
C1	PEM	40.2473, -75.9826	Open Cut	133	0.101	-	-	-	1P	2N	Wild Trout	45	Individual
C2	PEM	40.2464, -75.9822	Open Cut	-	0.007	-	-	-	1N	N/A	Wild Trout	45	Individual
C5	PEM	40.2371, -75.9700	Open Cut	70	0.079	-	-	-	1P	2N	Wild Trout	50	Individual
C6	PSS	40.2549, -75.9893	Open Cut	113	0.008	-	-	-	1P	O	Wild Trout	42	Individual
C12	PEM	40.2985, -76.0237	Open Cut	127	0.136	-	-	-	1P	2N	Wild Trout	22	Individual
C13	PEM	40.2948, -76.0251	Bore	45	0.003	0.023	-	-	1P	2N	Wild Trout	23	Individual

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									Phase I	Phase II			
H21	PEM	40.1966, -75.9058	Open Cut	24	0.032	-	-	-	1N	N/A	EV Stream; Wild Trout	69	Individual
H23	PEM	40.2087, -75.9253	Bore/ Temporary Matting	-	0.013	-	-	-	1N	N/A	n/a	62	Individual
H25	PEM	40.2089, -75.9257	Open Cut	-	0.006	-	-	-	1N	N/A	Wild Trout	62	Individual
H26	PEM	40.2090, -75.9259	Open Cut	21	0.017	-	-	-	1N	N/A	Wild Trout	62	Individual
J48	PEM	40.1681, -75.8604	Open Cut	720	0.049	-	-	-	1N	N/A	n/a	84	Individual
	PFO	40.1679, -75.8602	Open Cut	266	0.020	-	-	-	1N	N/A	n/a	84	Individual
K25	PEM	40.2962, -76.0806	HDD	23	0.012	-	-	-	1N	N/A	Wild Trout, PADEP	6	Individual
Q80	PFO	40.1886, -75.8885	HDD	41	0.003	-	-	-	1N	N/A	EV Stream; Wild Trout	74	Individual
			40 Wetlands 1 Pond	3,615 feet 0.685 miles	2.151 acres	0.030 acre	0 acre	0 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, 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.