



STATE OF MAINE
DEPARTMENT OF AGRICULTURE, CONSERVATION & FORESTRY
LAND USE PLANNING COMMISSION
106 HOGAN ROAD, SUITE 8
BANGOR, MAINE 04401

WALTER E. WHITCOMB
COMMISSIONER

NICHOLAS D. LIVESAY
EXECUTIVE DIRECTOR

PAUL R. LEPAGE
GOVERNOR

PERMIT

ROAD CONSTRUCTION PERMIT RP 3281

The staff of the Maine Land Use Planning Commission (LUPC or Commission), after reviewing the application and supporting documents submitted by Walter J. and Kathleen N. Bowse (the Applicants) for Road Construction Permit RP 3281, finds the following facts:

1. Applicants: Walter J. Bowse
Kathleen N. Bowse
4 Lakeview Drive
Nottingham, New Hampshire 03290
2. Landowner: The Lyme Timber Company LP
GLS Woodlands LLC
Attn: Sean Ross, Director of Forestry Operations
23 South Main Street, 3rd Floor
Hanover, New Hampshire 03755
3. Easement Holder: Department of Agriculture, Conservation and Forestry
Planning, Acquisitions, and Special Services Unit
Bureau of Parks and Lands
22 State House Station
18 Elkins Lane
Augusta, ME 04333
4. Date of Completed Application: September 10, 2015
5. Location of Proposal: T6 ND BPP, Washington County, Maine
Maine Revenue Service Map WA017; Plan 01; Part of Lot 4
Washington County Registry of Deeds: Book 4155; Page 283
6. Zoning: (M-GN) General Management Subdistrict
(P-GP) Great Pond Protection Subdistrict
7. Lot Size: 0.44 [±] Acres (18,996 Square Feet) Residential Camp Lot (Owned)
with a Deeded Access Easement for Ingress and Egress to the Lot
8. Proposed Development: 1,950 linear feet of Residential Driveway (Level C Road Project)

9. The Applicants own a 0.44 acre camp lot on a peninsula abutting West Grand Lake. The lot is developed with two pre-Commission seasonal camps and an outhouse. Currently, the lot has no road frontage or driveway and is accessed by path or boat only. The Applicants have obtained permission from the landowner and conservation easement holder of the surrounding commercial forest lands to construct a residential driveway to the camp on an assigned access easement.
10. The Applicants propose to construct an 8 foot wide by 1,950 foot long gravel, residential driveway off the local land management road within an access easement area. Portions of the driveway would follow an existing primitive skidder trail. The residential driveway would be constructed using standard road construction methods by a qualified contractor. A portion of the driveway, where it enters onto the peninsula, would be set back 58 feet from the normal high water mark of West Grand Lake at the closest. The remainder of the driveway would be set back at least 100 feet from the normal high water mark of West Grand Lake.
11. The residential driveway, turnouts, turnarounds, parking areas, and water bars would be constructed as detailed on the Proposed Site Plan (Exhibit E1), the Cross Sections (Exhibit E2), the Profile and Slopes (Exhibit E3), and all erosion control notes located in the file application and stamped September 10, 2015 by the LUPC, and incorporated herein by reference.
12. On August 17, 2015, the State Soil Scientist completed a site assessment of the proposed driveway location and recommended construction techniques incorporated into the driveway details noted in Exhibits E1 through E3. Further, the scientist determined that the driveway would not cross any waterbodies, rivers, streams, brooks or wetlands.
13. On September 10, 2015, the Lyme Timber Company (the landowner of the access easement area) gave the Applicants approval to improve and utilize the access easement for a residential driveway and appurtenances, subject to applicable laws, regulations and permit conditions.
14. On September 25, 2015, the Maine Bureau of Parks and Lands (the conservation easement holder) determined that the proposed development was not inconsistent with the conservation easement, but noted and cautioned that their approval is only for a driveway within the access easement area, no utilities have been approved by the conservation easement holder.
15. According to Section 10.27,H,1,b of the Commission's *Land Use Districts and Standards* (Standards), if the length of a proposed driveway is greater than 1,000 feet, it is regulated as a road and requires a permit from the Commission unless it qualifies as a land management road.
16. According to definition under Section 10.02 (105) of the Commission's Standards, a Level C Road Project is defined as construction of new roads, and relocations or reconstruction of existing roads, other than that involved in level A or level B road projects; such roads shall include both public and private roadways excluding land management roads.
17. According to Section 10.22,A,3,c,(15) of the Commission's Standards, Level C Road Projects may be allowed within an (M-GN) General Management Subdistrict upon issuance of a permit from the Commission pursuant to 12 M.R.S.A. §685-B, and subject to the applicable requirements set forth in Sub-Chapter III.

18. According to Section 10.23,E,3,c,(13) of the Commission's Standards, Level C Road Projects may be allowed within a (P-GP) Great Pond Protection Subdistrict upon issuance of a permit from the Commission pursuant to 12 M.R.S.A. §685-B, and subject to the applicable requirements set forth in Sub-Chapter III.
19. The facts are otherwise as represented in Road Construction Permit application RP 3281 and supporting documents.

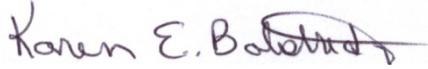
Based upon the above Findings, the staff Concludes that if carried out in compliance with the Conditions below, the proposal will meet the Criteria for Approval, section 685-B(4) of the Commission's Statutes, 12 M.R.S.A and the applicable requirements set forth in Sub-Chapter III of the Commission's *Land Use Districts and Standards*.

Therefore, the staff Approves the application of Walter J. and Kathleen N. Bowse with the following Conditions:

1. The enclosed permit certificate must be posted in a visible location on your property immediately after receipt and during development of the site and construction of the structures and activities approved by this permit.
2. Construction activities authorized in this permit must be substantially started within 2 years of the effective date of this permit and substantially completed within 5 years of the effective date of this permit. If such construction activities are not started and completed within this time limitation, this permit shall lapse and no activities shall then occur unless and until a new permit has been granted by the Commission.
3. The proposed driveway and appurtenances must be located, designed, constructed and maintained as proposed and in conformance with the applicable requirements outline in Section 10.25,D, Section 10.27,D and Section 10.27,H of the Commission's *Land Use Districts and Standards*, revised August 24, 2015, copies attached.
4. The proposed driveway and appurtenances must be located, designed, constructed and maintained so that (a) it will not erode or create any undue restriction or disruption of existing surface water drainage ways and (b) it will divert runoff to a vegetated buffer strip so as to prevent it from directly entering a water body, mapped P-WL1 wetland or roadway.
5. Vegetation stabilization must be completed in compliance with the Guidelines for Vegetative Stabilization, Appendix B of the Commission's *Land Use Districts and Standards*, revised August 24, 2015, a copy of which is attached.
6. Once construction is complete, the permittee shall submit a self-certification form, notifying the Commission that all conditions of approval of this permit have been met. The permittee shall submit all information requested by the Commission demonstrating compliance with the terms of this permit.

This permit is approved upon the proposal as set forth in the application and supporting documents, except as modified in the above stated conditions, and remains valid only if the permittee complies with all of these conditions. Any variation from the application or the conditions of approval is subject to prior Commission review and approval. Any variation undertaken without Commission approval constitutes a violation of Land Use Planning Commission law. In addition, any person aggrieved by this decision of the staff may, within 30 days, request that the Commission review the decision.

DONE AND DATED AT BANGOR, MAINE, THIS 25TH DAY OF SEPTEMBER, 2015.



By: _____
for Nicholas D. Livesay, Executive Director

D. VEHICULAR CIRCULATION, ACCESS AND PARKING

1. **General circulation.** Provision shall be made for vehicular access to and within the project premises in such a manner as to avoid traffic congestion and safeguard against hazards to traffic and pedestrians along existing roadways and within the project area. Development shall be located and designed so that the roadways and intersections in the vicinity of the development will be able to safely and efficiently handle the traffic attributable to the development in its fully operational stage.
2. **Access management.** Access onto any roadway shall comply with all applicable Maine Department of Transportation safety standards. For subdivisions and commercial, industrial and other non-residential development, the following standards also apply:
 - a. The number and width of entrances and exits onto any roadway shall be limited to that necessary for safe entering and exiting.
 - b. Access shall be designed such that vehicles may exit the premises without backing onto any public roadway or shoulder.
 - c. Shared access shall be implemented wherever practicable.
 - d. Access between the roadway and the property shall intersect the roadway at an angle as near to 90 degrees as site conditions allow, but in no case less than 60 degrees, and shall have a curb radius of between 10 feet and 15 feet, with a preferred radius of 10 feet.
 - e. The Commission may require a traffic impact study of roadways and intersections in the vicinity of the proposed project site if the proposed development has the potential of generating significant amounts of traffic or if traffic safety or capacity deficiencies exist in the vicinity of the project site.
3. **Parking layout and design.** The following standards apply to all subdivisions and commercial, industrial and other non-residential development, except for parking areas associated with trailered ramps and hand-carry launches which are regulated under the provisions of Section 10.27,L:
 - a. Sufficient parking shall be provided to meet the parking needs of the development. The minimum number of parking spaces required shall be based on parking generation rates determined in accordance with standard engineering practices. In cases where it is demonstrated that a particular structure can be occupied or use carried out with fewer spaces than required, the Commission may reduce number of required spaces upon finding that the proposed number of spaces will meet the parking needs of the structure or use and will not cause congestion or safety problems.
 - b. Parking areas and access roads shall be designed such that runoff water is discharged to a vegetated buffer as sheet flow or alternatively collected and allowed to discharge to a concentrated flow channel, wetland or water body at a rate similar to pre-construction conditions. If runoff water is discharged to a concentrated flow channel, wetland or water body, a sediment basin shall be constructed to collect sediment before the runoff water is discharged.
 - c. **On-street parking.** In areas where on-street parking already exists, new development shall have on-street parking where practicable and if there are sufficient spaces available in the immediate vicinity. Otherwise, parallel or diagonal on-street parking is permitted where the

Commission finds that it will adequately meet the parking needs of the development and will not cause congestion or safety problems. Perpendicular on-street parking is prohibited.

- d. Off-street parking for commercial, industrial and other non-residential development.
- (1) Where practicable, off-street parking shall be located to the side or rear of the principal structure.
 - (2) Notwithstanding the dimensional requirements of Section 10.26, the Commission may reduce the minimum road setback requirement by up to 50 percent for development utilizing on-street parking in accordance with Section 10.25,D,3,c or for development whose parking area is located to the rear of the principal structure, except where the Commission finds that such parking will cause an undue adverse impact to the natural resources or community character of the area.
 - (3) Off-street parking shall not be directly accessible from any public roadway. Ingress and egress to parking areas shall be limited to driveway entrances.
 - (4) Off-street parking areas with more than two parking spaces shall be arranged so that each space can be used without moving another vehicle.
- e. Parking spaces shall not be placed in the required roadway vegetative buffer. However, a "sight triangle" shall be maintained 25 feet in length on each side of the intersection of the driveway and the roadway right-of-way, with the third side connecting the other two sides. Within each sight triangle, no landscape plants, other than low growing shrubs, shall be planted. These shrubs must be maintained to be no more than 30 inches in height above the driveway elevation.

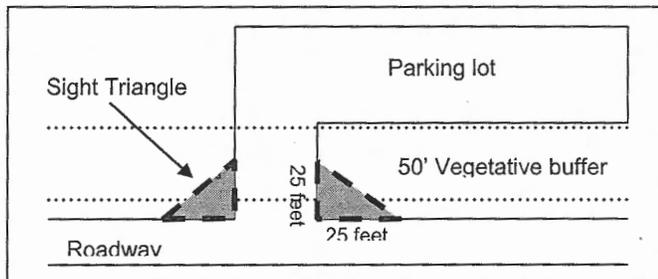


Figure 10.25,D-2. Sight triangle within a vegetative buffer.

- f. Except for sight triangles, parking areas for commercial, industrial or other non-residential development shall be visually buffered from the roadway by planting and maintaining a vegetative buffer of trees and shrubs or by locating parking areas to the rear of the principal structure.
- g. When parking areas associated with commercial, industrial or other non-residential development are adjacent to residential structures or uses, landscaping and/or architectural screens shall be used to provide an effective visual buffer and separation between property lines and the edge of the parking area.

- d. Roadways in towns and plantations within the Commission’s jurisdiction that are proposed to be dedicated to the town or plantation shall also comply with the town’s or plantation’s roadway construction and design standards. The applicant shall clearly specify the ownership of all roadways proposed to be dedicated and shall submit a maintenance plan that includes roadway construction and design standards in accordance with the Commission’s standards.
- e. Roadways shall adhere to the applicable standards of Section 10.27,D and Section 10.27,H and the roadway specifications outlined in Table 10.25,D-1, below, unless the applicant utilizes site-specific best management practices and the Commission determines that proposed alternative roadway specifications will meet the needs of the development and will not cause erosion or safety problems.

| | Class 1 Roadway | Class 2 Roadway | Class 3 Roadway |
|-------------------------------|--|---|------------------------|
| Minimum roadway surface width | 18 ft. or 14 ft. with turnouts every 500 feet, on average. | 14 ft. or 8 ft. with turnouts every 500 feet, on average. | 8 ft. |
| Minimum base (coarse gravel) | 18 in. | 12 in. | As needed. |
| Minimum wearing surface | 3 in. fine gravel or 2.5 in. bituminous concrete. | 3 in. fine gravel or 2.5 in. bituminous concrete. | 2" fine gravel. |
| Maximum sustained grade | 10% | 15% | 15% |

Table 10.25,D-1. Roadway construction specifications.

- f. Roadways that will be co-utilized for forest management purposes shall include turnouts that are large enough to accommodate wood haulers and other large vehicles.

D. ROADS AND WATER CROSSINGS

Roads and water crossings not in conformance with the standards of this section may be allowed upon issuance of a permit from the Commission provided that such types of activities are allowed in the subdistrict involved. An applicant for such permit shall show by a preponderance of the evidence that the proposed activity, which is not in conformance with the standards of this section, shall be conducted in a manner which produces no undue adverse impact upon the resources and uses in the area.

The following road and water crossing requirements shall apply in P-WL1, P-WL2, P-SL, P-FP, P-GP subdistricts and all development subdistricts:

1. The following requirements shall apply to construction and maintenance of roads:
 - a. All cut or fill banks and areas of exposed mineral soil outside the roadbed within 75 feet of a flowing water, body of standing water, coastal wetland, or freshwater wetland shall be revegetated or otherwise stabilized so as to prevent erosion and sedimentation of water bodies or wetlands;
 - b. Road banks shall have a slope no steeper than 2 horizontal to 1 vertical;
 - c. Drainage ditches shall be provided so as to effectively control water entering and leaving the road area. Such drainage ditches will be properly stabilized so that the potential for unreasonable erosion does not exist;
 - d. In order to prevent road surface drainage from directly entering water bodies or wetlands, roads and their associated drainage ditches shall be located, constructed, and maintained so as to provide an unscarified filter strip, of at least the width indicated below, between the exposed mineral soil of the road and the normal high water mark of a surface water body or upland edge of a wetland:

| Average Slope of Land Between Exposed Mineral Soil and Normal High Water Mark (Percent) | Width of Strip Between Exposed Mineral Soil and Normal High Water Mark (Feet Along Surface of the Ground) |
|--|--|
| 0 | 25 |
| 10 | 45 |
| 20 | 65 |
| 30 | 85 |
| 40 | 105 |
| 50 | 125 |
| 60 | 145 |
| 70 | 165 |

Table 10.27,D-1. Unscarified filter strip width requirements for exposed mineral soil created by roads and their associated drainage ditches.

This requirement shall not apply to road approaches to water crossings or wetlands.

- e. Drainage ditches for roads approaching a water crossing or wetland shall be designed, constructed, and maintained to empty into an unscarified filter strip, of at least the width indicated in the table set forth in Section 10.27,D,1,d above, between the outflow point of the ditch and the normal high water mark of the water or the upland edge of a wetland. Where such filter strip is impracticable, appropriate techniques shall be used to reasonably

avoid sedimentation of the water body or wetland. Such techniques may include the installation of sump holes or settling basins, and/or the effective use of additional ditch relief culverts and ditch water turnouts placed so as to reasonably avoid sedimentation of the water body or wetland;

- f. Ditch relief (cross drainage) culverts, drainage dips and water turnouts will be installed in a manner effective in getting drainage onto unscarified filter strips before the flow in the road or its drainage ditches gains sufficient volume or head to erode the road or ditch.
 - (1) Drainage dips may be used in place of ditch relief culverts only where the road grade is 10% or less;
 - (2) On roads having slopes greater than 10%, ditch relief culverts shall be placed across the road at approximately a 30 degree angle downslope from a line perpendicular to the center line of the road;
 - (3) Ditch relief culverts, drainage dips and water turnouts shall direct drainage onto unscarified filter strips as required in Section 10.27,D,1,d and e above;
 - (4) Ditch relief culverts shall be sufficiently sized and properly installed in order to allow for effective functioning, and their inlet and outlet ends shall be stabilized with appropriate materials; and
 - (5) Ditch relief culverts, drainage dips and associated water turnouts shall be spaced along the road at intervals no greater than indicated in the following table:

| Road Grade (Percent) | Spacing (Feet) |
|-------------------------|-------------------|
| 0-2 | 500-300 |
| 3-5 | 250-180 |
| 6-10 | 167-140 |
| 11-15 | 136-127 |
| 16-20 | 125-120 |
| 21+ | 100 |

Table 10.27,D-2. Spacing requirements for drainage dips and associated water turnouts.

- 2. The following requirements shall apply to water crossings when surface waters are unfrozen:
 - a. Bridges and culverts shall be installed and maintained to provide an opening sufficient in size and structure to accommodate 10 year frequency water flows or with a cross-sectional area at least equal to 2 ½ times the cross-sectional area of the flowing water.
 - b. Culvert and bridge sizes may be smaller than provided in Section 10.27,D,2,a if techniques are employed such that in the event of culvert or bridge failure, the natural course of water flow is reasonably maintained and sedimentation of the water body is reasonably avoided; such techniques may include, but are not limited to, the effective use of any or all of the following:
 - (1) Removing culverts prior to the onset of frozen ground conditions;
 - (2) Using water bars in conjunction with culverts; or
 - (3) Using road dips in conjunction with culverts.

- c. Culverts utilized in water crossings shall:
- (1) Be installed at or below stream bed elevation;
 - (2) Be seated on firm ground;
 - (3) Have soil compacted at least halfway up the side of the culvert;
 - (4) Be covered by soil to a minimum depth of 1 foot or according to the culvert manufacturer's specifications, whichever is greater; and
 - (5) Have a headwall at the inlet end which is adequately stabilized by rip-rap or other suitable means to reasonably avoid erosion of material around the culvert.
3. The design and construction of land management road systems through wetlands, other than those areas below the normal high water mark of standing or flowing waters, must avoid wetlands unless there are no reasonable alternatives, and must maintain the existing hydrology of wetlands.

To maintain the existing hydrology of wetlands, road drainage designs shall provide cross drainage of the water on the surface and in the top 12 inches of soil in wetlands during both flooded and low water conditions so as to neither create permanent changes in wetland water levels nor alter wetland drainage patterns. This shall be accomplished through the incorporation of culverts or porous layers at appropriate levels in the road fill to pass water at its normal level through the road corridor. Where culverts or other cross-drainage structures are not used, all fills shall consist of free draining granular material.

To accomplish the above, the following requirements apply:

- a. **Road construction on mineral soils or those with surface organic layers up to 4 feet in thickness.**
- (1) Fill may be placed directly on the organic surface compressing or displacing the organic material until equilibrium is reached. With this method, culverts or other cross-drainage structures are used instead of porous layers to move surface and subsurface flows through the road fill material.
 - (a) For road construction on mineral soils or those with surface organic layers less than 16 inches in thickness, culverts or other cross-drainage structures shall be appropriately sized and placed at each end of each wetland crossing and at the lowest elevation on the road centerline with additional culverts at intermediate low points as necessary to provide adequate cross drainage. Culverts or other cross-drainage structures shall be placed at maximum intervals of 300 feet.
 - (b) For road construction on surface organic layers in excess of 16 inches but less than 4 feet in thickness, cross drainage must be provided by placing culverts at each end of each wetland crossing and at the lowest elevation on the road centerline with additional culverts at intermediate low points as necessary to provide adequate cross drainage. Culverts or other cross-drainage structures shall be placed at maximum 300-foot intervals. Culverts shall be a minimum of 24 inches in diameter, or the functional equivalent, and buried halfway below the soil surface.

- (c) Where necessary to maintain existing water flows and levels in wetlands, ditches parallel to the road centerline shall be constructed along the toe of the fill to collect surface and subsurface water, carry it through the culvert(s) and redistribute it on the other side. Unditched breaks shall be left midway between culverts to prevent channelization.
 - (2) Alternatively, a porous layer may be created to move surface and subsurface flows through the road fill materials. If a porous layer is used, geotextile fabric must be placed above and below fill material to increase the bearing strength of the road and to preserve the bearing strength of fill material by preventing contamination with fine soil particles.
- b. Road construction on soils with organic layers in excess of 4 feet in thickness.**
- (1) Such construction shall only take place under frozen ground conditions.
 - (2) Geotextile fabric shall be placed directly on the soil surface. Road fill or log corduroy shall then be placed on the geotextile fabric.
 - (3) Cross drainage shall be provided by either a continuous porous layer or appropriate placement of culverts or other cross-drainage structures and ditching as specified below:
 - (a) A continuous porous layer or layers shall be constructed by placement of one or more layers of wood corduroy and/or large stone or chunkwood separated from adjacent fill layers by geotextile fabric placed above and below the porous layer(s) such that continuous cross drainage is provided in the top 12 inches of the organic layer; or
 - (b) Cross drainage culverts or other cross-drainage structures shall be placed at points where they will receive the greatest support. Culverts or other cross-drainage structures shall be a minimum of 24 inches in diameter, or the functional equivalent, and buried halfway below the soil surface. Where necessary to maintain existing water flows and levels in wetlands, ditches parallel to the roadbed on both sides shall be used to collect surface and subsurface water, carry it through the culvert(s) and redistribute it on the other side. Such ditches shall be located three times the depth of the organic layer from the edge of the road fill. Unditched breaks shall be left midway between culverts to prevent channelization.
4. Ditches, culverts, bridges, dips, water turnouts and other water control installations associated with roads shall be maintained on a regular basis to assure effective functioning.

5. Maintenance of the above required water control installations shall continue until the road is discontinued and put to bed by taking the following actions:

a. Water bars shall:

(1) Be constructed and maintained across the road at intervals established below:

| Road Grade (Percent) | Distance Between Water Bars (Feet) |
|-------------------------|---------------------------------------|
| 0-2 | 250 |
| 3-5 | 200-135 |
| 6-10 | 100-80 |
| 11-15 | 80-60 |
| 16-20 | 60-45 |
| 21+ | 40 |

Table 10.27,D-3. Spacing requirements for water bars.

- (2) Be constructed at approximately 30 degrees downslope from the line perpendicular to the center line of the road;
- (3) Be constructed so as to reasonably avoid surface water flowing over or under the water bar; and
- (4) Extend sufficient distance beyond the traveled way so that water does not reenter the road surface.

b. Any bridge or water crossing culvert in such road shall satisfy one of the following requirements:

- (1) It shall be designed to provide an opening sufficient in size and structure to accommodate 25 year frequency water flows;
- (2) It shall be designed to provide an opening with a cross-sectional area at least 3 ½ times the cross-sectional area of the flowing water; or
- (3) It shall be dismantled and removed in a fashion so as to reasonably avoid sedimentation of the water body.

6. Provided they are properly applied and used for circumstances for which they are designed, methods including but not limited to the following are acceptable to the Commission as means of calculating the 10 and 25 year frequency water flows and thereby determining crossing sizes as required in Section 10.27,D,2 and 5:

- a. The USDA Soil Conservation Service (SCS) Methods; specifically: "Urban Hydrology for Small Watersheds," June 1986 Soil Conservation Service Technical Release #55.
- b. The United States Geological Survey Series; specifically: U.S.G.S. Maine Water Science Office. 1999. "Estimating the Magnitude of Peak Flows for Streams in Maine for Selected Recurrence Intervals." WRI 99-4008.

7. Extension, enlargement or resumption of use of presently existing roads, which are not in conformity with the provisions of Section 10.27,D, are subject to the provisions of Section 10.11.

8. Publicly owned roads may be constructed in a fashion that is not in strict conformity with the provisions of this section, provided that other measures are applied that are effective in reasonably avoiding sedimentation of surface waters.
9. Except that Section 10.27,D,10 below always applies, trail crossings of minor flowing waters shall be exempt from the standards of Section 10.27,D, provided such crossings are constructed in a manner that causes no disturbance to the stream bed, and no substantial disturbance to the banks or shoreland areas in the vicinity of the crossing, and provided such crossings do not impede the flow of water or the passage of fish. If properly undertaken, acceptable methods may include but not be limited to the laying of logs from bank to bank, or placement of bed logs and stringers with decking. This exemption shall not extend to the construction of abutments or piers.

Trail crossings not so exempted shall be subject to the water crossing standards of Section 10.27,D, including specifically Sections 10.27,D,2, 4, 5, 6, 10 and 11.

10. In addition to the foregoing minimum requirements, provision shall otherwise be made in the construction and maintenance of roads and water crossings in order to reasonably avoid sedimentation of surface waters.
11. Written notice of all road and water crossing construction activities, except level A road projects and exempt trail crossings as provided in Section 10.27,D,9 above, shall be given to the Commission prior to the commencement of such activities. Such notice shall conform to the requirements of Section 10.16 and shall state the manner in which the water crossing size requirements of this section will be satisfied.

H. DRIVEWAYS ASSOCIATED WITH RESIDENTIAL STRUCTURES AND USES

Driveways not in conformance with the standards of this section may be allowed upon issuance of a permit from the Commission provided that such types of activities are allowed in the subdistrict involved. An applicant for such permit shall show by a preponderance of the evidence that the proposed activity, which is not in conformance with the standards of this section, shall be conducted in a manner which produces no undue adverse impact upon the resources and uses in the area.

1. Applicability.

The following requirements apply to the construction of driveways for single family and two family dwelling units in all subdistricts where driveways associated with residential uses are allowed without a permit. These standards, along with the standards of Section 10.25,D,4, may be used as guidance in processing an application for driveways to be located in those subdistricts where driveways require a permit from the Commission.

- a. **Other Permits.** If a permit has been issued for the development of the lot to be served by the driveway or if the lot is part of a subdivision for which a permit has been issued, conditions of the building permit or subdivision permit regarding construction of driveways supersede provisions of this subsection.
- b. **Length.** If the length of a proposed driveway is greater than 1,000 feet, it is regulated as a road and requires a permit from the Commission unless it qualifies as a land management road.

2. Water Body Setback.

- a. **Minimum Setback.** The minimum water body setback for a driveway which accesses an undeveloped lot or a lot having residential structures is:
 - (1) 100 feet from the nearest shoreline of a flowing water draining 50 square miles, and a body of standing water greater than 10 acres in size;
 - (2) 75 feet from the nearest shoreline of a coastal wetland; and
 - (3) 50 feet from the upland edge of minor flowing waters and mapped P-WL1 wetlands.
- b. **Exceptions to Water Body and Wetland Setback Requirements.**
 - (1) The water body and wetland setback requirements do not apply to approaches to water body or wetland crossings.
 - (2) A lesser setback may be allowed with a permit in the following instances provided no other reasonable alternative exists and appropriate techniques are used as needed to prevent sedimentation of the water body.
 - (a) In the case of legally existing nonconforming structures located in the shoreland area, the driveway may extend to the portion of the principal structure farthest from the normal high water mark of the water body, but in no case closer than 50 feet from the normal high water mark of the water body; or
 - (b) To allow access to permitted facilities located nearer to the shoreline due to an operational necessity as described in Section 10.26,G,5.

3. **Property Line Setback.**
 - a. **Minimum Setback.** The minimum property line setback for a driveway is 15 feet.
 - b. **Exceptions to Property Line Setback.**
 - (1) A shared driveway need not meet the minimum setback.
 - (2) The minimum setback standard does not apply to authorized approaches to and crossings of property lines or to crossings along easements or rights of way established in deed or lease.
 - (3) A lesser setback may be allowed with a permit upon written permission of the abutting landowner.
4. **Road Frontage.** The lot to be served by the driveway must have a minimum of 100 feet of road frontage.
5. **Entry onto Roadways, including State Highways.** The entry must not be located on a curve and must be placed so as to allow adequate line of sight for safe entry onto the roadway. The driveway must be designed such that vehicles may exit the premises without backing onto the roadway or shoulder. If a driveway is to enter directly onto a state or state-aid highway, the person wishing to construct the driveway must first obtain written permission from the Maine Department of Transportation.
6. **Crossings of Flowing Waters.** If a driveway will cross a flowing water, the crossing must be accomplished in accordance with the standards for installation of water crossings set forth in Section 10.27,D,2.
7. **Wetlands Alteration.** The driveway must not alter any portion of a mapped P-WL1 subdistrict or more than 4,300 square feet of a mapped P-WL2 or P-WL3 subdistrict without a permit.
8. **Maximum Slope.** The driveway must not have a sustained slope of more than 8%.
9. **Erosion and Sedimentation Control.**
 - a. The driveway must be located, designed and constructed so that:
 - (1) It will not erode or create any undue restriction or disruption of existing surface water drainage ways;
 - (2) It will divert runoff to a vegetated buffer strip so as to prevent it from directly entering a water body, mapped P-WL1 wetland, or roadway.
 - b. Except for the travel surface of the driveway, all areas of disturbed soil must be promptly reseeded and mulched to prevent soil erosion.
10. **Fill Material.** Fill material used in the construction of a driveway must not contain demolition debris, trash, rubbish, or hazardous or toxic materials.

APPENDIX B GUIDELINES FOR VEGETATIVE STABILIZATION

Areas of disturbed soil, including but not limited to areas that are filled, graded or otherwise disturbed during construction projects, should be stabilized according to the following guidelines. These guidelines do not apply to forest management activities and are not strict regulations, and therefore alternative methods of stabilizing soil may be used. However, whenever soil stabilization or stabilization of disturbed areas is required by regulation or by the terms of individual permits, individuals must assure that either these guidelines, or measures equally effective in stabilizing disturbed areas of soil are employed.

The goals to be achieved by proper stabilization are the avoidance of accelerated soil erosion and the avoidance of sedimentation or pollution of water bodies. All stabilization measures must be maintained so that grass or other vegetation remains intact and healthy, otherwise these measures will be ineffective.

In general:

1. Sterile soils such as sands and gravels should be covered with 2 to 4 inches of soil medium that will support vegetative growth.
2. Disturbed soil areas should be graded such that runoff water is either minimized or eliminated from running over the site.
3. Disturbed areas which can be seeded between May 1 and September 15 should be prepared and seeded during that period.
4. Disturbed areas which cannot be seeded between May 1 and September 15 should be mulched with hay, straw or some other suitable material to keep them as stable as possible over the winter, and particularly during spring runoff the following year. For over-wintering, mulch must be tacked down, as it is easily blown around on frozen ground, leaving areas of soil exposed. Mulch hay should be applied at a depth of 4 inches, or between 150 to 200 lbs. per 1,000 square feet, over the disturbed site. Mulched over-wintered areas should be prepared and seeded the following spring as soon as conditions allow.

It is not recommended that disturbed areas be seeded after September 15th (“dormant seeding”) for a number of reasons. Among the reasons, seeding rates are doubled, which is more expensive; timing is critical to ensure that germination does not occur before the following spring; there is an increased risk of sedimentation because sites are generally wetter in the fall; the thicker mulch must be removed in the spring in order to allow the germinating seed to survive; and the application of fertilizer during this time increases the risk of leaching or runoff loss of nutrients into water bodies.

5. Seeding preparation, in addition to providing a soil medium that will support vegetative growth if the site is sterile, includes the application of lime and fertilizer, which should be lightly raked prior to seeding. After the area is seeded, it should be lightly watered and then mulched with 70 to 90 lbs. (2 standard bales) per 1,000 square feet of weed free hay or straw to protect the seed. Keep the site stable and moist, and allow the seed to germinate and grow.
6. For accurate liming as well as fertilization, it is recommended that you have the soil analyzed to determine the specific nutrient requirements of your site.

Lime should be applied at a rate of approximately 140 pounds to 1,000 square feet of area. This rate may vary depending on the natural conditions of the soil on the site. 10-5-20 fertilizer should be applied at a rate of 18.5 lbs. per 1,000 square feet of area. Following the establishment of vegetation, non-phosphorous fertilizer should be used in accordance with the Department of Environmental Protection’s recommendations.

7. In shoreland areas in particular, fertilizers should be of the "quick release" low phosphorus type, such as 12-4-8 mixtures applied at a rate of 8 pounds per 1,000 square feet of area. If you are near water bodies, it is important not to apply more than approximately this amount of fertilizer, as excess may be washed into streams or lakes and contribute to lowering water quality and such things as algae blooms in lakes.

Following the establishment of vegetation, non-phosphorous fertilizer should be used in accordance with the Department of Environmental Protection's recommendations.

Fertilizers should never be applied right before thunder storms or before spring runoff, because the great amounts of water running over the land will wash the fertilizer, particularly phosphorus, into water bodies. However, a light watering after the fertilizer is applied will help bind the phosphorus to the soil.

8. There are many combinations of grasses that can be used. One combination particularly good for providing soil stability, generally referred to as the Soil Conservation Mixture, consists of:
(Proportions, by weight)

| | | | |
|---------------------|-----|---------------------|-----|
| Creeping Red Fescue | 35% | Kentucky Bluegrass | 25% |
| Annual Rye Grass | 15% | Perennial Rye Grass | 10% |
| Red Top | 10% | White Dutch Clover | 5% |
| * Oats - See Below | | | |

This seed would be applied at a rate of 1 pound per 1,000 square feet. These particular grasses do best if mowed no closer than 2-1/2 to 3 inches from the ground. Of course, other seed mixtures are available.

It is important, in choosing a mixture, to choose one suitable for the site being stabilized. There are many different types of seeding mixtures designed for particular site conditions such as shade, sun, and drainage. Any mix should contain some seed which germinates rapidly to provide the quickest stabilization possible while awaiting the germination of the remaining types.

- (*) For quick germination, oats are very good. They germinate in 7 to 10 days. They should be planted at a rate of approximately 1 to 1-1/2 bushels per acre, in addition to the basic grass mixture. Oats should be mowed when they reach knee height to allow the germinating grasses to receive sunlight.

Alternatives:

As indicated above, other stabilization programs may be used, provided they are equivalently effective in stabilizing disturbed areas and preventing accelerated soil erosion and sedimentation of water bodies. Further assistance may be obtained, including in some cases site-specific recommendations, as follows:

- Local Soil and Water Conservation Districts
- The USDA Natural Resource Conservation Service
- Maine Department of Environmental Protection, Lakes Program
- Landscaping Professionals
- Reputable Lawn and Garden Supply Dealers

The following documents may provide valuable assistance to those developing a soil stabilization plan:

Maine Erosion and Sediment Control Handbook for Construction: Best Management Practices (Cumberland County Soil & Water Conservation District and Maine Department of Environmental Protection, 1991)

Strategy for Managing Nonpoint Source Pollution From Agricultural Sources and Best Management Guidelines (NPS Agricultural Task Force, 1991)

Erosion and Sediment Control Handbook for Maine Timber Harvesting Operations, Best Management Practices (Maine Forest Service, 1991)