

EPSC PLAN NARRATIVE

1.1 PROJECT DESCRIPTION
BRIDGE 111 IS LOCATED IN THE TOWN OF WARDSBORO, WINDHAM COUNTY, VERMONT ON TH1, 1.1 MILES WEST OF THE JUNCTION OF TH-1 AND VT ROUTE 100. WORK TO BE PERFORMED ON THIS PROJECT INCLUDES CONSTRUCTION OF A NEW SUPERSTRUCTURE, CONSTRUCTION OF NEW BRIDGE SEATS AND MINOR APPROACH WORK. THE ROAD WILL BE CLOSED DURING CONSTRUCTION AND TRAFFIC WILL BE MAINTAINED ON AN OFF-SITE DETOUR.

NOTE: AREA OF DISTURBANCE INCLUDES LIMITS OF EARTH DISTURBANCE WITHIN THE PROJECT AREA, AS WELL AS WASTE, BORROW AND STAGING AREAS, AND OTHER EARTH DISTURBING ACTIVITIES WITHIN OR DIRECTLY ADJACENT TO THE PROJECT LIMITS.

TOTAL AREA OF DISTURBANCE IS APPROXIMATELY 0.11 ACRES.

IT IS ANTICIPATED THAT THIS PROJECT WILL LAST ONE CONSTRUCTION SEASON.

1.2 SITE INVENTORY

1.2.1 TOPOGRAPHY

THE TERRAIN IS HILLY TO MOUNTAINOUS, FORESTED, RURAL.

1.2.2 DRAINAGE, WATERWAYS, BODIES OF WATER, AND PROXIMITY TO NATURAL OR MANMADE WATER FEATURES

PIKE HOLLOW BROOK AND WARDSBORO BROOK ARE THE TWO WATER SOURCES ON THE PROJECT SITE. PIKE HOLLOW BROOK FLOWS UNDER BRIDGE 111 AND IS CLASSIFIED AS STEEP AND SINUOUS, WITH A STREAMBED OF COBBLES AND GRAVEL. THE TRIBUTARY AREA IS 3.5 SQUARE MILES. THERE ARE TWO COWP CULVERTS IN THE PROJECT AREA WHICH ARE OUTSIDE THE PROJECT CONSTRUCTION LIMITS.

1.2.3 VEGETATION

THE VEGETATION IN THE PROJECT AREA CONSISTS OF MIXED HARD AND SOFTWOOD TREES AND UNDERGROWTH. DISTURBED VEGETATION WILL BE REESTABLISHED WITH STANDARD SEED AND MULCH PRACTICES.

1.2.4 SOILS

ALL SOIL DATA CAME FROM THE U.S. DEPARTMENT OF AGRICULTURE'S SOIL CONSERVATION SERVICE FOR THE COUNTY OF WINDHAM, VERMONT.

COLTON LOAMY FINE SAND 2-8% SLOPES	COLTON LOAMY FINE SAND 8-15% SLOPES	HOUGHTONVILLE FINE SANDY LOAM 5-25% SLOPES
HYDRO SOIL GROUP A K-FACTOR 0.17	HYDRO SOIL GROUP A K-FACTOR 0.17	VERY STONY, HYDRO SOIL GROUP B K-FACTOR 0.49

SEE EXISTING CONDITIONS SITE PLAN FOR SOIL LOCATIONS

NOTE: K-VALUES GENERALLY INDICATE THE FOLLOWING:
0.0-0.23 = LOW EROSION POTENTIAL
0.24-0.36 = MODERATE EROSION POTENTIAL
0.37 AND HIGHER = HIGH EROSION POTENTIAL

1.2.5 SENSITIVE RESOURCE AREAS

CRITICAL HABITATS: NO. LAND TO THE NORTH OF WARDSBORO BROOK IS MAPPED AS DEER WINTERING HABITAT.
HISTORICAL OR ARCHEOLOGICAL AREAS: NO
PRIME AGRICULTURAL LAND: NO
THREATENED AND ENDANGERED SPECIES: NO
WATER RESOURCE: PIKE HOLLOW BROOK AND WARDSBORO BROOK. PIKE HOLLOW BROOK IS A COLD WATER STREAM THAT IS STOCKED WITH ATLANTIC SALMON AS PART OF THE CONNECTICUT RIVER SALMON RESTORATION EFFORT. REMOVAL OF VEGETATION ALONG STREAM BANKS SHOULD BE MINIMIZED.
WETLANDS: NO

1.3 RISK EVALUATION

THIS PROJECT DOES NOT FALL UNDER THE JURISDICTION OF GENERAL PERMIT 3-902.0 FOR STORMWATER RUNOFF FROM CONSTRUCTION SITES. SHOULD CHANGES PRIOR TO OR DURING CONSTRUCTION RESULT IN ONE OR MORE ACRES OF EARTH DISTURBANCE OR SHOULD THE PROJECT BECOME PART OF A LARGER PLAN OF DEVELOPMENT, THE CONTRACTOR WILL BE RESPONSIBLE FOR ANY ADDITIONAL PERMITTING.

1.4 EROSION PREVENTION AND SEDIMENT CONTROL

THE CONTRACTOR SHALL REFER TO THE VTRANS EROSION PREVENTION AND SEDIMENT CONTROL PLAN CHECKLIST TO DEVELOP THE EPSC PLAN. THIS CHECKLIST SHALL BE OBTAINED FROM THE ENGINEER.

THE EROSION CONTROL PLANS ARE MEANT AS A GUIDELINE FOR PREVENTING EROSION AND CONTROLLING SEDIMENT TRANSPORT.

1.4.1 MARK SITE BOUNDARIES

PROJECT DEMARCATION FENCING (PDF) SHALL BE USED TO DELINEATE THE LIMITS THE CONTRACTOR CAN ACCESS WITH CONSTRUCTION EQUIPMENT. THIS MEASURE LIMITS THE AREA THAT CAN BE DISTURBED AND EXPOSED TO EROSION.

1.4.2 LIMIT DISTURBANCE AREA

PREVENTING INITIAL SOIL EROSION BY MINIMIZING THE EXPOSED AREA IS MUCH MORE EFFECTIVE THAN TREATING EXPOSED SEDIMENT. EARTH DISTURBANCE CAN BE MINIMIZED THROUGH CONSTRUCTION PHASING BY ONLY OPENING UP EARTH AS NECESSARY. THIS CAN LIMIT THE AREA THAT WILL BE DISTURBED AND EXPOSED TO EROSION. EARLY TEMPORARY CONSTRUCTION STABILIZATION PRACTICES IN INCREMENTAL STAGES AS PHASES CHANGE. FOR PROJECTS WHICH FALL UNDER THE CONSTRUCTION GENERAL PERMIT, ONLY THE ACREAGE LISTED ON THE PERMIT AUTHORIZATION MAY BE EXPOSED AT ANY GIVEN TIME.

MAINTAINING VEGETATED BUFFERS ALONG STREAM BANKS, WETLANDS OR OTHER SENSITIVE AREAS IS A CRUCIAL EROSION AND SEDIMENT CONTROL MEASURE THAT SHOULD BE ESTABLISHED WHEREVER POSSIBLE.

THE CONTRACTOR SHALL ESTABLISH THE LIMITS OF CONSTRUCTION ACCORDING TO THE CONTRACT. ALL EFFORTS SHALL BE MADE TO MINIMIZE EARTH DISTURBANCE.

1.4.3 SITE ENTRANCE/EXIT STABILIZATION

TRACKING OF SEDIMENT ONTO PUBLIC HIGHWAYS SHALL BE MINIMIZED TO REDUCE THE POTENTIAL FOR RUNOFF ENTERING RECEIVING WATERS. INSTALLATION SHALL COINCIDE WITH THE CONTRACTOR'S PROGRESS SCHEDULE.

STABILIZED CONSTRUCTION ENTRANCES SHALL BE INSTALLED AS ACCEPTED IN THE EPSC PLAN AND ANYWHERE EQUIPMENT WILL BE GOING FROM AREAS OF EXPOSED SOILS TO PAVED SURFACES.

1.4.4 INSTALL SEDIMENT BARRIERS

SEDIMENT BARRIERS SHALL BE UTILIZED TO INTERCEPT RUNOFF AND ALLOW SUSPENDED SEDIMENT TO SETTLE OUT. THEY SHALL BE INSTALLED PRIOR TO ANY UP-SLOPE WORK.

SILT FENCE WILL BE INSTALLED ACCORDING TO THE ACCEPTED EPSC PLAN OR AS NECESSARY.

1.4.5 DIVERT UPLAND RUNOFF

DIVERSIONARY MEASURES SHALL BE USED TO INTERCEPT RUNOFF FROM ABOVE THE CONSTRUCTION AND DIRECT IT AROUND THE DISTURBED AREA SO THAT CLEAN WATER DOES NOT BECOME MUDDIED WHILE TRAVELING OVER EXPOSED SOILS ON THE CONSTRUCTION SITE.

UPLAND RUNOFF SHALL BE DIVERTED AROUND THE PROJECT AS APPROPRIATE.

1.4.6 SLOW DOWN CHANNELIZED RUNOFF

CHECK STRUCTURES SHALL BE UTILIZED TO REDUCE THE VELOCITY, AND THUS THE EROSION POTENTIAL, OF CONCENTRATED FLOW IN CHANNELS.

STONE CHECK DAMS WILL BE INSTALLED AS ACCEPTED IN THE EPSC PLAN.

1.4.7 CONSTRUCT PERMANENT CONTROLS

PERMANENT STORMWATER TREATMENT DEVICES SHALL BE INSTALLED AS ACCEPTED IN THE EPSC PLAN AND IN ACCORDANCE WITH PERMIT CONDITIONS.

1.4.8 STABILIZE EXPOSED SOILS DURING CONSTRUCTION

ALL AREAS OF DISTURBANCE MUST HAVE TEMPORARY STABILIZATION IN PLACE WITHIN 48 HOURS OF DISTURBANCE OR IN ACCORDANCE WITH THE CONSTRUCTION GENERAL PERMIT 3-902.0 AUTHORIZATION.

SURFACE ROUGHENING OF ALL EXPOSED SLOPES, COMBINED WITH TEMPORARY MULCHING, SHALL BE UTILIZED ON A REGULAR BASIS. BIODEGRADABLE EROSION CONTROL MATTING OR AN EQUIVALENT SHALL BE USED TO STABILIZE ALL SLOPES STEEPER THAN 1:3.

THE FORECAST OF RAINFALL EVENTS SHALL TRIGGER IMMEDIATE PROTECTION OF EXPOSED SOILS.

1.4.9 WINTER STABILIZATION

VARIOUS MEASURES SPECIFIC TO WINTER MAY BE NECESSARY SHOULD THE PROJECT EXTEND INTO WINTER (OCTOBER 15 THROUGH APRIL 15). REFER TO THE LOW RISK SITE HANDBOOK FOR GUIDANCE.

WINTER WORK IS NOT ANTICIPATED.

1.4.10 STABILIZE SOIL AT FINAL GRADE

EXPOSED SOIL MUST BE STABILIZED WITHIN 48 HOURS OF REACHING FINAL GRADE.

SEED, MULCH, FERTILIZER AND LIME SHALL BE USED TO ESTABLISH PERMANENT VEGETATION. FOR SLOPES STEEPER THAN 1:3, BIODEGRADABLE EROSION CONTROL MATTING OR AN EQUIVALENT SHALL BE USED INSTEAD OF MULCH.

1.4.11 DEWATERING ACTIVITIES

DISCHARGE FROM DEWATERING ACTIVITIES THAT FLOWS OFF OF THE CONSTRUCTION SITE MUST NOT CAUSE OR CONTRIBUTE TO A VIOLATION OF THE VERMONT WATER QUALITY STANDARDS.

ANY NECESSARY DEWATERING SHALL BE PERFORMED AS INDICATED IN THE ACCEPTED EPSC PLAN.

1.4.12 INSPECT YOUR SITE

INSPECT THE PROJECT SITE BASED ON REGULATORY PROVISIONS, REQUIREMENTS OR CONSTRUCTION GENERAL PERMIT AUTHORIZATION STIPULATIONS.

1.5 SEQUENCE AND STAGING

THIS SECTION WILL BE DEVELOPED BY THE CONTRACTOR USING THE GUIDANCE OUTLINED IN THE VTRANS EPSC PLAN CONTRACTOR CHECKLIST.

1.5.1 CONSTRUCTION SEQUENCE

1.5.2 OFF-SITE ACTIVITIES

IN ADDITION TO THE CONTRACTOR CHECKLIST ANY ACTIVITIES OUTSIDE THE CONSTRUCTION LIMITS SHALL FOLLOW SPECIFICATION 105.25-105.29 OF THE STANDARD SPECIFICATIONS FOR CONSTRUCTION.

1.5.3 UPDATES

PROJECT NAME:	WARDSBORO
PROJECT NUMBER:	BHF 014(5)
FILE NAME:	05J006/Str/epsnarrative.dgn
PROJECT LEADER:	C.P.WILLIAMS
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PLOT DATE:	17-NOV-2009
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SHEET	26 OF 33