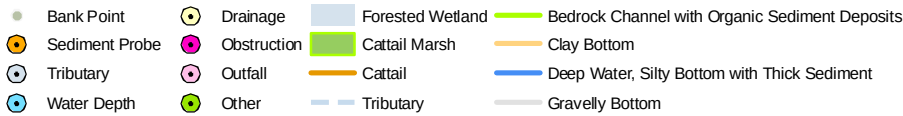
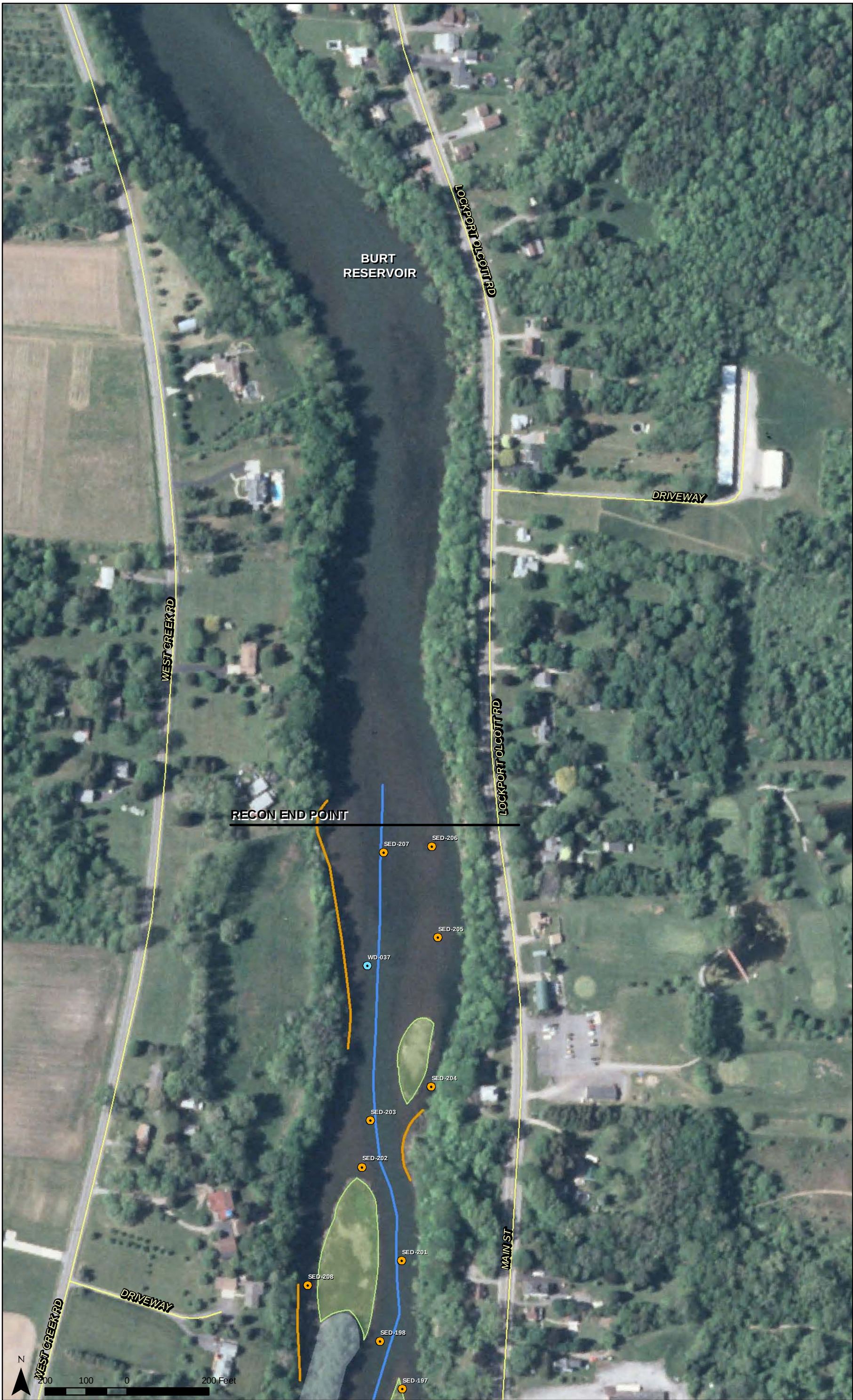


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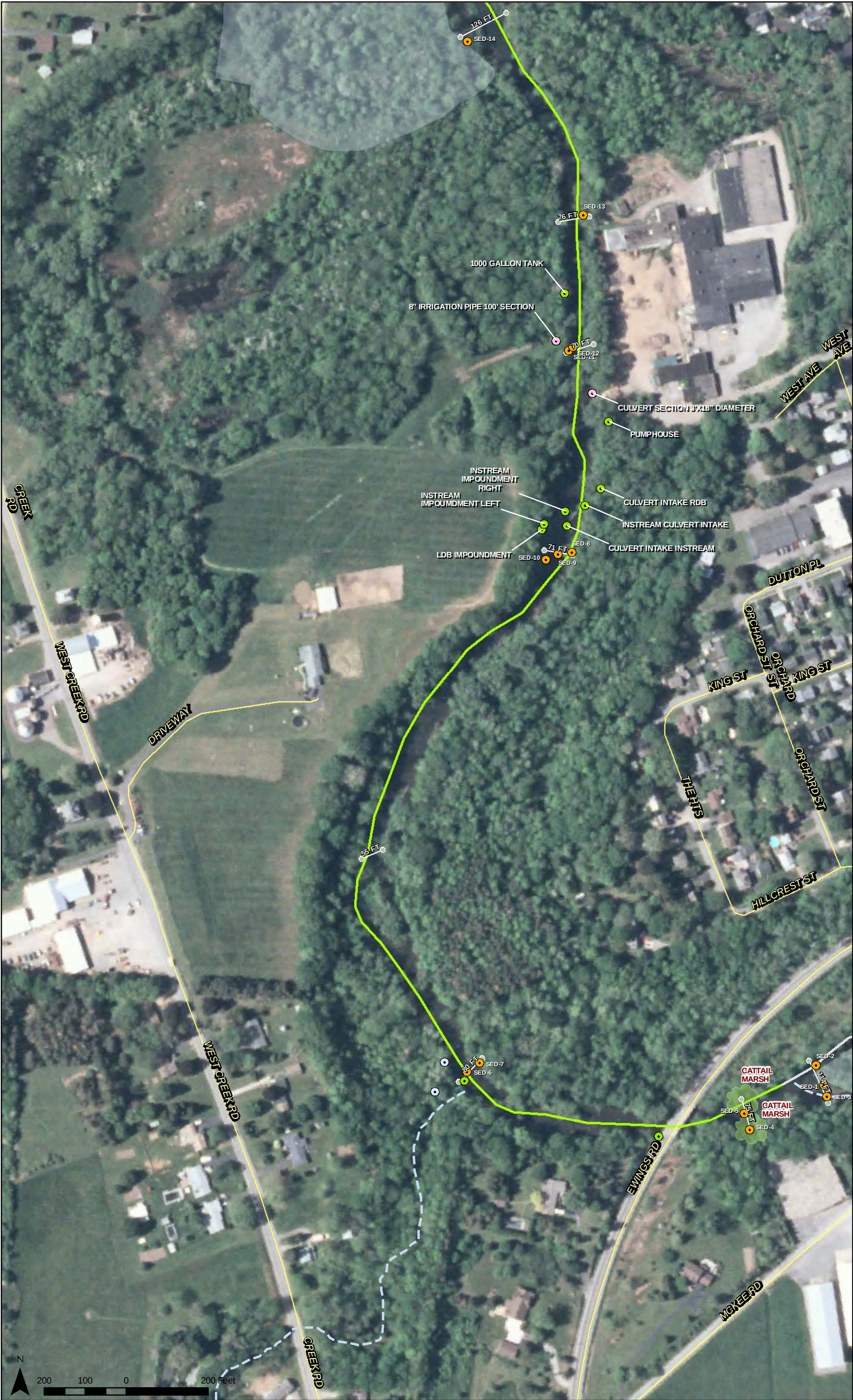
Survey Figures

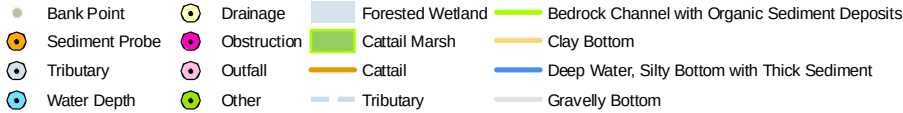
The following figures provided detailed locations of the points identified during the Phase 1 reconnaissance survey.

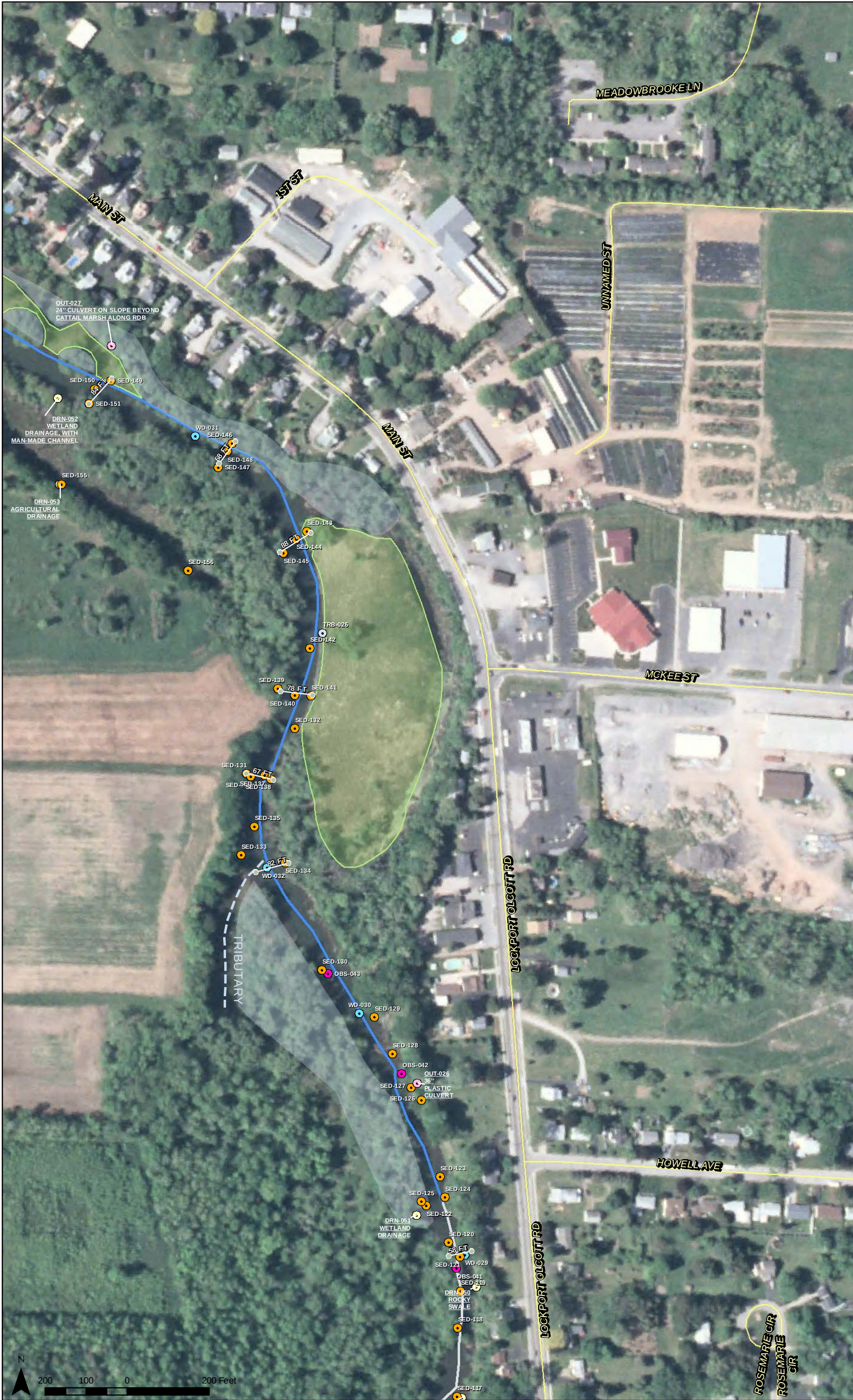




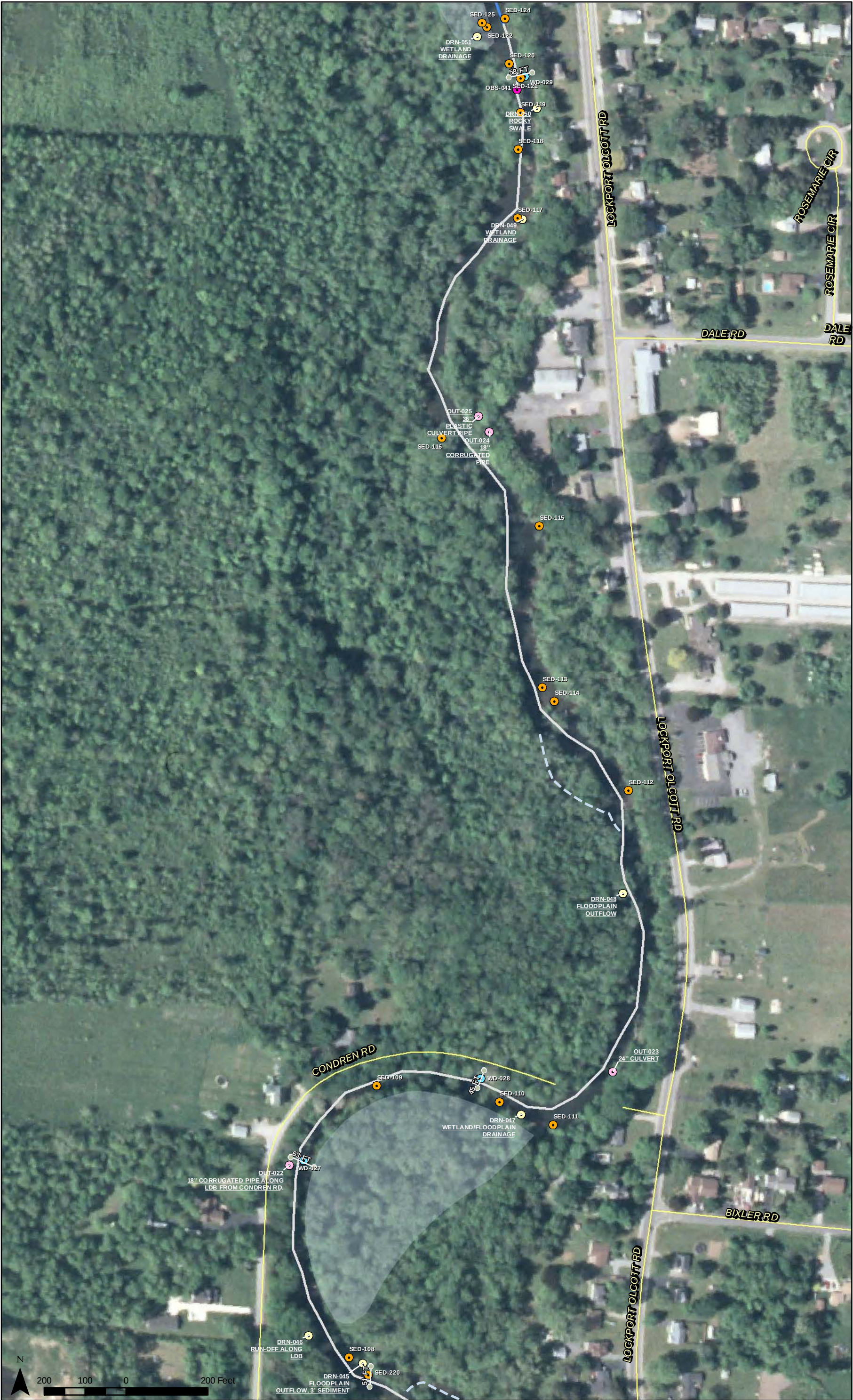
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|----------------|-------------|------------------|--|
| Bank Point | Drainage | Forested Wetland | Bedrock Channel with Organic Sediment Deposits |
| Sediment Probe | Obstruction | Cattail Marsh | Clay Bottom |
| Tributary | Outfall | Cattail | Deep Water, Silty Bottom with Thick Sediment |
| Water Depth | Other | Tributary | Gravelly Bottom |



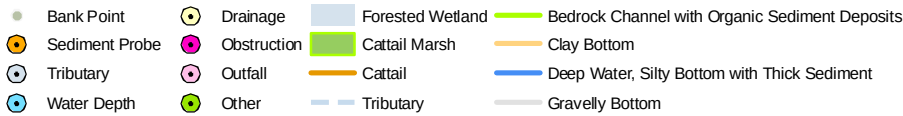
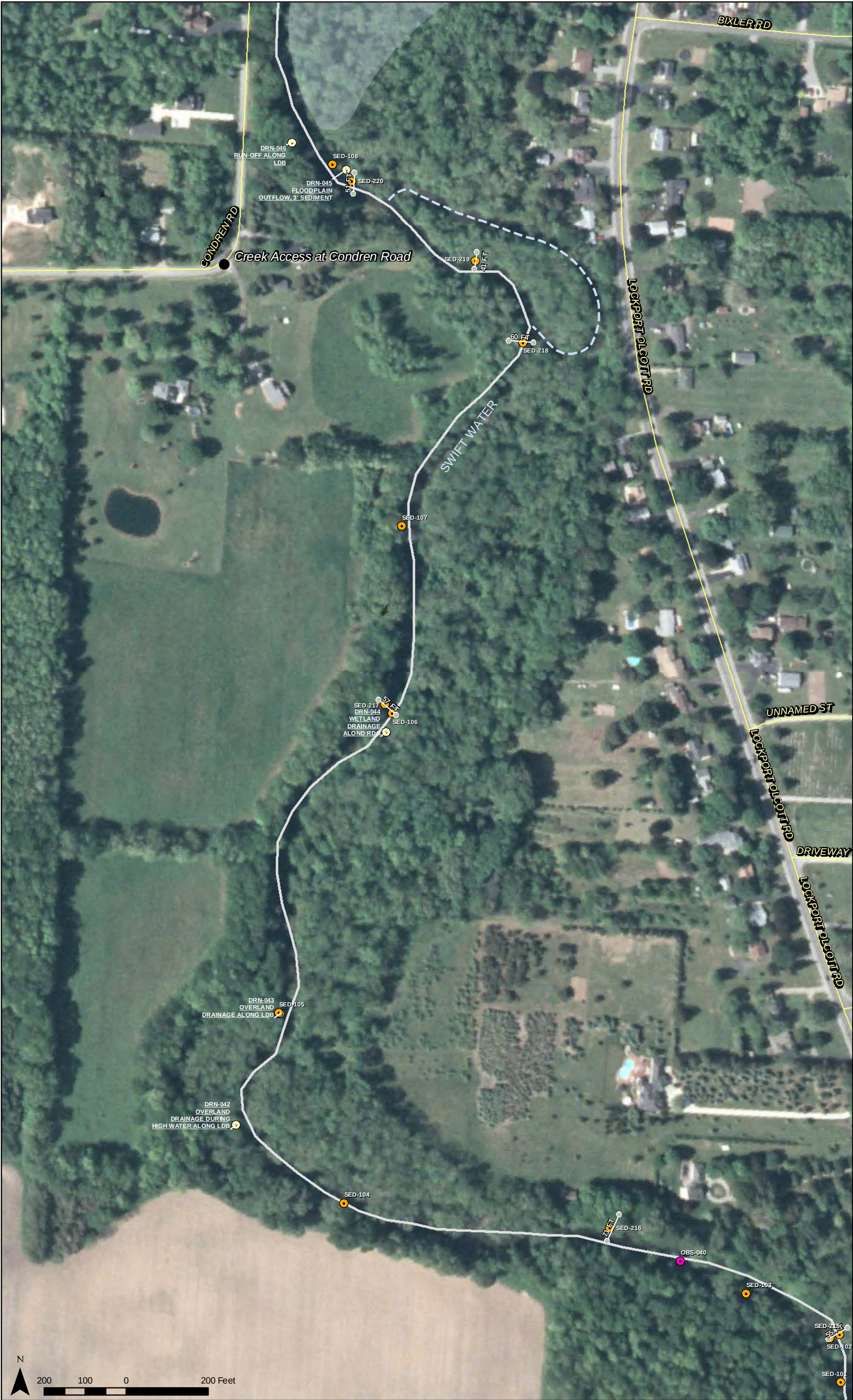


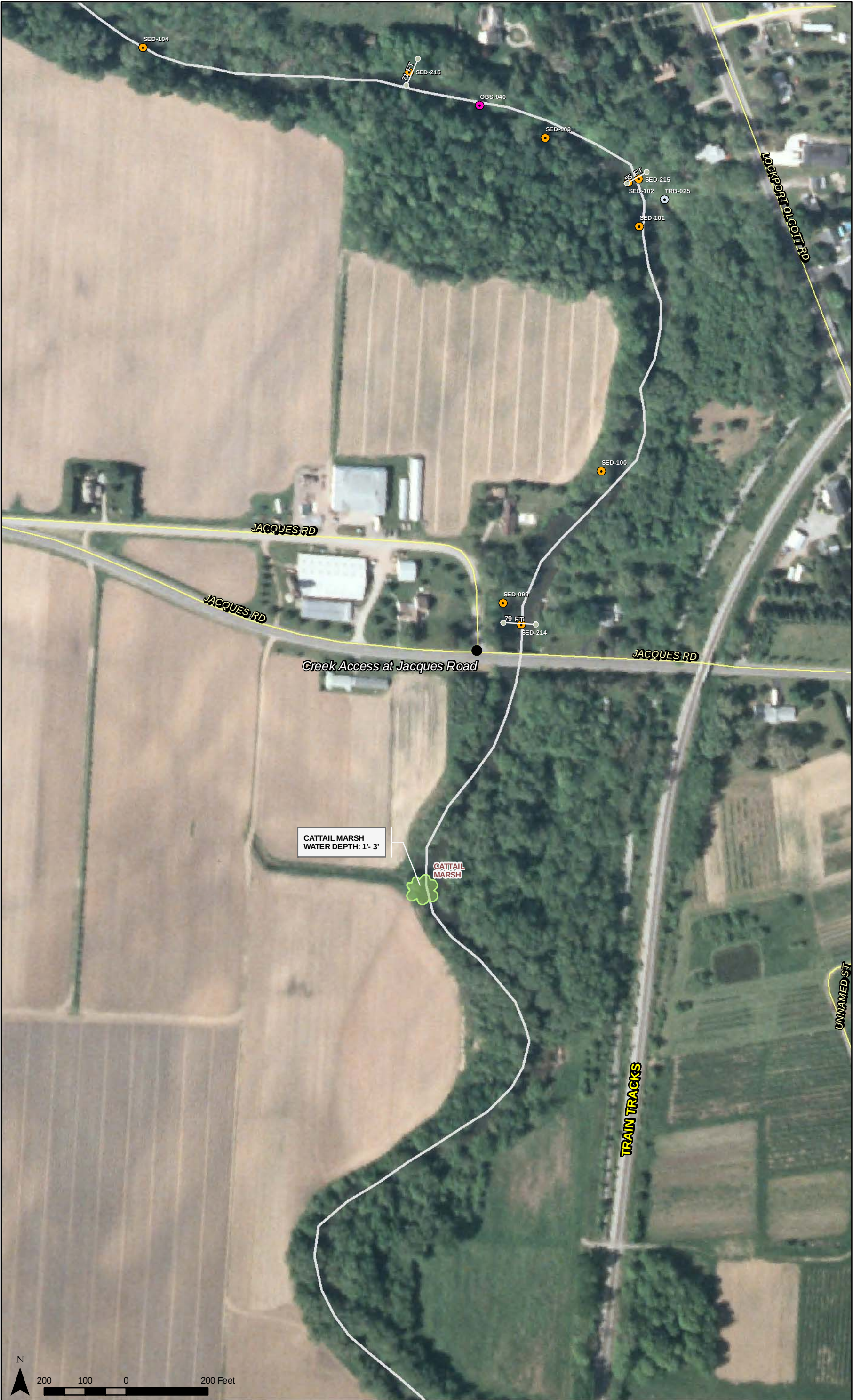


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| ● Bank Point | ● Drainage | ■ Forested Wetland | ■ Bedrock Channel with Organic Sediment Deposits |
| ● Sediment Probe | ● Obstruction | ■ Cattail Marsh | ■ Clay Bottom |
| ● Tributary | ● Outfall | ■ Cattail | ■ Deep Water, Silty Bottom with Thick Sediment |
| ● Water Depth | ● Other | ■ Tributary | ■ Gravelly Bottom |

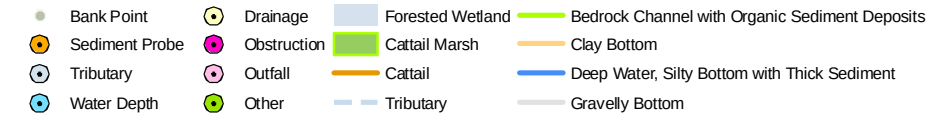


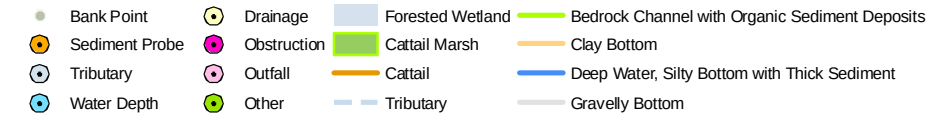
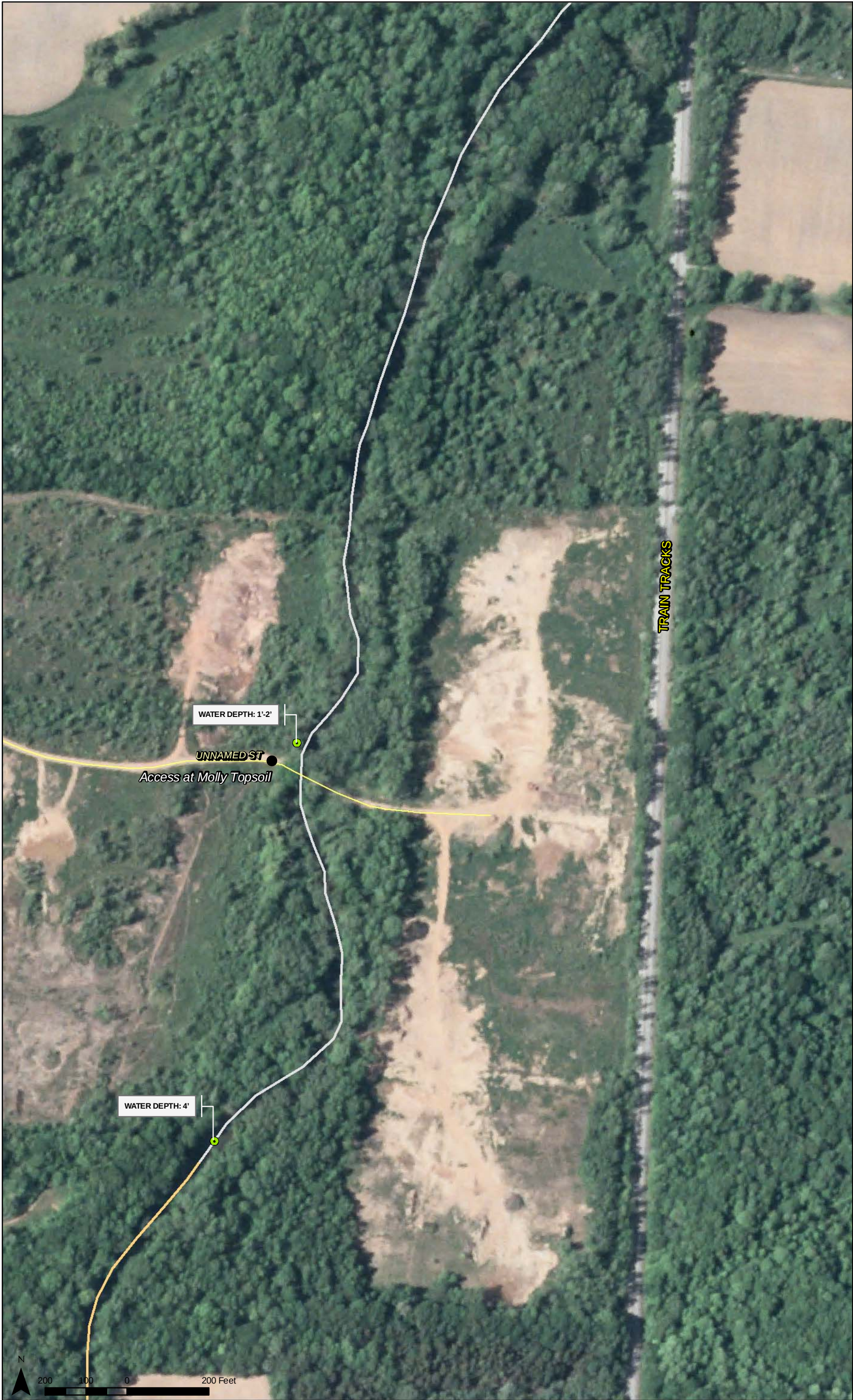
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| ● Bank Point | ○ Drainage | ■ Forested Wetland | ■ Bedrock Channel with Organic Sediment Deposits |
| ● Sediment Probe | ● Obstruction | ■ Cattail Marsh | ■ Clay Bottom |
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| ● Water Depth | ● Other | ■ Tributary | ■ Gravelly Bottom |

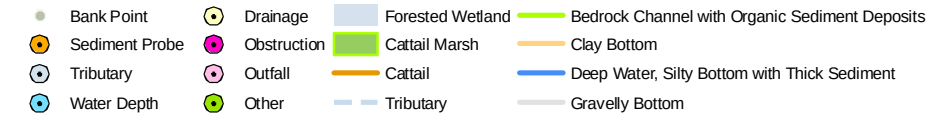




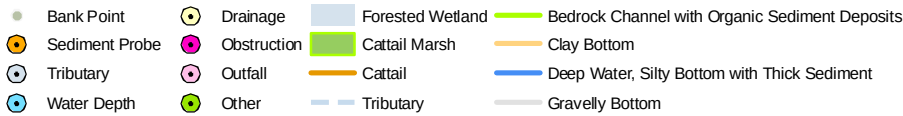
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| ● Bank Point | ○ Drainage | ■ Forested Wetland | ■ Bedrock Channel with Organic Sediment Deposits |
| ● Sediment Probe | ● Obstruction | ■ Cattail Marsh | ■ Clay Bottom |
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| ● Water Depth | ● Other | ■ Tributary | ■ Gravelly Bottom |



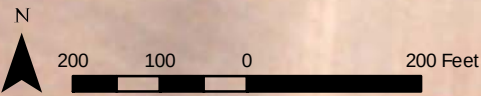




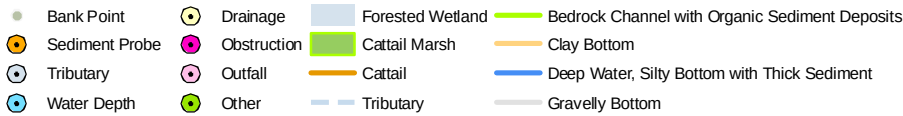
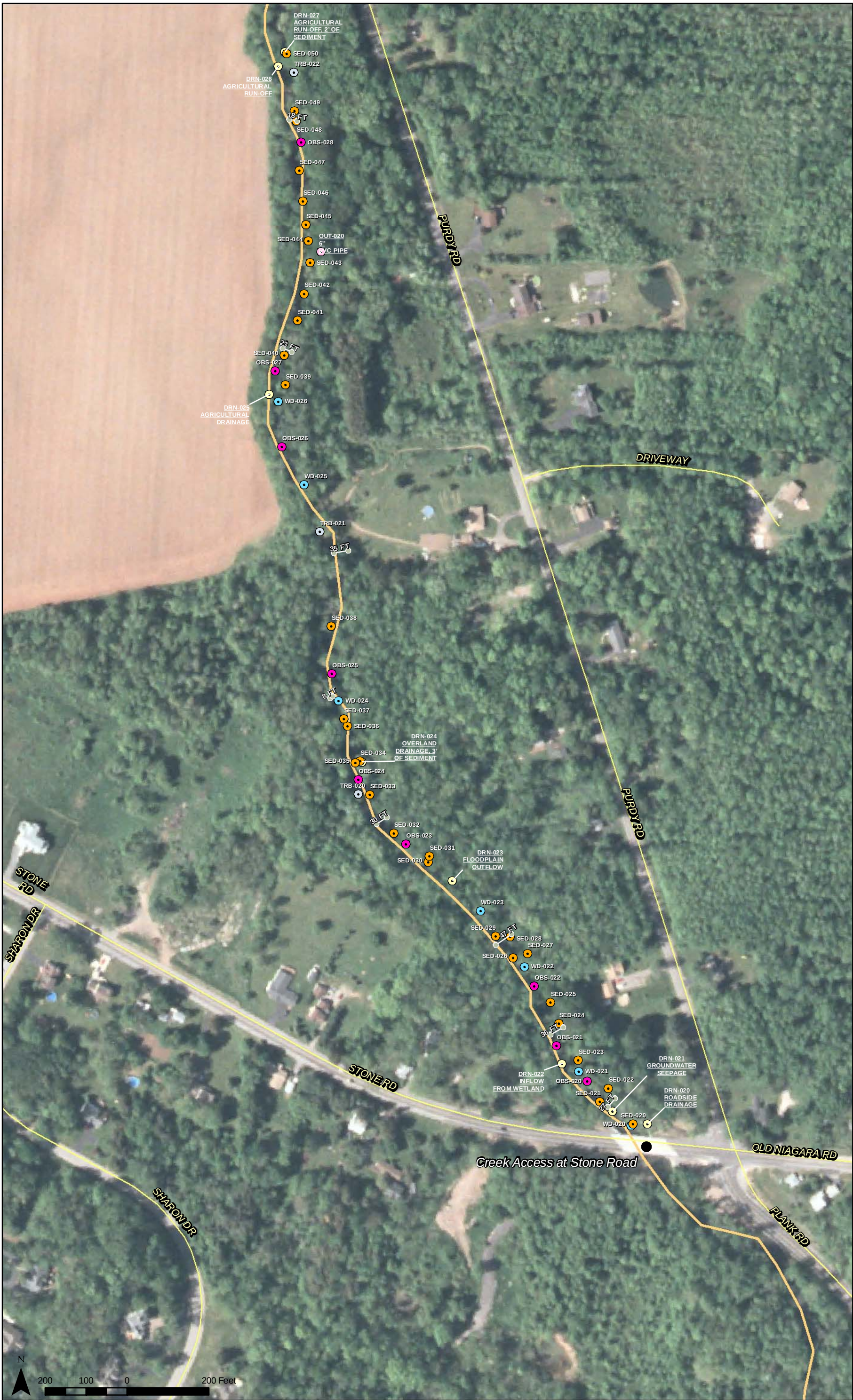






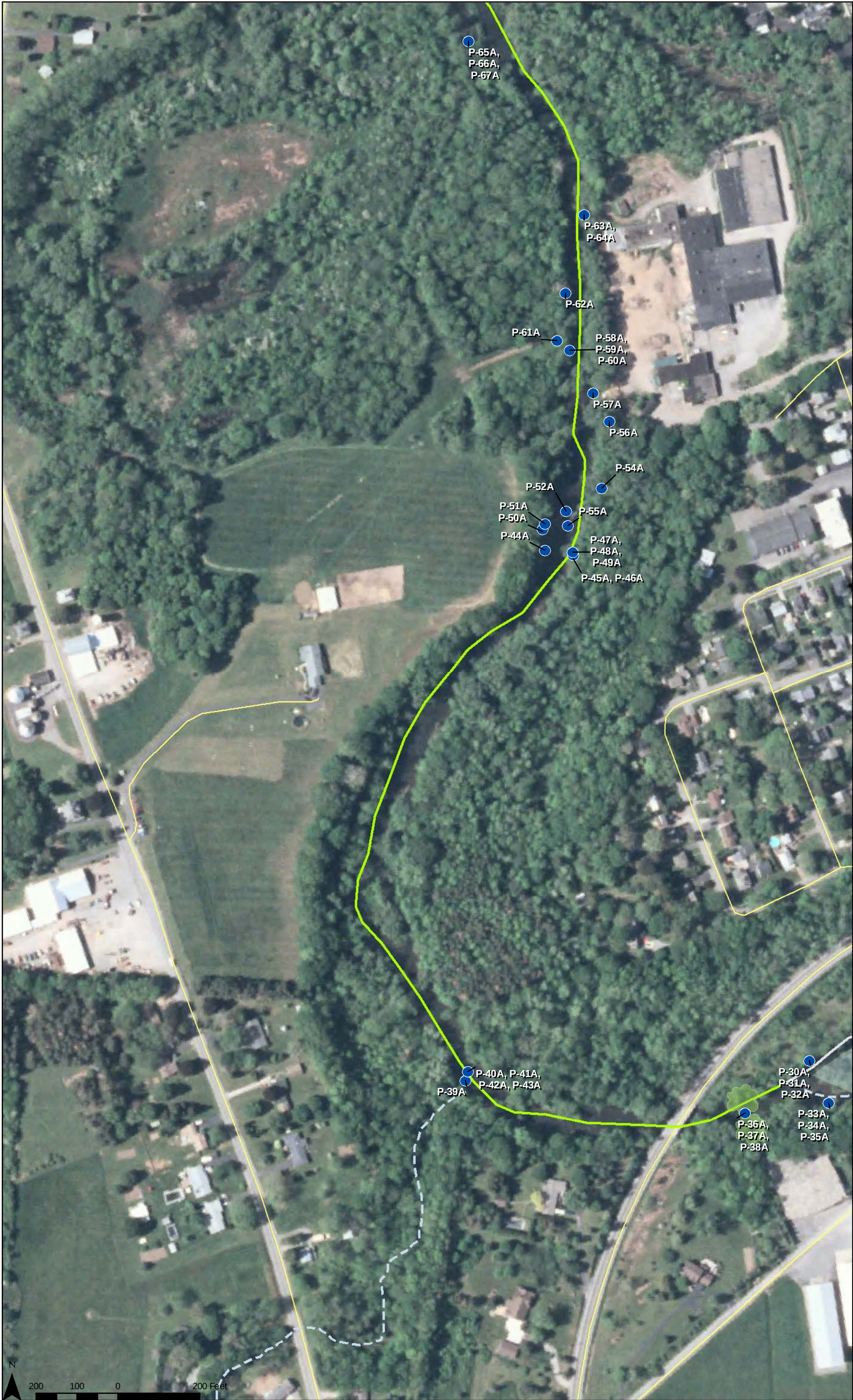


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|------------------|---------------|--------------------|--|
| ● Bank Point | ○ Drainage | ■ Forested Wetland | ■ Bedrock Channel with Organic Sediment Deposits |
| ● Sediment Probe | ● Obstruction | ■ Cattail Marsh | ■ Clay Bottom |
| ● Tributary | ● Outfall | ■ Cattail | ■ Deep Water, Silty Bottom with Thick Sediment |
| ● Water Depth | ● Other | ■ Tributary | ■ Gravelly Bottom |

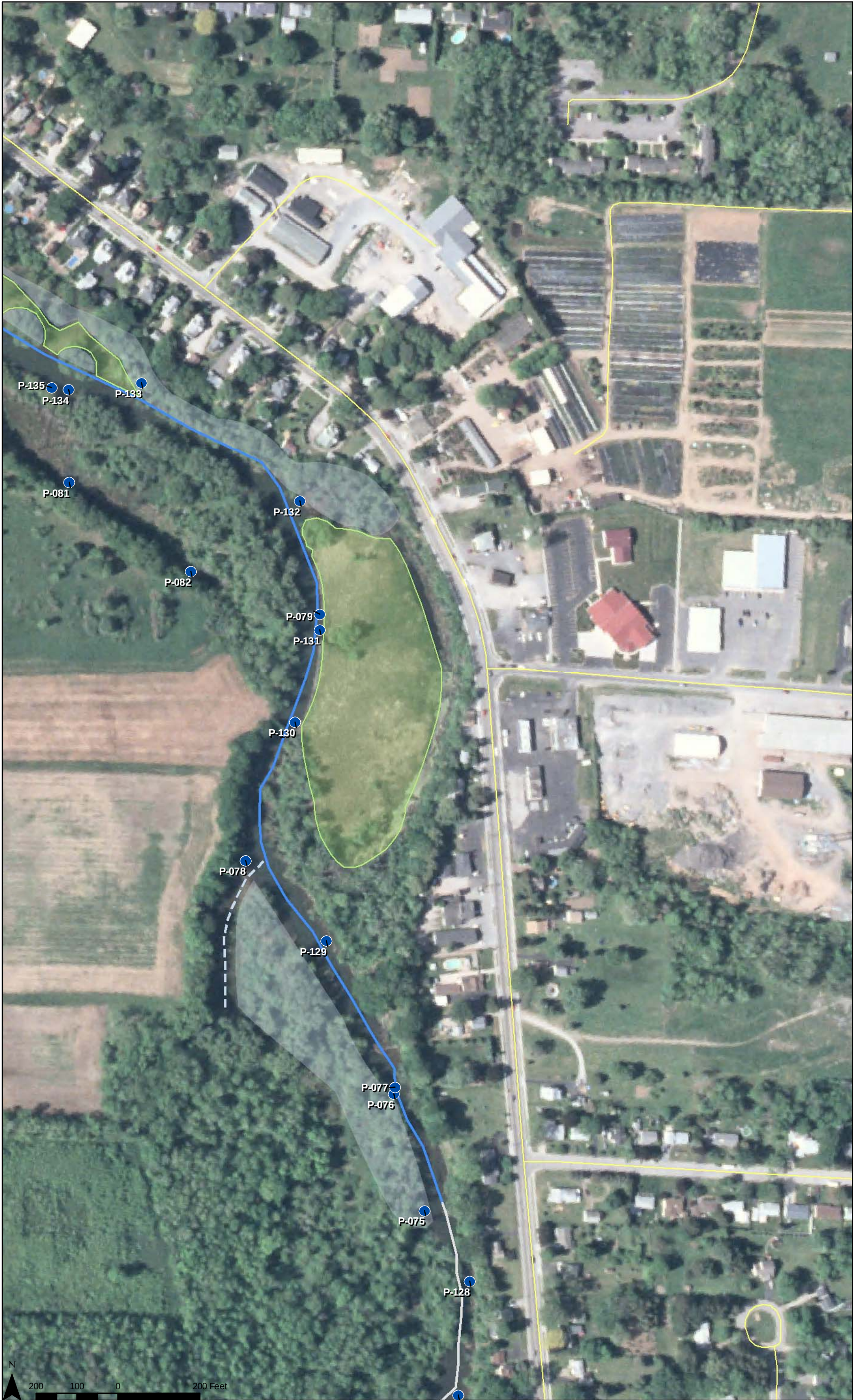




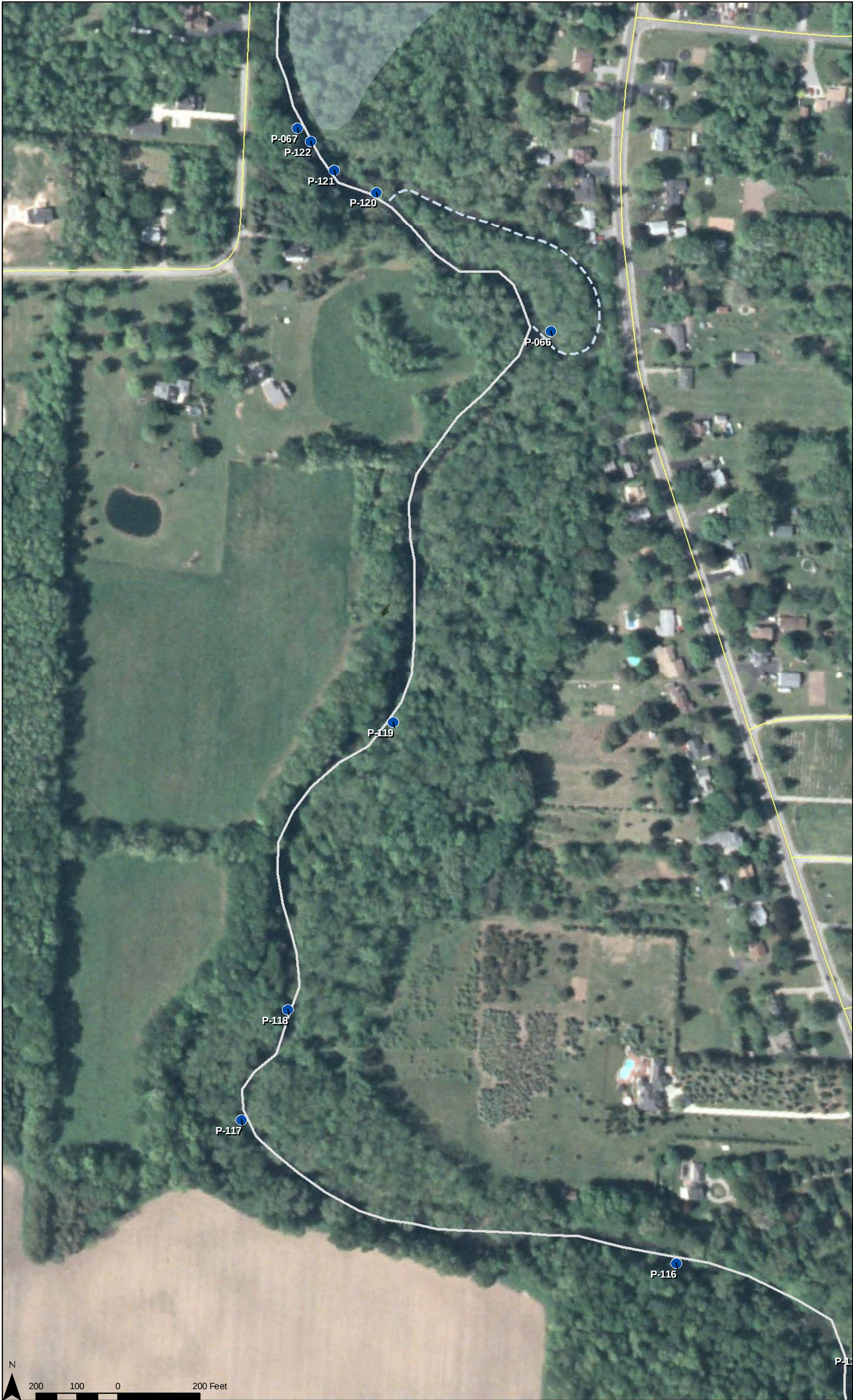












- Photo Location
- Bedrock Channel with Organic Sediment Deposits
- Tributary
- Clay Bottom
- Deep Water, Silty Bottom with Thick Sediment
- Gravelly Bottom
- Cattail Marsh



- Photo Location
- Tributary
- Forested Wetland
- Cattail Marsh
- Bedrock Channel with Organic Sediment Deposits
- Clay Bottom
- Deep Water, Silty Bottom with Thick Sediment
- Gravelly Bottom





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| ● Photo Location | — Bedrock Channel with Organic Sediment Deposits |
| — Tributary | — Clay Bottom |
| — Forested Wetland | — Deep Water, Silty Bottom with Thick Sediment |
| — Cattail Marsh | — Gravelly Bottom |



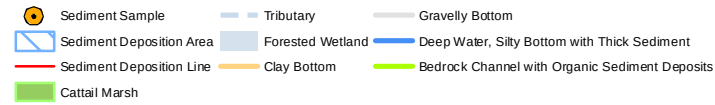
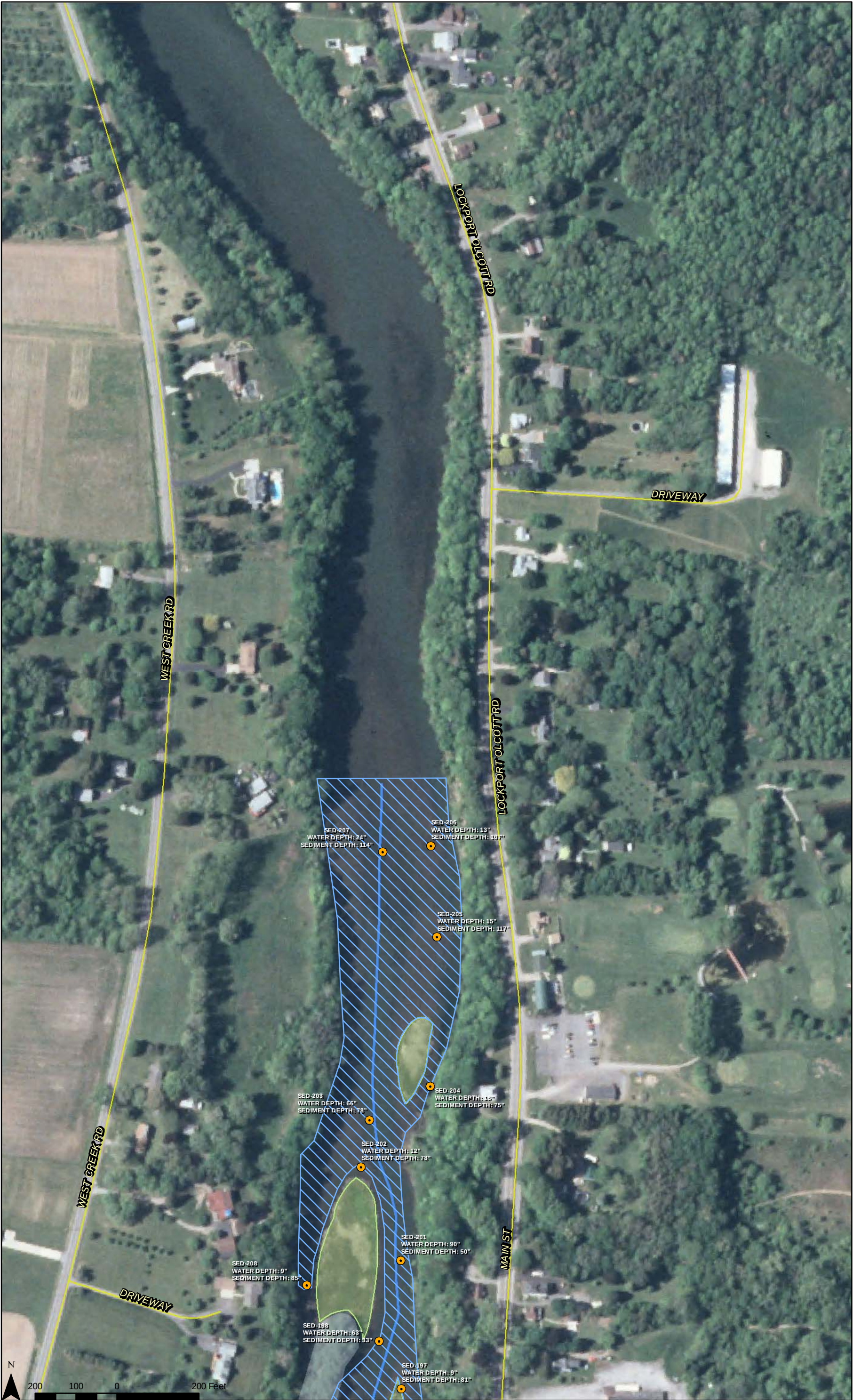


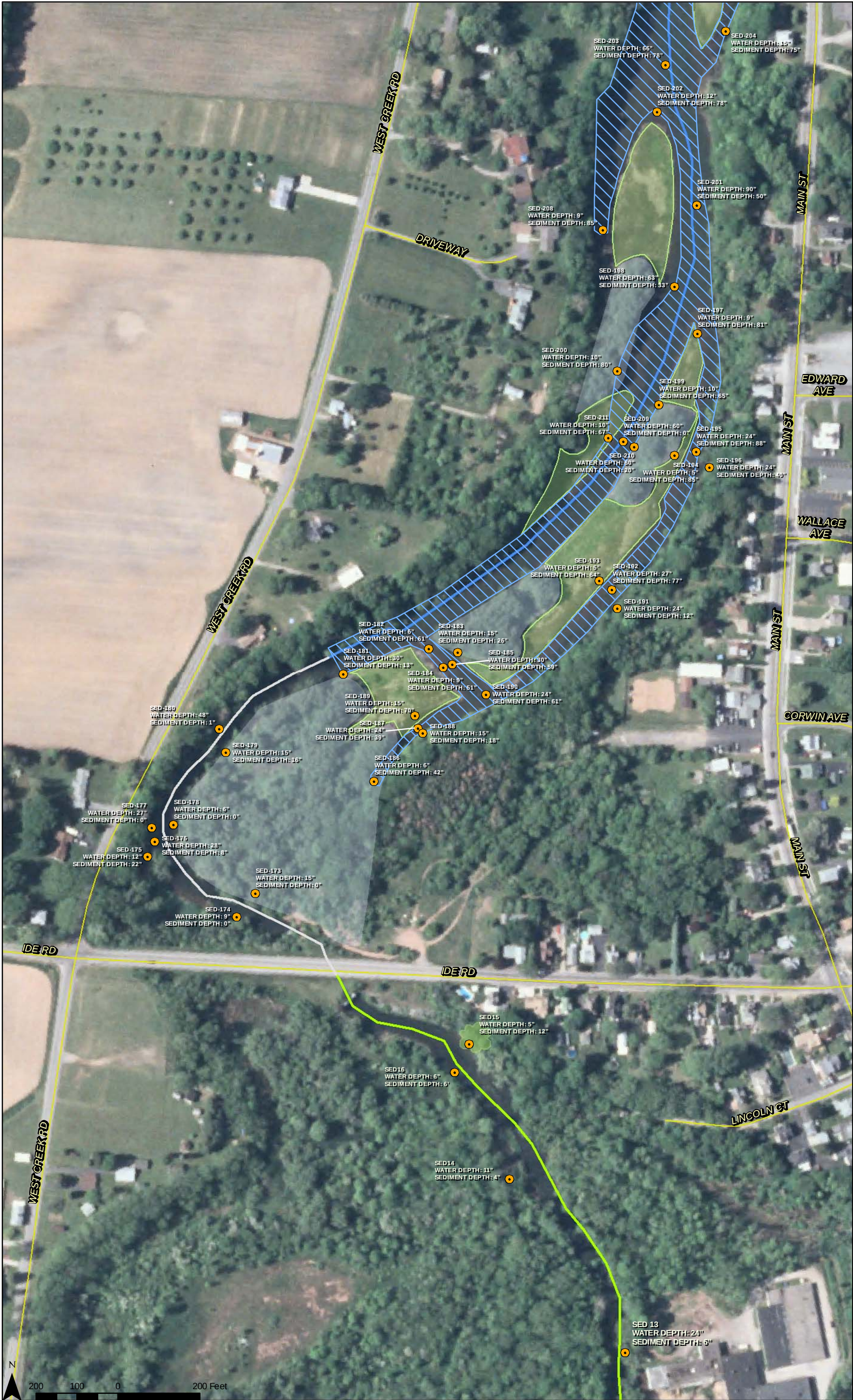


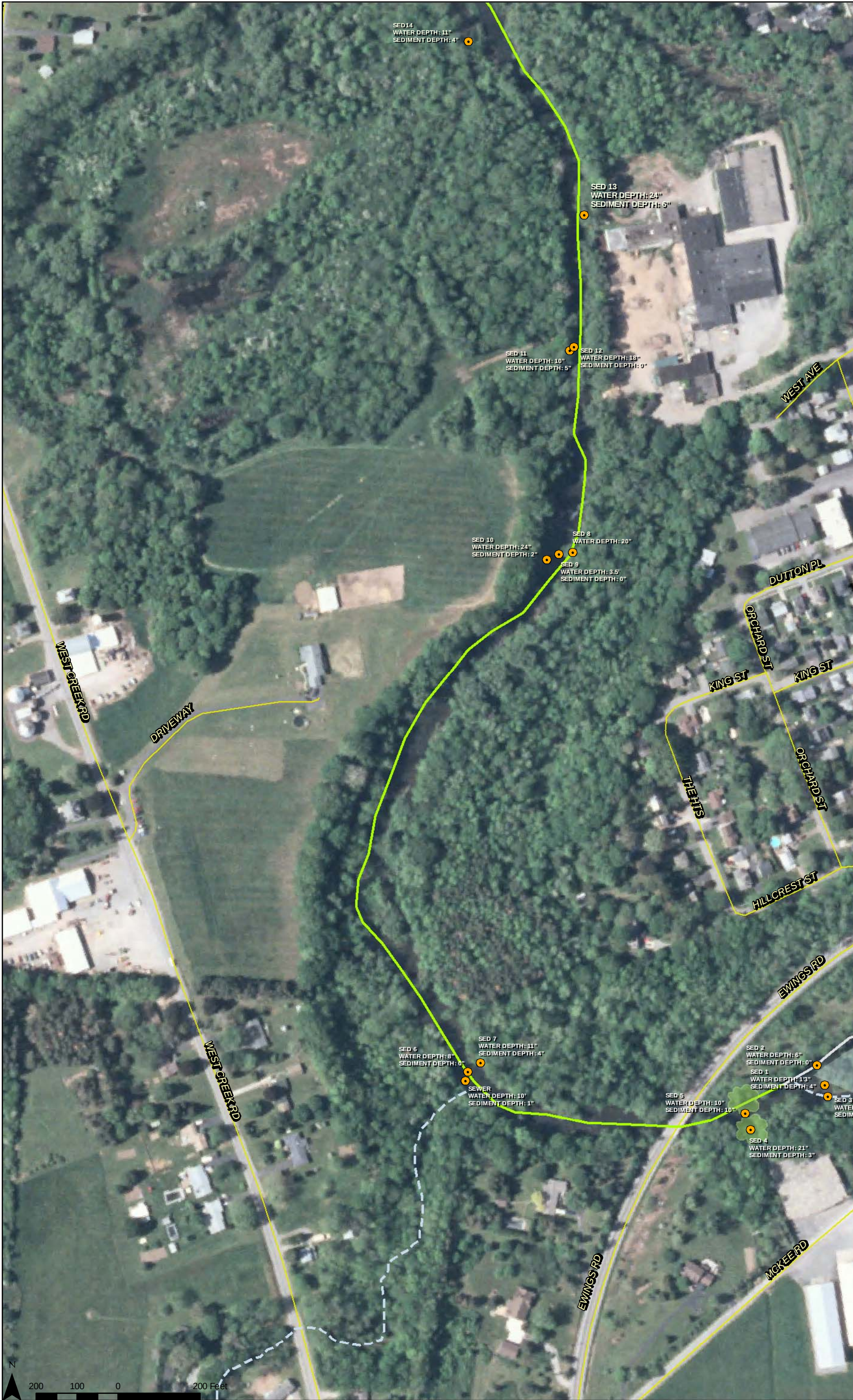




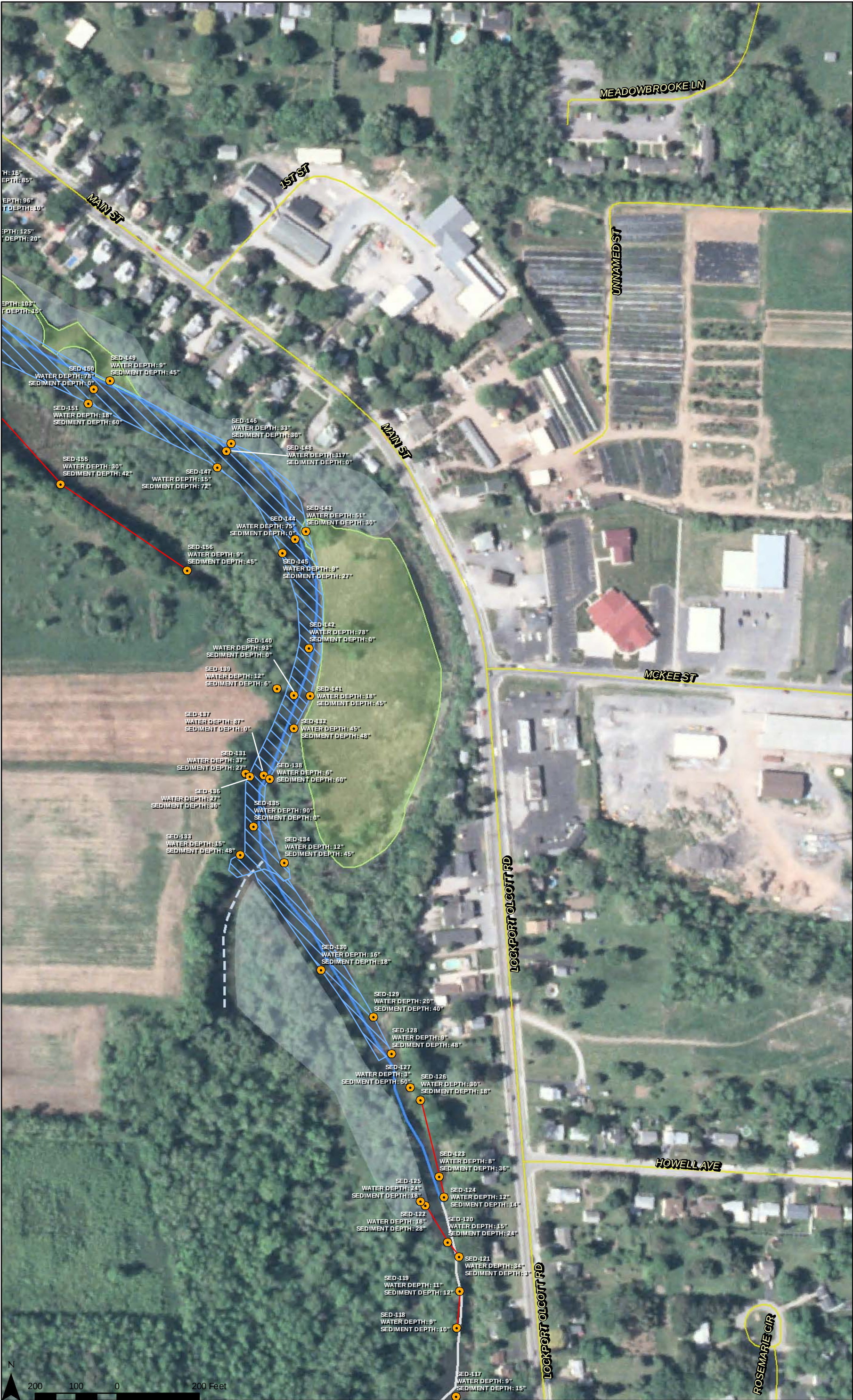


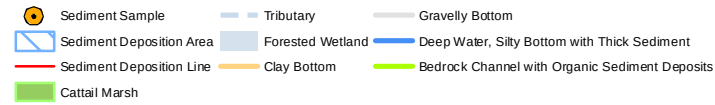
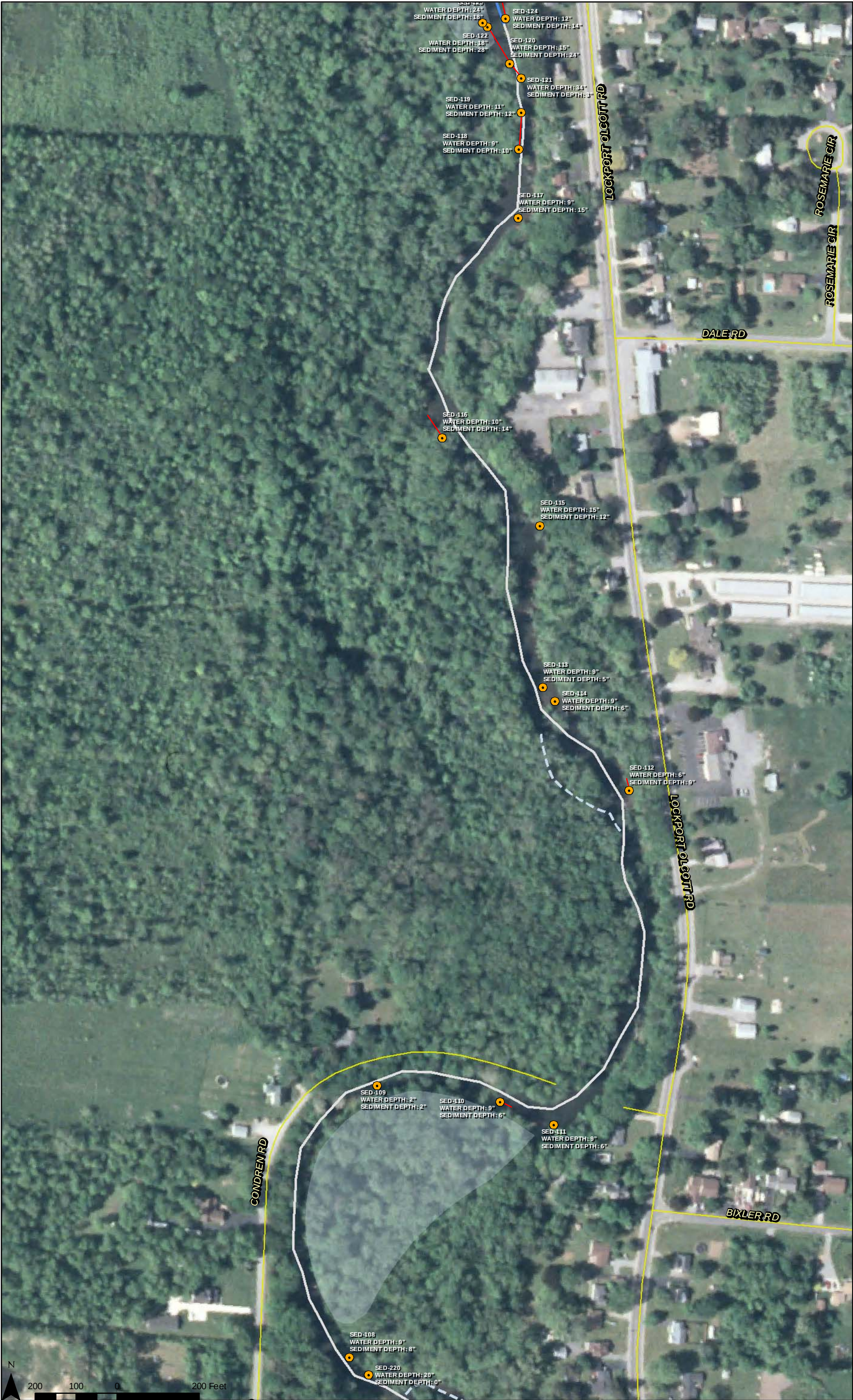


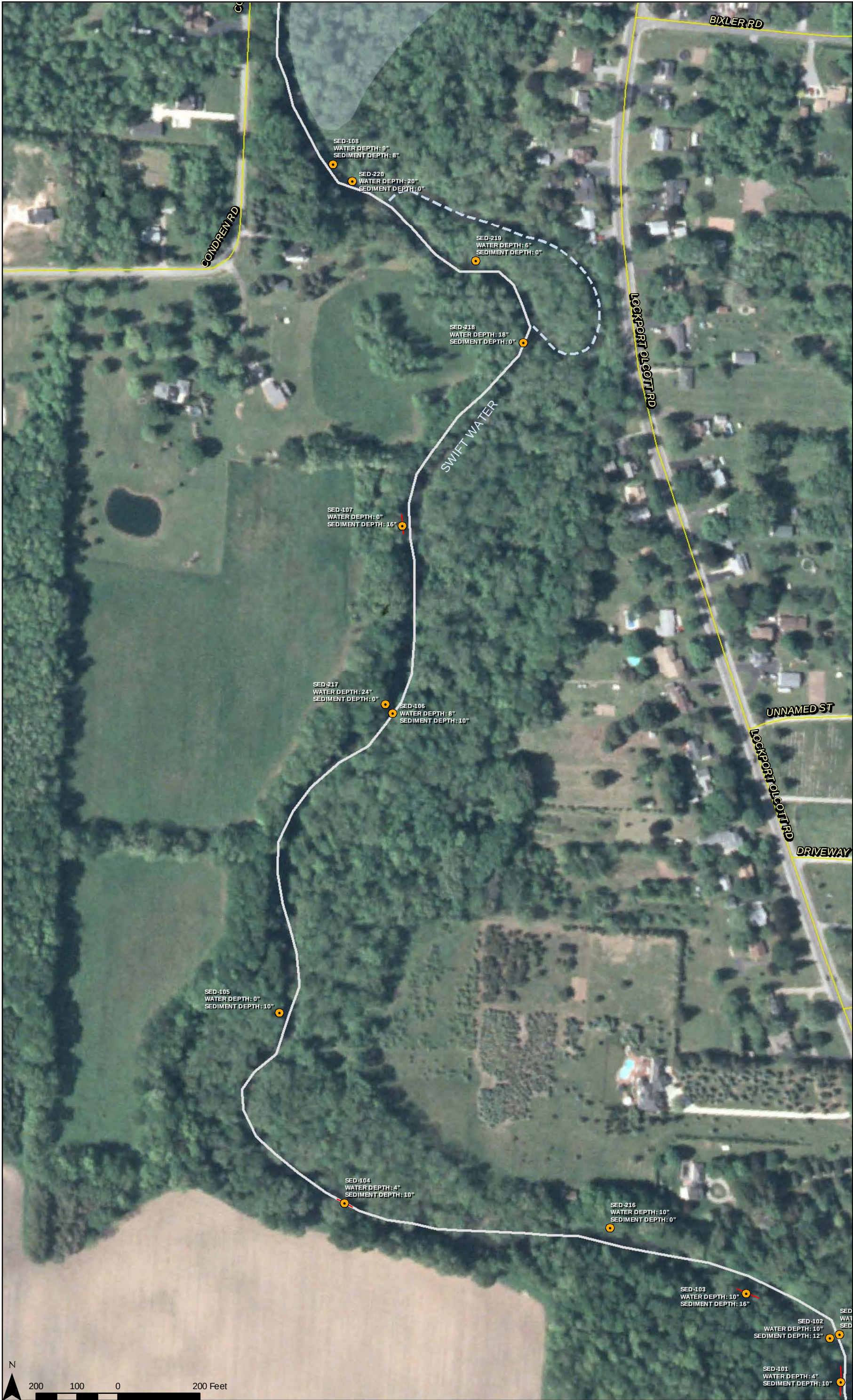
















TRAIN TRACKS

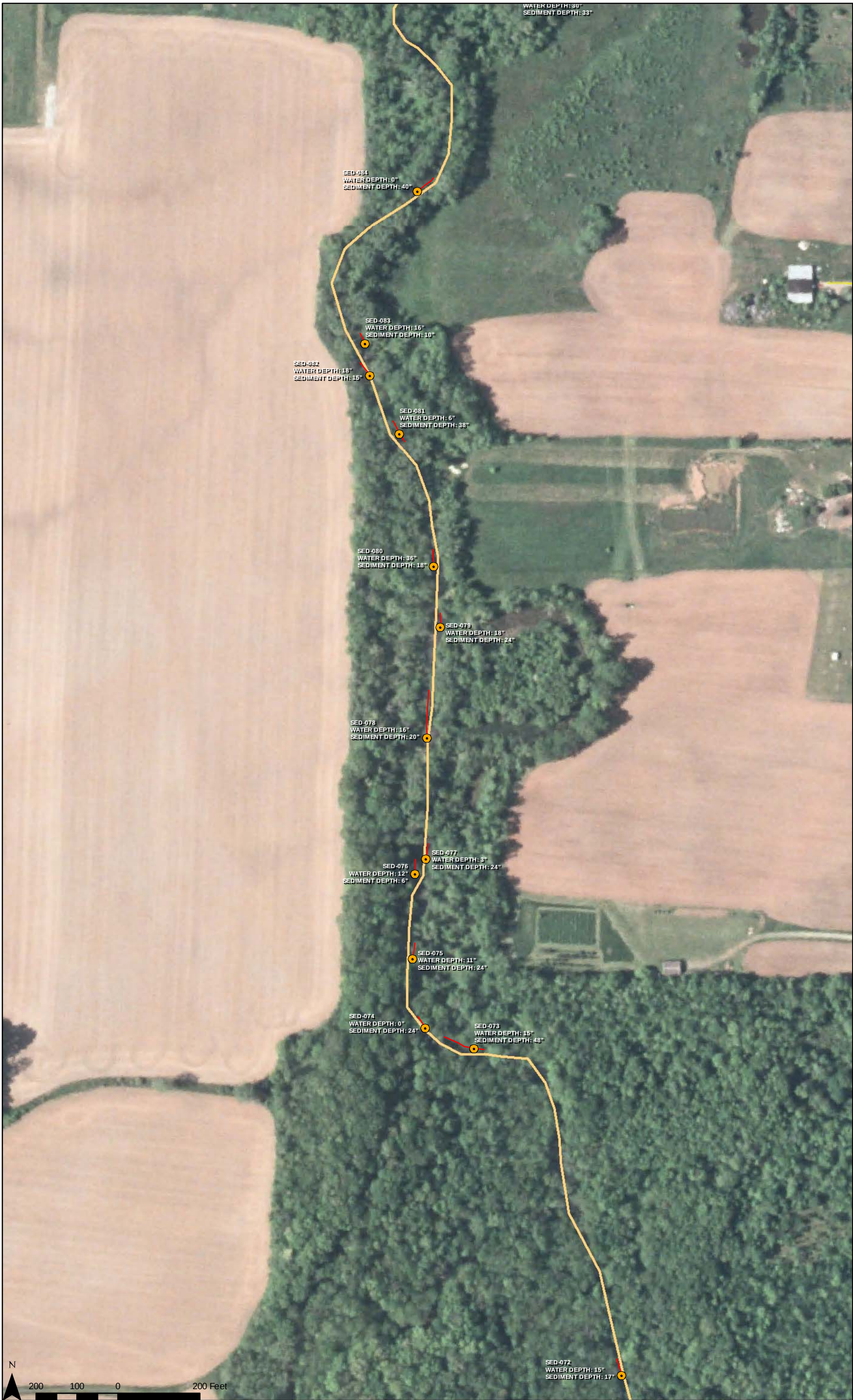




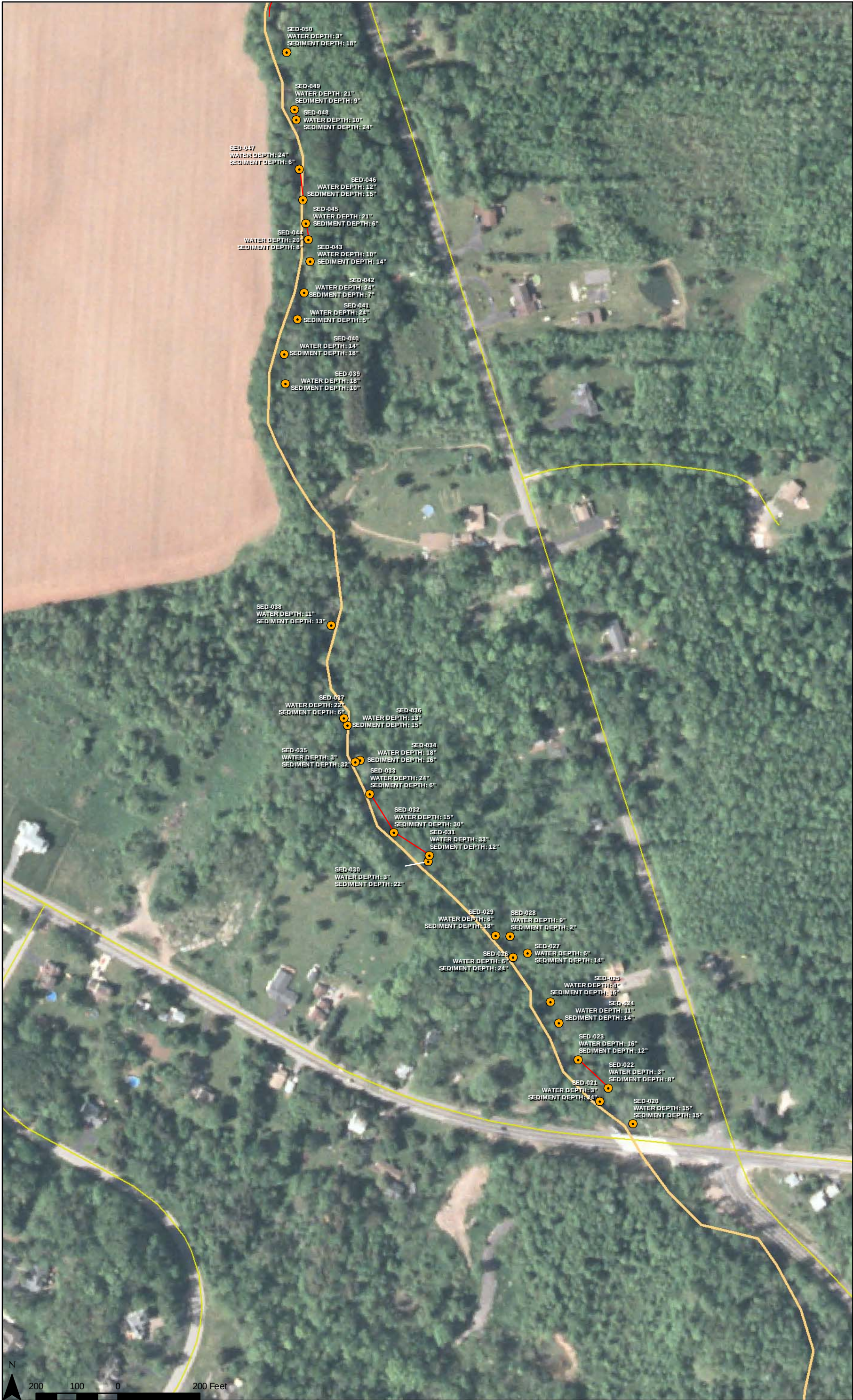












B Survey Data Tables

The following tables are included that present the locations surveyed during Phase 1 activities.

Table B-1 Sediment Thickness Points, Eighteenmile Creek, Niagara County, New York

Sediment Point ID	Reach	Section	Thickness (inches)	Water Depth (inches)	Length (feet)	Sediment Description	Comments
SED 206	2	0	107	13			Hitting hard bottom
SED 207	2	0	114	24			Mid-channel
SED 179	3	0	16	15		Gravel	2' from RDB
SED 180	3	0	1	48		Gravel	6' from LDB
SED 181	3	0	13	30		Fine sand with some silt and clay	19' from RDB
SED 182	3	0	61	6		Silt, fine sand, little clay	Adjacent to cattail marsh
SED 183	3	0	26	15			6' from LDB of connection channel
SED 184	3	0	51	9			6' from RDB, Adjacent to floodplain with black willow and cattail marsh
SED 185	3	0	59	30			Mid-channel, adjacent to cattail marsh (CM-026)
SED 186	3	0	42	6		Silty clay	Start of RDB side channel
SED 187	3	0	39	24			Mid-channel
SED 188	3	0	18	15			5' from RDB, adjacent to cattail marsh
SED 189	3	0	70	15			5' from cattail marsh edge
SED 190	3	0	61	24			At confluence of side channel and connection
SED 191	3	0	12	24			6' from RDB
SED 192	3	0	77	27			Mid-channel
SED 193	3	0	64	5			8' from LDB
SED 194	3	0	85	5			8' from shore, adjacent to cattail marsh
SED 195	3	0	88	24			Mid-channel, adjacent to cattail marsh
SED 196	3	0	40	24			

Table B-1 Sediment Thickness Points, Eighteenmile Creek, Niagara County, New York

Sediment Point ID	Reach	Section	Thickness (inches)	Water Depth (inches)	Length (feet)	Sediment Description	Comments
SED 197	3	0	81	9		Black silt, little sand and clay, organic	
SED 198	3	0	33	63			Mid-channel
SED 199	3	0	65	10			6' from RDB
SED 200	3	0	80	10			10' from LDB, adjacent to floodplain
SED 201	3	0	50	90			Mid-channel
SED 202	3	0	78	12			Located off tip of cattail marsh
SED 203	3	0	78	66			
SED 204	3	0	75	15			Mid-channel in side channel, adjacent to cattail marsh (CM-035)
SED 205	3	0	117	15			
SED 208	3	0	85	9			
SED 209	3	0	0	60		Clay	
SED 210	3	0	20	60			6' from LDB, adjacent to cattail marsh
SED 211	3	0	67	10			6' from LDB, adjacent to cattail marsh
SED 01	4	0	4	15			
SED 02	4	0	0	6			
SED 03	4	0	8	5			
SED 04	4	0	3	21			
SED 05	4	0	0	10			
SED 06	4	0	0	8			
SED 07	4	0	4	11			
SED 08	4	0	2	20			
SED 09	4	0	0	42			
SED 10	4	0	2	24			
SED 11	4	0	5	10			
SED 12	4	0	0	18			
SED 13	4	0	6	24			
SED 14	4	0	4	11			
SED 15	4	0	12	5			
SED 16	4	0	4	6			

Table B-1 Sediment Thickness Points, Eighteenmile Creek, Niagara County, New York

Sediment Point ID	Reach	Section	Thickness (inches)	Water Depth (inches)	Length (feet)	Sediment Description	Comments
SED 173	4	0	0	15		Gravel	3' from RDB
SED 174	4	0	0	9		Gravel	3' from LDB
SED 175	4	0	22	12		Dark brown, silt, fine sand, organic	Inlet on LDB, adjacent to DRN-054
SED 176	4	0	8	28			
SED 177	4	0	0	27		Gravel and cobble	3' from LDB
SED 178	4	0	0	6		Gravel	4' from RDB
SED 122	5	0	28	18		Highly organic	Along LDB, adjacent to wetland (DRN-051), sheen and odor present
SED 123	5	0	36	8		Highly organic	Along RDB, heavy sediment
SED 124	5	0	14	12			Begins at black willow snag
SED 125	5	0	18	24			End of sediment along LDB (including points SED120, 121, and 122)
SED 126	5	0	18	30			End of sediment along RDB (SED-123)
SED 127	5	0	50	3		Highly organic	Very deep sediment along RDB, odor present
SED 128	5	0	48	9			Located between obstruction complex (OBS-042 to OBS-043)
SED 129	5	0	40	20			Along RDB below OBS-043
SED 130	5	0	18	16			Odor present
SED 131	5	0	27	37			Along LDB
SED 132	5	0	48	45			Upstream point along cattail marsh edge

Table B-1 Sediment Thickness Points, Eighteenmile Creek, Niagara County, New York

Sediment Point ID	Reach	Section	Thickness (inches)	Water Depth (inches)	Length (feet)	Sediment Description	Comments
SED 133	5	0	48	15		Fine to coarse sand with some silt, organic	Mouth of mapped tributary
SED 134	5	0	45	12		Silt and sand in deeper deposits	Along RDB
SED 135	5	0	0	90			Mid-channel, refusal due to bedrock
SED 136	5	0	36	27		Very silty with sand	Located just off LDB
SED 137	5	0	0	87			Mid-channel
SED 138	5	0	60	6		Silt	
SED 139	5	0	6	12			Located just off LDB
SED 140	5	0	0	93		Gravel	
SED 141	5	0	45	18			
SED 142	5	0	0	78		Gravel	
SED 143	5	0	30	51			4' from RDB
SED 144	5	0	0	75		Gravel	
SED 145	5	0	27	9		Silt	4' from LDB
SED 146	5	0	30	33			3' from LDB
SED 147	5	0	72	15			
SED 148	5	0	0	117		Gravel	
SED 149	5	0	45	9			3' from RDB, within cattail marsh
SED 150	5	0	0	78			Refusal due to clay
SED 151	5	0	60	18			Cattail marsh
SED 152	5	0	15	103		Silty clay and gravel	
SED 153	5	0	86	36		Silt	Located in side channel
SED 154	5	0	37	42		Silt	Tributary off main channel
SED 155	5	0	42	30		Silt	Adjacent to DRN-053
SED 156	5	0	45	9			Terminal end of tributary
SED 157	5	0	20	102		Silt	Banks are cattail marsh

Table B-1 Sediment Thickness Points, Eighteenmile Creek, Niagara County, New York

Sediment Point ID	Reach	Section	Thickness (inches)	Water Depth (inches)	Length (feet)	Sediment Description	Comments
SED 158	5	0	20	125		Silt	
SED 159	5	0	85	15			Banks have woody debris
SED 160	5	0	10	96			Refusal
SED 161	5	0	76	20			Bank is elevated cattail marsh
SED 162	5	0	0	60		Gravel	Directly in front of dam
SED 163	5	0	12	81		Black silt	Corner of dam, slight odor present
SED 164	5	0	22	96		Silt with gravel	Left side of dam
SED 165	5	0	1	70		Gravel	Left side of dam
SED 166	5	0	2	86		Gravel	Center of dam
SED 167	5	0	0	120			Right side of dam, refusal
SED 168	5	0	36	12			Within thalweg
SED 169	5	0	0	54		Gravel and cobble	Mid-dam near wooden breaker
SED 17	5	0	4	8			Wet Muck
SED 170	5	0	78	12		Silt	End of tributary parallel to Rt. 78, surrounded by cattail marsh
SED 171	5	0	48	21		Silt	Tributary
SED 172	5	0	45	51			At confluence of main channel and tributary near outfall structure on right side of dam
SED 100	6	1	12	0	30	Fine sediments and gravel	Along LDB, sediment depositional area is connected to a gravel bar
SED 101	6	1	10	4	70	Fine sediments and gravel	Along LDB, gravel bar at upstream end

Table B-1 Sediment Thickness Points, Eighteenmile Creek, Niagara County, New York

Sediment Point ID	Reach	Section	Thickness (inches)	Water Depth (inches)	Length (feet)	Sediment Description	Comments
SED 102	6	1	12	10		Dark brown, silt, little fine sand, little clay, organic, thin gravel layer on top	Along LDB, broad high water depositional area
SED 103	6	1	16	10	50	Dark grey silt and clay, no sand, organic	Partially exposed mudflat along LDB, strong odor
SED 104	6	1	10	4	25	Brown, fine sand, silt, clay, organic	Along LDB, two riffle patterns nearby, one upstream, one downstream
SED 105	6	1	10	0		Brown silty fine sand, clay with gravel	Adjacent to drainage point (DRN-043), along LDB
SED 106	6	1	10	8		Brown silt over highly organic mat with leaves	Adjacent to wetland with drainage (WET-026 and DRN-044), along RDB
SED 107	6	1	16	0	35	Dark brown fine sand with silt and little clay, organic	Along LDB, immediately downstream of fallen trees
SED 108	6	1	8	9		Silt	Along RDB
SED 109	6	1	2	2			Along RDB after rapids and fallen trees, well developed floodplain
SED 110	6	1	6	9	25		Along RDB after rapids
SED 111	6	1	6	9			Along RDB, downstream of wetland/floodplain
SED 112	6	1	9	6	30		Downstream of black willow

Table B-1 Sediment Thickness Points, Eighteenmile Creek, Niagara County, New York

Sediment Point ID	Reach	Section	Thickness (inches)	Water Depth (inches)	Length (feet)	Sediment Description	Comments
SED 113	6	1	5	9		Sediments become coarser as move downstream across deposit	Tip of bar behind island
SED 114	6	1	6	9		Silt	Located between two fallen tree areas and adjacent to wetland with possible drainage
SED 115	6	1	12	15			Along RDB
SED 116	6	1	14	10	50		Along LDB
SED 117	6	1	15	9			Back cut area along RDB, adjacent to wetland/floodplain with drainage (DRN-049), sheen and odor present
SED 118	6	1	10	9			Upstream extent, begins at boxelder
SED 119	6	1	12	11			Downstream extent of sediment bank
SED 120	6	1	24	15	100		Along LDB, extends to mid-channel
SED 121	6	1	3	34			Upstream point of LDB sediment
SED 99	6	1	12	0	60	Dark brown, fine sand, silt with up to 50% clay, organic	Along LDB
SED-214	6	1	0	18			
SED-215	6	1	0	31			
SED-216	6	1	0	10		Gravel and cobble	
SED-217	6	1	0	24		Gravel and cobble	
SED-218	6	1	0	18			
SED-219	6	1	0	6			

Table B-1 Sediment Thickness Points, Eighteenmile Creek, Niagara County, New York

Sediment Point ID	Reach	Section	Thickness (inches)	Water Depth (inches)	Length (feet)	Sediment Description	Comments
SED-220	6	1	0	20		Gravel and cobble	
SED 20	7	2	15	15			Along LDB
SED 21	7	2	24	3		Dark brown silt, little to no sand, no gravel, organic	Along LDB
SED 22	7	2	8	3		Dark grey silty clay, organic	Along RDB
SED 23	7	2	12	16		Dark grey silty clay, organic	Upstream of obstruction OBS-020
SED 24	7	2	14	11		Dark brown silt, little fine sand, organic, metallic odor and sheen	
SED 25	7	2	16	4		Dark grey, silt with fine sand, organic	
SED 26	7	2	24	6		Dark black, heavy odor	Dark black, heavy odor
SED 27	7	2	14	6			
SED 28	7	2	2	9			
SED 29	7	2	18	6		Dark brown silt, little fine sand, organic, lots of leaves	
SED 30	7	2	22	3		Dark brown silt, little sand, organic, lots of leaves	
SED 31	7	2	12	33		Sandy silt, little clay, organic	
SED 32	7	2	30	15		Grey silty sand, little clay	
SED 33	7	2	6	24		Increasing clay	End of stretch

Table B-1 Sediment Thickness Points, Eighteenmile Creek, Niagara County, New York

Sediment Point ID	Reach	Section	Thickness (inches)	Water Depth (inches)	Length (feet)	Sediment Description	Comments
SED 34	7	2	16	18		Grey sandy silt with clay, very thick near bank	As approach mid-channel, develops into silt bar
SED 35	7	2	32	3			Sediment bar behind obstruction OBS-024
SED 36	7	2	15	13			
SED 37	7	2	6	22			
SED 38	7	2	13	11			
SED 39	7	2	10	18		Fine to coarse sand with some silt, organic	Upstream of obstruction OBS-026
SED 40	7	2	18	14		Gray silt with little sand, little clay, organic	Along trees paralleling channel
SED 41	7	2	5	24		Grey silt with sand, little clay, organic	
SED 42	7	2	7	24		Dark grey silt, with some sand and clay, organic	Adjacent to outfall
SED 43	7	2	14	10		Very "soupy", Dark grey sandy silt, some clay, organic	Near abandoned house with cars
SED 44	7	2	8	20		Dark grey, sand, with less silt	Upstream extent of bar
SED 45	7	2	6	21		Dark grey, sand, with less silt	Downstream extent of bar
SED 46	7	2	15	12		Gray silty sand, some clay, organic	Upstream extent of bar
SED 47	7	2	6	24		Gray silty sand, some clay, organic	Downstream extent of bar

Table B-1 Sediment Thickness Points, Eighteenmile Creek, Niagara County, New York

Sediment Point ID	Reach	Section	Thickness (inches)	Water Depth (inches)	Length (feet)	Sediment Description	Comments
SED 48	7	2	24	10		Dark grey, silty sand, organic	Mid-channel, upstream extent of bar
SED 49	7	2	9	21		Dark grey, silty sand, organic	Downstream extent of bar
SED 50	7	2	18	3		Very "soupy", Dark grey silty sand, organic	Adjacent to RDB
SED 51	7	2	12	6		Sandy silt with some red tones	Downstream extent of bar, upstream extent was agricultural run-off (DRN-027)
SED 52	7	2	12	15			Upstream extent of RDB sediment
SED 53	7	2	3	18			Downstream extent of RDB sediment
SED 54	7	2	23	9			Partially exposed bar on RDB
SED 55	7	2	14	12			Downstream extent of partially exposed bar on RDB
SED 56	7	2	14	13			Upstream extent of LDB sediment
SED 57	7	2	6	21			Downstream extent of LDB sediment
SED 58	7	2	11	21		Very "soupy", dark grey sandy silt, organic	Upstream of old bridge (OBS-029)
SED 59	7	2	18	21			Adjacent to RDB
SED 60	7	2	8	17			
SED 61	7	2	12	12	30		Lots of dogwood
SED 62	7	2	12	10		Dark brown, sandy silty clay, organic	Downstream extent
SED 63	7	2	9	17	30	Sandy silt with some clay	Upstream extent, LDB sloughing
SED 64	7	2	11	12	28	Silt and fine sand, organic	Upstream extent of bar along RDB

Table B-1 Sediment Thickness Points, Eighteenmile Creek, Niagara County, New York

Sediment Point ID	Reach	Section	Thickness (inches)	Water Depth (inches)	Length (feet)	Sediment Description	Comments
SED 65	7	2	10	8	45	Dark black to dark grey, silty, sandy clay	Upstream extent, along RDB
SED 66	7	2	13	8	35	Silty sand with clay	Upstream extent
SED 67	7	2	15	10	50	Fine silt and sand, organic	Partially exposed high water depositional area
SED 68	7	2	6	9	55	Silt, fine to coarse sand, little clay, organic	Upstream extent, along RDB
SED 69	7	2	20	6	30	Silty fine sand, some clay, organic	Upstream extent, along RDB, floodplain
SED 70	7	2	11	10	24		Adjacent to RDB and WET-020
SED 71	7	2	6	15	35	Sandy silt, organic	Upstream extent, along LDB
SED 72	7	2	17	15	65	Sandy silt, increased coarse sand, organic	Upstream extent, sunken bank along LDB
SED 73	7	2	48	15	100	Silt with fine sand, increased clay as move toward downstream end	Adjacent to LDB
SED 74	7	2	24	0	80	Silt, fine sand, some clay, organic	Mudflat along RDB, located between two tree falls
SED 75	7	2	24	11	25		Along LDB, bordered by small linear wetland
SED 76	7	2	6	12	35	Silt, fine sand, organic	Along RDB

Table B-1 Sediment Thickness Points, Eighteenmile Creek, Niagara County, New York

Sediment Point ID	Reach	Section	Thickness (inches)	Water Depth (inches)	Length (feet)	Sediment Description	Comments
SED 77	7	2	24	3	125	Silt with fine sand, organic	Upstream extent along LDB, two wetland drainage inputs
SED 78	7	2	20	16		Silt with fine sand, organic	Downstream extent along LDB
SED 79	7	2	24	18	35		Starts along RDB, extends to mid-channel, and across creek, adjacent to wetland drainage (DRN-033)
SED 80	7	2	18	36	45	Fine sand, organic	Along LDB, adjacent to wetland
SED 81	7	2	38	6	55	Fine sand and silt, some clay, organic	Adjacent to wetland discharge
SED 82	7	2	15	18	35		Along LDB
SED 83	7	2	10	16	25		Along RDB
SED 84	7	2	40	0	60	Grey sand, silt, organic	Along LDB
SED 85	7	2	33	30		Very silty sand, little clay, organic	Along RDB
SED 86	7	2	33	9	75	Silts with fine sand	Along RDB
SED 87	7	2	12	18	20		Along LDB
SED 88	7	2	39	15	60	Very black silt, fine sand, organic	Along RDB, adjacent to wetland/floodplain, soft sediment also near mid-channel
SED 89	7	2	36	9	150		Along LDB, wetland drainage at end of deposition
SED 90	7	2	20	14	50	Very little silt, some sand, clay, organic	Exposed mudflat along RDB, extends downstream to LWD

Table B-1 Sediment Thickness Points, Eighteenmile Creek, Niagara County, New York

Sediment Point ID	Reach	Section	Thickness (inches)	Water Depth (inches)	Length (feet)	Sediment Description	Comments
SED 91	7	2	14	9	55		Along RDB, sediments have accumulated around and in a fallen tree crib, soft channel bottom
SED 92	7	2	14	21	125		Along RDB, soft channel bottom
SED 93	7	2	28	0	40		Exposed mudflat along RDB, soft channel bottom
SED 94	7	2	51	1	40		Along RDB
SED 95	7	2	0	36		Hard clay bottom	Along LDB
SED 96	7	2	29	0		Silt, fine sand, some clay, organic	Along LDB, sheen noticed
SED 97	7	2	32	0	50		Along LDB, downstream of a bank stabilization area
SED 98	7	2	12	0	30	Dark brown, trace fine sand, some clay, organic	Along LDB, upstream of Ewings Rd.
SED-212	7	2	6	36			
SED-213	7	2	2	12			

Key:

LDB = left descending bank

RDB = right descending bank

LWD = large woody debris

Table B-2 Water Depth Points, Eighteenmile Creek, Niagara County, New York

Water Depth Point ID	Reach	Section	Water Depth (inches)
WD-037	3	0	63
WD-033	4	0	27
WD-034	4	0	18
WD-035	4	0	45
WD-036	4	0	36
WD-030	5	0	55
WD-031	5	0	8
WD-032	5	0	63
WD-027	6	1	18
WD-028	6	1	23
WD-029	6	1	38
WD-020	7	2	15
WD-021	7	2	27
WD-022	7	2	22
WD-023	7	2	30
WD-024	7	2	27
WD-025	7	2	18
WD-026	7	2	24
WD-038	7	2	28
WD-039	7	2	14
WD-040	7	2	24
WD-041	7	2	26
WD-042	7	2	29
WD-043	7	2	31
WD-044	7	2	36

Table B-3 Other Points, Eighteenmile Creek, Niagara County, New York

Other Point ID	Reach	Section	Description	Water Depth (inches)
bank5a	4	0		10
bank5b	4	0		2
bank4b	4	0		12
sewer	4	0		10
OTH-043	5	0	Tip of depositional area	
OTH-042	6	1	Side channel start point	
OTH-040	6	1	Downstream junction where creek rejoins from split, adjacent to Rt. 78	
OTH-037	6	1	Upstream junction of creek split along RDB, adjacent to Rt. 78	
p9,10, gravelly bottom	6	2		42
p8,9	6	2		18
rocky bottom	7	1		48
p5-7	7	1		24
farm bridge xing	7	1		18
OTH-024	7	2	Old bridge abuttment	
OTH-022	7	2	Old bridge	
OTH-020	7	2	End of sediment along banks	

Table B-4 Drainage Points, Eighteenmile Creek, Niagara County, New York

Drainage Point ID	Reach	Section	Description
DRN-055	3	0	Groundwater seepage
DRN-054	4	0	Roadside drainage
DRN-052	5	0	Drainage from wetland, man-made channel
DRN-053	5	0	Agricultural run-off
DRN-042	6	1	Overland drainage from high water deposition area
DRN-043	6	1	Overland flow
DRN-044	6	1	Drainage from wetland
DRN-045	6	1	Drainage from floodplain
DRN-046	6	1	Surface run-off
DRN-047	6	1	Drainage from wetland/floodplain
DRN-048	6	1	Drainage from floodplain
DRN-049	6	1	Drainage from wetland
DRN-050	6	1	Rocky swale
DRN-051	6	1	Drainage from wetland
DRN-020	7	2	Roadside drainage
DRN-021	7	2	Groundwater seepage
DRN-022	7	2	Drainage from wetland
DRN-023	7	2	Drainage from floodplain
DRN-024	7	2	Overland flow
DRN-025	7	2	Agricultural run-off
DRN-026	7	2	Agricultural run-off
DRN-027	7	2	Agricultural run-off
DRN-028	7	2	Agricultural run-off
DRN-029	7	2	Overland drainage from agricultural field
DRN-030	7	2	Surface run-off
DRN-031	7	2	Overland flow
DRN-032	7	2	Overland flow
DRN-033	7	2	Drainage from wetland
DRN-034	7	2	Agricultural run-off
DRN-035	7	2	Drainage from wetland
DRN-036	7	2	Drainage from wetland and agricultural field
DRN-037	7	2	Drainage from wetland
DRN-038	7	2	Drainage from wetland
DRN-039	7	2	Drainage from wetland and roadside
DRN-040	7	2	Drainage from wetland
DRN-041	7	2	Dry tributary and overland flow

Table B-5 Obstruction Points, Eighteenmile Creek, Niagara County, New York

Obstruction Point ID	Reach	Section	Description
OBS-042	5	0	Upstream point of LWD complex
OBS-043	5	0	Downstream point of LWD complex
OBS-040	6	1	LWD, does not stretch across full channel width
OBS-041	6	1	Half-channel Boxelder strainer
OBS-020	7	2	Black Willows
OBS-021	7	2	Fallen Black Willows
OBS-022	7	2	Twin Alder
OBS-023	7	2	LWD tangle
OBS-024	7	2	LWD tangle
OBS-025	7	2	LWD
OBS-026	7	2	LWD
OBS-027	7	2	Large Sugar Maple
OBS-028	7	2	LWD
OBS-029	7	2	LWD and old bridge abutment
OBS-030	7	2	LWD
OBS-031	7	2	LWD
OBS-032	7	2	LWD
OBS-033	7	2	LWD
OBS-034	7	2	LWD
OBS-035	7	2	LWD
OBS-036	7	2	LWD
OBS-037	7	2	LWD
OBS-038	7	2	LWD

Key:

LWD = large woody debris

Table B-6 Outfall Points, Eighteenmile Creek, Niagara County, New York

Outfall Point ID	Reach	Section	Description
OUT-026	5	0	36" Plastic culvert pipe
OUT-027	5	0	24" Culvert pipe on slope beyond cattail marsh on RDB
OUT-022	6	1	18" Corrugated pipe entering from Condren Rd.
OUT-023	6	1	24" Culvert
OUT-024	6	1	18" Corrugated pipe
OUT-025	6	1	36" Plastic culvert pipe
OUT-020	7	2	6" PVC pipe
OUT-021	7	2	10" Corrugated steel drain along LDB

Key:

PVC = polyvinyl chloride

LDB = left descending bank

RDB = right descending bank

C

Photo Logs

Reach 3:
Confluence of Eighteenmile Creek with
Upstream Extent of Burt Dam Impoundment



Photo: P86

Direction of view: S

Description: Surface water input to creek from cattail area (DRN-054).



Photo: P87

Direction of view: W

Description: Downstream portion of cattail marsh from connection channel.



Photo: P88

Direction of view: W

Description: Downstream portion of cattail marsh from connection channel.



Photo: P89

Direction: SW

Description: Beginning of side channel on RDB.



Photo: P90

Direction of view: SE

Description: Groundwater seepage.



Photo: P91

Direction of view: NE

Description: Cattail marsh on island.



Photo: P92

Direction of view: N

Description: Cattail marshes along creek.



Photo: P93

Direction of view: NE

Description: Cattail marsh along LDB.



Photo: P94

Direction of view:

Description: Cattail marsh and slough like channel to east of creek main stem.



Photo: P95

Direction of view: N

Description: Extent of cattail marshes.

Reach 4: Downstream of Newfane Dam to Ide Road



Photo: P30A
Direction of view: S
Description: Left channel, upstream view.



Photo: P31A
Direction of view: N
Description: Left channel, downstream view.



Photo: P32A

Direction of view: E

Description: View from LDB to RDB, along left channel.



Photo: P33A

Direction of view: S

Description: Right channel, upstream view.



Photo: P34A

Direction of view: N

Description: Right channel, downstream view.



Photo: P35A

Direction of view: W

Description: View from LDB to RDB, along right channel.



Photo: P36A

Direction of view: S

Description: At SED 5 upstream view.



Photo: P37A

Direction of view: N

Description: At SED 5 downstream view.



Photo: P38A

Direction of view: E

Description: At SED 5, view of LDB.



Photo: P39A

Direction: SW

Description: Storm sewer along LDB.



Photo: P40A

Direction of view: S

Description: At SED 6, upstream view.



Photo: P41A

Direction of view: N

Description: At SED 6, downstream view.



Photo: P42A

Direction of view: E

Description: At SED 6, view from LDB to RDB across creek.



Photo: P43A

Direction of view: W

Description: Tributary along LDB.



Photo: P44A

Direction of view: E

Description: View from LDB to RDB across creek at BNK 5.



Photo: P45A

Direction of view: S

Description: Upstream view at BNK 5.



Photo: P46A

Direction of view: N

Description: Downstream view at BNK 5.



Photo: P47A

Direction of view: S

Description: At SED 8, upstream view.



Photo: P48A

Direction of view: N

Description: At SED 8, downstream view.



Photo: P49A

Direction of view: S

Description: At SED 8 view from LDB to RDB across creek.



Photo: P50A
Direction of view: NE
Description: View of impoundment along LDB.



Photo: P51A
Direction of view: SW
Description: Impoundment along LDB in creek.



Photo: P52A
Direction of view: NE
Description: Impoundment mid-channel of RDB.



Photo: P53A
Direction of view: S
Description: Intake culvert in mid-channel.



Photo: P54A
Direction of view: SW
Description: Intake culvert along RDB.



Photo: P55A
Direction of view: SW
Description: Intake culvert in mid-channel.



Photo: P56A
 Direction of view: N
 Description: Pump house on RDB.



Photo: P57A
 Direction of view: E
 Description: Section of concrete culvert on RDB.



Photo: P58A

Direction of view: E

Description: At SED 11, view from LDB to RDB across channel.



Photo: P59A

Direction of view: S

Description: At SED 11, upstream view.



Photo: P60A
 Direction of view: N
 Description: At SED 11, downstream view.



Photo: P61A
 Direction of view: W
 Description: Irrigation section along LDB.



Photo: P62A
 Direction of view: NW
 Description: Empty tank along LDB.



Photo: P63A
 Direction of view: SE
 Description: At SED 13, inundated wetland along retaining wall on RDB.



Photo: P64A

Direction of view: E

Description: At SED 13, view from LDB to RDB across creek.



Photo: P65A

Direction of view: E

Description: At SED 14, view from LDB to RDB across creek.



Photo: P66A

Direction of view: S

Description: At SED 15, upstream view.



Photo: P67A

Direction of view: N

Description: At SED 14, downstream view.



Photo: P68A
 Direction of view: E
 Description: At SED 15, wetland along RDB.



Photo: P69A
 Direction of view: E
 Description: At SED 15, view from LDB to RDB across creek.



Photo: P70A

Direction of view: S

Description: At SED 15, upstream view.



Photo: P71A

Direction of view: S

Description: At SED 15, downstream view.



Photo: P72A
 Direction of view: N
 Description: Entering the culverts at Ide Road.



Photo: P73A
 Direction of view: N
 Description: View of Ide Road crossing and culverts.



Photo: P74A
 Direction of view: SW
 Description: Newfane Dam spillway.



Photo: P75A
 Direction of view: S
 Description: View of Newfane Dam spillway from LDB of right channel.



Photo: P76A

Direction of view: E

Description: View from LDB to RDB across left channel.



Photo: P77A

Direction of view: E

Description: View from LDB to RDB across right channel.

Reach 6 (Segment 1): Jacques Road to Condren Road



Photo: P115

Direction of view: SE

Description: Tributary along RDB, wide at confluence (TRB-025).



Photo: P116

Direction of view: NE

Description: LWD obstruction that extends across half the creek (OBS-040).



Photo: P117
 Direction of view: SW
 Description: Overland drainage along LDB (DRN-042).



Photo: P118
 Direction of view: SW
 Description: Overland drainage with flow along LDB (DRN-043).



Photo: P119

Direction of view: S

Description: Wetland along RDB with drainage to the creek (WET-026).



Photo: P66

Direction: SE

Description: Where creek splits, forming secondary channel along Route 78 (OTH-037).



Photo: P120

Direction of view: E

Description: At downstream end of split where creek rejoins itself (OTH-040).

Reach 6 (Segment 1) and Reach 5: Condren Road to Newfane Dam



Photo: P121

Direction of view: E

Description: Small ponded area along RDB with drainage to creek (DRN-045).



Photo: P122

Direction of view: W

Description: Run-off along LDB with flow (DRN-046).



Photo: P67

Direction of view: SE

Description: Wetland along RDB with possible drainage.



Photo: P123

Direction of view: NW

Description: Drainage pipe along LDB (OUT-022).



Photo: P68

Direction of view: SW

Description: Wetland along RDB, flow during high water events (WD-028).



Photo: P124

Direction of view: SW

Description: Floodplain/wetland with drainage to creek (DRN-047).



Photo: P69
 Direction of view: SW
 Description: Dilapidated structure along RDB.



Photo: P125
 Direction of view: SE
 Description: Drainage pipe along RDB, old abutment (OUT-023).



Photo: P126

Direction of view: SW

Description: Floodplain with drainage to creek (DRN-048).



Photo: P127

Direction of view: NW

Description: Start of side channel along LDB (OTH-042).



Photo: P70

Direction of view: SE

Description: Standing at SED113, view of upstream at channel split.



Photo: P71

Direction of view: SE

Description: Wetland area behind fallen trees with possible drainage to creek.



Photo: P72
 Direction of view: NE
 Description: Drainage pipe along RDB (OUT-024).



Photo: P73
 Direction of view: NE
 Description: Culvert with run-off flowing to creek (OUT-025).



Photo: P74

Direction of view:

Description: At SED 117, exposed mudflat and wetland with drainage to creek (DRN-049).



Photo: P128

Direction of view: SE

Description: Rocky swale along RDB (DRN-050).



Photo: P75

Direction of view: SW

Description: Wetland with drainage along LDB (DRN-051).



Photo: P76

Direction of view:

Description: Culvert with flow along RDB (OUT-026).



Photo: P77

Direction of view: NE

Description: Downstream view of LWD obstructions across creek (OBS-042).



Photo: P129

Direction of view: NE

Description: Cattails along RDB.



Photo: P78
 Direction of view: SW
 Description: Mapped tributary (OTH-043).



Photo: P130
 Direction of view: S
 Description: Drainage to creek at upstream side of cattail marsh.



Photo: P131

Direction of view: SE

Description: Tributary in cattails along RDB, possible roadside drainage also (TRB-026).



Photo: P79

Direction of view: SE

Description: Overland drainage from cattail marsh along RDB.



Photo: P132

Direction of view: NE

Description: End of cattail marsh with flow into creek along RDB.



Photo: P133

Direction of view: N

Description: Start point of cattail marsh, small inlet area.



Photo: P134

Direction of view: SW

Description: Maintained drainage to creek along LDB (DRN-052).

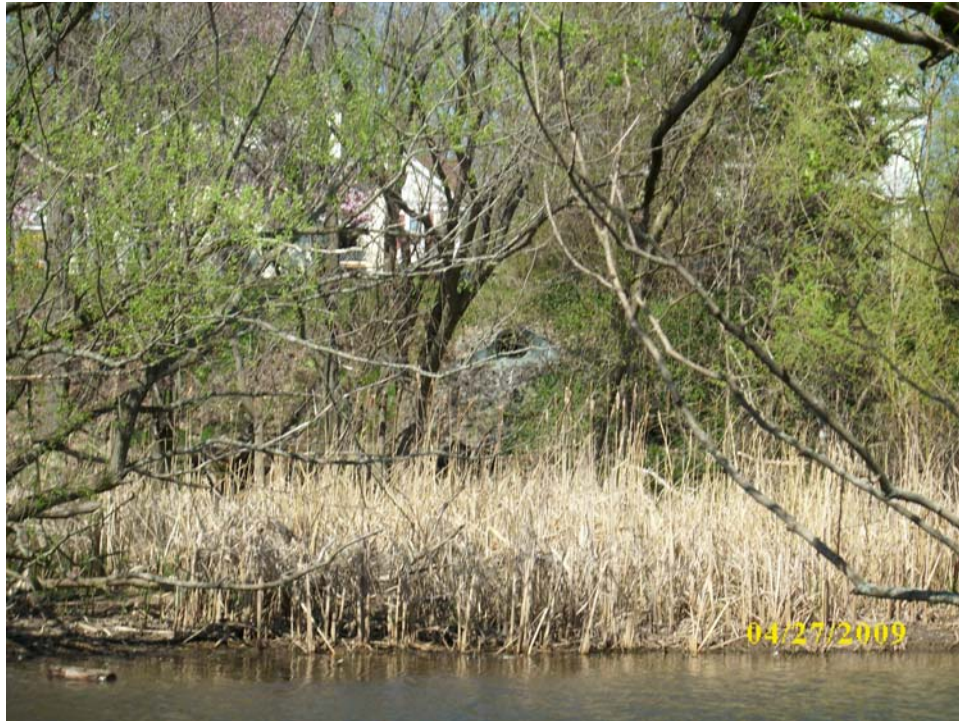


Photo: P135

Direction of view: NE

Description: View of culvert upslope from creek channel along RDB (OUT-027).



Photo: P80a
 Direction of view: NW
 Description: View of areas upstream of Newfane Dam.



Photo: P80b
 Direction of view: SW
 Description: View immediately upstream of Newfane Dam.



Photo: P81

Direction of view: SW

Description: Incised drainage from up-gradient area (DRN-053).



Photo: P82

Direction of view: SE

Description: Terminus of tributary to main channel.



Photo: P83

Direction of view: W

Description: Wooden breaker structure at upstream end of Newfane Dam.



Photo: P84

Direction of view: N

Description: Wooden breaker structure immediately upstream of Newfane Dam.



Photo: P85

Direction of view: SE

Description: Terminus of tributary.

Reach 7 (Segment 1) and Reach 6 (Segment 2): Ewings Road South to Jacques Road



Photo: P01

Description: View of downstream, general creek view.



Photo: P02

Description: Few fallen trees along RDB.



Photo: P03

Description: Gooseneck.



Photo: P04

Description: Gooseneck.



Photo: P05

Description: Downstream of farm bridge.



Photo: P06

Description: Farm bridge #3.



Photo: P07

Description: Farther downstream from farm bridge.



Photo: P08

Description: LWD obstruction across creek.



Photo: P09

Description: LWD obstruction across creek.



Photo: P21A

Direction of view: SW

Description: Farm bridge #1 from LDB.



Photo: P22A
 Direction of view: SE
 Description: Farm bridge #1 from RDB.



Photo: P23A
 Direction of view: S
 Description: Farm bridge #1 from mid-channel.



Photo: P24A
 Direction of view: SE
 Description: Farm bridge #2 from RDB.



Photo: P25A
 Direction of view: SW
 Description: Farm bridge #2 from LDB.



Photo: P26A
 Direction of view: S
 Description: Farm bridge #2 from mid-channel.



Photo: P27A
 Direction of view: S
 Description: Farm bridge #3 from mid-channel.

Reach 7 (Segment 2): Stone Road to Ewings Road



Photo: P20

Direction of view: E

Description: Roadside drainage along RDB (DRN-020).



Photo: P21

Direction of view: NW

Description: Downstream view from Stone Road Bridge.



Photo: P22
 Direction of view: SW
 Description: Seepage along LDB (DRN-021).



Photo: P23
 Direction of view: SW
 Description: Sediment deposit along LDB.



Photo: P24
 Direction of view: NE
 Description: Sediment deposit along RDB.



Photo: P25
 Direction of view: NE
 Description: LWD obstruction across creek and terrace along RDB (OBS-020).



Photo: P26
 Direction of view: NW
 Description: LWD obstruction across creek (OBS-021).



Photo: P27
 Direction of view: SW
 Description: Wetland along RDB with drainage to creek (DRN-022).



Photo: P28
Direction of View: N
Description: LWD obstruction across creek (OBS-022).



Photo: P29
Direction of View: N/A
Description: Sheen seen on sediment along LDB (SED-026).



Photo: P30

Direction of view: N/A

Description: Sheen seen on sediment along LDB (SED-026).



Photo: P31

Direction of view: SW

Description: Floodplain along LDB with drainage to creek (DRN-023).



Photo: P32
 Direction of view: NW
 Description: LWD obstruction across creek (OBS-023).



Photo: P33
 Direction of view: W
 Description: Tributary along LDB (TRB-020).



Photo: P34
 Direction of view: N
 Description: LWD obstruction across creek (OBS-024).



Photo: P35
 Direction of view: E
 Description: Overland flow along RDB just downstream of P34 (DRN-024).



Photo: P36
 Direction of view: N
 Description: LWD obstruction across creek (OBS-025).



Photo: P37
 Direction of view: NE
 Description: LWD obstruction across creek.



Photo: P38
Direction of view: SW
Description: Tributary along LDB (TRB-021).



Photo: P39
Direction of view: N
Description: LWD obstruction across creek (OBS-026).



Photo: P40

Direction of view: W

Description: Agricultural drainage along LDB (DRN-025).



Photo: P41

Direction of view: N

Description: LWD obstruction across creek (OBS-027).



Photo: P42
 Direction of view: SE
 Description: Overland drainage along RDB.



Photo: P43
 Direction of view: SE
 Description: PVC pipe outfall along RDB (OUT-020).



Photo: P44

Direction of view: N

Description: LWD obstruction across creek (OBS-028).



Photo: P45

Direction of view: E

Description: Tributary along RDB (TRB-022).



Photo: P46

Direction of view: W

Description: Agricultural run-off from LDB and depositional area (DRN-026).



Photo: P47

Direction of view: W

Description: Agricultural run-off along LDB and depositional area (DRN-027).



Photo: P48

Direction of view: SE

Description: Tributary along RDB, runs through culvert at road (TRB-023).



Photo: P49

Direction of view: SE

Description: Exposed area of sediment bar along RDB.



Photo: P50

Direction of view: W

Description: Agricultural run-off along LDB (DRN-028).



Photo: P51

Direction of view: N

Description: LWD obstruction and bridge across creek (OBS-029).



Photo: P52

Direction of view: W

Description: Surface drainage from agricultural fields along LDB (DRN-029).



Photo: P53

Direction of view: NW

Description: Tributary along LDB (DRN-030).



Photo: P54

Direction of view: N

Description: LWD obstruction across creek, downstream of SED 61 (OBS-034).



Photo: P55

Direction of view: W

Description: Overland drainage to creek along LDB.



Photo: P56

Direction of view: NE

Description: LWD obstruction covering most of creek (OBS-032).



Photo: P57

Direction of view: E

Description: Floodplain with wetland along RDB with seepage.



Photo: P58

Direction of view: N

Description: LWD obstruction across creek.



Photo: P59

Direction of view: NE

Description: Tar-like material found on LDB.



Photo: P60
 Direction of view: SW
 Description: Wetland along LDB.



Photo: P61
 Direction of view: NW
 Description: Exposed sediment bar across from P60 along RDB.



Photo: P62

Direction of view: W

Description: Overland drainage along LDB (DRN-032).



Photo: P63

Direction of view: NE

Description: Extensive wetland along RDB.



Photo: P64

Direction of view: NW

Description: LWD obstruction across creek (OBS-034).



Photo: P65

Direction of view: NW

Description: Large forested wetland within floodplain along LDB.



Photo: P96
 Direction of view: W
 Description: Large forested wetland along LDB.



Photo: P97
 Direction of view: SW
 Description: Discharge from large forested wetland (WET-021)

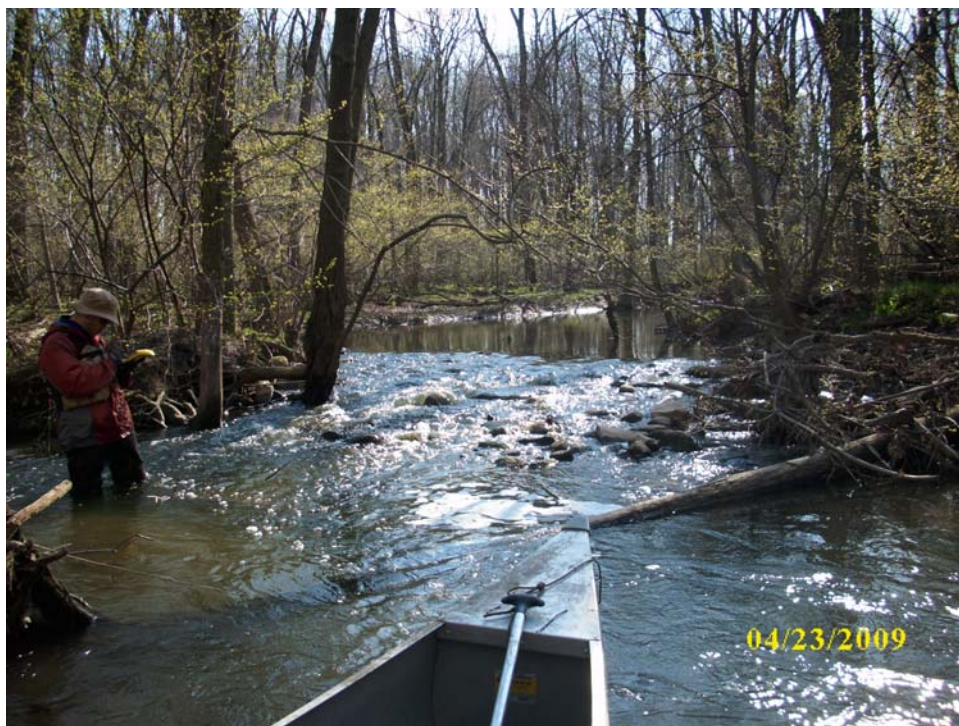


Photo: P98

Direction of view: SW

Description: Tributary along LDB with riffle at confluence (TRB-024).



Photo: P99

Direction of view: E

Description: Wetland drainage along RDB (DRN-033).



Photo: P100
 Direction of view: N
 Description: LWD obstruction across creek (OBS-035).



Photo: P101
 Direction of view: S
 Description: Wetland discharge along LDB (SED-081).



Photo: P102

Direction of view: W

Description: Pipe outfall along LDB with flow.



Photo: P103

Direction of view: NW

Description: Surface run-off from agricultural fields along LDB (DRN-034).



Photo: P104

Direction of view: NW

Description: Taking a mid-channel water depth (WD-043).



Photo: P105

Direction of view: NE

Description: Wetland drainage along RDB (DRN-035).



Photo: P106

Direction of view: NW

Description: Surface drainage from wetland and agricultural fields along LDB (DRN-036).



Photo: P107

Direction of view: NW

Description: Wetland discharge along LDB (DRN-037).



Photo: P108

Direction of view: NW

Description: Wetland from P107 second discharge point (DRN-038).



Photo: P109

Direction of view: SW

Description: Wetland with drainage along LDB, upstream of Ridge Road (DRN-039).



Photo: P110

Direction of view: NE

Description: LWD obstruction across creek downstream of Ridge Road (OBS-036).



Photo: P111

Direction of view: SW

Description: Wetland discharge along RDB (DRN-040).



Photo: P112

Direction of view: NW

Description: Tributary (drainage) along LDB just downstream of Ridge Rd (DRN-041).



Photo: P113

Direction of view: SW

Description: Open floodplain along LDB with bank stabilization in place (SED-097).



Photo: P114

Direction of view: NE

Description: Taking a mid-channel depth measurement upstream of Ewings Road South (SED-213).