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GOVERNOR

STATE OF MAINE
DEPARTMENT OF AGRICULTURE, CONSERVATION & FORESTRY
LAND USE PLANNING COMMISSION
P.O. Box 307
WEST FARMINGTON, MAINE 04992

WALTER E. WHITCOMB
COMMISSIONER

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EXECUTIVE DIRECTOR

PERMIT

AMENDMENT A TO DEVELOPMENT PERMIT DP 4755

The staff of the Maine Land Use Planning Commission, after reviewing the application and supporting documents submitted by Thorndike & Sons, Inc. for Amendment A to Development Permit DP 4755, finds the following facts:

1. Applicant: Thorndike & Sons, Inc.
PO Box 260
Strong, ME 04983
2. Date of Completed Application: July 18, 2016
3. Location of Proposal: Freeman Twp., Franklin County
Lot #154 on Plan 02, Map FR025
4. Zoning: (M-GN) General Management Subdistrict
(P-WL2) Wetland Protection Subdistrict
(P-WL3) Wetland Protection Subdistrict
(P-SL2) Shoreland Protection Subdistrict

Zoning at the Project Site: (M-GN) General Management
5. Lot Size: Approximately 1,400 acres (owned)
6. Development: Existing Active Gravel Pit (9.8 Acres)
Proposed Pit Expansion Area (4.4 Acres)
Three Proposed Excavated Ponds within Existing and Proposed Pit Area
(6.3 acres)

Existing Conditions & Background Information

7. The applicant's lot is located on the east side of State Route #145 and is developed with a gravel pit that extends into the Town of Strong to the south. Gravel extraction activities commenced at the subject lot in the 1960's.
8. Development Permit DP 4755, issued to the applicant in October of 2006, authorized an expansion of the portion of the pit located in Freeman Township from 2.6 acres, as it existed at the time, to 20 acres in Freeman Township. Under the terms of Development Permit DP 4755, the permitted gravel extraction was to be conducted so that the pit remains internally drained, and the pit was not to extend any closer than 250 feet to any roads or property lines without written agreement of the owner of such properties. Reclamation of the pit was to include sloping the perimeter faces to a slope of 2:1 or flatter, and stabilizing extracted areas either by reseeded or use of erosion control mix. Condition #10 of Development Permit DP 4755 required that the applicant maintain a minimum separation distance of 3 feet from the pit floor to the seasonal high water table. No more than 10 acres of pit area was to remain active and/or unreclaimed at any given time.

Since the issuance of Development Permit DP 4755, the pit has been expanded so that the portion within Freeman Township is 9.8 acres. The portion of the pit within the Town of Strong has been expanded to 8.0 acres for a total pit size of 17.8 acres. The existing gravel pit is located approximately 70 feet from Route #145, 140 feet from Gilkey Brook to the northwest, 150 feet from Valley Brook to the west and more than 250 feet from all other property boundary lines. The existing pit area in Freeman Township is adjacent to a forested wetland to the west of the pit, between the pit and Route #145. A gate has been installed on the entrance road to the pit to control public access.

Proposal

9. The applicant now seeks approval to continue mineral extraction activities within the existing active pit area, expand the footprint of the gravel pit to 14.2 acres within Freeman Township, and to excavate below the ground water table. The currently proposed pit expansion area is within the footprint of the expansion area previously permitted under Development Permit DP 4755. The existing pit, proposed expansion area and proposed ponds (discussed below) are shown on Plan S-1, dated July 13, 2015, and revised November 20, 2015 and March 7, 2016, submitted with the application. The applicant anticipates removing a total of approximately 220,000 cubic yards of material from the pit area within Freeman Township over the life of the pit.

The proposed excavation below the groundwater table would create three ponds: Pond #1 (approximately 2.4 acres), Pond #2 (approximately 2.2 acres) and Pond #3 (approximately 11.6 acres). All of Ponds #1 and #2 would be located within Freeman Township, and approximately 1.7 acres of Pond #3 would be located within Freeman Township; for a total pond area of approximately 6.3 acres in Freeman Township. The applicant is seeking approval to excavate below the seasonal high water table in order to extract the coarser gravel material located below the water table. Excavation would extend to approximately 15 feet below the seasonal high water table.

A minimum 100 foot wide vegetative buffer would be maintained between the gravel pit and all streams. The applicant has submitted a letter from the Maine Department of Transportation granting permission for the applicant to continue with extraction activities within the portion of the existing pit within 250 feet of State Route #145. There would be no expansion of the existing pit area within 250 feet of State Route #145.

10. The primary erosion and sedimentation control measure for the existing and proposed expanded pit area would be continued maintenance of the pit so that it drains internally. Temporary erosion control measures (silt fence or erosion control mix filter berm) would be installed as needed near the existing access road adjacent to wetlands. Berms would be constructed along all interior roads to direct stormwater runoff away from the excavated ponds. All erosion control measures would be monitored weekly and after storm events exceeding ½ inch of precipitation.

Stumps removed during excavation would be placed on perimeter slopes around the pit, no more than one stump deep, to facilitate decomposition. No stumps would be placed below the seasonal high water table.

11. As the pond areas are created they would be graded such that the pond bottoms would be undulating and the pond shorelines would be irregularly shaped. A shallow bench area, less than three feet water depth, would be created around the perimeters of the ponds to provide for safety and egress from the pond. The bench areas of the ponds would be sloped to 4:1 or flatter.
12. Reclamation of all roads and the perimeter face of the pit would be done as excavation is completed. No more than 10 acres of the pit would be actively extracted and/or unreclaimed within Freeman Township at any given time. Extracted areas of the pit would be reclaimed in approximately 5-acre plots. Reclamation would include the following steps in the non-pond areas:
 - A. The perimeter pit face would be graded to a 2.5 to 1 slope or flatter.
 - B. Large boulders and other debris would be removed from areas to be revegetated.
 - C. Topsoil/loam salvaged from excavated areas would be spread over areas to be reseeded with additional topsoil/loam brought in as needed to provide a suitable seed bed (six inch depth). Areas would be seeded with a wildlife seed mix as recommended by the Maine Department of Inland Fisheries & Wildlife (MDIFW) under Finding of Fact #18 below. Seeding would be done in the spring from snow melt until June 1, and from September 1 through October 15 of the calendar year.
 - D. The final reclamation step would be planting native tree species such as Eastern White Pine and Red Pine at a spacing of approximately 8 feet. Planting stock would be bare root stock or plugs.
 - E. Reseeded and planted areas in the reclaimed areas would be monitored for a minimum of 5 years from the planting date to monitor the success of revegetated areas. Areas of low plant density or high mortality of planted stock would be reseeded or replanted.

13. The applicant has submitted a Spill Prevention, Control and Counter Measures (SPCC) Plan for handling of petroleum products and other hazardous materials at the site. The plan specifies emergency contact information in the event of a spill, equipment kept at the site, materials inventory, provision of spill response kits, training of employees, and spill response measures. All refueling of equipment would be done over a concrete refueling pad, placed in the location recommended by the Maine Geological Survey under Finding of Fact #19 below. Spill response kits are to be kept at the refueling site and on each piece of equipment. No asphalt batching plants or petroleum storage facilities would be installed at the site.
14. No rock crushers would be operated within the pit area in Freeman Township. Rock crushers may be operated in the pit area within the Town of Strong.
15. The applicant has established seven ground water monitoring wells within the existing pit area, designated as MW #102, MW #103, MW #104 and MW #105 in Freeman Township and designated as MW #1, MW #2, MW #101 in the Town of Strong. The existing monitoring wells are as shown on Plan S-1, dated July 13, 2015, and revised November 20, 2015 and March 7, 2016, submitted with the application. The applicant has submitted ground water level data since September of 2014. As of the last seasonal high water level measurement, taken on April 20, 2015, water levels in the monitoring wells in Freeman Township ranged from 0.23 ft. below the pit floor at MW #102 to 16.08 feet below the pit floor at MW #105.

The applicant has also submitted background water quality data for a sample taken at monitoring well MW #1 on October 31, 2014. Parameters that were analyzed were pH, specific conductivity, iron, manganese, volatile petroleum hydrocarbons (VPH), and extractable petroleum hydrocarbons (EPH).

The applicant has agreed to continue monitoring ground water level and quality at the pit as recommended by the Maine Department of Environmental Protection and described under Finding of Fact #20 below. Water quality and level monitoring would be conducted for the life of the pit unless otherwise approved by the Commission.

16. The active pit operation and the proposed future expansion of the pit are to be conducted in compliance with the standards for mineral extraction under the provisions of Section 10.27,C of the Commission's Land Use Districts and Standards, as discussed under Finding of Fact #24 below. The proposed excavated ponds would meet the vegetated buffer requirements under Section 10.27,C,2,a of the those standards.

Review Comments

17. The Maine State Soil Scientist recommends that surface runoff from the pit's interior access roads and refueling areas be diverted away from the open water in the ponds.
18. The Maine Department of Inland Fisheries & Wildlife (MDIFW) recommends that a minimum 100 foot wide buffer be maintained between the gravel pit and streams. The MDIFW also recommends that a seed mix suitable for wildlife be used instead of conservation seed mix, as originally proposed.

19. The Maine Geological Survey (MGS) comments that excavating into the groundwater table and creating the ponds will reduce groundwater flow velocity and could potentially heat the ground water through solar radiation of ponds particularly in the summer months. These effects on groundwater flowing to Valley Brook may be detrimental to the trout fishery in the brook. Accordingly, the MGS suggests that the MDIFW monitor water temperature in Valley Brook to assess any impacts to stream temperature from the proposed excavation activities. The MGS comments that it has not identified the project site as likely to be over an aquifer, but it could still be possible that the site does overlay an aquifer. The MGS recommends that the refueling pad be placed in a fixed location, on the west side of the pit just north of the Freeman/Strong town line, and that a monitoring well be installed immediately down gradient of its recommended refueling pad location. Lastly, the MGS suggests that the applicant consult with the MDIFW regarding long term management of the proposed ponds to benefit fisheries and wildlife resources in the area.
20. The Maine Department of Environmental Protection (MDEP) recommends that a concrete refueling pad be installed, and that the refueling pad be adequately sized and reinforced sufficiently to accommodate the weight of the equipment being fueled. The MDEP states that it typically does not require installation of a monitoring well down-gradient of the refueling pad unless an investigation is done in response to a spill event. The MDEP expressed concerns that a monitoring well near the refueling pad could serve as a conduit for spilled product to enter the groundwater in the event of a spill.

MDEP staff developed a groundwater contour map of the project site based upon the groundwater level data provided by the applicant. Based upon that map, the MDEP recommends new locations for an upgradient groundwater monitoring well, and two downgradient water monitoring wells as shown on a map provided by the MDEP on May 23, 2016 and June 6, 2016. The MDEP recommends that these three wells replace the applicant's existing monitoring wells and originally proposed replacement monitoring wells. The MDEP's recommended upgradient well and one of the recommended downgradient wells would be located in Freeman Township with the other recommended downgradient well to be located in the Town of Strong. The MDEP recommends that the upgradient and downgradient wells in Freeman Township be monitored for water quality quarterly, in accordance with the provisions of Chapter 378 of its regulations. Water quality monitoring should include the following parameters: iron, manganese, pH, extractable petroleum hydrocarbons (EPH), volatile petroleum hydrocarbons (VPH), specific conductivity and turbidity. The MDEP also recommends that water levels be monitored in all three of the proposed monitoring wells in accordance with Chapter 378 i.e., biweekly in April, May, and June; and monthly in September, December and March.

The MDEP issued License #L-26791-80-A-N to the applicant in March of 2016, allowing for excavation below the seasonal high groundwater table.

21. The Maine Natural Areas Program comments that it has no record of rare or unique botanical features in the vicinity of the project site.

Review Criteria

22. Under the provisions of Section 10.22,A,3,c, (10)(b) of the Commission's Land Use Districts and Standards mineral extraction operations affecting an area between 5 and 30 acres are allowed within an (M-GN) General Management Subdistrict upon issuance of a permit from the Commission, and provided that the unreclaimed area is less than 15 acres.
23. Under the provisions of Section 10.22,A,3,c, (2) of the Commission's Land Use Districts and Standards constructed ponds more than an acre in size are allowed within an (M-GN) General Management Subdistrict upon issuance of a permit from the Commission.
24. Section 10.27,C(2) of the Commission's Land Use Districts and Standards specifies the standards for mineral extraction activities, including the following:
 - A. A 75-foot wide vegetative buffer strip be retained between the ground area disturbed by the extraction activity and any flowing water draining less than 50 square miles;
 - B. No portion of any ground area disturbed by the extraction activity shall be closer than 250 feet from any public roadway, or 250 feet from any property line in the absence of the prior written agreement of the owner of such property;
 - C. A natural vegetative screen of not less than 50 feet in width shall be retained from any facility intended primarily for public use, excluding privately owned roads; and
 - D. If any mineral extraction operation located within 250 feet of any property line or public roadway or facility intended primarily for public use, excluding privately owned roads, is to be terminated or suspended for a period of one year or more, the site shall be rehabilitated by grading the soil to a slope of 2 horizontal to 1 vertical, or flatter.
25. Section 10.25,M of the Commission's Land Use Districts and Standards specifies the standards for erosion and sedimentation control, including the requirement for an erosion and sedimentation control plan in accordance with Section 10.25,M,3 for development proposals that create an acre or more of disturbed areas; and inspections of the project in accordance with Section 10.25,M,4.
26. Under the provisions of Section 10.25,N of the Commission's Land Use Districts and Standards, regarding ground water quality, all subdivisions and commercial, industrial and other non-residential development:
 - A. Shall not pose an unreasonable risk that a discharge of pollutants to a groundwater aquifer will occur.
 - B. Shall not result in the groundwater quality becoming inferior to the physical, biological, chemical, and radiological levels for raw and untreated drinking water supply sources specified in the Maine State Drinking Water Regulations, pursuant to 22 M.R.S.A. §601. If the pre-development groundwater quality is inferior to the

Maine State Drinking Water Regulations, the development shall not degrade the water quality any further.

27. The facts are otherwise as represented in Development Permit DP Application 4755, Amendment Request A, and supporting documents.

Based upon the above Findings, the staff concludes that:

1. The proposal complies with the Commission's standards for gravel extraction under the provisions of Section 10.27,C(2) of the Land Use Districts and Standards in that vegetative buffers and setbacks from streams and State Route #145 would be maintained in accordance with that section, and the applicant's proposed reclamation plan complies with the sloping requirements for the upland area of the pit.
2. The proposal complies with the provisions of Section 10.25,N of the Commission's Land Use Districts and Standards regarding ground water quality in that it will not pose an unreasonable risk of polluting groundwater based upon the comments from the MDEP, and provided the applicant monitors ground water quality and level in accordance with the recommendations of the MDEP as discussed under Finding of Fact #20 above.
3. The proposal complies with the provisions of Section 10.25,M of the Commission's Land Use Districts and Standards, regarding erosion and sedimentation control, in that the applicant's proposed erosion and sedimentation control plan and proposed reclamation plan adequately addresses the requirements of Sections 10.25,M,3 and 4.
4. 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.

Therefore, the staff approves the application of Thorndike & Sons, Inc. with the following conditions:

General

1. The Standard Conditions (ver. 4/04), a copy of which is attached.
2. The permitted mineral extraction activities must comply with the Commission's standards for mineral exploration and extraction, Section 10.27,C, a copy of which is attached.
3. All stumps and vegetative debris that are not to be decomposed on site as proposed by the permittee shall be disposed of off-site in compliance with all applicable federal, state and local requirements.
4. No more than 10 acres shall remain open as the active pit area and/or as unreclaimed area at any given time.
5. A natural vegetative screen of not less than 50 feet in width shall be maintained between the permitted gravel pit and State Route #145.

6. A minimum 75-foot wide vegetative buffer strip shall be maintained between the ground area disturbed by the permitted extraction activities and Gilkey Brook.
7. The boundaries of the permitted gravel pit expansion area shall be permanently marked and easily visible on the ground prior to expansion of the existing gravel pit footprint. The permittee shall notify the Commission when the boundaries of the expansion area marked. Once in place, boundary markers, including blazed trees, shall not be removed or cut.

Erosion, Sedimentation and Drainage Control

8. The permittee shall implement its erosion and sedimentation control plan as proposed in its original application dated October 19, 2015, as modified by its additional submittal dated March 7, 2016.
9. The pit shall be operated and managed so that it drains internally.
10. All major erosion and sedimentation control structures, such as ditches, culverts, sediment traps, settling basins, and silt fences, must be installed prior to soil disturbance. Once implemented or put in place, erosion control devices and measures shall be maintained to ensure proper functioning.
11. Berms shall be constructed along the interior access roads as proposed by the permittee, and adequately maintained to ensure that storm water runoff is diverted away from the pond areas. Storm water runoff shall be diverted away from the refueling pad.
12. Should any erosion or sedimentation occur outside of the permitted gravel pit foot print, the permittee shall contact the Land Use Planning Commission immediately, notifying it of the problem and describing all proposed corrective measures.

Reclamation

13. The permittee shall reclaim all extracted areas according to its reclamation plan as proposed in its original application dated October 19, 2015, as modified by its additional submittal dated March 7, 2016.
14. The permittee shall monitor all reseeded and replanted areas for a minimum of 5 years from the dated of reseeded or replanting, in accordance with its reclamation plan. In reclaimed areas where revegetation is not initially successful, the permittee shall replant or revegetate as needed to successfully revegetate reclaimed areas.

Groundwater Monitoring

15. The permittee shall establish new ground water monitoring wells in Freeman Township in the locations recommended by the MDEP and as shown on the map attached as Appendix A to this permit. The permittee shall measure groundwater levels at the wells biweekly in April, May and June, and monthly in September, December and March. In addition, the permittee shall provide the Commission with the water level data for the proposed monitoring well in the Town of Strong as required by the MDEP. The permittee shall

submit annual summary reports of water level data to the Commission by April 30th of each calendar year.

16. The permittee shall measure groundwater quality quarterly for pH, specific conductivity, temperature, turbidity, iron, manganese, volatile petroleum hydrocarbons (VPH), and extractable petroleum hydrocarbons (EPH) at the two monitoring wells in Freeman Township. The permittee shall submit annual summary reports of water quality data to the Commission by April 30th of each calendar year. The summary reports shall be in tabular form, clearly identifying the wells monitored, the dates monitored, and results for each required water quality parameter.
17. During excavation activity, the integrity of the monitoring wells shall be maintained. Should a well be accidentally damaged or removed during excavation the permittee shall immediately notify the Commission. Any well damaged or removed shall be replaced within 30 days of such damage or removal, unless otherwise authorized by the Commission. The location of the replacement well shall be in the same general vicinity as the damaged/removed well, unless the Commission authorizes an alternate location.
18. Planned replacement or removal of approved monitoring wells requires approval from the Commission at least one year prior to the planned date of relocation or removal. The permittee shall provide at least one year of monitoring data for any proposed replacement well in accordance with Conditions #15 and #16 above, in addition to the monitoring data for the well to be replaced.
19. The Commission reserves the right to modify the terms of this permit approval, including provisions for ground water quality or level monitoring, should it determine that the permitted activities have, or will, adversely impact ground water resources.

Equipment Refueling & Maintenance

20. No oil, fuel or chemical storage is allowed at the site. Fueling of mobile equipment shall occur off-site, or over a concrete refueling pad. The concrete refueling pad shall be constructed in accordance with the applicable standards of the MDEP, and be of sufficient volume to contain any spills. The refueling pad shall be located as recommended by the MGS, and as shown in Appendix A attached to this permit.
21. Normal maintenance and repair of mobile equipment including, but not limited to, the changing of coolants, hoses, lubricants, petroleum products and other chemicals shall be performed off site.
22. No batching plants or rock crushers are allowed at the portion of the site within Freeman Township. Portable rock screens may be utilized. If motorized stationary equipment is utilized on site, an impervious pad or drip pan, of sufficient volume to contain the maximum capacity of fluids contained within the motor and fuel tank, must be placed under the motor and fuel tank of the equipment. Stationary equipment, such as crushers, may be refueled onsite, provided impermeable spill containment, of sufficient volume to contain any spills, is placed beneath the fuel tank/receptacle during refueling.

23. Spill response kits must be labeled and kept on site and on equipment, as proposed by the permittee. The Maine Department of Environmental Protection 24-hour spill response number must be posted at the site. Should an oil or chemical spill occur, the permittee shall immediately notify the Maine Department of Environmental Protection at their 24-hour spill response number, and the Maine Land Use Planning Commission.

Transfer of Permitted Gravel Pit & Expansion Area

24. The permittee shall provide any potential buyers with a copy of this permit including its conditions of approval. Any future owners of the pit and expansion area must notify the Commission of their acquisition of the subject property within 30 days of the transfer, and must abide by the conditions of this permit.
25. Once the permitted extraction activities and reclamation are completed, the permitted 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.
26. All conditions of Development Permit DP 4755 are superseded by the conditions of this amendment.

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. 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 WEST FARMINGTON, MAINE, THIS 20th DAY OF JULY, 2016.

By: *Sara L. Bussile*
for Nicholas Livesay, Director



STATE OF MAINE
DEPARTMENT OF AGRICULTURE, CONSERVATION & FORESTRY
LAND USE PLANNING COMMISSION
22 STATE HOUSE STATION
AUGUSTA, MAINE 04333-0022

STANDARD CONDITIONS OF APPROVAL
FOR ALL DEVELOPMENT PERMITS

1. The permit certificate must be posted in a visible location on your property during development of the site and construction of all structures approved by this permit.
2. This permit is dependent upon and limited to the proposal as set forth in the application and supporting documents, except as modified by the Commission in granting this permit. Any variation therefrom is subject to the prior review and approval of the Maine Land Use Planning Commission. Any variation from the application or the conditions of approval undertaken without approval of the Commission constitutes a violation of Land Use Planning Commission law.
3. Construction activities authorized in this permit must be substantially started within two (2) years of the effective date of this permit and substantially completed within five (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.
4. The recipient of this permit ("permittee") shall secure and comply with all applicable licenses, permits, and authorizations of all federal, state and local agencies including, but not limited to, natural resources protection and air and water pollution control regulations and the Subsurface Wastewater Disposal Rules of the Maine Department of Environmental Protection and the Maine Department of Human Services.
5. Setbacks of all structures, including accessory structures, from waterbodies, roads and property boundary lines must be as specified in conditions of the permit approval.
6. In the event the permittee should sell or lease this property, the buyer or lessee shall be provided a copy of the approved permit and advised of the conditions of approval. The new owner or lessee must contact the Land Use Planning Commission to have the permit transferred into his/her name and to reflect any changes proposed from the original application and permit approval.
7. The scenic character and healthful condition of the area covered under this permit must be maintained. The area must be kept free of litter, trash, junk cars and other vehicles, and any other materials that may constitute a hazardous or nuisance condition.
8. The permittee shall not advertise Land Use Planning Commission approval without first obtaining Commission approval for such advertising. Any such advertising shall refer to this permit only if it also notes that the permit is subject to conditions of approval.
9. Once construction is complete, the permittee shall notify the Commission that all requirements and conditions of approval have been met. The permittee shall submit all information requested by the Commission demonstrating compliance with the terms of the application and the conditions of approval. Following notification of completion, the Commission's staff may arrange and conduct a compliance inspection.

Administrative Policy Revised 04/04

C. MINERAL EXPLORATION AND EXTRACTION

Mineral exploration and extraction activities 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 requirements for mineral exploration and extraction activities shall apply in all subdistricts except as otherwise hereinafter provided:

1. **Mineral Exploration.** The following requirements shall apply to mineral exploration activities:
 - a. All excavations, including test pits and holes, shall be promptly capped, refilled or secured by other equally effective measures so as to reasonably restore disturbed areas and to protect the public health and safety.
 - b. Mineral exploration activities or associated access ways where the operation of machinery used in such activities results in the exposure of mineral soil, shall be located such that an unscarified filter strip of at least the width indicated below is retained between the exposed mineral soil and the normal high water mark of a flowing water, body of standing water, coastal wetland, or wetland identified as a P-WL1 subdistrict:

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,C-1. Unscarified filter strip width requirements for exposed mineral soil created by mineral exploration activities or associated access ways.

The provisions of Section 10.27,C,1,b apply only on a face sloping toward the water, provided, however, no portion of such exposed mineral soil on a back face shall be closer than 25 feet; the provisions of Section 10.27,C,1,b do not apply where access ways cross such waters.

- c. Except when surface waters are frozen, access ways for mineral exploration activities shall not utilize flowing waters bordered by P-SL2 subdistricts except to cross the same by the shortest possible route; unless culverts or bridges are installed in accordance with Section 10.27,D,2 and 5, such crossings shall only use channel beds which are composed of gravel, rock or similar hard surface which would not be eroded or otherwise damaged.
- d. Access way approaches to flowing waters shall be located and designed so as to divert water runoff from the way in order to prevent such runoff from directly entering the stream.

- e. In addition to the foregoing minimum requirements, when conducting mineral exploration activities and creating and maintaining associated access ways, provision shall be made to effectively stabilize all area of disturbed soil so as to reasonably avoid soil erosion and sedimentation of surface waters. These measures shall include seeding and mulching if necessary to insure effective stabilization.
2. **Mineral Extraction.** The following requirements shall apply to mineral extraction activities in all subdistricts:
- a. A vegetative buffer strip shall be retained between the ground area disturbed by the extraction activity and:
 - (1) 75 feet of the normal high water mark of any body of standing water less than 10 acres in size, any flowing water draining less than 50 square miles, coastal wetland, or wetland identified as a P-WL1 subdistrict; and
 - (2) 100 feet of the normal high water mark of any body of standing water 10 acres or greater in size or flowing water draining 50 square miles or more.
 - b. No portion of any ground area disturbed by the extraction activity shall be closer than 250 feet from any public roadway, or 250 feet from any property line in the absence of the prior written agreement of the owner of such property.
 - c. Within 250 feet of any water body the extraction area shall be protected from soil erosion by ditches, sedimentation basins, dikes, dams, or such other control devices which are effective in preventing sediments from being eroded or deposited into such water body.

Any such control device shall be deemed part of the extraction area for the purposes of Section 10.27,C,2,a, above;
 - d. A natural vegetative screen of not less than 50 feet in width shall be retained from any facility intended primarily for public use, excluding privately owned roads; and
 - e. If any mineral extraction operation located within 250 feet of any property line or public roadway or facility intended primarily for public use, excluding privately owned roads, is to be terminated or suspended for a period of one year or more, the site shall be rehabilitated by grading the soil to a slope of 2 horizontal to 1 vertical, or flatter.

