

FINAL REPORT AND RECOMMENDATION OF THE PLANNING BOARD ON THE PETITIONS OF ANATOL ZUKERMAN, ET. AL. TO SEE IF THE TOWN WILL VOTE TO AMEND ITS ZONING BYLAW TO REGULATE THE REMOVAL OF TREES

DATE OF PUBLICATION OF PUBLIC HEARING: August 31, 2016
September 7, 2016

DATE OF PUBLIC HEARING: September 19, 2016

VOTE: On September 19, 2016, the Planning Board voted (5-0) NOT TO SUPPORT the following amendments to the Fall Annual Town Meeting.

PROPOSED AMENDMENTS:

Amendment 1

To see if the Town will vote to install the following bylaw into Plymouth Zoning Ordinance: Any tree equal to or greater than 8 inches in diameter during the site preparation for any project within all zones in the Town of Plymouth shall be replaced with trees of smaller or equal diameter within suitable areas as a mitigation of deforestation. Or take any other action relative thereto.

Amendment 2

To see if the Town will vote to...install the following bylaw into Plymouth Zoning Ordinance: Any tree equal or greater than 8 inches in caliper* that is removed during the site preparation for any project within all districts of Plymouth shall be replaced with a tree of a smaller caliper within or without the site of the project as a mitigation of the damage to the natural environment. If the site of the project cannot accommodate replanted trees the owner may either plant those trees on the public land of Plymouth, or remunerate the cost of the removed trees to the Town of Plymouth under the direction from Tree Warden of Plymouth. One and Two-family residential properties are exempt from this bylaw.

*Caliper of a tree is a diameter of a tree trunk measured at the height of 24 inches from the finished grade at the base of the trunk. Or to take any other action relative thereto

Amendment 3

To see if the Town will vote to...install the following bylaw into Plymouth Zoning Ordinance:

Any tree equal or greater than 8 inches in caliper* that is removed during the site preparation for any project within all districts of Plymouth shall be replaced with a tree of a smaller caliper within or without the site of the project as a mitigation of the damage to the natural environment. If the site of the project cannot accommodate replanted trees the owner may either plant those trees on the public land of Plymouth, or remunerate the cost of the removed trees to the Town of Plymouth under the directions from Tree Warden of Plymouth.

Exemption: Residential lots of 20,000 square feet or less.

*Caliper of a tree is a diameter of a tree trunk measured at the height of 24 inches from the finished grade at the base of the trunk.

§205-18. Natural features conservation requirements.

E. Vegetation.

(4) Replacement of trees: Every tree removed from a privately owned parcel of land in the Town of Plymouth having a diameter of eight inches (8") at breast height (DBH) or larger shall be replaced with a tree of lesser diameter within or without that parcel of land. The size of the replacement tree shall be determined by Plymouth Tree Warden.

(5) There shall be established a tree replacement fund which shall be held in a separate account and administered in accordance with applicable provisions of the General Laws of Massachusetts.

(6) In lieu of planting a substitution tree an owner of a private parcel of land may make a contribution to a tree replacement fund. The size of this contribution shall be determined by Plymouth Tree Warden.

(7) Each failure to replace trees or make a payment into the tree replacement fund shall be a subject to a fine in the amount of three hundred dollars (\$300.00).

(8) Town trees: nothing herein shall be construed to require the Town of Plymouth to make a payment into the tree replacement fund for any tree(s) which it removes.

(9) Exemptions: This article shall not apply to a privately owned land of 20,000 square feet or less.

REVIEW:

The petitioner has offered three possible amendments to the Zoning Bylaw as noted above. At the Planning Board's September 19, 2016 meeting the petitioner indicated that Amendment 3 was the preferred option. The three proposed amendments are similar, however, the third amendment appears to apply to **any tree removal** of any kind on lots over 20,000 square feet (1/2 acres) in size, the first amendment applies to "any project" amendments 3 and 1 would regulate tree removal associated with dwellings, additions, pools, sheds, etc. Amendment 2 appears to provide some level of exemption for residential properties.

The petitioner based this bylaw on a General (Non-Zoning) Ordinance from Newton, Massachusetts a highly urbanized city.

Overall Comments

- For a town the size of Plymouth (103 square miles) such bylaws would be unworkable. The Building Department does not have the staff to police and enforce such wide reaching bylaws.
- Town Counsel has reviewed the proposed amendments and finds the language to be extremely vague and if adopted would create the potential for significant litigation.

- The Planning Board, Agricultural Committee, Director of Planning and Development and Building Commissioner do not support these amendments.
- Agricultural uses (including the harvesting of trees) are exempt from these provisions. A property owner can completely bypass these amendments by claiming an agricultural exemption to create a hay field or other exempt agricultural use and after the trees are removed file for a subsequent plan for development.
- If adopted considerable costs will be added to Town owned projects such as:
 - The overland installation of water & wastewater lines,
 - Construction of new recreation fields, and
 - Construction of new schools.
- There is no guidance for trees removed by natural disaster.
- A professionally prepared tree survey plan and tree count would have to be filed with every zoning permit.
- Plymouth (as with all towns) has a zoning bylaw not a zoning ordinance.
- There is limited guidance as to which section of the zoning bylaw these amendments should be inserted.
- Where in Plymouth is there public land in need of hundreds of replacement trees?
- How does the Town address 8 inch diameter trees that are dead?
- Finally, to avoid enforcement, such a bylaw may ironically encourage property owners to cut down trees before they reach the 8 inch diameter size.

Amendment 1

- The term “smaller caliper tree” is not defined (also applies to option 2 & 3).
- No process is established for how a tree fee is established, collected or used (also applies to option 2 & 3).
- The amendment is silent on tree removal when it is not related to a project (also applies to option 2).
- The term “project” is not defined (also applies to option 2).
- The amendment further states that “**any**” project within all districts. The term “any” further broadens and complicates what types of development are covered by the amendment (also applies to option 2).

Amendment 2

- The amendment allows for the replacement of trees on **or without the site**. There is no guidance relative to meaning of “without the site” or where an appropriate location may be. Could this even mean in another town? (also applies to option 3).
- One and two family residential properties are exempt. **Properties** is an unusual word to use in a zoning bylaw and is not defined.
 - Does it mean zoned for one and two families?
 - Does it mean used for one and two family dwellings?
 - Does it mean capable of housing such dwellings?
 - Are one and two family dwellings proposed in a subdivision or special permit development exempt or is that a “project”?
 - Does it apply to accessory uses related to one and two family dwellings (pools, barns, garages)?

- There are houses in Plymouth located on very large (20+ acre) lots in Plymouth. Is “any project” on such a property exempt?
- Private developers would be required to enter onto Town land to plant replacement trees. Allowing private entities to do such work on Town land poses a number of issues with legal, procurement and liability implications. (also applies to option 3)

Amendment 3

- Appears to apply to tree removal of any kind (not necessarily related to any construction) on lots greater than 20,000 square feet (1/2 acre). This would include general tree removal as well as removal for the construction of sheds, driveways, pools, etc.
- There are over 12,600 lots in Plymouth over 20,000 square feet in size.
- Town projects are not required to pay but still must replace trees.
- The term Residential Lot is not defined (i.e. Zoned residential? has a residential use? capable of having a residential use?)

TOWN OF PLYMOUTH BY:

Timothy Grandy, Chairman

Kenneth Buechs

Paul McAlduff

Malcolm MacGregor

Robert Bielen

BEING A MAJORITY OF THE PLANNING BOARD

DATE SIGNED BY THE PLANNING BOARD: _____

DATE FILED WITH TOWN CLERK: _____

cc: Town Clerk
Board of Selectmen
Advisory and Finance Committee

Anatol Zukerman, Member
Plymouth Energy Committee
1 Shinglewood, Plymouth, MA 02360

Re: Articles 30 and 31

August 30, 2016

To whom it may concern,

The intent of this petition is to reduce the ongoing destruction of the natural environment of Plymouth while providing for its continued growth. Currently, Plymouth does not control new construction beyond the traditional zoning requirements while most developers ignore the Massachusetts guidelines for Smart Growth. This town sits on a bed of sand and gravel which is currently excavated and sold for profit at the expense of the local flora and fauna and the health and well-being of the community. One way of reducing this destruction is to require the replanting of cut trees – which is the essence of this Petition.

During the past three years I worked with the Plymouth Energy Committee on the solar bylaw that tried to reconcile the installation of ground-mounted solar fields with the ongoing deforestation of Plymouth. Based on that experience I have come to the conclusion that destruction of the natural environment cannot be regulated by solar bylaws only because land owners can cut trees for other purposes that are not regulated by either the state or the town.

Therefore, I suggested and other citizens supported the attached petition that calls for replanting of trees cut for any and all purposes or projects in all districts of Plymouth. While proposing to reduce the ongoing deforestation of Plymouth we purposefully excluded small residential and commercial lots of less than 20,000 sf (0.46 acres) to allow solar installations and habitable structures with minimum destruction of the natural environment.

As you know, the Plymouth Planning Department is particularly concerned with the destruction of natural environment by mixed-use developments such as the Makepeace Redbrook project which destroyed many acres of wooded land for both habitable structures and a large solar field. That project has plenty of land for replanting the cut trees on site at least partially. A fee for other trees could be remunerated to the Town of Plymouth to mitigate the increased school population and enhance the parks and recreation programs. Our petition aims at establishing control of such developments for the sake of human health and well-being as well as future growth.

Articles 30 and 31.

This Petition is asking Plymouth Town Meeting to create the following sections within Plymouth Zoning Ordinance §205-18. Natural features conservation requirements.

E. Vegetation.

(4) Replacement of trees: Every tree removed from a privately owned parcel of land in the Town of Plymouth having a diameter of eight inches (8") at breast height (DBH) or larger shall be replaced with a tree of lesser diameter within or without that parcel of land. The size of the replacement tree shall be determined by Plymouth Tree Warden.

(5) There shall be established a tree replacement fund which shall be held in a separate account and administered in accordance with applicable provisions of the General Laws of Massachusetts.

(6) In lieu of planting a substitution tree an owner of a private parcel of land may make a contribution to a tree replacement fund. The size of this contribution shall be determined by Plymouth Tree Warden.

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(8) Town trees: nothing herein shall be construed to require the Town of Plymouth to make a payment into the tree replacement fund for any tree(s) which it removes.

(9) Exemptions: This article shall not apply to a privately owned land of 20,000 square feet or less.

Anatol Zukerman, Member
Plymouth Energy Committee
1 Shinglewood, Plymouth, MA 02360

Re: Articles 30 and 31

September 17, 2016

To whom it may concern,

The attached proposal was based on the example of the City of Newton, Massachusetts that practiced a similar bylaw during the past 16 years and on the Pinehills development in Plymouth that saved 70% of open space and replanted most of the trees that were removed during construction. Below is a written statement by Newton's Director of Urban Forestry marc Welch:

"The City of Newton's Tree Preservation Ordinance applies to all properties regardless of lot size. If a site is non-residential or greater than four families any tree removal on the site must be permitted and replacement planting are typically required. If a property is being developed by a builder they must also get a tree permit and replace trees removed.

Any tree eight inches in diameter or greater is considered a protected tree. Tree replacement is "inch for inch". For every diameter inch removed a caliper inch must be planted. If replacement inches are not planted on site a payment must be made into the tree fund. Payment is based on City's current planting costs. Presently it costs us \$168 per caliper inch to plant trees."

According to Marc Welch the cost of the replacement is negotiated with the mayor. For instance, the Kessler Woods residential project removed trees from roughly 12 acres of land and paid the city about \$320,000 as mitigation. The Newton Terraces residential project removed trees from 10 acres of land and paid the city roughly \$300,000. The Chestnut Hill Square project removed trees from 10 acres of land and payed the city \$320,000.

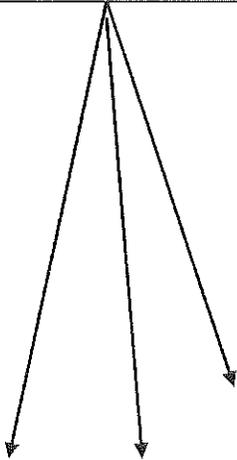
Mr. Welch also suggested that in a more rural town of Plymouth the environmental damage can be determined by counting the acreage of canopy areas instead of measuring the calipers of every tree which is time and labor consuming. This way, the current deforestation of Plymouth could be assessed more easily from aerial photographs of a site during a routine Site Plan Review process.

Thus, before presenting this Petition to Plymouth Town Meeting, we seek an input from all elected and appointed officials as well as citizens of Plymouth.

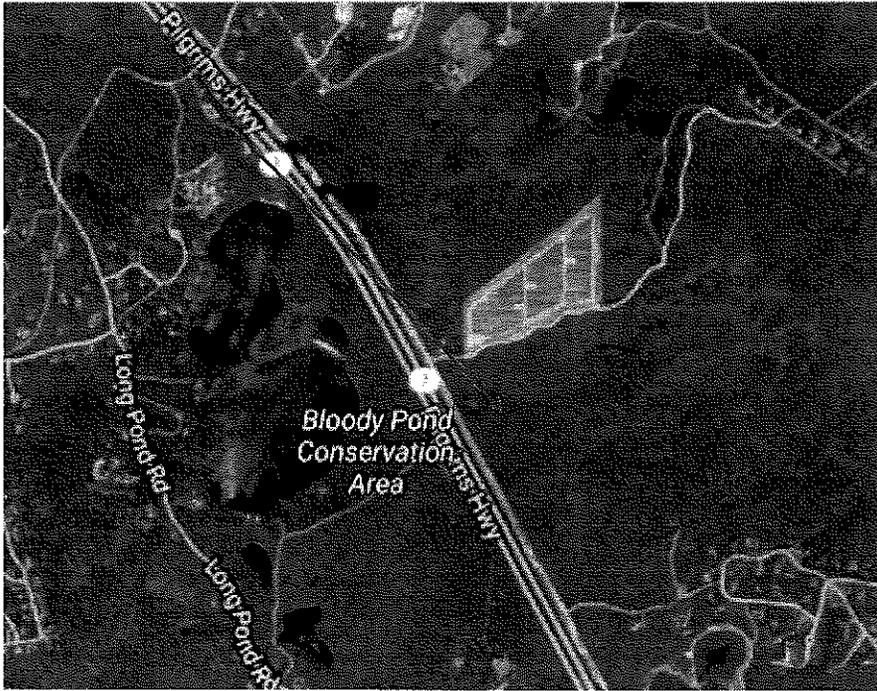
Anatol Zukerman



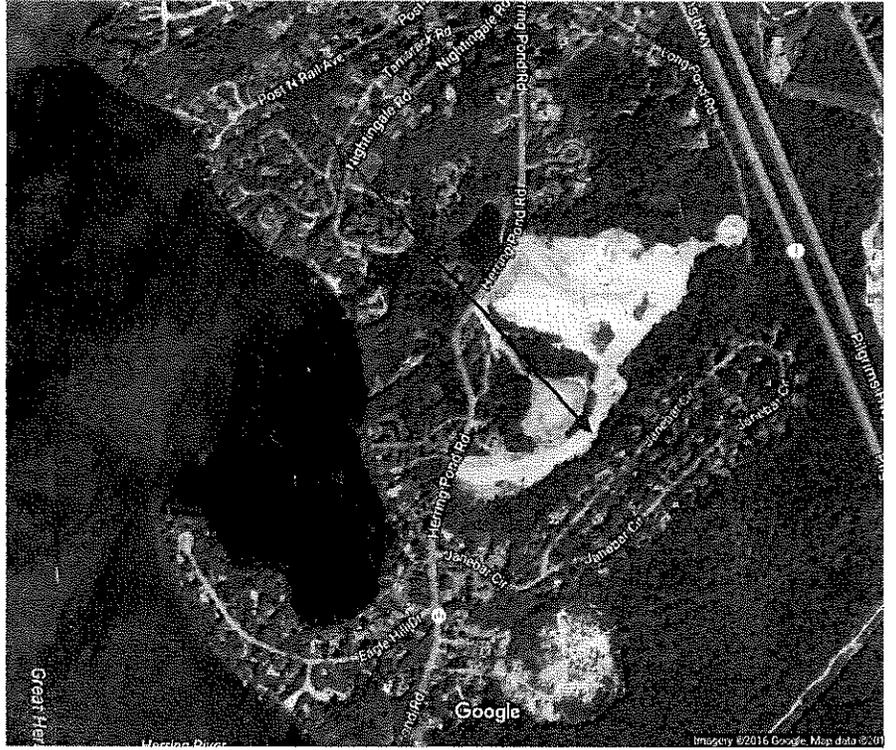
Redbrook development – clear cutting of village green, trees around YMCA, YMCA parking lot without trees



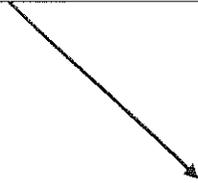
Solar farm near Rte 3 and Bloody Pond (not visible from Rte 3)



Land cleared near Herring Pond for solar farm



Land cleared for solar farm at Camp Norse



From: Linda Lancaster, 1 Shinglewood, Plymouth, MA
To: Mr. Timothy Grandy, Chair, Plymouth Planning Board
Re: Support for Citizen's Petition Article 31 submitted by Anatol Zukerman
Date: September 19, 2016

Dear Mr. Grandy:

I'm writing to voice my support for the Article 31 citizen's petition, which would help the town of Plymouth control deforestation and realize revenue from developers who remove a significant amount of trees. It is suggested that the proposed revenue be designated for a tree fund to be used by the tree warden for planting and protecting trees in Plymouth. Other cities and towns in Massachusetts have successfully implemented ordinances similar to the one proposed by this petition. Mr. Zukerman has conferred with Newton and other towns on how their tree regulations are working in practice. Plymouth zoning for tree protection can be modelled on these already existing zoning ordinances.

As we all know, Plymouth's forests are a precious resource, which protect our water supply, contain unique habitat that should be preserved, and mitigate greenhouse gases by sequestering carbon and absorbing carbon dioxide. Consequently, there are environmental costs to removing forests whether for a solar farm or housing development or whatever. These costs are both local and global, though seldom included in a developer's business plan calculations. It may make sense financially for a Brazilian farmer to burn rainforest to create more farmland, but the environmental cost of destroying the rainforests is almost incalculable. Financial models have simply not successfully captured environmental costs.

As long as developers are allowed to destroy forests in the course of building projects, without paying for the environmental cost, they will of course do so. It is up to the town to create zoning that will protect our environment.

One of the comments when Article 31 was presented to the selectman was that Plymouth has plenty of trees. The speaker said he did not see deforestation when driving around Plymouth. That is because most of this deforestation is happening in places you don't see from most roads. I have attached some examples from Google maps: land cleared for near Herring Pond and Camp Norse/Annawon boy scout camp, a large existing solar farm near Route 3 and Bloody Pond, etc. In addition, there are at least 8 solar projects in the planning and development stage. The time to save trees is before you cut them down.

Plymouth already does a commendable job of acquiring conservation land and striving to protect our sole source water supply. While the details may still need to be worked out, this proposal is a good addition to this mix. Therefore, I urge you to support Article 31 and develop a more robust tree protection regulation for commercial projects.

Respectfully submitted,

Linda Lancaster

Attachment: Google maps tree removal.docx