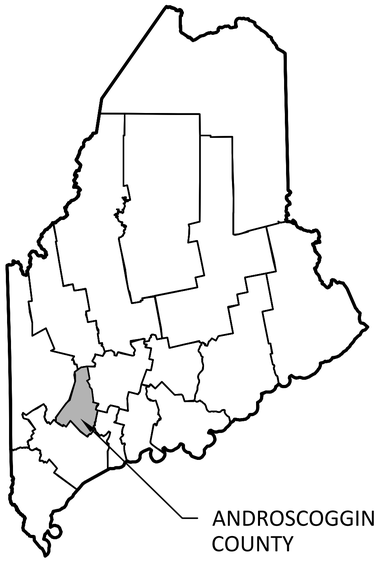
NOVEL WASHINGTON ST. SOLAR, LLC

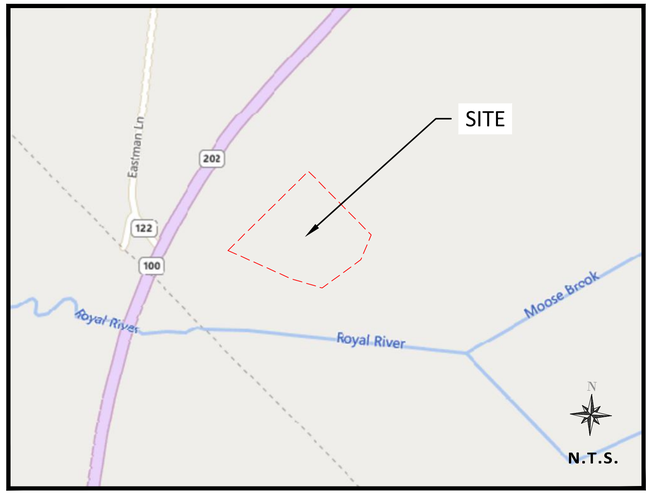
ANDROSCOGGIN COUNTY, ME

SOLAR PV PROJECT - 0.499 MW AC

CIVIL SUBMITTAL - ISSUED FOR PERMITTING (IFP)



COUNTY MAP



LOCATION MAP

SHEET INDEX

PROJECT CONTACT LIST

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Project
NOVEL WASHINGTON ST. SOLAR, LLC

Location
44.01678, -70.28275

Certification

I hereby certify that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly licensed professional ENGINEER under the laws of the state of Maine.

PRELIMINARY
NOT FOR CONSTRUCTION

SCOTT GEDDES, P.E.
Registration No. 16864 Date:

If applicable, contact us for a wet signed copy of this plan which is available upon request at Novel Energy Solutions - St. Paul, MN office.

Summary

Designed: FJ Drawn: FJ
Approved: SEG Book / Page: ###
Phase: PERMITTING Initial Issue: 04/06/2022

Revisions

No.	Date	By	Chk	Description

Sheet Title
COVERSHEET

811 DigSafe MA·ME·NH·RI·VT

Sheet No. Revision
C1.01 IFP

Project No. WST

GENERAL NOTES

1. THE DESIGN SHOWN IS BASED ON ENGINEER'S UNDERSTANDING OF EXISTING CONDITIONS. THE EXISTING CONDITIONS SHOWN ON THIS PLAN ARE BASED UPON ALTA AND TOPOGRAPHIC MAPPING PREPARED BY SACKET & BRAKE SURVEY, INC. PRIOR TO DESIGN. IF CONTRACTOR DOES NOT ACCEPT EXISTING TOPOGRAPHY AS SHOWN ON THE PLANS WITHOUT EXCEPTION, CONTRACTOR SHALL HAVE MADE, AT OWN EXPENSE, A TOPOGRAPHIC SURVEY BY A REGISTERED LAND SURVEYOR AND SUBMIT IT TO THE OWNER FOR REVIEW.

2. CONTRACTOR IS SPECIFICALLY CAUTIONED THAT LOCATIONS OF EXISTING UTILITIES SHOWN ON THIS PLAN HAVE BEEN DETERMINED FROM INFORMATION AVAILABLE. ENGINEER ASSUMES NO RESPONSIBILITY FOR THE UTILITY MAPPING ACCURACY. PRIOR TO START OF ANY DEMOLITION ACTIVITY, THE CONTRACTOR SHALL NOTIFY UTILITY COMPANIES 48 HOURS PRIOR TO ANY EXCAVATION FOR ON-SITE LOCATIONS OF EXISTING UTILITIES. DIGSAFE SHALL BE NOTIFIED A MINIMUM 72 HOURS PRIOR TO COMMENCING ANY EXCAVATION. FULL UTILITY COORDINATION WITH NON-MEMBER UTILITIES AND USE OF GROUND PENETRATING RADAR TO LOCATE UTILITIES SHOULD BE PERFORMES AS NECCESSARY.

3. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS.

4. CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING AND MAINTAINING VEHICULAR AND PEDESTRIAN TRAFFIC CONTROL DEVICES SUCH AS BARRICADES, WARNING SIGNS, DIRECTIONAL SIGNS, FLAGMEN AND LIGHTS TO CONTROL THE MOVEMENT OF TRAFFIC WHERE NECESSARY. TRAFFIC CONTROL DEVICES SHALL CONFORM TO APPROPRIATE MINNESOTA DEPARTMENT OF TRANSPORTATION STANDARDS.

5. IF REQUIRED, CONTRACTOR SHALL PREPARE AND SUBMIT TO THE GOVERNING AUTHORITY A TRAFFIC AND/OR PEDESTRIAN TRAFFIC PLAN PER STATE STANDARDS TO BE APPROVED BY THE LOCAL GOVERNING AUTHORITY.

6. EXISTING TREES AND OTHER NATURAL VEGETATION WITHIN THE PROJECT AND/OR ADJACENT TO THE PROJECT ARE OF PRIME CONCERN TO THE CONTRACTOR'S OPERATIONS AND SHALL BE A RESTRICTED AREA. CONTRACTOR SHALL PROTECT TREES TO REMAIN AT ALL TIMES. EQUIPMENT SHALL NOT NEEDLESSLY BE OPERATED UNDER NEARBY TREES AND EXTREME CAUTION SHALL BE EXERCISED WHEN WORKING ADJACENT TO TREES. SHOULD ANY PORTION OF THE TREE BRANCHES REQUIRE REMOVAL TO PERMIT OPERATION OF THE CONTRACTOR'S EQUIPMENT, CONTRACTOR SHALL OBTAIN THE SERVICES OF A PROFESSIONAL TREE TRIMMING SERVICE TO TRIM THE TREES PRIOR TO THE BEGINNING OF OPERATION. SHOULD CONTRACTOR'S OPERATIONS RESULT IN THE BREAKING OF ANY LIMBS, THE BROKEN LIMBS SHOULD BE REMOVED IMMEDIATELY AND CUTS SHALL BE PROPERLY PROTECTED TO MINIMIZE ANY LASTING DAMAGE TO THE TREE. NO TREES SHALL BE REMOVED WITHOUT AUTHORIZATION BY THE ENGINEER. COSTS FOR TRIMMING SERVICES SHALL BE CONSIDERED INCIDENTAL TO THE GRADING CONSTRUCTION AND NO SPECIAL PAYMENT WILL BE MADE.

   6.a. RESTRICTED AREAS SHALL INCLUDE ALL DESIGNATED TREED AREAS OUTSIDE OF THE DESIGNATED CONSTRUCTION ZONE. ALL VEGETATION WITHIN THE RESTRICTED AREAS SHALL REMAIN.

   6.b. CONTRACTOR SHALL RESTRICT ALL GRADING AND CONSTRUCTION ACTIVITIES TO AREAS DESIGNATED ON THE PLANS. ACTIVITIES WITHIN THE CONSTRUCTION MAY BE RESTRICTED TO A NARROWER WIDTH IN THE FIELD TO SAVE ADDITIONAL TREES AS DIRECTED BY THE OWNER.

   6.c. ACTIVITIES PROHIBITED OUTSIDE OF THE CONSTRUCTION BOUNDARIES WOULD INCLUDE, BUT NOT BE LIMITED TO: SOIL AND OTHER MATERIAL STOCKPILING, EQUIPMENT OR MACHINERY STORAGE, DRIVING OF ANY VEHICLE, LEAKAGE OR SPILLAGE OF ANY "WASHOUT" OR OTHER TOXIC MATERIAL. THE COLLECTION OF OTHER DEBRIS AND SOIL STOCKPILING WILL BE IN AN AREA DETERMINED ON-SITE BY THE ENGINEER.

   6.d. ALL RESTRICTED AREAS SHALL BE FENCED OFF WITH SILT FENCE AS NOTED ON THE PLANS.

   6.e. BEFORE COMMENCING WITH ANY EXCAVATION CONTRACTOR SHALL COMPLETE ALL PREPARATORY WORK REGARDING TREE REMOVAL, ROOT PRUNING, TREE PRUNING AND STUMP REMOVAL TO THE SATISFACTION OF THE OWNER.

   6.f. PREPARATORY WORK SHALL INCLUDE THE FOLLOWING AND SHALL BE COMPLETED UNDER THE DIRECT SUPERVISION OF THE OWNER'S REPRESENTATIVE:

      6.f.a. TREE REMOVAL: CONTRACTOR SHALL FELL THE TREES. AT NO TIME SHALL TREES BE BULLDOZED OUT, BUT SHALL BE CUT DOWN AND STUMPS REMOVED SEPARATELY. PRIOR TO THE FELLING OF ALL TREES, PROPER REMOVAL OF A PORTION OR ALL OF THE CANOPY SHALL BE COMPLETED SO THAT TREES IN THE RESTRICTED AREAS SHALL NOT BE INJURED IN THE PROCESS.

      6.f.b. ROOT PRUNING: BEFORE ANY STUMPS ARE TO BE REMOVED, ALL ROOTS SHALL BE SEVERED FROM ROOTS IN THE RESTRICTED AREAS BY SAW CUTTING WITH A VERMEER DESIGNED FOR ROOT PRUNING, BY HAND, OR WITH A CHAINSAW. TREE ROOTS PROJECTING INTO THE CONSTRUCTION ZONE SHALL BE EXPOSED PRIOR TO ROOT PRUNING WITH SMALL MACHINERY, I.E..., BOBCAT.

      6.f.c. STUMP REMOVAL: AT SUCH TIME THAT ROOTS HAVE BEEN PROPERLY SEVERED, STUMPS MAY BE REMOVED. WHERE REMOVAL OF CERTAIN STUMPS COULD CAUSE DAMAGE TO EXISTING PROTECTED TREES, TREE STUMPS SHALL BE GROUND OUT. ALL STUMP REMOVAL SHALL BE UNDER THE DIRECT SUPERVISION OF THE OWNER'S REPRESENTATIVE.

      6.f.d. TREE PRUNING: PROPER PRUNING OF TREES IN THE RESTRICTED ZONE SHALL BE DIRECTED BY AND SUPERVISION AT ALL TIMES BY THE OWNER'S REPRESENTATIVE.

   6.g. AN OWNER'S REPRESENTATIVE WILL BE AVAILABLE AT ALL TIMES DURING THE PREPARATORY AND CONSTRUCTION PERIOD.

   6.h. MULCH RATHER THAN SEED OR SOD WILL BE USED AT THE BASE OF QUALITY TREES TO A PERIMETER DETERMINED BY THE OWNER'S REPRESENTATIVE. AREAS TO BE SEEDED FOR EROSION CONTROL PURPOSES WITHIN THE CONSTRUCTION ZONE ARE TO BE DETERMINED BY THE OWNER'S REPRESENTATIVE. NATURAL GROUND COVER WILL BE MAINTAINED WHEREVER POSSIBLE.

SUBSURFACE UTILITY NOTES

THE SUBSURFACE UTILITY INFORMATION SHOWN ON THESE PLANS IS A UTILITY QUALITY LEVEL D. THIS QUALITY LEVEL WAS DETERMINED ACCORDING TO THE GUIDELINES OF ASCE/CI 38-02, TITLED "STANDARD GUIDELINES FOR THE COLLECTION AND DEPICTION OF EXISTING SUBSURFACE UTILITY DATA." THE CONTRACTOR AND/OR SUBCONTRACTORS SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK, BY CONTACTING THE UTILITY NOTIFICATION CENTER. THE CONTRACTOR AND/OR SUBCONTRACTOR AGREE TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES, WHICH MIGHT BE OCCASIONED BY HIS OR HER FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UTILITIES (UNDERGROUND AND OVERHEAD).

DEMOLITION NOTES

1. DEMOLITION NOTES ARE NOT COMPREHENSIVE. CONTRACTOR SHALL VISIT THE SITE PRIOR TO CONSTRUCTION TO OBTAIN A CLEAR UNDERSTANDING OF THE INTENDED SCOPE OF WORK.

2. THE CONTRACTOR IS RESPONSIBLE FOR DEMOLITION, REMOVAL, AND DISPOSING IN A LOCATION APPROVED BY ALL GOVERNING AUTHORITIES AND IN ACCORDANCE WITH APPLICABLE CODES, OF ALL STRUCTURES, PADS, WALLS, FLUMES, FOUNDATIONS, PARKING, DRIVES, DRAINAGE STRUCTURES, UTILITIES, ETC., SUCH THAT THE IMPROVEMENTS SHOWN ON THE PLANS CAN BE CONSTRUCTED. ALL FACILITIES TO BE REMOVED SHALL BE UNDERCUT TO SUITABLE MATERIAL AND BROUGHT TO GRADE WITH SUITABLE COMPACTED FILL MATERIAL PER THE GEOTECHNICAL REPORT AND/OR GEOTECHNICAL ENGINEER.

3. CLEARING AND GRUBBING: CONTRACTOR IS RESPONSIBLE FOR REMOVING ALL DEBRIS FROM THE SITE AND DISPOSING THE DEBRIS IN A LAWFUL MANNER. CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL PERMITS REQUIRED FOR DEMOLITION AND DISPOSAL.

4. CONTRACTOR IS RESPONSIBLE FOR THE DISCONNECTION OF UTILITY SERVICES TO EXISTING BUILDINGS PRIOR TO DEMOLITION OF THE BUILDINGS.

5. CONTRACTOR SHALL COORDINATE WITH RESPECTIVE UTILITY COMPANIES PRIOR TO REMOVAL AND/OR RELOCATION OF UTILITIES. CONTRACTOR SHALL COORDINATE WITH UTILITY COMPANIES CONCERNING PORTIONS OF WORK WHICH MAY BE PERFORMED BY THE UTILITY COMPANIES' FORCES AND ANY FEES WHICH ARE TO BE PAID TO UTILITY COMPANIES FOR SERVICES. CONTRACTOR IS RESPONSIBLE FOR PAYING ALL FEES AND CHARGES.

6. THE MAPPING LOCATION OF ALL EXISTING SEWERS, PIPING, AND UTILITIES SHOWN ARE NOT TO BE INTERPRETED AS THE EXACT LOCATION, OR AS THE ONLY OBSTACLES THAT MAY OCCUR ON THE SITE. VERIFY EXISTING CONDITIONS AND PROCEED WITH CAUTION AROUND ANY ANTICIPATED FEATURES. GIVE NOTICE TO ALL UTILITY COMPANIES REGARDING DESTRUCTION AND REMOVAL OF ALL SERVICE LINES AND CAP ALL LINES BEFORE PROCEEDING WITH WORK. UTILITIES DETERMINED TO BE ABANDONED SHALL BE REMOVED IF UNDER THE BUILDING INCLUDING 10' BEYOND FOUNDATIONS.

7. ELECTRICAL, TELEPHONE, CABLE, WATER, FIBER OPTIC CABLE AND/OR GAS LINES NEEDING TO BE REMOVED OR RELOCATED SHALL BE COORDINATED WITH THE AFFECTED UTILITY COMPANY. ADEQUATE TIME SHALL BE PROVIDED FOR RELOCATION AND CLOSE COORDINATION WITH THE UTILITY COMPANY IS NECESSARY TO PROVIDE A SMOOTH TRANSITION IN UTILITY SERVICE. CONTRACTOR SHALL PAY CLOSE ATTENTION TO EXISTING UTILITIES WITHIN THE ROAD RIGHT OF WAY DURING CONSTRUCTION.

8. CONTRACTOR MUST PROTECT THE PUBLIC AT ALL TIMES WITH FENCING, BARRICADES, ENCLOSURES, ETC., TO THE BEST PRACTICES.

9. CONTINUOUS ACCESS SHALL BE MAINTAINED FOR THE SURROUNDING PROPERTIES AT ALL TIMES DURING DEMOLITION OF THE EXISTING FACILITIES.

10. PRIOR TO DEMOLITION OCCURRING, ALL EROSION CONTROL DEVICES ARE TO BE INSTALLED AND APPROVED BY THE LOCAL AUTHORITY.

11. CONTRACTOR SHALL LIMIT SAW-CUT & PAVEMENT REMOVAL TO ONLY THOSE AREAS WHERE IT IS REQUIRED AS SHOWN ON THESE CONSTRUCTION PLANS BUT IF ANY DAMAGE IS INCURRED ON ANY OF THE SURROUNDING PAVEMENT, ETC. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ITS REMOVAL AND REPAIR.

12. CONTRACTOR TO PROTECT EXISTING FEATURES WHICH ARE TO REMAIN. DAMAGE TO ANY EXISTING CONDITIONS TO REMAIN WILL BE REPLACED AT CONTRACTOR'S EXPENSE.

LEGEND

EXISTING FEATURES

- PROPERTY LINE
- ROAD RIGHT OF WAY
- EDGE OF EXISTING ROAD
- STORM CULVERT
- DRAIN TILE
- UE — UNDERGROUND ELECTRIC
- OE — OVERHEAD ELECTRICAL
- POWER POLE
- MAJOR CONTOUR
- MINOR CONTOUR
- TREE LINE
- WL / WM — WETLAND
- SB — SOIL BORING

PROPOSED FEATURES

- TEMPORARY AGGREGATE ROAD
- AGGREGATE ROAD BASE, PER DETAIL 1/C9.01
- AGGREGATE BASE - LAYDOWN YARD
- PERIMETER SECURITY FENCE
- TEMPORARY FENCE
- SETBACK LINE
- LEASE BOUNDARY
- CMP CULVERT
- MAJOR CONTOUR
- MINOR CONTOUR
- PROPOSED POWER POLE & LINE
- RIP RAP

EROSION CONTROL FEATURES

- SF — SILT FENCE
- BIO LOG
- ROCK CONSTRUCTION ENTRANCE
- EROSION CONTROL BLANKET

REMOVALS

- TREE REMOVAL
- TREE REMOVAL
- FENCE POST REMOVAL
- FENCE REMOVAL
- LoD — PROP GRAD LIMITS

GRADING NOTES

1. PROPOSED CONTOURS ARE TO FINISHED SURFACE ELEVATION.

2. CONTRACTOR SHALL TAKE ALL PRECAUTIONS NECESSARY TO AVOID PROPERTY DAMAGE TO ADJACENT PROPERTIES DURING THE CONSTRUCTION PHASES OF THIS PROJECT. CONTRACTOR WILL BE HELD SOLELY RESPONSIBLE FOR ANY DAMAGES TO THE ADJACENT PROPERTIES OCCURRING DURING THE CONSTRUCTION PHASES OF THIS PROJECT.

3. SAFETY NOTICE TO CONTRACTORS: IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, CONTRACTOR WILL BE SOLELY AND COMPLETELY RESPONSIBLE FOR CONDITIONS ON THE JOB SITE, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY DURING PERFORMANCE OF THE WORK. THIS REQUIREMENT WILL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS. THE DUTY OF THE ENGINEER OR THE DEVELOPER TO CONDUCT CONSTRUCTION REVIEW OF THE CONTRACTOR'S PERFORMANCE IS NOT INTENDED TO INCLUDE REVIEW OF THE ADEQUACY OF THE CONTRACTOR'S SAFETY MEASURES IN, ON OR NEAR THE CONSTRUCTION SITE.

4. CONTRACTOR SHALL COMPLETE DEWATERING AS REQUIRED TO COMPLETE THE SITE GRADING CONSTRUCTION.

5. PRIOR TO PLACEMENT OF THE AGGREGATE BASE, A TEST ROLL SHALL BE PERFORMED ON THE STREET AND PARKING AREA SUBGRADE. CONTRACTOR SHALL PROVIDE A LOADED TANDEM AXLE TRUCK WITH A GROSS WEIGHT OF 25 TONS. THE TEST ROLLING SHALL BE AT THE DIRECTION OF THE SOILS ENGINEER AND SHALL BE COMPLETED IN AREAS AS DIRECTED BY THE SOILS ENGINEER. CORRECTION OF THE SUBGRADE SOILS SHALL BE COMPLETED IN ACCORDANCE WITH THE REQUIREMENTS OF THE SOILS ENGINEER.

6. REPLACE ALL SUBGRADE SOIL DISTURBED DURING THE CONSTRUCTION THAT HAVE BECOME UNSUITABLE AND WILL NOT PASS A TEST ROLL. REMOVE UNSUITABLE SOIL FROM THE SITE AND IMPORT SUITABLE SOIL AT NO ADDITIONAL COST TO THE OWNER.

7. EXCAVATE TOPSOIL FROM AREAS TO BE FURTHER EXCAVATED OR REGRADED AND STOCKPILE IN AREAS DESIGNATED ON THE SITE. CONTRACTOR SHALL SALVAGE ENOUGH TOPSOIL FOR RESPREADING ON THE SITE AS SPECIFIED. EXCESS TOPSOIL SHALL BE PLACED IN EMBANKMENT AREAS, OUTSIDE OF EQUIPMENT PADS, ROADWAYS AND THE ARRAY LAYOUTS.

8. TRENCH BORROW CONSTRUCTION: IF ALLOWED BY THE OWNER, CONTRACTOR SHALL COMPLETE "TRENCH BORROW" EXCAVATION IN AREAS DIRECTED BY THE ENGINEER IN ORDER TO OBTAIN STRUCTURAL MATERIAL. TREES SHALL NOT BE REMOVED OR DAMAGED AS A RESULT OF THE EXCAVATION, UNLESS APPROVED BY THE ENGINEER. THE EXCAVATION SHALL COMMENCE A MINIMUM OF 10 FEET FROM THE LIMIT OF THE BUILDING PAD. THE EXCAVATION FROM THIS LIMIT SHALL EXTEND AT A MINIMUM SLOPE OF 1 FOOT HORIZONTAL TO 1 FOOT VERTICAL (1:1) DOWNWARD AND OUTWARD FROM THE FINISHED SURFACE GRADE ELEVATION. THE TRENCH BORROW EXCAVATION SHALL BE BACKFILLED TO THE PROPOSED FINISHED GRADE ELEVATION, AND SHALL BE COMPACTED IN ACCORDANCE WITH REQUIREMENTS OF THE QUALITY COMPACTION METHOD AS OUTLINED IN MN/DOT SPECIFICATION 2105.3F2. SNOW FENCE SHALL BE FURNISHED AND PLACED ALONG THE PERIMETER OF THE TRENCH BORROW AREA WHERE THE SLOPES EXCEED 2 FOOT HORIZONTAL TO 1 FOOT VERTICAL (2:1).

9. FINISHED GRADING SHALL BE COMPLETED, CONTRACTOR SHALL UNIFORMLY GRADE AREAS WITHIN LIMITS OF GRADING, INCLUDING ADJACENT TRANSITION AREAS. PROVIDE A SMOOTH FINISHED SURFACE WITHIN SPECIFIED TOLERANCES, WITH UNIFORM LEVELS OR SLOPES BETWEEN POINTS WHERE ELEVATIONS ARE SHOWN, OR BETWEEN SUCH POINTS AND EXISTING GRADES. AREAS THAT HAVE BEEN FINISHED GRADED SHALL BE PROTECTED FROM SUBSEQUENT CONSTRUCTION OPERATIONS, TRAFFIC AND EROSION. REPAIR ALL AREAS THAT HAVE BECOME RUTTED, ERODED OR HAS SETTLED BELOW THE CORRECT GRADE. ALL AREAS DISTURBED BY THE CONTRACTOR'S OPERATIONS SHALL BE RESTORED TO EQUAL OR BETTER THAN ORIGINAL CONDITION OR TO THE REQUIREMENTS OF THE NEW WORK. CONTRACTOR MUST REGRADE/RECOMPACT ACCESS ROAD AS FINAL RESTORATION.

10. TOLERANCES
    10.a. THE EQUIPMENT PAD SUBGRADE FINISHED SURFACE ELEVATION SHALL NOT VARY BY MORE THAN 0.10 FOOT ABOVE, OR 0.10 FOOT BELOW, THE PRESCRIBED ELEVATION AT ANY POINT WHERE MEASUREMENT IS MADE.

11. CONTRACTOR SHALL USE THE PROPOSED ACCESS ROADS FOR HAULING OF MATERIALS REQUIRED TO COMPLETE THE SOLAR INSTALLATION. CONTRACTOR SHALL COMPLY WITH THE REQUIREMENTS OF THE GOVERNING AUTHORITY OF EACH PUBLIC ROADWAY. FOR OFFSITE MATERIAL TRANSPORT CONTRACTOR SHALL POST WHATEVER SECURITY, AND COMPLY WITH ALL CONDITIONS WHICH ARE REQUIRED BY EACH GOVERNING AUTHORITY OF EACH ROADWAY.

12. WETLAND AREAS DESIGNATED TO BE PROTECTED SHALL BE AVOIDED. ANY WETLAND AREAS DAMAGED BY SITE OPERATIONS SHALL BE RESTORED AS REQUIRED BY THE JURISDICTIONAL AGENCY.

ZONING REQUIREMENTS

1. APPROVALS

   A. MEDEP STORMWATER PERMIT BY RULE DATED XXXXXXX XX, 2021 (#XXXXX).
   B. MEDEP NOTICE OF INTENT APPROVAL DATED XXXXXXX XX, 2021 (#XXXXX).
   C. RANDOLPH SITE PLAN APPROVAL DATED XXXXXXXXXXXX.
   D. MAINE DOT ACCESS PERMIT#XXXXXXXX DATED XXXXX XX, 2021.
   E. MEDEP SECTION 401 PERMIT FOR XXX SF OF WETLAND IMPACT. PERMIT #_____ DATED _____.
   F. ARMY CORPS OF ENGINEERS (ACOE) MAINE GENERAL PERMIT #XXXXXXXXXXX DATED XXXXXXX XX, 2021. THE ACOE ISSUED A CLARIFICATION LETTER DATED XXXX XX, 2021.

2. ZONING DISTRICTS SUMMARY

   GENERAL ZONING DISTRICT: AGRICULTURE & RESOURCE PROTECTION
   OVERLAY ZONING DISTRICT: NONE

3. DIMENSIONAL STANDARDS

   RURAL FARM RESIDENTIAL DISTRICT

	REQUIRED	PROVIDED
FRONT YARD SETBACK	25	>300
SIDE YARD SETBACK	15	25
REAR YARD SETBACK	25	>600
STRUCTURE HEIGHT, MAX	XX	15

4. PROJECT SCHEDULE

   SPECIFICS OF HOW WORK IS TO BE COMPLETED SHALL ALSO BE BASED ON ENVIRONMENTAL CONSIDERATIONS ASSOCIATED WITH SEASONAL CHANGES. THE FOLLOWING DATES ARE PROVIDED TO ESTABLISH A GENERAL GUIDELINE FOR THESE SEASONS:

WINTER	NOVEMBER 1 TO MARCH 15
MUD SEASON	MARCH 20 TO APRIL 30
SPRING	MAY 1 TO JUNE 21
SUMMER	JUNE 22 TO SEPTEMBER 21
FALL	SEPTEMBER 22 TO OCTOBER 31

EARTHWORK NOTES

SITE PREPARATION

1. SITE CLEARING AND GRUBBING IS AS FOLLOWS:

   1.a. SUBCONTRACTOR SHALL CLEAR AND GRUB ALL AREAS OF PROJECT SITE WITHIN PERIMETER FENCING, REMOVING ALL VEGETATION HIGHER THAN 3" AND OTHER DELETERIOUS MATERIALS. SUBCONTRACTOR SHALL GRADE OUT MINOR TOPOGRAPHIC UNDULATIONS, MOUNDS, AND DEPRESSIONS, AS NECESSARY, TO PRODUCE A SMOOTH, SAFE WORKING SURFACE FOR PLANT CONSTRUCTION AND OPERATIONS.

   1.b. SUBCONTRACTOR SHALL CLEAR AND GRUB, STRIP AND REMOVE TOPSOIL, VEGETATION, AND OTHER DELETERIOUS ORGANIC MATERIAL FROM PROPOSED EQUIPMENT PADS, ROADWAYS, AND AREAS TO RECEIVE FILL. STOCKPILE TOPSOIL AND IMMEDIATELY STABILIZE UNTIL RE-SPREAD FOR USE TO RE-VEGETATE DISTURBED AREAS AFTER GRADING OPERATIONS ARE COMPLETE.

2. SUBGRADE PREPARATION FOR EQUIPMENT PADS, SPREAD FOOTINGS, AND ROADWAYS IS AS FOLLOWS:

   2.a. SCARIFY TO A MINIMUM DEPTH OF 12 INCHES.

   2.b. MOISTURE CONDITION SOILS TO BETWEEN 1% BELOW AND 3% ABOVE OPTIMUM MOISTURE CONTENT.

   2.c. COMPACT TO A MINIMUM OF 95% OF STANDARD PROCTOR MAXIMUM DENSITY. EXCAVATION SHALL EXTEND 5' BEYOND EXTENTS OF IMPROVEMENTS FOR PADS OR FOOTINGS.

   2.d. PROOF ROLL WITH FULLY LOADED DUMP TRUCK OR OTHER SIMILARLY WEIGHTED PNEUMATIC TIRED EQUIPMENT.

   2.e. UNSTABLE AREAS IDENTIFIED DURING PROOF ROLL SHOULD BE EXCAVATED A MINIMUM OF 12 INCHES AND RE-STABILIZED.

3. SUBGRADE PREPARATION FOR NON-STRUCTURAL FILL AREAS SHALL CONSIST OF COMPACTION TO 90% OF STANDARD PROCTOR MAXIMUM DENSITY.

FILL PLACEMENT

1. ENGINEERED FILL - SOILS CLASSIFIED AS GW, GP, GM, GC, SW, SP, SM, SC, ML, AND CL BY THE USCS ARE ACCEPTABLE FOR USE AS STRUCTURAL FILL. MOST ON-SITE SOILS ARE EXPECTED TO BE SUITABLE FOR USE AS ENGINEERED FILL IF THEY ARE FREE OF ORGANIC SOIL AND DEBRIS.

2. SELECT GRANULAR FILL - GRANULAR, WELL GRADED MATERIAL WITH NO ORGANICS, A MAXIMUM PARTICLE SIZE OF 2 INCHES, AND LESS THAN 12 PERCENT PASSING THE U.S. NO. 200 SEIVE.

3. IN THE EVENT CLAY FILL IS ENCOUNTERED, CLAY FILL SHALL BE MOISTENED TO BETWEEN 1 PERCENT BELOW AND 3 PERCENT ABOVE OPTIMUM MOISTURE CONTENT. SAND FILL SHALL BE MOISTENED TO BETWEEN 3 PERCENT BELOW AND 3 PERCENT ABOVE OPTIMUM MOISTURE CONTENT.

4. FILL SHALL BE PLACED IN LIFTS OF LESS THAN 8 INCHES LOOSE DEPTH AND COMPACTED TO AT LEAST 90% OF STANDARD PROCTOR MAXIMUM DENSITY PER ASTM D698.

5. TRENCH BACKFILL FOR PROPOSED CULVERT OR POND OUTLET SHALL BE COMPACTED TO AT LEAST 85 PERCENT OF STANDARD PROCTOR MAXIMUM DENSITY, EXCEPT IN STRUCTURAL AREAS WHICH SHALL BE COMPACTED TO 95 PERCENT.

EARTHWORK BALANCE

THE INTENTION OF THE GRADING DESIGN IS TO BALANCE THE EARTHWORK ON SITE WITHOUT THE NEED FOR IMPORT OR EXPORT. THE CONTRACTOR SHALL FIELD ADJUST CUT AND FILL AS NECESSARY TO CREATE A BALANCED SITE WITHOUT NEGATIVELY IMPACTING DRAINAGE PATTERNS OR INCREASING MAXIMUM SLOPES.

AGGREGATES

1. AGGREGATE BASE AND COARSE AGGREGATE SHALL BE MOISTENED TO WITHIN 2 PERCENT OF OPTIMUM MOISTURE CONTENT AND COMPACTED TO A MINIMUM OF 95% OF STANDARD PROCTOR MAXIMUM DENSITY. PROOF ROLL WITH FULLY LOADED DUMP TRUCK OR OTHER SIMILARLY WEIGHTED PNEUMATIC TIRED EQUIPMENT.

   AGGREGATE GRADATION - SHALL COMPLY WITH THE GRADATION REQUIREMENTS OF TABLE 3138-3, CLASS 5, OF SECTION 3126 "AGGREGATE", OF THE MINNESOTA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS.

   RIP RAP GRADATION - SHALL COMPLY WITH THE GRADATION REQUIREMENTS OF CLASS 1 RIP RAP, SECTION 3601 OF THE MINNESOTA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS.

GEOTEXTILE FABRIC

IF SITE CONDITIONS WARRANT USE OF A GEOTEXTILE FABRIC, CONTRACTOR SHALL USE TENSAR BX1100 OR EQUAL, PER GEOTECH REPORT.

EROSION CONTROL BLANKET

EROSION CONTROL BLANKET SHALL CONFORM TO MNDOT APPROVED/QUALIFIED PRODUCTS LIST, EROSION CONTROL BLANKETS, CATEGORY 3.

TESTING REQUIREMENT NOTES

DEFINITION

1. CONTRACTOR SHALL COMPLETE THE SITE GRADING CONSTRUCTION IN ACCORDANCE WITH THE REQUIREMENTS OF THE OWNER'S SOILS ENGINEER. ALL SOIL TESTING SHALL BE COMPLETED BY THE OWNER'S SOILS ENGINEER. CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING ALL REQUIRED SOIL TESTS AND INSPECTIONS WITH THE SOILS ENGINEER.

2. SUBGRAGE PROOFROLLING TEST SHALL BE CONSIDERED ACCEPTABLE IF RUTTING IS NO GREATER THAN 3", AND NO "PUMPING" OF THE SOIL BEHIND THE PROOF ROLL.

3. STANDARD PROCTOR DENSITY TESTS SHALL BE IN CONFORMANCE WITH ASTM D698.

4. SOIL DENSITY IN PLACE TESTING SHALL BE IN CONFORMANCE WITH ASTM D2922.

5. MOISTURE CONTENT TEST OF IN PLACE SOIL SHALL BE IN CONFORMANCE WITH ASTM D3017.

EXECUTION

1. COMPACTED SUBGRADE IN STRUCTURAL AREAS SHALL BE TESTED AS FOLLOWS:

   1.1. ONE TEST PER 200 LF OF ROAD.

   1.2. ONE TEST PER ELECTRICAL EQUIPMENT PAD

2. FILL MATERIAL SHALL BE TESTED AT A MINIMUM ONCE PER SOIL TYPE FOR GRAIN SIZE, SOIL CLASSIFICATION, PROCTOR TESTS, AND MOISTURE CONTENT. FILL PLACEMENT SHALL BE TESTED FOR DENSITY AT A MINIMUM OF ONE TEST PER 2,500 SF PER LIFT.

3. AGGREGATE BASE DENSITY SHALL BE TESTED BY PROOF ROLLING WITH A FULLY LOADED DUMP TRUCK (MINIMUM GROSS WEIGHT OF 25 TONS) OR OTHER SIMILARLY WEIGHTED PNEUMATIC TIRED EQUIPMENT. AGGREGATE PROOFROLLING TEST SHALL BE CONSIDERED ACCEPTABLE IF RUTTING IS NO GREATER THAN 3".

   3.1. AT THE COMPLETION OF CONSTRUCTION, RE-GRADE AGGREGATE ROAD SURFACES TO DESIGNED SURFACE PROFILE, ELIMINATING RUTS CAUSED BY CONSTRUCTION TRAFFIC.

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Project
NOVEL WASHINGTON ST. SOLAR, LLC

Location
44.01678, -70.28275

Certification

I hereby certify that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly licensed professional ENGINEER under the laws of the state of Maine.

PRELIMINARY NOT FOR CONSTRUCTION

SCOTT GEDDES, P.E.
Registration No. 16864 Date:

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Summary

Designed: FJ Drawn: FJ
Approved: SEG Book / Page:
Phase: PERMITTING Initial Issue: 04/06/2022

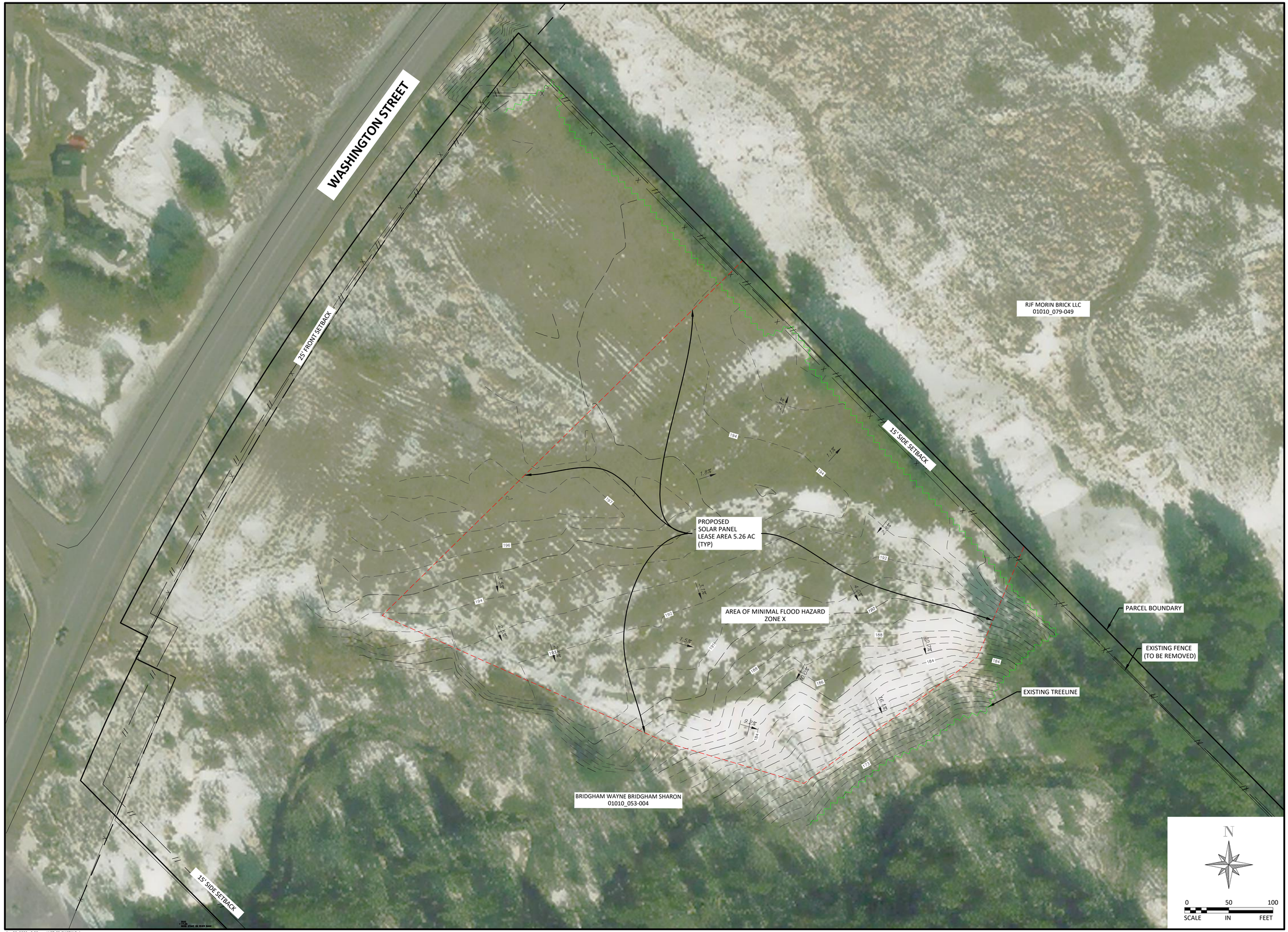
Revisions

No.	Date	By	Chk	Description

Sheet Title
NOTES

Sheet No. Revision
C1.02 IFP

Project No. WST



Apr 08, 2022 - 9:08pm - WST-C2-EXISTING.dwg

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Sheet Title
EXISTING CONDITIONS

Sheet No. Revision
C2.01 IFP

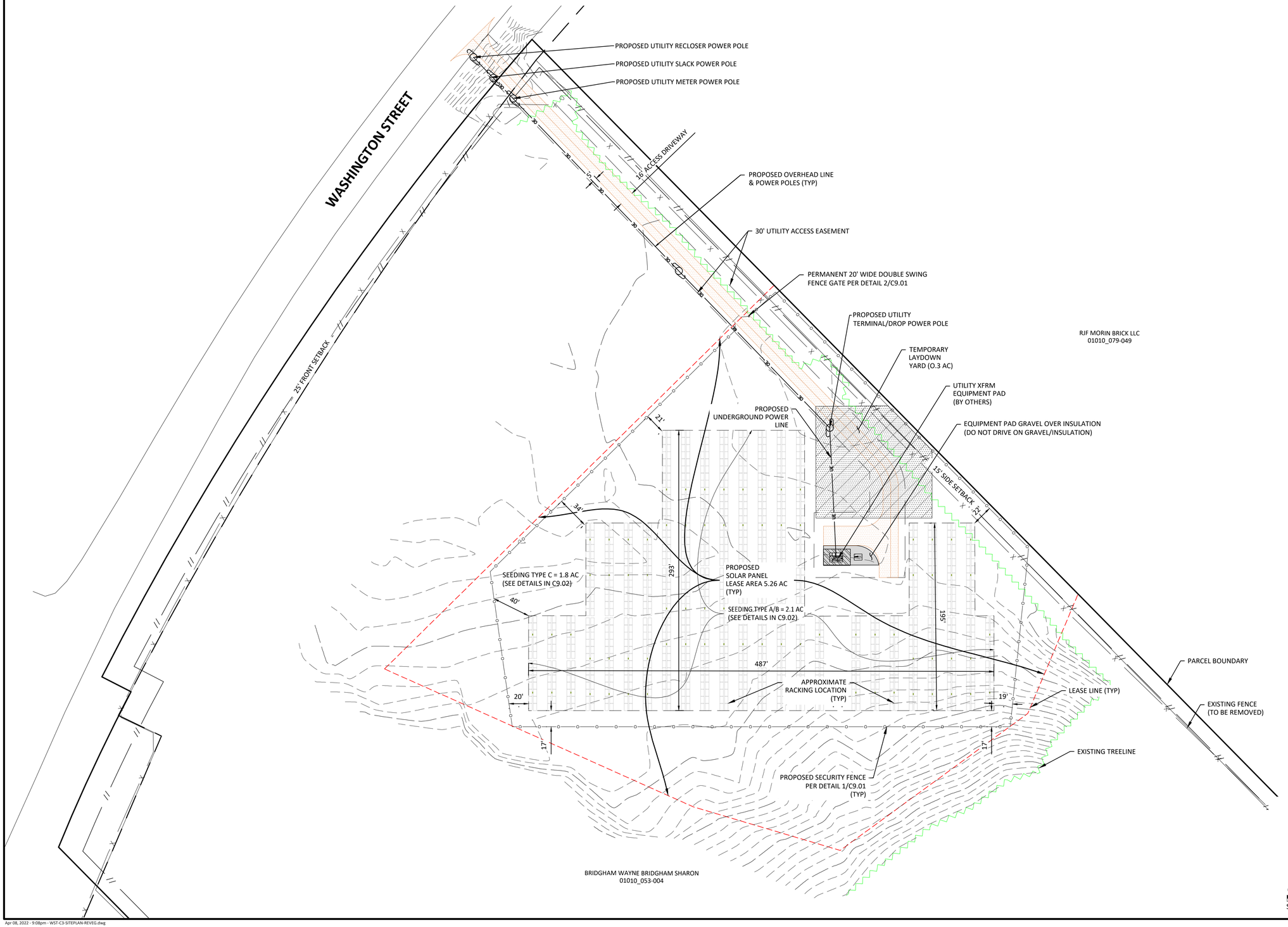
Project No.
WST

NOTES

1. REFER TO ELECTRICAL PLANS FOR ARRAY AND EQUIPMENT PAD LOCATIONS AND DETAILS.
2. SETBACKS WERE PROVIDED BY THE CLIENT.
3. REFER TO SHEET C1.02 FOR GRADING AND EARTHWORK NOTES.
4. ALTA/NSPS SURVEY INFORMATION WAS PROVIDED BY OTHERS.
5. TEMPORARY GRAVEL, FILL AND LAYDOWN YARD SHALL BE REMOVED AFTER SOLAR IS OPERATIONAL. DISTURBED AREAS SHALL BE RESTORED TO EXISTING CONDITIONS.

LAYDOWN YARD NOTES

1. STRIP TOPSOIL WHERE INDICATED IN LAYDOWN YARD.
2. INSTALL 4" AGGREGATE BASE, CLASS 5 IN LAYDOWN YARD.
3. GEOTEXTILE FABRIC IS NOT REQUIRED IN THE LAYDOWN YARD.



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Sheet Title
SITE PLAN

Sheet No. Revision
C3.01 IFP

Project No. WST

STORMWATER BASIN NOTES

1. IF CONSTRUCTION REQUIRES A BASIN TO BE CONSTRUCTED TO FINAL GRADE PRIOR TO FINAL STABILIZATION, THE CONTRACTOR SHALL EMPLOY RIGOROUS EROSION PREVENTION AND SEDIMENT CONTROLS TO KEEP SEDIMENT AND RUNOFF AWAY FROM THE BASIN.
2. IF THE SOLAR ARRAY IS LOCATED WITHIN THE BASIN AND REQUIRES CONSTRUCTION EQUIPMENT TO DRIVE WITHIN THE BASIN, THE CONTRACTOR SHALL BE REQUIRED TO CLEAN OUT ANY SEDIMENT AND RIP THE SOILS TO A MINUIMUM OF 12" DEEP TO LOOSEN THE COMPACTED SOIL AND RE-GRADE WITH EQUIPMENT SIMILAR TO A RUBBER TRACKED SKID LOADER PRIOR TO SEED AND MULCH.
3. MARK EDGE OF BASINS WITH IDENTIFYING FLAGS, STAKES, OR EQUIVALENT.

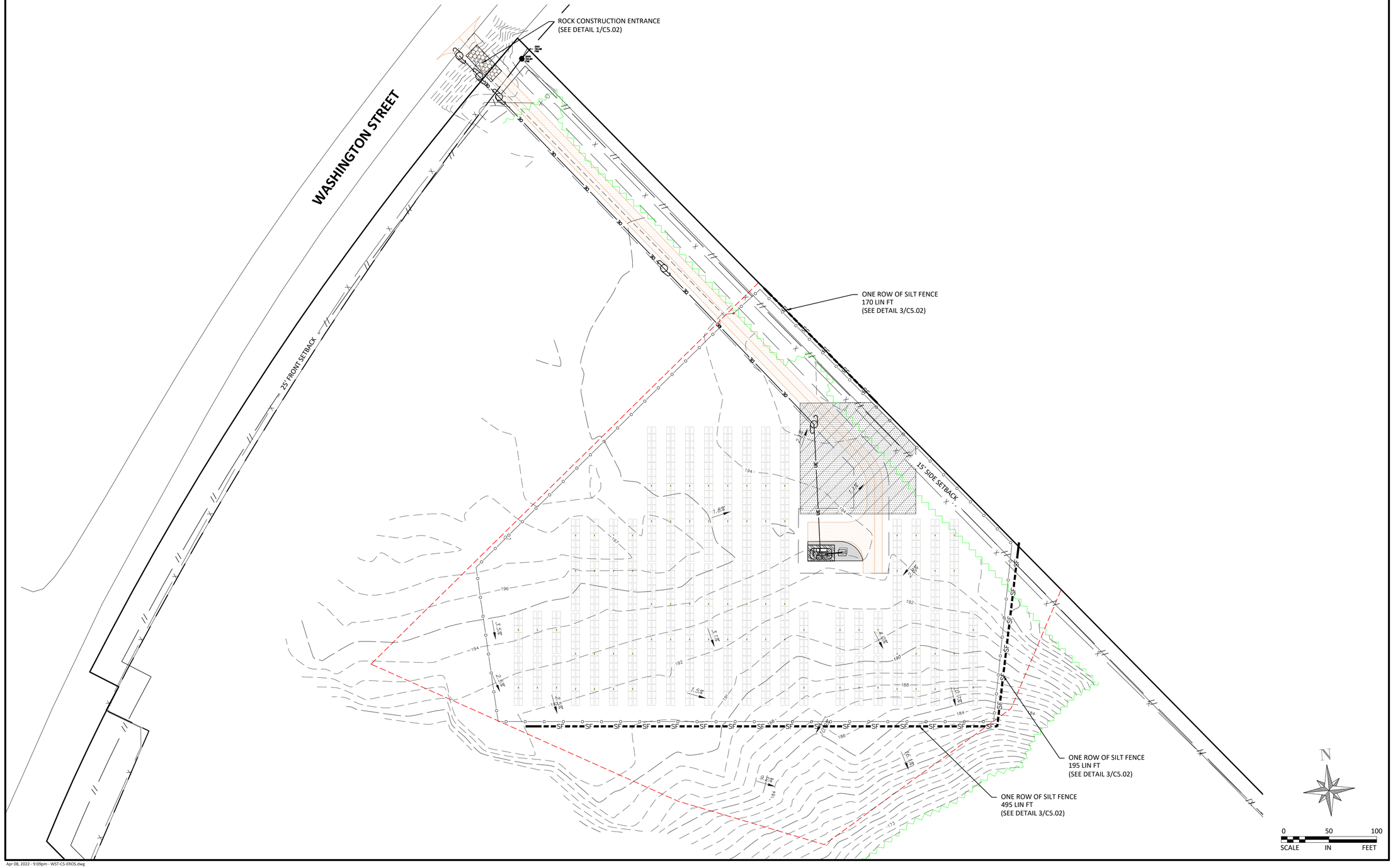
EROSION CONTROL QUANTITIES

ITEM	QUANTITY	UNIT
SILT FENCE OR BIO-ROLL	860	LF
BIO-ROLL	0	LF
CONSTRUCTION ENTRANCE	1	EA
EROSION CONTROL BLANKET*	0	SY

*EROSION CONTROL BLANKET CAN BE ADDED AT THE END OF CONSTRUCTION

NOTES

1. REFER TO SHEET C5.02 FOR EROSION CONTROL NOTES AND DETAILS.
2. REFER TO SWPPP AND SHEETS L1.01 & L1.02 FOR SEED AND STABILIZATION REQUIREMENTS.
3. DUST CONTROL MUST BE PROVIDED ON GRAVEL ROAD DURING CONSTRUCTION.



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Sheet Title
EROSION CONTROL PLAN

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SEQUENCE OF CONSTRUCTION

1. INSTALL STABILIZED CONSTRUCTION ENTRANCES.
2. CONSTRUCT THE SILT FENCES ON THE SITE.
3. INSTALL RIPRAP AROUND OUTLET STRUCTURES.
4. PREPARE SITE FOR CONSTRUCTION.
5. PILE DRIVING FOR SOLAR FEATURES, AND TRENCHING FOR UNDERGROUND UTILITIES WILL COMMENCE, AND CONCRETE PADS WILL BE POURED.
6. RACKING AND SOLAR MODULES WILL BE INSTALLED ON PILES.
7. COVER ACCESS ROAD WITH GRAVEL.
8. RESTABILIZE DISTURBED AREAS.
9. REMOVE ALL TEMPORARY EROSION AND SEDIMENT CONTROL DEVICES AFTER SITE HAS BEEN STABILIZED, IF REQUIRED BY CONTRACT.

EROSION CONTROL NOTES

1. CONSTRUCTION SHALL COMPLY WITH ALL APPLICABLE GOVERNING CODES AND BE CONSTRUCTED TO SAME. WHERE A CONFLICT EXISTS BETWEEN LOCAL JURISDICTIONAL STANDARD SPECIFICATIONS AND NES STANDARD SPECIFICATIONS, THE MORE STRINGENT SPECIFICATION SHALL APPLY.

2. THE STORMWATER POLLUTION PREVENTION PLAN (SWPPP) IS COMPRISED OF THIS DRAWING (EROSION & SEDIMENTATION CONTROL PLAN-ESC PLAN), THE STANDARD DETAILS, THE PLAN NARRATIVE, AND ITS APPENDICES, PLUS THE PERMIT AND ALL SUBSEQUENT REPORTS AND RELATED DOCUMENTS.

3. CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLETING & SUBMITTING THE APPLICATION FOR THE GENERAL STORMWATER PERMIT FOR CONSTRUCTION ACTIVITY. ALL CONTRACTORS AND SUBCONTRACTORS INVOLVED WITH STORM WATER POLLUTION PREVENTION SHALL OBTAIN A COPY OF THE SWPPP AND THE STATE OF MAINE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM GENERAL PERMIT (NPDES PERMIT) AND BECOME FAMILIAR WITH THE CONTENTS. THE SWPPP AND ALL OTHER RELATED DOCUMENTS MUST BE KEPT AT THE SITE DURING CONSTRUCTION.

4. CONTRACTOR SHALL IMPLEMENT BEST MANAGEMENT PRACTICES (BMP'S) AS REQUIRED BY THE SWPPP & PERMITS. CONTRACTOR SHALL OVERSEE THE INSPECTION & MAINTENANCE OF THE BMP'S AND EROSION PREVENTION FROM BEGINNING OF CONSTRUCTION AND UNTIL CONSTRUCTION IS COMPLETED, IS APPROVED BY ALL AUTHORITIES, AND THE NOTICE OF TERMINATION (NOT) HAS BEEN FILED WITH THE MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION BY EITHER THE OWNER OR OPERATOR AS APPROVED ON PERMIT. ADDITIONAL BMP'S SHALL BE IMPLEMENTED AS DICTATED BY CONDITIONS AT NO ADDITIONAL COST TO OWNER THROUGHOUT ALL PHASES OF CONSTRUCTION.

5. BMP'S AND CONTROLS SHALL CONFORM TO FEDERAL, STATE, OR LOCAL REQUIREMENTS OR MANUAL OF PRACTICE, AS APPLICABLE. CONTRACTOR SHALL IMPLEMENT ADDITIONAL CONTROLS AS DIRECTED BY PERMITTING AGENCY OR OWNER.

6. CONTRACTOR SHALL MINIMIZE CLEARING TO THE MAXIMUM EXTENT PRACTICAL OR AS REQUIRED BY THE GENERAL PERMIT. THE BOUNDARIES OF THE CLEARING LIMITS SHOWN ON THESE PLANS SHALL BE CLEARLY DELINEATED (E.G. WITH FLAGS, STAKES, SIGNS, SILT FENCE, ETC.) ON THE DEVELOPMENT SITE BEFORE WORK BEGINS. GROUND DISTURBING ACTIVITIES MUST NOT OCCUR OUTSIDE THE LIMITS OF DISTURBANCE.

7. GENERAL CONTRACTOR SHALL DENOTE ON PLAN THE TEMPORARY PARKING AND STORAGE AREA WHICH SHALL ALSO BE USED AS THE EQUIPMENT MAINTENANCE AND CLEANING AREA, EMPLOYEE PARKING AREA, AND AREA FOR LOCATING PORTABLE FACILITIES, OFFICE TRAILERS, AND TOILET FACILITIES.

8. ALL WASH WATER (CONCRETE TRUCKS, VEHICLE CLEANING, EQUIPMENT CLEANING, ETC.) MUST BE LIMITED TO A DEFINED AREA OF THE SITE AND SHALL BE CONTAINED AND PROPERLY TREATED OR DISPOSED. NO ENGINE DEGREASING IS ALLOWED ON SITE.

9. ALL LIQUID AND SOLID WASTES GENERATED BY CONCRETE WASHOUT OPERATIONS MUST BE CONTAINED IN A LEAK-PROOF CONTAINMENT FACILITY OR IMPERMEABLE LINER. A COMPACTED CLAY LINER IS NOT ACCEPTABLE. THE LIQUID AND SOLID WASTES MUST NOT CONTACT THE GROUND, AND THERE MUST NOT BE RUNOFF FROM THE CONCRETE WASHOUT OPERATIONS OR AREAS. LIQUID AND SOLID WASTES MUST BE DISPOSED OF PROPERLY AND IN COMPLIANCE WITH STATE REGULATIONS. A SIGN MUST BE INSTALLED ADJACENT TO EACH WASHOUT FACILITY TO INFORM CONCRETE EQUIPMENT OPERATORS TO UTILIZE THE PROPER FACILITIES. SELF-CONTAINED CONCRETE WASHOUTS ON CONCRETE DELIVERY TRUCKS ARE ALLOWED.

10. SUFFICIENT OIL AND GREASE ABSORBING MATERIALS AND FLOTATION BOOMS SHALL BE MAINTAINED ON SITE OR READILY AVAILABLE TO CONTAIN AND CLEAN-UP FUEL OR CHEMICAL SPILLS AND LEAKS.

11. DUST ON THE SITE SHALL BE CONTROLLED. THE USE OF MOTOR OILS AND OTHER PETROLEUM BASED OR TOXIC LIQUIDS FOR DUST SUPPRESSION OPERATIONS IS PROHIBITED.

12. SOLID WASTE: COLLECTED SEDIMENT, ASPHALT & CONCRETE MILLINGS, FLOATING DEBRIS, PAPER, PLASTIC, FABRIC, CONSTRUCTION & DEMOLITION DEBRIS & OTHER WASTES MUST BE DISPOSED OF PROPERLY & MUST COMPLY WITH STATE DISPOSAL REQUIREMENTS.

13. HAZARDOUS MATERIALS: OIL, GASOLINE, PAINT & ANY HAZARDOUS SUBSTANCES MUST BE PROPERLY STORED, INCLUDING SECONDARY CONTAINMENT, TO PREVENT SPILLS, LEAKS OR OTHER DISCHARGE. RESTRICTED ACCESS TO STORAGE AREAS MUST BE PROVIDED TO PREVENT VANDALISM. STORAGE & DISPOSAL OF HAZARDOUS WASTE MUST BE IN COMPLIANCE WITH STATE REGULATIONS.

14. ALL STORM WATER POLLUTION PREVENTION MEASURES PRESENTED ON THIS PLAN, AND IN THE SWPPP, SHALL BE INITIATED AS SOON AS PRACTICABLE AND PRIOR TO SOIL DISTURBING ACTIVITIES UP-SLOPE.

15. DISTURBED PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITY HAS STOPPED SHALL BE TEMPORARILY SEEDED, WITHIN 14 DAYS OF INACTIVITY. SEEDING MIXES, METHOD AND APPLICATION RATE SHALL CONFORM TO SPECIFICATION CONTAINED WITHIN THIS PLAN. TEMPORARY MULCH SHALL BE APPLIED. ALTERNATIVELY, HYDRAULIC SOIL STABILIZER MAY BE USED IN PLACE OF TEMPORARY MULCH.

16. DISTURBED PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITY HAS PERMANENTLY STOPPED SHALL BE PERMANENTLY STABILIZED. THESE AREAS SHALL BE STABILIZED IN ACCORDANCE WITH THE TIME TABLE DESCRIBED ABOVE. REFER TO THE GRADING PLAN AND/OR LANDSCAPE PLAN FOR VEGETATIVE COVER.

17. CONTRACTORS OR SUBCONTRACTORS WILL BE RESPONSIBLE FOR REMOVING SEDIMENT FROM CONVEYANCES & FROM TEMPORARY SEDIMENTATION BASINS THAT ARE TO BE USED AS PERMANENT WATER QUALITY MANAGEMENT BASINS. SEDIMENT MUST BE STABILIZED TO PREVENT IT FROM BEING WASHED BACK INTO THE BASIN, CONVEYANCES, OR DRAINAGE-WAYS DISCHARGING OFF-SITE OR TO SURFACE WATERS. THE CLEAN-OUT OF PERMANENT BASINS MUST BE SUFFICIENT TO RETURN THE BASIN TO DESIGN CAPACITY.

18. ON-SITE & OFF-SITE SOIL STOCKPILE AND BORROW AREAS SHALL BE PROTECTED FROM EROSION AND SEDIMENTATION THROUGH IMPLEMENTATION OF BMP'S. STOCKPILE AND BORROW AREA LOCATIONS SHALL BE NOTED ON THE SITE MAP AND PERMITTED IN ACCORDANCE WITH GENERAL PERMIT REQUIREMENTS.

19. TEMPORARY SOIL STOCKPILES MUST HAVE SILT FENCE OR OTHER EFFECTIVE SEDIMENT CONTROLS & CANNOT BE PLACED IN SURFACE WATERS, INCLUDING STORMWATER CONVEYANCES SUCH AS CURB & GUTTER SYSTEMS OR CONDUITS & DITCHES.

20. SLOPES SHALL BE LEFT IN A ROUGHENED CONDITION DURING THE GRADING PHASE TO REDUCE RUNOFF VELOCITIES AND EROSION.

21. DUE TO THE GRADE CHANGES DURING THE DEVELOPMENT OF THE PROJECT, CONTRACTOR SHALL BE RESPONSIBLE FOR ADJUSTING THE EROSION CONTROL MEASURES (SILT FENCES, CHECK DAMS, INLET PROTECTION DEVICES, ETC.) TO PREVENT EROSION.

22. ALL CONSTRUCTION SHALL BE STABILIZED AT THE END OF EACH WORKING DAY, THIS INCLUDES BACKFILLING OF TRENCHES FOR UTILITY CONSTRUCTION AND PLACEMENT OF GRAVEL OR BITUMINOUS PAVING FOR ROAD CONSTRUCTION.

MAINTENANCE NOTES

ALL MEASURES STATED ON THIS EROSION AND SEDIMENT CONTROL PLAN, AND IN THE STORM WATER POLLUTION PREVENTION PLAN SHALL BE MAINTAINED IN FULLY FUNCTIONAL CONDITION UNTIL NO LONGER REQUIRED FOR A COMPLETED PHASE OF WORK OR FINAL STABILIZATION OF THE SITE. THE DESIGNATED CONTACT PERSON NOTED ON THIS PLAN MUST ROUTINELY INSPECT THE CONSTRUCTION ON SITE ONCE EVERY SEVEN DAYS DURING ACTIVE CONSTRUCTION AND WITHIN 24 HOURS AFTER A RAINFALL EVENT GREATER THAN 0.5 INCHES IN 24 HOURS. ALL EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE CLEANED AND REPAIRED IN ACCORDANCE WITH THE FOLLOWING:

1. ALL SILT FENCES MUST BE REPAIRED, REPLACED, OR SUPPLEMENTED WHEN THEY BECOME NONFUNCTIONAL OR THE SEDIMENT REACHES 1/3 OF THE HEIGHT OF THE FENCE. THESE REPAIRS MUST BE MADE WITHIN 24 HOURS OF DISCOVERY, OR AS SOON AS FIELD CONDITIONS ALLOW ACCESS.

2. TEMPORARY AND PERMANENT SEDIMENTATION BASINS MUST BE DRAINED AND THE SEDIMENT REMOVED WHEN THE DEPTH OF SEDIMENT COLLECTED IN THE BASIN REACHES 1/2 THE STORAGE VOLUME. DRAINAGE AND REMOVAL MUST BE COMPLETED WITHIN 72 HOURS OF DISCOVERY, OR AS SOON AS FIELD CONDITIONS ALLOW ACCESS (SEE PART IV.D. OF THE GENERAL PERMIT).

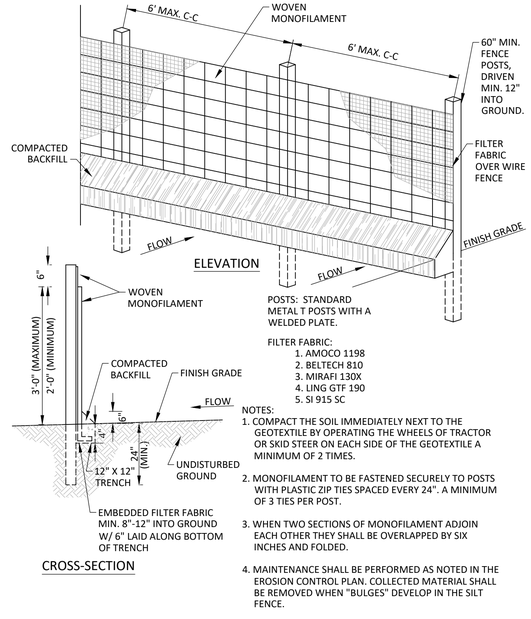
3. SURFACE WATERS, INCLUDING DRAINAGE DITCHES AND CONVEYANCE SYSTEMS, MUST BE INSPECTED FOR EVIDENCE OF SEDIMENT BEING DEPOSITED BY EROSION. CONTRACTOR MUST REMOVE ALL DELTAS AND SEDIMENT DEPOSITED IN SURFACE WATERS, INCLUDING DRAINAGE WAYS, CATCH BASINS, AND OTHER DRAINAGE SYSTEMS, AND RESTABILIZE THE AREAS WHERE SEDIMENT REMOVAL RESULTS IN EXPOSED SOIL. THE REMOVAL AND STABILIZATION MUST TAKE PLACE WITHIN SEVEN (7) DAYS OF DISCOVERY UNLESS PRECLUDED BY LEGAL, REGULATORY, OR PHYSICAL ACCESS CONSTRAINTS. CONTRACTOR SHALL USE ALL REASONABLE EFFORTS TO OBTAIN ACCESS. IF PRECLUDED, REMOVAL AND STABILIZATION MUST TAKE PLACE WITHIN SEVEN (7) CALENDAR DAYS OF OBTAINING ACCESS. CONTRACTOR IS RESPONSIBLE FOR CONTACTING ALL LOCAL, REGIONAL, STATE AND FEDERAL AUTHORITIES AND RECEIVING ANY APPLICABLE PERMITS, PRIOR TO CONDUCTING ANY WORK.

4. CONSTRUCTION SITE VEHICLE EXIT LOCATIONS MUST BE INSPECTED FOR EVIDENCE OF OFF-SITE SEDIMENT TRACKING ONTO PAVED SURFACES. TRACKED SEDIMENT MUST BE REMOVED FROM ALL OFF-SITE PAVED SURFACES, WITHIN 24 HOURS OF DISCOVERY, OR IF APPLICABLE, WITHIN A SHORTER TIME TO COMPLY WITH PART IV.C.6 OF THE GENERAL PERMIT.

5. CONTRACTOR IS RESPONSIBLE FOR THE OPERATION AND MAINTENANCE OF TEMPORARY AND PERMANENT WATER QUALITY MANAGEMENT BMPS, AS WELL AS ALL EROSION PREVENTION AND SEDIMENT CONTROL BMPS, FOR THE DURATION OF THE CONSTRUCTION WORK AT THE SITE. THE PERMITTEE(S) ARE RESPONSIBLE UNTIL ANOTHER PERMITTEE HAS ASSUMED CONTROL (ACCORDING TO PART II.B.5 OF THE MPCA GENERAL PERMIT) OVER ALL AREAS OF THE SITE THAT HAVE NOT BEEN FINALLY STABILIZED OR THE SITE HAS UNDERGONE FINAL STABILIZATION, AND A (N.O.T.) HAS BEEN SUBMITTED TO THE MPCA.

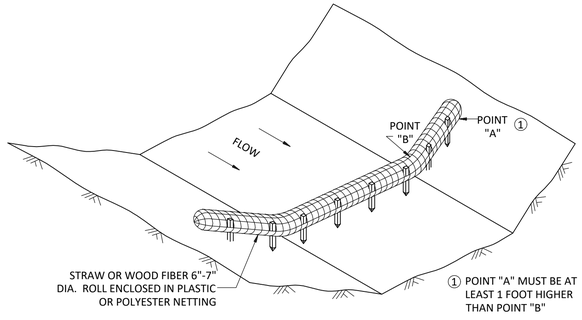
6. IF SEDIMENT ESCAPES THE CONSTRUCTION SITE, OFF-SITE ACCUMULATIONS OF SEDIMENT MUST BE REMOVED IN A MANNER AND AT A FREQUENCY SUFFICIENT TO MINIMIZE OFF-SITE IMPACTS (E.G., FUGITIVE SEDIMENT IN STREETS COULD BE WASHED INTO STORM SEWERS BY THE NEXT RAIN AND/OR POSE A SAFETY HAZARD TO USERS OF PUBLIC STREETS).

7. ALL INFILTRATION AREAS MUST BE INSPECTED TO ENSURE THAT NO SEDIMENT FROM ONGOING CONSTRUCTION ACTIVITIES IS REACHING THE INFILTRATION AREA AND THESE AREAS ARE PROTECTED FROM COMPACTION DUE TO CONSTRUCTION EQUIPMENT DRIVING ACROSS THE INFILTRATION AREA.

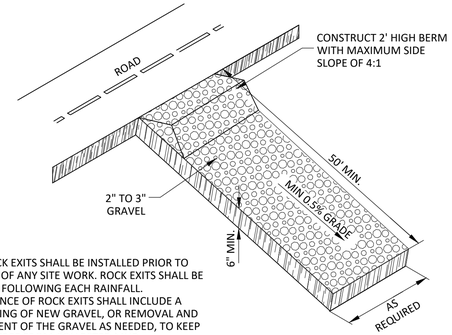


NOTES:
1. COMPACT THE SOIL IMMEDIATELY NEXT TO THE GEOTEXTILE BY OPERATING THE WHEELS OF TRACTOR OR SKID STEER ON EACH SIDE OF THE GEOTEXTILE A MINIMUM OF 2 TIMES.
2. MONOFILAMENT TO BE FASTENED SECURELY TO POSTS WITH PLASTIC ZIP TIES SPACED EVERY 24". A MINIMUM OF 3 TIES PER POST.
3. WHEN TWO SECTIONS OF MONOFILAMENT ADJOIN EACH OTHER THEY SHALL BE OVERLAPPED BY SIX INCHES AND FOLDED.
4. MAINTENANCE SHALL BE PERFORMED AS NOTED IN THE EROSION CONTROL PLAN. COLLECTED MATERIAL SHALL BE REMOVED WHEN "BULGES" DEVELOP IN THE SILT FENCE.

3 MACHINE SLICED SILT FENCE
N.T.S.

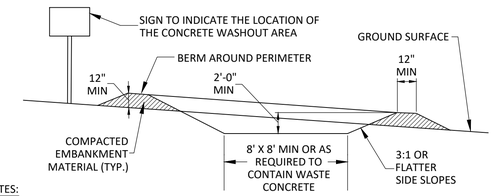


4 BIO ROLL
N.T.S.



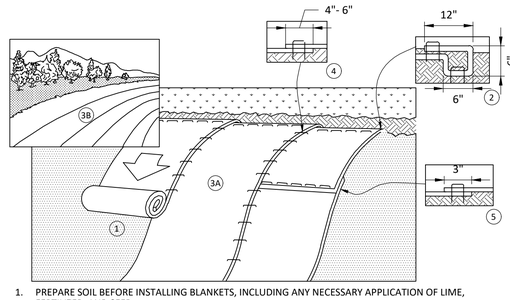
NOTE: ROCK EXITS SHALL BE INSTALLED PRIOR TO THE START OF ANY SITE WORK. ROCK EXITS SHALL BE INSPECTED FOLLOWING EACH RAINFALL. MAINTENANCE OF ROCK EXITS SHALL INCLUDE A TOP DRESSING OF NEW GRAVEL, OR REMOVAL AND REPLACEMENT OF THE GRAVEL AS NEEDED, TO KEEP THE EXITS FREE FROM COLLECTED MUD.

1 ROCK CONSTRUCTION ENTRANCE
N.T.S.



NOTES:
1. CONCRETE WASHOUT AREA SHALL BE INSTALLED PRIOR TO ANY CONCRETE PLACEMENT ON SITE.
2. CONCRETE WASHOUT AREA SHALL BE LINED WITH MINIMUM 10 MIL THICK PLASTIC LINER.
3. VEHICLE TRACKING CONTROL IS REQUIRED IF ACCESS TO CONCRETE WASHOUT AREA IS OFF PAVEMENT.
4. SIGNS SHALL BE PLACED AT THE CONSTRUCTION ENTRANCE, AT THE WASHOUT AREA, AND ELSEWHERE AS NECESSARY TO CLEARLY INDICATE THE LOCATION OF THE CONCRETE WASHOUT AREA TO OPERATORS OF CONCRETE TRUCKS AND PUMP RIGS.
5. THE CONCRETE WASHOUT AREA SHALL BE REPAIRED AND ENLARGED OR CLEANED OUT AS NECESSARY TO MAINTAIN CAPACITY FOR WASTED CONCRETE.
6. AT THE END OF CONSTRUCTION, ALL CONCRETE SHALL BE REMOVED FROM THE SITE AND DISPOSED OF AT AN ACCEPTED WASTE SITE.
7. WHEN THE CONCRETE WASHOUT AREA IS REMOVED, THE DISTURBED AREA SHALL BE SEEDED AND MULCHED OR OTHERWISE STABILIZED IN A MANNER ACCEPTED BY THE CITY.

2 CONCRETE WASHOUT AREA
N.T.S.



1. PREPARE SOIL BEFORE INSTALLING BLANKETS, INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILIZER, AND SEED.
2. BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE BLANKET IN A 6" DEEP X 6" WIDE TRENCH WITH APPROXIMATELY 12" OF BLANKET EXTENDED BEYOND THE UP-SLOPE PORTION OF THE TRENCH. ANCHOR THE BLANKET WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" APART IN THE BOTTOM OF THE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING. APPLY SEED TO COMPACTED SOIL AND FOLD REMAINING 12" PORTION OF BLANKET BACK OVER SEED AND COMPACTED SOIL. SECURE BLANKET OVER COMPACTED SOIL WITH A ROW OF STAPLES/STAKES SPACED APPROXIMATELY 12" APART ACROSS THE WIDTH OF THE BLANKET.
3. ROLL THE BLANKETS (A.) DOWN OR (B.) HORIZONTALLY ACROSS THE SLOPE. BLANKETS WILL UNROLL WITH APPROPRIATE SIDE AGAINST THE SOIL SURFACE. ALL BLANKETS MUST BE SECURELY FASTENED TO SOIL SURFACE BY PLACING STAPLES/STAKES IN APPROPRIATE LOCATIONS AS PER MANUFACTURES RECOMMENDATION.
4. THE EDGES OF PARALLEL BLANKETS MUST BE STAPLED WITH APPROXIMATELY 4"-6" OVERLAP DEPENDING ON BLANKET TYPE. TO ENSURE PROPER SEAM ALIGNMENT, PLACE THE EDGE OF THE OVERLAPPING BLANKET (BLANKET BEING INSTALLED ON TOP) EVEN WITH THE SEAM STITCH ON THE PREVIOUSLY INSTALLED BLANKET.
5. CONSECUTIVE BLANKETS SPLICED DOWN THE SLOPE MUST BE PLACED END OVER END (SHINGLE STYLE) WITH AN APPROXIMATE 3"OVERLAP. STAPLE THROUGH OVERLAPPED AREA, APPROXIMATELY 12"APART ACROSS ENTIRE BLANKET WIDTH.
6. PLACE STAPLES/STAKES PER MANUFACTURE RECOMMENDATION FOR THE APPROPRIATE SLOPE BEING APPLIED.

NOTES:
1. IN LOOSE SOIL CONDITIONS, THE USE OF STAPLE OR STAKE LENGTHS GREATER THAN 6" MAY BE NECESSARY TO PROPERLY SECURE THE BLANKETS.
2. FOLLOW EROSION CONTROL TECHNOLOGY COUNCIL SPECIFICATION FOR PRODUCT SELECTION

5 EROSION CONTROL BLANKET
N.T.S.

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AUBURN, ME 04210

Project
NOVEL WASHINGTON ST. SOLAR, LLC

Location
44.01678, -70.28275

Certification
I hereby certify that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly licensed professional engineer in the State of Maine.
PRELIMINARY NOT FOR CONSTRUCTION
SCOTT GEDDES, P.E.
Registration No. 16864 Date: ##
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Summary
Designed: FJ Drawn: FJ
Approved: SEG Book / Page: ###
Phase: PERMITTING Initial Issue: 04/06/2022

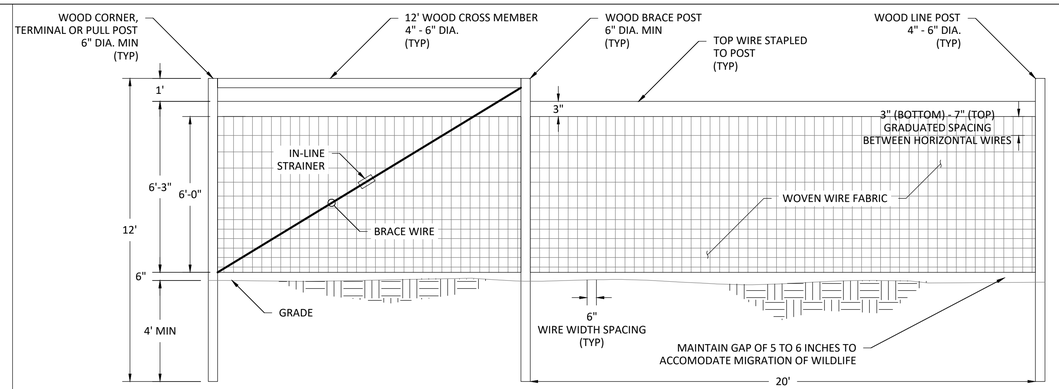
Revisions

No.	Date	By	Chk	Description

Sheet Title
EROSION CONTROL NOTES & DETAILS

Sheet No. Revision
C5.02 IFP

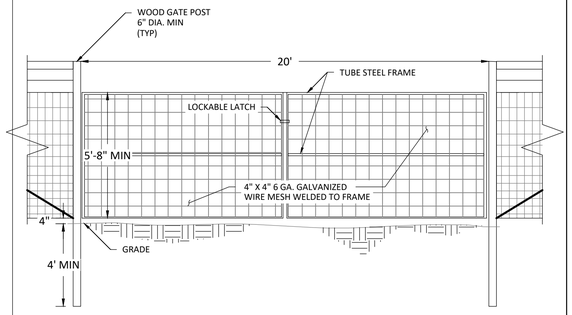
Project No. WST



NOTE:
1. FENCE DESIGN PROVIDED BY STAY-TUFF. SEE SUPPLIER DRAWINGS FOR ADDITIONAL DETAIL.
2. WOVEN WIRE FABRIC SHALL BE STAY-TUFF 2096-6 FIXED KNOT FENCE FABRIC WITH 3"X 6" OPENINGS AT BOTTOM.
3. ALL METALLIC PARTS SHALL BE GALVANIZED.
4. TOP WIRE SHALL REACH MIN 8' ABOVE GRADE.
5. MAXIMUM SPACING BETWEEN END POSTS SHALL BE 1,320' WITHOUT ADDITIONAL INLINE BRACES OR PER MANUFACTURER RECOMMENDATION.
6. MANUFACTURER DRAWINGS SHALL SUPERSEDE DETAIL IF CONFLICTS ARE PRESENT. ANY DEVIATIONS SHALL BE SUBMITTED TO THE OWNER FOR REVIEW.

4 AG STYLE FENCE DETAIL

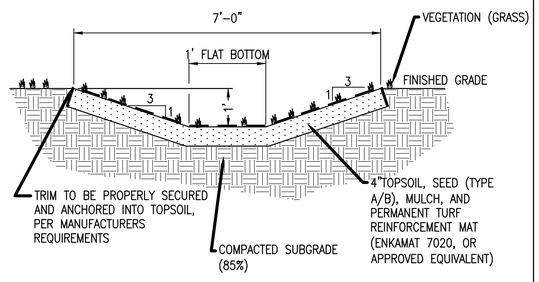
N.T.S.



NOTE:
1. SEE NOTES IN AG STYLE FENCE DETAIL, THIS SHEET.

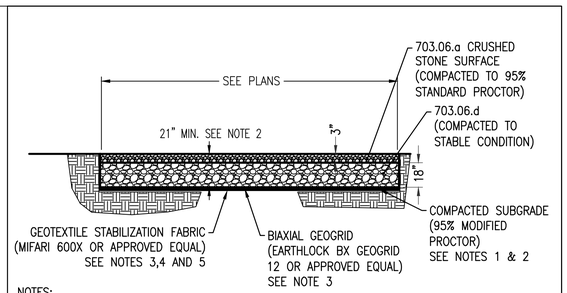
6 SWING GATE

N.T.S.



5 GRASS-LINED SWALE

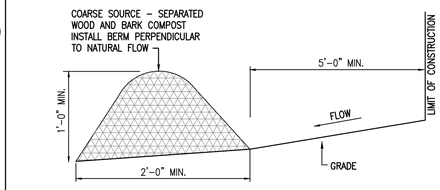
SCALE: NTS
XD_CIVIL_DRAINAGE_GRASS-LINED_SWALE_NE 02-16-2021



NOTES:
1. SUBCONTRACTOR SHALL EXCAVATE TO SUITABLE MATERIAL FOR SUBGRADE.
2. SUBCONTRACTOR SHALL COMPACT SUBGRADE TO PROVIDE SUITABLE SURFACE TO PLACE ROAD. REFER TO GEOTECHNICAL REPORT FOR SUBGRADE PREPARATION CRITERIA.
3. SUBCONTRACTOR SHALL FOLLOW MANUFACTURER INSTALLATION PROCEDURES.
4. WHERE OVERLAPPING OF GEOTEXTILE FABRIC IS REQUIRED, SUBCONTRACTOR SHALL OVERLAP A MINIMUM OF 24".
5. SUBCONTRACTOR SHALL REMOVE TEMPORARY CONSTRUCTION ACCESS ROADS, AND RESTORE TO PRE-CONSTRUCTION CONDITIONS TO THE SATISFACTION OF THE CEOR AND THE GOVERNING AGENCIES.
6. SUBCONTRACTOR SHALL INSTALL CONDUITS FOR ALL ELECTRICAL CONDUIT CROSSINGS PRIOR TO INSTALLATION OF THE GEOGRID MATERIAL. THE GEOGRID SHALL NOT BE HORIZONTALLY CUT ONCE INSTALLED.

1 GRAVEL ACCESS ROAD

SCALE: NTS
XD_CIVIL_GRAVEL_ROAD_IL 04-30-2019

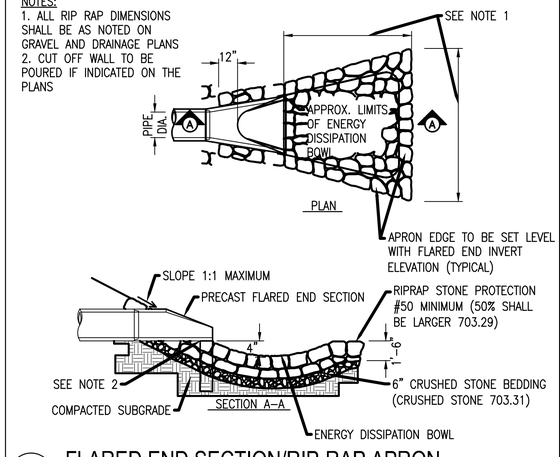


NOTE:
1. THE EROSION CONTROL MIX MUST BE WELL-GRADED WITH AN ORGANIC COMPONENT THAT IS BETWEEN 50 AND 100% OF DRY WEIGHT, AND THAT IS COMPOSED OF FIBROUS AND ELONGATED FRAGMENTS.
2. THE MINERAL PORTION OF THE MIX SHOULD BE NATURALLY INCLUDED IN THE PRODUCT WITH NO LARGER ROCKS (>4') OR LARGE AMOUNTS OF FINES (SILTS AND CLAYS).
3. IN STUMP GRINDING, THE MINERAL SOIL ORIGINATES FROM THE ROOT BALL AND SHOULD NOT BE REMOVED BEFORE GRINDING.
4. THE MIX SHOULD BE FREE OF REFUSE, MATERIAL TOXIC TO PLANT GROWTH OR UNSUITABLE MATERIAL (BARK CHIPS, GROUND CONSTRUCTION DEBRIS OR REPROCESSED WOOD PRODUCTS).

2 EROSION CONTROL MIX BERM

(MAY BE USED AS AN ALTERNATE TO SILT FENCE OR PLACED UPGRADIENT OF SILT FENCE SCALE: NTS

NOTES:
1. ALL RIP RAP DIMENSIONS SHALL BE AS NOTED ON GRAVEL AND DRAINAGE PLANS
2. CUT OFF WALL TO BE POURED IF INDICATED ON THE PLANS



3 FLARED END SECTION/RIP-RAP APRON

SCALE: NTS
XD_CIVIL_DRAINAGE_FLARED END SECTION RIP-RAP APRON 2021-02-16

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Phase: PERMITTING Initial Issue: 04/06/2022

Revisions

No.	Date	By	Chk	Description

Sheet Title
CONSTRUCTION DETAILS

Sheet No. Revision
C9.01 IFP

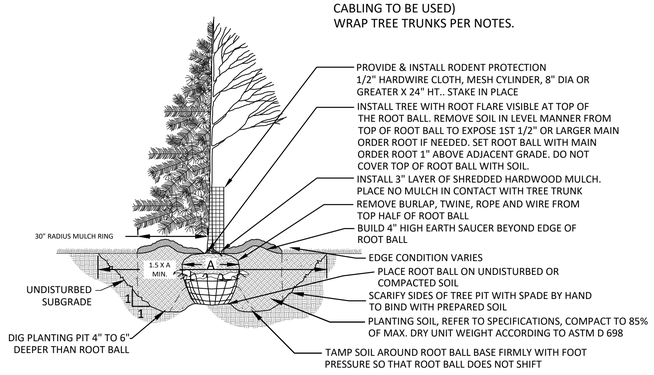
Project No. WST

Apr 08, 2022 - 9:09pm - WST-C9-DETAILS.dwg

GENERAL NOTES

1. ALL SEDIMENTATION AND EROSION CONTROL MEASURES SHALL BE IN ACCORDANCE WITH THE MAINE EROSION AND SEDIMENTATION CONTROL BEST MANAGEMENT PRACTICES (BMPS), PUBLISHED BY THE BUREAU OF LAND AND WATER QUALITY, MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION, LATEST EDITION.
2. THE CONTRACTOR SHALL INSPECT THE SITE AND BECOME FAMILIAR WITH THE EXISTING CONDITIONS RELATING TO THE NATURE AND SCOPE OF THE WORK.
3. THE CONTRACTOR SHALL VERIFY PLAN LAYOUT AND BRING TO THE ATTENTION OF THE ENGINEER DISCREPANCIES WHICH MAY COMPROMISE THE DESIGN OR INTENT OF THE LAYOUT.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLYING WITH ALL APPLICABLE CODES, REGULATIONS, AND PERMITS GOVERNING THE WORK.
5. THE CONTRACTOR SHALL PROTECT EXISTING ROADS, CURBS/GUTTERS, TRAILS, TREES, LAWNS AND SITE ELEMENTS DURING CONSTRUCTION. DAMAGE TO SAME SHALL BE REPAIRED AND/OR REPLACED AT NO ADDITIONAL COST TO THE OWNER.
6. LOCATE AND VERIFY ALL UTILITIES, INCLUDING IRRIGATION LINES, WITH THE OWNER FOR PROPRIETARY UTILITIES AND DIG SAFE 48 HOURS BEFORE DIGGING. CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION AND REPAIR OF ANY DAMAGES TO SAME. NOTIFY THE ENGINEER OF ANY CONFLICTS TO FACILITATE PLANT RELOCATION.
7. **THE LANDSCAPE CONTRACTOR SHALL COORDINATE THE PHASES OF CONSTRUCTION AND PLANTING INSTALLATION WITH OTHER CONTRACTORS WORKING ON SITE.**
8. THE CONTRACTOR SHALL REVIEW THE SITE FOR DEFICIENCIES IN SITE CONDITIONS WHICH MIGHT NEGATIVELY AFFECT PLANT ESTABLISHMENT, SURVIVAL OR WARRANTY. UNDESIRABLE SITE CONDITIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO BEGINNING OF WORK.
9. THE PLAN TAKES PRECEDENCE OVER THE LANDSCAPE LEGEND IF DISCREPANCIES EXIST. QUANTITIES SHOWN IN THE PLANTING SCHEDULE ARE FOR THE CONTRACTOR'S CONVENIENCE. CONTRACTOR TO VERIFY QUANTITIES SHOWN ON THE PLAN.
10. THE SPECIFICATIONS TAKE PRECEDENCE OVER THE PLANTING NOTES AND GENERAL NOTES.
11. EXISTING TREES AND SHRUBS TO REMAIN SHALL BE PROTECTED TO THE DRIP LINE FROM ALL CONSTRUCTION TRAFFIC, STORAGE OF MATERIALS ETC. WITH 4' HT. ORANGE PLASTIC SAFETY FENCING ADEQUATELY SUPPORTED BY STEEL FENCE POSTS 6' O.C. MAXIMUM SPACING.
12. LONG-TERM STORAGE OF MATERIALS OR SUPPLIES ON-SITE WILL NOT BE ALLOWED.
13. CONTRACTOR SHALL REQUEST IN WRITING, A FINAL ACCEPTANCE INSPECTION.

NOTE:
CONTRACTOR SHALL MAINTAIN TREES IN A PLUMB POSITION THROUGHOUT THE WARRANTY PERIOD. IF STAKING IS REQUIRED BY SITE CONDITIONS, CONTRACTOR TO USE 2 OR 3 STAKE METHOD WITH 1" WEBBING AROUND TRUNK OF TREE (NO WIRE OR CABLING TO BE USED)
WRAP TREE TRUNKS PER NOTES.



1 C9.02 TREE PLANTING DETAIL

N.T.S.

P-01

PLANTING NOTES

1. NO PLANTS SHALL BE INSTALLED UNTIL FINAL GRADING AND CONSTRUCTION HAS BEEN COMPLETED IN THE IMMEDIATE AREA.
2. A GRANULAR PRE-EMERGENT HERBICIDE SHALL BE APPLIED TO ALL PLANT BEDS AT THE MANUFACTURERS RECOMMENDED RATE PRIOR TO PLANT INSTALLATION.
3. ALL PLANTING STOCK SHALL CONFORM TO THE "AMERICAN STANDARD FOR NURSERY STOCK," ANSI-Z60, LATEST EDITION, OF THE AMERICAN ASSOCIATION OF NURSERYMEN, INC. AND SHALL CONSTITUTE MINIMUM QUALITY REQUIREMENTS FOR PLANT MATERIALS.
4. ALL PLANTS MUST BE HEALTHY, VIGOROUS MATERIAL, FREE OF PESTS AND DISEASE AND BE CONTAINER GROWN OR BALLED AND BURLAPPED AS INDICATED IN THE LANDSCAPE LEGEND.
5. PLANT MATERIALS TO BE INSTALLED PER PLANTING DETAILS.
6. ALL TREES MUST BE STRAIGHT TRUNKED AND FULL HEADED AND MEET ALL REQUIREMENTS SPECIFIED.
7. THE ENGINEER RESERVES THE RIGHT TO REJECT ANY PLANTS WHICH ARE DEEMED UNSATISFACTORY BEFORE, DURING, OR AFTER INSTALLATION.
8. NO SUBSTITUTIONS OF PLANT MATERIAL SHALL BE ACCEPTED UNLESS APPROVED IN WRITING BY THE ENGINEER.
9. ALL PLANT MATERIAL QUANTITIES, SHAPES OF BEDS AND LOCATIONS SHOWN ARE APPROXIMATE. CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLETE COVERAGE OF ALL PLANTING BEDS AT SPACING SHOWN AND ADJUSTED TO CONFORM TO THE EXACT CONDITIONS OF THE SITE. THE ENGINEER SHALL APPROVE THE STAKING LOCATION OF ALL PLANT MATERIALS PRIOR TO INSTALLATION.
10. ALL PLANTING AREAS MUST BE COMPLETELY MULCHED AS SPECIFIED.
11. MULCH: SHREDDED HARDWOOD MULCH, CLEAN AND FREE OF NOXIOUS WEEDS OR OTHER DELETERIOUS MATERIAL, IN ALL MASS PLANTING BEDS AND FOR TREES, UNLESS INDICATED AS ROCK MULCH ON DRAWINGS. SUBMIT SAMPLE TO ENGINEER PRIOR TO DELIVERY ON-SITE FOR APPROVAL. DELIVER MULCH ON DAY OF INSTALLATION. USE 3" FOR SHRUB BEDS, TREE RINGS, AND 3" FOR PERENNIAL/GROUND COVER BEDS, UNLESS OTHERWISE DIRECTED.
12. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL MULCHES AND PLANTING SOIL QUANTITIES TO COMPLETE THE WORK SHOWN ON THE PLAN.
13. USE ANTI-DESICCANT (WILTPRUF OR APPROVED EQUAL) ON DECIDUOUS PLANTS MOVED IN LEAF AND FOR EVERGREENS MOVED ANYTIME. APPLY AS PER MANUFACTURER'S INSTRUCTION. ALL EVERGREENS SHALL BE SPRAYED IN THE LATE FALL FOR WINTER PROTECTION DURING WARRANTY PERIOD.
14. WRAP ALL SMOOTH-BARKED DECIDUOUS TREES PLANTED IN THE FALL PRIOR TO DECEMBER 1 AND REMOVE WRAPPING AFTER MAY 1. TREE WRAPPING MATERIAL SHALL BE WHITE TWO-WALLED PLASTIC SHEETING APPLIED FROM TRUNK FLARE TO THE FIRST BRANCH.
15. ALL DECIDUOUS, PINE, AND LARCH PLANTINGS SHALL RECEIVE RODENT PROTECTION.
16. PLANTING SOIL FOR TREES, SHRUBS AND GROUND COVERS: FERTILE FRIABLE LOAM CONTAINING A LIBERAL AMOUNT (4% MIN.) OF HUMUS AND CAPABLE OF SUSTAINING VIGOROUS PLANT GROWTH. MIXTURE SHALL BE FREE FROM HARDPACK SUBSOIL, STONES, CHEMICALS, NOXIOUS WEEDS, ETC. SOIL MIXTURE SHALL HAVE A PH BETWEEN 6.1 AND 7.5 AND 10-0-10 FERTILIZER AT THE RATE OF 3 POUNDS PER CUBIC YARD. IN PLANTING BEDS INCORPORATE THIS MIXTURE THROUGHOUT THE ENTIRE BED IN A 6" LAYER AND ROTO-TILLING IT INTO THE TOP 12" OF SOIL AT A 1:1 RATIO.ANY PLANT STOCK NOT PLANTED ON DAY OF DELIVERY SHALL BE HEELED IN AND WATERED UNTIL INSTALLATION. PLANTS NOT MAINTAINED IN THIS MANNER WILL BE REJECTED.
17. CONTRACTOR SHALL BE RESPONSIBLE TO VERIFY THAT EACH EXCAVATED TREE AND SHRUB PIT WILL PERCOLATE PRIOR TO INSTALLING PLANTING MEDIUM AND PLANTS. THE CONTRACTOR SHALL FILL THE BOTTOM OF SELECTED HOLES WITH SIX INCHES OF WATER AND CONFIRM THAT THIS WATER WILL PERCOLATE WITHIN A 24-HOUR PERIOD. IF THE SOIL AT A GIVEN AREA DOES NOT DRAIN PROPERLY, A PVC DRAIN OR GRAVEL SUMP SHALL BE INSTALLED OR THE PLANTING SHALL BE RELOCATED IF DIRECTED BY THE ENGINEER.
18. ALL PLANTS SHALL BE GUARANTEED FOR TWO COMPLETE GROWING SEASONS (APRIL 1 - NOVEMBER 1), UNLESS OTHERWISE SPECIFIED. THE GUARANTEE SHALL COVER THE FULL COST OF REPLACEMENT INCLUDING LABOR AND PLANTS.
19. CONTRACTOR SHALL NOTIFY THE ENGINEER AT LEAST 3 DAYS PRIOR TO PLANNED DELIVERY. THE CONTRACTOR SHALL NOTIFY THE ENGINEER AT LEAST 24 HOURS IN ADVANCE OF BEGINNING PLANT INSTALLATION.
20. SEASONS/TIME OF PLANTING AND SEEDING: NOTE: THE CONTRACTOR MAY ELECT TO PLANT IN OFF-SEASONS ENTIRELY AT HIS/HER RISK.
    - 20.1. DECIDUOUS /B&B: 4/1 - 6/1; 9/21 - 11/1
    - 20.2. EVERGREEN B&B: 4/1 - 5/1; 9/21 - 11/1
    - 20.3. NATIVE MIX SEEDING: 4/15 - 7/20; 9/20-10/20
21. MAINTENANCE SHALL BEGIN IMMEDIATELY AFTER EACH PORTION OF THE WORK IS IN PLACE. PLANT MATERIAL SHALL BE PROTECTED AND MAINTAINED UNTIL THE INSTALLATION OF THE PLANTS IS COMPLETE, INSPECTION HAS BEEN MADE, AND PLANTINGS ARE ACCEPTED EXCLUSIVE OF THE GUARANTEE. MAINTENANCE SHALL INCLUDE WATERING, CULTIVATING, MULCHING, REMOVAL OF DEAD MATERIALS, RE-SETTING PLANTS TO PROPER GRADE AND KEEPING PLANTS IN A PLUMB POSITION. AFTER ACCEPTANCE, THE OWNER SHALL ASSUME MAINTENANCE RESPONSIBILITIES. HOWEVER, THE CONTRACTOR SHALL CONTINUE TO BE RESPONSIBLE FOR KEEPING THE TREES PLUMB THROUGHOUT THE GUARANTEE PERIOD.

TREE GENERAL SPECIFICATIONS

1. ALL TREES SHALL HAVE SYMMETRICAL OR BALANCED BRANCHING ON ALL SIDES OF THE TREE.
2. TREES SHALL NOT BE TIPPED PRUNED.
3. TREES SHALL BE FREE OF PHYSICAL DAMAGE FROM SHIPPING AND HANDLING. DAMAGED TREES SHALL BE REJECTED.
4. SUMMER DUG TREES SHALL HAVE ROOTBALL SIZE INCREASED BY 20%

SEED AND MULCH SPECIFICATIONS

SEEDING

TYPE	LOCATION	NAME/SPECIES	SUPPLIER	SEEDING RATE
A/B	BETWEEN AND UNDER SOLAR PANELS	REBEL TALL FESCUE, CHEWINGS FESCUE OR HARD FESCUE	SEEDLAND.COM	5#/1,000 SF
		ERNMX-129: CONSERVATION SHADE MIX	ERNSTSEED.COM	
C	OUTSIDE OF FENCE	ERNMX-179: BUTTERFLY & HUMMINGBIRD GARDEN MIX	ERNSTSEED.COM	30#/ACRE
1. BETWEEN DECEMBER 1ST AND APRIL 1ST, EACH TYPE OF SEED SHALL HAVE AN ADDITIONAL 1#/1,000 SF OF WINTER RYEGRASS OR GRAIN RYE GRASS SEED.				
2. IT SHALL BE THE SUB-CONTRACTORS RESPONSIBILITY TO ENSURE THAT THE PROJECT LIMIT OF WORK IS STABILIZED (IN ACCORDANCE WITH LOCAL, STATE, AND FEDERAL REGULATIONS/REQUIREMENTS/PERMIT APPROVALS) DURING THE LENGTH OF THE PROJECT.				
3. ALL DISTURBED AREAS SHALL BE RESTORED WITH 4" MINIMUM TOPSOIL & SEED PER SEEDING SPECIFICATIONS LISTED IN THS TABLE.				

MULCH

CONDITION	TIMING	MULCH TYPE[2]	APPLICATION RATES[1]
TEMPORARY			
INACTIVE AREAS	IF NO ACTIVITY IN EXPOSED AREAS FOR 7 DAYS, OR PRIOR TO A STORM EVENT	STRAW MULCH OR WOOD FIBER MULCH OR EROSION CONTROL MIX	2 TONS/ACRE 1 TON/ACRE 2" THICK OVER AREA
ALL DISTURBED AREAS OF THE CONSTRUCTION WORKSPACE	APPLY MULCH TO ALL EXPOSED AREAS IF NO ACTIVITY OCCURS WITHIN 30 DAYS. APPLY MULCH AND TEMPORARY SEEDING SOONER WHEN IT CAN BE ANTICIPATED THAT ACTIVITY IS NOT GOING TO OCCUR WITHIN 30 DAYS	STRAW MULCH OR WOOD FIBER MULCH	2 TONS/ACRE 1 TON/ACRE[3]
ALL WORK AREAS EXPOSED ARE TO BE MULCHED DAILY EACH TIME SOIL IS DISTURBED[5]	NOVEMBER 1 - APRIL 15	STRAW MULCH OR WOOD FIBER MULCH	4 TONS/ACRE 2 TONS/ACRE
PERMANENT			
ON ALL EXPOSED AREAS AFTER SEEDING TO STABILIZE THE SOIL SURFACE	PERMANENT GRASS AND/OR LEGUME SEEDING COVERED BY STRAW MULCH ON ALL AREAS THAT HAVE BEEN RESTORED TO FINAL GRADE. THIS DOES NOT APPLY TO AREAS STABILIZED BY OTHER MEANS SUCH AS JUTE MATTING OR PERMANENT EROSION CONTROL MIX	CRIMPED STRAW MULCH OR PAPER MULCH OR WOOD FIBER MULCH	2 TONS/ACRE 1500 LC./ACRE[4] 1 TON/ACRE

NOTES:
1. IN ALL CASES, SUFFICIENT MULCH SHALL BE APPLIED SUCH THAT NO SOIL IS VISIBLE THROUGH THE MULCH.
2. DOUBLE RATE OF WOOD FIBER MULCH WHEN USED IN OR ADJACENT TO CRITICAL AREAS. INCREASE MULCH RATE BY HALF UNDER SOLAR ARRAY DRIP EDGE.
3. STRAW, HAY, OR HYDROMULCH (WOOD FIBER OR PAPER MULCH AS APPROPRIATE) SHALL PROVIDE MINIMUM 90 PERCENT GROUND COVERAGE.
4. PAPER MULCH IS ACCEPTABLE FOR USE DURING THE GROWING SEASON ON SLOPES >30 PERCENT AND IN AREAS WHERE VEGETATION HAS NOT ESTABLISHED WELL, ADDITIONAL HAY MULCH WILL BE ADDED AS A WINTERIZING MEASURE.
5. MULCH MAY NOT BE SPREAD ON TOP OF SNOW.

LANDSCAPING TABLE

BOTANICAL NAME	COMMON NAME	SYMBOL	SIZE AT PLANTING	SIZE AT MATURITY	SPACING	QUANTITY
THUJA OCCIDENTALIS	'EMERALD GREEN' ARBORVITAE		6'	12'	8' O.C.	XX

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Phase: PERMITTING Initial Issue: 04/06/2022

Revisions

No.	Date	By	Chk	Description

Sheet Title
LANDSCAPING

Sheet No. Revision
C9.02 IFP

Project No. WST

ENVIRONMENTAL
DUE DILIGENCE REVIEW
IFP PACKAGE

NOVEL ENERGY SOLUTIONS LLC

FOR

ME WASHINGTON HS CSG LLC

APRIL 6, 2022

Prepared By:
Novel Energy Solutions LLC
2303 Wycliff Street | Suite 300 | St. Paul, MN 55114 | Phone 612.345.7188 | https://www.novelenergysolutions.com

Table of Contents

List of Acronyms

AST	Above Ground Storage Tank
ASTM	American Society for Testing and Materials
BGEPA	Bald and Golden Eagle Protection Act
BMP	Best Management Practices
CWA	Clean Water Act
Dbh	Diameter at breast height
ECP	Erosion Control Plan
EMF	Electromagnetic Fields
EMI	Electromagnetic Interference
E.O.	Executive Order
ESA	Endangered Species Act
FAA	Federal Aviation Administration
FEMA	Federal Emergency Management Agency
FIRM	Flood Insurance Rate Map
GIS	Geographic Information System
HUD	U.S. Department of Housing and Urban Development
IPaC	Information, Planning, and Conservation
MDEP	Maine Department of Environmental Protection
MDIFW	Maine Department of Inland Fisheries and Wildlife
MDOT	Maine Department of Transportation
MESA	Maine Endangered Species Act
MHPC	Maine Historic Preservation Commission
MNAP	Maine Natural Areas Program
MTBA	Migratory Bird Treaty Act
MW	Megawatt
NES	Novel Energy Solutions
NHPA	National Historic Preservation Act
NLEB	Northern long-eared bat
NOAA	National Ocean and Atmospheric Administration
NPS	National Park Service
NRCS	Natural Resource Conservation Service
NRI	National Rivers Inventory
NRHP	National Register of Historic Places
NRPA	Natural Resource Protection Act
NWI	National Wetlands Inventory
OSHA	Occupational Safety and Health Administration
PV	Photovoltaic
REC	Recognized Environmental Conditions
SFHA	Special Flood Hazard Area
SPCC	Spill Control and Countermeasures Plan
SSA	Sole Sources Aquifer
SWMP	Stormwater Management Plan
THPO	Tribal Historic Preservation officer
USACE	United States Army Corps. Of Engineers
USDA	United States Department of Agriculture
USEPA	United States Environmental Protection Agency
USFWS	United States Fish and Wildlife Service

1. Project Description

The ME Washington HS CSG LLC Project is a solar array which will be located at (44.01678, -70.28275) in Auburn, Maine. The Proposed Project will be situated on 8 acres (Proposed Project Area) of a larger, parent parcel identified as parcel number 053-004.

The Proposed Project will consist of the installation of a 0.5-megawatt (MW) ground-mounted photovoltaic (PV) system. The Proposed Project would include the development of a single-axis tracking ground mounted solar array facility, supporting utility infrastructure, limited gravel access drives and equipment pad areas, fencing, landscape buffers, and native ground cover establishment. The estimated duration of construction is approximately 9 months. The primary equipment and machinery that will be on-site includes forklifts for material transportation, pile drivers to install the steel pilings, and small excavators for trenching electrical equipment. Due to the existing topography of the property, significant earthwork will likely not be required. When the Proposed Project has reached its operation end, the Proposed Project Area can be returned to its pre-construction state.

The Proposed Project would be accessed from Washington St. An interior road would be constructed inside the perimeter, and it is anticipated to be flat and will match existing grade as much as possible to minimize earth work. The Proposed Project Area will be secured by a fence with standard gates for emergency and maintenance vehicles to access.

2. Affected Environment and Environmental Consequences

The affected environment and environmental consequences of the Proposed Project are discussed in this section. In addition, mitigation measures necessary to compensate for unavoidable impacts to specific environmental resources are outlined in this section.

2.1 Land Ownership and Land Use

This section is an overview of the existing land use, areas surrounding the Proposed Project Area, and the potential impacts to those resources.

2.1.1 General Land Use

Land use is defined as the way people use and develop land, including agricultural, residential, and industrial development. Many municipalities develop zoning ordinances and planning documents to control the direction of development to keep similar land uses together.

The Proposed Project Area is situated in a mixed-use zone in the town of Auburn. The Proposed Project Area has historically and is currently used for agricultural production. The Proposed Project Area is surrounded by wooded area and cropland.

The Proposed Project would change land use from agricultural production to a renewable energy facility.

2.1.2 Formally Classified Lands

Formally classified lands are properties that are administered by either Federal, State, or local agencies, or have been given special protection through formal legislative designation. Formally classified lands include National Parks, National Forests/Grasslands, Monuments, Historic Landmarks, Battlefields, Military Parks, Heritage Areas, Historic Sites, Historical Parks, Natural Landmarks, Wildlife Refuges, Seashores, Lake Shores, Trails, Wilderness Area, State Parks, State Fish and Wildlife Management Areas, Bureau of Land Managementadministered lands, Native American owned lands and leases, or Wild, Scenic and Recreational Rivers, all of which are managed by several Agencies.

2.1.2.1 Affected Environment

A review of the United States Geological Survey (USGS) Protected Lands Map, the Wild & Scenic Rivers map, and the National Rivers Inventory (NRI), and the Protected Areas Database of the

United States did not identify any formally classified lands in or adjacent to the Proposed Project Area – reference Appendix IV.

2.1.2.2 Environmental Consequences

The Proposed Project would not impact formally classified lands as they are absent from the Proposed Project Area and nearby surroundings.

2.1.2.3 Mitigation

No mitigation measures are proposed as there are no anticipated impacts to this resource.

2.2 Soil Survey

A custom soil resource report was generated for the Proposed Project through the USDA Natural Resource Conservation Service - Web Soil Survey. The report includes the soil map for the Proposed Project Area, a list of the map units, the extend of each map unit, and cartographic symbols displayed on the map. In addition, various metadata are presented about data used to produce the map and a description of each soil map unit. Please note, AOI is approximated. Report is included in Appendix IV.

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
BgB	Nicholville very fine sandy loam, 0 to 8 percent slopes	0.5	12.9
BP	Borrow pits	2.1	50.1
BuC2	Buxton silt loam, 8 to 15 percent slopes	1.3	31
Lk	Charles silt loam, 0 to 2 percent slopes, occasionally flooded	0.2	6

Table 1 – Soil Resource Report - Map Unit Legend

2.3 Floodplains

This section describes an overview of the existing floodplain resources at the Proposed Project and the potential impacts to those resources associated with the Proposed Project.

A floodplain is any land area susceptible to being inundated by floodwaters from any source. Floodplains are essential to clean water, recharge of water supplies, reduction of flood risks and protection of property, human safety, health and welfare and fish and wildlife habitat. Proper floodplain management will reduce flood losses and ensure the protection of the natural resources and functions of floodplains.

2.3.1 Affected Environment

According to the Federal Emergency Management Agency (FEMA)'s Food Insurance Rate Maps (FIRM) Number 23001C0320E (effective 07/08/2013), the Proposed Project Area (to be disturbed/constructed) is located outside the Special Flood Hazard Area (SFHA) and 100-year and 500-year floodplain zones. The Proposed Project Area is located in Zone X, area of minimal flooding. The south edge of the project borders Zone A. The FIRM boundaries in relation to the Proposed Project Area are located in Figure V.

2.3.2 Environmental Consequences

There would be no impacts to floodplains as they are absent from the Proposed Project Area and the Proposed Project will not be located in a SFHA. Additionally, the Proposed Project will not result in any impacts that would result in any increases to the 100-year or 500-year flood elevation or present barriers to floodway passage within the vicinity of the Proposed Project Area.

2.4 Wetlands

Wetlands are considered those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. The U.S. Army Corps of Engineers (USACE) uses three characteristics when making wetland determinations: vegetation, soil, and hydrology. Unless an area has been altered or is a rare natural situation, wetland indicators of all three characteristics must be present during some portion of the growing season for an area to be considered a wetland.

2.4.1 Affected Environment

** Pending Field Visit ** On April 6, 2022, NES completed a desktop review of available data to identify potential natural resource concerns that may potentially impact the proposed development. Based on the desktop review, NES identified a 75-ft stream buffer along the south edge of the Proposed Project Area. No NWI mapped wetlands, no critical habitats or sensitive environmental areas were identified within the site based on available mapping. The majority of the Proposed Project Area is identified as containing predominately nonhydric and not hydric, well drained soils.

The overall development potential of the Proposed Project Area is high due to the lack of potential for protected natural resource in the area of development. NES recommends site visits by qualified wetland scientists to identify and locate field-observable resources that could be present on the site.

2.4.2 Mitigation

Pending The Proposed Project has been designed to avoid and minimize impacts to wetland resources to the extent possible; however, the following measures will be taken to further demonstrate the Proposed Project's minimization of adverse impacts:

- A stormwater management system will be incorporated into the Proposed Project design that will provide treatment to stormwater prior to potentially entering or impacting wetland areas. Stormwater treatment measures will comply with state and municipal regulations. Wherever possible existing drainage and grading patterns will be maintained in the proposed design.
- An Erosion and Sedimentation Control Plan will be implemented before construction and will include erosion control measures that will be incorporated into the construction and restoration phases of the Proposed Project to minimize potential adverse wetland impacts.
- When disposing of excess, spoil, or other construction materials on public or private property, wetlands will not be filled in or otherwise converted.

2.5 Water Resources

Water quality and quantity changes can impact other environmental resources including but not limited to groundwater and drinking water supplies, threatened and endangered species, other fish and wildlife species and wetlands. Impacts to surface and/or ground water will be the Applicant's responsibility and permitting requirements, typically through state agencies, must be adhered to.

2.5.1 Affected Environment

The Proposed Project will be located within the Sabbathday Pond-Upper Royal River watershed (Hydrological Unit Code: 010600010201). The closest named surface water body is the Little Androscoggin River, approximately 2 miles north of the Proposed Project Area. The USEPA's sole source aquifer (SSA) map does not depict the Proposed Project Area within or near an SSA and review of Maine Geographic Information System (GIS) aquifer data layer indicated there are no aquifers mapped within the Proposed Project Area, see Appendix VII.

2.5.2 Environmental Consequences

The Proposed Projects impacts to water resources will be minimal. Short-term, minor water quality impacts may occur during construction. These impacts would be associated with soil from disturbed areas being washed by stormwater into adjacent waters during rainstorm events; however, these impacts would be temporary and would not significantly alter water quality conditions. Please refer to Section 3 for Stormwater Management practices.

There are no anticipated impacts to groundwater aquifers associated with the Proposed Project. Wastewater will not be generated, and process water will not be required for construction or operation of the Proposed Project. The Proposed Project will only add minor amounts of impervious surfaces to the Proposed Project Area and vegetation will be maintained wherever possible throughout the operational life of the facility.

2.5.3 Mitigation

The Proposed Project has been designed to avoid and minimize impacts to water resources; however, the following measures will be taken to further demonstrate the Proposed Project's minimization of adverse impacts:

- In accordance with the Maine Pollution Control Agency, Erosion and Sediment Control BMP's, will be installed prior to construction and maintained until construction is completed and the Proposed Project Area is stabilized.
- Necessary maintenance during the Proposed Project operations and maintenance of vegetation throughout the life of the facility.

2.6 Biological Resources

This section describes an overview of the existing biological resources at the Proposed Project Area and the potential impacts to those resources associated with the Proposed Project.

Biological resources refer to the flora (plants) and fauna (invertebrates, fish, birds, amphibians, reptiles, birds, and mammals) that maybe found of have historically been found at the Proposed Project Area. Biological resources can also include rivers, lakes, wetlands, upland communities, and other habitat types necessary to support local flora and fauna. Vegetation is a key habitat component and acts to stabilize soils and prevent erosion; additionally, information on vegetation can be used in evaluating potential impacts to species and habitats. Potential

impacts to biological resources can be direct (project-related mortality) or indirect (displacement, degradation, or loss to habitat).

2.6.1 General Fish, Wildlife, and Vegetation

2.6.1.1 Affected Environment

The Proposed Project Area lies within Maine's Northeastern Highlands Eco-Region in the Sebago-Ossipee Hills and Plains sub-region. The most prominent natural vegetation consists of Hemlock hardwood-pine and Northern hardwood-conifer. The Proposed Project Areas itself is an undeveloped field.

Wildlife around the Proposed Project Area includes species that adapt well to disturbance, the presence of humans, and that are typically found in rural, agricultural areas in Maine. Examples of typical mammals found in rural, Maine include white-tailed deer (Odocoileus virginianus), eastern chipmunk (Tamias striatus), gray squirrel (Sciurus carolinensis), red squirrel (Tamiasciurus hudsonicus), coyote (Canis latrans), gray fox (Urocyon cinereoargenteus), porcupine (Erethizon dorsatum), woodchuck (Marmota monax), striped skunk (Mephitis mephitis), raccoon (Procyon lotor), and meadow vole (Microtus pennsylvanicus).

2.6.1.2 Environmental Consequences

Impacts to fish, wildlife, and vegetation are expected to be negligible. This is due to minimal impervious surfaces being created and limited use of water. The proposed groundcover under the solar array will prioritize pollinator friendly, native species, and a controlled maintenance program to promote the habitat.

2.6.1.3 Mitigation

No mitigation measures are proposed as there are no anticipated impacts to these resources.

2.6.2 Listed Threatened and Endangered Species

The Endangered Species Act (ESA) is enforced by the USFWS and provides the protection and recovery of species threatened with extinction and ensures federal agencies use their authorities to further the purpose of the ESA to protect and conserve endangered and threatened species. The ESA defines a federally endangered species as any species with is in danger of extinction throughout all or a significant portion of its range. The ESA also identifies habitats critical to listed species and potential mitigation strategies within these habitats.

2.6.2.1 Affected Environment

An official species list obtained from the USFWS Information, Planning, and Conservation (IPaC) System identified 2 federally listed species (Table 2) in Androscoggin County with potential to occur within the Proposed Project Area. A copy of this report is included in Appendix VIII.

Species	Federal Status	Critical Habitat	ESA Determination
Northern Long-eared Bat	Threatened	No	May Occur
Monarch Butterfly	Candidate	No	May Occur

Table 2 – Federally Listed Species with Potential to Occur

Monarch Butterfly (*Danaus plexippus*)

Individual monarchs in temperate climates, such as eastern and western North America, undergo long-distance migration, and live for an extended period of time. In the fall, in both eastern and western North America, monarchs begin migrating to their respective overwintering sites. The Proposed Project Area is mostly forested, with monarchs primarily laying eggs on milkweed this is not likely to have an adverse effect.

Northern Long-eared Bat *(Myotis septentrionalis)*

The Northern Long-eared Bat is found across much of the eastern and northern central United States. During the summer, the species roost singly or in colonies underneath bark, in cavities, or in crevices of both live and dead trees. Males and non-reproductive females may also roost in cooler places, like caves and mines. The bat spends the winter hibernating in caves and minds, called hibernacula. The species will typically use large caves or mines with large passages and entrances; constant temperatures; and high humidity with no air currents. Examination through the USFWS IPaC system revealed that the Proposed Project meets the criteria for reliance upon the final 4(d) rule for compliance with the ESA (reference Appendix VIII).

Maine Department of Inland Fisheries and Wildlife

** Pending ** Endangered and threatened inland fish and wildlife species in Maine are also protected under the Maine Endangered Species Act (MESA). There are currently twenty-six inland fish and wildlife species listed as endangered and twenty-five listed as threatened, some of which are also listed under the ESA. On March 29, 2022, NES requested information on the known or suspected locations of any rare, threatened, or endangered plants or wildlife, Significant Wildlife Habitat, or other significant natural resources within the vicinity of the

Proposed Project from Maine's Department of Inland Fisheries and Wildlife (MDIFW). At the time of the package submittal, a response from the MDIFW is pending. A copy of all MDIFW correspondence is presented in Appendix VIII.

Maine Natural Areas Program

The MESA only applies to animals – plants are not included in the legislation; however, the Maine Natural Areas Program (MNAP) maintains an "official" list of rare and endangered plants in the state. On March 29, 2022, NES requested information on the presence of any known or suspected locations of rare, threatened, or endangered plants, exemplary natural communities, or other significant natural resources documented within the vicinity of the Proposed Project Area from the MNAP. In a response dated March 30, 2022, MNAP concluded that there would be no known adverse impacts to rare, threatened, or endangered plants or rare or exemplary natural communities on the Proposed Project Area or within the vicinity. A copy of all MNAP correspondence is presented in Appendix VIII.

2.6.2.2 Environmental Consequences

The Proposed Project's impacts to listed species are expected to be negligible based on the lack of suitable habitat and requirements for the species. Additionally, no designated critical habitat for listed species occurs within the Proposed Project Area, nor will any be affected by the Proposed Project.

2.6.2.3 Mitigation

The construction and operation of the Proposed Project will comply with the ESA, which provides for the protection of endangered and/or threatened species and critical habitat. Should any evidence of the presence of endangered and/or threatened species or their critical habitat be brought to the attention of the contractor, the contractor will immediately report this evidence to the Owner. Construction shall be temporarily halted pending the notification process and further directions issued after consultation with the USFWS.

2.6.3 Migratory Birds

The Migratory Bird Treaty Act (MBTA) is enforced by the USFWS and makes it illegal for anyone to take, possess, import, export, transport, sell, purchase, barter, or offer for sale and migratory bird for parts, nests, eggs of such bird except under the terms of a valid permit issued.

2.6.3.1 Affected Environment

The USFWS IPaC Report lists 3 migratory bird species (Table 3) that are of conservation concern and may be potentially affected by activities within the Proposed Project Area. Special attention should be made to avoid and minimize impacts to migratory birds within the Proposed Project Area.

Species	Breeding Season	Preferred Habitat
Bald Eagle	Dec - Aug	Near lakes, reservoirs, rivers, marshes, and coasts
Bobolink	May - Jul	Hayfields and meadows
Evening Grosbeak	May - Aug	Conifer forests

Table 3 – Migratory Birds

2.6.3.2 Environmental Consequences

The Proposed Projects impacts to migratory birds are expected to be negligible based on the lack of suitable nesting and foraging habitat. Ground mounted solar arrays pose little to no risk to migratory birds. Additionally, the solar panels proposed for use at this facility are designed to absorb the sunlight (PV panels) versus reflect the light; therefore, a reflective glare and the "lake effect" phenomenon is not a concern for this facility.

2.6.3.3 Mitigation

No mitigation measures are proposed as there are no anticipated impacts to the resource.

2.6.4 Bald and Golden Eagles

The Bald and Golden Eagle Protection Act (BGEPA) is enforced by the USFWS and makesit illegal for anyone to take, possess, import, export, transport, sell, purchase, barter, or offerfor sale, purchase, or barter any bald or golden eagle or the parts, nests, eggs of such bird except under the terms of a valid permit issued. The BGEPA also prohibits any activity that could cause injury to the species, nest abandonment or a decrease in productivity.

2.6.4.1 Affected Environment

The Proposed Project primarily consists of cleared land. Suitable nesting habitat, which includes tall, large diameter trees and preferred foraging areas include large, open expanses of water, are not present within the Proposed Project Area. Additionally, the Maine USFWS Bald Eagle Nest Locations and Buffer Zones Mapping Site depict no eaglenests or roosts located within the Proposed Project Area or within a 1-mile radius (reference Appendix VIII).

2.6.4.2 Environmental Consequences

The Proposed Project's impacts to Bald and Golden Eagles are not anticipated as they are absent from the Proposed Project Area.

2.6.4.3 Mitigation

No mitigation measures are proposed as there are no impacts to the resource.

2.6.5 Invasive Species

E.O. 13112, *Invasive Species*, directs federal agencies to not authorize, fund or carry out actions believed to cause or promote the introduction or spread of invasive species unless the Agency determines that the benefits of such actions outweigh the potential harm caused by invasive species.

2.6.5.1 Affected Environment

The Proposed Project primarily consists of an undeveloped, open field.

2.6.5.2 Environmental Consequences

The potential for the Proposed Project to increase invasive species is not anticipated. Vegetation must be maintained under the panel surface in order to prevent shading which will be the responsibility of the facility owner and will be performed on an as-needed basis. Given that only minor earthwork is required for the construction of the Proposed Project and no fill material is being imported, the establishment of invasive species would be insignificant.

2.6.5.3 Mitigation

The Proposed Project will comply with the requirements of the E.O. by maintaining all possible existing ground cover and by seeding any disturbed area with a mixture of native herbaceous vegetation after construction which will discourage the establishment of non-native species and promote the restoration of native species.

2.7 Cultural Resources and Historic Properties

This section describes an overview of the existing cultural and historic resources at the Proposed Project Area and the potential impacts to those resources.

The National Historic Preservation Act (NHPA) is intended to protect and preserve historical and archeological sites within the United States; Section 106 of the NHPA requires all Federal agencies to consider the effects of the actions and the actions they fund, permit and/or license on historic properties. The NHPA defines historic properties as any prehistoric or historic district, site, building, structure, or object included in, or eligible for listing in, the National Register of Historic Places (NRHP).

The NHPA also allows the Applicant to notify, engage, involve, and work with Native American tribes as they proceed through the steps of Section 106 review. During the review process, consultation with any Native American tribe that attaches religious and cultural significance to historic properties that may be affected by the agency's undertakings is conducted and a reasonable opportunity to comment on such undertakings is granted.

2.7.1 Affected Environment

** Pending ** Androscoggin County is home to 106 NRHP listings, 4 of which are located in Auburn. The closest NRHP listing to the Proposed Project Area is the Poland Spring Historic District located approximately 4 miles west. Androscoggin County has 0 National Historic Landmarks.

Pursuant to Section 106 of the NHPA, consultation with the Maine Historic Preservation Commission (MHPC) and federally recognized tribes with interest in the area and will be initiated by NES in April of 2022.

A copy of all THPO correspondences is provided in Appendix IX.

2.7.2 Environmental Consequences

** Pending ** This section will be updated when consultation is completed.

2.7.3 Mitigation

Any excavation by the Contactor that uncovers an historical or archeological artifact or human remains shall be immediately reported to the Owner. Construction shall be temporarily halted pending the notification process and further directions after consultation with the Maine SHPO and appropriate Tribes.

2.8 Traffic and Transportation

This section provides an overview of the existing traffic and transportation resources at the Proposed Project Area and describes the potential impacts the Proposed project could have on these resources.

Transportation impacts includes increases and decreases in traffic and transportation that might be causes or exacerbated by development of the Proposed Project. Other impacts considered are the transportation of materials to or from the facility either during construction or during operation. Any possible changes in transportation patters or intensity are also evaluated.

2.8.1 Affected Environment

The Proposed Project will be located 44.01678, -70.28275. Washington Street is a two-lane city road that connects to the Maine Turnpike to the north. Maine's Department of Transportation (MDOT) annual average daily traffic counts for Washington Street in 2019 is approximately 8580 vehicles. The nearest railroad line is located approximately 1 mile east of the Proposed Project Area and the nearest airport is the Auburn-Lewiston Municipal Airport located approximately 3 miles north of the Proposed Project Area.

2.8.2 Environmental Consequences

Significant impacts to transportation would not result due to the Proposed Project, given the short duration of the construction phase and the limited number of workers and equipment required for operation and maintenance. The majority of the traffic burden as a result of the Proposed Project will occur during the construction phases. During these short duration phases, it is anticipated that traffic will increase slightly to account for construction personnel and equipment. As for technical operations, monitoring of the Proposed Project and Area will be done remotely from a Regional Operational Center. It is anticipated that there will be, on average, 1-2 vehicular trips to the Proposed Project Area per month by a standard utility-truck.

2.8.3 Mitigation

Traffic controls will be implemented in accordance with state and local transportation standards.

2.9 Visual Resources

Visual resources are the visual character of a place, both manmade and natural, that give a particular landscape its character and aesthetic quality. As development in rural areas increases in scope and complexity, aesthetics or visual impacts may be a concern. Where visual impacts are identified, and avoidance of the impacted area is not feasible, efforts should be made to design, construct and operate in such a way that would minimize aesthetic impacts.

2.9.1 Affected Environment

The Proposed Project Area is located in Androscoggin County on approximately 8 acres of land southeast of U.S. Highway 202, within the town of Auburn. The Proposed Project Area is currently undeveloped field land surrounded by wooded area and wetland to the south.

2.9.2 Environmental Consequences

Visual impacts would occur during both the construction and operation phase of the Proposed Project. During the construction stage, machinery would be present, and the Proposed Project Area would be cleared and graded – these impacts would be considered minor since construction would be temporary. Once the facility becomes operational, visual impacts would include the addition of solar modules mounted on a steel racking system, surrounded by a security fence. Impacts to the visual quality of the Proposed Project Area and surroundings would be mitigated by visual screening (yet to be determined) and the Proposed Project aesthetic will match that of the surrounding area.

2.10 Human Health and Safety

This section describes public health and safety associated with the construction and operation of the Proposed Project and the potential impacts. All personnel and visitors would be required to follow the OSHA guidelines during construction and operation.

Electromagnetic Fields and Interference

Electromagnetic Fields (EMF) are associated with any electric device. Power-frequency EMFs are associated with the generation, transmission, and use of electric power. Electromagnetic Interference (EMI) is the disruption to the standard operation of an electronic device created by electromagnetic fields in its vicinity. This interference can be continuous or intermittent and can vary based on the distance and field levels that are produced by the source. Effects

from high-voltage electric transmission lines and substations may include interference to radio and television reception in the immediate vicinity.

Environmental Risk Management

Environmental risk management identifies the proper procedures for environmental due diligence relating to hazardous substances, hazardous wastes, and petroleum waste products. If properly conducted, environmental risk management proactively recognizes potential hazards and legal and financial vulnerabilities associated with the major hazardous materials, federal and state laws, as well as possible hazards to the human environment.

Reflectivity, Glare or Dazzle

Reflectivity refers to light that is reflected off surfaces. The potential impacts of reflectivity are glint, glare or dazzle which can cause a brief loss of vision. According to the Federal Aviation Authority (FAA), solar energy projects introduce new visual surfaces to the airport setting, where reflectivity could result in glare that cause flash blindness episodes for pilots and air traffic controllers.

2.10.1 Affected Environment

** Pending ** Environmental due diligence is the process of inquiring into the environmental condition of real property to determine the potential for contamination. A Phase I Environmental Site Assessment has been requested. The report will be performed in accordance with the procedures included in the American Society for Testing and Materials (ASTM) E1527-13, *Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process*. This report will be updated when the site assessment is completed.

2.10.2 Environmental Consequences

There are no foreseeable health and safety risks from induced currents, electric shock, effects on cardiac pacemakers and nuisance factors, such as audible noise, potential interference with radio and television broadcast reception and electronic equipment.

During operation, a single-axis tracking system will be utilized which is propelled by an electric motor which is self-powered by the solar project itself. With this design approach, there are no hazardous materials used or stored at the site.

The amount of reflectivity varies among solar technologies. The Proposed Project will reduce reflectivity by utilizing photovoltaic panels which are primarily absorptive compared to concentrated solar power technologies. Lastly, the Proposed Project does not include lighting; therefore, the Proposed Project would not result in light exposure or result in light pollution or glare.

2.10.3 Mitigation

Waste generation will be managed in accordance with Federal, State, and local regulations. Proposed Project Area safety will be managed by strict adherence to OSHA requirements. Procedures included in an emergency response plan will include management efforts, a Hazardous Operations Manual, and Spill Control and Countermeasures (SPCC) plans designed to protect workers and the public from further exposure to hazards.

3. Stormwater Management

Upon design completion, a Stormwater Management Plan (SWMP) will be prepared to demonstrate that the proposed development will comply with the applicable Maine Department of Environmental Protection (MDEP) stormwater management requirements in Chapter 500. The report is prepared in accordance with the basic stormwater standards to show that drainageways will not be altered to have unreasonable adverse impact on wetlands, waterbodies, or adjacent downgradient properties.

In addition, an Erosion and Sediment Control Plan will be developed based on good engineering practices, generally accepted industry standards, and in accordance with the guidance provided in the "Maine Erosion and Sediment Control Best Management Practices Manual for Designers and Engineers" (MDEP, Rev. October 2016).

Once permanent stabilization is achieved, the Project will be operated by a qualified maintenance representative who will be responsible for maintenance of the entire grounds and stormwater management features.

4. Summary of Impacts

The Proposed Project would have both short-term (temporary) and long-term direct effects – these effects are expected to be minor, insignificant, and unlikely to contribute to cumulative effects.

The mitigation measures discussed in Section 5 will be implemented to avoid or minimize the Proposed Projects cumulative effects to the environment.

Resources	Impact Analysis
Formally Classified Lands	None present; no impacts
Floodplains	No adverse impacts
Wetlands	TBD – Results Pending
Water Resources	No adverse impacts
General Fish, Wildlife, and Endangered Species	No adverse impacts
Migratory Bird	No adverse impacts
Bald and Golden Eagles	No adverse impacts
Invasive Species	No adverse impacts
Cultural Resources and Historic Properties	TBD – Results Pending
Traffic and Transportation	Temporary impacts during construction; no long-term impacts
Visual Resources	No adverse impacts
Human Health and Safety	TBD – Results Pending

Table 5 – Summary of Impacts

5. Summary of Mitigation

Mitigation and monitoring actions will be performed to reduce any impacts to the environmental resources associated with the Proposed Project. These actions are as follows:

- The Applicant shall obtain and comply with all required County, State and Federal permits.
- A stormwater management system will be incorporated into the Proposed Project design that will provide treatment to stormwater prior to potentially entering or impacting wetland areas. Stormwater treatment measures will comply with state and municipal regulations. Wherever possible existing drainage and grading patterns will be maintained in the design.
- An Erosion and Sedimentation Control Plan will be implemented before construction and will include erosion control measures that will be incorporated into the construction and restoration phases of the Proposed Project to minimize potential adverse wetland impacts.
- When disposing of excess, spoil, or other construction materials on public or private property, wetlands will not be filled in or otherwise converted.
- Erosion and sedimentation controls, in accordance with the MDEP's Maine Erosion and Sediment Control BMPs, will be installed prior to construction and maintained until construction is completed and the Proposed Project Area is stabilized.
- Necessary maintenance during Proposed Project operations will continue to be maintain vegetation throughout the life of the facility.
- The contractor shall comply with the Endangered Species Act, which provides for the protection of endangered and/or threatened species and critical habitat. Should any evidence of the presence of endangered and/or threatened species or their critical habitat be brought to the attention of the contractor, the contractor will immediately report this evidence to Owner and a representative of Agency. Construction shall be temporarily halted pending the notification process and further directions issued by Agency after consultation with the USFWS.
- The Proposed Project will also comply with the final 4(d) rule for the NLEB.
- Any excavation by the Contractor that uncovers an historical or archaeological artifact or human remains shall be immediately reported to Owner and a representative of Agency. Construction shall be temporarily halted pending the notification process and further directions issued by Agency after consultation with the MHPC and appropriate Tribes.

- Dust suppression techniques (e.g., covering or spraying bare soils with water) will be used to control dust resulting from construction activities. Post-construction, disturbed soils will be seeded with native herbaceous species.
- Screening to minimize visual impacts will be implemented according to the proposed landscape and revegetation plan.
- Traffic control methods will be implemented in accordance with state and local transportation standards.
- Waste generation will be managed in accordance with Federal, State, and local regulations.
- Site safety will be managed by strict adherence to OSHA requirements. Procedures included in an emergency response plan will include management efforts, a Hazardous Operations Manual, and SPCC plans designed to protect workers and the public from further exposure to hazards.

6. List of Appendices

The below list of appendices is attached at the end of this report.

APPENDIX I: Maps
- Regional Map
- Topographic Map
- Area Map

APPENDIX II: Drawings
- Proposed Project Plan

APPENDIX III: Site Photographs

APPENDIX IV: Land Use
- Custom Soil Report
- Protected Lands Map
- USGS Protected Lands Map
- Wild and Scenic Rivers Map
- National Rivers Inventory

APPENDIX V: Floodplains
- Floodplain Map
- Firm Panel

APPENDIX VI: Wetlands and Natural Resources
- Natural Resource Analysis Desktop Review
- NWI Map
- Wetlands and Waterways

APPENDIX VII: Water Resources
- US EPA Sole Source Aquifer Map

APPENDIX VIII: Biological Resources
- USFWS IPaC Report – Official Species List
- MDIFW Correspondence
- MNAP Correspondence
- Bald Eagle Map

APPENDIX IX: Cultural Resources and Historic Properties
- SHPO Consultation Correspondence
- Tribal Correspondence

APPENDIX X: Human Health and Safety
- Phase I Environmental Site Assessment Report

7. References

"Audubon Guide to North American Birds." *Audubon*, National Audubon Society, https://www.audubon.org/bird-guide.

Ecoregions of New England, U.S. Geological Survey, http://www.ecologicalregions.info/data/vt/new_eng_front.pdf.

"FEMA Flood Map Service Center: Search by Address." *View/Print FIRM: View an Image of the FIRM Panel or Print a FIRMette for Your Chosen Location. NOTE: This Is a Static Map and Has Not Been Updated since the Effective Date. Please Refer to Any Amendments or Revisions (LOMC) in the Changes to This FIRM Section.*, FEMA - Department of Homeland Security, https://msc.fema.gov/portal/search?AddressQuery=47.309314%2C+-68.377162#searchresultsanchor.

"IPAC: Information for Planning and Consultation." *IPaC: Home*, U.S. Fish and Wildlife Service, https://ecos.fws.gov/ipac/.

"Maine - Bald Eagle Nest Location and Buffer Zones." *ArcGIS Web Application*, U.S. Fish and Wildlife Service, https://fws.maps.arcgis.com/apps/webappviewer/index.html?id=796b7baa18de43b49f911fe82dc4a0f1.

"National Register of Historic Places." *National Parks Service*, U.S. Department of the Interior, https://www.nps.gov/maps/full.html?mapId=7ad17cc9-b808-4ff8-a2f9-a99909164466.

"Nationwide Rivers Inventory." *National Parks Service - Nationwide Rivers Inventory*, U.S. Department of the Interior, https://www.nps.gov/maps/full.html?mapId=8adbe798-0d7e-40fb-bd48-225513d64977.

"NEPAssist." *EPA NEPAssist*, Environmental Protection Agency, https://nepassisttool.epa.gov/nepassist/nepamap.aspx.

Nrcs. "Custom Soil Survey Report." *Web Soil Survey*, United States Department of Agriculture, https://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm.

Protected Areas Database of the United States (PAD-US) 2.1
U.S. Geological Survey (USGS) Gap Analysis Project (GAP) (Accessed: 2021-01)

"Sole Source Aquifers Map." *ArcGIS Web Application*, Environmental Protection Agency, https://epa.maps.arcgis.com/apps/webappviewer/index.html?id=9ebb047ba3ec41ada1877155fe31356b.

U.S. Fish and Wildlife Service; National Wetlands Inventory; National Standards and Support Team. “National Wetlands Inventory Mapper.” *Wetlands Mapper*, U.S. Fish and Wildlife Service, https://www.fws.gov/wetlands/data/mapper.html.

“Wild and Scenic Rivers ArcGIS Mapper.” *Nps.maps.arcgis.com*, U.S. National Park Service, https://nps.maps.arcgis.com/apps/View/index.html?appid=ff42a57d0aae43c49a88daee0e353142.

“Yearly Traffic Counts.” *Yearly Traffic Counts | MaineDOT*, Maine Department of Transportation, https://www.maine.gov/mdot/traffic/counts/.

APPENDIX I – MAPS

- **Regional Map**
- **Topographic Map**
- **Area Map**

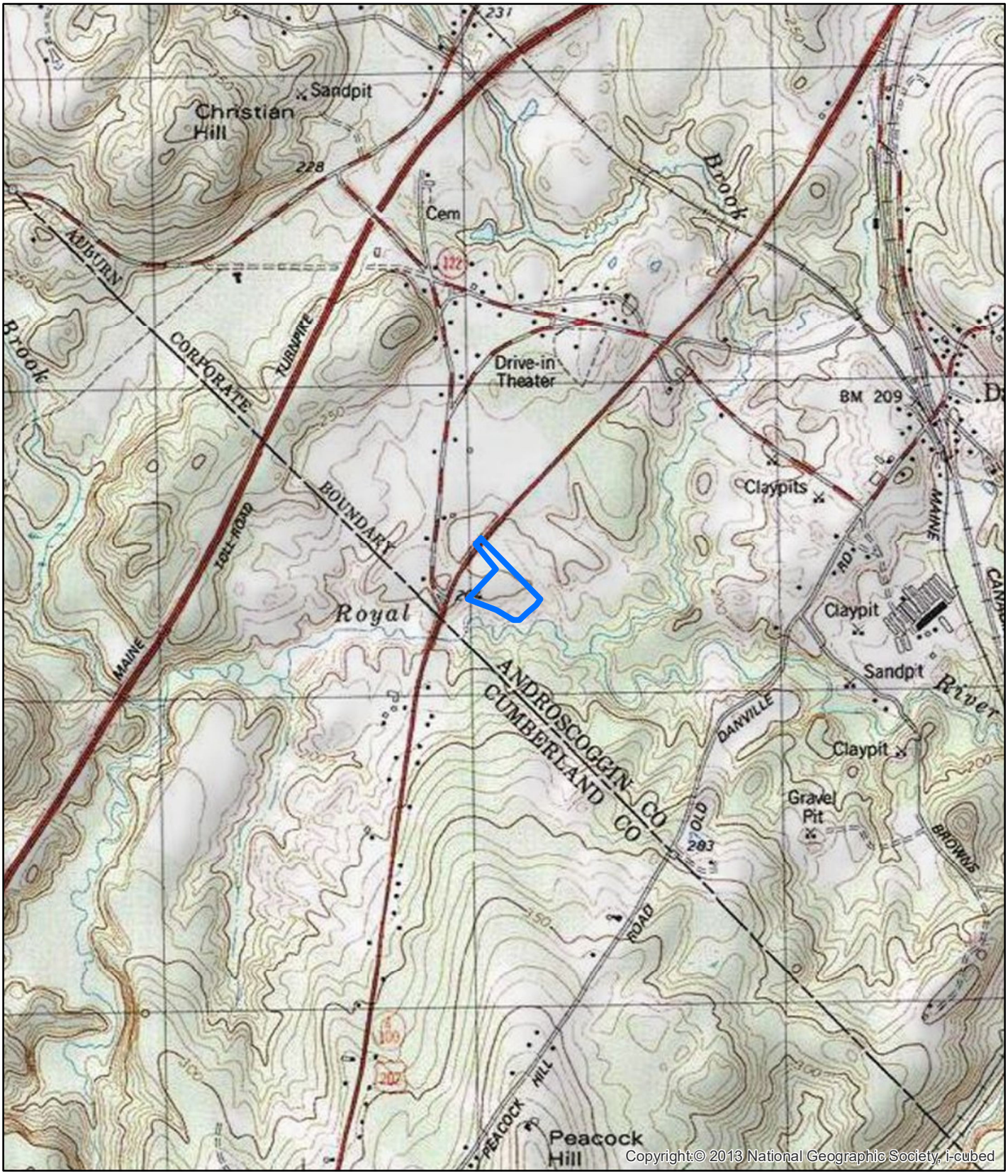
Project Area
ME Washington HS CSG
Androscoggin County, ME

N

Novel
ENERGY SOLUTIONS

0 500 1,000
Feet

WashingtonProjectArea



USGS Topo 1:24000
ME Washington HS CSG
Androscoggin County, ME

N

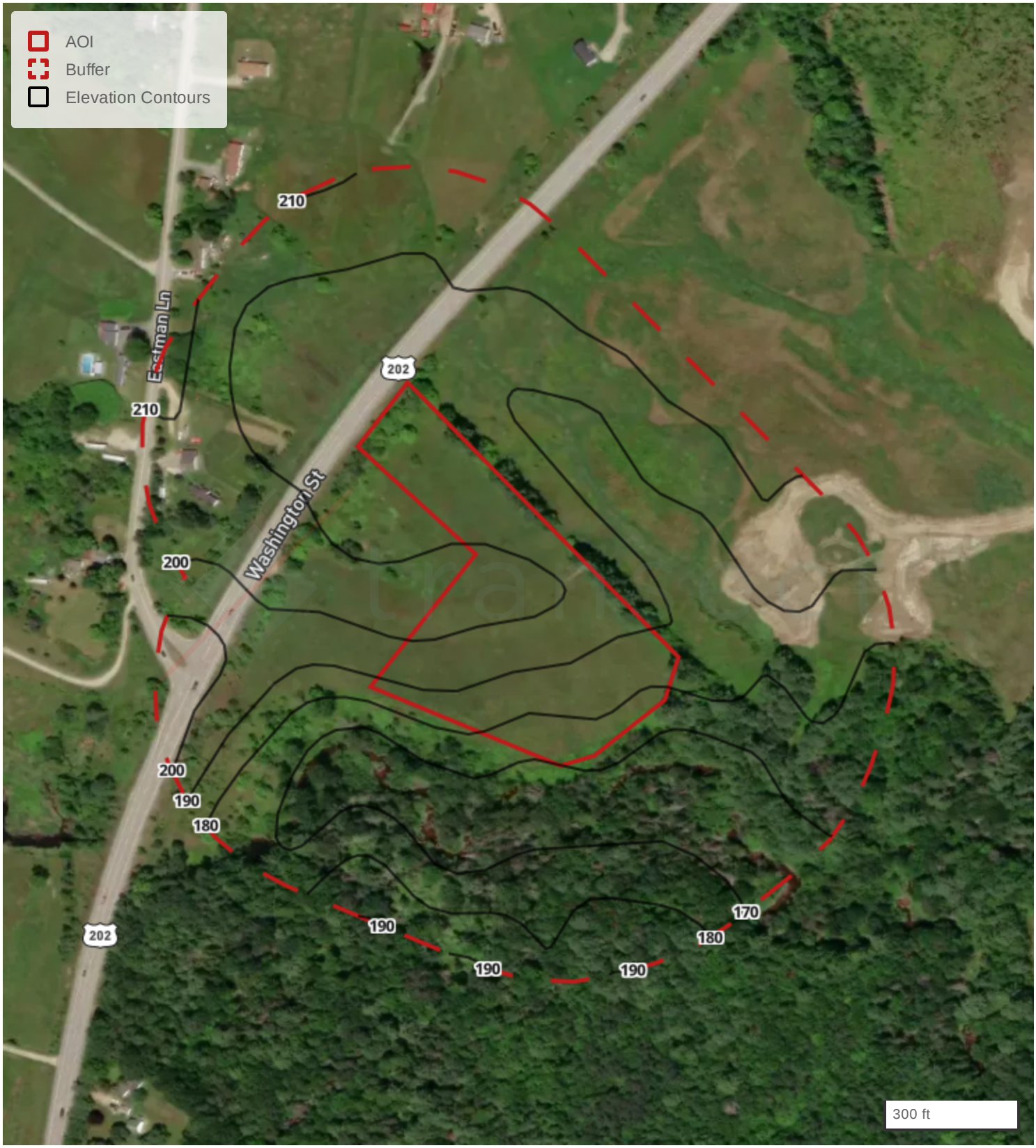
Novel
ENERGY SOLUTIONS

WashingtonProjectArea

0 1,200 2,400
Feet

Elevation Contours Map

ME Washington HS CSG LLC



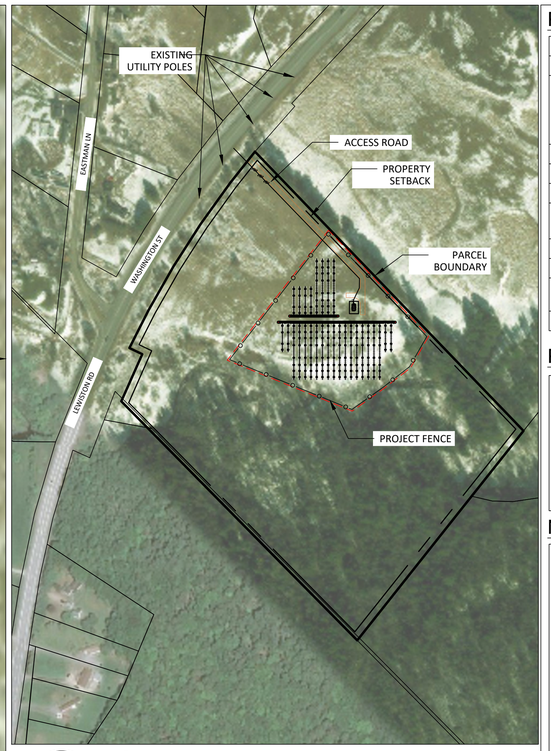
transect

APPENDIX II – DRAWINGS

- **Proposed Site Plan - layout is being redesigned to avoid stream. Update will be provided.**

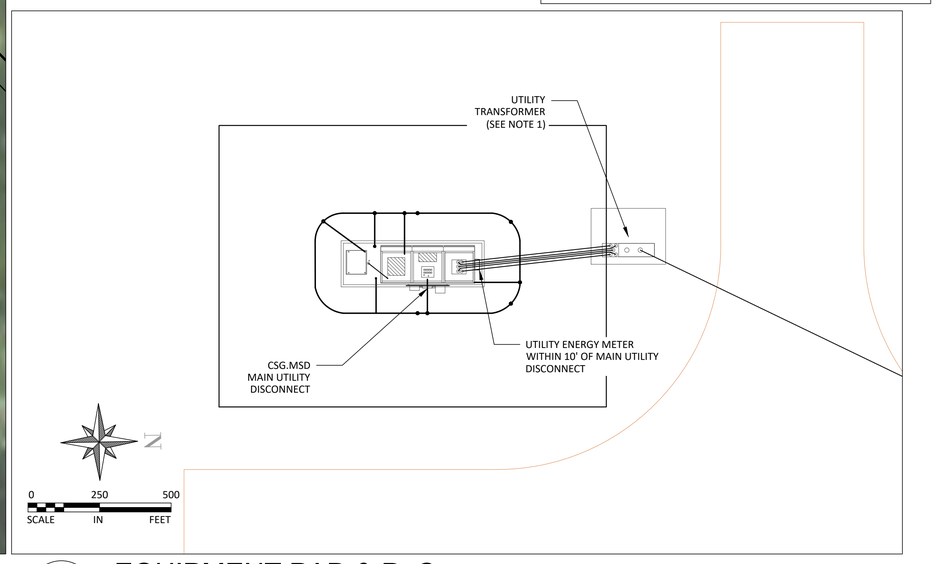
1 E100 **SITE PLAN**

SCALE: 1" = 50'



2 E100 **OVERALL VIEW**

SCALE: 1"=250'



3 E100 **EQUIPMENT PAD & PoC**

SCALE: 1:8

PROJECT SUMMARY

DC SYSTEM SIZE:	673,920 WATTS
AC SYSTEM SIZE:	499,000 WATTS
MODULES TYPES:	ZNSHINE SOLAR BIFACIAL MODULES 540Wp (ZXM7-SHLDD144-540/M)
TOTAL # OF MODULES:	1248
TOTAL # OF STRINGS:	48
MODULES PER STRING:	26
INVERTER TYPE:	CHINT POWER 125kWAC
TOTAL # OF INVERTERS:	4
TOTAL # OF TRACKERS:	16
MODULES PER TRACKER:	26 / 52
ROW-ROW SPACING:	20 FT

PROJECT INFORMATION

CUSTOMER:
ME WASHINGTON HS CSG LLC

SITE ADDRESS:
44.01678° N, 70.28275° W

PID: 053-004

NOTES

1. TRANSFORMER PRECAST PAD OR POURED IN PLACE CONCRETE PAD INSTALLED BY CUSTOMER. SEE AND USE CMP STANDARD FOR ELECTRICAL INSTALLATION AND USE.

2. NES TO INSTALL TRANSFORMER FOUNDATION, LOW VOLTAGE CABLE, AND LV AND MV CONDUITS. CMP TO INSTALL MV UNDERGROUND CONDUCTORS, POLES AND ASSOCIATED HARDWARE, AND OVERHEAD DISTRIBUTION LINE.

3. ACCESSIBLE, LOCKABLE DISCONNECT WITH VISIBLE BLADES . SHALL BE WITHIN 10' OF UTILITY METER.

4. 24/7 UNESCORTED KEYLESS ACCESS SHALL BE PROVIDED TO ALL CMP EQUIPMENT

5. OVERHEAD ELECTRIC FACILITIES ARE NOT EXPECTED TO HAVE ANY CLEARANCE CONCERNS

6. PROJECT INTERCONNECTION
TYPE : SECONDARY

Novel ENERGY SOLUTIONS
2303 Wycliff St, Suite 300
St Paul, MN 55114

info@novelenergy.biz
612-345-7188

Client
WAYNE S. BRIDGHAM & SHARON RUSSELL

Project
ME WASHINGTON HS CSG LLC

Location
44.01678° N, 70.28275° W

Certification

I hereby certify that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly licensed professional ENGINEER under the laws of the state of Maine.

SCOTT GEDDES, P.E
Registration No.16864 Date:1/21/2022

If applicable, contact us for a wet signed copy of this plan which is available upon request at Novel Energy Solutions - St. Paul, MN office.

Summary

Designed: NAA Drawn: NAA
Approved: VDS Book / Page: IC
Phase: PERMITTING Initial Issue: 1/21/2022

Revisions

No.	Date	By	Chk	Description

Sheet Title
SITE PLAN - OVERALL

Sheet No.
E100

Project No. LWSTN

APPENDIX III – PHOTOGRAPHS

- **Site Photographs - *Pending***

APPENDIX IV – LAND USE

- **Custom Soil Report**
- **Protected Lands Map**
- **USGS Protected Lands Map**
- **Wild and Scenic Rivers Map**
- **Nationwide Rivers Inventory Map**

United States Department of Agriculture

NRCS

Natural Resources Conservation Service

A product of the National Cooperative Soil Survey, a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local participants

Custom Soil Resource Report for Androscoggin and Sagadahoc Counties, Maine

ME Washington HS CSG LLC

April 5, 2022

Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (https://offices.sc.egov.usda.gov/locator/app?agency=nrcs) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

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Contents

How Soil Surveys Are Made

Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They observed and described many soil profiles. A soil profile is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed or from the surface down to bedrock. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in a survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil

scientists classified and named the soils in the survey area, they compared the individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

The objective of soil mapping is not to delineate pure map unit components; the objective is to separate the landscape into landforms or landform segments that have similar use and management requirements. Each map unit is defined by a unique combination of soil components and/or miscellaneous areas in predictable proportions. Some components may be highly contrasting to the other components of the map unit. The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The delineation of such landforms and landform segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Soil scientists make many field observations in the process of producing a soil map. The frequency of observation is dependent upon several factors, including scale of mapping, intensity of mapping, design of map units, complexity of the landscape, and experience of the soil scientist. Observations are made to test and refine the soil-landscape model and predictions and to verify the classification of the soils at specific locations. Once the soil-landscape model is refined, a significantly smaller number of measurements of individual soil properties are made and recorded. These measurements may include field measurements, such as those for color, depth to bedrock, and texture, and laboratory measurements, such as those for content of sand, silt, clay, salt, and other components. Properties of each soil typically vary from one point to another across the landscape.

Observations for map unit components are aggregated to develop ranges of characteristics for the components. The aggregated values are presented. Direct measurements do not exist for every property presented for every map unit component. Values for some properties are estimated from combinations of other properties.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

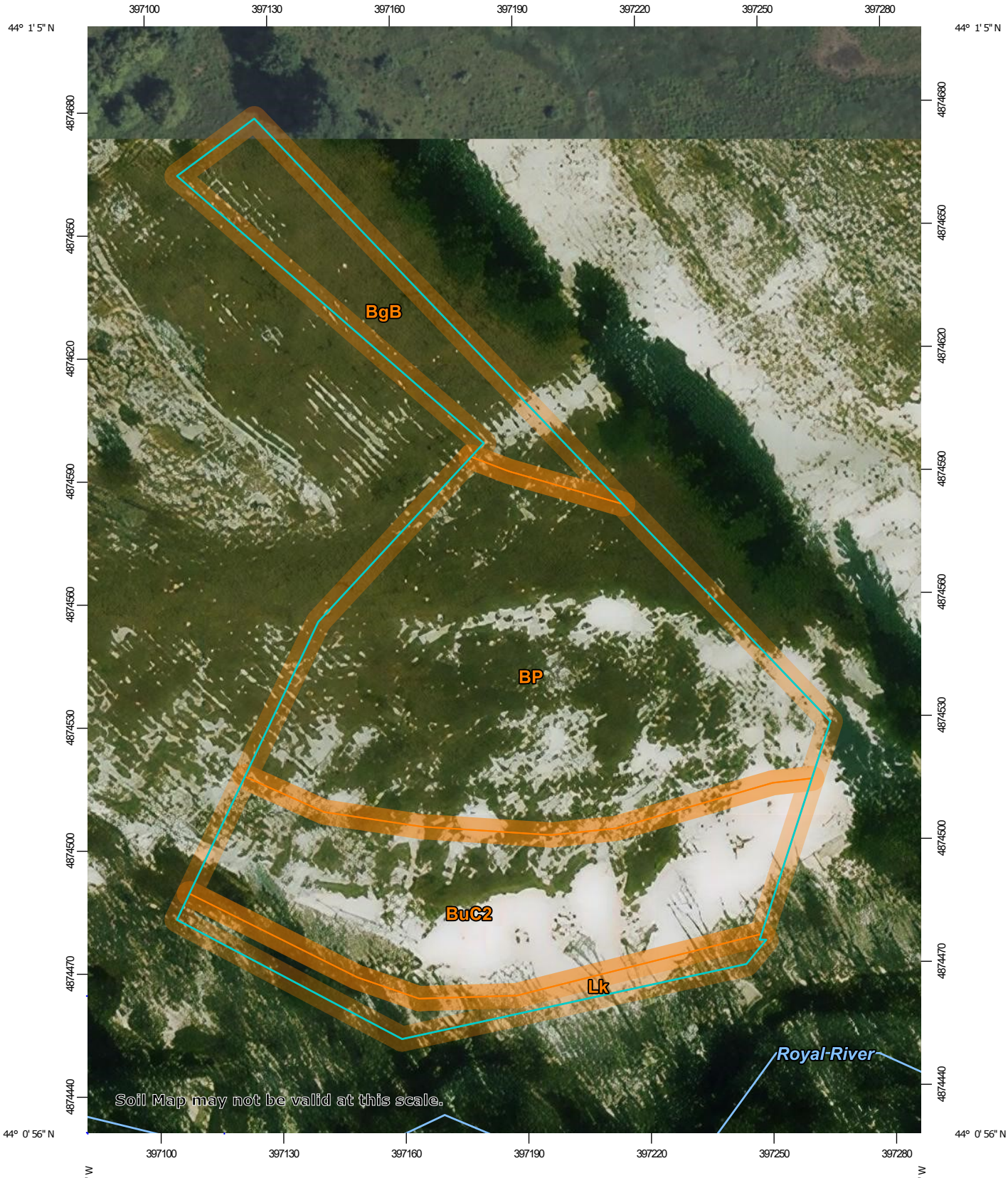
After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and

identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.

Custom Soil Resource Report
Soil Map



Map Scale: 1:1,310 if printed on A portrait (8.5" x 11") sheet.

N

Meters: 0 15 30 60 90

Feet: 0 50 100 200 300

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 19N WGS84

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:15,800.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Androscoggin and Sagadahoc Counties, Maine
Survey Area Data: Version 22, Aug 30, 2021

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Dec 31, 2009—Oct 7, 2021

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background

MAP LEGEND

MAP INFORMATION

imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
BgB	Nicholville very fine sandy loam, 0 to 8 percent slopes	0.5	12.9%
BP	Borrow pits	2.1	50.1%
BuC2	Buxton silt loam, 8 to 15 percent slopes	1.3	31.0%
Lk	Charles silt loam, 0 to 2 percent slopes, occasionally flooded	0.2	6.0%
Totals for Area of Interest		**4.2**	**100.0%**

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate

pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

Androscoggin and Sagadahoc Counties, Maine

BgB—Nicholville very fine sandy loam, 0 to 8 percent slopes

Map Unit Setting

National map unit symbol: 2yjg5
Elevation: 20 to 2,300 feet
Mean annual precipitation: 34 to 50 inches
Mean annual air temperature: 37 to 45 degrees F
Frost-free period: 90 to 160 days
Farmland classification: Farmland of statewide importance

Map Unit Composition

Nicholville and similar soils: 85 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Nicholville

Setting

Landform: Lakebeds (relict)
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Coarse-silty glaciomarine deposits

Typical profile

Ap - 0 to 7 inches: very fine sandy loam
Bs - 7 to 19 inches: very fine sandy loam
BC - 19 to 30 inches: very fine sandy loam
C - 30 to 65 inches: loamy very fine sand

Properties and qualities

Slope: 0 to 8 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Moderately well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.14 to 1.42 in/hr)
Depth to water table: About 18 to 30 inches
Frequency of flooding: None
Frequency of ponding: None
Maximum salinity: Nonsaline (0.0 to 1.9 mmhos/cm)
Available water supply, 0 to 60 inches: High (about 10.3 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 2e
Hydrologic Soil Group: C
Hydric soil rating: No

BP—Borrow pits

Map Unit Composition

Borrow pits: 86 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Borrow Pits

Typical profile

H1 - 0 to 60 inches: variable

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 8s
Hydric soil rating: No

BuC2—Buxton silt loam, 8 to 15 percent slopes

Map Unit Setting

National map unit symbol: 2x1by
Elevation: 10 to 490 feet
Mean annual precipitation: 33 to 60 inches
Mean annual air temperature: 36 to 52 degrees F
Frost-free period: 90 to 160 days
Farmland classification: Not prime farmland

Map Unit Composition

Buxton and similar soils: 85 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Buxton

Setting

Landform: Marine terraces, river valleys
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Linear
Across-slope shape: Convex
Parent material: Fine glaciomarine deposits

Typical profile

Ap - 0 to 7 inches: silt loam
Bw1 - 7 to 18 inches: silt loam
Bw2 - 18 to 23 inches: silty clay loam
BC - 23 to 35 inches: silty clay loam
C - 35 to 65 inches: silty clay

Properties and qualities

Slope: 8 to 15 percent

Depth to restrictive feature: More than 80 inches
Drainage class: Moderately well drained
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.14 in/hr)
Depth to water table: About 17 to 24 inches
Frequency of flooding: None
Frequency of ponding: None
Maximum salinity: Nonsaline (0.0 to 1.9 mmhos/cm)
Available water supply, 0 to 60 inches: High (about 9.1 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3e
Hydrologic Soil Group: C/D
Hydric soil rating: No

Lk—Charles silt loam, 0 to 2 percent slopes, occasionally flooded

Map Unit Setting

National map unit symbol: 2synm
Elevation: 10 to 2,000 feet
Mean annual precipitation: 33 to 50 inches
Mean annual air temperature: 39 to 45 degrees F
Frost-free period: 90 to 160 days
Farmland classification: Not prime farmland

Map Unit Composition

Charles and similar soils: 85 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Charles

Setting

Landform: Flood plains
Landform position (three-dimensional): Talf
Down-slope shape: Linear, concave
Across-slope shape: Linear, concave
Parent material: Coarse-silty alluvium derived from metasedimentary rock

Typical profile

Ap - 0 to 7 inches: silt loam
Cg - 7 to 65 inches: silt loam

Properties and qualities

Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Poorly drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.14 to 1.42 in/hr)
Depth to water table: About 0 to 12 inches
Frequency of flooding: NoneOccasional
Frequency of ponding: None

Available water supply, 0 to 60 inches: Very high (about 17.7 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 4w
Hydrologic Soil Group: B/D
Ecological site: F144BY110ME - Broad Floodplain Riparian Complex
Hydric soil rating: Yes

References

American Association of State Highway and Transportation Officials (AASHTO). 2004. Standard specifications for transportation materials and methods of sampling and testing. 24th edition.

American Society for Testing and Materials (ASTM). 2005. Standard classification of soils for engineering purposes. ASTM Standard D2487-00.

Cowardin, L.M., V. Carter, F.C. Golet, and E.T. LaRoe. 1979. Classification of wetlands and deep-water habitats of the United States. U.S. Fish and Wildlife Service FWS/OBS-79/31.

Federal Register. July 13, 1994. Changes in hydric soils of the United States.

Federal Register. September 18, 2002. Hydric soils of the United States.

Hurt, G.W., and L.M. Vasilas, editors. Version 6.0, 2006. Field indicators of hydric soils in the United States.

National Research Council. 1995. Wetlands: Characteristics and boundaries.

Soil Survey Division Staff. 1993. Soil survey manual. Soil Conservation Service. U.S. Department of Agriculture Handbook 18. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2_054262

Soil Survey Staff. 1999. Soil taxonomy: A basic system of soil classification for making and interpreting soil surveys. 2nd edition. Natural Resources Conservation Service, U.S. Department of Agriculture Handbook 436. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2_053577

Soil Survey Staff. 2010. Keys to soil taxonomy. 11th edition. U.S. Department of Agriculture, Natural Resources Conservation Service. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2_053580

Tiner, R.W., Jr. 1985. Wetlands of Delaware. U.S. Fish and Wildlife Service and Delaware Department of Natural Resources and Environmental Control, Wetlands Section.

United States Army Corps of Engineers, Environmental Laboratory. 1987. Corps of Engineers wetlands delineation manual. Waterways Experiment Station Technical Report Y-87-1.

United States Department of Agriculture, Natural Resources Conservation Service. National forestry manual. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/home/?cid=nrcs142p2_053374

United States Department of Agriculture, Natural Resources Conservation Service. National range and pasture handbook. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/landuse/rangepasture/?cid=stelprdb1043084

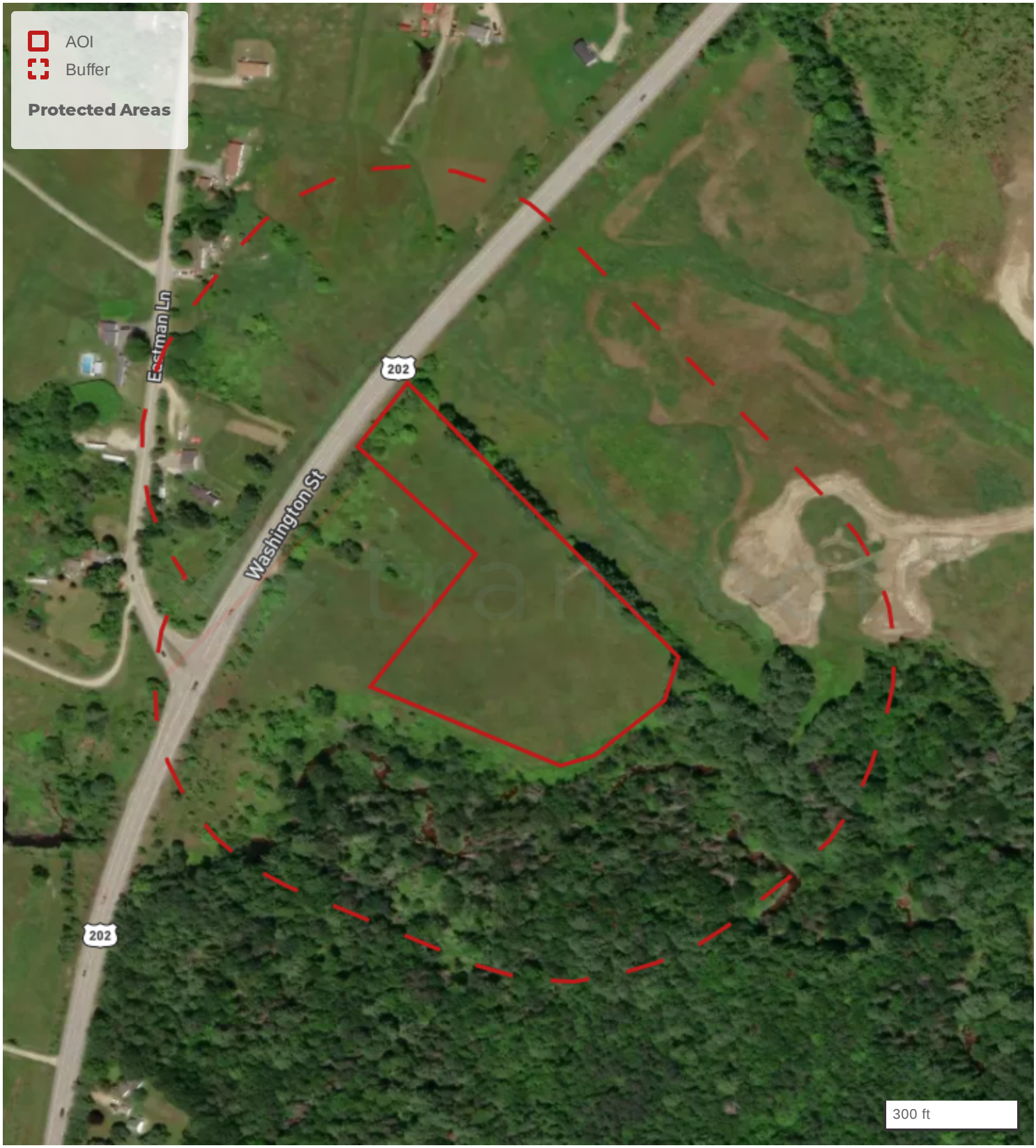
United States Department of Agriculture, Natural Resources Conservation Service. National soil survey handbook, title 430-VI. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/scientists/?cid=nrcs142p2_054242

United States Department of Agriculture, Natural Resources Conservation Service. 2006. Land resource regions and major land resource areas of the United States, the Caribbean, and the Pacific Basin. U.S. Department of Agriculture Handbook 296. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2_053624

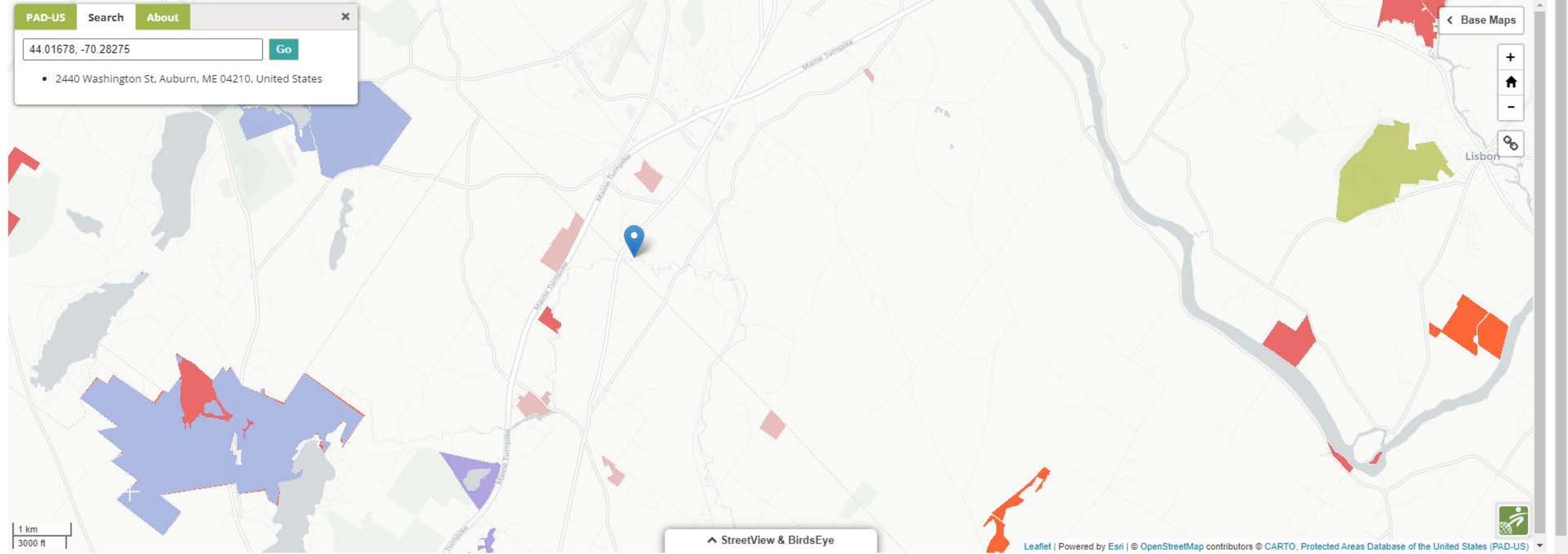
United States Department of Agriculture, Soil Conservation Service. 1961. Land capability classification. U.S. Department of Agriculture Handbook 210. http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_052290.pdf

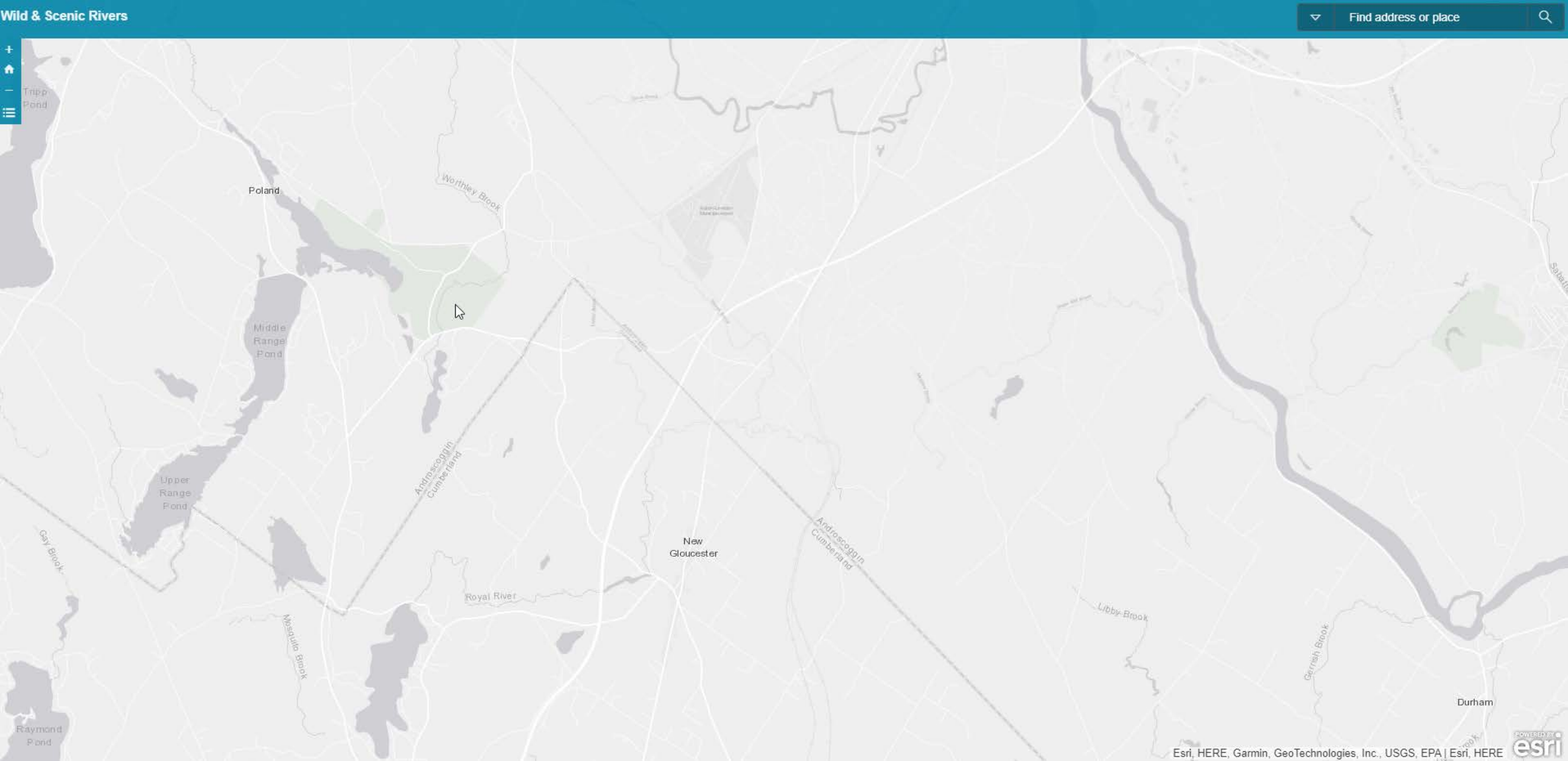
Protected Areas Map

ME Washington HS CSG LLC



transect

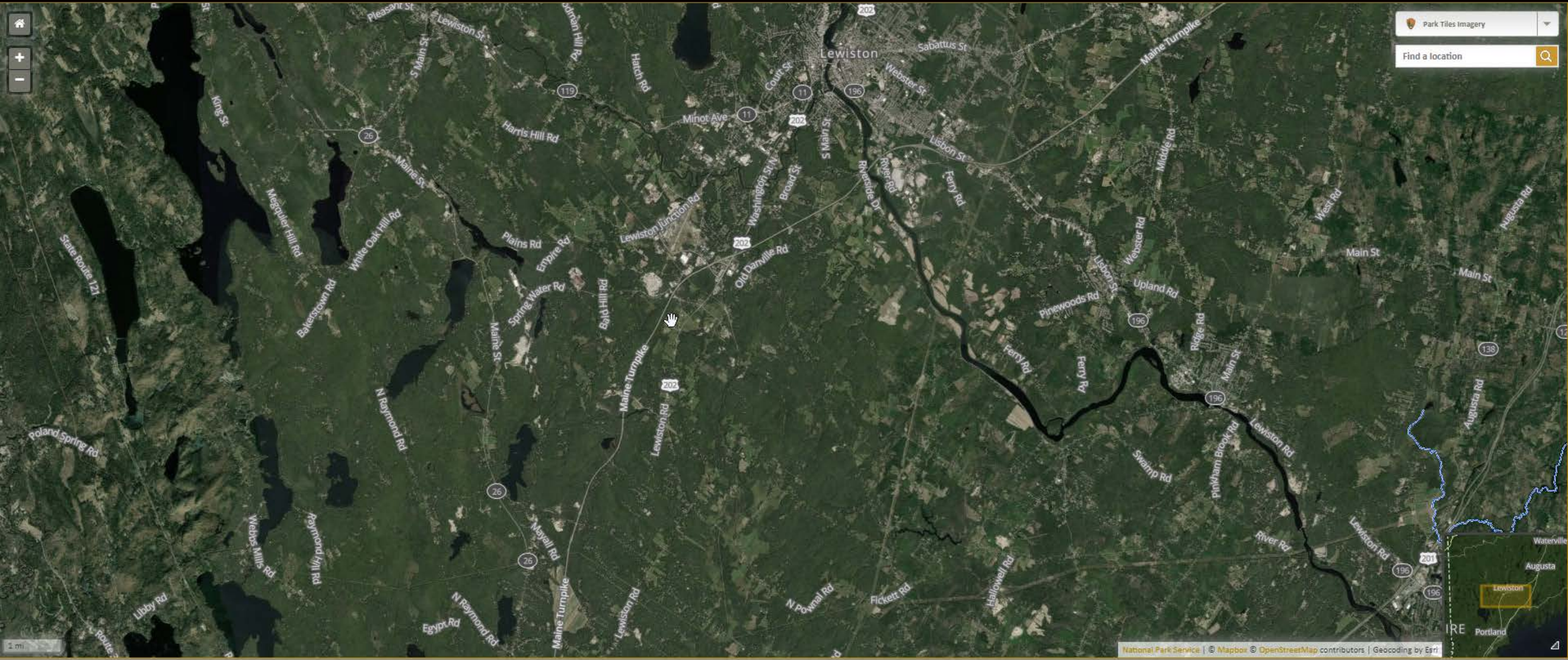

PAD-US
Search
About
44.01678, -70.28275
Go
2440 Washington St, Auburn, ME 04210, United States
Base Maps
Maine Turnpike
Lisbon
1 km
3000 ft
StreetView & BirdsEye
Leaflet | Powered by Esri | © OpenStreetMap contributors © CARTO, Protected Areas Database of the United States (PAD-US)


Wild & Scenic Rivers
Find address or place
Tripp Pond
Poland
Worthley Brook
Middle Range Pond
Upper Range Pond
Androscoggin
Cumberland
New Gloucester
Androscoggin
Cumberland
Gay Brook
Royal River
Mosquito Brook
Libby Brook
Gerrish Brook
Durham
Raymond Pond
Esri, HERE, Garmin, GeoTechnologies, Inc., USGS, EPA | Esri, HERE

Nationwide Rivers Inventory

This is a listing of more than 3,200 free-flowing river segments in the U.S. that are believed to possess one or more "outstandingly remarkable" values.

National Park Service
U.S. Department of the Interior

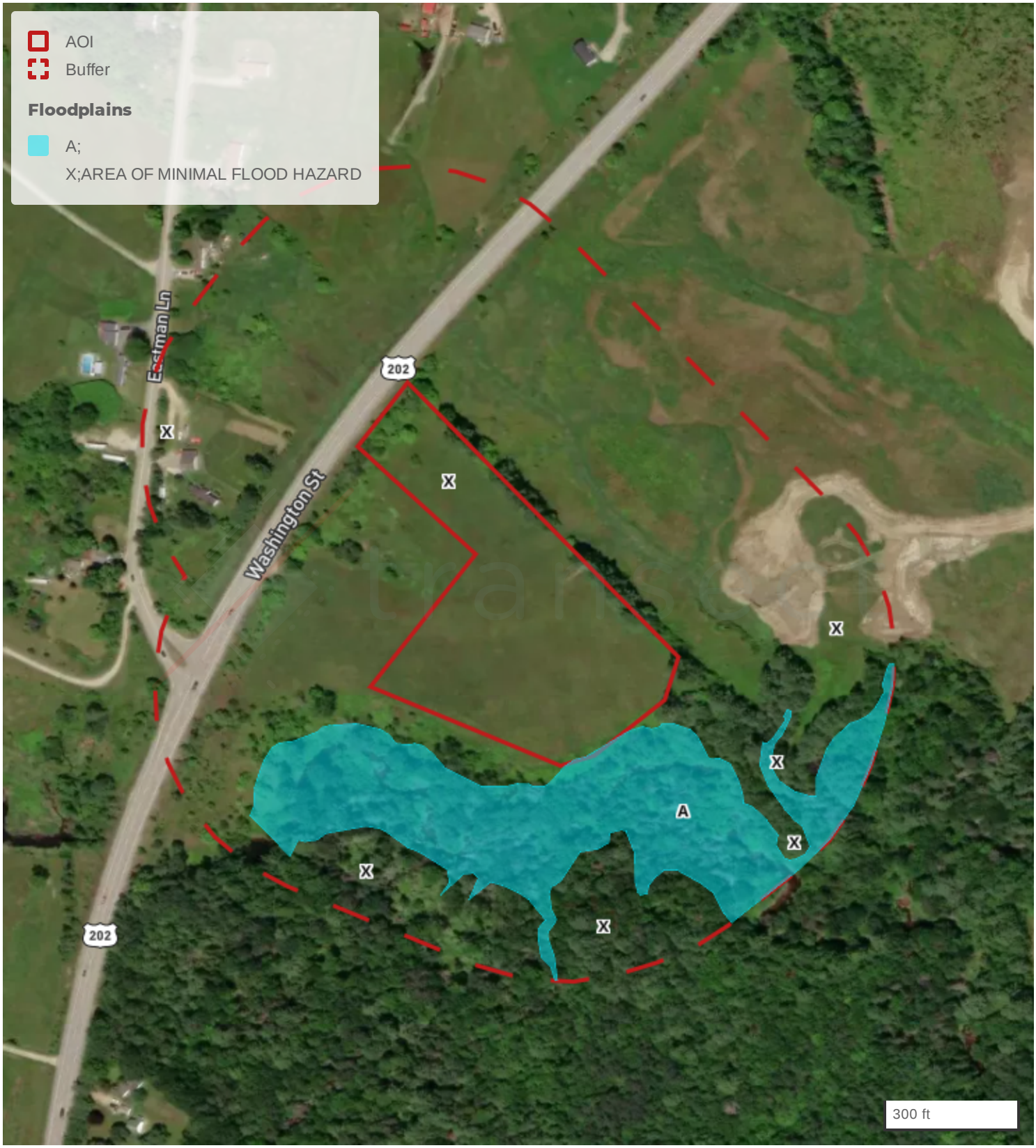


APPENDIX V – FLOODPLAINS

- **Floodplain map**
- **FIRM Panel**

Floodplains Map

ME Washington HS CSG LLC



Disclaimer: This map is for planning purposes only. Transect makes no claims, no representations, and no warranties, express or implied, concerning the validity (express or implied), the reliability or the accuracy of the GIS data and GIS data products furnished by Transect, including the implied validity of any uses of such data.

transect

NOTES TO USERS

This map is for use in administering the National Flood Insurance Program. It does not necessarily identify all areas subject to flooding, particularly from local drainage sources of small size. The **community map repository** should be consulted for possible updated or additional flood hazard information.

To obtain more detailed information in areas where **Base Flood Elevations** (BFEs) and/or **floodways** have been determined, users are encouraged to consult the Flood Profiles and Floodway Data and/or Summary of Stillwater Elevations tables contained within the Flood Insurance Study (FIS) Report that accompanies this FIRM. Users should be aware that BFEs shown on the FIRM represent rounded whole-foot elevations. These BFEs are intended for flood insurance rating purposes only and should not be used as the sole source of flood elevation information. Accordingly, flood elevation data presented in the FIS Report should be utilized in conjunction with the FIRM for purposes of construction and/or floodplain management.

Coastal Base Flood Elevations shown on this map apply only landward of 0.0' North American Vertical Datum of 1988 (NAVD 88). Users of this FIRM should be aware that coastal flood elevations are also provided in the Summary of Stillwater Elevations table in the Flood Insurance Study Report for this jurisdiction. Elevations shown in the Summary of Stillwater Elevations table should be used for construction and/or floodplain management purposes when they are higher than the elevations shown on this FIRM.

Boundaries of the **floodways** were computed at cross sections and interpolated between cross sections. The floodways were based on hydraulic considerations with regard to requirements of the National Flood Insurance Program. Floodway widths and other pertinent floodway data are provided in the Flood Insurance Study Report for this jurisdiction.

Certain areas not in Special Flood Hazard Areas may be protected by **flood control structures**. Refer to Section 2.4 "Flood Protection Measures" of the Flood Insurance Study Report for information on flood control structures for this jurisdiction.

The **projection** used in the preparation of this map was Universal Transverse Mercator (UTM) zone 19. The **horizontal datum** was NAD 83, GRS 1980 spheroid. Differences in datum, spheroid, projection or UTM zones used in the production of FIRMs for adjacent jurisdictions may result in slight positional differences in map features across jurisdiction boundaries. These differences do not affect the accuracy of this FIRM.

Flood elevations on this map are referenced to the North American Vertical Datum of 1988. These flood elevations must be compared to structure and ground elevations referenced to the same **vertical datum**. For information regarding conversion between the National Geodetic Vertical Datum of 1929 and the North American Vertical Datum of 1988, visit the National Geodetic Survey website at http://www.ngs.noaa.gov or contact the National Geodetic Survey at the following address:

NGS Information Services
NOAA, N/NGS12
National Geodetic Survey
SSMC-3, #9202
1315 East-West Highway
Silver Spring, Maryland 20910-3282
(301) 713-3242

To obtain current elevation, description, and/or location information for **bench marks** shown on this map, please contact the Information Services Branch of the National Geodetic Survey at **(301) 713- 3242**, or visit its website at http://www.ngs.noaa.gov.

Base map information shown on this FIRM was derived from the Maine Office of Geographic Information Systems (MEGIS) at a scale of 1:4,800 or better from photography dated 2001 or later.

The **profile baselines** depicted on this map represent the hydraulic modeling baselines that match the flood profiles in the FIS report. As a result of improved topographic data, the **profile baseline**, in some cases, may deviate significantly from the channel centerline or appear outside the SFHA.

Based on updated topographic information, this map reflects more detailed and up-to-date **stream channel configurations and floodplain delineations** than those shown on the previous FIRM for this jurisdiction. As a result, the Flood Profiles and Floodway Data tables for multiple streams in the Flood Insurance Study Report (which contains authoritative hydraulic data) may reflect stream channel distances that differ from what is shown on the map. Also, the road to floodplain relationships for unrevised streams may differ from what is shown on previous maps.

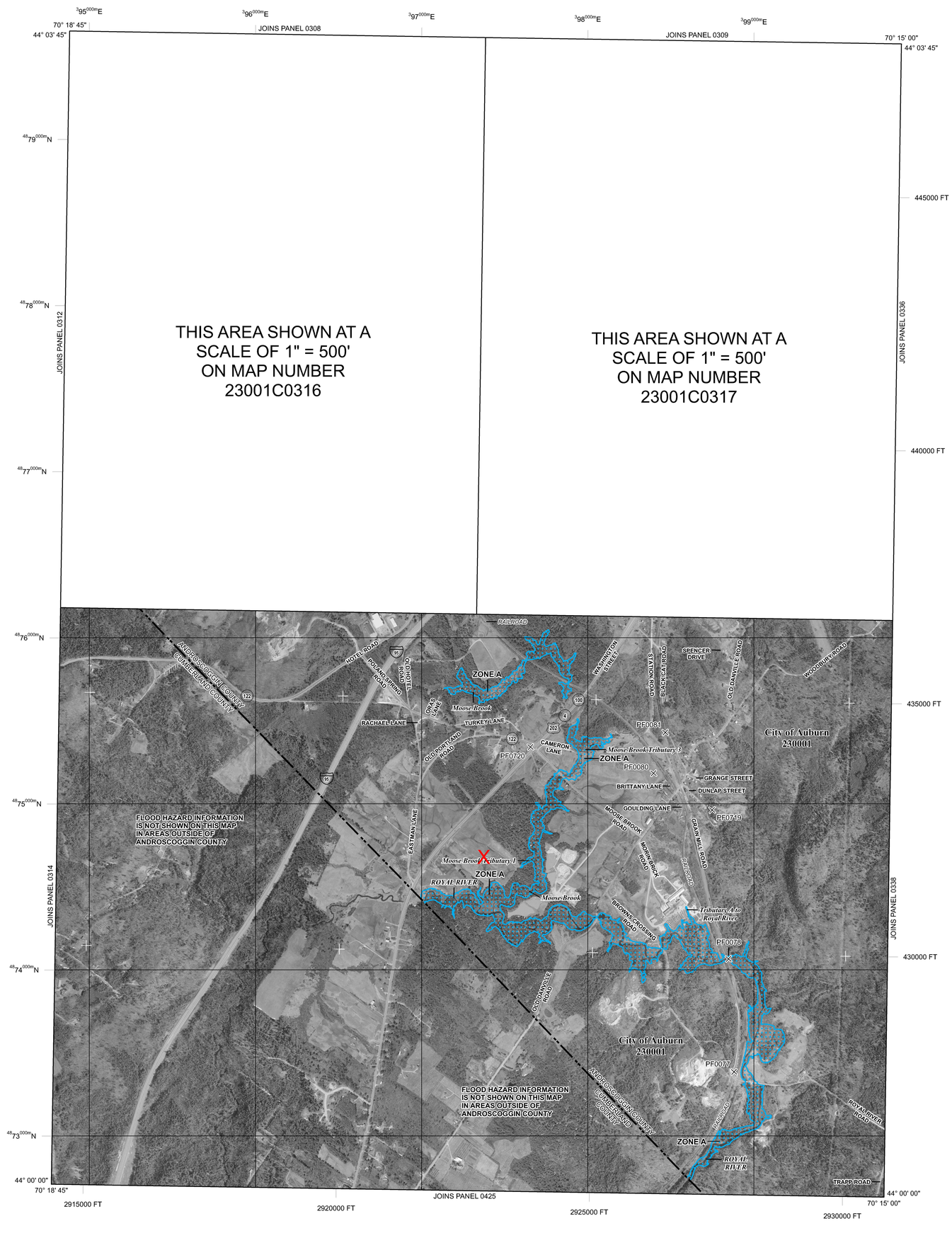
Corporate limits shown on this map are based on the best data available at the time of publication. Because changes due to annexations or de-annexations may have occurred after this map was published, map users should contact appropriate community officials to verify current corporate limit locations.

Please refer to the separately printed **Map Index** for an overview map of the county showing the layout of map panels; community map repository addresses; and a Listing of Communities table containing National Flood Insurance Program dates for each community as well as a listing of the panels on which each community is located.

For information on available products associated with this FIRM visit the **Map Service Center (MSC)** website at http://msc.fema.gov. Available products may include previously issued Letters of Map Change, a Flood Insurance Study Report, and/or digital versions of this map. Many of these products can be ordered or obtained directly from the MSC website.

If you have **questions about this map,** how to order products, or the National Flood Insurance Program in general, please call the **FEMA Map Information eXchange (FMIX)** at **1-877-FEMA-MAP** (1-877-336-2627) or visit the FEMA website at http://www.fema.gov/business/nfip.

State of Maine Floodway Note: Under the Maine Revised Statutes Annotated (M.R.S.A.) Title 38 § 439-A, 7C where the floodway is not designated on the Flood Insurance Rate Map, the floodway is considered to be the channel of a river or other water course and the adjacent land areas to a distance of one-half the width of the floodplain, as measured from the normal high water mark to the upland limit of the floodplain, unless a technical evaluation certified by a registered professional engineer is provided demonstrating the actual floodway based upon approved FEMA modeling methods.



LEGEND

SPECIAL FLOOD HAZARD AREAS (SFHAs) SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD

The 1% annual chance flood (100-year flood), also known as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. The Special Flood Hazard Area is the area subject to flooding by the 1% annual chance flood. Areas of Special Flood Hazard include Zones A, AE, AH, AO, AR, A99, V, and VE. The Base Flood Elevation is the water-surface elevation of the 1% annual chance flood.

ZONE A No Base Flood Elevations determined.

ZONE AE Base Flood Elevations determined.

ZONE AH Flood depths of 1 to 3 feet (usually areas of ponding); Base Flood Elevations determined.

ZONE AO Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of alluvial fan flooding, velocities also determined.

ZONE AR Special Flood Hazard Areas formerly protected from the 1% annual chance flood by a flood control system that was subsequently decertified. Zone AR indicates that the former flood control system is being restored to provide protection from the 1% annual chance or greater flood.

ZONE A99 Area to be protected from 1% annual chance flood by a Federal flood protection system under construction; no Base Flood Elevations determined.

ZONE V Coastal flood zone with velocity hazard (wave action); no Base Flood Elevations determined.

ZONE VE Coastal flood zone with velocity hazard (wave action); Base Flood Elevations determined.

FLOODWAY AREAS IN ZONE AE

The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.

OTHER FLOOD AREAS

ZONE X Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood.

OTHER AREAS

ZONE X Areas determined to be outside the 0.2% annual chance floodplain.

ZONE D Areas in which flood hazards are undetermined, but possible.

COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS

OTHERWISE PROTECTED AREAS (OPAs)

CBRS areas and OPAs are normally located within or adjacent to Special Flood Hazard Areas.

1% Annual Chance Floodplain Boundary

0.2% Annual Chance Floodplain Boundary

Floodway boundary

Zone D boundary

CBRS and OPA boundary

Boundary dividing Special Flood Hazard Area Zones and boundary dividing Special Flood Hazard Areas of different Base Flood Elevations, flood depths, or flood velocities.

513 Base Flood Elevation line and value; elevation in feet*

(EL 987) Base Flood Elevation value where uniform within zone; elevation in feet*

*Referenced to the North American Vertical Datum of 1988

A — A Cross section line

23 — 23 Transect line

45° 02' 08", 93° 02' 12" Geographic coordinates referenced to the North American Datum of 1983 (NAD 83) Western Hemisphere

3100000 FT 5000-foot ticks: Maine State Plane West Zone (FIPS Zone 1802), Transverse Mercator projection

48 89 000m N 1000-meter Universal Transverse Mercator grid values, zone 19

DX5510 Bench mark (see explanation in Notes to Users section of this FIRM panel)

FT1,000 River Station

MAP REPOSITORIES
Refer to Map Repositories list on Map Index

EFFECTIVE DATE OF COUNTYWIDE FLOOD INSURANCE RATE MAP
July 8, 2013

EFFECTIVE DATE(S) TO THIS PANEL

For community map revision history prior to countywide mapping, refer to the Community Map History table located in the Flood Insurance Study report for this jurisdiction.

To determine if flood insurance is available in this community, contact your insurance agent or call the National Flood Insurance Program at 1-800-638-6620.

MAP SCALE 1" = 1000'

500 0 1000 2000 FEET

300 0 300 600 METERS

NFIP

PANEL 0320E

FIRM

FLOOD INSURANCE RATE MAP

ANDROSCOGGIN COUNTY, MAINE (ALL JURISDICTIONS)

PANEL 320 OF 470

(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
AUBURN, CITY OF	230001	0320	E

Notice to User: The **Map Number** shown below should be used when placing map orders; the **Community Number** shown above should be used on insurance applications for the subject community.

MAP NUMBER 23001C0320E

EFFECTIVE DATE JULY 8, 2013

Federal Emergency Management Agency

NATIONAL FLOOD INSURANCE PROGRAM

APPENDIX VI – WETLANDS

- **Wetland Delineation Report**
- **NWI Map**
- **Wetland and Waterways Map**

NATURAL RESOURCES ANALYSIS
DESKTOP REVIEW

NOVEL ENERGY SOLUTIONS LLC

FOR

ME WASHINGTON HS CSG LLC

APRIL 5, 2022

Prepared By:
Novel Energy Solutions LLC
2303 Wycliff Street | Suite 300 | St. Paul, MN 55114 | Phone 612.345.7188 | https://www.novelenergysolutions.com

Table of Contents

List of Acronyms

ESA	Endangered Species Act
IPaC	Information, Planning, and Conservation
MDIFW	Maine Department of Inland Fisheries and Wildlife
MNAP	Maine Natural Areas Program
MW	Megawatt
NES	Novel Energy Solutions LLC
NEPA	National Environmental Policy Act
NRCS	Natural Resource Conservation Service
NRPA	Natural Resource Protection Act
NWI	National Wetlands Inventory
RTE	Rare, Threatened, or Endangered
USDA	United States Department of Agriculture
USFWS	United States Fish and Wildlife Service
WSS	Web Soil Survey

1. Purpose and Need

Novel Energy Solutions LLC (NES) has completed a desktop review of available data to identify potential natural resource concerns that may potentially impact the proposed development. This report contains a description of findings, a site location map, and maps depicting the findings for the ME Washington HS CSG LLC project in Auburn, Maine. The purpose of this desktop review was to identify known protected natural resources based on published maps and data and gather additional site information for planning and permitting purposes.

1.1 Methodology

NES Environmental Specialists completed a desktop review of published and historical data for the Proposed Project Area. This data was reviewed to identify known protected natural resources and to identify potential resources not listed in the available data to determine suitability for the site for development of a solar array. NES conducted a review of published State and Federally listed rare, threatened, or endangered species (RTE) and critical habitats within the Proposed Project Area as required under the National Environmental Policy Act (NEPA) guidelines and the Endangered Species Act (ESA). NES also completed a review of other published resources including aerial photography, topographic data, National Wetlands Inventory (NWI) maps, and United States Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) Soil Surveys.

In addition to the public data analyzed, NES Environmental Specialists utilized the Real-Time Environmental Due Diligence software program, Transect to provide additional data, maps, and resources.

2. Site Location and Description

The ME Washington HS CSG LLC Project is a solar array which will be located at (44.01678, -70.28275) in Auburn, Maine. The Proposed Project will be situated on 8 acres (Proposed Project Area) of a larger, parent parcel identified as parcel number 053-004.

The Proposed Project will consist of the installation of a 0.5-megawatt (MW) ground-mounted photovoltaic (PV) system. The Proposed Project would include the development of a single-axis tracking ground mounted solar array facility, supporting utility infrastructure, limited gravel access drives and equipment pad areas, fencing, landscape buffers, and native ground cover establishment. The estimated duration of construction is approximately 9 months. The primary equipment and machinery that will be on-site includes forklifts for material transportation, pile drivers to install the steel pilings, and small excavators for trenching electrical equipment. Due to the existing topography of the property, significant earthwork will likely not be required. When the Proposed Project has reached its operation end, the Proposed Project Area can be returned to its pre-construction state.

The Proposed Project would be accessed from Washington St. An interior road would be constructed inside the perimeter, and it is anticipated to be flat and will match existing grade as much as possible to minimize earth work. The Proposed Project Area will be secured by a fence with standard gates for emergency and maintenance vehicles to access.

3. Results

3.1 Slopes and Topography

The Proposed Project Area generally slopes from the north to areas of lower elevation to the southeast. The majority of Proposed Project Area contains 5-10 percent slopes, with elevation ranging from 170ft to 200ft. An elevation contour map is included in the Appendix at the end of this report.

3.2 Soil Survey

A custom soil resource report and hydric soil report was generated for the Proposed Project through the USDA NRCS - Web Soil Survey (WSS). The report includes the soil map for the Proposed Project Area, a list of the map units, the extent of each map unit, and cartographic symbols displayed on the map. Note, Hydric Soils have the potential to contain jurisdictional wetlands, in conjunction with other wetland parameters.

Mapped soils within the Proposed Project Area as listed in the table below. The majority of the Proposed Project Area is identified as containing predominately nonhydric and not hydric, well drained soils. Please note, AOI is approximated. WSS Reports are included in the appendix at the end of this report.

Map Unit Symbol	Map Unit Name	Rating Description	Drainage Classification	Percent of AOI
BgB	Nicholville very fine sandy loam, 0 to 8 percent slopes	Predominantly Nonhydric	Moderately well drained	6.9
BP	Borrow pits	Nonhydric	Excessively Drained	57.9
BuC2	Buxton silt loam, 8 to 15 percent slopes	Predominantly Nonhydric	Moderately well drained	31.8
HfC2	Hartland very fine sandy loam, 8 to 15 percent slopes, eroded	Nonhydric	Well drained	1.9
Lk	Charles silt loam, 0 to 2 percent slopes, occasionally flooded	Predominantly Hydric	Poorly drained	1.4

Table 1 – Soil Resource Report - Map Unit Legend

3.3 Protected Natural Resources

Digital NWI data were obtained from the U.S. Fish and Wildlife Service National Wetlands Inventory, Wetlands Mapper. According to the NWI data, there are no NWI mapped wetlands within the Proposed Project Area. Based on review of aerial photography, topography, and soils, NES not identified potential natural resources within the Proposed Project Area. Related maps and resources are included in the appendix at the end of this report.

3.4 Critical Habitats and Rare, Threatened, or Endangered Species

This section describes the desktop review and agency correspondence regarding critical habitats and RTE species. A copy of all related maps and correspondence are presented in the attached appendix.

United States Fish and Wildlife

An official species list obtained from the USFWS Information, Planning, and Conservation (IPaC) database identified two federally listed species with potential to occur within the Proposed Project area. A copy of this report is included in the attached appendix.

Species	Federal Status	Critical Habitat	ESA Determination
Northern Long-eared Bat	Threatened	No	May Occur
Monarch Butterfly	Candidate	No	May Occur

Maine Department of Inland Fisheries and Wildlife

NES requested information on the known or suspected locations of any rare, threatened, or endangered plants or wildlife, Significant Wildlife Habitat, or other significant natural resources within the vicinity of the Proposed Project from Maine's Department of Inland Fisheries and Wildlife (MDIFW). MDIFW response [enter response].

Maine Natural Areas Program

NES reviewed the Maine Natural Areas Program (MNAP) Beginning with Habitat (BwH) publicly available data for the Proposed Project Area, there is a 75-ft stream buffer along the south edge of the Proposed Project Area. In addition, NES requested information on the presence of any known or suspected locations of rare, threatened, or endangered plants, exemplary natural communities, or other significant natural resources documented within the vicinity of the Proposed Project Area from the MNAP. In a response dated March 31, 2022, MNAP confirmed that according to the information currently in the Biological and Conservation Data System files, there are no rare botanical features documented specifically within the Proposed Project Area.

4. Summary of Findings

Based on the desktop review, NES identified a 75-ft stream buffer along the south edge of the Proposed Project Area. No NWI mapped wetlands, no critical habitats or sensitive environmental areas were identified within the site based on available mapping. The majority of the Proposed Project Area is identified as containing predominately nonhydric and not hydric, well drained soils.

The overall development potential of the Proposed Project Area is high due to the lack of potential for protected natural resource in the area of development. NES recommends site visits by qualified wetland scientists to identify and locate field-observable resources that could be present on the site.

5. Conclusion

This desktop due diligence review provides an overview of previously recorded data and studies from publicly available sources to identify the potential for the presence of protected natural resources within the Proposed Project Area.

This data has been created using digital modeling and review of aerial photography and publicly available data. The results of the desktop analysis identified the lack of potential for protected natural resources to be present within the Proposed Project Area. The results of this desktop review are preliminary in nature and not an actual delineation. The information provided in this analysis does not replace actual field investigations for the purposes of planning and permitting. NES did not identify potential natural resources in the Proposed Project Area during this desktop review, however, a field visit by a professional wetland scientist to confirm absence is recommended.

7. References

"FEMA Flood Map Service Center: Search by Address." *View/Print FIRM: View an Image of the FIRM Panel or Print a FIRMette for Your Chosen Location. NOTE: This Is a Static Map and Has Not Been Updated since the Effective Date. Please Refer to Any Amendments or Revisions (LOMC) in the Changes to This FIRM Section.*, FEMA - Department of Homeland Security, https://msc.fema.gov/portal/search?AddressQuery=47.309314%2C+-68.377162#searchresultsanchor.

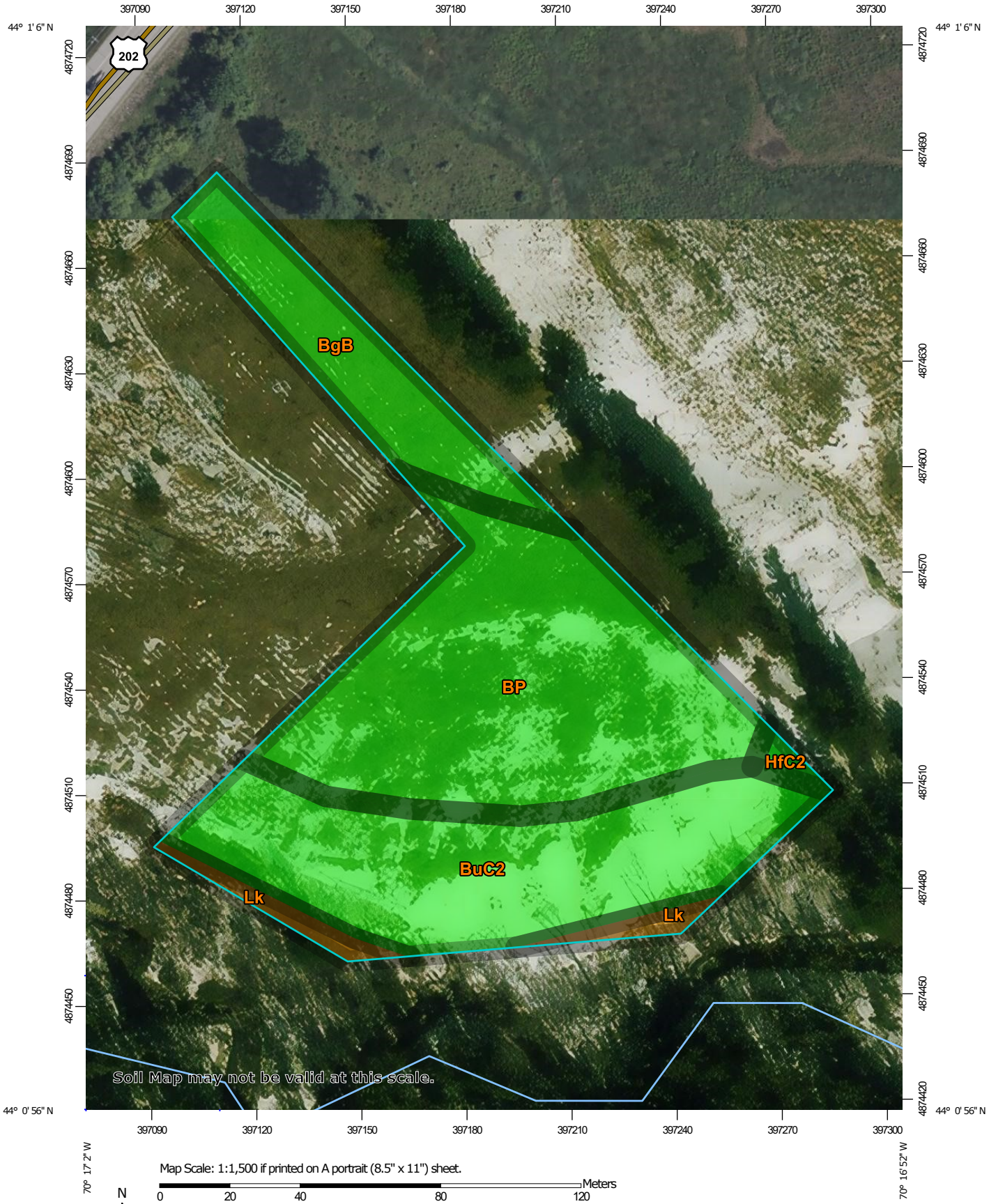
"IPAC: Information for Planning and Consultation." *IPaC: Home*, U.S. Fish and Wildlife Service, https://ecos.fws.gov/ipac/.

Nrcs. "Custom Soil Survey Report." *Web Soil Survey*, United States Department of Agriculture, https://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm.

Protected Areas Database of the United States (PAD-US) 2.1
U.S. Geological Survey (USGS) Gap Analysis Project (GAP) (Accessed: 2021-01)

U.S. Fish and Wildlife Service; National Wetlands Inventory; National Standards and Support Team. "National Wetlands Inventory Mapper." *Wetlands Mapper*, U.S. Fish and Wildlife Service, https://www.fws.gov/wetlands/data/mapper.html.

Hydric Rating by Map Unit—Androscoggin and Sagadahoc Counties, Maine
(ME Washington HS CSG LLC)



Map Scale: 1:1,500 if printed on A portrait (8.5" x 11") sheet.

N

Meters: 0 20 40 80 120

Feet: 0 50 100 200 300

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 19N WGS84

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils

Soil Rating Polygons
- Hydric (100%)
- Hydric (66 to 99%)
- Hydric (33 to 65%)
- Hydric (1 to 32%)
- Not Hydric (0%)
- Not rated or not available

Soil Rating Lines
- Hydric (100%)
- Hydric (66 to 99%)
- Hydric (33 to 65%)
- Hydric (1 to 32%)
- Not Hydric (0%)
- Not rated or not available

Soil Rating Points
- Hydric (100%)
- Hydric (66 to 99%)
- Hydric (33 to 65%)
- Hydric (1 to 32%)
- Not Hydric (0%)
- Not rated or not available

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:15,800.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Androscoggin and Sagadahoc Counties, Maine
Survey Area Data: Version 22, Aug 30, 2021

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Dec 31, 2009—Oct 7, 2021

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Hydric Rating by Map Unit

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
BgB	Nicholville very fine sandy loam, 0 to 8 percent slopes	0	0.6	15.1%
BP	Borrow pits	0	1.9	45.3%
BuC2	Buxton silt loam, 8 to 15 percent slopes	0	1.5	35.4%
HfC2	Hartland very fine sandy loam, 8 to 15 percent slopes, eroded	0	0.0	0.9%
Lk	Charles silt loam, 0 to 2 percent slopes, occasionally flooded	85	0.1	3.3%
Totals for Area of Interest			**4.3**	**100.0%**

Description

This rating indicates the percentage of map units that meets the criteria for hydric soils. Map units are composed of one or more map unit components or soil types, each of which is rated as hydric soil or not hydric. Map units that are made up dominantly of hydric soils may have small areas of minor nonhydric components in the higher positions on the landform, and map units that are made up dominantly of nonhydric soils may have small areas of minor hydric components in the lower positions on the landform. Each map unit is rated based on its respective components and the percentage of each component within the map unit.

The thematic map is color coded based on the composition of hydric components. The five color classes are separated as 100 percent hydric components, 66 to 99 percent hydric components, 33 to 65 percent hydric components, 1 to 32 percent hydric components, and less than one percent hydric components.

In Web Soil Survey, the Summary by Map Unit table that is displayed below the map pane contains a column named 'Rating'. In this column the percentage of each map unit that is classified as hydric is displayed.

Hydric soils are defined by the National Technical Committee for Hydric Soils (NTCHS) as soils that formed under conditions of saturation, flooding, or ponding long enough during the growing season to develop anaerobic conditions in the upper part (Federal Register, 1994). Under natural conditions, these soils are either saturated or inundated long enough during the growing season to support the growth and reproduction of hydrophytic vegetation.

The NTCHS definition identifies general soil properties that are associated with wetness. In order to determine whether a specific soil is a hydric soil or nonhydric soil, however, more specific information, such as information about the depth and duration of the water table, is needed. Thus, criteria that identify those estimated soil properties unique to hydric soils have been established (Federal Register, 2002). These criteria are used to identify map unit components that normally are associated with wetlands. The criteria used are selected estimated soil properties that are described in "Soil Taxonomy" (Soil Survey Staff, 1999) and "Keys to Soil Taxonomy" (Soil Survey Staff, 2006) and in the "Soil Survey Manual" (Soil Survey Division Staff, 1993).

If soils are wet enough for a long enough period of time to be considered hydric, they should exhibit certain properties that can be easily observed in the field. These visible properties are indicators of hydric soils. The indicators used to make onsite determinations of hydric soils are specified in "Field Indicators of Hydric Soils in the United States" (Hurt and Vasilas, 2006).

References:

Federal Register. July 13, 1994. Changes in hydric soils of the United States.

Federal Register. September 18, 2002. Hydric soils of the United States.

Hurt, G.W., and L.M. Vasilas, editors. Version 6.0, 2006. Field indicators of hydric soils in the United States.

Soil Survey Division Staff. 1993. Soil survey manual. Soil Conservation Service. U.S. Department of Agriculture Handbook 18.

Soil Survey Staff. 1999. Soil taxonomy: A basic system of soil classification for making and interpreting soil surveys. 2nd edition. Natural Resources Conservation Service. U.S. Department of Agriculture Handbook 436.

Soil Survey Staff. 2006. Keys to soil taxonomy. 10th edition. U.S. Department of Agriculture, Natural Resources Conservation Service.

Rating Options

Aggregation Method: Percent Present

Component Percent Cutoff: None Specified

Tie-break Rule: Lower

U.S. Fish and Wildlife Service
National Wetlands Inventory

ME Washington HS CSG

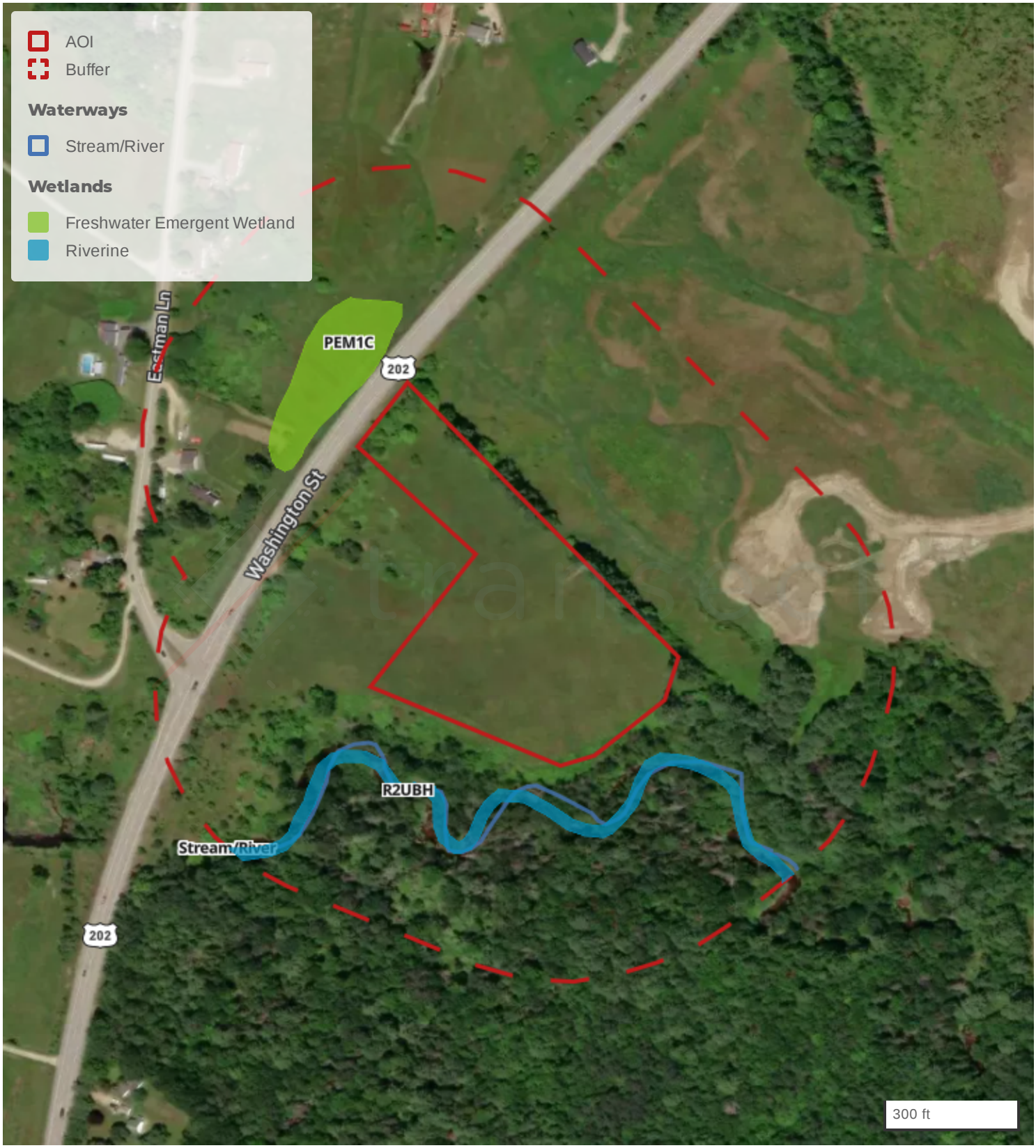
April 4, 2022

Wetlands

- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Other
- Riverine

Wetlands and Waterways Map

ME Washington HS CSG LLC

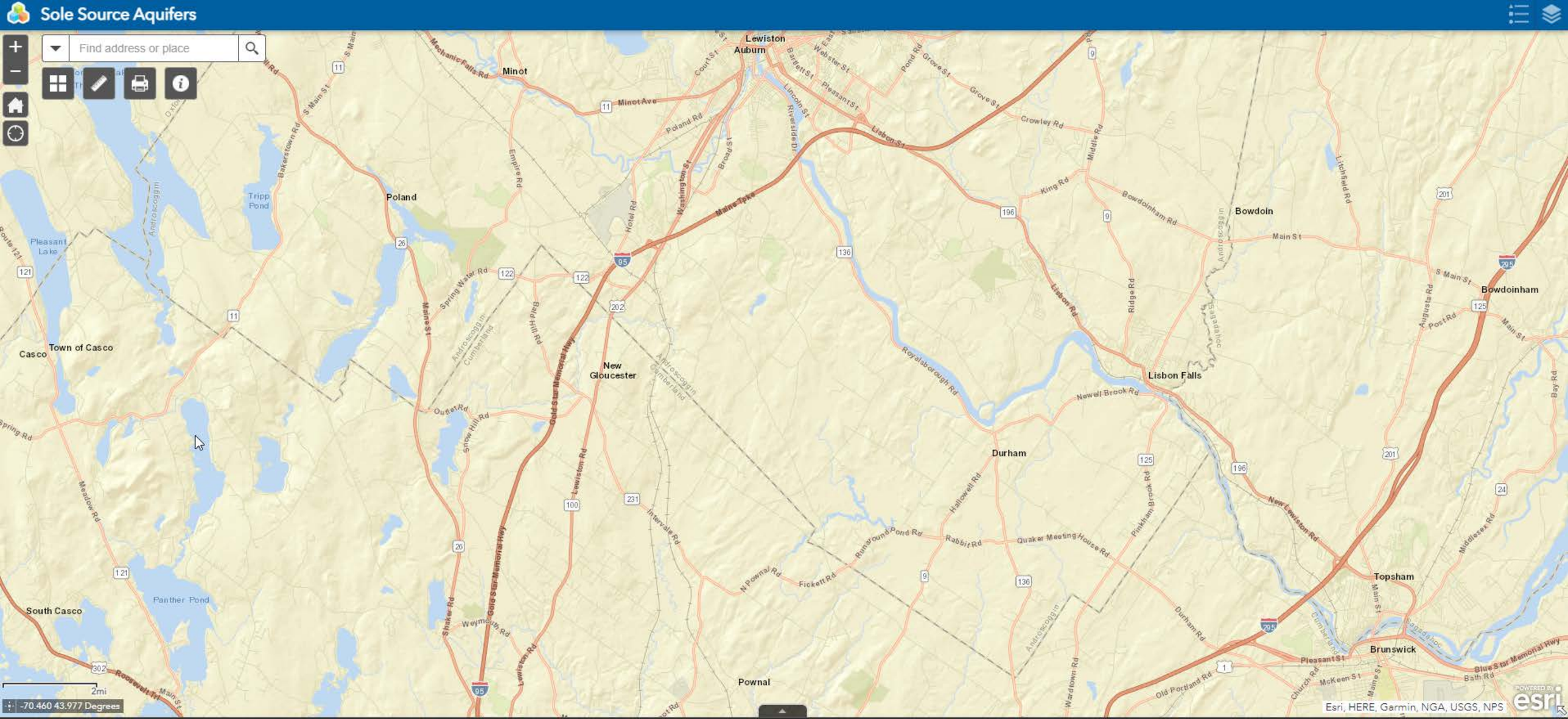


Disclaimer: This map is for planning purposes only. Transect makes no claims, no representations, and no warranties, express or implied, concerning the validity (express or implied), the reliability or the accuracy of the GIS data and GIS data products furnished by Transect, including the implied validity of any uses of such data.

transect

APPENDIX VII – WATER RESOURCES

- **Sole Source Aquifer Map**


Sole Source Aquifers
Find address or place
Lewiston
Auburn
Minot
Poland
Tripp
Pond
Pleasant
Lake
Casco
Town of Casco
New
Gloucester
Bowdoin
Bowdoinham
Lisbon Falls
Durham
Topsham
Brunswick
Pownal
South Casco
Panther Pond
Androscoggin
Cumberland
Maine Turnpike
Gold Star Memorial Hwy
Lisbon St
Minot Ave
Poland Rd
Spring Water Rd
Oudet Rd
Snow Hill Rd
Bald Hill Rd
Lewiston Rd
Intervale Rd
Hotel Rd
Washington St
Broad St
Riverside Dr
Lincoln St
Court St
Webster St
Barrett St
Pleasant St
Grove St
Pond Rd
Crowley Rd
Middle Rd
King Rd
Bowdoinham Rd
Main St
Litchfield Rd
S Main St
Augusta Rd
Post Rd
Ridge Rd
Lisbon Rd
Royalsborough Rd
Newell Brook Rd
Hallowell Rd
Pinkham Brook Rd
New Lewiston Rd
Middlesex Rd
Rabbit Rd
Quaker Meeting House Rd
Ramsdell Pond Rd
Fickett Rd
N Pownal Rd
Durham Rd
Wardtown Rd
Church Rd
McKeen St
Maine St
Old Portland Rd
Bath Rd
Blue Star Memorial Hwy
Roosevelt Trl
Meadow Rd
Shaker Rd
Weymouth Rd
Mechanic Falls Rd
Baker Stown Rd
Empire Rd
Meine St
S Main St
Spring Rd
Route 121
2mi
-70.460 43.977 Degrees
Esri, HERE, Garmin, NGA, USGS, NPS
esri

APPENDIX VIII – BIOLOGICAL RESOURCES

- **USFWS IPaC Report - Official Species List**
- **Correspondence with Local Agencies (MDIFW/MNAP)**
- **Bald Eagle Map**

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Maine Ecological Services Field Office
P. O. Box A
East Orland, ME 04431
Phone: (207) 469-7300 Fax: (207) 902-1588
http://www.fws.gov/mainefieldoffice/index.html

In Reply Refer To: April 05, 2022
Project Code: 2022-0028190
Project Name: ME Washington HS CSG LLC

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)

(c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF

Migratory Birds: In addition to responsibilities to protect threatened and endangered species under the Endangered Species Act (ESA), there are additional responsibilities under the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act (BGEPA) to protect native birds from project-related impacts. Any activity, intentional or unintentional, resulting in take of migratory birds, including eagles, is prohibited unless otherwise permitted by the U.S. Fish and Wildlife Service (50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)). For more information regarding these Acts see https://www.fws.gov/birds/policies-and-regulations.php.

The MBTA has no provision for allowing take of migratory birds that may be unintentionally killed or injured by otherwise lawful activities. It is the responsibility of the project proponent to comply with these Acts by identifying potential impacts to migratory birds and eagles within applicable NEPA documents (when there is a federal nexus) or a Bird/Eagle Conservation Plan (when there is no federal nexus). Proponents should implement conservation measures to avoid or minimize the production of project-related stressors or minimize the exposure of birds and their resources to the project-related stressors. For more information on avian stressors and recommended conservation measures see https://www.fws.gov/birds/bird-enthusiasts/threats-to-birds.php.

In addition to MBTA and BGEPA, Executive Order 13186: *Responsibilities of Federal Agencies to Protect Migratory Birds*, obligates all Federal agencies that engage in or authorize activities that might affect migratory birds, to minimize those effects and encourage conservation measures that will improve bird populations. Executive Order 13186 provides for the protection of both migratory birds and migratory bird habitat. For information regarding the implementation of Executive Order 13186, please visit https://www.fws.gov/birds/policies-and-regulations/executive-orders/e0-13186.php.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Code in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List

Official Species List

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Maine Ecological Services Field Office
P. O. Box A
East Orland, ME 04431
(207) 469-7300

Project Summary

Project Code: 2022-0028190
Event Code: None
Project Name: ME Washington HS CSG LLC
Project Type: Power Gen - Solar
Project Description: .5 MW solar Gen facility
appx. 3 acres
Construction est 2022

Project Location:

Approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@44.016903299999996,-70.28245884924131,14z

Counties: Androscoggin County, Maine

Endangered Species Act Species

There is a total of 2 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries[1], as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

---

1. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

Mammals

NAME	STATUS
Northern Long-eared Bat *Myotis septentrionalis* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9045	Threatened

Insects

NAME	STATUS
Monarch Butterfly *Danaus plexippus* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9743	Candidate

Critical habitats

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

IPaC User Contact Information

Agency:	Novel Energy Solutions
Name:	Benjamin Hansen
Address:	2303 Wycliff St
Address Line 2:	Suite 300
City:	St. Paul
State:	MN
Zip:	55114
Email	ben.hansen@novelenergy.biz
Phone:	6124995325

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Maine Ecological Services Field Office
P. O. Box A
East Orland, ME 04431
Phone: (207) 469-7300 Fax: (207) 902-1588
http://www.fws.gov/mainefieldoffice/index.html

In Reply Refer To: April 05, 2022
Project code: 2022-0028190
Project Name: ME Washington HS CSG LLC

Subject: Consistency letter for the 'ME Washington HS CSG LLC' project indicating that any take of the northern long-eared bat that may occur as a result of the Action is not prohibited under the ESA Section 4(d) rule adopted for this species at 50 CFR §17.40(o).

Dear Benjamin Hansen:

The U.S. Fish and Wildlife Service (Service) received on April 05, 2022 your effects determination for the 'ME Washington HS CSG LLC' (the Action) using the northern long-eared bat (*Myotis septentrionalis*) key within the Information for Planning and Consultation (IPaC) system. You indicated that no Federal agencies are involved in funding or authorizing this Action. This IPaC key assists users in determining whether a non-Federal action may cause "take"[1] of the northern long-eared bat that is prohibited under the Endangered Species Act of 1973 (ESA) (87 Stat.884, as amended; 16 U.S.C. 1531 et seq.).

Based upon your IPaC submission, any take of the northern long-eared bat that may occur as a result of the Action is not prohibited under the ESA Section 4(d) rule adopted for this species at 50 CFR §17.40(o). Unless the Service advises you within 30 days of the date of this letter that your IPaC-assisted determination was incorrect, this letter verifies that the Action is not likely to result in unauthorized take of the northern long-eared bat.

Please report to our office any changes to the information about the Action that you entered into IPaC, the results of any bat surveys conducted in the Action area, and any dead, injured, or sick northern long-eared bats that are found during Action implementation.

If your Action proceeds as described and no additional information about the Action's effects on species protected under the ESA becomes available, no further coordination with the Service is required with respect to the northern long-eared bat.

The IPaC-assisted determination for the northern long-eared bat **does not** apply to the following ESA-protected species that also may occur in your Action area:

- Monarch Butterfly *Danaus plexippus* Candidate

You may coordinate with our Office to determine whether the Action may cause prohibited take of the animal species listed above.

---

[1]Take means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct [ESA Section 3(19)].

Action Description
You provided to IPaC the following name and description for the subject Action.

1. Name

ME Washington HS CSG LLC

2. Description

The following description was provided for the project 'ME Washington HS CSG LLC':

> .5 MW solar Gen facility
> appx. 3 acres
> Construction est 2022

Approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@44.016903299999996,-70.28245884924131,14z

Determination Key Result

This non-Federal Action may affect the northern long-eared bat; however, any take of this species that may occur incidental to this Action is not prohibited under the final 4(d) rule at 50 CFR §17.40(o).

Determination Key Description: Northern Long-eared Bat 4(d) Rule
This key was last updated in IPaC on **May 15, 2017**. Keys are subject to periodic revision.

This key is intended for actions that may affect the threatened northern long-eared bat.

The purpose of the key for non-Federal actions is to assist determinations as to whether proposed actions are excepted from take prohibitions under the northern long-eared bat 4(d) rule.

If a non-Federal action may cause prohibited take of northern long-eared bats or other ESA-listed animal species, we recommend that you coordinate with the Service.

Determination Key Result

Based upon your IPaC submission, any take of the northern long-eared bat that may occur as a result of the Action is not prohibited under the ESA Section 4(d) rule adopted for this species at 50 CFR §17.40(o).

Qualification Interview

1. Is the action authorized, funded, or being carried out by a Federal agency?

   No

2. Will your activity purposefully **Take** northern long-eared bats?

   No

3. [Semantic] Is the project action area located wholly outside the White-nose Syndrome Zone?

   Automatically answered
   No

4. [Semantic] Is the project action area located within 0.25 miles of a known northern long-eared bat hibernaculum?

   Note: The map queried for this question contains proprietary information and cannot be displayed. If you need additional information, please contact your State wildlife agency

   Automatically answered
   No

5. [Semantic] Is the project action area located within 150 feet of a known occupied northern long-eared bat maternity roost tree?

   Note: The map queried for this question contains proprietary information and cannot be displayed. If you need additional information, please contact your State wildlife agency

   Automatically answered
   No

Project Questionnaire

If the project includes forest conversion, report the appropriate acreages below. Otherwise, type ‘0’ in questions 1-3.

1. Estimated total acres of forest conversion:

0.1

2. If known, estimated acres of forest conversion from April 1 to October 31

0.1

3. If known, estimated acres of forest conversion from June 1 to July 31

0

If the project includes timber harvest, report the appropriate acreages below. Otherwise, type ‘0’ in questions 4-6.

4. Estimated total acres of timber harvest

0

5. If known, estimated acres of timber harvest from April 1 to October 31

0

6. If known, estimated acres of timber harvest from June 1 to July 31

0

If the project includes prescribed fire, report the appropriate acreages below. Otherwise, type ‘0’ in questions 7-9.

7. Estimated total acres of prescribed fire

0

8. If known, estimated acres of prescribed fire from April 1 to October 31

0

9. If known, estimated acres of prescribed fire from June 1 to July 31

0

If the project includes new wind turbines, report the megawatts of wind capacity below. Otherwise, type ‘0’ in question 10.

10. What is the estimated wind capacity (in megawatts) of the new turbine(s)?

0

IPaC User Contact Information

Agency:	Novel Energy Solutions
Name:	Benjamin Hansen
Address:	2303 Wycliff St
Address Line 2:	Suite 300
City:	St. Paul
State:	MN
Zip:	55114
Email	ben.hansen@novelenergy.biz
Phone:	6124995325

2303 Wycliff Street, Suite 300
St. Paul, MN 55114
O: 612.345.7188
NovelEnergy.Biz

March 29, 2022

John Perry, Environmental Review Coordinator
Maine Department of Inland Fisheries and Wildlife
284 State Street, Augusta, ME 04333
Email Address: John.Perry@maine.gov

RE: Maine Department of Inland Fisheries of Wildlife Review
ME Washington HS CSG LLC
Auburn, Androscoggin County, ME

Dear Mr. Perry,

ME Washington HS CSG LLC is seeking review of the ME Washington HS CSG project (Proposed Project) slated for 2022-2023. ME Washington HS CSG LLC proposes to install a 0.499 MW solar array facility at 44.01678, -70.28275 off of RTE 202 in Auburn. The Proposed Project will be situated on approximately 8 acres (Proposed Project Area) of a larger parent parcel identified as parcel number 053-004. In order to augment the planning process for the proposed development, we are interested in obtaining information for known locations of Endangered, Threatened, and Special Concern species; designated Essential and Significant Wildlife Habitats; and inland fisheries habitat concerns within and around our project area. A project sketch and topo map showing the Proposed Project has been included to assist in your determination.

Please send your comments to the below email address. If you have any questions concerning this proposal, please contact Robin Brigham at robin.brigham@novelenergy.biz and copy environmental@novelenergy.biz.

The following reference materials have been included for your information:

- Location Maps (including USGS Topographical Map)
- Proposed Project KMZ file (attached to email)

Regards,

Novel Energy Solutions LLC

Robin Brigham
Manager of Environmental Compliance

2303 Wycliff Street, Suite 300
St. Paul, MN 55114
O: 612.345.7188
NovelEnergy.Biz

March 29, 2022

Lisa St. Hilaire, Information Manager
Maine Natural Areas Program
177 State House Station, Augusta, ME 04333
Email Address: Lisa.St.Hilaire@maine.gov

RE: Maine Natural Areas Program Review Letter
ME Washington HS CSG LLC
Auburn, Androscoggin County, ME

Dear Ms. St. Hilaire,

ME Washington HS CSG LLC is seeking review of the ME Washington HS CSG project (Proposed Project) slated for 2022-2023. ME Washington HS CSG LLC proposes to install a 0.499 MW solar array facility at 44.01678, -70.28275 off of RTE 202 in Auburn. The Proposed Project will be situated on approximately 8 acres (Proposed Project Area) of a larger parent parcel identified as parcel number 053-004. In order to augment the planning process for the proposed development, we are interested in obtaining information regarding any rare or exemplary botanical features in our project area. A project sketch and topo map showing the Proposed Project has been included to assist in your determination. If you have any questions or require further information, please do not hesitate to contact me.

Please send your comments to the below email address. If you have any questions concerning this proposal, please contact Robin Brigham at robin.brigham@novelenergy.biz and copy environmental@novelenergy.biz.

The following reference materials have been included for your information:

- Location Maps (including USGS Topographical Map)
- Proposed Project KMZ file (attached to email)

Regards,

Novel Energy Solutions LLC

Robin Brigham
Manager of Environmental Compliance

STATE OF MAINE
DEPARTMENT OF AGRICULTURE, CONSERVATION & FORESTRY
177 STATE HOUSE STATION
AUGUSTA, MAINE 04333

JANET T. MILLS
GOVERNOR

AMANDA E. BEAL
COMMISSIONER

March 30, 2022

Robin Brigham
Novel Energy Solutions
2303 Wycliff Street, Suite 300
St. Paul, MN 55114

Via email: robin.brigham@novelenergy.biz

Re: Rare and exemplary botanical features in proximity to: ME Washington HS, Solar Array, Auburn, Maine

Dear Ms. Brigham:

I have searched the Maine Natural Areas Program's Biological and Conservation Data System files in response to your request received March 29, 2022 for information on the presence of rare or unique botanical features documented from the vicinity of the project in Auburn, Maine. Rare and unique botanical features include the habitat of rare, threatened, or endangered plant species and unique or exemplary natural communities. Our review involves examining maps, manual and computerized records, other sources of information such as scientific articles or published references, and the personal knowledge of staff or cooperating experts.

Our official response covers only botanical features. For authoritative information and official response for zoological features you must make a similar request to the Maine Department of Inland Fisheries and Wildlife, 284 State Street, Augusta, Maine 04333.

According to the information currently in our Biological and Conservation Data System files, there are no rare botanical features documented specifically within the project area. This lack of data may indicate minimal survey efforts rather than confirm the absence of rare botanical features. You may want to have the site inventoried by a qualified field biologist to ensure that no undocumented rare features are inadvertently harmed.

If a field survey of the project area is conducted, please refer to the enclosed supplemental information regarding rare and exemplary botanical features documented to occur in the vicinity of the project site. The list may include information on features that have been known to occur historically in the area as well as recently field-verified information. While historic records have not been documented in several years, they may persist in the area if suitable habitat exists. The enclosed list identifies features with potential to occur in the area, and it should be considered if you choose to conduct field surveys.

This finding is available and appropriate for preparation and review of environmental assessments, but it is not a substitute for on-site surveys. Comprehensive field surveys do not exist for all natural areas in Maine, and in the absence of a specific field investigation, the Maine Natural Areas Program cannot provide a definitive statement on the presence or absence of unusual natural features at this site.

MOLLY DOCHERTY, DIRECTOR
MAINE NATURAL AREAS PROGRAM
BLOSSOM LANE, DEERING BUILDING

DEPARTMENT OF Agriculture Conservation & Forestry

PHONE: (207) 287-804490
WWW.MAINE.GOV/DACF/MNAP

The Maine Natural Areas Program (MNAP) is continuously working to achieve a more comprehensive database of exemplary natural features in Maine. We would appreciate the contribution of any information obtained should you decide to do field work. MNAP welcomes coordination with individuals or organizations proposing environmental alteration or conducting environmental assessments. If, however, data provided by MNAP are to be published in any form, the Program should be informed at the outset and credited as the source.

The Maine Natural Areas Program has instituted a fee structure of $75.00 an hour to recover the actual cost of processing your request for information. You will receive an invoice for $150.00 for two hours of our services.

Thank you for using MNAP in the environmental review process. Please do not hesitate to contact me if you have further questions about the Natural Areas Program or about rare or unique botanical features on this site.

Sincerely,

Kristen Puryear | Ecologist | Maine Natural Areas Program
207-287-8043 | kristen.puryear@maine.gov

Rare and Exemplary Botanical Features within 4 miles of
Project: ME Washington HS, Solar Array, Auburn, Maine

Common Name	State Status	State Rank	Global Rank	Date Last Observed	Occurrence Number	Habitat
Broad Beech Fern						
	SC	S2	G5	1895-09	13	Hardwood to mixed forest (forest, upland)
Fern-leaved False Foxglove						
	SC	S3	G5	1938-08-18	11	Dry barrens (partly forested, upland),Hardwood to mixed
	SC	S3	G5	1895	12	Dry barrens (partly forested, upland),Hardwood to mixed
	SC	S3	G5	1893-08-28	14	Dry barrens (partly forested, upland),Hardwood to mixed
Large Whorled Pogonia						
	PE	SX	G5	1895	2	Hardwood to mixed forest (forest, upland)
Pocket Swamp						
		S2	G5	2016-07-07	6	Forested wetland,Hardwood to mixed forest (forest,
Ram's-head Lady's-slipper						
	E	S1	G3	1935	11	Forested wetland,Hardwood to mixed forest (forest,
Scarlet Oak						
	E	S1	G5	1893	1	Hardwood to mixed forest (forest, upland)
Swamp White Oak						
	T	S1	G5	2017-08-30	15	Forested wetland
Tiny Lovegrass						
	PE	SH	G5	1908-11	5	Old field/roadside (non-forested, wetland or upland),Dry
Upright Bindweed						
	T	S2	G4G5	1958-06-22	10	Dry barrens (partly forested, upland),Old field/roadside
Vasey's Pondweed						
	SC	S2	G4	1800	6	Open water (non-forested, wetland)

Date Exported: 2022-03-30 16:46

Conservation Status Ranks

State and Global Ranks: This ranking system facilitates a quick assessment of a species' or habitat type's rarity and is the primary tool used to develop conservation, protection, and restoration priorities for individual species and natural habitat types. Each species or habitat is assigned both a state (S) and global (G) rank on a scale of critically imperiled (1) to secure (5). Factors such as range extent, the number of occurrences, intensity of threats, etc., contribute to the assignment of state and global ranks. The definitions for state and global ranks are comparable but applied at different geographic scales; something that is state imperiled may be globally secure.

The information supporting these ranks is developed and maintained by the Maine Natural Areas Program (state ranks) and NatureServe (global ranks).

Rank	Definition
S1 **G1**	**Critically Imperiled** – At very high risk of extinction or elimination due to very restricted range, very few populations or occurrences, very steep declines, very severe threats, or other factors.
S2 **G2**	**Imperiled** – At high risk of extinction or elimination due to restricted range, few populations or occurrences, steep declines, severe threats, or other factors.
S3 **G3**	**Vulnerable** – At moderate risk of extinction or elimination due to a fairly restricted range, relatively few populations or occurrences, recent and widespread declines, threats, or other factors.
S4 **G4**	**Apparently Secure** – At fairly low risk of extinction or elimination due to an extensive range and/or many populations or occurrences, but with possible cause for some concern as a result of local recent declines, threats, or other factors.
S5 **G5**	**Secure** – At very low risk of extinction or elimination due to a very extensive range, abundant populations or occurrences, and little to no concern from declines or threats.
SX **GX**	**Presumed Extinct** – Not located despite intensive searches and virtually no likelihood of rediscovery.
SH **GH**	**Possibly Extinct** – Known from only historical occurrences but still some hope of rediscovery.
S#S# **G#G#**	**Range Rank** – A numeric range rank (e.g., S2S3 or S1S3) is used to indicate any range of uncertainty about the status of the species or ecosystem.
SU **GU**	**Unrankable** – Currently unrankable due to lack of information or due to substantially conflicting information about status or trends.
GNR **SNR**	**Unranked** – Global or subnational conservation status not yet assessed.
SNA **GNA**	**Not Applicable** – A conservation status rank is not applicable because the species or ecosystem is not a suitable target for conservation activities (e.g., non-native species or ecosystems.
Qualifier	**Definition**
S#? **G#?**	**Inexact Numeric Rank** – Denotes inexact numeric rank.
Q	**Questionable taxonomy that may reduce conservation priority** – Distinctiveness of this entity as a taxon or ecosystem type at the current level is questionable. The "Q" modifier is only used at a global level.
T#	**Infraspecific Taxon (trinomial)** – The status of infraspecific taxa (subspecies or varieties) are indicated by a "T-rank" following the species' global rank.

State Status: Endangered and Threatened are legal status designations authorized by statute. Please refer to MRSA Title 12, §544 and §544-B.

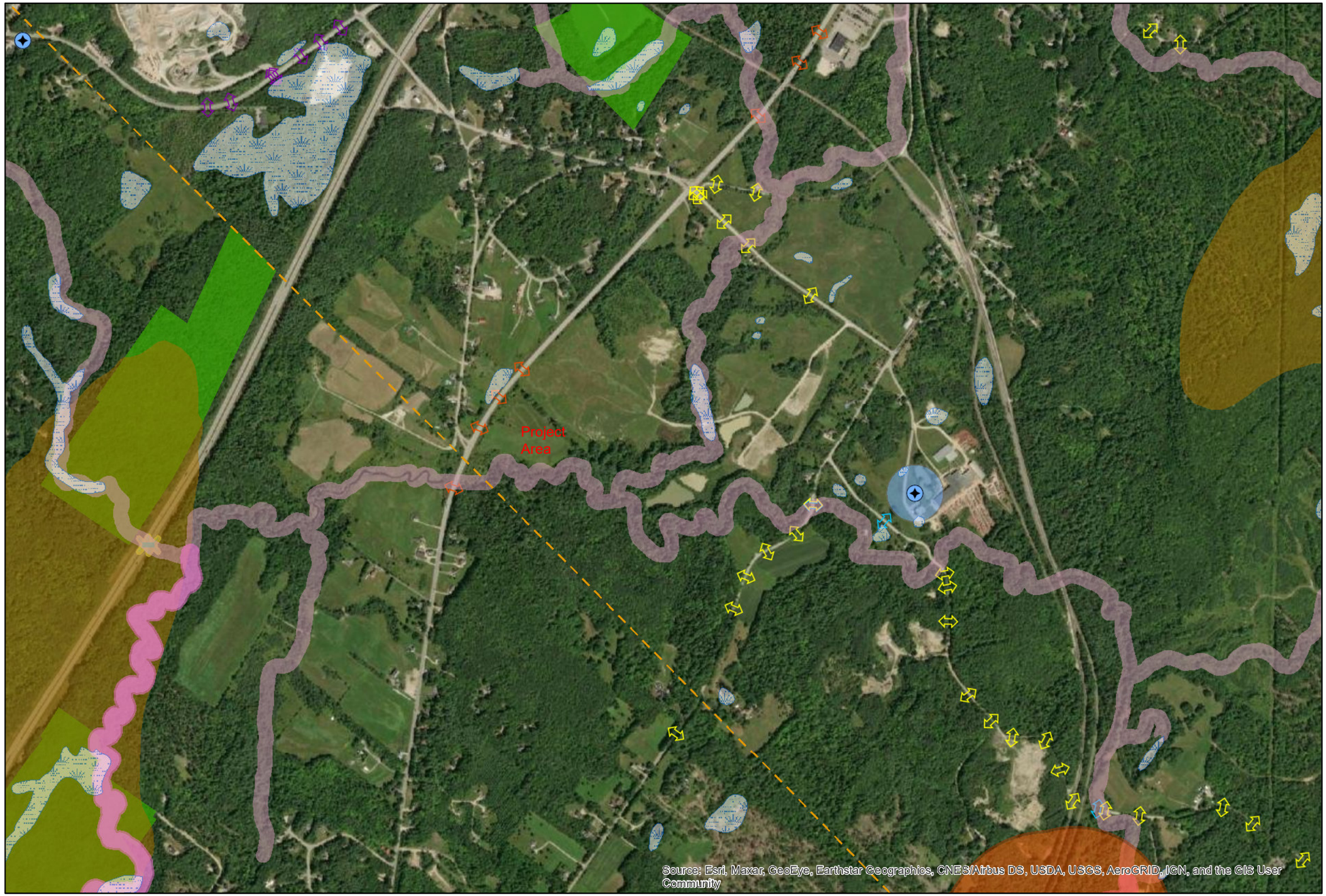
Status	Definition
E	**Endangered** – Any native plant species in danger of extinction throughout all or a significant portion of its range within the State or Federally listed as Endangered.
T	**Threatened** – Any native plant species likely to become endangered within the foreseeable future throughout all or a significant portion of its range in the State or Federally listed as Threatened.
SC	**Special Concern** – A native plant species that is rare in the State, but not rare enough to be considered Threatened or Endangered.
PE	**Potentially Extirpated** – A native plant species that has not been documented in the State in over 20 years, or loss of the last known occurrence.

Element Occurrence (EO) Ranks: Quality assessments that designate viability of a population or integrity of habitat. These ranks are based on size, condition, and landscape context. Range ranks (e.g., AB, BC) and uncertainty ranks (e.g., B?) are allowed. The Maine Natural Areas Program tracks all occurrences of rare plants and natural communities/ecosystems (S1-S3) as well as exemplary common natural community types (S4-S5 with EO ranks A/B).

Rank	Definition
A	**Excellent** – Excellent estimated viability/ecological integrity.
B	**Good** – Good estimated viability/ecological integrity.
C	**Fair** – Fair estimated viability/ecological integrity.
D	**Poor** – Poor estimated viability/ecological integrity.
E	**Extant** – Verified extant, but viability/ecological integrity not assessed.
H	**Historical** – Lack of field information within past 20 years verifying continued existence of the occurrence, but not enough to document extirpation.
X	**Extirpated** – Documented loss of population/destruction of habitat.
U	**Unrankable** – Occurrence unable to be ranked due to lack of sufficient information (e.g., possible mistaken identification).
NR	**Not Ranked** – An occurrence rank has not been assigned.

Visit the Maine Natural Areas Program website for more information
http://www.maine.gov/dacf/mnap

maine DEPARTMENT OF Agriculture Conservation & Forestry
NATURAL AREAS



BEGINNING WITH HABITAT

Legend

- City/Township
- 1
- 2
- Watershed Divide (HUC 12)
- Watershed Divide (HUC 10)
- Watershed Divide (HUC 8)
- Watershed Divide (HUC 6)
- Wetlands
- Great Ponds
- Stream_Buffers_75ft
- Shellfish Beds
- Public Water Supply Wells
- Source Protection
- Aquifers
- ETSC Animal Habitat Buffers
- Rare Plants and Natural Communities
- Natural Communities
- Wild Brook Trout Habitat
- Atlantic Salmon Rearing Habitat
- Atlantic Salmon Spawning Habitat
- Roseate Tern, Piping Plover or Least Tern Nesting Areas
- Deer Wintering
- Inland Wading Bird and Waterfowl Habitat
- Wildlife Wetlands
- Seabird Nesting Island
- Shorebird Habitat
- Tidal Wading Bird and Waterfowl Habitat
- Significant Vernal Pools
- Municipal
- Water Dist., etc.
- Private
- State
- Conserved Lands Easements
- Focus
- Less than 2000 Vehicles/Day
- More than 2000 Vehicles/Day
- Less than 2000 Vehicles/Day
- More than 2000 Vehicles/Day
- Undeveloped Habitat Blocks
- Highway Bridge Connectors
- Maine Conserved Lands
- Federal

State of Maine

0 0.225 0.45 0.9 1.35 mi

N W E S

Supported in part by Maine Outdoor Heritage Fund lottery ticket sales

Map Prepared by Maine Department of Inland Fisheries & Wildlife
April 2022

Supported in part by Loon Conservation Plate funds

APPENDIX IX – CULTURAL RESOURCES AND HISTORIC PROPERTIES

- **MHPC Correspondence - *Pending***
- **THPO Correspondence - *Pending***

APPENDIX X – HUMAN HEALTH AND SAFETY

- **Phase I Environmental Assessment - *Pending***

Phase I Environmental Site Assessment Report

Auburn ME Washington HS CSG
2440 Washington Street
Auburn, Maine 04210

Prepared by:
Beacon Environmental Consultants, LLC
PO Box 2154
Windham, Maine 04062

Prepared for:
Novel Energy Solutions, LLC
2303 Wycliff Street, Suite 300
St. Paul, Minnesota 55114

April 7, 2022
Project # BE-453

Table of Contents

APPENDICES

1.0 GENERAL INFORMATION

Project Information:
Auburn ME Washington HS CSG

Project Number:
BE-453

Consultant Information:
Beacon Environmental Consultants, LLC
PO Box 2154
Windham, Maine 04062

Phone: (207) 376-5001
Fax: (207) 221-1354
E-mail Address jcressey@beaconmaine.com

Inspection Date: April 5, 2022
Report Date: April 7, 2022

Site Information:
Auburn ME Washington HS CSG
2440 Washington Street
Auburn, Maine 04210
Androscoggin County

Latitude, Longitude:
44.0168650, -70.2827500

Site Access Contact:
Mr. Wayne Bridgham

Client Information:
Ms. Paula Fitzgerald
Novel Energy Solutions, LLC
2303 Wycliff Street, Suite 300
St. Paul, Minnesota 55114

Site Assessor

John K. Cressey, LG, PG
President/Principal Geologist

Certification:

I declare that, to the best of my professional knowledge and belief, I meet the definition of Environmental Professional as defined in 40 CFR Part 312. I have the specific qualifications based on education, training, and experience to assess a property of the nature, history, and setting of the subject property. I have developed and performed the all-appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312.

John K. Cressey, LG, PG - President/Principal Geologist

2.0 EXECUTIVE SUMMARY

2.1 Subject Property Information

Beacon Environmental Consultants, LLC (Beacon) was retained by the Novel Energy Solutions, LLC (hereafter referred to as (the Client), to perform a Phase I Environmental Site Assessment (ESA) on a portion of a property located at 2440 Washington Street, in the City of Auburn, Androscoggin County, Maine (subject property). The subject property is located on the eastern side of Washington Street. According to the City of Auburn Assessor, the subject property is legally described as a portion of Tax Map 53, Lot 4 and has been owned by Wayne & Sharon Bridgham since 1984.

Please refer to Appendix A: Figures and Appendix B: Site Photographs for the location and site characteristics of the subject property.

Beacon performed the ESA in conformance with the Scope of Work and the provisions of the ASTM Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process E1527-21, thereby satisfying United States Environmental Protection Agency's (U. S. EPA) "Standards and Practices for All Appropriate Inquiries (AAI); Final Rule" (40 Code of Federal Regulations Part 312) current edition approved Nov. 1, 2021. Published November 2021. Originally approved in 1993. Last previous edition approved in 2013 as E1527–13. DOI: 10.1520/E1527-21. Any exceptions to, or deletions from, this practice are described within this report.

2.2 Data Gaps

No significant data gaps were identified by Beacon.

2.3 Environmental Report Summary

Beacon completed an Environmental Records Review for the property and surrounding properties. Based on observations, records reviewed, and interviews, Beacon has identified the following:

Report Section		No Further Action	REC	HREC	CREC	De Minimus	Issue/Further Investigation	Comments
4.4	Current Use of Property	X						
4.6	Adjoining Property Information		X				X	According to the MEDEP, the parcel to the north was a sludge utilization site in the 1980s. Per- and polyfluoroalkyl substances (PFAS) have been found in wastewater sewage sludge and much of this sludge is processed into biosolids and applied on agricultural lands. PFAs have been linked to human health concerns.
6.1	Standard Environmental Record Sources	X						
6.1.2	Other Environmental Reports	X						
6.4.1	Historical Summary	X						
7.3.1	Hazardous Substances	X						
7.3.2	Petroleum Products	X						
7.3.3	USTs	X						
7.3.4	ASTs	X						
7.3.5	Other Suspect Containers	X						
7.3.6	Equipment Likely to Contain PCBs	X						
7.3.7	Interior Staining or Corrosion	X						
7.3.8	Heating and Cooling	X						
7.3.9	Discharge Features	X						
7.3.10	Pits, Ponds, And Lagoons	X						
7.3.11	Solid Waste Dumping or Landfills							
7.3.12	Stained Soil or Stressed Vegetation	X						
7.3.13	Wells	X						
9.0	Asbestos-Containing Materials	X						
	Lead-Based Paint	X						
	Radon	X						
	Wetlands	X						
	Mold	X						

2.4 Recommendations

Beacon recommends the following:

- If soil and/or groundwater are to be disturbed on the property, sampling for per- and polyfluoroalkyl substances (PFAs) should be completed to determine if they are impacted prior to movement of them.

3.0 INTRODUCTION

3.1 Purpose

The purpose of the Phase I Environmental Site Assessment (ESA) was to evaluate the current and historical conditions of the Subject Property in an effort to identify recognized environmental conditions in connection with the Subject Property.

A recognized environmental condition is defined by ASTM as:

Recognized Environmental Condition (REC) - The presence or likely presence of any hazardous substances or petroleum products in, on, or at a property due to release to the environment; under conditions indicative of a release to the environment; or conditions that pose a material threat of a future release to the environment.

Controlled recognized environmental condition (CREC) - A REC resulting from a past release of hazardous substances or petroleum products that has been addressed to the satisfaction of the applicable regulatory authority, with hazardous substances or petroleum products allowed to remain in place subject to the implementation of required controls.

Historical recognized environmental condition (HREC) - A past release of any hazardous substances or petroleum products that has occurred in connection with the property and has been addressed to the satisfaction of the applicable regulatory authority or meeting unrestricted use criteria established by a regulatory authority, without subjecting the property to any required controls.

A de minimus condition refers to environmental concerns identified by Beacon, which do not qualify as RECs; however, warrant further discussion.

The identification of RECs in connection with the subject property may impose an environmental liability on owners or operators of the site, reduce the value of the site, or restrict the use or marketability of the site, and therefore, further investigation may be warranted to evaluate the scope and extent of potential environmental liabilities.

3.2 Scope of Work

The Phase I ESA conducted at the Subject Property was in general accordance with ASTM Standard E 1527-21 and included the following:

- Review of previous environmental site assessments;
- Records review;
- Interviews with regulatory officials and personnel associated with the subject and adjoining properties;
- A site visit; and
- Evaluation of information and preparation of the report provided herein.

Typically, a Phase I ESA does not include sampling or testing of air, soil, groundwater, surface water, or building materials. These activities would be carried out in a Phase II ESA, if required. For this Phase I ESA no additional activities were performed.

3.3 Significant Assumptions

No significant assumptions were made during the course of this assessment.

3.4 Limitations and Exceptions

Along with all of the limitations set forth in various sections of the ASTM E1527-21 protocol, the accuracy and completeness of this report may be limited by the following:

Access Limitations
Physical Obstructions to Observations
Outstanding Information Requests
Historical Data Source Failure

For this assessment there were no limitations encountered.

It should be noted that this assessment did not include an audit of operational environmental compliance issues that may exist on the property. Where required, the documents listed in Appendices A and E were used as reference material for the completion of the Phase I ESA. Some of the information presented in this report was provided through existing documents and interviews. Although attempts were made, whenever possible, to obtain a minimum of two confirmatory sources of information, Beacon Environmental Consultants, LLC in certain instances has been required to assume that the information provided is accurate.

The information and conclusions contained in this report are based upon work undertaken by trained professional and technical staff in accordance with generally accepted engineering and scientific practices current at the time the work was performed. The conclusions and recommendations presented represent the best judgment of Beacon Environmental Consultants, LLC based on the data obtained from the work. Due to the nature of investigation and the limited data available, Beacon Environmental Consultants, LLC cannot warrant against undiscovered environmental liabilities. Conclusions and recommendations presented in this report should not be construed as legal advice.

Should additional information become available which differs significantly from our understanding of conditions presented in this report, we request that this information be brought to our attention so that we may reassess the conclusions provided herein.

3.5 Deviations

No deviations from the recommended scope of ASTM Standard E1527-21 were performed as part of this Phase I ESA with the exception of any additions noted in Detailed Scope of Services.

3.6 Special Terms and Conditions

Authorization to perform this assessment was given by the client on March 22, 2022. Instructions as to the location of the property, access, and an explanation of the property to be assessed were provided by Ms. Anam Mumtaz of Novel Energy Solutions, LLC.

3.7 Reliance

This report has been prepared for the sole benefit of the client. The report may not be relied upon by any other person or entity without the express written consent of Novel Energy Solutions, LLC with the exception of the following:

- Auburn ME Washington HS CSG LLC.

4.0 SITE DESCRIPTION

4.1 Location and Legal Description

The subject property is an approximately 4.5-acre portion of a 29-acre property located in the City of Auburn, Maine. Information obtained from the City of Auburn Assessor's Department indicated that the tax assessment parcel number for the subject property is Tax Map 53, Lot 4 and is currently owned by Wayne & Sharon Bridgham.

4.2 Conformance with ASTM

Beacon Environmental Consultants, LLC has performed a Phase I Environmental Site Assessment in conformance with the scope and limitations of ASTM Practice E1527-21 on the undeveloped property located on the eastern side of Washington Street in the City of Auburn, Maine. Any exceptions to or deletions from this practice are described in Section 2.5 of this report.

4.3 Site and Vicinity Description

The Subject Property consists of approximately 4.5-acres of a 29-acre property and is not developed with permanent structures. The ground surface at the site slopes to the east and south. Groundcover consists primarily of grassy vegetation. The subject property can be accessed from Washington Street to the west.

The City of Auburn lists the property as being zoned "Agriculture and Resource Protection". The area surrounding the site is primarily residential and agricultural uses.

4.4 Current Use of Property

At the present time, the Property is not developed. In our research, Beacon Environmental Consultants, LLC has not found any evidence that the property has ever had any permanent structures built on it.

4.5 Description of Structures and Other Improvements

The property is not developed with any permanent structures. There are no drinking water or sanitary discharges on this property.

Electricity is provided to the area by Central Maine Power (CMP).

4.6 Previous Usage

The property has been previously used for agricultural purposes.

4.7 Adjoining Property Information

During the vicinity reconnaissance, Beacon Environmental Consultants, LLC observed the following land use on properties in the immediate vicinity of the Property:

Direction From Site	Use	Comments
North	Undeveloped	2348 Washington Street Tax Map 79, Lot 49 Owner: RJF Morin Brick LLC According to the MEDEP PFASs website: Lewiston-Auburn Water Pollution Control Authority (LAWPCA) received a license to landspread lime stabilized wastewater treatment plant sludge on 24 acres owned by Arnold P. Morrison and operated by John Morrison. There is a winter field stacking area on the site. The license was issued August 29, 1988 for a term of 5 years.
East	Undeveloped	Parent parcel
South	Undeveloped	Parent Parcel
West	Undeveloped	Parent Parcel

5.0 USER PROVIDED INFORMATION

5.1 Specialized Knowledge

Beacon has no specialized knowledge of the Subject Property outside of the research which was conducted and reported as part of this report.

The property ownership as well as all individuals who were interviewed as part of this investigation, have not reported any specialized knowledge of this Subject Property outside of what is contained in this report.

5.2 Valuation Reduction for Environmental Issues

Beacon has not been provided with an appraisal for the subject property. No environmental issues were identified by the user/client that could result in property value reduction.

5.3 Owner, Property Manager, and Occupant Information

No written or verbal communication with the property owner revealed any information which suggested that there are currently or historically any recognized environmental conditions associated with the subject property.

5.4 Reason for Performing Phase I ESA

The purpose of this Phase I Environmental Site Assessment (ESA) was to identify existing or potential Recognized Environmental Conditions (as defined by ASTM Standard E1527-21) in connection with the Subject Property. Beacon Environmental Consultants, LLC understands that the findings of this study will be used to evaluate a pending financial transaction in connection with the Subject Property.

The Phase I ESA is being conducted as part of environmental due diligence prior to a financial transaction.

6.0 RECORDS REVIEW

6.1 Standard Environmental Records Sources

Beacon Environmental Consultants, LLC contracted Environmental Data Resources, Inc. (EDR) to conduct a search of Federal and State databases containing known and suspected sites of environmental contamination. The number of listed sites identified within the approximate minimum search distance (AMSD) from the Federal and State environmental records database listings specified in ASTM Standard E1527-21 are summarized in the following table. Detailed information for sites identified within the AMSDs is provided below, along with an opinion about the significance of the listing to the analysis of recognized environmental conditions in connection with the subject property. Copies of the EDR research data and a description of the databases are included in Appendix D of this report.

Map Findings Summary

Database	Target Property	Search Distance (Miles)	< 1/8	1/8 – 1/4	1/4 - 1/2	1/2 - 1	>1	Total Plotted
FEDERAL								
NPL	0	1	0	0	0	0	0	0
Delisted NPL	0	1	0	0	0	0	0	0
CERCLA	0	0.5	0	0	0	NR	NR	0
RCRA LQG	0	0.25	0	0	NR	NR	NR	0
RCRA TSDF	0	0.5	0	0	0	NR	NR	0
BROWNFIELDS	0	0.5	0	0	0	NR	NR	0
STATE								
SHWS	0	1	0	0	0	2	NR	2
SPILLS	0	0.5	0	0	1	NR	NR	1
LUST	0	0.5	0	0	0	NR	NR	0
LAST	0	0.5	0	0	1	NR	NR	1
SWF/LF	0	0.5	0	0	0	NR	NR	0
VCP	0	0.5	0	0	0	NR	NR	0
BROWNFIELDS	0	0.5	0	0	0	NR	NR	0
INST CONTROL	0	0.5	0	0	0	NR	NR	0
UST	0	0.25	0	0	NR	NR	NR	0

Note: NR = Not requested at this search distance

6.1.1 Regulatory File Review – Federal Sites

6.1.1.1 National Priority Listings

No EPA National Priority Listings were identified within 1 mile of the subject property.

6.1.1.2 Delisted National Priority Listings

No EPA Delisted National Priority Listings were identified within 1 mile of the subject property.

6.1.1.3 Comprehensive Environmental Response, Compensation and Liability Act Sites

No EPA Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) Sites were identified within ½ mile of the subject property.

6.1.1.4 RCRA Large Quantity Generators

No EPA Resource Conservation and Recovery Act (RCRA) Large Quantity Generators (LQG) Sites were identified within ¼ mile of the subject property.

6.1.1.5 – RCRA Transfer, Storage, or Disposal Sites

No EPA RCRA Transfer, Storage, or Disposal (TSDF) Sites were identified within ½ mile of the subject property.

6.1.1.6 Brownfields Sites

No EPA Brownfields Sites were identified within ½ mile of the subject property.

6.1.2 Regulatory File Review – State Sites

6.1.2.1 State Hazardous Waste Sites

Two State Hazardous Wastes Sites (Miller's Junkyard and Auburn Ash Landfill) were identified within 1 mile of the subject property. Both of these properties are listed by the MEDEP as having a "Remedy in Place" and have been closed by the MEDEP. Based on distance and direction and their closed status these locations do not represent a risk to the subject property.

6.1.2.2 Spills (Includes Leaking Underground Storage Tanks [LUST] and Leaking Aboveground Storage Tanks [LAST])

Two (2) MEDEP spill sites were identified within ½ mile of the subject property. The closest spill was over 1,400 feet from the subject property.

Based on distance and direction these spill locations do not represent a risk to the subject property.

6.1.2.3 Solid Waste Facility/Landfill

No Solid Waste Facility were identified within ½ mile of the subject property.

6.1.2.4 Voluntary Control Program Sites

No MEDEP Voluntary Response Action Program (VRAP) Sites were identified within ½ mile of the subject property.

6.1.2.5 State Brownfields Sites

No State Brownfields Sites were identified within ½ mile of the subject property.

6.1.2.6 State Institutional Control Sites

No Institutional Control Sites were identified within ½ mile of the subject property.

6.1.2.7 Underground Storage Tanks

No Underground Storage Tank (UST) facilities were identified within ¼ mile of the subject property.

6.1.3 Other Environmental Reports

No previous environmental reports were provided to Beacon. However; based on the agricultural nature of the property and the surrounding properties, Beacon researched whether sludge had been spread on the property or surrounding properties through the MEDEP's PFASs website. According to their website, the parcel to the north, owned by RJF Morin Brick LLC had the following notation:

> Lewiston-Auburn Water Pollution Control Authority (LAWPCA) received a license to landspread lime stabilized wastewater treatment plant sludge on 24 acres owned by Arnold P. Morrison and operated by John Morrison. There is a winter field stacking area on the site. The license was issued August 29, 1988 for a term of 5 years.

Per- and polyfluoroalkyl substances (PFAS) have been found in wastewater sewage sludge and much of this sludge is processed into biosolids and applied on agricultural lands. PFAs have been linked to human health concerns.

6.2 General Site Setting

The subject property is currently undeveloped. Grassy areas occupy the subject property.

6.2.1 Topography

Based on a review of the 2018 USGS topographic map for the site area, the property is at approximately 200 feet above mean sea level (MSL) and groundwater is inferred to flow to the southwest toward the Royal River which abuts the subject property.

6.2.2 Surface Water Bodies

No surface water bodies were observed on the subject property.

6.2.3 Geology and Hydrology

Based a review of the Surficial Geology of the Minot Quadrangle, Maine Map (Carol T. Hildreth, 2002), the Site is underlain by the Presumpscot Formation (Pp). This formation is comprised of silt and clay with local sandy beds and lenses. See Appendix H for a copy of this map.

Based a review of the Reconnaissance Bedrock Geology of the Poland Quadrangle, Maine (John W. Creasy, 1979), the Site is underlain by granite with heterogeneous textures ranging from medium-grained granitic to pegmatitic within outcrops (Dgh). This formation is comprised of Silurian-Ordovician-aged pelite. See Appendix H for a copy of this map.

Based a review of the Significant Sand and Gravel Aquifers of the Minot Quadrangle, Maine Map (Craig D. Neil, 1999) did not indicate sand and gravel aquifers on the property. See Appendix H for a copy of this map.

The Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map #23001C0320E dated July 8, 2013 did not indicate that the Site is located within a special flood hazard area; however, the area around the Royal River to the east and south were located within a special flood hazard area without a base flood elevation. See Appendix H for a copy of this map.

6.3 Historical Use

6.3.1 Historical Summary

Historical information identifying the past site use was obtained from a variety of sources as detailed in Appendix C of this report and included: Title Records, City Directories, Aerial Photographs, Sanborn Fire Insurance Maps, and/or Topographic Maps.

6.3.2 Title Records

Beacon performed a review of historical ownership at the Androscoggin County Registry of Deeds. This search does not constitute a Title Search but was performed to attempt to identify past uses that could pose a risk to the environment. No previous usage was identified that could pose such a risk.

Title Summary

Information Source	Date	Book/Page	Listed Owner
Androscoggin County Registry of Deeds	March 12, 1984	1709/208	Wayne & Sharon Bridgham
Androscoggin County Registry of Deeds	June 29, 1977	1324/60	Wayne Bridgham
Androscoggin County Registry of Deeds	March 8, 1966	955/271	Harold & Mildred Parsons
Androscoggin County Registry of Deeds	September 18, 1964	934/34	Donald & Annie McIntosh
Androscoggin County Registry of Deeds	May 1, 1940	504/485	Donald McIntosh
Androscoggin County Registry of Deeds	October 3, 1914	257/194	Margaret A. McIntosh

6.3.3 City Directories

EDR did not have City Directories for the subject and adjoining properties.

6.3.4 Aerial Photos

Available aerial photographs dated 1940, 1953, 1960, 1973, 1986, 1997, 2007, 2011, and 2015, from EDR were reviewed for this Environmental Site Assessment. Copies of selected photographs are included in Appendix C of this report.

Aerial Photo Summary

Date	Property Comments	Surrounding Property Comments
1980	Field	**North:** Field **East:** Field and forestland **South:** Forest and a stream **West:** Field
1953	Field	**North:** Field **East:** Field and forestland **South:** Forest and a stream **West:** Field
1960	Field	**North:** Field **East:** Field and forestland **South:** Forest and a stream **West:** Field
1973	Field	**North:** Field **East:** Field and forestland **South:** Forest and a stream **West:** Field
1986	Field	**North:** Field **East:** Field and forestland **South:** Forest and a stream **West:** Field
1997	Field	**North:** Field **East:** Field and forestland **South:** Forest and a stream **West:** Field
2007	Field	**North:** Field **East:** Field and forestland **South:** Forest and a stream **West:** Field
2011	Field	**North:** Field **East:** Field and forestland **South:** Forest and a stream **West:** Field
2015	Field	**North:** Field **East:** Field and forestland **South:** Forest and a stream **West:** Field

6.3.4 Sanborn/Historical Maps

Sanborn Fire Insurance maps for the Subject Property and surrounding area were not readily available or reviewable. A copy of the EDR "No Coverage" letter is included in Appendix C.

6.3.5 Historical Topographic Maps

Available topographic maps dated 1908, 1940, 1942, 1956, 1981, 2014, and 2018, from EDR were reviewed for this Environmental Site Assessment. Copies of selected maps are included in Appendix C of this report. A summary of topographic maps is provided below.

Topographic Map Summary

Date	Quadrangle(s)	Property Comments	Surrounding Area Comments
1908	Poland	Nothing depicted	**North:** Nothing depicted **East:** Nothing depicted **South:** Royal River **West:** Route 4/100
1940	Poland	Nothing depicted	**North:** Nothing depicted **East:** Nothing depicted **South:** Royal River **West:** Route 4/100
1942	Poland	Nothing depicted	**North:** Nothing depicted **East:** Nothing depicted **South:** Royal River **West:** Route 4/100
1956	Poland	Nothing depicted	**North:** Nothing depicted **East:** Nothing depicted **South:** Royal River **West:** Route 4/100
1981	Minot	Nothing depicted	**North:** Nothing depicted **East:** Nothing depicted **South:** Royal River **West:** Washington Street/Route 4/100
2014	Minot	Nothing depicted	**North:** Nothing depicted **East:** Nothing depicted **South:** Royal River **West:** Washington Street/Route 4/100
2018	Minot	Nothing depicted	**North:** Nothing depicted **East:** Nothing depicted **South:** Royal River **West:** Washington Street/Route 4/100

6.3.6 Building Department Records

Beacon contacted the City of Auburn Assessor for building records. No concerns were noted in the file.

6.3.7 Other Land Use Records

Records from the Auburn Fire Department were reviewed for evidence indicating the presence of underground storage tanks and for the use of hazardous materials. No record was found for the property address.

6.4 Environmental Liens and Activity/Use Limitations

No environmental liens or activity/use limitations were found to be associated with the property.

6.5 Vapor Encroachment Evaluation

As a portion of this Phase I ESA, Beacon performed a Vapor Encroachment Evaluation. Based on the past undeveloped nature of the subject property, Beacon does not believe that there is a current indoor air threat to current and/or future structures. See Appendix F for a copy of the Vapor Encroachment Evaluation.

7.0 SITE RECONNAISSANCE

7.1 Methodology and Limiting Conditions

The site reconnaissance was conducted on April 5, 2022 by John Cressey, LG, PG, Principal Geologist with Beacon Environmental Consultants, LLC. Weather conditions at the time of the site reconnaissance were overcast and 55 degrees Fahrenheit. The visual reconnaissance of the

boundaries of the property and systematically traversing the site to provide an overlapping field of view, wherever possible. Photographs of pertinent site features identified during the site reconnaissance are included in Appendix B.

7.2 General Site Setting

The subject property is an approximately 4.5-acre portion of an approximately 29-acre property. The property not developed with permanent structures. The ground surface at the site slopes gently downward to the south and east. Groundcover consists primarily of grassy vegetation. The subject property is accessed from the west via an entrance from Washington Street.

7.3 Site Visit Findings

7.3.1 Hazardous Substances

Hazardous substances were not observed on the property.

7.3.2 Petroleum Products

Petroleum products were not observed on the property.

7.3.3 Underground Storage Tanks (USTs)

No evidence of USTs was observed on the subject property.

7.3.4 Above Ground Storage Tanks (ASTs)

No ASTs were observed on the property.

7.3.5 Other Suspect Containers

No other suspect containers were observed on the subject property.

7.3.6 Equipment Likely to Contain PCBs

Equipment likely to contain PCBs was not observed on the subject property.

7.3.7 Interior Staining/Corrosion

The property is not developed with any permanent structures.

7.3.8 Heating and Cooling

The property is not developed with any permanent structures; therefore, no heating or cooling equipment is present.

7.3.9 Discharge Features

Discharge features (i.e., floor drains or sumps) were not observed on the property.

7.3.10 Pits, Ponds, And Lagoons

No pits, ponds, or lagoons were observed on the property.

7.3.11 Solid Waste Dumping/Landfills

Neither solid waste nor landfills were observed on the property.

7.3.12 Stained Soil/Stressed Vegetation

Stained soil and or stressed vegetation were not observed on the subject property.

7.3.13 Wells

Wells were not observed on the subject property.

8.0 INTERVIEWS

Beacon completed interviews with the City of Auburn Tax Assessor, City of Auburn Code Enforcement Officer, MEDEP staff, Owner, and the User.

9.0 OTHER ENVIRONMENTAL CONSIDERATIONS

Beacon took into consideration asbestos-containing materials (ACM), lead-based paint (LBP), radon, wetlands, and mold.

Asbestos-Containing Materials

Asbestos is the name for a group of naturally occurring silicate minerals that can be separated into fibers. The fibers are strong, durable, and resistant to heat and fire. They are also long, thin and flexible, so they can even be woven into cloth. Because of these qualities, asbestos has been used in thousands of industrial, maritime, automotive, scientific and building products. During the 20th century, some 30 million tons of asbestos have been used in industrial sites, homes, schools, shipyards and commercial buildings in the United States. Common ACMs include pipe-covering, insulating cement, insulating block, refractory and boiler insulation materials, transite board, fireproofing spray, joint compound, vinyl floor tile, ceiling tile, mastics, roofing products, and duct insulation for HVAC applications. The property is not developed with structures; therefore, ACM is not considered a risk.

Lead-Based Paint

Lead-based paint (LBP) is defined as any paint, varnish, stain, or other applied coating that has greater than or equal to 1 mg/cm² (5,000 ppm) or more of lead by federal guidelines; state and local definitions may differ from the federal definitions in amounts ranging from 0.5 mg/cm² to 2.0 mg/cm². Section 1017 of the Housing and Urban Development (HUD) Guidelines, Residential Lead-Based Paint Hazard Reduction Act of 1992, otherwise known as "Title X," defines a LBP hazard as "any condition that causes exposure to lead that would result in adverse human health effects" resulting from lead-contaminated dust, bare, lead-contaminated soil, and/or lead-contaminated paint that is deteriorated or present on accessible, friction, or impact surfaces. Therefore, under Title X, intact LBP on most walls and ceilings would not be considered a "hazard," although the paint should be maintained and its condition monitored to ensure that it does not deteriorate and become a hazard. Additionally, Section 1018 of this law directed HUD and EPA to require the disclosure of known information on LBP and LBP hazards before the sale or lease of most housing built before 1978. Most private housing, public housing, or federally owned or subsidized housing is affected by this rule.

Under OSHA, lead-containing paint (LCP) is defined as any paint with any detectable amount of lead present in it. Therefore, all LBP is considered LCP. Conversely, LCP may not meet the criteria to be considered LBP in accordance with HUD guidelines or some states' definition of LBP.

It is important to note that LCP may create a lead hazard when being removed. The condition of these materials must be monitored when they are being disturbed. In the event LCP is subject to abrading, sanding, torching, and/or cutting during demolition or renovation activities, there may be regulatory issues that must be addressed.

The information below is for general informational purposes only and does not constitute a lead hazard evaluation. In addition, the information is not intended to comply with federal, state, or local regulations in regards to LBP.

In buildings constructed after 1978, it is unlikely that LBP is present; however, some paints utilized after 1978 will be LCP under OSHA. Structures built prior to 1978 and especially prior to the 1960s should be expected to contain LBP.

The property is not developed with structures; therefore, LBP and LCP are not considered risks.

Radon

Radon gas is a product of the decay series that begins with uranium. Radon is produced directly from radium, which can be commonly found in bedrock that contains black shale and/or granite. Radon gas can migrate through the ground and enter buildings through porous concrete or fractures. Radon tends to accumulate in poorly ventilated basements. Long-term exposure to radon has been associated with lung cancer.

Radon is a colorless, odorless, naturally occurring, radioactive, inert, gaseous element formed by radioactive decay of radium (Ra) atoms. The US EPA has prepared a map to assist National, State, and local organizations to target their resources and to implement radon-resistant building codes. The map divides the country into three Radon Zones, according to the list below:

EPA Radon Zones

EPA Zones Average Predicted Radon Levels Potential

- Zone 1 Exceed 4.0 pCi/L Highest
- Zone 2 Between 2.0 and 4.0 pCi/L Moderate
- Zone 3 Less than 2.0 pCi/L Low

It is important to note that the EPA has found homes with elevated levels of radon in all three zones, and the US EPA recommends site-specific testing in order to determine radon levels at a specific location. However, the map does give available indication of the propensity of radon gas accumulation in structures.

Radon sampling was not conducted as part of this assessment. Review of the US EPA Map of Radon Zones places the subject property in Zone 1. The property is not developed with structures; therefore, radon is not considered to be a risk.

Wetlands

According to the United States Fish and Wildlife Service Wetlands Mapper database wetlands are not present on the portion of the subject property being assessed. See Appendix H for a copy of the wetland map.

Microbial Contamination (Mold)

In accordance with the scope of work, the site reconnaissance is to include a visual inspection for indications of water intrusions or the presence of active mold growth on readily accessible interior and exterior surfaces. Confirmation sampling is not included in the scope of work for the Phase I ESA. The property is not developed with structures; therefore, mold is not considered a risk.

10.0 FINDINGS, OPINIONS, AND CONCLUSIONS

10.1 FINDINGS

Beacon has performed a Phase I Environmental Site Assessment in conformance with the scope and limitations of ASTM Practice E1527-21 of an approximately 4.5-acre portion of a 29-acre property listed as Tax Map 53, Lot 4 located on the eastern side of Washington Street in Auburn, Androscoggin County, Maine (the "subject property"). Any exceptions to or deletions from this practice are described in Section 3.5 of this report. Beacon did not identify RECs, HRECs, CRECs, or de minimus conditions on the subject property; however, a REC was identified in connection with the abutting property to the north.

10.2 OPINIONS

Beacon recommends the following:

- If soil and/or groundwater are to be disturbed on the property, sampling for per- and polyfluoroalkyl substances (PFAs) should be completed to determine if they are impacted prior to movement of them.

10.3 CONCLUSIONS

This assessment has not revealed RECs in connection with the property; however, the following REC was determined to be connected to the abutting property to the north:

- According to the MEDEP, the parcel to the north (RJF Morin Brick LLC) was a sludge utilization site in the 1980s. Per- and polyfluoroalkyl substances (PFAS) have been found in wastewater sewage sludge and much of this sludge is processed into biosolids and applied on agricultural lands. PFAs have been linked to human health concerns.

This assessment has not revealed HRECs in connection with the property.

This assessment has not revealed CRECs in connection with the property.

This assessment has not revealed de minimus conditions in connection with the property.

11.0 REFERENCES

EDR Database Search, completed March 23, 2022.

Surficial Geology of the Minot Quadrangle, Maine Map (Carol T. Hildreth, 2002).

Reconnaissance Bedrock Geology of the Poland Quadrangle, Maine (John W. Creasy, 1979).

Significant Sand and Gravel Aquifers of the Minot Quadrangle, Maine Map (Craig D. Neil, 1999).

Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map #23001C0320E dated July 8, 2013.

Androscoggin County Registry of Deeds Online files reviewed April 7, 2022.

US Fish and Wildlife Service Wetlands Mapper Online, files reviewed on April 7, 2022.

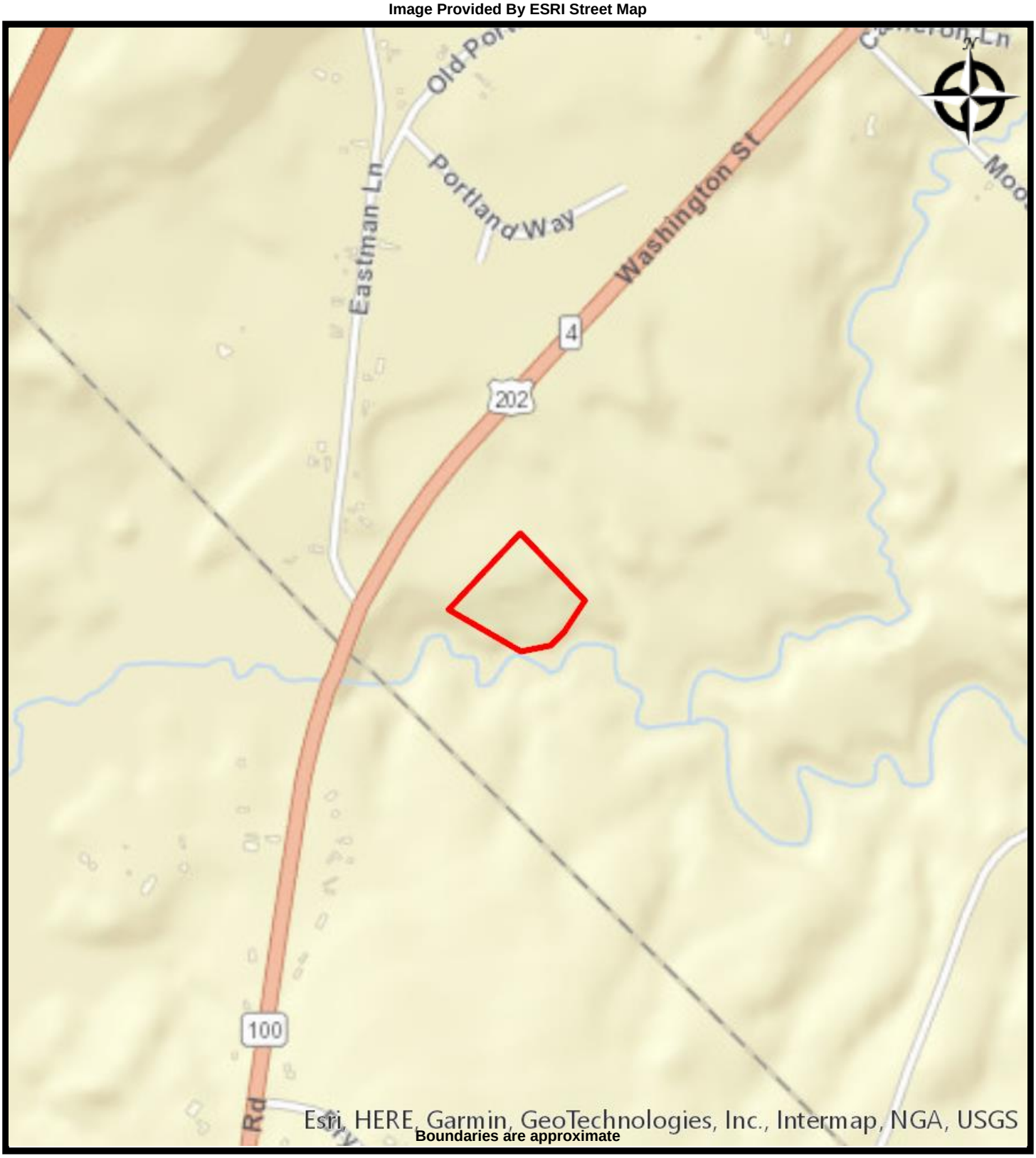
Maine Department of Environmental Protection, files reviewed on April 6, 2022.

City of Auburn Assessing Department, files reviewed on April 5, 2022.

City of Auburn Code Enforcement Department, files reviewed on April 5, 2022.

APPENDIX A
FIGURES

Image Provided By ESRI Street Map

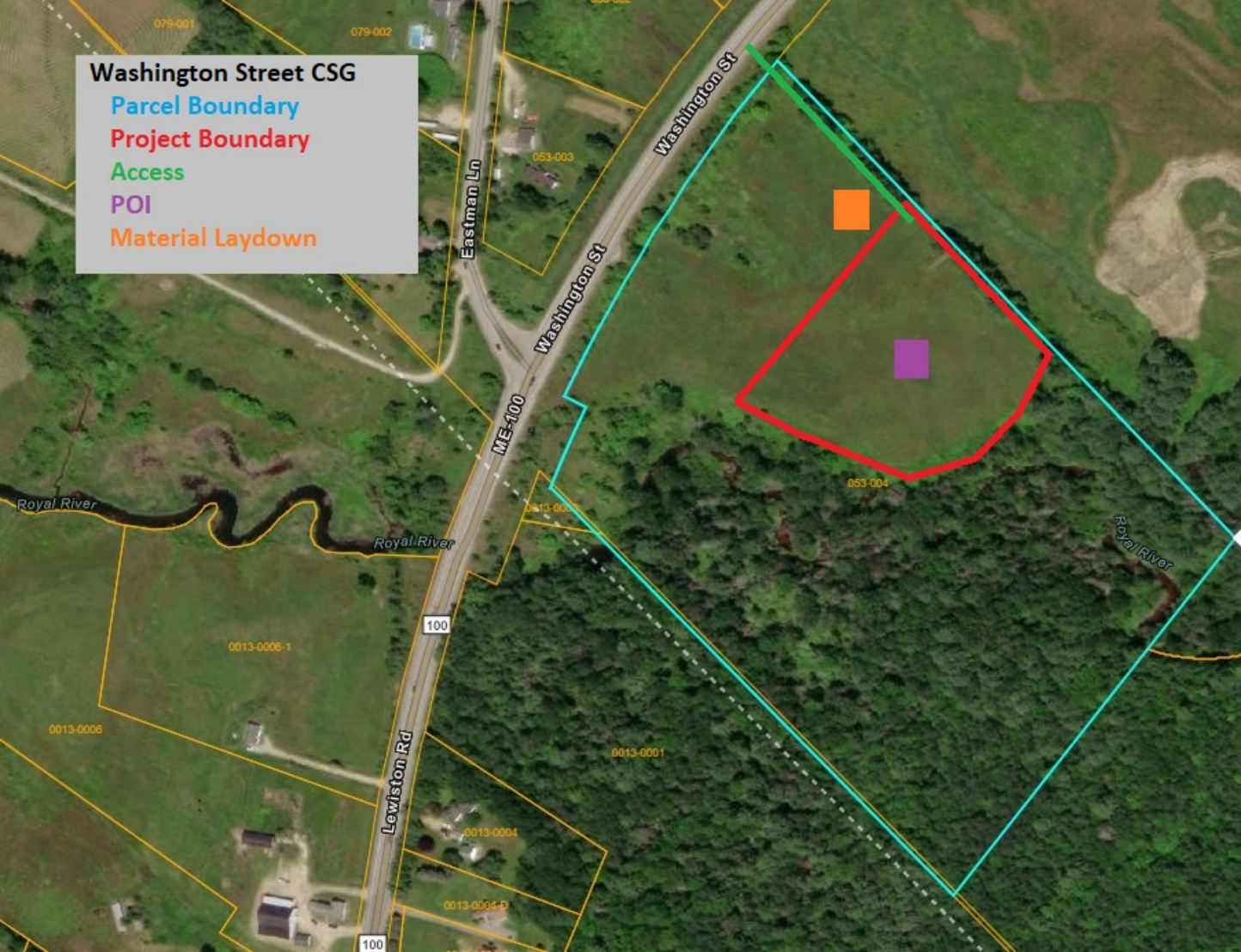


Boundaries are approximate

BEACON
Environmental Consultants, LLC

FIGURE 1 - SITE LOCATION PLAN
WASHINGTON STREET PROJECT
Route 202
Auburn, Maine 04210

PREPARED FOR: Auburn ME Washington HS CSG LLC
PROJ. MGR: JKC
DRAWN BY: JKC
DATE: 4/6/2022
PROJ. #: BE-453


Washington Street CSG
Parcel Boundary
Project Boundary
Access
POI
Material Laydown
Eastman Ln
Washington St
Washington St
ME-100
Royal River
Royal River
Royal River
Lewiston Rd
100
100
053-003
053-004
0013-0001
0013-0004
0013-0006
0013-0006-1
079-001
079-002

APPENDIX B
PHOTOGRAPHS

Photo No. 1

Site Location:
2440 Washington Street
Auburn, Maine

Photo Date:
April 5, 2022

Description:
View of the subject property from the west.

Photo By: JKC

Photo No. 2

Site Location:
2440 Washington Street
Auburn, Maine

Photo Date:
April 5, 2022

Description:
View of the eastern portion of the subject property.

Photo By: JKC

Photo No. 3

Site Location:
2440 Washington Street
Auburn, Maine

Photo Date:
April 5, 2022

Description:
View of the northeastern corner of the property.

Photo By: JKC

Photo No. 4

Site Location:
2440 Washington Street
Auburn, Maine

Photo Date:
April 5, 2022

Description:
View from the eastern edge of the property to the west.

Photo By: JKC

Photo No. 5

Site Location:
2440 Washington Street
Auburn, Maine

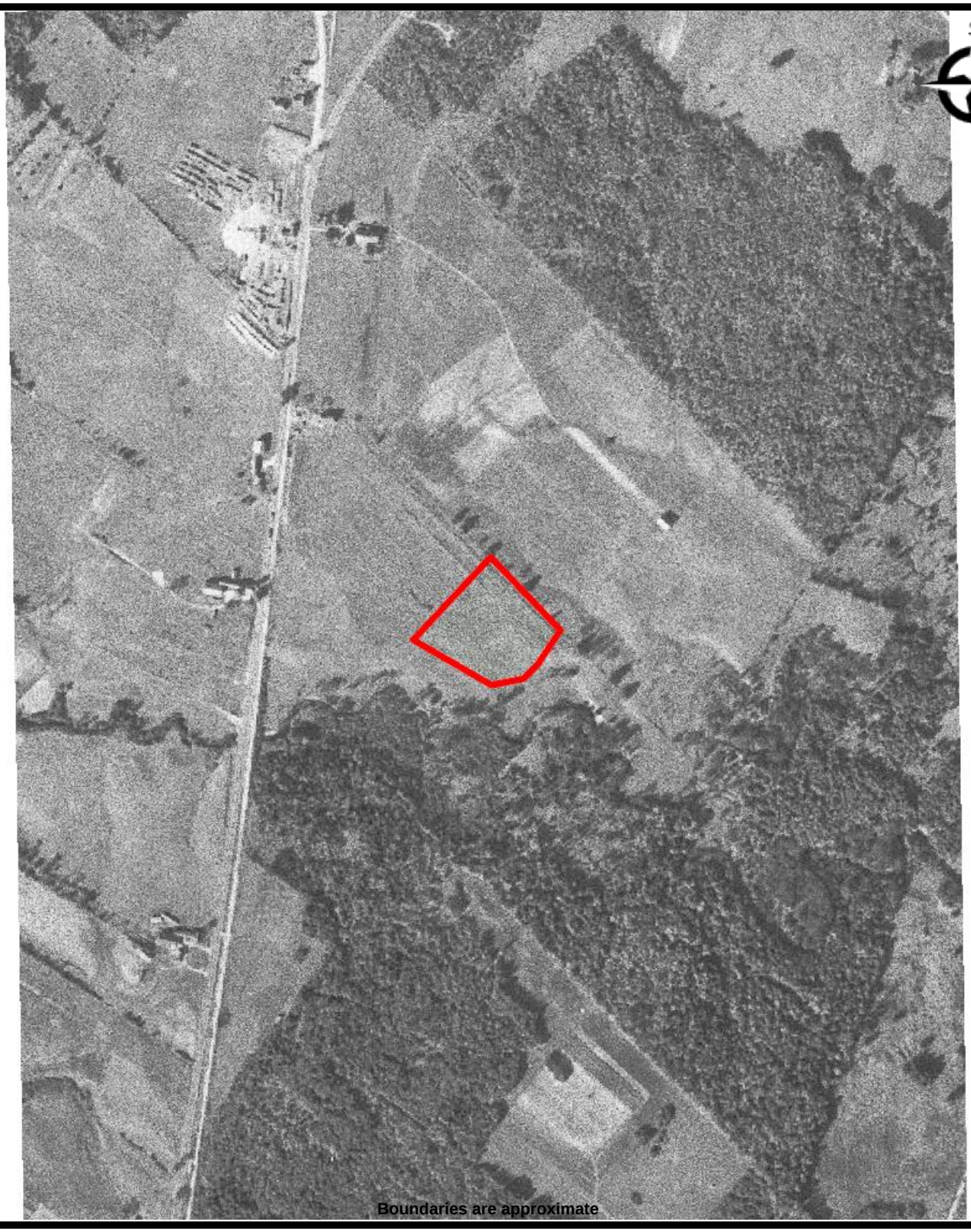
Photo Date:
April 5, 2022

Description:
View of the southeastern corner of the property.

Photo By: JKC

APPENDIX C
HISTORICAL RESEARCH

Image Provided By EDR Aerials



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AERIAL - 1940
WASHINGTON STREET PROJECT
Route 202
Auburn, Maine 04210

PREPARED FOR: Auburn ME Washington HS CSG LLC
PROJ. MGR: JKC
DATE: 4/6/2022
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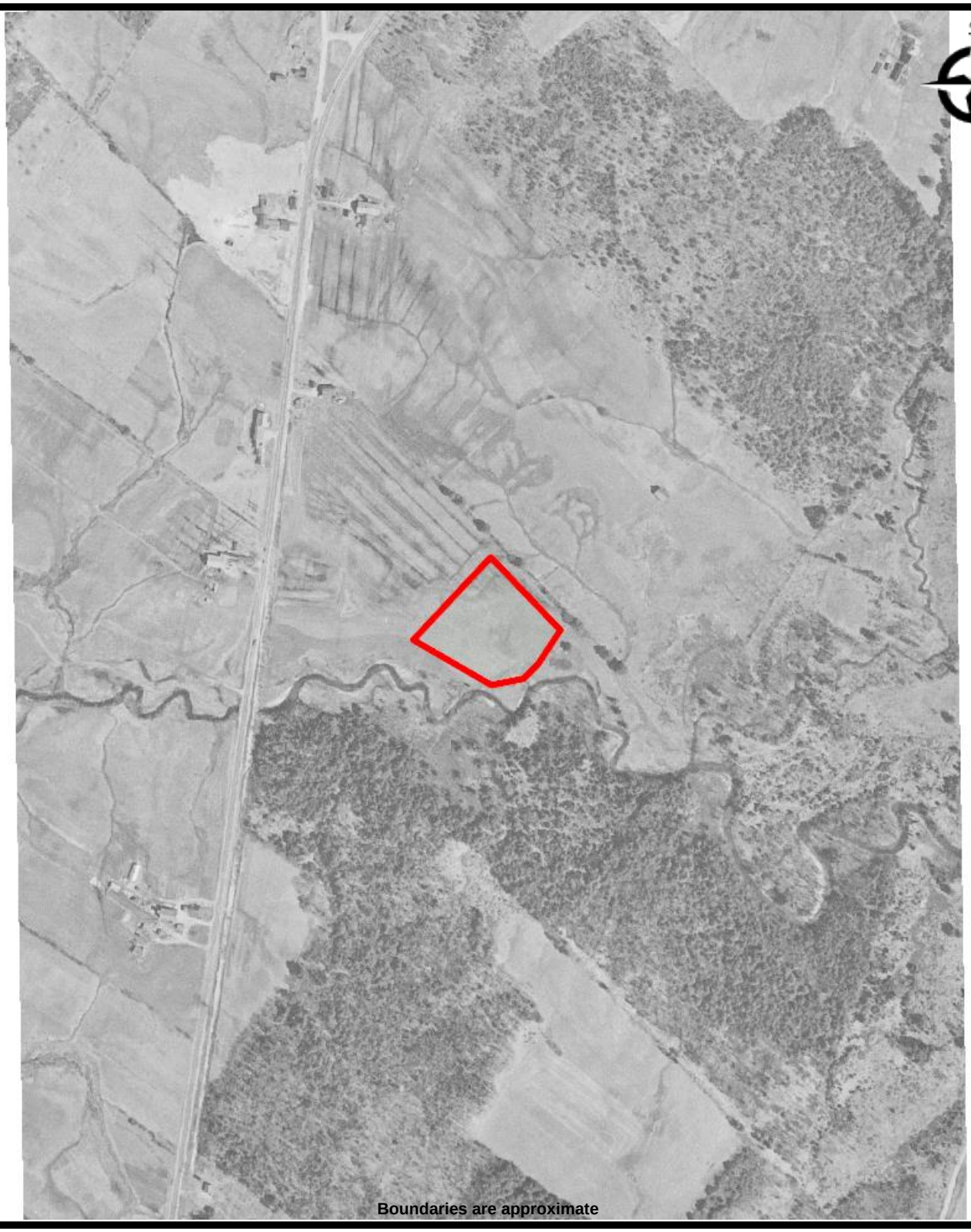
Image Provided By EDR Aerials



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AERIAL - 1953
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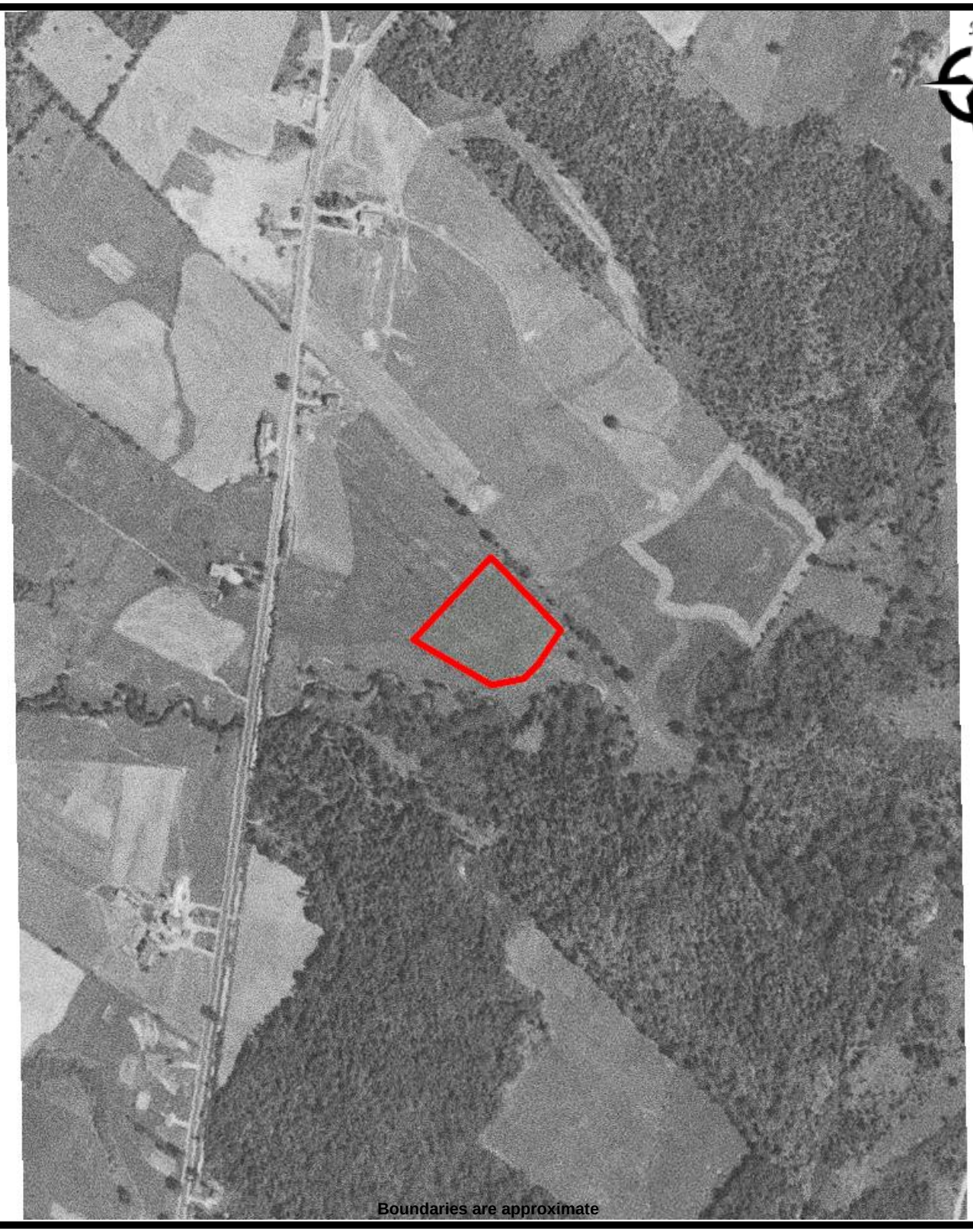
Image Provided By EDR Aerials



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AERIAL - 1960
WASHINGTON STREET PROJECT
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DATE: 4/6/2022
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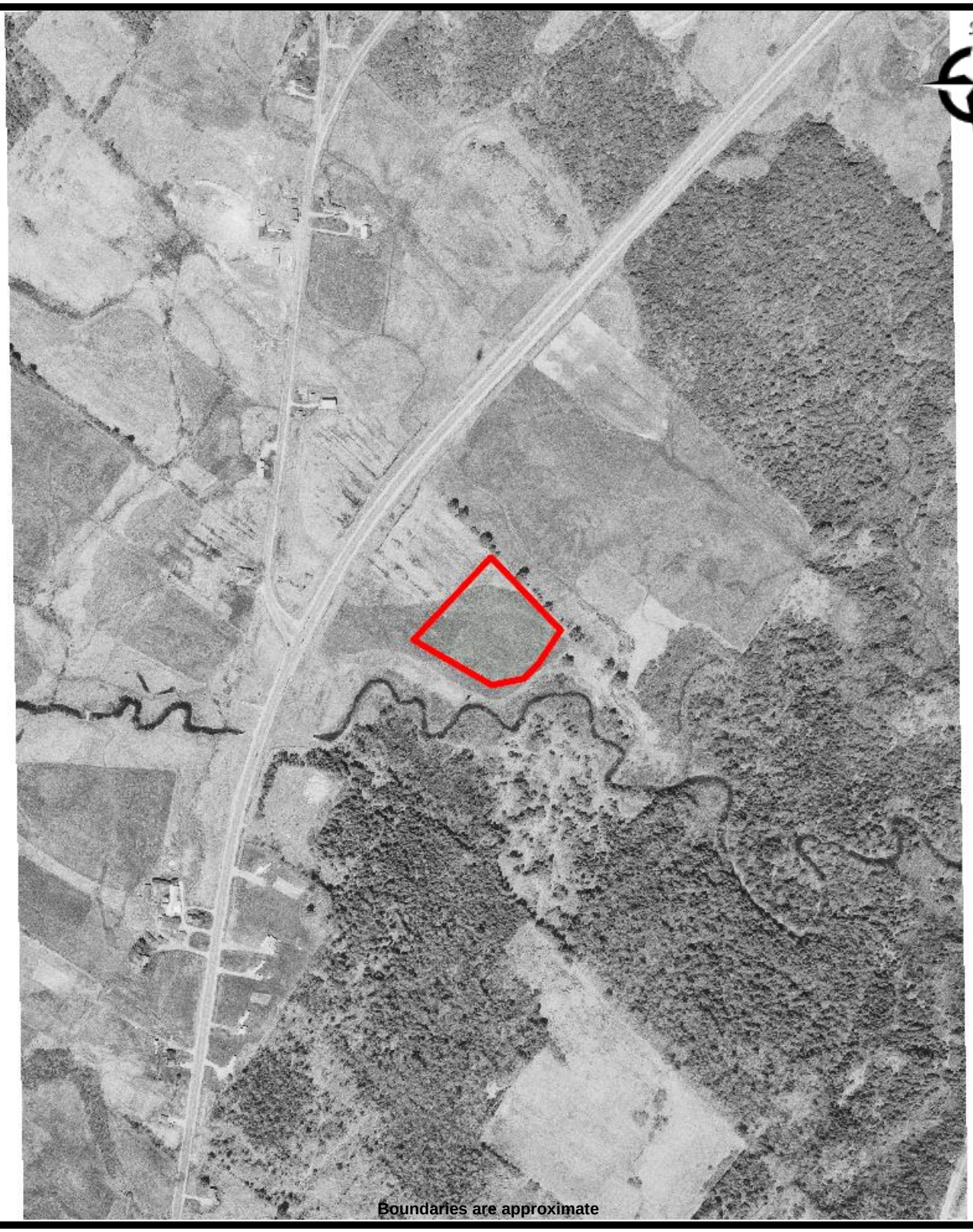
Image Provided By EDR Aerials



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AERIAL - 1986
WASHINGTON STREET PROJECT
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AERIAL - 1997
WASHINGTON STREET PROJECT
Route 202
Auburn, Maine 04210

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PROJ. MGR: JKC **DATE:** 4/6/2022
DRAWN BY: JKC **PROJ. #:** BE-453

Image Provided By EDR Aerials

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AERIAL - 2007
WASHINGTON STREET PROJECT
Route 202
Auburn, Maine 04210

PREPARED FOR: Auburn ME Washington HS CSG LLC
PROJ. MGR: JKC **DATE:** 4/6/2022
DRAWN BY: JKC **PROJ. #:** BE-453

Image Provided By EDR Aerials

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AERIAL - 2011
WASHINGTON STREET PROJECT
Route 202
Auburn, Maine 04210

PREPARED FOR: Auburn ME Washington HS CSG LLC
PROJ. MGR: JKC **DATE:** 4/6/2022
DRAWN BY: JKC **PROJ. #:** BE-453

Image Provided By EDR Aerials

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AERIAL - 2015
WASHINGTON STREET PROJECT
Route 202
Auburn, Maine 04210

PREPARED FOR: Auburn ME Washington HS CSG LLC
PROJ. MGR: JKC
DATE: 4/6/2022
DRAWN BY: JKC
PROJ. #: BE-453

Washington Street

Route 202

Auburn, ME 04210

Inquiry Number: 6909611.3

March 23, 2022

Certified Sanborn® Map Report

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

Certified Sanborn® Map Report

03/23/22

Site Name:

Washington Street
Route 202
Auburn, ME 04210
EDR Inquiry # 6909611.3

Client Name:

Beacon Environmental Consultants, LLC
PO Box 2154
Windham, ME 04062
Contact: John K Cressey, LG, PG

The Sanborn Library has been searched by EDR and maps covering the target property location as provided by Beacon Environmental Consultants, LLC were identified for the years listed below. The Sanborn Library is the largest, most complete collection of fire insurance maps. The collection includes maps from Sanborn, Bromley, Perris & Browne, Hopkins, Barlow, and others. Only Environmental Data Resources Inc. (EDR) is authorized to grant rights for commercial reproduction of maps by the Sanborn Library LLC, the copyright holder for the collection. Results can be authenticated by visiting www.edrnet.com/sanborn.

The Sanborn Library is continually enhanced with newly identified map archives. This report accesses all maps in the collection as of the day this report was generated.

Certified Sanborn Results:

Certification # 70C8-42F3-A05E

PO # BE-453

Project Washington Street

UNMAPPED PROPERTY

This report certifies that the complete holdings of the Sanborn Library, LLC collection have been searched based on client supplied target property information, and fire insurance maps covering the target property were not found.

Sanborn® Library search results

Certification #: 70C8-42F3-A05E

The Sanborn Library includes more than 1.2 million fire insurance maps from Sanborn, Bromley, Perris & Browne, Hopkins, Barlow and others which track historical property usage in approximately 12,000 American cities and towns. Collections searched:

- ☑ Library of Congress
- ☑ University Publications of America
- ☑ EDR Private Collection

The Sanborn Library LLC Since 1866™

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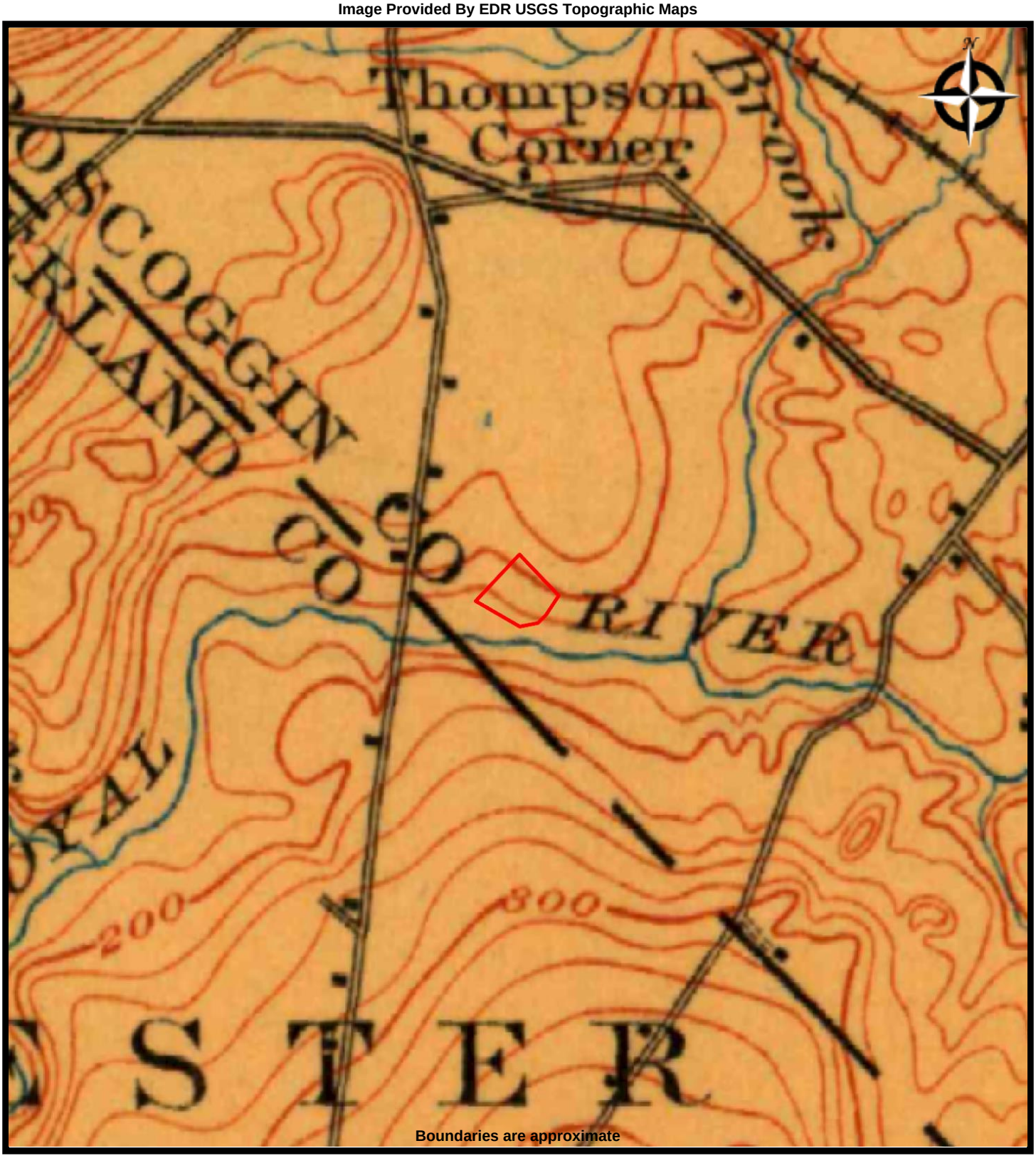
Image Provided By EDR USGS Topographic Maps



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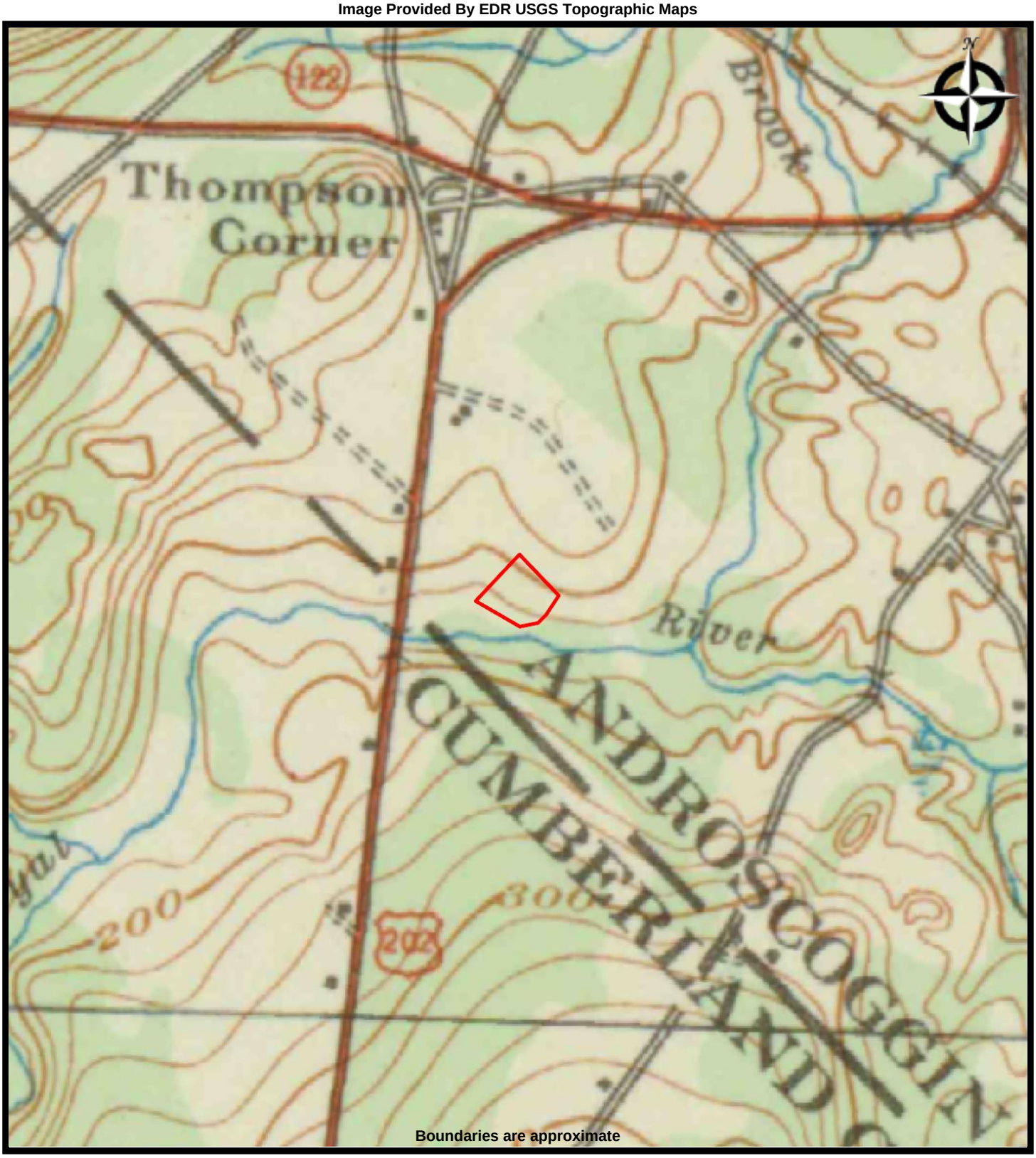
TOPO MAP - 1908
WASHINGTON STREET PROJECT
Route 202
Auburn, Maine 04210

PREPARED FOR: Auburn ME Washington HS CSG LLC
PROJ. MGR: JKC
DATE: 4/6/2022
DRAWN BY: JKC
PROJ. #: BE-453

Image Provided By EDR USGS Topographic Maps



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TOPO MAP - 1940
WASHINGTON STREET PROJECT
Route 202
Auburn, Maine 04210

PREPARED FOR: Auburn ME Washington HS CSG LLC
PROJ. MGR: JKC
DATE: 4/6/2022
DRAWN BY: JKC
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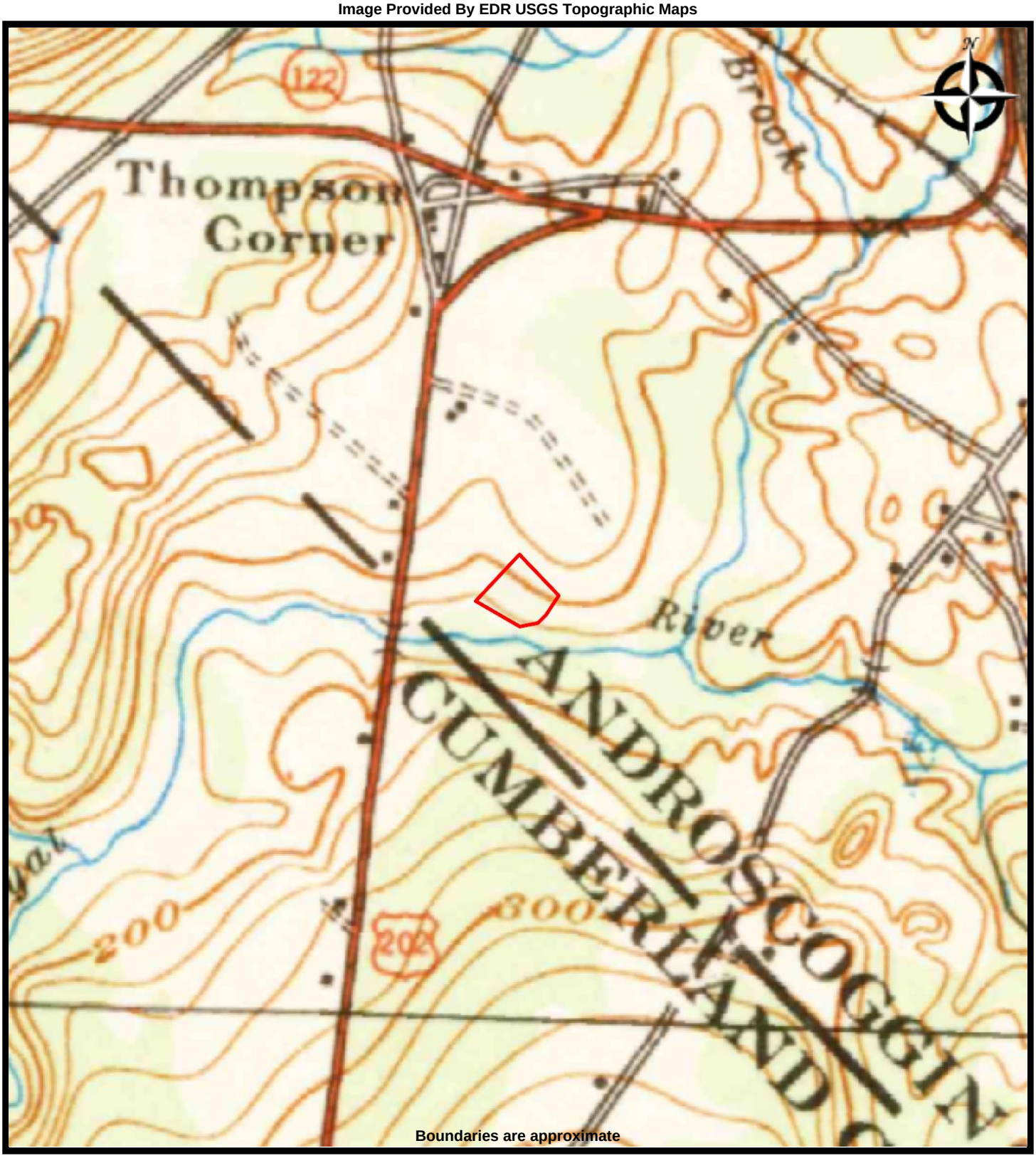
Image Provided By EDR USGS Topographic Maps



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TOPO MAP - 1942
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Route 202
Auburn, Maine 04210

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PROJ. MGR: JKC
DATE: 4/6/2022
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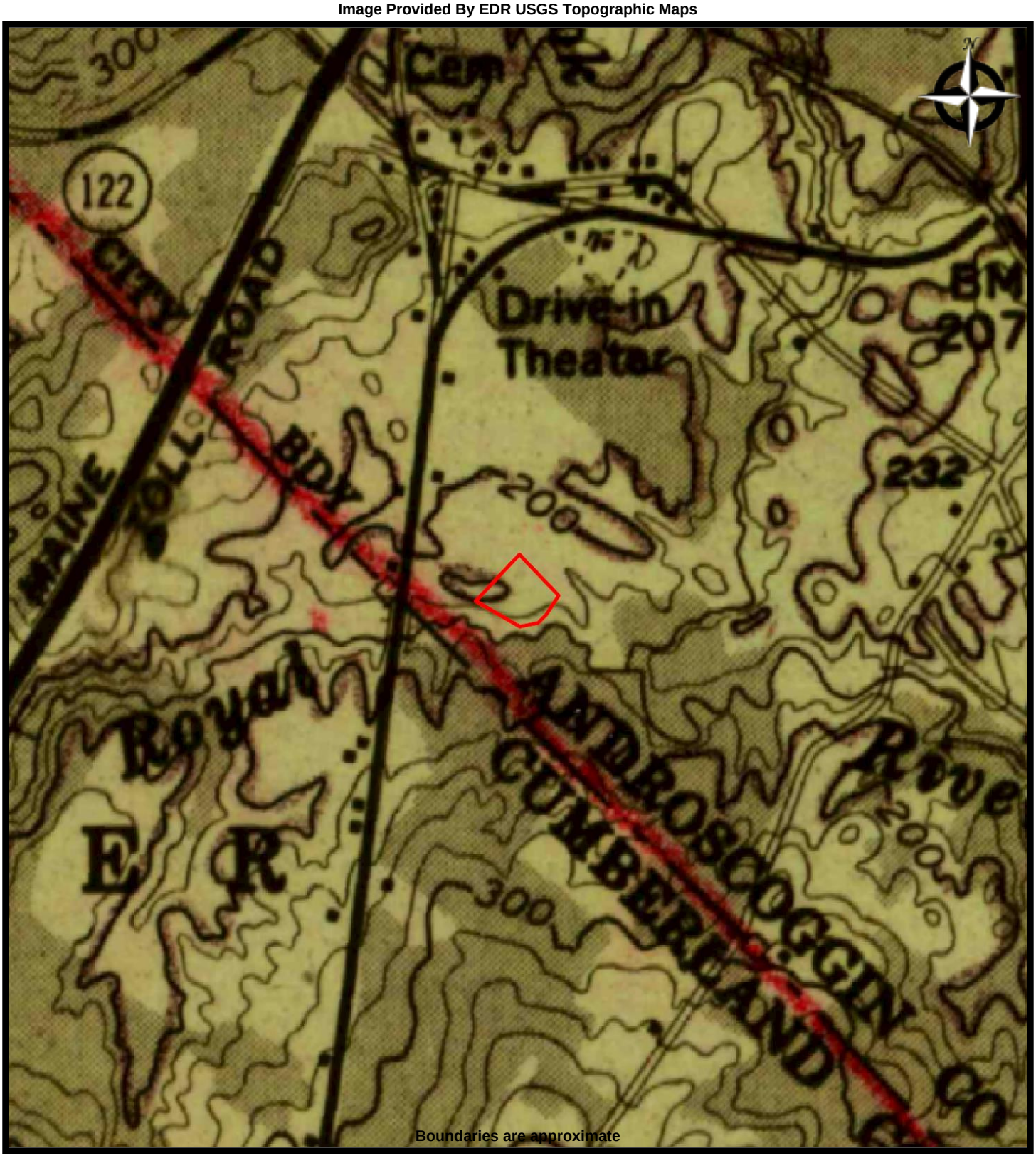

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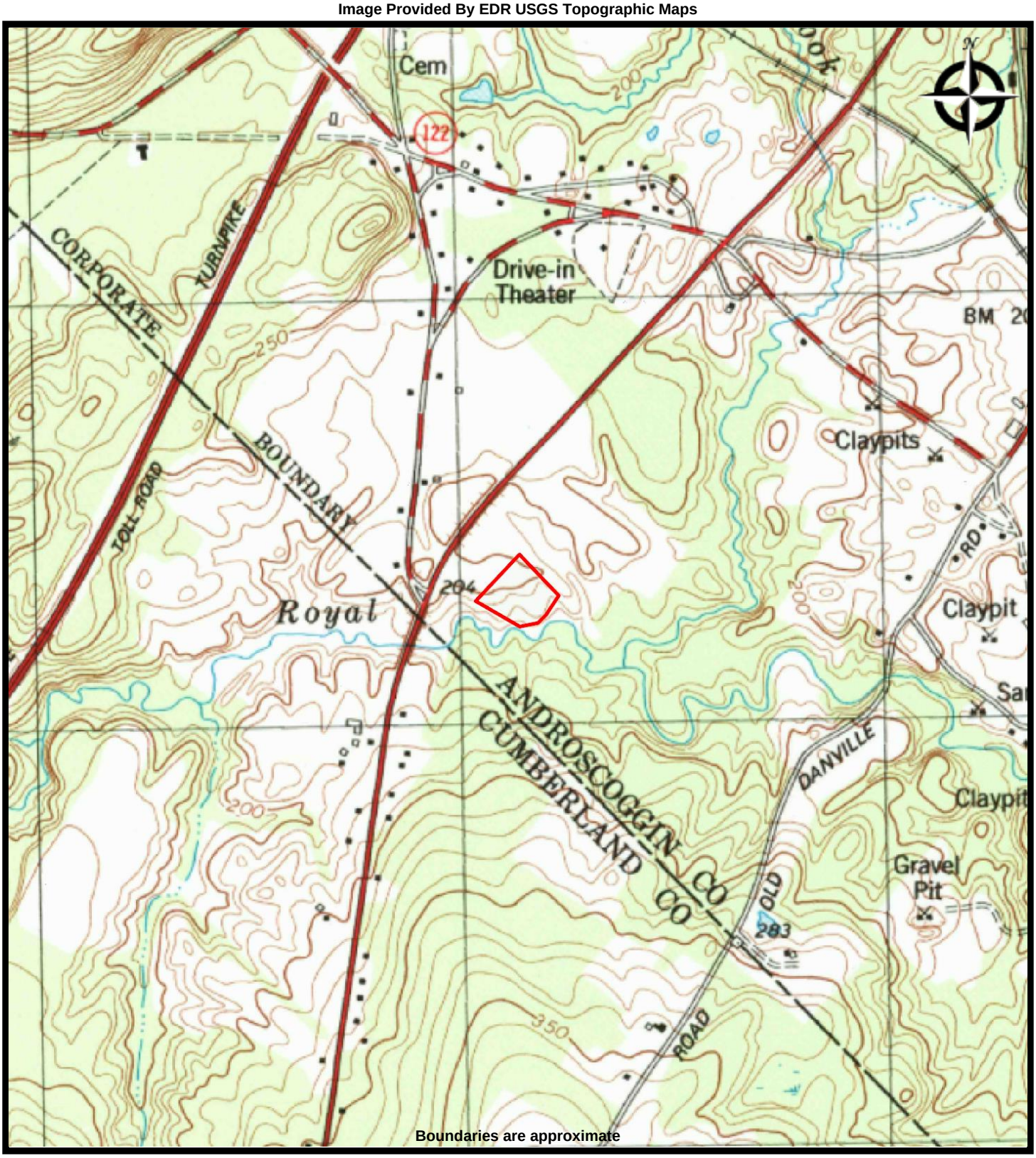
TOPO MAP - 1956
WASHINGTON STREET PROJECT
Route 202
Auburn, Maine 04210

PREPARED FOR: Auburn ME Washington HS CSG LLC
PROJ. MGR: JKC **DATE:** 4/6/2022
DRAWN BY: JKC **PROJ. #:** BE-453

Image Provided By EDR USGS Topographic Maps



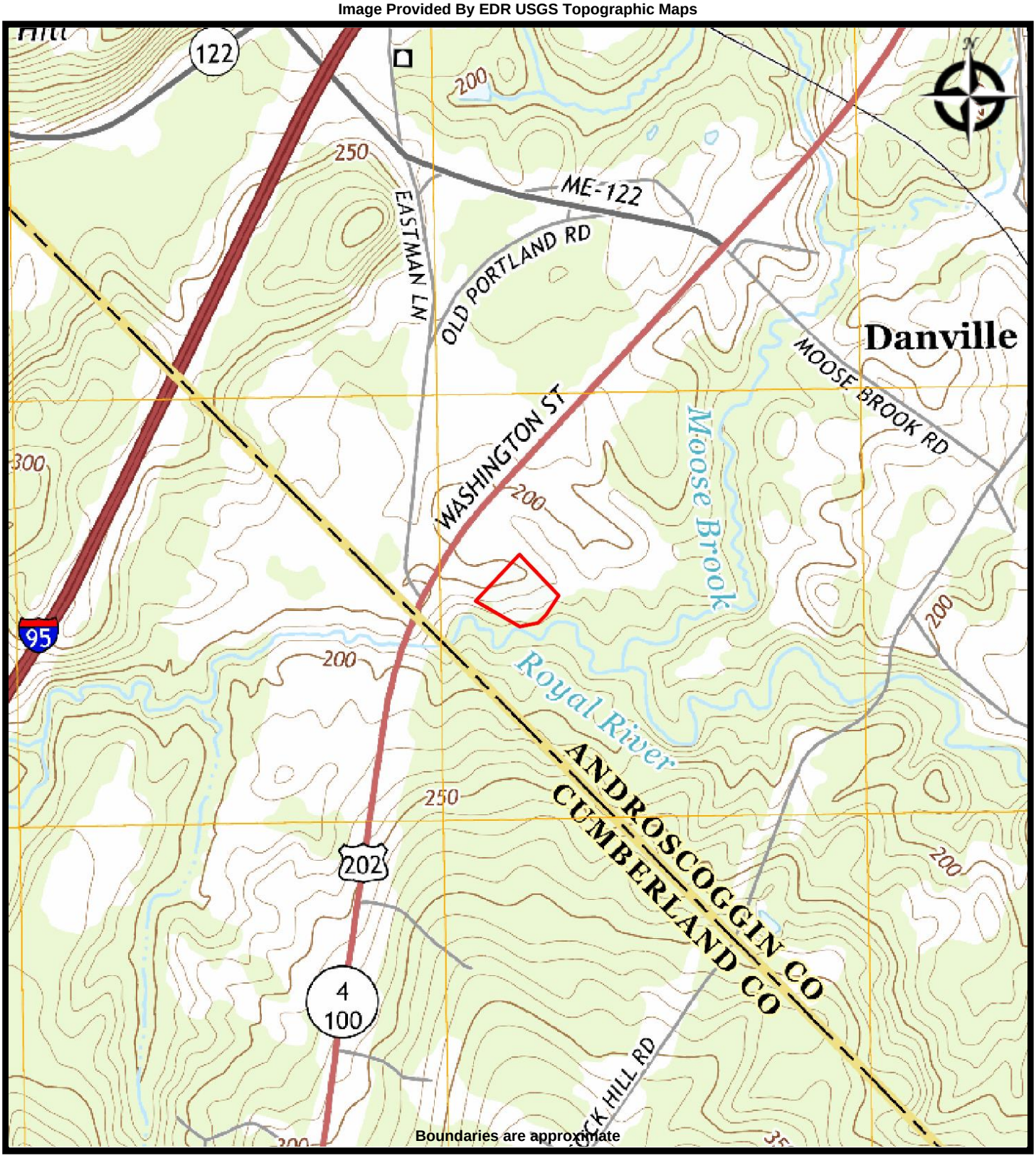
Boundaries are approximate

BEACON
Environmental Consultants, LLC

TOPO MAP - 1980
WASHINGTON STREET PROJECT
Route 202
Auburn, Maine 04210

PREPARED FOR: Auburn ME Washington HS CSG LLC
PROJ. MGR: JKC
DRAWN BY: JKC
DATE: 4/6/2022
PROJ. #: BE-453

Image Provided By EDR USGS Topographic Maps



BEACON
Environmental Consultants, LLC

TOPO MAP - 2014
WASHINGTON STREET PROJECT
Route 202
Auburn, Maine 04210

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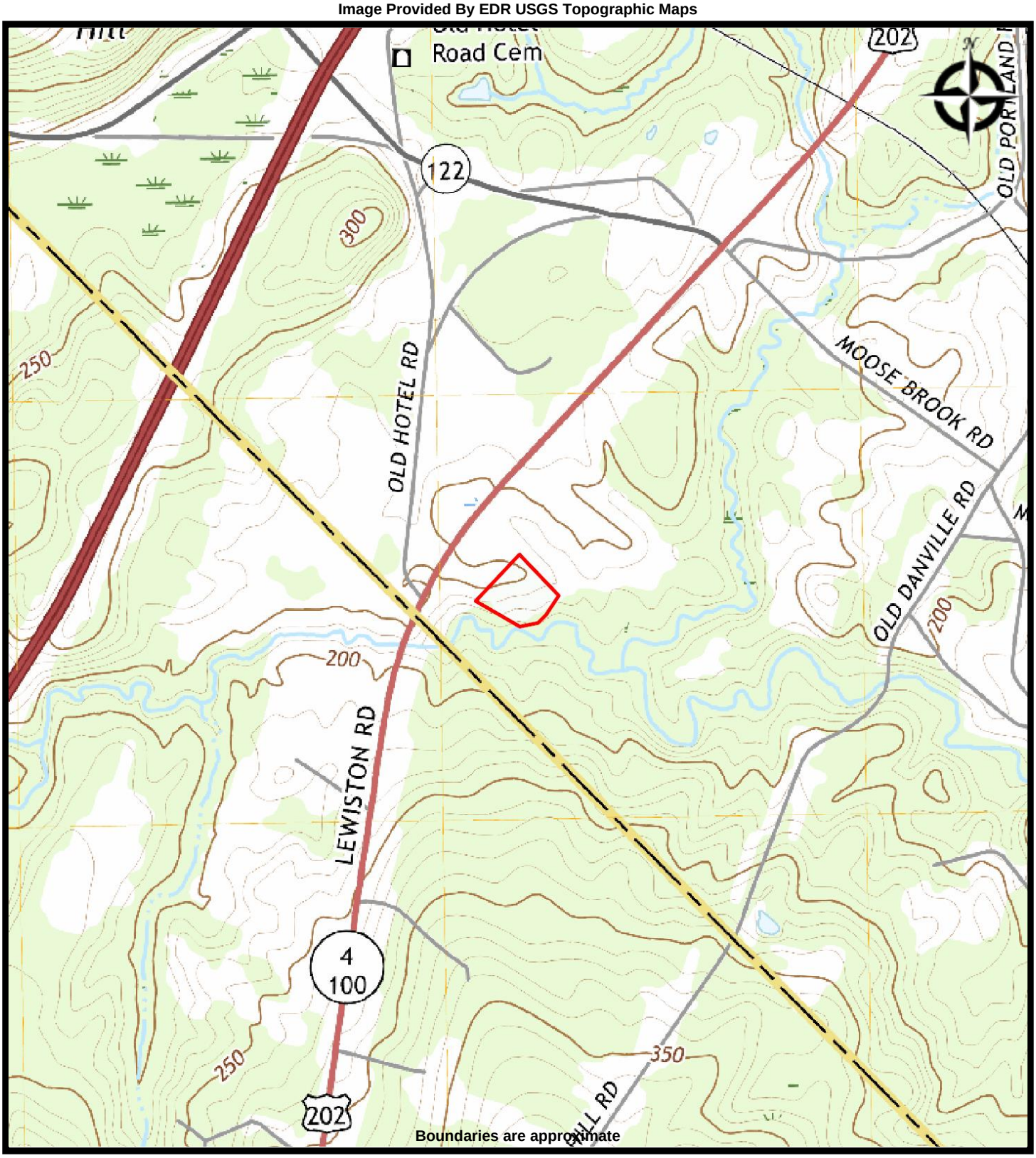
PROJ. MGR: JKC
DATE: 4/6/2022
DRAWN BY: JKC
PROJ. #: BE-453

Image Provided By EDR USGS Topographic Maps



BEACON
Environmental Consultants, LLC

TOPO MAP - 2018
WASHINGTON STREET PROJECT
Route 202
Auburn, Maine 04210

PREPARED FOR: Auburn ME Washington HS CSG LLC
PROJ. MGR: JKC
DRAWN BY: JKC
DATE: 4/6/2022
PROJ. #: BE-453

APPENDIX D
EDR DATABASE SEARCH

Washington Street
Route 202
Auburn, ME 04210

Inquiry Number: 6909611.2s
March 23, 2022

EDR Summary Radius Map Report

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

TABLE OF CONTENTS

Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

EXECUTIVE SUMMARY

A search of available environmental records was conducted by Environmental Data Resources, Inc (EDR). The report was designed to assist parties seeking to meet the search requirements of EPA's Standards and Practices for All Appropriate Inquiries (40 CFR Part 312), the ASTM Standard Practice for Environmental Site Assessments (E1527-21), the ASTM Standard Practice for Environmental Site Assessments for Forestland or Rural Property (E 2247-16), the ASTM Standard Practice for Limited Environmental Due Diligence: Transaction Screen Process (E 1528-14) or custom requirements developed for the evaluation of environmental risk associated with a parcel of real estate.

TARGET PROPERTY INFORMATION

ADDRESS

ROUTE 202
AUBURN, ME 04210

COORDINATES

Latitude (North):	44.0168650 - 44ˆ 1' 0.71''
Longitude (West):	70.2827500 - 70ˆ 16' 57.90''
Universal Tranverse Mercator:	Zone 19
UTM X (Meters):	397182.5
UTM Y (Meters):	4874329.5
Elevation:	200 ft. above sea level

USGS TOPOGRAPHIC MAP ASSOCIATED WITH TARGET PROPERTY

Target Property:	TP
Source:	U.S. Geological Survey

Target Property:	S
Source:	U.S. Geological Survey

AERIAL PHOTOGRAPHY IN THIS REPORT

Portions of Photo from:	20150705, 20150716
Source:	USDA

MAPPED SITES SUMMARY

Target Property Address:
ROUTE 202
AUBURN, ME 04210

Click on Map ID to see full detail.

MAP ID	SITE NAME	ADDRESS	DATABASE ACRONYMS	RELATIVE ELEVATION	DIST (ft. & mi.) DIRECTION
1	FARRELL ENTERPRISES	145 EASTMAN LANE	SPILLS	Higher	1458, 0.276, NNW
2	MORIN BRICK CO.	145 MOOSE BROOK ROAD	LAST	Lower	1785, 0.338, East
3	MILLER'S JUNKYARD	OLD HOTEL ROAD	SEMS-ARCHIVE, SHWS, INST CONTROL, VCP, ALLSITES,...	Higher	4171, 0.790, NNW
4	AUBURN ASH LANDFILL	POLAND SPRING ROAD	SHWS, INST CONTROL, ALLSITES	Higher	4280, 0.811, North

EXECUTIVE SUMMARY

TARGET PROPERTY SEARCH RESULTS

The target property was not listed in any of the databases searched by EDR.

SURROUNDING SITES: SEARCH RESULTS

Surrounding sites were identified in the following databases.

Elevations have been determined from the USGS Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified. Sites with an elevation equal to or higher than the target property have been differentiated below from sites with an elevation lower than the target property.
Page numbers and map identification numbers refer to the EDR Radius Map report where detailed data on individual sites can be reviewed.

Sites listed in ***bold italics*** are in multiple databases.

Unmappable (orphan) sites are not considered in the foregoing analysis.

STANDARD ENVIRONMENTAL RECORDS

Lists of state- and tribal hazardous waste facilities

SHWS: A review of the SHWS list, as provided by EDR, and dated 10/11/2021 has revealed that there are 2 SHWS sites within approximately 1 mile of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
MILLER'S JUNKYARD Facility Id: REM00419 : REMEDY IN PLACE: CLOSED	***OLD HOTEL ROAD***	***NNW 1/2 - 1 (0.790 mi.)***	***3***	***8***
AUBURN ASH LANDFILL Facility Id: REM00018 : REMEDY IN PLACE: CLOSED	***POLAND SPRING ROAD***	***N 1/2 - 1 (0.811 mi.)***	***4***	***9***

Lists of state and tribal leaking storage tanks

LAST: A review of the LAST list, as provided by EDR, and dated 10/23/2021 has revealed that there is 1 LAST site within approximately 0.5 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
MORIN BRICK CO. Spill Number: P-900-2018	145 MOOSE BROOK ROAD	E 1/4 - 1/2 (0.338 mi.)	2	8

EXECUTIVE SUMMARY

ADDITIONAL ENVIRONMENTAL RECORDS

Local Lists of Hazardous waste / Contaminated Sites

DEL SHWS: A review of the DEL SHWS list, as provided by EDR, and dated 10/11/2021 has revealed that there is 1 DEL SHWS site within approximately 1 mile of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
MILLER'S JUNKYARD	***OLD HOTEL ROAD***	***NNW 1/2 - 1 (0.790 mi.)***	***3***	***8***
Facility Id: REM00419				
Facility Status: No Further Action				

Records of Emergency Release Reports

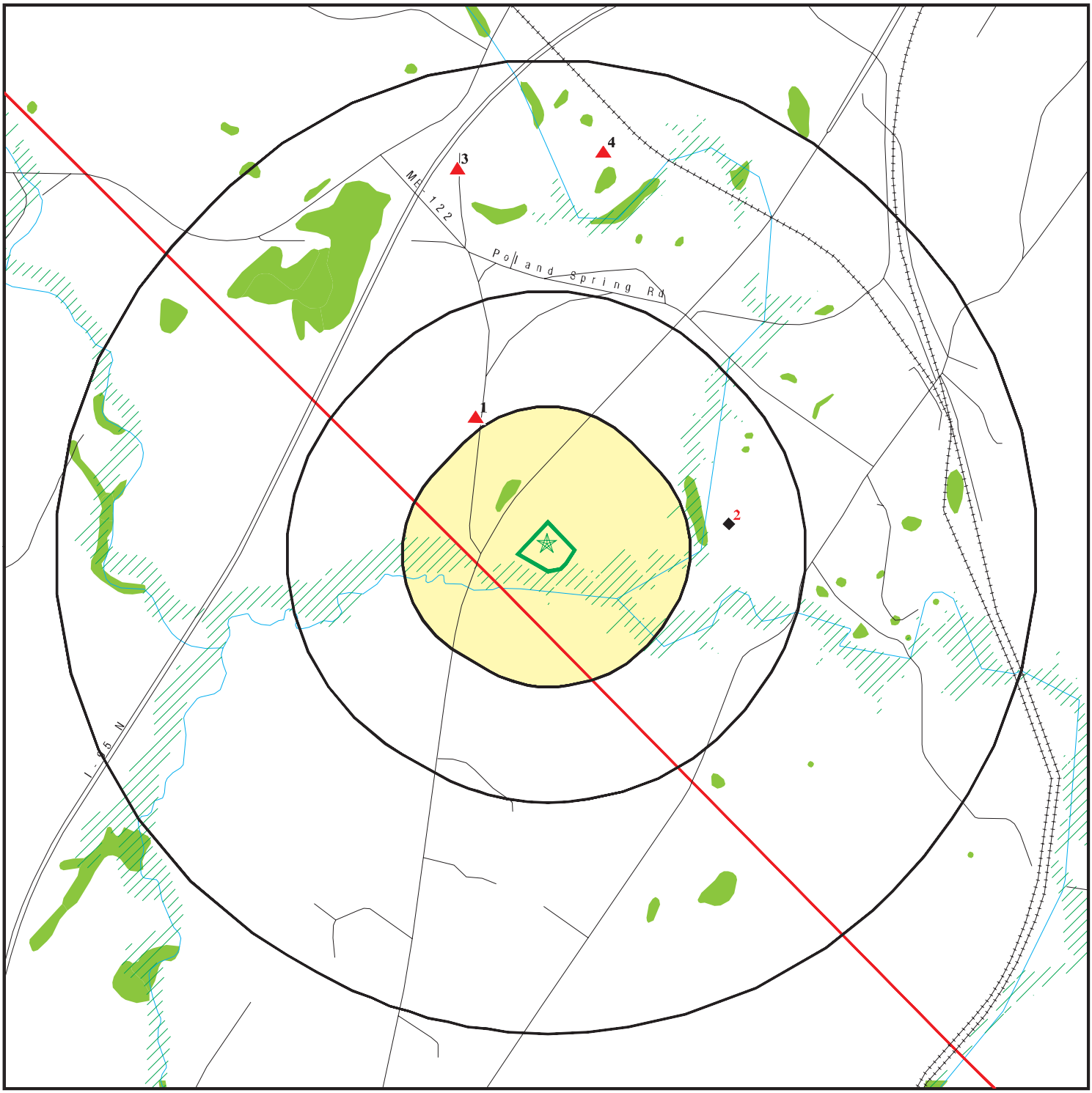
SPILLS: A review of the SPILLS list, as provided by EDR, and dated 10/23/2021 has revealed that there is 1 SPILLS site within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
FARRELL ENTERPRISES	145 EASTMAN LANE	NNW 1/4 - 1/2 (0.276 mi.)	1	8
Spill Number: P-878-2006				
Spill Number: P-402-2013				

Count: 9 records. ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)
AUBURN	S109394927	IRVING MAINWAY #1441	ROUTE 202		LUST
AUBURN	S109799192	SAINT LAURENCE & ATLANTIC RAILROAD	LEWISTON JUNCTION		LAST
AUBURN	S121275148	SEWAGE PUMP STATION	WASHINGTON & STATION ROADS		LAST
AUBURN	S115778942		494 WASHINGTON STREET		LAST
AUBURN	S125789279	NESS OIL COMPANY	249 WASHINGTON ST., ROUTE 100		LUST
AUBURN	S112212091	WEBBER ENERGY BULK PLANT	WASHINGTON ST NORTH		LAST
AUBURN	S105112370	WEBBER ENERGY BULK FACILITY	WASHINGTON AVE		LAST
AUBURN	S110078856	FREIGHTLINER OF ME TRUCKING	439 WASHINGTON ST		LUST, LAST
NEW GLOUCESTER	S112132315	SAMSON'S SERVICE & GAS (GERRY'S)	RT. 100/202 @ BALD HILL RD		LUST

OVERVIEW MAP - 6909611.2S



Target Property

Sites at elevations higher than or equal to the target property

Sites at elevations lower than the target property

Manufactured Gas Plants

National Priority List Sites

Dept. Defense Sites

0 1/4 1/2 1 Miles

Indian Reservations BIA

County Boundary

Special Flood Hazard Area (1%)

0.2% Annual Chance Flood Hazard

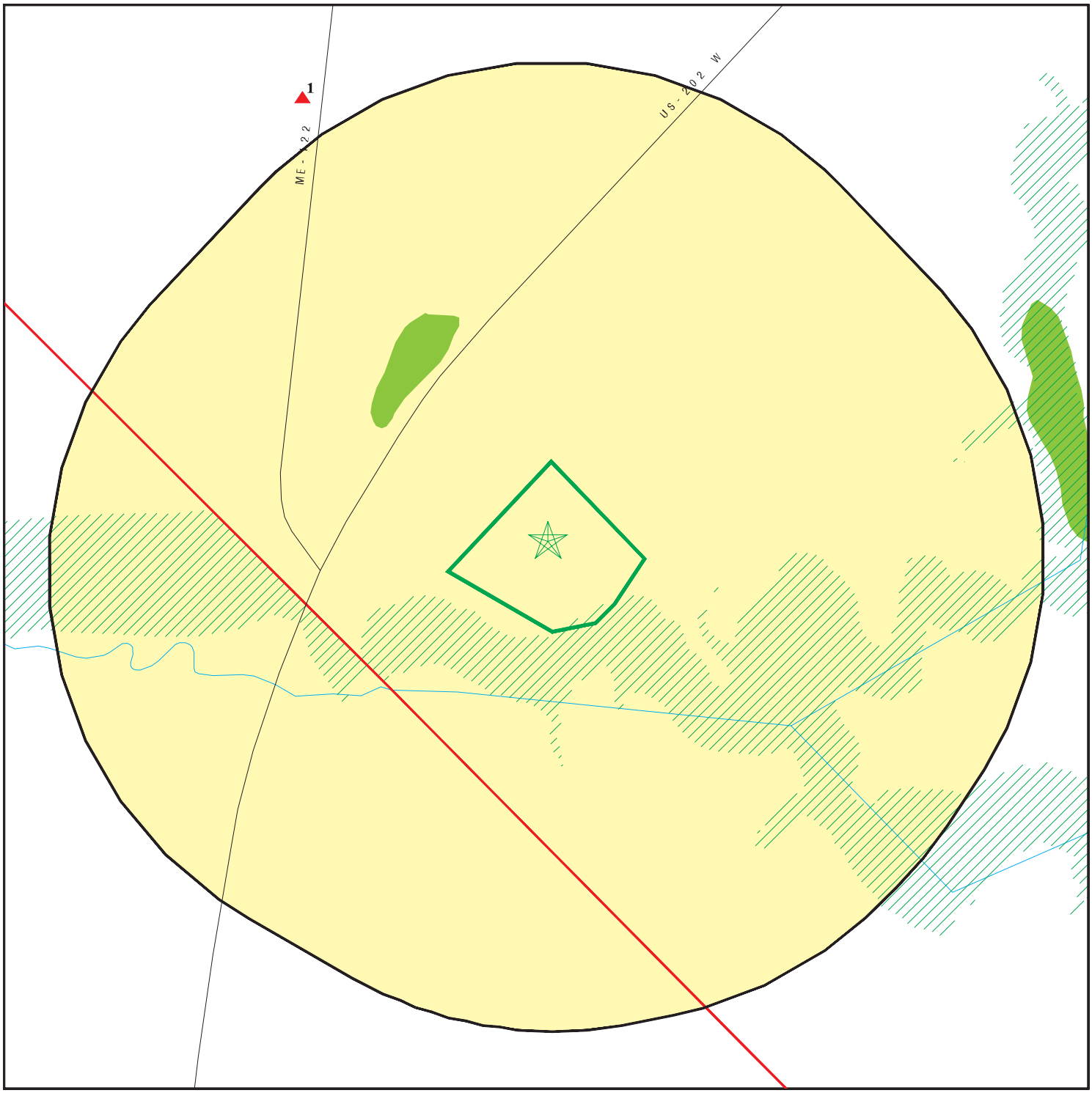
National Wetland Inventory

State Wetlands

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME:	Washington Street	CLIENT:	Beacon Environmental Consultants, LLC
ADDRESS:	Route 202 Auburn ME 04210	CONTACT:	John K Cressey, LG, PG
LAT/LONG:	44.016865 / 70.28275	INQUIRY #:	6909611.2s
		DATE:	March 23, 2022 9:23 am

DETAIL MAP - 6909611.2S



- Target Property
- Sites at elevations higher than or equal to the target property
- Sites at elevations lower than the target property
- Manufactured Gas Plants
- Sensitive Receptors
- National Priority List Sites
- Dept. Defense Sites
- Indian Reservations BIA
- County Boundary
- Special Flood Hazard Area (1%)
- 0.2% Annual Chance Flood Hazard
- National Wetland Inventory
- State Wetlands

0 1/16 1/8 1/4 Miles

N

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME:	Washington Street	CLIENT:	Beacon Environmental Consultants, LLC
ADDRESS:	Route 202 Auburn ME 04210	CONTACT:	John K Cressey, LG, PG
		INQUIRY #:	6909611.2s
LAT/LONG:	44.016865 / 70.28275	DATE:	March 23, 2022 9:23 am

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
STANDARD ENVIRONMENTAL RECORDS								
Lists of Federal NPL (Superfund) sites								
NPL	1.000		0	0	0	0	NR	0
Proposed NPL	1.000		0	0	0	0	NR	0
NPL LIENS	TP		NR	NR	NR	NR	NR	0
Lists of Federal Delisted NPL sites								
Delisted NPL	1.000		0	0	0	0	NR	0
Lists of Federal sites subject to CERCLA removals and CERCLA orders								
FEDERAL FACILITY	0.500		0	0	0	NR	NR	0
SEMS	0.500		0	0	0	NR	NR	0
Lists of Federal CERCLA sites with NFRAP								
SEMS-ARCHIVE	0.500		0	0	0	NR	NR	0
Lists of Federal RCRA facilities undergoing Corrective Action								
CORRACTS	1.000		0	0	0	0	NR	0
Lists of Federal RCRA TSD facilities								
RCRA-TSDF	0.500		0	0	0	NR	NR	0
Lists of Federal RCRA generators								
RCRA-LQG	0.250		0	0	NR	NR	NR	0
RCRA-SQG	0.250		0	0	NR	NR	NR	0
RCRA-VSQG	0.250		0	0	NR	NR	NR	0
Federal institutional controls / engineering controls registries								
LUCIS	0.500		0	0	0	NR	NR	0
US ENG CONTROLS	0.500		0	0	0	NR	NR	0
US INST CONTROLS	0.500		0	0	0	NR	NR	0
Federal ERNS list								
ERNS	TP		NR	NR	NR	NR	NR	0
Lists of state- and tribal hazardous waste facilities								
SHWS	1.000		0	0	0	2	NR	2
Lists of state and tribal landfills and solid waste disposal facilities								
SWF/LF	0.500		0	0	0	NR	NR	0
LCP	0.500		0	0	0	NR	NR	0
Lists of state and tribal leaking storage tanks								
LAST	0.500		0	0	1	NR	NR	1

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
LUST	0.500		0	0	0	NR	NR	0
INDIAN LUST	0.500		0	0	0	NR	NR	0
Lists of state and tribal registered storage tanks								
FEMA UST	0.250		0	0	NR	NR	NR	0
UST	0.250		0	0	NR	NR	NR	0
AST	0.250		0	0	NR	NR	NR	0
INDIAN UST	0.250		0	0	NR	NR	NR	0
State and tribal institutional control / engineering control registries								
INST CONTROL	0.500		0	0	0	NR	NR	0
Lists of state and tribal voluntary cleanup sites								
VCP	0.500		0	0	0	NR	NR	0
INDIAN VCP	0.500		0	0	0	NR	NR	0
Lists of state and tribal brownfield sites								
BROWNFIELDS	0.500		0	0	0	NR	NR	0
ADDITIONAL ENVIRONMENTAL RECORDS								
Local Brownfield lists								
US BROWNFIELDS	0.500		0	0	0	NR	NR	0
Local Lists of Landfill / Solid Waste Disposal Sites								
SWRCY	0.500		0	0	0	NR	NR	0
INDIAN ODI	0.500		0	0	0	NR	NR	0
DEBRIS REGION 9	0.500		0	0	0	NR	NR	0
ODI	0.500		0	0	0	NR	NR	0
IHS OPEN DUMPS	0.500		0	0	0	NR	NR	0
Local Lists of Hazardous waste / Contaminated Sites								
US HIST CDL	TP		NR	NR	NR	NR	NR	0
ALLSITES	0.500		0	0	0	NR	NR	0
DEL SHWS	1.000		0	0	0	1	NR	1
US CDL	TP		NR	NR	NR	NR	NR	0
PFAS	0.500		0	0	0	NR	NR	0
Local Land Records								
LIENS	TP		NR	NR	NR	NR	NR	0
LIENS 2	TP		NR	NR	NR	NR	NR	0
Records of Emergency Release Reports								
HMIRS	0.500		0	0	0	NR	NR	0
SPILLS	0.500		0	0	1	NR	NR	1
SPILLS 90	0.500		0	0	0	NR	NR	0
SPILLS 80	0.500		0	0	0	NR	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
Other Ascertainable Records								
RCRA NonGen / NLR	0.250		0	0	NR	NR	NR	0
FUDS	1.000		0	0	0	0	NR	0
DOD	1.000		0	0	0	0	NR	0
SCRD DRYCLEANERS	0.500		0	0	0	NR	NR	0
US FIN ASSUR	TP		NR	NR	NR	NR	NR	0
EPA WATCH LIST	TP		NR	NR	NR	NR	NR	0
2020 COR ACTION	0.250		0	0	NR	NR	NR	0
TSCA	TP		NR	NR	NR	NR	NR	0
TRIS	TP		NR	NR	NR	NR	NR	0
SSTS	TP		NR	NR	NR	NR	NR	0
ROD	1.000		0	0	0	0	NR	0
RMP	TP		NR	NR	NR	NR	NR	0
RAATS	TP		NR	NR	NR	NR	NR	0
PRP	TP		NR	NR	NR	NR	NR	0
PADS	TP		NR	NR	NR	NR	NR	0
ICIS	TP		NR	NR	NR	NR	NR	0
FTTS	TP		NR	NR	NR	NR	NR	0
MLTS	TP		NR	NR	NR	NR	NR	0
COAL ASH DOE	TP		NR	NR	NR	NR	NR	0
COAL ASH EPA	0.500		0	0	0	NR	NR	0
PCB TRANSFORMER	TP		NR	NR	NR	NR	NR	0
RADINFO	TP		NR	NR	NR	NR	NR	0
HIST FTTS	TP		NR	NR	NR	NR	NR	0
DOT OPS	TP		NR	NR	NR	NR	NR	0
CONSENT	1.000		0	0	0	0	NR	0
INDIAN RESERV	1.000		0	0	0	0	NR	0
FUSRAP	1.000		0	0	0	0	NR	0
UMTRA	0.500		0	0	0	NR	NR	0
LEAD SMELTERS	TP		NR	NR	NR	NR	NR	0
US AIRS	TP		NR	NR	NR	NR	NR	0
US MINES	0.250		0	0	NR	NR	NR	0
ABANDONED MINES	TP		NR	NR	NR	NR	NR	0
FINDS	TP		NR	NR	NR	NR	NR	0
UXO	1.000		0	0	0	0	NR	0
ECHO	TP		NR	NR	NR	NR	NR	0
DOCKET HWC	TP		NR	NR	NR	NR	NR	0
FUELS PROGRAM	0.250		0	0	NR	NR	NR	0
AIRS	TP		NR	NR	NR	NR	NR	0
DRYCLEANERS	0.250		0	0	NR	NR	NR	0
MANIFEST	0.250		0	0	NR	NR	NR	0
NPDES	TP		NR	NR	NR	NR	NR	0
TIER 2	TP		NR	NR	NR	NR	NR	0
UIC	TP		NR	NR	NR	NR	NR	0
MINES MRDS	TP		NR	NR	NR	NR	NR	0
EDR HIGH RISK HISTORICAL RECORDS								
EDR Exclusive Records								
EDR MGP	1.000		0	0	0	0	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
EDR Hist Auto	0.250		0	0	NR	NR	NR	0
EDR Hist Cleaner	0.250		0	0	NR	NR	NR	0
EDR RECOVERED GOVERNMENT ARCHIVES								
Exclusive Recovered Govt. Archives								
RGA HWS	TP		NR	NR	NR	NR	NR	0
RGA LF	TP		NR	NR	NR	NR	NR	0
RGA LUST	TP		NR	NR	NR	NR	NR	0
- Totals --		0	0	0	2	3	0	5

NOTES:

TP = Target Property

NR = Not Requested at this Search Distance

Sites may be listed in more than one database

1
NNW
1/4-1/2
0.276 mi.
1458 ft.

Relative:
Higher

FARRELL ENTERPRISES
145 EASTMAN LANE
AUBURN, ME

SPILLS **S110310731**
N/A

Click here for full text details

SPILLS
Spill Number P-878-2006
Spill Number P-402-2013

2
East
1/4-1/2
0.338 mi.
1785 ft.

Relative:
Lower

MORIN BRICK CO.
145 MOOSE BROOK ROAD
AUBURN, ME

LAST **S125789241**
N/A

Click here for full text details

LAST
Spill Number P-900-2018

3
NNW
1/2-1
0.790 mi.
4171 ft.

Relative:
Higher

MILLER'S JUNKYARD
OLD HOTEL ROAD
AUBURN (DANVILLE), ME 04210

SEMS-ARCHIVE **1003862488**
SHWS **MED981068000**
INST CONTROL
VCP
ALLSITES
DEL SHWS

Click here for full text details

SEMS-ARCHIVE
Site ID 0101048
EPA Id MED981068000

SHWS
Facility Id REM00419
REMEDY IN PLACE: CLOSED

INST CONTROL
Facility Id REM00419
Facility Status REMEDY IN PLACE: CLOSED

VCP
Facility Status REMEDY IN PLACE: CLOSED
Facility Id REM00419

ALLSITES
Facility ID REM00419
Status REMEDY IN PLACE: CLOSED

DEL SHWS
Facility Id REM00419
Facility Status No Further Action

4
North
1/2-1
0.811 mi.
4280 ft.

Relative:
Higher

AUBURN ASH LANDFILL
POLAND SPRING ROAD
AUBURN, ME

SHWS **S106615772**
INST CONTROL **N/A**
ALLSITES

Click here for full text details

SHWS
Facility Id REM00018
REMEDY IN PLACE: CLOSED

INST CONTROL
Facility Id REM00018
Facility Status REMEDY IN PLACE: CLOSED

ALLSITES
Facility ID REM00018
Status REMEDY IN PLACE: CLOSED

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

St	Acronym	Full Name	Government Agency	Gov Date	Arvl. Date	Active Date
ME	AIRS	Emissions Inventory Data	Department of Environmental Protection	12/15/2021	12/15/2021	03/07/2022
ME	ALLSITES	Remediation Sites List	Department of Environmental Protection	10/11/2021	10/11/2021	01/04/2022
ME	AST	Aboveground Storage Tanks	Maine Emergency Management Agency	12/31/2020	09/03/2021	11/29/2021
ME	AST 2	Registered Petroeum Tanks Database	Department of Environmental Protection	12/21/2021	12/21/2021	03/15/2022
ME	BROWNFIELDS	Remediation Sites List	Department of Environmental Protection	10/11/2021	10/11/2021	01/04/2022
ME	DEL HWS	Sites Removed from the Uncontrolled Sites List	Department of Environmental Protection	10/11/2021	10/11/2021	01/04/2022
ME	DRYCLEANERS	Drycleaner Facilities	Department of Environmental Protection	05/10/2021	05/13/2021	08/03/2021
ME	INST CONTROL	Remediation Sites List	Department of Environmental Protection	10/11/2021	10/11/2021	01/04/2022
ME	LAST	HOSS Database	Department of Environmental Protection	10/23/2021	10/27/2021	01/18/2022
ME	LCP	Municipal Landfill Closure Database	Department of Environmental Protection	11/14/2011	11/15/2011	11/30/2011
ME	LIENS	Environmental Liens Information Listing	Department of Environmental Protection	11/16/2021	11/18/2021	02/08/2022
ME	LUST	Hazardous Material and Oil Spill System Database (H.O.S.S.)	Department of Environmental Protection	10/23/2021	10/27/2021	01/18/2022
ME	MANIFEST	Hazardous Waste Manifest Information Listing	Department of Environmental Protection	06/30/2018	06/14/2019	08/29/2019
ME	NPDES	Wastewater Facilities Listing	Department of Environmental Protection	07/08/2021	12/16/2021	03/07/2022
ME	PFAS	PFAS Contamination Site Location Listing	Department of Environmental Protection	03/14/2022	03/16/2022	03/22/2022
ME	RGA HWS	Recovered Government Archive State Hazardous Waste Facilitie	Department of Environmental Protection		07/01/2013	01/08/2014
ME	RGA LF	Recovered Government Archive Solid Waste Facilities List	Department of Environmental Protection		07/01/2013	01/17/2014
ME	RGA LUST	Recovered Government Archive Leaking Underground Storage Tan	Department of Environmental Protection		07/01/2013	01/10/2014
ME	SHWS	Remediation Sites List	Department of Environmental Protection	10/11/2021	10/11/2021	01/04/2022
ME	SPILLS	Hazardous Material and Oil Spill System Database	Department of Environmental Protection	10/23/2021	10/27/2021	01/18/2022
ME	SPILLS 80	SPILLS80 data from FirstSearch	FirstSearch	06/07/2001	01/03/2013	03/06/2013
ME	SPILLS 90	SPILLS90 data from FirstSearch	FirstSearch	11/05/2012	01/03/2013	01/25/2013
ME	SWF/LF	Solid Waste Facility List	Department of Environmental Protection	11/02/2021	11/04/2021	01/27/2022
ME	SWRCY	Recycling Facilities	Department of Environmental Protection	06/15/2020	06/17/2020	09/01/2020
ME	TIER 2	Tier 2 Information Listing	Maine Emergency Management Agency	12/20/2020	09/03/2021	11/24/2021
ME	UIC	Underground Injection Control	Department of Environmental Protection	12/21/2021	12/22/2021	02/08/2022
ME	UST	Underground Storage Tank Database	Department of Environmental Protection	11/01/2021	11/09/2021	01/27/2022
ME	VCP	Remediation Sites List	Department of Environmental Protection	10/11/2021	10/11/2021	01/04/2022
US	2020 COR ACTION	2020 Corrective Action Program List	Environmental Protection Agency	09/30/2017	05/08/2018	07/20/2018
US	ABANDONED MINES	Abandoned Mines	Department of Interior	12/14/2021	12/15/2021	03/10/2022
US	BRS	Biennial Reporting System	EPA/NTIS	12/31/2019	09/15/2021	12/14/2021
US	COAL ASH DOE	Steam-Electric Plant Operation Data	Department of Energy	12/31/2020	11/30/2021	02/22/2022
US	COAL ASH EPA	Coal Combustion Residues Surface Impoundments List	Environmental Protection Agency	01/12/2017	03/05/2019	11/11/2019
US	CONSENT	Superfund (CERCLA) Consent Decrees	Department of Justice, Consent Decree Library	09/30/2021	10/13/2021	01/10/2022
US	CORRACTS	Corrective Action Report	EPA	02/28/2022	03/02/2022	03/17/2022
US	DEBRIS REGION 9	Torres Martinez Reservation Illegal Dump Site Locations	EPA, Region 9	01/12/2009	05/07/2009	09/21/2009
US	DOCKET HWC	Hazardous Waste Compliance Docket Listing	Environmental Protection Agency	05/06/2021	05/21/2021	08/11/2021
US	DOD	Department of Defense Sites	USGS	06/07/2021	07/13/2021	03/09/2022
US	DOT OPS	Incident and Accident Data	Department of Transporation, Office of Pipeli	01/02/2020	01/28/2020	04/17/2020
US	Delisted NPL	National Priority List Deletions	EPA	01/25/2022	02/03/2022	02/22/2022
US	ECHO	Enforcement & Compliance History Information	Environmental Protection Agency	01/01/2022	01/04/2022	01/10/2022
US	EDR Hist Auto	EDR Exclusive Historical Auto Stations	EDR, Inc.			
US	EDR Hist Cleaner	EDR Exclusive Historical Cleaners	EDR, Inc.			
US	EDR MGP	EDR Proprietary Manufactured Gas Plants	EDR, Inc.			
US	EPA WATCH LIST	EPA WATCH LIST	Environmental Protection Agency	08/30/2013	03/21/2014	06/17/2014
US	ERNS	Emergency Response Notification System	National Response Center, United States Coast	12/31/2021	03/01/2022	03/10/2022
US	FEDERAL FACILITY	Federal Facility Site Information listing	Environmental Protection Agency	05/25/2021	06/24/2021	09/20/2021

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

St	Acronym	Full Name	Government Agency	Gov Date	Arvl. Date	Active Date
US	FEDLAND	Federal and Indian Lands	U.S. Geological Survey	04/02/2018	04/11/2018	11/06/2019
US	FEMA UST	Underground Storage Tank Listing	FEMA	10/14/2021	11/05/2021	02/01/2022
US	FINDS	Facility Index System/Facility Registry System	EPA	11/04/2021	11/22/2021	02/25/2022
US	FTTS	FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fu	EPA/Office of Prevention, Pesticides and Toxi	04/09/2009	04/16/2009	05/11/2009
US	FTTS INSP	FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fu	EPA	04/09/2009	04/16/2009	05/11/2009
US	FUDS	Formerly Used Defense Sites	U.S. Army Corps of Engineers	10/26/2021	11/16/2021	02/08/2022
US	FUELS PROGRAM	EPA Fuels Program Registered Listing	EPA	11/15/2021	11/15/2021	02/01/2022
US	FUSRAP	Formerly Utilized Sites Remedial Action Program	Department of Energy	07/26/2021	07/27/2021	10/22/2021
US	HIST FTTS	FIFRA/TSCA Tracking System Administrative Case Listing	Environmental Protection Agency	10/19/2006	03/01/2007	04/10/2007
US	HIST FTTS INSP	FIFRA/TSCA Tracking System Inspection & Enforcement Case Lis	Environmental Protection Agency	10/19/2006	03/01/2007	04/10/2007
US	HMIRS	Hazardous Materials Information Reporting System	U.S. Department of Transportation	12/15/2021	12/16/2021	03/10/2022
US	ICIS	Integrated Compliance Information System	Environmental Protection Agency	11/18/2016	11/23/2016	02/10/2017
US	IHS OPEN DUMPS	Open Dumps on Indian Land	Department of Health & Human Serivces, Indian	04/01/2014	08/06/2014	01/29/2015
US	INDIAN LUST R1	Leaking Underground Storage Tanks on Indian Land	EPA Region 1	04/28/2021	06/11/2021	09/07/2021
US	INDIAN LUST R10	Leaking Underground Storage Tanks on Indian Land	EPA Region 10	10/12/2021	11/15/2021	02/08/2022
US	INDIAN LUST R4	Leaking Underground Storage Tanks on Indian Land	EPA Region 4	05/28/2021	06/22/2021	09/20/2021
US	INDIAN LUST R5	Leaking Underground Storage Tanks on Indian Land	EPA, Region 5	10/12/2021	11/15/2021	02/08/2022
US	INDIAN LUST R6	Leaking Underground Storage Tanks on Indian Land	EPA Region 6	10/12/2021	11/15/2021	02/08/2022
US	INDIAN LUST R7	Leaking Underground Storage Tanks on Indian Land	EPA Region 7	10/12/2021	11/15/2021	02/08/2022
US	INDIAN LUST R8	Leaking Underground Storage Tanks on Indian Land	EPA Region 8	10/12/2021	11/15/2021	02/08/2022
US	INDIAN LUST R9	Leaking Underground Storage Tanks on Indian Land	Environmental Protection Agency	10/12/2021	11/15/2021	02/08/2022
US	INDIAN ODI	Report on the Status of Open Dumps on Indian Lands	Environmental Protection Agency	12/31/1998	12/03/2007	01/24/2008
US	INDIAN RESERV	Indian Reservations	USGS	12/31/2014	07/14/2015	01/10/2017
US	INDIAN UST R1	Underground Storage Tanks on Indian Land	EPA, Region 1	10/14/2021	11/15/2021	02/08/2022
US	INDIAN UST R10	Underground Storage Tanks on Indian Land	EPA Region 10	10/12/2021	11/15/2021	02/08/2022
US	INDIAN UST R4	Underground Storage Tanks on Indian Land	EPA Region 4	05/28/2021	06/22/2021	09/20/2021
US	INDIAN UST R5	Underground Storage Tanks on Indian Land	EPA Region 5	04/06/2021	06/11/2021	09/07/2021
US	INDIAN UST R6	Underground Storage Tanks on Indian Land	EPA Region 6	10/12/2021	11/15/2021	02/08/2022
US	INDIAN UST R7	Underground Storage Tanks on Indian Land	EPA Region 7	10/12/2021	11/15/2021	02/08/2022
US	INDIAN UST R8	Underground Storage Tanks on Indian Land	EPA Region 8	10/12/2021	11/15/2021	02/08/2022
US	INDIAN UST R9	Underground Storage Tanks on Indian Land	EPA Region 9	10/12/2021	11/15/2021	02/08/2022
US	INDIAN VCP R1	Voluntary Cleanup Priority Listing	EPA, Region 1	07/27/2015	09/29/2015	02/18/2016
US	INDIAN VCP R7	Voluntary Cleanup Priority Lisitng	EPA, Region 7	03/20/2008	04/22/2008	05/19/2008
US	LEAD SMELTER 1	Lead Smelter Sites	Environmental Protection Agency	01/25/2022	02/03/2022	02/22/2022
US	LEAD SMELTER 2	Lead Smelter Sites	American Journal of Public Health	04/05/2001	10/27/2010	12/02/2010
US	LIENS 2	CERCLA Lien Information	Environmental Protection Agency	01/25/2022	02/03/2022	02/22/2022
US	LUCIS	Land Use Control Information System	Department of the Navy	11/15/2021	11/16/2021	02/08/2022
US	MINES MRDS	Mineral Resources Data System	USGS	04/06/2018	10/21/2019	10/24/2019
US	MINES VIOLATIONS	MSHA Violation Assessment Data	DOL, Mine Safety & Health Admi	06/30/2021	07/01/2021	09/28/2021
US	MLTS	Material Licensing Tracking System	Nuclear Regulatory Commission	07/29/2021	08/24/2021	11/19/2021
US	NPL	National Priority List	EPA	01/25/2022	02/03/2022	02/22/2022
US	NPL LIENS	Federal Superfund Liens	EPA	10/15/1991	02/02/1994	03/30/1994
US	ODI	Open Dump Inventory	Environmental Protection Agency	06/30/1985	08/09/2004	09/17/2004
US	PADS	PCB Activity Database System	EPA	11/19/2020	01/08/2021	03/22/2021
US	PCB TRANSFORMER	PCB Transformer Registration Database	Environmental Protection Agency	09/13/2019	11/06/2019	02/10/2020
US	PCS	Permit Compliance System	EPA, Office of Water	07/14/2011	08/05/2011	09/29/2011
US	PCS ENF	Enforcement data	EPA	12/31/2014	02/05/2015	03/06/2015

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

St	Acronym	Full Name	Government Agency	Gov Date	Arvl. Date	Active Date
US	PCS INACTIVE	Listing of Inactive PCS Permits	EPA	11/05/2014	01/06/2015	05/06/2015
US	PRP	Potentially Responsible Parties	EPA	01/25/2022	02/03/2022	02/25/2022
US	Proposed NPL	Proposed National Priority List Sites	EPA	01/25/2022	02/03/2022	02/22/2022
US	RAATS	RCRA Administrative Action Tracking System	EPA	04/17/1995	07/03/1995	08/07/1995
US	RADINFO	Radiation Information Database	Environmental Protection Agency	07/01/2019	07/01/2019	09/23/2019
US	RCRA NonGen / NLR	RCRA - Non Generators / No Longer Regulated	Environmental Protection Agency	02/28/2022	03/02/2022	03/17/2022
US	RCRA-LQG	RCRA - Large Quantity Generators	Environmental Protection Agency	02/28/2022	03/02/2022	03/17/2022
US	RCRA-SQG	RCRA - Small Quantity Generators	Environmental Protection Agency	02/28/2022	03/02/2022	03/17/2022
US	RCRA-TSDF	RCRA - Treatment, Storage and Disposal	Environmental Protection Agency	02/28/2022	03/02/2022	03/17/2022
US	RCRA-VSQG	RCRA - Very Small Quantity Generators (Formerly Conditionall	Environmental Protection Agency	02/28/2022	03/02/2022	03/17/2022
US	RMP	Risk Management Plans	Environmental Protection Agency	10/20/2021	11/05/2021	11/12/2021
US	ROD	Records Of Decision	EPA	01/25/2022	02/03/2022	02/22/2022
US	SCRD DRYCLEANERS	State Coalition for Remediation of Drycleaners Listing	Environmental Protection Agency	01/01/2017	02/03/2017	04/07/2017
US	SEMS	Superfund Enterprise Management System	EPA	01/25/2022	02/03/2022	02/22/2022
US	SEMS-ARCHIVE	Superfund Enterprise Management System Archive	EPA	01/25/2022	02/03/2022	02/22/2022
US	SSTS	Section 7 Tracking Systems	EPA	10/18/2021	10/20/2021	01/10/2022
US	TRIS	Toxic Chemical Release Inventory System	EPA	12/31/2018	08/14/2020	11/04/2020
US	TSCA	Toxic Substances Control Act	EPA	12/31/2016	06/17/2020	09/10/2020
US	UMTRA	Uranium Mill Tailings Sites	Department of Energy	08/30/2019	11/15/2019	01/28/2020
US	US AIRS (AFS)	Aerometric Information Retrieval System Facility Subsystem (	EPA	10/12/2016	10/26/2016	02/03/2017
US	US AIRS MINOR	Air Facility System Data	EPA	10/12/2016	10/26/2016	02/03/2017
US	US BROWNFIELDS	A Listing of Brownfields Sites	Environmental Protection Agency	02/23/2022	03/10/2022	03/10/2022
US	US CDL	Clandestine Drug Labs	Drug Enforcement Administration	11/16/2021	11/18/2021	02/08/2022
US	US ENG CONTROLS	Engineering Controls Sites List	Environmental Protection Agency	11/19/2021	11/19/2021	02/14/2022
US	US FIN ASSUR	Financial Assurance Information	Environmental Protection Agency	12/13/2021	12/17/2021	03/17/2022
US	US HIST CDL	National Clandestine Laboratory Register	Drug Enforcement Administration	11/16/2021	11/18/2021	02/08/2022
US	US INST CONTROLS	Institutional Controls Sites List	Environmental Protection Agency	11/19/2021	11/19/2021	02/14/2022
US	US MINES	Mines Master Index File	Department of Labor, Mine Safety and Health A	11/02/2021	11/22/2021	02/14/2022
US	US MINES 2	Ferrous and Nonferrous Metal Mines Database Listing	USGS	05/06/2020	05/27/2020	08/13/2020
US	US MINES 3	Active Mines & Mineral Plants Database Listing	USGS	04/14/2011	06/08/2011	09/13/2011
US	UXO	Unexploded Ordnance Sites	Department of Defense	12/31/2020	01/11/2022	02/14/2022
CT	CT MANIFEST	Hazardous Waste Manifest Data	Department of Energy & Environmental Protecti	11/11/2021	11/12/2021	02/01/2022
NJ	NJ MANIFEST	Manifest Information	Department of Environmental Protection	12/31/2018	04/10/2019	05/16/2019
NY	NY MANIFEST	Facility and Manifest Data	Department of Environmental Conservation	01/01/2019	10/29/2021	01/19/2022
PA	PA MANIFEST	Manifest Information	Department of Environmental Protection	06/30/2018	07/19/2019	09/10/2019
RI	RI MANIFEST	Manifest information	Department of Environmental Management	12/31/2020	11/30/2021	02/18/2022
VT	VT MANIFEST	Hazardous Waste Manifest Data	Department of Environmental Conservation	10/28/2019	10/29/2019	01/09/2020

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

St	Acronym	Full Name	Government Agency	Gov Date	Arvl. Date	Active Date
US	AHA Hospitals	Sensitive Receptor: AHA Hospitals	American Hospital Association, Inc.			
US	Medical Centers	Sensitive Receptor: Medical Centers	Centers for Medicare & Medicaid Services			
US	Nursing Homes	Sensitive Receptor: Nursing Homes	National Institutes of Health			
US	Public Schools	Sensitive Receptor: Public Schools	National Center for Education Statistics			
US	Private Schools	Sensitive Receptor: Private Schools	National Center for Education Statistics			
ME	Daycare Centers	Sensitive Receptor: Child Care Listing	Department of Human Services			
US	Flood Zones	100-year and 500-year flood zones	Emergency Management Agency (FEMA)			
US	NWI	National Wetlands Inventory	U.S. Fish and Wildlife Service			
ME	State Wetlands	Wetland Inventory	MEGIS			
US	Topographic Map		U.S. Geological Survey			
US	Oil/Gas Pipelines		Endeavor Business Media			
US	Electric Power Transmission Line Data		Endeavor Business Media			

STREET AND ADDRESS INFORMATION

GEOCHECK ®- PHYSICAL SETTING SOURCE ADDENDUM

TARGET PROPERTY ADDRESS

WASHINGTON STREET
ROUTE 202
AUBURN, ME 04210

TARGET PROPERTY COORDINATES

Latitude (North):	44.016865 - 44ˆ 1’ 0.71’’
Longitude (West):	70.28275 - 70ˆ 16’ 57.90’’
Universal Tranverse Mercator:	Zone 19
UTM X (Meters):	397182.5
UTM Y (Meters):	4874329.5
Elevation:	200 ft. above sea level

USGS TOPOGRAPHIC MAP

Target Property Map:	11822623 MINOT, ME
Version Date:	2018
South Map:	11747699 GRAY, ME
Version Date:	2018

EDR’s GeoCheck Physical Setting Source Addendum is provided to assist the environmental professional in forming an opinion about the impact of potential contaminant migration.

Assessment of the impact of contaminant migration generally has two principle investigative components:

1. Groundwater flow direction, and
2. Groundwater flow velocity.

Groundwater flow direction may be impacted by surface topography, hydrology, hydrogeology, characteristics of the soil, and nearby wells. Groundwater flow velocity is generally impacted by the nature of the geologic strata.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW DIRECTION INFORMATION

Groundwater flow direction for a particular site is best determined by a qualified environmental professional using site-specific well data. If such data is not reasonably ascertainable, it may be necessary to rely on other sources of information, such as surface topographic information, hydrologic information, hydrogeologic data collected on nearby properties, and regional groundwater flow information (from deep aquifers).

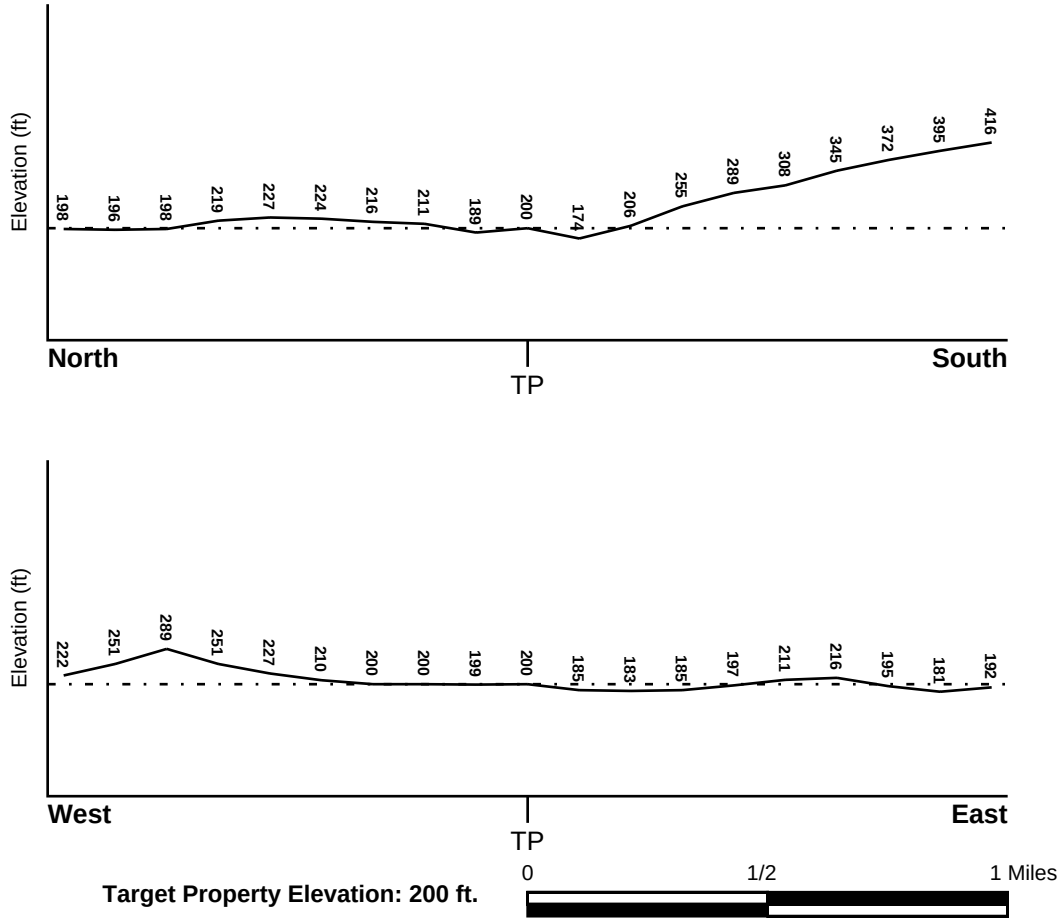
TOPOGRAPHIC INFORMATION

Surface topography may be indicative of the direction of surficial groundwater flow. This information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

TARGET PROPERTY TOPOGRAPHY

General Topographic Gradient: General ENE

SURROUNDING TOPOGRAPHY: ELEVATION PROFILES



Source: Topography has been determined from the USGS 7.5' Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

HYDROLOGIC INFORMATION

Surface water can act as a hydrologic barrier to groundwater flow. Such hydrologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Refer to the Physical Setting Source Map following this summary for hydrologic information (major waterways and bodies of water).

FEMA FLOOD ZONE

Flood Plain Panel at Target Property	FEMA Source Type
23001C0320E	FEMA FIRM Flood data

Additional Panels in search area:	FEMA Source Type
23001C0316E	FEMA FIRM Flood data
23001C0317E	FEMA FIRM Flood data

NATIONAL WETLAND INVENTORY

NWI Quad at Target Property	NWI Electronic Data Coverage
MINOT	YES - refer to the Overview Map and Detail Map

HYDROGEOLOGIC INFORMATION

Hydrogeologic information obtained by installation of wells on a specific site can often be an indicator of groundwater flow direction in the immediate area. Such hydrogeologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

AQUIFLOW®

Search Radius: 1.000 Mile.

EDR has developed the AQUIFLOW Information System to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted by environmental professionals to regulatory authorities at select sites and has extracted the date of the report, groundwater flow direction as determined hydrogeologically, and the depth to water table.

MAP ID	LOCATION FROM TP	GENERAL DIRECTION GROUNDWATER FLOW
Not Reported		

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW VELOCITY INFORMATION

Groundwater flow velocity information for a particular site is best determined by a qualified environmental professional using site specific geologic and soil strata data. If such data are not reasonably ascertainable, it may be necessary to rely on other sources of information, including geologic age identification, rock stratigraphic unit and soil characteristics data collected on nearby properties and regional soil information. In general, contaminant plumes move more quickly through sandy-gravelly types of soils than silty-clayey types of soils.

GEOLOGIC INFORMATION IN GENERAL AREA OF TARGET PROPERTY

Geologic information can be used by the environmental professional in forming an opinion about the relative speed at which contaminant migration may be occurring.

ROCK STRATIGRAPHIC UNIT

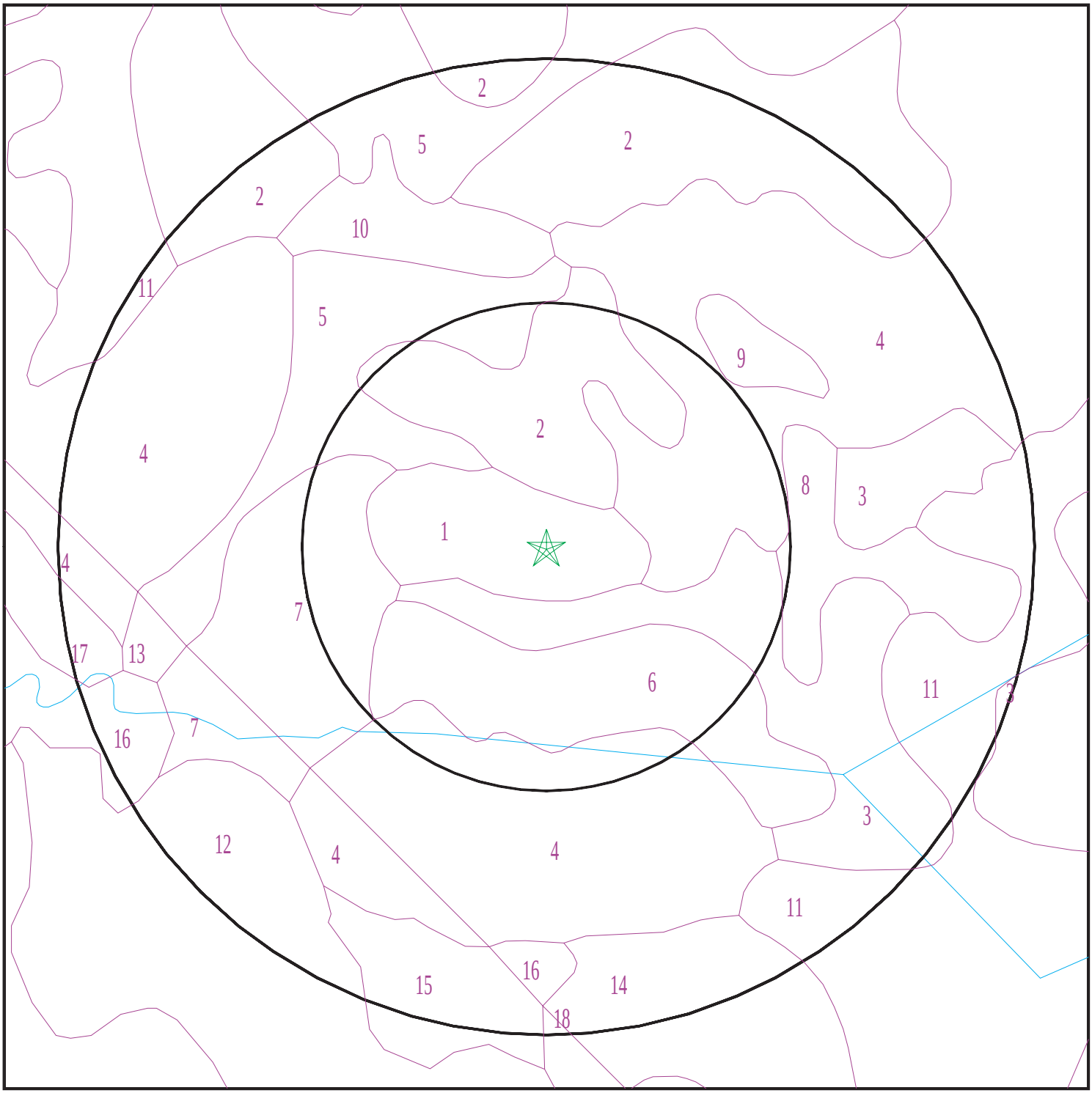
Era:	Paleozoic
System:	Devonian
Series:	Middle Paleozoic granitic rocks
Code:	Pzg2 *(decoded above as Era, System & Series)*

GEOLOGIC AGE IDENTIFICATION

Category: Plutonic and Intrusive Rocks

Geologic Age and Rock Stratigraphic Unit Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - a digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

SSURGO SOIL MAP - 6909611.2s



SITE NAME:	Washington Street	CLIENT:	Beacon Environmental Consultants, LLC
ADDRESS:	Route 202 Auburn ME 04210	CONTACT:	John K Cressey, LG, PG
LAT/LONG:	44.016865 / 70.28275	INQUIRY #:	6909611.2s
		DATE:	March 23, 2022 9:23 am

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

DOMINANT SOIL COMPOSITION IN GENERAL AREA OF TARGET PROPERTY

The U.S. Department of Agriculture's (USDA) Soil Conservation Service (SCS) leads the National Cooperative Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. The following information is based on Soil Conservation Service SSURGO data.

Soil Map ID: 1

Soil Component Name: BORROW PITS

Soil Surface Texture: variable

Hydrologic Group: Not reported

Soil Drainage Class: Excessively drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Not Reported

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	59 inches	variable	Not reported	Not reported	Max: Min:	Max: Min:

Soil Map ID: 2

Soil Component Name: BELGRADE

Soil Surface Texture: very fine sandy loam

Hydrologic Group: Class C - Slow infiltration rates. Soils with layers impeding downward movement of water, or soils with moderately fine or fine textures.

Soil Drainage Class: Moderately well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Low

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 61 inches

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	9 inches	very fine sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 14.11 Min: 4.23	Max: 6.5 Min: 4.5
2	9 inches	16 inches	silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 14.11 Min: 4.23	Max: 6.5 Min: 4.5
3	16 inches	27 inches	silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 14.11 Min: 4.23	Max: 6.5 Min: 4.5
4	27 inches	40 inches	very fine sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 14.11 Min: 4.23	Max: 6.5 Min: 4.5

Soil Map ID: 3

Soil Component Name: BUXTON

Soil Surface Texture: silt loam

Hydrologic Group: Class C - Slow infiltration rates. Soils with layers impeding downward movement of water, or soils with moderately fine or fine textures.

Soil Drainage Class: Moderately well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 61 inches

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	7 inches	silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit 50% or more), Elastic silt.	Max: 1.41 Min: 0	Max: 7.3 Min: 5.6
2	7 inches	22 inches	silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit 50% or more), Elastic silt.	Max: 1.41 Min: 0	Max: 7.3 Min: 5.6
3	22 inches	29 inches	silty clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit 50% or more), Elastic silt.	Max: 1.41 Min: 0	Max: 7.3 Min: 5.6
4	29 inches	48 inches	silty clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit 50% or more), Elastic silt.	Max: 1.41 Min: 0	Max: 7.3 Min: 5.6

Soil Map ID: 4

Soil Component Name: HARTLAND

Soil Surface Texture: very fine sandy loam

Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.

Soil Drainage Class: Well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Low

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	5 inches	very fine sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	Not reported	Max: 14.11 Min: 4.23	Max: 6.5 Min: 5.1
2	5 inches	11 inches	very fine sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	Not reported	Max: 14.11 Min: 4.23	Max: 6.5 Min: 5.1
3	11 inches	20 inches	very fine sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	Not reported	Max: 14.11 Min: 4.23	Max: 6.5 Min: 5.1
4	20 inches	44 inches	very fine sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	Not reported	Max: 14.11 Min: 4.23	Max: 6.5 Min: 5.1

Soil Map ID: 5

Soil Component Name: SWANTON

Soil Surface Texture: fine sandy loam

Hydrologic Group: Class C/D - Drained/undrained hydrology class of soils that can be drained and classified.

Soil Drainage Class: Poorly drained

Hydric Status: All hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 23 inches

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	7 inches	fine sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	Not reported	Max: 1.41 Min: 0	Max: 8.4 Min: 5.6
2	7 inches	22 inches	fine sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	Not reported	Max: 1.41 Min: 0	Max: 8.4 Min: 5.6
3	22 inches	48 inches	silty clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	Not reported	Max: 1.41 Min: 0	Max: 8.4 Min: 5.6

Soil Map ID: 6

Soil Component Name: LIMERICK

Soil Surface Texture: silt loam

Hydrologic Group: Class C - Slow infiltration rates. Soils with layers impeding downward movement of water, or soils with moderately fine or fine textures.

Soil Drainage Class: Poorly drained

Hydric Status: All hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 15 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	9 inches	silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 14.11 Min: 4.23	Max: 6.5 Min: 3.6
2	9 inches	48 inches	silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 14.11 Min: 4.23	Max: 6.5 Min: 3.6

Soil Map ID: 7

Soil Component Name: MADE LAND

Soil Surface Texture: very gravelly sandy loam

Hydrologic Group: Class C - Slow infiltration rates. Soils with layers impeding downward movement of water, or soils with moderately fine or fine textures.

Soil Drainage Class: Moderately well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Not Reported

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 122 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	59 inches	very gravelly sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Gravels, Gravels with fines, Silty Gravel	Max: 141.14 Min: 0.42	Max: 7.8 Min: 4.5

Soil Map ID: 8

Soil Component Name: BUXTON

Soil Surface Texture: silt loam

Hydrologic Group: Class D - Very slow infiltration rates. Soils are clayey, have a high water table, or are shallow to an impervious layer.

Soil Drainage Class: Moderately well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 31 inches

Soil Layer Information

	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	7 inches	silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit 50% or more), Elastic silt.	Max: 1.41 Min: 0	Max: 7.3 Min: 5.6
2	7 inches	22 inches	silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit 50% or more), Elastic silt.	Max: 1.41 Min: 0	Max: 7.3 Min: 5.6
3	22 inches	29 inches	silty clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit 50% or more), Elastic silt.	Max: 1.41 Min: 0	Max: 7.3 Min: 5.6
4	29 inches	48 inches	silty clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit 50% or more), Elastic silt.	Max: 1.41 Min: 0	Max: 7.3 Min: 5.6

Soil Map ID: 9

Soil Component Name: MELROSE

Soil Surface Texture: fine sandy loam

Hydrologic Group: Class C - Slow infiltration rates. Soils with layers impeding downward movement of water, or soils with moderately fine or fine textures.

Soil Drainage Class: Well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Moderate

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	9 inches	fine sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	Not reported	Max: 1.41 Min: 0	Max: 7.3 Min: 5.1
2	9 inches	24 inches	fine sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	Not reported	Max: 1.41 Min: 0	Max: 7.3 Min: 5.1
3	24 inches	42 inches	silty clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	Not reported	Max: 1.41 Min: 0	Max: 7.3 Min: 5.1

Soil Map ID: 10

Soil Component Name: BELGRADE

Soil Surface Texture: very fine sandy loam

Hydrologic Group: Class C - Slow infiltration rates. Soils with layers impeding downward movement of water, or soils with moderately fine or fine textures.

Soil Drainage Class: Moderately well drained

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Low

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 61 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	9 inches	very fine sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 14.11 Min: 4.23	Max: 6.5 Min: 4.5
2	9 inches	16 inches	silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 14.11 Min: 4.23	Max: 6.5 Min: 4.5
3	16 inches	27 inches	silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 14.11 Min: 4.23	Max: 6.5 Min: 4.5
4	27 inches	40 inches	very fine sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 14.11 Min: 4.23	Max: 6.5 Min: 4.5

Soil Map ID: 11

Soil Component Name: SCANTIC

Soil Surface Texture: silt loam

Hydrologic Group: Class D - Very slow infiltration rates. Soils are clayey, have a high water table, or are shallow to an impervious layer.

Soil Drainage Class: Poorly drained

Hydric Status: All hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 15 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	7 inches	silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit 50% or more), Elastic silt.	Max: 1.41 Min: 0	Max: 7.3 Min: 5.6
2	7 inches	29 inches	silty clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit 50% or more), Elastic silt.	Max: 1.41 Min: 0	Max: 7.3 Min: 5.6
3	29 inches	59 inches	silty clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit 50% or more), Elastic silt.	Max: 1.41 Min: 0	Max: 7.3 Min: 5.6

Soil Map ID: 12

Soil Component Name: BUXTON

Soil Surface Texture: silt loam

Hydrologic Group: Class D - Very slow infiltration rates. Soils are clayey, have a high water table, or are shallow to an impervious layer.

Soil Drainage Class: Somewhat poorly drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 31 inches

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	9 inches	silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit 50% or more), Elastic silt.	Max: 1.41 Min: 0	Max: 7.3 Min: 5.6
2	9 inches	16 inches	silty clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit 50% or more), Elastic silt.	Max: 1.41 Min: 0	Max: 7.3 Min: 5.6
3	16 inches	38 inches	silty clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit 50% or more), Elastic silt.	Max: 1.41 Min: 0	Max: 7.3 Min: 5.6
4	38 inches	59 inches	silty clay	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit 50% or more), Elastic silt.	Max: 1.41 Min: 0	Max: 7.3 Min: 5.6

Soil Map ID: 13

Soil Component Name: SWANTON

Soil Surface Texture: fine sandy loam

Hydrologic Group: Class C/D - Drained/undrained hydrology class of soils that can be drained and classified.

Soil Drainage Class: Poorly drained

Hydric Status: All hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 23 inches

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	9 inches	fine sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 1.41 Min: 0	Max: 8.4 Min: 5.6
2	9 inches	31 inches	fine sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 1.41 Min: 0	Max: 8.4 Min: 5.6
3	31 inches	59 inches	silty clay	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 1.41 Min: 0	Max: 8.4 Min: 5.6

Soil Map ID: 14

Soil Component Name: CHARLTON

Soil Surface Texture: very stony fine sandy loam

Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.

Soil Drainage Class: Well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Low

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	7 inches	very stony fine sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 42.34 Min: 4.23	Max: 6 Min: 3.6
2	7 inches	24 inches	fine sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 42.34 Min: 4.23	Max: 6 Min: 3.6
3	24 inches	40 inches	fine sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 42.34 Min: 4.23	Max: 6 Min: 3.6

Soil Map ID: 15

Soil Component Name: SUFFIELD

Soil Surface Texture: silt loam

Hydrologic Group: Class C - Slow infiltration rates. Soils with layers impeding downward movement of water, or soils with moderately fine or fine textures.

Soil Drainage Class: Moderately well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 69 inches

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	5 inches	silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit 50% or more), Elastic silt.	Max: 1.41 Min: 0	Max: 7.3 Min: 5.6
2	5 inches	22 inches	silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit 50% or more), Elastic silt.	Max: 1.41 Min: 0	Max: 7.3 Min: 5.6
3	22 inches	33 inches	silty clay	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit 50% or more), Elastic silt.	Max: 1.41 Min: 0	Max: 7.3 Min: 5.6
4	33 inches	59 inches	silty clay	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit 50% or more), Elastic silt.	Max: 1.41 Min: 0	Max: 7.3 Min: 5.6

Soil Map ID: 16

Soil Component Name: SUFFIELD

Soil Surface Texture: silt loam

Hydrologic Group: Class C - Slow infiltration rates. Soils with layers impeding downward movement of water, or soils with moderately fine or fine textures.

Soil Drainage Class: Moderately well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 69 inches

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	5 inches	silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit 50% or more), Elastic silt.	Max: 1.41 Min: 0	Max: 7.3 Min: 5.6
2	5 inches	22 inches	silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit 50% or more), Elastic silt.	Max: 1.41 Min: 0	Max: 7.3 Min: 5.6
3	22 inches	33 inches	silty clay	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit 50% or more), Elastic silt.	Max: 1.41 Min: 0	Max: 7.3 Min: 5.6
4	33 inches	59 inches	silty clay	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit 50% or more), Elastic silt.	Max: 1.41 Min: 0	Max: 7.3 Min: 5.6

Soil Map ID: 17

Soil Component Name: SUFFIELD

Soil Surface Texture: silt loam

Hydrologic Group: Class C - Slow infiltration rates. Soils with layers impeding downward movement of water, or soils with moderately fine or fine textures.

Soil Drainage Class: Moderately well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 61 inches

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	5 inches	silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit 50% or more), Elastic silt.	Max: 1.41 Min: 0	Max: 7.3 Min: 5.6
2	5 inches	22 inches	silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit 50% or more), Elastic silt.	Max: 1.41 Min: 0	Max: 7.3 Min: 5.6
3	22 inches	33 inches	silty clay	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit 50% or more), Elastic silt.	Max: 1.41 Min: 0	Max: 7.3 Min: 5.6
4	33 inches	59 inches	silty clay	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit 50% or more), Elastic silt.	Max: 1.41 Min: 0	Max: 7.3 Min: 5.6

Soil Map ID: 18

Soil Component Name: PAXTON

Soil Surface Texture: fine sandy loam

Hydrologic Group: Class C - Slow infiltration rates. Soils with layers impeding downward movement of water, or soils with moderately fine or fine textures.

Soil Drainage Class: Well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Low

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 92 inches

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	7 inches	fine sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Clayey sand. COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 4.23 Min: 0.42	Max: 6 Min: 3.6
2	7 inches	20 inches	fine sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Clayey sand. COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 4.23 Min: 0.42	Max: 6 Min: 3.6
3	20 inches	59 inches	fine sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Clayey sand. COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 4.23 Min: 0.42	Max: 6 Min: 3.6

LOCAL / REGIONAL WATER AGENCY RECORDS

EDR Local/Regional Water Agency records provide water well information to assist the environmental professional in assessing sources that may impact ground water flow direction, and in forming an opinion about the impact of contaminant migration on nearby drinking water wells.

WELL SEARCH DISTANCE INFORMATION

DATABASE	SEARCH DISTANCE (miles)
Federal USGS	1.000
Federal FRDS PWS	Nearest PWS within 1 mile
State Database	1.000

FEDERAL USGS WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

FEDERAL USGS WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
12	USGS40000421169	1/4 - 1/2 Mile SW
E19	USGS40000421158	1/2 - 1 Mile SSW
32	USGS40000421189	1/2 - 1 Mile West

FEDERAL FRDS PUBLIC WATER SUPPLY SYSTEM INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
53	ME0094296	1/2 - 1 Mile ENE

Note: PWS System location is not always the same as well location.

STATE DATABASE WELL INFORMATION

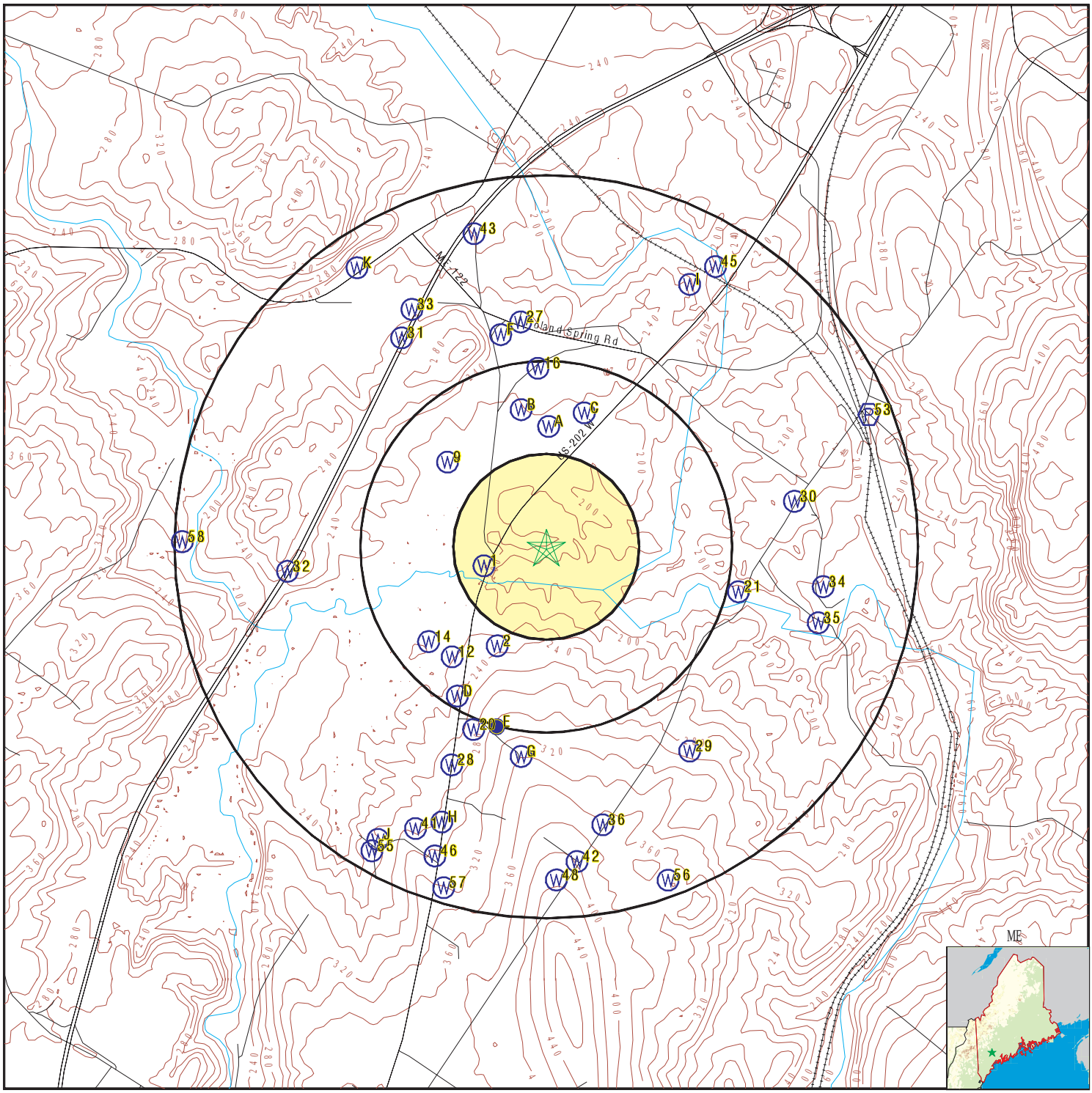
MAP ID	WELL ID	LOCATION FROM TP
1	MEMGS2000000484	1/8 - 1/4 Mile WSW
2	MEMGS2000034133	1/4 - 1/2 Mile SSW
A3	MEMGS2000065735	1/4 - 1/2 Mile North
A4	MEMGS2000065223	1/4 - 1/2 Mile North
A5	MEMGS2000058557	1/4 - 1/2 Mile North
A6	MEMGS2000056741	1/4 - 1/2 Mile North
A7	MEMGS2000056700	1/4 - 1/2 Mile North
B8	MEMGS2000055318	1/4 - 1/2 Mile North
9	MEMGS2000061471	1/4 - 1/2 Mile NW
C10	MEMGS2000064154	1/4 - 1/2 Mile NNE
C11	MEMGS2000064153	1/4 - 1/2 Mile NNE
B13	MEMGS2000058902	1/4 - 1/2 Mile NNW
14	MEMGS2000004712	1/4 - 1/2 Mile SW
D15	MEMGS2000045117	1/4 - 1/2 Mile SSW
16	MEMGS2000023938	1/4 - 1/2 Mile North
E17	MEMGS2000025214	1/4 - 1/2 Mile SSW
D18	MEMGS2000002879	1/4 - 1/2 Mile SSW
20	MEMGS2000002878	1/2 - 1 Mile SSW
21	MEMGS2000033092	1/2 - 1 Mile ESE
F22	MEMGS2000064117	1/2 - 1 Mile NNW
G23	MEMGS2000050087	1/2 - 1 Mile South
G24	MEMGS2000005149	1/2 - 1 Mile South
F25	MEMGS2000059310	1/2 - 1 Mile North
F26	MEMGS2000043958	1/2 - 1 Mile NNW
27	MEMGS2000026405	1/2 - 1 Mile North
28	MEMGS2000053037	1/2 - 1 Mile SSW
29	MEMGS2000000483	1/2 - 1 Mile SE
30	MEMGS2000041552	1/2 - 1 Mile East
31	MEMGS2000000496	1/2 - 1 Mile NW
33	MEMGS2000000497	1/2 - 1 Mile NNW
34	ME6000000002656	1/2 - 1 Mile East
35	MEMGS2000069423	1/2 - 1 Mile ESE
36	MEMGS2000027151	1/2 - 1 Mile SSE
H37	MEMGS2000068226	1/2 - 1 Mile SSW

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

STATE DATABASE WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
I38	MEMGS2000000494	1/2 - 1 Mile NNE
H39	MEMGS2000025184	1/2 - 1 Mile SSW
I40	MEMGS2000000493	1/2 - 1 Mile NNE
41	MEMGS2000033992	1/2 - 1 Mile SSW
42	MEMGS2000068212	1/2 - 1 Mile South
43	MEMGS2000039007	1/2 - 1 Mile NNW
J44	MEMGS2000033105	1/2 - 1 Mile SSW
45	MEMGS2000000492	1/2 - 1 Mile NNE
46	MEMGS2000035688	1/2 - 1 Mile SSW
J47	MEMGS2000037155	1/2 - 1 Mile SSW
48	MEMGS2000022961	1/2 - 1 Mile South
K49	MEMGS2000067571	1/2 - 1 Mile NW
K50	MEMGS2000067572	1/2 - 1 Mile NW
J51	MEMGS2000063853	1/2 - 1 Mile SSW
J52	MEMGS2000033098	1/2 - 1 Mile SSW
J54	MEMGS2000043305	1/2 - 1 Mile SSW
55	MEMGS2000039544	1/2 - 1 Mile SSW
56	MEMGS2000032662	1/2 - 1 Mile SSE
57	MEMGS2000005147	1/2 - 1 Mile SSW
58	MEMGS2000032320	1/2 - 1 Mile West

PHYSICAL SETTING SOURCE MAP - 6909611.2s



- County Boundary
- Major Roads
- Contour Lines
- Earthquake epicenter, Richter 5 or greater
- Water Wells
- Public Water Supply Wells
- Cluster of Multiple Icons

- Groundwater Flow Direction
- GI Indeterminate Groundwater Flow at Location
- GV Groundwater Flow Varies at Location

SITE NAME:	Washington Street	CLIENT:	Beacon Environmental Consultants, LLC
ADDRESS:	Route 202 Auburn ME 04210	CONTACT:	John K Cressey, LG, PG
LAT/LONG:	44.016865 / 70.28275	INQUIRY #:	6909611.2s
		DATE:	March 23, 2022 9:23 am

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID Direction Distance Elevation		Database	EDR ID Number
1 **WSW** **1/8 - 1/4 Mile** **Higher**	Click here for full text details	**ME WELLS**	**MEMGS2000000484**
2 **SSW** **1/4 - 1/2 Mile** **Higher**	Click here for full text details	**ME WELLS**	**MEMGS2000034133**
A3 **North** **1/4 - 1/2 Mile** **Higher**	Click here for full text details	**ME WELLS**	**MEMGS2000065735**
A4 **North** **1/4 - 1/2 Mile** **Higher**	Click here for full text details	**ME WELLS**	**MEMGS2000065223**
A5 **North** **1/4 - 1/2 Mile** **Higher**	Click here for full text details	**ME WELLS**	**MEMGS2000058557**
A6 **North** **1/4 - 1/2 Mile** **Higher**	Click here for full text details	**ME WELLS**	**MEMGS2000056741**
A7 **North** **1/4 - 1/2 Mile** **Higher**	Click here for full text details	**ME WELLS**	**MEMGS2000056700**
B8 **North** **1/4 - 1/2 Mile** **Higher**	Click here for full text details	**ME WELLS**	**MEMGS2000055318**
9 **NW** **1/4 - 1/2 Mile** **Higher**	Click here for full text details	**ME WELLS**	**MEMGS2000061471**

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID Direction Distance Elevation		Database	EDR ID Number
C10 **NNE** **1/4 - 1/2 Mile** **Higher**	Click here for full text details	**ME WELLS**	**MEMGS2000064154**
C11 **NNE** **1/4 - 1/2 Mile** **Higher**	Click here for full text details	**ME WELLS**	**MEMGS2000064153**
12 **SW** **1/4 - 1/2 Mile** **Higher**	Click here for full text details	**FED USGS**	**USGS40000421169**
B13 **NNW** **1/4 - 1/2 Mile** **Higher**	Click here for full text details	**ME WELLS**	**MEMGS2000058902**
14 **SW** **1/4 - 1/2 Mile** **Higher**	Click here for full text details	**ME WELLS**	**MEMGS2000004712**
D15 **SSW** **1/4 - 1/2 Mile** **Higher**	Click here for full text details	**ME WELLS**	**MEMGS2000045117**
16 **North** **1/4 - 1/2 Mile** **Higher**	Click here for full text details	**ME WELLS**	**MEMGS2000023938**
E17 **SSW** **1/4 - 1/2 Mile** **Higher**	Click here for full text details	**ME WELLS**	**MEMGS2000025214**
D18 **SSW** **1/4 - 1/2 Mile** **Higher**	Click here for full text details	**ME WELLS**	**MEMGS2000002879**

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID Direction Distance Elevation		Database	EDR ID Number
E19 **SSW** **1/2 - 1 Mile** **Higher**	Click here for full text details	**FED USGS**	**USGS40000421158**
20 **SSW** **1/2 - 1 Mile** **Higher**	Click here for full text details	**ME WELLS**	**MEMGS2000002878**
21 **ESE** **1/2 - 1 Mile** **Lower**	Click here for full text details	**ME WELLS**	**MEMGS2000033092**
F22 **NNW** **1/2 - 1 Mile** **Higher**	Click here for full text details	**ME WELLS**	**MEMGS2000064117**
G23 **South** **1/2 - 1 Mile** **Higher**	Click here for full text details	**ME WELLS**	**MEMGS2000050087**
G24 **South** **1/2 - 1 Mile** **Higher**	Click here for full text details	**ME WELLS**	**MEMGS2000005149**
F25 **North** **1/2 - 1 Mile** **Higher**	Click here for full text details	**ME WELLS**	**MEMGS2000059310**
F26 **NNW** **1/2 - 1 Mile** **Higher**	Click here for full text details	**ME WELLS**	**MEMGS2000043958**
27 **North** **1/2 - 1 Mile** **Higher**	Click here for full text details	**ME WELLS**	**MEMGS2000026405**

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID Direction Distance Elevation		Database	EDR ID Number
28 **SSW** **1/2 - 1 Mile** **Higher**	Click here for full text details	**ME WELLS**	**MEMGS2000053037**
29 **SE** **1/2 - 1 Mile** **Higher**	Click here for full text details	**ME WELLS**	**MEMGS2000000483**
30 **East** **1/2 - 1 Mile** **Higher**	Click here for full text details	**ME WELLS**	**MEMGS2000041552**
31 **NW** **1/2 - 1 Mile** **Higher**	Click here for full text details	**ME WELLS**	**MEMGS2000000496**
32 **West** **1/2 - 1 Mile** **Higher**	Click here for full text details	**FED USGS**	**USGS40000421189**
33 **NNW** **1/2 - 1 Mile** **Higher**	Click here for full text details	**ME WELLS**	**MEMGS2000000497**
34 **East** **1/2 - 1 Mile** **Lower**	Click here for full text details	**ME WELLS**	**ME6000000002656**
35 **ESE** **1/2 - 1 Mile** **Lower**	Click here for full text details	**ME WELLS**	**MEMGS2000069423**
36 **SSE** **1/2 - 1 Mile** **Higher**	Click here for full text details	**ME WELLS**	**MEMGS2000027151**

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID Direction Distance Elevation		Database	EDR ID Number
H37 **SSW** **1/2 - 1 Mile** **Higher**	Click here for full text details	**ME WELLS**	**MEMGS2000068226**
I38 **NNE** **1/2 - 1 Mile** **Higher**	Click here for full text details	**ME WELLS**	**MEMGS2000000494**
H39 **SSW** **1/2 - 1 Mile** **Higher**	Click here for full text details	**ME WELLS**	**MEMGS2000025184**
I40 **NNE** **1/2 - 1 Mile** **Lower**	Click here for full text details	**ME WELLS**	**MEMGS2000000493**
41 **SSW** **1/2 - 1 Mile** **Higher**	Click here for full text details	**ME WELLS**	**MEMGS2000033992**
42 **South** **1/2 - 1 Mile** **Higher**	Click here for full text details	**ME WELLS**	**MEMGS2000068212**
43 **NNW** **1/2 - 1 Mile** **Higher**	Click here for full text details	**ME WELLS**	**MEMGS2000039007**
J44 **SSW** **1/2 - 1 Mile** **Higher**	Click here for full text details	**ME WELLS**	**MEMGS2000033105**
45 **NNE** **1/2 - 1 Mile** **Higher**	Click here for full text details	**ME WELLS**	**MEMGS2000000492**

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID Direction Distance Elevation		Database	EDR ID Number
46 **SSW** **1/2 - 1 Mile** **Higher**	Click here for full text details	**ME WELLS**	**MEMGS2000035688**
J47 **SSW** **1/2 - 1 Mile** **Higher**	Click here for full text details	**ME WELLS**	**MEMGS2000037155**
48 **South** **1/2 - 1 Mile** **Higher**	Click here for full text details	**ME WELLS**	**MEMGS2000022961**
K49 **NW** **1/2 - 1 Mile** **Higher**	Click here for full text details	**ME WELLS**	**MEMGS2000067571**
K50 **NW** **1/2 - 1 Mile** **Higher**	Click here for full text details	**ME WELLS**	**MEMGS2000067572**
J51 **SSW** **1/2 - 1 Mile** **Higher**	Click here for full text details	**ME WELLS**	**MEMGS2000063853**
J52 **SSW** **1/2 - 1 Mile** **Higher**	Click here for full text details	**ME WELLS**	**MEMGS2000033098**
53 **ENE** **1/2 - 1 Mile** **Higher**	Click here for full text details	**FRDS PWS**	**ME0094296**
J54 **SSW** **1/2 - 1 Mile** **Higher**	Click here for full text details	**ME WELLS**	**MEMGS2000043305**

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID Direction Distance Elevation		Database	EDR ID Number
55 **SSW** **1/2 - 1 Mile** **Higher**	Click here for full text details	**ME WELLS**	**MEMGS2000039544**
56 **SSE** **1/2 - 1 Mile** **Higher**	Click here for full text details	**ME WELLS**	**MEMGS2000032662**
57 **SSW** **1/2 - 1 Mile** **Higher**	Click here for full text details	**ME WELLS**	**MEMGS2000005147**
58 **West** **1/2 - 1 Mile** **Higher**	Click here for full text details	**ME WELLS**	**MEMGS2000032320**

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS
RADON

AREA RADON INFORMATION

State Database: ME Radon

Radon Test Results

Zip	City	Floor	Results
04210		B	0.5
04210		B	0.5
04210		F	0.2
04210		B	7.9
04210		B	0.3
04210		F	0.6
04210		F	0.6
04210		F	0.6
04210		F	0.6
04210		F	0.2
04210		B	0.5
04210		B	0.5
04210	Auburn	B	23.6
04210	Auburn	B	2.9
04210	Auburn	B	23.6
04210	Auburn	B	2.9
04210		B	2.3
04210		F	1.0
04210		F	2.8
04210		F	2.7
04210		B	4.1
04210		U	0.7
04210		B	7.2
04210		B	7.2
04210	Auburn	B	1.6
04210	Auburn	B	2.2
04210	Auburn	B	1.6
04210	Auburn	B	1.6
04210	Auburn	B	2.2
04210	Auburn	B	1.6
04210	Auburn	B	4.4
04210	Auburn	B	1.5
04210	Auburn	B	9.0
04210	Auburn	B	3.0
04210		B	4.7
04210		B	4.8
04210		B	9.4
04210		F	4.0
04210		F	3.8
04210	Auburn	B	4.4
04210	Auburn	B	1.5
04210	Auburn	B	9.0
04210	Auburn	B	3.0
04210	Auburn	B	4.4
04210	Auburn	B	1.5
04210	Auburn	B	9.0
04210			

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS
RADON

AREA RADON INFORMATION

	Auburn	B	3.0
04210	Auburn	B	8.3
04210	New Auburn	B	3.5
04210	Auburn	B	1.8
04210	Auburn	B	8.3
04210	New Auburn	B	3.5
04210	Auburn	B	1.8
04210	Auburn	B	1.4
04210	Auburn	B	4.5
04210	Auburn	B	1.5
04210	Auburn	B	1.4
04210	Auburn	B	4.5
04210	Auburn	B	1.5
04210	Auburn	B	3.5
04210	Auburn	B	12.0
04210	Auburn	B	3.5
04210	Auburn	B	12.0
04210	Auburn	B	7.4
04210	Auburn	B	1.9
04210	Auburn	B	2.9
04210	Auburn	B	3.1
04210	Auburn	B	7.4
04210	Auburn	B	1.9
04210	Auburn	B	2.9
04210	Auburn	B	3.1
04210	Auburn	B	5.7
04210	Auburn	B	7.0
04210	Auburn	B	15.1
04210	Auburn	B	5.7
04210	Auburn	B	7.0
04210	Auburn	B	15.1
04210	Auburn	B	3.4
04210	Auburn	B	1.3
04210	Auburn	B	3.4
04210	Auburn	B	1.3
04210	Auburn	B	3.4
04210	Auburn	B	1.9
04210	Auburn	B	3.4
04210	Auburn	B	1.9
04210	Auburn	B	9.9
04210	Auburn	B	3.7
04210	Auburn	B	8.3
04210	Auburn	B	9.9
04210	Auburn	B	3.7
04210	Auburn	B	8.3
04210	Auburn	B	1.8
04210	Auburn	B	1.6
04210	Auburn	B	3.4
04210	Auburn	B	6.8
04210	Auburn	B	1.8
04210	Auburn	B	1.6
04210	Auburn	B	3.4
04210	Auburn	B	6.8
04210	Auburn	B	1.5
04210	Auburn	B	3.3
04210	Auburn	B	3.3
04210			

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS
RADON

AREA RADON INFORMATION

	Auburn	B	2.2
04210	Auburn	B	3.4
04210	Auburn,	B	6.0
04210	Auburn	B	6.7
04210	Auburn	B	8.6
04210	Auburn	B	1.9
04210	Auburn	B	1.2
04210	Auburn	B	1.5
04210	Auburn	B	2.7
04210	Auburn	B	0.9
04210	Auburn	B	1.3
04210	Auburn	B	2.2
04210	Auburn	B	3.4
04210	Auburn,	B	6.0
04210	Auburn	B	6.7
04210	Auburn	B	8.6
04210	Auburn	B	1.9
04210	Auburn	B	1.2
04210	Auburn	B	1.5
04210	Auburn	B	2.7
04210	Auburn	B	0.9
04210	Auburn	B	1.3
04210	Auburn	B	1.0
04210	Auburn	B	1.9
04210	Auburn	B	18.7
04210	Auburn	B	16.7
04210	Auburn	B	1.0
04210	Auburn	B	1.9
04210	Auburn	B	18.7
04210	Auburn	B	16.7
04210	Auburn	B	10.7
04210	Auburn	B	1.7
04210	Auburn	B	10.7
04210	Auburn	B	1.7
04210	Auburn	B	1.0
04210	Auburn	B	10.2
04210	Auburn	B	0.8
04210	Auburn	B	1.0
04210	Auburn	B	10.2
04210	Auburn	B	0.8
04210	Auburn	B	0.7
04210	Auburn	B	0.7
04210	Auburn	B	0.9
04210	Auburn	B	0.7
04210	Auburn	B	0.9
04210	Auburn	B	0.7
04210	Auburn	B	3.4
04210	Auburn	B	2.4
04210	Auburn	B	3.6
04210	Auburn	B	5.8
04210	Auburn	B	9.8
04210	Auburn	B	3.4
04210	Auburn	B	2.4
04210	Auburn	B	3.6
04210	Auburn	B	5.8
04210	Auburn	B	9.8
04210			

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS
RADON

AREA RADON INFORMATION

	Auburn	B	7.1
04210	Auburn	B	21.2
04210	Auburn	B	3.2
04210	Auburn	B	7.1
04210	Auburn	B	21.2
04210	Auburn	B	3.2
04210	Auburn	B	1.5
04210	Auburn	B	2.1
04210	Auburn	B	0.6
04210	Auburn	B	7.5
04210	Auburn	B	2.3
04210	Auburn	B	7.6
04210	Auburn	B	1.2
04210	Auburn	B	3.1
04210	Auburn	B	2.6
04210	Auburn	B	3.1
04210	Auburn	B	2.8
04210	Auburn	B	13.8
04210	Auburn	B	4.1
04210	Auburn	B	2.5
04210	Auburn	B	4.0
04210	Auburn	B	2.4
04210	Auburn	B	0.5
04210	Auburn	B	2.8
04210	Auburn	B	13.8
04210	Auburn	B	4.1
04210	Auburn	B	2.5
04210	Auburn	B	4.0
04210	Auburn	B	2.4
04210	Auburn	B	0.5
04210		B	4.3
04210		B	4.4
04210		B	2.4
04210		B	2.4
04210		B	2.6
04210		B	3.9
04210		B	3.9
04210		B	3.9
04210	Auburn	B	0.6
04210	Auburn	B	1.8
04210	Auburn	B	0.7
04210	Auburn	B	1.8
04210	Auburn	B	2.5
04210	Auburn	B	5.2
04210	Auburn	B	1.7
04210	Auburn	B	8.5
04210		B	0.4
04210	Auburn	B	2.4
04210	Auburn	B	2.4
04210	Auburn	B	2.1
04210	Auburn	B	0.6
04210	Auburn	B	7.5
04210	Auburn	B	2.3
04210	Auburn	B	7.6

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS
RADON

AREA RADON INFORMATION

Federal EPA Radon Zone for ANDROSCOGGIN County: 1

Note: Zone 1 indoor average level > 4 pCi/L.
: Zone 2 indoor average level >= 2 pCi/L and <= 4 pCi/L.
: Zone 3 indoor average level < 2 pCi/L.

Federal Area Radon Information for Zip Code: 04210

Number of sites tested: 10

Area	Average Activity	% <4 pCi/L	% 4-20 pCi/L	% >20 pCi/L
Living Area - 1st Floor	1.300 pCi/L	100%	0%	0%
Living Area - 2nd Floor	Not Reported	Not Reported	Not Reported	Not Reported
Basement	2.130 pCi/L	90%	10%	0%

PHYSICAL SETTING SOURCE RECORDS SEARCHED

TOPOGRAPHIC INFORMATION

USGS 7.5' Digital Elevation Model (DEM)
Source: United States Geologic Survey
EDR acquired the USGS 7.5' Digital Elevation Model in 2002 and updated it in 2006. The 7.5 minute DEM corresponds to the USGS 1:24,000- and 1:25,000-scale topographic quadrangle maps. The DEM provides elevation data with consistent elevation units and projection.

Source: U.S. Geological Survey

HYDROLOGIC INFORMATION

Flood Zone Data: This data was obtained from the Federal Emergency Management Agency (FEMA). It depicts 100-year and 500-year flood zones as defined by FEMA. It includes the National Flood Hazard Layer (NFHL) which incorporates Flood Insurance Rate Map (FIRM) data and Q3 data from FEMA in areas not covered by NFHL.
Source: FEMA
Telephone: 877-336-2627
Date of Government Version: 2003, 2015

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005 and 2010 from the U.S. Fish and Wildlife Service.

State Wetlands Data: Wetland Inventory
Source: MEGIS
Telephone: 207-287-6144

HYDROGEOLOGIC INFORMATION

AQUIFLOW^{R} Information System
Source: EDR proprietary database of groundwater flow information
EDR has developed the AQUIFLOW Information System (AIS) to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted to regulatory authorities at select sites and has extracted the date of the report, hydrogeologically determined groundwater flow direction and depth to water table information.

GEOLOGIC INFORMATION

Geologic Age and Rock Stratigraphic Unit
Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - A digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

STATSGO: State Soil Geographic Database
Source: Department of Agriculture, Natural Resources Conservation Service (NRCS)
The U.S. Department of Agriculture's (USDA) Natural Resources Conservation Service (NRCS) leads the national Conservation Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps.

SSURGO: Soil Survey Geographic Database
Source: Department of Agriculture, Natural Resources Conservation Service (NRCS)
Telephone: 800-672-5559
SSURGO is the most detailed level of mapping done by the Natural Resources Conservation Service, mapping scales generally range from 1:12,000 to 1:63,360. Field mapping methods using national standards are used to construct the soil maps in the Soil Survey Geographic (SSURGO) database. SSURGO digitizing duplicates the original soil survey maps. This level of mapping is designed for use by landowners, townships and county natural resource planning and management.

PHYSICAL SETTING SOURCE RECORDS SEARCHED

LOCAL / REGIONAL WATER AGENCY RECORDS

FEDERAL WATER WELLS

PWS: Public Water Systems
Source: EPA/Office of Drinking Water
Telephone: 202-564-3750
Public Water System data from the Federal Reporting Data System. A PWS is any water system which provides water to at least 25 people for at least 60 days annually. PWSs provide water from wells, rivers and other sources.

PWS ENF: Public Water Systems Violation and Enforcement Data
Source: EPA/Office of Drinking Water
Telephone: 202-564-3750
Violation and Enforcement data for Public Water Systems from the Safe Drinking Water Information System (SDWIS) after August 1995. Prior to August 1995, the data came from the Federal Reporting Data System (FRDS).

USGS Water Wells: USGS National Water Inventory System (NWIS)
This database contains descriptive information on sites where the USGS collects or has collected data on surface water and/or groundwater. The groundwater data includes information on wells, springs, and other sources of groundwater.

STATE RECORDS

Maine Geological Survey Water Well Database
Source: Maine Geological Survey
Telephone: 207-287-3200
Contains over 50,000 located wells is available for download. This file contains information on all wells in the database which could be geographically located. Data points have been located by GPS, by street address locations, and by using tax maps in combination with air photos so location accuracy varies. The database includes coordinates and descriptive information such as well yield, depth, overburden thickness, well use, and well type.

Public Water Supply Wells Database
Source: Department of Human Services, Drinking Water Program
Telephone: 207-287-6196
There are 3 types of public water systems in Maine: Transient Systems; Community Systems and Non-transient Non-community Systems.

OTHER STATE DATABASE INFORMATION

RADON

Maine Radon Test Results
Source: Department of Human Services
Telephone: 207-287-5698
The state of Maine Radiation Control Program's - Radon/Indor Air Quality Section's position on radon map, is that they should be used neither to predict the presence of high nor low values in any given geographic or geologic area. The only conclusion that should be drawn from this data is that radon in omnipresent in the soil gasses in the state of Maine, and therefore all residences and buildings that come in contact with the ground should be tested for radon.

Area Radon Information
Source: USGS
Telephone: 703-356-4020
The National Radon Database has been developed by the U.S. Environmental Protection Agency (USEPA) and is a compilation of the EPA/State Residential Radon Survey and the National Residential Radon Survey. The study covers the years 1986 - 1992. Where necessary data has been supplemented by information collected at private sources such as universities and research institutions.

EPA Radon Zones
Source: EPA
Telephone: 703-356-4020
Sections 307 & 309 of IRAA directed EPA to list and identify areas of U.S. with the potential for elevated indoor radon levels.

PHYSICAL SETTING SOURCE RECORDS SEARCHED

OTHER

Airport Landing Facilities: Private and public use landing facilities
Source: Federal Aviation Administration, 800-457-6656

Epicenters: World earthquake epicenters, Richter 5 or greater
Source: Department of Commerce, National Oceanic and Atmospheric Administration

Earthquake Fault Lines: The fault lines displayed on EDR's Topographic map are digitized quaternary faultlines, prepared in 1975 by the United State Geological Survey

STREET AND ADDRESS INFORMATION

APPENDIX E
REGULATORY FILE REVIEW

Card 1 of 1

Location 2440 WASHINGTON ST	Property Account Number 053004000	Parcel ID 053-004
		Old Parcel ID

Current Property Mailing Address

Owner BRIDGHAM WAYNE	City MINOT
BRIDGHAM SHARON	State ME
Address 268 CENTER MINOT RD	Zip 04258
	Zoning N/A

Current Property Sales Information

Sale Date 3/1/1984	Legal Reference 1709-208
Sale Price 0	Grantor(Seller) BRIDGHAM,WAYNE

Current Property Assessment

	Card 1 Value
Year 2021	Building Value 0
	Xtra Features Value 0
Land Area 29 - AC	Land Value 17,200

APPENDIX F
VAPOR ENCROACHMENT EVALUATION

Washington Street
Route 202
Auburn, ME 04210

Inquiry Number: 6909611.2s
April 6, 2022

EDR Vapor Encroachment Screen

Prepared using EDR's Vapor Encroachment Worksheet

EDR® Environmental Data Resources Inc

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

TABLE OF CONTENTS

Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

EXECUTIVE SUMMARY

A search of available environmental records was conducted by EDR. The report was designed to assist parties seeking to meet the search requirements of the ASTM Standard Practice for Assessment of Vapor Encroachment into Structures on Property Involved in Real Estate Transactions (E 2600).

STANDARD ENVIRONMENTAL RECORDS	Default Area of Concern (Miles)*	property	1/10	> 1/10
Lists of Federal NPL (Superfund) sites	1.0	0	0	0
Lists of Federal Delisted NPL sites	1.0	0	0	0
Lists of Federal sites subject to CERCLA removals and CERCLA orders	0.5	0	0	0
Lists of Federal CERCLA sites with NFRAP	0.5	0	0	0
Lists of Federal RCRA facilities undergoing Corrective Action	1.0	0	0	0
Lists of Federal RCRA TSD facilities	0.5	0	0	0
Lists of Federal RCRA generators	0.25	0	0	0
Federal institutional controls / engineering controls registries	0.5	0	0	0
Federal ERNS list	property	0	-	-
Lists of state- and tribal (Superfund) equivalent sites	not searched	-	-	-
Lists of state- and tribal hazardous waste facilities	1.0	0	0	0
Lists of state and tribal landfills and solid waste disposal facilities	0.5	0	0	0
Lists of state and tribal leaking storage tanks	0.5	0	0	0
Lists of state and tribal registered storage tanks	0.25	0	0	0
State and tribal institutional control / engineering control registries	0.5	0	0	0
Lists of state and tribal voluntary cleanup sites	0.5	0	0	0
Lists of state and tribal brownfield sites	0.5	0	0	0

ADDITIONAL ENVIRONMENTAL RECORDS				
Local Brownfield lists	0.5	0	0	0
Local Lists of Landfill / Solid Waste Disposal Sites	0.5	0	0	0
Local Lists of Hazardous waste / Contaminated Sites	1.0	0	0	0
Local Lists of Registered Storage Tanks	not searched	-	-	-
Local Land Records	property	0	-	-
Records of Emergency Release Reports	0.5	0	0	0
Other Ascertainable Records	1.0	0	0	0

EDR HIGH RISK HISTORICAL RECORDS				
EDR Exclusive Records	1.0	0	0	0
Exclusive Recovered Govt. Archives	property	0	-	-

EXECUTIVE SUMMARY

EDR RECOVERED GOVERNMENT ARCHIVES

EDR Exclusive Records	1.0	0	0	0
Exclusive Recovered Govt. Archives	property	0	-	-

*The Default Area of Concern may be adjusted by the environmental professional using experience and professional judgement. Each category may include several databases, and each database may have a different distance. A list of individual databases is provided at the back of this report.

EXECUTIVE SUMMARY

TARGET PROPERTY INFORMATION

ADDRESS

WASHINGTON STREET
ROUTE 202
AUBURN, ME 04210

COORDINATES

Latitude (North):	44.016865 - 44° 1′ 0.7131958″
Longitude (West):	70.28275 - 70° 16′ 57.910767″
Elevation:	200 ft. above sea level

EXECUTIVE SUMMARY

SEARCH RESULTS

Unmappable (orphan) sites are not considered in the foregoing analysis.

STANDARD ENVIRONMENTAL RECORDS

Name	Address	Dist/Dir	Map ID	Page

Not Reported

ADDITIONAL ENVIRONMENTAL RECORDS

Name	Address	Dist/Dir	Map ID	Page

Not Reported

EDR HIGH RISK HISTORICAL RECORDS

Name	Address	Dist/Dir	Map ID	Page

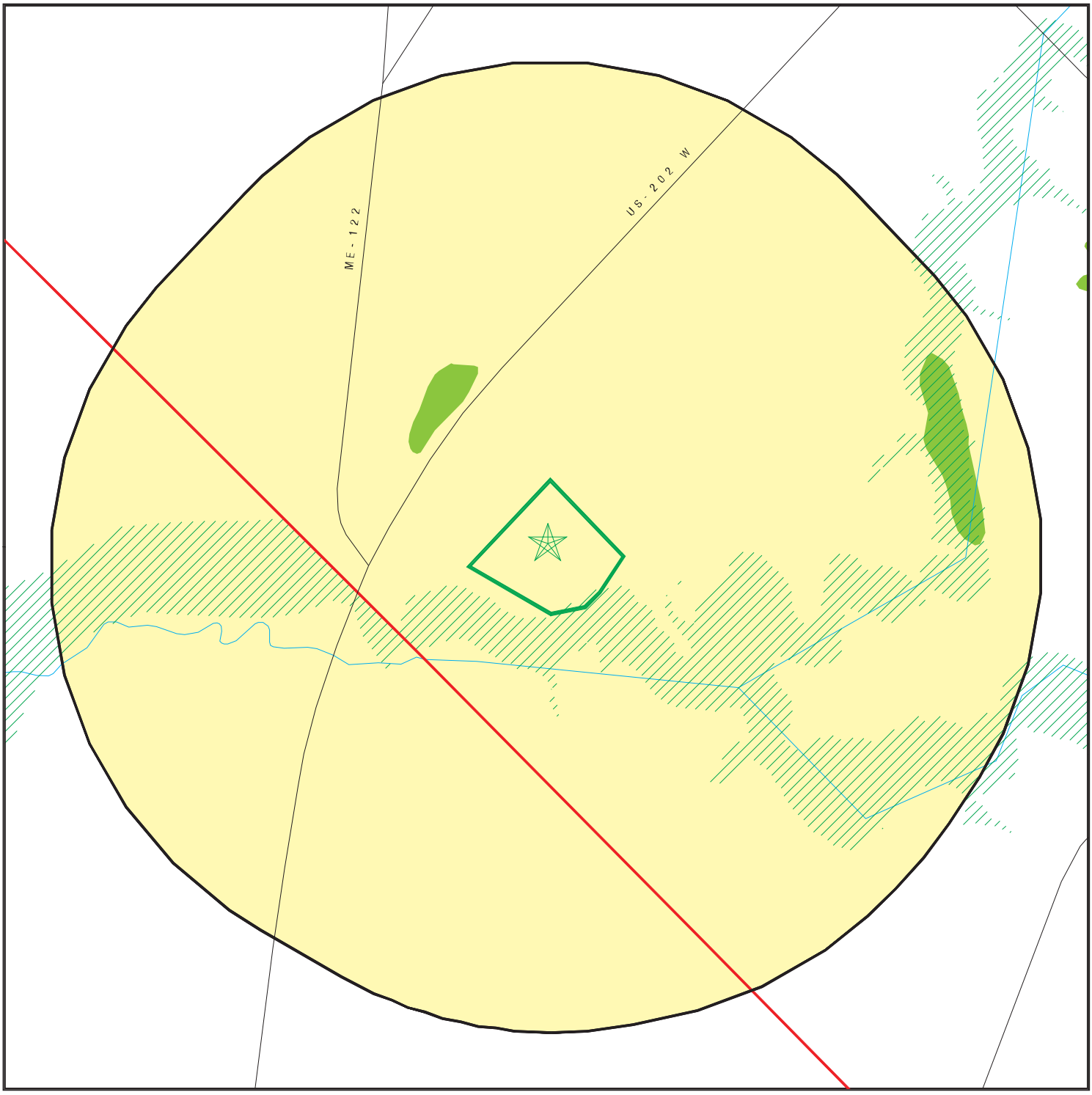
Not Reported

EDR RECOVERED GOVERNMENT ARCHIVES

Name	Address	Dist/Dir	Map ID	Page

Not Reported

PRIMARY MAP - 6909611.2S



0 300 1/3 Miles

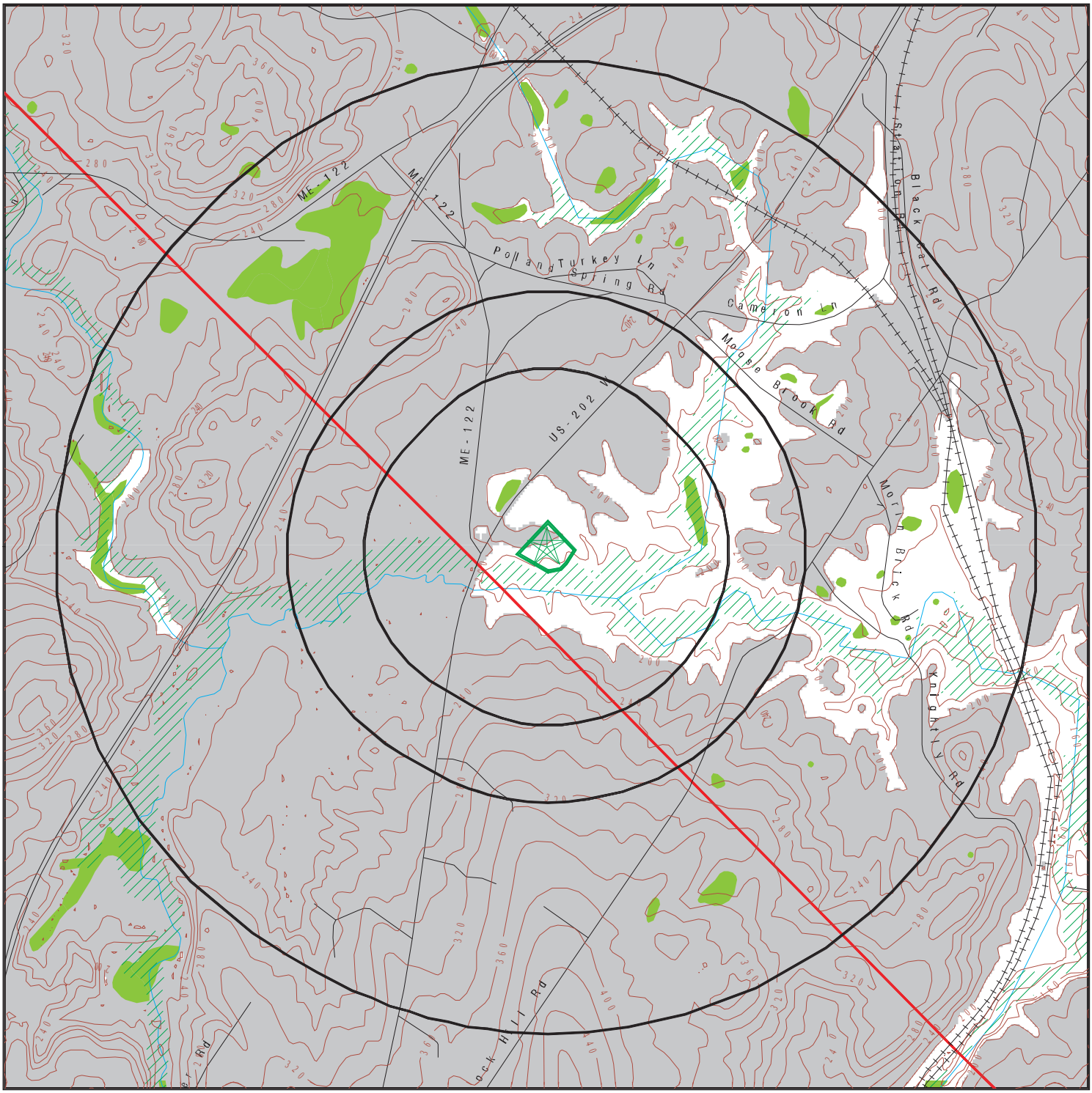
N

- Target Property
- Sites at elevations higher than or equal to the target property
- Sites at elevations lower than the target property
- Manufactured Gas Plants
- National Priority List Sites
- Dept. Defense Sites
- Indian Reservations BIA
- County Boundary
- Special Flood Hazard Area (1%)
- 0.2% Annual Chance Flood Hazard
- National Wetland Inventory
- State Wetlands

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME:	Washington Street	CLIENT:	Beacon Environmental Consultants, LLC
ADDRESS:	Route 202 Auburn ME 04210	CONTACT:	John K Cressey, LG, PG
LAT/LONG:	44.016865 / 70.28275	INQUIRY #:	6909611.2s
		DATE:	March 23, 2022 9:23 am

SECONDARY MAP - 6909611.2S



0 1/3 1/2 1 Miles

- Target Property
- Sites at elevations higher than or equal to the target property
- Sites at elevations lower than the target property
- Manufactured Gas Plants
- National Priority List Sites
- Dept. Defense Sites
- Indian Reservations BIA
- County Boundary
- Special Flood Hazard Area (1%)
- 0.2% Annual Chance Flood Hazard
- National Wetland Inventory
- State Wetlands
- Upgradient Area

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME: Washington Street ADDRESS: Route 202 Auburn ME 04210 LAT/LONG: 44.016865 / 70.28275	CLIENT: Beacon Environmental Consultants, LLC CONTACT: John K Cressey, LG, PG INQUIRY #: 6909611.2s DATE: March 23, 2022 9:22 am

MAP FINDINGS

LEGEND

FACILITY NAME **FACILITY ADDRESS, CITY, ST, ZIP**		EDR SITE ID NUMBER
◆ **MAP ID#**	Direction Distance Range (Distance feet / miles) Relative Elevation Feet Above Sea Level	ASTM 2600 Record Sources found in this report. Each database searched has been assigned to one or more categories. For detailed information about categorization, see the section of the report Records Searched and Currency.

Worksheet:

Comments:

Comments may be added on the online Vapor Encroachment Worksheet.

DATABASE ACRONYM: Applicable categories (A hoverbox with database description).

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

St	Acronym	Full Name	Government Agency	Gov Date	Arvl. Date	Active Date
ENVIRONMENTAL RECORDS						
Federal NPL site list						
US	NPL	National Priority List	EPA	01/25/2022	02/03/2022	02/22/2022
US	Proposed NPL	Proposed National Priority List Sites	EPA	01/25/2022	02/03/2022	02/22/2022
US	NPL LIENS	Federal Superfund Liens	EPA	10/15/1991	02/02/1994	03/30/1994
Federal CERCLIS list						
US	SEMS	Superfund Enterprise Management System	EPA	01/25/2022	02/03/2022	02/22/2022
Federal RCRA CORRACTS facilities list						
US	CORRACTS	Corrective Action Report	EPA	02/28/2022	03/02/2022	03/17/2022
Federal RCRA TSD facilities list						
US	RCRA-TSDF	RCRA - Treatment, Storage and Disposal	Environmental Protection Agency	02/28/2022	03/02/2022	03/17/2022
Federal RCRA generators list						
US	RCRA-LQG	RCRA - Large Quantity Generators	Environmental Protection Agency	02/28/2022	03/02/2022	03/17/2022
US	RCRA-SQG	RCRA - Small Quantity Generators	Environmental Protection Agency	02/28/2022	03/02/2022	03/17/2022
US	RCRA-VSQG	RCRA - Very Small Quantity Generators (Formerly Conditionall	Environmental Protection Agency	02/28/2022	03/02/2022	03/17/2022
Federal institutional controls / engineering controls registries						
US	LUCIS	Land Use Control Information System	Department of the Navy	11/15/2021	11/16/2021	02/08/2022
US	US ENG CONTROLS	Engineering Controls Sites List	Environmental Protection Agency	11/19/2021	11/19/2021	02/14/2022
US	US INST CONTROLS	Institutional Controls Sites List	Environmental Protection Agency	11/19/2021	11/19/2021	02/14/2022
Federal ERNS list						
US	ERNS	Emergency Response Notification System	National Response Center, United States Coast	12/31/2021	03/01/2022	03/10/2022
State and tribal - equivalent CERCLIS						
ME	SHWS	Remediation Sites List	Department of Environmental Protection	10/11/2021	10/11/2021	01/04/2022
State and tribal landfill / solid waste disposal						
ME	SWF/LF	Solid Waste Facility List	Department of Environmental Protection	11/02/2021	11/04/2021	01/27/2022
ME	LCP	Municipal Landfill Closure Database	Department of Environmental Protection	11/14/2011	11/15/2011	11/30/2011
State and tribal leaking storage tank lists						
ME	LAST	HOSS Database	Department of Environmental Protection	10/23/2021	10/27/2021	01/18/2022
ME	LUST	Hazardous Material and Oil Spill System Database (H.O.S.S.)	Department of Environmental Protection	10/23/2021	10/27/2021	01/18/2022
US	INDIAN LUST R5	Leaking Underground Storage Tanks on Indian Land	EPA, Region 5	10/12/2021	11/15/2021	02/08/2022
US	INDIAN LUST R4	Leaking Underground Storage Tanks on Indian Land	EPA Region 4	05/28/2021	06/22/2021	09/20/2021
US	INDIAN LUST R10	Leaking Underground Storage Tanks on Indian Land	EPA Region 10	10/12/2021	11/15/2021	02/08/2022
US	INDIAN LUST R9	Leaking Underground Storage Tanks on Indian Land	Environmental Protection Agency	10/12/2021	11/15/2021	02/08/2022
US	INDIAN LUST R1	Leaking Underground Storage Tanks on Indian Land	EPA Region 1	04/28/2021	06/11/2021	09/07/2021
US	INDIAN LUST R7	Leaking Underground Storage Tanks on Indian Land	EPA Region 7	10/12/2021	11/15/2021	02/08/2022
US	INDIAN LUST R8	Leaking Underground Storage Tanks on Indian Land	EPA Region 8	10/12/2021	11/15/2021	02/08/2022

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

St	Acronym	Full Name	Government Agency	Gov Date	Arvl. Date	Active Date
US	INDIAN LUST R6	Leaking Underground Storage Tanks on Indian Land	EPA Region 6	10/12/2021	11/15/2021	02/08/2022
State and tribal registered storage tank lists						
ME	UST	Underground Storage Tank Database	Department of Environmental Protection	11/01/2021	11/09/2021	01/27/2022
ME	AST	Aboveground Storage Tanks	Maine Emergency Management Agency	12/31/2020	09/03/2021	11/29/2021
ME	AST 2	Registered Petroeum Tanks Database	Department of Environmental Protection	12/21/2021	12/21/2021	03/15/2022
US	INDIAN UST R1	Underground Storage Tanks on Indian Land	EPA, Region 1	10/14/2021	11/15/2021	02/08/2022
US	INDIAN UST R4	Underground Storage Tanks on Indian Land	EPA Region 4	05/28/2021	06/22/2021	09/20/2021
US	INDIAN UST R7	Underground Storage Tanks on Indian Land	EPA Region 7	10/12/2021	11/15/2021	02/08/2022
US	INDIAN UST R10	Underground Storage Tanks on Indian Land	EPA Region 10	10/12/2021	11/15/2021	02/08/2022
US	INDIAN UST R5	Underground Storage Tanks on Indian Land	EPA Region 5	04/06/2021	06/11/2021	09/07/2021
US	INDIAN UST R6	Underground Storage Tanks on Indian Land	EPA Region 6	10/12/2021	11/15/2021	02/08/2022
US	INDIAN UST R8	Underground Storage Tanks on Indian Land	EPA Region 8	10/12/2021	11/15/2021	02/08/2022
US	INDIAN UST R9	Underground Storage Tanks on Indian Land	EPA Region 9	10/12/2021	11/15/2021	02/08/2022
US	FEMA UST	Underground Storage Tank Listing	FEMA	10/14/2021	11/05/2021	02/01/2022
State and tribal institutional control / engineering control registries						
ME	INST CONTROL	Remediation Sites List	Department of Environmental Protection	10/11/2021	10/11/2021	01/04/2022
State and tribal voluntary cleanup sites						
US	INDIAN VCP R1	Voluntary Cleanup Priority Listing	EPA, Region 1	07/27/2015	09/29/2015	02/18/2016
US	INDIAN VCP R7	Voluntary Cleanup Priority Lisitng	EPA, Region 7	03/20/2008	04/22/2008	05/19/2008
ME	VCP	Remediation Sites List	Department of Environmental Protection	10/11/2021	10/11/2021	01/04/2022
State and tribal Brownfields sites						
ME	BROWNFIELDS	Remediation Sites List	Department of Environmental Protection	10/11/2021	10/11/2021	01/04/2022
Other Records						
ME	MANIFEST	Hazardous Waste Manifest Information Listing	Department of Environmental Protection	06/30/2018	06/14/2019	08/29/2019
US	CONSENT	Superfund (CERCLA) Consent Decrees	Department of Justice, Consent Decree Library	09/30/2021	10/13/2021	01/10/2022
US	ROD	Records Of Decision	EPA	01/25/2022	02/03/2022	02/22/2022
US	LIENS 2	CERCLA Lien Information	Environmental Protection Agency	01/25/2022	02/03/2022	02/22/2022
ME	DEL HWS	Sites Removed from the Uncontrolled Sites List	Department of Environmental Protection	10/11/2021	10/11/2021	01/04/2022
US	DEBRIS REGION 9	Torres Martinez Reservation Illegal Dump Site Locations	EPA, Region 9	01/12/2009	05/07/2009	09/21/2009
ME	SWRCY	Recycling Facilities	Department of Environmental Protection	06/15/2020	06/17/2020	09/01/2020
US	LEAD SMELTER 2	Lead Smelter Sites	American Journal of Public Health	04/05/2001	10/27/2010	12/02/2010
US	US FIN ASSUR	Financial Assurance Information	Environmental Protection Agency	12/13/2021	12/17/2021	03/17/2022
US	2020 COR ACTION	2020 Corrective Action Program List	Environmental Protection Agency	09/30/2017	05/08/2018	07/20/2018
US	COAL ASH EPA	Coal Combustion Residues Surface Impoundments List	Environmental Protection Agency	01/12/2017	03/05/2019	11/11/2019
US	US HIST CDL	National Clandestine Laboratory Register	Drug Enforcement Administration	11/16/2021	11/18/2021	02/08/2022
US	FUSRAP	Formerly Utilized Sites Remedial Action Program	Department of Energy	07/26/2021	07/27/2021	10/22/2021
US	EPA WATCH LIST	EPA WATCH LIST	Environmental Protection Agency	08/30/2013	03/21/2014	06/17/2014
US	LEAD SMELTER 1	Lead Smelter Sites	Environmental Protection Agency	01/25/2022	02/03/2022	02/22/2022
US	COAL ASH DOE	Steam-Electric Plant Operation Data	Department of Energy	12/31/2020	11/30/2021	02/22/2022
US	PCB TRANSFORMER	PCB Transformer Registration Database	Environmental Protection Agency	09/13/2019	11/06/2019	02/10/2020
US	US AIRS MINOR	Air Facility System Data	EPA	10/12/2016	10/26/2016	02/03/2017
US	US AIRS (AFS)	Aerometric Information Retrieval System Facility Subsystem (	EPA	10/12/2016	10/26/2016	02/03/2017

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

St	Acronym	Full Name	Government Agency	Gov Date	Arvl. Date	Active Date
US	SCRD DRYCLEANERS	State Coalition for Remediation of Drycleaners Listing	Environmental Protection Agency	01/01/2017	02/03/2017	04/07/2017
US	Delisted NPL	National Priority List Deletions	EPA	01/25/2022	02/03/2022	02/22/2022
US	SEMS-ARCHIVE	Superfund Enterprise Management System Archive	EPA	01/25/2022	02/03/2022	02/22/2022
US	RCRA NonGen / NLR	RCRA - Non Generators / No Longer Regulated	Environmental Protection Agency	02/28/2022	03/02/2022	03/17/2022
US	HMIRS	Hazardous Materials Information Reporting System	U.S. Department of Transportation	12/15/2021	12/16/2021	03/10/2022
US	DOT OPS	Incident and Accident Data	Department of Transporation, Office of Pipeli	01/02/2020	01/28/2020	04/17/2020
US	US CDL	Clandestine Drug Labs	Drug Enforcement Administration	11/16/2021	11/18/2021	02/08/2022
US	US BROWNFIELDS	A Listing of Brownfields Sites	Environmental Protection Agency	02/23/2022	03/10/2022	03/10/2022
US	DOD	Department of Defense Sites	USGS	06/07/2021	07/13/2021	03/09/2022
US	FEDLAND	Federal and Indian Lands	U.S. Geological Survey	04/02/2018	04/11/2018	11/06/2019
US	FUDS	Formerly Used Defense Sites	U.S. Army Corps of Engineers	10/26/2021	11/16/2021	02/08/2022
US	UMTRA	Uranium Mill Tailings Sites	Department of Energy	08/30/2019	11/15/2019	01/28/2020
US	ODI	Open Dump Inventory	Environmental Protection Agency	06/30/1985	08/09/2004	09/17/2004
US	US MINES	Mines Master Index File	Department of Labor, Mine Safety and Health A	11/02/2021	11/22/2021	02/14/2022
US	MINES VIOLATIONS	MSHA Violation Assessment Data	DOL, Mine Safety & Health Admi	06/30/2021	07/01/2021	09/28/2021
US	US MINES 2	Ferrous and Nonferrous Metal Mines Database Listing	USGS	05/06/2020	05/27/2020	08/13/2020
US	US MINES 3	Active Mines & Mineral Plants Database Listing	USGS	04/14/2011	06/08/2011	09/13/2011
US	PRP	Potentially Responsible Parties	EPA	01/25/2022	02/03/2022	02/25/2022
US	TRIS	Toxic Chemical Release Inventory System	EPA	12/31/2018	08/14/2020	11/04/2020
US	TSCA	Toxic Substances Control Act	EPA	12/31/2016	06/17/2020	09/10/2020
US	FTTS	FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fu	EPA/Office of Prevention, Pesticides and Toxi	04/09/2009	04/16/2009	05/11/2009
US	FTTS INSP	FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fu	EPA	04/09/2009	04/16/2009	05/11/2009
US	HIST FTTS	FIFRA/TSCA Tracking System Administrative Case Listing	Environmental Protection Agency	10/19/2006	03/01/2007	04/10/2007
US	HIST FTTS INSP	FIFRA/TSCA Tracking System Inspection & Enforcement Case Lis	Environmental Protection Agency	10/19/2006	03/01/2007	04/10/2007
US	SSTS	Section 7 Tracking Systems	EPA	10/18/2021	10/20/2021	01/10/2022
US	ICIS	Integrated Compliance Information System	Environmental Protection Agency	11/18/2016	11/23/2016	02/10/2017
US	PADS	PCB Activity Database System	EPA	11/19/2020	01/08/2021	03/22/2021
US	MLTS	Material Licensing Tracking System	Nuclear Regulatory Commission	07/29/2021	08/24/2021	11/19/2021
US	RADINFO	Radiation Information Database	Environmental Protection Agency	07/01/2019	07/01/2019	09/23/2019
US	FINDS	Facility Index System/Facility Registry System	EPA	11/04/2021	11/22/2021	02/25/2022
US	RAATS	RCRA Administrative Action Tracking System	EPA	04/17/1995	07/03/1995	08/07/1995
US	RMP	Risk Management Plans	Environmental Protection Agency	10/20/2021	11/05/2021	11/12/2021
US	BRS	Biennial Reporting System	EPA/NTIS	12/31/2019	09/15/2021	12/14/2021
US	PWS	Public Water System Data	EPA	12/17/2013	01/09/2014	10/15/2014
US	INDIAN RESERV	Indian Reservations	USGS	12/31/2014	07/14/2015	01/10/2017
US	INDIAN ODI	Report on the Status of Open Dumps on Indian Lands	Environmental Protection Agency	12/31/1998	12/03/2007	01/24/2008
US	IHS OPEN DUMPS	Open Dumps on Indian Land	Department of Health & Human Serivces, Indian	04/01/2014	08/06/2014	01/29/2015
US	ABANDONED MINES	Abandoned Mines	Department of Interior	12/14/2021	12/15/2021	03/10/2022
ME	AIRS	Emissions Inventory Data	Department of Environmental Protection	12/15/2021	12/15/2021	03/07/2022
ME	ALLSITES	Remediation Sites List	Department of Environmental Protection	10/11/2021	10/11/2021	01/04/2022
ME	DRYCLEANERS	Drycleaner Facilities	Department of Environmental Protection	05/10/2021	05/13/2021	08/03/2021
ME	LIENS	Environmental Liens Information Listing	Department of Environmental Protection	11/16/2021	11/18/2021	02/08/2022
ME	NPDES	Wastewater Facilities Listing	Department of Environmental Protection	07/08/2021	12/16/2021	03/07/2022
ME	SPILLS	Hazardous Material and Oil Spill System Database	Department of Environmental Protection	10/23/2021	10/27/2021	01/18/2022
ME	SPILLS 80	SPILLS80 data from FirstSearch	FirstSearch	06/07/2001	01/03/2013	03/06/2013
ME	SPILLS 90	SPILLS90 data from FirstSearch	FirstSearch	11/05/2012	01/03/2013	01/25/2013
ME	TIER 2	Tier 2 Information Listing	Maine Emergency Management Agency	12/20/2020	09/03/2021	11/24/2021

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

St	Acronym	Full Name	Government Agency	Gov Date	Arvl. Date	Active Date
ME	UIC	Underground Injection Control	Department of Environmental Protection	12/21/2021	12/22/2021	02/08/2022
US	FEDERAL FACILITY	Federal Facility Site Information listing	Environmental Protection Agency	05/25/2021	06/24/2021	09/20/2021
US	MINES MRDS	Mineral Resources Data System	USGS	04/06/2018	10/21/2019	10/24/2019
US	DOCKET HWC	Hazardous Waste Compliance Docket Listing	Environmental Protection Agency	05/06/2021	05/21/2021	08/11/2021
US	FUELS PROGRAM	EPA Fuels Program Registered Listing	EPA	11/15/2021	11/15/2021	02/01/2022
ME	PFAS	PFAS Contamination Site Location Listing	Department of Environmental Protection	03/14/2022	03/16/2022	03/22/2022
US	ECHO	Enforcement & Compliance History Information	Environmental Protection Agency	01/01/2022	01/04/2022	01/10/2022
US	UXO	Unexploded Ordnance Sites	Department of Defense	12/31/2020	01/11/2022	02/14/2022

HISTORICAL USE RECORDS

US	EDR MGP	EDR Proprietary Manufactured Gas Plants	EDR, Inc.			
US	EDR Hist Auto	EDR Exclusive Historical Auto Stations	EDR, Inc.			
US	EDR Hist Cleaner	EDR Exclusive Historical Cleaners	EDR, Inc.			
ME	RGA HWS	Recovered Government Archive State Hazardous Waste Facilitie	Department of Environmental Protection		07/01/2013	01/08/2014
ME	RGA LF	Recovered Government Archive Solid Waste Facilities List	Department of Environmental Protection		07/01/2013	01/17/2014
ME	RGA LUST	Recovered Government Archive Leaking Underground Storage Tan	Department of Environmental Protection		07/01/2013	01/10/2014

STREET AND ADDRESS INFORMATION

APPENDIX G
QUALIFICATIONS

John K. Cressey, ME LG, NH PG

President/Principal Geologist

Education
B.A. Environmental Science and Policy, University of Southern Maine (1997)

Registrations
Maine Licensed Geologist (544)
New Hampshire Professional Geologist (889)
Maine Licensed Asbestos Inspector (AI-0290)

Training
OSHA 40-hour training
DOT Manifest Training
Asbestos Inspector Training
Respiratory Protection Training
Fire Extinguisher Training
PSMJ Resources, Inc. Project Manager Bootcamp
Innov-X Systems X-Ray Fluorescence Spectrum Analyzer

Experience

Beacon Environmental Consultants, LLC – President/Principal Geologist	(2016-present)
CES, Inc. – Senior Project Manager/Senior Project Geologist	(2013-2016)
Summit Environmental Consultants, Inc. – Senior Project Manager	(2004-2013)
Environmental Projects, Inc. – Disposal Coordinator/Field Chemist	(2001-2004)
Summit Environmental Consultants, Inc. – Staff Scientist	(1998-2001)
Nichols Portland – Assistant to the Facilities Manager	(1996-1998)

Experience Summary
As the President of Beacon, I complete due diligence work including Phase I ESAs, Phase II ESAs, Underground Storage Tank (UST) Assessments, and Remedial Oversight; Develop Health and Safety Plans (HASPs) for Contractors; and provide Environmental Compliance services for industrial clients. I am a Maine Licensed Geologist and New Hampshire Professional Geologist who has been in the environmental consulting and hazardous waste fields since 1996. I am experienced in environmental investigations, field sampling events, and report preparation in support of investigations and remedial operations for state and industrial clients. Technical documents that I produce include but are not limited to: ASTM Phase I Environmental Site Assessments, Phase II Environmental Site Assessments, Quality Assurance Project Plans (QAPPs) and Analysis of Brownfields Cleanup Alternative (ABCAs) for submittal to EPA and Maine Department of Environmental Protection (MEDEP), and dozens of Voluntary Response Action Program (VRAP) applications and agreements with MEDEP.

Project Experience
Jett Property Brownfields Project, South Portland, Maine (2021) – Completed a Site Specific QAPP and then a Phase II ESA under contract to the MEDEP that included soil borings, monitoring well installation and sampling, and soil vapor sampling of a former automotive service garage. Once analytical results were obtained, developed an ABCA to provide remedial options for impacted soil and soil vapor.

Poacher's Paradise Brownfields Project, Madrid Township, Maine (2020) – Oversaw the abatement of asbestos-containing materials from two buildings on the property, wrote a SSQAPP for soil sampling and completed soil sampling, the proper abandonment of a drinking water well, and soil removal.

Phase II ESAs, Albion, Unity, and Knox, Maine (2020) – Completed soil boring, soil, groundwater, and soil gas sampling at three convenience stores in a short timeframe as a part of a purchase and sale agreement.

Phase I, Phase II ESA, and VRAP, Sanford Airport property, Sanford, Maine (2020) – Completed soil boring, soil, groundwater, and soil gas sampling at a vacant lot at the Sanford Airport. Once the investigation was completed, a VRAP application was submitted to the MEDEP and a No Further Action Assurance letter was obtained for the property owner.

Oil Spill Investigation and Remediation, Chain of Ponds, Maine (2018-2020) – Completed a soil boring investigation and oversaw the removal of over 650 tons of petroleum-impacted soils from a fuel oil delivery truck accident. Once the soil removal was completed, John developed a bioremediation strategy with the

approval of the MEDEP to inject an Oxygen Based Chemical to stimulate cleanup. John continues to monitor the progress of this remediation.

Arsenic Remediation Oversight, Monmouth, Maine (2018) – RSU 2 selected a former apple orchard for the location of a new K-8 school in Monmouth. During environmental investigations it was discovered that arsenic-impacted topsoil was present in exceedance of MEDEP guidelines. Beacon was contracted by the earthwork contractor to develop a HASP and to provide environmental oversight during the removal of the impacted topsoil and the placement of this material under a marker layer in accordance with the MEDEP VRAP plan for the property. At the completion of the work, John provided a remediation report to the MEDEP.

Environmental Compliance Support, Jøtul North America, Gorham, Maine (2018-2020) – Assisted the Facility's Manager of a wood stove manufacturer with EPCRA reporting and environmental compliance support.

Time and Temperature Building, Portland, Maine (2018) – Completed soil sampling near a UST in the basement of the building to determine if petroleum impacts existed. Submitted a VRAP application to MEDEP and received a "No Action Assurance" Letter in less than one week allowing the closing of the property to proceed without delay.

CGA, Inc., Sanford, Maine (2018-2019) – Completed a QAPP, Phase II ESA and ABCA on behalf of the MEDEP and the City of Sanford on this former circuit board manufacturing facility. Once the investigation was completed, the monitoring wells were abandoned in accordance with MEDEP regulations.

Beal's Linen, Auburn, Maine (2018-2020) – Complete quarterly sampling of a subslab vapor mitigation and semi-annual indoor air samples in surrounding residences to a former dry cleaner. Perform routine maintenance on the vapor mitigation system as needed.

LeBlanc Dry Cleaners, Lewiston, Maine (2015-2018) – Completed a Phase II ESA, Supplemental Sampling, UST Removal, and Hazardous Waste Removal on behalf of the MEDEP at a former dry cleaner. At the completion of these activities, completed a Phase I ESA for a non-profit interested in purchasing the property.

Portland Bayside Brownfield Projects, Portland, Maine (2017-2018) – Completed five Site Specific QAPPs for approval by the MEDEP. After approval, John oversaw Phase II ESAs on each of the parcels including soil, groundwater, and subslab soil gas sampling. At the completion of the Phase II ESAs, John developed ABCAs for each property to provide estimates for the remediation of environmental issues on each parcel.

City of South Portland Police Department, South Portland, Maine (2017-2019) – Completed lead wipe sampling and indoor air sampling in conjunction with an indoor firing range. Developed Bid Specification documents for contractors to bid on the abatement of the range and other portions of the building then developed specifications for upgrades to the current facility to minimize employee exposure to lead.

Irving Tannery Annex Parcels 1 & 2, Hartland, Maine (2015-2019) - Completed a Phase I ESA, Phase I ESA Update, and chemical removal on behalf of the Town to prepare for two Brownfields Remediation Revolving Loans on parcels divided from the main property. The Brownfields RLFs were used to abate asbestos and universal waste from the buildings and to remove a 20,000-gallon UST and over 350 tons of petroleum-impacted soil. Once the remedial

Maine Energy PCB and Dioxin Remediation, Biddeford, Maine (2014-2016) – As Project Manager for the remediation of dioxin and PCB-impacted soils on the former waste to energy facility, John developed site specific remediation specifications, remediation work plans for bidding, and oversaw the remediation oversight. John worked with the USEPA Toxic Substance and Control Act (TSCA) staff to develop an acceptable risk-based PCB remediation work plan. Over 2,000 tons of PCB impacted soil was removed and a protective cap placed on the property in preparation of the development of the Site into a public park.

American Tissue Mill, Augusta, Maine (2008-2014) – As Project Manager, John oversaw the demolition of 600,000 square feet of buildings and Phase II ESA activities on an 18-acre former paper mill site on the Kennebec River. John developed the bid specification manual on behalf of the City of Augusta and assisted the City in obtaining a $350,000 USEPA grant to perform a Phase II ESA on the property. The Phase II ESA included soil borings, Geoprobe borings, and groundwater sampling. Based on the findings of the Phase II ESA, John assisted the City in applying for and securing a Brownfields Remediation Grant and oversaw the remediation of PCB, petroleum, and arsenic impacted soils. Once the remediation was complete, a VRAP

was secured for the property and the monitoring wells were properly abandoned. During the course of this project John completed Quarterly Reports, ACRES updates, and maintained project files for the City.

MEDEP Brownfields Program, Statewide (2004-2016) – John acted as Project Manager for three $500,000 contracts with the MEDEP. Over the course of the contracts; Phase I ESAs, Phase II ESAs, and Feasibility Studies across the state from Eliot to Fort Kent were performed.

Keddy Mill, Town of Windham, Maine (2009-2015) – As Project Manager, John completed a Phase I ESA for a former steel mill under the Town of Windham's City-Wide USEPA Brownfields Assessment Grant. Based upon the results of the Phase I ESA, sampling was completed for suspected PCB impacts on the property. These results led to two additional sampling rounds including coordination with the USEPA's mobile laboratory to assist in delineation of PCB impacts. The USEPA listed the property as a Superfund Site in 2015.

Charlotte Smith Residence, Meddybemps, Maine (2004) - Project Manager and Field Chemist for the containerization and removal of over 40,000-pounds of hazardous waste (including 200 5-gallon pails of F-listed contaminated liquids) from a residential building and a barn. John worked in conjunction with MEDEP staff to prioritize and safely remove the waste, package it appropriately, and have it removed from the site.

Smith's Junkyard, Meddybemps, Maine (2003-2004) – Project Manager and Field Chemist for the containerization and removal of over 3,000 gallons of waste oil and 125,000 pounds of hazardous materials from the Smith Junkyard site in Meddybemps, Maine.

Affiliations
Maine Geological Society
Maine Real Estate & Development Association (MEREDA)
Environmental & Energy Technology Council of Maine (E2Tech)
Maine Energy Marketers Association (MEMA)
Sebago Lakes Region Chamber of Commerce (SLRCC)

Speaking
Presented at an Alpha Analytical Laboratory forum February 2, 2017 in Portland: *How the new MEDEP VI guidance will change how investigations are performed.*

Presented at the Maine Groundwater Conference March 16, 2011 in Augusta: *Bio-pile siting, construction, operation, maintenance, and application on petroleum contaminated sites. Rangeley and Gardiner, Maine bio-pile examples.*

APPENDIX H
ADDITIONAL DOCUMENTATION

BEACON
Environmental Consultants, LLC

PHASE I ESA USER QUESTIONNAIRE

Property Identification: Washington St Project

Property Address: RTE 202, Auburn, Maine, 04210, USA

In order to qualify for one of the Landowner Liability Protections (LLPs) offered by the Small Business Liability Relief and Brownfields Revitalization Act of 2001 (the "Brownfields Amendments"), the user must provide the following information (if available) to the environmental professional. Failure to provide this information could result in a determination that "all appropriate inquiry" is not complete. Please add additional pages as necessary to complete the questionnaire.

(1) Environmental cleanup liens that are filed or recorded against the site (40 CFR 312.25). Are you aware of any environmental cleanup liens against the property that are filed or recorded under federal, tribal, state or local law?

No

(2) Activity and land use limitations that are in place on the site or that have been filed or recorded in a registry (40 CFR 312.26). Are you aware of any activity and use limitations (AULs), such as engineering controls, land use restrictions or institutional controls that are in place at the site and/or have been filed or recorded in a registry under federal, tribal, state or local law?

No

(3) Specialized knowledge or experience of the person seeking to qualify for the LLP (40 CFR 312.28). As the user of this ESA do you have any specialized knowledge or experience related to the property or nearby properties? For example, are you involved in the same line of business as the current or former occupants of the property or an adjoining property so that you would have specialized knowledge of the chemicals and processes used by this type of business?

No

(4) Relationship of the purchase price to the fair market value of the property if it were not contaminated (40 CFR 312.29). Does the purchase price being paid for this property reasonably reflect the fair market value of the property? If you conclude that there is a difference, have you considered whether the lower purchase price is because contamination is known or believed to be present at the property?

Yes

P.O. BOX 2154, WINDHAM, MAINE 04062
Phone (207) 376-5001 Fax (207) 221-1354
Jcressey@BeaconMaine.com
www.beaconmaine.com

(5) Commonly known or reasonably ascertainable information about the property (40 CFR 312.30).
Are you aware of commonly known or reasonably ascertainable information about the property that would help the environmental professional to identify conditions indicative of releases or threatened releases? For example, as user,

(a) Do you know the past uses of the property? Agriculture

(b) Do you know of specific chemicals that are present or once were present at the property? No

(c) Do you know of spills or other chemical releases that have taken place at the property? No

(d) Do you know of any environmental cleanups that haven take place at the property? No

(6) The degree of obviousness of the presence of likely presence of contamination at the property, and the ability to detect the contamination by appropriate investigation (40 CFR 312.31). As the user of this ESA, based on your knowledge and experience related to the property are there any obvious indicators that point to the presence or likely presence of contamination at the property?

No

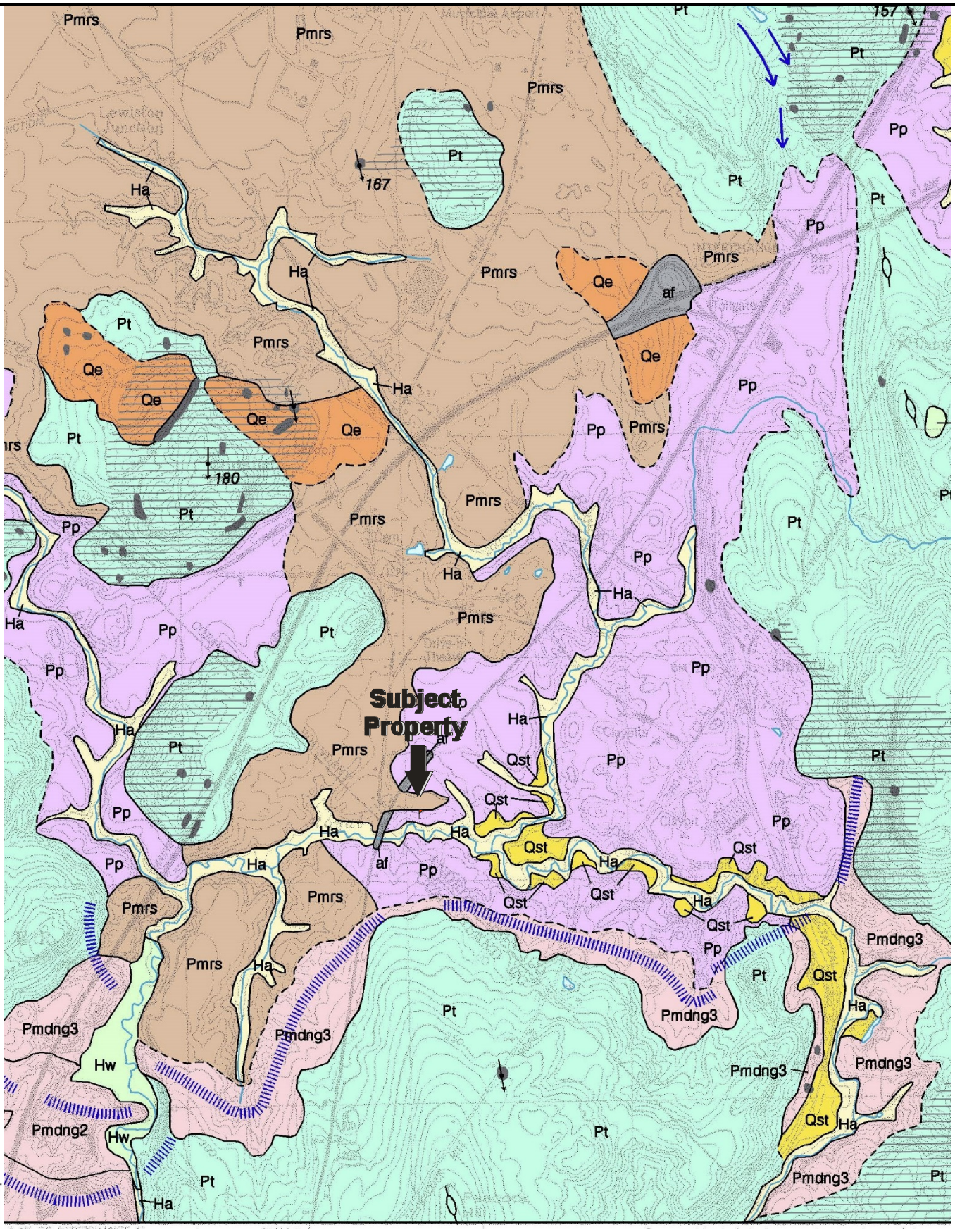
Completed by (User):

Signature

Anam Mumtaz
Name

Executive Assistant (Novel Energy Solutions)
Title/Business Name

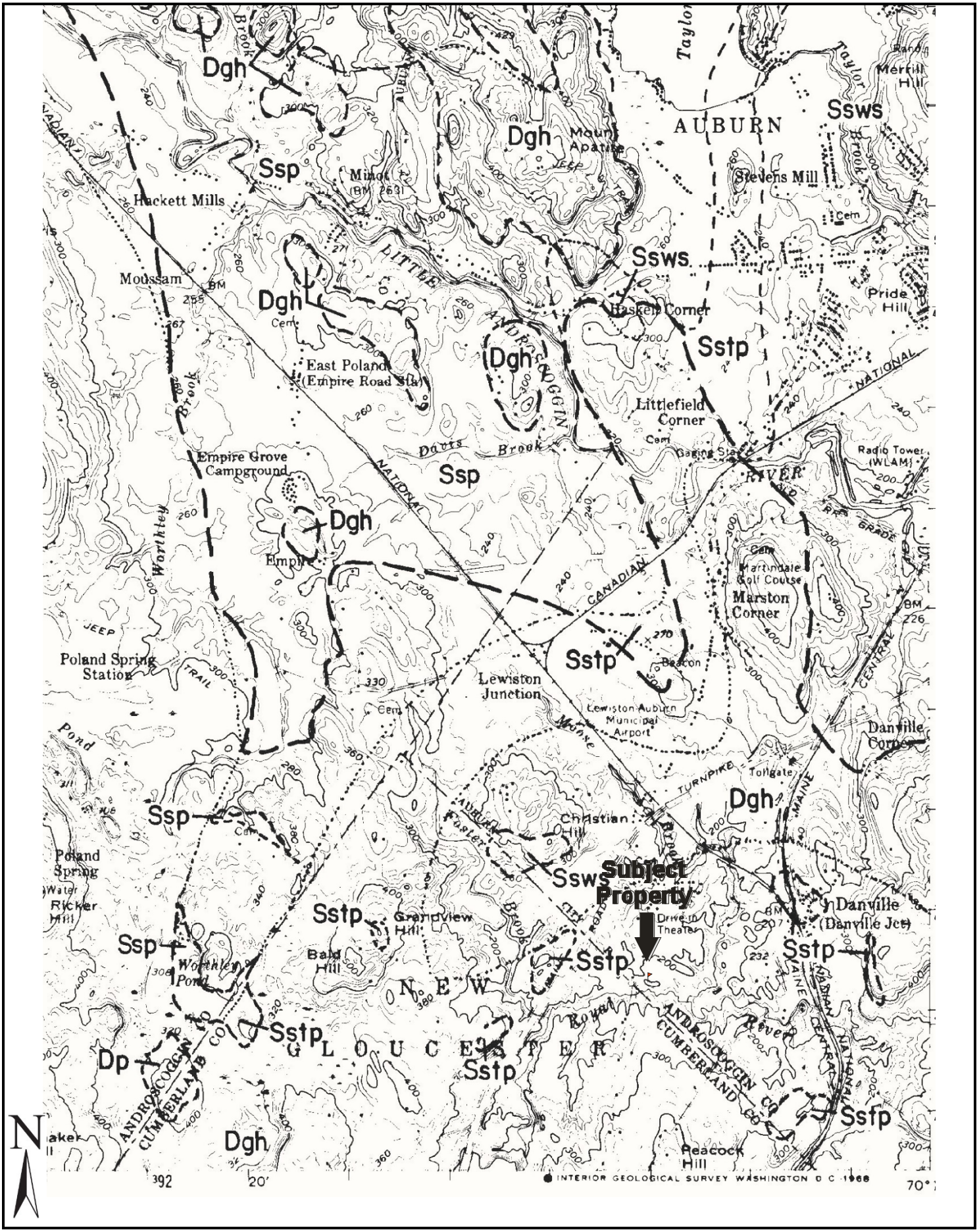
3/29/2022
Date



SURFICIAL GEOLOGY MAP
Project No. BE-453

Drawing Not To Scale

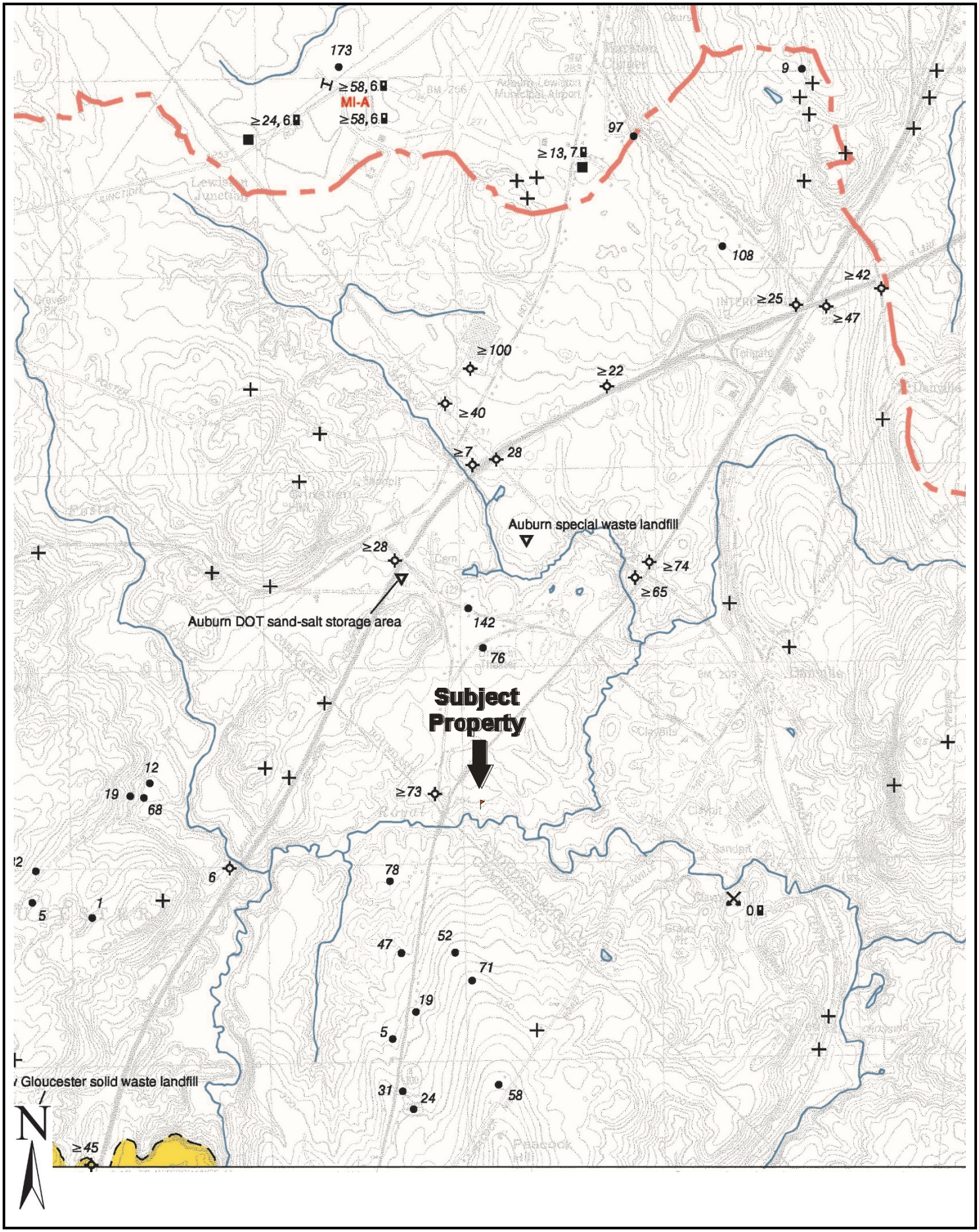
BEACON Environmental Consultants, LLC



BEDROCK GEOLOGY MAP
Project No. BE-453

Drawing Not To Scale

BEACON Environmental Consultants, LLC



SIGNIFICANT SAND & GRAVEL AQUIFER MAP
Project No. BE-453

Drawing Not To Scale

BEACON Environmental Consultants, LLC

National Flood Hazard Layer FIRMette

FEMA

70°17'16"W 44°1'12"N

70°16'39"W 44°0'46"N

0 250 500 1,000 1,500 2,000 Feet

1:6,000

Basemap: USGS National Map: Orthoimagery: Data refreshed October, 2020

Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS
- Without Base Flood Elevation (BFE) *Zone A, V, A99*
- With BFE or Depth *Zone AE, AO, AH, VE, AR*
- Regulatory Floodway

OTHER AREAS OF FLOOD HAZARD
- 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile *Zone X*
- Future Conditions 1% Annual Chance Flood Hazard *Zone X*
- Area with Reduced Flood Risk due to Levee. See Notes. *Zone X*
- Area with Flood Risk due to Levee *Zone D*

OTHER AREAS
- NO SCREEN Area of Minimal Flood Hazard *Zone X*
- Effective LOMRs
- Area of Undetermined Flood Hazard *Zone D*

GENERAL STRUCTURES
- Channel, Culvert, or Storm Sewer
- Levee, Dike, or Floodwall

OTHER FEATURES
- 20.2 / 17.5 Cross Sections with 1% Annual Chance / Water Surface Elevation
- Coastal Transect
- Base Flood Elevation Line (BFE)
- Limit of Study
- Jurisdiction Boundary
- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature

MAP PANELS
- Digital Data Available
- No Digital Data Available
- Unmapped

N

The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 4/7/2022 at 5:38 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

U.S. Fish and Wildlife Service

National Wetlands Inventory

Auburn ME Washington HS CSG

April 7, 2022

Wetlands

- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Other
- Riverine

BOOK 1709 PAGE 0208

02622

That I, Wayne Bridgham

of Minot, Androscoggin County, State of Maine
(being unmarried) for consideration paid,

grant to Wayne Bridgham of Minot, County of Androscoggin, State of Maine and
Sharon Bridgham

of Oxford, Oxford County, State of Maine
with ~~warranty covenants~~ as joint tenants, the land in Auburn Androscoggin
County, State of Maine

A certain lot or parcel of land, situated partly in said Auburn and partly in said New Gloucester located on the easterly side of State Highway designated as Route #202 and also Route #100, the same being bounded on the north by land of Arnold Morrison, on the east by land of Mrs. Earl Schultz and on the south by land of Ralph Edwards.

For title of the Grantor reference is made to Warranty Deed of Harold A. Parsons et al, which said Deed is duly recorded in the Androscoggin County Registry of Deeds in Book 1324, Page 60.

This Deed is executed pursuant to Decree of Divorce between the parties hereto, said Decree duly on file at District Court, District Eight, Division of Southern Androscoggin, Lewiston, Maine.

NO MAINE R.E. TRANSFER TAX PAID

~~wife of said grantor~~

~~joins as grantor and releases all right by descent and all other rights~~

Witness my hand and seal this 12th day of March 1984

WAYNE BRIDGHAM

ANDROSCOGGIN SS. RECEIVED MAR 20 1984 AT 9 H. — M. M.

The State of Maine Androscoggin ss. March 12 19 84

Then personally appeared the above named Wayne Bridgham

and acknowledged the foregoing instrument to be his free act and deed,

Before me,

Justice of the Peace - Attorney at Law - Notary Public
H. J. Meyer

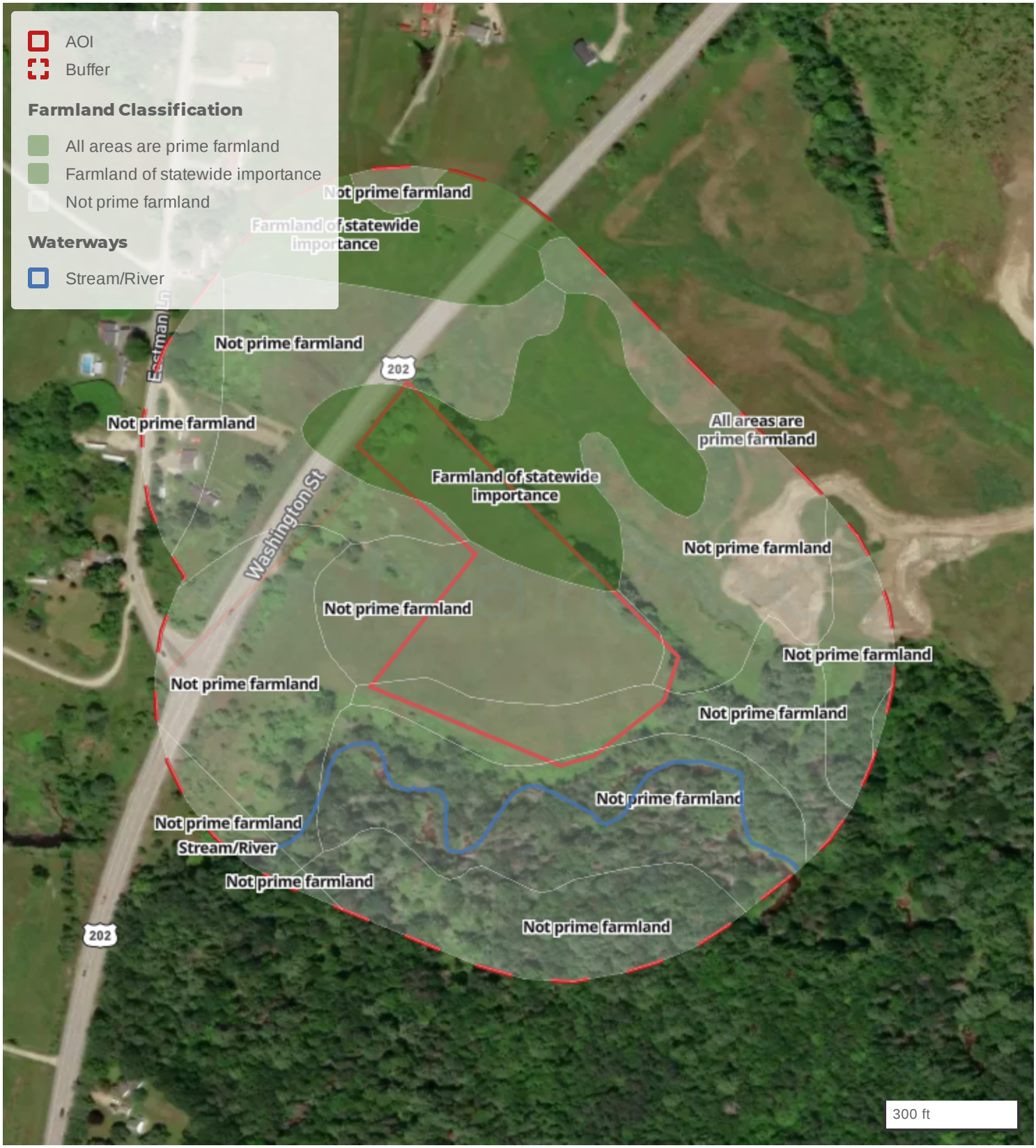
122% Warranty Deed — Joint Tenancy — Short Form

REAL ESTATE FOR FISCAL 2020 **TAX YEAR 07/01/2020 TO 06/30/2021**

PROPERTY/OWNER	CLASS	CUSTOMER	*-------- VALUES ---------*		CHARGE		TAX
053-004-000-000	58	101200	LAND	17,200	2020 REAL		408.50
BRIDGHAM WAYNE			BUILDING	0			
BRIDGHAM SHARON			TOTAL VALUE	17,200	INSTALLMENT	1	204.25
268 CENTER MINOT RD			DEFERMENT	0	INSTALLMENT	2	204.25
MINOT, ME 04258			EXEMPTION	0			
			NET VALUE	17,200			
LOC: 2440 WASHINGTON ST							
BILL NO BOOK/PAGE DEED DATE ACRES			ALT B7300R				
117 1709-208 03/01/1984 29.00							
290-010-000-000	66	101204	LAND	100	INSTALLMENT	1	.00
BRIGGS CEMETERY			BUILDING	0	INSTALLMENT	2	.00
TURNER ST			TOTAL VALUE	100			
AUBURN, ME 04210			DEFERMENT	0			
			EXEMPTION	-100			
			NET VALUE	0			
LOC: 1016 TURNER ST							
BILL NO BOOK/PAGE DEED DATE ACRES			ALT B7340R				
8442 .39							
239-172-000-000	001	101201	LAND	31,800	2020 REAL		3,358.25
BRIGGS DAVID E			BUILDING	134,600			
BRIGGS DEBORAH E			TOTAL VALUE	166,400	INSTALLMENT	1	1,679.13
12 JOSSLYN STREET			DEFERMENT	0	INSTALLMENT	2	1,679.12
AUBURN, ME 04210			EXEMPTION	-25,000			
			NET VALUE	141,400			
LOC: 12 JOSSLYN ST							
BILL NO BOOK/PAGE DEED DATE ACRES			ALT B7310R				
5794 1703-53 02/01/1984 .56							
216-005-000-000	001	14035	LAND	44,500	2020 REAL		1,807.38
BRIGGS KATHLEEN L			BUILDING	56,600			
359 GARFIELD ROAD			TOTAL VALUE	101,100	INSTALLMENT	1	903.69
AUBURN, ME 04210			DEFERMENT	0	INSTALLMENT	2	903.69
			EXEMPTION	-25,000			
			NET VALUE	76,100			
LOC: 359 GARFIELD RD							
BILL NO BOOK/PAGE DEED DATE ACRES			ALT W0700R				
3778 8128-350 03/11/2011 3.94							
137-005-000-000	001	25775	LAND	26,300	2020 REAL		1,990.25
BRIGGS RICHARD			BUILDING	82,500			
BRIGGS VERONICA GEORGINA			TOTAL VALUE	108,800	INSTALLMENT	1	995.13
138 KYLE LANE			DEFERMENT	0	INSTALLMENT	2	995.12
AUBURN, ME 04210			EXEMPTION	-25,000			
			NET VALUE	83,800			
LOC: 138 KYLE LN							
BILL NO BOOK/PAGE DEED DATE ACRES			ALT G2420R				
1106 8924-55 05/22/2014 .51							

Farmland Classification Map

ME Washington HS CSG LLC



Disclaimer: This map is for planning purposes only. Transect makes no claims, no representations, and no warranties, express or implied, concerning the validity (express or implied), the reliability or the accuracy of the GIS data and GIS data products furnished by Transect, including the implied validity of any uses of such data.

transect

Prepared by and return to:
Novel Energy Solutions L.L.C.
2303 Wycliff Street
Suite 300
St. Paul, MN 55114

(Top 3 inches reserved for recording data)

MEMORANDUM OF SOLAR POWER SITE LEASE AND EASEMENT AGREEMENT

THIS MEMORANDUM OF SOLAR POWER SITE LEASE AND EASEMENT AGREEMENT (this "**Memorandum**") is made and entered into as of January 5, 2022, by and between Wayne S. Bridgham, as 50% owner, and Sharon L. Russell, as 50% owner having an address of 268 Center Minot Hill, Minot ME 04258 ("**Lessor**"), and Novel Energy Solutions L.L.C. (or Assigns), a Minnesota Limited Liability Company, having an address of 2303 Wycliff Street, Suite 300, St. Paul, MN 55114 (**"Lessee"**), (each a "**Party**" and collectively the "**Parties**"), with reference to the following facts:

A. On December 16, 2021 (the "Effective Date"), the Parties entered into a Solar Power Site Lease (the "**Lease**") which by its terms grants to Lessee a lease of the land more particularly described in ***Exhibit A***, having GPS coordinates of 44.01711, -70.28350, attached to this Memorandum and incorporated herein by this reference (the "**Premises**"). Capitalized terms used but not defined herein shall have the meanings ascribed to them in the Lease.

B. Under the terms of the Lease, Lessee (or Assigns) has the option to determine the date of commencement by providing Lessor with notice of its election of such a date (the "Commencement Date"). The lease term (collectively, the "**Lease Term**") shall have an initial Option Term, Primary Term, Renewal Term and Final Term. The Commencement Date is the first day of the Primary Term, and the Lease Term shall continue for 36.5 years, unless earlier terminated in accordance with its terms.

C. The Lessor and Lessee desire to enter into this Memorandum which is to be recorded in order that third parties may have notice of the interests of Lessee in the Premises and of the existence of the Lease and rights granted to Lessee in the Premises as part of the Lease.

NOW, THEREFORE, the Parties hereby certify and agree as follows

1. Lessor leases the Premises to Lessee (and Assigns), and Lessee (or Assigns) leases the Premises from Lessor, for the Lease Term and subject to the provisions of the Lease, including the granting of an exclusive easement on, over and across Lessor's Property for direct sunlight to any solar panels on the Premises and an exclusive easement prohibiting any obstruction of direct sunlight (collectively, the "**Solar Easement**") throughout Lessor's entire Property to and for the benefit of the area existing horizontally three hundred and sixty degrees (360°) from any point where any solar panel is or may be located at any time from time to time (each such point referred to as a "**Site**") and for a distance from each Site to the boundaries of Lessor's Property, together vertically through all space located above the surface of Lessor's Property, that is, one hundred eighty degrees (180°) or such greater number or numbers of degrees as may be necessary to extend from each point on and along a line drawn along the surface from each point along the exterior boundary of Lessor's Property through each Site to each point and on and along such line to the opposite exterior boundary of Lessor's Property.

2. The Lease provides for ingress, egress and utility easements across the Lessor's property, any abutting property owned by Lessor, providing access to and from a public road and the point of interconnection.

3. The Lease provides that the provisions of the Lease are binding upon and inure to the benefit of Lessor and Lessee and each of their respective representatives, successors and assigns, subject to certain limitations.

4. The Lease provides that during the Lease Term, Lessor shall neither sell any portion of the Property, nor divide the Property by any other means constituting a "division" pursuant to the subdivision laws of the State of Maine, the rules and standards of the Maine Land Use Planning Commission, the ordinance of the municipality where the property is located, or any other applicable statute, law, ordinance, by-law or rule, without the prior written consent of Lessor in each instance, as set forth in the Lease.

5. All of the other terms, conditions and agreements contained within the Lease are fully incorporated herein by reference as if fully set forth herein. This Memorandum is not intended to change any of the terms of the Lease, and any conflicts between the terms hereof and the terms of the Lease shall be resolved in favor of the terms of the Lease. This Memorandum may be executed in one or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same agreement.

[The remainder of this page is intentionally left blank]

IN WITNESS WHEREOF, the Parties have executed this Memorandum as of the date set forth above.

LESSOR:

Signature: Wayne S Bridgham
Printed Name: **Wayne S Bridgham**

STATE OF Maine)
) SS
COUNTY OF Androscoggin)

This instrument was acknowledged before me on Dec. 16 2021, before me, a Notary Public in and for said County and State, personally appeared **Wayne S Bridgham, as 50% owner**.

IN WITNESS WHEREOF, I have hereunto set my official signature and affixed my notarial seal, the day and year first above written.

My Commission Expires: 3/12/2025

(Notary Stamp or Seal)

MARJORIE A. BICKFORD
Notary Public, State of Maine
My Commission Expires Mar. 12, 2025

Marjorie A. Bickford
Notary Signature

Marjorie A. Bickford
Print Name

[Acknowledgements continue on the following page.]

LESSOR:

Signature: Sharon L Russell
Printed Name: **Sharon L Russell**

STATE OF Maine)
) SS
COUNTY OF Androscoggin)

This instrument was acknowledged before me on Dec. 16, 2021, before me, a Notary Public in and for said County and State, personally appeared **Sharon L Russell, as 50% owner**.

IN WITNESS WHEREOF, I have hereunto set my official signature and affixed my notarial seal, the day and year first above written.

My Commission Expires: 12/12/2025

(Notary Stamp or Seal)

MARJORIE A. BICKFORD
Notary Public, State of Maine
My Commission Expires Mar. 12, 2025

Marjorie A. Bickford
Notary Signature

Marjorie A. Bickford
Print Name

[Acknowledgements continue on the following page.]

LESSEE:

NOVEL ENERGY SOLUTIONS L. L. C.

Signature: _____
Printed Name: Thomas Dickson
Title: Authorized Signer

STATE OF MINNESOTA)
) SS
COUNTY OF RAMSEY)

This instrument was acknowledged before me on January 5, 2022, before me, a Notary Public in and for said County and State, personally appeared Thomas Dickson as Authorized Signer of Novel Energy Solutions L.L.C., a Minnesota limited liability company.

IN WITNESS WHEREOF, I have hereunto set my official signature and affixed my notarial seal, the day and year first above written.

My Commission Expires: January 31, 2025

(Notary Stamp or Seal)

DELANEY M KOHLER
NOTARY PUBLIC - MINNESOTA
MY COMMISSION EXPIRES 01/31/25

_____
Notary Signature

Delaney Kohler
_____
Print Name

[Acknowledgements continue on the following page.]

LEGAL DESCRIPTION OF PREMISES

Exhibit A to Memorandum

A certain lot or parcel of land, situated partly in said Auburn and partly in said New Gloucester located on the easterly side of State Highway designated as Route #202 and also Route 1100, the same being bounded on the north by land of Arnold Morrison, on the east by land of Mrs. Earl Schult: and on the south by land of Ralph Edwards.

Parcel ID: 053-004

Complete layout legal description to be determined and inserted at a later date.