Existing Conditions June 2, 2021

- Groundwater Protection Areas (Groundwater Classification Areas GA1, Groundwater Classification Areas GA2, Wellhead Protection Areas);
- Wellhead Protection Areas:
- Water Supply Intake Protection Areas;
- Outstanding Resource Waters;
- Class A Water Watersheds:
- Surface Water Impairments;
- Local Potential Contamination Sources;
- Designated Rivers within one-quarter mile;
- All Lakes within one-quarter mile;
- Surface Waters with Impairments (2016); and
- Watersheds with Chloride Impairments (2016).

AoT screening layers crossed by the AoT project area are described within each of the AoT jurisdictional areas below.

Existing conditions within each AoT jurisdictional area are further described below and consistent with recent guidance and discussion between Eversource and NHDES. Representative photographs of the AoT project area are included in Appendix F.

3.1 AOT AREA A: WHITEFIELD

Area A begins at Jefferson Road in Whitefield near structure 180 and continues east approximately 0.9 miles to structure 170, where the ROW turns north and Area A continues for another 1.65 miles (2.55 miles total) to structure 153 near Jefferson Road. This area contains uplands and wetlands with relatively flat topography and approximate elevations ranging from 1,054 ft near structure 175 to 1,260 ft near structure 153. The area between structures 154 and 153 rises steeply towards Jefferson Road. The area is located within a rural, forested portion of Whitefield, with portions between structures 158 and 174 located in the USFWS Pondicherry National Wildlife Refuge (NWR). Some existing trails are present and will be utilized between structures 180 and 170, but overall, there are few existing trails in Area A. No drainage structures are documented or known to exist along the proposed access road.

3.1.1 Surface and Groundwater Protection – Area A

There are two surface waters located within Area A, intermittent streams S01 and S02, both of which are associated with wetlands (Figure 3). Area A includes temporary matting in 13 wetland systems for access and work pad placement: wetlands W013, W016, W018, W021–W024, and W026–W031. Temporary



Existing Conditions June 2, 2021

matting impact totals are summarized in the table below. AoT disturbance area is summarized in Section 5.1.2.

Temporary Matting	Impact (sf)
Access	79,380
Work/Pull Pad	90,909

According to Figure 3, all AoT screening layers are located outside of Area A.

3.1.2 FEMA 100-Year Floodplain, Shoreland Protection, Designated Rivers – Area A

According to the FEMA Flood Insurance layer on Figure 3, there are no 100-year floodplain zones within Area A.

According to the Consolidated List of Water Bodies Subject to RSA 483-B (May 22, 2019) and the NHDES Designated River Corridor Map, there are no rivers within Area A that are protected under RSA 483-B.

3.2 AOT AREA B: WHITEFIELD AND LANCASTER

Area B begins near structure 151, off Nutting Road, and continues north approximately 3.6 miles to structure 115, just north of the Lancaster town line near Wesson Road. This area contains uplands and wetlands with undulating topography. Approximate elevations range from 1,063 ft near structure 116 to 1,280 ft near structure 149. There are few existing trails within the ROW in Area B. The entrance off Nutting Road will utilize an existing field entrance where a culvert may be present. No other drainage structures are documented or known to exist along the proposed access roads.

3.2.1 Surface and Groundwater Protection – Area B

There are 3 surface waters located within Area B. Perennial streams include perennial stream S03 and intermittent streams S04 and S05. Area B includes temporary matting in 17 wetland systems for access road and work pad placement: wetlands W034–W035, W037–W043, W045–W049, W051, and W053–W054. Temporary matting impact totals are summarized in the table below. AoT disturbance area is summarized in Section 5.1.2.

Temporary Matting	Impact (sf)
Access	116,960
Work/Pull Pad	184,740

According to Figure 3, structures 145 to 151 are located within a wellhead protection area associated with the Whitefield Water Department. All other AoT screening layers are located outside of Area B.



Existing Conditions June 2, 2021

3.2.2 FEMA 100-Year Floodplain, Shoreland Protection, Designated Rivers – Area B

According to the FEMA Flood Insurance layer on Figure 3, there are no 100-year floodplain zones within Area B.

According to the Consolidated List of Water Bodies Subject to RSA 483-B (May 22, 2019) and the NHDES Designated River Corridor Map, there are no rivers within Area B that are protected under RSA 483-B.

3.3 AOT AREA C: LANCASTER

Area C begins near structure 89, off North Road, and continues north approximately 2.2 miles to just beyond structure 66. This area contains uplands and many large wetlands with relatively flat topography. Approximate elevations range from 945 ft near structure 89 to 1,125 ft near structure 67. There are few existing trails within the ROW in Area C. The entrance off North Road will utilize an existing field entrance where an old culvert may be present. No other drainage structures are documented or known to exist along the proposed access roads.

3.3.1 Surface and Groundwater Protection – Area C

There are three open water wetlands/marshes that could be considered surface waters located within Area C: wetlands W080, W081, and W088. Area C includes temporary matting in eight wetland systems for access road and work pad placement: wetlands W079–W084 and W087–W088. Temporary matting impact totals are summarized in the table below. AoT disturbance area is summarized in Section 5.1.2.

Temporary Matting	Impact (sf)
Access	74,880
Work/Pull Pad	115,145

According to Figure 3, the area from structures 87 to 88 within Area C is within one-quarter mile of a surface water with impairments: Otter Brook due to Escherichia coli. Otter Brook itself is located outside the AoT area. All other AoT screening layers are located outside of Area C.

3.3.2 FEMA 100-Year Floodplain, Shoreland Protection, Designated Rivers – Area C

According to the FEMA Flood Insurance layer on Figure 3, there are no 100-year floodplain zones within Area C.

According to the Consolidated List of Water Bodies Subject to RSA 483-B (May 22, 2019) and the NHDES Designated River Corridor Map, there are no rivers within Area C that are protected under RSA 483-B.



Existing Conditions June 2, 2021

3.4 AOT AREA D: LANCASTER AND NORTHUMBERLAND

Area D begins near structure 65 in Lancaster and continues north approximately 1.5 miles to near structure 48 off Page Hill Road in Northumberland. This area contains uplands and wetlands with relatively flat topography. Approximate elevations range from 1,008 ft near structure 60 to 1,075 ft near structure 65. Structure 48 is located within the Cape Horn State Forest. An existing snowmobile trail is present south of Page Hill Road, but otherwise there are few existing trails within Area D. The entrance off Page Hill Road will utilize an existing gravel entrance where an old culvert may be present. No other drainage structures are documented or known to exist along the proposed access roads.

3.4.1 Surface and Groundwater Protection – Area D

There are three surface waters located within Area D. Perennial streams S09, S10, and S11. Area D includes temporary matting in eight wetland systems for access road and work pad placement: wetlands W089–W096. Temporary matting impact totals are summarized in the table below. AoT disturbance area is summarized in Section 5.1.2.

Temporary Matting	Impact (sf)
Access	60,663
Work/Pull Pad	38,441

According to Figure 3, all AoT screening layers are located outside of Area D.

3.4.2 FEMA 100-Year Floodplain, Shoreland Protection, Designated Rivers – Area D

According to the FEMA Flood Insurance layer on Figure 3, there are no 100-year floodplain zones within Area D.

According to the Consolidated List of Water Bodies Subject to RSA 483-B (May 22, 2019) and the NHDES Designated River Corridor Map, there are no rivers within Area D that are protected under RSA 483-B.

3.5 AOT AREA E: NORTHUMBERLAND

Area E begins near structure 47, off Page Hill Road, and continues north approximately 2.6 miles to structure 19 where an existing woods road will be utilized to provide access around a steep area within the ROW. This area contains uplands and wetlands with undulating topography. Approximate elevations range from 1,012 ft near structure 42 to 1,515 ft near structure 20. There are few existing trails within the ROW in Area E. Structures 47 through 24 are located within the Cape Horn State Forest. No drainage structures are documented or known to exist along the proposed access roads.



Existing Conditions June 2, 2021

3.5.1 Surface and Groundwater Protection – Area E

There are eight surface waters located within Area E. Perennial streams include S13, S14, S15, S16, S17, S18, S19, with one intermittent stream S12. Area E includes temporary matting in nine wetland systems for access road and work pad placement: wetlands W098–W099, W101–W102, W104–W106, and W108–W109. Temporary matting impact totals are summarized in the table below. AoT disturbance area is summarized in Section 5.1.2.

Temporary Matting	Impact (sf)
Access	66,972
Work/Pull Pad	87,373

According to Figure 3, all AoT screening layers are located outside of Area E.

3.5.2 FEMA 100-Year Floodplain, Shoreland Protection, Designated Rivers – Area E

According to the FEMA Flood Insurance layer on Figure 3, the areas associated with Dean Brook, between structures 43 and 41 and between structures 36 and 30, are located in the 100-year floodplain zone.

According to the Consolidated List of Water Bodies Subject to RSA 483-B (May 22, 2019) and the NHDES Designated River Corridor Map, there are no rivers within Area E that are protected under RSA 483-B.

3.6 AOT AREA F: NORTHUMBERLAND

Area F begins near structure 18 in Northumberland and continues north and east approximately 1.6 miles to structure 1 at the substation off Lost Nation Road. This area contains uplands and wetlands with relatively flat topography. Approximate elevations range from 1,000 ft near Roaring Brook (S24) near structure 3 to 1,400 ft near structure 18. There are few existing trails within the ROW in Area F. The entrance off Lost Nation Road will utilize the existing substation entrance where a paved driveway is located that may have an associated culvert along the road. No other drainage structures are documented or known to exist along the proposed access roads.

3.6.1 Surface and Groundwater Protection – Area F

There are five surface waters located within Area F. Perennial streams S22 and S24, intermittent streams S20 and S21, and ephemeral stream S23. Area F includes temporary matting in 10 wetland systems for access road and work pad placement: wetlands W114-W120 and W123-124. Temporary matting impact totals are summarized in the table below. AoT disturbance area is summarized in Section 5.1.2.



Project Description June 2, 2021

Temporary Matting	Impact (sf)
Access	36,877
Work/Pull Pad	35,829

According to Figure 3, all AoT screening layers are located outside of Area F.

3.6.2 FEMA 100-Year Floodplain, Shoreland Protection, Designated Rivers – Area F

According to the FEMA Flood Insurance layer on Figure 3, the area associated with Roaring Brook, between structures 4 and 3, is located in the 100-year floodplain zone.

According to the Consolidated List of Water Bodies Subject to RSA 483-B (May 22, 2019) and the NHDES Designated River Corridor Map, there are no rivers within Area F that are protected under RSA 483-B.

4.0 PROJECT DESCRIPTION

4.1 LINE REBUILD: STRUCTURE REPLACEMENT, CONDUCTOR AND OPGW REPLACEMENT

The proposed project includes replacement of all existing wooden transmission line structures along the D142 line ROW. Within the AoT areas, 154 structures will be replaced. The structure replacement process consists of drilling approximately 4-ft-diameter holes near the existing structures. A caisson, or can, is installed approximately 15 to 20 ft below the ground surface. The new structure is installed in the can and backfilled with clean, suitable rock or gravel material. Spoils produced from drilling the hole will be disposed of in an approved upland location away from wetland areas. Spoil piles will be stabilized with seed and mulch. Some replacement structures may require anchors. Anchors will be installed by excavating trenches, installing concrete block anchors, and backfilling trenches. If anchors are installed in wetlands, backfill material will consist of the same excavated soil to maintain hydric soil conditions. Once the new structure is installed and stable, the wires from the old structure will be transferred to the new structure. Old structures will be cut and removed from the ground in upland locations. Old structures located in wetlands will be cut at ground level if saturated soils prevent removal. All construction materials and old structure pieces will be removed and disposed of off-site at an approved disposal facility.

Following completion of the structure replacement and wire work, all temporary timber construction mats will be removed. Disturbed wetland areas will be restored and stabilized with weed free straw mulch. Disturbed upland areas will also be restored and stabilized. Upland work pads will be restored by reducing the work pad size to 30 ft by 50 ft by restoring upland perimeter areas to pre-existing contours, with seeding and mulch used as needed. Slopes will be reduced to less than 25% where necessary, and exposed soils will be stabilized with seed and mulch. Seed and mulch will be applied along the shoulders and side slopes of the access roads as necessary, and the established access roads will be left in place.



Project Description June 2, 2021

Conductor and OPGW wire replacement work involves restringing and replacing the existing wire on all structures along the entire length of the D142 line. Access roads will also be established to pull pads, where the wire will be pulled from one location to another across the structures and spliced together. The majority of the wire unclipping/clipping will likely be accomplished with a combination of bucket truck aerial access and helicopters. Wire replacement work will be completed following the structure replacement work and will utilize the access roads and work pads created during the structure replacement.

4.1.1 Access

The proposed rebuild project utilizes existing access routes within the D142 line ROW wherever possible. The majority of the existing access routes are comprised of dirt or grassy areas and are proposed to be improved as part of the project to allow for construction vehicle access. Proposed access routes are shown on Figures 3 and 4. Access road entrances are located off state and local roadways and utilize existing entrances wherever possible. Temporary driveway permits for access from state owned roads will be obtained from the New Hampshire Department of Transportation prior to the start of construction. The proposed access routes were sited to minimize ground disturbance and temporary wetland impacts to the greatest extent practicable while providing safe and efficient access to the existing structures. Timber matting will be used to cross all wetland and stream resources.

4.1.1.1 Road Construction

Proposed upland access road improvements include construction of approximately 12-ft-wide gravel and stone roads within the ROW. The roads will provide access to existing utility structures for replacement activities. The improved access roads will provide reliable, permanent access to utility infrastructure during future maintenance or emergency repairs. Where possible, the proposed access roads will be located on top of existing dirt or grass roads or trails. If no existing routes are available or suitable, a new road will be constructed. Minor grading may be necessary to remove large boulders and create a flat surface for the new rock or gravel.

4.1.1.2 Wetland and Upland Temporary Matting

Access through delineated wetlands in the project area will utilize temporary timber construction mats to minimize and prevent rutting in the wetlands (see Figure 4). Where necessary in overly saturated conditions, runners (mats placed parallel to the direction of travel) will be placed on the wetland surface prior to setting the top, perpendicular layer of mats. This helps reduce settling and overall wetland disturbance. Upland timber construction mats are occasionally requested by the landowner where fields or lawn areas may be crossed by the proposed access road.

4.1.2 Work Pad Construction

The proposed project includes construction of structure replacement work pads and pull pads. Structure replacement pads will be approximately 120 ft by 120 ft at corner structures and approximately 100 ft by 100 ft at all other replacement structures. Pull pads will be 50 ft by 100 ft. All upland work pads will be



Project Description June 2, 2021

constructed using clean stone. The work pads will be top dressed with compacted 1.5 to 3-inch-diameter clean stone. Proposed work pads located in wetland areas will be constructed using temporary timber construction mats and will be removed upon completion of the work. Upland work pads will be restored by reducing the work pad size to 30 ft by 60 ft by covering perimeter areas with stockpiled loam. Slopes will be reduced to less than 25% where necessary, and exposed soils will be stabilized with seed and mulch.

4.2 CONSTRUCTION SEQUENCE

The general project construction sequence will be:

- 1. Install appropriate signage for traffic safety along public roads near construction entrances;
 - Consult and coordinate with municipalities and police as necessary if short duration lane closures are needed to allow for safe entry and exit of construction equipment to/from the ROW.
- 2. Install erosion control devices, as needed, as shown on Figure 4;
 - Erosion control practices will follow the NHDES Best Management Practices Manual for Utility Maintenance in and Adjacent to Wetlands and Waterbodies in New Hampshire (March 2019; Utility BMP Manual).
 - b. Typical erosion controls devices used within the ROW may consist of silt fence, straw wattles, stone check dams, and/or hay and straw mulch stabilization.
- 3. Place construction mats in wetlands for access roads and work pads as depicted on Figure 4;
 - a. Mats will be stored by the contractor off-site. Storage areas will be determined by the contractor and are usually non-Project specific yards owned or leased by the contractor or existing parking lots near the Project area. A log loader style truck will deliver mats to the ROW. Depending on the terrain, the log loader truck may deliver the mats directly to where they will be installed, or they will be stockpiled within the ROW near an existing road. A forwarder will then move the mats to where they are needed on the ROW and install them in conjunction with an excavator.
- 4. Grade and improve upland access roads and work pads;
 - a. If existing trails are present, they will be improved with a layer of compacted gravel or stone to prevent rutting.
 - b. Where no existing trails are present, and approximately 12–16-ft-wide path will be graded smooth by removing some of the topsoil. If present, large boulders will be removed and set to the side of the route in upland areas. The graded areas will be topped with compacted gravel or stone. Exposed soils on side slopes with be stabilized with seed and mulch.
- Structure replacements:
 - a. Drill new structure holes utilizing an excavator with a drill attachment;
 - b. Install new poles and structure components. Typical equipment consists of one to two bucket trucks working with a crane truck that lifts the new structure;



Project Description June 2, 2021

- c. Transfer electrical lines from old structures to new structures; and
- d. Remove and haul away old structures. Pull cut pole from the ground if possible, in upland locations. Cut pole flush with ground in wetland locations and restore area with weed-free straw mulch.
- 6. Mobilize OPGW and conductor wire spools and pulling equipment to designated pull pads;
- 7. Replace OPGW and conductor wires. Wire unclipping, pulley installation, and wire clipping is typically done with a helicopter. A bucket truck may also perform these tasks at select locations depending on the surrounding terrain and tree cover;
- 8. Clean up excess/stockpiled material at work pads and pull pads;
- 9. Smooth/grade upland work pads and stabilize and restore with seed and mulch as necessary. Upland work pads are typically restored to an approximately 30-foot by 50-foot size. Topsoil pushed to the sides during the initial construction is used to recover the work pads. Exposed soils are stabilized with seed and mulch;
- 10. Remove construction mats from wetland areas and stabilize/restore disturbed wetland areas with weed-free straw mulch. Matting is removed in a similar manner to how it was installed by using log loader trucks, forwarders, and/or excavators; and
- 11. Stabilize, restore, and clean up all staging areas and entrance points.

Provided necessary permits are in place, work would begin in late summer 2021 (approximately August or September) and continue through the following growing season until approximately the winter of 2022–2023. Entrances, access roads, and work pads will be created prior to structure replacement work. New structure holes will likely be drilled prior to mobilization of structure replacement equipment (e.g., cranes, bucket trucks). Installation of new poles and transferring of wires will be completed prior to moving on to the next structure. Multiple structure replacement crews may work in different areas to expedite the process. Once all planned structure replacements within a designated segment of line occur, , pull pads will be established as necessary, and the replacement OPGW and conductor lines will be pulled into place. Pull pad placement will be determined based on the length of wire and angle structures along the line. A spool of wire will be placed on one pull pad, and the wire will be pulled into place through pulleys on the structures by a large winch at another location. When wire pulling is complete, the wire segments will be spliced together and clipped permanently onto the structures. Removal of mats and restoration will occur as individual work areas are completed.

4.3 BEST MANAGEMENT PRACTICES

4.3.1 Erosion and Sedimentation Control

Work will be conducted in accordance with Eversource's standard Best Management Practices (BMPs) as designated by the Utility BMP Manual. Following these BMPs will minimize and avoid impacts to wetland and stream resources and the surrounding upland to the greatest extent practicable. Erosion control notes are also provided on the Notes sheet of Figures 3 and 4.



Project Description June 2, 2021

Perimeter erosion controls consisting of silt fence, straw wattles, mulch, and straw bales will be installed as necessary around the work areas to minimize potential impacts to adjacent resource areas. Water bars, also known as diversion ditches, will be installed along access roads with steep slopes, where necessary, to prevent water from traveling long distances down the road causing erosion. Water bars will direct water off the road into adjacent upland areas. Exposed soil created during construction will be stabilized with seed and mulch as soon as possible after active work in the area is complete. No equipment or material will be stored within wetland areas. Erosion control details are shown on BMP detail sheets 1 and 2 of Figures 3 and 4. Temporary timber construction mats will be used in all wetland areas and will be used to cross all streams within the project area.

4.3.2 Invasive Species Control Plan

Due to the remote landscape surrounding the majority of the D142 line, invasive species may be present but are not likely to be widespread or present in large infestations. Contractors will follow the invasive species recommendations in the Utility BMP Manual to help prevent the spread of invasive species, including inspection and cleaning of equipment and contractor training. Equipment, including construction mats, brought to the Project area will be inspected by the contractor and/or environmental monitor, and if plant material or soil is present, the equipment will be cleaned and dried prior to use on the Project. During the wetland delineations, scattered occurrences of purple loosestrife (*Lythrum salicaria*) and Morrow's honeysuckle (*Lonicera morrowii*) were observed on the southern portion of the D142 line in Whitefield. Contractors will be familiar with identification of common invasive species and will be required to clean mats and equipment prior to their use elsewhere. If possible and without increasing wetland impacts, the contractors may also make slight shifts in access roads or work pads to avoid invasive species locations.

4.3.3 Construction Observation and Post Construction Monitoring

During construction, Eversource will contract an environmental monitor to perform routine construction observation visits. The environmental monitor will inspect the Project area for compliance with the Utility BMP Manual and applicable Project permits and conditions. Construction observation visits will occur at least once per week and/or after a significant rainfall (0.5 inches or greater) or snow melt event. Under the National Pollutant Discharge Elimination System, Eversource will file a Notice of Intent and Stormwater Pollution Prevention Plan (SWPPP) under the U.S. Environmental Protection Agency's Construction General Permit. Construction observation visits and associated reporting will follow the SWPPP and Construction General Permit guidelines and be performed by a qualified individual familiar with the SWPPP, Utility BMP Manual, and project specific permit conditions.

A series of post-construction monitoring visits in the Project area will be performed by a qualified environmental scientist to document that disturbed areas are properly stabilized and vegetation is beginning to regrow. Site restoration will be considered successful when there is at least 85% cover by native, non-invasive herbaceous plant species within the restored portions of ROW, including any restored wetland areas. This does not include gravel work pads or access roads that existed prior to construction or were created during construction. The environmental scientist will prepare a report following each post-construction monitoring visit that includes representative photographs and corrective



Regulatory Compliance June 2, 2021

actions (if applicable). Once the disturbed uplands and temporarily impacted wetlands within the Project area are determined to be permanently stabilized, post-construction monitoring will be considered complete.

5.0 REGULATORY COMPLIANCE

5.1 ALTERATION OF TERRAIN

The NHDES requires an AoT permit whenever a project proposes to disturb more than 100,000 sf of terrain or 50,000 sf if within a protected shoreland (Env-Wq-1500). The NHDES rule is intended to protect New Hampshire surface waters by controlling soil erosion and managing stormwater runoff from developed areas. The AoT project area contains six distinct AoT regulated areas (Areas A through F) within the D142 line ROW based on contiguous areas of disturbance. Details on impacts in each AoT regulated area are provided in Section 5.1.2 – Quantification of Impacts Subject to AoT.

5.1.1 Waiver Requests

Per Env-Wq 1509.2, Eversource is requesting a waiver from the requirements to prepare a Stormwater Drainage Report, Drainage Area Plans, and Hydrologic Soil Group Plans. New impervious surfaces associated with the project are limited to the footprint of the new transmission line structures. It is not anticipated that the proposed structures will have a significant impact on site drainage patterns, and stormwater treatment practices are not proposed. These exemptions for transmission line maintenance projects were discussed at the pre-application meeting with Eversource, Stantec, NHDES, and NHFGD on January 28, 2021, and were also previously discussed between NHDES and Eversource during general consultations on AoT permitting. A formal waiver request form is provided in Appendix G.

5.1.2 Quantification of Impacts Subject to AoT

There is approximately 2,424,549 sf of total ground area, including 949,519 sf of temporary wetland matting and 1,475,030 sf of ground disturbances, proposed within the AoT project area that requires an AoT permit in accordance with Env-Wq 1502.58. Specific areas are detailed below that exceed the AoT disturbance thresholds for Env-Wq 1502.58(b)(2) "An area that, over a 10-year period, cumulatively exceeds 100,000 square feet of contiguous area..." The width of the proposed disturbance for new access roads is assumed to average approximately 12 ft throughout the AoT project area, and temporary timber construction mats are 16 ft wide. Additional details are shown on Figure 4.



Regulatory Compliance June 2, 2021

AoT Area A: Whitefield

Structures 180 to 153

Figure 4 Map Sheets 1 to 10

Disturbance Type	Impact (sf)
New Access	76,950
Gravel Work/Pull Pad	223,640
Total Disturbed Area	300,590

AoT Area B: Whitefield and Lancaster

Structures 151 to 115

Figure 4 Map Sheets 11 to 23

Disturbance Type	Impact (sf)
New Access	77,840
Gravel Work/Pull Pad	209,762
Total Disturbed Area	287,602

AoT Area C: Lancaster

Structures 89 to 66

Figure 4 Map Sheets 24 to 31

Disturbance Type	Impact (sf)
New Access	51,729
Gravel Work/Pull Pad	135,520
Total Disturbed Area	187,249

AoT Area D: Lancaster and Northumberland

Structures 65 to 48

Figure 4 Map Sheets 17 to 37

Disturbance Type	Impact (sf)
New Access	32,212
Gravel Work/Pull Pad	147,734
Total Disturbed Area	179,947



Regulatory Compliance June 2, 2021

AoT Area E: Northumberland

Structures 47 to 19

Figure 4 Map Sheets 38 to 46

Disturbance Type	Impact (sf)
New Access	81,311
Gravel Work/Pull Pad	229,819
Total Disturbed Area	311,131

AoT Area F: Northumberland

Structures 18 to 1

Figure 4 Map Sheets 47 to 52

Disturbance Type	Impact (sf)
New Access	59,881
Gravel Work/Pull Pad	148,630
Total Disturbed Area	208,510

5.2 OTHER REGULATORY PROGRAMS

Other regulatory permits and notifications required for the proposed project are summarized below. Eversource and Stantec have corresponded with the towns of Whitefield, Lancaster, and Northumberland regarding the proposed work. Other than a building permit in the town of Northumberland, there are no town permits or approvals necessary to complete the proposed work. The towns will receive a copy of the Standard Dredge and Fill Wetlands Permit and AoT Permit applications.

Agency	Permit/Notification	Status
NHDES	Standard Dredge and Fill Wetlands Permit (major)	Under Review, #2021- 01499
NHDES	Shoreland Permit by Notification	Pending
EPA (Construction General Permit)	Stormwater Pollution Prevention Plan	Pending
U.S. Fish and Wildlife Service	Special Use Permit	Under Review
Northumberland Select Board	Building Permit	Pending

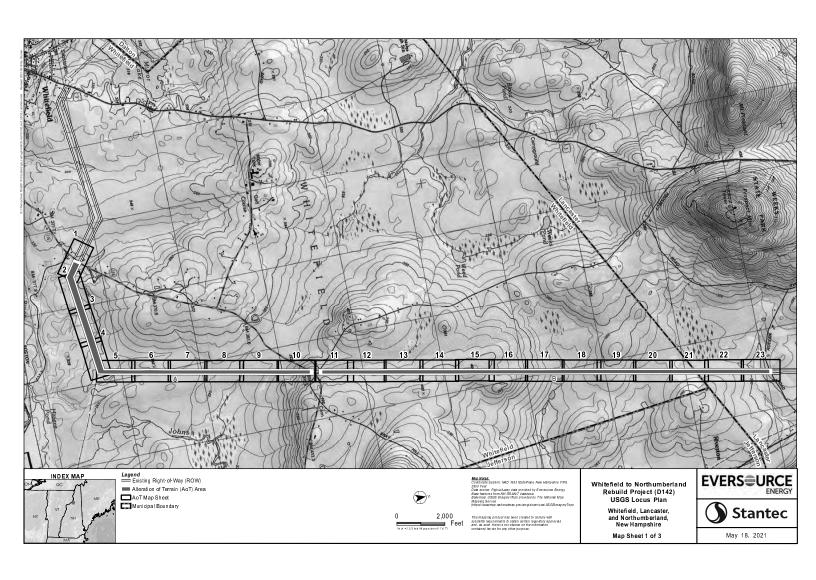


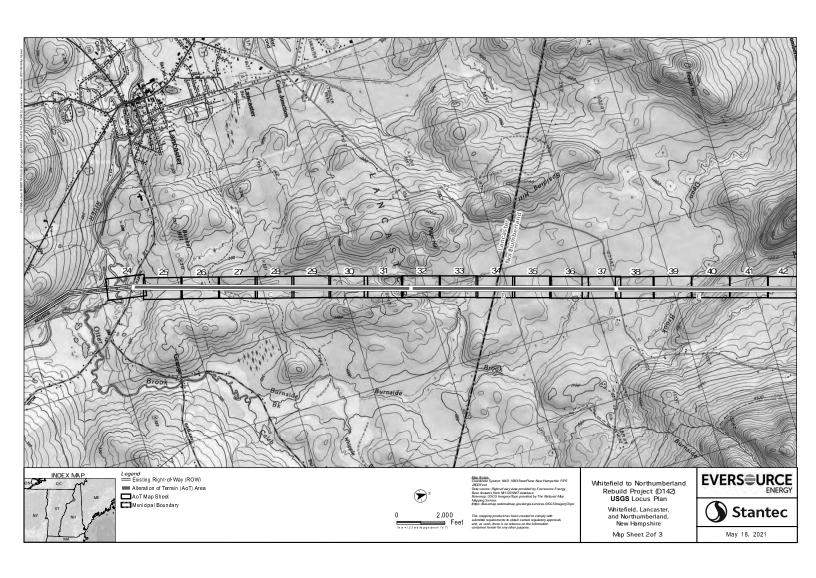
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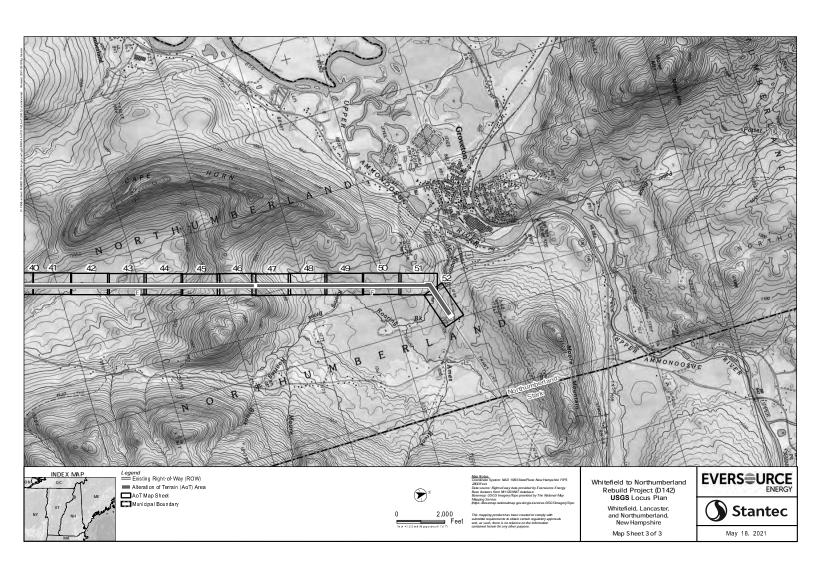
June 2, 2021

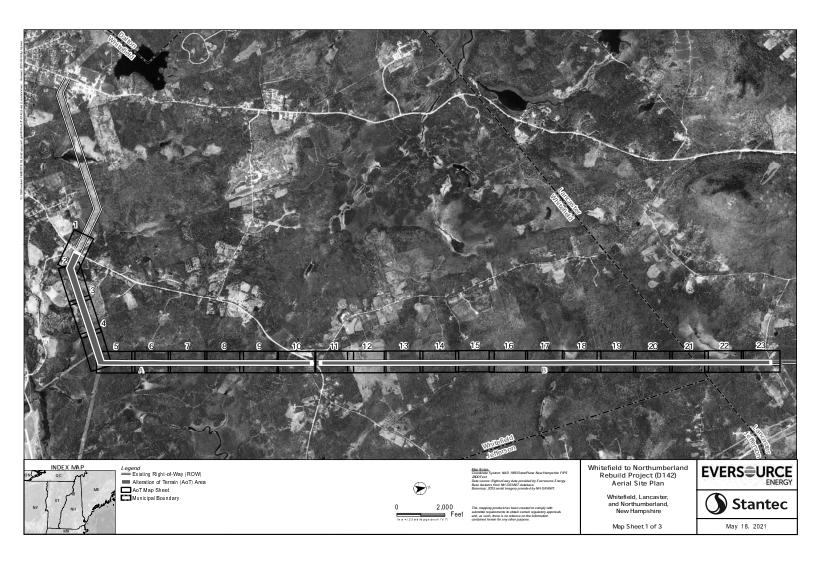
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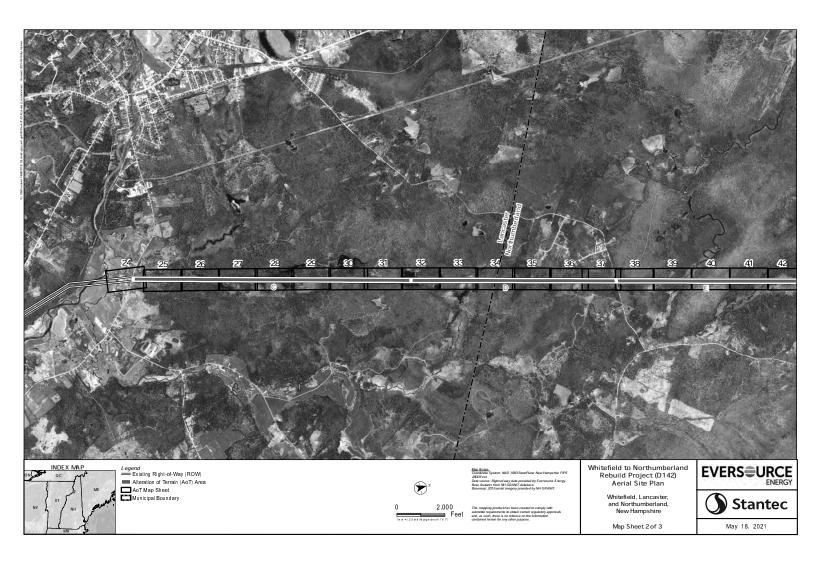


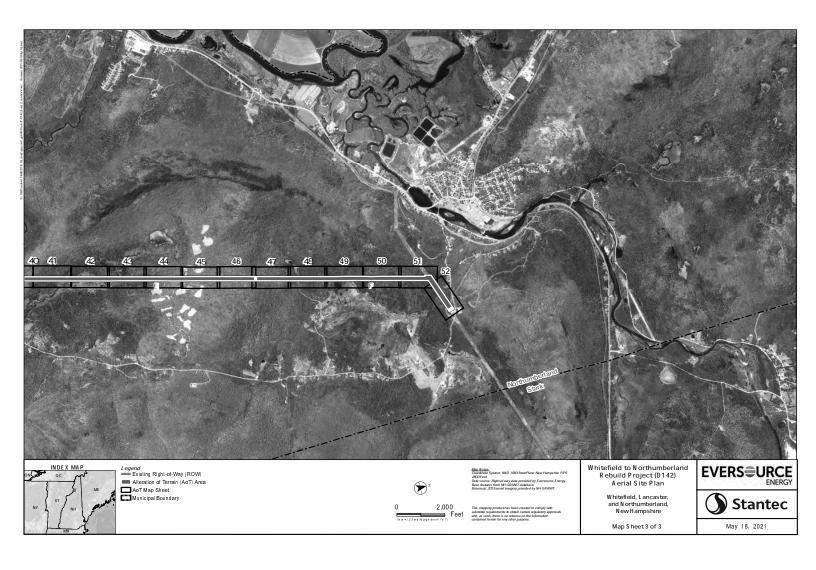






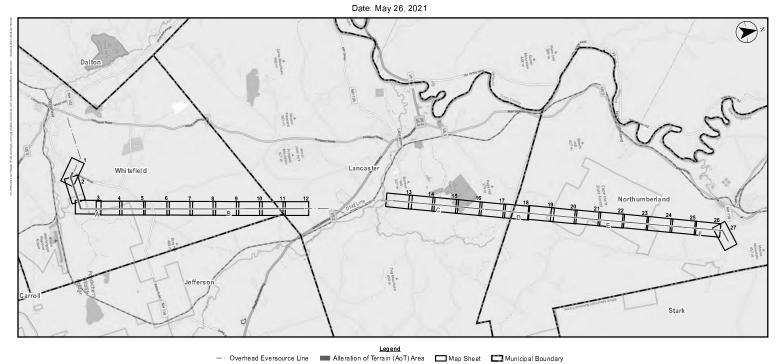






Whitefield to Northumberland Rebuild Project (D142)

Surface Water and Groundwater Overlay Plans Whitefield, Lancaster, and Northumberland, New Hampshire

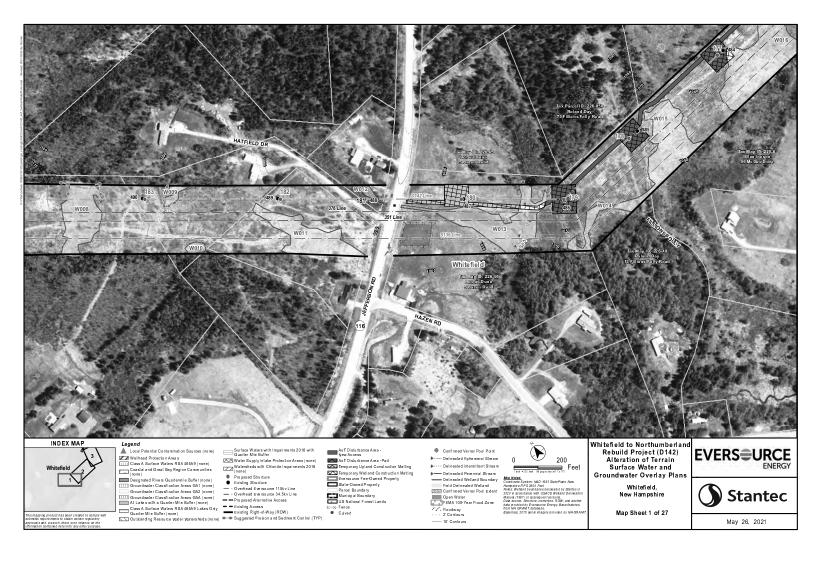


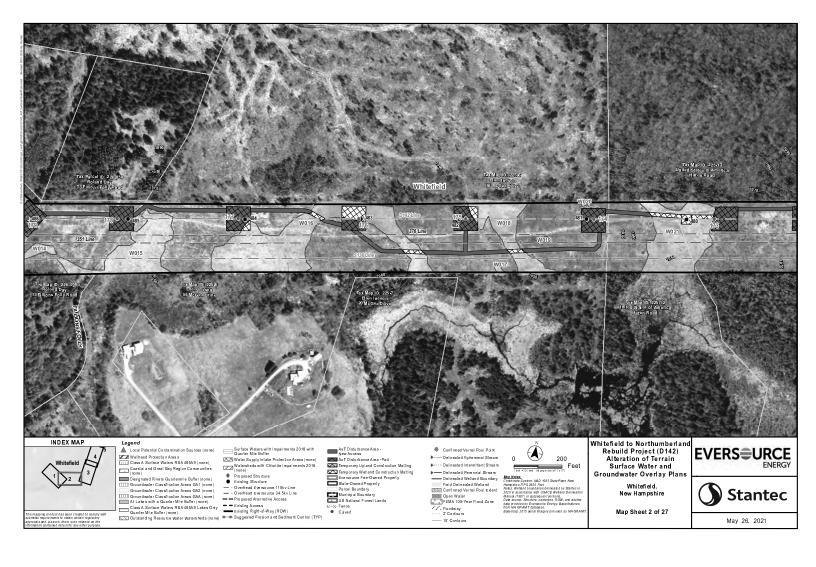


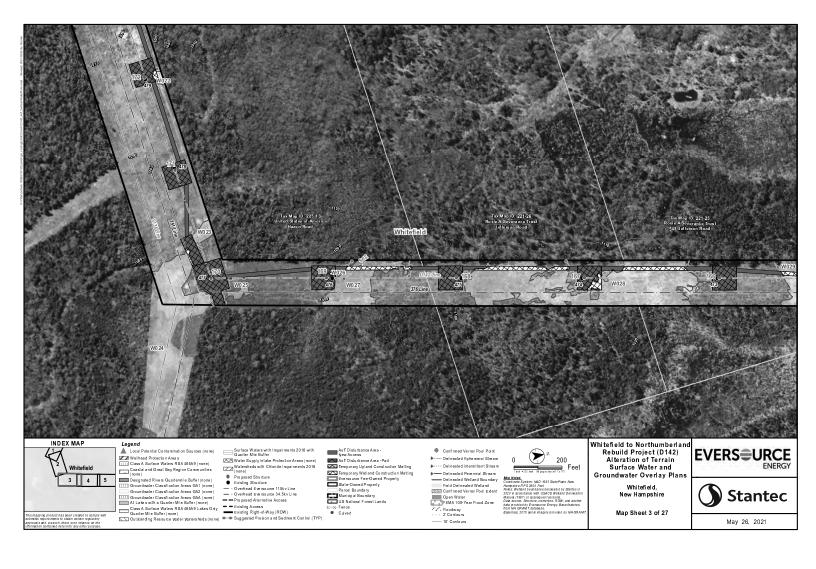
INDEX OF FIGURES

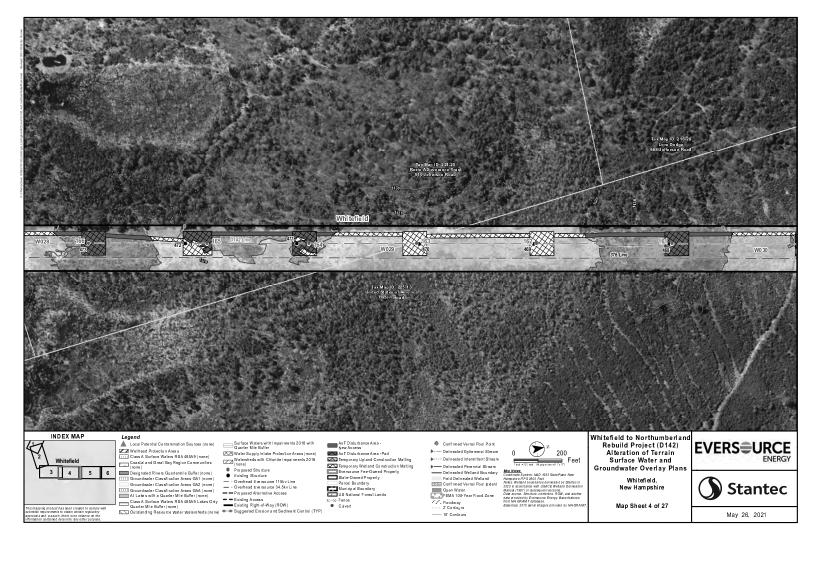
Tite Sheet 1 - 27 Map Sheets Notes Details

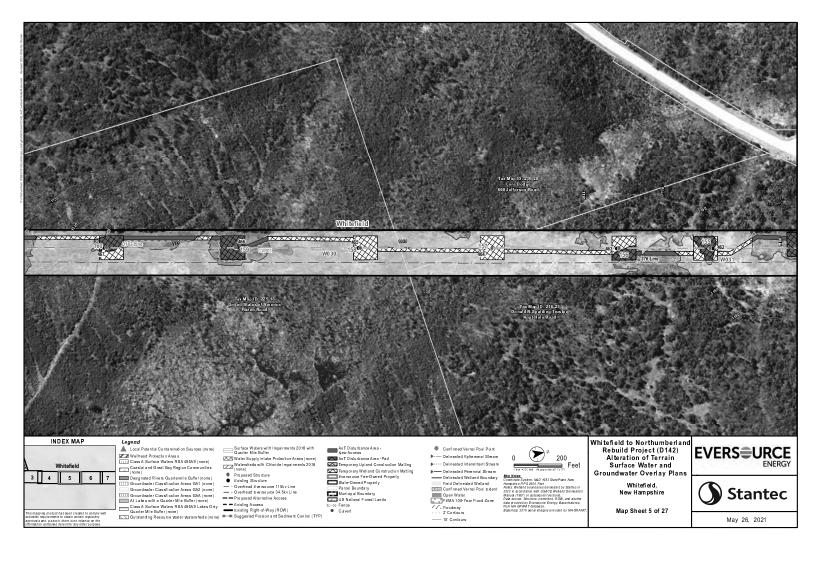


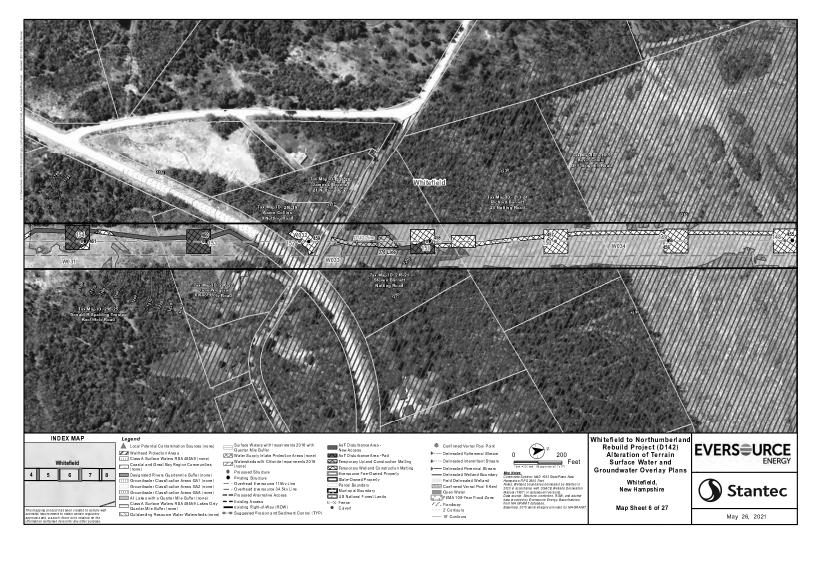


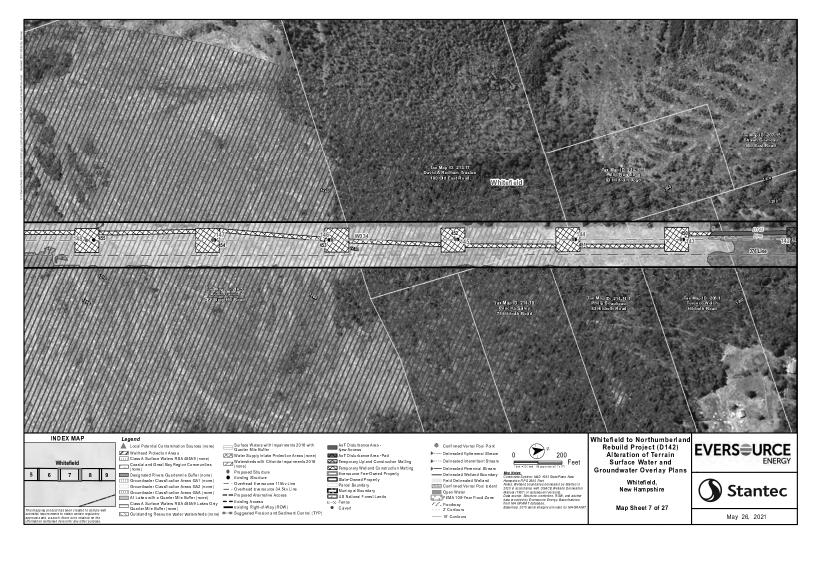


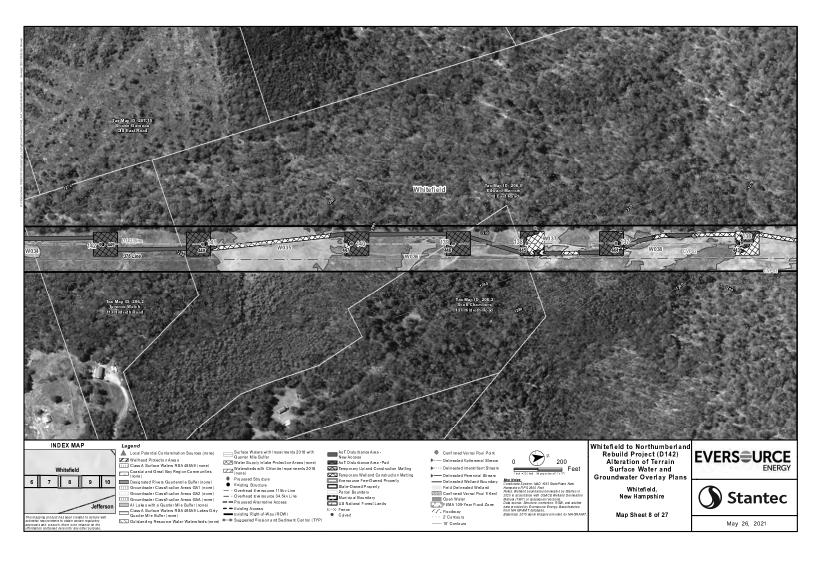


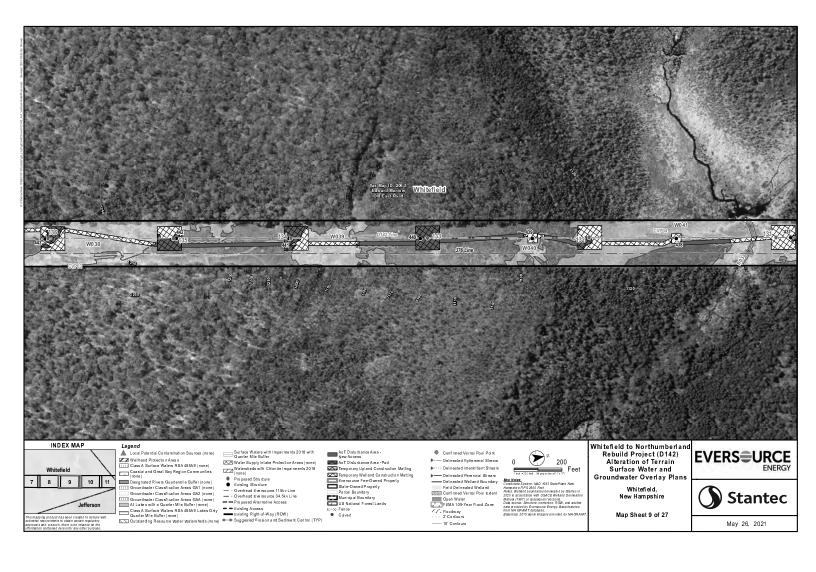


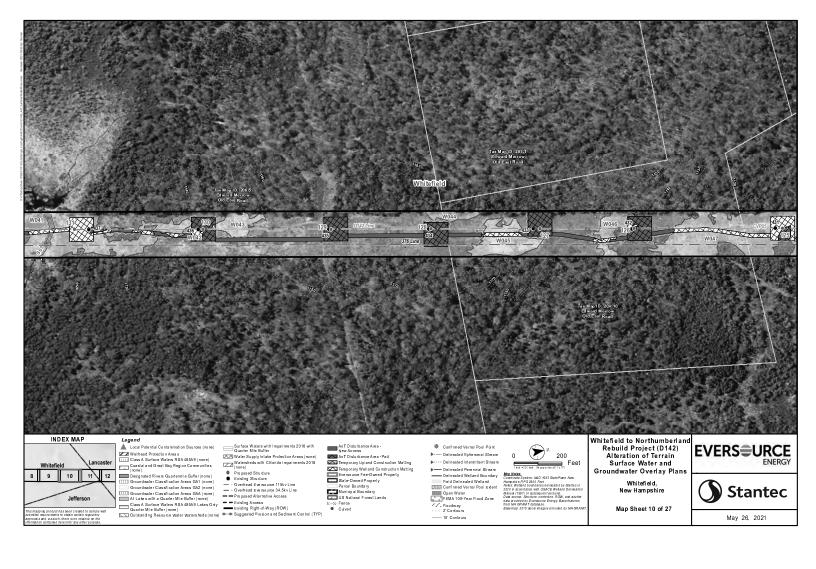


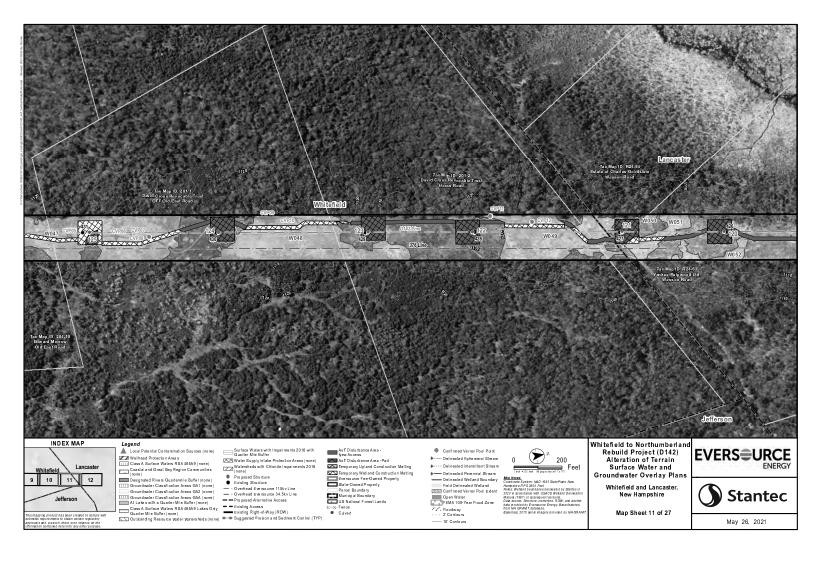


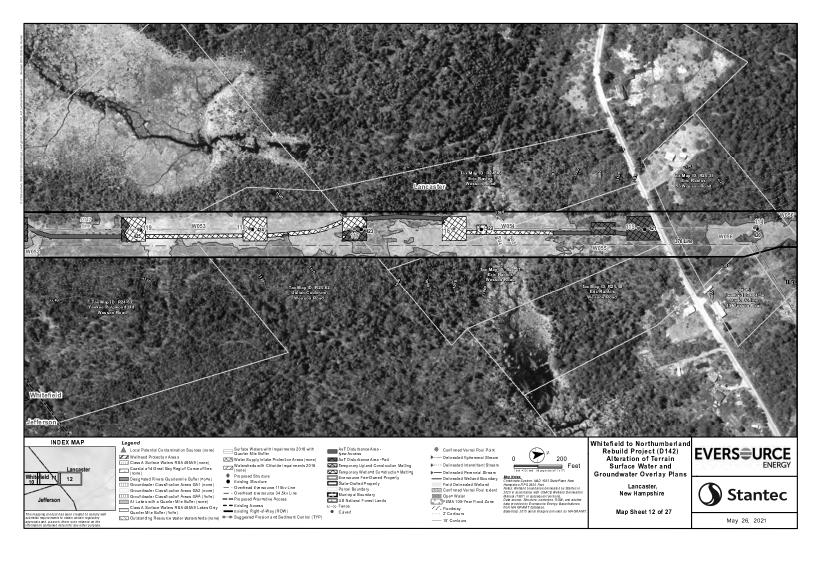


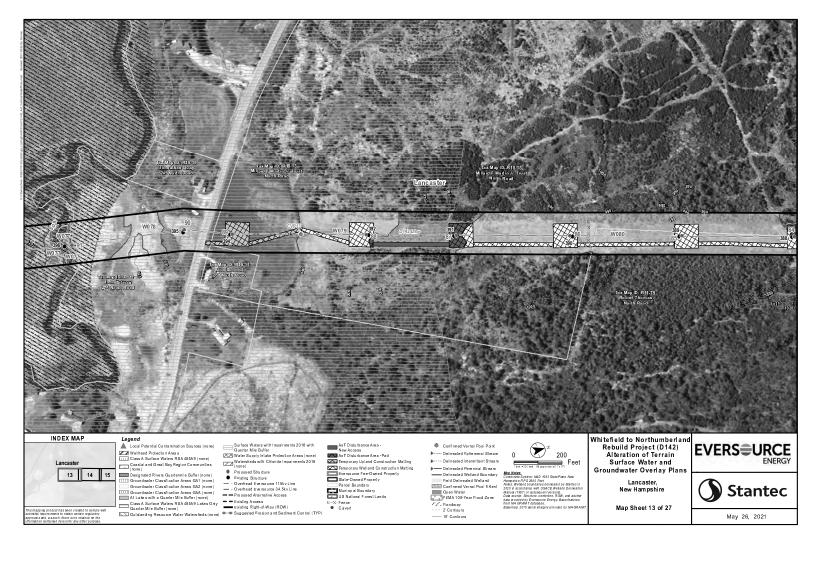


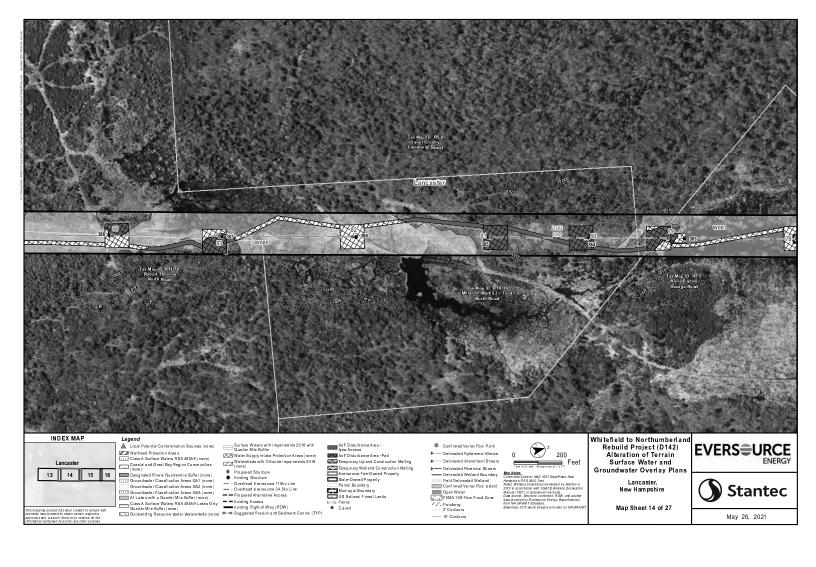


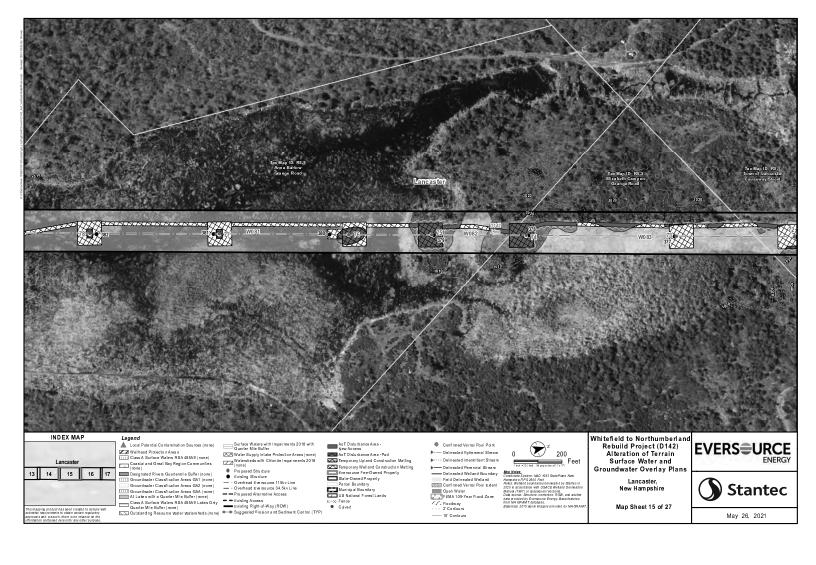


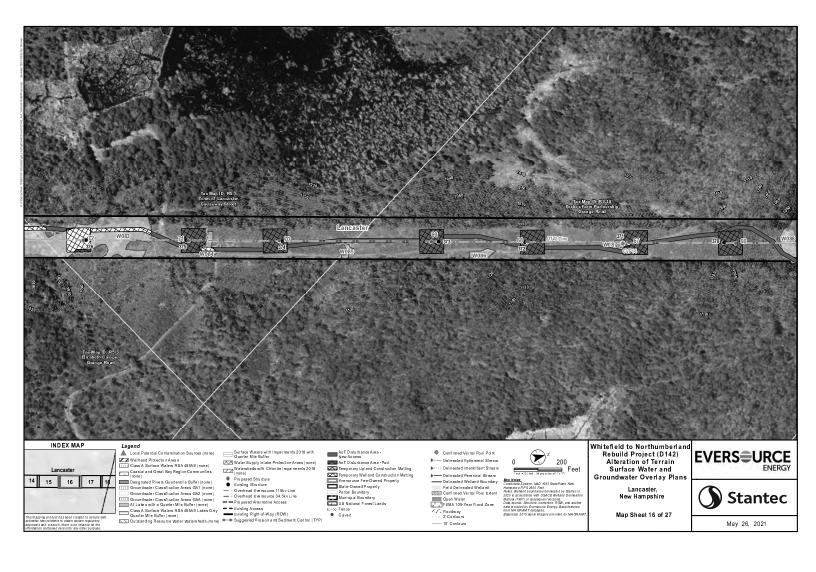


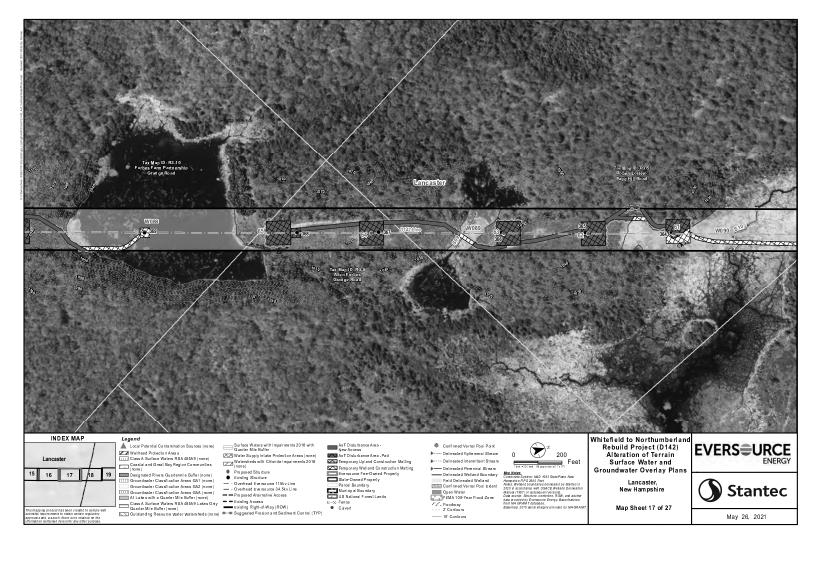


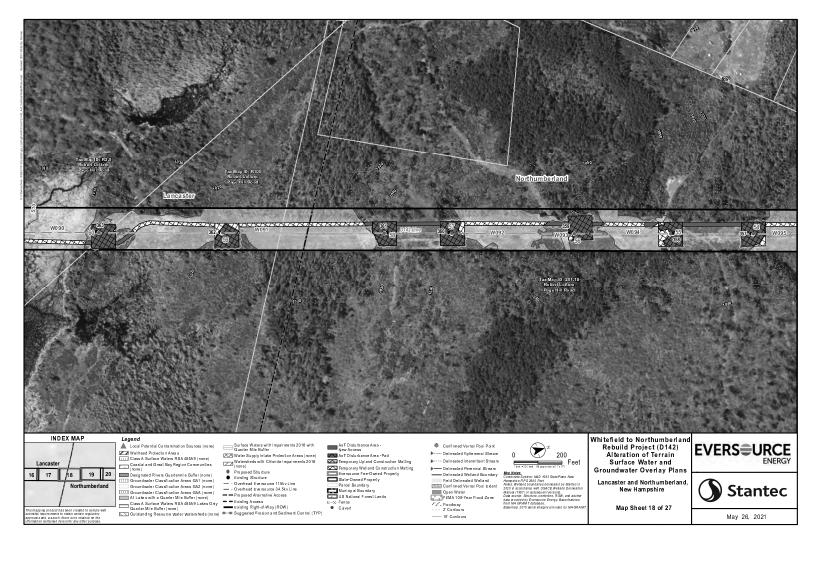


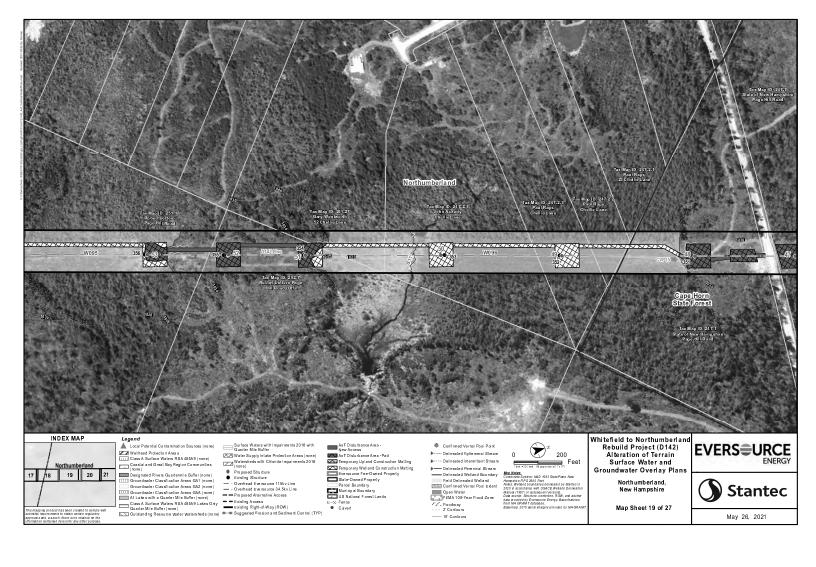


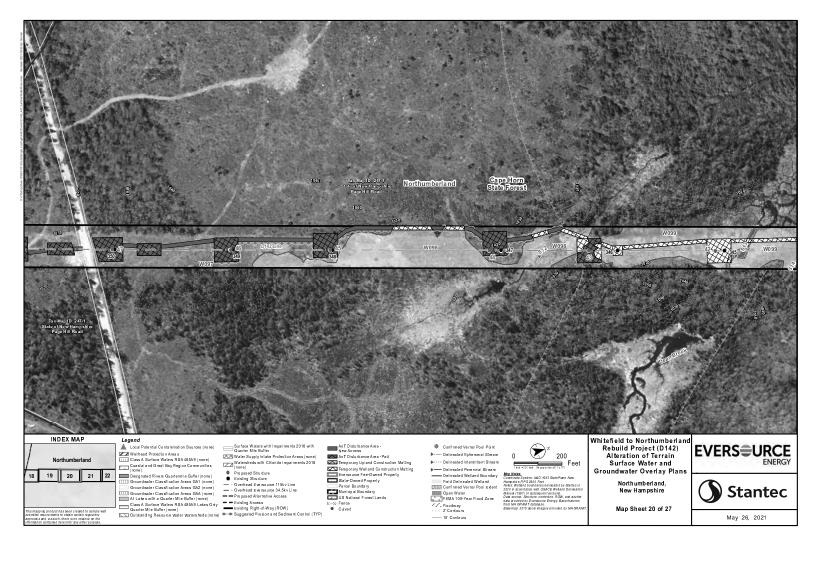


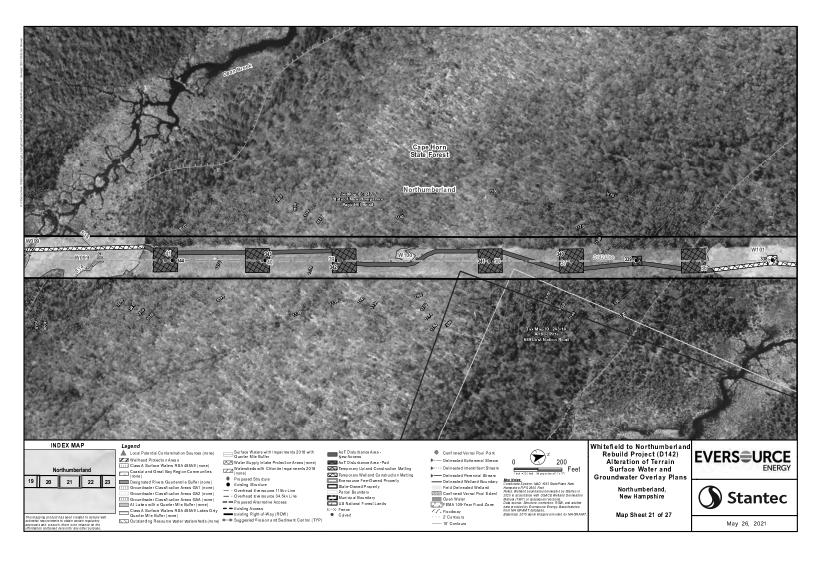


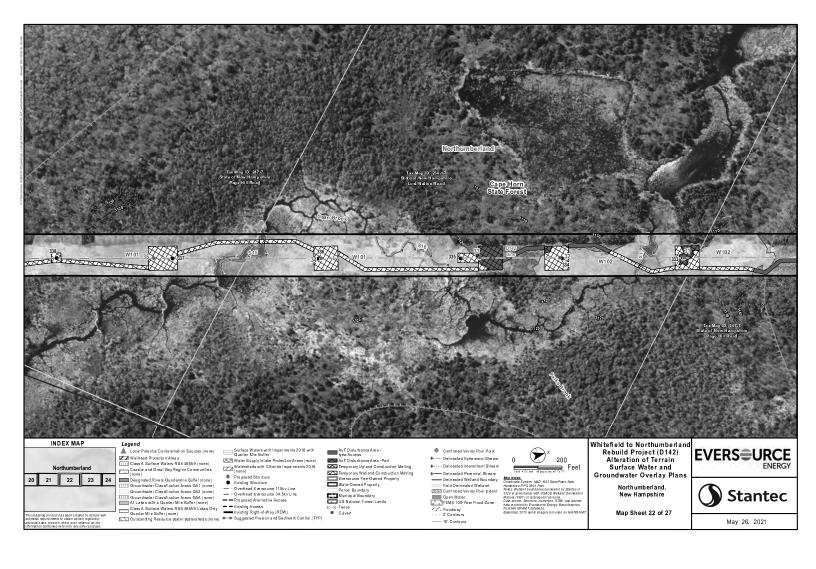


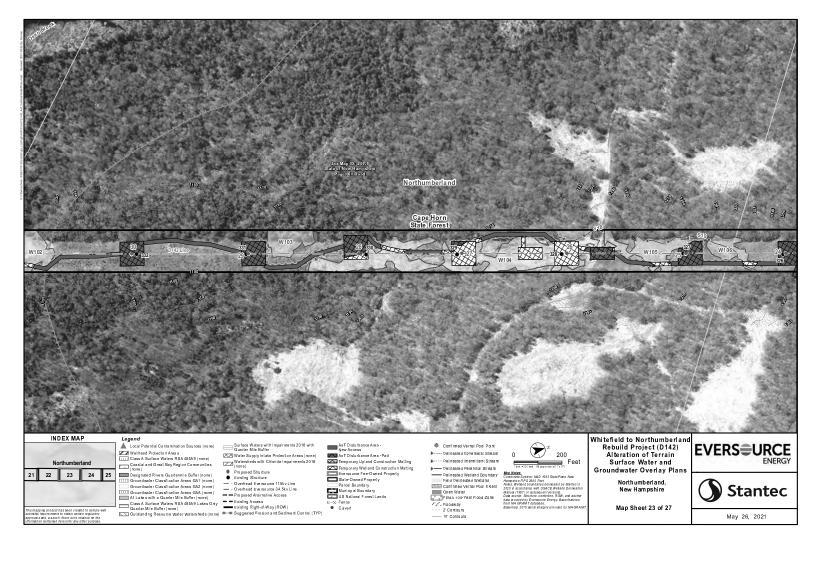


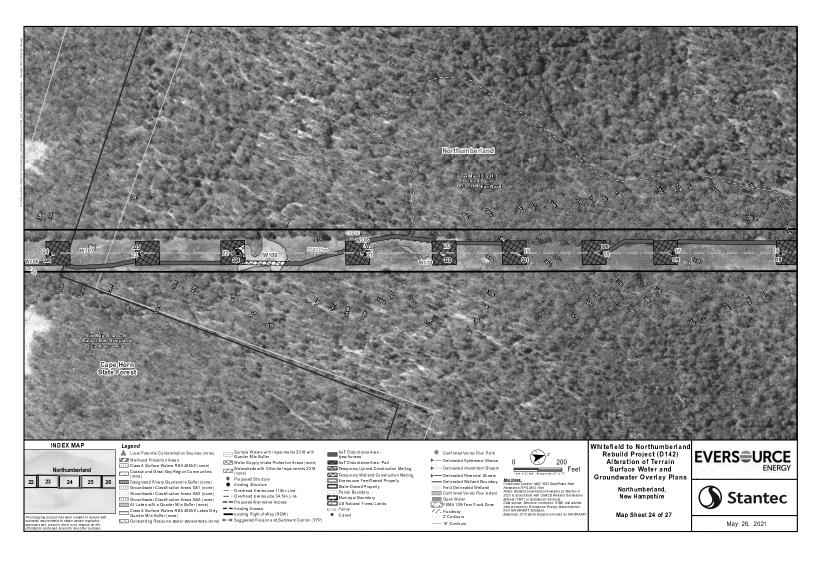


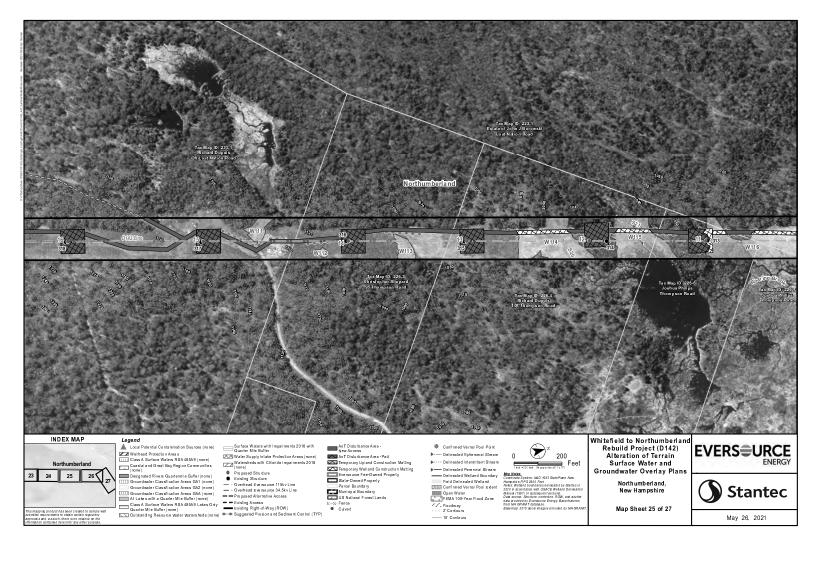


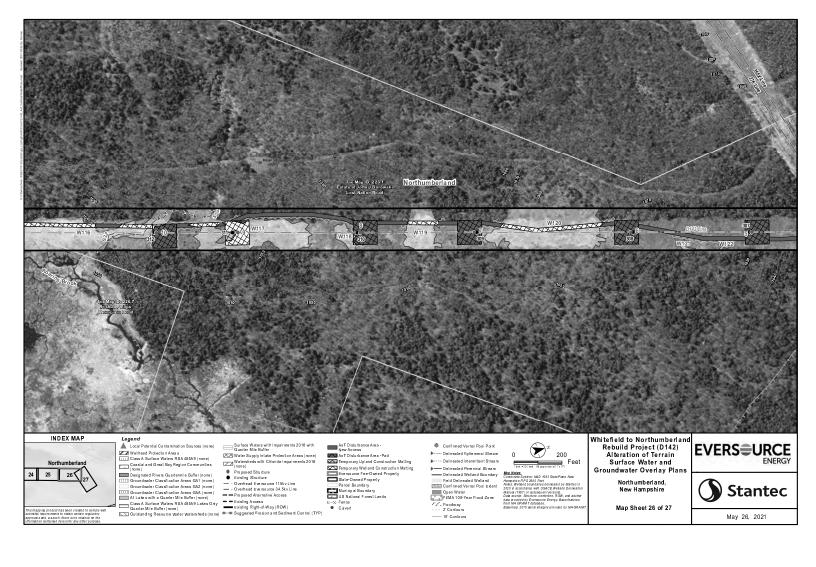


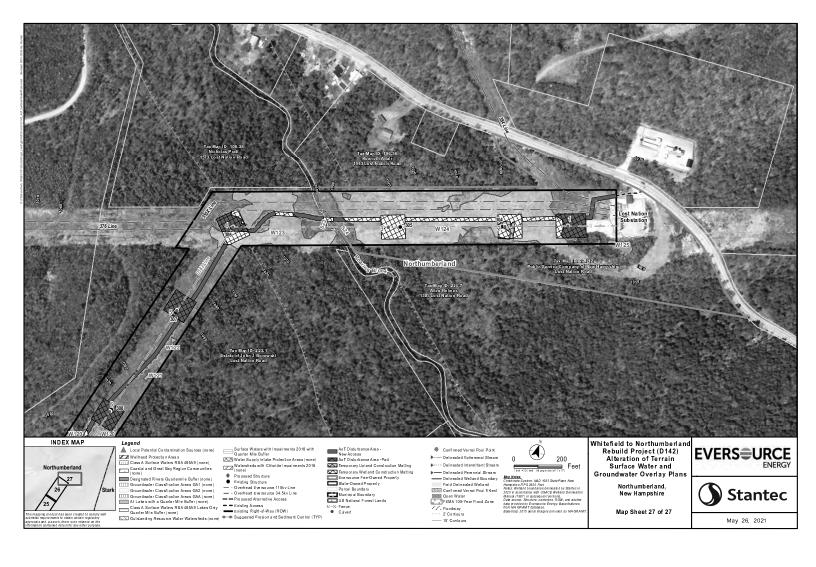














SEEKING REPORTS OF RARE TURTLES



The NH Fish & Game Department is collecting observations of four turtle species:



Blanding's turtle (state endangered)

- Large, dark/black domed shell with lighter speckles
- Distinct yellow throat/chin
- Aquatic but often moves on land

Wood turtles likely to occur within the D142 Project area.



Wood turtle (special concern)

- Sculpted, pyramidal brownish shell
- Orange around neck and limbs
 River/stream turtle spending many months on land

Follow avoidance and minimization techniques described on the approved project plans when working in locations where wood turtles may potentially occur.



Eastern box turtle (state endangered)

- Small terrestrial turtle with highly domed shell
- Irregular yellow or orange markings over brown/black base



Spotted turtle (state threatened)

- Small, mostly aquatic with black or dark brown with yellow spots.
- Fairly flat shell compared to Blanding's turtle

Report sightings to RAARP@wildlife.nh.gov or 603-271-2461 Please report promptly, noting specific location and date – Photographs strongly encouraged

Whitefield to Northumberland Rebuild Project (D142) Alteration of Terrain Whitefield, Lancaster, and Northumberland, New Hampshire Notes Page 1 of 3



RARE SPECIES ALERT

CANADA LYNX



Photos courte sy of USFWS

IDENTIFYING FEATURES:

- Medium to large cat, 15–30 lbs
- Grizzled gray fur
- Proportionately large paws and hind legs
- Ears with long, black tufts
- Tail short and black-tipped
- Most similar to bobcat

IF OBSERVED:

- $\bullet \quad \text{Stop work and allow animal to pass} \\$
- Document date and time, and take photograph, if possible
- Maintain 5 mph on access roads
- Notify on-site Environmental Monitor





Whitefield to Northumberland Rebuild Project (D142) Alteration of Terrain Whitefield, Lancaster, and lorthumberland, New Hampshire Notes Page 2 of 3



CONSTRUCTION SEQUENCE:

- 1. WETLAND BOUNDARIES TO BE CLEARLY MARKED PRIOR TO THE START OF CONSTRUCTION
- 2. SEDIMENT AND EROSION CONTROL MEASURES SHALL BE INSTALLED IN ACCORDANCE WITH THE DETAIL PROVIDED, AS NECESSARY.
- 3. WETLAND IMPACTS ASSOCIATED WITH WETLAND CROSSINGS ARE REQUIRED FOR ACCESS BETWEEN STRUCTURES
- ADEQUATE PRECAUTION SHALL BE EXERCISED TO AVOID SPILLAGE OF FUEL OILS, CHEMICALS, OR SIMILAR SUBSTANCE NO FUELS, LUBRICANTS, CHEMICALS OR SIMILAR SUBSTANCES SHALL BE STORED BENEATH TREES OR IN THE VICINITY C ANY WETLANDS, RIVER, STREAM OR OTHER BOYD OF WATER, OR IN THE VICINITY OF NATURAL OR HAWA HADE CHAMICAL LEADING THERETO, NO FOWER EQUIPMENT SHALL BE STORED, MAINTAINED, OR FUELED IN ANY AREA ADJACENT TO A WETLAND, RIVER, STREAM OR OTHER BOYD OF WATER.
- 5. REMOVE COMPLETELY ALL CONTAMINATION FROM ANY SPILLAGE OF CHEMICALS OR PETROLEUM PRODUCT WITH COMPLETE REHABILITATION OF THE AFFECTED AREA.
- 6. ACCESS ROUTES HAVE BEEN SELECTED TO PREVENT DEGRADATION OF THE RIGHT-OF-WAY AND MINIMIZE ENVIRONMENTAL IMPACT.

 MINACT AREA SHALL BE CONFIDE THE SPECYED ACCESS ROUTES WITHIN THE PROTOSED. WE HAVE
 MINACT AREA SHALL BE CONFIDENT OF THE SPECYED ACCESS ROUTES SHALLD BE APPROXIMATELY 12FEET WIND.
- IMPACT TO VEGETATION WITHIN WETLANDS WILL BE LIMITED TO THE EXTENT NECESSARY TO PLACE THE SWAMP MATS WHERE REQUIRED. NO ADDITIONAL CLEARING IS PERMITTED.
- 8. LOW GROWING VARIETIES OF VEGETATION ADJACENT TO WETLANDS SHALL BE PRESERVED TO THE EXTENT POSSIBLE. STUMPS AND ROCKS SHALL NOT BE REMOVED, AND THERE SHALL BE NO EXCAVATIONS, FILLS OR GRADING DONE ADJACENT TO WETLANDS, UNLESS MINOR EXCAVATION IS NEEDED FOR ACCESS.
- 9. TIMBER MATS WILL BE USED ALONG ACCESS ROUTES WITHIN WETLAND AREAS. THESE MATS ARE CONSTRUCTED OF STRUCTED OF ST
- 10. IF TIMBER MAT BMP IS NOT SUFFICIENT DUE TO HIGH WATER, ADDITIONAL BMP'S MAY INCLUDE THE PLACEMENT OF GEOTEXTILE FABRIC UNDER MATS OR USING A LAYER OF RUNNIER MATS TO LELEVATE MATS TO MAINTAIN HYDROLOGIC CONNECTIVITY, ALL MATERIAL WILL BE REMOVED FROM JURISDICTIONAL AREAS AFTER CONSTRUCTION COMPLETION.
- 11. NO MATERIAL SHALL BE PLACED IN ANY LOCATION OR IN ANY MANNER SO AS TO IMPAIR SURFACE WATER FLOW INTO, THROUGH OR OUT OF ANY WETLAND AREA, NO INSTALLATION SHALL CREATE AN IMPOUNDMENT THAT WILL IMPEDE THE FLOW OF WATER OR CAUSE FLOODING.
- 12. NO MATERIAL SHALL BE TAKEN FROM THE WETLANDS AREA EXCEPT THAT WHICH MUST NECESSARILY BE REMOVED FOR THE STRUCTURE INSTALLATION. ALL EXCESS MATERIAL TAKEN FROM THE WETLAND WILL BE REMOVED FROM THE SITE AND DISPOSED IN UPLAND.
- 13 ACREATING THE SECOND SECOND
- 14. INSTALL NEW POLES IN THE LOCATIONS DESIGNATED ON THE PERMITTING PLANS.
- 15. CABLE INSTALLATION WILL BE PERFORMED IN A MANNER SO AS TO AVOID, OR LIMIT TO THE MAXIMUM EXTENT POSSIBLE, TRAVERSING WEITLANDS WITH HEAVY EQUIPMENT. IN SOME CASES, A HELICOPTER MAY BE USED DURING THE INSTALLATION TO MINIMIZE IMPACTS.
- 16. ALL SWAMP MATS, MATERIAL, AND DEBRIS WILL BE REMOVED FROM THE WORK AREA UPON THE COMPLETION OF CONSTRUCTION
- 17. UPLAND DISTURBED AFEAS SHALL BE RESTORED AND STABILIZED JIPON COMPLETION OF CONSTRUCTION, WORK PAD RESTORATION SHOULD INCLUDE REDUCING THE WINDER PAD TO A 50 BY 60 FOOT AREA, AND REDUCING SLOPES A MAXIMUM OF 25%, STOCKPILED MATERIAL SHOULD BE SPREAD TO REDUCE ANY UNNECESSARY SLOPES, GRAVEL WORK PADS AND SLOPES SHOULD BE SCARIFIED TO ANIMIM MOF 3° BEFORE SPREADING TOPSOLLOAM.
- 18. ALL TEMPORARY WETLAND IMPACTS WILL BE RE-GRADED TO ORIGINAL CONTOURS FOLLOWING CONSTRUCTION, IF NEEDED. NEW ENGLAND EROSION CONTROLIFESTORATION MIX, OR EQUIVALENT SEED MIX SHALL BE APPLIED IN WETLAND AREAS THAT ARE NOT NUDDATED. AS RECESSARY.
- 9. SEDIMENT AND EROSION CONTROL MEASURES WILL BE EVALUATED AND REMOVED IF NECESSARY UPON THE COMPLETION OF CONSTRUCTION. 20. COMMERCIAL LOAM WILL NOT BE USED AS PART OF RESTORATION. ONLY IN-SITU TOPSOIL WILL BE USED TO RESTORE DISTURBED AREAS.
- 21. WHERE PEATLANDS ARE MAPPED ADJACENT TO THE ROW, THE ASSOCIATED WETLANDS WITHIN THE ROW SHALL BE TREATED AS A PEATLAND AND PRIORITY RESOURCE AREA. ELEVATED MATTING SHALL BE USED AS NECESSARY TO PREVENT EXCESSIVE GROUND DISTURBANCE WITHIN THESE AREAS

- INTER CONSTRUCTION NOTES

 1. PROPOSED VESTATE DAREAS WHICH DO NOT EXHBIT A NINIMAN OF 58% VESETATIVE GROWTH BY OCTOSES

 1. PROPOSED VESTATE DAREAS WHICH DO NOT EXHBIT A NINIMAN OF 58% VESETATIVE GROWTH BY OCTOSES

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- DITCHES OR SWALES WHICH DO NOT EXHIBIT A MINIMUM OF 85% VEGETATIVE GROWTH BY OCTOBER 15TH, OR WHICH ARE DISTURBED AFTER OCTOBER 15TH, SHALL BE TEMPORARILY STABILIZED WITH STONE OR EROSION CONTROL BLANKETS APPORPLATE FOR THE DESIGN FLOW CONDITIONS.

- AFTER NOVEMBER 15TH, INCOMPLETE ROAD OR PARKING SURFACES, WHERE WORK HAS STOPPED FOR THE WINTER SEASON, SHALL BE PROTECTED WITH A MINIMUM OF 3 INCHES OF CRUSHED GRAVEL (NHDOT 304.3). GENERAL NOTES:
- OWN ER; PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE d/b/a EVERSOURCE ENERGY 13 LEGENDS DRIVE HOOKSETT, NH 03106
- BASE PLAN PROVIDED BY EVERSOURCE ENERGY. STANTEC PROVIDED THE WETLAND DATA. EVERSOURCE ENERGY PROVIDED THE UTILITY DESIGN.
- JURISDICTIONAL WETLANDS WERE DELINEATED BY STANTEC IN 2020, WETLANDS WERE DELINEATED IN ACCORDANCE WITH THE 1927 U.S. ARMY CORPS OF ENGINEERS WETLANDS DELINEATION MAINLAL, TECHNICAL REPORT Y-97-1, AND RESIDINAL JANUARY 2012.
 JANUARY 2012.
- 3. SITE PLAN IS FOR PERMITTING PURPOSES ONLY AND DOES NOT REPRESENT A PROPERTY BOUNDARY SURVEY.
- THE PROJECT WILL BE MANAGED IN A MANNER THAT MEETS THE REQUIREMENTS AND INTENT OF RSA 430:53 AND CHAPTER AGR 3800 RELATIVE TO INVASIVE SPECIES.
- 5. IN ACCORANCE WITH ENVIYOU 199.00.7 THE SMALLEST PRACTICAL AREA SHALL BE DISTURBED DURING COAR TRECTION AREA SHALL BE DISTURBED AREAS ARE SHALL BE THE STORM AREA SHALL BE FOREIGNED AREAS ARE SHALL BE THE FOREIGNED AREAS ARE SHALL BE THE SHALL BE THE
- 6. IN THE EVENT THAT A RARE OR THREATENED SPECIES IS OBSERVED, THE NEW HAMPSHIRE FISH AND GAME AND NEW HAMPSHIRE NATURAL HERITAGE BUREAU (NHB) WILL BENOTIFIED.

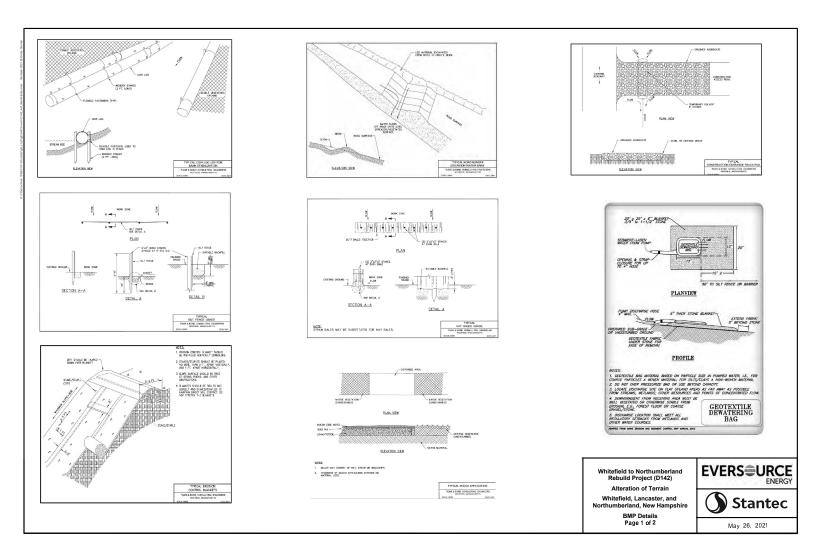
EROSION CONTROL NOTES:

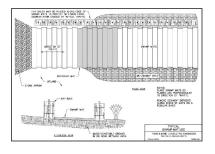
- I, NISTALLATION OF EROSION CONTROL GRINDINGS ANDORS IN TENCES SHALL BECOMMETER PRIOR TO THE START OF MOKEN MAY ORGEN AREA EROSION CONTROLS SHALL BE USED DURING CONSTRUCTION AND REMOVED WHEN ALL SLOPES HAVE A HEALTHY STAND OF VEGETATION COVER. EROSION CONTROL MEASURES SHALL BE INSPOCTED ON A WEEKLY BASIS AND AFTER 25° OR GREATER RAINFALL EVENTS.
- AS REQUIRED, CONSTRUCT TEMPORARY BERMS, SILTATION FENCES, SEDIMENT TRAPS, ETC. TO PREVENT EROSION & SEDIMENTATION OF WETLANDS.
- 3. THE WORK AREA SHALL BE GRADED AND OTHERWISE SHAPED IN SUCH A MANNER AS TO MINIMIZE SOIL EROSION, SILTATION OF DRAIMAGE CHANNELS, DAMAGE TO EXISTING VEGETATION, AND DAMAGE TO PROPERTY OUTSIDE LIMITS OF THE WORK AREA. EROSION CONTROL GRINDINGS WILL BE NECESSARY TO ACCOMPLISH THIS END.
- 4. ANY STRIPPED TOPSOIL SHALL BE STOCKPILED, WITHOUT COMPACTION, AND STABILIZED WITH BMPS.
- 6. EROSJON CONTROLS SHALL BE INSPECTED WEEKLY AND AFTER EVERY HALF-JNCH OF RAINFALL.
- 7. EROSION CONTROL MATTING, IF REQUIRED, WILL CONSIST OF JUTE MATTING. MATTING WITH WELDED PLASTIC OR BIODEGRADABLE PLASTIC NETTING OR THREAD WILL BE AVOIDED TO LIMIT UNINTENTIONAL MORTALITY TO SNAKES OR OTHER SMAIL ANIMALS.

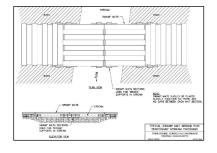
Whitefield to Northumberland Rebuild Project (D142) Alteration of Terrain Whitefield, Lancaster, and rthumberland, New Hampshire Notes Page 3 of 3



May 26, 2021







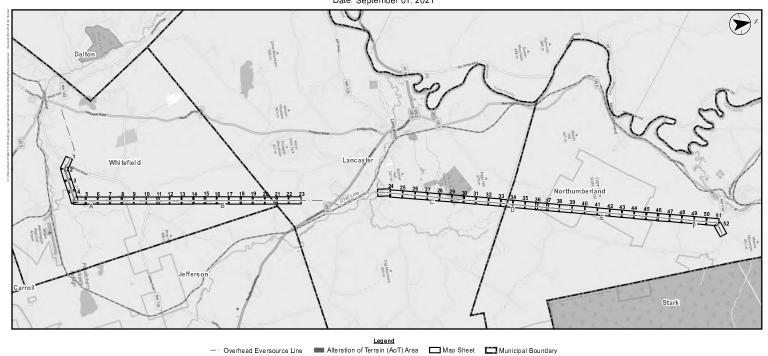
Whitefield to Northumberland Rebuild Project (D142) Alteration of Terrain Whitefield, Lancaster, and Northumberland, New Hampshir BMP Details Page 2 of 2



Whitefield to Northumberland Rebuild Project (D142)

Alteration of Terrain Permitting Plans Whitefield, Lancaster, and Northumberland, New Hampshire

Date: September 01, 2021

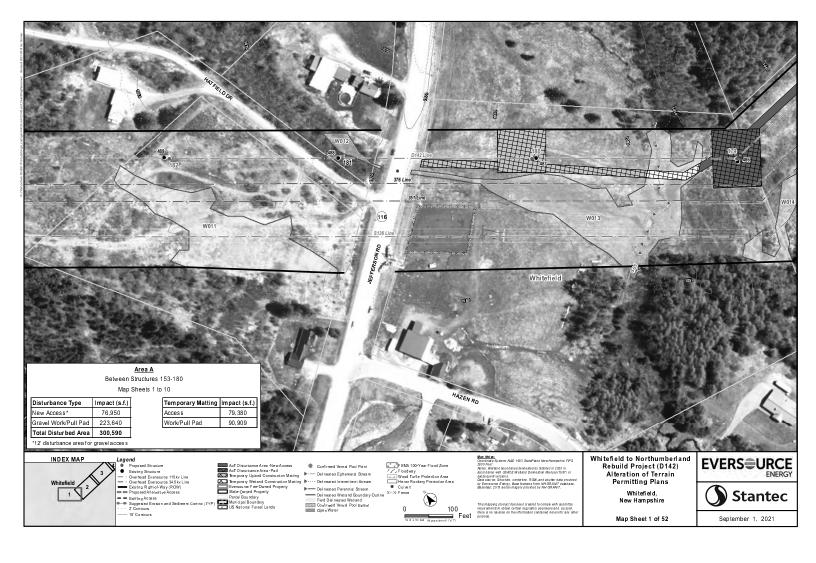


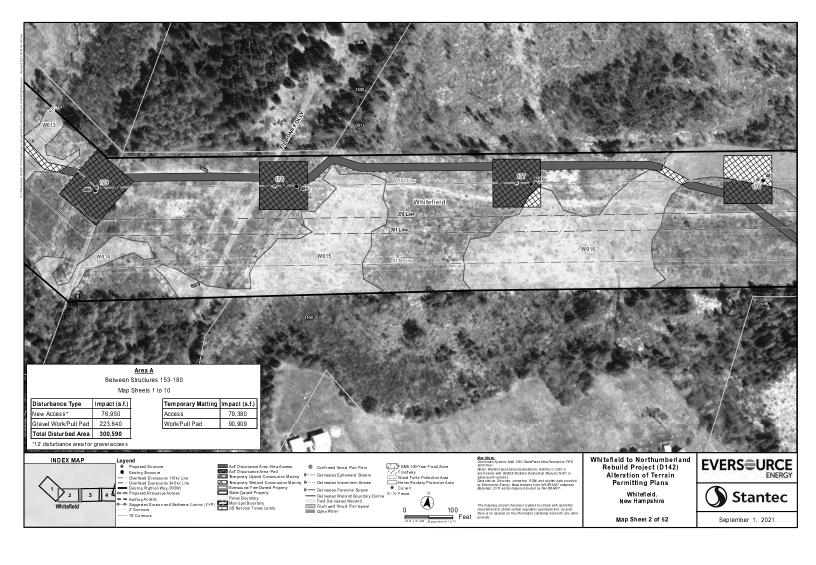


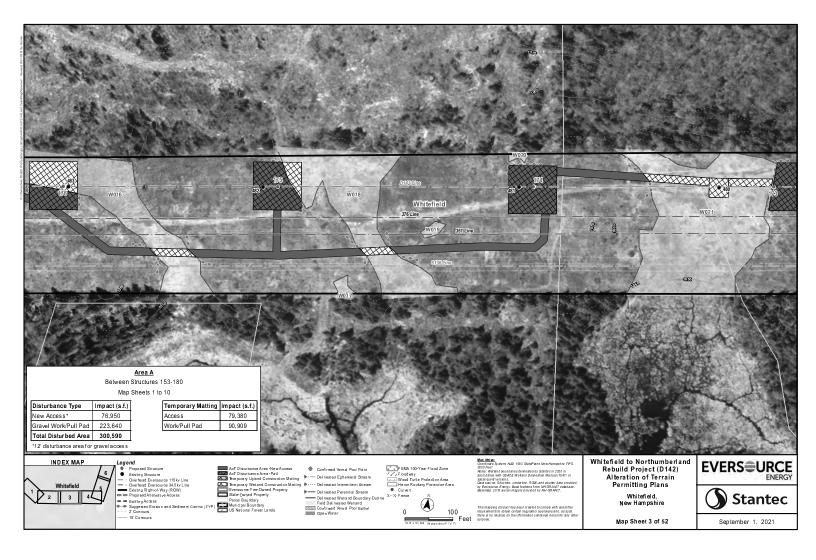
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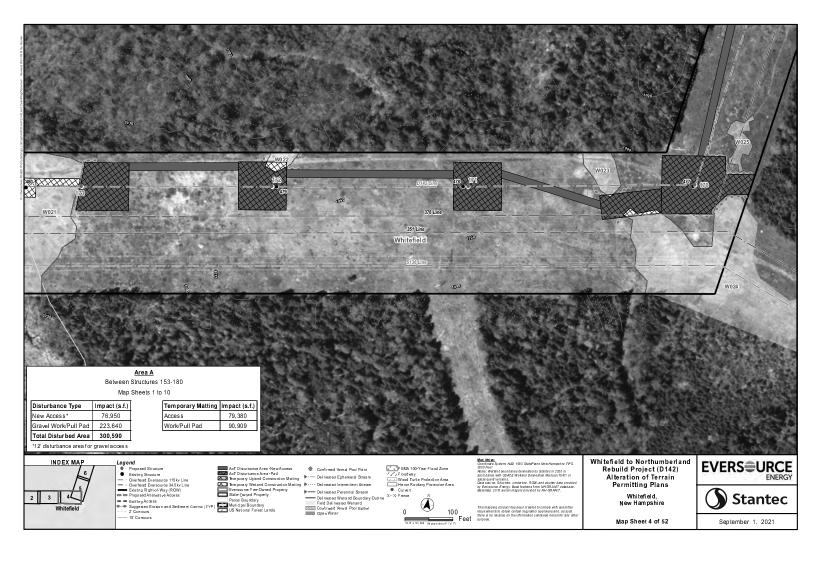
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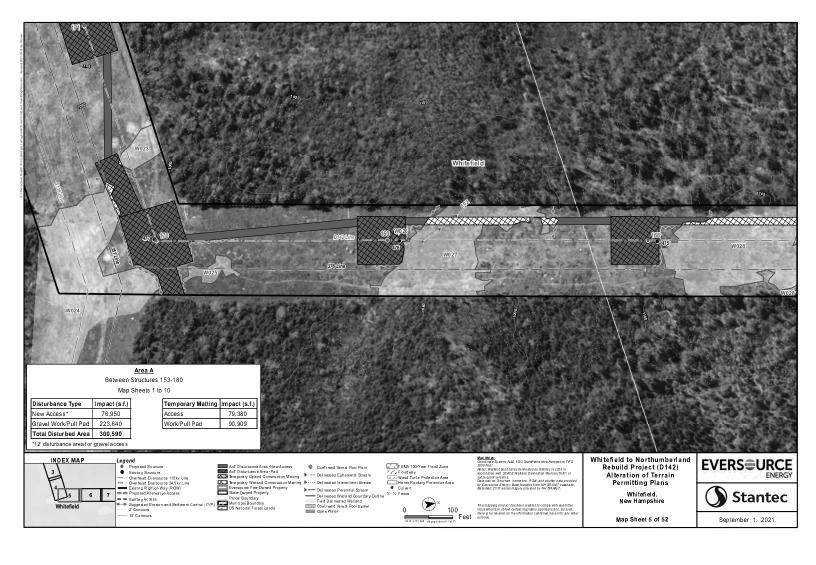


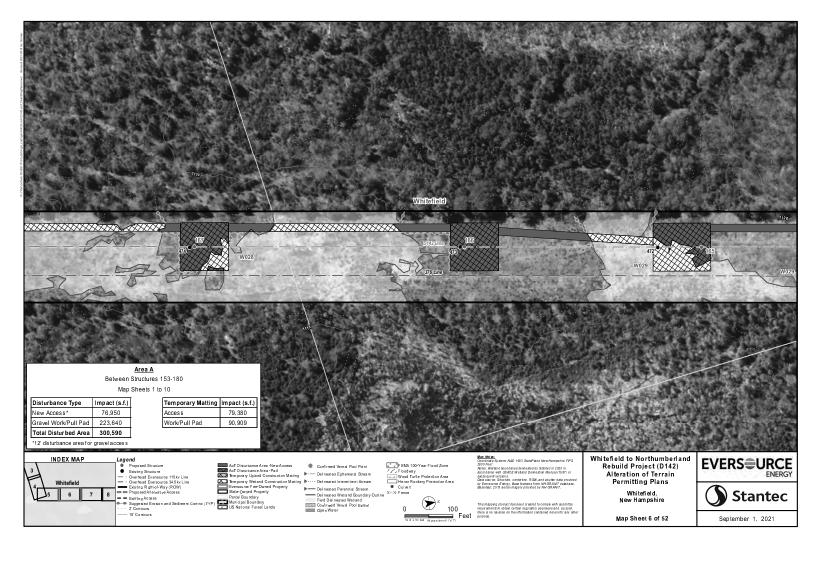


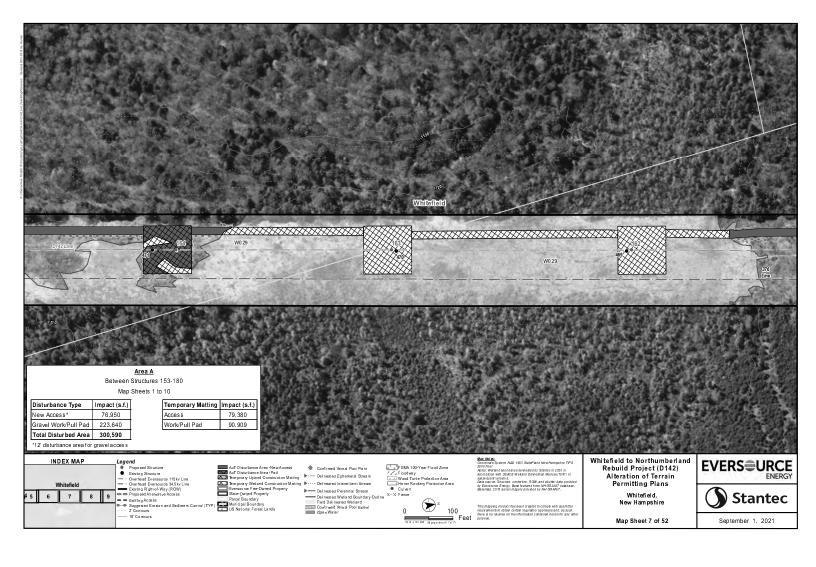


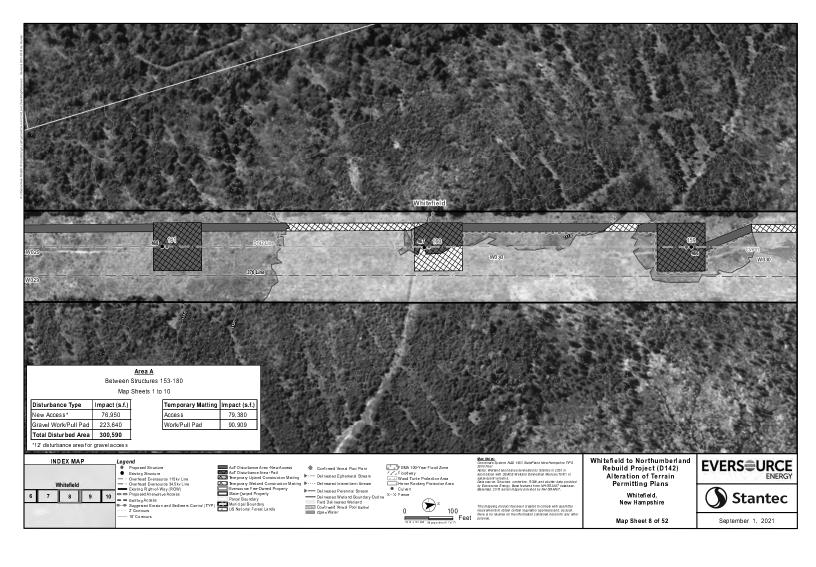


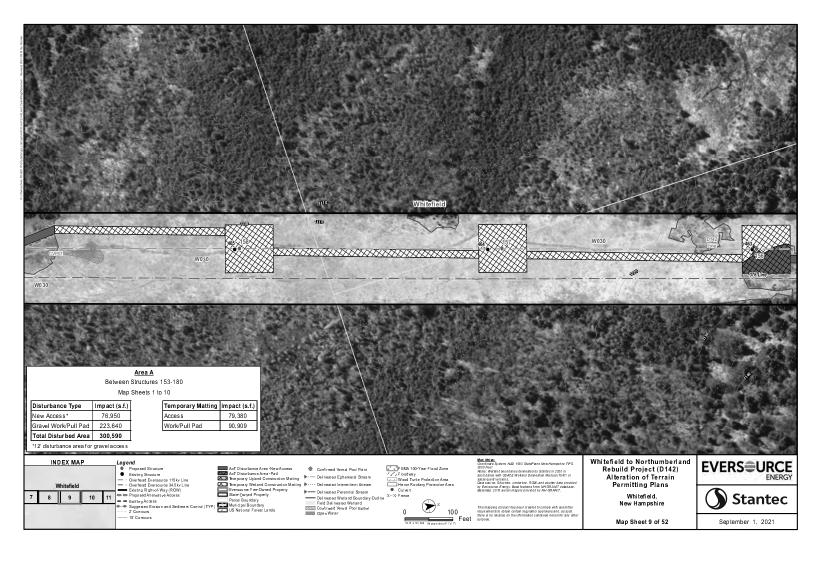


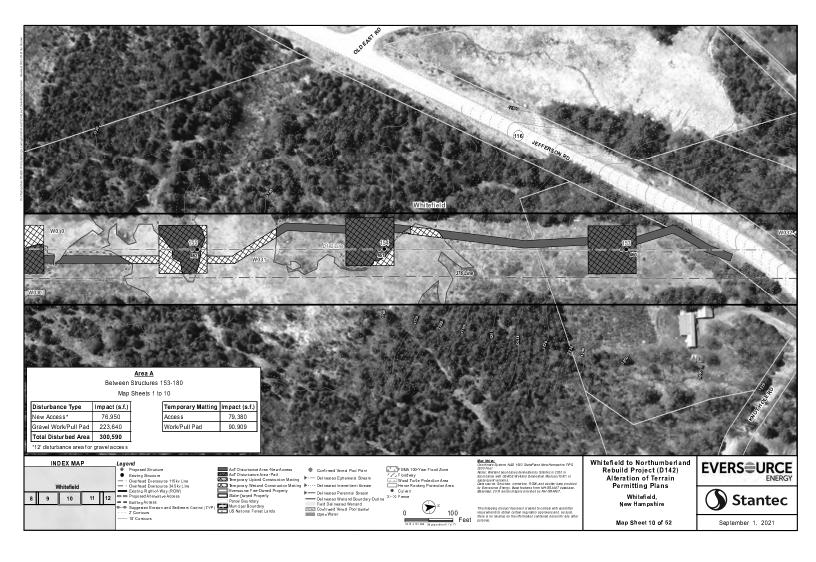


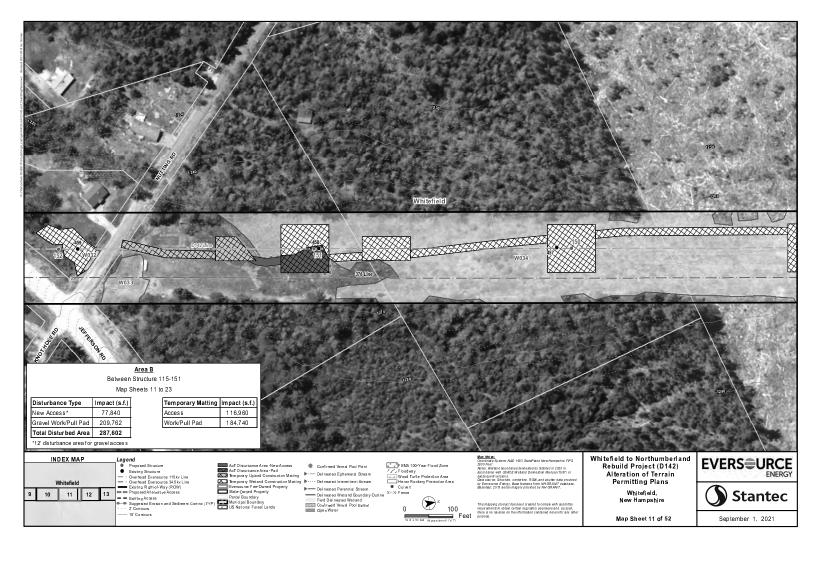


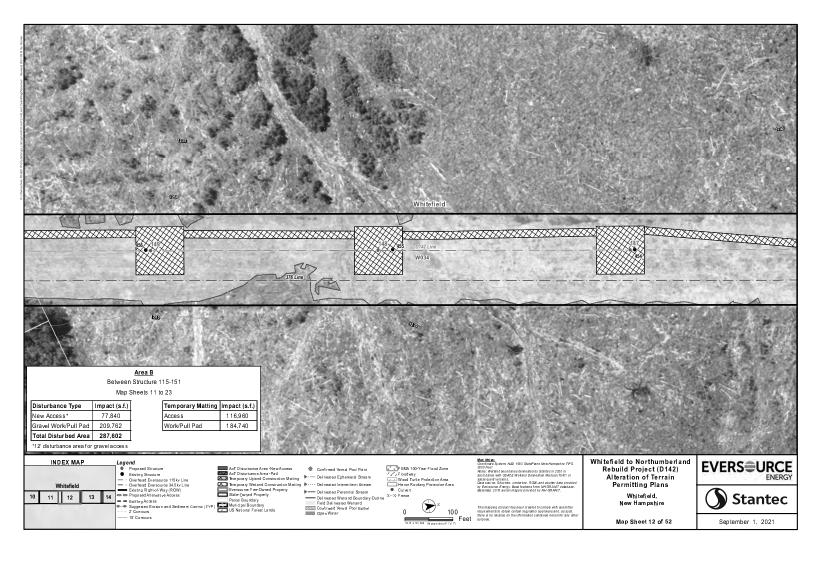


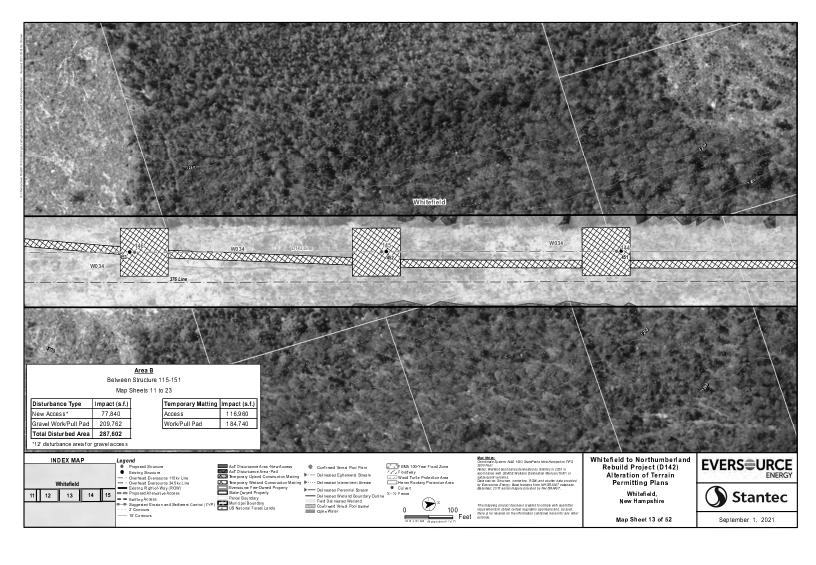


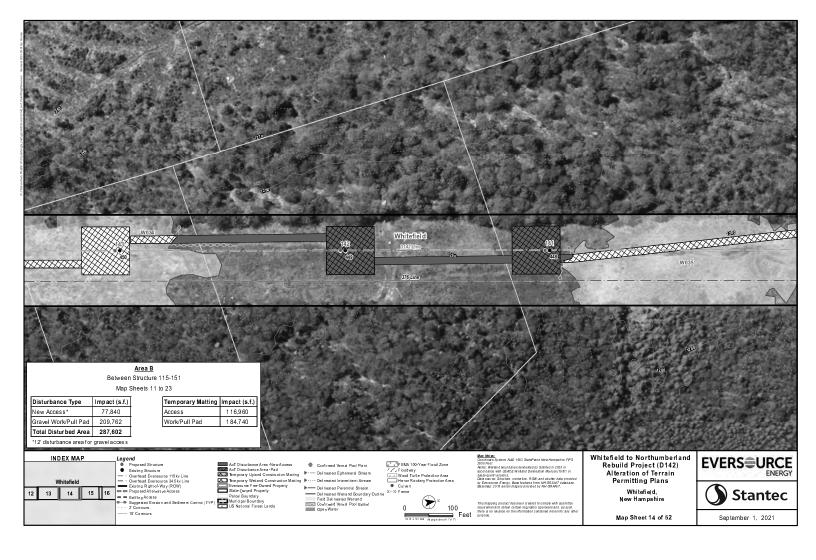


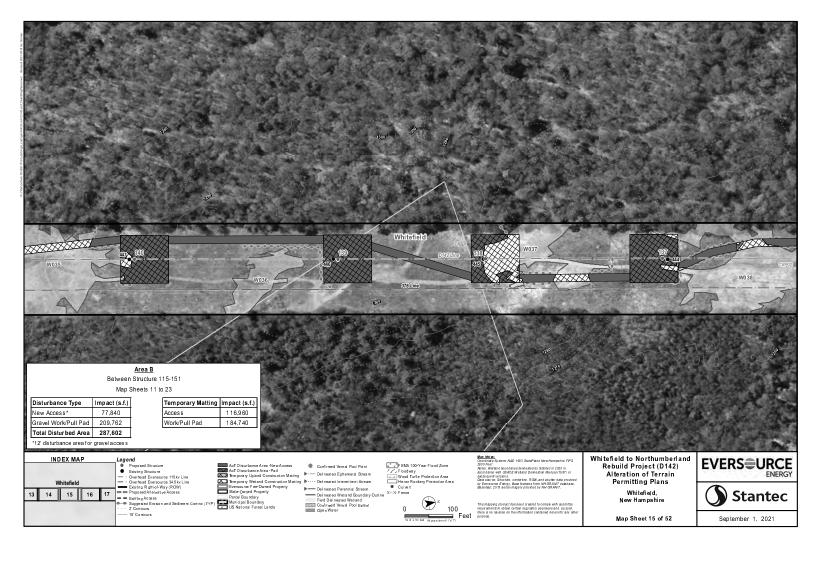


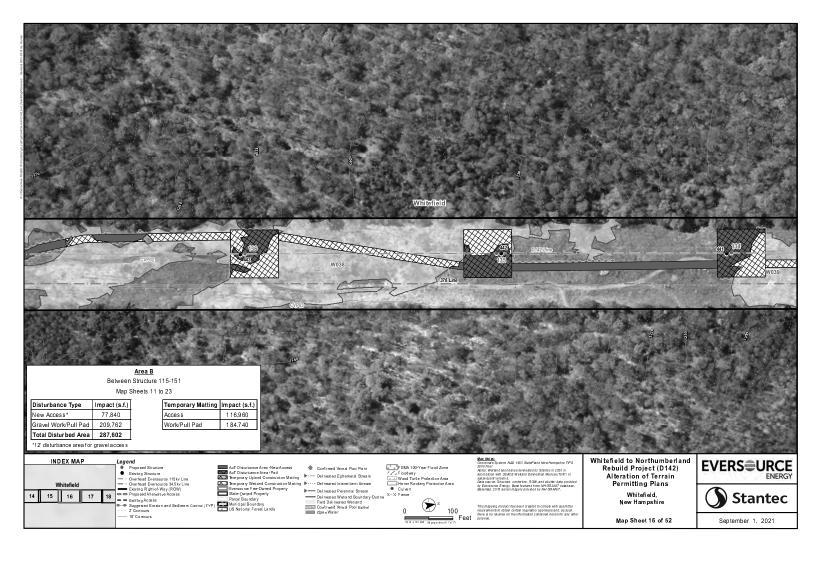


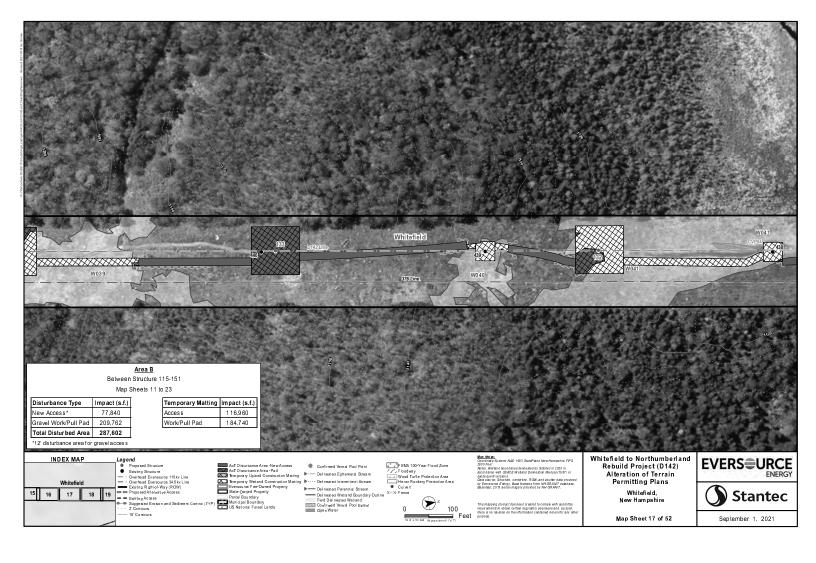


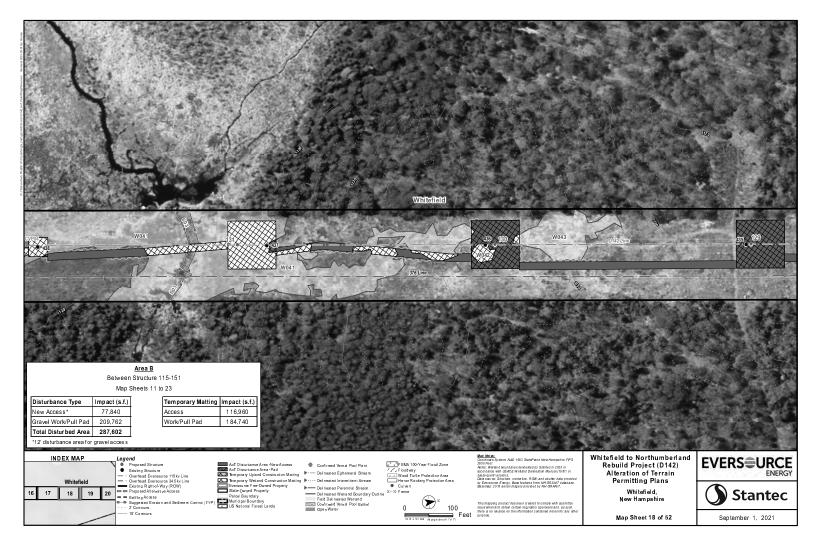


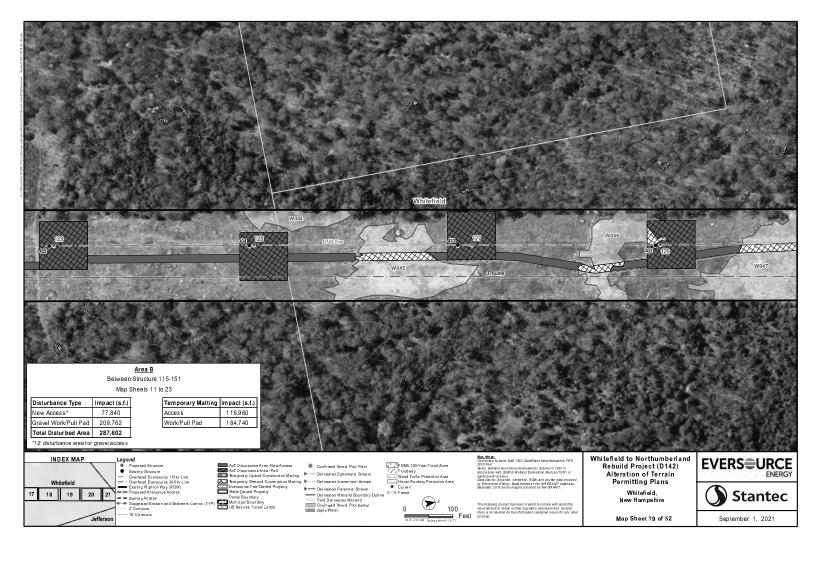


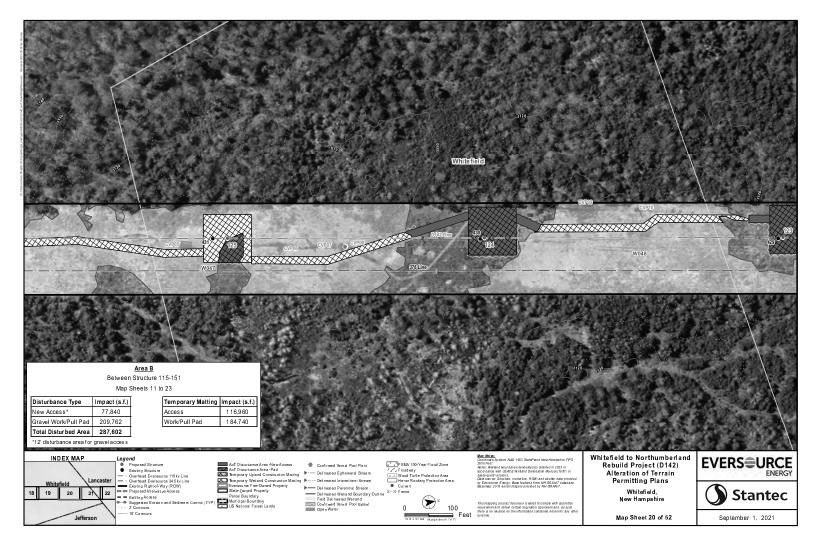


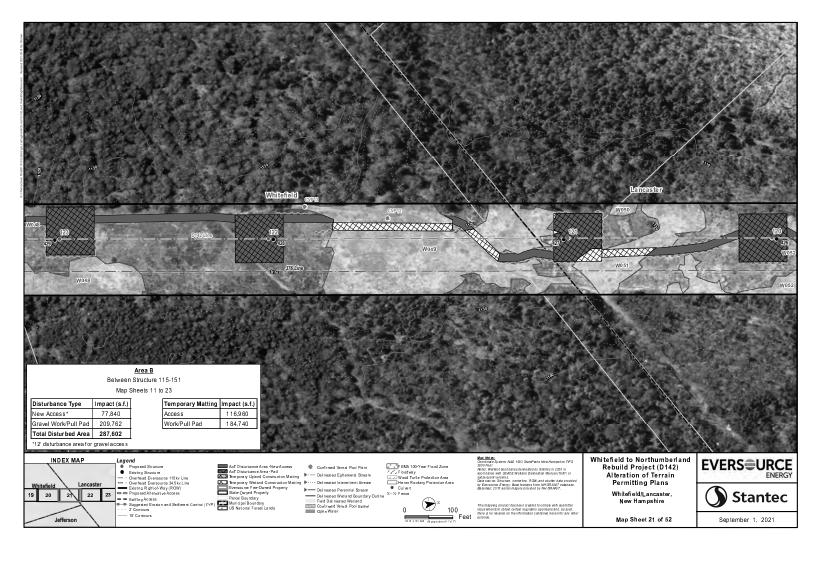


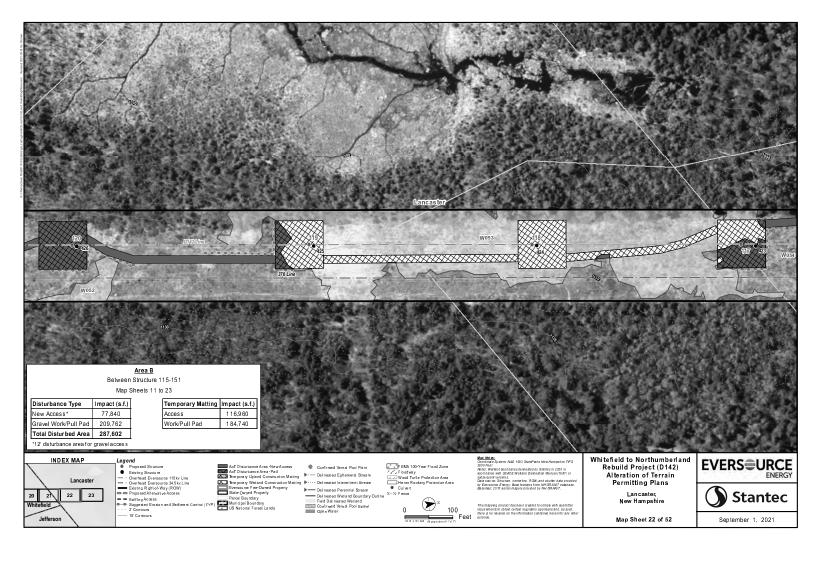


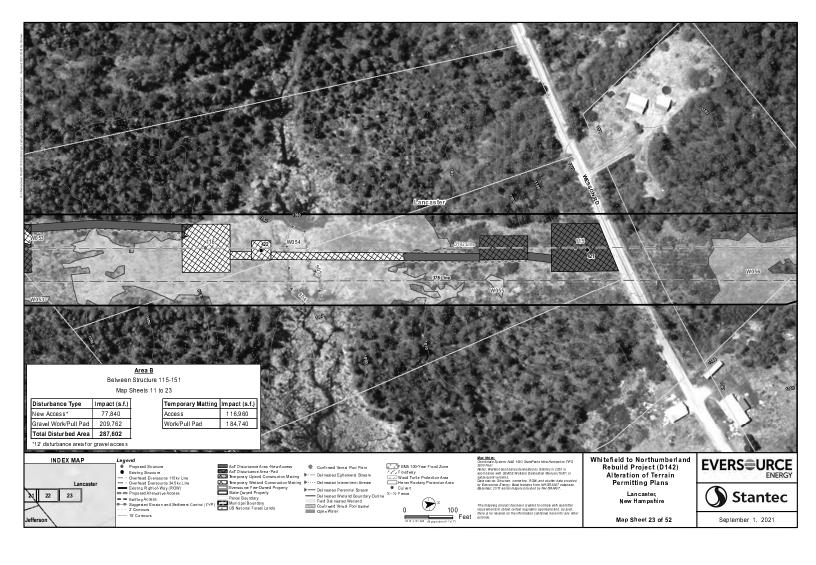


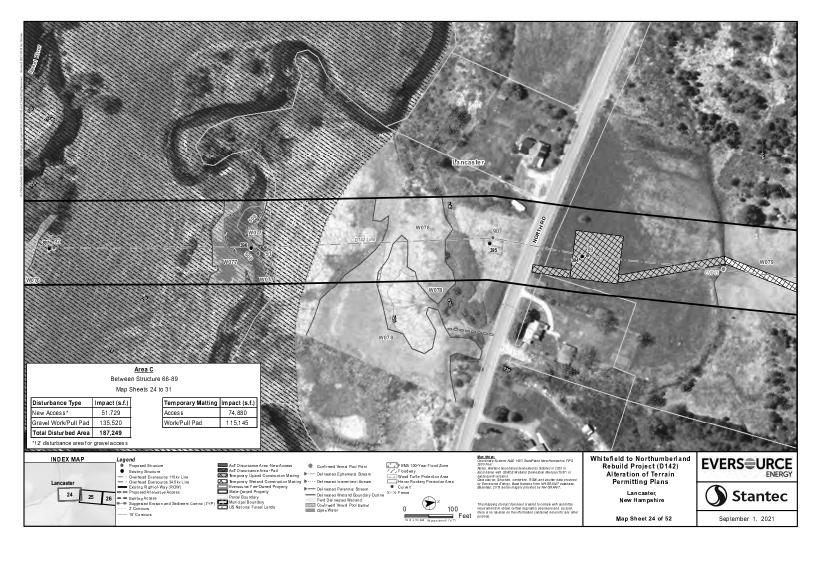


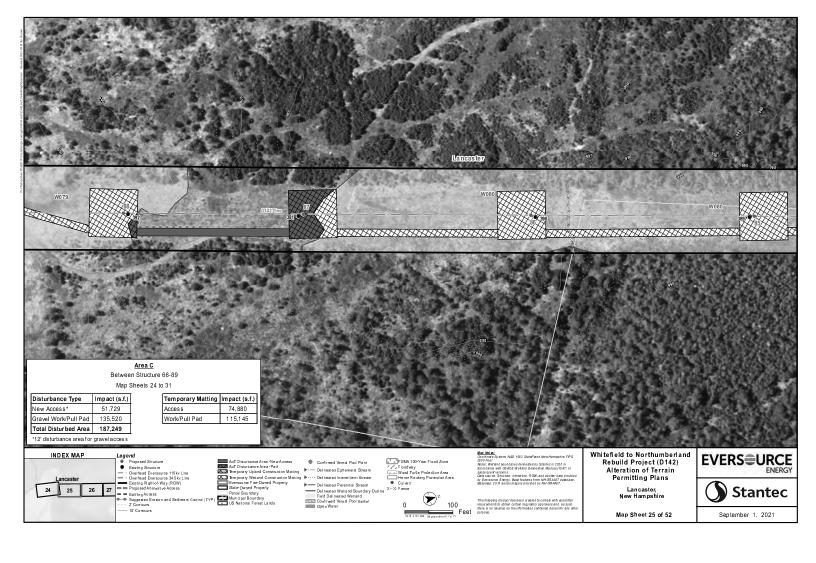


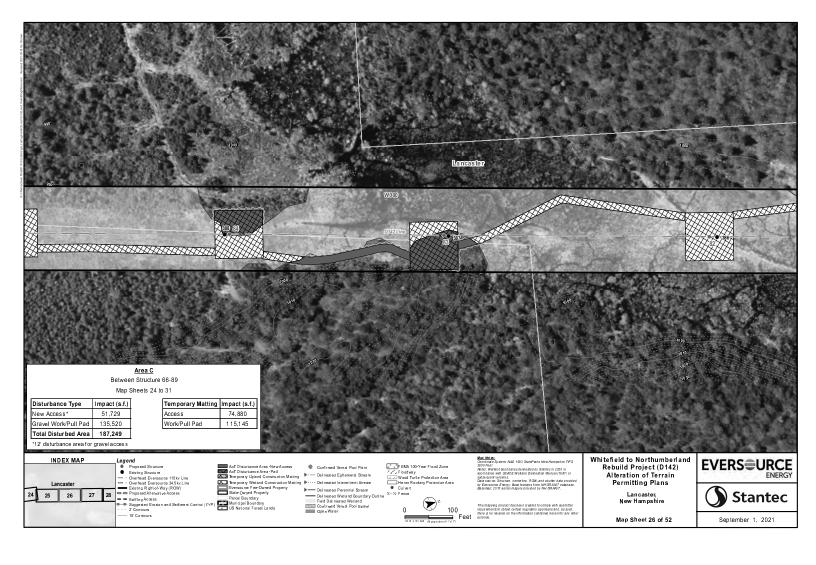


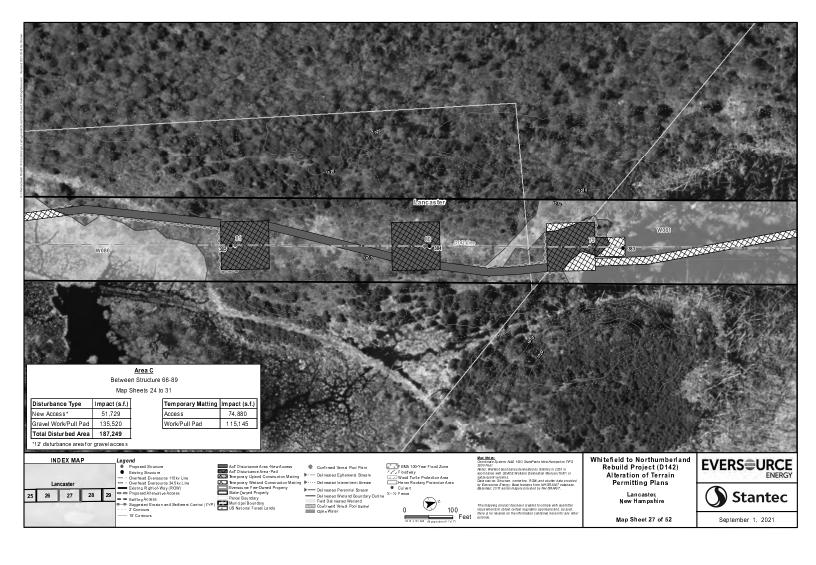


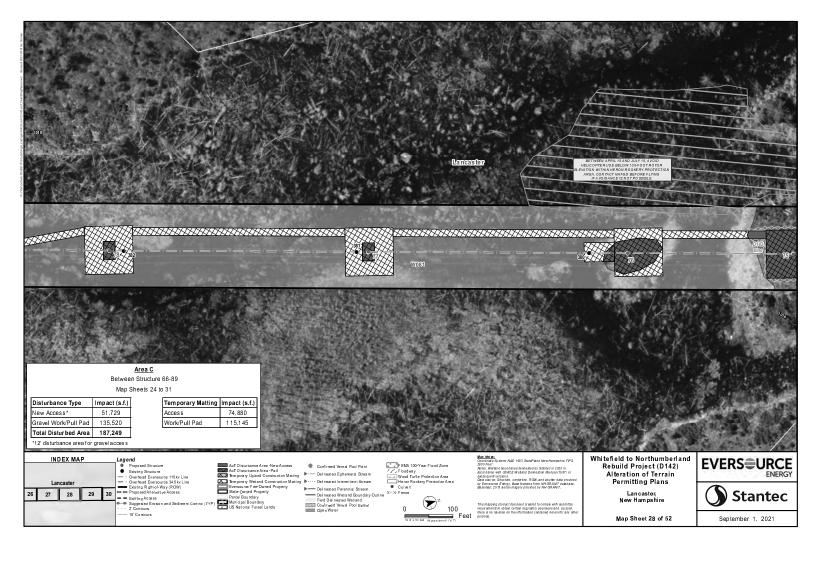


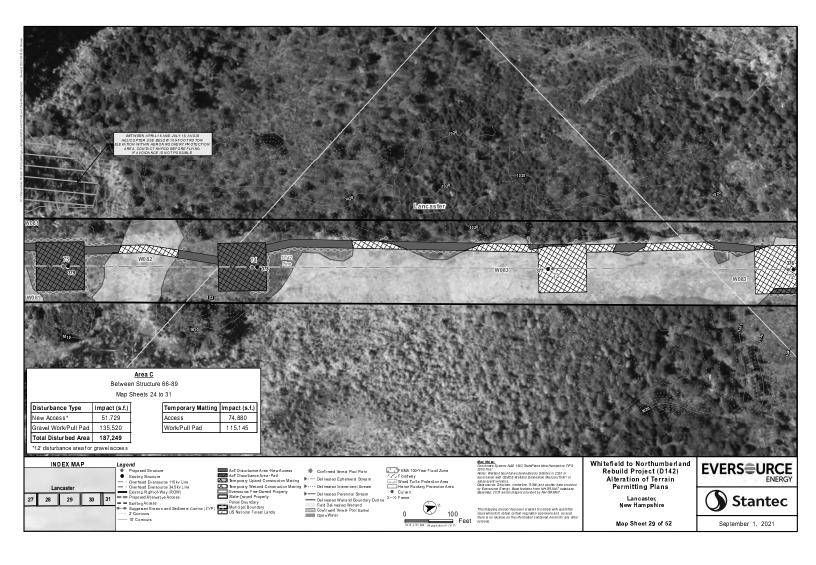


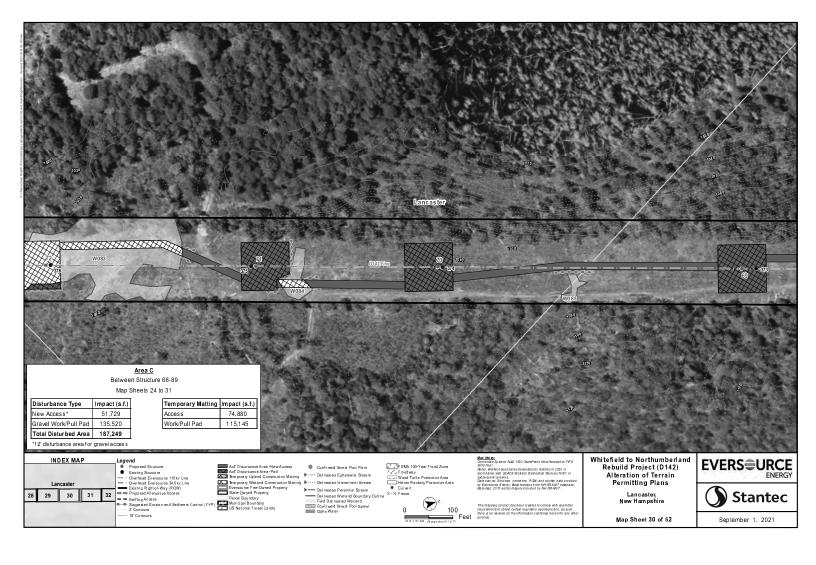


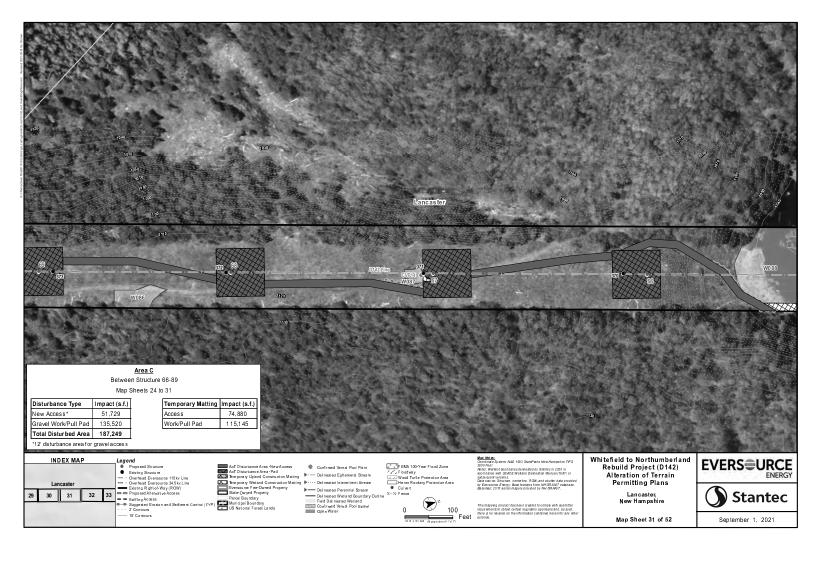


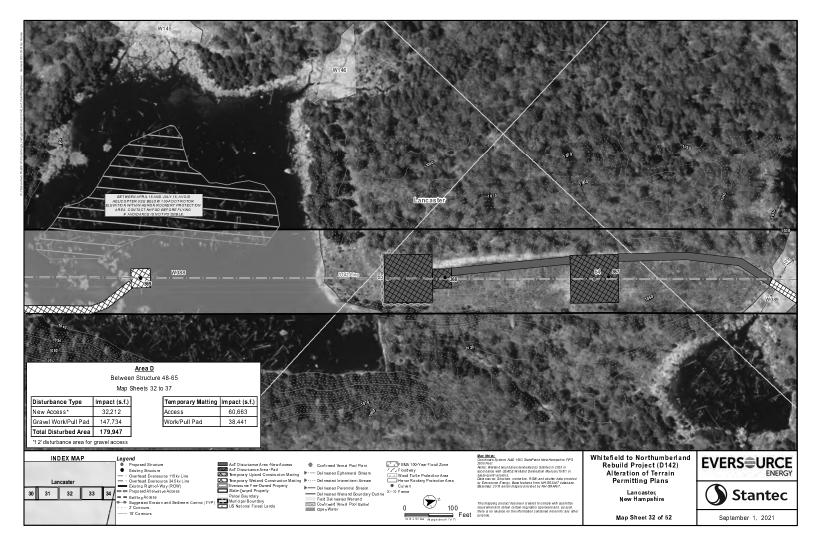


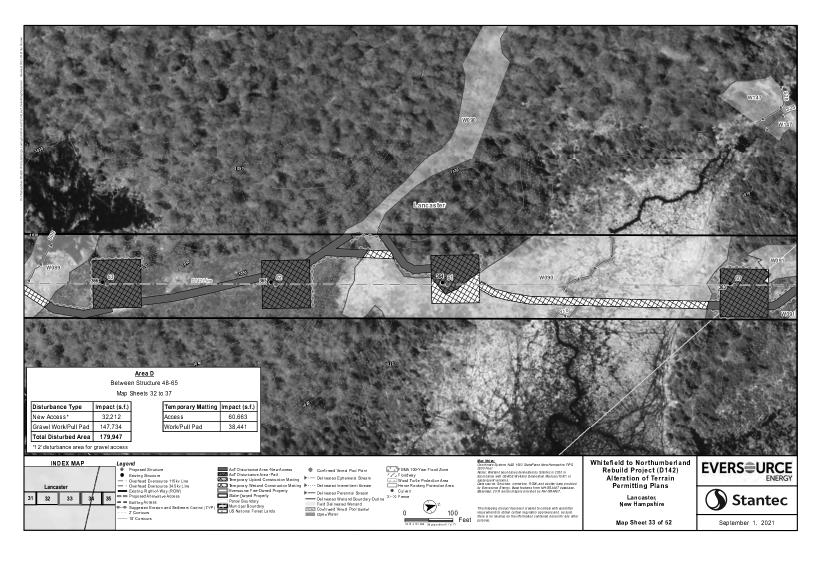


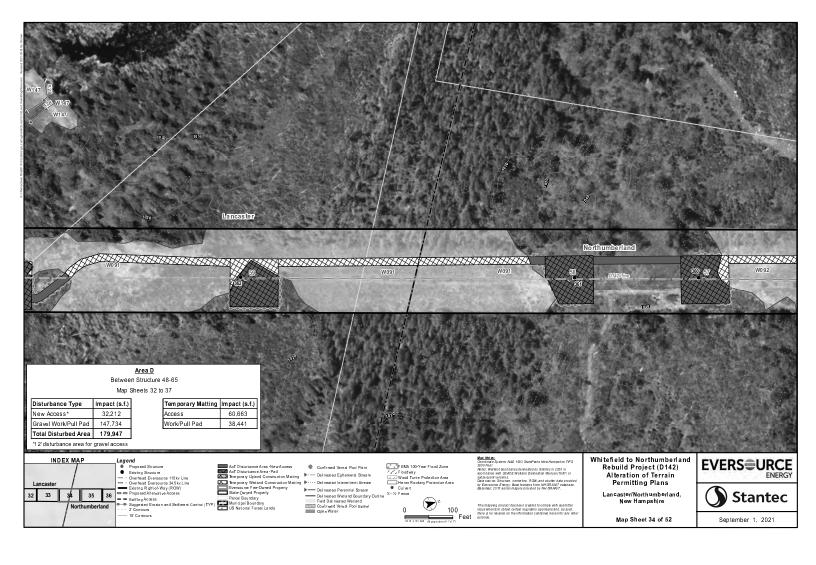


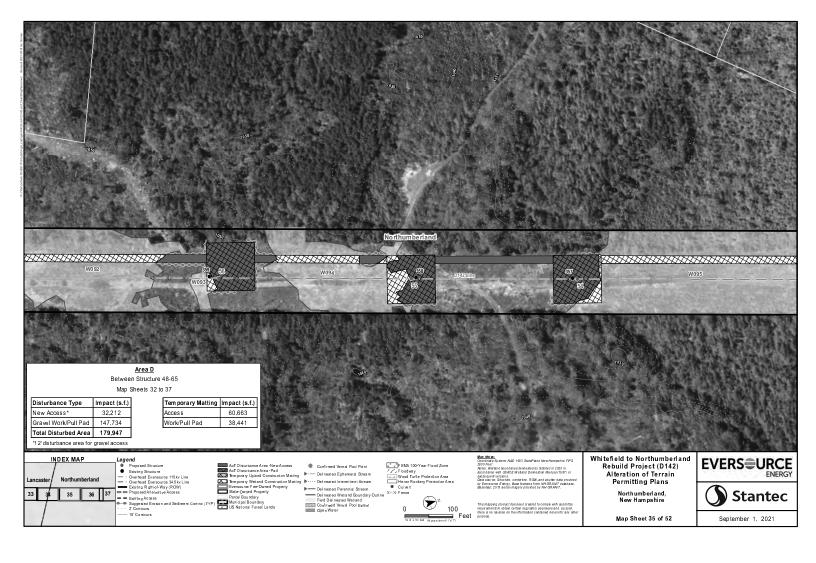


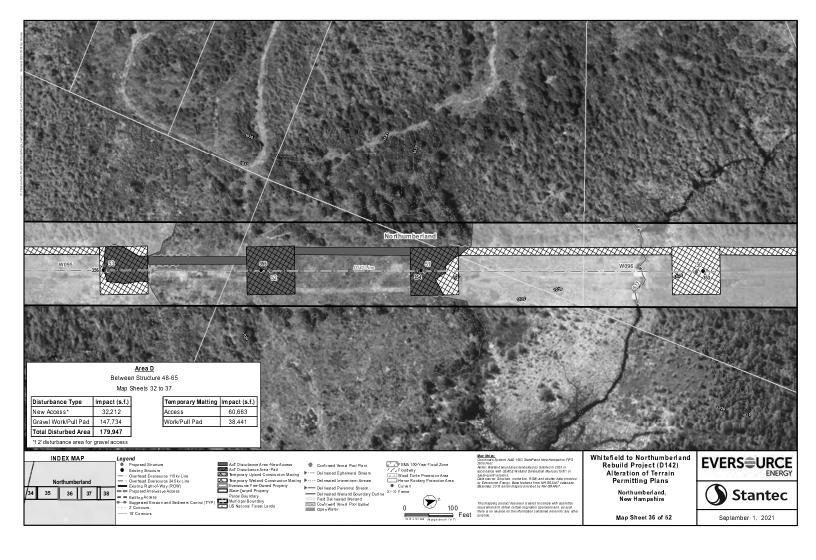


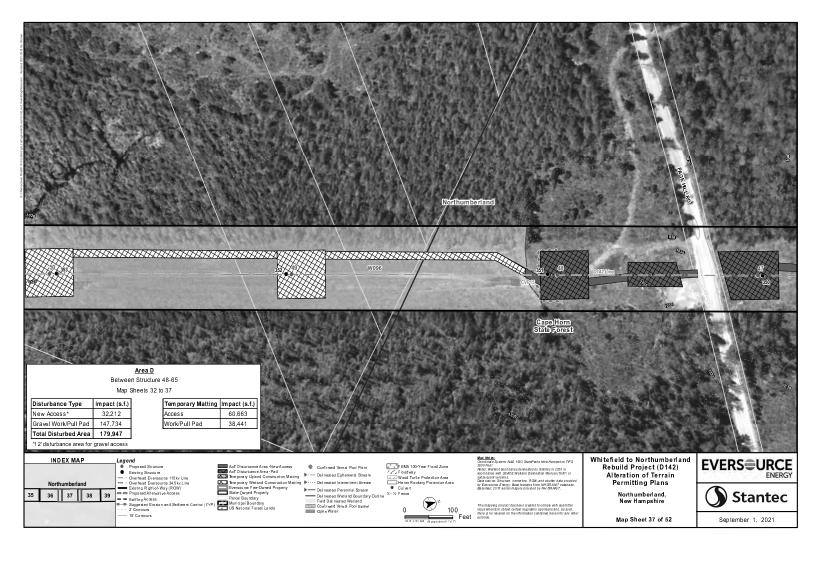


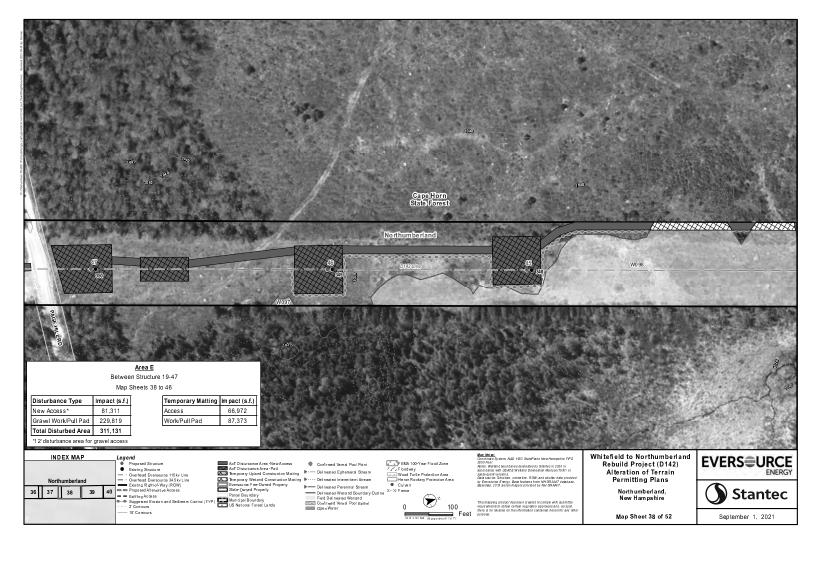


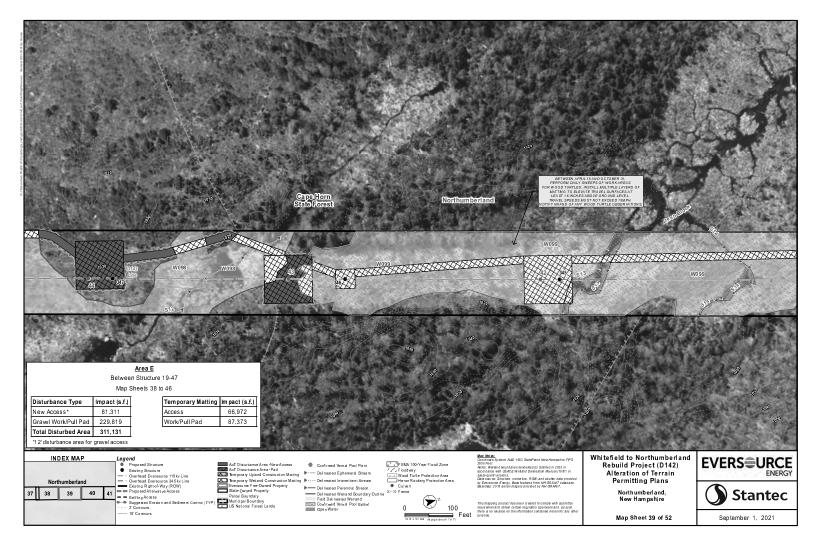


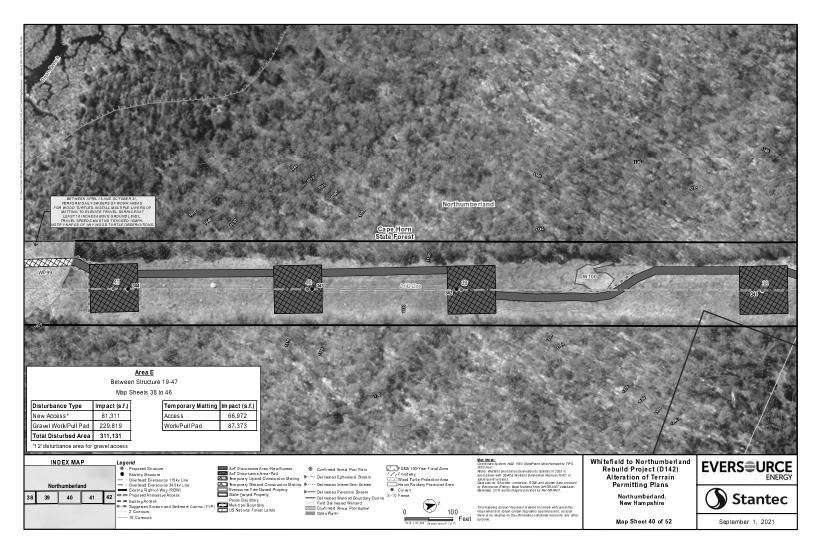


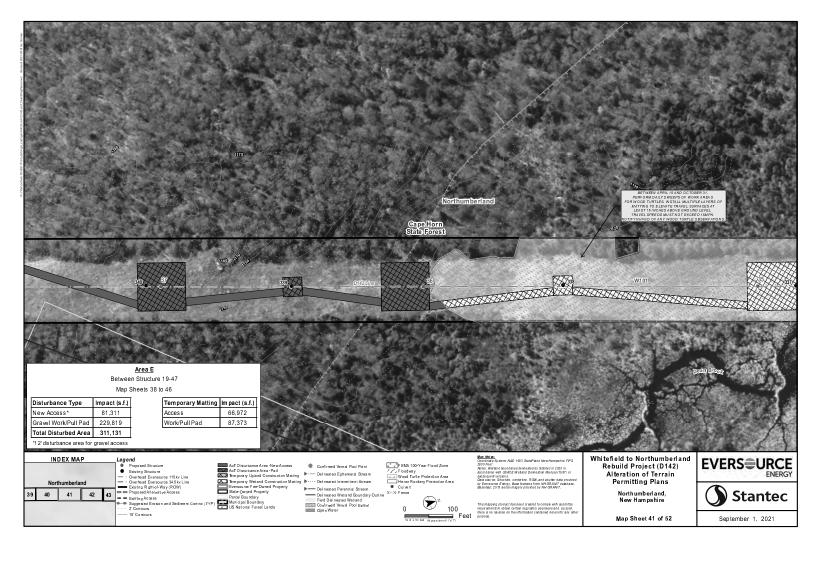


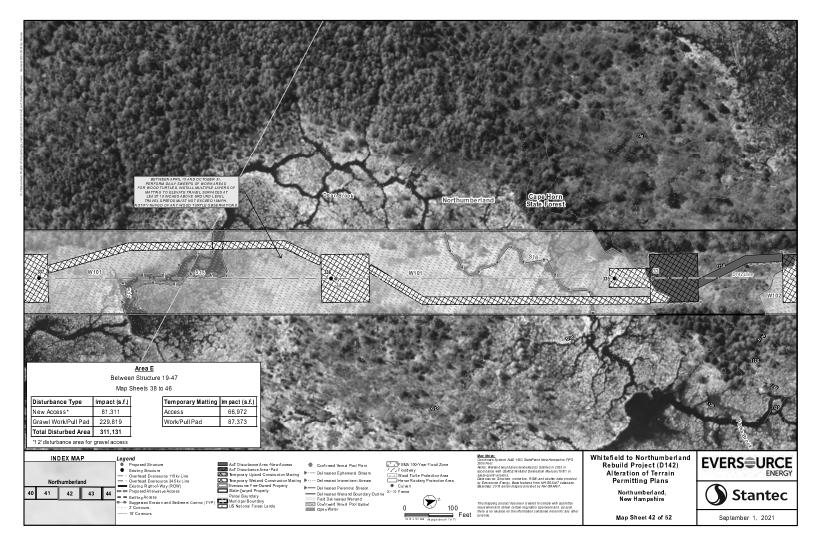


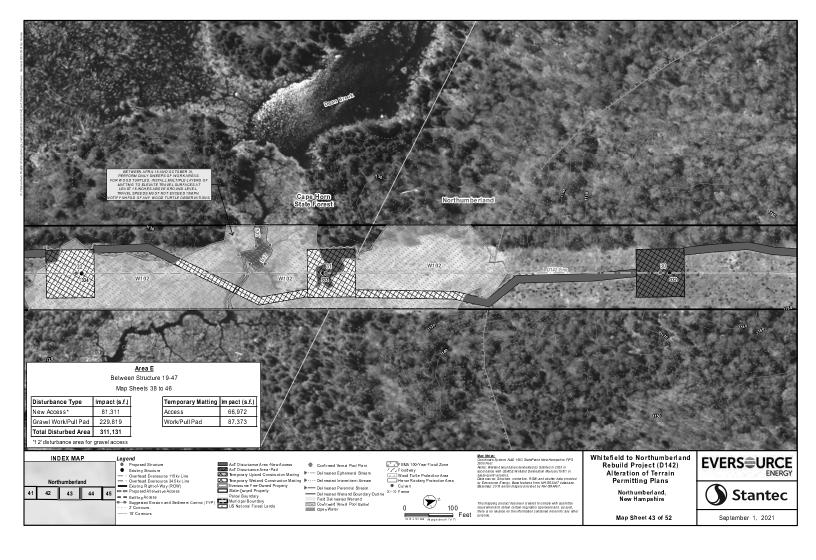


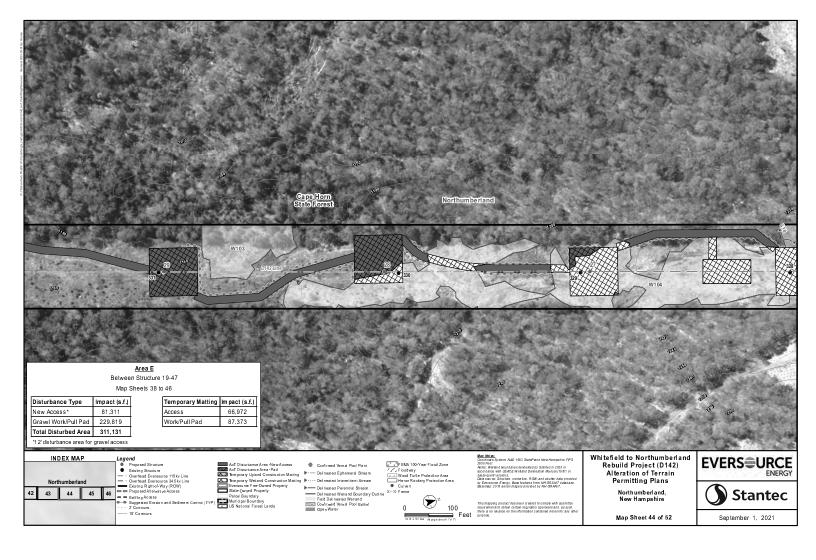


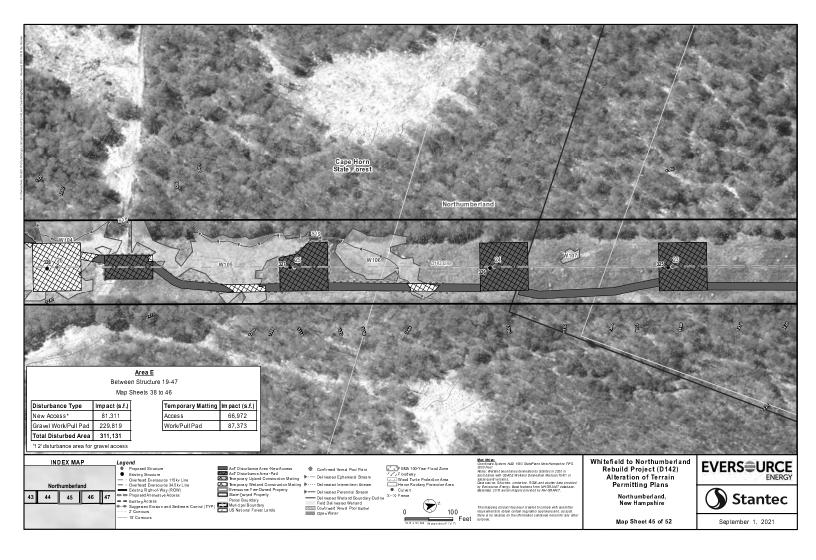


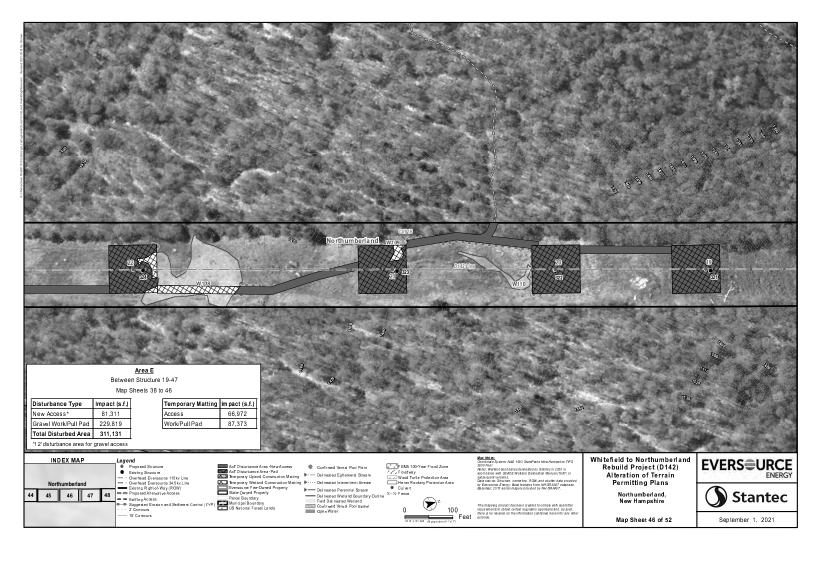


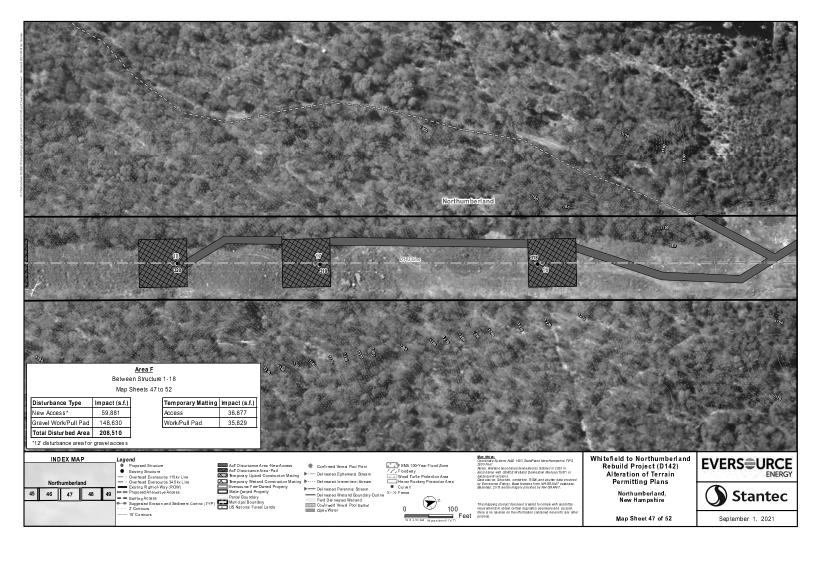


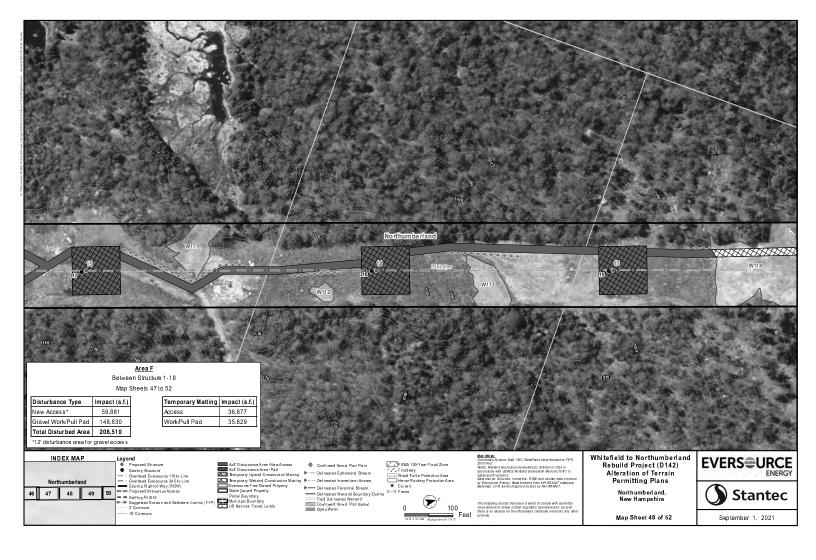


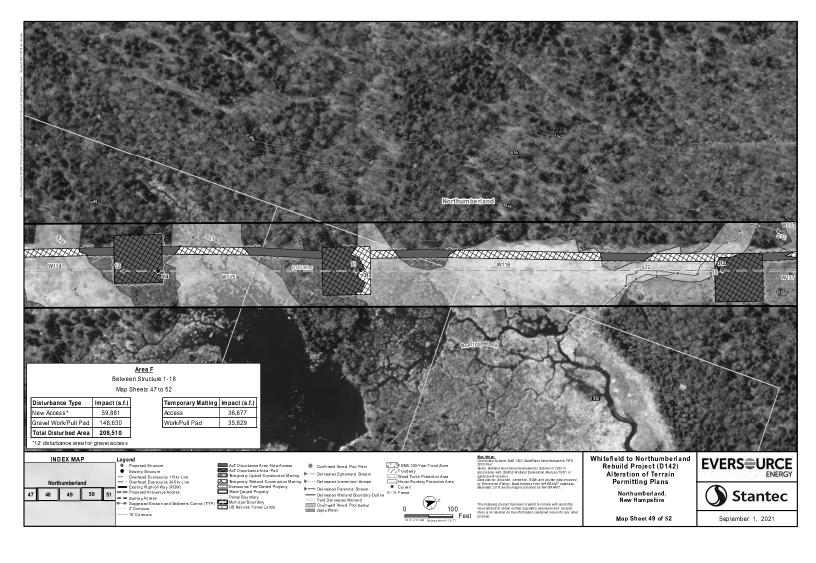


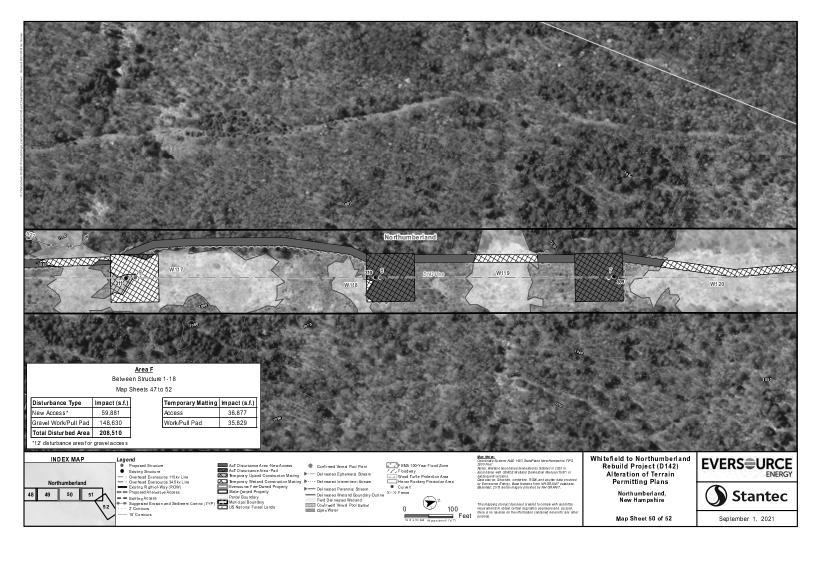


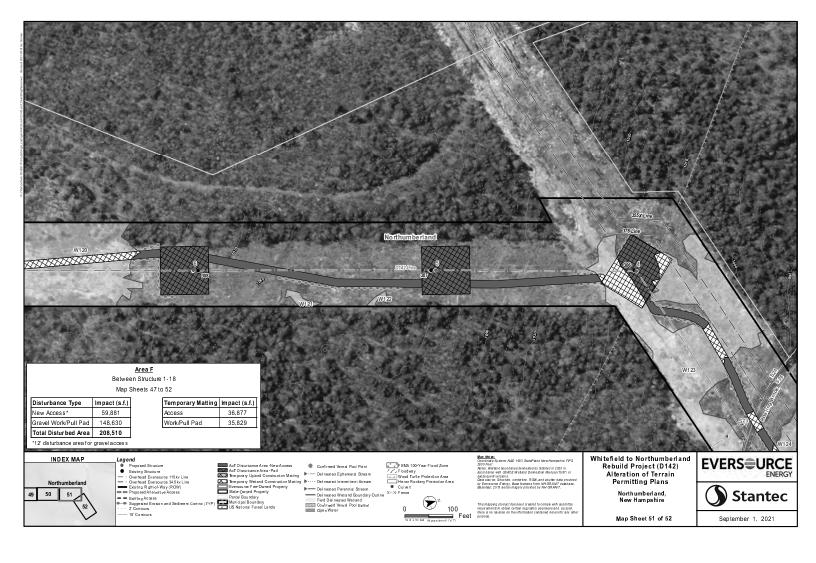


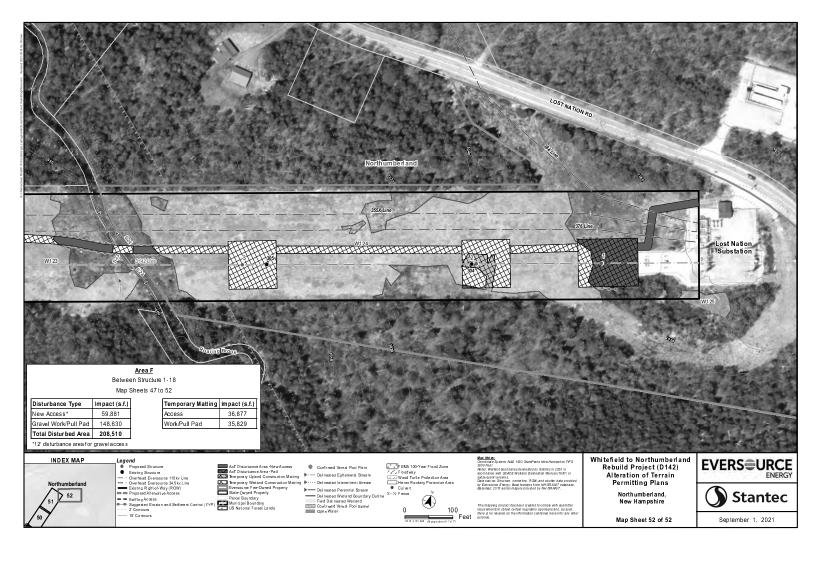












New Hampshire Fish and Game Alteration of Terrain Conditions Related to Threatened and Endangered Species

- Conservation measures proposed by the applicant shall be implemented based on Threatened and Endangered Wildlife Habitat Assessment dated May 20, 2021. See Alteration of Terrain Permitting Plan sheets 28, 29, 32, 39, 40, 41, 42, and Notes Pages 1-3.
- Wood turtles, a state species of special concern, are known within the project area. This species may utilize utility corridors as well as forested areas when near (within 1000 feet) tributaries and rivers. All site operators shall be made aware of their potential presence and be provided a flyer that includes identification and NHFG contact information. Turtles found within the active project area should be relocated immediately to the closest safe location in the direction the turtle was moving NHFG shall be contacted immediately if this occurs. Although unlikely in this habitat, if a turtle is observed nesting or suspected of nesting, the area shall be marked to avoid impacts, photos shall be taken and provided immediately to NHFG: Melissa Doperalski 603-479-1129 or Josh Megyesy at 978-578-0802. See plan note sheets pages
- All site operators shall be provided with flyers that includes NHFG contact information and wood turtle species and Canada lynx identification.
- All manufactured erosion and sediment control products, except for silt fence installed in accordance with Env-Wq 1506.04, utilized for, but
 not limited to, slope protection, runoff diversion, slope interruption, perimeter control, inlet protection, check dams, and sediment traps shall
 not contain welded plastic, plastic, or multi-filament or monofilament polypropylene netting or mesh. See Notes Page 3 and BMP Details Page
 1 for specifications.
- All observations of threatened or endangered species shall be reported immediately to the New Hampshire Fish and Game Department Nongame and Endangered Wildlife Environmental Review Program by phone at 603-271-2461 and by email at NHFGreview@wildlife.nh.gov. Email subject line: NHB21-0368, NHB21-0369 and NHB21-0371, D-142 Eversource Rebuild, Wildlife Species Observation. Photographs shall be provided for verification as feasible.
- The New Hampshire Fish and Game Department shall have access to the project area during the term of the permit.

Whitefield to Northumberland Rebuild Project (D142) Alteration of Terrain Whitefield, Lancaster, and Northumberland, New Hampshire NH Fish and Game Department Conditions





SEEKING REPORTS OF RARE TURTLES



The NH Fish & Game Department is collecting observations of four turtle species:



Blanding's turtle (state endangered)

- Large, dark/black domed shell with lighter speckles
- Distinct yellow throat/chin
- Aquatic but often moves on land

Wood turtles likely to occur within the D142 Project area.



Wood turtle (special concern)

- Sculpted, pyramidal brownish shell
- Orange around neck and limbs
 River/stream turtle spending many months on land

Follow avoidance and minimization techniques described on the approved project plans when working in locations where wood turtles may potentially occur.



Eastern box turtle (state endangered)

- Small terrestrial turtle with highly domed shell
- Irregular yellow or orange markings over brown/black base



Spotted turtle (state threatened)

- Small, mostly aquatic with black or dark brown with yellow spots.
- Fairly flat shell compared to Blanding's turtle

Report sightings to RAARP@wildlife.nh.gov or 603-271-2461 Please report promptly, noting specific location and date – Photographs strongly encouraged

Whitefield to Northumberland Rebuild Project (D142) Alteration of Terrain Whitefield, Lancaster, and Northumberland, New Hampshire Notes Page 1 of 3



RARE SPECIES ALERT

CANADA LYNX



Photos courte sy of USFWS

IDENTIFYING FEATURES:

- Medium to large cat, 15–30 lbs
- Grizzled gray fur
- Proportionately large paws and hind legs
- Ears with long, black tufts
- Tail short and black-tipped
- Most similar to bobcat

IF OBSERVED:

- Stop work and allow animal to pass
- Document date and time, and take photograph, if possible
- Maintain 5 mph on access roads
- Notify on-site Environmental Monitor





Whitefield to Northumberland Rebuild Project (D142) Alteration of Terrain Whitefield, Lancaster, and Northumberland, New Hampshire Notes Page 2 of 3



CONSTRUCTION SEQUENCE:

- 1. WETLAND BOUNDARIES TO BE CLEARLY MARKED PRIOR TO THE START OF CONSTRUCTION
- 2. SEDIMENT AND EROSION CONTROL MEASURES SHALL BE INSTALLED IN ACCORDANCE WITH THE DETAIL PROVIDED, AS NECESSARY,
- 3. WETLAND IMPACTS ASSOCIATED WITH WETLAND CROSSINGS ARE REQUIRED FOR ACCESS BETWEEN STRUCTURES
- ADEQUATE PRECAUTION SHALL BE EXERCISED TO AVOID SPILLAGE OF FUEL OILS, CHEMICALS, OR SIMILAR SUBSTANCE NO FUELS, LUBRICANTS, CHEMICALS OR SIMILAR SUBSTANCES SHALL BE STORED BENEATH TREES OR IN THE VICINITY C ANY WETLANDS, RIVER, STREAM OR OTHER BOYD OF WATER, OR IN THE VICINITY OF NATURAL OR HAWA HADE CHAMICAL LEADING THERETO, NO FOWER EQUIPMENT SHALL BE STORED, MAINTAINED, OR FUELED IN ANY AREA ADJACENT TO A WETLAND, RIVER, STREAM OR OTHER BOYD OF WATER.
- 5. REMOVE COMPLETELY ALL CONTAMINATION FROM ANY SPILLAGE OF CHEMICALS OR PETROLEUM PRODUCT WITH COMPLETE REHABILITATION OF THE AFFECTED AREA.
- 6. ACCESS ROUTES HAVE BEEN SELECTED TO PREVENT DEGRADATION OF THE RIGHT-OF-WAY AND MINIMIZE ENVIRONMENTAL IMPACT.

 MINACT AREA SHALL BE CONFIDE THE SPECYED ACCESS ROUTES WITHIN THE PROTOSED. WE HAVE
 MINACT AREA SHALL BE CONFIDENT OF THE SPECYED ACCESS ROUTES SHALLD BE APPROXIMATELY 12FEET WIND.
- IMPACT TO VEGETATION WITHIN WETLANDS WILL BE LIMITED TO THE EXTENT NECESSARY TO PLACE THE SWAMP MATS WHERE REQUIRED. NO ADDITIONAL CLEARING IS PERMITTED.
- 8. LOW GROWING VARIETIES OF VEGETATION ADJACENT TO WETLANDS SHALL BE PRESERVED TO THE EXTENT POSSIBLE. STUMPS AND ROCKS SHALL NOT BE REMOVED, AND THERE SHALL BE NO EXCAVATIONS, FILLS OR GRADING DONE ADJACENT TO WETLANDS, UNLESS MINOR EXCAVATION IS NEEDED FOR ACCESS.
- 9. TIMBER MATS WILL BE USED ALONG ACCESS ROUTES WITHIN WETLAND AREAS. THESE MATS ARE CONSTRUCTED OF STRUCTED OF ST
- 10. IF TIMBER MAT BMP IS NOT SUFFICIENT DUE TO HIGH WATER, ADDITIONAL BMP'S MAY INCLUDE THE PLACEMENT OF GEOTEXTILE FABRIC UNDER MATS OR USING A LAYER OF RUNNIER MATS TO LELEVATE MATS TO MAINTAIN HYDROLOGIC CONNECTIVITY, ALL MATERIAL WILL BE REMOVED FROM JURISDICTIONAL AREAS AFTER CONSTRUCTION COMPLETION.
- 11. NO MATERIAL SHALL BE PLACED IN ANY LOCATION OR IN ANY MANNER SO AS TO IMPAIR SURFACE WATER FLOW INTO, THROUGH OR OUT OF ANY WETLAND AREA, NO INSTALLATION SHALL CREATE AN IMPOUNDMENT THAT WILL IMPEDE THE FLOW OF WATER OR CAUSE FLOODING.
- 12. NO MATERIAL SHALL BE TAKEN FROM THE WE'LLANDS AREA EXCEPT THAT WHICH MUST NECESSARILY BE REMOVED FOR THE STRUCTURE INSTALLATION. ALL EXCESS MATERIAL TAKEN FROM THE WETLAND WILL BE REMOVED FROM THE SITE AND DISPOSED IN JUPLAND.
- 13 ACREATING THE SECOND SECOND
- 14. INSTALL NEW POLES IN THE LOCATIONS DESIGNATED ON THE PERMITTING PLANS.
- 15. CABLE INSTALLATION WILL BE PERFORMED IN A MANNER SO AS TO AVOID, OR LIMIT TO THE MAXIMUM EXTENT POSSIBLE, TRAVERSING WEITLANDS WITH HEAVY EQUIPMENT. IN SOME CASES, A HELICOPTER MAY BE USED DURING THE INSTALLATION TO MINIMIZE IMPACTS.
- 16. ALL SWAMP MATS, MATERIAL, AND DEBRIS WILL BE REMOVED FROM THE WORK AREA UPON THE COMPLETION OF CONSTRUCTION
- 17. UPLAND DISTURBED AFEAS SHALL BE RESTORED AND STABILIZED JIPON COMPLETION OF CONSTRUCTION, WORK PAD RESTORATION SHOULD INCLUDE REDUCING THE WINDER PAD TO A 50 BY 60 FOOT AREA, AND REDUCING SLOPES A MAXIMUM OF 25%, STOCKPILED MATERIAL SHOULD BE SPREAD TO REDUCE ANY UNNECESSARY SLOPES, GRAVEL WORK PADS AND SLOPES SHOULD BE SCARIFIED TO ANIMIM MOF 3° BEFORE SPREADING TOPSOLLOAM.
- 18. ALL TEMPORARY WETLAND IMPACTS WILL BE RE-GRADED TO ORIGINAL CONTOURS FOLLOWING CONSTRUCTION, IF NEEDED. NEW ENGLAND EROSION CONTROLDRESTORATION MIX, OR EQUIVALENT SEED MIX SHALL BE APPLIED IN WETLAND AREAS THAT ARE NOT NUDDATED. AS NECESSARY.
- 9. SEDIMENT AND EROSION CONTROL MEASURES WILL BE EVALUATED AND REMOVED IF NECESSARY UPON THE COMPLETION OF CONSTRUCTION. 20. COMMERCIAL LOAM WILL NOT BE USED AS PART OF RESTORATION. ONLY IN-SITU TOPSOIL WILL BE USED TO RESTORE DISTURBED AREAS.
- 21. WHERE PEATLANDS ARE MAPPED ADJACENT TO THE ROW, THE ASSOCIATED WETLANDS WITHIN THE ROW SHALL BE TREATED AS A PEATLAND AND PRIORITY RESOURCE AREA. ELEVATED MATTING SHALL BE USED AS NECESSARY TO PREVENT EXCESSIVE GROUND DISTURBANCE WITHIN THESE AREAS
- INTER CONSTRUCTION NOTES

 1. PROPOSED VESTATE DAREAS WHICH DO NOT EXHBIT A NINIMAN OF 58% VESETATIVE GROWTH BY OCTOSES

 1. PROPOSED VESTATE DAREAS WHICH DO NOT EXHBIT A NINIMAN OF 58% VESETATIVE GROWTH BY OCTOSES

 1. PROPOSED VESTATE OF THE STATE OCTOSES OF THE SHALL BE STABLED STABLED AND WHICH DOS SHALL

 1. RICLUPES REPORT AND DALEAD AND INSTALLATION OF EROSENIC CONTROL BANKETS OF MADERS OF GREATER THAN 3:1,

 AND SEEDING AND PLACING 3 TO 4 TONS OF MULCH PER ACRE, SECURED WITH ANCHORED METTING, ELSEWHERE.

 THE INSTALLATION OF EROSION CONTROL BLAKETS OR MULCH AND NETTING SHALL NOT COCCUR OVER

 ACQUIMILATED SNOW OR FROZEN GROWND AND SHALL BE COMPLETED IN ADVANCE OF THAW, OR SPRING MELT

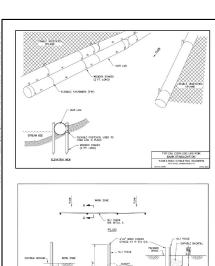
 AGNITS.
- DITCHES OR SWALES WHICH DO NOT EXHIBIT A MINIMUM OF 85% VEGETATIVE GROWTH BY OCTOBER 15TH, OR WHICH ARE DISTURBED AFTER OCTOBER 15TH, SHALL BE TEMPORARILY STABILIZED WITH STONE OR EROSION CONTROL BLANKETS APPORPIATE FOR THE DESIGN FLOW CONDITIONS

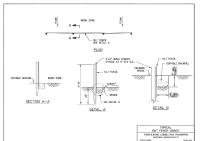
- AFTER NOVEMBER 15TH, INCOMPLETE ROAD OR PARKING SURFACES, WHERE WORK HAS STOPPED FOR THE WINTER SEASON, SHALL BE PROTECTED WITH A MINIMUM OF 3 INCHES OF CRUSHED GRAVEL (NHDOT 304.3). GENERAL NOTES:
- OWN ER; PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE d/b/a EVERSOURCE ENERGY 13 LEGENDS DRIVE HOOKSETT, NH 03106
- BASE PLAN PROVIDED BY EVERSOURCE ENERGY. STANTEC PROVIDED THE WETLAND DATA. EVERSOURCE ENERGY PROVIDED THE UTILITY DESIGN.
- JURISDICTIONAL WETLANDS WERE DELINEATED BY STANTEC IN 2020, WETLANDS WERE DELINEATED IN ACCORDANCE WITH THE 1927 U.S. ARMY CORPS OF ENGINEERS WETLANDS DELINEATION MAINLAL, TECHNICAL REPORT Y-97-1, AND RESIDINAL JANUARY 2012.
 JANUARY 2012.
- 3. SITE PLAN IS FOR PERMITTING PURPOSES ONLY AND DOES NOT REPRESENT A PROPERTY BOUNDARY SURVEY.
- THE PROJECT WILL BE MANAGED IN A MANNER THAT MEETS THE REQUIREMENTS AND INTENT OF RSA 430:53 AND CHAPTER AGR 3800 RELATIVE TO INVASIVE SPECIES.
- 5. IN ACCORANCE WITH ENVIYOU 199.00.7 THE SMALLEST PRACTICAL AREA SHALL BE DISTURBED DURING COAR TRECTION AREA SHALL BE DISTURBED AREAS ARE SHALL BE THE STORM AREA SHALL BE FOREIGNED AREAS ARE SHALL BE THE FOREIGNED AREAS ARE SHALL BE THE SHALL BE THE
- 6. IN THE EVENT THAT A RARE OR THREATENED SPECIES IS OBSERVED, THE NEW HAMPSHIRE FISH AND GAME AND NEW HAMPSHIRE NATURAL HERITAGE BUREAU (NHB) WILL BENOTIFIED.
- EROSION CONTROL NOTES:
- I, NISTALLATION OF EROSION CONTROL GRINDINGS ANDORS IN TENCES SHALL BECOMMETER PRIOR TO THE START OF MOKEN MAY ORGEN AREA EROSION CONTROLS SHALL BE USED DURING CONSTRUCTION AND REMOVED WHEN ALL SLOPES HAVE A HEALTHY STAND OF VEGETATION COVER. EROSION CONTROL MEASURES SHALL BE INSPOCTED ON A WEEKLY BASIS AND AFTER 25° OR GREATER RAINFALL EVENTS.
- AS REQUIRED, CONSTRUCT TEMPORARY BERMS, SILTATION FENCES, SEDIMENT TRAPS, ETC. TO PREVENT EROSION & SEDIMENTATION OF WETLANDS.
- 3. THE WORK AREA SHALL BE GRADED AND OTHERWISE SHAPED IN SUCH A MANNER AS TO MINIMIZE SOIL EROSION, SILTATION OF DRAIMAGE CHANNELS, DAMAGE TO EXISTING VEGETATION, AND DAMAGE TO PROPERTY OUTSIDE LIMITS OF THE WORK AREA. EROSION CONTROL GRINDINGS WILL BE NECESSARY TO ACCOMPLISH THIS END.
- 4. ANY STRIPPED TOPSOIL SHALL BE STOCKPILED, WITHOUT COMPACTION, AND STABILIZED WITH BMPS.
- 6. EROSJON CONTROLS SHALL BE INSPECTED WEEKLY AND AFTER EVERY HALF-JNCH OF RAINFALL.
- 7. EROSION CONTROL MATTING, IF REQUIRED, WILL CONSIST OF JUTE MATTING. MATTING WITH WELDED PLASTIC OR BIODEGRADABLE PLASTIC NETTING OR THREAD WILL BE AVOIDED TO LIMIT UNINTENTIONAL MORTALITY TO SNAKES OR OTHER SMAIL ANIMALS

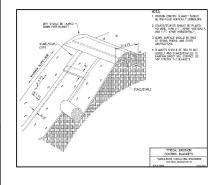
Whitefield to Northumberland Rebuild Project (D142) Alteration of Terrain Whitefield, Lancaster, and rthumberland, New Hampshire Notes Page 3 of 3

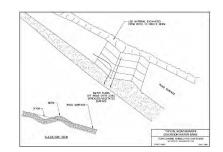


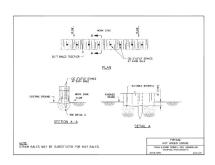
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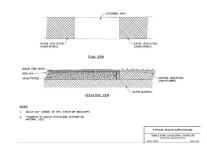


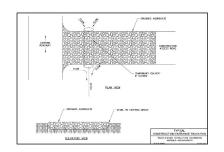


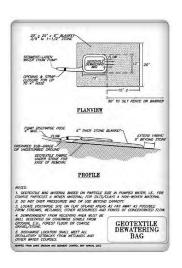






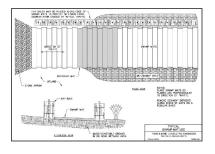


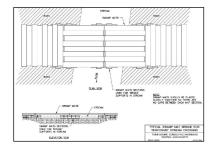




Whitefield to Northumberland Rebuild Project (D142) Alteration of Terrain Whitefield, Lancaster, and Northumberland, New Hampshire BMP Details Page 1 of 2







Whitefield to Northumberland Rebuild Project (D142) Alteration of Terrain Whitefield, Lancaster, and Northumberland, New Hampshir BMP Details Page 2 of 2



NHDES ALTERATION OF TERRAIN PERMIT APPLICATION

Appendix A Alteration of Terrain Permit Application Form June 2, 2021

Appendix A ALTERATION OF TERRAIN PERMIT APPLICATION FORM





ALTERATION OF TERRAIN PERMIT APPLICATION



Water Division/ Alteration of Terrain Bureau/ Land Resources Management Check the Status of your Application: www.des.nh.gov/onestop

RSA/ Rule: RSA 485-A:17, Env-Wq 1500

			Fil	le Number:	
Administrative	Administrative	Administrative Administrative Use Use Only Only		Check No. Amount:	
Use Only					
			In	itials:	
1. APPLICANT INFORMATION (INT	ENDED PERMIT HOLDER)				
Applicant Name: Public Service Co	o. of NH d/b/a Eversource Energy	Contact Name: Jerem	y Fennell		
Email: jeremy.fennell@eversource	Daytime Telephone: 6	Daytime Telephone: 603-634-3396			
Mailing Address: 13 Legends Drive	2	•			
Town/City: Hooksett			State: NH	Zip Code: 03106	
2. APPLICANT'S AGENT INFORMA	TION If none, check here:				
Business Name: Stantec Consultin	g Services Inc.	Contact Name: Tom 1	Tetreau		
Email: tom.tetreau@stantec.com		Daytime Telephone: 2	07-504-7231		
Address: 30 Park Drive					
Town/City: Topsham			State: ME	Zip Code: 04086	
3. PROPERTY OWNER INFORMATI	ON (IF DIFFERENT FROM APPLICAN	T)		•	
Applicant Name:		Contact Name:			
Email:	Daytime Telephone:				
Mailing Address:		•			
Town/City:			State:	Zip Code:	
4. PROPERTY OWNER'S AGENT IN	FORMATION If none, check	here: 🔀			
usiness Name: Contact Name:		Contact Name:			
mail: Daytime Telepho		Daytime Telephone:	<u>: </u>		
Address:					
Town/City:			State:	Zip Code:	
5. CONSULTANT INFORMATION	If none, check here:				
Engineering Firm: Stantec Consult	ing Services Inc.	Contact Name: Tom 1	etreau		
Email: tom.tetreau@stantec.com		Daytime Telephone: 2	Daytime Telephone: 207-504-7231		
Address: 30 Park Drive					
Town/City: Topsham			State: ME	Zip Code: 04086	
				•	

6. PROJECT TYPE				
Excavation Only Residential Commercial	Golf Course School Municipal			
Agricultural Land Conversion 🖂 Other	: Utility			
7. PROJECT LOCATION INFORMATION				
Project Name: D142 Transmission Line Rebuild				
Street/Road Address: Existing utility ROW between Route 3 in Whitefic	eld and Lost Nation Road in Northumberland			
Town/City: Whitefield, Lancaster, Northumberland Co	ounty: Coos			
Tax Map: Block:	Lot Number: Unit:			
Location Coordinates: 44.48514°, -71.5400	ongitude UTM State Plane			
Post-development, will the proposed project withdraw from or directly dis	charge to any of the following? If yes, identify the purpose.			
1. Stream or Wetland	Yes Withdrawal Discharge			
Purpose:	⊠No			
2. Man-made pond created by impounding a stream or wetland	Yes Withdrawal Discharge			
Purpose:	⊠No			
3. Unlined pond dug into the water table	Yes Withdrawal Discharge			
Purpose:	⊠ No			
Post-development, will the proposed project discharge to:				
_ · · · · · · · · · · · · · · · · · · ·	es - include information to demonstrate that project will not			
cause net increase in phosphorus and/or nitrogen	Vec. include information to demonstrate that annicet will not			
A Class A surface water or Outstanding Resource Water? No cause net increase in phosphorus and/or nitrogen	Yes - include information to demonstrate that project will not			
	formation to demonstrate that project will not cause net increase			
in phosphorus in the lake or pond	. ,			
Is the project a High Load area?				
Is the project within a Water Supply Intake Protection Area (WSIPA)?	☐ Yes			
Is the project within a Groundwater Protection Area (GPA)?	☐ Yes			
Will the well setbacks identified in Env-Wq 1508.02 be met?	∑ Yes ☐ No			
Note: Guidance document titled " <u>Using NHDES's OneStop WebGIS to Locat</u> restrictions in these areas, read Chapter 3.1 in Volume 2 of the NH Stormw				
Is any part of the property within the 100-year floodplain?				
If yes: Cut volume: 0 cubic feet within the 100-year floodplain	NO			
Fill volume: 0 cubic feet within the 100-year floodplain				
Project IS within ¼ mile of a designated river Name of River:				
Project IS within ¼ mile of a designated river Name of River: Project is NOT within ¼ mile of a designated river				
Project IS within a Coastal/Great Bay Region community - include info required by Env-Wq 1503.08(I) if applicable Project is NOT within a Coastal/Great Bay Region community				
8. BRIEF PROJECT DESCRIPTION (PLEASE DO NOT REPLY "SEE ATTACHED")				
6. BRIEF FROJECT DESCRIPTION (FEEASE DO NOT REFET SEE ATTACT	בט ן			
Eversource Energy (Eversource) has identified the need to replace the structures and overhead conductor wires and replace its static wires with fiber optic cable, known as Optical Ground Wire along the existing D142 transmission line (Project). This is an approximately 18-mile-long, 115-kilovolt line built in 1948 that crosses through the towns of Whitefield, Lancaster, and Northumberland.				
9. IF APPLICABLE, DESCRIBE ANY WORK STARTED PRIOR TO RECEIVIN	G PERMIT			
Depending on the construction and electrical outage schedules, it is possib subject to Alteration of Terrain jurisdiction, or other permits that may be pwork until all necessary permits are received.	le that some Project work may begin within areas that are not			

10. ADDITIONAL REQUIRED INFORMATION					
A. Date a copy of the application was sent to the municipality as required by Env-Wq 1503.05(e) 1 :					
(Attach proof of delivery)					
B. Date a copy of the application was sent to the local river advisory committee if required by Env-Wq 1503.05(e) ² :/					
(Attach proof of delivery)					
C. Type of plan required: Land Conversion	Detailed Developme	ent 🛭 Exc	cavation, Gra	ding & Reclamation 🗌 Steep Slope	
D. Additional plans required: Stormwater Dra	inage & Hydrologic Sc	oil Groups	Source C	Control Chloride Management	
E. Total area of disturbance: <u>1,475,030</u> square fe	eet				
F. Additional impervious cover as a result of the coverage).	F. Additional impervious cover as a result of the project: <u>0</u> square feet (use the "-" symbol to indicate a net reduction in impervious coverage).				
Total final impervious cover: <u>0</u> square feet					
G. Total undisturbed cover: <u>0</u> square feet					
H. Number of lots proposed: <u>0</u>					
I. Total length of roadway: <u>0</u> linear feet					
J. Name(s) of receiving water(s): 0					
K. Identify all other NHDES permits required for t the required approval has been issued provide					
Status					
Time of Annual	Annliantian File	- 42		Status	
Type of Approval	Application File	ed?	Pending	If Issued:	
Type of Approval 1. Water Supply Approval		ed? ⊠N/A	Pending		
	Yes No		Pending	If Issued:	
1. Water Supply Approval	Yes No	⊠n/a		If Issued: Permit number:	
Water Supply Approval Wetlands Permit	☐ Yes ☐ No ☐ ☐ Yes ☐ No ☐ ☐ Yes ☐ No ☐	⊠n/a ⊒n/a		If Issued: Permit number: Permit number:	
Water Supply Approval Wetlands Permit Shoreland Permit	Yes No Yes No Yes No Yes No Yes No	⊠n/a □n/a □n/a		If Issued: Permit number: Permit number: Permit number:	
1. Water Supply Approval 2. Wetlands Permit 3. Shoreland Permit 4. UIC Registration	Yes No	⊠n/a □n/a □n/a ⊠n/a		If Issued: Permit number: Permit number: Permit number: Registration date:	
1. Water Supply Approval 2. Wetlands Permit 3. Shoreland Permit 4. UIC Registration 5. Large/Small Community Well Approval	Yes No	N/A N/A N/A N/A N/A N/A N/A		If Issued: Permit number: Permit number: Permit number: Registration date: Approval letter date:	
1. Water Supply Approval 2. Wetlands Permit 3. Shoreland Permit 4. UIC Registration 5. Large/Small Community Well Approval 6. Large Groundwater Withdrawal Permit 7. Other:	Yes No	N/A N/A N/A N/A N/A N/A N/A N/A		If Issued: Permit number: Permit number: Permit number: Registration date: Approval letter date: Permit number:	
1. Water Supply Approval 2. Wetlands Permit 3. Shoreland Permit 4. UIC Registration 5. Large/Small Community Well Approval 6. Large Groundwater Withdrawal Permit 7. Other:	Yes No	N/A N/A N/A N/A N/A N/A N/A N/A N/A isis/onestor	angered or o	If Issued: Permit number: Permit number: Permit number: Registration date: Approval letter date: Permit number: Permit number: f concern: See application narrative, Section 2.3 Surface Water Impairment layer turned on, list	
1. Water Supply Approval 2. Wetlands Permit 3. Shoreland Permit 4. UIC Registration 5. Large/Small Community Well Approval 6. Large Groundwater Withdrawal Permit 7. Other: L. List all species identified by the Natural Herital M. Using NHDES's Web GIS OneStop program (www.)	Yes No	N/A N/A N/A N/A N/A N/A N/A N/A sed or enda	angered or o	If Issued: Permit number: Permit number: Permit number: Registration date: Approval letter date: Permit number: Permit number: f concern: See application narrative, Section 2.3 Surface Water Impairment layer turned on, list	
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1. Water Supply Approval 2. Wetlands Permit 3. Shoreland Permit 4. UIC Registration 5. Large/Small Community Well Approval 6. Large Groundwater Withdrawal Permit 7. Other: L. List all species identified by the Natural Herital M. Using NHDES's Web GIS OneStop program (www	Yes No Acted on the plans, ava Apip/publications/wd/	N/A N/A N/A N/A N/A N/A N/A N/A	angered or o 2/), with the , enter "N/A taff? mated quant	If Issued: Permit number: Permit number: Registration date: Approval letter date: Permit number: Permit number: f concern: See application narrative, Section 2.3 Surface Water Impairment layer turned on, list " N/A Yes	

¹ Env-Wq 1503.05(c)(6), requires proof that a completed application form, checklist, plans and specifications, and all other supporting materials have been sent or delivered to the governing body of each municipality in which the project is proposed.

² Env-Wq 1503.05(c)(6), requires proof that a completed application form, checklist, plans and specifications, and all other supporting materials have been sent or delivered to the Local River Advisory Committee, if the project is within ¼ mile of a designated river.

LOOSE:
Signed application form: des.nh.gov/organization/divisions/water/aot/index.htm (with attached proof(s) of delivery)
Check for the application fee: des.nh.gov/organization/divisions/water/aot/fees.htm
Color copy of a USGS map with the property boundaries outlined (1" = 2,000' scale)
If Applicant is not the property owner, proof that the applicant will have a legal right to undertake the project on the property if a
permit is issued to the applicant.
BIND IN A REPORT IN THE FOLLOWING ORDER:
Copy of the signed application form & application checklist (des.nh.gov/organization/divisions/water/aot/index.htm)
Copy of the check
\boxtimes Copy of the USGS map with the property boundaries outlined (1" = 2,000' scale)
Narrative of the project with a summary table of the peak discharge rate for the off-site discharge points
Web GIS printout with the "Surface Water Impairments" layer turned on -
http://www4.des.state.nh.us/onestopdatamapper/onestopmapper.aspx
Web GIS printouts with the AOT screening layers turned on -
http://www4.des.state.nh.us/onestopdatamapper/onestopmapper.aspx
NHB letter using DataCheck Tool – www.nhdfl.org/about-forests-and-lands/bureaus/natural-heritage-bureau/
The Web Soil Survey Map with project's watershed outlined – websoilsurvey.nrcs.usda.gov
\square Aerial photograph (1" = 2,000' scale with the site boundaries outlined)
Photographs representative of the site
Groundwater Recharge Volume calculations (one worksheet for each permit application):
des.nh.gov/organization/divisions/water/aot/documents/bmp_worksh.xls
BMP worksheets (one worksheet for each treatment system):
des.nh.gov/organization/divisions/water/aot/documents/bmp worksh.xls
Drainage analysis, stamped by a professional engineer (see Application Checklist for details)
Riprap apron or other energy dissipation or stability calculations
Site Specific Soil Survey report, stamped and with a certification note prepared by the soil scientist that the survey was done in
accordance with the Site Specific Soil Mapping standards, Site-Specific Soil Mapping Standards for NH & VT, SSSNNE Special Publication
No. 3.
Infiltration Feasibility Report (example online) [Env-Wq 1503.08(f)(3)]
Registration and Notification Form for Storm Water Infiltration to Groundwater (UIC Registration-for underground
systems only, including drywells and trenches):
(http://des.nh.gov/organization/divisions/water/dwgb/dwspp/gw_discharge)
Inspection and maintenance manual with, if applicable, long term maintenance agreements [Env-Wq 1503.08(g)]
Source control plan
PLANS:
One set of design plans on 34 - 36" by 22 - 24" white paper (see Application Checklist for details)
Pre & post-development color coded soil plans on 11" x 17" (see Application Checklist for details)
Pre & post-development drainage area plans on 34 - 36" by 22 - 24" white paper (see Application Checklist for
details)
100-YEAR FLOODPLAIN REPORT:
All information required in Env-Wg 1503.09, submitted as a separate report.
ADDITIONAL INFORMATION RE: NUTRIENTS, CLIMATE
See Checklist for Details
REVIEW APPLICATION FOR COMPLETENESS & CONFIRM INFORMATION LISTED ON THE APPLICATION IS
INCLUDED WITH SUBMITTAL.

Signature:

Name (print or type): _____

12. REQUIRED SIGNATURES By initialing here, I acknowledge that I am required by Env-Wq 1503.20(e) to submit a copy of all approved documents to the department JF in PDF format on a CD within one week after permit approval. By signing below, I certify that: • The information contained in or otherwise submitted with this application is true, complete, and not misleading to the best of my knowledge and belief; • I understand that the submission of false, incomplete, or misleading information constitutes grounds for the department to deny the application, revoke any permit that is granted based on the information, and/or refer the matter to the board of professional engineers established by RSA 310-A:3 if I am a professional engineer; and • I understand that I am subject to the penalties specified in New Hampshire law for falsification in official matters, currently RSA 641. APPLICANT APPLICANT'S AGENT: 5/27/2021 Signature: Name (print or type): Jeremy Fennell Title: Senior Environmental Specialist PROPERTY OWNER PROPERTY OWNER'S AGENT:

Date: ____

Title: ____

ATTACHMENT A: ALTERATION OF TERRAIN PERMIT APPLICATION CHECKLIST

Check the box to indicate the item has been provided or provide an explanation why the item does not apply.

DESIGN PLANS
Plans printed on 34 - 36" by 22 - 24" white paper
PE stamp
☐ Temporary erosion control measures
Treatment for all stormwater runoff from impervious surfaces such as roadways (including gravel roadways), parking areas, and non-residential roof runoff. Guidance on treatment BMPs can be found in Volume 2, Chapter 4 of the NH Stormwater Management Manual.
Pre-existing 2-foot contours
Proposed 2-foot contours
☐ Drainage easements protecting the drainage/treatment structures
Compliance with the Wetlands Bureau, RSA 482- A http://des.nh.gov/organization/divisions/water/wetlands/index.htm . Note that artificial detention in wetlands is not allowed.
Compliance with the Comprehensive Shoreland Protection Act, RSA 483-B. http://des.nh.gov/organization/divisions/water/wetlands/cspa
Benches. Benching is needed if you have more than 20 feet change in elevation on a 2:1 slope, 30 feet change in elevation on a 3:1 slope, 40 feet change in elevation on a 4:1 slope.
Check to see if any proposed ponds need state Dam permits. http://des.nh.gov/organization/divisions/water/dam/documents/damdef.pdf
DETAILS
Typical roadway x-section
Detention basin with inverts noted on the outlet structure
Stone berm level spreader
Outlet protection – riprap aprons
A general installation detail for an erosion control blanket
Silt fences or mulch berm
Storm drain inlet protection. Note that since hay bales must be embedded 4 inches into the ground, they are not to be used on hard surfaces such as pavement.
Hay bale barriers
Stone check dams
Gravel construction exit
☐ Temporary sediment trap
☐ The treatment BMP's proposed
Any innovative BMP's proposed

NHDES-W-01-003 CONSTRUCTION SEQUENCE/EROSION CONTROL

CONSTRUCTION SEQUENCE, EROSION CONTROL
Note that the project is to be managed in a manner that meets the requirements and intent of RSA 430:53 and Chapter Agr 3800 relative to invasive species.
Note that perimeter controls shall be installed prior to earth moving operations.
Note that temporary water diversion (swales, basins, etc) must be used as necessary until areas are stabilized.
☐ Note that ponds and swales shall be installed early on in the construction sequence (before rough grading the site).
Note that all ditches and swales shall be stabilized prior to directing runoff to them.
☐ Note that all roadways and parking lots shall be stabilized within 72 hours of achieving finished grade.
☐ Note that all cut and fill slopes shall be seeded/loamed within 72 hours of achieving finished grade
Note that all erosion controls shall be inspected weekly AND after every half-inch of rainfall.
Note the limits on the open area allowed, see Env-Wq 1505.02 for detailed information.
Example note: The smallest practical area shall be disturbed during construction, but in no case shall exceed 5 acres at any one time before disturbed areas are stabilized.
Note the definition of the word "stable"
Example note: An area shall be considered stable if one of the following has occurred:
■ Base course gravels have been installed in areas to be paved.
A minimum of 85 percent vegetated growth has been established.
A minimum of 3 inches of non-erosive material such stone or riprap has been installed.
Or, erosion control blankets have been properly installed.
Note the limit of time an area may be exposed Example note: All areas shall be stabilized within 45 days of initial disturbance.
Provide temporary and permanent seeding specifications. (Reed canary grass is listed in the Green Book; however, this is a problematic species according to the Wetlands Bureau and therefore should not be specified)
Provide winter construction notes that meet or exceed our standards.
Standard Winter Notes:
All proposed vegetated areas that do not exhibit a minimum of 85 percent vegetative growth by October 15, or which are disturbed after October 15, shall be stabilized by seeding and installing erosion control blankets on slopes greater than 3:1, and seeding and placing 3 to 4 tons of mulch per acre, secured with anchored netting, elsewhere. The installation of erosion control blankets or mulch and netting shall not occur over accumulated snow or on frozen ground and shall be completed in advance of thaw or spring melt events.
All ditches or swales which do not exhibit a minimum of 85 percent vegetative growth by October 15, or which are disturbed after October 15, shall be stabilized temporarily with stone or erosion control blankets appropriate for the design flow conditions.
After October 15, incomplete road or parking surfaces, where work has stopped for the winter season, shall be protected with a minimum of 3 inches of crushed gravel per NHDOT item 304.3.
Note at the end of the construction sequence that "Lot disturbance, other than that shown on the approved plans, shall not commence until after the roadway has the base course to design elevation and the associated drainage is complete and stable." – This note is applicable to single/duplex family subdivisions, when lot development is not part of the permit.

DRAINAGE ANALYSES

NHDES-W-01-003
Please double-side 8 $\frac{1}{2}$ " × 11" sheets where possible but, do not reduce the text such that more than one page fits on one side.
PE stamp
Rainfall amount obtained from the Northeast Regional Climate Center- http://precip.eas.cornell.edu/ . Include extreme precipitation table as obtained from the above referenced website.
Drainage analyses, in the following order:
Pre-development analysis: Drainage diagram.
Pre-development analysis: Area Listing and Soil Listing.
Pre-development analysis: Node listing 1-year (if applicable), 2-year, 10-year and 50-year.
Pre-development analysis: Full summary of the 10-year storm.
Post-development analysis: Drainage diagram.
Post-development analysis: Area Listing and Soil Listing.
Post-development analysis: Node listing for the 2-year, 10-year and 50-year.
Post-development analysis: Full summary of the 10-year storm.
Review the Area Listing and Soil Listing reports
Hydrologic soil groups (HSG) match the HSGs on the soil maps provided.
There is the same or less HSG A soil area after development (check for each HSG).
There is the same or less "woods" cover in the post-development.
Undeveloped land was assumed to be in "good" condition.
The amount of impervious cover in the analyses is correct.
Note: A good check is to subtract the total impervious area used in the pre analysis from the total impervious area used in the post-analysis. For residential projects without demolition occurring, a good check is to take this change in impervious area, subtract out the roadway and divide the remaining by the number of houses/units proposed. Do these numbers make sense?
Check the storage input used to model the ponds.
Check to see if the artificial berms pass the 50-year storm, i.e., make sure the constructed berms on ponds are not overtopped.
Check the outlet structure proposed and make sure it matches that modeled.
Check to see if the total areas in the pre and post analyses are same.
Confirm the correct NRCS storm type was modeled (Coos, Carroll & Grafton counties are Type II, all others Type III).
PRE- AND POST-DEVELOPMENT DRAINAGE AREA PLANS
Plans printed on 34 - 36" by 22 - 24" on white paper.
Submit these plans separate from the soil plans.
A north arrow.
A scale.
Labeled subcatchments, reaches and ponds.
Tc lines.
A clear delineation of the subcatchment boundaries.
Roadway station numbers.
Culverts and other conveyance structures.

PRE AND POST-DEVELOPMENT COLOR-CODED SOIL PLANS

NHDES-W-01-003 11" × 17"sheets suitable, as long as it is readable.
Submit these plans separate from the drainage area plans.
A north arrow.
A scale.
Name of the soil scientist who performed the survey and date the soil survey took place.
2-foot contours (5-foot contours if application is for a gravel pit) as well as other surveyed features.
Delineation of the soil boundaries and wetland boundaries.
Delineation of the subcatchment boundaries.
Soil series symbols (e.g., 26).
A key or legend which identifies each soil series symbol and its associated soil series name (e.g., 26 = Windsor).
The hydrologic soil group color coding (A = Green, B = yellow, C= orange, D=red, Water=blue, & Impervious = gray).
Please note that excavation projects (e.g., gravel pits) have similar requirements to that above, however the following are common exceptions/additions:
☐ Drainage report is not needed if site does not have off-site flow.
5 foot contours allowed rather than 2 foot.
No PE stamp needed on the plans.
Add a note to the plans that the applicant must submit to the Department of Environmental Services a written update of the project and revised plans documenting the project status every five years from the date of the Alteration of Terrain permit.
Add reclamation notes.
See NRCS publication titled: <i>Vegetating New Hampshire Sand and Gravel Pits</i> for a good resource, it is posted online at: http://des.nh.gov/organization/divisions/water/aot/categories/publications .
ADDITIONAL INFORMATION RE: NUTRIENTS, CLIMATE
If project will discharge stormwater to a surface water impaired for phosphorus and/or nitrogen, include information to demonstrate that project will not cause net increase in phosphorus and/or nitrogen.
If project will discharge stormwater to a Class A surface water or Outstanding Resource Water, include information to demonstrate that project will not cause net increase in phosphorus and/or nitrogen.
If project will discharge stormwater to a lake or pond not covered previously, include information to demonstrate that project will not cause net increase in phosphorus in the lake or pond.
If project is within a Coastal/Great Bay Region community, include info required by Env-Wq 1503.08(I) if applicable.

NHDES ALTERATION OF TERRAIN PERMIT APPLICATION

Appendix B Abutters List June 2, 2021

Appendix B ABUTTERS LIST





Appendix B: Abutters List

D142 TRANSMISSION LINE STRUCTURE REPLACEMENT

Whitefield, Lancaster, and Northumberland, New Hampshire

Table 1. Abutters List: Parcels Intersecting AoT Project Area

120 11 21 11	[
Whitefield	Lancaster	Northumberland
Tax Map-Lot	Tax Map-Lot	Tax Map-Lot
Area A	Area B	Area D
216-25	R24-46	247-1
216-27	R24-47	247-2-1
216-28	R24-48	247-2-2
221-25	R24-62	247-2-3
221-26	R24-63	247-2-4
225-12	R24-64	251-18
225-13	Area C	251-27
225-6	R10-13	252-7
226-46	R10-14	Area E
226-49	R11-77	231-1
Area B	R11-79	234-17
201-1	R3-10	247-7
201-2	R5-1	Area F
204-10	R5-3	106-38
206-1	R5-5	223-1
206-2	R5-8	224-12
206-3	Area D	224-7
206-5	R3-10	226-3
213-17	R3-5	226-4
213-21	R3-6	226-6
214-10	R3-8	231-1
214-11.1		
214-5		
216-19		
216-21		

NHDES ALTERATION OF TERRAIN PERMIT APPLICATION

Appendix C NHDHR Response June 2, 2021

Appendix C NHDHR RESPONSE



Please mail the completed form and required material to:

New Hampshire Division of Historical Resources State Historic Preservation Office Attention: Review & Compliance 19 Pillsbury Street, Concord, NH 03301-3570 RECEIVED

DHR Use Only

R&C # 12532

Log In Date 3,15,21

Response Date 3,25,21

Sent Date 3,25,21

Request for Project Review by the New Hampshire Division of Historical Resources

◁	This	is	а	new	submittal

This is additional information relating to DHR Review & Compliance (R&C) #:

GENERAL PROJECT INFORMATION

Project Title D142 Line Rebuild Project (ESNH-2021-003)

Project Location Eversource Energy transmission line right-of-way

City/Town Whitefield to Northumberland

Tax Map

Lot#

NH State Plane - Feet Geographic Coordinates: Easting 292257 (See RPR Instructions and R&C FAQs for guidance.)

57 - Northing 4917247 999648 6*3*479*0*

Lead Federal Agency and Contact (if applicable) U.S. Army Corps of Engineers (Agency providing funds, licenses, or permits)

Permit Type and Permit or Job Reference # Dredge and Fill

State Agency and Contact (if applicable) New Hampshire Department of Enivronmental Services

Permit Type and Permit or Job Reference # Wetlands and AoT

APPLICANT INFORMATION

Applicant Name Eversource Energy c/o Jeremy Fennell

Mailing Address 13 Legends Drive

Phone Number 603-634-3396

City Hooksett

State NH

Zip 03106

Email jeremy.fennell@eversource.com

CONTACT PERSON TO RECEIVE RESPONSE

Name/Company Kara Moody / Stantec

Mailing Address 30 Park Drive

Phone Number 207-887-3819

City Topsham

State ME

Zip 04086

Email kara.moody@stantec.com

This form is updated periodically. Please download the current form at www.nh.gov/nhdhr/review. Please refer to the Request for Project Review Instructions for direction on completing this form. Submit one copy of this project review form for each project for which review is requested. Include a self-addressed stamped envelope to expedite review response. Project submissions will not be accepted via facsimile or e-mail. This form is required. Review request form must be complete for review to begin. Incomplete forms will be sent back to the applicant without comment. Please be aware that this form may only initiate consultation. For some projects, additional information will be needed to complete the Section 106 review. All items and supporting documentation submitted with a review request, including photographs and publications, will be retained by the DHR as part of its review records. Items to be kept confidential should be clearly identified. For questions regarding the DHR review process and the DHR's role in it, please visit our website at: www.nh.gov/nhdhr/review or contact the R&C Specialist at <a href="mailto:mai

PROJECTS CANNOT BE PROCESSED WITHOUT THIS INFORMATION
Project Boundaries and Description
Attach the Project Mapping using EMMIT or relevant portion of a 7.5' USGS Map. (See RPR Instructions and R&C FAQs for guidance.) Attach a detailed narrative description of the proposed project. Attach a site plan. The site plan should include the project boundaries and areas of proposed excavation. Attach photos of the project area (overview of project location and area adjacent to project location, and specific areas of proposed impacts and disturbances.) (Informative photo captions are requested.) A DHR records search must be conducted to identify properties within or adjacent to the project area. Provide records search results via EMMIT or in Table 1. (Blank table forms are available on the DHR website.) EMMIT or in-house records search conducted on 2/15/21.
<u>Architecture</u>
Are there any buildings, structures (bridges, walls, culverts, etc.) objects, districts or landscapes within the project area? Yes No If no, skip to Archaeology section. If yes, submit all of the following information:
Approximate age(s):
 Photographs of each resource or streetscape located within the project area, with captions, along with a mapped photo key. (Digital photographs are accepted. All photographs must be clear, crisp and focused.) If the project involves rehabilitation, demolition, additions, or alterations to existing buildings of structures, provide additional photographs showing detailed project work locations. (i.e. Detail photographs windows if window replacement is proposed.)
Archaeology
Does the proposed undertaking involve ground-disturbing activity? Xes No If yes, submit all of the following information:
Description of current and previous land use and disturbances. Available information concerning known or suspected archaeological resources within the project are (such as cellar holes, wells, foundations, dams, etc.)
Please note that for many projects an architectural and/or archaeological survey or other additional information may be needed to complete the Section 106 process.
DHR Comment/Finding Recommendation This Space for Division of Historical Resources Use Only
☐ Insufficient information to initiate review. ☐ Additional information is needed in order to complete review. ☐ No Potential to cause Effects ☐ No Historic Properties Affected ☐ No Adverse Effect ☐ Adverse Effect ☐ Comments: 5-76 27-60-0098 ** Se ** FLASSED ** F
If plans change or resources are discovered in the course of this project, you must contact the Division of Historical Resources as required by federal law and regulation. Authorized Signature: Date: 3/22/4
Authorized Signature: Machine, DS/80 Date: 3/22/21