

TABLE 4-1: Delineated Wetland Table

Hillsboro to Millbrook Park 138 kV Transmission Line Rebuild Project

Wetland ID	Location		Preliminary Jurisdictional Status ¹	Habitat Type	Delineated Area (acre)	ORAM		Nearest Structure # (Existing/Proposed)	Existing Structure # in Wetland	Proposed Structure # in Wetland	Structure Installation Method	Proposed Impacts	
	Latitude	Longitude				Score	Category					Temporary Matting Area (acre)	Permanent Impact Area (acre)
Wetland HM-069	38.80107	-82.94324	Jurisdictional	PEM	0.06	36	Modified 2	21 / 314B	None	None	TBD	TBD	0
Wetland HM-070	38.75454	-82.92769	Jurisdictional	PEM	0.05	11	1	1 / 334	None	None	TBD	TBD	0
Wetland HM-076	38.94455	-83.12401	Jurisdictional	PEM	0.02	21.5	1	107 / 229	None	None	TBD	TBD	0
Wetland HM-077	38.94121	-83.11882	Jurisdictional	PEM	0.10	14	1	104 / 232	None	None	TBD	TBD	0
Wetland HM-078	38.93886	-83.11626	Jurisdictional	PEM	<0.01	22	1	104 / 233	None	None	TBD	TBD	0
Wetland HM-080	38.93116	-83.10473	Jurisdictional	PEM	0.02	27	1	97 / 240	None	None	TBD	TBD	0
Total: 72	Total: 6.32												

¹Based on Jacobs' professional opinion; jurisdictional status should be verified by the USACE and/or OEPA.

*wetland complex

TABLE 4-2: Delineated Stream Table

Hillsboro to Millbrook Park 138 kV Transmission Line Rebuild Project

Stream ID	Location		Stream Type	Stream Name	Delineated Length (feet)	Bankfull Width (feet)	OHWM Width (feet)	Field Evaluation			Ohio EPA 401 Eligibility	Stream Stability	Stream Crossing?	Proposed Impacts	
	Latitude	Longitude						Method	Score	Category / Rating / OAC Designation				Fill Type	Length (LF)
Stream HM-001	39.17232	-83.67518	Intermittent	UNT Rocky Fork	121	8	6	QHEI	48	Fair	Possibly Eligible	Moderately Stable	TBD	None	0
Stream HM-002	39.16834	-83.66590	Intermittent	UNT Rocky Fork	110	12	2	HHEI	38	Small Drainage Warmwater	Possibly Eligible	Moderately Unstable	TBD	None	0
Stream HM-003	39.16404	-83.65591	Intermittent	UNT Rocky Fork	158	10	4	HHEI	51	Modified Small Drainage Warmwater	Ineligible	Moderately Stable	TBD	None	0
Stream HM-004	39.16256	-83.65238	Perennial	UNT Rocky Fork	421	18	15	QHEI	57.25	Good	Ineligible	Moderately Unstable	TBD	None	0
Stream HM-005	39.16235	-83.65217	Perennial	UNT Rocky Fork	90	12	9	HHEI	52	Modified Small Drainage Warmwater	Ineligible	Moderately Unstable	TBD	None	0
Stream HM-006	39.16167	-83.65042	Perennial	Rocky Fork	103	10	6	Chapter 3745-1	N/A	EWB	Ineligible	Moderately Stable	TBD	None	0
Stream HM-007a	39.16180	-83.65038	Intermittent	UNT Rocky Fork	36	4	2	HHEI	40	Modified Small Drainage Warmwater	Ineligible	Stable	TBD	None	0
Stream HM-007b	39.16008	-83.64680	Intermittent	UNT Rocky Fork	476	4	2	HHEI	56	Modified Small Drainage Warmwater	Ineligible	Moderately Unstable	TBD	None	0
Stream HM-008	39.15956	-83.64572	Intermittent	UNT Rocky Fork	148	3	2	HHEI	23	Ephemeral	Ineligible	Moderately Unstable	TBD	None	0
Stream HM-009	39.15962	-83.64555	Ephemeral	UNT Rocky Fork	82	1	1	HHEI	17	Ephemeral	Ineligible	Unstable	TBD	None	0
Stream HM-010	39.15650	-83.63836	Intermittent	UNT South Fork Rocky Fork	105	1	1	HHEI	21	Modified Ephemeral	Ineligible	Unstable	TBD	None	0
Stream HM-011	39.15418	-83.63297	Perennial	South Fork Rocky Fork	113	20	10	Chapter 3745-1	N/A	EWB	Ineligible	Stable	TBD	None	0
Stream HM-012	39.15302	-83.63047	Intermittent	UNT South Fork Rocky Fork	50	4	2.5	HHEI	15	Modified Ephemeral	Ineligible	Unstable	TBD	None	0
Stream HM-013	39.15309	-83.63039	Intermittent	UNT South Fork Rocky Fork	114	5	2	HHEI	18	Modified Ephemeral	Ineligible	Unstable	TBD	None	0
Stream HM-014	39.15051	-83.62403	Intermittent	UNT South Fork Rocky Fork	74	4	2	HHEI	26	Ephemeral	Ineligible	Unstable	TBD	None	0

TABLE 4-2: Delineated Stream Table

Hillsboro to Millbrook Park 138 kV Transmission Line Rebuild Project

Stream ID	Location		Stream Type	Stream Name	Delineated Length (feet)	Bankfull Width (feet)	OHWM Width (feet)	Field Evaluation			Ohio EPA 401 Eligibility	Stream Stability	Stream Crossing?	Proposed Impacts	
	Latitude	Longitude						Method	Score	Category / Rating / OAC Designation				Fill Type	Length (LF)
Stream HM-015	39.15015	-83.62339	Ephemeral	UNT South Fork Rocky Fork	217	4	2	HHEI	39	Modified Small Drainage Warmwater	Ineligible	Unstable	TBD	None	0
Stream HM-017	39.14849	-83.61916	Ephemeral	UNT South Fork Rocky Fork	58	5	1	HHEI	18	Modified Ephemeral	Ineligible	Unstable	TBD	None	0
Stream HM-018	39.14657	-83.61488	Ephemeral	UNT South Fork Rocky Fork	220	2	1	HHEI	17	Modified Ephemeral	Possibly Eligible	Unstable	TBD	None	0
Stream HM-019	39.14531	-83.61173	Perennial	UNT South Fork Rocky Fork	140	12	6	QHEI	44	Fair	Possibly Eligible	Moderately Stable	TBD	None	0
Stream HM-020	39.14439	-83.60948	Intermittent	UNT South Fork Rocky Fork	171	6	3	HHEI	28	Modified Ephemeral	Possibly Eligible	Unstable	TBD	None	0
Stream HM-021	39.14317	-83.60660	Perennial	UNT South Fork Rocky Fork	121	15	12	QHEI	45.5	Fair	Possibly Eligible	Moderately Stable	TBD	None	0
Stream HM-022	39.14204	-83.60395	Intermittent	UNT South Fork Rocky Fork	205	3	2	HHEI	43	Modified Small Drainage Warmwater	Possibly Eligible	Stable	TBD	None	0
Stream HM-023	39.14193	-83.60364	Ephemeral	UNT South Fork Rocky Fork	130	2	1	HHEI	32	Modified Small Drainage Warmwater	Possibly Eligible	Stable	TBD	None	0
Stream HM-024	39.13829	-83.59484	Ephemeral	UNT South Fork Rocky Fork	121	5	4	HHEI	39	Modified Small Drainage Warmwater	Ineligible	Moderately Stable	TBD	None	0
Stream HM-025	39.13833	-83.59457	Intermittent	UNT South Fork Rocky Fork	467	8	3	HHEI	43	Modified Small Drainage Warmwater	Ineligible	Moderately Stable	TBD	None	0
Stream HM-026	39.13601	-83.58954	Ephemeral	UNT Ohio Brush Creek	97	2	1	HHEI	35	Modified Small Drainage Warmwater	Possibly Eligible	Unstable	TBD	None	0
Stream HM-027	39.13450	-83.58538	Ephemeral	UNT Ohio Brush Creek	258	2	2	HHEI	27	Modified Ephemeral	Possibly Eligible	Stable	TBD	None	0
Stream HM-028	39.13320	-83.58224	Intermittent	UNT Ohio Brush Creek	362	6	4	HHEI	43	Modified Small Drainage Warmwater	Possibly Eligible	Moderately Unstable	TBD	None	0
Stream HM-029	39.13233	-83.58039	Perennial	UNT Ohio Brush Creek	598	6	4	HHEI	56	Modified Small Drainage Warmwater	Possibly Eligible	Moderately Unstable	TBD	None	0

TABLE 4-2: Delineated Stream Table

Hillsboro to Millbrook Park 138 kV Transmission Line Rebuild Project

Stream ID	Location		Stream Type	Stream Name	Delineated Length (feet)	Bankfull Width (feet)	OHWM Width (feet)	Field Evaluation			Ohio EPA 401 Eligibility	Stream Stability	Stream Crossing?	Proposed Impacts	
	Latitude	Longitude						Method	Score	Category / Rating / OAC Designation				Fill Type	Length (LF)
Stream HM-030	39.13189	-83.57918	Perennial	UNT Ohio Brush Creek	294	6	3	HHEI	42	Modified Small Drainage Warmwater	Possibly Eligible	Moderately Stable	TBD	None	0
Stream HM-031	39.12968	-83.57386	Intermittent	UNT Ohio Brush Creek	227	6	3	HHEI	61	Modified Small Drainage Warmwater	Possibly Eligible	Moderately Stable	TBD	None	0
Stream HM-032	39.12815	-83.57018	Intermittent	UNT Ohio Brush Creek	217	2	2	HHEI	27	Modified Ephemeral	Possibly Eligible	Unstable	TBD	None	0
Stream HM-033	39.12593	-83.56487	Ephemeral	UNT Ohio Brush Creek	181	3	2	HHEI	13	Modified Ephemeral	Possibly Eligible	Unstable	TBD	None	0
Stream HM-034	39.12537	-83.56350	Ephemeral	UNT Ohio Brush Creek	205	3.5	3	HHEI	22	Modified Ephemeral	Possibly Eligible	Moderately Stable	TBD	None	0
Stream HM-035	39.12354	-83.55913	Intermittent	UNT Ohio Brush Creek	288	10	6	HHEI	57	Modified Small Drainage Warmwater	Possibly Eligible	Stable	TBD	None	0
Stream HM-036	39.11505	-83.54179	Ephemeral	UNT Elm Run	233	1	1	HHEI	17	Modified Ephemeral	Eligible	Unstable	TBD	None	0
Stream HM-037	39.11508	-83.54137	Ephemeral	UNT Elm Run	268	1	1	HHEI	27	Modified Ephemeral	Eligible	Unstable	TBD	None	0
Stream HM-038	39.11475	-83.54097	Ephemeral	UNT Elm Run	69	1	1	HHEI	12	Modified Ephemeral	Eligible	Unstable	TBD	None	0
Stream HM-039	39.11296	-83.53693	Ephemeral	UNT Elm Run	37	5	4	HHEI	23	Modified Ephemeral	Eligible	Unstable	TBD	None	0
Stream HM-040	39.11142	-83.53249	Ephemeral	UNT Elm Run	100	6	2	HHEI	12	Modified Ephemeral	Eligible	Unstable	TBD	None	0
Stream HM-041	39.11015	-83.53054	Perennial	Elm Run	382	15	12	Chapter 3745-1	N/A	WWH	Eligible	Moderately Stable	TBD	None	0
Stream HM-042	39.10877	-83.52744	Ephemeral	UNT Elm Run	369	4	3	HHEI	20	Modified Ephemeral	Eligible	Unstable	TBD	None	0
Stream HM-043	39.10537	-83.52013	Perennial	UNT Elm Run	244	5	3	HHEI	53	Modified Small Drainage Warmwater	Eligible	Stable	TBD	None	0
Stream HM-044	39.10221	-83.51328	Ephemeral	UNT Elm Run	447	3	2	HHEI	13	Modified Ephemeral	Eligible	Unstable	TBD	None	0
Stream HM-045	39.10161	-83.51254	Ephemeral	UNT Elm Run	70	2	1	HHEI	22	Modified Ephemeral	Eligible	Unstable	TBD	None	0

TABLE 4-2: Delineated Stream Table

Hillsboro to Millbrook Park 138 kV Transmission Line Rebuild Project

Stream ID	Location		Stream Type	Stream Name	Delineated Length (feet)	Bankfull Width (feet)	OHWM Width (feet)	Field Evaluation			Ohio EPA 401 Eligibility	Stream Stability	Stream Crossing?	Proposed Impacts	
	Latitude	Longitude						Method	Score	Category / Rating / OAC Designation				Fill Type	Length (LF)
Stream HM-046	39.09796	-83.50472	Ephemeral	UNT Elk Run	90	3	2	HHEI	22	Modified Ephemeral	Eligible	Moderately Stable	TBD	None	0
Stream HM-047	39.09414	-83.49616	Perennial	Elk Run	223	25	20	Chapter 3745-1	N/A	WWH	Eligible	Moderately Unstable	TBD	None	0
Stream HM-048	39.08891	-83.48190	Ephemeral	UNT Cox Branch	244	2.5	2	HHEI	12	Modified Ephemeral	Possibly Eligible	Unstable	TBD	None	0
Stream HM-049	39.08794	-83.47837	Intermittent	UNT Cox Branch	208	4.5	3.5	HHEI	49	Small Drainage Warmwater	Possibly Eligible	Moderately Stable	TBD	None	0
Stream HM-050	39.08652	-83.47282	Ephemeral	UNT Cox Branch	130	2.5	1.5	HHEI	18	Ephemeral	Possibly Eligible	Unstable	TBD	None	0
Stream HM-051	39.08596	-83.47126	Intermittent	UNT Cox Branch	261	2.5	2	HHEI	43	Small Drainage Warmwater	Possibly Eligible	Moderately Stable	TBD	None	0
Stream HM-052	39.08585	-83.47087	Intermittent	UNT Cox Branch	217	3	2.5	HHEI	28	Ephemeral	Possibly Eligible	Moderately Stable	TBD	None	0
Stream HM-053	39.08567	-83.46929	Ephemeral	UNT Cox Branch	36	2	1.5	HHEI	13	Ephemeral	Possibly Eligible	Unstable	TBD	None	0
Stream HM-054	39.08476	-83.46688	Intermittent	UNT Middle Fork Ohio Brush Creek	401	2	1.5	HHEI	36	Small Drainage Warmwater	Possibly Eligible	Moderately Stable	TBD	None	0
Stream HM-055	39.08325	-83.46235	Intermittent	UNT Middle Fork Ohio Brush Creek	467	2	1.5	HHEI	26	Modified Ephemeral	Possibly Eligible	Unstable	TBD	None	0
Stream HM-056	39.08085	-83.45632	Perennial	Middle Fork Ohio Brush Creek	250	25	18	Chapter 3745-1	N/A	WWH	Possibly Eligible	Stable	TBD	None	0
Stream HM-057	39.08046	-83.45529	Intermittent	UNT Middle Fork Ohio Brush Creek	304	5	3	HHEI	35	Modified Small Drainage Warmwater	Possibly Eligible	Unstable	TBD	None	0
Stream HM-058	39.07810	-83.44892	Perennial	UNT Middle Fork Ohio Brush Creek	298	20	18	QHEI	55.5	Good	Possibly Eligible	Stable	TBD	None	0
Stream HM-059	39.07424	-83.43758	Ephemeral	UNT Middle Fork Ohio Brush Creek	42	2.5	1.5	HHEI	6	Modified Ephemeral	Possibly Eligible	Unstable	TBD	None	0
Stream HM-060	39.07291	-83.43207	Ephemeral	UNT Middle Fork Ohio Brush Creek	57	2	1	HHEI	6	Modified Ephemeral	Possibly Eligible	Unstable	TBD	None	0

TABLE 4-2: Delineated Stream Table

Hillsboro to Millbrook Park 138 kV Transmission Line Rebuild Project

Stream ID	Location		Stream Type	Stream Name	Delineated Length (feet)	Bankfull Width (feet)	OHWM Width (feet)	Field Evaluation			Ohio EPA 401 Eligibility	Stream Stability	Stream Crossing?	Proposed Impacts	
	Latitude	Longitude						Method	Score	Category / Rating / OAC Designation				Fill Type	Length (LF)
Stream HM-061	39.07126	-83.42768	Ephemeral	UNT Middle Fork Ohio Brush Creek	167	3	2	HHEI	21	Modified Ephemeral	Possibly Eligible	Unstable	TBD	None	0
Stream HM-062	39.06933	-83.42113	Intermittent	UNT Baker Fork	128	1	1	HHEI	27	Modified Ephemeral	Ineligible	Unstable	TBD	None	0
Stream HM-063	39.06793	-83.41766	Intermittent	UNT Baker Fork	427	1	1	HHEI	37	Modified Small Drainage Warmwater	Ineligible	Unstable	TBD	None	0
Stream HM-064	39.06704	-83.41478	Ephemeral	UNT Baker Fork	292	1	1	HHEI	12	Ephemeral	Ineligible	Unstable	TBD	None	0
Stream HM-065	39.06680	-83.41417	Intermittent	UNT Baker Fork	307	15	12	QHEI	68	Good	Ineligible	Stable	TBD	None	0
Stream HM-066	39.06666	-83.41388	Intermittent	UNT Baker Fork	162	3	2.5	HHEI	44	Small Drainage Warmwater	Ineligible	Stable	TBD	None	0
Stream HM-067	39.06504	-83.40885	Ephemeral	UNT Baker Fork	238	10	2	HHEI	30	Modified Ephemeral	Ineligible	Moderately Stable	TBD	None	0
Stream HM-068	39.06447	-83.40655	Intermittent	UNT Baker Fork	338	2.5	1.5	HHEI	42	Small Drainage Warmwater	Ineligible	Moderately Stable	TBD	None	0
Stream HM-069	39.06444	-83.40625	Intermittent	UNT Baker Fork	85	2.5	1.5	HHEI	32	Conduct Biological Assessment	Ineligible	Moderately Stable	TBD	None	0
Stream HM-070	39.06408	-83.40626	Intermittent	UNT Baker Fork	417	4	3	HHEI	50	Small Drainage Warmwater	Ineligible	Moderately Stable	TBD	None	0
Stream HM-071	39.06385	-83.40501	Ephemeral	UNT Baker Fork	221	1.5	1.5	HHEI	34	Modified Small Drainage Warmwater	Ineligible	Stable	TBD	None	0
Stream HM-072	39.06235	-83.40033	Perennial	Baker Fork	361	30	22	Chapter 3745-1	N/A	EWB	Ineligible	Stable	TBD	None	0
Stream HM-073	39.05862	-83.39003	Perennial	Straight Creek	204	25	20	Chapter 3745-1	N/A	EWB	Ineligible	Moderately Stable	TBD	None	0
Stream HM-074	39.05090	-83.37339	Intermittent	UNT Straight Creek	219	10	3	HHEI	26	Ephemeral	Ineligible	Unstable	TBD	None	0
Stream HM-075	39.04945	-83.37030	Ephemeral	UNT Straight Creek	245	1	0.5	HHEI	6	Ephemeral	Ineligible	Unstable	TBD	None	0
Stream HM-076	39.04671	-83.36434	Intermittent	UNT Straight Creek	449	3	2.5	HHEI	27	Ephemeral	Ineligible	Unstable	TBD	None	0

TABLE 4-2: Delineated Stream Table

Hillsboro to Millbrook Park 138 kV Transmission Line Rebuild Project

Stream ID	Location		Stream Type	Stream Name	Delineated Length (feet)	Bankfull Width (feet)	OHWM Width (feet)	Field Evaluation			Ohio EPA 401 Eligibility	Stream Stability	Stream Crossing?	Proposed Impacts	
	Latitude	Longitude						Method	Score	Category / Rating / OAC Designation				Fill Type	Length (LF)
Stream HM-077	39.04666	-83.36388	Ephemeral	UNT Straight Creek	67	1	1	HHEI	11	Ephemeral	Ineligible	Unstable	TBD	None	0
Stream HM-078	39.03882	-83.34781	Ephemeral	UNT Crooked Creek	11	1	1	HHEI	22	Ephemeral	Possibly Eligible	Moderately Unstable	TBD	None	0
Stream HM-079	39.03889	-83.34729	Intermittent	UNT Crooked Creek	210	3	2	HHEI	47	Small Drainage Warmwater	Possibly Eligible	Moderately Stable	TBD	None	0
Stream HM-080	39.03867	-83.34675	Intermittent	UNT Crooked Creek	243	2	1.5	HHEI	15	Ephemeral	Possibly Eligible	Moderately Unstable	TBD	None	0
Stream HM-081	39.03827	-83.34607	Ephemeral	UNT Crooked Creek	177	1	1	HHEI	24	Ephemeral	Possibly Eligible	Moderately Stable	TBD	None	0
Stream HM-082	39.03788	-83.34552	Ephemeral	UNT Crooked Creek	66	1	1	HHEI	28	Ephemeral	Possibly Eligible	Moderately Unstable	TBD	None	0
Stream HM-083	39.03406	-83.33628	Intermittent	UNT Bettys Creek	363	7	5	HHEI	66	Modified Small Drainage Warmwater	Possibly Eligible	Moderately Stable	TBD	None	0
Stream HM-084	39.03348	-83.33526	Ephemeral	UNT Bettys Creek	46	1	1	HHEI	12	Modified Ephemeral	Possibly Eligible	Unstable	TBD	None	0
Stream HM-086	39.03224	-83.33229	Ephemeral	UNT Bettys Creek	61	1	1	HHEI	11	Modified Ephemeral	Possibly Eligible	Unstable	TBD	None	0
Stream HM-087	39.03134	-83.32965	Perennial	Bettys Creek	225	7	5	Chapter 3745-1	N/A	WWH	Possibly Eligible	Moderately Unstable	TBD	None	0
Stream HM-088	39.02937	-83.32493	Intermittent	UNT Bettys Creek	853	4	3.5	HHEI	56	Small Drainage Warmwater	Possibly Eligible	Stable	TBD	None	0
Stream HM-089	39.02874	-83.32309	Ephemeral	UNT Bettys Creek	238	2	1.5	HHEI	33	Small Drainage Warmwater	Possibly Eligible	Moderately Stable	TBD	None	0
Stream HM-090	39.02225	-83.30412	Ephemeral	UNT Scioto Brush Creek	131	2.5	2	HHEI	32	Small Drainage Warmwater	Ineligible	Moderately Stable	TBD	None	0
Stream HM-091	39.02200	-83.30365	Ephemeral	UNT Scioto Brush Creek	174	1	1	HHEI	19	Ephemeral	Ineligible	Moderately Unstable	TBD	None	0
Stream HM-092	39.02100	-83.30100	Intermittent	Scioto Brush Creek	224	15	12	Chapter 3745-1	N/A	WWH	Ineligible	Stable	TBD	None	0
Stream HM-093	39.02024	-83.29871	Intermittent	UNT Scioto Brush Creek	222	8	6	HHEI	47	Small Drainage Warmwater	Ineligible	Stable	TBD	None	0

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Stream ID	Location		Stream Type	Stream Name	Delineated Length (feet)	Bankfull Width (feet)	OHWM Width (feet)	Field Evaluation			Ohio EPA 401 Eligibility	Stream Stability	Stream Crossing?	Proposed Impacts	
	Latitude	Longitude						Method	Score	Category / Rating / OAC Designation				Fill Type	Length (LF)
Stream HM-094	39.01826	-83.29117	Ephemeral	UNT Scioto Brush Creek	120	3	2	HHEI	36	Small Drainage Warmwater	Ineligible	Stable	TBD	None	0
Stream HM-095	39.01803	-83.29120	Intermittent	UNT Scioto Brush Creek	223	7	2.5	HHEI	38	Modified Small Drainage Warmwater	Ineligible	Stable	TBD	None	0
Stream HM-096	39.01774	-83.29003	Intermittent	UNT Scioto Brush Creek	228	13	10	HHEI	77	Spring Water	Ineligible	Stable	TBD	None	0
Stream HM-097	39.01724	-83.28792	Intermittent	UNT Scioto Brush Creek	282	3.5	2	HHEI	36	Modified Small Drainage Warmwater	Ineligible	Moderately Stable	TBD	None	0
Stream HM-098	39.01672	-83.28556	Ephemeral	UNT Scioto Brush Creek	166	2	1.5	HHEI	11	Modified Ephemeral	Ineligible	Unstable	TBD	None	0
Stream HM-099	39.01563	-83.28157	Ephemeral	UNT Straight Fork	965	3	2	HHEI	37	Small Drainage Warmwater	Possibly Eligible	Moderately Stable	TBD	None	0
Stream HM-100	39.01491	-83.27866	Intermittent	Straight Fork	204	8	5	Chapter 3745-1	N/A	WWH	Possibly Eligible	Stable	TBD	None	0
Stream HM-101	39.01457	-83.27788	Ephemeral	UNT Straight Fork	364	3	1.5	HHEI	22	Ephemeral	Possibly Eligible	Unstable	TBD	None	0
Stream HM-102	39.01338	-83.27263	Ephemeral	UNT Straight Fork	378	1	1	HHEI	13	Modified Ephemeral	Possibly Eligible	Unstable	TBD	None	0
Stream HM-103	39.01324	-83.27201	Intermittent	UNT Straight Fork	233	4	3	HHEI	14	Modified Ephemeral	Possibly Eligible	Moderately Stable	TBD	None	0
Stream HM-104	39.01307	-83.27124	Ephemeral	UNT Straight Fork	300	3	1	HHEI	22	Modified Ephemeral	Possibly Eligible	Unstable	TBD	None	0
Stream HM-105	39.01197	-83.26717	Ephemeral	UNT Straight Fork	123	3	1.5	HHEI	32	Modified Small Drainage Warmwater	Possibly Eligible	Stable	TBD	None	0
Stream HM-106	39.01122	-83.26332	Intermittent	UNT Straight Fork	210	10	6	HHEI	63	Small Drainage Warmwater	Possibly Eligible	Stable	TBD	None	0
Stream HM-107	39.01135	-83.26315	Ephemeral	UNT Straight Fork	53	1	1	HHEI	20	Ephemeral	Possibly Eligible	Moderately Unstable	TBD	None	0
Stream HM-108	39.01107	-83.26320	Ephemeral	UNT Straight Fork	119	1	1.5	HHEI	14	Ephemeral	Possibly Eligible	Unstable	TBD	None	0
Stream HM-109	39.00979	-83.25703	Intermittent	Bull Run	200	22	15	Chapter 3745-1	N/A	WWH	Possibly Eligible	Stable	TBD	None	0
Stream HM-110	39.00976	-83.25684	Ephemeral	UNT Bull Run	109	2.5	1.5	HHEI	24	Ephemeral	Possibly Eligible	Moderately Unstable	TBD	None	0

TABLE 4-2: Delineated Stream Table

Hillsboro to Millbrook Park 138 kV Transmission Line Rebuild Project

Stream ID	Location		Stream Type	Stream Name	Delineated Length (feet)	Bankfull Width (feet)	OHWM Width (feet)	Field Evaluation			Ohio EPA 401 Eligibility	Stream Stability	Stream Crossing?	Proposed Impacts	
	Latitude	Longitude						Method	Score	Category / Rating / OAC Designation				Fill Type	Length (LF)
Stream HM-111	39.00883	-83.25393	Ephemeral	UNT Rarden Creek	28	1	1	HHEI	29	Modified Ephemeral	Possibly Eligible	Stable	TBD	None	0
Stream HM-112	39.00881	-83.25346	Ephemeral	UNT Rarden Creek	105	1.5	1.5	HHEI	30	Modified Ephemeral	Possibly Eligible	Stable	TBD	None	0
Stream HM-113	39.00802	-83.24941	Ephemeral	UNT Rarden Creek	349	2.5	2	HHEI	24	Modified Ephemeral	Possibly Eligible	Moderately Stable	TBD	None	0
Stream HM-114	39.00736	-83.24634	Intermittent	UNT Rarden Creek	231	7.5	7	HHEI	67	Modified Small Drainage Warmwater	Possibly Eligible	Stable	TBD	None	0
Stream HM-115	39.00684	-83.24407	Intermittent	UNT Rarden Creek	322	6	5.5	HHEI	40	Modified Small Drainage Warmwater	Possibly Eligible	Stable	TBD	None	0
Stream HM-116	39.00168	-83.22579	Intermittent	UNT Camp Creek	272	4.5	3	HHEI	29	Modified Ephemeral	Eligible	Moderately Stable	TBD	None	0
Stream HM-117	39.00059	-83.22351	Intermittent	Camp Creek	367	8.5	8	Chapter 3745-1	N/A	WWH	Eligible	Stable	TBD	None	0
Stream HM-118	38.99768	-83.21804	Intermittent	UNT Camp Creek	191	10.5	10	HHEI	44	Modified Small Drainage Warmwater	Eligible	Stable	TBD	None	0
Stream HM-119	38.99562	-83.21427	Intermittent	UNT Camp Creek	238	4.5	3	HHEI	45	Modified Small Drainage Warmwater	Eligible	Stable	TBD	None	0
Stream HM-120	38.99140	-83.20643	Intermittent	UNT Camp Creek	287	5	3	HHEI	35	Modified Small Drainage Warmwater	Eligible	Stable	TBD	None	0
Stream HM-121	38.99009	-83.20371	Ephemeral	UNT Camp Creek	158	3.5	2	HHEI	25	Modified Ephemeral	Eligible	Moderately Unstable	TBD	None	0
Stream HM-122	38.98624	-83.19747	Intermittent	UNT Left Fork Camp Creek	283	11	9	HHEI	52	Small Drainage Warmwater	Eligible	Stable	TBD	None	0
Stream HM-123	38.98456	-83.19450	Intermittent	UNT Left Fork Camp Creek	246	8.5	7	HHEI	58	Small Drainage Warmwater	Eligible	Stable	TBD	None	0
Stream HM-124a	38.98185	-83.18956	Ephemeral	UNT Left Fork Camp Creek	226	1.5	1	HHEI	30	Small Drainage Warmwater	Eligible	Stable	TBD	None	0
Stream HM-124b	38.98178	-83.18971	Ephemeral	UNT Left Fork Camp Creek	38	1.5	1	HHEI	30	Small Drainage Warmwater	Eligible	Stable	TBD	None	0

TABLE 4-2: Delineated Stream Table

Hillsboro to Millbrook Park 138 kV Transmission Line Rebuild Project

Stream ID	Location		Stream Type	Stream Name	Delineated Length (feet)	Bankfull Width (feet)	OHWM Width (feet)	Field Evaluation			Ohio EPA 401 Eligibility	Stream Stability	Stream Crossing?	Proposed Impacts	
	Latitude	Longitude						Method	Score	Category / Rating / OAC Designation				Fill Type	Length (LF)
Stream HM-125	38.98189	-83.18938	Ephemeral	UNT Left Fork Camp Creek	124	1.5	1	HHEI	27	Modified Ephemeral	Eligible	Moderately Stable	TBD	None	0
Stream HM-126	38.97922	-83.18418	Intermittent	UNT Left Fork Camp Creek	268	1.5	1	HHEI	51	Modified Small Drainage Warmwater	Eligible	Moderately Stable	TBD	None	0
Stream HM-127	38.97420	-83.17447	Intermittent	Drake Run	411	10	9	Chapter 3745-1	N/A	WWH	Eligible	Stable	TBD	None	0
Stream HM-128	38.97148	-83.16915	Perennial	Left Fork Camp Creek	212	64	60	Chapter 3745-1	N/A	CWH	Eligible	Stable	TBD	None	0
Stream HM-129	38.96862	-83.16379	Intermittent	Rock Run	458	28	24	Chapter 3745-1	N/A	WWH	Eligible	Stable	TBD	None	0
Stream HM-131	38.95839	-83.14514	Intermittent	Rocky Fork	366	8.5	7.5	HHEI	75	Spring Water	Eligible	Stable	TBD	None	0
Stream HM-132	38.95127	-83.13382	Intermittent	Bear Creek	210	8	6.5	Chapter 3745-1	N/A	WWH	Possibly Eligible	Stable	TBD	None	0
Stream HM-133	38.94600	-83.12583	Ephemeral	UNT Bear Creek	425	6	3	HHEI	30	Modified Ephemeral	Possibly Eligible	Stable	TBD	None	0
Stream HM-134	38.94476	-83.12435	Intermittent	UNT Bear Creek	240	11	8	HHEI	49	Modified Small Drainage Warmwater	Possibly Eligible	Stable	TBD	None	0
Stream HM-135	38.92733	-83.09909	Intermittent	UNT Bear Creek	222	10	8	QHEI	57.5	Good	Possibly Eligible	Moderately Stable	TBD	None	0
Stream HM-136	38.92568	-83.09672	Ephemeral	UNT Bear Creek	809	3	3	HHEI	35	Small Drainage Warmwater	Possibly Eligible	Stable	TBD	None	0
Stream HM-137	38.92482	-83.09527	Ephemeral	UNT Bear Creek	544	1.5	1	HHEI	21	Ephemeral	Possibly Eligible	Moderately Stable	TBD	None	0
Stream HM-138	38.92246	-83.09253	Ephemeral	UNT Bear Creek	73	1	1	HHEI	21	Ephemeral	Possibly Eligible	Moderately Unstable	TBD	None	0
Stream HM-139	38.92185	-83.09175	Ephemeral	UNT Bear Creek	19	1	1	HHEI	11	Ephemeral	Possibly Eligible	Unstable	TBD	None	0
Stream HM-140	38.91931	-83.08770	Intermittent	UNT Bear Creek	212	12	11.5	HHEI	63	Small Drainage Warmwater	Possibly Eligible	Stable	TBD	None	0
Stream HM-141	38.91621	-83.08360	Intermittent	UNT Bear Creek	434	7	5.5	HHEI	60	Small Drainage Warmwater	Possibly Eligible	Stable	TBD	None	0
Stream HM-142	38.91602	-83.08314	Intermittent	UNT Bear Creek	544	3.5	3	HHEI	54	Small Drainage Warmwater	Possibly Eligible	Moderately Stable	TBD	None	0

TABLE 4-2: Delineated Stream Table

Hillsboro to Millbrook Park 138 kV Transmission Line Rebuild Project

Stream ID	Location		Stream Type	Stream Name	Delineated Length (feet)	Bankfull Width (feet)	OHWM Width (feet)	Field Evaluation			Ohio EPA 401 Eligibility	Stream Stability	Stream Crossing?	Proposed Impacts	
	Latitude	Longitude						Method	Score	Category / Rating / OAC Designation				Fill Type	Length (LF)
Stream HM-143	38.91084	-83.07643	Intermittent	UNT Bear Creek	226	Unknown	Unknown	HHEI	*not scored*	*not scored* (inaccessible)	Possibly Eligible	Unknown	TBD	None	0
Stream HM-144	38.90731	-83.07177	Ephemeral	UNT Big Run	321	4	3.5	HHEI	56	Modified Small Drainage Warmwater	Possibly Eligible	Moderately Stable	TBD	None	0
Stream HM-145	38.90573	-83.06969	Ephemeral	UNT Big Run	245	3	2	HHEI	20	Modified Ephemeral	Possibly Eligible	Moderately Unstable	TBD	None	0
Stream HM-146	38.90434	-83.06832	Ephemeral	UNT Big Run	82	1	1	HHEI	17	Modified Ephemeral	Possibly Eligible	Unstable	TBD	None	0
Stream HM-147	38.90431	-83.06808	Ephemeral	UNT Big Run	167	1	1	HHEI	18	Modified Ephemeral	Possibly Eligible	Unstable	TBD	None	0
Stream HM-148	38.90356	-83.06701	Ephemeral	UNT Big Run	403	3	2	HHEI	12	Modified Ephemeral	Possibly Eligible	Unstable	TBD	None	0
Stream HM-149	38.90268	-83.06641	Ephemeral	UNT Big Run	79	1	1	HHEI	11	Modified Ephemeral	Possibly Eligible	Unstable	TBD	None	0
Stream HM-150	38.90270	-83.06616	Perennial	Big Run	565	8	5	Chapter 3745-1	N/A	WWH	Possibly Eligible	Stable	TBD	None	0
Stream HM-151	38.90193	-83.06518	Ephemeral	UNT Big Run	143	1	1	HHEI	24	Modified Ephemeral	Possibly Eligible	Moderately Unstable	TBD	None	0
Stream HM-152	38.90109	-83.06408	Intermittent	UNT Big Run	211	5	3.5	HHEI	57	Modified Small Drainage Warmwater	Possibly Eligible	Moderately Stable	TBD	None	0
Stream HM-153	38.90056	-83.06386	Ephemeral	UNT Big Run	254	3	2	HHEI	22	Modified Ephemeral	Possibly Eligible	Moderately Unstable	TBD	None	0
Stream HM-154	38.89792	-83.05971	Ephemeral	UNT Big Run	89	3.5	2	HHEI	28	Modified Ephemeral	Possibly Eligible	Moderately Unstable	TBD	None	0
Stream HM-155	38.89772	-83.05963	Intermittent	UNT Big Run	259	7	5	HHEI	63	Small Drainage Warmwater	Possibly Eligible	Stable	TBD	None	0
Stream HM-156	38.89576	-83.05617	Ephemeral	UNT Slate Run	109	3.5	1.5	HHEI	44	Small Drainage Warmwater	Possibly Eligible	Moderately Stable	TBD	None	0
Stream HM-157	38.89212	-83.04986	Ephemeral	UNT Slate Run	287	3.5	1.5	HHEI	26	Ephemeral	Possibly Eligible	Unstable	TBD	None	0
Stream HM-158	38.89185	-83.04951	Ephemeral	UNT Slate Run	73	3.5	1.5	HHEI	26	Ephemeral	Possibly Eligible	Unstable	TBD	None	0
Stream HM-159	38.89176	-83.04954	Intermittent	Slate Run	161	15	7	Chapter 3745-1	N/A	WWH	Possibly Eligible	Stable	TBD	None	0

TABLE 4-2: Delineated Stream Table

Hillsboro to Millbrook Park 138 kV Transmission Line Rebuild Project

Stream ID	Location		Stream Type	Stream Name	Delineated Length (feet)	Bankfull Width (feet)	OHWM Width (feet)	Field Evaluation			Ohio EPA 401 Eligibility	Stream Stability	Stream Crossing?	Proposed Impacts	
	Latitude	Longitude						Method	Score	Category / Rating / OAC Designation				Fill Type	Length (LF)
Stream HM-160	38.89158	-83.04939	Ephemeral	UNT Slate Run	114	1.5	1	HHEI	26	Modified Ephemeral	Possibly Eligible	Moderately Unstable	TBD	None	0
Stream HM-161	38.88750	-83.04541	Intermittent	UNT Slate Run	257	5	3.5	HHEI	58	Small Drainage Warmwater	Possibly Eligible	Moderately Stable	TBD	None	0
Stream HM-162	38.88725	-83.04520	Ephemeral	UNT Slate Run	260	2	1.5	HHEI	37	Modified Small Drainage Warmwater	Possibly Eligible	Moderately Unstable	TBD	None	0
Stream HM-163	38.88695	-83.04471	Intermittent	UNT Slate Run	412	10	3.5	HHEI	68	Small Drainage Warmwater	Possibly Eligible	Stable	TBD	None	0
Stream HM-164	38.88259	-83.03994	Ephemeral	UNT Devers Run	188	1	1	HHEI	24	Modified Ephemeral	Possibly Eligible	Unstable	TBD	None	0
Stream HM-165	38.88147	-83.03843	Ephemeral	UNT Devers Run	421	1	1	HHEI	34	Modified Small Drainage Warmwater	Possibly Eligible	Moderately Unstable	TBD	None	0
Stream HM-166	38.88110	-83.03804	Intermittent	UNT Devers Run	280	2.5	2	HHEI	56	Small Drainage Warmwater	Possibly Eligible	Moderately Stable	TBD	None	0
Stream HM-167	38.87868	-83.03529	Intermittent	Devers Run	213	10	6	Chapter 3745-1	N/A	WWH	Possibly Eligible	Moderately Stable	TBD	None	0
Stream HM-170	38.86800	-83.00948	Perennial	Scioto River	128	700	640	Chapter 3745-1	N/A	WWH	Ineligible	Moderately Stable	TBD	None	0
Stream HM-171	38.86470	-82.99216	Ephemeral	UNT Candy Run	180	2	1.5	HHEI	25	Ephemeral	Possibly Eligible	Unstable	TBD	None	0
Stream HM-172	38.86447	-82.99195	Ephemeral	UNT Candy Run	88	2	1.5	HHEI	36	Small Drainage Warmwater	Possibly Eligible	Unstable	TBD	None	0
Stream HM-173	38.85957	-82.98588	Ephemeral	UNT Candy Run	521	1.5	1	HHEI	15	Modified Ephemeral	Possibly Eligible	Unstable	TBD	None	0
Stream HM-174	38.85857	-82.98518	Perennial	Candy Run	224	25	22	Chapter 3745-1	N/A	WWH	Possibly Eligible	Stable	TBD	None	0
Stream HM-175	38.85393	-82.98200	Intermittent	UNT Candy Run	277	25	22	HHEI	24	Ephemeral	Possibly Eligible	Moderately Unstable	TBD	None	0
Stream HM-176	38.85357	-82.98179	Intermittent	UNT Candy Run	207	2	1.5	HHEI	56	Small Drainage Warmwater	Possibly Eligible	Moderately Unstable	TBD	None	0
Stream HM-177	38.85101	-82.98004	Ephemeral	UNT Candy Run	249	3	2.5	HHEI	25	Ephemeral	Possibly Eligible	Unstable	TBD	None	0
Stream HM-178	38.84142	-82.97466	Intermittent	UNT Scioto River	212	2	1	HHEI	52	Modified Small Drainage Warmwater	Possibly Eligible	Moderately Unstable	TBD	None	0

TABLE 4-2: Delineated Stream Table

Hillsboro to Millbrook Park 138 kV Transmission Line Rebuild Project

Stream ID	Location		Stream Type	Stream Name	Delineated Length (feet)	Bankfull Width (feet)	OHWM Width (feet)	Field Evaluation			Ohio EPA 401 Eligibility	Stream Stability	Stream Crossing?	Proposed Impacts	
	Latitude	Longitude						Method	Score	Category / Rating / OAC Designation				Fill Type	Length (LF)
Stream HM-179	38.84089	-82.97432	Perennial	UNT Scioto River	516	3.5	2.5	QHEI	50	Fair	Possibly Eligible	Moderately Stable	TBD	None	0
Stream HM-180	38.84022	-82.97423	Ephemeral	UNT Scioto River	243	7	4.5	HHEI	44	Modified Small Drainage Warmwater	Possibly Eligible	Unstable	TBD	None	0
Stream HM-181	38.83322	-82.96894	Ephemeral	UNT Sturgeon Run	88	3	1.5	HHEI	38	Small Drainage Warmwater	Possibly Eligible	Moderately Stable	TBD	None	0
Stream HM-182	38.82983	-82.96518	Intermittent	UNT Sturgeon Run	220	2	1.5	HHEI	30	Small Drainage Warmwater	Possibly Eligible	Moderately Stable	TBD	None	0
Stream HM-183	38.82970	-82.96520	Ephemeral	UNT Sturgeon Run	93	4	3.5	HHEI	36	Modified Small Drainage Warmwater	Possibly Eligible	Moderately Stable	TBD	None	0
Stream HM-184	38.82827	-82.96381	Ephemeral	UNT Sturgeon Run	231	1.5	1	HHEI	32	Small Drainage Warmwater	Possibly Eligible	Stable	TBD	None	0
Stream HM-185	38.82586	-82.96195	Ephemeral	UNT Sturgeon Run	216	2	1.5	HHEI	28	Ephemeral	Possibly Eligible	Moderately Unstable	TBD	None	0
Stream HM-186	38.82076	-82.95844	Intermittent	UNT Long Run	245	2.5	2	HHEI	29	Ephemeral	Eligible	Moderately Unstable	TBD	None	0
Stream HM-187	38.81796	-82.95601	Intermittent	Long Run	208	3	1.5	Chapter 3745-1	N/A	WWH	Eligible	Moderately Stable	TBD	None	0
Stream HM-188	38.81731	-82.95538	Ephemeral	UNT Long Run	356	2.5	2	HHEI	36	Modified Small Drainage Warmwater	Eligible	Moderately Unstable	TBD	None	0
Stream HM-189	38.81509	-82.95406	Ephemeral	UNT Long Run	116	4	3	HHEI	45	Modified Small Drainage Warmwater	Eligible	Moderately Stable	TBD	None	0
Stream HM-190	38.81163	-82.95099	Ephemeral	UNT Long Run	417	2.5	1	HHEI	26	Modified Ephemeral	Eligible	Moderately Stable	TBD	None	0
Stream HM-191	38.81090	-82.95067	Intermittent	UNT Long Run	270	4	3	HHEI	54	Modified Small Drainage Warmwater	Eligible	Moderately Stable	TBD	None	0
Stream HM-192	38.81066	-82.95058	Ephemeral	UNT Long Run	208	3	2	HHEI	55	Modified Small Drainage Warmwater	Eligible	Stable	TBD	None	0
Stream HM-193	38.80794	-82.94843	Ephemeral	UNT Long Run	259	2	1	HHEI	44	Modified Small Drainage Warmwater	Eligible	Unstable	TBD	None	0

TABLE 4-2: Delineated Stream Table

Hillsboro to Millbrook Park 138 kV Transmission Line Rebuild Project

Stream ID	Location		Stream Type	Stream Name	Delineated Length (feet)	Bankfull Width (feet)	OHWM Width (feet)	Field Evaluation			Ohio EPA 401 Eligibility	Stream Stability	Stream Crossing?	Proposed Impacts	
	Latitude	Longitude						Method	Score	Category / Rating / OAC Designation				Fill Type	Length (LF)
Stream HM-194	38.80559	-82.94667	Intermittent	UNT Long Run	233	4	2	HHEI	49	Modified Small Drainage Warmwater	Eligible	Moderately Stable	TBD	None	0
Stream HM-195	38.80152	-82.94320	Ephemeral	UNT Bonser Run	311	2.5	2	HHEI	23	Modified Ephemeral	Eligible	Moderately Stable	TBD	None	0
Stream HM-196	38.80119	-82.94318	Intermittent	Bonser Run	336	2	2	Chapter 3745-1	N/A	WWH	Eligible	Unstable	TBD	None	0
Stream HM-197	38.79946	-82.94187	Ephemeral	UNT Munn Run	532	5	3	HHEI	48	Small Drainage Warmwater	Possibly Eligible	Stable	TBD	None	0
Stream HM-198	38.79823	-82.94105	Ephemeral	UNT Munn Run	116	4	3	HHEI	23	Ephemeral	Possibly Eligible	Unstable	TBD	None	0
Stream HM-199	38.79813	-82.94094	Ephemeral	UNT Munn Run	257	2	1	HHEI	36	Small Drainage Warmwater	Possibly Eligible	Stable	TBD	None	0
Stream HM-200	38.79419	-82.93851	Intermittent	UNT Munn Run	403	4	4	HHEI	40	Small Drainage Warmwater	Possibly Eligible	Stable	TBD	None	0
Stream HM-201	38.79368	-82.93819	Intermittent	UNT Munn Run	214	6	4	HHEI	51	Small Drainage Warmwater	Possibly Eligible	Moderately Unstable	TBD	None	0
Stream HM-202	38.79158	-82.93691	Ephemeral	UNT Munn Run	206	5	4	HHEI	35	Small Drainage Warmwater	Possibly Eligible	Unstable	TBD	None	0
Stream HM-203	38.79144	-82.93654	Ephemeral	UNT Munn Run	151	2	1.5	HHEI	30	Small Drainage Warmwater	Possibly Eligible	Stable	TBD	None	0
Stream HM-204	38.79119	-82.93633	Ephemeral	UNT Munn Run	108	3	2	HHEI	30	Small Drainage Warmwater	Possibly Eligible	Stable	TBD	None	0
Stream HM-205	38.78688	-82.93413	Intermittent	UNT Munn Run	300	5	3	HHEI	35	Small Drainage Warmwater	Possibly Eligible	Stable	TBD	None	0
Stream HM-206	38.78359	-82.93267	Intermittent	UNT Munn Run	212	5	3	HHEI	35	Modified Small Drainage Warmwater	Possibly Eligible	Moderately Stable	TBD	None	0
Stream HM-207	38.78005	-82.93206	Ephemeral	UNT Munn Run	377	4	2	HHEI	33	Small Drainage Warmwater	Possibly Eligible	Unstable	TBD	None	0
Stream HM-208	38.77999	-82.93190	Ephemeral	UNT Munn Run	109	3	2	HHEI	33	Small Drainage Warmwater	Possibly Eligible	Unstable	TBD	None	0
Stream HM-209	38.77807	-82.93168	Ephemeral	UNT Munn Run	201	4	3	HHEI	30	Small Drainage Warmwater	Possibly Eligible	Moderately Unstable	TBD	None	0
Stream HM-210	38.77182	-82.93028	Ephemeral	UNT Munn Run	105	2	1	HHEI	15	Ephemeral	Possibly Eligible	Unstable	TBD	None	0

TABLE 4-2: Delineated Stream Table

Hillsboro to Millbrook Park 138 kV Transmission Line Rebuild Project

Stream ID	Location		Stream Type	Stream Name	Delineated Length (feet)	Bankfull Width (feet)	OHWM Width (feet)	Field Evaluation			Ohio EPA 401 Eligibility	Stream Stability	Stream Crossing?	Proposed Impacts	
	Latitude	Longitude						Method	Score	Category / Rating / OAC Designation				Fill Type	Length (LF)
Stream HM-211	38.76679	-82.92885	Ephemeral	UNT Munn Run	220	3	1	HHEI	35	Small Drainage Warmwater	Possibly Eligible	Moderately Stable	TBD	None	0
Stream HM-212	38.76304	-82.92788	Ephemeral	UNT Munn Run	327	10	4	HHEI	32	Conduct Biological Assessment	Possibly Eligible	Unstable	TBD	None	0
Stream HM-213	38.75859	-82.92690	Perennial	UNT Munn Run	230	12	10	QHEI	36.5	Poor	Possibly Eligible	Stable	TBD	None	0
Stream HM-214	38.75601	-82.92704	Ephemeral	UNT Munn Run	165	15	5	HHEI	57	Small Drainage Warmwater	Possibly Eligible	Stable	TBD	None	0
Stream HM-215	38.75522	-82.92744	Ephemeral	UNT Munn Run	48	8	2	HHEI	25	Modified Ephemeral	Possibly Eligible	Unstable	TBD	None	0
Stream HM-216	38.75509	-82.92736	Perennial	Munn Run	329	40	6	Chapter 3745-1	N/A	WWH	Possibly Eligible	Unstable	TBD	None	0
Stream HM-230	38.94127	-83.11926	Perennial	UNT Bear Creek	208	4	4	HHEI	68	Small Drainage Warmwater	Possibly Eligible	Stable	TBD	None	0
Stream HM-231	38.94031	-83.11735	Ephemeral	UNT Bear Creek	15	1	1	HHEI	25	Modified Ephemeral	Possibly Eligible	Unstable	TBD	None	0
Stream HM-232	38.94091	-83.11499	Perennial	Bear Creek	461	30	20	Chapter 3745-1	N/A	WWH	Possibly Eligible	Moderately Stable	TBD	None	0
Stream HM-234	38.93645	-83.11265	Intermittent	UNT Bear Creek	88	2	2	HHEI	30	Modified Ephemeral	Possibly Eligible	Unstable	TBD	None	0
Stream HM-236	38.93428	-83.10897	Ephemeral	UNT Bear Creek	156	2.5	2.5	HHEI	39	Modified Small Drainage Warmwater	Possibly Eligible	Stable	TBD	None	0
Stream HM-237	38.93068	-83.10421	Ephemeral	UNT Bear Creek	121	2	2	HHEI	25	Modified Ephemeral	Possibly Eligible	Unstable	TBD	None	0
Total: 219	Total:				51,122										

TABLE 4-3: Delineated Pond Table

Hillsboro to Millbrook Park 138 kV Transmission Line Rebuild Project

Pond ID	Location		Delineated Area (acre)
	Latitude	Longitude	
Pond HM-001	39.15596	-83.63706	0.17
Pond HM-002	39.13801	-83.59456	0.02
Pond HM-003	39.10623	-83.52140	0.12
Pond HM-004	39.09067	-83.48961	0.08
Pond HM-005	39.06926	-83.42099	0.39
Pond HM-006	39.01372	-83.27326	0.01
Pond HM-007	39.00230	-83.22641	0.28
Pond HM-008	38.98832	-83.20142	0.10
Pond HM-009	38.96129	-83.14973	0.03
Pond HM-010	38.86953	-83.01835	0.10
Pond HM-011	38.86954	-83.01699	0.62
Pond HM-012	38.82251	-82.95927	0.03
Pond HM-013	38.81939	-82.95674	0.04
Pond HM-017	38.94017	-83.11729	0.08
Total:			2.07

TABLE 5-1: Federally Listed and State-Listed Threatened and Endangered Species Impact Assessment

Hillsboro to Millbrook Park 138 kV Transmission Line Rebuild Project

Common Name (Scientific Name) ^{a, b}	State Status ^b	Federal Status ^{a, b}	Typical Habitat ^b	Habitat Observed	Agency Comment	Potential Impacts and Avoidance Dates ^{a, b}
Vertebrate Animals						
Indiana bat (<i>Myotis sodalis</i>)	E	E	Hibernacula = Caves and mines Maternity and foraging habitat = small stream corridors with well-developed riparian woods and upland forests. ^{a, b} Presence assumed wherever suitable habitat occurs. Indiana bat hibernaculum buffers and roosts tree buffers exist in portions of the southern line in Scioto County. Northern section of the line in Highland County is within capture buffers of male and female Indiana bats and roost trees. ^{a, b}	Yes	ODNR: The western 15,000 feet of the project route, and the portion of the project route between the Ohio River and the Scioto River are within the vicinity of records for the Indiana bat (<i>Myotis sodalis</i>). Presence of the Indiana bat has been established in the area, and therefore additional summer surveys would not constitute presence/absence in the area. If suitable habitat occurs within the project area, the DOW recommends trees be conserved. If suitable habitat occurs within the project area and trees must be cut, the DOW recommends cutting occur between October 1 and March 31. The remainder of the project route is within the range of the Indiana bat. If suitable habitat occurs within the project area, the DOW recommends trees be conserved. If suitable habitat occurs within the project area and trees must be cut, the DOW recommends cutting occur between October 1 and March 31. If suitable trees must be cut during the summer months, the DOW recommends a net survey be conducted between June 1 and August 15, prior any to cutting. Net surveys should incorporate either nine net nights per square 0.5 kilometer of project area, or four net nights per kilometer for linear projects. If no tree removal is proposed, this project is not likely to impact this species. No Natural Heritage Database records within a 1-mile radius. USFWS: USFWS requests additional information regarding tree clearing for proposed portions of the line in Scioto and Highland Counties to evaluate the potential for the project to impact this species.	No; Avoided with winter tree clearing. Avoid disturbance April 1 – September 30
Northern long-eared bat (<i>Myotis septentrionalis</i>)	T	T	Hibernates in caves and mines; swarms in surrounding wooded areas in autumn. During late spring and summer, roosts and forages in upland forests. ^{a, b} Presence assumed wherever suitable habitat occurs. Portions of the project are within capture buffers of Northern long-eared bat. ODNR identified that the project is within the range of this species.	Yes	ODNR: No Natural Heritage Database records within a 1-mile radius. USFWS: USFWS requests additional information regarding tree clearing for proposed portions of the line in Scioto and Highland Counties to evaluate the potential for the project to impact this species.	No; Avoided with winter tree clearing. Avoid disturbance April 1 – September 30

TABLE 5-1: Federally Listed and State-Listed Threatened and Endangered Species Impact Assessment

Hillsboro to Millbrook Park 138 kV Transmission Line Rebuild Project

Common Name (Scientific Name) ^{a, b}	State Status ^b	Federal Status ^{a, b}	Typical Habitat ^b	Habitat Observed	Agency Comment	Potential Impacts and Avoidance Dates ^{a, b}
Eastern spadefoot (<i>Scaphiopus holbrookii</i>)	E	N/A	Exceptionally rare and is known to occur in Athens, Coshocton, Lawrence, Morgan, and Washington counties. It is found only in areas of sandy soils that are associated with river valleys in southeastern Ohio. Breeding habitats are located within these areas and may include flooded agricultural fields or other water-holding depressions. ^c	No	ODNR: The DOW recommends that a DOW approved herpetologist conducts a habitat suitability survey along the project route to determine if suitable habitat exists for the eastern spadefoot toad. If suitable habitat is determined to be present, the DOW recommends that a presence/absence survey be conducted, or an avoidance/minimization plan be developed and implemented by the approved herpetologist. No Natural Heritage Database records within a 1-mile radius.	No; Known habitat types are not present within the Project area.
Timber Rattlesnake (<i>Crotalus horridus</i>)	E	S	These snakes are a woodland species. In addition to using wooded areas, timbers also utilize sunlit gaps in the canopy for basking and deep rock crevices for overwintering (den sites). ^c	Yes	ODNR: The DOW recommends that a DOW approved herpetologist conducts a habitat suitability survey along the project route to determine if suitable habitat exists for the timber rattlesnake. If suitable habitat is determined to be present, the DOW recommends that a presence/absence survey be conducted, or an avoidance/minimization plan be developed and implemented by the approved herpetologist. No Natural Heritage Database records within a 1-mile radius.	Habitat surveys were completed in January 2021 with suitable habitat identified. Results have been submitted to ODNR and an avoidance/minimization plan will be developed and implemented.
Eastern hellbender (<i>Cryptobranchus alleganiensis</i>)	E	S	Prefer large, swift flowing streams where they can hide during the day under large rocks. Mostly found in unglaciated (south and east) Ohio. ^d	No	ODNR: Due to the location, this project is not likely to impact this species. No Natural Heritage Database records within a 1-mile radius.	No; Known habitat types are not present within the Project area.
Mud salamander (<i>Pseudotriton montanus</i>)	T	N/A	Muddy springs, slow floodplain streams, and swamps along slow streams; backwater ponds and marshes created by beaver activity. ^c	Yes	ODNR: The DOW recommends that a DOW approved herpetologist conducts a habitat suitability survey along the project route to determine if suitable habitat exists for the mud salamander. If suitable habitat is determined to be present, the DOW recommends that a presence/absence survey be conducted, or an avoidance/minimization plan be developed and implemented by the approved herpetologist. No Natural Heritage Database records within a 1-mile radius.	Habitat surveys were completed in January 2021 with suitable habitat identified. Based on the current project plans, all suitable habitat will be avoided. Results have been submitted to ODNR.
Green salamander (<i>Aneides aeneus</i>)	E	N/A	Prefers deep moist cracks in limestone and sandstone cliffs. ^d	No	ODNR: Due to the location, this project is not likely to impact this species. No Natural Heritage Database records within a 1-mile radius.	No; Known habitat types are not present within the Project area.

TABLE 5-1: Federally Listed and State-Listed Threatened and Endangered Species Impact Assessment

Hillsboro to Millbrook Park 138 kV Transmission Line Rebuild Project

Common Name (Scientific Name) ^{a, b}	State Status ^b	Federal Status ^{a, b}	Typical Habitat ^b	Habitat Observed	Agency Comment	Potential Impacts and Avoidance Dates ^{a, b}
Cave salamander (<i>Eurycea lucifuga</i>)	E	N/A	Prefers dimly lighted zone near the entrance of wet limestone caves. Can also be encountered in wooded areas along streams with a connection to groundwater, far removed from any known caves. ^d	No	ODNR: Due to the location, this project is not likely to impact this species. No Natural Heritage Database records within a 1-mile radius.	No; Known habitat types are not present within the Project area.
Allegheny woodrat (<i>Neotoma magister</i>)	E	N/A	Utilizes rocky outcrops such as cliffs and caves in forested areas. ^b	No	ODNR: Due to the location, this project is not likely to impact this species. No Natural Heritage Database records within a 1-mile radius.	No; Known habitat types are not present within the Project area.
Lark sparrow (<i>Chondestes grammacus</i>)	E	N/A	Nests in grassland habitats with scattered shrub layers, disturbed open areas, as well as patches of bare soil. ^b	Yes	ODNR: If this type of habitat will be impacted, construction should be avoided in this habitat during the species' nesting period of May 1 to June 30. If this habitat will not be impacted, this project is not likely to impact this species. No Natural Heritage Database records within a 1-mile radius.	Habitat surveys were completed in January 2021 with suitable habitat identified. If suitable habitat cannot be avoided during the nesting season, then presence/absence surveys will be conducted.
Loggerhead shrike (<i>Lanius ludovicianus</i>)	E	N/A	Nests in hedgerows, thickets, and fencerows. Hunts over hayfields, pastures, and other grasslands. ^b	Yes	ODNR: If thickets or other types of dense shrubbery habitat will be impacted, construction should be avoided in this habitat during the species' nesting period of April 1 to August 1. If this habitat will not be impacted, this project is not likely to impact this species. No Natural Heritage Database records within a 1-mile radius.	Habitat surveys were completed in January 2021 with suitable habitat identified. If suitable habitat cannot be avoided during the nesting season, then presence/absence surveys will be conducted.
American eel (<i>Aguilla rostrata</i>)	T	N/A	These eels are found in any Ohio stream and in Lake Erie, but their home range covers most of the eastern United States. They are most normally found in large rivers with continuous flow.	Yes	ODNR: The DOW recommends no in-water work in perennial streams from April 15 to June 30 to reduce impacts to indigenous aquatic species and their habitat. If no in-water work is proposed in a perennial stream, this project is not likely to impact these or other aquatic species. No Natural Heritage Database records within a 1-mile radius.	No; Project will avoid all in-water work.
Bigeye shiner (<i>Notropis boops</i>)	T	N/A	Flowing pools of moderately clear creeks, small to medium rivers with large permanent pools over clear sand, gravel, or rock. ^c	Yes	ODNR: please see comment for American eel. No Natural Heritage Database records within a 1-mile radius.	No; Project will avoid all in-water work.

TABLE 5-1: Federally Listed and State-Listed Threatened and Endangered Species Impact Assessment

Hillsboro to Millbrook Park 138 kV Transmission Line Rebuild Project

Common Name (Scientific Name) ^{a, b}	State Status ^b	Federal Status ^{a, b}	Typical Habitat ^b	Habitat Observed	Agency Comment	Potential Impacts and Avoidance Dates ^{a, b}
Blue sucker (<i>Cycleptus elongatus</i>)	T	N/A	Found in deep, swiftly flowing chutes or channels of large rivers. They are not uncommon in fast, gravel-bottomed chutes of the lower Scioto River, the lower portions of the Great and Little Miami, Muskingum, and Hocking Rivers. They can also be found in the Ohio River. ^c	No	ODNR: please see comment for American eel. Natural Heritage Database record location within a 1-mile radius.	No; Known habitat types are not present within the Project area.
Channel darter (<i>Percina copelandi</i>)	T	N/A	Found in large, coarse sand or fine gravel bars in large rivers. ^c	No	ODNR: please see comment for American eel. Natural Heritage Database record location within a 1-mile radius.	No; Known habitat types are not present within the Project area.
Goldeye (<i>Hiodon alosoides</i>)	E	N/A	Moderate to fast currents in medium to large lowland rivers. Can also inhabit quiet turbid waters of small lakes, ponds, and marshes. ^c	Yes	ODNR: please see comment for American eel. No Natural Heritage Database records within a 1-mile radius.	No; Project will avoid all in-water work.
Mountain madtom (<i>Noturus eleutherus</i>)	E	N/A	Small to large rivers, in fast flowing, clear water sections over sand, gravel, and rubble, often near vegetation. ^c	Yes	ODNR: please see comment for American eel. No ODNR records within a 1-mile radius.	No; Project will avoid all in-water work.
Northern madtom (<i>Noturus stigmosus</i>)	E	N/A	Large creeks and small rivers with clear to turbid water and moderate currents. ^c	Yes	ODNR: please see comment for American eel. No ODNR records within a 1-mile radius.	No; Project will avoid all in-water work.
Paddlefish (<i>Polyodon spathula</i>)	T	N/A	Found in the Ohio River and up to the first dam on its larger tributaries. They prefer sluggish pools and backwater areas of these rivers and streams. Most common in the Ohio River from Portsmouth downstream to the Indiana state line. ^c	No	ODNR: please see comment for American eel. No Natural Heritage Database records within a 1-mile radius.	No; Known habitat types are not present within the Project area.

TABLE 5-1: Federally Listed and State-Listed Threatened and Endangered Species Impact Assessment

Hillsboro to Millbrook Park 138 kV Transmission Line Rebuild Project

Common Name (Scientific Name) ^{a, b}	State Status ^b	Federal Status ^{a, b}	Typical Habitat ^b	Habitat Observed	Agency Comment	Potential Impacts and Avoidance Dates ^{a, b}
Popeye shiner (<i>Notropis ariommus</i>)	E	N/A	Warm relatively clear flowing waters of large creeks and small to medium rivers. Associated with gravel substrates, occurs in runs, backwaters near appreciable currents, and head of pools. ^c	Yes	ODNR: please see comment for American eel. No Natural Heritage Database records within a 1-mile radius.	No; Project will avoid all in-water work.
River darter (<i>Percina shumardi</i>)	T	N/A	Found in very large rivers typically in areas of swift current. They are found over a gravel or rocky bottom in depths of 3 feet or more. ^c	No	ODNR: please see comment for American eel. Natural Heritage Database record location within a 1-mile radius.	No; Known habitat types are not present within the Project area.
Shortnose gar (<i>Lepisosteus platostomus</i>)	E	N/A	Open slow silty or clear-water rivers, wave-washed shoals of large lakes, quiet creek pools, and river backwaters. ^c	Yes	ODNR: please see comment for American eel. No Natural Heritage Database records within a 1-mile radius.	No; Project will avoid all in-water work.
Shovelnose sturgeon (<i>Scaphirhynchus platyrhynchus</i>)	E	N/A	Deep channels and embayments of large turbid rivers; often over sand mixed with gravel or mud in areas with strong current. ^c	No	ODNR: please see comment for American eel. Natural Heritage Database record location within a 1-mile radius.	No; Known habitat types are not present within the Project area.
Tippecanoe darter (<i>Etheostoma Tippecanoe</i>)	T	N/A	Found in medium to large streams and rivers in the Ohio River drainage in Ohio. They are found in riffles of moderate current with a substrate of gravel and small cobble sized rocks. ^c	Yes	ODNR: please see comment for American eel. Natural Heritage Database record location within a 1-mile radius.	No; Project will avoid all in-water work.
Invertebrate Animals						
Black sandshell (<i>Ligumia recta</i>)	T	N/A	Found in the riffle and run areas of medium to large rivers in areas dominated by sand or gravel. ^c	Yes	ODNR: This project must not have an impact on freshwater native mussels along the project route. This applies to both listed and non-listed species. Per the Ohio Mussel Survey Protocol (2018), all Group 2, 3, and 4 streams (Appendix A) require a mussel survey. Per the Ohio Mussel Survey Protocol, Group 1 streams (Appendix A) and unlisted streams with a watershed of 10 square miles or larger above the point of impact should be assessed using the Reconnaissance Survey for Unionid Mussels (Appendix B) to determine if mussels are present. Mussel surveys may be recommended for these streams as well. This is further explained within the Ohio Mussel Survey Protocol. Therefore, if	No; Project will avoid all in-water work; therefore, surveys are not required.

TABLE 5-1: Federally Listed and State-Listed Threatened and Endangered Species Impact Assessment

Hillsboro to Millbrook Park 138 kV Transmission Line Rebuild Project

Common Name (Scientific Name) ^{a, b}	State Status ^b	Federal Status ^{a, b}	Typical Habitat ^b	Habitat Observed	Agency Comment	Potential Impacts and Avoidance Dates ^{a, b}
					in-water work is planned in any stream that meets any of the above criteria, the DOW recommends the applicant provide information to indicate no mussel impacts will occur. If this is not possible, the DOW recommends a professional malacologist conduct a mussel survey in the project area. If mussels that cannot be avoided are found in the project area, as a last resort, the DOW recommends a professional malacologist collect and relocate the mussels to suitable and similar habitat upstream of the project site. Mussel surveys and any subsequent mussel relocation should be done in accordance with the Ohio Mussel Survey Protocol. No Natural Heritage Database records within a 1-mile radius.	
Butterfly (<i>Ellipsaria lineolata</i>)	E	N/A	Large rivers in sand or gravel substrates. ^c	No	ODNR: please see comment for black sandshell. No Natural Heritage Database records within a 1-mile radius.	No; Known habitat types are not present within the Project area.
Fanshell (<i>Cyprogenia stegaria</i>)	E	E	medium to large streams with stable substrate containing relatively firm and clean gravel, sand, and silt mixture ^c	No	ODNR: please see comment for black sandshell. No Natural Heritage Database records within a 1-mile radius.	No; Known habitat types are not preset within the Project area.
Clubshell (<i>Pleurobema clava</i>)	E	N/A	Generally found in clean, coarse sand and gravel in runs, often just downstream of a riffle and cannot tolerate mud or slack water conditions. ^c	Yes	ODNR: please see comment for black sandshell. No Natural Heritage Database records within a 1-mile radius.	No; Project will avoid all in-water work; therefore, surveys are not required.
Ebonysnell (<i>Fusconaia ebena</i>)	E	N/A	Inhabits large rivers and prefers swift water and stable sandy or gravelly shoals. ^c	No	ODNR: please see comment for black sandshell. No Natural Heritage Database records within a 1-mile radius.	No; Known habitat types are not present within the Project area.
Elephant-ear (<i>Elliptio crassidens crassidens</i>)	E	N/A	Inhabits large rivers in mud, sand or fine gravel. ^c	No	ODNR: please see comment for black sandshell. No Natural Heritage Database records within a 1-mile radius.	No; Known habitat types are not present within the Project area.
Fawnsfoot (<i>Truncilla donaciformis</i>)	T	N/A	Found in large rivers or the lower reaches of medium-sized streams in sand or gravel. ^c	No	ODNR: please see comment for black sandshell. No Natural Heritage Database records within a 1-mile radius.	No; Known habitat types are not present within the Project area.

TABLE 5-1: Federally Listed and State-Listed Threatened and Endangered Species Impact Assessment

Hillsboro to Millbrook Park 138 kV Transmission Line Rebuild Project

Common Name (Scientific Name) ^{a, b}	State Status ^b	Federal Status ^{a, b}	Typical Habitat ^b	Habitat Observed	Agency Comment	Potential Impacts and Avoidance Dates ^{a, b}
Little spectaclecase (<i>Villosa lienosa</i>)	E	N/A	Typically inhabits small creeks to medium-sized rivers, usually along banks of slower currents. ^c	Yes	ODNR: please see comment for black sandshell. No Natural Heritage Database records within a 1-mile radius.	No; Project will avoid all in-water work; therefore, surveys are not required.
Long-solid (<i>Fusconaia maculata maculata</i>)	E	N/A	Found in large rivers in gravel substrates. ^c	No	ODNR: please see comment for black sandshell. No Natural Heritage Database records within a 1-mile radius.	No; Known habitat types are not present within the Project area.
Monkeyface (<i>Quadrula metanevra</i>)	E	N/A	Found in habitats dominated by stable substrates in water over 6 feet deep. ^c	No	ODNR: please see comment for black sandshell. No Natural Heritage Database records within a 1-mile radius.	No; Known habitat types are not present within the Project area.
Northern riffleshell (<i>Epioblasma torulosa rangiana</i>)	E	E	Preferred habitat appears to require swiftly moving water. The high oxygen concentrations in swift streams may be necessary for survival. ^c	Yes	ODNR: please see comment for black sandshell. No Natural Heritage Database records within a 1-mile radius.	No; Project will avoid all in-water work; therefore, surveys are not required.
Ohio pigtoe (<i>Pleurobema cordatum</i>)	E	N/A	Inhabitant of large rivers, found in strong currents on substrates of sand and gravel. ^c	No	ODNR: please see comment for black sandshell. No Natural Heritage Database records within a 1-mile radius.	No; Known habitat types are not present within the Project area.
Pink mucket (<i>Lampsilis orbiculata</i>)	E	E	Found in mud and sand in the shallow riffles of major rivers and their tributaries. ^c	No	ODNR: please see comment for black sandshell. No Natural Heritage Database records within a 1-mile radius.	No; Known habitat types are not present within the Project area.
Purple cat's paw (<i>Epioblasma o. obliquata</i>)	E	E	Inhabits large river systems in sand and gravel substrates in runs and riffles. ^c	Yes	ODNR: please see comment for black sandshell. No Natural Heritage Database records within a 1-mile radius.	No; Project will avoid all in-water work; therefore, surveys are not required.
Pyramid pigtoe (<i>Pleurobema rubrum</i>)	E	N/A	Found in medium to large rivers in sand or gravel in areas with a good current. ^c	Yes	ODNR: please see comment for black sandshell. No Natural Heritage Database records within a 1-mile radius.	No; Project will avoid all in-water work; therefore, surveys are not required.
Rayed bean (<i>Villosa fabalis</i>)	E	E	Usually found in or near shoal or riffle areas, and in the shallow, wave-washed areas of lakes. Preferred substrate types include gravel and sand. ^c	No	ODNR: please see comment for black sandshell. No Natural Heritage Database records within a 1-mile radius.	No; Known habitat types are not present within the Project area.

TABLE 5-1: Federally Listed and State-Listed Threatened and Endangered Species Impact Assessment

Hillsboro to Millbrook Park 138 kV Transmission Line Rebuild Project

Common Name (Scientific Name) ^{a, b}	State Status ^b	Federal Status ^{a, b}	Typical Habitat ^b	Habitat Observed	Agency Comment	Potential Impacts and Avoidance Dates ^{a, b}
			Known to occur in Scioto Brush Creek and the Scioto River.		USFWS: Should the proposed project directly or indirectly impact this mussel species, USFWS recommends a survey to be conducted to determine presence or probable absence of the mussel in the vicinity of the propose site. Any survey should be designed and conducted in coordination with the Ohio Field office. Surveyors must have valid Federal and State permits to survey for federally listed mussels in Ohio. If any impact to native riparian vegetation is proposed we recommend further coordination with our office to determine if impacts to mussel species may occur. Best management practices that minimize stormwater runoff and erosion should be diligently implemented in these areas.	
Sharp-ridged pocketbook (<i>Lampsilis ovate</i>)	E	N/A	Inhabits large rivers in coarse sand or gravel. ^c	No	ODNR: please see comment for black sandshell. No Natural Heritage Database records within a 1-mile radius.	No; Known habitat types are not present within the Project area.
Sheepnose (<i>Plethobasus cyphus</i>)	E	E	Found in shallow areas of large rivers or streams. Prefers swift to moderate current. ^c	Yes	ODNR: please see comment for black sandshell. No Natural Heritage Database records within a 1-mile radius.	No; Project will avoid all in-water work; therefore, surveys are not required.
Snuffbox (<i>Epioblasma triquetra</i>)	E	E	Small to medium-sized creeks and some larger rivers, in areas with a swift current. ^c	Yes	ODNR: please see comment for black sandshell. No Natural Heritage Database records within a 1-mile radius.	No; Project will avoid all in-water work; therefore, surveys are not required.
Threehorn wartyback (<i>Obliquaria reflexa</i>)	T	N/A	Found in large rivers in sand or gravel; may be locally abundant in impoundments. ^c	No	ODNR: please see comment for black sandshell. No Natural Heritage Database records within a 1-mile radius.	No; Known habitat types are not present within the Project area.
Wartyback (<i>Quadrula nodulata</i>)	E	N/A	Medium to large rivers at depths of 15-18 feet on sand and mud substrates ^c	Yes	ODNR: please see comment for black sandshell. No Natural Heritage Database records within a 1-mile radius.	No; Project will avoid all in-water work; therefore, surveys are not required.
Washboard (<i>Megaloniais nervosa</i>)	E	N/A	Found in large rivers, inhabiting the main channel areas of a stream. Suitable habitat consists of slow current areas with substrates composed of sand, gravel, or mud. ^c	Yes	ODNR: please see comment for black sandshell. No Natural Heritage Database records within a 1-mile radius.	No; Project will avoid all in-water work; therefore, surveys are not required.

TABLE 5-1: Federally Listed and State-Listed Threatened and Endangered Species Impact Assessment

Hillsboro to Millbrook Park 138 kV Transmission Line Rebuild Project

Common Name (Scientific Name) ^{a, b}	State Status ^b	Federal Status ^{a, b}	Typical Habitat ^b	Habitat Observed	Agency Comment	Potential Impacts and Avoidance Dates ^{a, b}
Yellow sandshell (<i>Lampsilis teres</i>)	E	N/A	Occurs in medium-sized creeks to large rivers, often in slower current areas of stream borders. ^c	Yes	ODNR: please see comment for black sandshell. No Natural Heritage Database records within a 1-mile radius.	No; Project will avoid all in-water work; therefore, surveys are not required.
Vascular Plants						
Virginia spiraea (<i>Spiraea virginiana</i>)	N/A	T	Riparian habitats along rocky streambanks or sand bars. ^a Known populations on large, long-established gravel bars in Scioto County and along Scioto Brush Creek.	Yes	ODNR: No Natural Heritage Database records within a 1-mile radius. USFWS: The current alignment occurs in a township where the species is known to occur, but does not cross the Scioto Brush Creek in this township. At this time it does not appear that the project will impact this species, however if the alignment were to be modified, further coordination with this office is requested.	No; Current alignment does not cross the creek in the township in which the species is known to occur.
Running buffalo clover (<i>Trifolium stoloniferum</i>)	N/A	E	Partially shaded woodlots, mowed areas (lawns, parks, cemeteries), and along streams and trails and in rights-of-way. Required periodic disturbance and a somewhat open habitat to successfully flourish, but cannot tolerate full-sun, full-shade, or severe disturbance. ^a	Yes	No Natural Heritage Database records within a 1-mile radius.	No; No known records or occurrences are present within the Project area.

Status Key: E = Endangered; T = Threatened; S = Species of Concern; SI = Special Interest

Sources:

^a USFWS, 2020

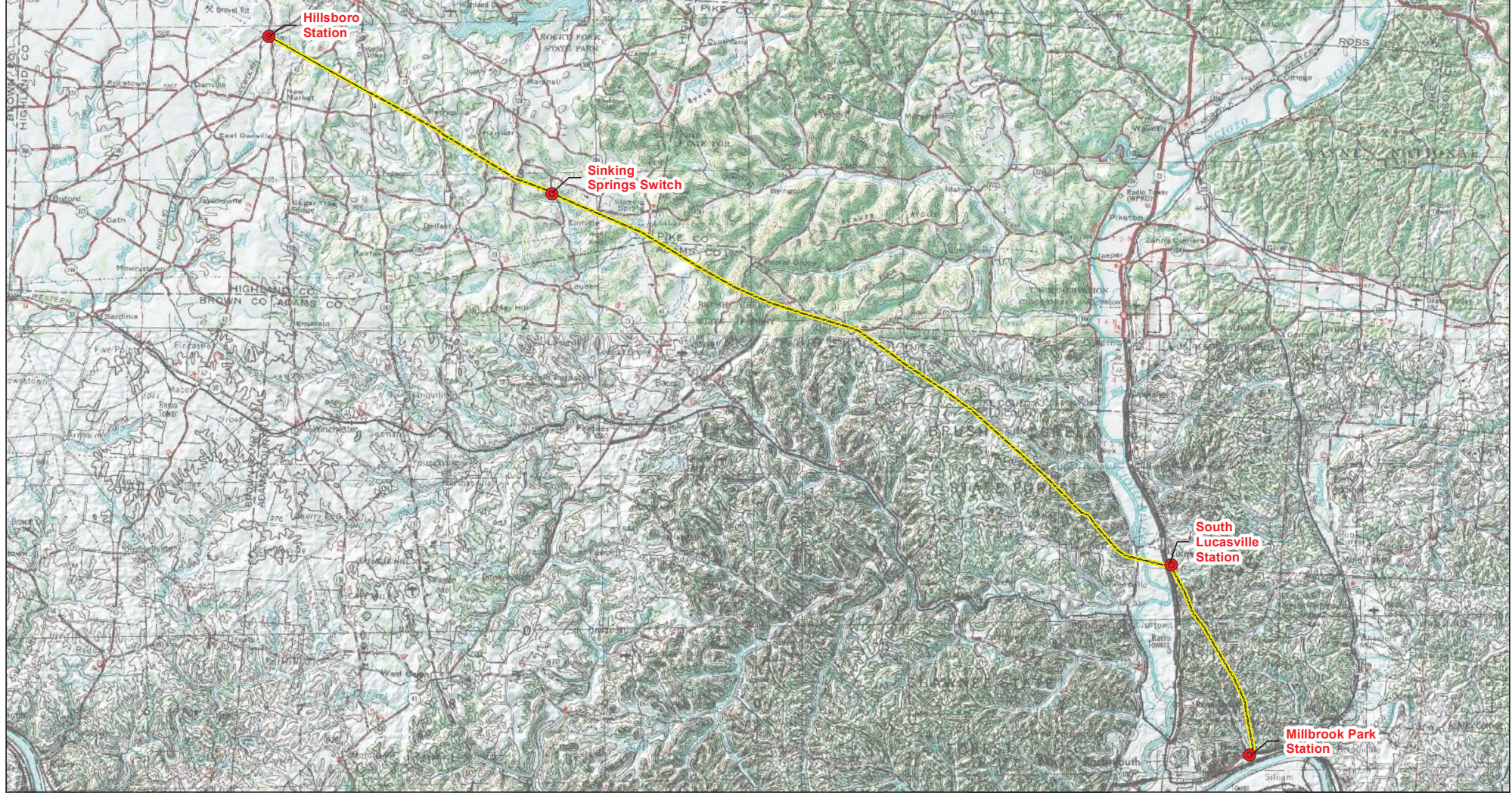
^d ODNR DOW, 2020

^b ODNR DOW, 2020b

^e Sanders, 2001

^c NatureServe, 2020

Figures



- Station/Switch Location
- Environmental Survey Corridor

Base Map Source:
ESRI USA 250K Topo Map
Columbus and
Huntington Quadrangles

Coordinate System:
State Plane Ohio South
FIPS 3402 (US Feet)
Datum: NAD 1983



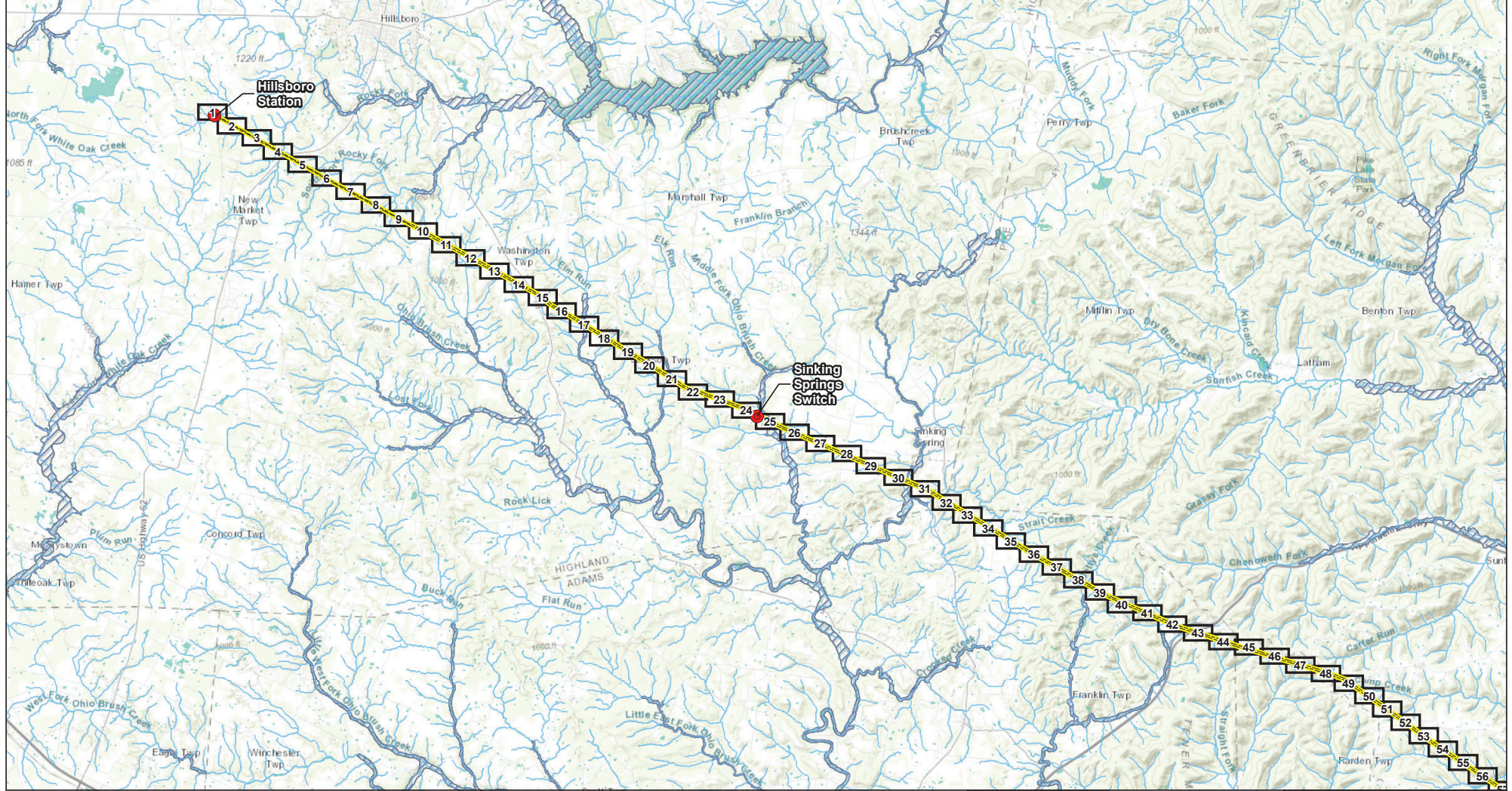
April 30, 2021



**Figure 1
Overview Map**

Hillsboro to Millbrook Park
138 kV Transmission Line
Rebuild Project





- Station/Switch Location
- Environmental Survey Corridor
- NHD Stream
- NWI Wetland
- 100-Year Floodplain
- Floodway

Base Map Source:
ESRI World Topo

Coordinate System:
State Plane Ohio South
FIPS 3402 (US Feet)
Datum: NAD 1983

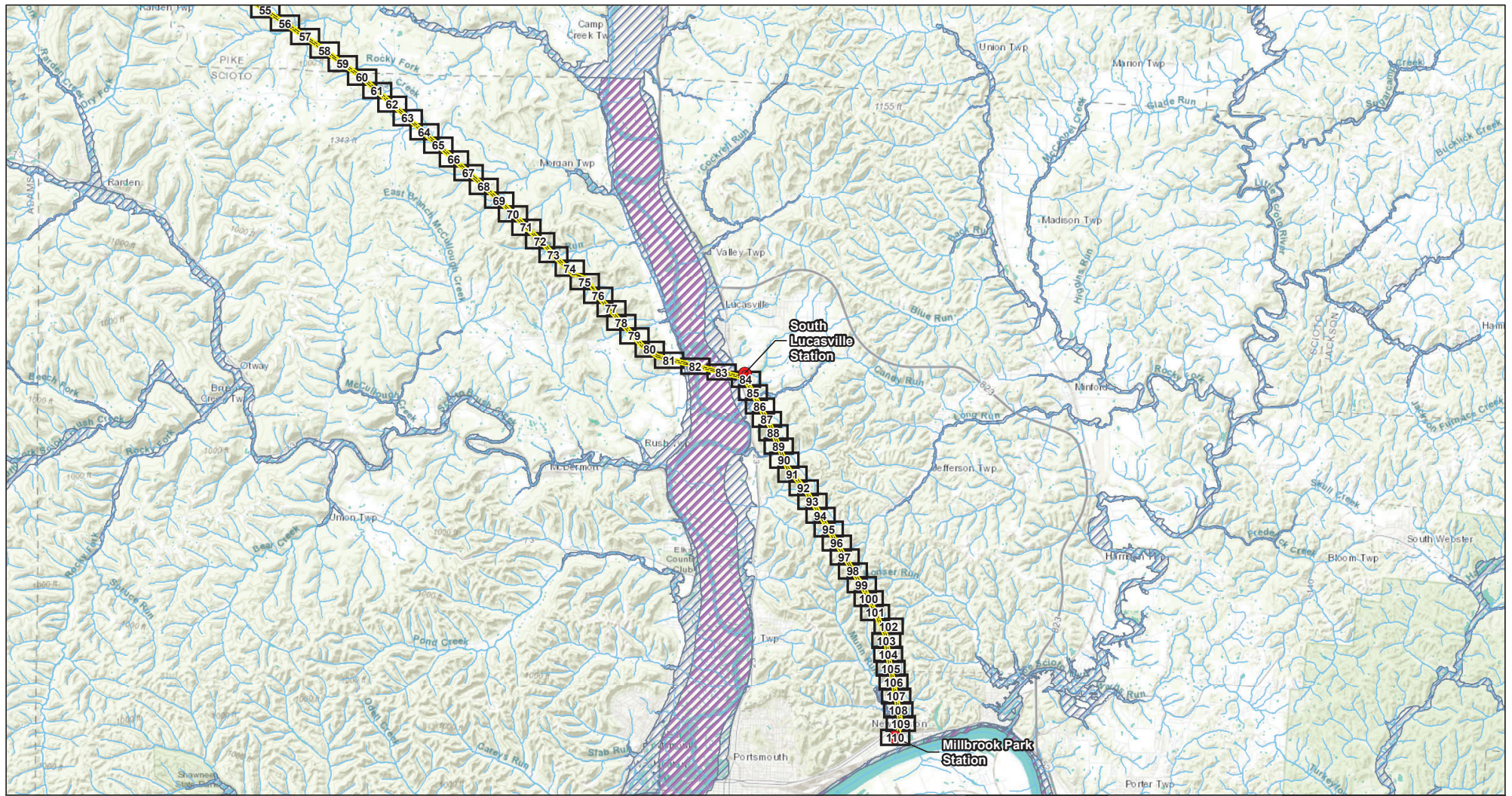
May 05, 2021



Figure 2
Soil, NHD, NWI, FEMA Index Map

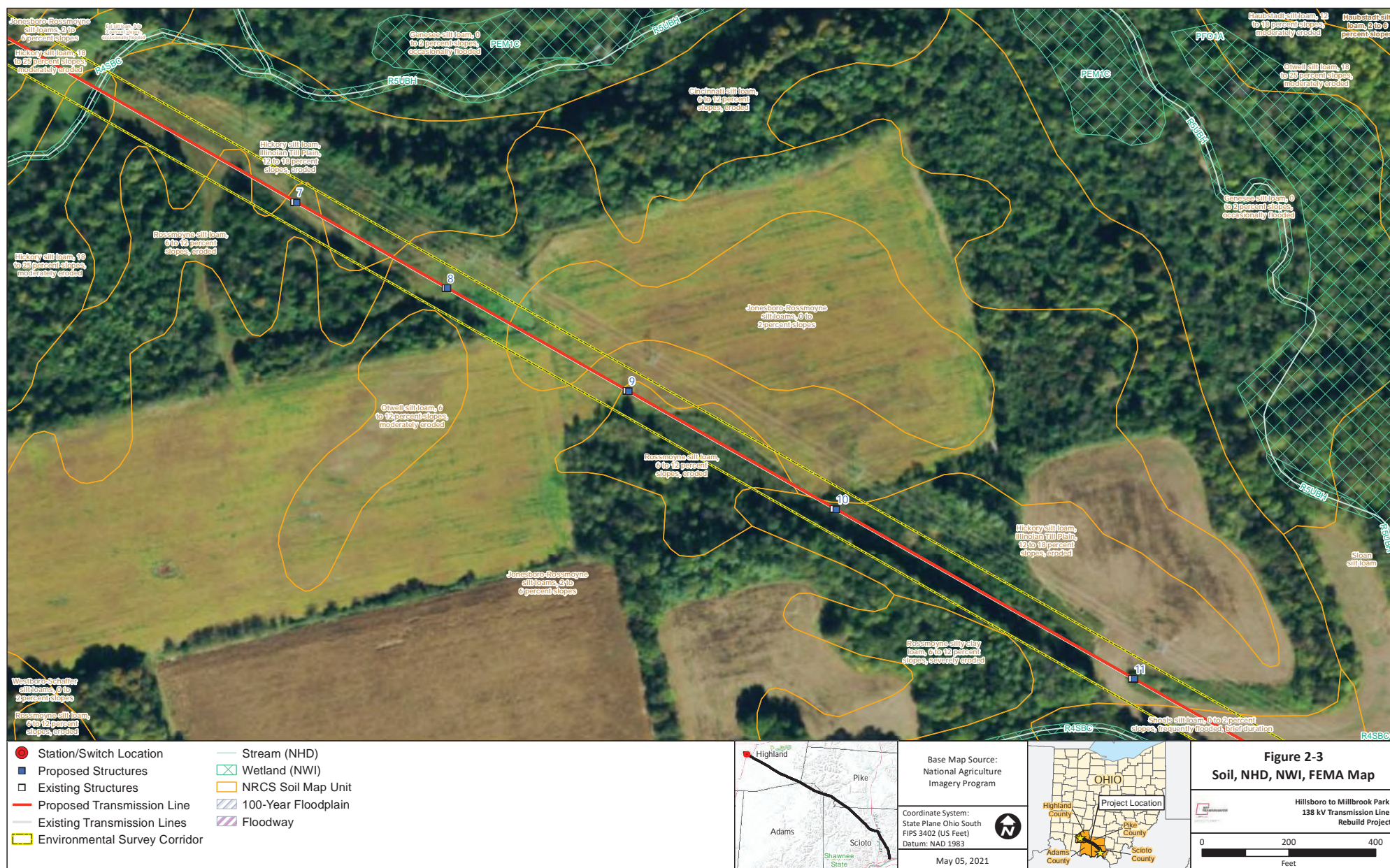
Hillsboro to Millbrook Park
138 kV Transmission Line
Rebuild Project

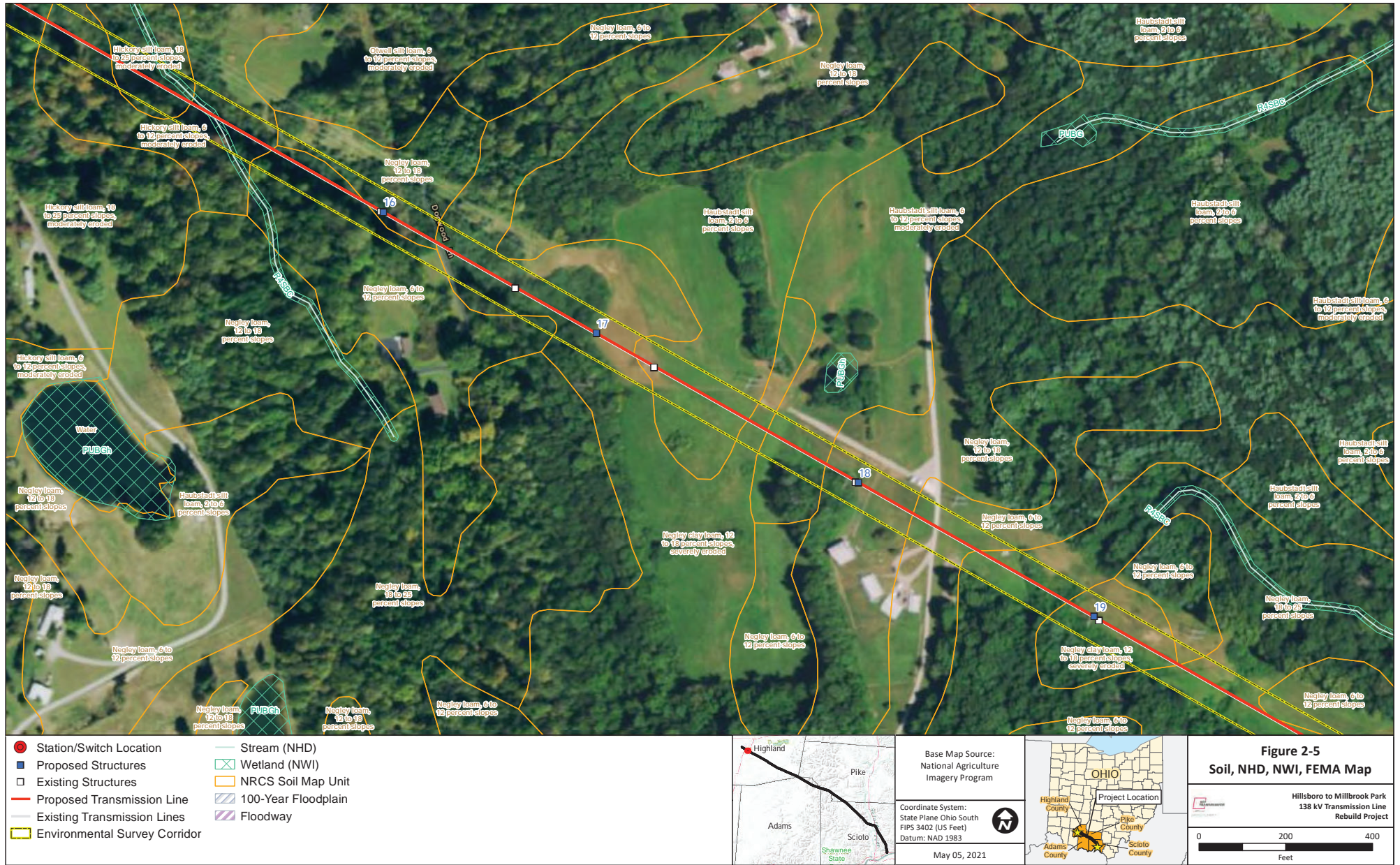


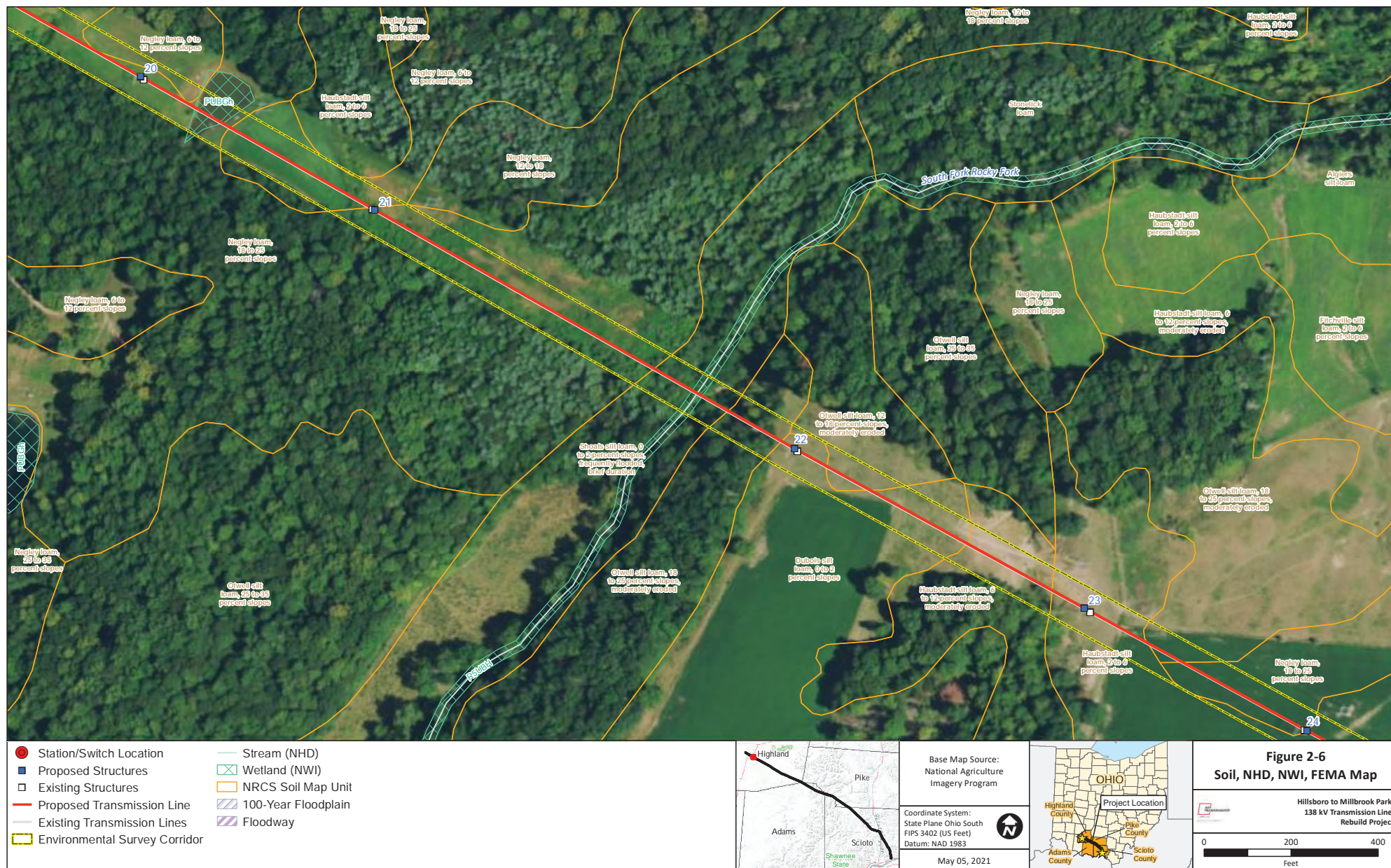




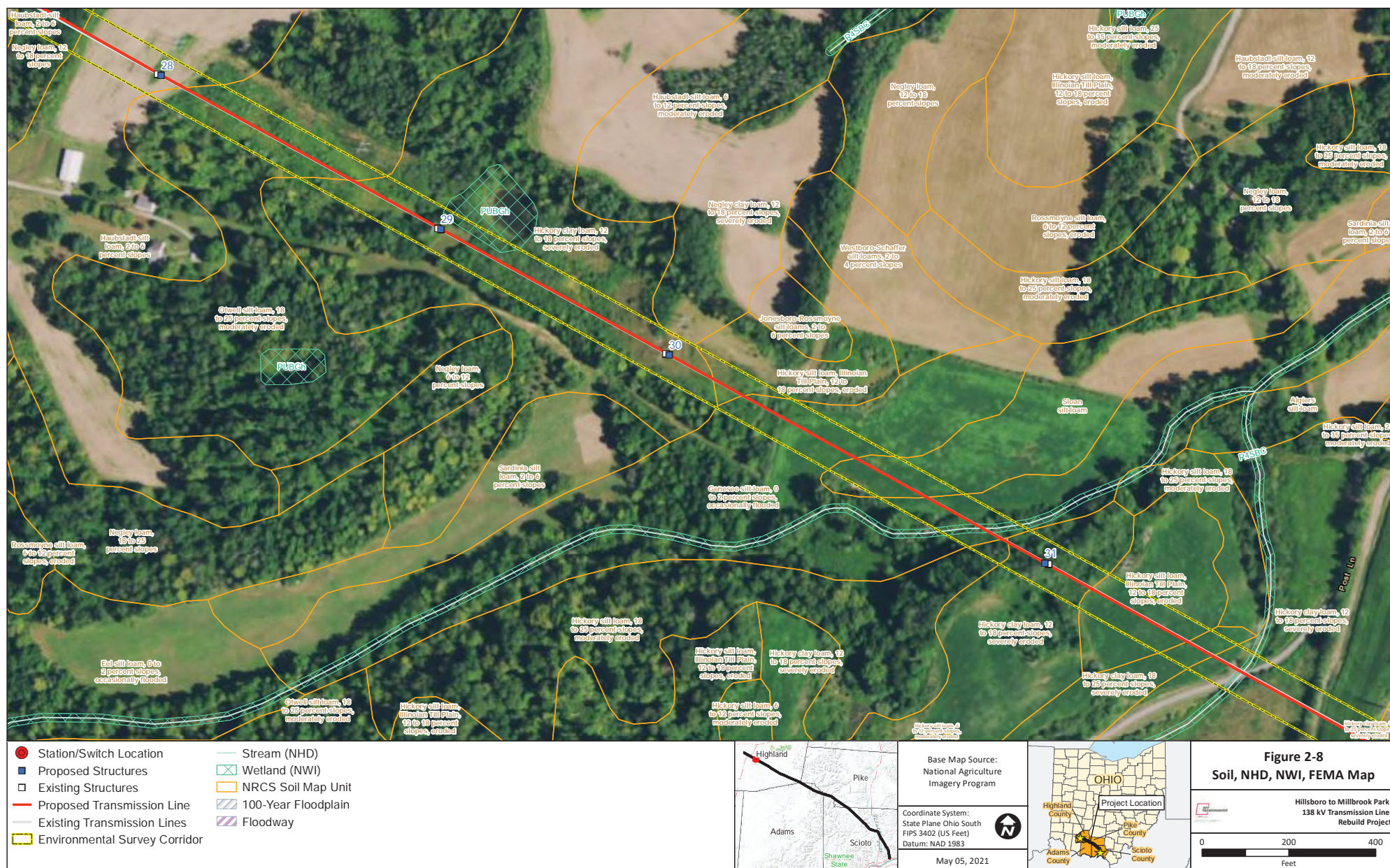


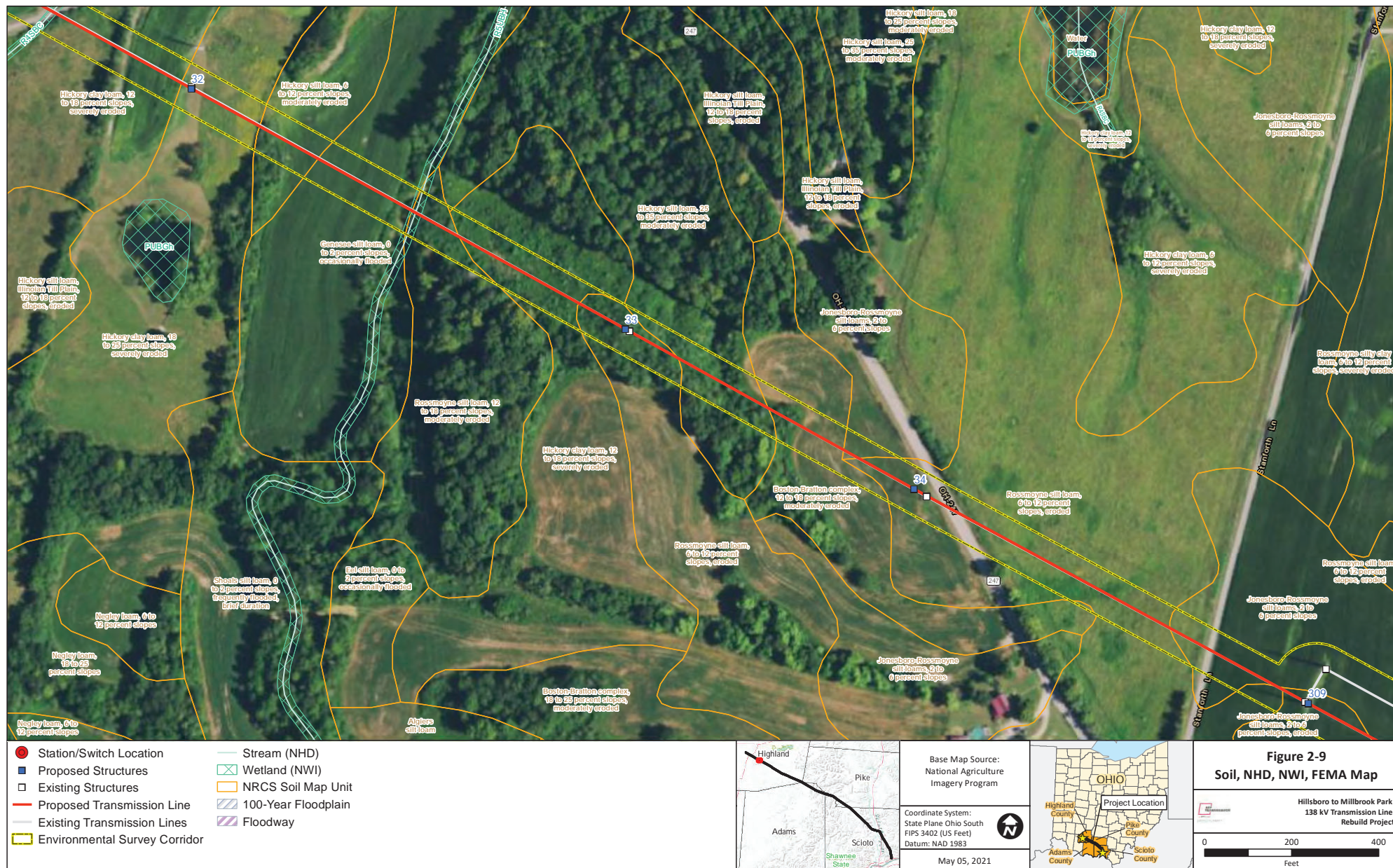


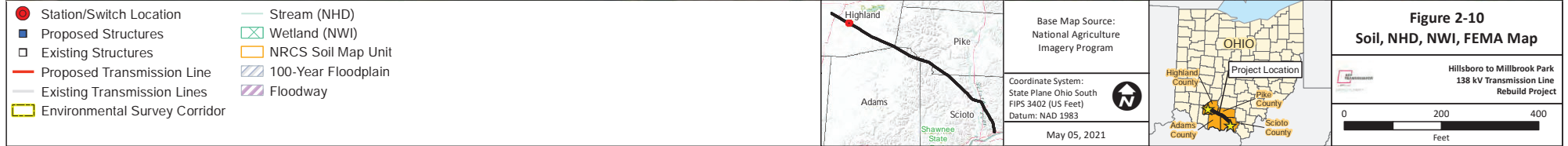


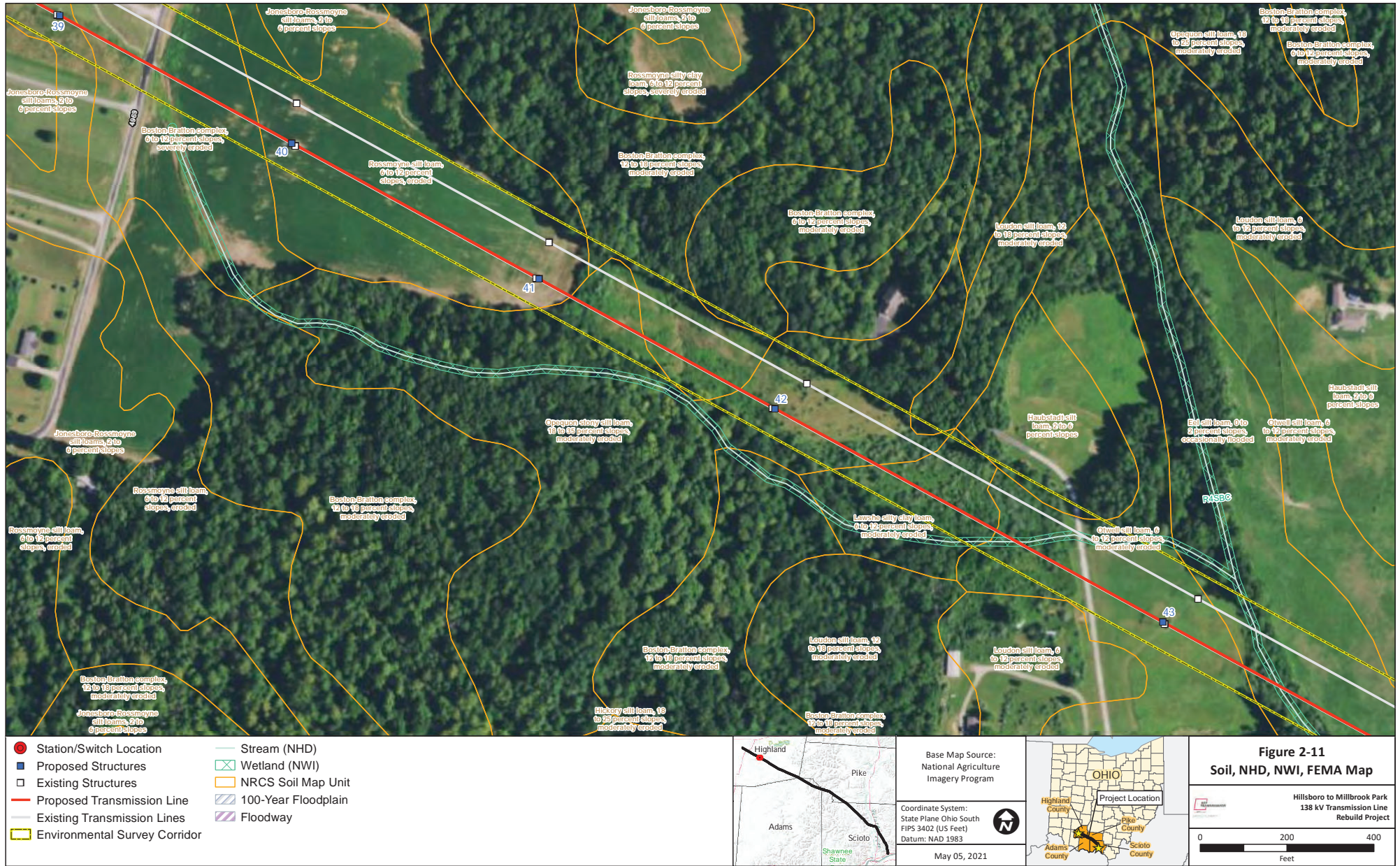


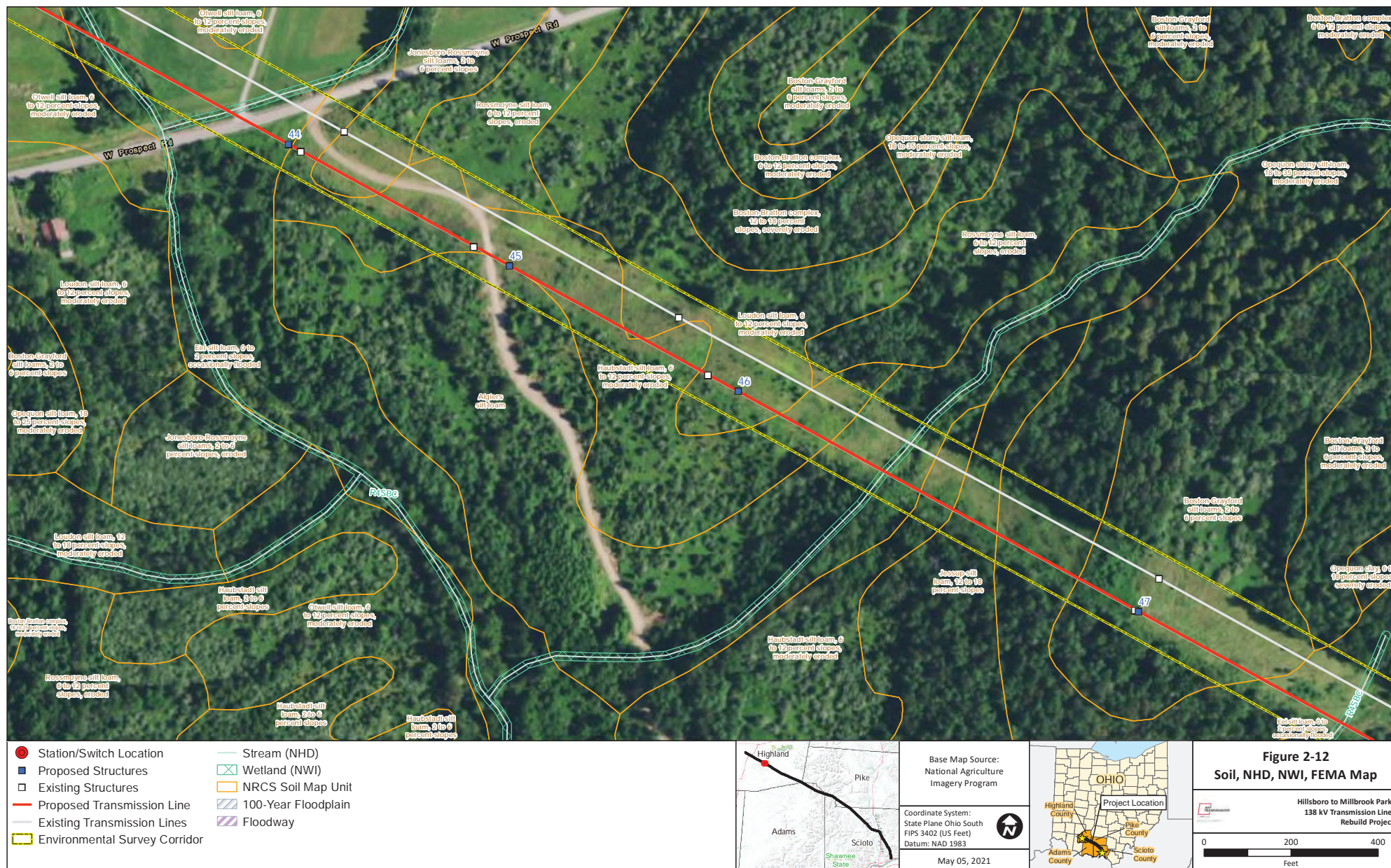


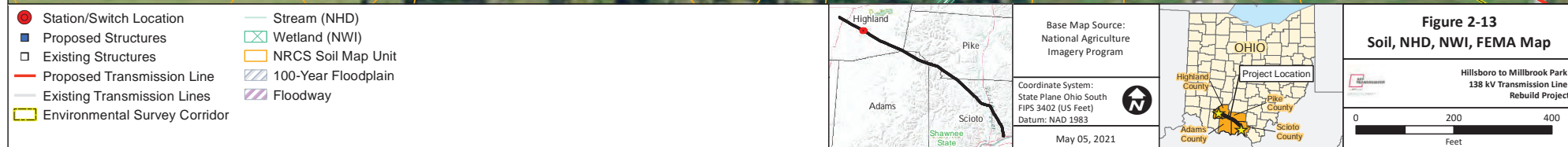














Base Map Source:
National Agriculture
Imagery Program

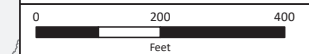
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State Plane Ohio South
FIPS 3402 (US Feet)
Datum: NAD 1983

May 05, 2021



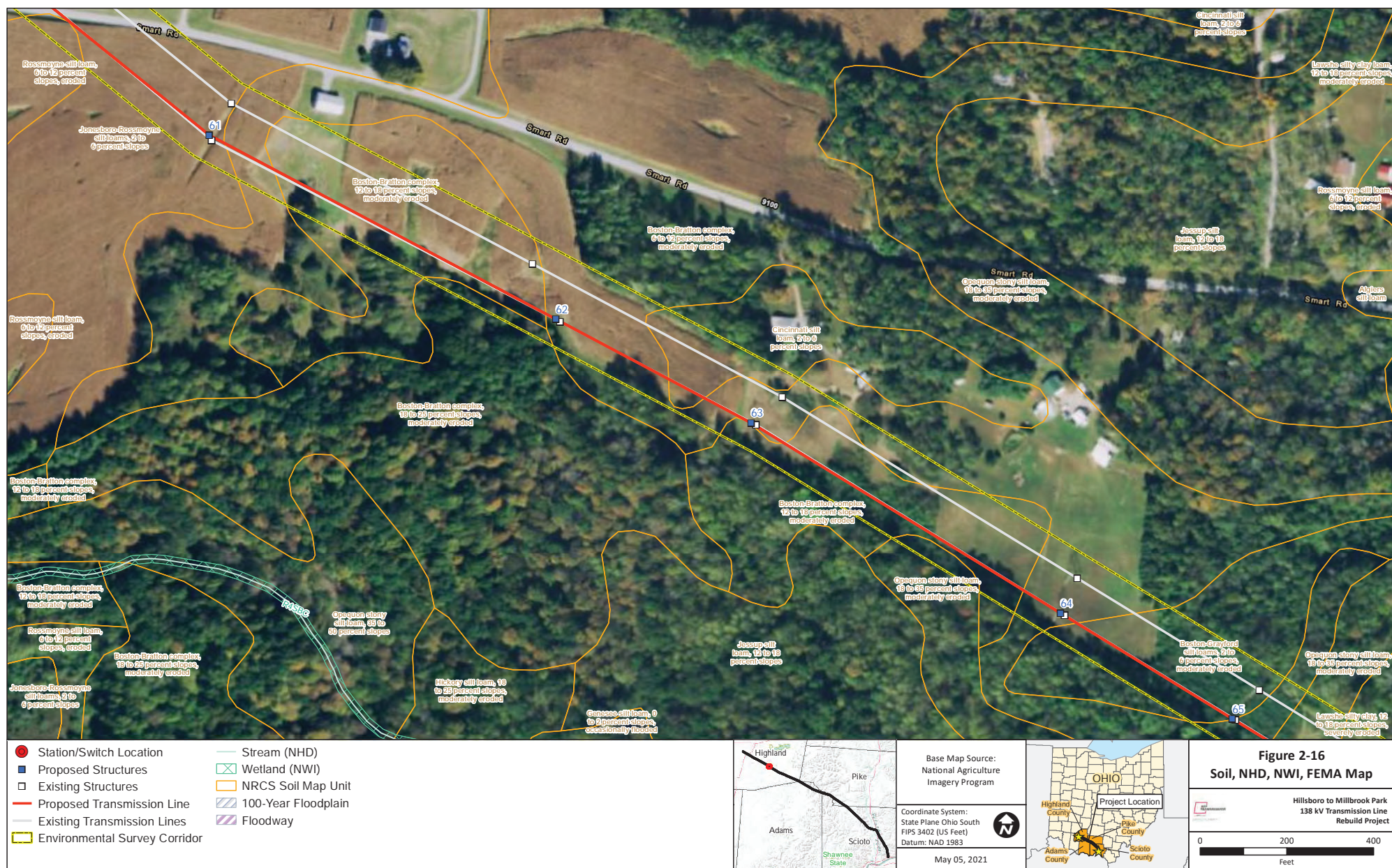
Figure 2-14
Soil, NHD, NWI, FEMA Map

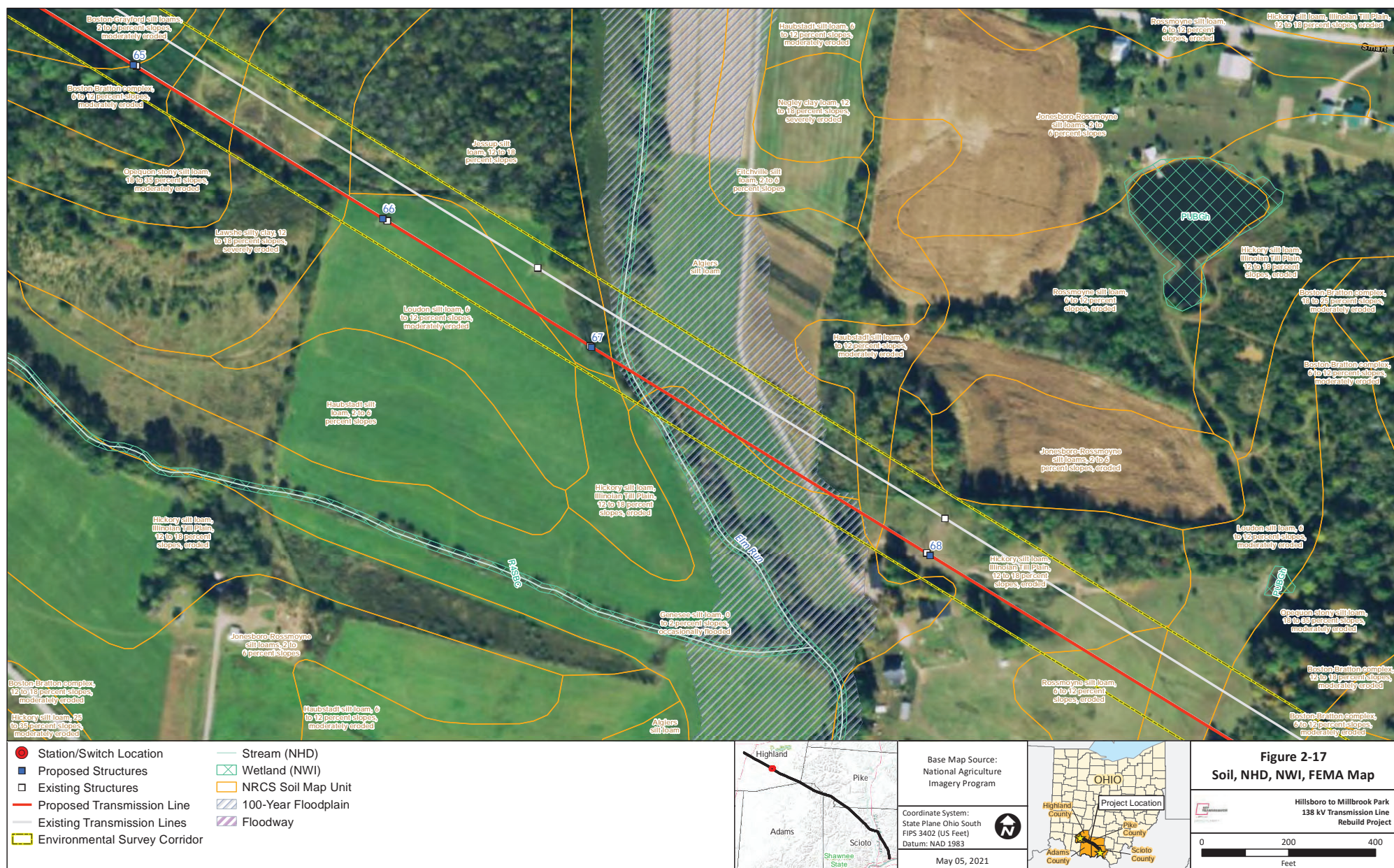
Hillsboro to Millbrook Park
138 kV Transmission Line
Rebuild Project

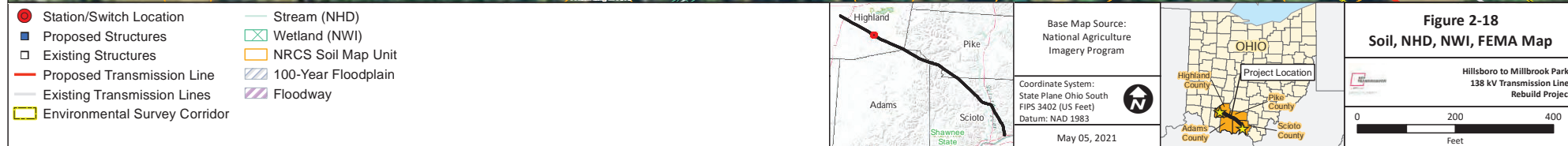


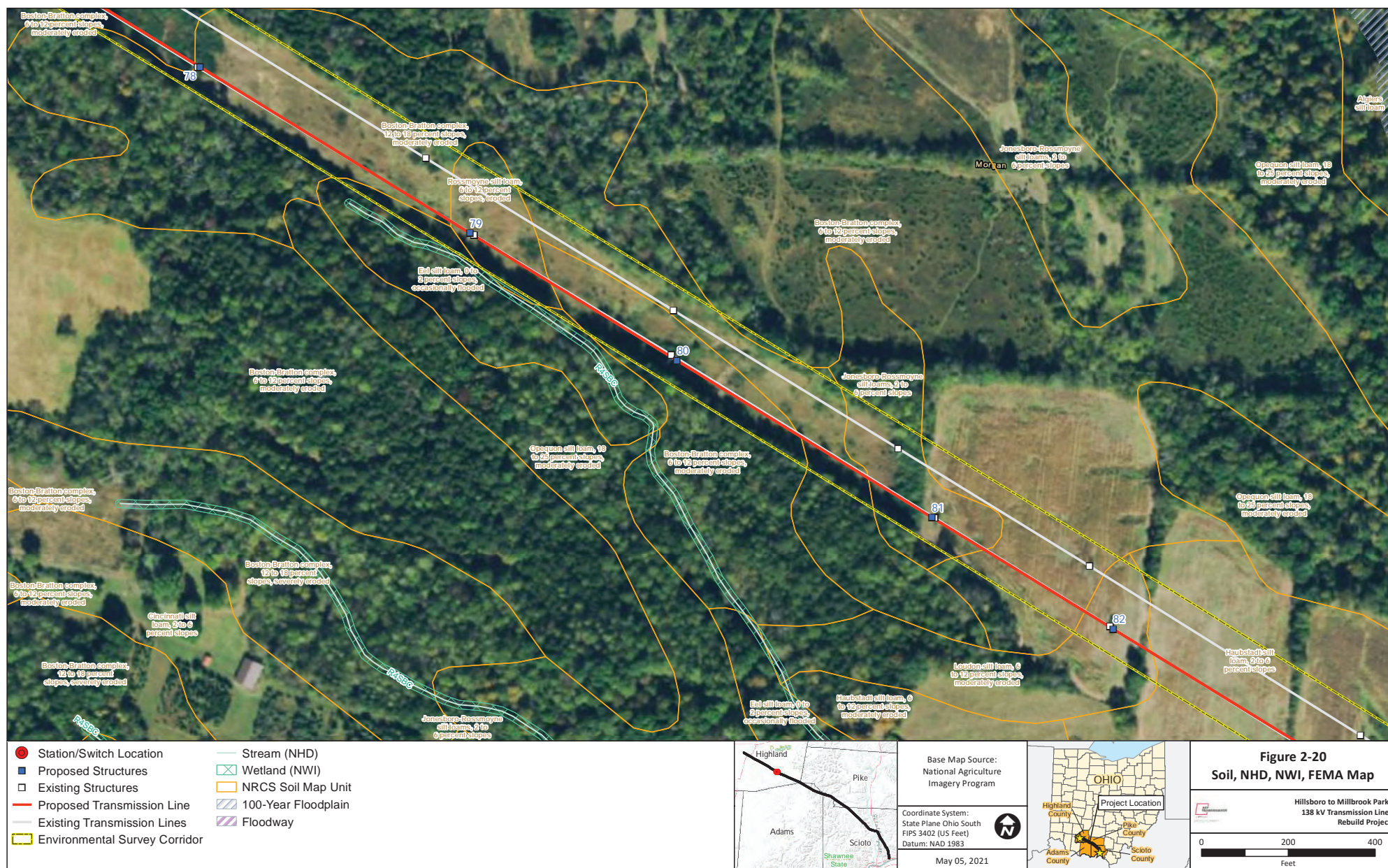


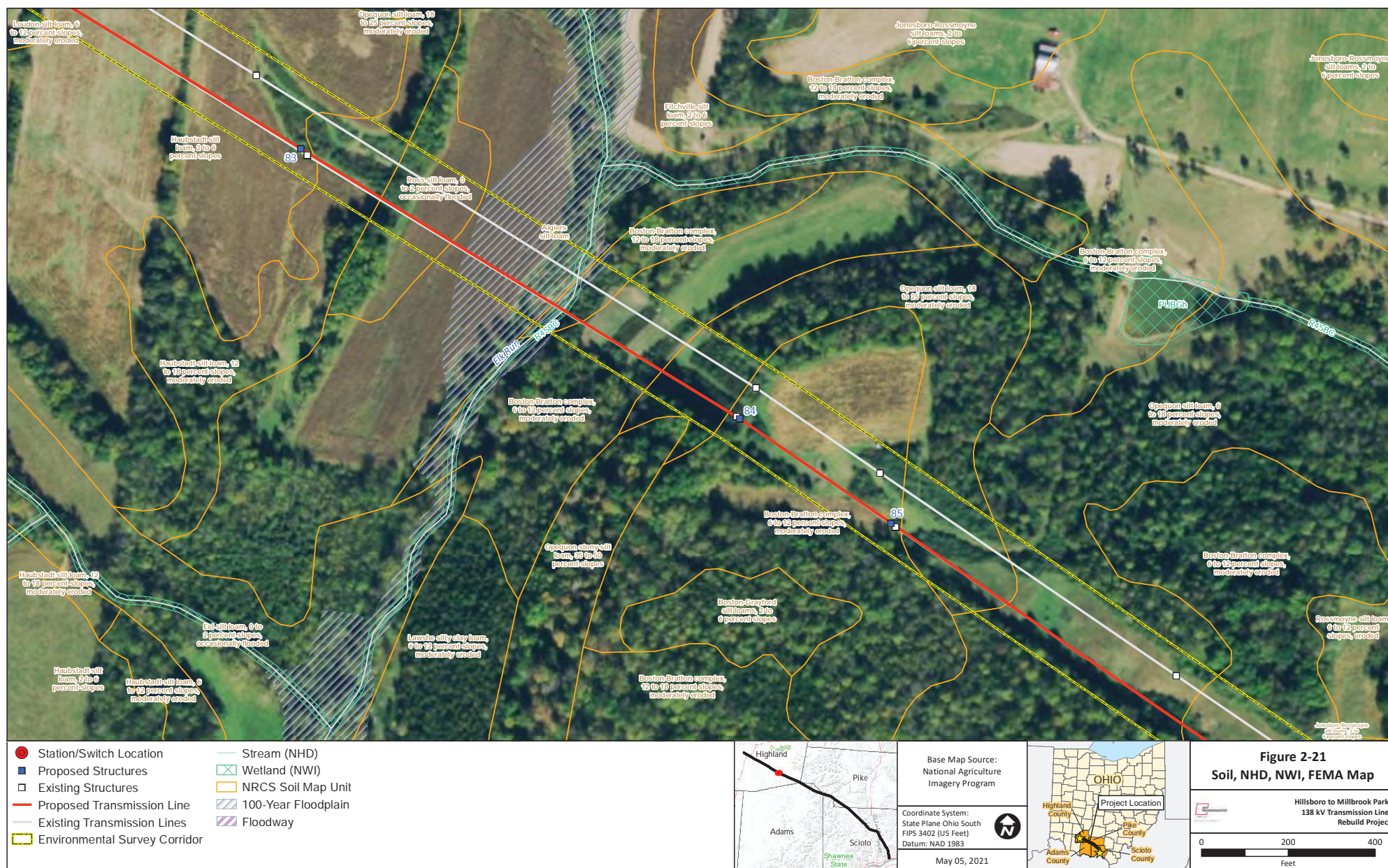
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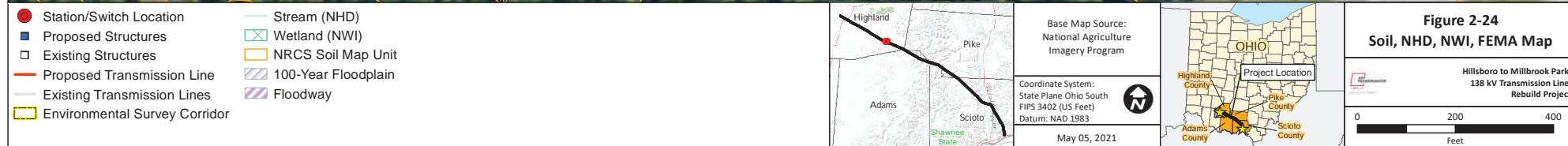


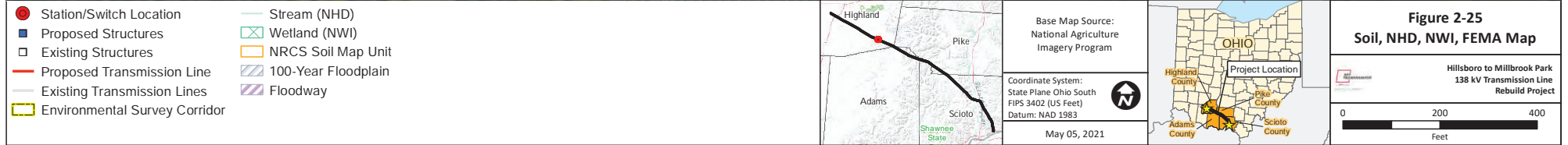
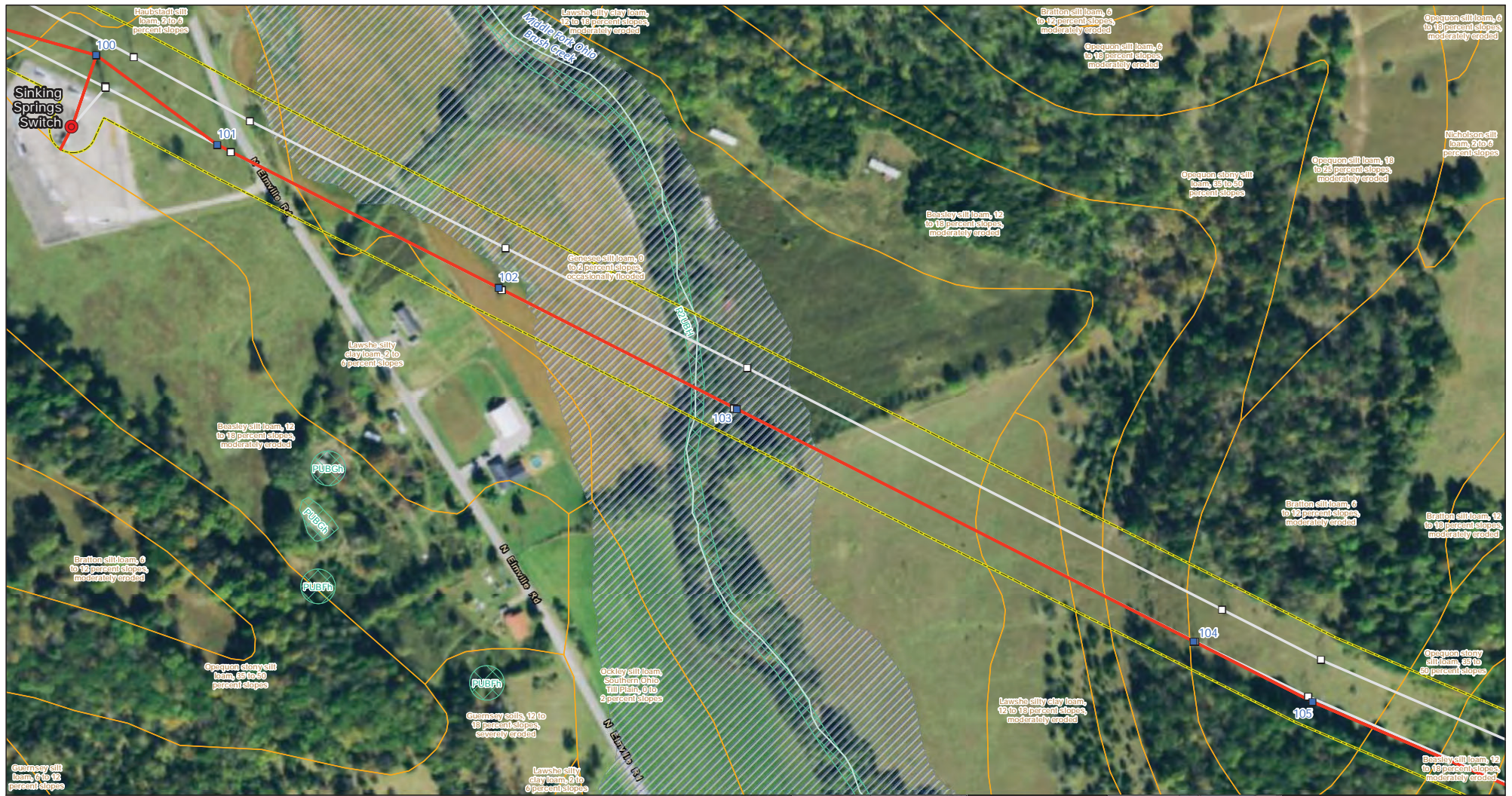


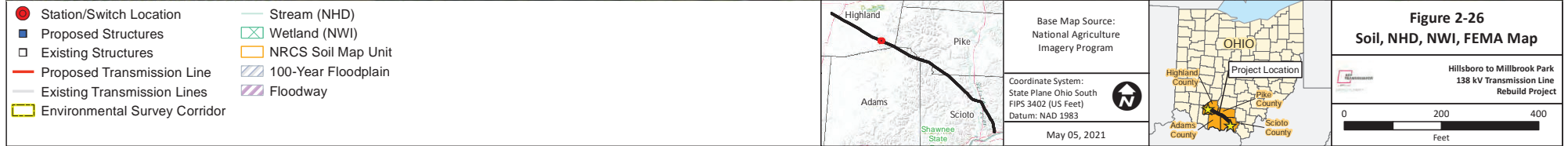


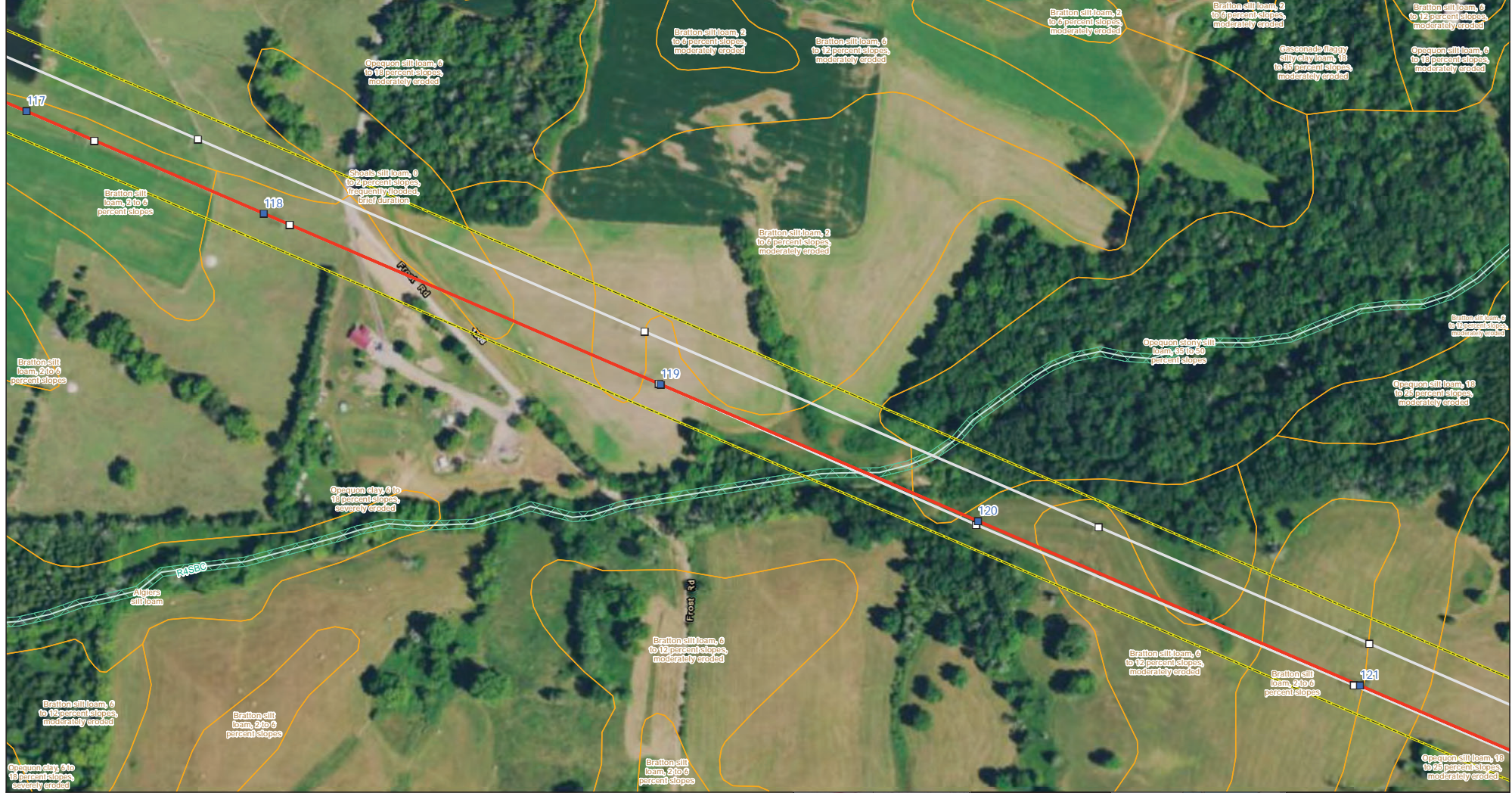


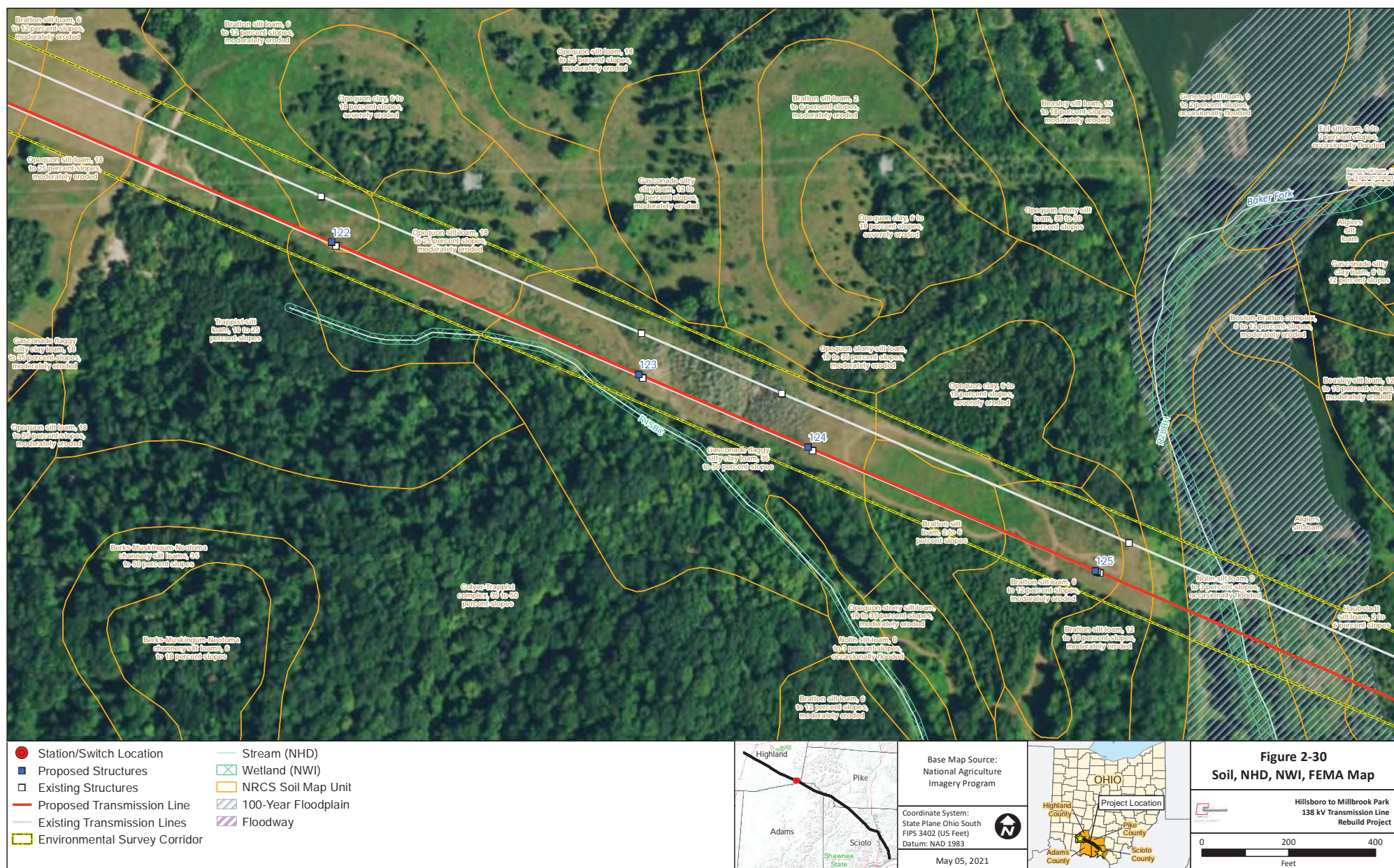


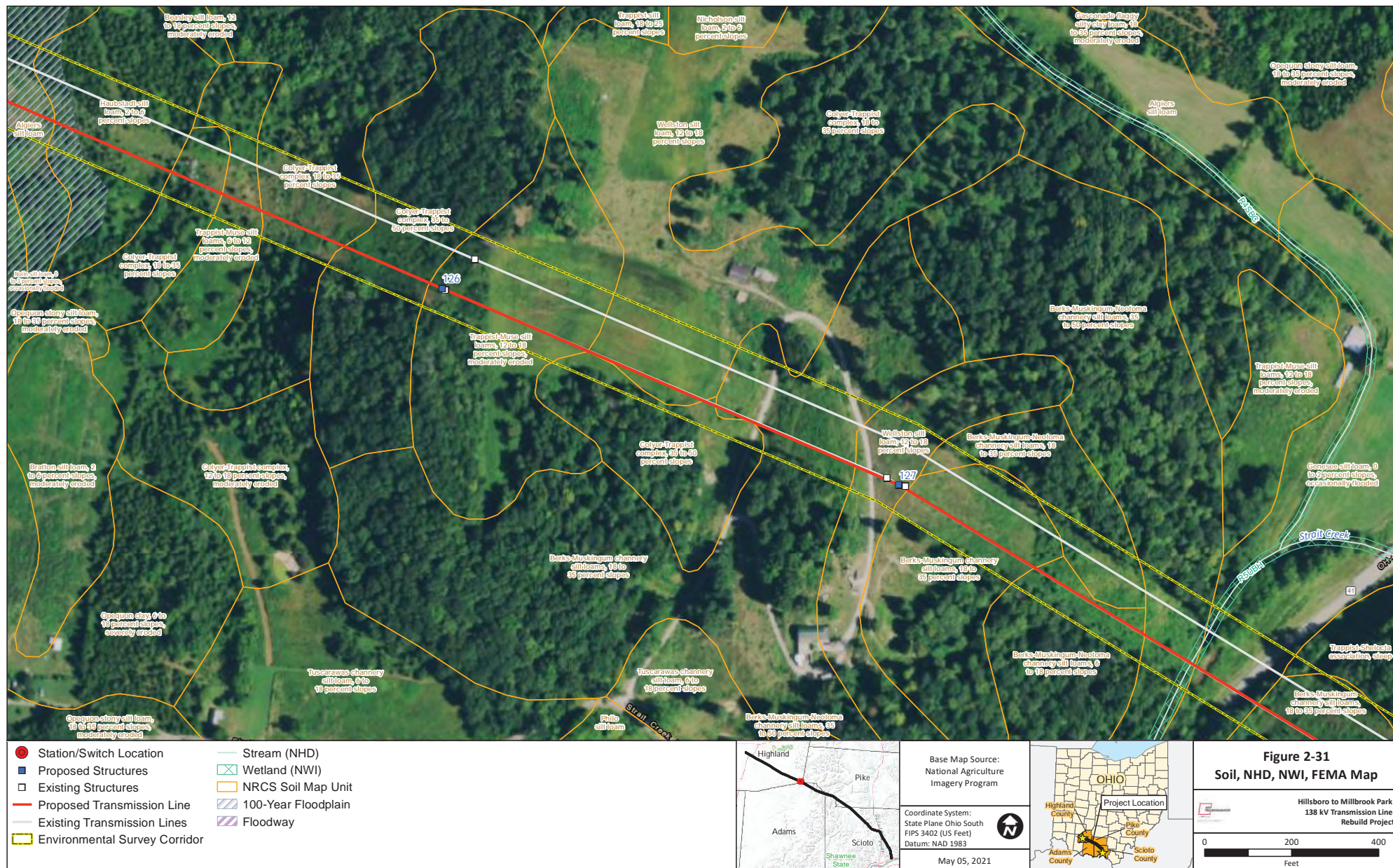


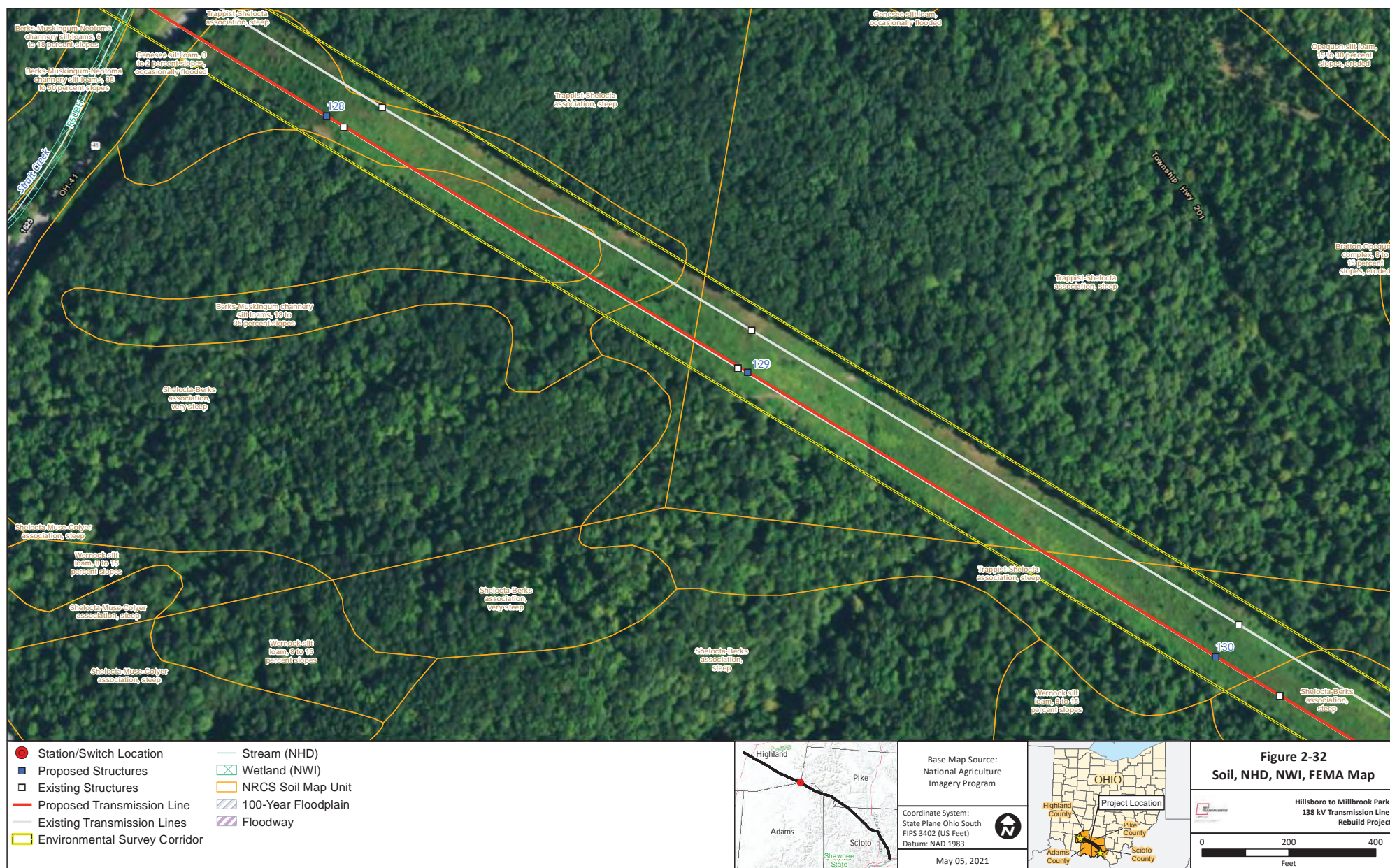


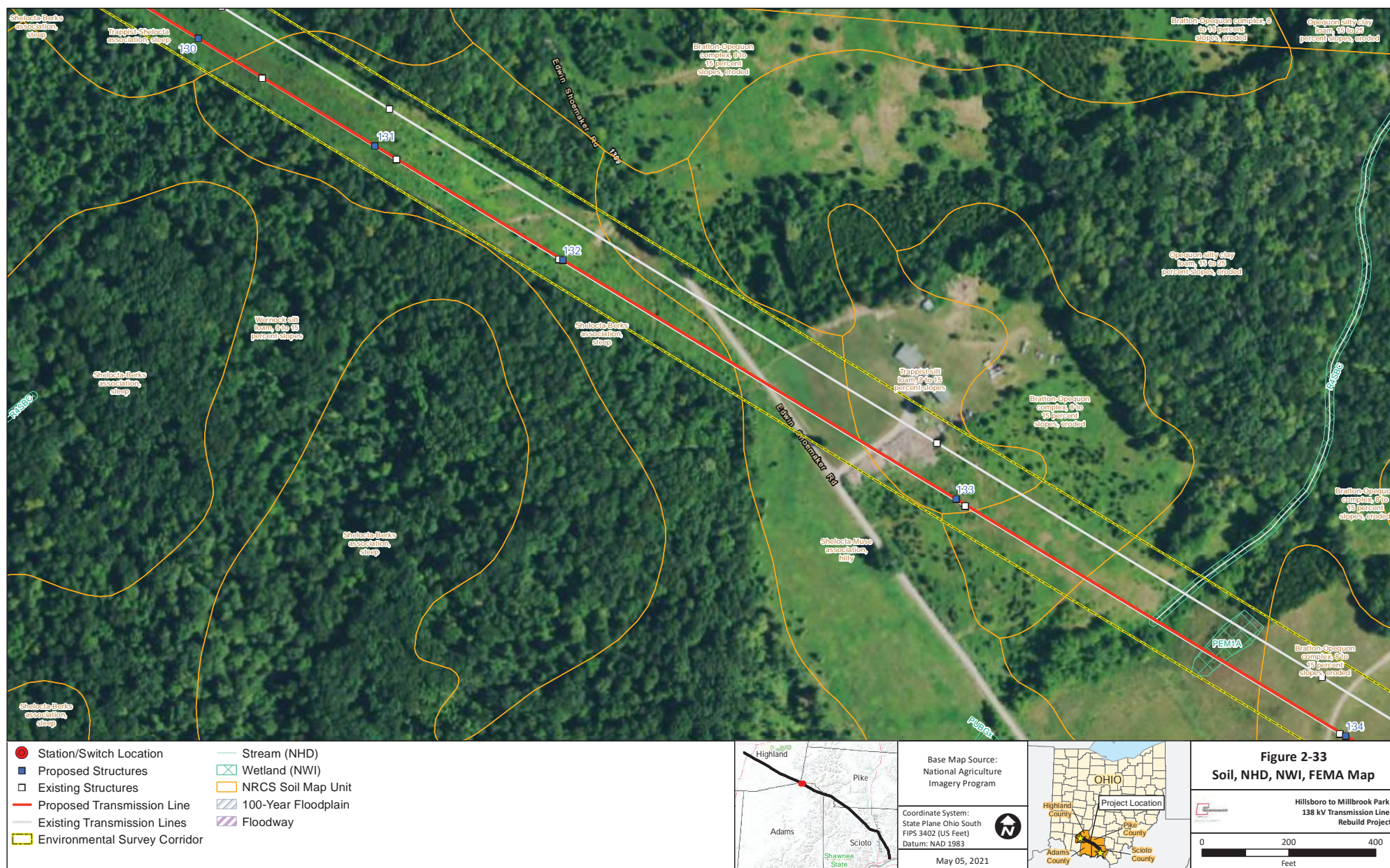




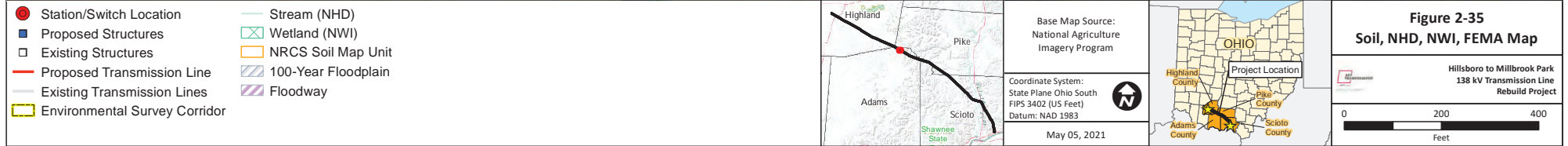
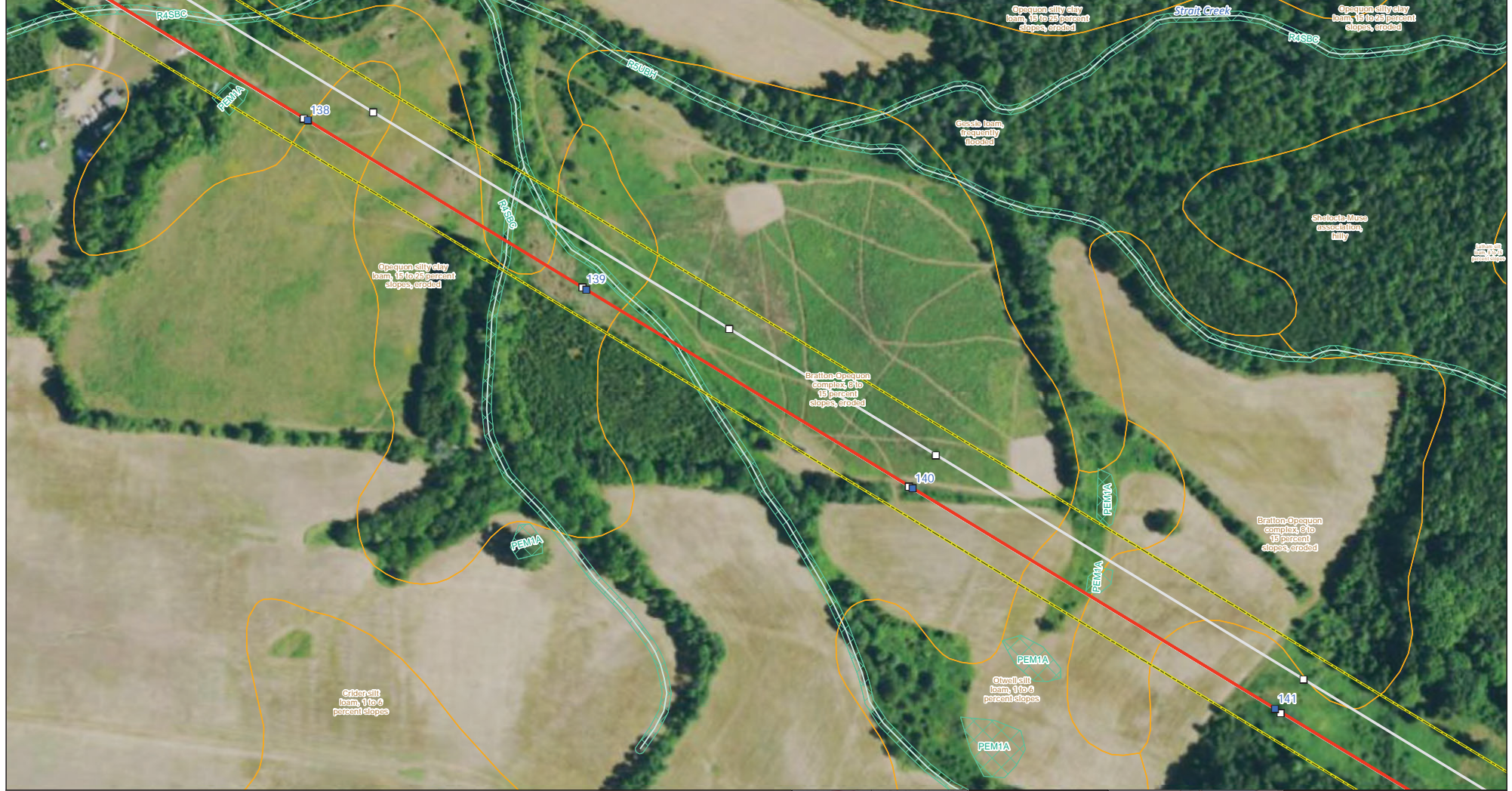


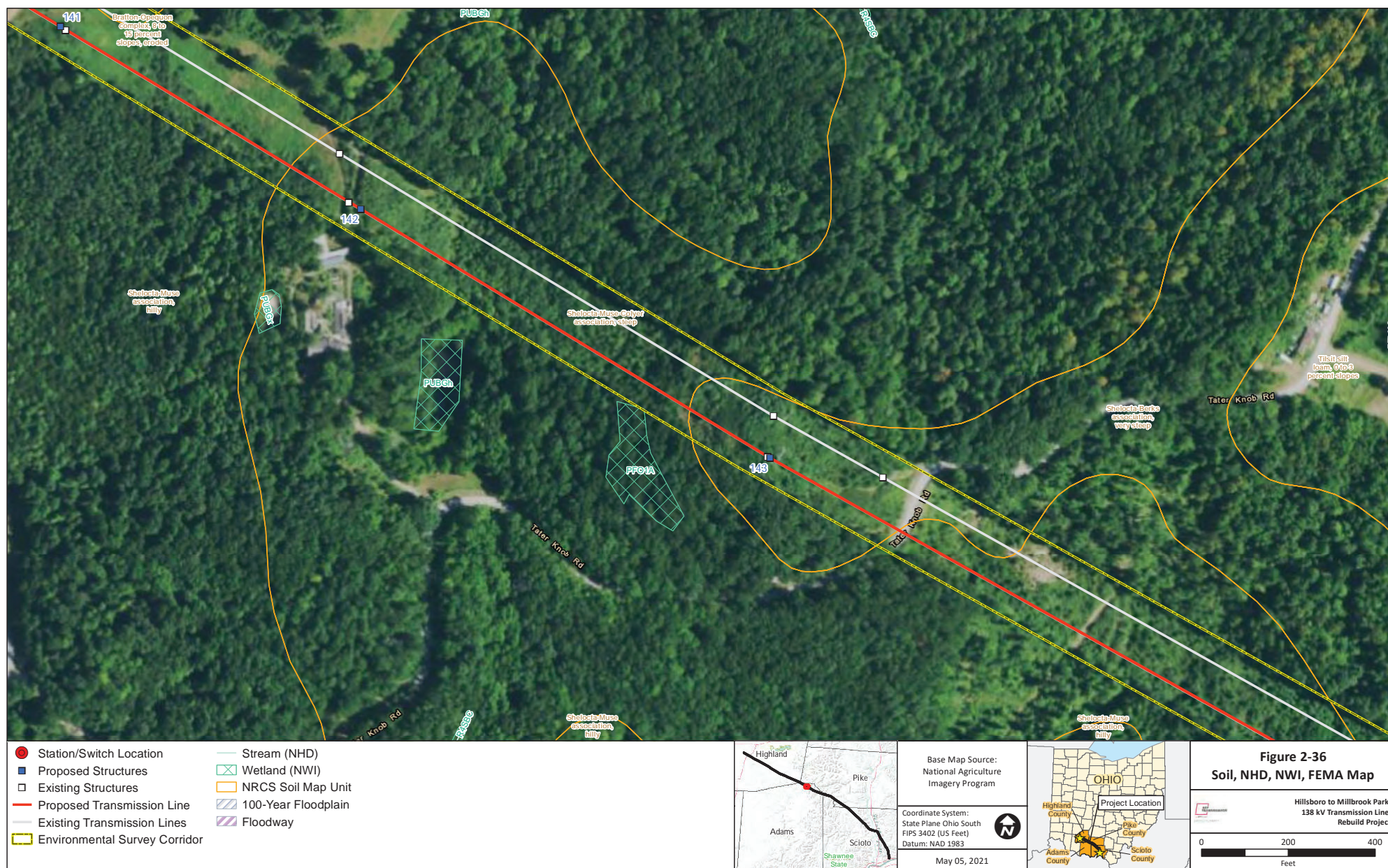


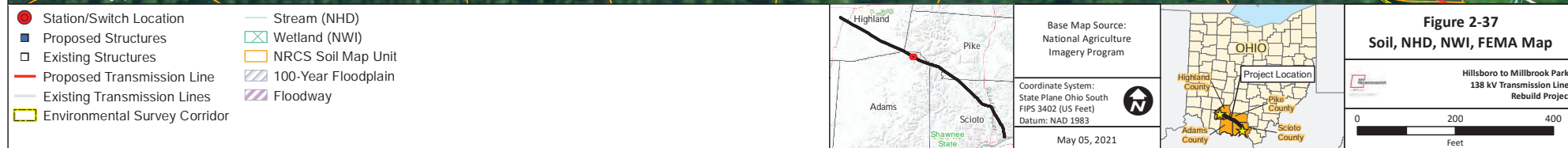


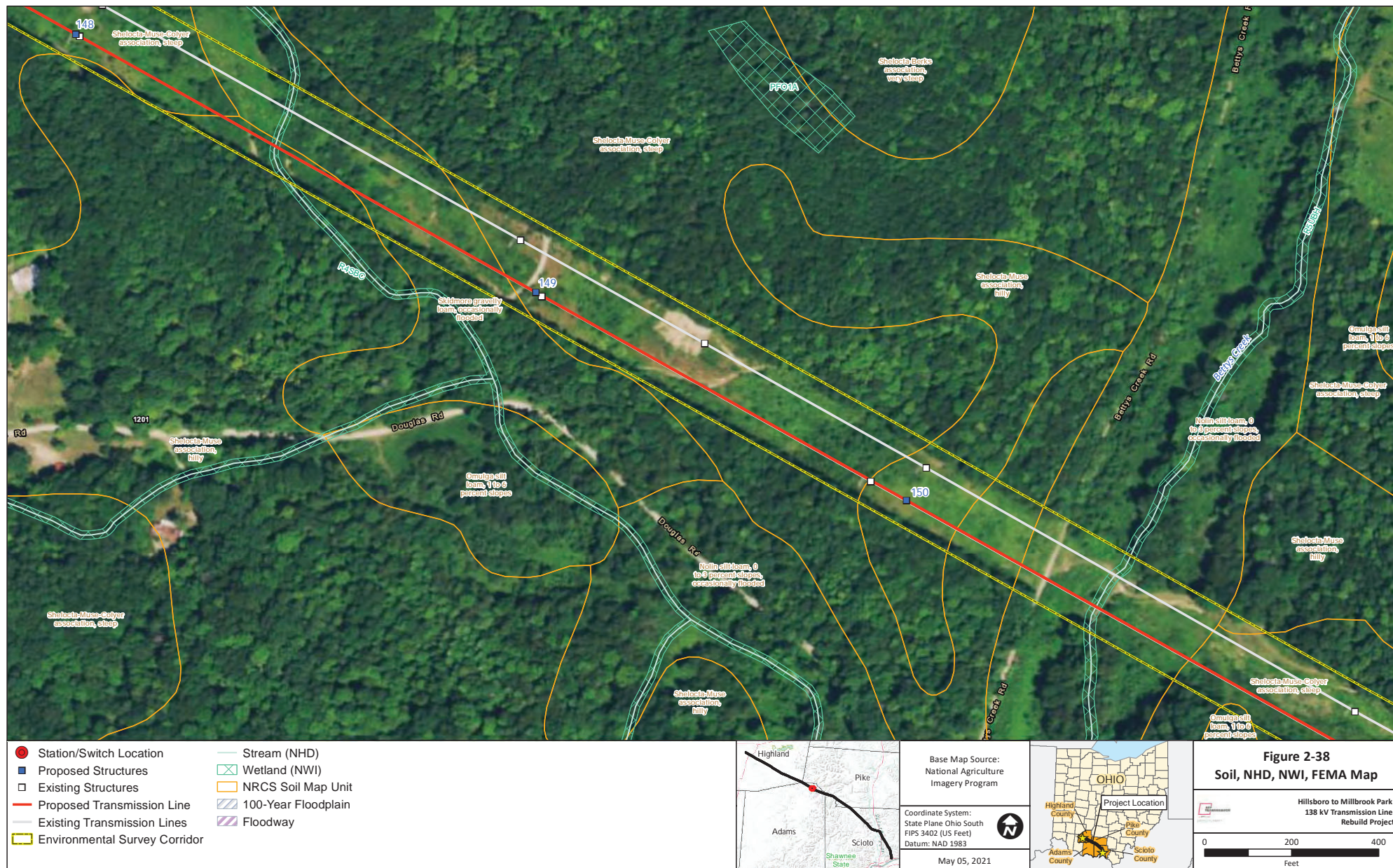


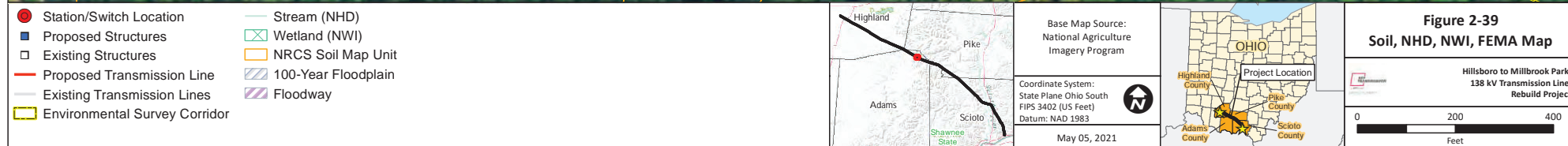


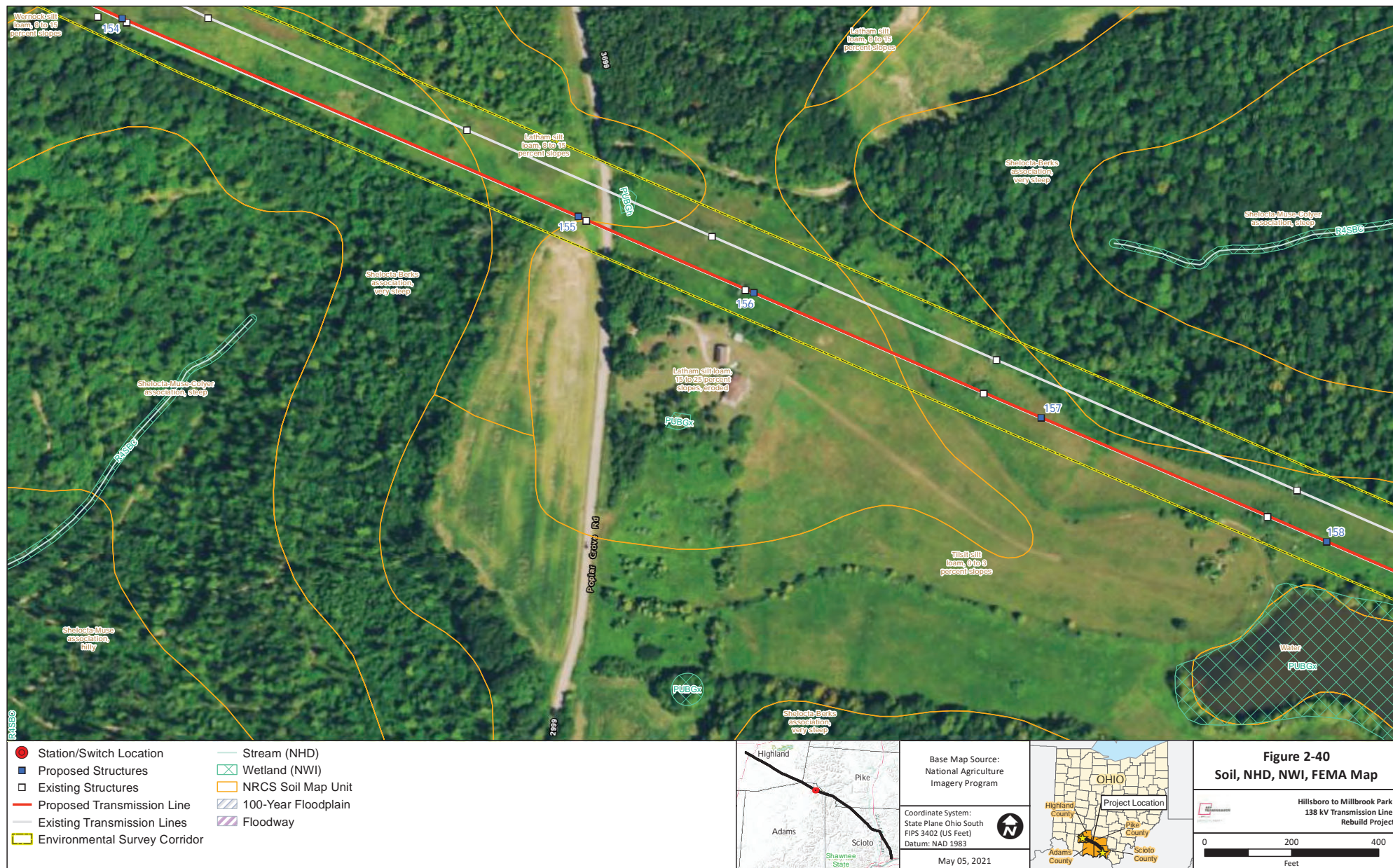


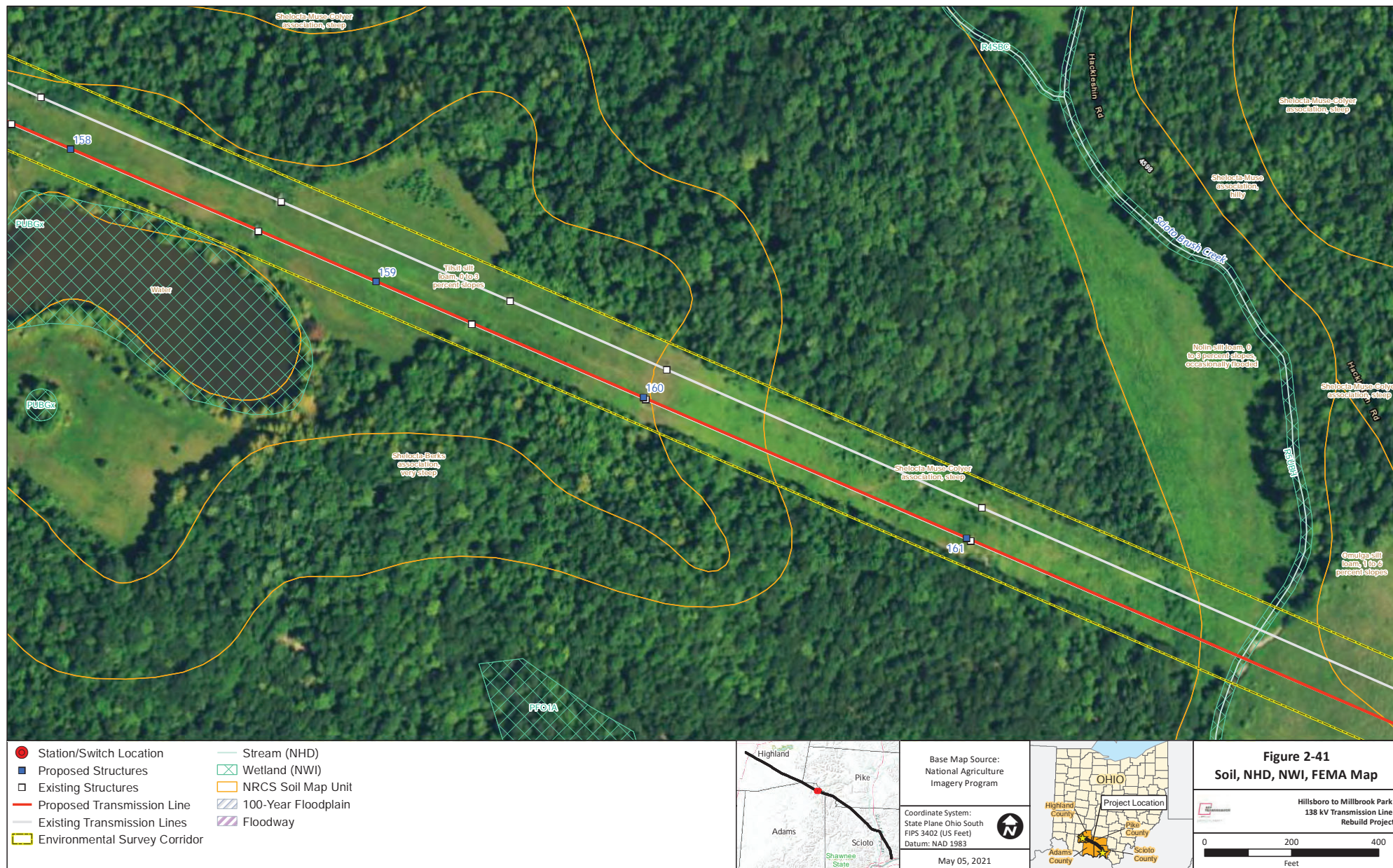


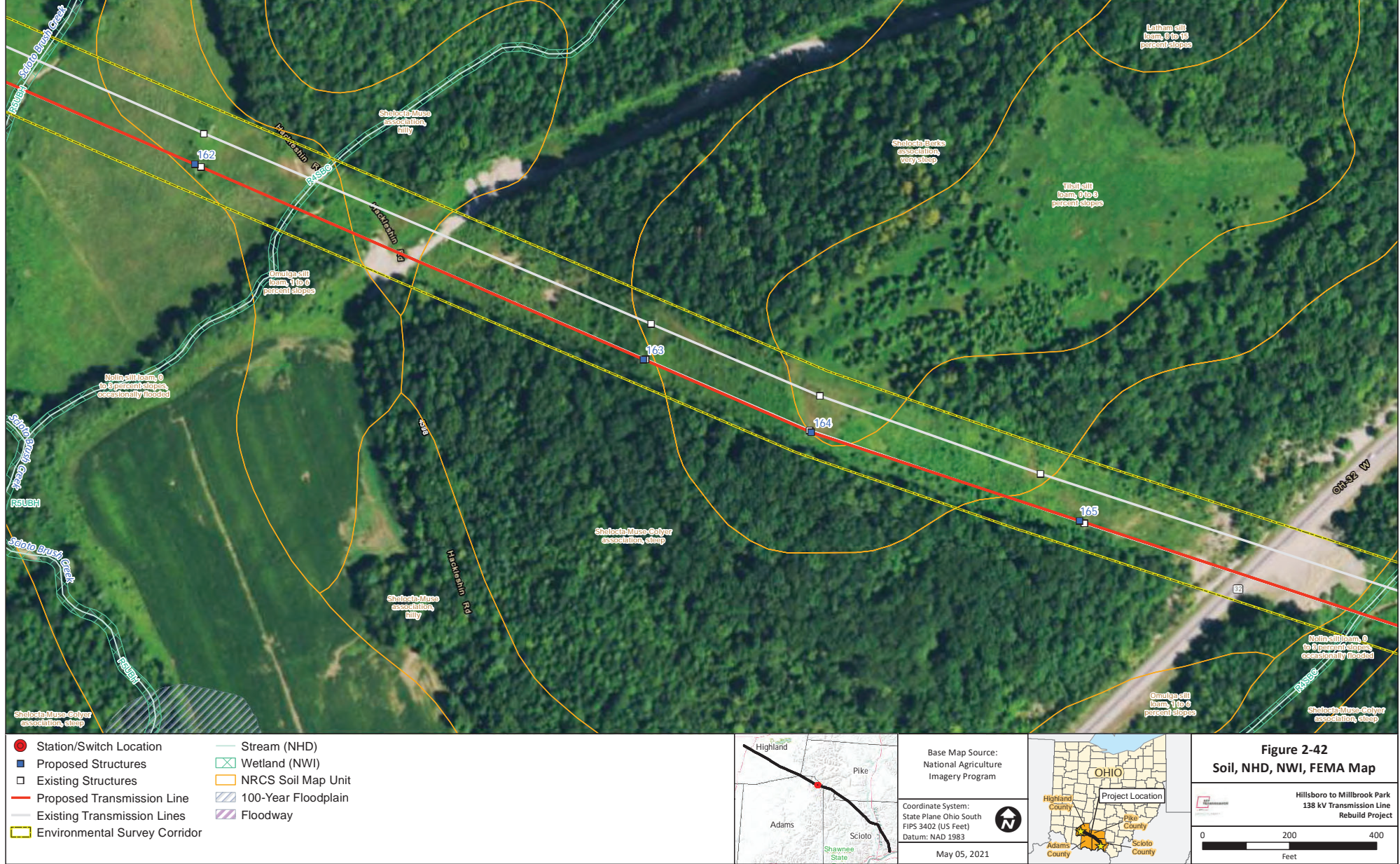


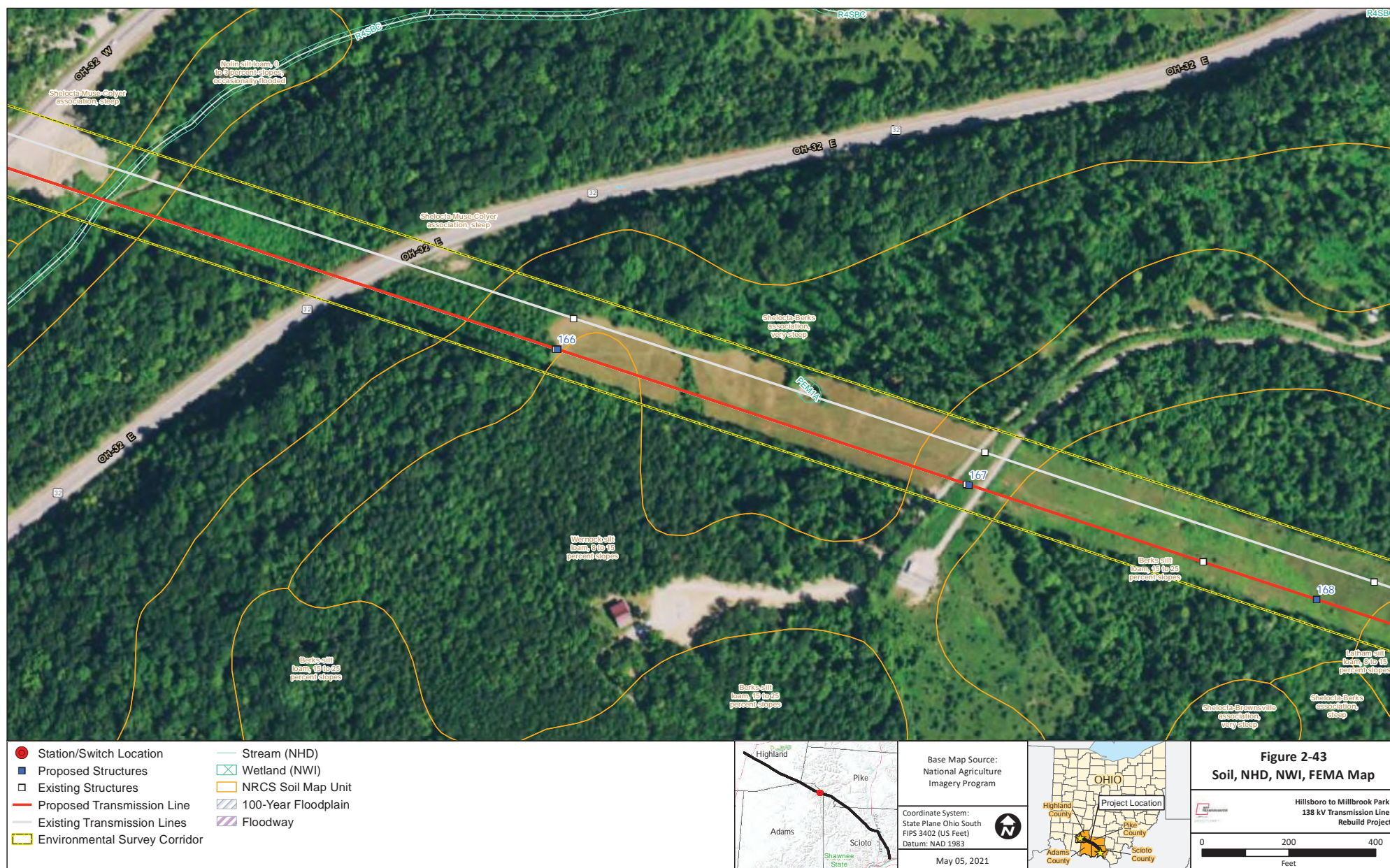


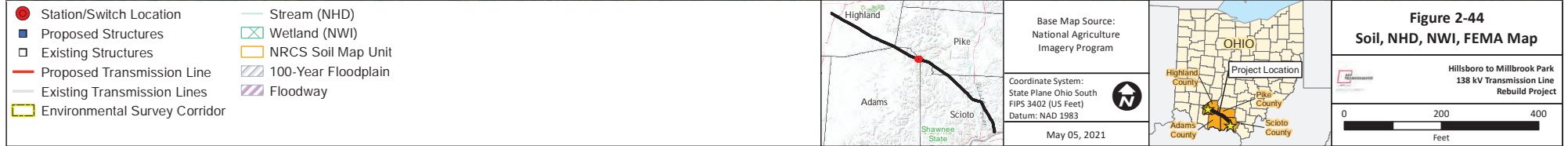
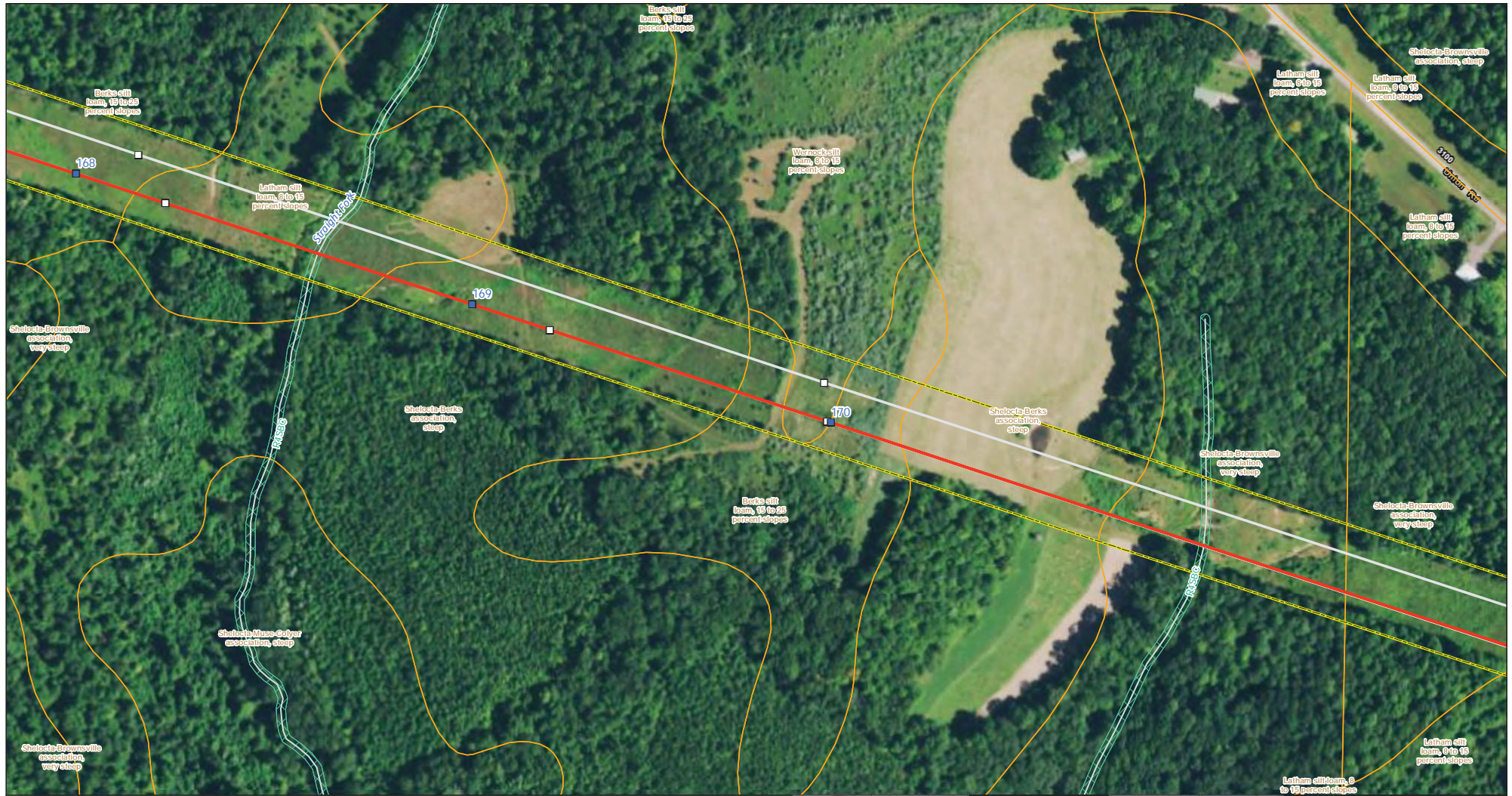


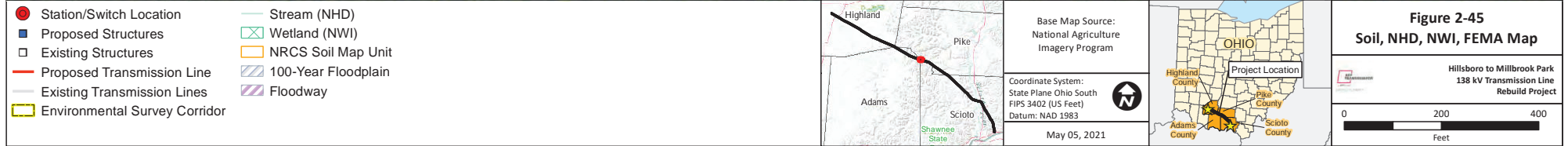


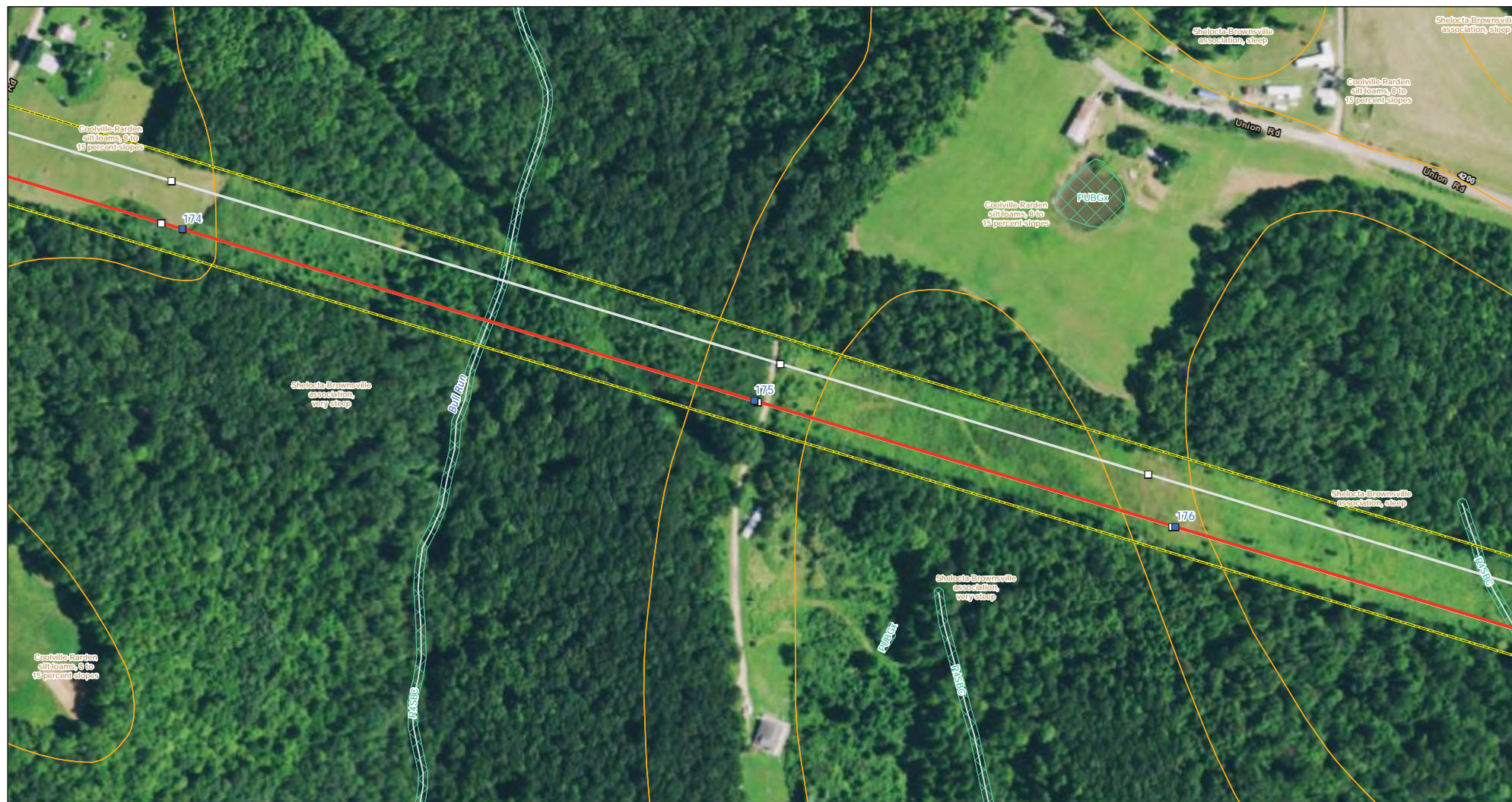




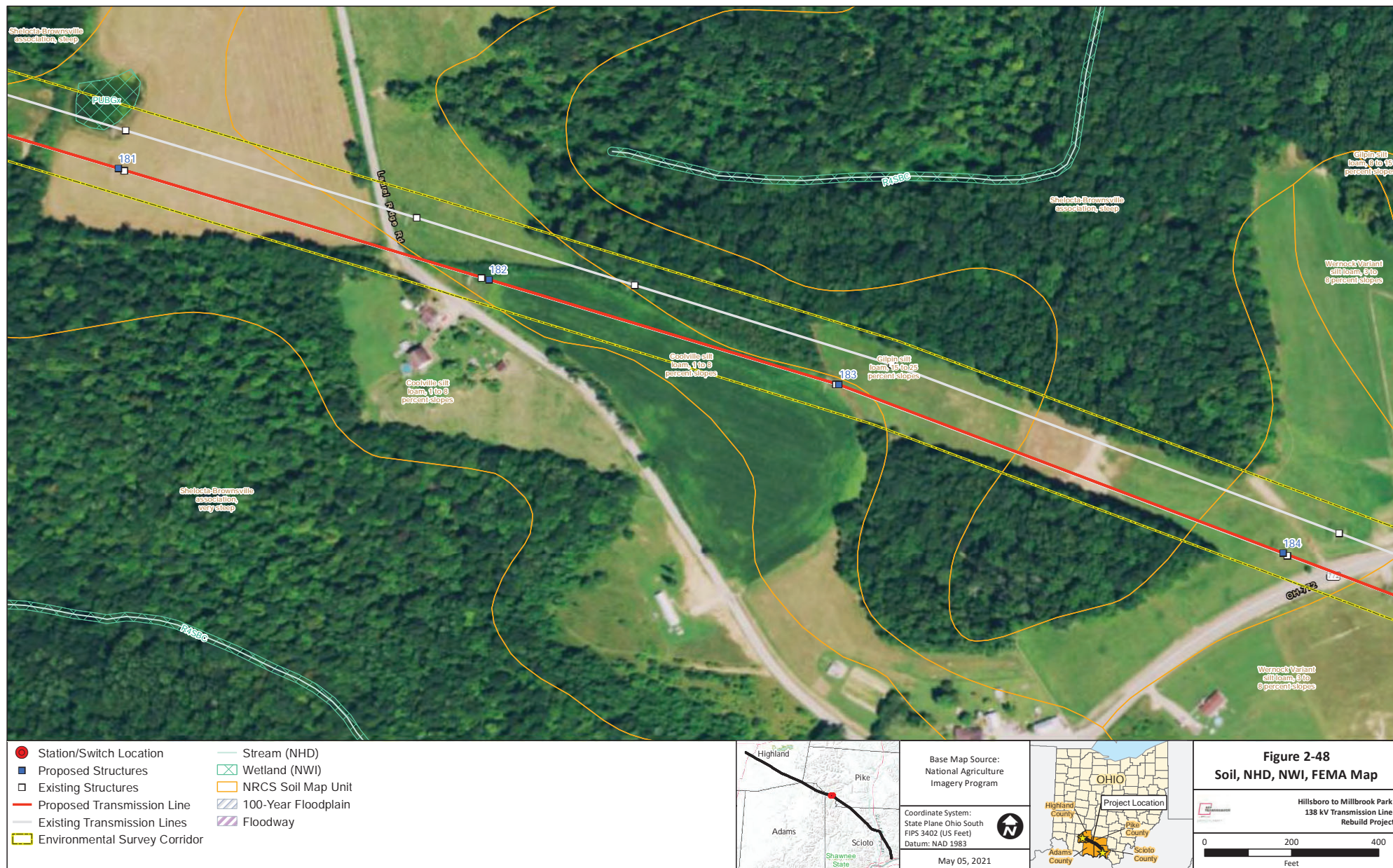


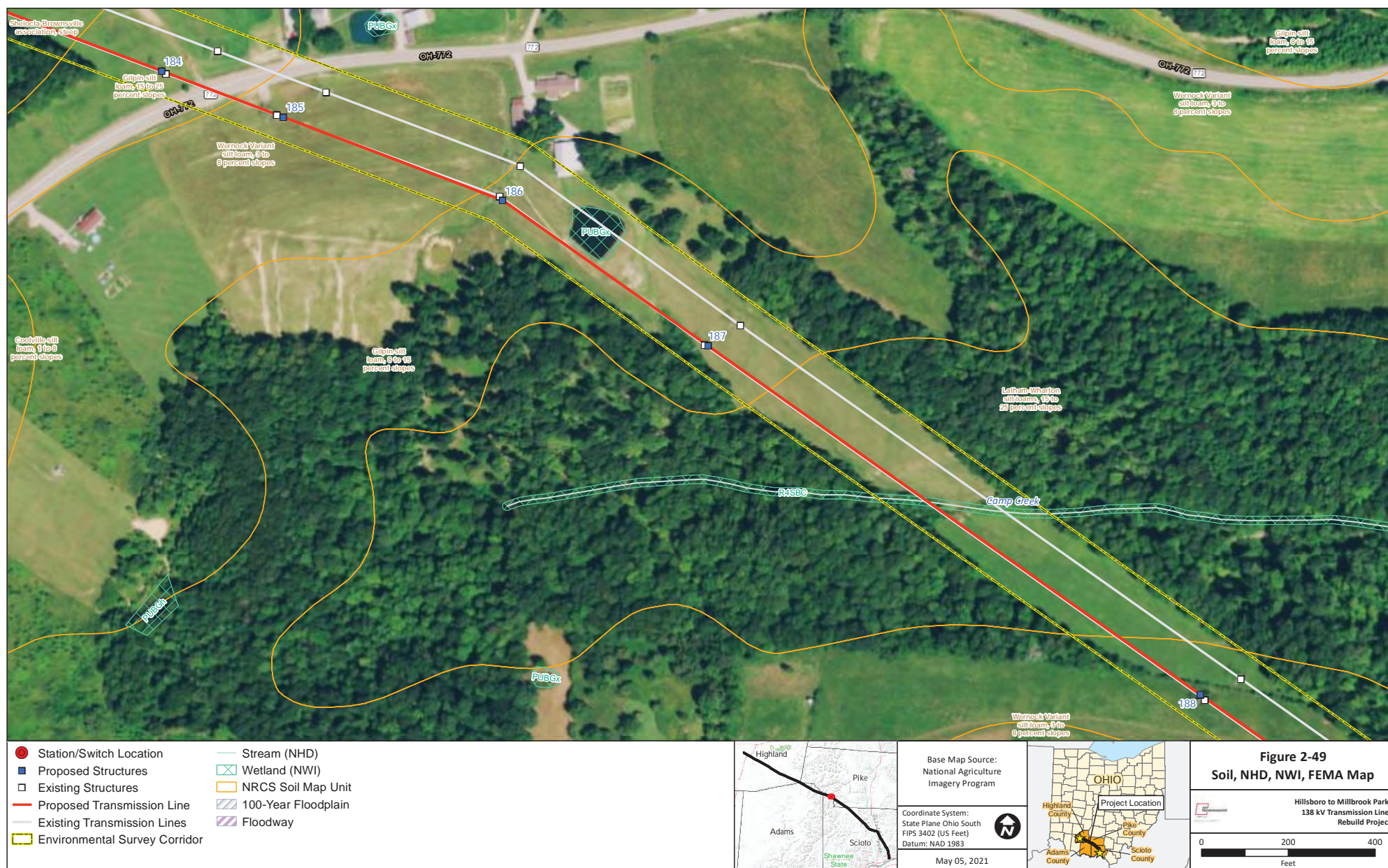




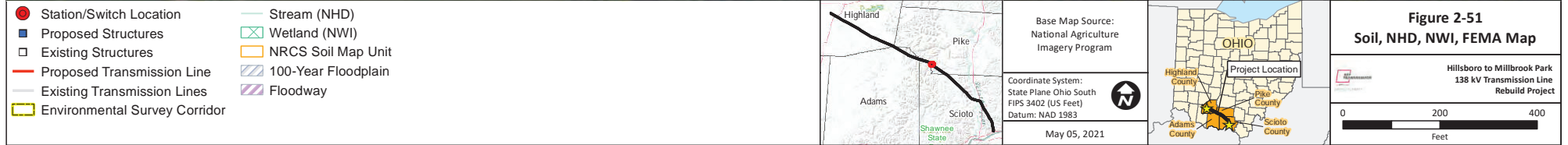




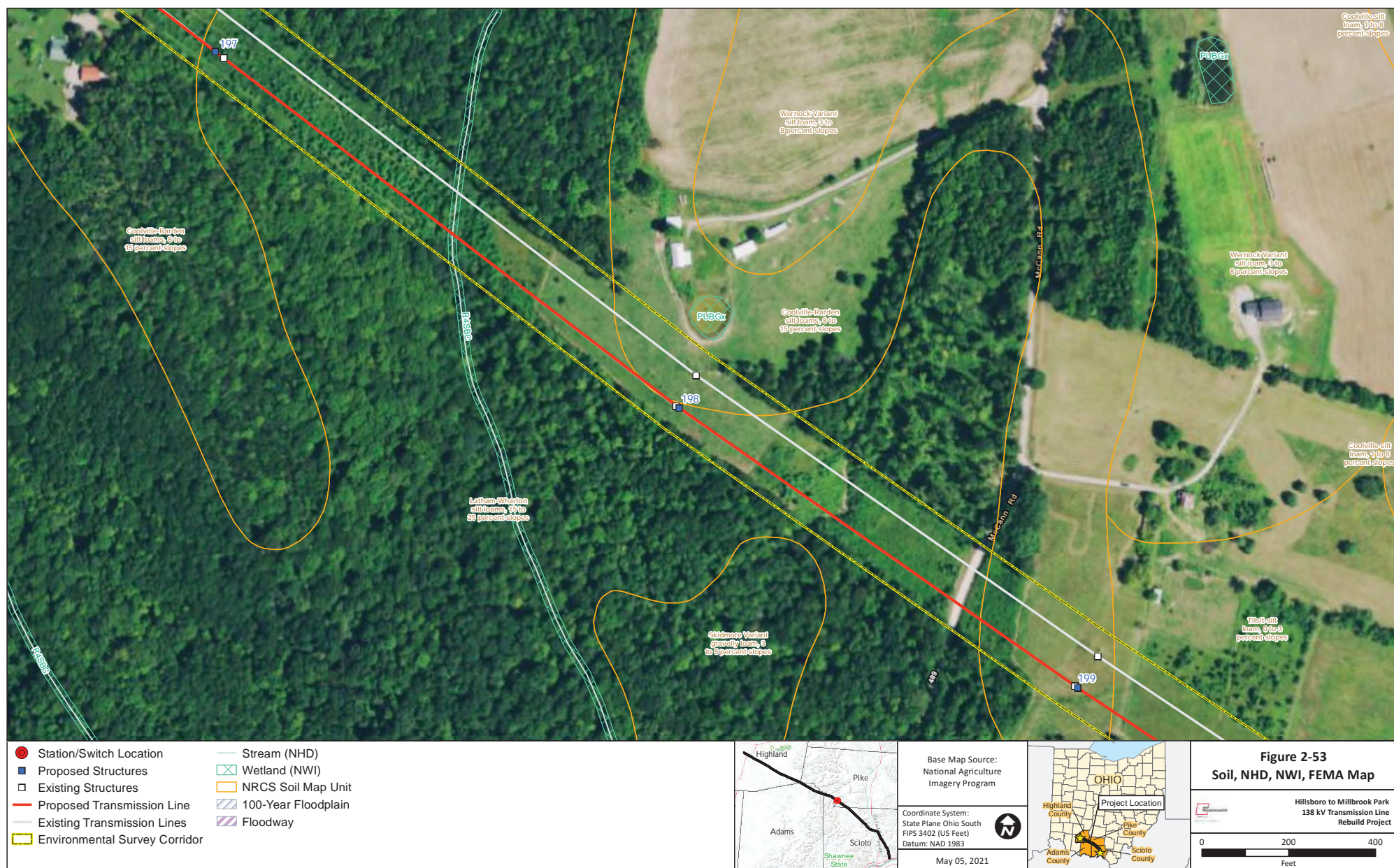


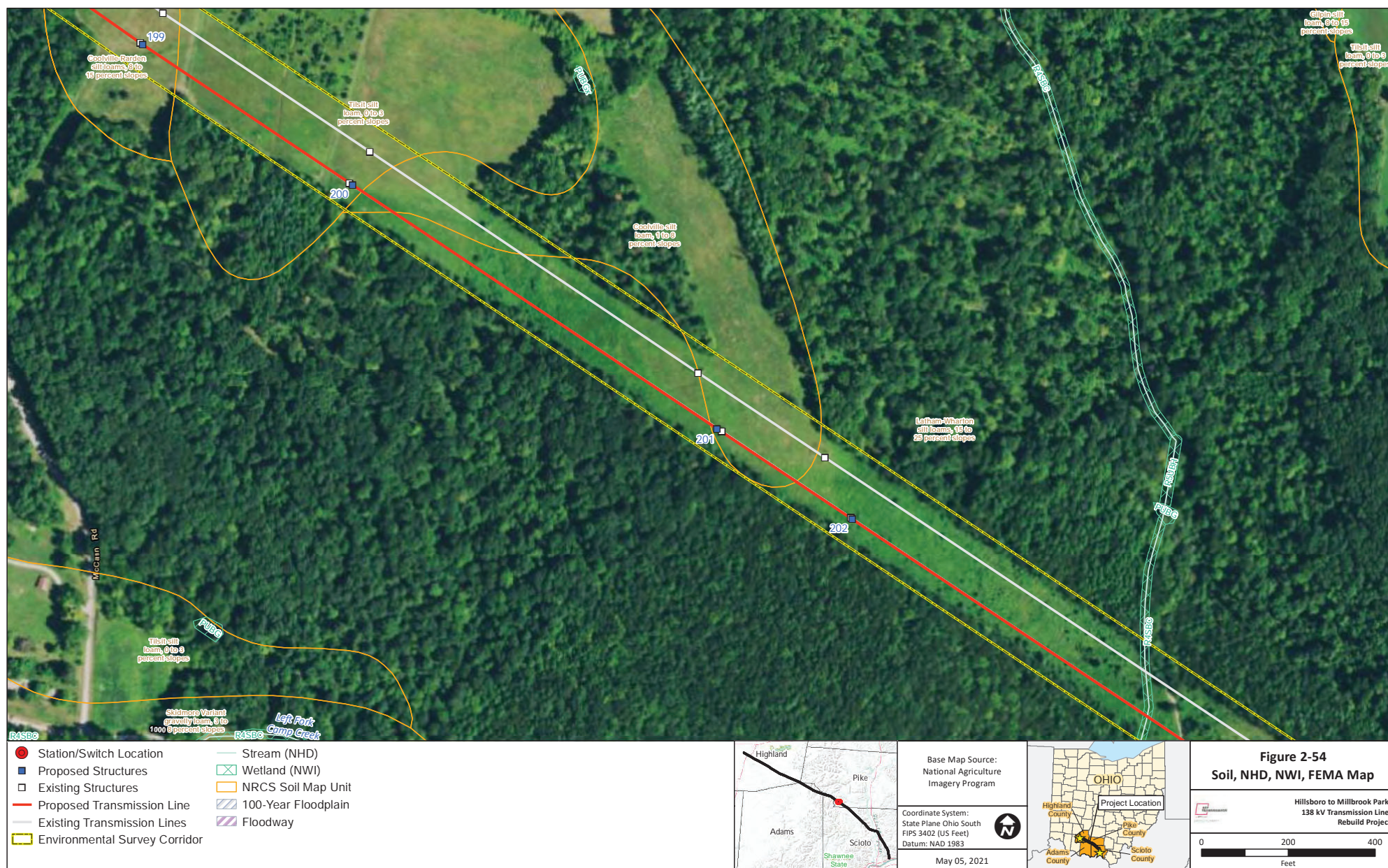


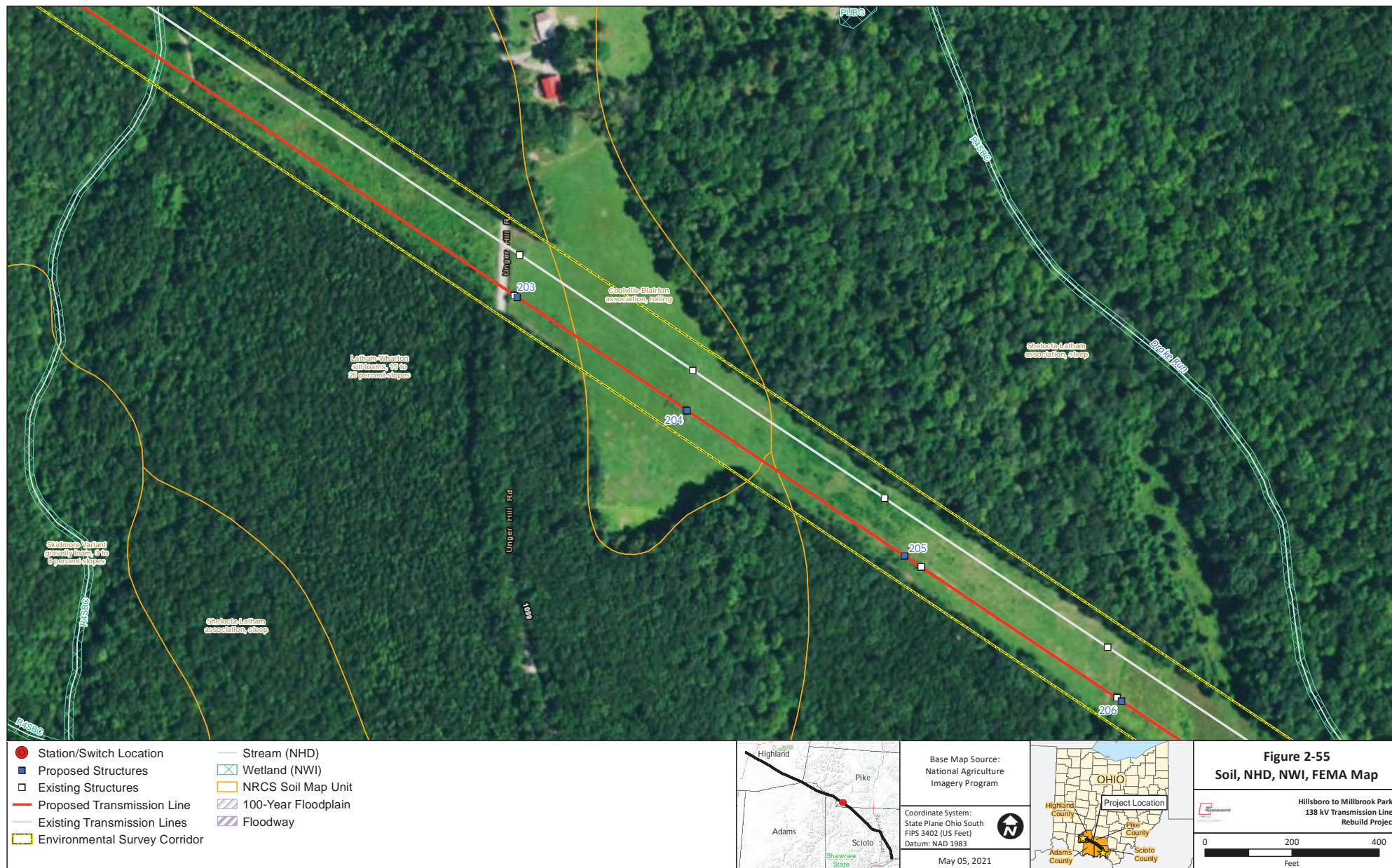


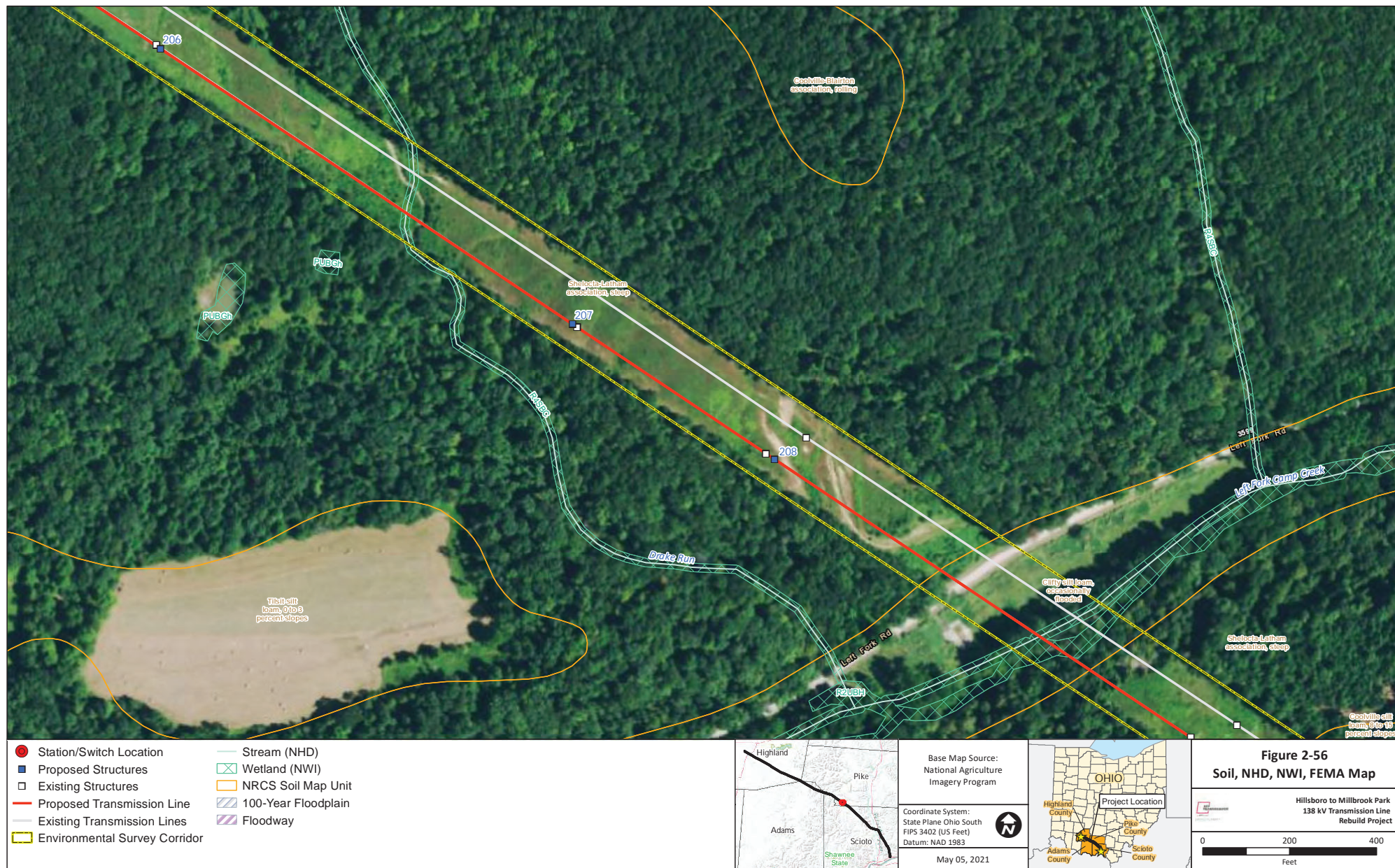


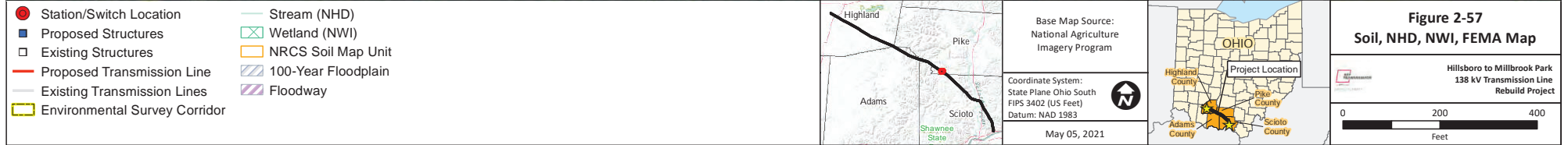








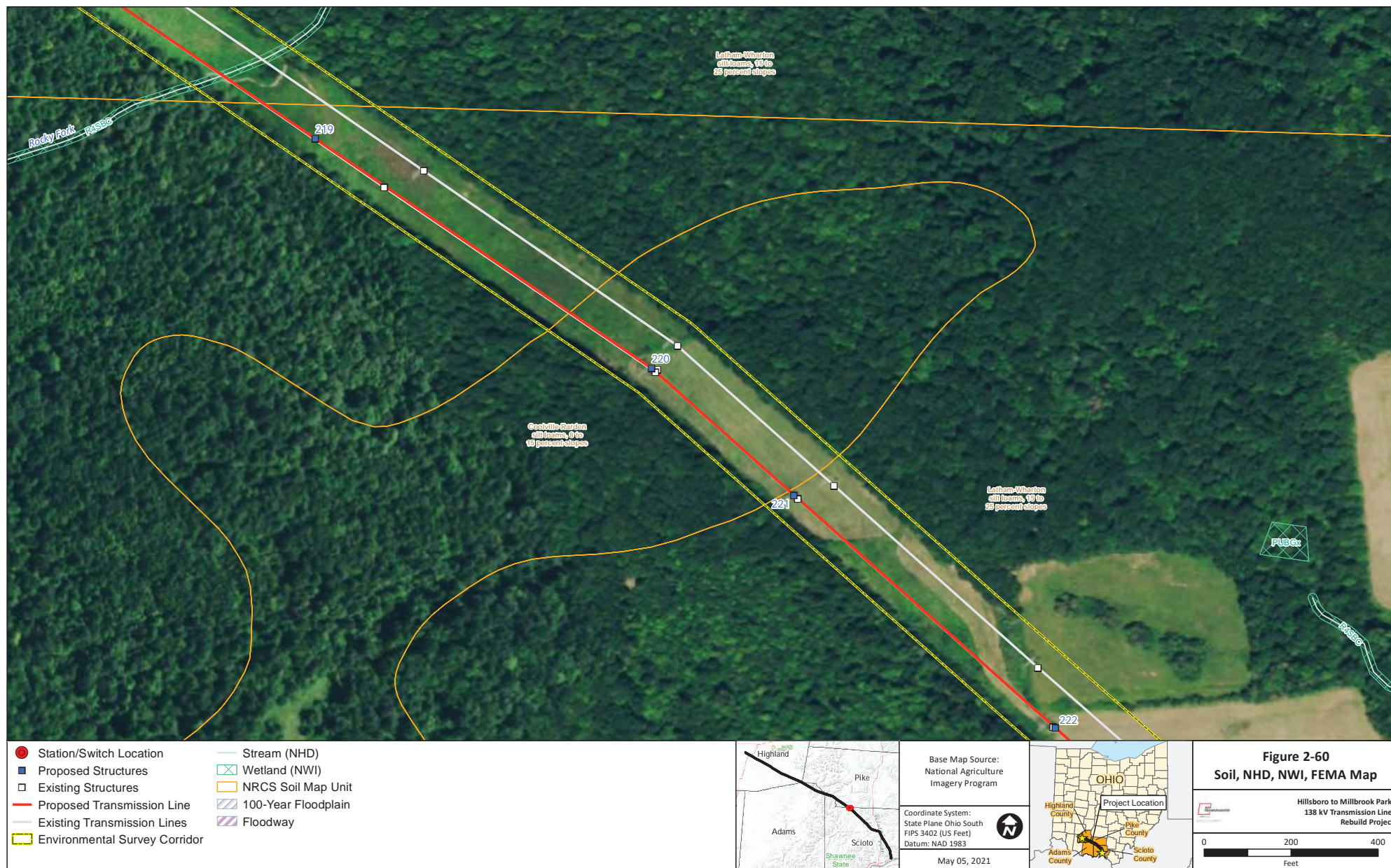


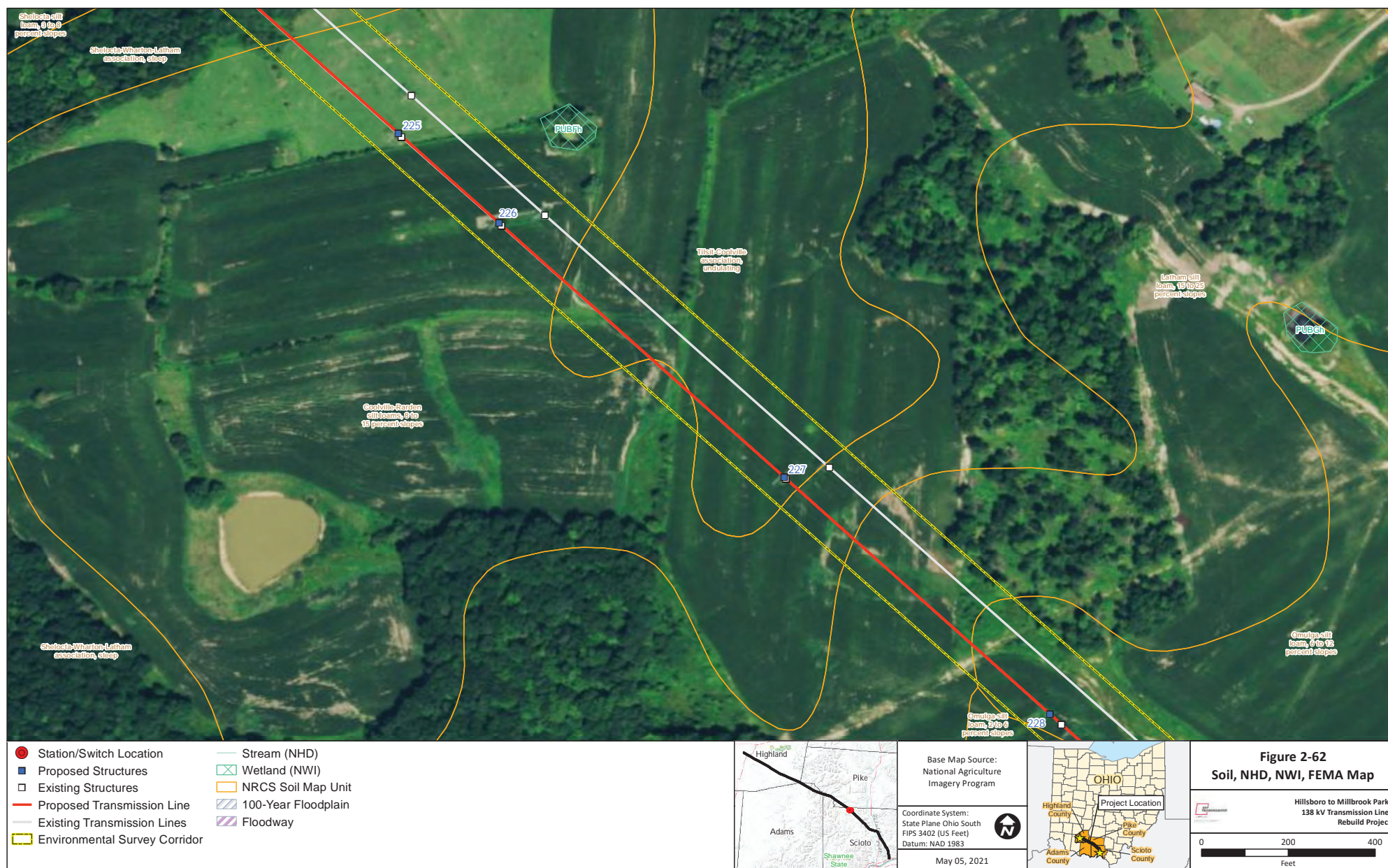


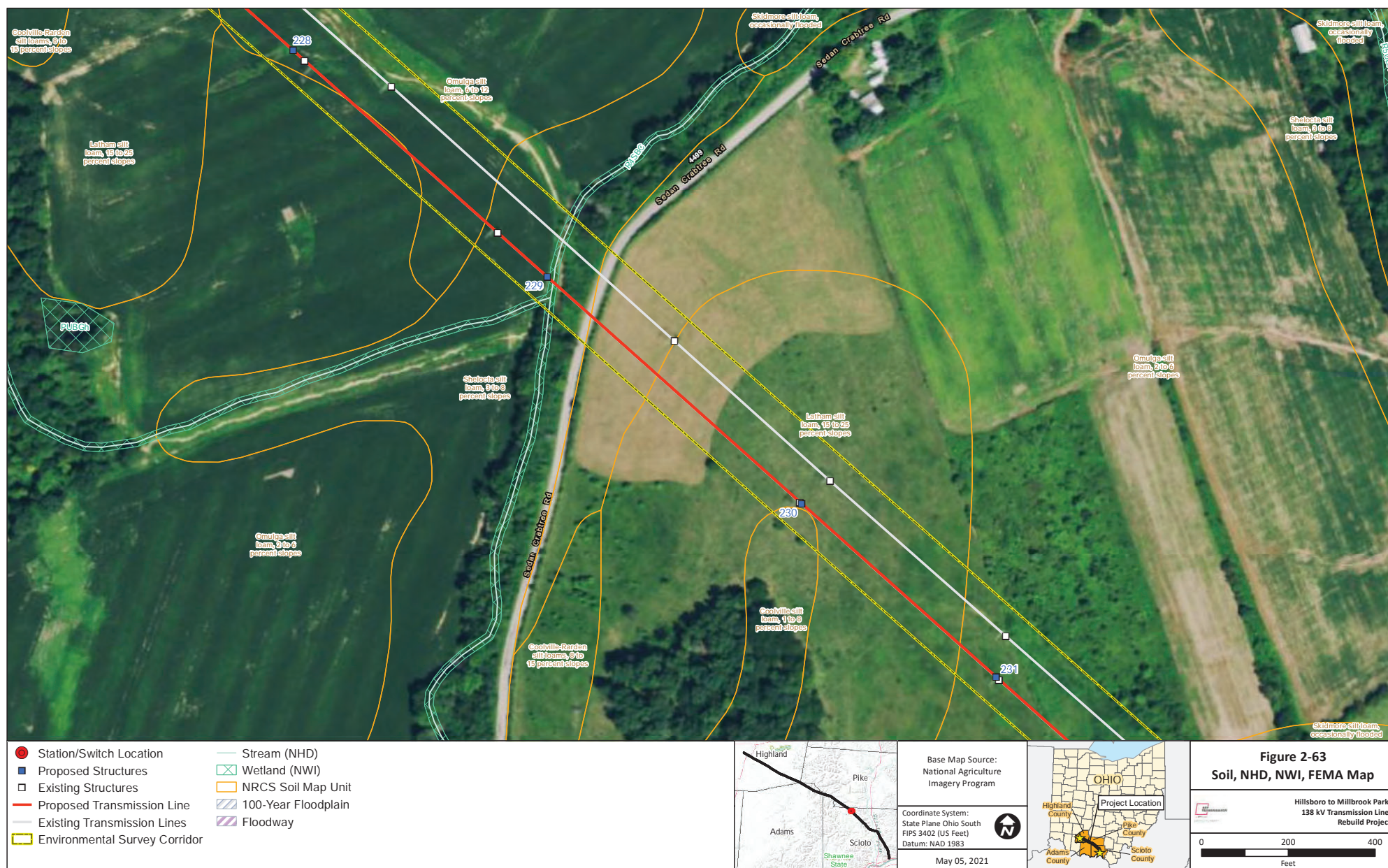


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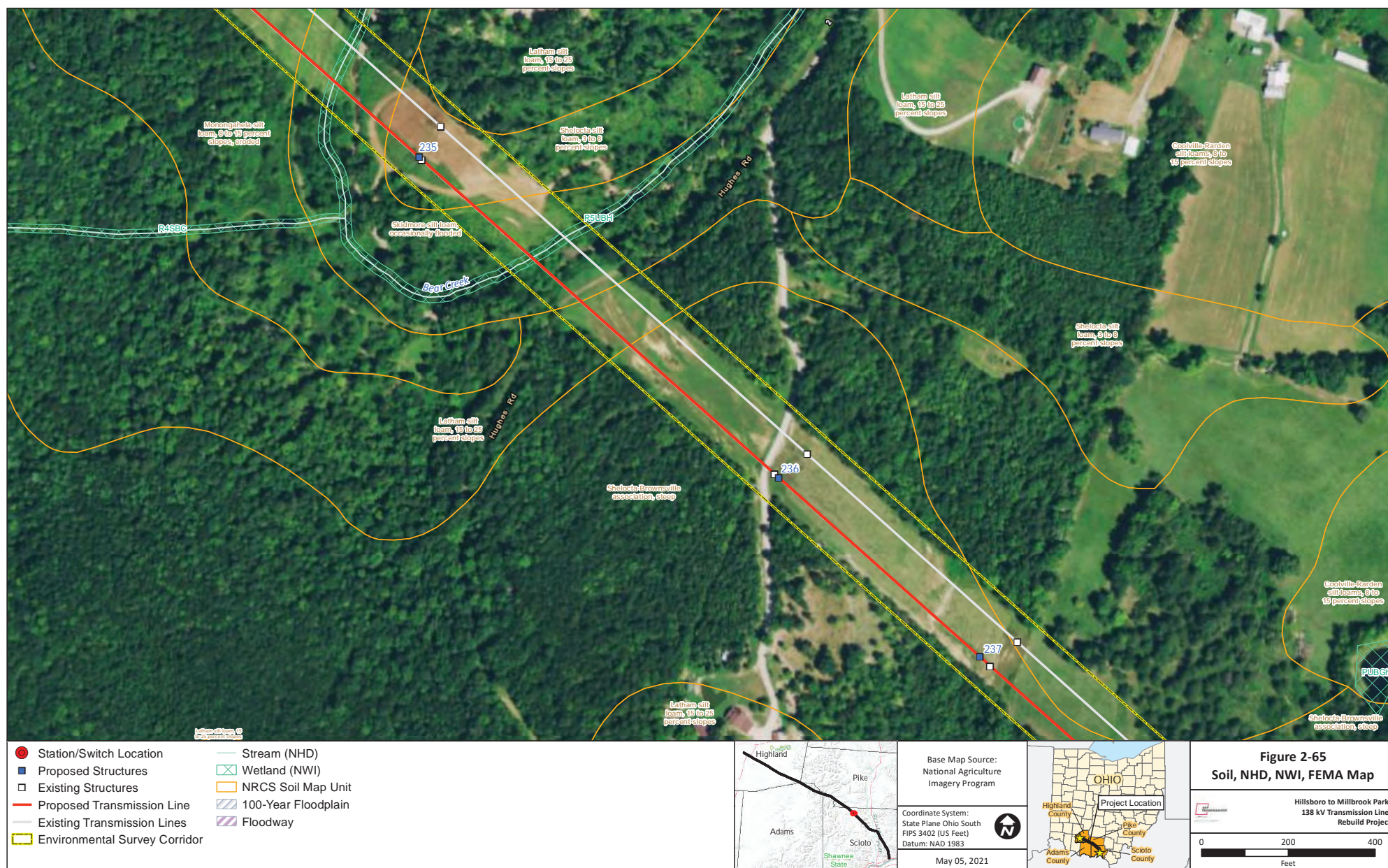


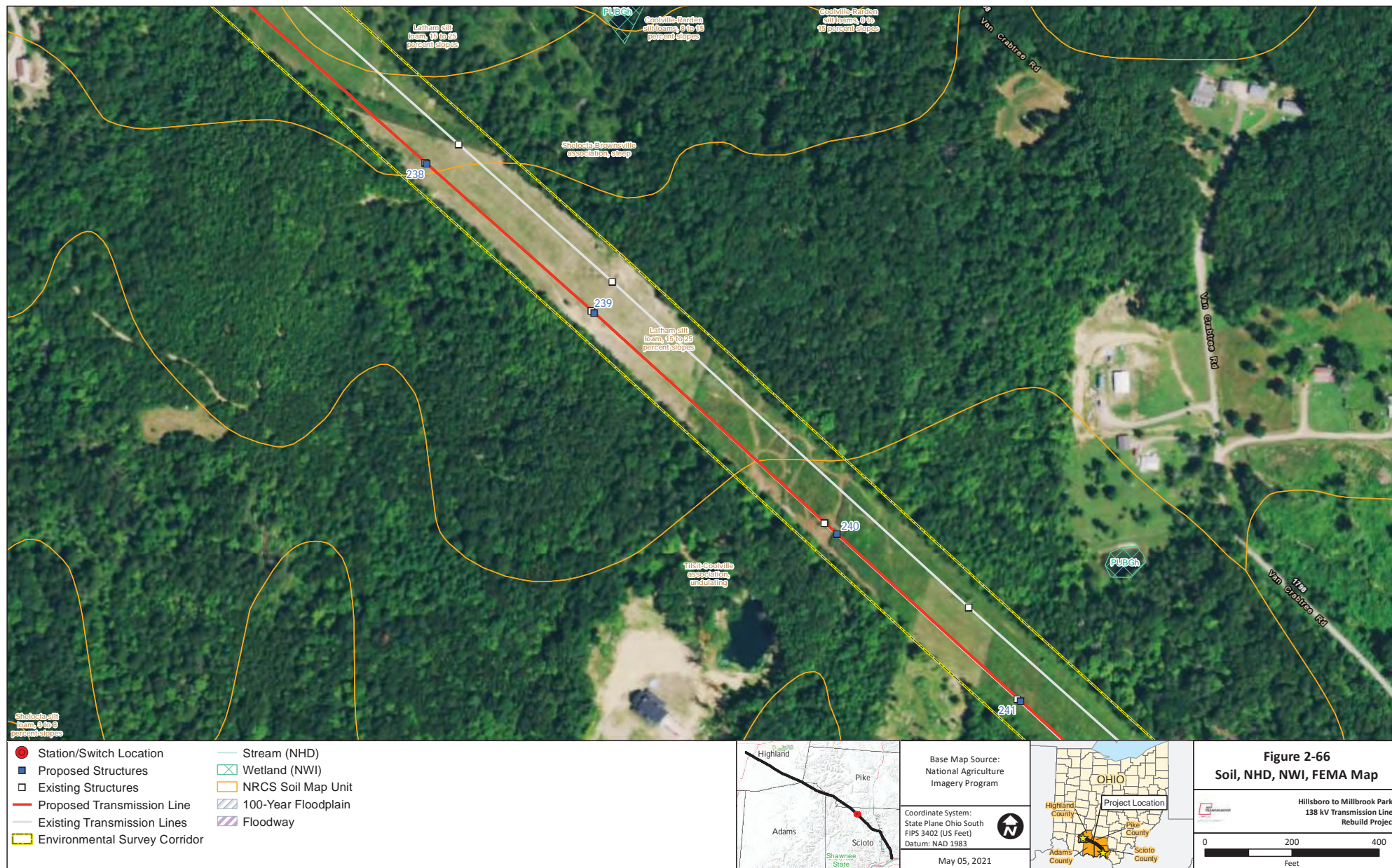


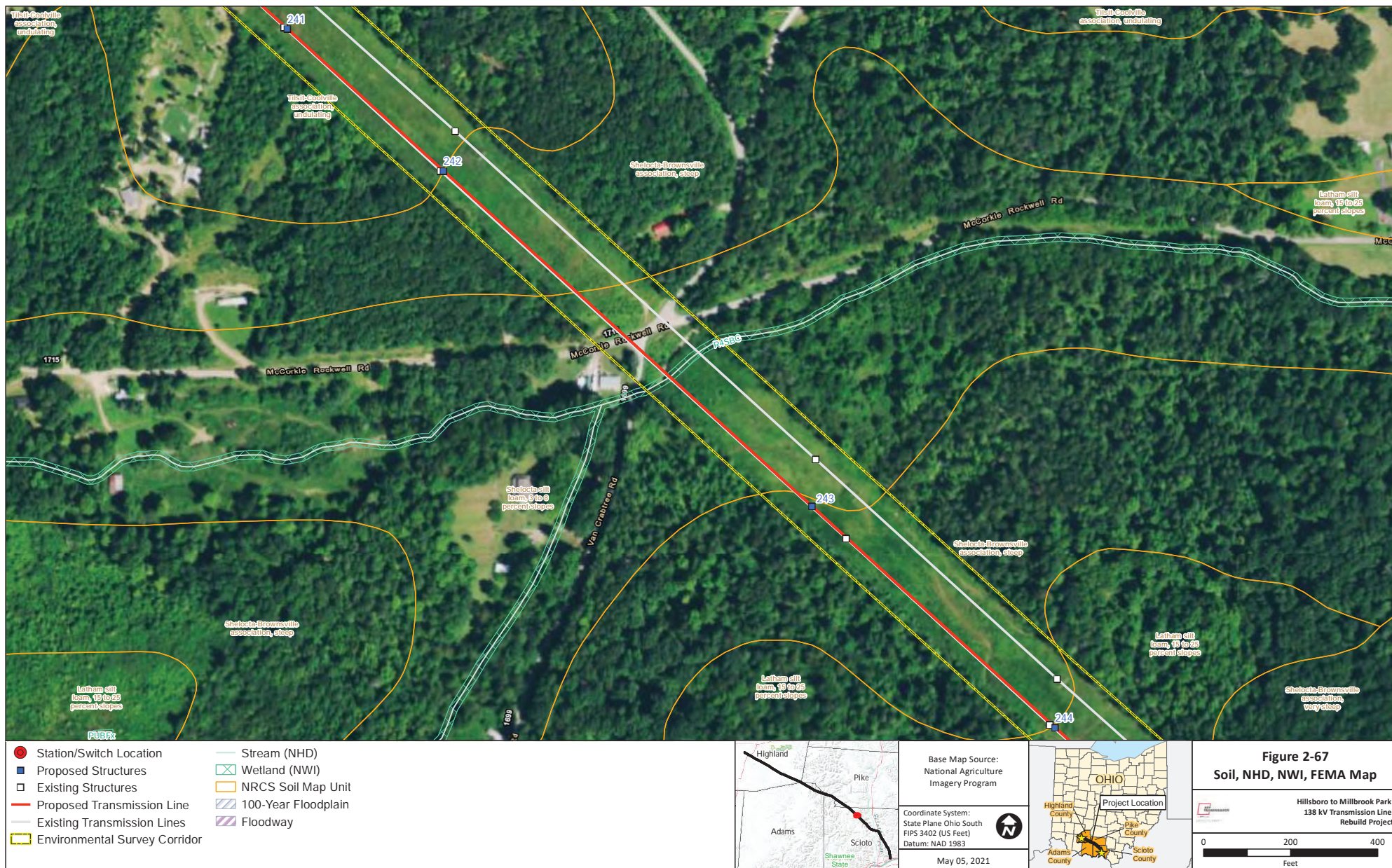


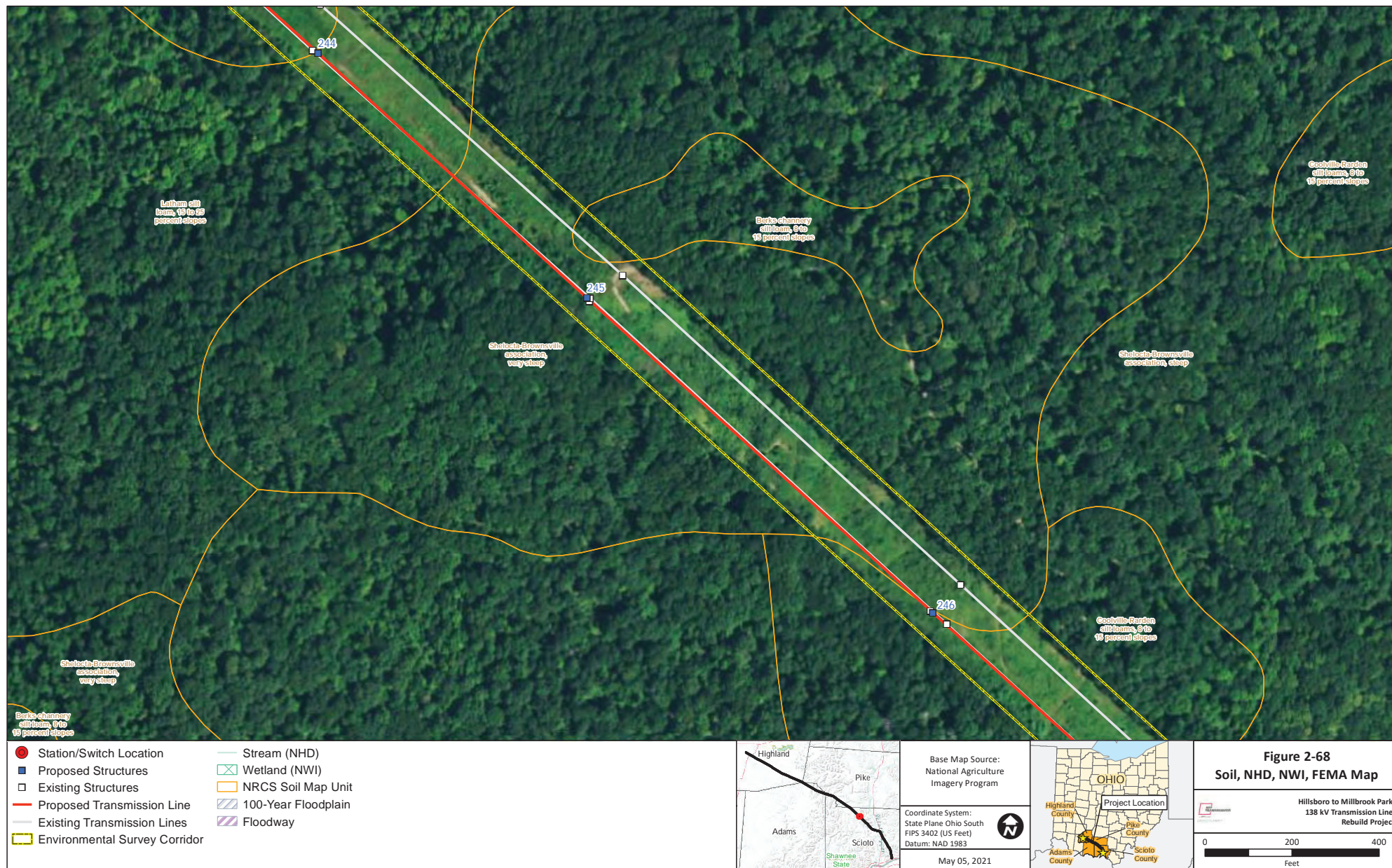


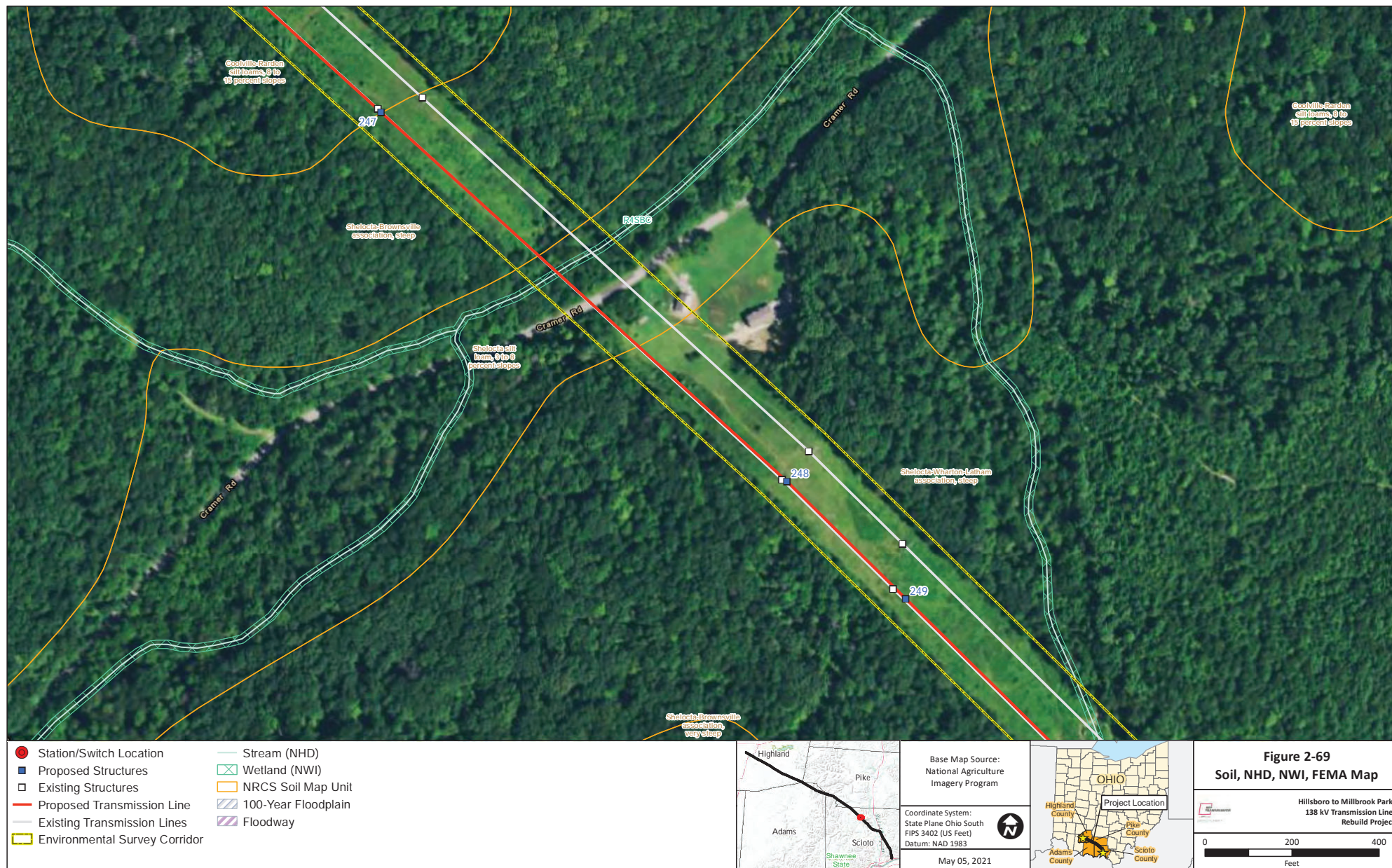
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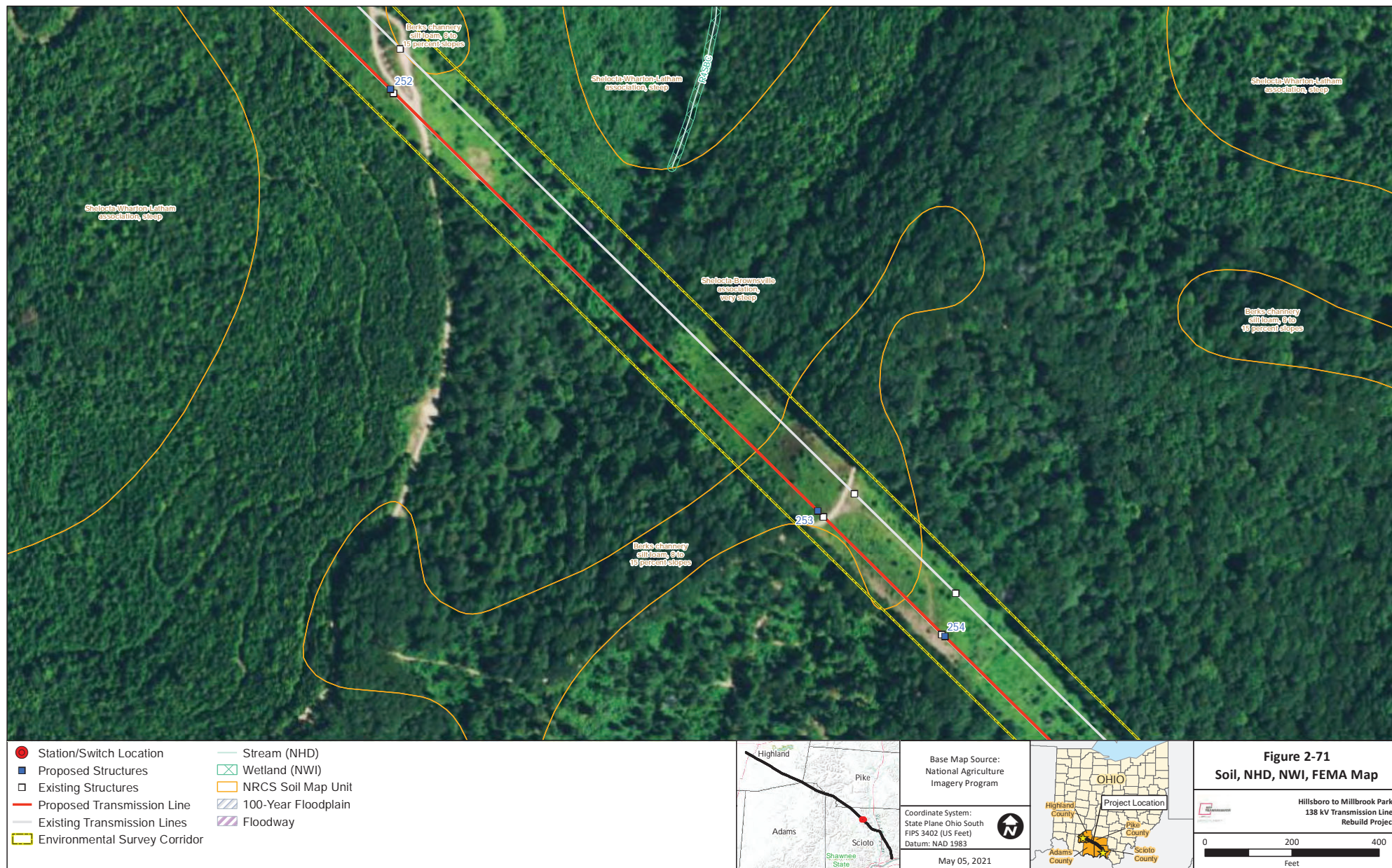












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in

Case No(s). 21-0268-EL-BLN

Summary: Notice Notice Hillsboro-Millbrook 138 kV Line Rebuild Project Part 2 electronically filed by Tanner Wolfram on behalf of AEP Ohio Transmission Company, Inc.