Chapter 305: NATURAL RESOURCES PROTECTION ACT

PERMIT BY RULE

Section 8:

Shoreline Stabilization

NOTE: *This Section-by Section version of Permit By Rule is re-formatted to increase usability and includes additional guidance, annotations, and addendum. The entire rule, as published, is available below.*

Link to Permit By Rule Section 1 (Introductions & Compliance Info)

Official Chapter 305 Rule (all sections):
https://www.maine.gov/sos/rulemaking/agency-rules/department-environmental-protection-rules

AMENDED:
May 25, 2005 – filing 2005-174 December 5, 2006 – filing 2006-496
February 25, 2008 – Section 20 only, filing 2008-88
July 15, 2009 – filing 2009-339
July 30, 2011 – Section 16 only, filing 2011-211 (Final adoption, major substantive)
June 8, 2012 – filing 2012-146 (Final adoption, major substantive)
December 27, 2022 – Section 16-A only, filing 2022-256
December 9, 2023 - Section 16 only, filing 2023-231 (Final adoption, major substantive)
June 17, 2025 – filing 2025-129

A. APPLICABILITY

1 General Applicability for all Projects

(a) This section applies to a shoreline stabilization activity along the shoreline of a coastal wetland, great pond, freshwater wetland with over 20,000 square feet of open water, stream, or brook that uses one or a combination of the following techniques:
  (i) Establishment of native vegetation, which may include the use of biodegradable stabilization materials;
  (ii) Toe protection, which may include the use of biodegradable stabilization materials or riprap; and
  (iii) Riprap stabilization.

(b) This section applies to a shoreline stabilization activity along the shoreline of a river as defined by the Mandatory Shoreland Zoning Act, 38 M.R.S. Section 436-A(11), that uses one or a combination of the following techniques:
  (i) Establishment of native vegetation, which may include the use of biodegradable stabilization materials;
  (ii) Toe protection using biodegradable stabilization materials.

(c) This section applies only to areas where soils are exposed due to erosion from wave action, currents, ice scouring or changes in water levels.

(d) This section does not apply to an activity that will not conform to the local shoreland zoning ordinance.

(e) This section does not apply to an activity that causes the total square footage of fill on the entire lot from shoreline stabilization to exceed:
  (i) 200 square feet below the normal high waterline for freshwater wetlands, great ponds, rivers, streams or brooks; or
  (ii) 400 square feet below the highest astronomical tide line for coastal wetlands.
  Under this section, fill may only be placed below the normal high-water line or highest astronomical tide line for toe protection in accordance with subsection C(3).

(f) This section does not apply to an activity that covers or destroys saltmarsh or eelgrass vegetation.

(g) This section does not apply to an activity in or seaward of a coastal sand dune system (see Section 16-A: Non-development activities in coastal sand dunes).

(h) This section does not apply to an activity in an essential or significant wildlife habitat, except that this section applies to an activity in Tidal Waterfowl and Wading Bird Habitat as long as the activity is not in a saltmarsh or mudflat.

NOTE: *Significant wildlife habitat is defined in the Department's Chapter 335 Significant Wildlife Habitat rule. Essential Habitat is defined in the Department of Inland Fisheries and Wildlife's Chapter 8 Endangered Species rule.*

A. APPLICABILITY (CONT.)

2 **Applicability for Activities that Use Riprap**

(a) This section does not apply to an activity using riprap that causes the total linear feet of shoreline stabilized by riprap, seawalls, retaining walls or other similar structures on the lot to exceed:
  (i) 100 linear feet for freshwater wetlands, great ponds, streams or brooks; or
  (ii) 125 linear feet for coastal wetlands.

(b) This section does not apply to an activity using riprap along the shoreline of a coastal wetland except in the following circumstances:
  (i) To protect a legally existing water-dependent structure such as a pier, wharf, dock, boat ramp, stormwater outfall, perimeter drain outfall or stairway to the water;
  (ii) To protect a subsurface wastewater disposal system that is located 25 feet or less from the upland edge of an eroding bank;
  (iii) To protect a residential dwelling, commercial or public building or facility, or road (not including a driveway) that legally existed on the parcel prior to January 1, 2026, or that is part of the permitted redevelopment of impervious area that existed on the parcel prior to January 1, 2026, and that is located 100 feet or less from the upland edge of an eroding bank if the bank:
    a. Is classified as an unstable or highly unstable bluff by the Maine Geological Survey, or
    b. Has eroded at least five feet landward in a single year or has been eroding at least one foot landward per year, on average, over multiple years, or
    c. Is determined to be unstable or highly unstable based on a site-specific evaluation by the Maine Geological Survey; or
  (iv) To protect a publicly owned open space such as a municipal park if the bank:
    a. Is classified as an unstable or highly unstable bluff by the Maine Geological Survey, or
    b. Has eroded at least five feet landward in a single year or has been eroding at least one foot landward per year, on average, over multiple years, or
    c. Is determined to be unstable or highly unstable based on a site-specific evaluation by the Maine Geological Survey.

(c) This section does not apply to an activity using riprap within 25 feet of a coastal sand dune system.

(d) This section does not apply to an activity using riprap in or seaward of a coastal barrier resources system unit.

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A. APPLICABILITY (CONT.)

NOTES:

(1) Coastal sand dune systems are defined in the Department's Chapter 355 Coastal Sand Dune Rules. The Maine Geological Survey publishes maps to aid in the identification of coastal sand dune systems. Maps can be found here: https://www.maine.gov/dacf/mgs/pubs/digital/dunes.htm

(2) Coastal barrier resources system units are listed in 38 M.R.S. §1904 and are mapped by the U.S. Fish and Wildlife Service. Maps can be found: https://www.fws.gov/program/coastal-barrier-resources-act/maps-and-data

(3) Coastal bluff maps can be found on the Maine Geological Survey website here: https://www.maine.gov/dacf/mgs/pubs/digital/bluffs.htm

(4) Contact the local Code Enforcement Officer for information on local shoreland zoning requirements. The DEP's minimum guidelines for Municipal Shoreland Zoning Ordinances allow for a construction equipment access path no wider than 12 feet if working from the upland. An approved replanting plan is required for any vegetation that is removed.

(5) A permit will generally be required from the US Army Corps of Engineers for the construction of any structure in, over, or under any navigable water of the U.S. (see 33 CFR 328), the excavating or dredging from or depositing of material in such waters, or the accomplishment of any other work affecting the course, location, condition, or capacity of such waters (see 33 CFR 322). Additionally, a permit will generally be required from the US Army Corps of Engineers for the discharge of dredged or fill material and certain discharges associated with excavation into waters of the U.S. including wetlands (see 33 CFR 323). In general, any project that includes fill or structures below the ordinary high-water line of fresh waters or below the spring high tide line of tidal waters will usually require a permit from the US Army Corps of Engineers. A copy of the PBR notification form and original photographs, not photocopies, should be submitted to the Corps for these activities (US Army Corps of Engineers, 442 Civic Center Drive, Suite 350, Augusta, ME 04330. Tel. (207) 623-8367).

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B. SUBMISSIONS

Submissions for all sections:

PBR Notification Form

Location Map

Submissions for Section 8:

1 The applicant is required to submit a minimum of one photograph in an orientation parallel to the shoreline and one photograph in an orientation perpendicular to the shoreline from the resource landward along each 25-foot section of shoreline where the activity is proposed. The photographs must clearly document erosion of the shoreline caused by wave action, currents, ice scouring or changes in water levels. The photographs should include a person or some other object for scale. Photographs along a coastal shoreline must be taken at or near low tide.

B. SUBMISSIONS (CONT.)

2 The applicant must submit a written description of the cause of the erosion.

3 For an activity using riprap along the shoreline of a coastal wetland, the applicant must provide photographs or site plans showing the structure(s) or publicly owned open space that the riprap is designed to protect in accordance with subsection (A)(2)(b) above. As applicable, the applicant must also provide a measurement from the structure to the upland edge of the eroding bank (see subsections (A)(2)(b)(ii)&(iii)) and either a Maine Geological Survey map or site-specific evaluation by the Maine Geological Survey showing the bluff as unstable or highly unstable or dated photographs, satellite imagery, or aerial imagery demonstrating that the area where the project is proposed has eroded at least five feet landward in a single year or is eroding at least one feet landward per year, on average, over multiple years (subsections(A)(2)(b)(iii and iv)).

4 The applicant must submit photographs of all pre-existing riprap on the lot and photographs or descriptions of all pre-existing fill from stabilization activities below the normal high-water line or highest astronomical tide line on the lot. The applicant must state how many linear feet of shoreline on the lot have been stabilized using riprap and how many square feet of fill from stabilization exists below the normal high-water line or the highest astronomical tide line on the lot.

5 The applicant must submit a scaled drawing and at least two cross-sections of the proposed activity. The drawing must clearly depict the property boundaries, the normal high water line or highest astronomical tide line, and the extent of any soil disturbance, grading, vegetated areas, biodegradable stabilization materials, and/or riprap proposed to be installed, such as the length along the shoreline, square footage of fill below the normal high water line or highest astronomical tide line, and height above and below the normal high water line or highest astronomical tide line. The drawing must be legible and drawn to a scale that provides a clear representation of distances and measurements on the plan.

6 The applicant must submit a plan for how machinery will access the project site. If work will be done below the normal high-water line or highest astronomical tide line, the plan must describe how machinery will access these areas.

7 If required pursuant to subsection C(4)(b) of this section, the applicant must submit approval from a Maine Registered Professional Engineer, the United States Natural Resources Conservation Service, or the local Soil and Water Conservation District for the design of a riprap stabilization activity along the shoreline of a stream or brook.

8 If required pursuant to subsection C(4)(c) of this section, the applicant must submit approval from, and evidence of the credentials of, a design professional for the design of a riprap stabilization activity along the shoreline of a coastal wetland.

9 Photographs showing the finished activity must be submitted within 20 days of the activity's completion. The photographs must be sent with a copy of the notification form or labeled with the applicant's name and the municipality in which the activity took place.

C. STANDARDS

1 Standards for All Shoreline Stabilization Activities

(a) The activity must conform to the local shoreland zoning ordinance.

(b) The activity may not result in more than:

(i) 200 square feet of fill below the normal high-water line for freshwater wetlands, great ponds, rivers, streams or brooks from all shoreline stabilization activities on the lot; or

(ii) 400 square feet below the highest astronomical tide line from coastal wetlands for all shoreline stabilization activities on the lot.

This includes any fill placed during the activity and any pre-existing fill from shoreline stabilization activities on the lot.

(c) No trees larger than 4 inches diameter at breast height may be removed, except as necessary for regrading in accordance with subsection C(4)(e) or for equipment access to the water. Hazard trees may also be removed.

(d) Disturbance of otherwise vegetated portions of the shoreline and bank must be avoided to the greatest extent possible, except for removal of invasive species. If non-invasive vegetation must be disturbed during the activity, similar types and amounts of native vegetation must be re-established in accordance with the revegetation standards in the Department's Chapter 1000 Guidelines for Municipal Shoreland Zoning Ordinances immediately upon completion of the activity and must be maintained to ensure survival.

(e) A yard or other developed area may not be extended closer to the water as part of a shoreline stabilization activity.

(f) The elevation of a parcel may not be increased as part of a shoreline stabilization activity.

(g) The following measures must be taken to prevent erosion of soil or fill material from disturbed areas into the resource during construction:

(i) For any soil disturbance that is limited to the upland and does not extend into the protected natural resource, sediment controls such as trenched and anchored silt fence, an erosion control mix berm at least 1 foot tall, staked straw bales, anchored erosion control socks at least 12 inches in diameter, or a combination of these methods must be properly installed between the area of soil disturbance and the resource before the activity begins and maintained until the disturbed area is permanently stabilized;

(ii) Any soil disturbance within a freshwater wetland, great pond, river, stream, or brook must be done during periods of low water to minimize impacts (in-stream work window, lake draw-down, etc.) and must be temporarily or permanently stabilized daily. The placement of sediment barriers within the water would be ineffective and could cause unnecessary damage to the resource;

(iii) Any soil disturbance within a coastal wetland must be done at or near low tide and must be temporarily or permanently stabilized before being submerged. The placement of sediment barriers within the tidal zone would be ineffective and could cause unnecessary damage to the resource;

(iv) Surface flows from above the disturbed area must be diverted around the disturbed area until final stabilization and any diverted runoff must be managed to prevent erosion; examples of diversions include but are not limited to erosion control mix berms or socks, sandbags, and shallow excavated trenches;

C. STANDARDS (CONT.)

(v) Within 1 calendar day following the completion of any soil disturbance, and prior to any storm event, temporary or permanent stabilization must be implemented or spread on any exposed soils;

(vi) All disturbed soils must be permanently stabilized; and

(vii) Within 30 days of final stabilization of the site, any silt fence, straw bales, or temporary erosion or sediment controls containing plastic or other non-biodegradable materials must be removed and erosion control mulch berms must be raked to a depth of no more than 6 inches.

NOTE: *For guidance on erosion and sedimentation controls, consult the Maine Erosion and Sediment Control BMPs, dated March 2014. This handbook and other references are available from the DEP or at: www.maine.gov/dep/land/erosion/escbmps/esc_bmp_field.pdf.*

(h) If work is performed in a river, stream or brook that is less than three feet deep at the time of the activity and at the location of the activity, the applicant must provide for temporary diversion of flow to the opposite side of the channel while work is in progress and the following conditions must be met:

(i) Diversion may be accomplished by placing sandbags, timbers, sheet steel, concrete blocks, 6+ mil polyethylene or geotextiles from the bank to midstream on the upstream side of the activity. No more than two-thirds (2/3) or 25 feet of stream width, whichever is less, may be diverted at one time.

(ii) Any material used to divert water flow must be completely removed upon completion of the activity, and the stream substrate must be restored to its original condition.

(iii) A pump may be operated, where necessary, for a temporary diversion. The pump outlet must be located and operated such that erosion or the discharge of sediment to the water is prevented.

(i) Wheeled or tracked equipment may not operate in the water. Equipment operating on the shore may reach into the water with a bucket or similar extension. Equipment may cross streams or brooks on rock, gravel, or ledge bottom.

(j) Work below the high-water line of a great pond, river, stream, or brook or the highest astronomical tide line of a coastal wetland must be done at low water or low tide except as required for emergency flood control work.

(k) All excavated material must be stockpiled either outside the protected natural resource or on mats or platforms while work is taking place. Appropriate sediment controls such as trenched and anchored silt fence, an erosion control mix berm at least 1 foot tall, staked straw bales, anchored erosion control socks at least 12 inches in diameter, or a combination of these methods must be used, where necessary, to prevent sedimentation. All excavated material must be removed to a location more than 75 feet from the protected natural resource, unless otherwise required by this section or otherwise approved by the DEP and properly stabilized with vegetation upon project completion.

C. STANDARDS (CONT.)

(l) Activities must be performed in accordance with the plans and drawings submitted pursuant to subsection B of this section.
(m) Non-native species of vegetation may not be planted.

2 Vegetation Establishment Standards

NOTE: *Information on salt-resistant native species of vegetation useful for stabilizing Maine's coastal bluffs can be found in the Coastal Planting Guide published by the Cumberland County Soil and Water Conservation District and available at: https://www.cumberlandswcd.org/s/171114-Coastal-Planting-Guide-Web-Reduced.pdf*

(a) Non-native species of vegetation may not be planted.
(b) Biodegradable stabilization materials may be used to support the establishment of native vegetation adjacent to any protected natural resource.
(c) Stakes used to secure biodegradable stabilization materials must be made of wood. Anchors or cables used to secure biodegradable stabilization materials may be made of wood, bright steel, or galvanized steel. No stainless steel may be used.
(d) Non-toxic, biodegradable tackifiers may be used for vegetation establishment only with prior written approval from the DEP.
(e) New soil may be added to the bank adjacent to any protected natural resource and soil amendments, such as fertilizer or lime, may be used to increase soil fertility provided:
  (i) No fill is placed below the normal high-water line or highest astronomical tide line;
  (ii) The slope is not steeper than 1 horizontal feet to 1 vertical foot;
  (iii) Water bars or diversions are used to divert stormwater runoff away from the new soil and/or soil amendments;
  (iv) The depth of new soil is less than 2 inches;
  (v) The amendment is worked into the underlying soils; and
  (vi) Disturbed areas are immediately mulched and seeded.
(f) Where slopes are steeper than 2 horizontal feet to 1 vertical foot, the bank may be cut back to a shallower slope for the purposes of establishing vegetation, provided that no trees larger than 4 inches diameter at breast height are removed (except as necessary for equipment access and hazard tree removal in accordance with subsection C(1)(c) above).

3 Toe Protection Standards

(a) Toe protection using biodegradable stabilization materials and/or riprap may be installed where undercutting or toe erosion is occurring and where the eroded slope is steeper than 3 horizontal feet to 1 vertical foot. The activity may not result in more than:
  (i) 100 linear feet of shoreline stabilized by riprap, retaining walls or other similar structures on the lot for freshwater wetlands, great ponds, streams and brooks; or
  (ii) 125 linear feet of shoreline stabilized by riprap, seawalls, retaining walls or other similar structures on the lot for coastal wetlands.

C. STANDARDS (CONT.)

These linear limits include any riprap, placed along the shoreline during the activity and any pre-existing riprap, seawalls, retaining walls or other similar structures along the shoreline on the lot.

(b) For freshwater wetlands, great ponds, rivers, streams and brooks, fill may be placed at or below the normal high-water line but may not extend into the protected natural resource more than 2 feet horizontally from the change of slope at the toe of the bank. No more than 200 square feet of fill may be placed below the normal high-water line from all shoreline stabilization activities on the lot, including fill placed during the activity and any pre-existing fill from shoreline stabilization activities on the lot.

(c) For coastal wetlands, fill may be placed at or below the highest astronomical tide line but may not extend into the protected natural resource more than 3 feet horizontally from the change of slope at the toe of the bank and may not cover any saltmarsh or eelgrass vegetation. No more than 400 square feet of fill may be placed below the highest astronomical tide line from all shoreline stabilization activities on the lot, including fill placed during the activity and any pre-existing fill from shoreline stabilization activities on the lot.

(d) Native vegetation may be planted (live staked) as part of a toe protection activity.

(e) Tree root wads may be driven or anchored into the bank for toe protection provided they do not impede navigation in the waterway.

(f) Stakes used to secure biodegradable stabilization materials must be made of wood. Anchors or cables used to secure biodegradable stabilization materials may be made of wood, bright steel, or galvanized steel. Stainless steel may not be used.

(g) Rocks used for riprap may not be obtained from the shoreline or a protected natural resource, unless the rocks are from a previously failed riprap project.

(h) Riprap should be of similar color as the rocks and boulders in nearby areas.

(i) When sediment is excavated to allow for riprap stabilization adjacent to a coastal wetland, the excavated sediment must be evenly distributed across the riprap. This requirement may be waived if the DEP determines that it is not feasible due to site conditions.

NOTE: *Evenly distributing the sediment on the stabilization structure allows the sediment to naturally transfer to the wetland over time, mimicking the natural transfer of sediment from the terrestrial to the marine environment.*

4 Riprap Stabilization Standards

NOTE: *On many slopes, slumping is caused by wave action or currents undercutting the bank at the toe of the slope. Slumping can also be caused by groundwater saturation. The cost of shoreline stabilization activities can be reduced by installing toe protection in accordance with subsection C(3) above and leaving the upper portion of the bank natural or revegetating the upper portion of the bank in accordance with subsection C(2) above.*

C. STANDARDS (CONT.)

(a) The activity may not result in more than:
   (i) 100 linear feet of shoreline stabilized by riprap, retaining walls or other similar structures on the entire lot for a freshwater wetland, great pond, stream or brook; or
   (ii) 125 linear feet of shoreline stabilized by riprap, seawalls, retaining walls, or other similar structures on the entire lot for a coastal wetland.

   These linear limits include any riprap placed along the shoreline during the activity and any pre-existing riprap, seawalls, retaining walls or other similar structures along the shoreline on the lot.

(b) Design of a riprap stabilization project along the shoreline of a stream or brook must be approved by either a Maine Registered Professional Engineer, the United States Natural Resources Conservation Service, or the local Soil and Water Conservation District. Evidence of this approval or plans stamped by a professional engineer must be submitted along with the Notification Form. With prior written agreement, the DEP may waive this standard for minor riprap activities on small streams.

(c) Design of a riprap stabilization project along the shoreline of a coastal wetland must be approved by a design professional such as a Maine Registered Professional Engineer or a contractor or consultant with demonstrated experience designing coastal shoreline stabilization projects. Evidence of the design professional's approval and credentials must be submitted with the Notification Form. With prior written agreement, the DEP may waive this standard for riprap stabilization activities in an area that is not mapped by the Federal Emergency Management Agency (FEMA) as a high-velocity flood zone.

(d) Riprap may be utilized only where eroded slopes are steeper than 3 horizontal feet to 1 vertical foot (approximately 33% slope).

(e) The slope of the riprap may not be steeper than 1.5 horizontal feet to 1 vertical foot, nor shallower than 3 horizontal feet to 1 vertical foot. The bank may be regraded to meet this standard. With prior written agreement, the DEP may allow the slope to be as steep as 1 horizontal foot to 1 vertical foot if site-specific circumstances do not allow for a shallower slope.

(f) Riprap installed on the shoreline of a great pond or open water wetland may not extend higher than 2 feet above the normal high-water line. Riprap installed on a stream or brook may not extend higher than either the base flood elevation mapped by the Federal Emergency Management Agency (FEMA), or 2 feet above the normal high-water line, whichever is higher. Riprap installed on the shoreline of a coastal wetland may not extend higher than one foot above the base flood elevation mapped by FEMA.

NOTE: *FEMA flood map information may be found at the FEMA website or your municipal office: https://www.fema.gov/flood-maps*

(g) Riprap must be tapered downward as it approaches an abutting property line and may not be placed within 5 feet of an abutting property line, unless the applicant owns the abutting property, the abutting property contains riprap (or another structural stabilization measure) up to the property line, or the abutting property owner agrees in writing that the riprap may be extended closer to the property line.

C. STANDARDS (CONT.)

(h) Rocks used for riprap may not be obtained from the shoreline or a protected natural resource, unless the rocks are from a previously failed riprap project.

(i) Riprap should be of similar color as the rocks and boulders in nearby areas.

(j) Riprap must be anchored at the base of the existing bank by placing the bottom row of rock in a trench excavated at least to a depth equal to half the height of the largest rock, or the riprap must be pinned to underlying ledge.

(k) A layer of filter fabric and/or at least 6 inches of well-graded gravel with less than 5 percent fines, or a layer of dormant living brush bundles (a brush mattress), must be placed under the riprap to enhance the stability of the project by preventing the erosion of soil under the riprap.

(l) A vegetative buffer at least 10 feet wide as measured perpendicular to the shoreline and consisting of both native woody and herbaceous vegetation must be established and maintained along the upland edge of the riprap stabilization project. The buffer must include trees if the project is along the shoreline of a river, stream or brook. If the buffer is planted over a subsurface wastewater disposal system, the buffer may be comprised entirely of herbaceous vegetation. The width of the buffer may be reduced if the DEP determines that a 10-foot buffer is not feasible due to the proximity of a structure to the upland edge of the eroding shoreline. If a buffer consisting of native woody vegetation or a diverse mix of native woody and herbaceous vegetation at least 5 feet wide already exists along the upland edge of the stabilization project, no additional buffer width is required. However, the buffer must be at least 25 feet wide if the project is conducted for the protection of agricultural land.

(m) Where feasible, native vegetation must be planted within gaps on the riprap stabilization project. Up to 2 inches of soil may be added to support plantings within riprap, in accordance with the standards in subsection C(2)(e) above.

NOTE: *Information on salt-resistant native species of vegetation useful for stabilizing Maine's coastal bluffs can be found in the Coastal Planting Guide published by the Cumberland County Soil and Water Conservation District and available at: https://www.cumberlandswcd.org/s/171114-Coastal-Planting-Guide-Web-Reduced.pdf*

(n) When sediment is excavated to allow for riprap stabilization adjacent to a coastal wetland, the excavated sediment must be evenly distributed across the riprap. This requirement may be waived if the DEP determines that it is not feasible due to site conditions.

NOTE: *Evenly distributing the sediment on the stabilization structure allows the sediment to naturally transfer to the wetland over time, mimicking the natural transfer of sediment from the terrestrial to the marine environment.*

D. DEFINITIONS

The following terms, as used in this section, have the following meanings, unless the context indicates otherwise:

1 **Biodegradable stabilization materials.** Natural, plant-based biodegradable or compostable fabrics, erosion control blankets, and logs or rolls made from coir, jute, straw, or other similar materials, including materials that contain or use gravel or cobble; discarded holiday trees and native trees, native brush, or native biodegradable materials; tree root wads; and wooden stakes. Metal anchors or cables may be used to secure those materials. Anchors may also include cobbles or small boulders that are not obtained from the shoreline or below the normal high-water line or highest astronomical tide line.

2 **Fill.** a. (verb) To put into or upon, supply to, or allow to enter a water body or wetland any earth, rock, gravel, sand, silt, clay, peat, or debris; b. (noun) Material, other than structures, placed in or adjacent to a water body or wetland. For the purposes of this section, fill includes biodegradable stabilization materials until such materials have entirely biodegraded.

3 **Hazard tree**. A tree with a structural defect, combination of defects, or disease resulting in a structural defect that under the normal range of environmental conditions at the site exhibits a high probability of failure and loss of a major structural component of the tree in a manner that will strike a target. A normal range of environmental conditions does not include meteorological anomalies, such as, but not limited to: hurricanes; hurricane-force winds; tornados; microbursts; or significant ice storm events. Hazard trees also include those trees that pose a serious and imminent risk to bank stability. A target is the area where personal injury or property damage could occur if the tree or a portion of the tree fails. Targets include roads, driveways, parking areas, structures, campsites, and any other developed area where people frequently gather and linger.

4 **Mudflat.** A low-energy intertidal environment with sediments composed of fine clays, silt, sand and organic matter. Anoxic conditions are usually present below the surface. Mudflats are organically rich regions that support large populations of shellfish, baitworms and small invertebrates, and provide important feeding grounds for migrating and resident shorebirds.

5 **Riprap.** Heavy, irregularly shaped rocks that are fit into place, without mortar, on a slope. Square or rectangular rocks with flat faces, such as quarry stone or manufactured blocks, do not qualify as “irregularly shaped.” Rounded rocks are not considered riprap.

6 **Riprap stabilization.** A shoreline stabilization technique that uses riprap to stabilize a bank above the toe.

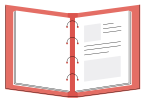
7 **Shoreline stabilization.** An activity designed to prevent erosion of soil or sediment from the terrestrial into the marine or freshwater environment caused by wave action, currents, ice scouring or changes in water levels.

D. DEFINITIONS (CONT.)

8 **Toe protection.** A shoreline stabilization technique in which materials are installed under or against the base of a bank, near the change in slope at the base of the bank, to prevent the undercutting of the bank from waves or currents.

9 **Saltmarsh.** A persistent marine nearshore emergent grass habitat. Saltmarshes can be found between upland and intertidal flats and beaches, along tidal rivers, or behind barrier beaches. Saltmarshes are flooded by salt water on timescales ranging from twice daily to irregularly during spring tides.

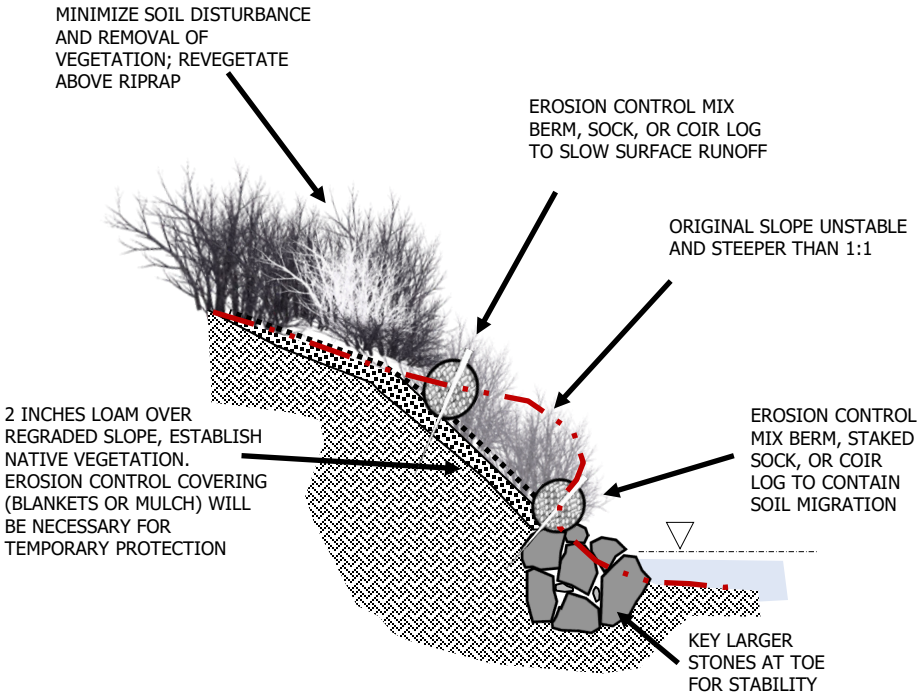
HOW TO SUBMIT YOUR PERMIT BY RULE

 **STEP 1**	DETERMINE APPLICABLE PERMIT-BY-RULE SECTION(S)	Permit-by-Rule regulations (Chapter 305) apply to certain activities that require a permit under the Natural Resources Protection Act (NRPA). Find the appropriate section for the activity you are proposing to see the requirements.
 **STEP 2**	REVIEW CHAPTER 305 PBR SECTION STANDARDS	Find the section for your type of proposed activity in the Chapter 305 standards. Read the applicability section that describes in further detail which activities are included and where they are allowed. Read and comply with all the standards contained in the section.
 **STEP 3**	MAINE ENTERPRISE LICENSING SYSTEM **(MELS)** HUB	Use the MELS Hub, which is the centralized DEP resource designed to apply for your PBR electronically. Payment is also accepted during this process: Maine DEP: MELS Hub https://www.maine.gov/dep/mels/hub.html
 **STEP 4**	WAIT 20 WORKING DAYS AND PROCEED WITH PROJECT FOLLOWING STANDARDS	The PBR becomes effective 20 working days (M-F excluding holidays) from the date the Department receives the completed MELS submission, unless otherwise notified by the Department.

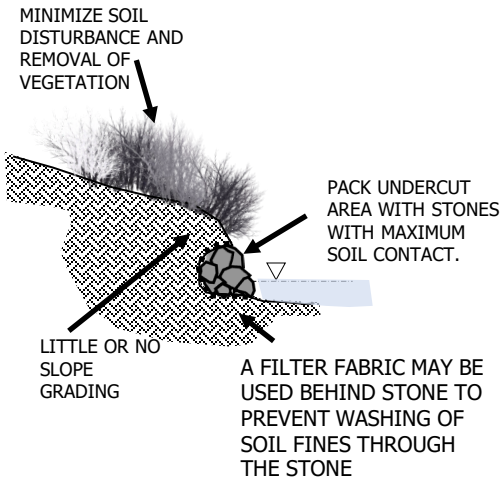
The PBR becomes effective 20 working days from the date the Department receives the MELS submission unless otherwise notified by the Department.

Sample Stabilization Cross Sections for Section 8

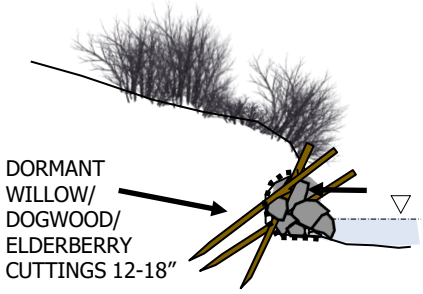
Riprap Toe Protection & Regrading



Riprap Toe Protection



Riprap Toe Protection variation with live stakes



Riprap with Vegetation