The following BMP recommendations and extracts from the regulations of state agencies, while not part of the Timber Harvest ordinance, are included here as "informational attachments" to the East Cocalico Township's Timber Harvest Permit Application. Many of requirements in Chapters 102 and 105 are waived for Timber Harvest activities, but there are no Timber Harvest exemptions from the Pennsylvania Fish and Boat Commission regulations. The underlining below highlights the more important points.

Best Management Practice Recommendations

The following pages list some of the recommended "Best Management Practices for Pennsylvania Forests," from PennState Extension. While these BMPs are not required for timber harvesting in East Cocalico Township, following them will reduce potential negative impacts of timber harvesting on the forests, wildlife habitats, wetlands and waterways and help protect the Chesapeake Bay from pollution. We encourage you to follow them where possible.

Pages 27-28:

Forest operations

TENDING

Site quality protection—water resources

Objective: To minimize the movement of soil into water resources during forest management operations.

Issue: Erosion and sedimentation from forest management activities can affect water quality.

Considerations and Concerns:

- 1. Operations that affect soil and water are regulated by law. (See Regulations Affecting Forest Management Activities: Environmental Regulations.)
- 2. Small changes in the operation can eliminate many of the negative impacts.
- 3. Forested wetlands are often difficult to identify, especially during dry seasons.

BMPs:

- 1. Comply with all provisions of Chapter 102 and Chapter 105 of the Clean Streams Law and the Dam Safety and Encroachments Act, respectively. (See Regulations Affecting Forest Management Activities: Environmental Regulations.)
- 2. Design roads to shed surface water quickly.
- 3. Design roads and landings to prevent or divert surface water flow.
- 4. Avoid locating roads and landings on seasonally wet soils.
- 5. Consider slope when laying out roads and landings.

6. Provide adequate riparian buffers between disturbed areas, such as roads or landings, and streams or wetlands.

- 7. Bridges and culverts are the preferred methods of crossing *intermittent* and *perennial* streams. When *fords* are used for truck crossings, stabilize the bottom with clean rock.
- 8. Cross wetlands only when absolutely necessary.
- 9. If forest operations necessitate taking heavy equipment into wetlands, conduct those operations, whenever possible, during the driest periods or when the wet area is solidly frozen.
- 10. Do not skid through water courses or spring seeps.
- 11. Do not contaminate water bodies and soil with forest management chemicals and petroleum products.
- 12. Retire the road network properly at the completion of operations.

Recommended BMPs, continued Page 29:

Forest values

Aesthetic Considerations

- Objective: To minimize the adverse visual effects from harvesting and other forest management activities.
- Issue: Much of the opposition to forest management activities, particularly harvesting, is due to the changed physical appearance of the area.

Considerations and Concerns:

- 1. Most landowners are concerned about the appearance of their property.
- 2. Acceptance of forest management activities by the general public is increased by having the job look good.

BMPs:

- 1. Cut all broken trees, *leaners*, and badly scarred trees except where they are being retained for a specific purpose.
- 2. Locate landings away from public view.
- 3. Protect and release from competition trees with unusual shapes and colors.
- 4. Design cutting areas to take advantage of natural contours; avoid straight lines when possible.
- 5. Lop tops of harvested trees near public roads, frequently used trails, recreational areas, and residential sites. (Note: This might increase the adverse impacts of deer on regeneration, because intact tree tops left behind help protect young growth.)
- 6. Use as much of the harvested wood as possible to minimize debris. (Note: This might reduce habitat for small mammals, reptiles, amphibians, and beneficial insects.)
- 7. Clean up all *refuse* daily.
- 8. Regrade and seed landings, using native grasses wherever possible.
- 9. Keep mud off public roads and out of streams.
- 10. Consider leaving a visual buffer along traveled roads.

Pennsylvania Fish and Boat Commission

TITLE 30

FISH

CHAPTER 25

PROTECTION OF PROPERTY AND WATERS

[Note: these regulations are not waived for Timber Harvest activities.]

§ 2502. Disturbance of waterways and watersheds.

(a) General rule.--No person shall alter or disturb any stream, stream bed, fish habitat, water or watershed in any manner that might cause damage to, or loss of, fish without the necessary permits.

(b) Penalty.--Any person violating the provisions of this section commits a misdemeanor of the third degree.

§ 2504. Pollution of waters.

(a) General rule.--No person, regardless of intent, shall:

(1) Put or place in any waters within or on the boundaries of this Commonwealth any electricity, explosives or any poisonous substances except that, for the purposes of research and fish management, agents of or persons authorized by the executive director may use any method or means to collect, eradicate or control fish.

(2) <u>Allow any substance, deleterious, destructive or poisonous to fish, to be turned into or allowed to</u> run, flow, wash or be emptied into any waters within or bordering on this Commonwealth.

(b) Evidence.--In criminal prosecutions under this section for water pollution known to be injurious to fish, it is not necessary to prove that the violation has actually caused the death of, or damage to, any particular fish.

(c) Construction of section.--This section does not repeal or supersede any of the provisions of the act of June 22, 1937 (P.L.1987, No.394), known as "The Clean Streams Law."

(d) **Penalty.--**Any person violating the provisions of this section commits a misdemeanor of the third degree.

§ 2506. Commonwealth actions for damage to fish.

(a) Declaration of policy.--The Commonwealth has sufficient interest in fish living in a free state to give it standing, through its authorized agencies, to recover damages in a civil action against any person who kills any fish or who injures any streams or streambeds by pollution or littering. The proprietary ownership, jurisdiction and control of fish, living free in nature, are vested in this Commonwealth by

virtue of the continued expenditure of its funds and its efforts to protect, perpetuate, propagate and maintain the fish population as a renewable natural resource of this Commonwealth.

(b) <u>General rule.--</u>The commission, as an agency of the Commonwealth authorized to regulate, control, manage and perpetuate fish may, in addition to criminal penalties provided in this title, bring civil suits in trespass on behalf of the Commonwealth for the value of any fish killed <u>or any stream or streambed</u> <u>destroyed or injured in violation of this chapter</u>. In determining the value of fish killed, the commission may consider all factors that give value to such fish. These factors may include, but need not be limited to, the commercial resale value, the replacement costs or the recreational value of angling for the fish killed. In addition, the commission is entitled to recover the costs of gathering the evidence, including expert testimony, in any civil suit brought under this section where the defendant is found otherwise liable for damages.

CHAPTER 102. EROSION AND SEDIMENT CONTROL

GENERAL PROVISIONS

§ 102.1. Definitions.

Surface waters—<u>Perennial and intermittent streams, rivers</u>, lakes, reservoirs, ponds, <u>wetlands, springs, natural seeps</u>, and estuaries, excluding water at facilities approved for wastewater treatment such as wastewater treatment impoundments, cooling water ponds, and constructed wetlands used as part of a wastewater treatment process.

§ 102.4. Erosion and sediment control requirements.

(b) For earth disturbance activities other than agricultural plowing or tilling or animal heavy use areas, the following erosion and sediment control requirements apply:

(1) <u>The implementation and maintenance of E&S BMPs are required to</u> <u>minimize the potential for accelerated erosion and sedimentation, including</u> <u>those activities which disturb less than 5,000 square feet (464.5 square</u> <u>meters).</u>

(2) <u>A person proposing earth disturbance activities shall develop and</u> <u>implement a written E&S Plan under this chapter if one or more of the</u> <u>following criteria apply</u>:

(i) <u>The earth disturbance activity will result in a total earth disturbance</u> of 5,000 square feet (464.5 square meters) or more.

(ii) The person proposing the earth disturbance activities is required to develop an E&S Plan under this chapter or under other Department regulations.

(iii) The earth disturbance activity, because of its proximity to existing drainage features or patterns, has the potential to discharge to a water classified as a High Quality or Exceptional Value water under Chapter 93 (relating to water quality standards).

(3) <u>The E&S Plan shall be prepared by a person trained and experienced in E&S</u> <u>control methods and techniques applicable to the size and scope of the</u> <u>project being designed</u>.

(4) Unless otherwise authorized by the Department or conservation district after consultation with the Department, earth disturbance activities shall be planned and implemented to the extent practicable in accordance with the following:

(i) Minimize the extent and duration of the earth disturbance.

(ii) Maximize protection of existing drainage features and vegetation.

(iii) Minimize soil compaction.

(iv) Utilize other measures or controls that prevent or minimize the generation of increased stormwater runoff.

(5) <u>The E&S Plan must contain drawings and narrative which describe the</u> <u>following</u>:

(i) The existing topographic features of the project site and the immediate surrounding area.

(ii) The types, depth, slope, locations and limitations of the soils.

(iii) The characteristics of the earth disturbance activity, including the past, present and proposed land uses and the proposed alteration to the project site.

(iv) The volume and rate of runoff from the project site and its upstream watershed area.

(v) <u>The location of all surface waters of this Commonwealth which may</u> <u>receive runoff</u> within or from the project site and their classification under Chapter 93.

§ 102.5. Permit requirements.

(a) <u>Other than</u> agricultural plowing or tilling activities, animal heavy use areas, <u>timber harvesting activities</u> or road maintenance activities, a person proposing an

earth disturbance activity that involves equal to or greater than 1 acre (0.4 hectare) of earth disturbance, or an earth disturbance on any portion, part, or during any stage of, a larger common plan of development or sale that involves equal to or greater than 1 acre (0.4 hectare) of earth disturbance, shall obtain an individual NPDES Permit or coverage under a general NPDES permit for Stormwater Discharges Associated With Construction Activities prior to commencing the earth disturbance activity. In addition to other applicable requirements, persons required to obtain an Individual NPDES Permit for Stormwater Discharges Associated With Construction Activities prior to commencing the earth disturbance activity. In addition to other applicable requirements, persons required to obtain an Individual NPDES Permit for Stormwater Discharges Associated With Construction Activities for projects proposed in special protection watersheds shall evaluate and use BMPs in accordance with antidegradation requirements in § § 102.4(b)(6) and 102.8(h) (relating to erosion and sediment control requirements; and PCSM requirements) regardless of whether the discharge is new, additional or increased.

(b) <u>A person proposing a timber harvesting or road maintenance activity **involving** 25 acres (10 hectares) or more of earth disturbance shall obtain an E&S Permit under this chapter prior to commencing the earth disturbance activity.</u>

(c) A person proposing oil and gas activities that involve 5 acres (2 hectares) or more of earth disturbance over the life of the project shall obtain an E&S Permit under this chapter prior to commencing the earth disturbance activity.

(d) <u>Other than</u> agricultural plowing or tilling activities, animal heavy use areas, <u>timber harvesting</u> or road maintenance activities, a person proposing earth disturbance activities that involve 5 acres (2 hectares) or more of earth disturbance over the life of the project that do not require a permit under subsections (a), (b), and (c), shall obtain an E&S Permit under this chapter prior to commencing the earth disturbance activity.

CHAPTER 105. DAM SAFETY AND WATERWAY MANAGEMENT

Subchapter A. GENERAL PROVISIONS

GENERAL

Sec. 105.1. Definitions.

Discharge of dredged material—An addition, deposit, disposal or discharge of dredged material into the regulated waters of this Commonwealth including, but not limited to, the addition of dredged material to a specific disposal site located in the regulated waters of this Commonwealth and the runoff or overflow of dredged material from a contained land or water disposal area. <u>The term does not include</u> plowing, cultivating, seeding and harvesting for the production of food, fiber and <u>forest products</u>.

Discharge of fill material-

(i) An addition, deposit, disposal or discharge of fill into the regulated waters of this Commonwealth, including, but not limited to, the following types of construction:

- (A) Fill that is necessary for the construction of a structure in a regulated water of this Commonwealth.
- (B) A structure or impoundment requiring rock, sand, soil or other material for its construction.
- (C) Site-development fills for recreational, industrial, commercial, residential and other uses.
- (D) Causeways or roadfills.
- (E) Dams and dikes.
- (F) Artificial islands.
- (G) Property protection or reclamation devices, such as riprap, groins, seawalls, breakwaters and revetments.
- (H) Levees.
- (I) Fill for structures such as sewage treatment facilities.
- (J) Intake and outfall pipes associated with power plants and subaqueous utility lines.
- (K) Artificial reefs.
- (ii) <u>The term does not include</u> plowing, cultivating, seeding and harvesting for the production of food, fiber and <u>forest products</u>.

Encroachment—A structure or activity which changes, expands or diminishes the course, current or cross section of a watercourse, floodway or body of water.

§ 105.3. Scope.

(a) The following structures or activities are regulated under the act and section 302 of the Flood Plain Management Act (32 P.S. § 679.302):

(4) Water obstructions and <u>encroachments</u> other than dams located in, along or across, or projecting into a watercourse, floodway or body of water, whether temporary or permanent.

PERMIT APPLICATIONS

§ 105.11. Permit requirements.

(a) <u>A person may not construct, operate, maintain, modify, enlarge or abandon a dam, water</u> <u>obstruction or encroachment without first obtaining a written permit from the Department.</u>

§ 105.12. Waiver of permit requirements.

(a) Under section 7 of the act (32 P. S. § 693.7), the requirements for a permit are waived for the following structures or activities, regardless of when commenced. If the Department upon complaint or investigation finds that a structure or activity which is eligible for a waiver, has a significant effect upon safety or the protection of life, health, property or the environment, the Department may require the owner of the structure to apply for and obtain a permit under this chapter.