

Town of Windham

Planning Department
8 School Road
Windham, ME 04062

voice 207.894.5960

fax 207.892.1916

MEMO

DATE: April 18, 2018

TO: Windham Planning Board

FROM: Amanda Lessard, Planner *AL*

Cc: Chris Hanson, Director of Code Enforcement
Jon Earle, P.E., Town Engineer

RE: Ordinance Amendment: Sections 800 Site Plan Review and 900 Subdivision Review, changes proposed by Highland Lake Association (HLA)
Planning Board Meeting – April 23, 2018

At their meeting on March 20, 2018, the Town Council voted to forward the enclosed proposed ordinance change to the Board. The proposed ordinance language was developed by staff to support the request of the Highland Lake Association (HLA).

The three specific changes the HLA has requested are:

1. All subdivisions and site plans in the Highland Lake watershed must be designed to meet the current DEP phosphorous allocation of 0.020 lbs/acre/year.
2. A proposal for a subdivision to pay a fee in lieu of meeting the 0.020 lbs/acre/year is not acceptable.
3. Allowing public use of the open space within a subdivision will not result in any subdivision bonus houses within the Highland Lake watershed.

See attached memo dated March 2, 2018 from Planning Director Ben Smith for additional staff discussion points and recommendations. Since the March 20, 2018 Council meeting, the proposed ordinance changes have been revised based on recommended language from town counsel Jim Katsiaficas to include language to make any ordinance changes relative to these items retroactive to September 5, 2017, the effective date of the moratorium on development within the Highland Lake watershed.

Zoning Amendment Process

The Planning Board must hold a public hearing prior to making a recommendation on this item to the Town Council. The Town Council will need to vote on the proposed changes to the Land Use Ordinance for the changes to be officially approved. A public hearing has been scheduled

for the Board meeting on April 23, 2018. After the public hearing and discussion by the Board, the Planning Board may vote on a recommendation to the Town Council similar to the following:

MOTION: To (**recommend/recommend with comments/not recommend**) approval of the proposed amendments to Sections 800 and 900 and of the Land Use Ordinance regarding stormwater management and cluster subdivisions within the Highland Lake watershed.

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MEMO

DATE: March 2, 2018

TO: Windham Town Council
THROUGH: Tony Plante, Town Manager
FROM: Ben Smith, Planning Director *BUS*
Cc: Chris Hanson, Director of Code Enforcement
Amanda Lessard, Planner
Jon Earle, P.E., Town Engineer

RE: Highland Lake – ordinance changes recommended by Highland Lake Association (HLA)

At the direction of the Council, staff has developed ordinance language changes to support the request of HLA as detailed in their letter to the Council dated February 5, 2018, which is attached to this memo. A key component of the HLA request is to make any ordinance changes relative to these items retroactive to the date of the moratorium approved on September 12, 2017.

The three specific changes the HLA has requested, along with staff discussion points and recommendations, follow below.

1. All subdivisions and site plans in the Highland Lake watershed must be designed to meet the current DEP phosphorous allocation of 0.020 lbs/acre/year.
2. A proposal for a subdivision to pay a fee in lieu of meeting the 0.020 lbs/acre/year is not acceptable.
3. Allowing public use of the open space within a subdivision will not result in any subdivision bonus houses within the Highland Lake watershed.

Discussion

Retroactivity in these changes is not required based on the establishment of a new 6-month moratorium on development in the watershed voted on as an emergency measure at the Council meeting on February 27, 2018. Such language can be added later if deemed necessary.

Staff supports the goals of improving Highland Lake water quality in continuing to reduce the impact of runoff from development and redevelopment in the watershed. However, staff does not fully support the recommended ordinance changes suggested by the Highland Lake Association.

All subdivisions and site plans in the watershed to meet the current DEP phosphorous allocation.

Requiring all subdivisions and site plans in the watershed to meet the current DEP phosphorous allocation of 0.020 is a relatively easy change as almost every project in the watershed already has to meet DEP phosphorous requirements. This change would apply to the smallest site plan and subdivision projects within the watershed that are too small to trigger Site Location of Development permitting or a Stormwater Permit through DEP. The current ordinance language for minor subdivisions gives developers an option to meet either the DEP Section 4C General Standards or Section 4D Phosphorous Standards. This attached language removes the choice and requires subdivisions in this watershed to be designed to meet the Phosphorous Standards.

Removal of option for projects to pay a fee in lieu of meeting the phosphorous standard.

The impact of removing the option to pay a fee in lieu of meeting the DEP phosphorous standard is less clear than the proposed change above. If the Town enacted this change, Windham would likely be the only community in the state to have taken that step. At a Highland Lake Leadership Team Ordinance Committee (OC) meeting on February 28, 2018, Jeff Dennis from Maine DEP stated that when it came to passing the current statewide stormwater and phosphorous loading regulations, having the option for a fee in lieu of meeting the standard was essential. At a local level, removal of this option will have a major impact on how some properties are able to be developed and may effectively prevent some properties from being developed at all.

Such a change will likely have a larger impact on the ability of smaller projects in the Commercial-3 (C-3) zoning district along Route 302 as opposed to residential subdivision development anywhere else in the watershed. If a commercial project ends up developing most of property for a building, parking and septic system, there may not be enough property left for stormwater buffers or stormwater treatment Best Management Practices (BMPs) like infiltration basins or rain gardens to treat the amount of runoff from the developed site. These considerations could severely limit or prohibit development on smaller parcels.

Removal of the density bonus for cluster subdivisions in the watershed.

Removing the density bonus in Cluster Subdivisions seems to put important community goals of public access to open space and water quality protection in competition with each other. However, the overall goal of the Cluster Subdivision ordinance is to allow subdivisions to preserve important natural features and to potentially have shorter roads and less environmental impacts than a conventional subdivision design. As noted by the Cumberland County Soil and Water District in an ordinance comparison prepared for the February 28, 2018, OC meeting, “Windham’s cluster subdivision density bonus is likely not a factor that would contribute to water quality impacts on Highland Lake, given that it allows for designs that mitigate impacts to drainage ways and allow better buffering.” The lot bonuses to ensure public access to subdivision open space has no direct impact on, or link to, water quality. This is because these subdivisions, like any other subdivision in the watershed, will need to meet the DEP Phosphorous standards.

The site plan shall provide for a system of pedestrian ways within the development appropriate to the type and scale of development. This system shall connect the major building entrances/exits with parking areas and with existing sidewalks, if they exist or are planned in the vicinity of the project. The pedestrian network may be located either in the street right-of-way or outside of the right-of-way in open space or recreation areas. The system shall be designed to link the project with residential, recreational, and commercial facilities, schools, bus stops, and existing sidewalks in the neighborhood or, when appropriate, to connect with amenities such as parks or open space on or adjacent to the site.

E. Stormwater Management

1. Adequate provisions shall be made for the collection and disposal of all stormwater that runs off proposed streets, parking areas, roofs, and other surfaces, through a stormwater management plan, which shall not have adverse impacts on abutting or downstream properties.
 - (a) Stormwater management systems for minor and major site plans shall detain, retain, or result in the infiltration of stormwater from the 24-hour storms of the 2-year, 10-year, and 25-year frequencies such that the peak flows of stormwater from the project site do not exceed the peak flows of stormwater prior to undertaking the project. The Planning Board may waive the flooding standard in accordance with the following criteria:
 - (1) Insignificant Increases in Peak Flow Rates from a Project Site. When requesting a waiver for a project resulting in an insignificant increase in peak flow rates from a project site, the applicant shall demonstrate that insignificant increases in peak flow rates cannot be avoided by reasonable changes in project layout, density, and stormwater management design. The applicant shall also demonstrate that the proposed increases will not unreasonably increase the extent, frequency, or duration of flooding at downstream flow controls and conveyance structures. In making its determination to allow insignificant increases in peak flow rates, the Planning Board shall consider cumulative impacts.
 - (b) The applicant shall demonstrate that on- and off-site downstream channel or system capacity is sufficient to carry the flow of a minimum 25-year storm without adverse effects, including but not limited to, flooding and erosion of drainage channels and shoreland areas, or that he/she will be responsible for whatever improvements are needed to provide the required increase in capacity and/or mitigation. The Development Review Committee or Planning Board may require capacity for a storm of greater than 25 years due to soil, topographic, or other factors that affect stormwater drainage.

- (c) All natural drainage ways shall be preserved at their natural gradients and shall not be filled or converted to a closed system unless approved as part of the site plan review.
- (d) The design of the stormwater drainage system shall provide for the disposal of stormwater without damage to streets, adjacent properties, downstream properties, soils, and vegetation.
- (e) The design of the storm drainage systems shall be fully cognizant of upstream runoff which shall pass over or through the site to be developed and provide for this movement.
- (f) Major site plans, regardless of size, shall submit a stormwater management plan that complies with Section ~~4B4C~~(2) and Section ~~4B4C~~(3) of the General Standards of the DEP Chapter 500 Stormwater Management, as amended.

(g) Major and minor site plan projects located within the Highland Lake watershed shall also meet the following standards:

- i. Projects in the Highland Lake watershed must include a stormwater plan designed to ~~shall not be allow~~ meet the standards of DEP Chapter 500, Section 4D, Phosphorous standards. The option to pay the compensation fee for exceeding the parcel's phosphorus allocation is not allowed in this watershed.

F. Erosion Control

1. All building, site, and roadway designs and layouts shall harmonize with existing topography and conserve desirable natural surroundings to the fullest extent possible, such that filling, excavation and earth moving activity shall be kept to a minimum. Parking lots on sloped sites should be terraced to avoid undue cut and fill, and/or the need for retaining walls. Natural vegetation shall be preserved and protected wherever possible.
2. Soil erosion and sedimentation of watercourses and water bodies shall be minimized by an active program meeting the requirements of the "Maine Erosion and Sediment Control BMPS" (Maine Department of Environmental Protection), dated March 2003, or other construction management practices system approved by the Planning Board or Development Review Committee, as appropriate.

I. Floodplain Management

When any part of a subdivision is located in a special flood hazard area as identified by the Federal Emergency Management Agency:

1. All public utilities and facilities, such as sewer, gas, electrical and water systems shall be located and constructed to minimize or eliminate flood damages.
2. Adequate drainage shall be provided so as to reduce exposure to flood hazards.
3. The plan shall include the finished floor elevation of all proposed structures within the flood hazard area.
4. The plan shall meet the requirements of the Town's floodplain management ordinance.

J. Stormwater Management

1. Stormwater management for subdivisions shall incorporate appropriate treatment measures for water quantity and quality to meet the requirements specified below for development of the lots as well as the infrastructure to support the project. Each application shall include maximum developed, disturbed and impervious areas for each lot based upon the definitions contained in Section 3 DEP Chapter 500 Stormwater Management.
2. For subdivisions that require a DEP review under the Site Location of Development Act (SLDA), a stormwater management plan shall be submitted which complies with the SLDA permit and the requirements of DEP Chapter 500 Stormwater Management.
3. For subdivisions that do not require a SLDA permit, but require a DEP permit under the Stormwater Law, a stormwater management plan shall be submitted which complies with the requirements of DEP Chapter 500 Stormwater Management.
4. For subdivisions outside of the watershed of a Great Pond, that neither require a SLDA permit, nor a DEP stormwater permit, a stormwater management plan shall be submitted that complies with Section 4~~AB~~ Basic Standards and 4~~CB~~ General Standards of the DEP Chapter 500 Stormwater Management.
5. For subdivisions within the watershed of a Great Pond that require neither a DEP SLDA permit nor a DEP Stormwater Permit, a stormwater management plan shall be submitted that complies with Section 4A Basic Standards of DEP Chapter 500 Stormwater Management. In addition, the stormwater management plan shall comply with Section 4~~DE~~ Phosphorous Standards of DEP Chapter 500 Stormwater Management. ~~If the Great Pond is not severely blooming as listed in DEP Chapter 502, the applicant shall submit a stormwater management plan that complies with~~

~~either Section 4B General Standards or Section 4C Phosphorous Standards of DEP Chapter 500 Stormwater Management.~~

6. For all subdivisions, regardless of size, a stormwater management plan shall be submitted that complies with Section 4E Flooding Standard of the DEP Chapter 500 Stormwater Management, as amended. For a project that does not require a DEP SLDA Permit, the Planning Board, upon a request by the Applicant, may waive the Flooding Standard in the event that greater than 75% of the impervious and developed areas (as defined in Section 3 of DEP Chapter 500) for both the lots and infrastructure are treated through the use of buffers in accordance with DEP Chapter 500 Stormwater Management.

7. For all subdivision, regardless of size, located in the Highland Lake watershed, the following additional standards shall be met:

(a) Projects in the Highland Lake watershed shall not be allowed to pay the compensation fee for exceeding the project's phosphorus allocation.

(See also Chapter 142 Surface Water Protection Ordinance)

K. Cluster Developments

1. ***Purpose***

Development under this provision is intended to promote imaginative, well-designed subdivisions which preserve open space and agricultural uses, provide public access to land for passive and active recreation, protect natural features, environmentally sensitive areas and wildlife cover, respect the physical qualities of the land, and, in some instances, reduce the overall development costs of a subdivision. The standards for cluster development allow for the creation of lots that are smaller than those that would otherwise be required by the applicable zoning district regulations and in some cases can be combined with density bonuses to allow additional lots, in return for setting aside the balance of the property as permanent common open space. In addition to all applicable standards of this Ordinance, the Planning Board may approve a single-family cluster subdivision provided the following conditions are met:

2. ***Procedure***

- (a) **Application Requirements.** All submissions for single-family subdivisions that meet the space and bulk requirements listed in the appropriate zoning district may be designed as a cluster subdivision.
- (b) **Property located within more than one residential zoning district.** The overall density of the subdivision shall not exceed the combination of the density requirements of the districts in which the subdivision is located, before density bonuses are applied.

3. *Basic Standards for Cluster Subdivisions*

- (a) Cluster developments shall meet all applicable requirements of the Land Use Ordinance.
- (b) Each building envelope shall be an element of an overall subdivision plan for site development. Only developments having a total site plan for structures will be considered. The application shall illustrate the placement of building envelopes and the treatment of spaces, paths, roads, service and parking and in so doing shall take into consideration all requirements of this section and of other relevant sections of these regulations.
 - (1) For cluster subdivisions that are not served by a public water supply, the applicant must demonstrate on the plan that it is possible to locate a subsurface wastewater disposal field and a well on each lot. When determined that it is necessary for specific lots, by the Planning Board, as a Condition of Approval, the location of these elements shall be elements of the subdivision plan, and any future changes to the location of these elements will require an amended subdivision plan review.
- (c) The Planning Board shall allow lots within cluster developments to be reduced from standard subdivision standards as specified in the applicable zoning district. In return for the reduction in the requirements for lot area, frontage, and structure setbacks, the applicant shall provide common open space.
- (d) In order to determine the maximum number of dwelling units permitted on a tract of land, the net residential acreage of the parcel shall be divided by the net residential density standard of the applicable zoning district. Density bonuses are applicable, per the appropriate zoning district standards (see Section 400.)
 - (1) Density Bonuses are not applicable in the Highland Lake watershed.
- (e) Up to 30% of individual lots or dwelling units may have direct vehicular access onto a public road existing at the time of development.
- (f) Streets constructed within a cluster subdivision must meet a public street standard.
- (g) Diversity and originality in lot layout and individual building site design shall be encouraged to achieve the best possible relationship between the proposed development and the land under consideration.

4. *Recreation and Open Space Requirements*

Windham Town Council and Planning Board
2/5/18

Before you take up the Highland Lake Association (HLA) proposal to change/add three subdivision ordinance recommendations we hope that the existing moratorium will be extended so that these recommendations will have had the opportunity to work their way through the Windham ordinance process. Given the condition of Highland Lake with the picocyanobacteria blooms and the precarious phosphorus levels, we hope that you will allow these recommendations to move forward.

Since it has been determined that the Highland View project as proposed, does not comply with either Windham or State regulations, that project will have to be resubmitted or at least altered to meet those regulations. Extending the moratorium at least until these ordinance changes are fully considered should have minimum impact on that project's schedule. Even as the project was proposed, there are issues. The DEP has just reopened the Highland Views Stormwater Permit because some of the developed areas were not included in the phosphorus calculations. Those concerns were identified in the HLA appeal of the permit. That process will likely take until April at least to be resolved. Further, there will be a number of ordinance recommendations coming from the Highland Lake Leadership Team around that time that would further protect the lake.

The HLA began a petition to address high density housing and phosphorus export to the lake. We collected 970 signatures before learning that the language on the petition was not specific enough for ordinance consideration so we stopped the petition drive but have the 970 Windham resident signatures supporting our cause to retroactively change Town ordinance to further protect the lake.

Everything we've learned about Highland Lake Water quality over the past 6 months tells us that the condition is worse than the DEP believed, and that phosphorus is a key element impacting the water quality. There's certainly more to learn as indicated in the Highland Lake presentation by Don Kretchmer to the Windham Town Council and some representatives from the Planning Board heard last week.

The Science and Water Quality Group is working hard to develop a testing plan for this coming summer that will focus on identifying the exact type of cyanobacteria that is blooming in Highland Lake, as well as learning why this particular bloom is happening only at Highland Lake. Hypotheses will have been developed, tests to prove/disprove each hypothesis will be identified and hopefully can be shared by the time of the Public Forum on March 7 at the Windham High School Auditorium at 7:00 PM. One thing that is agreed on is that Phosphorus is one of the major contributing factors to the ongoing bloom at

Highland Lake, and that efforts need to be amplified in the ongoing effort to reduce the influx of phosphorus into the lake.

Jeff Dennis is a highly regarded biologist at the Maine DEP who spoke at the same presentation last week on the science of Highland Lake. He wrote in a communication to Donna Chapman last September 28:

"I think the recent picoplankton bloom is a complex phenomena that needs a lot more study, but after looking at the data more closely, especially all the large amount of phosphorus data that Keith had collected but had not shared with us, it is very clear that the lake has changed a lot over the years, that it is still changing, and that phosphorus is a driving force. Efforts to continue to reduce phosphorus inputs from existing sources and to strictly limit them from new sources are needed."

See Attachment 1

It is with this background that we encourage you to support our recommendations for additions/changes to the Windham subdivision ordinance. Future changes/recommendations will likely not be retroactive, and will be the results of a concerted effort of the Highland Lake Leadership Team as mentioned above, working through the ordinance of Falmouth and Windham, as well as other towns with lake protections. The recommended additional safeguards will not only protect Highland Lake water quality going forward, but to get it back to where it should be. A great deal of effort is in the planning stages to address current phosphorus export through education, outreach and grants to correct areas that are causing the most phosphorus export to the lake.

Proposed Ordinance Changes:

The HLA is proposing that the Windham Town Council adopt the following changes to its current land use ordinances retroactive to any subdivision that does not have final permitting by the town as of the beginning of the Moratorium. Land Use Ordinance, Section 800 & 900

1. All subdivisions and site plans in the Highland Lake watershed must be designed to meet the current DEP phosphorous allocation of 0.020 lbs/acre/yr
2. A proposal for a subdivision to pay a fee in lieu of meeting the 0.020 lbs/acre/year standard is not acceptable.
3. Allowing public use of the open space within a subdivision will not result in any subdivision bonus houses within the Highland Lake watershed.

Discussion:

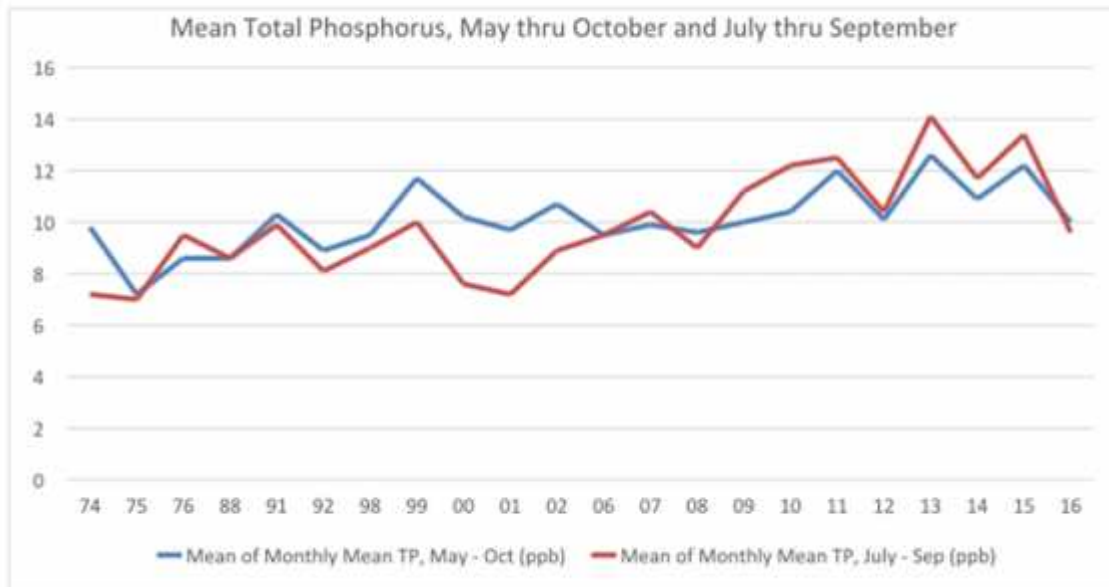
1. Because of what we now know of the phosphorus trend and level in the lake, we believe it is essential to approve ordinance retroactivity for all projects not already fully permitted by the Town, requiring all unpermitted projects to meet the current phosphorus standard. The current DEP phosphorus budget level for the Highland Lake watershed is 0.020 lbs/acre/yr, down from 0.027 lbs/acre/yr at the beginning of 2017. The 0.027 lbs/acre/yr was inappropriately high given the lake conditions, and obviously hasn't worked to keep the phosphorus levels from rising.
2. Secondly, the current allowed provision for stormwater management is to allow a developer to export more phosphorus into a water body than he should be allowed to do as long as the developer can capture at least 60% of the budgeted amount, pays a one time fee, and uses natural buffers for the amount that he does capture. We considered a number of options on this, but in the end, we decided that there is no reason to allow excess phosphorus to be exported into the lake given its current condition. This is consistent to what the Windham staff originally proposed for subdivisions several months back.
3. Our third recommendation is to remove the bonus provision that a developer can add 20% more houses to the development if the open space is made available to the general public, not just to the people within the development. This takes away one of the very advantages of the Cluster Housing within the watershed by adding more houses than would otherwise be allowed under conventional zoning. This will add more impervious surface and more lawns etc. increasing the amount of phosphorus exported from the site. We believe that Cluster Housing done correctly can help minimize phosphorus export, but we should not allow provisions that minimize the Cluster Housing advantages.

We believe that it is vitally important to make these changes retroactively so that we can collectively start to improve the lake now, and not sometime after we allow the lake to get worse. It will likely be May or June before the HLLT recommendations make their way through the respective HLLT and Town processes. If the moratorium should end before that time, it would allow developers to take advantage of the small window to file for projects under the old inadequate standards. These proposed ordinance changes are consistent with the work of the HLLT, enjoyed strong support from the Windham community, addresses a standard that was overly generous in the recent past and will work well with the efforts to address current phosphorus export efforts through the HLLT.

Attachment 1

Below is a graph that clearly shows the phosphorus trend in Highland Lake over the 40 years.

Figure 3. Mean of Monthly Mean TP in ppb from 1974 to 2016 for years with data.



It can be seen in the chart developed by Jeff Dennis above that the phosphorus initially peaked in 1999. With great effort and about \$1 million in grants and lake resident financial support, the phosphorus dropped below the 1999 high for about 11 years for the May through October time frame and about 7 years for the July through September time frame. During that period, increased development and likely some complacency took their toll on the phosphorus export to the lake. We have started the awareness effort with attendance at the Town Council meetings and we will see it at the Public Forum. The HLLT will use all means at our disposal to help spread the word that individual actions are necessary to change the trajectory we're on. Based upon the response we've seen and heard from our neighbors, the petition drive and the interest in the clean water, we're confident in making a difference going forward with those already on the lake. Don Kretchmer said it well with one of his slides that spelled out that it is much easier to keep phosphorus from getting into the lake than to deal with it once it is there. Your support on the proposed retroactive ordinance is a key part of this overall challenge to bring Highland Lake back to where it should be.