



COMMONWEALTH OF PENNSYLVANIA  
OFFICE OF ATTORNEY GENERAL

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February 15, 2019

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[REDACTED]

[REDACTED]

[REDACTED]

Lower Saucon Township  
[REDACTED]  
3700 Old Philadelphia Pike  
Bethlehem, PA 18015

Re: *ACRE Review Request* - [REDACTED]  
*Lower Saucon Township-Northampton County*

Dear [REDACTED],

The [REDACTED] and [REDACTED] ACRE complaint contends that Lower Saucon's timber harvesting requirements violate state law. After careful review of the relevant information, the Office of the Attorney General ("OAG") finds that the ordinances violate ACRE in the following respects:

1. Charging \$3,227.03, as reflected in Invoice # 5799, in consultant fees for [REDACTED] to review the site plans for the [REDACTED] and [REDACTED] properties, §§ 180-102.B(1) & (3), 102.C(1);<sup>1</sup>

<sup>1</sup> In [REDACTED] site plan applications for [REDACTED] and [REDACTED] there is a notation that the township collected a \$2,000.00 escrow fee. Lower Saucon's Fee Schedule lists a \$2,000.00 escrow requirement in Section 3, "Subdivision/Land Development, Minor Subdivisions." After [REDACTED] had reviewed the site plans, Lower Saucon informed [REDACTED] that its "escrow account currently has a negative balance. A cease and desist order [for the timber harvest] has been issued...until payment of \$3,227.03 (Invoice #5799 attached) is made." Apparently, Lower Saucon is using the funds in an applicant's escrow fees to pay for professional reviews of site plans.

2. Applying no-cut buffers along streets, riparian areas,<sup>2</sup> waterbodies, and abutting properties, including buildings on adjacent properties, in addition to the required retention of a percentage of the original basal area,<sup>3</sup> §180-127.2.D;
3. The required use of contour lines at a maximum of ten (10) foot intervals on United States Geographical Survey (“USGS”) maps, 180-127.2.A(2)(f);
4. The requirement that the site plan include a “certificate of insurance” for the harvesting contractor, § 180-127.2.A(3)(f);
5. The requirement that the site plan include the “[d]uration of forestry operation (number of days),” in order to secure a permit, § 180-127.2.A(3)(c);
6. Mandatory use of the “Selection Harvest Method”<sup>4</sup> instead of one or more of the other accepted silvicultural<sup>5</sup> methods, §180-127.2.B;
7. Requiring certain reforestation processes and time periods, §180-127.2.B(3);
8. Restricting certain forestry activities on slopes greater than 25% (where trees must be winched off using cable) and 40% (no harvesting unless a tree is diseased or presents a danger), §180-127.2.B(4) & (5);
9. Requiring cross drain culverts, broad based dips, water-bars,<sup>6</sup> and other water-control structures as needed to allow surface water to traverse logging roads,

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<sup>2</sup> A “riparian zone” is “an area adjoining a body of water, normally having soils and vegetation characteristic of floodplains or areas transitional to upland zones.” See Pennsylvania State University (“PSU”), College of Agricultural Sciences, *Best Management Practices for Pennsylvania Forests*, p. 46 (Attached as Exhibit A).

<sup>3</sup> “Basal area” is “[a] measurement of the cross-sectional area of a tree trunk in square feet at breast height. Basal area (BA) of a forest stand is the sum of the basal areas of the individual trees, and is reported as BA per acre.” <https://extension.psu.edu/forest-stewardship-terminology>.

<sup>4</sup> “Selection cutting, a regeneration technique in which trees are removed singly or in small groups, is appropriate for forests comprised of trees of different ages, or uneven-aged forests.” See PSU, College of Agricultural Sciences, *Timber Harvesting in Pennsylvania – Information for Citizens and Local Government Officials*, p. 5. (Attached as Exhibit B).

<sup>5</sup> “Silviculture is the art and science of controlling the establishment, growth, composition, health, and quality of forests and woodlands to meet the diverse needs and values of landowners and society such as wildlife habitat, timber, water resources, restoration, and recreation on a sustainable basis.” <https://www.fs.fed.us/forestmanagement/vegetation-management/silviculture/index.shtml>.

<sup>6</sup> A “culvert” is a “[p]ipe made of metal, plastic or other suitable material installed under roads to transmit water from an inside ditch to the outside edge of a road for dispersion.” A “broad based dip” is a “dip and a reverse slope in the trail or walkway surface with a cross slope in the dip to provide cross drainage. It can be described as a gentle roll in the centerline profile of the road that is designed to be a relatively permanent and self-maintaining water diversion structure that can be traversed by any vehicle.” A “water bar” is a “combined shallow trench and ridge made of earth, rocks, or logs constructed diagonally across a trail or walkway to remove and disperse surface runoff from the trail or walkway.” <https://efotg.sc.egov.usda.gov/references/public>, pp. 2, 3, & 4.

or trails, or landing areas in a way that will not cause soil erosion, §180-127.2.C(2)(c)[1]-[4];

10. Requiring that all disturbed areas, including but not limited to landing areas, haul roads, logging roads and trails and skid trails be fertilized and seeded during reforestation, § 180-127.2.C(2)(c)[4](d); and

11. Mandating that tops and slash<sup>7</sup> be disposed of in certain ways, § 180-127.2.C(10).

We elaborate upon each of these issues as follows:

### CONSULTANT FEES

Pursuant to §§ 180-102.B(1) & (3), 102.C(1) and Section 3 of the Township's Fee Schedule, Lower Saucon charged [REDACTED] \$3,227.03 in consultant fees for [REDACTED] to review their site plans. Such charges are not lawful and, if already collected, Lower Saucon must return the money.

The Municipalities Planning Code ("MPC") expressly prohibits townships from charging a landowner "expenses for engineering...or other technical consultants...costs" in administering a zoning ordinance. 53 P.S. § 10617.3(e). Timber harvesting is "a permitted use by right in all zoning districts in every municipality." 53 P.S. § 10603(f). Lower Saucon's attempt to charge thousands of dollars for reviewing site plans during the permitting process - for a permitted use by right - is tantamount to unlawfully converting the application into one for a conditional use. Lower Saucon cannot apply the provisions of Section 3, "**Subdivision/Land Development**, Minor Subdivisions" to forestry activities. The township must return any previously collected money and no longer charge consulting fees for those seeking to harvest timber.

### NO-CUT BUFFERS

Section 180-127.2.D mandates no-cut buffer zones of between seventy-five (75) and one hundred (100) feet. These no-cut buffers apply along streets, riparian areas, waterbodies, and abutting properties, including buildings on adjacent properties, in addition to the retention of a percentage of the original basal area.

That portion of subsection D dealing with water bodies and riparian areas conflicts with the state regulatory programs protecting "[a]ll surface waters, lakes, ponds, streams and wetlands in Pennsylvania." See Pennsylvania Department of Environmental Protection ("DEP"), *Timber Harvest Operations Field Guide for Waterways, Wetlands, and Erosion Control*, July 2009, p. 4. (Attached as Exhibit D). The DEP's Erosion and Sediment Control and Waterway Management regulatory schemes<sup>8</sup> implement best management practices for timber harvesting near streams, ponds, wetlands, floodplains, and other waters of the Commonwealth. The regulations do not

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<sup>7</sup> "Top' means the upper portion of a felled tree that is unmerchantable because of small size, taper, or defect."  
"Slash' means woody debris left in the woods after logging, including logs, chucks, bark, branches, uprooted stumps, and broken or uprooted trees or shrubs." See PSU School of Forest Resources, *Pennsylvania Model Forestry Regulations*, p. 3 (Attached as Exhibit C)

<sup>8</sup> 25 Pa.Code Chapters 102 and 105.

preclude timber harvesting activities in these water-sensitive areas; instead, the amount of buffer zone required near a water source depends on many variables, including soil type, slope, vegetative cover, and stream character. Exhibit D, p. 21; *see e.g.* 25 Pa.Code § 102.14. All timber harvesting activities are required to have a written E&S Plan to establish controls for activities near water sources. 25 Pa. Code § 102.4(b). Certain activities associated with timber harvest operations may require a permit under the Waterway Management regulations, such as the “deposition of solid fill, gravel, soil, slate and other such material in wetlands, streams and floodways for construction of temporary and permanent roads.” Exhibit D, p. 8. However, “[p]ermits are not required to cut timber and other vegetation, including cutting in wetlands.”<sup>9</sup> *Id.*

The best management practices manual for the Waterway Management regulations requires adequate buffer zones “where roads, skid trails, or log landings will be located near streams or wetlands.” *Id.*, p. 19.<sup>10</sup> The width of the buffer zone depends on the slope between the forestry activity and the stream/wetland. *Id.* As explained in the manual:

Buffer zones are land areas adjacent to both flowing and nonflowing water bodies where specific management strategies should be applied. Buffer zones protect wetlands, streams, lakes and ponds by helping to:

- protect water quality by filtering sediments and other pollutants from surface runoff;
- maintain proper water temperatures and degree of shading for both aquatic plant and animal life; and
- help retain sources of food and cover for wildlife species that use forested wetlands.

*Id.*, p. 20.

Although trees may be harvested within buffer zones around water sources, the DEP’s best management practices requires retention of 50% of the tree canopy so that there is no increase in water and ground surface temperature. *Id.* Moreover, the season, soil type, soil moisture, and type of equipment used has to be taken into account when harvesting. *Id.*, pp. 24-25. The “[c]areful implementation of BMPs will protect and enhance important wetland functions while allowing for cost-effective timber harvesting.” *Id.*, p. 25. The DEP requires certain best management practices when felling trees near wetlands or other water sources, which includes buffer zone requirements. *Id.*, pp. 21, 27-28.

As this regulatory scheme demonstrates, the best management practices for a particular forest is entirely dependent upon the unique conditions of that forest. For this reason, the Lower Saucon’s blanket prohibition on harvesting within a certain distance of any water body conflicts with the DEP’s Erosion and Sediment Control and Waterway Management regulations; those

<sup>9</sup> The Federal Clean Water Act exempts silvicultural activities within wetland areas from permit and regulatory requirements when managed under best management practices. 33 U.S.C. § 1344(f)(10(A)).

<sup>10</sup> The DEP’s *Timber Harvest Operations Field Guide for Waterways, Wetlands, and Erosion Control*, July 2009, and BMP Manual are one and the same. “This Timber Harvesting Operations Field Guide for Waterways, Wetlands and Erosion Control was developed as a quick reference guide and contains the most commonly used best management practices (BMPs) for silviculture activities.” Exhibit D, page immediately following the front cover and immediately before page i, Table of Contents.

regulations recognize the unique nature of each forest by allowing timber harvesting activities near water sources using required best management practices tailored to the particular site conditions of a specific property.

The ACRE statute provides for the OAG to utilize the PSU School of Agriculture as experts in agricultural operations issues. 3 Pa.C.S. § 314(d). In this case, the OAG consulted with a PSU School of Agriculture professor emeritus of forestry. The Penn State expert advised that any blanket, automatic buffer requirement is contrary to Best Management Practices (“BMPs”) and sound forest management accepted in the field of forestry. A professional forester develops a forest plan for a timber harvesting operation and in so doing, assesses the overall health of the forest and identifies the best management practices to implement to sustain and improve the health of the forest. This includes, for example, identifying which trees to remove, how much canopy to retain, addressing environmentally sensitive areas, and the overall management goals to sustain that forested land. These management goals will vary depending on the site specific conditions at a particular forest. In addition, the DEP requires a person engaging in timber harvesting activities to have either a written erosion and sediment (“E&S”) control plan or an approved E&S permit depending on the size of the timber harvesting operation. 25 Pa. Code §§ 102.4(b), 102.5(b). An E&S plan or permit requires planning for the site specific characteristics of the earth disturbance activity and the implementation of BMPs. Thus, Lower Saucon’s blanket setback buffer zone requirement is unreasonable and contrary to sustainable forestry practices because it precludes all timber harvesting in the zone and there may be trees that should be removed to maintain the long term health of the forest. Moreover, there may be safety or other reasons which require the harvesting of trees in the buffer zone, including the prevention of accelerated erosion and sediment control. The buffer setback also results in a direct economic impact by reducing the amount of property from which an owner can harvest trees in contravention of the MPC.

Our suggested amendment is to delete subsection D and replace it with a provision that requires the owner/operator of the timber harvesting operation to provide a forest plan prepared by a professional forester that sets forth the applicable BMPs to be implemented for the timber harvest, including the plan to address harvesting in the vicinity of waterbodies, along streets, property lines, abutting properties, and buildings on adjacent properties. The owner/operator may also be required to provide proof of any required DEP plans or permits.

### **TEN FOOT COUNTOUR LINES**

Section 180-127.2.A(2)(f) requires the use of USGS maps with a maximum of ten foot intervals for the forestry site plans.

The MPC prohibits ordinances from “unreasonably restrict[ing] forestry activities.” 53 P.S. § 10603(f). The PSU expert advises that the ten foot interval requirement for the topographic map is excessive and cost prohibitive. The expert states that in his decades of experience in the forestry field the intervals on most topographic maps in Pennsylvania are twenty feet. In the expert’s opinion, while a map with ten feet intervals may be a reasonable requirement for a residential development, such a short interval is not necessary for a timber harvest even when including road planning. Complying with the Ordinance forces the applicant to incur the added expense of completing a site specific survey; topographic maps with twenty foot intervals do not. In order to procure a site specific survey, a land owner or logger has to hire a professional land surveyor. The Pennsylvania Society of Land Surveyors explains on its website that “[d]epending on the nature and extent of the work, [a survey would cost] anywhere from a few hundred to several thousand

dollars.” <https://psls.org/whysurveyor>. Here, the landowner or logger is not be paying for a simple boundary/metes and bounds survey, but rather, the more complicated and labor intensive topographic survey. This cost is necessarily at the higher end of the range. Forcing a landowner or logger to expend additional resources of time and money for a site specific survey instead of allowing the owner/logger to rely upon already existent 20 foot maps constitutes an unreasonable restriction on timber harvesting. To bring the existing ordinance into compliance with state law, it should be amended to provide for the twenty foot contour intervals customarily used for timber harvest mapping.

### **INSURANCE**

Section 180-127.2.A(3)(f) requires that the site plan include a “certificate of insurance” from the harvesting contractor before a timber harvesting permit can be issued.

Our PSU expert states that in the typical timber harvest, a landowner first obtains a municipal permit before the timber goes out for bid to timber harvesters. As a result, this information is not available at the time the landowner submits the application. Hiring a person to do a job before one even has permission to do the job places the “cart before the horse.” For example, a landowner may want to undertake a particular harvest with certain parameters but the Township grants a permit for a different harvest under different parameters. If the landowner hires a logger based on the original parameters and then discovers that the logger can no longer do the job, for whatever reason, under the township’s revised parameters, the landowner has wasted months and must start the bidding anew.

It must be remembered that “[z]oning ordinances may not unreasonably restrict forestry activities,” and to that end, the Legislature has made “timber harvesting...a permitted use of right in all zoning districts in every municipality. 53 P.S. §10603(f). Requiring the landowner to provide proof of insurance prior to the issuance of a permit places an unnecessary obstacle in the landowner’s way that results in an unreasonable restriction on forestry activities. We suggest that Lower Saucon either delete this section or amend it with the following OAG proposed language: “The identity of the timber harvesting operator shall be provided to the Township upon the award of the bid for the timber harvest covered by the approved timber harvesting permit and proof of any insurance required under State law or proof of exemption therefrom for the timber harvester shall also be provided at the same time.” Under this proposed amendment, the landowner can proceed with the timber harvest permitting process in the most expeditious manner while at the same time Lower Saucon can rest assured that the necessary insurance is in place before the work actually begins.

### **DURATION**

Section 180-127.2.A(3)(c) states that the site plan must include the “[d]uration of forestry operation (number of days),” in order to secure a permit.

The commencement and completion dates for the timber harvest will not be known until the timber is sold to the timber harvester. Additionally, numerous factors are considered when establishing commencement dates, including best season to harvest at the site, market conditions that may result in postponing the harvest, and weather conditions. The PSU expert advises that it is common for a sale contract to allow a year or more to start or complete a timber harvesting operation. Placing a hard and fast time limit on the harvesting operation can place both the

landowner and the township in difficult situations. Pushing a landowner to harvest when the market is low costs him/her thousands of dollars in lost revenue. Forcing a harvest when weather conditions are poor, or forcing a harvest in the wrong season, can result in needless ecological consequences to the harvested land as well as to the surrounding area. Imposing a rigid time period for the harvest works is an unreasonable restriction of forestry activities under the MPC and not only serves to potentially harm the landowner but to potentially have an adverse effect on Lower Saucon land as well.

As a result, we suggest that this Section be amended with the following OAG proposed language: "Duration of forestry operation (number of days) if known when plan is submitted with the application, otherwise applicant shall inform Township of dates for commencement and completion upon the award of the bid for the timber harvest."

### **SELECTIVE HARVEST METHOD**

Section 180-127.2B requires the use of the "Selection Harvest Method" instead of any of the other accepted silvicultural methods.

The PSU expert explains that timber harvesting is a well-recognized forest management practice that, when properly planned, results in renewing and improving the vigor, diversity, and beauty of a forest. Without question, proper timber harvesting maintains the health and sustainability of forested land. A professional forester develops the plan for a timber harvesting operation; this plan contains an assessment of the overall health of the forest and identifies the best management practices necessary to sustain and improve its health. These BMPs include: identifying which trees to remove, how much canopy to retain, the unique needs of environmentally sensitive areas, and overall management goals to sustain the forested land. The overarching management goals vary depending on the site specific conditions of a particular forest. (*See Exhibit A*). It was explained above how placing rigid time requirements for providing proof of insurance and how placing a set number of days in which to commence and conclude a harvest are unreasonable restrictions on forestry under the MPC. The same is true here. Insurance and the timing of the harvest are undoubtedly important to forestry activities. But how the timber is actually going to be harvested is of the utmost importance. The method under which the timber is to be harvested is not only critical to the harvest itself but also to the future environmental and commercial viability of the timber stand. The landowner and logger must be given the flexibility to choose the best silvicultural method in light of the specific circumstances present at the time of the harvest instead of being forced into a silvicultural straightjacket which can reduce the commercial bottom line and harm the environment. A properly prepared forest management, timber harvesting, and E&S plans establish the necessary BMPs for a particular forest.

Moreover, "[c]ertain sites require specific silvicultural methods to ensure proper regeneration of species and forest stands. Timber harvesting operations should be given flexibility to determine what method or methods will best allow for future stands. Additionally, landowners have a right to manage their woodlot for future outcomes." *See PSU College of Agricultural Sciences, Dealing with Local Timber Harvesting Ordinances*, p. 17 (Attached as Exhibit E). The PSU expert advises that exclusive requirements like those found in § 180-127.2B restrict the use of shelterwood and seed tree silvicultural<sup>11</sup> methods and operate to prevent the removal of the

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<sup>11</sup> "The shelterwood method leaves a large number of trees standing long enough to establish and protect 'advanced regeneration' sites until the seedlings and saplings are well established." "The seed tree method leaves a few of the best trees standing to become the parent trees of the new forest." Exhibit A, p. 13. Other prescribed

appropriate number of trees for a specific site. Decisions on proper silvicultural prescriptions for a timber harvest should be determined by the forester and landowner. Accordingly, subsection B should be deleted.

### REFORESTRATION

Section 180-127.2.B(3) mandates that the timber harvesting plan include the reforestation processes to be used and time periods in which this reforestation will occur.

The PSU expert advises that in Pennsylvania, forest management plans are developed to achieve desired forest regeneration and not "reforestation."<sup>12</sup> According to the expert, "reforestation" suggests planting and other types of artificial regeneration treatments to a forest. However, "most of Pennsylvania's forests will regenerate naturally from seeds or sprouts." Exhibit B, p.5; *See also* Exhibit E, p. 18. There are situations for which trees may need to be planted to reforest, which include "reforesting former strip mines, old fields, conifer plantations, and areas where insects or diseases have killed all the seed-producing trees." Exhibit B, p.5. However, these situations are not involved in an application for a timber harvesting permit. It is "unreasonable, both economically and ecologically, to require a forestry operation to artificially regenerate the site." Exhibit E, p.18.

When one speaks of unreasonable restrictions on forestry under the MPC, one is not only referring to the actual timber harvest but also of the long term issues present in forestry. It is not enough to say that one must only be concerned with the commercial, ecological, and environmental factors of the actual timber harvest. One must also take into account the commercial, ecological, and environmental impacts the harvest will have in the years and generations to come. Landowners, loggers, and townships must ensure that the harvested land continues to support thriving flora and fauna and continues to provide township residents with all the benefits of forested land. Rigidly mandating only "reforestation" instead of regeneration, and setting locked-in time periods for revitalizing a harvest area are counterproductive. Accordingly, the reforestation provisions of the ordinances must be deleted.

### STEEP SLOPES

Section 180-127.2.B(4) & (5) restricts certain forestry activities on slopes greater than 25% (trees must be winched off using cable) and 40% (no harvesting unless a tree is diseased or presents a danger). These automatic, blanket restrictions in the Ordinance are unreasonable restrictions on forestry activities in violation of the MPC because it conflicts with BMPs recognized in the field of forestry.

According to the PSU expert, both an E&S plan and the timber harvesting plan address harvesting on steep slopes. The BMPs for runoff or soil degradation are required in every E&S plan. Those BMPs include precluding use of operating equipment and haul and skid roads on steep

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silvicultural practices include intermediate treatments (cleanings, thinning and improvement cuts); regeneration methods (single tree and group selections; shelterwood and seed trees, and clear cut methods); and the crops tree method. *Id.*, pp. 11-13.

<sup>12</sup> Artificial regeneration is manually "reseeding or replanting an area where a forestry operation took place..." whereas natural regeneration consists of seeds already in the soil or sprouts from tree stumps growing in time into mature trees. "These naturally regenerated trees have been shown to grow faster and survive better than the planted trees." Exhibit B, p. 5. *See also* Exhibit E, p. 18

slopes. While timber harvesting on steep slopes typically involves using cables to remove logs from the felling site this is not the only method. The expert explains that removing timber following BMPs does little to change water infiltration or to destabilize soils. This is because tree roots, even from harvested trees, continue to hold the soil in place. Conversely, naturally fallen trees pull up their roots in what foresters call a root ball and are more likely to destabilize the soils from water infiltration.

As explained in a PSU publication, “[c]ertain sites require specific silvicultural methods to ensure proper regeneration of species and forest stands. Timber harvesting operations should be given flexibility to determine what method or methods will best allow for future forest stands.” Exhibit E, p. 17. As a result, the sections concerning harvesting on steep slopes must be deleted.

### WATER CONTROL STRUCTURES

Section 180-127.2.C(2)(c)[1]-[4] requires cross drain culverts, broad based dips, water-bars and other water-control structures as needed to allow surface water to traverse logging roads, or trails, or landing areas; their purpose is to prevent “soil erosion.” § 180-127.2.C(2)(c). The Ordinance regulates with great specificity the spacing of culverts, broad based dips, and water bars based on the slope of the road or trail. These erosion concerns are already extensively addressed in mandatory E & S plans, resulting in a water control ordinance which either exceeds or duplicates existing state erosion and sedimentation standards.

Under the Clean Streams Law<sup>13</sup> the DEP regulates erosion and sediment control and “requires persons proposing or conducting earth disturbance activities to develop, implement and maintain [best management practices] to minimize the potential for accelerated erosion and sedimentation and to manage post construction stormwater.” 25 Pa. Code § 102.2(a). Timber harvesting is subject to the DEP’s E&S regulations. *Id.* § 102.4(b), 102.5(b), & (d). DEP defines “timber harvesting activities” as “[e]arth disturbance activities including the construction of skid trails, logging roads, landing areas and other similar logging or silvicultural practices.” *Id.* § 102.1.

A timber harvest operation that disturbs more than 5,000 square feet must develop and implement a written E&S plan. *Id.* § 102.4(b)(2)(i). An E&S plan is “[a] site specific plan consisting of both drawings and a narrative that identifies BMPs to minimize accelerated erosion and sedimentation before, during and after earth disturbance activities.” *Id.* § 102.1. DEP requires an E&S plan to be “prepared by a person trained and experienced in E&S control methods and techniques applicable to the size and scope of the project being designed.” *Id.* § 102.4(b)(3). The E&S plan must identify and account for the “types, depth, slope, locations and limitations of the soils.” *Id.* § 102.4(b)(5)(ii). A timber harvesting operation involving 25 acres or more of earth disturbance activity must obtain an E&S permit from DEP, in addition to the E&S plan. *Id.* § 102.5(b).

While Lower Saucon is within its authority to request copies of these E&S plans and permits, the ordinance requirements under § 127.2.C(2)(c)[1-4] are fully addressed by a written E&S plan prepared in compliance with the DEP’s erosion and sediment control regulatory structure. *See* 25 Pa. Code § 102.4. Lower Saucon does not have authority to duplicate or exceed the DEP’s regulatory requirements. *See Commonwealth v. East Brunswick Township*, 980 A.2d 720, 733 (Pa. Cmwlth. 2009) (explaining that a township cannot duplicate the regulatory regime established by the Solid Waste Management Act and cannot impose more stringent requirements than the SWMA.). As a result, § 127.2.C(2)(c)[1-4] must be deleted.

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<sup>13</sup> 35 P.S. §691.1, *et. seq.*

## FERTILIZATION & SEEDING

Section 180-127.2.C(2)(c)[4](d) requires that all areas disturbed during the harvest must be fertilized and seeded during regeneration.

A timber harvesting plan is distinct from a woodland management plan.<sup>14</sup> The PSU expert advises that in Pennsylvania, woodland management plans are developed to achieve desired forest regeneration. According to the expert, “regeneration” suggests what is known as “artificial regeneration” such as replanting or reseeded an area that has been harvested. However, most forests regenerate naturally making artificial regeneration an unreasonable restriction. As the PSU School of Agriculture explains:

[a]rtificial regeneration, reseeded or replanting an area where a forestry operation took place, is often written into timber ordinances as a requirement. An ordinance requiring artificial regeneration, however, is typically not necessary in Pennsylvania. When acceptable silvicultural practices are used, most of Pennsylvania’s forest will regenerate naturally from seeds already in the soil or sprouts from stumps. These naturally regenerated trees have been shown to grow faster and survive better than the planted trees. Therefore, it is unreasonable, both economically and ecologically, to require a forestry operation to artificially regenerate the site. Species requirements also prevent landowners from improving the overall quality of their woodlot...Requiring artificial regeneration can create an unnecessary economic obstacle for a timber harvesting operation. As a result, this requirement is unreasonable and should not be included under local timber harvesting ordinances.

Exhibit E, p. 18.

Presently, Lower Saucon has elevated the broader question of woodlands management-with an implementation timeframe that often extends across 10 or more years - to the level of an enforceable legal requirement, i.e. the Ordinance. This unreasonable restriction on timber harvesting runs contrary to the clear legislative intent of promoting and encouraging timber and constitutes a violation of state law. The fertilization and reseeded requirement of the Ordinance must be deleted.

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<sup>14</sup> A woodlands “management plan is a written document that outlines the objectives you have for your forest and guides your activities. It provides descriptions and recommendations for management, serves as a record of your accomplishments, and documents your philosophy, practices, and plans for the future. Your plan should include the following: A statement of purpose: what you want to do with your forestland and why you want to do it; A physical description of your forestland: the location of your property and number of acres owned; forest types and tree species, age, condition, and quality; soil types and productivity; land slope and limitations; A list and timeline of management practices and recommendations: activities planned for each area and recommended completion schedule.” <https://extension.psu.edu/forestry-with-confidence-a-guide-for-woodland-owners>. A “timber harvesting plan” is addressed on pages 6-7 above.

## TOPS & SLASH

Section 180-127.2.C(10) does not permit tops or slash to be left within fifty (50), twenty-five (25), and ten (10) feet of various man-made and natural terrain features such as streets, streams, trails, driveways, and drainage ditches. Subsection (10) also requires the harvester to pile the tops and slash no higher than four (4) feet above an adjacent grade.

The PSU expert opines that tops/slash is an important component relating to timber harvest site productivity and should be left on site without restrictions for several reasons. Tops/Slash contributes important elements back into the site. A log is mostly carbon and other macronutrients,<sup>15</sup> which is taken from the site as the product. The tops/slash, smaller branches, twigs, and leaves contain various micronutrients such as nitrogen, magnesium, calcium, and boron. If these are removed or collected in a concentrated area, the micronutrients do not come back into the nutrient cycle quickly or effectively.

Secondly, tops/slash contributes immensely to organic material cycling which serves to release the micronutrients. The tops/slash also helps build the 0-horizon, i.e. the upper layers of the soil profile. This 0-horizon is important for the protection of the underlying soil (the mineral components) from erosion. Once the canopy is opened by the harvest, there is nothing to impede the impact of rain on exposed soil. While the removal or concentration of the tops/slash may not always expose mineral soil, it does expose the existing organic layer to more light and heat, which in turn accelerates decomposition. Tops/Slash, as it is left after a timber harvest, actually creates some shade, distributed across the site, which in turn reduces the rain impact and assists in generating the 0-horizon. This 0-horizon then acts as a “sponge” absorbing water and allowing it infiltrate more slowly into the underlying soil structure. Moreover, the organic 0-horizon supports a community of fungi, macro invertebrates, amphibians (*e.g.* salamanders), and reduces surface water flow.

Tops/Slash has been shown to help facilitate forest regeneration. For example, one of the major challenges to regeneration are white-tailed deer. Deer are opportunistic feeders; the residual tops/slash are very important for deterring browsing on actual trees, as generally preferred by deer. Accordingly, a site with ample tops/slash widely distributed is more likely to regenerate from the “fences” created by the residual detritus. The advantage afforded by the tops/slash is relatively short-lived, five (5) to ten (10) years, a time period that may be especially critical to revegetation.

Much of the microorganism community (*e.g.*, insects, fungi, reptile, amphibian, small mammal like shrews and mice) depend on the habitat created by the tops/slash following harvesting. In fact, the larger residual slash breaks down (rots) over time; this time period is a critical part of the microorganism community’s life cycle.

The academic forestry community has studied the amount of slash that would best support wildlife in a Pennsylvania woodlot. At a minimum, a woodlot should have three (3) to five (5) cords of wood debris on the forest floor per acre. That would translate into 270 to 450 cubic feet of coarse woody debris. A timber harvest might well leave more than that amount of slash; however, a greater amount of tops/slash may be preferable as much of it is relatively short lived.

Another concern with the mandated removal or concentration of tops/slash is the impact on the site increases the amount of disturbance from the machinery used to gather and move the

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<sup>15</sup> “Macronutrients can be broken into two...groups: primary and secondary nutrients. The primary nutrients are nitrogen (N), phosphorus (P), and potassium (K)...The secondary nutrients are calcium (Ca), magnesium (Mg), and sulfur (S).” <https://www.ncagr>

tops/slash. Doing this likely contributes to additional tree stem damage, soil compaction, organic matter disturbance, and the loss of habitat as described above.

While the cost of removing or concentration of tops/slash is site and circumstance specific, in all cases it presents the logistical challenge of how to gather it up, move it efficiently to a concentration point, and then chip it for removal from the site. Under any scenario complete removal is expensive and could require specialized machinery. While many people may find tops/slash to be aesthetically displeasing, understanding its role in forest regeneration may help alleviate some of this distaste. Know, too, that the displeasing appearance of the site is relatively short lived as it decays and regeneration begins to hide it.

For all these reasons, Lower Saucon's requirement that tops/slash either be removed or concentrated in various areas within the harvest site is a violation of state law as such a mandate constitutes an unreasonable restriction on forestry activities.

### CONCLUSION

The OAG respectfully submits that Lower Saucon can take one of two actions moving forward. One – it can amend its ordinances as noted above. Alternatively, Lower Saucon can adopt the PSU model ordinance found at Exhibit C. The OAG recommends that Lower Saucon enact the “Pennsylvania Model Forestry Regulations” developed by the PSU School of Forestry Resources. “The model is intended to address fairly the needs and concerns of local citizens as well as forest landowners and the forestry industry.” Exhibit C, p. 1. This model ordinance also addresses the needs and concerns of local governments as it is “designed to be consistent with the so-called ‘Right to Practice Forestry’ provision (53 P.S. § 10603(f)) of the Municipalities Planning Code.” *Id.*

Please review this letter and attached resources and let me know whether Lower Saucon will resolve the ACRE case by either amending its ordinances or by enacting the model ordinance. Thank you for your consideration and I look forward to working with you to hopefully resolve this matter without resorting to litigation.

Sincerely,



Robert A. Willig  
Senior Deputy Attorney General