VERNAL POOL PROTECTION PLAN

ALL PROJECT WORK SHALL COMPLY WITH RELEVANT PORTIONS OF 2022 EVERSOURCE'S BEST MANAGEMENT PRACTICES (BMP) MANUAL: CONNECTICUT CONSTRUCTION AND MAINTENANCE ENVIRONMENTAL REQUIREMENTS AND PROJECT-SPECIFIC STORMWATER POLLUTION CONTROL PLAN (SWPCP) AND PETITION MAPPING. VERNAL POOL PROTECTION BMPS HAVE BEEN INCORPORATED INTO PROJECT MAPPING. ADDITIONAL BMPS MAY BE IMPLEMENTED DURING CONSTRUCTION BASED ON SITE SPECIFIC CONDITIONS, AND CONSTRUCTION METHODOLOGY AND TIMING. REFER TO BELOW, ILLUSTRATION OF VERNAL POOL ENVELOPE BMPS, AND SEASONAL ACTIVITY PERIODS FOR VERNAL POOL INDICATOR SPECIES..

VEGETATION MANAGEMENT

VERNAL POOL DEPRESSION (VPD)

1. PLACEMENT OF MATTING OR USE OF EQUIPMENT WITHIN THE VPD IS NOT ALLOWED AT ANY TIME.
2. IF VEGETATION MUST BE REMOVED FROM WITHIN THE VPD, IT SHALL NOT BE DONE DURING THE AMPHIBIAN BREEDING SEASON.
3. DURING VEGETATION REMOVAL, COMPATIBLE SPECIES WITHIN THE VPD MUST BE PROTECTED TO THE MAXIMUM EXTENT PRACTICABLE AT ALL TIMES. USE OF THE FOLLOWING MEASURES IS REQUIRED:
   A. IF VEGETATION MUST BE REMOVED, IT MUST BE DONE SELECTIVELY EITHER BY HAND OR WITH EQUIPMENT THAT CAN REACH IN AND CUT AND REMOVE IT.
   B. TREES THAT ARE HAND FELLED MUST BE LIFTED; NOT DRAGGED OUT OF THE VPD.
   C. TREES LOCATED OUTSIDE OF THE VPD SHALL NOT BE FELLED INTO THE VPD UNLESS THERE ARE SAFETY CONSIDERATIONS THAT DICTATE OTHERWISE.
   D. IF CUT VEGETATION, OR PORTIONS THEREOF, CANNOT BE SAFELY LIFTED OUT OF THE VPD IT MAY BE LEFT IN PLACE WITH THE APPROVAL OF EVERSOURCE OR THEIR DESIGNATED REPRESENTATIVE.
4. DO NOT DISTURB EXISTING, DOWNED WOODY DEBRIS.

VERNAL POOL 100' ENVELOPE (VPE)

5. VEGETATION REMOVAL WITHIN THE VPE SHALL BE AVOIDED TO THE MAXIMUM EXTENT PRACTICABLE DURING THE AMPHIBIAN BREEDING SEASON: SPRING BREEDERS (MARCH – JUNE); FALL BREEDERS (AUGUST – SEPTEMBER).
6. DURING VEGETATION REMOVAL, COMPATIBLE SPECIES WITHIN THE VPE MUST BE PROTECTED TO THE MAXIMUM EXTENT PRACTICABLE AT ALL TIMES. USE OF THE FOLLOWING MEASURES IS REQUIRED.
   A. IF VEGETATION MUST BE REMOVED, TO THE MAXIMUM EXTENT PRACTICABLE IT MUST BE DONE SELECTIVELY EITHER BY HAND OR WITH EQUIPMENT. NON-SELECTIVE MOWING OF VEGETATION SHALL ONLY BE USED IF IT IS ABSOLUTELY NECESSARY.
   B. USE OF EQUIPMENT SHOULD BE RESTRICTED TO EXISTING ACCESS ROADS AND OTHER IMPROVED SURFACES INSTEAD. ACCESS ROUTES WITHIN THE VPE SHALL BE MINIMIZED TO THE MAXIMUM EXTENT PRACTICABLE.
   C. IF EQUIPMENT IS REQUIRED WITHIN THE VPE, SOIL DISTURBANCE AND COMPACTION MUST BE MINIMIZED THROUGH THE USE OF MATTING OR LOW GROUND PRESSURE EQUIPMENT.
   D. MINIMIZE THE REMOVAL OF LOW GROWING VEGETATION WITHIN 25' OF THE VPD.
   E. USE OF EQUIPMENT AND/OR THE PLACEMENT OF MATS WITHIN 25' OF THE VPD ARE NOT ALLOWED UNLESS THERE ARE SAFETY CONSIDERATIONS THAT DICTATE OTHERWISE.
7. CUT VEGETATION, OR PORTIONS THEREOF, MAY BE LEFT IN PLACE WITHIN THE VPE WITH THE APPROVAL OF EVERSOURCE OR THEIR DESIGNATED REPRESENTATIVE.
8. PROTECT EXISTING, DOWNED WOODY DEBRIS TO THE MAXIMUM EXTENT PRACTICABLE, PARTICULARLY WITHIN 25' OF THE VPD.

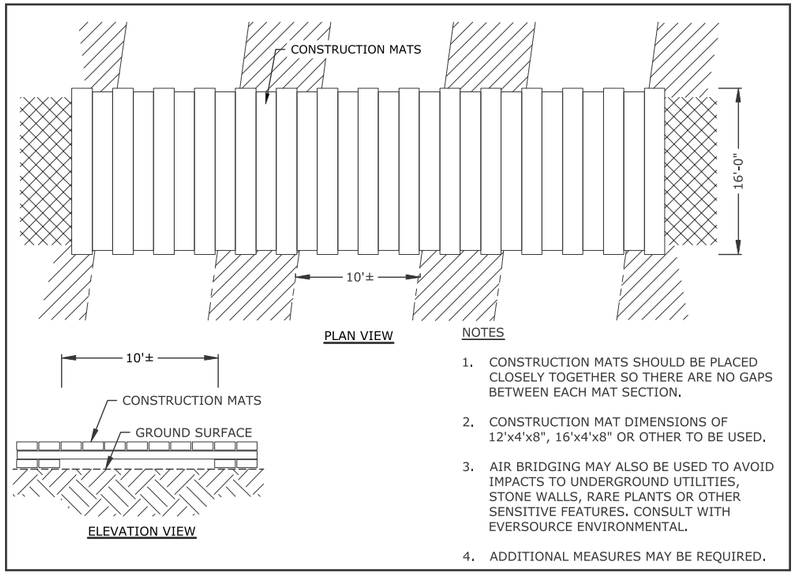
CIVIL CONSTRUCTION

9. INSTALL AND MAINTAIN EROSION AND SEDIMENTATION (E&S) CONTROLS IN ACCORDANCE WITH THE SWPCP AND AS NECESSARY TO PROTECT WATER QUALITY AND TO LIMIT THE POTENTIAL FOR SOIL DEPOSITION INTO A VPD. IF INSTALLATION OF E&S CONTROLS IS NECESSARY DURING THE BREEDING SEASON, USE OF MEASURES SUCH AS SYNCOPATED SILT FENCE, WATTLES, OR COMPOST SOCKS SHALL BE USED TO MAINTAIN AMPHIBIAN ACCESS TO AND FROM THE VPD.
10. PLASTIC NETTING, WHICH MAY BE FOUND IN A VARIETY OF EROSION CONTROL PRODUCTS (E.G., EROSION CONTROL BLANKETS, STRAW WATTLES, AND REINFORCED SILT FENCE) IS NOT ALLOWED.
11. WHERE FEASIBLE, THE USE OF TEMPORARY TIMBER MAT ACCESS ROADS AND WORK PADS IN LIEU OF CONSTRUCTING NEW GRAVEL ACCESS ROADS AND WORK PADS SHOULD BE EVALUATED IN ORDER TO MINIMIZE THE LOSS OF VEGETATED AREAS WITHIN A VPE.
12. TO THE EXTENT THAT CIRCUIT OUTAGE AND OTHER CONSTRUCTION TIMING CONSTRAINTS ALLOW, EVERSOURCE WILL ATTEMPT TO SCHEDULE THE INSTALLATION OF ACCESS ROADS AND WORK PADS NEAR VERNAL POOLS SO AS NOT TO INTERFERE WITH AMPHIBIAN BREEDING AND MIGRATION SEASONS.
13. FOR PROJECT ACTIVITIES THAT MUST OCCUR ADJACENT TO OR WITHIN VERNAL POOLS DURING AMPHIBIAN MIGRATION PERIODS, MEASURES WILL BE IMPLEMENTED ON A SITE-SPECIFIC BASIS AS NECESSARY TO FACILITATE UNENCUMBERED AMPHIBIAN ACCESS TO AND FROM VERNAL POOLS. THESE MEASURES ARE TYPICALLY SHOWN ON THE SWPCP. ADDITIONAL MEASURES MAY BE PROVIDED BY EVERSOURCE BASED ON SITE SPECIFIC CONDITIONS AT THE TIME OF CONSTRUCTION.
14. ADDITIONAL MEASURES THAT MAY BE CONSIDERED TO FACILITATE VERNAL POOL ACCESS INCLUDE SYNCOPATED SEDIMENTATION CONTROL FENCING OR WATTLES, ELEVATED CONSTRUCTION MATTING (CONSTRUCTION MAT AIR BRIDGE), AND ALIGNING EROSION AND SEDIMENTATION CONTROLS TO AVOID BIFURCATING VERNAL POOL HABITAT. INSTALLATION OF ANY MITIGATION DEVICES WILL BE BASED ON FIELD CONDITIONS, CONSTRUCTION REQUIREMENTS, AND SPECIES-SPECIFIC HABITAT REQUIREMENTS.
15. EROSION AND SEDIMENTATION CONTROL DEVICES WILL BE PROMPTLY REMOVED UPON FINAL REVEGETATION AND STABILIZATION OF THE ROW.

DRILLING

16. SPOILS STOCKPILES ON UPLAND WORK PADS SHOULD STOCKPILED AWAY FROM VERNAL POOLS AND PROTECTED WITH EROSION AND SEDIMENTATION CONTROLS (SILT FENCING, STRAW WATTLES, AND/OR COVERED WITH SEED AND STRAW). SPOILS GENERATED ON MATTED WORK PADS IN WETLANDS SHOULD BE TRUCKED TO AN APPROVED OFF-SITE LOCATION OR PLACED IN UPLANDS, IN-ROW ON THE SAME PROPERTY FROM WHICH THEY ORIGINATED.

CONSTRUCTION MAT (AIR BRIDGE)



NOTES

1. CONSTRUCTION MATS SHOULD BE PLACED CLOSELY TOGETHER SO THERE ARE NO GAPS BETWEEN EACH MAT SECTION.
2. CONSTRUCTION MAT DIMENSIONS OF 12'x4'x8", 16'x4'x8" OR OTHER TO BE USED.
3. AIR BRIDGING MAY ALSO BE USED TO AVOID IMPACTS TO UNDERGROUND UTILITIES, STONE WALLS, RARE PLANTS OR OTHER SENSITIVE FEATURES. CONSULT WITH EVERSOURCE ENVIRONMENTAL.
4. ADDITIONAL MEASURES MAY BE REQUIRED.

SEASONAL ACTIVITY PERIODS FOR VERNAL POOL INDICATOR SPECIES

	SPRING BREEDERS Wood Frog, Spotted Salamander, Jefferson Salamander, and Blue-spotted Salamander Complex	
	NOVEMBER - FEBRUARY	Pools are dormant
	MARCH - APRIL	Migration, breeding and egg deposition
	APRIL - JUNE	Egg hatching and larval development
	JUNE - OCTOBER	Metamorphosis and juvenile dispersal
HIGH SENSITIVITY PERIOD 0-100FT	MARCH – APRIL	High densities of adults migrating to and from breeding pools
	JUNE - JULY	High densities of metamorphs disperse from breeding pools into the adjacent forest

	FALL BREEDERS Marbled Salamander	
	AUGUST – SEPTEMBER	Migration, breeding and egg deposition
	NOVEMBER - MAY	Egg hatching and larval development
	MAY - JULY	Metamorphosis and juvenile dispersal
HIGH SENSITIVITY PERIOD 0-100FT	AUGUST-SEPTEMBER	Adults migrate to breeding pools
	MAY - JULY	High densities of metamorphs disperse from breeding pools into the adjacent forest

SYNCOPATED SILT FENCE

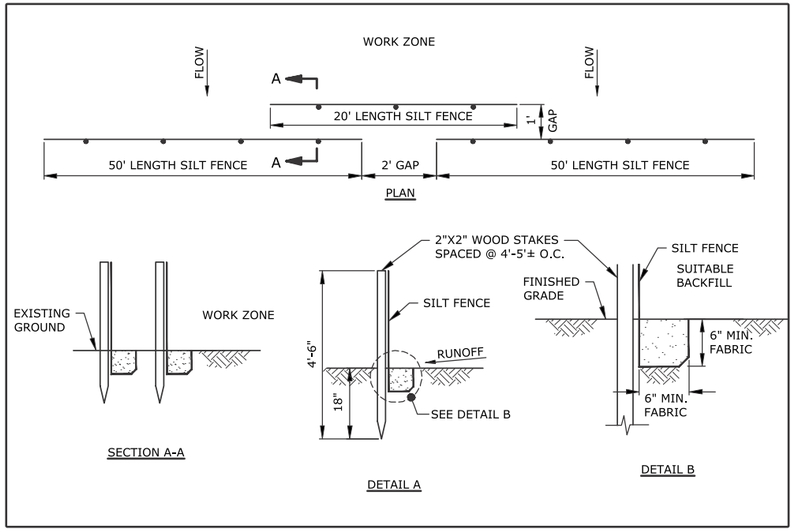
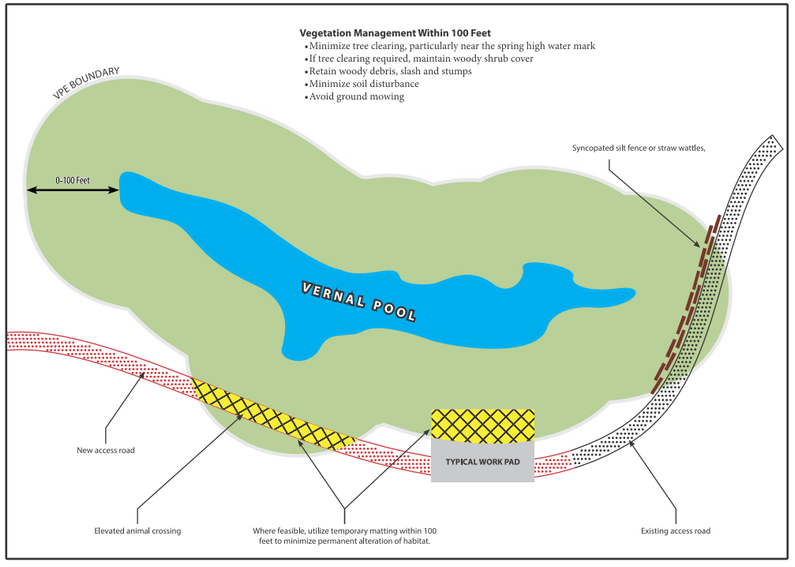


ILLUSTRATION OF VERNAL POOL ENVELOPE BMPS



NO.	DATE	REVISIONS	BY	CHK	APP	APP

EVERSOURCE ENERGY

VERNAL POOL PROTECTION PLAN

Frost Bridge to Noera Rebuild Project

Watertown, Thomaston, Plymouth, Waterbury, Connecticut

September 19, 2023