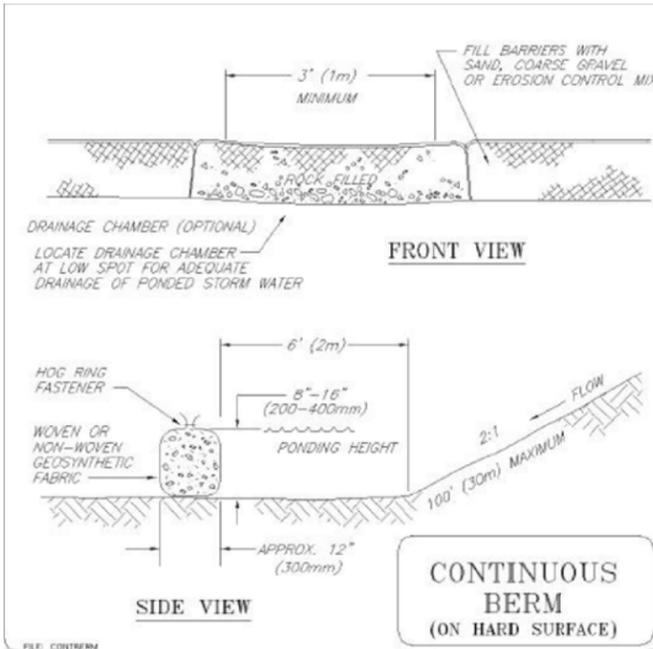


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CONTINUOUS CONTAINED BERMS:

BERMS SHALL BE FILLED WITH EROSION CONTROL MIX CONSISTING OF A WELL-GRADED MIXTURE OF PARTICLE SIZES AND MAY CONTAIN ROCKS LESS THAN 4" IN DIAMETER. EROSION CONTROL MIX MUST BE FREE OF REFUSE, PHYSICAL CONTAMINANTS, AND MATERIAL TOXIC TO PLANT GROWTH. THE MIX COMPOSITION SHALL MEET THE FOLLOWING STANDARDS:

THE ORGANIC MATTER CONTENT SHALL BE BETWEEN 80 AND 100%, DRY WEIGHT BASIS. PARTICLE SIZE BY WEIGHT SHALL BE 100% PASSING A 6" SCREEN AND A MINIMUM OF 70%, MAXIMUM OF 85%, PASSING A 0.75" SCREEN.

THE ORGANIC PORTION NEEDS TO BE FIBROUS AND ELONGATED. LARGE PORTIONS OF SILTS, CLAYS OR FINE SANDS ARE NOT ACCEPTABLE IN THE MIX. SOLUBLE SALTS CONTENT SHALL BE < 4.0 MMHOS/CM. THE PH SHOULD FALL BETWEEN 5.0 AND 8.0.

BERMS SHALL BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL. THEY SHALL BE REPAIRED IMMEDIATELY IF THERE ARE ANY SIGNS OF EROSION OR SEDIMENTATION BELOW THEM. IF THERE ARE SIGNS OF UNDERCUTTING AT THE CENTER OR THE EDGES OF THE BARRIER, OR IMPONDING OF LARGE VOLUMES OF WATER BEHIND THEM, THEY SHALL BE REPLACED WITH A TEMPORARY CHECK DAM.

FABRIC SHALL BE REPLACED PROMPTLY SHOULD IT DECOMPOSE OR BECOME INEFFECTIVE PRIOR TO THE EXPECTED USABLE LIFE. BERMS SHOULD BE RESHAPED AS NEEDED.

SEDIMENT DEPOSITS SHOULD BE REMOVED AFTER EACH STORM EVENT. THEY MUST BE REMOVED WHEN DEPOSITS REACH ONE-HALF THE HEIGHT OF THE BARRIER.

ANY SEDIMENT DEPOSITS REMAINING AFTER THE BERM IS NO LONGER REQUIRED SHOULD BE DRESSED TO CONFORM TO THE EXISTING GRADE, PREPARED AND SEEDED.

STONE CHECK DAM:

CHECK DAMS ARE INTENDED FOR USE IN AREAS OF CONCENTRATED FLOW, BUT MUST NOT BE USED IN STREAM CHANNELS (WHETHER PERENNIAL OR INTERMITTENT). THE CHECK DAM MAY BE LEFT IN PLACE PERMANENTLY TO AVOID UNNECESSARY DISTURBANCE OF THE SOIL ON REMOVAL, BUT ONLY IF THE PROJECT DESIGN HAS ACCOUNTED FOR THEIR HYDRAULIC PERFORMANCE AND CONSTRUCTION PLANS CALL FOR THEM TO BE RETAINED.

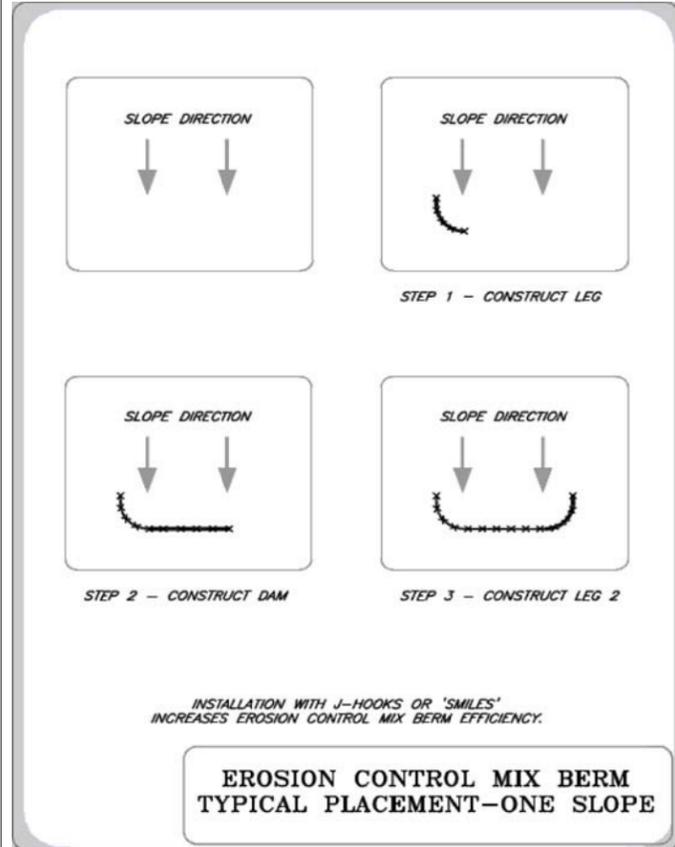
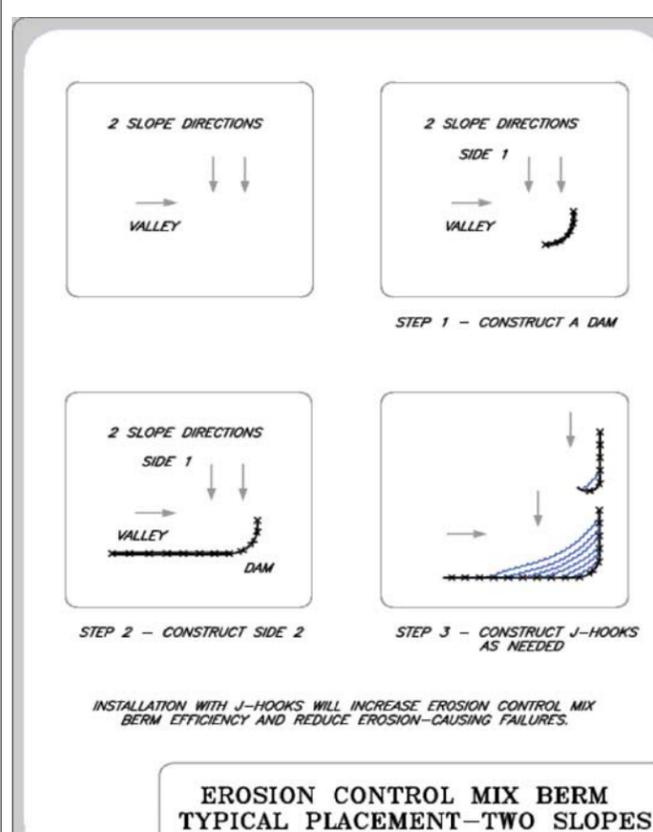
CHECK DAMS SHOULD BE INSPECTED AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL. NECESSARY REPAIRS SHOULD BE MADE IMMEDIATELY.

INSPECTIONS SHOULD VERIFY THAT THE CENTER OF THE DAM IS LOWER THAN THE EDGES. EROSION CAUSED BY HIGH FLOWS AROUND THE EDGES OF THE DAM MUST BE CORRECTED IMMEDIATELY. IF EVIDENCE OF SILTATION IN THE WATER IS APPARENT DOWNSTREAM FROM THE CHECK DAM, THE CHECK DAM SHOULD BE INSPECTED AND ADJUSTED IMMEDIATELY.

CHECK DAMS SHOULD BE CHECKED FOR SEDIMENT ACCUMULATION AFTER EACH SIGNIFICANT RAINFALL. SEDIMENT SHOULD BE REMOVED WHEN IT REACHES 1/2 OF THE ORIGINAL HEIGHT OR BEFORE.

THE MAXIMUM CONTRIBUTING DRAINAGE AREA OF THE DAM SHOULD BE LESS THAN ONE ACRE. THE MAXIMUM HEIGHT OF THE DAM SHOULD BE 2 FEET, AND THE CENTER OF THE DAM SHOULD BE AT LEAST 6 INCHES LOWER THAN THE OUTER EDGES.

THE MAXIMUM SPACING BETWEEN THE DAMS SHOULD BE SUCH THAT THE TOE OF THE UPSTREAM DAM IS AT THE SAME ELEVATION AS THE OVERFLOW ELEVATION OF THE DOWNSTREAM DAM. STONE CHECK DAMS SHOULD BE CONSTRUCTED OF A WELL-GRADED ANGULAR STONE RANGING FROM 2-3 INCHES IN SIZE. 3/4 INCH STONE ON THE UP-GRADIENT FACE IS RECOMMENDED FOR BETTER FILTERING.



EROSION CONTROL MIX BERM:

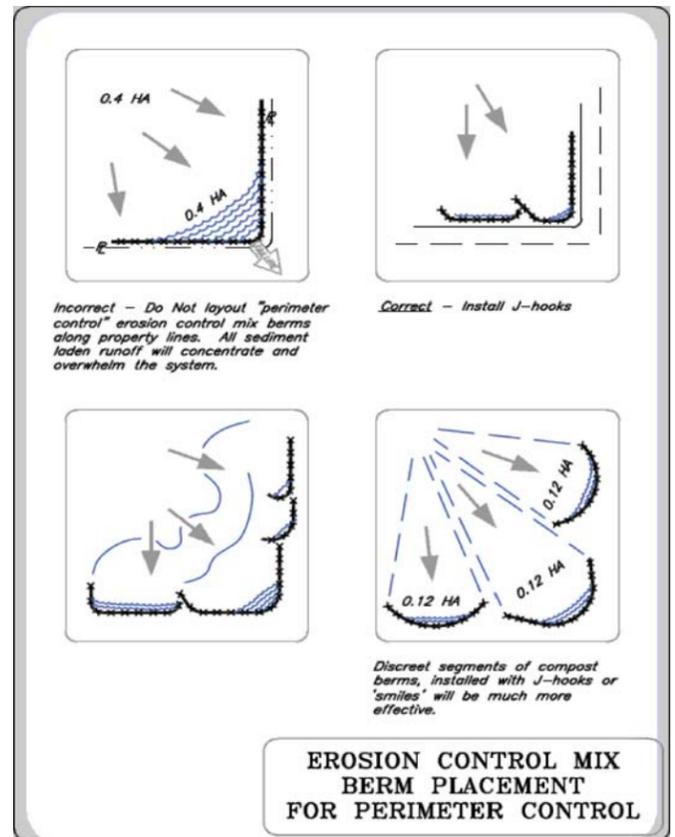
TEMPORARY MULCHING WITH EROSION CONTROL MIX (ECM) CAN BE VERY EFFECTIVE AS A BMP. THE NAVY HIGHLY ENCOURAGES ITS USE IN BERMS AND TO PROTECT EXPOSED SOILS. ECM SHALL MEET THE REQUIREMENTS OF THE STATE OF MAINE, INCLUDING, BUT NOT LIMITED TO, THE FOLLOWING:

ECM SHALL BE COMPOSED OF 80-100% ORGANIC MATTER, FIBROUS AND ELONGATED, WITH THE REMAINING PERCENTAGE OF CONTENT BEING A WELL-GRADED MIXTURE HAVING NO ROCKS EXCEEDING 4 INCHES IN DIAMETER. THE ENTIRETY OF THE MIX MATERIAL SHALL PASS A 6" SCREEN AND 70-85% SHALL PASS A 0.75" SCREEN. THE MIX MATERIAL SHALL NOT CONTAIN ANY SILTS, CLAYS, OR FINE SANDS.

ECM SHALL NOT CONTAIN WOOD OR BARK CHIPS, GROUND CONSTRUCTION DEBRIS OR REPROCESSED WOOD PRODUCTS. SHREDDED BARK, STUMP GRINDINGS, AND COMPOSTED BARK CAN BE USED AS ORGANIC CONTENT. A BARRIER OR BERM CONTAINING ECM SHALL BE CONSTRUCTED ON A LEVEL CONTOUR AND SHALL HAVE MINIMUM HEIGHT OF 12 INCHES.

ON SLOPES LESS THAN 5% OR AT THE BOTTOM OF STEEPER SLOPES (<2:1) UP TO 20 FEET LONG, THE BARRIER MUST BE A MINIMUM OF 12 INCHES HIGH, AS MEASURED ON THE UPHILL SIDE OF THE BARRIER, AND A MINIMUM OF 24 INCHES WIDE. ON LONGER OR STEEPER SLOPES, THE BARRIER SHOULD BE WIDER TO ACCOMMODATE THE ADDITIONAL RUNOFF.

OTHER BMP'S SHOULD BE USED AT LOW POINTS OF CONCENTRATED RUNOFF, BELOW CULVERT OUTLET APRONS, AROUND CATCH BASINS AND CLOSED STORM SYSTEMS, AND AT THE BOTTOM OF STEEP PERIMETER SLOPES THAT ARE MORE THAN 50 FEET FROM TOP TO BOTTOM.



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FIRE PROTECTION				
NAVAL FACILITIES ENGINEERING COMMAND	NAVAL SHIPYARD - PORTSMOUTH, NH			
DEPARTMENT OF THE NAVY	NAVAL FACILITIES ENGINEERING COMMAND - MID-ATLANTIC			
	PUBLIC WORKS DEPARTMENT - MAINE			
	PORTSMOUTH NAVAL SHIPYARD			
	KITTERY, ME			
EROSION & SEDIMENT CONTROL				
DETAIL SHEET - 3				
MAXIMO No.:				
EPROJECT NO.:				
CONSTR. CONTR. NO.:				
NAVFAC DRAWING NO.:				
SHEET 3 OF 3				
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DRAWFORM REVISION: 10 MARCH 2009				