ITEM 3

WATERS DELINEATION REPORT

Access South, Adair Southwest, and Lebanon Extension Projects

Texas Eastern Transmission, LP

Wetland and Watercourse Delineation Report

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Prepared For:

Texas Eastern Transmission, LP

Prepared By:

URS Corporation
4507 North Front Street, Suite 200
Harrisburg, Pennsylvania 17110

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ACRONYMS AND ABBREVIATIONS

BONAP	Biota of North America Program
CWH	Coldwater Habitat
EPA	Environmental Protection Agency
FAC	facultative
FACU	facultative upland
FACW	facultative wetland
FERC	Federal Energy Regulatory Commission
HHEI	Headwater Habitat Evaluation Index
HMFEI	Headwater Macroinvertebrate Field Evaluation Index
LOD	Limit of Disturbance
LWH	Limited warmwater habitat
LP	Limited Partnership
NA	not applicable
NI	not indicated
NRCS	National Resources Conservation Service
NS	no status
NWI	National Wetlands Inventory
OBL	obligate
ORAM	Ohio Rapid Assessment Method
PEM	palustrine emergent
PFO	palustrine forested
PSS	palustrine scrub-shrub
PUB	palustrine unconsolidated bottom
QHEI	Qualitative Habitat Evaluation Index
SWANCC	Solid Waste Agency of Northern Cook County
U.S.C.	United States Code
UPL	upland
USACE	U.S. Army Corps of Engineers
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
VES	Visual Encounter Survey
WWH	Warmwater Habitat

1.0 INTRODUCTION

URS Corporation (URS) has prepared this Wetland and Watercourse Delineation Report, a component of required environmental studies necessary for the acquisition of a Federal Energy Regulatory Commission (FERC) certificate for the Texas Eastern – Access South (Wheelersburg to Athens Loop), Adair Southwest (Athens to Berne Loop) and Lebanon Extension (Berne to Holbrook Loop) Projects (collectively, the "Projects"). The proposed Projects will provide incremental pipeline transportation service from the Appalachian area natural gas supply basin, to markets in the Midwest and Southeast. The Projects will firm up additional pipeline capacity to deliver natural gas on a long term basis. Texas Eastern will conduct pipeline looping by adding a 36-inch-diameter pipeline looping segments totaling 15.8 miles. The proposed pipeline loops will follow Texas Eastern's current right-of-way. Aboveground facilities will have pipeline modification to allow for bidirectional flow, increased horsepower requirements, and meter replacement. The facilities required for the Projects are expected to be located primarily within Texas Eastern's current footprint. This report contains the methodology and results of the wetland and watercourse investigations performed by URS.

2.0 BACKGROUND

Prior to field surveys, existing Texas Eastern data were examined and a desktop survey was completed using site base maps, environmental mapping resources (e.g., Wetland Maps, National Wetlands Inventory (NWI) Maps, National Resources Conservation Service (NRCS)/County Soil Surveys and available aerial photography) to identify the potentially regulated resources. A field assessment of the existing conditions was then completed to provide ground verification of the findings from the desktop survey.

3.0 METHODOLOGY

3.1 Wetlands

Wetland habitats were identified and delineated in the study area using the Modified Routine Wetland Delineation Method described in the U.S. Army Corps of Engineers' (USACE) *Wetland Delineation Manual, Technical Report Y-87-1* and in the *Regional Supplement to the Corps of Engineers Wetland Delineation Manuals: Eastern Mountains and Piedmont Region (Version*

2.0). During field investigations, data collected for each delineated wetland and adjacent upland sample point included dominant vegetation, soil characteristics, hydrology, and other information necessary to complete the URS modified Regional USACE *Wetland Determination Data Form*.

Wetlands within the study area were classified according to the U.S. Fish and Wildlife Service (USFWS) *Classification of Wetlands and Deepwater Habitats for the United States* (Cowardin et al., 1979). Wetland classifications were based upon vegetation type and dominance: palustrine emergent (PEM), palustrine scrub-shrub (PSS), palustrine forested (PFO), and palustrine unconsolidated bottom (PUB). Dominant vegetation was evaluated on percent areal cover for each stratum: tree, sapling, shrub, herbaceous, and woody vine (Cowardin et al., 1979).

Each plant species was assigned an indicator status based on the National Wetland Plant List (2014). The following indicator statuses were assigned: obligate (OBL), facultative wetland (FACW), facultative (FAC), facultative upland (FACU), upland (UPL), no status (NS), or not indicated (NI). The *Munsell Soil Color Chart* (Munsell Color, 2009) was utilized to assess soils.

Once URS biologists determined that an area met wetland criteria, the boundaries of the wetland were field-marked with surveyor's tape. A high-precision sub-meter handheld Global Positioning System (GPS) receiver (model GeoXH handheld, Trimble, Sunnyvale, CA) was used to record the flagged boundaries of each wetland.

In Ohio, all delineated wetlands were categorized using the Ohio Rapid Assessment Method (ORAM, Version 5.0) (Mack, 2001). The scoring sheets (field forms) for individual wetlands were completed and were the basis for the provisional wetland categorizations. The ORAM was performed using detailed field evaluations.

3.2 Watercourses

Watercourse resources exhibiting defined bed and banks, natural or artificial, hydrologically sorted substrate material, and the presence of an ordinary high water mark were identified and delineated within the study area. These watercourses were identified and classified as ephemeral, intermittent, and perennial streams, as regulated under the Clean Water Act of 1972 as *Waters of the United States.* Site drainage was determined by secondary source information and in the field using current regulatory guidance.

Watercourses that were identified during the delineation were evaluated using the methods outlined in *The Biological Criteria for the Protection of Aquatic Life* (Ohio Environmental Protection Agency, 1987 and 1989). Additionally, the *Field Evaluation Manual for Ohio's Primary Headwater Habitat Streams, Version 3.0* (Ohio Environmental Protection Agency, 2012) was utilized and data collection for all potential watercourse crossings included completion of either the Ohio Environmental Protection Agency (OEPA) Qualitative Habitat Evaluation Index (QHEI) field sheet or the Headwater Habitat Evaluation Index (HHEI) form, depending on the size of the stream's drainage area or maximum pool depth. Following Ohio EPA guidance, any stream with a drainage area of greater than one square mile, or which has pools with maximum depths over 15.75 inches (40cm) was evaluated using the QHEI. The HHEI was used on streams with a drainage area of less than one square mile or with pools less than 15.75 inches (40cm) deep. Watercourses that exhibited a major change in morphology were scored at multiple representative locations.

The results of the appropriate evaluation index form were used to determine if each respective stream had the potential to support coldwater biological communities. As directed by OEPA, streams that exhibited the physical characteristics consistent with coldwater habitats were sampled for both macroinvertebrates and fish in accordance with techniques recommended in the *Field Evaluation Manual for Ohio's Primary Headwater Habitat Streams*, Version 3.0 (Ohio Environmental Protection Agency, 2012). A seine net was placed across streams with observable flow at the time of sampling and dip nets were used in pools to collect any fish in the sampling locations. According to OEPA, streams must support coldwater macroinvertebrate and fish species to be classified as coldwater habitats. In streams where both macroinvertebrates and fish were collected, vouchers were submitted to OEPA for processing.

4.0 RESULTS

The wetland and watercourse investigations were conducted during the months of December 2014, and March 2015 through June 2015. The resources are depicted on the Wetland and Watercourse Identification and Delineation Maps (Figure 2). Each project loop has its own set of sheets within Figure 2. Data forms for the individual wetlands and watercourses are included in Appendix A, Appendix B, and Appendix C, respectively. Photographs of these resources are

included in Appendix D. Additional resources were delineated along multiple reroutes and route variations but were not included in this report.

OEPA requested biological sampling on seven streams based on the initial habitat evaluation. URS conducted these biological surveys in September 2015. As directed by OEPA, streams where no fish species were caught were deemed as not supporting a coldwater habitat and no further sampling was required. Fish species were caught in two of the seven streams. OEPA processed both the fish and macroinvertebrate samples on streams S-JLK-132 (Greasy Run) and S-RW-017 (Clear Fork Little Muskingum) and concluded that coldwater habitat indicator fish species were not present; however, sensitive macroinvertebrate species were identified. Due to absence of coldwater fish species, these streams would not be regulated as coldwater or coldwater equivalent. No further surveys were required. Table 2 – Watercourse Resources Findings Table identifies the streams in which biological sampling was performed.

4.1. Wetlands

A wetland resources findings table (Table 1) is provided on the following pages to present the findings of the wetland investigations conducted across all sites.

Table 1: Wetland Resource Findings Table

Approx. Mile Post	Wetland Identifier	County	Latitude	Longitude	HUC-Watershed Unit	Acres[1]	Vegetation[2] Class	ORAM Score[3]	ORAM Category	Photo Number	Map Sheet Number
Wheelersburg to Athens Loop											
611.7	W-BJT-300	Meigs	39.1518	82.2431	05030202	0.03	PEM	18	1	1, 2	2 of 19
611.7	W-BJT-301	Meigs	39.1519	82.2425	05030202	0.50	PEM	24	1	3, 4	2 of 19
612.0	W-BJT-302	Meigs	39.1560	82.2371	05030202	0.33	PEM	22	1	15, 16	3 of 19
612.1	W-BJT-303	Meigs	39.1563	82.2362	05030202	0.05	PEM	17	1	19, 20	3 of 19
612.5	W-BJT-304	Meigs	39.1601	82.2296	05030202	0.99	PEM	31*	2*	25, 26	3 of 19
612.6	W-PJR-021	Meigs	39.1620	82.2299	05030202	0.02	PEM	17.5	1	31, 32	4 of 19
613.4	W-JLK-359	Meigs	39.1689	82.2193	05030202	0.09	PFO	32	2	49, 50	5 of 19
613.4	W-JLK-360	Meigs	39.1690	82.2197	05030202	0.06	PEM	47	2	51, 52	5 of 19
613.9	W-JLK-264	Meigs	39.1741	82.2132	05030202	0.27	PEM	29	1	59, 60	6 of 19
614	W-JLK-263	Meigs	39.1745	82.2116	05030202	0.03	PEM	28	1	65, 66	6 of 19
614.1	W-JLK-261	Meigs	39.1763	82.2102	05030202	0.03	PEM	29	1	67, 68	6 of 19
614.1	W-JLK-262	Meigs	39.1762	82.2098	05030202	0.07	PEM	13	1	69, 70	6 of 19
614.2	W-JLK-259	Meigs	39.1769	82.2086	05030202	0.11	PUB	37.5	2	73, 74	7 of 19
614.2	W-JLK-260	Meigs	39.1770	82.2087	05030202	0.00	PSS	28	1	75, 76	7 of 19
614.2	W-JLK-267	Meigs	39.1774	82.2089	05030202	0.04	PEM	22	1	77, 78	7 of 19
614.3	W-JLK-268	Meigs	39.1783	82.2081	05030202	0.28	PEM	29	1	81, 82	7 of 19

Approx. Mile Post	Wetland Identifier	County	Latitude	Longitude	HUC-Watershed Unit	Acres[1]	Vegetation[2] Class	ORAM Score[3]	ORAM Category	Photo Number	Map Sheet Number
614.4	W-JLK-269	Meigs	39.1791	82.2077	05030202	0.05	PEM	25	1	87, 88	7 of 19
614.5	W-JLK-270	Meigs	39.1792	82.2057	05030202	0.11	PEM	24	1	89, 90	7 of 19
614.5	W-JLK-271	Meigs	39.1790	82.2052	05030202	0.04	PUB	37	2	91, 92	7 of 19
614.5	W-PJR-022	Meigs	39.1801	82.2046	05030202	0.00	PEM	26	1	93, 94	7 of 19
614.6	W-JLK-272	Meigs	39.1799	82.2037	05030202	0.03	PEM	33	2	95, 96	7 of 19
614.6	W-JLK-273	Meigs	39.1807	82.2034	05030202	0.03	PEM	22	1	97, 98	7 of 19
614.6	W-JLK-274	Meigs	39.1802	82.2031	05030202	0.17	PEM	26	1	99, 100	7 of 19
614.6	W-PJR-023	Meigs	39.1809	82.2035	05030202	0.05	PEM	18.5	1	101, 102	7 of 19
614.7	W-JLK-279	Meigs	39.1818	82.2020	05030202	0.00	PEM	15	1	115, 116	8 of 19
614.9	W-JLK-275	Meigs	39.1834	82.1994	05030202	0.04	PEM	24	1	119, 120	8 of 19
614.9	W-JLK-276	Meigs	39.1832	82.1994	05030202	0.00	PEM	24	1	121, 122	8 of 19
614.9	W-JLK-278	Meigs	39.1834	82.1996	05030202	0.01	PEM	24	1	123, 124	8 of 19
615.1	W-JLK-277	Meigs	39.1848	82.1969	05030202	0.02	PEM	21	1	131, 132	8 of 19
615.1	W-PJR-027	Meigs	39.1849	82.1969	05030202	0.01	PEM	22.5	1	133, 134	8 of 19
615.4	W-PJR-025	Meigs	39.1867	82.1915	05030202	0.01	PEM	25	1	141, 142	9 of 19
615.5	W-PJR-026	Meigs	39.1884	82.1910	05030202	0.00	PEM	37	2	145, 146	9 of 19
615.6	W-BJT-305	Meigs	39.1901	82.1893	05030202	0.01	PEM	23	1	149, 150	9 of 19
615.7	W-BJT-306	Meigs	39.1903	82.1888	05030202	0.02	PEM	23	1	153, 154	9 of 19
615.9	W-BJT-307	Meigs	39.1923	82.1862	05030202	0.07	PEM	21	1	157, 158	10 of 19
616	W-BJT-308	Meigs	39.1943	82.1849	05030202	0.01	PEM	21	1	161, 162	10 of 19
616.5	W-BJT-309	Athens	39.1994	82.1787	05030202	0.03	PEM	26	1	173, 174	11 of 19
616.7	W-PJR-001	Athens	39.2008	82.1763	05030202	0.06	PEM	29	1	179, 180	11 of 19
616.8	W-PJR-002	Athens	39.2018	82.1741	05030204	0.03	PEM	31	2	187, 188	12 of 19
616.8	W-PJR-003	Athens	39.2023	82.1739	05030204	0.03	PEM	23	1	189, 190	12 of 19
616.9	W-JLK-288	Athens	39.2029	82.1722	05030204	0.03	PEM	29	1	191, 192	12 of 19

Approx. Mile Post	Wetland Identifier	County	Latitude	Longitude	HUC-Watershed Unit	Acres[1]	Vegetation[2] Class	ORAM Score[3]	ORAM Category	Photo Number	Map Sheet Number
616.9	W-JLK-289	Athens	39.2027	82.1725	05030204	0.09	PEM	29	1	193, 194	12 of 19
617.0	W-JLK-287	Athens	39.2035	82.1712	05030204	0.00	PEM	26	1	199, 200	12 of 19
617.1	W-JLK-285	Athens	39.2042	82.1701	05030204	0.02	PEM	26	1	201, 202	12 of 19
617.1	W-JLK-286	Athens	39.2039	82.1704	05030204	0.02	PEM	26	1	203, 204	12 of 19
617.5	W-BJT-310	Athens	39.2078	82.1644	05030204	0.03	PEM	26	1	207, 208	13 of 19
617.8	W-PJR-028	Athens	39.2105	82.1604	05030204	0.01	PEM	23	1	215, 216	14 of 19
617.9	W-PJR-029	Athens	39.2118	82.1596	05030204	0.04	PEM	26	1	219, 220	14 of 19
618.0	W-BJT-311	Athens	39.2129	82.1573	05030204	0.20	PEM	28	1	223, 224	14 of 19
618.0	W-BJT-312	Athens	39.2125	82.1566	05030204	0.02	PFO	55	2	225, 226	14 of 19
618.1	W-BJT-314	Athens	39.2132	82.1563	05030204	0.07	PEM	22	1	229, 230	14 of 19
618.1	W-BJT-315	Athens	39.2138	82.1554	05030204	0.03	PEM	22	1	231, 232	14 of 19
618.2	W-BJT-313	Athens	39.2144	82.1547	05030204	0.15	PEM	42*	2*	243, 244	14 of 19
618.2		Athens	39.2140	82.1544	05030204	0.23	PFO			245, 246	14 of 19
618.5	W-BJT-316	Athens	39.2175	82.1516	05030204	0.02	PEM	25	1	261, 262	15 of 19
618.5	W-BJT-317	Athens	39.2179	82.1504	05030204	0.09	PUB	47	2	263, 264	15 of 19
618.5	W-BJT-318	Athens	39.2185	82.1502	05030204	0.07	PEM	25	1	265, 266	15 of 19
618.7	W-BJT-327	Athens	39.2198	82.1481	05030204	0.07	PEM	27	1	269, 270	15 of 19
618.7		Athens	39.2198	82.1483	05030204	0.03	PUB			271, 272	15 of 19
618.8	W-BJT-319	Athens	39.2209	82.1463	05030204	0.13	PEM	22	1	277, 278	16 of 19
619.0	W-BJT-320	Athens	39.2231	82.1450	05030204	0.20	PSS	34	2	279, 280	16 of 19
619.0		Athens	39.2236	82.1452	05030204	0.08	PEM			281, 282	16 of 19
619.2	W-BJT-321	Athens	39.2251	82.1433	05030204	0.05	PEM	25	1	285, 286	16 of 19
619.2	W-BJT-322	Athens	39.2253	82.1427	05030204	0.19	PEM	17*	1*	287, 288	16 of 19
619.3	W-BJT-323	Athens	39.2257	82.1416	05030204	0.01	PEM	22	1	291, 292	16 of 19
619.3	W-BJT-324	Athens	39.2261	82.1408	05030204	0.13	PEM	28	1	293, 294	16 of 19

Approx. Mile Post	Wetland Identifier	County	Latitude	Longitude	HUC-Watershed Unit	Acres[1]	Vegetation[2] Class	ORAM Score[3]	ORAM Category	Photo Number	Map Sheet Number
619.3		Athens	39.2261	82.1407	05030204	0.01	PSS			295, 296	16 of 19
619.6	W-BJT-325	Athens	39.2291	82.1365	05030204	0.19	PEM	21	1	303, 304	17 of 19
619.8	W-BJT-326	Athens	39.2306	82.1339	05030204	0.08	PSS	29	1	307, 308	17 of 19
620.0	W-JLK-284	Athens	39.2328	82.1307	05030204	0.13	PSS	30*	2*	313, 314	18 of 19
620.0	W-PJR-024	Athens	39.2322	82.1318	05030204	0.04	PEM	23	1	315, 316	18 of 19
620.1	W-JLK-283	Athens	39.2336	82.1298	05030204	0.07	PEM	27	1	317, 318	18 of 19
620.1	W-JLK-389	Athens	39.2336	82.1302	05030204	0.01	PEM	25	1	319, 320	18 of 19
620.6	W-JLK-281	Athens	39.2382	82.1236	05030204	0.01	PEM	24	1	343, 344	19 of 19
620.6	W-JLK-282	Athens	39.2384	82.1233	05030204	0.00	PEM	24	1	345, 346	19 of 19
620.6	W-PJR-001	Athens	39.2392	82.1253	05030204	0.11	PUB	29.5	1	347, 348	19 of 19
620.6	W-PJR-004	Athens	39.2397	82.1252	05030204	0.00	PEM	22.5	1	349, 350	19 of 19
620.6	W-PJR-005	Athens	39.2395	82.1254	05030204	0.04	PEM	18.5	1	351, 352	19 of 19
620.6	W-PJR-006	Athens	39.2392	82.1248	05030204	0.04	PEM	29.5	1	353, 354	19 of 19
Athens to Berne Loop											
677.5	W-JLK-290	Noble	39.7556	81.3660	05030201	0.01	PEM	22	1	361, 362	2 of 12
677.6	W-JLK-291	Noble	39.7557	81.3632	05030201	0.08	PUB	32	2	365, 366	2 of 12
677.8	W-JLK-292	Noble	39.7570	81.3606	05030201	0.00	PEM	27	1	369, 370	3 of 12
677.9	W-JLK-293	Noble	39.7575	81.3587	05030201	0.12	PEM	20*	1*	375, 376	3 of 12
678.0	W-JLK-294	Noble	39.7574	81.3571	05030201	0.04	PEM	17	1	377, 378	3 of 12
679.0	W-PJR-007	Noble	39.7673	81.3423	05030201	0.15	PEM	25.5	1	393, 394	5 of 12
679.8	W-PJR-008	Noble	39.7716	81.3297	05030201	0.03	PEM	31	2	403, 404	7 of 12
681.1	W-JLK-295	Monroe	39.7691	81.3072	05030201	0.03	PEM	17	1	417, 418	10 of 12
681.1	W-JLK-296	Monroe	39.7694	81.3063	05030201	0.03	PEM	23	1	419, 420	10 of 12
681.1	W-JLK-297	Monroe	39.7695	81.3060	05030201	0.04	PEM	23	1	421, 422	10 of 12
681.2	W-JLK-298	Monroe	39.7697	81.3052	05030201	0.03	PEM	20	1	425, 426	10 of 12

Approx. Mile Post	Wetland Identifier	County	Latitude	Longitude	HUC-Watershed Unit	Acres[1]	Vegetation[2] Class	ORAM Score[3]	ORAM Category	Photo Number	Map Sheet Number
681.2	W-JLK-299	Monroe	39.7700	81.3043	05030201	0.01	PEM	20	1	427, 428	10 of 12
681.3	W-JLK-300	Monroe	39.7701	81.3037	05030201	0.02	PEM	20	1	429, 430	10 of 12
681.3	W-JLK-301	Monroe	39.7703	81.3032	05030201	0.05	PEM	20	1	431, 432	10 of 12
681.3	W-JLK-302	Monroe	39.7706	81.3021	05030201	0.05	PEM	37	2	433, 434	10 of 12
681.4	W-PJR-014	Monroe	39.7711	81.3011	05030201	0.04	PEM	25	1	437, 438	10 of 12
681.5	W-PJR-013	Monroe	39.7714	81.3002	05030201	0.07	PEM	24	1	441, 442	10 of 12
681.7	W-PJR-012	Monroe	39.7732	81.2959	05030201	0.01	PEM	24	1	447, 448	11 of 12
681.8	W-JLK-386	Monroe	39.7728	81.2932	05030201	0.04	PEM	23	1	449, 450	11 of 12
681.8	W-JLK-387	Monroe	39.7728	81.2939	05030201	0.02	PEM	30	2	451, 452	11 of 12
681.8	W-PJR-010	Monroe	39.7734	81.2935	05030201	0.05	PEM	24	1	453, 454	11 of 12
681.8	W-PJR-011	Monroe	39.7732	81.2949	05030201	0.00	PEM	31	2	455, 456	11 of 12
681.9	W-BJT-102113-6	Monroe	39.7744	81.2924	05030201	0.04	PEM	19	1	471, 472	12 of 12
681.9	W-BJT-102113-7	Monroe	39.7742	81.2903	05030201	0.01	PEM	14	1	473, 474	12 of 12
681.9	W-JLK-303	Monroe	39.7756	81.2881	05030201	0.04	PEM	15	1	465, 466	12 of 12
681.9	W-JLK-304	Monroe	39.7756	81.2891	05030201	0.02	PEM	11	1	467, 468	12 of 12
681.9	W-PJR-009	Monroe	39.7735	81.2943	05030201	0.22	PEM	24	1	469, 470	11 of 12
Berne to Holbrook Loop											
697.8	W-JLK-357	Monroe	39.8149	81.0122	05030201	0.00	PEM	35	2	483, 484	2 of 7
697.8	W-PJR-046	Monroe	39.8129	81.0136	05030201	0.03	PEM	22.5	1	485, 486	2 of 7
697.9	W-JLK-352	Monroe	39.8152	81.0108	05030201	0.00	PEM	25	1	493, 494	2 of 7
697.9	W-JLK-353	Monroe	39.8151	81.0110	05030201	0.01	PEM	38	2	495, 496	2 of 7
697.9	W-JLK-354	Monroe	39.8148	81.0114	05030201	0.00	PEM	27	1	497, 498	2 of 7
697.9	W-JLK-355	Monroe	39.8143	81.0117	05030201	0.02	PSS	40	2	499, 500	2 of 7
697.9	W-JLK-356	Monroe	39.8145	81.0117	05030201	0.00	PEM	39	2	501, 502	2 of 7
698.0	W-JLK-350	Monroe	39.8154	81.0093	05030201	0.01	PEM	19	1	503, 504	3 of 7

Approx. Mile Post	Wetland Identifier	County	Latitude	Longitude	HUC-Watershed Unit	Acres[1]	Vegetation[2] Class	ORAM Score[3]	ORAM Category	Photo Number	Map Sheet Number
698.0	W-JLK-351	Monroe	39.8153	81.0101	05030201	0.03	PEM	18	1	505, 506	3 of 7
698.3	W-JLK-331	Monroe	39.8177	81.0041	05030201	0.20	PEM	20	1	513, 514	4 of 7
698.3	W-JLK-332	Monroe	39.8177	81.0041	05030201	0.02	PEM	16.5	1	515, 516	4 of 7
698.4	W-JLK-330	Monroe	39.8180	81.0043	05030201	0.32	PUB	25	1	523, 524	4 of 7
698.6	W-JLK-338	Monroe	39.8188	80.9997	05030201	0.03	PEM	47	2	527, 528	4 of 7
698.8	W-JLK-336	Monroe	39.8192	80.9952	05030201	0.29	PEM	31.5*	2*	537, 538	5 of 7
698.8	W-JLK-337	Monroe	39.8190	80.9948	05030201	0.05	PSS	37.5	2	539, 540	5 of 7
699.1	W-JLK-335	Monroe	39.8200	80.9903	05030201	0.05	PEM	35.5	2	549, 550	5 of 7
699.2	W-JLK-320	Monroe	39.8197	80.9876	05030201	0.02	PEM	28	1	551, 552	6 of 7
699.2	W-JLK-321	Monroe	39.8203	80.9876	05030201	0.08	PEM	27	1	553, 554	6 of 7
699.2	W-JLK-322	Monroe	39.8201	80.9878	05030201	0.00	PEM	24	1	555, 556	6 of 7
699.2	W-JLK-334	Monroe	39.8203	80.9884	05030201	0.11	PEM	26*	1*	557, 558	6 of 7
699.3	W-JLK-318	Monroe	39.8203	80.9861	05030201	0.18	PSS	33	2	565, 566	6 of 7
699.3	W-JLK-319	Monroe	39.8201	80.9864	05030201	0.02	PEM	35	2	567, 568	6 of 7
699.3	W-JLK-333	Monroe	39.8205	80.9872	05030201	0.01	PEM	35.5	2	569, 570	6 of 7
699.5	W-JLK-326	Monroe	39.8206	80.9822	05030201	0.03	PSS	29	1	583, 584	6 of 7
699.5	W-JLK-327	Monroe	39.8200	80.9831	05030201	0.00	PEM	36	2	585, 586	6 of 7
699.9	W-JLK-325	Monroe	39.8201	80.9754	05030201	0.00	PSS	25	1	597, 598	7 of 7
Contractor Yards											
Site 1 Diamond Stone											
n/a	W-JLK-361	Athens	39.2121	82.2398	05030201	0.03	PEM	15	1	601, 602	1 of 5
n/a	W-JLK-362	Athens	39.2121	82.2405	05030201	0.03	PSS	18	1	603, 604	1 of 5
n/a	W-JLK-363	Athens	39.2122	82.2441	05030201	0.00	PEM	18	1	605, 606	1 of 5
n/a	W-JLK-364	Athens	39.2132	82.2427	05030201	0.16	PUB	46	2	607, 608	1 of 5
n/a	W-JLK-365	Athens	39.2145	82.2427	05030201	0.29	PUB	37	2	609, 610	1 of 5

Approx. Mile Post	Wetland Identifier	County	Latitude	Longitude	HUC-Watershed Unit	Acres[1]	Vegetation[2] Class	ORAM Score[3]	ORAM Category	Photo Number	Map Sheet Number
n/a	W-JLK-366	Athens	39.2154	82.2426	05030201	0.02	PEM	51	2	611, 612	1 of 5
n/a		Athens	39.2154	82.2426	05030201	0.02	PUB			613, 614	1 of 5
Site 2 H2 Development											
n/a	W-JLK-367	Athens	39.2147	82.2146	05030202	0.03	PEM	10	1	617, 618	2 of 5
n/a	W-JLK-368	Athens	39.2124	82.2139	05030202	0.52	PUB	30.5	2	619, 620	2 of 5
n/a		Athens	39.2124	82.2139	05030202	0.76	PEM			621, 622	2 of 5
n/a	W-JLK-369	Athens	39.2117	82.2161	05030202	0.01	PEM	10.5	1	623, 624	3 of 5
n/a	W-JLK-370	Athens	39.2114	82.2149	05030202	0.55	PSS	49	2	625, 626	3 of 5
n/a	W-JLK-371	Athens	39.2092	82.2192	05030202	0.04	PEM	17	1	627, 628	3 of 5
n/a	W-JLK-372	Athens	39.2089	82.2196	05030202	0.06	PEM	17	1	629, 630	3 of 5
n/a	W-JLK-373	Athens	39.2082	82.2170	05030202	0.12	PSS	32	2	631, 632	3 of 5
n/a	W-JLK-374	Athens	39.2087	82.2142	05030202	0.70	PEM	36	2	633, 634	3 of 5
n/a	W-JLK-375	Athens	39.2157	82.2169	05030202	0.02	PEM	15	1	635, 636	2 of 5
n/a	W-JLK-376	Athens	39.2152	82.2141	05030202	0.04	PEM	6	1	637, 638	2 of 5
n/a	W-JLK-377	Athens	39.2152	82.2139	05030202	0.02	PEM	6	1	639, 640	2 of 5
Site 6 Landefeld											
n/a	W-JLK-383	Monroe	39.7769	81.0992	05030201	0.03	PEM	22	1	645, 646	5 of 5
n/a	W-JLK-384	Monroe	39.7767	81.0984	05030201	0.01	PEM	22	1	647, 648	5 of 5
n/a	W-JLK-385	Monroe	39.7768	81.0973	05030201	0.01	PEM	32.5	2	649, 650	5 of 5

[1] Represents delineated acreage within study area

[2] PEM=palustrine emergent; PSS=palustrine scrub-shrub; PFO=palustrine forested; PUB=palustrine unconsolidated bottom

[3] All ORAM scores and categories are preliminary EXCEPT those marked with an * which were verified by OEPA during site visits in August and September 2015.

4.2 Watercourses

A watercourse resources findings table (Table 2) is provided below to present the findings of the watercourse investigations conducted across all the sites.

Table 2: Watercourse Resources Findings Table

Approx. Mile Post	Stream Identifier	Stream Name	County	Latitude	Longitude	HUC Watershed Unit	Flow Regime	HHEI Score	QHEI Score	OEPA Use Designation[1]	CWH/CWH Equivalent[2]	Length Surveyed (ft)	AverageWidth Within Study Area (ft)	Photo Number	Map Sheet Number
Wheelersburg to Athens Loop															
611.7	S-BJT-400	Sisson Run	Meigs	39.15163	82.24288	05030202	PER	--	36	WWH	No	407	18.0	5, 6	2 of 19
611.7	S-BJT-401	Trib. to Sisson Run	Meigs	39.15274	82.24160	05030202	EPH	58	--	--	No	635	16.0	7, 8	2 of 19
611.7	S-JLK-149	Trib. to Sisson Run	Meigs	39.15295	82.24111	05030202	EPH	12	--	--	No	148	2.5	9, 10	2 of 19
611.8	S-BJT-402	Trib. to Sisson Run	Meigs	39.15434	82.23965	05030202	EPH	42	--	--	No	304	10.0	11, 12	2 of 19
611.8	S-BJT-402A	Trib. to Sisson Run	Meigs	39.15396	82.23955	05030202	EPH	42	--	--	No	21	10.0	13, 14	2 of 19
612	S-BJT-403	Trib. to Leading Creek	Meigs	39.15596	82.23747	05030202	INT	27	--	--	No	169	6.0	17, 18	2 of 19
612.4	S-BJT-405	Trib. to Leading Creek	Meigs	39.15913	82.23125	05030202	PER	64	--	--	No	125	10.0	21, 22	3 of 19
612.4	S-BJT-406	Trib. to Leading Creek	Meigs	39.15930	82.23016	05030202	EPH	34	--	--	No	99	6.0	23, 24	3 of 19
612.5	S-BJT-404	Trib. to Leading Creek	Meigs	39.15904	82.23097	05030202	PER	83	--	--	No	1376	20.0	27, 28	3 of 19
612.5	S-BJT-407	Trib. to Leading Creek	Meigs	39.16040	82.22931	05030202	PER	57	--	--	No	293	22.0	29, 30	4 of 19
612.7	S-BJT-408	Trib. to Leading Creek	Meigs	39.16334	82.22806	05030202	INT	33	--	--	No	207	14.0	33, 34	4 of 19
613	S-BJT-409	Trib. to Leading Creek	Meigs	39.16631	82.22466	05030202	EPH	42	--	--	No	221	10.0	35, 36	4 of 19
613	S-BJT-409A	Trib. to Leading Creek	Meigs	39.16645	82.22439	05030202	EPH	42	--	--	No	108	10.0	37, 38	4 of 19
613	S-BJT-409B	Trib. to Leading Creek	Meigs	39.16625	82.22443	05030202	EPH	42	--	--	No	52	10.0	39, 40	4 of 19
613	S-BJT-410	Trib. to Leading Creek	Meigs	39.16620	82.22408	05030202	EPH	42	--	--	No	268	10.0	41, 42	4 of 19
613.1	S-BJT-411	Trib. to Leading Creek	Meigs	39.16772	82.22334	05030202	EPH	27	--	--	No	108	6.0	43, 44	5 of 19
613.1	S-BJT-412	Trib. to Leading Creek	Meigs	39.16759	82.22327	05030202	EPH	27	--	--	No	444	8.0	45, 46	5 of 19
613.2	S-BJT-413	Trib. to Leading Creek	Meigs	39.16830	82.22270	05030202	PER	40	--	--	No	230	12.0	47, 48	5 of 19
613.4	S-BJT-415	Leading Creek	Meigs	39.16952	82.21858	05030202	PER	--	57	WWH	No	858	30.0	53, 54	5 of 19
613.5	S-JLK-266	Trib. to Leading Creek	Meigs	39.16957	82.21806	05030202	EPH	47	--	--	No	274	4.0	55, 56	5 of 19
613.8	S-JLK-100	Trib. to Leading Creek	Meigs	39.17281	82.21412	05030202	EPH	19	--	--	No	476	2.3	57, 58	6 of 19
613.9	S-JLK-098	Trib. to Leading Creek	Meigs	39.17385	82.21266	05030202	EPH	50	--	--	No	381	6.5	61, 62	6 of 19
613.9	S-JLK-099	Trib. to Leading Creek	Meigs	39.17393	82.21280	05030202	EPH	34	--	--	No	252	4.3	63, 64	6 of 19
614.1	S-JLK-097	Trib. to Leading Creek	Meigs	39.17628	82.21013	05030202	INT	27	--	--	No	201	1.0	71, 72	6 of 19
614.2	S-JLK-106	Trib. to Leading Creek	Meigs	39.17718	82.20883	05030202	EPH	24	--	--	No	32	3.6	79, 80	7 of 19
614.3	S-JLK-102	Trib. to Leading Creek	Meigs	39.17856	82.20827	05030202	INT	47	--	--	No	476	4.0	83, 84	7 of 19
614.3	S-JLK-103	Trib. to Leading Creek	Meigs	39.17831	82.20829	05030202	INT	27	--	--	No	185	2.0	85, 86	7 of 19
614.6	S-JLK-104	Trib. to Fivemile Run	Meigs	39.17993	82.20396	05030202	EPH	21	--	--	No	148	2.5	103, 104	7 of 19
614.6	S-JLK-105	Trib. to Fivemile Run	Meigs	39.18055	82.20386	05030202	INT	42	--	--	No	436	5.0	105, 106	7 of 19
614.6	S-JLK-107	Trib. to Fivemile Run	Meigs	39.18048	82.20321	05030202	INT	23	--	--	No	30	3.6	107, 108	7 of 19

Approx. Mile Post	Stream Identifier	Stream Name	County	Latitude	Longitude	HUC Watershed Unit	Flow Regime	HHEI Score	QHEI Score	OEPA Use Designation[1]	CWH/CWH Equivalent[2]	Length Surveyed (ft)	AverageWidth Within Study Area (ft)	Photo Number	Map Sheet Number
614.6	S-JLK-108	Trib. to Fivemile Run	Meigs	39.18013	82.20324	05030202	INT	37	--	--	No	166	4.0	109, 110	7 of 19
614.6	S-JLK-109	Trib. to Fivemile Run	Meigs	39.18076	82.20279	05030202	EPH	27	--	--	No	85	3.0	111, 112	7 of 19
614.6	S-JLK-110	Trib. to Fivemile Run	Meigs	39.18064	82.20244	05030202	EPH	27	--	--	No	77	5.0	113, 114	7 of 19
614.7	S-JLK-111	Trib. to Fivemile Run	Meigs	39.18089	82.20255	05030202	EPH	47	--	--	No	376	5.0	117, 118	7 of 19
614.9	S-JLK-112	Trib. to Fivemile Run	Meigs	39.18326	82.19928	05030202	INT	33	--	--	No	231	6.0	125, 126	8 of 19
614.9	S-JLK-113	Trib. to Fivemile Run	Meigs	39.18307	82.19912	05030202	EPH	10	--	--	No	28	2.5	127, 128	8 of 19
614.9	S-JLK-114	Trib. to Fivemile Run	Meigs	39.18315	82.19896	05030202	EPH	11	--	--	No	96	2.5	129, 130	8 of 19
615.1	S-JLK-115	Trib. to Leading Creek	Meigs	39.18494	82.19683	05030202	INT	10	--	--	No	121	4.0	135, 136	8 of 19
615.1	S-JLK-153	Trib. to Leading Creek	Meigs	39.18557	82.19612	05030202	EPH	13	--	--	No	13	1.5	137, 138	8 of 19
615.2	S-JLK-150	Trib. to Fivemile Run	Meigs	39.18234	82.18991	05030202	INT	32	--	--	No	303	3.0	139, 140	9a of 19
615.4	S-JLK-151	Trib. to Fivemile Run	Meigs	39.18813	82.19141	05030202	EPH	18	--	--	No	42	3.0	143, 144	9 of 19
615.5	S-JLK-152	Trib. to Fivemile Run	Meigs	39.18848	82.19093	05030202	INT	23	--	--	No	150	2.0	147, 148	9 of 19
615.6	S-BJT-417	Trib. to Fivemile Run	Meigs	39.18992	82.18861	05030202	EPH	32	--	--	No	133	12.0	151, 152	9 of 19
615.7	S-BJT-416	Trib. to Fivemile Run	Meigs	39.19025	82.18858	05030202	EPH	12	--	--	No	220	2.0	155, 156	9 of 19
615.9	S-BJT-418	Trib. to Leading Creek	Meigs	39.19228	82.18614	05030202	EPH	12	--	--	No	40	2.0	159, 160	10 of 19
616	S-BJT-419	Trib. to Leading Creek	Meigs	39.19446	82.18453	05030202	EPH	22	--	--	No	206	4.0	163, 164	10 of 19
616.2	S-BJT-420	Trib. to Leading Creek	Meigs	39.19600	82.18284	05030202	PER	91	--	--	No*	339	18.0	165, 166	10 of 19
616.2	S-BJT-421	Trib. to Leading Creek	Meigs	39.19665	82.18284	05030202	EPH	61	--	--	No	527	14.0	167, 168	10 of 19
616.2	S-BJT-422	Trib. to Leading Creek	Meigs	39.19688	82.18280	05030202	EPH	61	--	--	No	90	14.0	169, 170	10 of 19
616.3	S-BJT-423	Trib. to Leading Creek	Meigs	39.19757	82.18194	05030202	EPH	23	--	--	No	128	4.0	171, 172	11 of 19
616.5	S-BJT-424	Trib. to Leading Creek	Athens	39.19913	82.17906	05030202	EPH	22	--	--	No	207	4.0	175, 176	11 of 19
616.5	S-BJT-425	Trib. to Leading Creek	Athens	39.19934	82.17874	05030202	INT	53	--	--	No	555	4.0	177, 178	11 of 19
616.7	S-RW-001	Trib. to Leading Creek	Athens	39.20088	82.17634	05030202	INT	27	--	--	No	81	0.8	181, 182	11 of 19
616.7	S-RW-002	Trib. to Leading Creek	Athens	39.20072	82.17621	05030202	EPH	36	--	--	No	198	0.8	183, 184	11 of 19
616.7	S-RW-003	Trib. to Leading Creek	Athens	39.20048	82.17597	05030202	EPH	17	--	--	No	71	1.0	185, 186	11 of 19
616.9	S-RW-004	Trib. to Margaret Creek	Athens	39.20259	82.17259	05030204	EPH	27	--	--	No	197	1.6	195, 196	12 of 19
616.9	S-RW-005	Trib. to Margaret Creek	Athens	39.20283	82.17255	05030204	INT	36	--	--	No	44	1.3	197, 198	12 of 19
617.4	S-JLK-154	Trib. to Margaret Creek	Athens	39.20739	82.16558	05030204	PER	--	47	WWH	No	331	13.4	205, 206	13 of 19
617.5	S-BJT-426	Trib. to Margaret Creek	Athens	39.20816	82.16388	05030204	EPH	27	--	--	No	76	6.0	209, 210	13 of 19
617.5	S-BJT-427	Trib. to Margaret Creek	Athens	39.20796	82.16391	05030204	INT	27	--	--	No	85	6.0	211, 212	13 of 19
617.5	S-JLK-210	Trib. to Margaret Creek	Athens	39.20784	82.16495	05030204	INT	25	--	--	No	332	1.6	213, 214	13 of 19
617.8	S-JLK-155	Trib. to Margaret Creek	Athens	39.21045	82.16048	05030204	EPH	12	--	--	No	15	1.0	217, 218	14 of 19
617.9	S-JLK-156	Trib. to Margaret Creek	Athens	39.21176	82.15942	05030204	INT	26	--	--	No	316	3.9	221, 222	14 of 19
618	S-BJT-428	Trib. to Margaret Creek	Athens	39.21286	82.15705	05030204	INT	32	--	--	No	307	6.0	227, 228	14 of 19
618.1	S-BJT-429	Trib. to Margaret Creek	Athens	39.21337	82.15517	05030204	PER	84	--	--	No	1511	30.0	233, 234	14 of 19

Approx. Mile Post	Stream Identifier	Stream Name	County	Latitude	Longitude	HUC Watershed Unit	Flow Regime	HHEI Score	QHEI Score	OEPA Use Designation[1]	CWH/CWH Equivalent[2]	Length Surveyed (ft)	AverageWidth Within Study Area (ft)	Photo Number	Map Sheet Number
618.1	S-BJT-430	Trib. to Margaret Creek	Athens	39.21405	82.15483	05030204	INT	41	--	--	No	271	18.0	235, 236	14 of 19
618.1	S-BJT-430E	Trib. to Margaret Creek	Athens	39.21395	82.15482	05030204	EPH	31	--	--	No	22	9.0	237, 238	14 of 19
618.1	S-BJT-430F	Trib. to Margaret Creek	Athens	39.21369	82.15493	05030204	EPH	31	--	--	No	17	9.0	239, 240	14 of 19
618.1	S-BJT-433	Trib. to Margaret Creek	Athens	39.21331	82.15555	05030204	EPH	37	--	--	No	113	14.0	241, 242	14 of 19
618.2	S-BJT-430A	Trib. to Margaret Creek	Athens	39.21414	82.15483	05030204	EPH	31	--	--	No	31	9.0	247, 248	14 of 19
618.2	S-BJT-430B	Trib. to Margaret Creek	Athens	39.21410	82.15486	05030204	EPH	31	--	--	No	28	9.0	249, 250	14 of 19
618.2	S-BJT-430C	Trib. to Margaret Creek	Athens	39.21407	82.15489	05030204	EPH	31	--	--	No	53	9.0	251, 252	14 of 19
618.2	S-BJT-430D	Trib. to Margaret Creek	Athens	39.21401	82.15477	05030204	EPH	31	--	--	No	23	9.0	253, 254	14 of 19
618.2	S-BJT-430G	Trib. to Margaret Creek	Athens	39.21420	82.15474	05030204	EPH	31	--	--	No	30	9.0	255, 256	14 of 19
618.2	S-BJT-431	Trib. to Margaret Creek	Athens	39.21385	82.15449	05030204	EPH	37	--	--	No	110	14.0	257, 258	14 of 19
618.2	S-BJT-432	Trib. to Margaret Creek	Athens	39.21383	82.15469	05030204	EPH	37	--	--	No	131	14.0	259, 260	14 of 19
618.5	S-BJT-434	Trib. to Margaret Creek	Athens	39.21825	82.15018	05030204	PER	47	--	--	No	156	10.0	267, 268	15 of 19
618.7	S-BJT-435	Trib. to Margaret Creek	Athens	39.21962	82.14740	05030204	EPH	27	--	--	No	295	6.0	273, 274	15 of 19
618.7	S-BJT-442	Trib. to Margaret Creek	Athens	39.21976	82.14783	05030204	EPH	12	--	--	No	86	6.0	275, 276	15 of 19
619	S-BJT-436	Trib. to Margaret Creek	Athens	39.22356	82.14515	05030204	PER	37	--	--	No	606	4.0	283, 284	16 of 19
619.2	S-BJT-437	Trib. to Margaret Creek	Athens	39.22503	82.14233	05030204	EPH	27	--	--	No	72	6.0	289, 290	16 of 19
619.3	S-BJT-438	Trib. to Margaret Creek	Athens	39.22610	82.14078	05030204	INT	34	--	--	No	261	4.0	297, 298	16 of 19
619.3	S-BJT-439	Trib. to Margaret Creek	Athens	39.22626	82.14025	05030204	EPH	37	--	--	No	285	15.0	299, 300	16 of 19
619.5	S-BJT-440A	Trib. to Biddle Creek	Athens	39.22802	82.13709	05030204	EPH	22	--	--	No	50	4.0	301, 302	17 of 19
619.6	S-BJT-440	Trib. to Biddle Creek	Athens	39.22841	82.13688	05030204	EPH	22	--	--	No	534	4.0	305, 306	17 of 19
619.9	S-BJT-441	Trib. to Biddle Creek	Athens	39.23113	82.13377	05030204	PER	32	--	--	No	921	6.0	309, 310	17 of 19
619.9	S-JLK-127	Trib. to Biddle Creek	Athens	39.23180	82.13279	05030204	PER	65	--	--	No	286	15.0	311, 312	18 of 19
620.1	S-JLK-124	Trib. to Biddle Creek	Athens	39.23360	82.12971	05030204	PER	41	--	--	No	921	8.0	321, 322	18 of 19
620.1	S-JLK-125	Trib. to Biddle Creek	Athens	39.23335	82.12942	05030204	EPH	41	--	--	No	121	6.2	323, 324	18 of 19
620.1	S-JLK-126	Trib. to Biddle Creek	Athens	39.23283	82.13004	05030204	EPH	21	--	--	No	77	4.5	325, 326	18 of 19
620.2	S-JLK-157	Trib. to Biddle Creek	Athens	39.23403	82.12875	05030204	INT	32	--	--	No	169	3.3	327, 328	18 of 19
620.3	S-JLK-158	Trib. to Biddle Creek	Athens	39.23586	82.12650	05030204	EPH	11	--	--	No	211	1.3	329, 330	18 of 19
620.5	S-JLK-119	Trib. to Biddle Creek	Athens	39.23708	82.12429	05030204	EPH	25	--	--	No	249	5.0	331, 332	19 of 19
620.5	S-JLK-120	Trib. to Biddle Creek	Athens	39.23739	82.12420	05030204	EPH	10	--	--	No	18	2.5	333, 334	19 of 19
620.5	S-JLK-121	Trib. to Biddle Creek	Athens	39.23730	82.12390	05030204	EPH	20	--	--	No	57	4.0	335, 336	19 of 19
620.5	S-JLK-121B	Trib. to Biddle Creek	Athens	39.23738	82.12392	05030204	EPH	20	--	--	No	47	4.0	337, 338	19 of 19
620.5	S-JLK-122	Trib. to Biddle Creek	Athens	39.23794	82.12372	05030204	EPH	25	--	--	No	210	5.0	339, 340	19 of 19
620.5	S-JLK-122B	Trib. to Biddle Creek	Athens	39.23763	82.12394	05030204	EPH	25	--	--	No	20	5.0	341, 342	19 of 19
620.6	S-JLK-117	Trib. to Biddle Creek	Athens	39.23847	82.12324	05030204	PER	--	44	WWH	No	339	10.8	355, 356	19 of 19
620.6	S-JLK-118	Trib. to Biddle Creek	Athens	39.23869	82.12305	05030204	INT	32	--	--	No	128	8.0	357, 358	19 of 19

Approx. Mile Post	Stream Identifier	Stream Name	County	Latitude	Longitude	HUC Watershed Unit	Flow Regime	HHEI Score	QHEI Score	OEPA Use Designation[1]	CWH/CWH Equivalent[2]	Length Surveyed (ft)	AverageWidth Within Study Area (ft)	Photo Number	Map Sheet Number
620.6	S-RW-006	Trib. to Biddle Creek	Athens	39.23902	82.12480	05030204	PER	--	55.5	WWH	No	565	1.5	359, 360	19 of 19
Athens to Berne Loop															
677.5	S-JLK-138	Trib. to East Fork Duck Creek	Noble	39.75602	81.36612	05030201	INT	28	--	--	No	321	3.5	363, 364	2 of 12
677.7	S-JLK-209	Trib. to Greasy Run	Noble	39.75695	81.36270	05030201	EPH	33	--	--	No	95	4.0	367, 368	2 of 12
677.8	S-JLK-128	Trib. to Greasy Run	Noble	39.75692	81.36055	05030201	INT	18	--	--	No	87	1.5	371, 372	3 of 12
677.8	S-JLK-129	Trib. to Greasy Run	Noble	39.75726	81.36070	05030201	PER	79	--	--	No*	300	24.6	373, 374	3 of 12
678	S-JLK-130	Trib. to Greasy Run	Noble	39.75842	81.35588	05030201	EPH	44	--	--	No	119	8.0	379, 380	3 of 12
678	S-RW-007	Greasy Run	Noble	39.75793	81.35544	05030201	PER	--	52	LWH	No	518	8.0	381, 382	3 of 12
678	S-RW-008	Trib. to Greasy Run	Noble	39.75816	81.35581	05030201	PER	--	50	WWH	No*	295	10.0	383, 384	3 of 12
678.6	S-RW-009	Trib. to Greasy Run	Noble	39.76393	81.34925	05030201	EPH	6	--	--	No	288	0.8	385, 386	4 of 12
678.6	S-RW-010	Trib. to Greasy Run	Noble	39.76345	81.34923	05030201	EPH	12	--	--	No	58	0.8	387, 388	4 of 12
678.6	S-RW-011	Trib. to Greasy Run	Noble	39.76360	81.34906	05030201	EPH	12	--	--	No	67	0.5	389, 390	4 of 12
678.8	S-RW-012	Trib. to Greasy Run	Noble	39.76591	81.34531	05030201	EPH	27	--	--	No	254	1.6	391, 392	5 of 12
679	S-RW-013	Trib. to Greasy Run	Noble	39.76698	81.34226	05030201	EPH	29	--	--	No	92	2.5	395, 396	5 of 12
679.2	S-RW-014	Trib. to Greasy Run	Noble	39.76812	81.33893	05030201	EPH	13	--	--	No	89	0.3	397, 398	6 of 12
679.4	S-RW-015	Trib. to Greasy Run	Noble	39.76894	81.33598	05030201	PER	--	58.5	WWH	No*	258	6.0	399, 400	6 of 12
679.5	S-JLK-281	Trib. to Greasy Run	Noble	39.76777	81.33051	05030201	EPH	17	--	--	No	91	1.0	401, 402	7a of 12
679.8	S-JLK-131	Trib. to Greasy Run	Noble	39.77162	81.32837	05030201	EPH	33	--	--	No	41	3.0	405, 406	7 of 12
679.8	S-RW-016	Trib. to Greasy Run	Noble	39.77146	81.32951	05030201	EPH	35	--	--	No	300	1.6	407, 408	7 of 12
679.9	S-JLK-132	Greasy Run	Noble	39.77171	81.32810	05030201	PER	76	--	LWH	No**	303	15.0	409, 410	7 of 12
680.7	S-JLK-133	Trib. to Clear Fork Little Muskingum River	Monroe	39.76926	81.31319	05030201	EPH	60	--	--	No	161	8.0	411, 412	9 of 12
681	S-JLK-134	Trib. to Clear Fork Little Muskingum River	Monroe	39.76891	81.30818	05030201	PER	42	--	--	No	423	4.0	413, 414	9 of 12
681	S-JLK-134A	Trib. to Clear Fork Little Muskingum River	Monroe	39.76871	81.30837	05030201	PER	--	--	--	No	26	4.0	415, 416	9 of 12
681.1	S-JLK-135	Trib. to Clear Fork Little Muskingum River	Monroe	39.76921	81.30593	05030201	PER	35	--	--	No	138	3.5	423, 424	10 of 12
681.3	S-JLK-136	Trib. to Clear Fork Little Muskingum River	Monroe	39.77028	81.30224	05030201	EPH	26	--	--	No	165	8.0	435, 436	10 of 12
681.4	S-RW-022	Trib. to Clear Fork Little Muskingum River	Monroe	39.77096	81.30113	05030201	EPH	30	--	--	No	226	2.5	439, 440	10 of 12
681.5	S-RW-021	Trib. to Clear Fork Little Muskingum River	Monroe	39.77136	81.30023	05030201	EPH	10	--	--	No	21	0.8	443, 444	10 of 12
681.6	S-RW-020	Trib. to Clear Fork Little Muskingum River	Monroe	39.77155	81.29840	05030201	EPH	48	--	--	No	242	3.3	445, 446	11 of 12

Approx. Mile Post	Stream Identifier	Stream Name	County	Latitude	Longitude	HUC Watershed Unit	Flow Regime	HHEI Score	QHEI Score	OEPA Use Designation[1]	CWH/CWH Equivalent[2]	Length Surveyed (ft)	AverageWidth Within Study Area (ft)	Photo Number	Map Sheet Number
681.8	S-JLK-279	Trib. to Clear Fork Little Muskingum River	Monroe	39.77244	81.29380	05030201	INT	16	--	--	No	202	2.0	457, 458	11 of 12
681.8	S-RW-017	Clear Fork Little Muskingum River	Monroe	39.77289	81.29355	05030201	PER	--	66.5	WWH	No**	708	29.2	459, 460	11 of 12
681.8	S-RW-018	Trib. to Clear Fork Little Muskingum River	Monroe	39.77337	81.29472	05030201	EPH	13	--	--	No	44	0.8	461, 462	11 of 12
681.8	S-RW-015	Trib. to Clear Fork Little Muskingum River	Monroe	39.77319	81.29528	05030201	PER	--	39.5	WWH	No	373	29.2	463, 464	11 of 12
681.9	S-BJT-102113-3	Trib. to Clear Fork Little Muskingum River	Monroe	39.77387	81.29271	05030201	INT	34	--	--	No	360	5.9	475, 476	12 of 12
681.9	S-BJT-102113-4	Trib. to Clear Fork Little Muskingum River	Monroe	39.77341	81.29258	05030201	INT	34	--	--	No	123	3.9	477, 478	12 of 12
681.9	S-BJT-102113-5	Trib. to Death Run	Monroe	39.77472	81.29016	05030201	INT	39	--	--	No	831	3.9	479, 480	12 of 12
681.9	S-JLK-137	Death Run	Monroe	39.77546	81.28802	05030201	PER	--	46.5	WWH	No	145	6.3	481, 482	12 of 12
Berne to Holbrook Loop															
697.8	S-JLK-180	Trib. to East Fork Piney Fork	Monroe	39.81299	81.01397	05030201	INT	34	--	--	No	179	3.6	487, 488	2 of 7
697.8	S-JLK-262	Trib. to East Fork Piney Fork	Monroe	39.81488	81.01217	05030201	INT	23	--	--	No	53	3.3	489, 490	2 of 7
697.8	S-JLK-278	Trib. to East Fork Piney Fork	Monroe	39.81329	81.01358	05030201	EPH	19	--	--	No	335	3.0	491, 492	2 of 7
698	S-JLK-260	Trib. to East Fork Piney Fork	Monroe	39.81544	81.00945	05030201	INT	23	--	--	No	132	3.0	507, 508	3 of 7
698	S-JLK-261	Trib. to East Fork Piney Fork	Monroe	39.81537	81.00994	05030201	INT	33	--	--	No	86	4.0	509, 510	3 of 7
698.1	S-JLK-226	Trib. to Sunfish Creek	Monroe	39.81589	81.00782	05030201	INT	26	--	--	No	70	1.0	511, 512	3 of 7
698.3	S-JLK-222	Trib. to Sunfish Creek	Monroe	39.81763	81.00410	05030201	INT	27	--	--	No	362	2.5	517, 518	4 of 7
698.3	S-JLK-224	Trib. to Sunfish Creek	Monroe	39.81725	81.00433	05030201	INT	16	--	--	No	83	0.8	519, 520	4 of 7
698.3	S-JLK-225	Trib. to Sunfish Creek	Monroe	39.81783	81.00442	05030201	INT	15	--	--	No	64	1.5	521, 522	4 of 7
698.4	S-JLK-223	Trib. to Sunfish Creek	Monroe	39.81745	81.00349	05030201	INT	17	--	--	No	334	1.0	525, 526	4 of 7
698.6	S-JLK-234	Trib. to Ackerson Run	Monroe	39.81892	80.99960	05030201	EPH	23	--	--	No	28	4.0	529, 530	4 of 7
698.6	S-JLK-235	Trib. to Ackerson Run	Monroe	39.81846	80.99937	05030201	INT	61	--	--	No	290	6.0	531, 532	4 of 7
698.6	S-JLK-236	Trib. to Ackerson Run	Monroe	39.81818	80.99925	05030201	EPH	18	--	--	No	47	1.5	533, 534	4 of 7
698.7	S-JLK-233	Trib. to Ackerson Run	Monroe	39.81861	80.99813	05030201	EPH	35	--	--	No	171	5.0	535, 536	4 of 7
698.8	S-JLK-232	Trib. to Ackerson Run	Monroe	39.81913	80.99501	05030201	PER	42	--	--	No	361	8.0	541, 542	5 of 7
698.9	S-JLK-231	Trib. to Ackerson Run	Monroe	39.81918	80.99303	05030201	EPH	22	--	--	No	126	1.0	543, 544	5 of 7
699	S-JLK-229	Trib. to Ackerson Run	Monroe	39.81940	80.99282	05030201	EPH	34	--	--	No	146	4.5	545, 546	5 of 7
699	S-JLK-230	Trib. to Ackerson Run	Monroe	39.81923	80.99250	05030201	EPH	19	--	--	No	76	1.0	547, 548	5 of 7

Approx. Mile Post	Stream Identifier	Stream Name	County	Latitude	Longitude	HUC Watershed Unit	Flow Regime	HHEI Score	QHEI Score	OEPA Use Designation[1]	CWH/CWH Equivalent[2]	Length Surveyed (ft)	AverageWidth Within Study Area (ft)	Photo Number	Map Sheet Number
699.2	S-JLK-195	Trib. to Ackerson Run	Monroe	39.81972	80.98735	05030201	INT	53	--	--	No	86	4.0	559, 560	6 of 7
699.2	S-JLK-196	Trib. to Ackerson Run	Monroe	39.81952	80.98751	05030201	EPH	48	--	--	No	248	4.0	561, 562	6 of 7
699.2	S-JLK-197	Trib. to Ackerson Run	Monroe	39.81926	80.98786	05030201	EPH	23	--	--	No	171	1.5	563, 564	6 of 7
699.3	S-JLK-192	Ackerson Run	Monroe	39.82167	80.98611	05030201	PER	--	51	WWH	No	1348	24.9	571, 572	6 of 7
699.3	S-JLK-193	Trib. to Ackerson Run	Monroe	39.81996	80.98576	05030201	INT	35	--	--	No	149	2.5	573, 574	6 of 7
699.3	S-JLK-194	Trib. to Ackerson Run	Monroe	39.81994	80.98695	05030201	INT	55	--	--	No	534	5.0	575, 576	6 of 7
699.3	S-JLK-227	Trib. to Ackerson Run	Monroe	39.82100	80.98633	05030201	PER	81	--	--	No	84	12.0	577, 578	6 of 7
699.3	S-JLK-228	Trib. to Ackerson Run	Monroe	39.82077	80.98640	05030201	EPH	30	--	--	No	84	1.5	579, 580	6 of 7
699.3	S-JLK-277	Trib. to Ackerson Run	Monroe	39.82313	80.98603	05030201	PER	49	--	--	No*	67	4.0	581, 582	6 of 7
699.5	S-JLK-208	Trib. to Ackerson Run	Monroe	39.82075	80.98201	05030201	PER	70	--	--	No	684	12.0	587, 588	6 of 7
699.6	S-JLK-237	Trib. to Ackerson Run	Monroe	39.82103	80.98151	05030201	EPH	26	--	--	No	37	3.0	589, 590	6 of 7
699.6	S-JLK-238	Trib. to Ackerson Run	Monroe	39.82079	80.98174	05030201	EPH	21	--	--	No	94	2.0	591, 592	6 of 7
699.7	S-JLK-206	Trib. to Ackerson Run	Monroe	39.82006	80.97861	05030201	INT	26	--	--	No	38	2.5	593, 594	7 of 7
699.7	S-JLK-207	Trib. to Ackerson Run	Monroe	39.81981	80.97902	05030201	EPH	21	--	--	No	37	3.3	595, 596	7 of 7
699.9	S-JLK-205	Trib. to Ackerson Run	Monroe	39.81989	80.97551	05030201	INT	49	--	--	No	142	4.5	599, 600	7 of 7
Contractor Yards															
Site 2 H2 Development															
n/a	S-JLK-267	Trib. to Leading Creek	Athens	39.20839	82.21593	05030202	EPH	12	--	--	No	759	1.5	615, 616	3 of 5
Site 6 Landefeld															
n/a	S-JLK-275	Trib. to Standingstone Run	Monroe	39.77596	81.09851	05030201	INT	24	--	--	No	128	2.0	641, 642	5 of 5
n/a	S-JLK-276	Trib. to Standingstone Run	Monroe	39.77652	81.09699	05030201	INT	33	--	--	No	196	4.0	643, 644	5 of 5

[1]The use designation is provided in the Ohio Administrative Code, Chapter 3745-1 Water Quality Standards.

[2] CWH/CWH equivalent as per OEPA direction. Biological sampling was performed on streams with an *. Streams in which OEPA processed the macroinvertebrate and fish voucher specimens collected during sampling are marked with a **.

5.0 SUMMARY

URS Corporation identified and delineated a total 148 wetlands and 171 watercourses. Please refer to the summary tables below for a breakdown of resource type and corresponding facility.

Table 3: Delineated Wetland Summary

Facilities	Wetland Type					Total
	PEM	PSS	PFO	PUB	Mix Type	
Wheelersburg to Athens Loop	62	3	2	4	4	75
Athens to Berne Loop	26	0	0	1	0	27
Berne to Holbrook Loop	20	5	0	1	0	26
Contractor Yards	13	3	0	2	2	20
Total	**121**	**11**	**2**	**8**	**6**	**148**

Table 4: Delineated Watercourse Summary

Facilities	Stream Type			Total
	Ephemeral	Intermittent	Perennial	
Wheelersburg to Athens Loop	62	23	16	101
Athens to Berne Loop	17	6	11	34
Berne to Holbrook Loop	13	15	5	33
Contractor Yards	1	2	0	3
Total	**93**	**46**	**32**	**171**

6.0 STATEMENT OF LIMITATIONS

- This investigation was limited to the study area shown herein. URS did not examine areas outside of the study area, thus no information is provided regarding the presence or absence of regulated wetlands and watercourses outside of the study area.
- This investigation was conducted on the date(s) indicated herein. Human-induced or natural changes at the site may occur after this date which may cause changes in the presence and extent of regulated wetlands and watercourses.

7.0 SIGNATURES

This report was prepared by:

URS Corporation

Colleen B. Ashbaugh, M.S.
Biologist

And reviewed by:

URS Corporation

Jim Burns, PWS, Certified Project Manager
Senior Environmental Scientist

8.0 REFERENCES

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