

Town of Windham

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MEMO

DATE: December 5, 2017

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: Proposed changes to Surface Water Protection Ordinance related to Highland Lake water quality

Following up on the Town Council discussion at the meeting on November 14, 2017, staff is submitting the proposed changes to the Chapter 142, the Surface Water Protection Ordinance for the Town Council's consideration. These changes incorporate several of the suggestions offered by John MacKinnon on behalf of the Highland Lake Association.

An updated version of the proposed changes to the Surface Water Protection Ordinance is attached. The proposed changes are in red text showing proposed new wording and red strikethrough showing proposed deletions. Please note that these changes are based on the current ordinance and don't specifically show changes from the version of the ordinance the Council reviewed on November 14.

A summary of Mr. MacKinnon's proposed changes and staff responses to each are as follows:

-) Section C, Applicability. Delete Exemption c., so that the ordinance applies to activities regardless of the slope of the land.
 - o Staff agrees and change has been made.
-) Section K, Stormwater Runoff. Change the staff proposal for K.5 for additional requirements for projects in the Highland Lake watershed that are not subject to site plan or subdivision approval, so that the point-based permitting system would apply town-wide, not just the Highland Lake watershed.
 - o Staff recommends keeping changes focused on the Highland Lake watershed at this point and has kept the proposed language as originally drafted.

-) Section K, Stormwater Runoff points system.
- Change Credit ii. to 20 points for total development area of less than 2,000 square feet.
 - Staff is OK with this concept, but recommends changing Mr. MacKinnon's suggested "building and development area" to "impervious area" as shown in the attached proposal.
 - Change all references to separation distance between the bottom of any proposed infiltration structure and the Seasonal High Groundwater Table from 1-foot to 3-feet, per DEP's BMP standards.
 - Change has been made as suggested.
 - Add language throughout to require one year's worth of sediment storage to reduce clogging of infiltration systems.
 - Staff has left this suggestion out because sizing a storage area would likely require hiring an engineer, which defeats the purpose of creating a points based system. Staff feels that long term maintenance of BMPs is a legitimate issue and proposes addressing that through the application process. See final point, below.
 - Add language in Credits viii. – x.to change "wooded buffer strips" and "vegetated buffer strips" to "natural wooded buffer strips" and "manmade vegetated buffer strips."
 - The additional language proposed will not have an impact on how stormwater is treated by the buffers and has been left out of the draft proposal attached.
 - Add a requirement for submission of a BMP maintenance plan along with the sketch plan and application form.
 - As with the requirement for sediment storage, a maintenance plan would likely result in the need for homeowners to hire an engineer or other professional to assist with the application. Staff proposes a change to the Soil and Erosion Permit application so that applicants have to affirmatively sign off on an awareness to maintain all proposed BMPs into the future as a requirement of the permit.

Town of Windham
Surface Water Protection Ordinance
Chapter 142
From the
Code
Of the

Town of Windham
Adopted

8/13/2002

Effective

11/13/2002

Amended
XX/XX/2017

County of Cumberland
State of Maine

SURFACE WATER PROTECTION ORDINANCE

A. PURPOSE

The purposes of this Ordinance are to prevent and minimize surface water pollution due to phosphorus contained in stormwater runoff from developed areas, to promote preventive measures to improve surface runoff water quality and lessen degradation to receiving watersheds and bodies of water within the Town of Windham to prevent and control water pollution caused by soil erosion and sediment transport resulting from soil disturbance associated with building development, to protect and promote safe and healthful conditions for humanity, and to protect fish spawning grounds, aquatic life, bird and other wildlife habitat in the town.

B. AUTHORITY

This Ordinance has been prepared in accordance with the provisions of Title 38 S435-449 of the Maine Revised Statutes Annotated (M.R.S.A.).

C. APPLICABILITY

This Ordinance applies to all activities which involve filling, grading, excavation or other similar activities which result in unstabilized soil conditions and a permit shall be required and a written soil erosion and sedimentation control plan. The plan shall be submitted to the permitting authority for approval and shall include, where applicable, provisions for:

1. Mulching and re-vegetation of disturbed soil.
2. Temporary runoff control features such as hay bales, silt fencing or diversion ditches.
 - a. Projects within the Highland Lake watershed must incorporate double temporary erosion control measures at the perimeter of the project.
- ~~3.~~ Permanent stabilization structures such as retaining walls or riprap.
- ~~4.~~ Activities which require site plan approval from the Planning Board are to be prepared in accordance with prevailing best management practices as referenced in the current issue of Maine Erosion and Sediment Control Handbook for Construction: Best Management

Exempt from the requirements of this ordinance are the following:

- a. Activities in the Shoreland Zone which are governed by the Shoreland Zone Ordinance.
- b. Permit applications in subdivisions, which have a Planning Board approved soil erosion and sediment control plan.
- ~~c. Activities wherein none of the area of soil disturbance has a slope steeper than two percent, but it shall be the applicant's responsibility to furnish a topographic survey demonstrating such gradual slope.~~

- d. Normal Agriculture as defined in the Shoreland Zoning Ordinance Chapter 199-17
- e. Five Hundred (500) square feet or less of net impervious area (foot print)
- f. The maximum amount of soil area to be disturbed shall be based on the slope of the disturbed area, as outlined in Table I.

Table I

% Ground Slope Range	Amount of Soil Disturbance (sf)
20%	500 sf
10 20%	1000 sf
5 10%	2000 sf
2 5%	4000 sf

D. INTENT

In order to create the least potential for erosion, development shall be designed to fit with the topography and soils of the site, control stormwater run-off through the construction phase and strategic placement of structures, roads and driveways. The natural features and drainage patterns of the lot should be preserved using careful site design prior to any clearing or construction. The natural flow of water should be identified and undisturbed buffers protected to minimize off site transport by stormwater. Areas of steep slopes where high cuts and fills may be required shall be avoided wherever possible, and natural contours shall be followed as closely as possible. The intent of this ordinance is to have a zero off-site impact from any proposed development

E. EXPOSED GROUND AREA

Any exposed ground area shall be temporarily or permanently stabilized within one (1) week from the time the work was started, by use of riprap, sod, seed, and mulch, or other effective measures. In all cases permanent stabilization shall occur within nine (9) months of the initial date of exposure. In addition:

- a. Where mulch is used, it shall be applied at a rate of a least one (1) bale per five hundred (500) square feet and shall be maintained until a catch of vegetation is established.
- b. Anchoring the mulch with netting, peg and twine or other suitable method may be required to maintain the mulch cover. (wood chips are acceptable)

- c. Additional measures shall be taken where necessary in order to avoid siltation into the water. Such measures may include the use of staked hay bales and/or silt fences.

F. SOILS

All land uses shall be located on soils in or upon which the proposed uses or structures can be established or maintained without causing adverse environmental impacts, including severe erosion, mass soil movement, improper drainage, and water pollution, whether during or after construction. Proposed uses requiring subsurface waste disposal, and commercial or industrial development and other similar intensive land uses, shall require a soils report based on an on-site investigation and be prepared by state certified professionals. Licensed, Registered or Certified Professional may include Maine Certified Soil Scientists, Maine Registered Professional Engineers, Maine State Certified Geologists and other Licensed, Registered or Certified Professionals who have proof of training and experience in the recognition and evaluation of soil properties. The report shall be based upon the analyses of the characteristics of the soil and surrounding land and water areas, maximum ground water elevation, presence of ledge, drainage conditions, and other pertinent data, which the evaluator deems appropriate. The soils report shall include recommendations for a proposed use to counteract soil limitations where they exist. Soil conditions that are inappropriate or uncorrectable in an environmentally acceptable manner shall be sufficient grounds for denial, even though the proposed use is otherwise permitted in that zone.

G. PARKING AREAS & DRIVEWAYS

Parking areas shall be adequately sized for the proposed use and shall be designed to prevent stormwater runoff from flowing directly into a water body, and where feasible, to retain all runoff on-site. Where runoff can not be retained on-site licensed professionals in this field shall review and certify in writing to assure that the purpose of this ordinance is upheld.

H. ROADWAY DRAINAGE

In order to prevent road surface drainage from directly entering water bodies, roads shall be designed, constructed, and maintained to empty onto an unscarified buffer strip at least (50) feet plus two times the average slope, in width between the outflow point of the ditch or culvert and the normal high-water line of a water body, tributary stream, or upland edge of a wetland. Road surface drainage, which is directed to an unscarified buffer strip shall be diffused or spread out to promote infiltration of the runoff and to minimize, channelized flow of the drainage through the buffer strip.

I. DITCHING

Ditch relief (cross drainage) culverts, drainage dips and water turnouts shall be installed in a manner effective in directing drainage onto unscarified buffer strips before the flow

in the road or ditches gains sufficient volume or head to erode the road or ditch. To accomplish this, the following shall apply:

1. Ditch relief culverts, drainage dips and associated water turnouts shall be spaced along the road at intervals no greater than indicated in the following table:

ROAD GRADE (%)	SPACING (in feet)
0-2	250
3-5	200-135
6-10	100-80
11-15	80-60
16-20	60-45
21+	40

2. Drainage dips may be used in place of ditch relief culverts only where the road grade is ten (10) percent or less.
3. On road sections having slopes greater than eight (8) percent, ditch relief culverts shall be placed across the road at approximately a thirty (30) degree angle down slope from a line perpendicular to the centerline of the road.
4. On slopes of eight (8) percent or greater, surface materials shall be bituminous pavement, reclaimed asphalt or well compacted gravel. (Minimum compaction 95%)
5. Ditch relief culverts shall be sufficiently sized by a Registered Engineer or professional with expertise in hydrology and open channel flows and properly installed in order to allow for effective functioning, and their inlet and outlet ends shall be stabilized with appropriate materials.

J. MAINTENANCE AND REPAIR

Ditches, culverts, bridges, dips, water turnouts and other storm water runoff control installations associated with roads shall be maintained on a regular basis to assure effective functioning. When maintenance and/or repair are performed, such performance must be in accordance with Best Management Practice.

1. Duration of plan: for temporary measures
Erosion and sedimentation control measures shall apply to all aspects of the proposed project involving land disturbance, and shall be in operation during all stages of the activity. The amount of exposed soil at every phase of construction, shall be minimized to reduce the potential for erosion.
2. Duration of plan: for permanent measures
Permanent soil erosion and sedimentation control measures such as, but not limited to, level lipped spreaders, rip-rap installation, vegetated buffers, drainage dips and water turnouts shall be protected with a maintenance agreement.

K. STORM WATER RUNOFF

1. Construction:

All construction and development shall minimize stormwater runoff from the site in excess of the natural pre-development conditions. Where possible, existing natural runoff control features, such as berms, swales, terraces and wooded areas shall be retained in order to reduce runoff and encourage infiltration of stormwaters. Areas of connected impervious surfaces should be minimized to take full advantage of these features. Where runoff can not be retained on site it shall be reviewed by licensed professionals in this field.

a. Buffers:

Buffers (also know as vegetative filter or filter strips). Within the required setback of the corresponding zone ~~three~~there shall be a vegetative buffer. Excluded ~~from~~ this requirement are all of the commercial zones. This buffer shall consist ~~of landseapingof landscaping~~, to include but not limited to, grass, trees, shrubs, and wood chips. Within this ~~-~~buffer access to the property can be made for essential services and driveway access.

b. Drainage ways:

Natural and man-made drainage ways and drainage outlets shall be protected from erosion from water flowing through them. Drainage ways shall be designed and constructed in order to carry water from a twenty five (25) year storm or greater, and shall be stabilized with vegetation or lined with rip-rap

2. Maintenance:

Stormwater runoff control systems shall be maintained as necessary to ensure proper functioning.

3. Plan Required:

When required by this ordinance, the Code Enforcement Officer or the Planning Board, stormwater management plans shall be designed utilizing the most recent approved version of the Cumberland County Soil and Water Conservation Districts and Maine DEP's "Maine Erosion and Sediment Control Handbook for Construction: Best Management Practices and the Maine DEP's Stormwater Management for Maine: Best Management Practices. Completed plans, when required above, may be reviewed by the Cumberland County Soil and Water Conservation District, or other qualified professional firm, agency, or organization..

4. General:

All activities are expected to employ appropriate stormwater management practices regardless of the zone or district they are located in.

5. Additional requirements for projects in the Highland Lake watershed that are not subject to subdivision or site plan review.

- a) The Code Enforcement Officer shall issue a Stormwater and Phosphorus Management Control Permit if the applicant meets or exceeds fifty (50) points based on the following point schedule. The applicant shall submit a Sketch Plan of the lot showing how each of the following point credits or deductions applies to the

proposed development. The Sketch Plan shall show approximate locations and dimensions of each Stormwater BMP, or other measure.

a. Credits

- i. 10 Points for correcting an existing erosion problem on the project site, as approved by the Code Enforcement Officer.
 1. Installing non-structural BMP (vegetation, loam and seed, mulch, etc.)
 2. Installing a structural BMP (woven geotextile mats and fabric, rip rap, etc.)
 3. Installing sediment control barriers until 1 & 2 have been established.
- ii. ~~10-20~~ Points for a building footprintan impervious area of ~~less than 1,500~~ 2,000 square feet
- iii. 10 Points for a clearing limitation of less than 20% of the lot, or 15,000 square feet, whichever is less; or 20 Points for a clearing limitation of less than 15% of the lot, or 10,000 square feet, whichever is less
- iv. 15 Points for the installation of rock-lined drip edges or other infiltration system to serve no less than 50% of the new impervious area on the site. Test pit information certified by a Licensed Site Evaluator, Certified Soil Scientists (CSS) or Certified Geologist (CG) must show that ~~one foot~~three feet of separation exists between the Seasonal High Groundwater Table and the bottom of any proposed infiltration structure. Infiltration systems must be sized to accommodate one inch of runoff from contributing impervious areas within the structure (this will include an assumption of 30% void space in washed stone) and designed in accordance with the details following approved engineering practices and techniques as published by the Maine Department of Environmental Best Management Practices (BMPs)
- v. 25 Points for the installation of rock-lined drip edges or other infiltration system to serve no less than 75% of the new impervious building area on the site. Test pit information certified by a Licensed Site Evaluator, Certified Soil Scientists (CSS) or Certified Geologist (CG) must show that ~~one foot~~three feet of separation exists between the Seasonal High Groundwater Table and the bottom of any proposed infiltration structure. Soil filtration or infiltration systems must be sized to accommodate one inch of runoff from contributing impervious areas within the structure (this will include an assumption of 30% void space in washed stone) and designed in accordance with the details following approved engineering practices and techniques as published by the Maine Department of Environmental Best Management Practices (BMP's)
- vi. 25 Points for the installation of rain gardens, soil filtration system, or wet ponds designed to serve no less than 50% of the total new impervious area on the site. Rain gardens, soil filter, and wet pond systems shall be sized to accommodate one inch of runoff from contributing impervious areas, and designed in accordance with the details following approved engineering practices and techniques as

published by the Maine Department of Environmental Best Management Practices (BMP's)

- vii. 40 Points for the installation of rain gardens, soil filtration systems, or wet ponds designed to serve no less than 75% of the new impervious area on the site. Rain gardens soil filter, and wetpond systems shall be sized to accommodate one inch of runoff from contributing impervious areas, and designed in accordance with the details following approved engineering practices and techniques as published by the Maine Department of Environmental Best Management Practices (BMP's).
- viii. 30 Points for a 50 foot wide (no greater than 15% slope) wooded buffer strip, or a 75 foot wide vegetated buffer (no greater than 8% slope) strip located down gradient and adjacent to the developed area, provided there is no channelization within the buffer; or
- ix. 35 Points for a 75 foot wide (no greater than 15% slope) wooded buffer strip, or a 100 foot wide vegetated buffer (no greater than 15% slope) strip located down gradient and adjacent to the developed area, provided there is no channelization within the buffer; or
- x. 40 Points for a 100 foot wide (no greater than 15% slope) wooded buffer strip, or a 150 foot wide vegetated buffer (no greater than 15% slope) strip located down gradient and adjacent to the developed area, provided there is no channelization within the buffer.

b. Deductions

- i. 5 Points deducted for a new structure footprint exceeding 2000 square feet, and an additional 5 points deducted for each additional 500 square feet of structure footprint.
- ii. 5 Points deducted for clearing more than 50% disturbance.

b) Alternate Means of Calculation. In those cases where the Code Enforcement Officer determines that use of the points system is inadequate to achieve the purposes of storm water and phosphorous management control or is otherwise inappropriate because of particular circumstances of the property, the Code Enforcement Officer may assess conformance with this standard based on the following:

- a. A licensed State of Maine Professional Engineer or Soil Evaluator or Certified Professional Professional in Soil and Erosion Control certifies that the proposed treatment measure matches or exceeds the performance of the treatment measure under the specific point system allowance. It shall be the engineer's responsibility to provide evidence that the measure has been approved by the Maine Department of Environmental Protection or provides other certification into comparable treatment by professional testing results.

L. CONDITIONS OF PERMITS

Permits granted under this section -may be made subject to additional conditions or restrictions to ensure conformity with the purposes and provisions of this chapter. Each application -for a building permit shall -be accompanied by the building permit fee set by the Town. Each application to the Code Enforcement Officer for a permit to erect a new building or structure or to enlarge or to move an existing one shall be

accompanied by a site plan showing the measurements of the lot and of all buildings, driveways, yards and parking spaces, drainage ways, storm drains, streams existing and proposed, the intended use of land and buildings shall be indicated clearly. Additional measures may be required in order to comply with this ordinance, such as, such as drainage ways and easements, soil erosion control measures, and all features to be installed for compliance with this Ordinance. Any other application for a building permit and any application for a permit shall be accompanied by a description of the intended use or use of the land and buildings and such further details as the Code Enforcement Officer may require for a clear understanding of the case.

M. APPEALS

1. Appointment:

There is hereby created a Board of Appeals of the Town of Windham created pursuant to the authority of Title 30-A M.R.S.A. S2691. The members of the Board shall be residents of the town. In accordance with the statutes, the following statutes shall apply:

- a. The Board shall consist of five (5) members. In addition, said Board shall have one (1) alternate member, who shall have all the rights of a full member, except that said alternate may vote only in the absence of a full member.
- b. The term of office of members shall be three (3) years, except that initial appointments of members shall be made for one (1) two (2) and three (3) years respectively.
- c. A municipal official or his spouse shall not be a member of the Board.
- d. When there is a vacancy, the municipal officers shall appoint a person to serve for the unexpired term.
- e. The Board shall elect a Chair and Vice Chair from its own membership.
- f. Any question of whether a particular issue involves a conflict of interest sufficient to disqualify a member from voting thereon shall be decided by a majority vote of the members, except the member who is being challenged.
- g. A member of the Board may be dismissed for cause by the municipal officers before the expiration of his term.
- h. A Secretary to the Board shall be appointed by the appropriate town officials.

2. Jurisdiction and Authority:

In addition to the power granted by Title 30-A M.R.S.A. S2691, the Board Appeals shall have the following jurisdiction and authority.

- a. Subject to the provisions of this chapter, to hear and decide appeals from orders, decisions, determinations or interpretations made by the Code Enforcement Officer.
- b. Subject to the provisions of this chapter, to hear and grant or deny application for variances from the terms of the Surface Water Protection Ordinance. A variance can only be granted where undue hardship is proven. "Undue hardship" is defined to mean:
 - i. That the land in question cannot yield a reasonable return unless the variance is granted.

- ii. That the need for a variance is because of unique circumstances of the property such as location of existing structures, topographical features, etc.) and not to the general conditions of the neighborhood.
 - iii. That the granting of a variance will not change the essential character of The locality; and
 - iv. That the hardship is not the result of action taken by the applicant or a prior owner.
- c. Permitted variances run with the land and thus pass from one owner to the next.
- d. Attention be given to the following wherever applicable:
- i. Location, character and natural features.
 - ii. Fencing and screening.
 - iii. Landscaping, topography and natural drainage.
 - iv. Vehicular access, circulation and parking.
 - v. Pedestrian circulation.
 - vi. Signs and lighting.
 - vii. All factors which affect health, welfare and safety.
3. In granting appeals under this section, the Board of Appeals may impose such conditions as it deems necessary in furtherance of the intent and purpose of this chapter.

N. PROCEDURE

1. Meetings:

The Board of appeals shall meet twice each month as called by the Chair. A quorum of the Board necessary to conduct an official Board meeting shall consist of at least three (3) members. A majority vote of the quorum is required for the passage or denial of any appeal.

2. Minutes:

The Secretary shall record a permanent record of all Board meetings. All meeting minutes and all correspondence of the Board shall be maintained in the Town Office. The transcript of testimony, if any, and exhibits, together with all papers and requests filed in the proceeding, shall constitute the record. All decisions shall become a part of the record and shall include a statement of findings and conclusions, as well as the reasons or basis therefor, upon all the material issued of fact, law or discretion

presented and the appropriate order, relief or denial thereof. Notice of any decisions shall be mailed or hand delivered to the petitioner, his representative or his agent and the Department of Environmental Protection.

3. Public Hearing:

For all appeals, the Board shall hold a public hearing as prescribed herein. At least seven (7) days before the hearing, the Code Enforcement Officer or his assistant shall notify by mail the owners of properties abutting the property for which the appeal or application is made. Failure to receive this notice shall not invalidate the proceedings herein prescribed. The owners of properties shall be considered to be the parties listed by the Assessor as those against whom those taxes are assessed. Notice of the hearing shall also be placed at least twice in a newspaper of general circulation at least seven (7) days prior to the hearing. The Code Enforcement Officer or his assistant may attend all hearings and present to the Board all plans, photographs or other factual materials which are appropriate to an understanding of the case.

4. Appeals:

Any person and any municipal official or board of officials aggrieved by a decision of the Code Enforcement Officer or who wishes to request a variance from the Surface Water Protection Ordinance or who wishes a use permit may file an application with the Board of Appeals. An appeal of a decision made by the Code Enforcement Officer must be filed within thirty (30) days of the date of the decision. Application materials submitted to the Board must include a completed application form, including a location and site plan if appropriate, and a fee of two hundred dollars (\$200.00, which must be submitted to the Code Enforcement Officer at the time the appeal request is submitted). All application materials must be submitted for the Boards review at least fourteen (14) days prior to the Board meeting at which the applicant wishes to be heard. All meetings of the Board are public hearings. At the public hearing, the applicant or his representative must appear before the Board to present the proposal and to answer questions. Other interested parties, such as adjacent property owners, will also be permitted to speak for or against the appeal. Written notice of the decision of the Board shall be sent to the appellant within seven (7) days of the date of the decision. Any aggrieved party may appeal from the decision of the Board to the Superior Court within forty-five (45) days of the decision date.

5. Decision:

After a decision has been made by the Board of Appeals, a new appeal of similar import shall not be entertained by the Board until one (1) year shall have elapsed from the date of said decision, except that the Board may entertain a new appeal if the Board believes that, owing to a mistake of law or misunderstanding of fact, an injustice was done or it finds that a change has taken place in some essential aspect of the case sufficient to warrant a reconsideration of the appeal.

6. Reconsideration:

In accordance with Title 30-A M.R.S.A. §2691-3-F, the Board may reconsider any decision reached under this section within thirty (30) days of its prior decision. A vote

to reconsider and the action taken on that reconsideration must occur and be completed within thirty (30) days of the date of the vote on the original decision. The Board may conduct additional hearings and receive additional evidence and testimony as provided in this section.

7. Expiration date:

The right of any variance from the terms of this chapter granted by the Board of Appeals shall expire if the work or change permitted under the variance is not begun within six (6) months or substantially completed within eighteen (18) months of the date of the vote by the Board.

O. ENFORCEMENT

1. Nuisances:

Any violation of this Ordinance shall be deemed to be a nuisance.

2. Code Enforcement Officer.

- a. It shall be the duty of the Code Enforcement Officer to enforce the provisions of this Ordinance. If the Code Enforcement Officer shall find that any provisions of this Ordinance is being violated, he or she shall notify in writing the person responsible for such violation, indication the nature of the violation and ordering the action necessary to such violation, indication the nature of the violation and ordering the action necessary to correct it, including discontinuance of illegal use of land, buildings or structures, or work being done, removal of illegal buildings or structures, and abatement of nuisance conditions. A copy of such notices shall be maintained as a permanent record.
- b. The Code Enforcement Officer shall conduct on-site inspections to insure compliance with all applicable laws and conditions attached to permit approvals. The Code Enforcement Officer shall also investigate all complaints of alleged violations of this Ordinance
- c. The Code Enforcement Officer shall keep a complete record of all essential transactions of the office, including applications submitted, permits granted or denied, variances granted or denied, revocations actions, revocation of permits, appeals, court actions, violations investigated, violations found, and fees collected. On a biennial basis, a summary of this record shall be submitted to the Director of the Bureau of Land Quality Control within the Department of Environmental Protection.

3. Legal Actions.

When the above action does not result in the correction or abatement of the violation or nuisance condition, the Municipal Officers, upon notice from the Code Enforcement

Officer, are hereby directed to institute any and all actions and proceedings, either legal or equitable, including seeking injunctions of violations and the imposition of fines, that may be appropriate or necessary to enforce the provisions of this Ordinance in the name of the municipality. The municipal officers, or their authorized agent, are hereby authorized to enter into administrative consent agreements for the purpose of eliminating violations of this Ordinance and recovering fines without Court action. Such agreements shall not allow an illegal structure or use to continue unless there is clear and convincing evidence that the illegal structure or use was constructed or conducted as a direct result of erroneous advice given by an authorized municipal official and there is no evidence that the owner acted in:

- a. bad faith, or unless the removal of the structure or use will result in a threat or
- d. hazard to public health and safety or will result in substantial environmental damage.

4. Fines.

Any person, including but not limited to a landowner, a landowner's agent or a contractor, who orders or conducts any activity in violation of this Ordinance shall be penalized in accordance with Title 30-A M.R.S.A. §4452. Current penalties include fines of not less than \$100.00 nor more than \$2500.00 per violation for each day that the violation continues.

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Surface Water Protection Ordinance
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County of Cumberland
State of Maine

J. MacKinnon
MARK-UP

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The purposes of this Ordinance are to prevent and minimize surface water pollution due to phosphorus contained in stormwater runoff from developed areas, to promote preventive measures to improve surface runoff water quality and lessen degradation to receiving watersheds and bodies of water within the Town of Windham to prevent and control water pollution caused by soil erosion and sediment transport resulting from soil disturbance associated with building development, to protect and promote safe and healthful conditions for humanity, and to protect fish spawning grounds, aquatic life, bird and other wildlife habitat in the town.

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2. Temporary runoff control features such as hay bales, silt fencing or diversion ditches.
 - a. Projects within the Highland Lake watershed must incorporate double temporary erosion control measures at the perimeter of the project.
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- c. Activities wherein none of the area of soil disturbance has a slope steeper than two percent, but it shall be the applicant's responsibility to furnish a topographic survey demonstrating such gradual slope.

K. STORM WATER RUNOFF

1. Construction:

All construction and development shall minimize stormwater runoff from the site in excess of the natural pre-development conditions. Where possible, existing natural runoff control features, such as berms, swales, terraces and wooded areas shall be retained in order to reduce runoff and encourage infiltration of stormwaters. Areas of connected impervious surfaces should be minimized to take full advantage of these features. Where runoff can not be retained on site it shall be reviewed by licensed professionals in this field.

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Buffers (also know as vegetative filter or filter strips). Within the required setback of the corresponding zone ~~three~~ ^{THERE} shall be a vegetative buffer. Excluded from this requirement are all of the commercial zones. This buffer shall consist of landscaping, to include but not limited to, grass, trees, shrubs, and wood chips. Within this buffer access to the property can be made for essential services and driveway access.

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2. Maintenance:

Stormwater runoff control systems shall be maintained as necessary to ensure proper functioning.

3. Plan Required:

When required by this ordinance, the Code Enforcement Officer or the Planning Board, stormwater management plans shall be designed utilizing the most recent approved version of the Cumberland County Soil and Water Conservation Districts and Maine DEP's "Maine Erosion and Sediment Control Handbook for Construction: Best Management Practices and the Maine DEP's Stormwater Management for Maine: Best Management Practices. Completed plans, when required above, may be reviewed by the Cumberland County Soil and Water Conservation District, or other qualified professional firm, agency, or organization..

4. General:

All activities are expected to employ appropriate stormwater management practices regardless of the zone or district they are located in.

5. Additional requirements for projects in the Highland Lake watershed that are not subject to subdivision or site plan review.

- a) The Code Enforcement Officer shall issue a Stormwater and Phosphorus Management Control Permit if the applicant meets or exceeds fifty (50) points based on the following point schedule. The applicant shall submit a Sketch Plan of the lot showing how each of the following point credits or deductions applies to the

proposed development. The Sketch Plan shall show approximate locations and dimensions of each Stormwater BMP, or other measure.

a. Credits

- i. 10 Points for correcting an existing erosion problem on the project site, as approved by the Code Enforcement Officer.

1. Installing non-structural BMP (vegetation, loam and seed, mulch, etc.)
2. Installing a structural BMP (woven geotextile mats and fabric, rip rap, etc.)
3. Installing sediment control barriers until 1 & 2 have been established.

- ii. ~~10~~ Points for a building footprint less than ~~1,500~~ square feet ^{2,000}

- iii. 10 Points for a clearing limitation of less than 20% of the lot, or 15,000 square feet, whichever is less; or 20 Points for a clearing limitation of less than 15% of the lot, or 10,000 square feet, whichever is less

- iv. 15 Points for the installation of rock-lined drip edges or other infiltration system to serve no less than 50% of the new impervious area on the site. Test pit information certified by a Licensed Site Evaluator, Certified Soil Scientists (CSS) or Certified Geologist (CG) must show that ~~one foot~~ of separation exists between the Seasonal High Groundwater Table and the bottom of any proposed infiltration structure. Infiltration systems must be sized to accommodate one inch of runoff from contributing impervious areas within the structure (this will include an assumption of 30% void space in washed stone) and designed in accordance with the details following approved engineering practices and techniques as published by the Maine Department of Environmental Best Management Practices (BMPs)

AT LEAST 3 FEET

- v. 25 Points for the installation of rock-lined drip edges or other infiltration system to serve no less than 75% of the new impervious building area on the site. Test pit information certified by a Licensed Site Evaluator, Certified Soil Scientists (CSS) or Certified Geologist (CG) must show that ~~one foot~~ of separation exists between the Seasonal High Groundwater Table and the bottom of any proposed infiltration structure. Soil filtration or infiltration systems must be sized to accommodate one inch of runoff from contributing impervious areas within the structure (this will include an assumption of 30% void space in washed stone) and designed in accordance with the details following approved engineering practices and techniques as published by the Maine Department of Environmental Best Management Practices (BMP's)

- vi. 25 Points for the installation of rain gardens, soil filtration system, or wet pond design to serve no less than 50% of the total new impervious area on the site. Rain gardens, soil filter, and wet pond systems shall be sized to accommodate one inch of runoff from contributing impervious areas, and designed in accordance with the details following approved engineering practices and techniques as published by the Maine Department of Environmental Best Management Practices (BMP's)

PRETREATMENT PRACTICES
SIZED TO HOLD ONE-YEAR'S
WORTH OF SEDIMENT
SHALL BE PROVIDED
TO REDUCE CLOGGING
OF INFILTRATION SYSTEMS.

AT LEAST 3 FEET

BIORETENTION AREA

BIORETENTION

- BIORETENTION AREA →
- vii. 40 Points for the installation of rain gardens, soil filtration system, or wetpond design to serve no less than 75% of the new impervious area on the site. Rain gardens soil filter, and wetpond systems shall be sized to accommodate one inch of runoff from contributing impervious areas, and designed in accordance with the details following approved engineering practices and techniques as published by the Maine Department of Environmental Best Management Practices (BMP's). ^{PRETREATMENT PRACTICES}
 - viii. 30 Points for a 50 foot wide (no greater than 15% slope) wooded buffer strip, or a 75 foot wide vegetated buffer (no greater than 8% slope) strip located down gradient and adjacent to the developed area, provided there is no channelization within the buffer; or ^{NATURAL}
 - ix. 35 Points for a 75 foot wide (no greater than 15% slope) wooded buffer strip, or a 100 foot wide vegetated buffer (no greater than 15% slope) strip located down gradient and adjacent to the developed area, provided there is no channelization within the buffer; or ^{MAN MADE}
 - x. 40 Points for a 100 foot wide (no greater than 15% slope) wooded buffer strip, or a 150 foot wide vegetated buffer (no greater than 15% slope) strip located down gradient and adjacent to the developed area, provided there is no channelization within the buffer. ^{NATURAL}

b. Deductions

- i. 5 Points deducted for a new structure footprint exceeding 2000 square feet, and an additional 5 points deducted for each additional 500 square feet of structure footprint.

- ii. 5 Points deducted for clearing more than 50% disturbance. ^{OF THE LOT??}

c. A BMP MAINTENANCE PLAN SHALL BE SUBMITTED ALONG WITH THE SKETCH PLAN.

- b) Alternate Means of Calculation. In those cases where the Code Enforcement Officer determines that use of the points system is inadequate to achieve the purposes of storm water and phosphorous management control or is otherwise inappropriate because of particular circumstances of the property, the Code Enforcement Officer may assess conformance with this standard based on the following:

- a. A licensed State of Maine Professional Engineer or Soil Evaluator or Certified Professional in Soil and Erosion Control certifies that the proposed treatment measure matches or exceeds the performance of the treatment measure under the specific point system allowance. It shall be the engineer's responsibility to provide evidence that the measure has been approved by the Maine Department of Environmental Protection or provides other certification into comparable treatment by professional testing results.

correct spelling

L. CONDITIONS OF PERMITS

Permits granted under this section may be made subject to additional conditions or restrictions to ensure conformity with the purposes and provisions of this chapter. Each application for a building permit shall be accompanied by the building permit fee set by the Town. Each application to the Code Enforcement Officer for a permit to erect a new building or structure or to enlarge or to move an existing one shall be accompanied by a site plan showing the measurements of the lot and of all buildings, driveways, yards and parking spaces, drainage ways, storm drains, streams existing