

Firelands Wind, LLC
Case No. 18-1607-EL-BGN

Application Part 12 of 17

Part 12 includes:

- **Exhibit Z Ecological Assessment (Part 3 of 8)**

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Photo 433: W1M_082 soil profile



Photo 434: W1M_082 facing west



Photo 435: W1M_084 soil profile



Photo 436: W1M_084 facing north



Photo 437: W1M_084 soil profile



Photo 438: W1M_084 facing west



Photo 439: W1M_084 facing east



Photo 440: W1M_086 soil profile



Photo 441: W1M_086 facing southwest



Photo 442: W1M_086 soil profile



Photo 443: W1M_086 facing west



Photo 444: W1M_086 facing east



Photo 445: W1M_082 facing east



Photo 446: WB1M_081 facing west



Photo 447: WB1M_088 facing north



Photo 448: S2M_053 stream substrate



Photo 449: S2M_053 facing west



Photo 450: S2M_053 facing east



Photo 451: S2M_054 facing north



Photo 452: S2M_054 facing south



Photo 453: S2M_054 stream substrate



Photo 454: S2M_055 facing north



Photo 455: S2M_055 facing south



Photo 456: S2M_055 stream substrate



Photo 457: W2M_052 soil profile

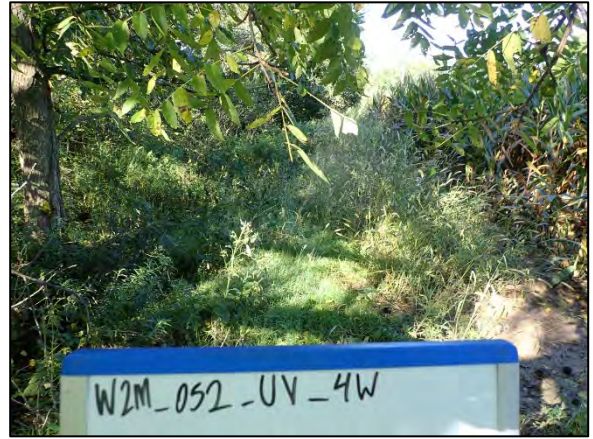


Photo 458: W2M_052 facing west



Photo 459: W2M_052 facing south



Photo 460: W2M_052 soil profile



Photo 461: W2M_052 facing north



Photo 462: W2M_052 facing west



Photo 463: W2M_056 soil profile



Photo 464: W2M_056 facing west

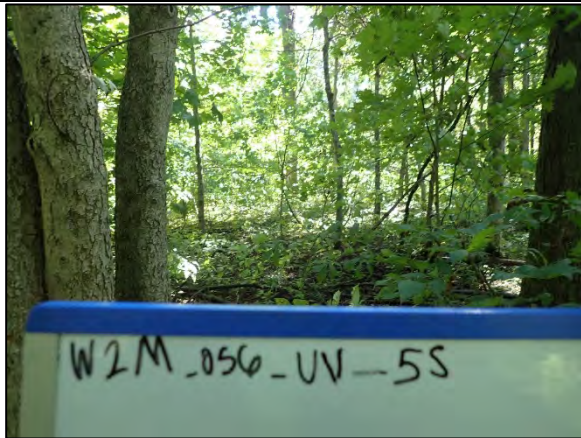


Photo 465: W2M_056 facing south



Photo 466: W2M_056 soil profile



Photo 467: W2M_056 facing west



Photo 468: W2M_056 facing east



Photo 469: S2M_059 facing north



Photo 470: S2M_059 facing south



Photo 471: S2M_059 stream substrate



Photo 472: S2M_062 facing northeast



Photo 473: S2M_062 facing southwest



Photo 474: S2M_062 stream substrate



Photo 475: W2M_057 soil profile



Photo 476: W2M_057 facing west



Photo 477: W2M_057 soil profile



Photo 478: W2M_057 facing north



Photo 479: W2M_057 facing south



Photo 480: W2M_058 soil profile



Photo 481: W2M_058 facing south



Photo 482: W2M_058 soil profile



Photo 483: W2M_058 facing east



Photo 484: W2M_058 facing west



Photo 485: W2M_060 soil profile



Photo 486: W2M_060 facing east



Photo 487: W2M_060 soil profile



Photo 488: W2M_060 facing east



Photo 489: W2M_060 facing south



Photo 490: W2M_060 facing southeast



Photo 491: W2M_061 soil profile



Photo 492: W2M_061 facing west



Photo 493: W2M_061 facing north



Photo 494: W2M_063 soil profile



Photo 495: W2M_063 facing west



Photo 496: W2M_063 facing north



Photo 497: W2M_064 soil profile



Photo 498: W2M_064 facing south



Photo 499: W2M_064 soil profile



Photo 500: W2M_064 facing west



Photo 501: W2M_064 facing east



Photo 502: W1M_090 soil profile



Photo 503: W1M_090 facing south



Photo 504: W1M_090 facing west



Photo 505: W1M_090 soil profile

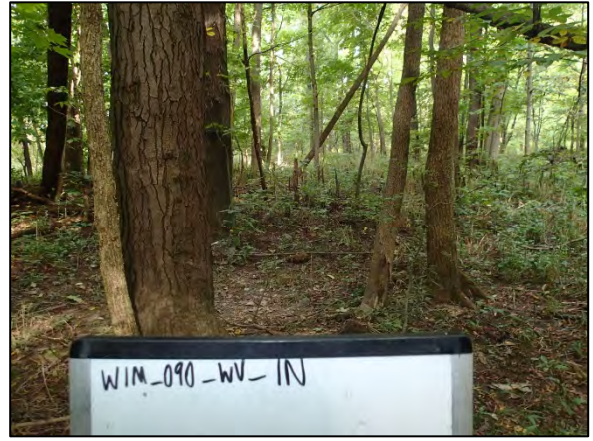


Photo 506: W1M_090 facing north



Photo 507: W1M_090 facing west



Photo 508: W1M_091 soil profile



Photo 509: W1M_091 facing north

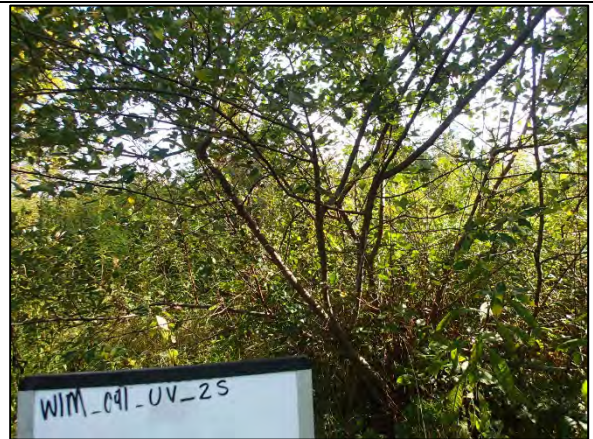


Photo 510: W1M_091 facing south



Photo 511: W1M_091 soil profile



Photo 512: W1M_091 facing northeast



Photo 513: W1M_091 facing west



Photo 514: W1M_092 soil profile



Photo 515: W1M_092 facing east



Photo 516: W1M_092 facing west



Photo 517: W1M_093 soil profile



Photo 518: W1M_093 facing east



Photo 519: W1M_093 facing west



Photo 520: W1M_094 soil profile



Photo 521: W1M_094 facing east



Photo 522: W1M_094 facing west



Photo 523: W1M_094 soil profile



Photo 524: W1M_094 facing east



Photo 525: W1M_094 facing west



Photo 526: W1M_095 soil profile



Photo 527: W1M_095 facing west

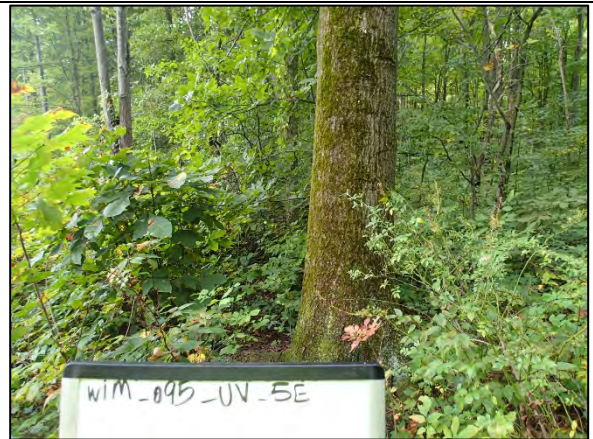


Photo 528: W1M_095 facing east



Photo 529: W1M_095 soil profile



Photo 530: W1M_095 facing south



Photo 531: W1M_095 facing west



Photo 532: S2M_065 facing northeast



Photo 533: S2M_065 facing northwest



Photo 534: S2M_065 facing southwest



Photo 535: S2M_065 stream substrate



Photo 536: S2M_067 facing northwest



Photo 537: S2M_067 facing southeast



Photo 538: S2M_067 stream substrate



Photo 539: W2M_066 soil profile



Photo 540: W2M_066 facing north



Photo 541: W2M_066 soil profile



Photo 542: W2M_066 facing west



Photo 543: W2M_066 facing north



Photo 544: S1M_099 facing west, upstream



Photo 545: S1M_099 facing east, downstream

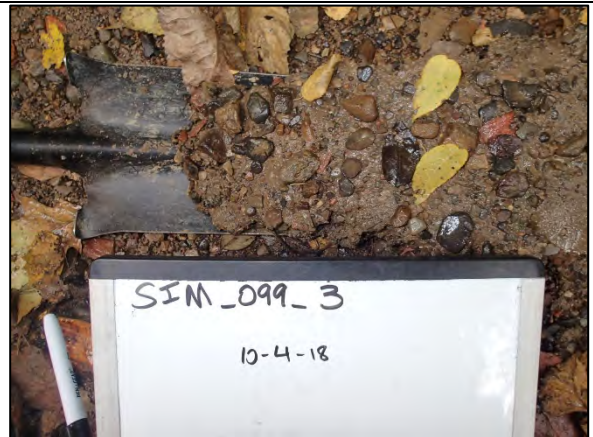


Photo 546: S1M_099 stream substrate



Photo 547: SIM_101 facing west, downstream



Photo 548: SIM_101 facing east, upstream



Photo 549: SIM_101 stream substrate



Photo 550: W1M_098 soil profile



Photo 551: W1M_098 facing northwest



Photo 552: W1M_098 facing southeast



Photo 553: W1M_098 soil profile



Photo 554: W1M_098 facing northeast



Photo 555: W1M_098 facing southwest



Photo 556: W1M_100 soil profile

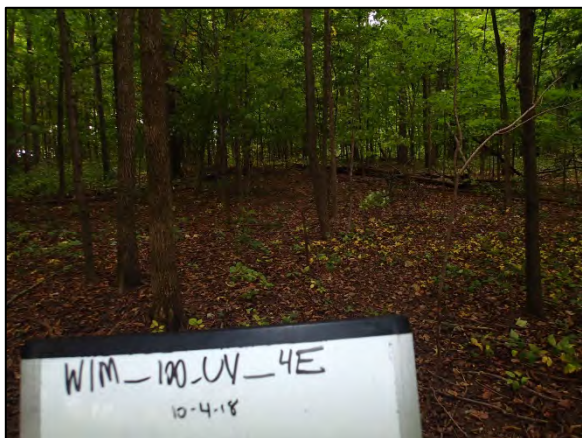


Photo 557: W1M_100 facing east



Photo 558: W1M_100 facing south



Photo 559: W1M_100 soil profile



Photo 560: W1M_100 facing north



Photo 561: W1M_100 facing south



Photo 562: S2M_073 facing southwest



Photo 563: S2M_073 stream substrate



Photo 564: S2M_068 facing north



Photo 565: S2M_068 facing south



Photo 566: S2M_068 stream substrate



Photo 567: S2M_070 facing north



Photo 568: S2M_070 facing south



Photo 569: S2M_068 stream substrate



Photo 570: S2M_070 facing north



Photo 571: S2M_070 facing south



Photo 572: S2M_070 stream substrate



Photo 573: S2M_073 facing northeast



Photo 574: W2M_069 soil profile



Photo 575: W2M_069 facing south



Photo 576: W2M_069 soil profile



Photo 577: W2M_069 facing south



Photo 578: W2M_069 facing north



Photo 579: W2M_072 soil profile



Photo 580: W2M_072 facing east



Photo 581: W2M_072 soil profile



Photo 582: W2M_072 facing southeast



Photo 583: W2M_072 facing west



Photo 584: WB2M_071 facing north



Photo 585: S1M_105 facing west



Photo 586: S1M_105 facing east



Photo 587: S1M_105 stream substrate



Photo 588: S1M_106 facing north



Photo 589: S1M_106 facing south



Photo 590: S1M_106 stream substrate



Photo 591: S1M-107 facing west



Photo 592: S1M_107 facing east



Photo 593: S1M_107 stream substrate



Photo 594: S1M_110 facing west



Photo 595: S1M_110 facing east



Photo 596: S1M_110 stream substrate



Photo 597: W1M_102 soil profile



Photo 598: W1M_102 facing south



Photo 599: W1M_102 facing east



Photo 600: W1M_102-103-104 soil profile



Photo 601: W1M_102-103-104 facing south

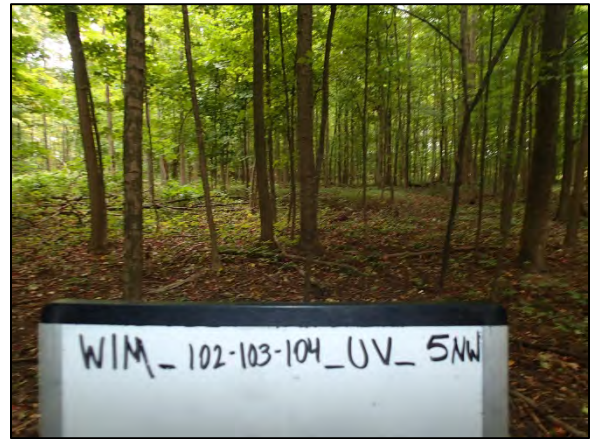


Photo 602: W1M_102-103-104 facing northwest



Photo 603: W1M_103 soil profile



Photo 604: W1M_103 facing north

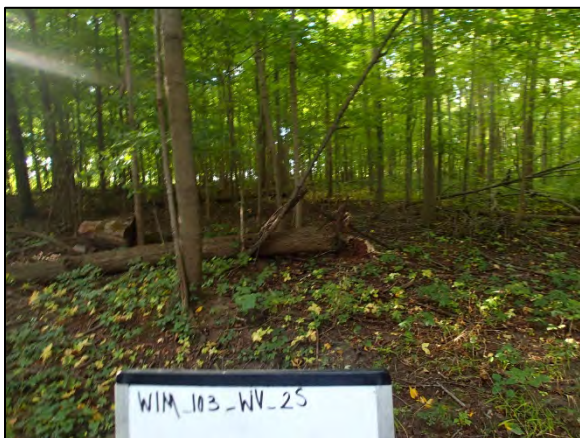


Photo 605: W1M_103 facing south



Photo 606: W1M_104 soil profile



Photo 607: W1M_104 facing south



Photo 608: W1M_104 facing north



Photo 609: W1M_109 soil profile



Photo 610: W1M_109 facing east



Photo 611: W1M_109 facing west



Photo 612: W1M_WS soil profile



Photo 613: W1M_109 facing west



Photo 614: W1M_109 facing east



Photo 615: S2M_074 facing northwest



Photo 616: S2M_074 facing southeast



Photo 617: S2M_074 stream substrate



Photo 618: S2M_076 facing west



Photo 619: S2M_076 facing east



Photo 620: S2M_076 stream substrate



Photo 621: W2M_075 soil profile



Photo 622: W2M_075 facing east



Photo 623: W2M_075 soil profile



Photo 624: W2M_075 facing south

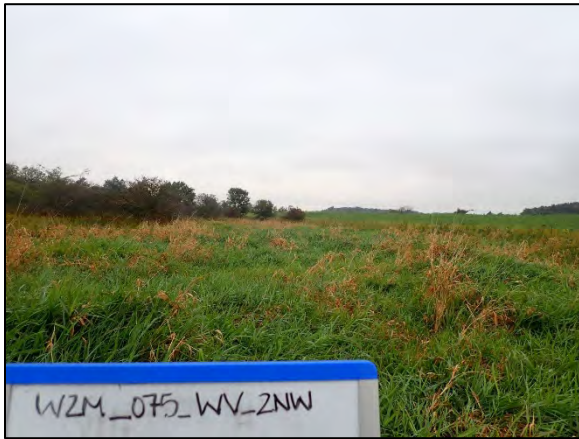


Photo 625: W2M_075 facing northwest



Photo 626: W1M_111 soil profile



Photo 627: W1M_111 facing south



Photo 628: W1M_111 facing north



Photo 629: W1M_111 soil profile



Photo 630: W1M_111 facing east



Photo 631: W1M_111 facing north



Photo 632: W1m-112 facing west



Photo 633: W1M_112 soil profile



Photo 634: W1M_112 facing north



Photo 635: W1M_112 facing west



Photo 636: W1M_112 soil profile



Photo 637: W1M_112-113 facing west

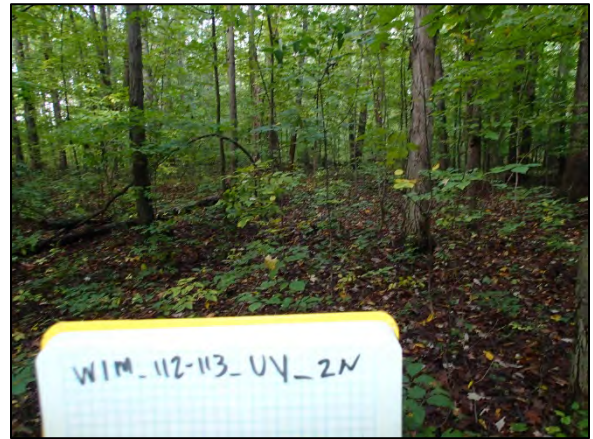


Photo 638: W1M_112-113 facing north



Photo 639: W1M_113 soil profile and pit



Photo 640: W1M_113 facing north



Photo 641: W1M_113 facing west



Photo 642: W1M_114 soil profile



Photo 643: W1M_114 facing east



Photo 644: W1M_114 facing west



Photo 645: W1M_114 soil profile



Photo 646: W1M_114 facing north



Photo 647: W1M_114 facing west



Photo 648: S2M_078 facing west



Photo 649: S2M_078 facing south



Photo 650: S2M_078 stream substrate



Photo 651: S2M_079 facing north



Photo 652: S2M_079 facing south



Photo 653: S2M_079 stream substrate



Photo 654: W2M_077 soil profile



Photo 655: W2M_077 facing east



Photo 656: W2M_077 soil profile



Photo 657: W2M_077 facing west



Photo 658: W2M_077 facing north



Photo 659: S2M_082 facing west



Photo 660: S2M_082 facing east



Photo 661: S2M_082 stream substrate



Photo 662: W2M_080 soil profile



Photo 663: W2M_080 facing north



Photo 664: W2M_080 facing west

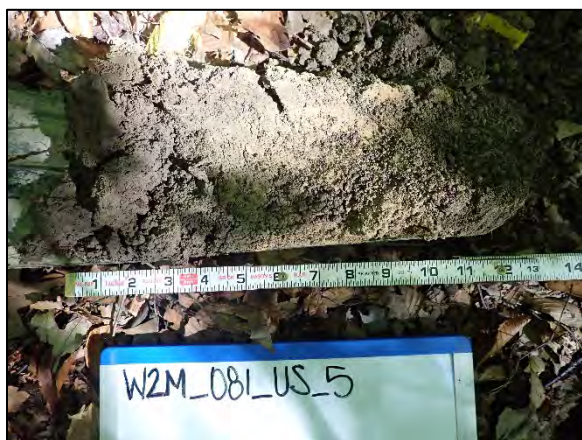


Photo 665: W2M_081 soil profile



Photo 666: W2M_081 facing north



Photo 667: W2M_081 soil profile



Photo 668: W2M_081 facing south



Photo 669: W2M_081 facing west



Photo 670: WB2M_083 facing east



Photo 671: S1M-121 facing northeast, downstream



Photo 672: S1M_121 stream substrate



Photo 673: S1M_125 facing west



Photo 674: S1M_125 facing east



Photo 675: S1M_125 stream substrate



Photo 676: W1M_122 soil profile



Photo 677: W1M_122 facing east



Photo 678: W1M_122 facing south



Photo 679: W1M_122 soil profile



Photo 680: W1M_122 facing south

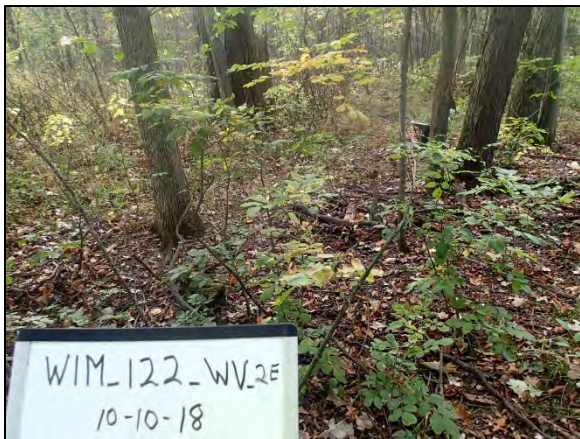


Photo 681: W1M_122 facing east



Photo 682: W1M_123 soil profile



Photo 683: W1M_123 facing north

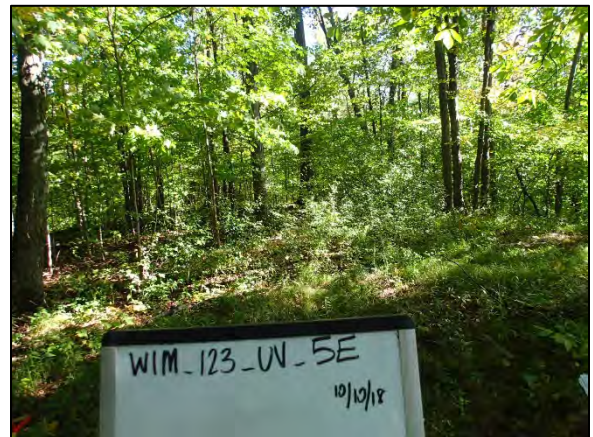


Photo 684: W1M_123 facing east



Photo 685: W1M_123 soil profile



Photo 686: W1M_123 facing east



Photo 687: W1M_123 facing north



Photo 688: W2M_084 soil profile



Photo 689: W2M_084 facing south



Photo 690: W2M_084 soil profile



Photo 691: W2M_084 facing south



Photo 692: W2M_084 facing north



Photo 693: W2M_086 soil profile



Photo 694: W2M_086 facing east



Photo 695: W2M_086 soil profile



Photo 696: W2M_086 facing west



Photo 697: W2M_086 facing south



Photo 698: S2M_088 facing northeast



Photo 699: S2M_088 facing south



Photo 700: S2M_088 stream substrate



Photo 701: W2M_087 soil profile



Photo 702: W2M_087 facing south



Photo 703: W2M_087 soil profile



Photo 704: W2M_087 facing north



Photo 705: W2M_087 facing east



Photo 706:



Photo 707:



Photo 708: S1M_118 facing north, downstream



Photo 709: S1M_118 stream substrate



Photo 710: S1M_118 facing south, upstream



Photo 711: S1M_120 stream substrate



Photo 712: S1M_121 facing southwest, upstream



Photo 713: W1M_117 soil profile



Photo 714: W1M_117 facing north



Photo 715: W1M_117 facing west



Photo 716: W1M_117 soil profile



Photo 717: W1M_117 facing east



Photo 718: W1M_117 facing north



Photo 719: W1M_119 soil profile

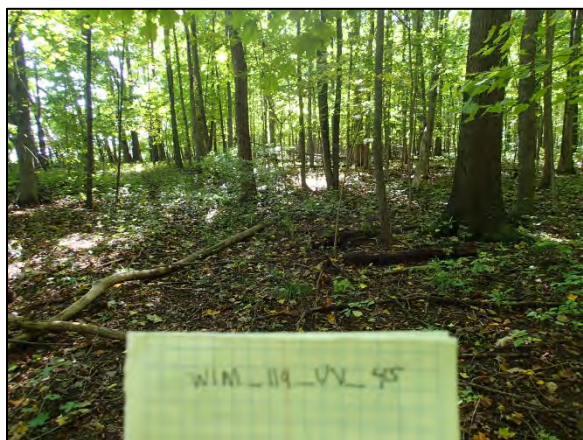


Photo 720: W1M_119 facing south



Photo 721: W1M_119 facing west



Photo 722: W1M_119 soil profile



Photo 723: W1M_119 facing west



Photo 724: W1M_119 facing south



Photo 725: WB1M_115 facing east



Photo 726: WB1M_116 facing north



Photo 727:



Photo 728:



Photo 729:



Photo 730: S1M_128 facing south, upstream



Photo 731: S1M_128 facing north, downstream



Photo 732: S1M_128 stream substrate



Photo 733: S1M_129 facing south, upstream



Photo 734: S1M_129 facing north, downstream



Photo 735: S1M_129 stream substrate



Photo 736: W1M_124 soil profile



Photo 737: W1M_124 facing north



Photo 738: W1M_124 facing south



Photo 739: W1M_124 soil profile



Photo 740: W1M_124 facing south



Photo 741: W1M_124 facing west



Photo 742: W1M_126 soil profile



Photo 743: W1M_126 facing west



Photo 744: W1M_126 facing south



Photo 745: W1M_126 soil profile



Photo 746: W1M_126 facing east

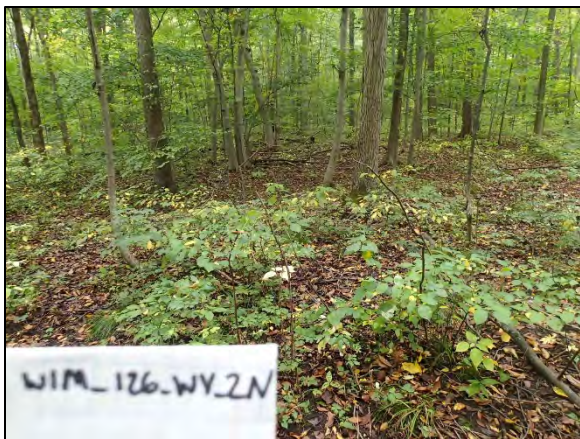


Photo 747: W1M_126 facing north



Photo 748: W1M_108 soil profile



Photo 749: W1M_108 facing north



Photo 750: W1M_108 facing west



Photo 751: W1M_108 soil profile

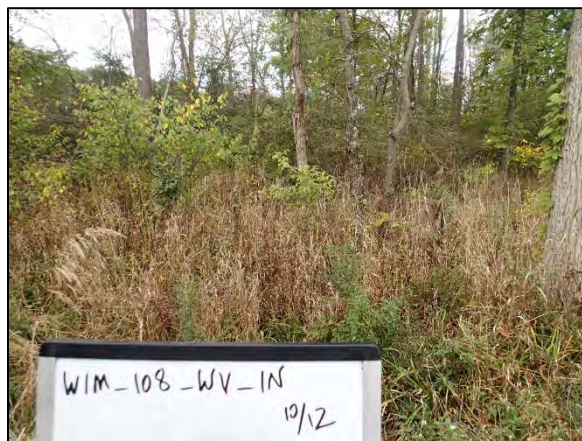


Photo 752: W1M_108 facing north



Photo 753: W1M_108 facing south



Photo 754: W1M_130 soil profile



Photo 755: W1M_130 facing north



Photo 756: W1M_130 facing east



Photo 757: W1M_130 soil profile

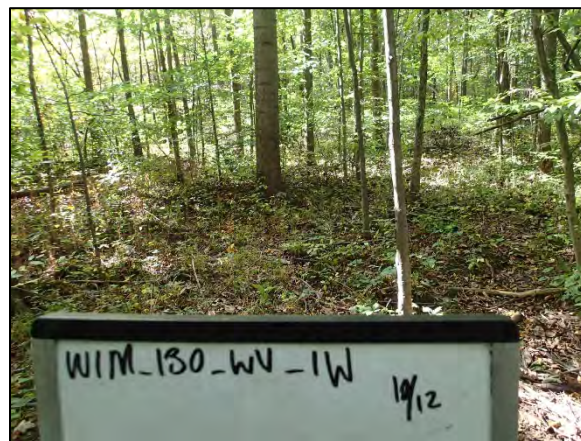


Photo 758: W1M_130 facing west

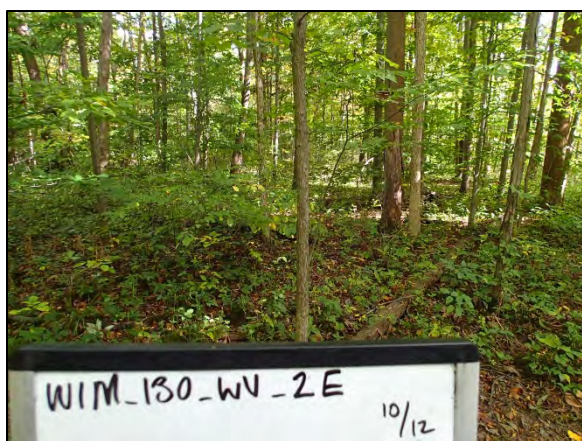


Photo 759: W1M_130 facing east



Photo 760: W2M_089 soil profile



Photo 761: W2M_089 facing west



Photo 762: W2M_089 facing west



Photo 763: W2M_089 soil profile



Photo 764: W2M_089 facing west



Photo 765: W2M_089 facing north



Photo 766: WB2M_090 facing west



Photo 767: S1M_132 facing east



Photo 768: S1M_132 stream substrate



Photo 769: W1M_131 facing west



Photo 770: W1M-131 facing south



Photo 771: W1M_131 soil profile



Photo 772: W1M_131 facing south



Photo 773: W1M_131 soil profile



Photo 774: W1M_131 facing north



Photo 775: S1M_134 facing south



Photo 776: S1M_134 facing south



Photo 777: S1M_134 facing south

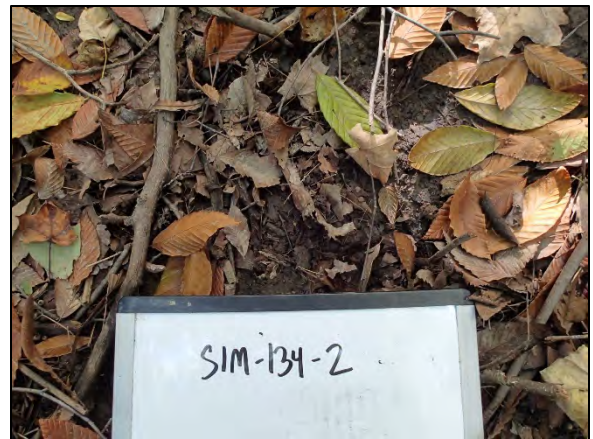


Photo 778: S1M_134 stream substrate



Photo 779: S1M_135 facing south

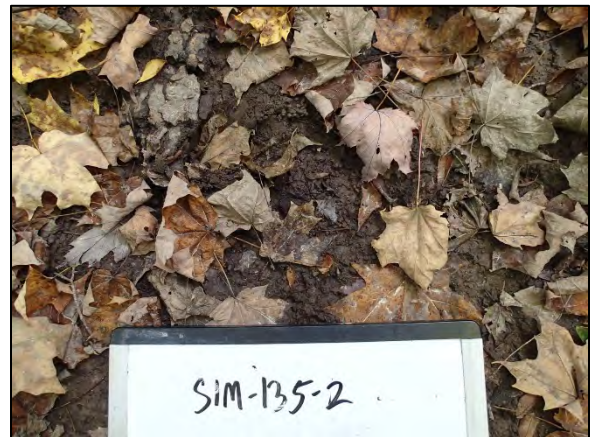


Photo 780: S1M_135 stream substrate



Photo 781: W1M_133 soil profile



Photo 782: W1M_133 facing southeast



Photo 783: W1M_133 soil profile



Photo 784: W1M_133 facing east



Photo 785: W1M_133 facing north



Photo 786: W1M_096 soil profile



Photo 787: W1M_096 facing south



Photo 788: W1M_096 facing east



Photo 789: W1M_096 soil profile

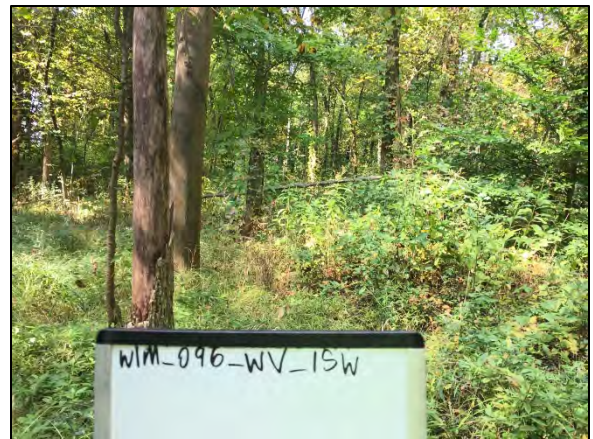


Photo 790: W1M_096 facing west



Photo 791: W1M_096 facing northeast



Photo 792: S1M_136 stream substrate



Photo 793: S1M_136 facing west



Photo 794: S1M_136 stream substrate



Photo 795: W1M_137 soil profile



Photo 796: W1M_137 facing north



Photo 797: W1M_137 soil profile



Photo 798: W1M_137 facing east



Photo 799: W1M_137 facing north



Photo 800: W1M facing south



Photo 801: S1M_138 facing east



Photo 802: S1M_138 stream substrate



Photo 803: W1M_140 soil profile



Photo 804: W1M_140 facing north



Photo 805: W1M_140 facing south



Photo 806: W1M_140 facing north



Photo 807: W1M_140 facing south



Photo 808: W1M_140 soil profile



Photo 809: W1M_140 facing south



Photo 810: W1M_140 facing north



Photo 811: W1M_141 soil profile



Photo 812: W1M_141 facing south



Photo 813: W1M_141 facing north



Photo 814: W1M_141 soil profile



Photo 815: W1M_141 facing south



Photo 816: W1M_141 facing north



Photo 817: S2M_092 facing west



Photo 818: S2M_092 facing southeast



Photo 819: S2M_092 stream substrate



Photo 820: S1M_142 facing south



Photo 821: S1M_142 stream substrate



Photo 822: S1M_143 facing west



Photo 823: S1M_143 stream substrate



Photo 824: 2M 10-30-2018



Photo 825: 2M 10-30-2018



Photo 826: 2M 10-30-2018



Photo 827: 2M 10-30-2018



Photo 828: 2M 10-30-2018



Photo 829: S1m_145 facing north



Photo 830: S1M_145 stream substrate



Photo 831: W1M_144 soil profile



Photo 832: W1M_144 facing west

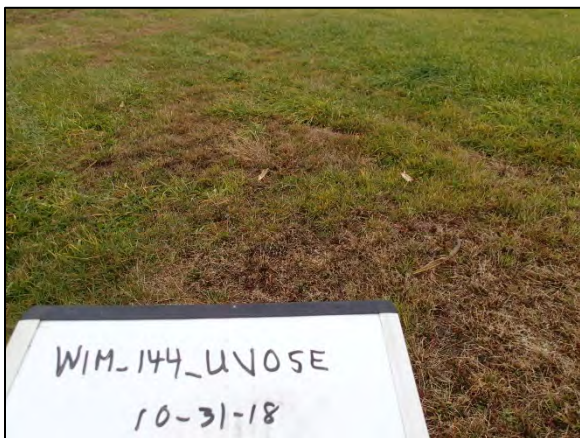


Photo 833: W1M_144 facing southeast



Photo 834: W1M_144 soil profile



Photo 835: W1M_144 facing north



Photo 836: W1M_144 facing west



Photo 837: S2M_093 facing south



Photo 838: S2M_093 facing north



Photo 839: 2M 11-1-18



Photo 840: 2M 11-1-18



Photo 841: 2M 11-1-18



Photo 842: S1M_146 facing east



Photo 843: S1M_146 stream substrate



Photo 844: S1M_147 facing south



Photo 845: S1M_147 stream substrate



Photo 846: S1M_149 facing east



Photo 847: S1M_149 stream substrate

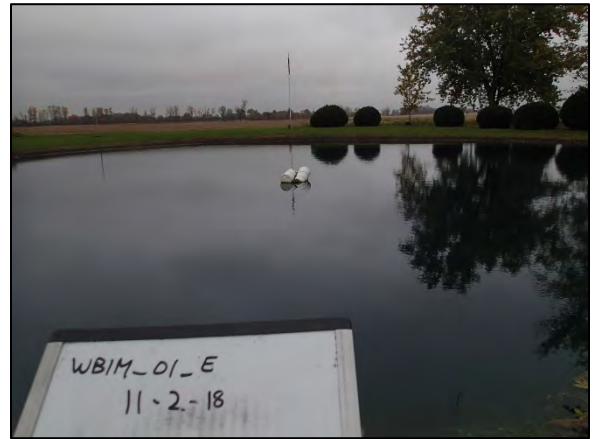


Photo 848: WB1M_01 facing east



Photo 849: WB1M_148 facing east

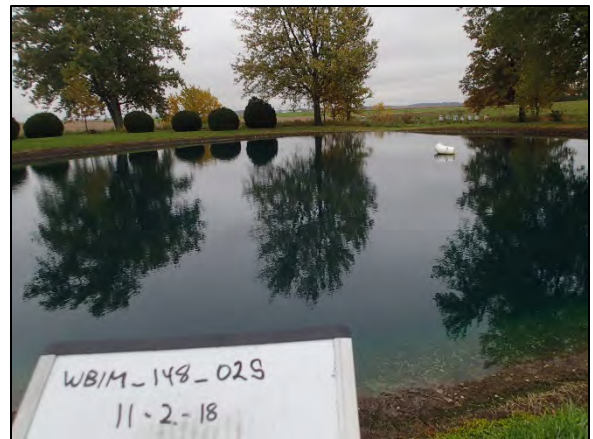


Photo 850: WB1M_148 facing south



Photo 851: W2M_095 soil profile



Photo 852: W2M_095 facing north



Photo 853: W2M_095 soil profile



Photo 854: W2M_095 facing east



Photo 855: W2M_095 facing west



Photo 856: S1M_151 facing west



Photo 857: S1M_151 stream substrate



Photo 858: W1M_150 soil profile



Photo 859: W1M_150 facing west



Photo 860: W1M_150 facing west



Photo 861: W1M_150 facing south



Photo 862: W1M_150 soil profile



Photo 863: W1M_150 facing south



Photo 864: W1M_150 facing north

This foregoing document was electronically filed with the Public Utilities

Commission of Ohio Docketing Information System on

1/31/2019 2:49:24 PM

in

Case No(s). 18-1607-EL-BGN

Summary: Application - Part 12 of 17 electronically filed by Christine M.T. Pirik on behalf of Firelands Wind, LLC