

ACTON PLANNING BOARD PUBLIC MEETING

DATE December 15, 2011

ROLL CALL – Meeting began at 7:04 pm

Members present were: Chip Venell – Chairman
 Thomas Cashin – Vice Chairman
 Jessica Donnell
 Yoli Gallagher
 Arthur Kelly
 Gavin Maloney – Alternate

Members absent were: Bob Smith - Alternate

Also present were: Jennifer Jespersen-F.B. Environmental, Steve Geranian, Paul Poyant, Virginia DeBoer, Kenneth Paul (CEO) and Linda Capristo (Recording Secretary)

MINUTES – Approval of 10-20-11 minutes - Mr. Cashin made a motion to accept minutes as written and Ms. Gallagher seconded – unanimous vote. Approval of 11-3-11 minutes – Mr. Cashin made a motion to accept minutes as written and Ms. Gallagher seconded – unanimous vote. Approval of 11-17 minutes – Mr. Cashin made a motion to accept minutes as written and Mr. Venell seconded, Ms. Gallagher abstained – unanimous vote

UNFINISHED BUSINESS – Proposed Stormwater Ordinance Draft with Jen Jespersen of F.B. Environmental

Mr. Venell introduced Ms. Jespersen and explained to those in attendance that the PB sent to her some questions for her review and/or explanation. Ms. Jespersen stated that she had forwarded the prepared ordinance back in July to Derek Sowers, a Conservation Program Manager at PREP/UNH. Mr. Sowers reviewed the ordinance and replied by email. She continued by stating that Mr. Sower's biggest concern is that the ordinance is too narrow and was opposed to just limiting it to the Shoreland and Resource Protection areas. He is encouraging the Town to think bigger as most development would be outside the Shoreland and Resource Protection areas. This will be left up to the PB to assess and determine. One of the other items Mr. Sowers pointed out was to make sure comparable performance standards are included in the sub-division ordinance. You will also find Mr. Sowers email attached.

Ms. Jespersen continued with her responses to the questions from the PB which are included. They discussed definitions of buffers, natural vegetated buffers as wells as high quality water in Maine. It was determined that the PB will work on a new definition of buffer. The PB will also review the DEP lake water quality categories to determine if these would be useful for setting design standards similar to New Hampshire's quality water status. The PB will also determine what level of expertise is needed for preparing stormwater plans. (FBE to send information about CPESC.) It was suggested that non-incidentual disturbances should be visited every 5 years to check on O&M agreements for BMP's. More than likely this responsibility would fall under the CEO duties. There was some discussion regarding areas under a decks with regard to the use of crushed stone and what is appropriate when paving exists and whether it needs to be removed or not.

Mr. Cashin wanted to clear up the question as to whether to enforce the whole town or just Shoreland and Resource Protection areas. Mr. Cashin then motioned to consider the applicability to be town wide. Ms. Donnell seconded. Ms. Gallagher stated that town wide may cause the risk of it not passing. Mr. Paul said there

are two ways to look at it if you want to get this ordinance through Town Meeting; do you want to go town wide all at once or protect the water quality and lakes first, by doing it in steps. Mr. Paul said he felt it would be too much too fast doing the whole town. He said we should enforce Shoreland and RP while working the kinks out. After a short discussion Mr. Cashin withdrew his motion and Ms. Donnell withdrew her second to his motion.

Building Code – There was a short discussion with regard to the Warrant Article and Chapter 11 (Energy Code) of the IRC 2009. Mr. Venell stressed that we have specifically using the IRC 2009 for two years and before that since 2000. Ms. Gallagher made a motion to recommend a Public Hearing on January 5, 2011 at 7PM to review the Zoning Ordinance amendment (Building Code), Mr. Kelly seconded - unanimous. A draft of the Warrant Article and Timeline to the Special Town Meeting is included with these minutes.

NEW BUSINESS –

Code Office – Best Possible Location – Mildred Bauer, Red Gate Lane on Great East Lake Map 119-016

Mr. Paul said this is a small camp by the water which the owner is looking to replace and move into the side hill. The building is currently 10 feet from the water and will be moved back 70 feet and will exceed the side setbacks. Mr. Venell asked about the size of the new building. Mr. Paul replied they will get the same square feet plus 30% with a walkout basement. A new septic will tie into the new building as well as the cottage which is also on the property. The mother has always had the one down on the water and in 1993 the town allowed them to build the other one on top which exceed past the 100 foot setback. Apparently it was a renovation in 1993. The small camp had a kitchen and sink which meets the definition of a dwelling. The primary camp was at the top. Ms. Gallagher asked about re-vegetation where they taking down the camp. Mr. Paul said they will re-vegetate; they have already put a bunch of rip-rap in when they installed the septic back in 1993. They are proactive already. Mr. Cashin motioned to accept Mr. Paul's recommendation, Ms. Gallagher seconded – unanimous.

ADJOURNED – 8:42 pm

- Included references:
1. Letter dated 5/31/2011 from State of Maine Senate and House Chair
 2. Draft Stormwater Ordinance with cover memo 7/5/11
 3. Memo dated 7/8/11
 4. PB questions and Jen Jespersen, FBE responses dated 12/15/11
 5. Memo dated 12/19/11 to Derek Sowers, PREP/UNH
 6. Draft Warrant Article
 7. Draft Timeline to Special Town Meeting

Approved 1-19-12 YG motion - AK - Second - Unanimous

SENATE

THOMAS B. SAVIELLO, DISTRICT 18, CHAIR
ROGER L. SHERMAN, DISTRICT 34
SETH A. GOODALL, DISTRICT 19



HOUSE

JAMES M. HAMPER, OXFORD, CHAIR
BERNARD L. A. AYOTTE, CASWELL
JANE S. KNAPP, GORHAM
JOAN M. NASS, ACTON
RICKY D. LONG, SHERMAN
JAMES W. PARKER, VEAZIE
ROBERT S. DUCHESNE, HUDSON
MELISSA WALSH INNES, YARMOUTH
JOAN W. WELSH, ROCKPORT
DENISE PATRICIA HARLOW, PORTLAND

SUSAN Z. JOHANNESMAN, LEGISLATIVE ANALYST
KRYSTA LILLY-BROWN, COMMITTEE CLERK

STATE OF MAINE

ONE HUNDRED AND TWENTY-FIFTH LEGISLATURE

COMMITTEE ON ENVIRONMENT AND NATURAL RESOURCES

Jim Brooks, Acting Commissioner
Department of Environmental Protection
17 State House Station
Augusta, ME 04333

May 31, 2011

**RE: LD 219, An Act To Amend the Laws Governing Shoreland Zoning
LD 159, An Act To Foster Economic Development by Improving Administration of
the Laws Governing Site Location of Development and Storm Water
Management**

Dear Mr. Brooks:

As you know, a majority of the Environment and Natural Resources Committee voted "ought not to pass" on LD 219. That bill proposed to reduce the width of land that is subject to shoreland zoning from 250 feet to 75 feet.

At the worksession on LD 219, DEP staff indicated the department is in the process of convening a stakeholder group to undertake a major review and revision of the shoreland zoning rules over the interim. Our committee expressed strong support for the department's plan to undertake such a review, to seek input from all interested parties and to revise the rules as deemed necessary by the department.

Additionally, the committee learned during our worksessions on LD 219, as well as on LD 159, that a primary concern of property owners is the inclusion of high and moderate value waterfowl and wading bird habitat in Resource Protection Districts. The designation of this habitat in resource protection is required under the department's shoreland zoning rules. The committee came to general consensus that this habitat should not be designated as resource protection and we considered statutorily removing it from resource protection designation. However, since we understand that the department is as concerned with and understands the implications to landowners whose land has been designated as resource protection and, since the department is undertaking a major review and revision of the rules, we instead decided to ask the department to review the issue and amend your rules to remove this habitat from resource protection. We also request that the department notify municipalities of your review and rule revisions as well as options available to municipalities for dealing with high and moderate value waterfowl and wading bird habitat in their shoreland zoning ordinances.

In the committee amendment to LD 159, we included authorization for our committee to report out a bill relating to high and moderate waterfowl and wading bird habitat to the 2nd Session if statutory changes are needed after your review and rule revisions.

In addition to the shoreland zoning issues addressed above, during our worksessions on LD 159 and several NRPA bills your staff agreed to review the following issues over the interim.

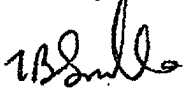
1. Review and identify instances where NRPA standards could be applied to Site Law projects, similar to the provision in the committee amendment which requires the department to apply the NRPA standards for significant vernal pool habitat when reviewing significant vernal pool habitat in a Site Law project.

2. Review and identify ways to clarify the NRPA permitting exemption for forest management activities in significant wildlife habitat.

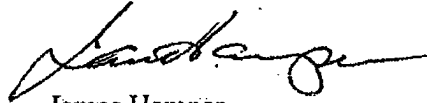
3. Review the department's policy for reviewing modifications to developments that are grandfathered under the Site Law.

Thank you for your attention to these matters and if you have questions, please do not hesitate to contact us.

Sincerely,



Thomas Saviello
Senate Chair



James Hamper
House Chair

cc: Members, Environment and Natural Resources Committee
Pattie Aho, DEP, Deputy Commissioner
✓ Deirdre Schneider, DEP, Shoreland Zoning Coordinator
Mike Mullen, DEP

Acton Code Dept

From: "Jennifer Jespersen" <jenj@fbenvironmental.com>
To: <ceo@actonmaine.org>
Cc: <tomcashin@psouth.net>; "Jessica Donnell" <j3ss@metrocast.net>; <info@fbenvironmental.com>;
"Sowers, Derek" <Derek.Sowers@unh.edu>
Sent: Tuesday, July 05, 2011 12:45 PM
Attach: FBMemo_DraftOrdinance_05July11.doc; Draft_Acton_ME_SWOrdinance_05July11.doc
Subject: Draft Acton Stormwater Ordinance

Hi Linda,

Tom Cashin asked me to forward the attached Draft Stormwater Ordinance to you so that all the Planning Board members have a copy to review. I previously sent a copy to both Tom and Jessica Donnell in early May.

The attached draft is an updated version of the draft I sent to Tom and Jessica in May. The update includes the definitions in Section 1.2 that were previously sent under separate cover.

I've also attached a memo that describes the methods used to develop the ordinance and specific questions for the committee to think about as they review the draft ordinance.

Please don't hesitate to call if you have any questions.

Sincerely,

Jennifer Jespersen
Sr. Project Manager
FB Environmental Associates, Inc.
Portland, ME 04101
(207) 215.8506
www.fbenvironmental.com



MEMORANDUM

To: Town of Acton Planning Board
From: Jennifer Jespersen, Sr. Project Manager
Subject: Draft Acton Stormwater Ordinance for Review
Date: July 5, 2011
Cc: Forrest Bell-FBE, Derek Sowers-PREP

This memo summarizes materials and information used to develop the Draft Stormwater Ordinance for the Town of Acton, ME, as well as a summary of key points that may be helpful as you review the document.

Materials and References

Town of New Durham, NH Stormwater Management & Erosion Control Ordinance

Based on feedback received from the Steering Committee, I used the New Durham, NH Stormwater Ordinance as a template/guide to develop the ordinance. Where necessary, references to NH Law were replaced with information pertaining to Maine standards.

Town of China, ME LID Ordinance & China, ME Phosphorus Ordinance

Specific language from the China LID Ordinance was used to help develop criteria for the LID Plan for Incidental Disturbances.

Other Ordinances Stormwater Ordinances Reviewed

Town of Acton Zoning Ordinance including Proposed Shoreland Zoning Ordinance
 Town of Orono, ME
 Town of Lewiston, ME
 Town of Windham, ME

Other References

Maine LID Manual
 Maine DEP BMP Handbook

General Topics/Points for Review

- 1) Request feedback from Steering Committee regarding criteria used for Incidental & Non-Incidental as far as what the application requirements.



- 2) Request feedback from Steering Committee whether language is strong enough regarding need for either pre or post-construction inspections. (e.g., regarding incidental vs. non-incidental disturbances- should one type of disturbance be required to have more on-site inspections than the other?
- 3) Feedback from Steering Committee regarding enforcement language. Is it strong enough?

Specific Topics/Points for Review

- 1) **Purpose** (p. 1). Should this be simplified?
- 2) **Applicability** (p. 1). Per our last meeting with the steering committee they wanted to pare it down to the shoreland zone. The draft ordinance as written applies to a few other zones including the RPD and the Commercial B District due to the description of these zones as needing additional environmental safeguards. There is very little development allowed in the Resource Protection District, except possibly for expansions. The language in the ordinance for the Commercial B District says: "Commercial B District (Low Water Impact) æ This District is similar to the Overlay District but is designed to service the lakes and numerous summer residents. This District will also be protected with additional environmental safeguards related to water usage, impervious surfaces, and phosphorous control measures.
- 3) **Levels of Disturbance** (pp. 2-4). I used the New Durham Ordinance as a guiding document for this section, but took some liberties to change it based on info from the ME LID Manual and the Acton Shoreland Zoning Ordinance.
 - a) **Slope**: 15% is used for a breakpoint in the draft ordinance because many applicable LID techniques do not recommend application on slopes greater than 15%. The Town of Acton refers to 20% in their ordinance for steep slopes and we used 20% for the build out. Note that I used 20% elsewhere in the document, but not for setting the criteria for incidental vs. non-incidental disturbances.
 - b) **Square feet**: 100 square feet of impervious was used as the breakpoint for incidental disturbance as well as disturbances of >500 sq. ft. and less than or equal to 10,000 sq. feet. This is so that small site disturbances such as new garden beds, mailbox installations, etc. would not require a permit. 10,000 sq. ft. is used as the break between the Incidental and Non-Incidental Disturbances in the draft ordinance because it is consistent with the Town of Acton Shoreland Zoning Ordinance: "In no event shall cleared openings for development, including but not limited to, principal and accessory structures, driveways and sewage disposal areas, exceed in the aggregate, twenty-five percent (25%) of the lot area and ten thousand (10,000) square feet, whichever is greater, including land previously developed."



15,000 sq. ft. would be synonymous with the Basic LID Standards from the LID Manual: “Disturbance on an individual lot must be less than 15,000 square feet (including building, driveway, walkways, lawn area, construction access, grading)”

- c) **Conditional Use Permit** (pp. 3-4). This language came from the New Durham Ordinance. Feedback from the committee whether this is applicable in Acton.
- 4) **Stormwater drainage network** (p. 4). This was language used by New Durham. Want to check with Acton whether they have a storm drain system (assuming not, but left it in there for comment just in case).
- 5) **Parking Areas** (p. 7)- Language from New Durham. Feedback from committee needed whether this language is too vague, or if they'd like something more specific?
- 6) **Impaired Waterbodies** (p. 7). This would require new development for Incidental (smaller) disturbances to possibly also use per acre P allocation methodology in the watershed of an impaired waterbody.
- 7) **P Control Methodology** (p. 9). Used the per Acre P allocation #'s from DEP for all Lakes/Ponds listed in Acton.

SECTION 1- GENERAL

1.1 Purpose

The purpose of this ordinance is to establish minimum stormwater management requirements and controls to protect and safeguard the general health, safety, and welfare of the public residing in watersheds within Acton, ME, while simultaneously protecting the environment and conserving the natural and cultural resources in the town. This ordinance seeks to meet that purpose through the following objectives:

- (a) Minimize increases in stormwater runoff from new development in order to reduce flooding, siltation and streambank erosion and maintain the integrity of stream channels through the use of Low Impact Development (LID) Techniques.
- (b) Minimize increases in phosphorus caused by stormwater runoff from new development which would otherwise degrade local water quality.
- (c) Minimize the total annual volume of surface water runoff which flows from any specific site during and following development to not exceed the pre-development hydrologic conditions to the maximum extent practicable.
- (d) Reduce stormwater runoff rates and volumes, soil erosion and nonpoint source pollution, wherever possible, through stormwater management controls and to ensure that these management controls are properly maintained and pose no threat to public safety or the environment.

1.2 Definitions

Best Management Practices (BMP): methods and means that have been determined to be the most effective, practical approaches of preventing or reducing pollution and detrimental impacts from stormwater runoff.

Buffer: a vegetated area or zone separating a development from a sensitive resource or neighboring property in which proposed development is restricted or prohibited.

Disconnected Impervious Cover: the sum of the proposed areas of impervious cover and pavement that receive runoff and, by means of implementing BMPs and LID strategies, is designed to capture and filtrate the precipitation from a 1-inch 24-hour rain event.

Disturbance: any activity that significantly alters the characteristics of the terrain in such a manner as to impede or alter the hydrology or natural runoff pattern, or creates an unnatural runoff.

Effective Impervious Area (EIA): the total impervious surface areas less the area of disconnected impervious cover.

Proposed Stormwater Management Ordinance

Town of
Acton, ME

Erosion and Sediment Control Plan: a plan that must be prepared before construction begins, ideally during the project planning and design phase. It consists of three parts; a narrative describing the land disturbing activities, a map showing site characteristics, and plan details.

High Quality Water: a waterbody that has been identified by New Hampshire Department of Environmental Services as supporting the existing uses of the waterbody by meeting one or more water quality criteria to support the existing uses by greater than the reserve assimilative capacity of that waterbody. In general terms, the water quality in the waterbody is better than the water quality criteria.

Hydrologic (Hydrology): the dynamic process of water movement within an environment including the sources, timing, amount, and direction of that waters movement.

Impaired Waterbody: a waterbody that does not meet water quality standards and designated uses because of pollutant(s), pollution, or unknown causes of impairment.

Impervious Surface: a material with low to no permeability that impedes the natural infiltration of moisture into the ground so that the majority of the precipitation that falls on the surface runs off or is not absorbed into the ground. Common impervious surfaces include, but are not limited to, roofs, concrete or bituminous paving such as sidewalks, patios, driveways, roads, parking spaces or lots, and storage areas, compacted gravel including drives and parking areas, oiled or compacted earthen materials, stone, concrete or composite pavers, wood, and swimming pools.

Low Impact Development (LID): site planning and design strategies intended to maintain or replicate predevelopment hydrology through the use of source control and relatively small-scale measures integrated throughout the site to disconnect impervious surfaces and enhance filtration, treatment, and management of stormwater runoff as close to its source as possible. Examples of LID strategies are pervious pavement, rain gardens, green roofs, bioretention basins and swales, filtration trenches, and other functionally similar BMPs located near the runoff source.

Maximum Extent Practicable (MEP): to show that a proposed development has met a standard to the maximum extent practicable, the applicant must demonstrate the following: (1) all reasonable efforts have been made to meet the standard, (2) a complete evaluation of all possible management measures has been performed, and (3) if full compliance cannot be achieved, the highest practicable level of management is being implemented.

Non-Point Source (NPS) pollution: pollution discharged over a wide land area, not from one specific location. These are forms of diffuse pollution caused by sediment, nutrients, organic and toxic substances originating from land-use activities, which are carried to lakes and streams by surface runoff. Non-point source pollution is contamination that occurs when rainwater, snowmelt, or irrigation washes off plowed fields, city streets, or residential backyards. As this runoff moves across the land surface, it picks up soil particles and pollutants, such as nutrients and pesticides.

Peak Flow: the maximum instantaneous flow of water in a specified period of time

Permit by Notification: a streamlined permitting process for certain minimum impact projects that propose impacts to protected resources. The rules and process identify certain projects in wetlands or surface waters or other protected resources areas that are minimum impact, if carried out according to the requirements in the rules.

Permit by Rule: a shortened permitting procedure pertaining to activities in, on or over a protected natural area or any freshwater wetland, great pond, river, stream or brook. It ensures that activities such as; dredging, bulldozing, removing or displacing soil, sand, or vegetation, filling any area, constructing repairing or altering any permanent structure, do not degrade or destroy the aforementioned protected natural areas or freshwater resources.

Riparian: referring to anything connected or immediately adjacent to the shoreline or bank of a stream, river, pond, lake, bay, estuary or other similar body of water.

Runoff: stormwater that does not infiltrate into the ground and flows toward a below-ground or surface discharge location.

Stormwater: water that originates from precipitation events and accumulates on land.

Stormwater Management Plan: a written plan describing the proposed methods and measures to be implemented to prevent or minimize water quality and quantity impacts from stormwater associated with a development or redevelopment project both during and after construction. It identifies selected BMPs, LID source controls, and treatment practices to address those potential impacts, and contains the engineering design plans, specifications, and calculations of the management and treatment practices, and maintenance requirements for proper performance of the proposed practices.

Water Quality Treatment: the capture of sediment, nutrients, metals and hydrocarbons suspended in stormwater runoff from impervious surfaces before being conveyed to a storm sewer network or to another water quality treatment system. In most cases where no other local water body impairments exist, adequate treatment refers to documenting the treatment systems ability to remove 80% of the total suspended solids (TSS) on an annual basis. Where water quality impairments do exist adequate treatment refers to a system's ability to meet maximum load allocations or not further impair the receiving water.

1.3. Applicability

(1) This ordinance shall apply to all new development (per Town of Acton Land Use Chart) including development of a new primary structure, or expansion of an existing primary structure that will increase the impervious area of the property, and is not already subject to a Maine DEP stormwater permit within the following zones:

(a) Shoreland Zone

(b) Resource Protection District

Proposed Stormwater Management Ordinance

Town of
Acton, ME

(c) Commercial B District

(2) New or expansions of decks, patios, retaining walls, accessory structures or impervious surfaces not part of the development of a new primary structure or a building expansion of an existing primary structure within zones listed in a-c above shall meet requirements in Section 4.3.

1.4 Exclusions

The following activities and projects are excluded from this ordinance:

- (a) Reseeding or repair of an existing lawn in which the topography of the site is not significantly altered and the existing runoff patterns remain unchanged;
- (b) Repair or replacement in kind of a septic system in which the topography of the site is not significantly altered and the existing runoff patterns remain unchanged;
- (c) Projects limited to subsurface explorations needed to assist in the design of a project including but not limited to test boring, test pits, observation wells, soil surveys, and other site characterization work;
- (d) Utility projects that meet all of the following conditions:
 - (i) The project is limited to trench excavation for installing, replacing, or repairing utilities, such as sewer, septic, water, closed drainage systems, gas pipes, or telephone or cable wires (that is not part of a larger project that would require a permit under this ordinance);
 - (ii) The project is done by or at the direction of the entity with responsibility for maintaining the lines for which the work is being done, including the homeowner if he or she is the responsible party;
 - (iii) The trench is closed at both ends so no water can escape the trench if there is a storm.
- (e) An asphalt maintenance project that meets all of the following conditions:
 - (i) The project is limited to replacement of the existing asphalt surface to its existing grade;
 - (ii) The project is limited to the footprint of the existing surface;
 - (iii) There is no change in the existing drainage system.
- f) Agriculture or forestry management activities in accordance with Sections 5.2 and 5.18 of the Acton Zoning Ordinance.

1.5 Levels of Disturbance

A disturbance of land means anytime that soil, sand, gravel or rocks are exposed by human activities such as clearing of trees or vegetation, grading, blasting or excavation. This includes buildings, driveways, walkways, lawn areas, construction access, and grading.

1.5.1 Incidental Disturbance:

Defined as disturbance that is:

- (a) Less than or equal to 2,000 square feet on slopes greater than 15%; or
- (b) Greater than 500 square feet and less than or equal to 10,000 square feet on slopes 15% or less; and
- (c) Will result in an increase of greater than 100 square feet of impervious area.

1.5.1.1 Management of Incidental Disturbances

- (1) Requires the development of a Low Impact Development (LID) Plan to minimize stormwater runoff from the site in excess of the natural pre-development conditions (*see LID Guidance Manual for Maine Communities¹*). The LID Plan will describe how the following conditions will be met, either:
 - (a) no net increase in stormwater export from the property, or
 - (b) application of the relevant Alternative LID Standard as described within the LID Manual. Where possible, existing natural runoff control features such as berms, swales, terraces and wooded buffers shall be retained in order to reduce runoff and encourage infiltration of stormwater.
- (2) An application for a Permit by Notification and an LID Plan shall be submitted to the Code Enforcement Officer at least 10 working days in advance of the commencement of work; and
 - (a) If not revised by the Code Enforcement Officer within 10 working days of submission then the permit shall become valid; and
 - (b) Shall give permission to the Code Enforcement Officer or other town approved third-party inspector to review the LID Plan on-site before, during and after completion to ensure maximum treatment of stormwater.

1.5.2 Non-Incidental Disturbance

Defined as any disturbance that is:

- (a) Greater than 2,000 square feet on slopes greater than 15%;

¹ *LID Guidance Manual for Maine Communities, Approaches for Implementation of Low Impact Development Practices at the Local Level.* Maine Coastal Program, September 2007.

http://www.maine.gov/dep/blwq/docwatershed/materials/LID_guidance/manual.pdf

Proposed Stormwater Management Ordinance

Town of
Acton, ME

- (b) Greater than 10,000 square feet on slopes less than or equal to 15%; and
- (c) Will result in an increase of greater than 100 square feet of impervious area.

1.5.2.1 Management of Non-Incidental Disturbances

- (1) Non-Incidental Disturbances shall require a Stormwater Conditional Use Permit issued by the Planning Board or Code Enforcement Officer;
- (2) Requires the development of a Stormwater Management Plan that incorporates LID techniques and phosphorus export standards (Section 4).
- (3) Requires the development of an Erosion and Sediment Control Plan, and an Operations and Maintenance Plan.
- (4) The Planning Board shall establish by regulation the factors that determine if the Conditional Use Permit may be granted by the Code Enforcement Officer, or shall be granted by the Planning Board.
- (5) The Planning Board may at their discretion request site-inspections pre, and post-construction inspections.

SECTION 2- DISTURBANCES & STORMWATER MANAGEMENT

2.1 General Requirements

- (1) The total overall impervious cover shall not exceed 20% of a site.
- (2) More restrictive limitations on impervious surface in other sections of this Ordinance, Subdivision Regulations of the Town of Acton or the Acton Zoning Ordinance may apply.
- (3) Impervious cover should be disconnected from the stormwater drainage network, through such techniques as infiltration, sheet flow over a pervious area, or other approved LID techniques.
- (4) No activity shall locate, store, discharge, or permit the discharge of any treated, untreated, or inadequately treated liquid, gaseous, or solid materials of such nature, quantity, obnoxiousness, toxicity or temperature that run off, seep, percolate, or wash into surface or ground waters so as to contaminate, pollute or harm such waters or cause nuisances, oil, scum, color, odor, taste, or unsightliness or be harmful to human, animal, plant, or aquatic life.

2.2 Stormwater Management During Disturbance or Construction

- (1) Filling, grading, lagooning, dredging, earth-moving activities, and other similar land use activities shall be conducted in such manner as to prevent, to the maximum extent possible, erosion and sedimentation of surface waters. On slopes greater than 20 percent, there shall be no grading or filling within 100 feet of the normal high water mark. Furthermore, any activity which occurs adjacent to a freshwater wetland, or within 100 feet of the normal high water mark of a Great Pond, and 75 feet of a river, stream or brook shall be subject to the State's Natural Resource Protection Act (NRPA)(38 MRSA 480 A-Z), including its Permit by Rule procedures.

Proposed Stormwater Management Ordinance

Town of
Acton, ME

- (2) During any construction of any permitted structures on any lot, or during any filling or earthmoving, the owner and any contractor employed thereby shall employ sediment and erosion control practices as set forth by the *Maine Erosion and Sedimentation Control Handbook for Construction, Best Management Practices*². Said practices should include but are not be limited to (a) staked hay bales, (b) velocity reduction dams (hay bales and siltation fences), erosion control mulch, and temporary mulching of all disturbed soil with permanent ground cover seeding occurring within seven (7) days of final grading.
- (3) All building, site, and roadway designs and layouts must harmonize with existing topography and conserve desirable natural surroundings to the fullest extent possible such that filling, excavation and earth moving activity must be kept to a minimum. Parking lots on sloped sites must be terraced to avoid undue cut and fill, and/or the need for retaining walls. Natural vegetation must be preserved and protected wherever possible.
- (4) All disturbances shall address necessary temporary and permanent erosion and sediment control methods to be employed within either the LID Plan for Incidental Disturbances or the Stormwater Management Plan for Non-Incidental Disturbances. Erosion and sediment 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. Erosion and Sediment Control techniques shall not conflict with Maine DEP Sediment and Erosion Control Law (MRSA 420-C), Maine Construction General Permit (W0008157-5Y-A-N), the Stormwater Management Law (38 MRSA 420-D) or with any other local, state or federal permits.
- (5) Any exposed ground area shall be temporarily or permanently stabilized within one (1) week from the time it was last actively worked, by use of rip-rap, 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 at 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.
 - (c) Additional measures shall be taken where necessary to avoid siltation into the water. Such measures may include the use of silt socks, staked hay bales and/or silt fences.
- (6) Earth-moving, filling and/or soil disturbances related to the removal of fuel storage tanks and/or the recovery of toxic/hazardous materials must comply with applicable state and federal laws in addition to the requirements of this Ordinance.

2.3 Permanent Stormwater Management Goals

² *Maine Erosion and Sediment Control BMPs*. Maine Department of Environmental Protection, Bureau of Land and Water Quality. DEPLW0588. March 2003. <http://www.maine.gov/dep/blwq/docstand/escbmps/cover.pdf>

2.3.1 Best Management Practices (BMPs)

- (1) Best Management Practices (BMPs) as identified in the following publications shall be used to meet the stormwater management goals in this ordinance:
 - (a) LID Manual for Maine Communities¹
 - (b) Maine Erosion and Sediment Control BMPs²
 - (c) Maine DEP Stormwater Best Practices Manual³
- (2) At a point immediately downstream from the project site the post-development peak flow rate shall not exceed the natural pre-development peak flow rate.
- (3) Both the LID Plan and Stormwater Management Plan shall be designed to convey stormwater without overtopping or causing damage to the stormwater treatment system, or result in adverse impacts to abutting or downstream properties.
- (4) All stormwater management practices shall be selected to accommodate the unique hydrologic and geologic conditions of the site.
- (5) Stormwater management practices for Non-Incidental Disturbances shall meet the required phosphorus export standards in Section 4.

SECTION 3- GENERAL DESIGN REQUIREMENTS

3.1. Stormwater Management Measures

3.1.1 Site Design

- (1) Site design approaches including LID to reduce runoff rates, volumes, and pollutant loads shall be implemented to the maximum extent practical. Such techniques include, but are not limited to:
 - (a) Minimization and/or disconnection of impervious surfaces;
 - (b) Development design that reduces the rate and volume of runoff;
 - (c) Restoration or enhancement of natural areas such as riparian areas, wetlands, and forests; and
 - (d) Use of practices that intercept, treat, and infiltrate runoff from developed areas distributed throughout the site (e.g. bioretention, infiltration dividers or islands, gravel wetlands, or planters and rain gardens).
- (2) Applicants shall demonstrate why use of nontraditional and/or nonstructural approaches such as those described in a - d above are not possible before proposing to use traditional, structural stormwater management measures (e.g., stormwater ponds, vegetated swales).

³ Stormwater Management For Maine. Maine Department of Environmental Protection. No. DEPLW0738. January 2006.
<http://www.state.me.us/dep/blwq/docstand/stormwater/stormwaterbmps/index.htm#manual>

Proposed Stormwater Management Ordinance

Town of
Acton, ME

- (3) The applicant shall demonstrate how the proposed control(s) will comply with the requirements of this ordinance. The applicant must provide design calculations and other back-up materials necessary.
- (4) Stormwater management systems shall be designed to protect natural hydrologic features and functions. Priority shall be given to maintaining existing surface waters and systems, including but not limited to, perennial and intermittent streams, wetlands, vernal pools, and natural swales. The below requirements are established as a minimums and greater restrictions may be required by other sections of this Ordinance, the Subdivision Regulations of the Town of Acton, the Acton Zoning Ordinance, or State Regulations based on the location of the development site.
 - (a) Existing site hydrology shall not be modified so as to disrupt on-site and adjacent surface waters. The applicant must provide evidence that this standard can be achieved and maintained over time.
 - (b) Existing surface waters, including lakes, ponds, rivers, perennial and intermittent streams, wetlands, vernal pools, as regulated within the Acton Zoning Ordinance, shall be protected by a minimum 25 foot no disturbance, vegetated buffer. The exception is in the Shoreland District, where roads and driveways shall be designed, constructed, and maintained to empty onto an unscarified buffer strip at least fifty (50) feet plus two (2) 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. The Planning Board may reduce the minimum buffer requirement on slopes less than 15% if the applicant can demonstrate that the disturbance within the buffer is in conjunction with improving stormwater quality or the construction of a stormwater management system and the intent of this Ordinance is met.
- (5) Structures related to BMP techniques shall not be located within 50 feet of steep banks (greater than 20 percent slope).
- (6) Where roadway or driveway crossings of surface waters cannot be eliminated, disturbance to the surface water shall be minimized, hydrologic flows shall be maintained, there shall be no direct discharge of runoff from the roadway to the surface water, and the area shall be revegetated post-construction.
- (7) Stream and wetland crossings shall be eliminated whenever possible. When necessary, stream and wetland crossings shall comply with design standards identified in the Maine Erosion and Sediment Control BMP Manual² or the New Hampshire Stream Crossing Guidelines⁴ and state law to minimize impacts to flow and animal passage.
- (8) Sizing and design of infiltration/recharge BMPs shall be established based on criteria in either the *LID Guidance Manual*¹, or the *Maine Stormwater Best Practices Manual*³.
- (9) Requirements for Parking Areas shall be as established by Regulation.

⁴ New Hampshire Stream Crossing Guidelines. University of New Hampshire. May 2009.
http://www.unh.edu/erg/stream_restoration/nh_stream_crossing_guidelines_unh_web_rev_2.pdf

3.1.2 Redevelopment

Because redevelopment may present a wide range of constraints and limitations, an evaluation of options may be proposed to work in conjunction with broader state watershed goals and local initiatives. Stormwater requirements for redevelopment vary based upon the surface area of the site that is covered by existing impervious surfaces.

- (1) In order to determine the stormwater requirements for redevelopment projects, the percentage of the site covered by existing impervious areas must be calculated.
- (2) For sites meeting the definition of a redevelopment project and having less than 40% existing impervious surface coverage, the stormwater management requirements will be the same as other new development projects with the important distinction that the applicant can meet those requirements either on-site or at an approved off-site location, within the same watershed within the Town of Acton, provided the applicant satisfactorily demonstrates that impervious area reduction and LID strategies and BMPs have been implemented on-site to the Maximum Extent Practicable (MEP)
- (3) For redevelopment sites with more than 40% existing impervious surface coverage, stormwater shall be managed for water quality in accordance with one or more of the following techniques, listed in order of preference:
 - (a) Implement measures onsite that result in an Effective Impervious Area (EIA) of at least 30% of the existing impervious surfaces and pavement areas, and 50% of the additional proposed impervious surfaces and pavement areas through the application of porous media; or
 - (b) Implement other LID techniques onsite to the MEP to provide treatment for at least 50% of the redevelopment area; or
 - (c) Implement off-site BMPs to provide adequate water quality treatment for an area equal to or greater than 50% of redevelopment areas may be used to meet these requirements provided that the applicant satisfactorily demonstrates that impervious area reduction, LID strategies, and/or onsite BMPs have been implemented to the MEP. An approved off-site location must be identified, the specific management measures identified, and an implementation schedule developed in accordance with local review. The applicant must also demonstrate that there is no downstream drainage or flooding impacts as a result of not providing on-site management for large storm events. To comply with local watershed objectives, the mitigation site should be situated in the same subwatershed as the development and impact the same receiving water.
- (4) If an asphalt maintenance project requires removing course gravels or other materials forming the base under the asphalt, then the asphalt shall be replaced using LID practices (e.g. porous pavement).

3.1.3 Impaired Waterbodies or High Quality Waters

If the proposed development is located in the watershed of an impaired waterbody (including both lakes and streams) as determined by the Maine DEP or New Hampshire Department of Environmental Services (NH DES), or is located in the watershed of a High Quality Water (HWQ) based on NHDES listing criteria, then

Proposed Stormwater Management Ordinance

Town of
Acton, ME

the Planning Board may require per acre phosphorus control allocations⁵ for all development within that watershed, regardless of whether it is Incidental or Non-Incidental.

SECTION 4- SPECIFIC DESIGN REQUIREMENTS

4.1 Low Impact Development Plan

The LID Plan shall be required for Incidental Disturbances in order to minimize stormwater runoff from the site in excess of natural pre-development conditions in accordance with the Maine LID Manual². LID techniques shall be designed for: (a) no net increase in stormwater volume exported from the property, or (b) the relevant Alternative LID Standard as described within the LID Manual. Components of the LID Plan include:

- (1) An Incidental Disturbance Form (Modified LID Application Form).
- (2) Site Plan or Sketch (including):
 - (a) Location of buildings or other structures, impervious surfaces, and LID practices;
 - (b) Location of any wetlands or other surface water on or adjacent to the site;
 - (c) Description of all structural components of the proposed runoff management system including materials to be used and construction specifications.
 - (d) Description of temporary and permanent Best Management Practices in conformance with Maine Erosion and Sediment Control BMPs², and Maine's Sediment and Erosion Control Law.
 - (e) Description of the native woody and herbaceous vegetative stabilization techniques to be used within and adjacent to the stormwater practice.
 - (f) Name of person(s) responsible for operation and maintenance, financing and emergency repairs.
 - (g) Inspection and maintenance schedule for all stormwater BMPs including routine and non-routine maintenance tasks consistent with the LID Manual.
 - (h) List of any easements with the purpose and location of each; and name and signature of owner(s) and responsible parties, if maintenance is to be performed by an entity other than the owner.
 - (i) Name, and signature of qualified professional who prepared the plan. May include professional engineer, certified professional in erosion and sediment control, or other town approved BMP site designer including the York County Soil & Water Conservation District or other consultant.
 - (j) Any other information requested by the Planning Board.
- (3) Supporting calculations and data, including (but not limited to):

⁵ *Phosphorus Control in Lake Watersheds: A Technical Guide to Evaluating New Development*. In: *Stormwater Management For Maine (Vol. II)*. Maine Department of Environmental Protection. No. DEPLW0738. January 2006.
<http://www.state.me.us/dep/blwq/docstand/stormwater/stormwaterbmps/index.htm#manual>.

Proposed Stormwater Management Ordinance

Town of
Acton, ME

- (a) Soils information from test pits performed at the location of proposed stormwater retention, detention, or infiltration system, including soil description, depth to estimated seasonal high groundwater and depth to bedrock.
- (b) Pre and post-development stormwater calculations following criteria set forth in the LID Manual¹.

4.2 Stormwater Management Plan

If a LID Plan (above), or components of the LID techniques are not practical for a project that qualifies for an Incidental Disturbance due to steep slopes or other site constraints, the applicant will be required to develop a Stormwater Management Plan that describes why the LID techniques were not applicable. A Stormwater Plan is required for all Non-Incidental Disturbances. The Stormwater Plan shall include:

- (1) Non-Incidental Disturbance Application Form.
- (2) Site Plan or Sketch (including):
 - (a) Location of buildings or other structures, impervious surfaces, and stormwater practices;
 - (b) Location of any wetlands or other surface water on or adjacent to the site;
 - (c) Description of all structural components of the proposed runoff management system including materials to be used and construction specifications.
 - (d) Description of the native woody and herbaceous vegetative stabilization techniques to be used within and adjacent to the stormwater practice.
 - (e) Name and signature of licensed professional engineer who prepared the plan.
 - (f) Any other information requested by the Planning Board.
- (3) Supporting calculations and data, including (but not limited to):
 - (a) Soils information from test pits performed at the location of proposed stormwater retention, detention, or infiltration system, including soil description, depth to estimated seasonal high groundwater and depth to bedrock.
 - (b) Pre and post-development flow rates and total runoff volumes. Post development runoff volumes shall be calculated by a licensed engineer to treat 0.5" of runoff from all impervious areas and 0.2" from disturbed pervious areas (e.g. lawns). If the site is located in the watershed of an impaired waterbody, or a lake most at risk from development, then calculations will be based on 1" of runoff from impervious areas, and 0.4" of runoff from disturbed pervious areas. TR-55, TR-20 and HydroCad are all acceptable models for calculating flow and volume.
 - (c) Phosphorus control methodology and supporting documentation (including calculations) using DEP's Phosphorus Control Guide⁴ to design phosphorus control measures that meet the phosphorus export standards (Table 1).
- (4) An Erosion and Sediment Control Plan (including):
 - (a) The nature and purpose of the land disturbing activity;

Proposed Stormwater Management Ordinance

Town of
Acton, ME

- (b) The amount of grading involved
- (c) Description of soils, topography, vegetation, drainage patterns

Table 1. Maine DEP Per Acre Phosphorus Allocations for Lake Watersheds in Acton, ME

Watershed	Phosphorus Standard
Balch Pond	0.042 lb/acre/yr
Great East Lake	0.032 lb/acre/yr
Hansen Pond	0.041 lb/acre/yr
Horn Pond	0.056 lb/acre/yr
Loon Pond	0.039 lb/acre/yr
Moose Pond	0.044 lb/acre/yr
Mousam Lake, North Basin	0.043 lb/acre/yr
Mousam Lake, South Basin	0.033 lb/acre/yr
Northeast Pond	0.039 lb/acre/yr
Square Pond	0.040 lb/acre/yr
Swan Pond	0.034 lb/acre/yr
Wilson Lake	0.034 lb/acre/yr

- (d) Specific methods that will be used to control soil erosion and sedimentation, soil disturbance and removal, including all temporary and permanent practices.

- (5) An Operations and Maintenance plan to ensure that systems function as designed. This plan shall be reviewed and approved as part of the review of the proposed permanent stormwater management system. Fulfillment of the Operations and Management plan shall be a condition of approval. The Planning Board may require an applicant to establish a homeowners association or similar entity to maintain the stormwater management system. The plan shall include:
- (a) The name of the owner for all components of the system.
 - (b) A map showing the location of the systems and facilities including all stormwater and LID practices;
 - (c) The names and addresses of the person(s) responsible for operation and maintenance;
 - (d) The person(s) responsible for financing maintenance and emergency repairs;
 - (e) An inspection and maintenance schedule for all stormwater best management practices including routine and non-routine maintenance tasks to be performed;
 - (f) A list of any easements with the purpose and location of each; and
 - (g) The signature(s) of the owner(s) and responsible parties, if maintenance is to be performed by an entity other than the owner.
 - (h) A Maintenance Agreement shall be submitted as a requirement of the proposed Operation and Maintenance Plan. The agreement shall make acknowledgement of the following:
 - (i) To keep the O&M plan current and to make modifications as necessary to ensure that BMPs continue to operate as designed and approved.
 - (ii) To notify the Planning Board within 30 days of a change in owner or party responsible for implementing the plan.
 - (iii) Changes to inspection frequency, maintenance schedule, or other modification shall be submitted to the Planning Board for review and approval within 30 days of the change.
 - (iv) The Planning Board shall notify owner of acceptance of the modified plan or request additional information within 60 days of receipt of proposed modifications. The currently approved plan shall remain in effect until notification of approval has been issued, or the 60 day period has lapsed.
 - (v) To keep records of stormwater management systems including installation, maintenance and repairs to the systems for the life of the system.

4.3 Stormwater Management for Decks, Patios Retaining Walls and Impervious Surfaces: New or expansions of decks, patios, retaining walls, accessory structures or impervious surfaces not part of the development of a new primary structure or a building expansion of an existing primary structure within zones listed in a-c in Section 1 shall meet the following requirements:

4.3.1 Deck

Construction of a raised deck shall be designed as follows:

- (1) The ground area beneath the proposed deck shall not be paved or otherwise made impervious if it is presently bare ground or landscaped, including lawn.
- (2) If the ground area is presently paved or impervious, impervious surface shall be replaced with crushed rock.
- (3) Should a roof be constructed over the deck, then BMPs will be required to treat the runoff.
- (4) The proposed deck shall be constructed in such a manner to allow rainfall to pass through to the ground below. An example of this is the typical wooden deck with expansion spaces between the boards that form the deck surface.

4.3.2 Patio

Construction of a patio shall be designed as follows:

- (1) The patio shall be constructed of porous pavers, crushed rock or other materials that permit infiltration of rainfall to the soil below.
- (2) The patio surface shall not create a concentrated runoff discharge point for stormwater that is not infiltrated through the surface. Stormwater runoff must flow evenly off the edge(s) of the patio and be infiltrated on site.

4.3.3 Retaining Wall

Construction of retaining walls less than 24 inches in face height shall be designed as follows:

- (1) The retaining wall shall not alter the flow direction of stormwater runoff leaving the site, nor shall it alter the stormwater flow to any wetland resource areas on the project site or adjoining properties.
- (2) Construction of the retaining wall will not increase the amount of stormwater runoff flowing to any water body.
- (3) The area behind the wall is revegetated with grass, shrubs, trees, or a combination thereof, and no further structural development will occur within the setback area including decks and patios.

4.3.4 Accessory Structure

An accessory structure shall be constructed on a raised footing foundation. Area under the structure shall remain a soil surface.

4.3.5 Impervious Surfaces

Construction of impervious surfaces (e.g. driveway, paved/concrete walkway) shall be designed so that:

- (1) There is no net increase of impervious area on the property, or the volume of stormwater runoff produced by the new impervious area ("recharge volume" or "recharge area") is infiltrated onsite. This can be achieved through Low Impact Development techniques as described in the LID Manual¹.

Proposed Stormwater Management Ordinance

Town of
Acton, ME

- (2) Expansion of the driveway surface shall not result in additional stormwater runoff flowing to a water body. Any increases in amount of stormwater shall be treated onsite.

4.4 Enforcement

If the designated enforcement official for the Town of Acton determines that the responsible party has failed to comply with this ordinance or the Stormwater Management Plan, the municipality is authorized to:

- (1) Assume responsibility for the implementation of the Plan; and
- (2) To secure reimbursement for associated expenses from the responsible party, including, if necessary, placing a lien on the subject property; and
- (3) To utilize equitable remedies, including injunction to implement the Plan.

SECTION 5- PROJECT REVIEW

5.1 Engineering Review

5.2.1 Fee

The applicant, upon request by the Planning Board, shall submit a fee to be held in escrow to cover the cost of outside engineering review of the proposed LID or Stormwater Management Plan, if determined necessary by the Planning Board.

5.2.2 Additional Copies

Additional copies of all plans, engineering studies, and additional information as requested by the planning board describing the proposed permanent post-construction stormwater management system shall be provided as necessary to allow for a thorough outside engineering review.

5.2 Performance Bond

- (1) To ensure that proposed stormwater management controls are properly designed and installed as approved, a performance bond shall be provided as a condition of approval in an amount determined by the planning board.
- (2) To ensure that stormwater management controls function properly, a performance bond shall be required, as a condition of approval, which may be held after a post-implementation site review has been approved.

From Derek S.

4

Jennifer Jaspersen

From: Sowers, Derek [Derek.Sowers@unh.edu]
Sent: Friday, July 08, 2011 2:36 PM
To: Jennifer Jaspersen; ceo@actonmaine.org
Cc: tomcashin@psouth.net; 'Jessica Donnell'; info@fbenvironmental.com
Subject: RE: Draft Acton Stormwater Ordinance

Follow Up Flag: Follow up
Due By: Monday, July 11, 2011 11:30 AM
Flag Status: Flagged

Thanks – got it. Most of ordinance language looks great and I commend FB on a job very well done.

After reviewing the ordinance and the zoning map, I think it's worth re-stating my initial concerns that the applicability section of the stormwater ordinance is too limited and will not apply to the vast majority of future development in the town. The Shoreland Zone is not defined in the town's zoning ordinance so it's not possible to understand how much land area this applies to. The resource protection district applies to floodplains, but only extends out 75' from streams (defined by the zoning ordinance as any second order stream). The term river is defined by the town to only mean the Salmon Falls River. This means that along most streams in town, the resource protection district is limited to 75' of stream (unless the floodplain is larger than this). So it would be possible to build a house 75' from a stream and not follow this ordinance and potentially significantly impact the stream (correct me if I'm missing something). The Commercial B district represents about 1% of the town's land area. If any style of development requires good local control over stormwater management practices, I would argue it is commercial/industrial development – currently largely exempt from the stormwater ordinance. I don't think that's a good idea. Some may think these types of developments are adequately covered by state/federal permits – the reality in my opinion is that local oversight would benefit the interests of the town.

Most of the town is zoned for 2, 3, and 5 acre minimum lot development – mostly in zoning districts that the draft ordinance does not apply to. I'm struggling to understand why the town would not want good stormwater management practices in the developments here as well. Cumulative water quality impacts under this zoning approach still occur – and in fact can be exacerbated by the amount of roads needed to access this disperse style of development. I think applying similar stormwater management standards to developments across zoning districts is perceived as more equitable as well. Most of the towns future subdivisions will occur in these areas I assume, so at least making sure comparable performance standards are found in the subdivision regs will be important (Board may have already dealt with this).

The parking lot standards in subdivision regs should be updated soon by Planning Board to encourage and guide LID style lots...e.g. something to this effect: "A minimum eight (8) foot wide planting median shall be provided between adjacent rows of parking. Median shall be depressed and may be associated with curb cuts allowing sheet flow to pond to a maximum depth of 8" in the median. Water quality swales or rain garden beds (if sheet flow is allowed) will be designed to promote detention time and infiltration. Soils must be designed for infiltration and evaluated for need of amendments. Overflow contingencies shall be provided and plumbed to adjacent drainage network if necessary." Another possibility is to change the 'minimum' parking lot travel lane dimensions to a 'maximum' to allow flexibility and encourage reductions in impervious cover.

Thanks for your consideration, Derek

Derek Sowers - 9939

Derek Sowers
Conservation Program Manager
603-862-2641

Questions-Comments for FBE:

1) Section 1.2 Definition of Buffer

Could we make this more concise?

A: Areas of vegetation situated between the built environment and the water, trap sediments, excess nutrients, and other pollutants, prevent erosion, and help to stabilize sloped areas and the shoreline. (Maine DEP Buffer Handbook).

B: Adjacent to great ponds and rivers flowing to great ponds, the buffer strip extends for a distance of 100 feet from the normal high-water line. (DEP Clearing in the shoreland zone)

C: Buffers should include an uneven-aged stand of trees and other vegetation, including natural ground cover.

D. NATURAL VEGETATED BUFFER: A strip of vegetated, non-lawn land that is not altered by any new development or redevelopment, or construction associated with new development or redevelopment. (LID Manual)

2) Section 1.2 Definition of High Quality Water

Are we using NH criteria here or ME? We would prefer a ME based definition.

NH: HQW is a special designation NHDES can assign if waters are determined to be of significantly better quality than what the water quality standards afford. Also referred to as "Tier 2".

Maine does not have high quality waters criteria and has only one classification (Class GPA) for lakes and ponds less than 10 acres and Great Ponds (natural lakes more than 10 acres in size or human-made impoundments more than 30 acres in size). In general, if the lakes meet or exceed the criteria below, they are considered to have good water quality.

B: Class GPA waters must be described by their trophic state based on measures of the chlorophyll "a" content, Secchi disk transparency, total phosphorus content and other appropriate criteria. Class GPA waters must have a stable or decreasing trophic state, subject only to natural fluctuations and must be free of culturally induced algal blooms that impair their use and enjoyment. The number of *Escherichia coli* bacteria of human and domestic animal origin in these waters may not exceed a geometric mean of 29 per 100 milliliters or an instantaneous level of 194 per 100 milliliters. [2007, c. 292, §23 (AMD).] (Maine State Statute: §465-A. *Standards for classification of lakes and ponds*)

However, DEP has developed a list of Lake Water Quality Categories for helping define the watershed/acre phosphorus allocations. The categories include: Outstanding, Good, Moderate Sensitive, Poor (restorable) and Poor (natural). You would need to contact DEP to acquire the categories for all of the lakes in town and then decide if you want to use the outstanding category to use for determining design standards.

Outstanding: *Exceptional Clarity; very low phosphorus and chlorophyll concentrations; low risk of internal recycling from sediments.*

4) Sections 1.4.(a), (b) & (e)(i)

Are these opportunities where we ought to seek improvement if a problem exists or would this be too intrusive? What was the thinking here?

The exclusions are projects that do not cause large disturbances or large increases in impervious surfaces. The idea is for people have a better sense of what they can do on their property without needing to go through the review process.

5) Section 1.5.1.(a) pertaining to "on slopes greater than 15%..."

How does FBE propose field determination and applicability of this language. Is it to be based on slope in area of development or average slope of lot in question in SLZ?

Other towns refer to a steep slopes layer or map which is often a GIS layer based on the USDA/NRCS soil survey. The soil survey assigns slope classes 15- 20%, 25%, etc. The difficult part is if a new development falls within more than one slope class. For an incidental disturbance an engineered drawing with 2 foot contours would clear up any question. If the disturbance is on the portion of

the property with a slope less than the criteria (e.g. 15%) then the planning board could make the call. For an Incidental disturbance, the steep slope map coupled with a clinometer reading should suffice as part of the LID plan.

11) Section 3.1.2. Redevelopment needs definition.

Is it ok to adopt as found in LID manual Appendix C-3.

I couldn't locate Appendix C-3 in the LID Manual. However, the Basic LID Standards apply to disturbances less than 15,000 square feet which is greater than the 10,000 sf in the proposed ordinance. Because the LID value is higher it should be a problem, but we don't want people to be confused. The 10,000 sf came from your shoreland zoning ordinance. In addition, the LID manual includes an impervious cover limit of 7,500 sq. feet and 25% of undisturbed natural area which are not outlined in the ordinance. The manual further defines these criteria by single family, multi-family, non-residential and retrofits. This may require modifying the LID paperwork slightly to fit the ordinance.

11) Section 3.1.3. In the last line "... or is located in the watershed of the High Water Quality (HWQ) ..."

Is this meant to include those ME-NH shared waterbodies like Great East, Horn and Balch? Could we reference just Maine criteria for this (see our page 1 question of Section 1.2)

Since ME doesn't have a HQW status for lakes, the default would be for impaired waterbodies, or a lake most at risk from development. Where you share waterbodies with NH, you may want to also consider applying the NH HQW since Wakefield is working toward a similar ordinance and then efforts would be duplicated.

12) Section 4.1.(2)(e) What is meant by the phrase "... Stormwater practice."?

This seemed like a typo.

A stormwater practice the same as a Best Management Practice that is installed to address stormwater. A single stormwater practice can be combined with other practices to make up the "proposed runoff management system" (4.1)(2)(c)

13) Section 4.1.(2)(i) We need more clarity on who is minimally competent to prepare these plans in the eyes of FBE?

Are there a sufficient number of individuals qualified at present? Are we a regulatory bottleneck of sorts because of the lack of certified personnel to do this plan preparation? Also who does FBE propose is eligible to "peer review" these plans on behalf of the CEO or Planning Board?

The town could put out a call for qualified personal and create a list that individuals, the CEO or the planning board can call on. Consultants, engineers and the York County Soil and Water Conservation District would all constitute qualified individuals. These same folks should be able to write LID plans, conduct 3rd party inspections, etc.

Section 4.2 The introductory wording here seems to suggest a subject of Incidental Disturbance with excessive slopes (>15% to ≥20%?) or other site constraints that warrants a Stormwater Management Plan (formerly referred for only Non-Incidental Disturbance conditions).

Please clarify.

This was added because there may be instances where a site qualifies for an incidental disturbance but site constraints limit the use of LID practices {i.e. The LID manual describes the limits for each type of LID practice. A buffer strip for example shouldn't be receiving water from more than 0.75 acres impervious, and a bioretention system should not exceed a length/width ratio of 2:1.}. In the instance where a LID Plan is not appropriate, or the landowner would prefer to write a stormwater plan rather than a LID Plan, then the landowner can opt for the more detailed Stormwater Management Plan.

Section 4.2(3)(b) There seems to be a unit of time/amount of rainfall missing here?

What is the proposed duration of time in which these (.5" and .2") volumes are occurring?

These values come from the Maine DEP Stormwater Manual, Chapter 6 Performance Standards for Smaller Projects including single family residences or duplexes on existing lots which are not part of a subdivision that has already incorporated phosphorus controls and small subdivisions with 5 or fewer lots that do not involve the construction of a new road or expansion of an existing road.

(<http://www.maine.gov/dep/blwq/docstand/stormwater/stormwaterbmps/vol2/chapter6.pdf>).

These values are also in the LID Manual for LID practices. LID practices are designed by calculating the area of impervious and disturbed pervious and then multiplying by the depth of rainfall giving you a volume of runoff. The intent of these practices is to mimic the natural hydrologic regime. The standards are not based on a storm frequency (2, 10, 25-year events) that you'd see for larger projects that require peak flow control such as a traditional BMP for a commercial site such as a detention basin. [For more information on storm frequency see: Maine DEP's Stormwater Manual (Ch.2) describes storm frequency and duration in detail as well as the traditional large scale types of BMPs that these standards apply to:

<http://www.maine.gov/dep/blwq/docstand/stormwater/stormwaterbmps/vol3/chapter2.pdf>.]

Typically the frequency standards apply to projects with 3 or more acres of impervious and are not used for smaller developments.

Section 4.2.(3)(c) We have often heard this terminology and have a general grasp of the concept but we would like a brief sense of what we are asking of an applicant here.

What is the level of complexity of these calculations?

Maine DEP's Stormwater Manual clearly explains how these calculations are made in Appendix B

(<http://www.maine.gov/dep/blwq/docstand/stormwater/stormwaterbmps/vol2/appb.pdf>) with supporting spreadsheets for doing the calculations in Appendix D. The applicant would be required to calculate the amount of phosphorus leaving the site (including pre-and post phosphorus export) and show that the total does not exceed the per acre phosphorus standard that's been assigned for that watershed (Table 1).

Alternatively, you could make these calculations mandatory only for impaired, or most-at-risk watersheds.

15) **Section 4.2(5)(h)** We have the idea of requiring a CEO biannual site visit here to check on O&M issues on smaller projects.

Does that make sense? How else could we check on performance, post development.

Biannual visits for small projects will likely be time consuming and expensive. You may want to consider biennial (every two years) for these types of projects, and annually for Non-Incidental. Use of a 3rd party inspector would free-up the CEO's time. This might include a short site-visit followed with a form letter indicating whether or not the practices met the performance standards.

16) **Section 4.3.1(2)** Could we rewrite to say

“... with crushed rock or similar material which would allow equal infiltration rates.”

The idea of using crushed stone under decks is to prevent soil erosion, especially where decks are located on slopes. Crushed rock helps keep the soil in place. What do you envision as a similar material that would allow equal infiltration?

Section 4.3.4 What is a “... raised footing foundation.”?

This is language adopted from the China Lakes Stormwater Ordinance. A raised footing foundation is a structure that is built on cement pads so that the structure is off the ground. I assume that the reason is so that the structure is not used in the future as a dwelling, the impact on the land for building it is minimized by not pouring a slab?

6

Linda Capristo

From: "Sowers, Derek" <Derek.Sowers@unh.edu>
To: "Linda Capristo" <landusesecretary@actonmaine.org>
Cc: "Tom Cashin" <tomcashin@psouth.net>; "Jessica Donnell" <j3ss@metrocast.net>; "Chip Venell" <venell@metrocast.net>; "Bob Smith" <rsmith3160@gmail.com>; "Art Kelly" <kellylew@metrocast.net>; "Yoli Gallagher" <yolieric@yahoo.com>
Sent: Monday, December 19, 2011 12:57 PM
Subject: RE: Town of Acton Proposed Stormwater Ordinance

Hello Linda,

The PREP funding for the Acton ordinance development has been expended in support for FB's consulting work on the project. FB is thankfully continuing to work on the project on a volunteer basis at this point. The PREP support for an outreach campaign is done by PREP outreach staff assisting the Board develop an outreach strategy to help explain and pass the ordinance. In some cases, PREP provides case-by-case funding support to help print and mail outreach products – for example a mailing of a factsheet or brochure to voters in town. Our staff member that used to work on this is no longer with PREP. However, our new staff member (Jill Farrell) that works on outreach is interested in assisting with your efforts and can provide staff support. Apart from donated staff time, PREP has no funds allocated for this outreach campaign at this time.

My suggestion on moving forward would be for Jill and me to meet with the Planning Board once the ordinance is completed. We can agree on the target audience for outreach, key content messages we want to convey, and the best delivery mechanism (s) to inform voters about the importance improved stormwater management policies. If part of the strategy involves the need for expenditures we can work to figure something out at that time. Based on previous experience, we have found that a focused outreach campaign on passing an ordinance is only really effective if done right before and concurrent with the town vote (and associated Town Meeting discussions) so timing prior to the June 2012 date is critical for success. Ordinance development processes that are overly prolonged are not often successful, so I think this should be avoided if possible.

Please let me know your thoughts on this and let me know how we can support your efforts moving ahead. Thank you for all of your work and commitment on this important effort in Acton.

Best Regards, Derek

From: Linda Capristo [mailto:landusesecretary@actonmaine.org]
Sent: Friday, December 16, 2011 9:53 AM
To: Sowers, Derek
Cc: Tom Cashin; Jessica Donnell; Chip Venell; Bob Smith; Art Kelly; Yoli Gallagher
Subject: Town of Acton Proposed Stormwater Ordinance

Good morning Derek,

I have been asked by the Acton Planning Board to contact you with regard to the the Outreach monies available for this project. If the we were not able to complete the proposed ordinance by the June 2012 Town Meeting date, would funds be available if the ordinance was put off to a later date perhaps in the fall?

1/6/2012

Thanks for you time and I look forward to hearing from you.

Linda Capristo
Land Use Secretary
Town of Acton
Code Enforcement Office
PO Box 540
35 H Road (lower level)
207-636-3839 x 409
207-636-1345

**Town of Acton, Maine
Special Open Town Meeting Warrant
Tuesday, February 7th, 2012**

To Robert Anderson, a constable of the Town of Acton, in the County of York, State of Maine.

GREETINGS:

In the name of the State of Maine, you are hereby required to notify and warn the inhabitants of said Town of Acton in said county and state, qualified to vote in town affairs, to gather at the Acton Town Hall at 7:00 pm on Tuesday, February 7th, 2012 to act on the following articles:

ARTICLE 1: To choose a moderator by written ballot to preside at said meeting.

ARTICLE 2: Shall the following amendments to the Town's Zoning Ordinance be enacted?

6.2.7 a. All new one or two family dwellings, their accessory buildings, renovations or additions on existing structures shall be built in compliance with the 2009 International Residential Code (IRC), as adopted by the State of Maine including all amendments.

b. All new multi-family dwellings, commercial structures, their accessory buildings, and any renovations or additions on existing structures shall be built in compliance with the 2009 International Building Code (IBC), as adopted by the State of Maine including all amendments.

Warrant and Finance Recommends: Approve the Article as Written (5 - 0)
Select Board Recommends:

ARTICLE 3: Shall the following amendments to the Town's Zoning Ordinance be enacted?

6.2.7 c. All applicable construction shall meet the 2009 International Energy Conservation Code (IECC) to regulate the design and construction of all buildings for the effective use of energy, as adopted by the State of Maine including all amendments.

Warrant and Finance Recommends: Approve the Article as Written (5 - 0)
Select Board Recommends:

(Copies of the full text of this ordinance and the above-referenced building codes are available for viewing at the Town Clerk's Office or online at www.actonmaine.org.)

Dated: _____, 20__

Municipal Officers

A true copy of the warrant,

Kryzak, Theodore Jr. - Chairman

Attest: _____
Jennifer Roux; Clerk of Acton

Crockett, Larissa

Shields, William

7

Time-Line for Special Town Meeting

- Thursday, December 15th, 2011** Planning Board recommends a public hearing for review of proposed zoning amendment (Thursday, January 5th.)
- Friday, December 16th, 2011** Posting of Planning Board Public Hearing at Acton Town Office, Website, Cable and around Town (*at least 14 days before the hearing*)
- Monday, December 19th, 2011** Planning Board Public Hearing to run in the Journal Tribune (*first publication at least 12 days before the hearing*)
- Thursday, December 22nd, 2011** Board of Selectmen announces special town meeting and PB public hearing date, along with setting their public hearing date of January 12th.
- Tuesday, December 27th, 2011** Planning Board Public Hearing to run in the Journal Tribune (*second publication at least 7 days before the hearing*)
- Monday, January 2nd, 2012** Warrant and Finance Workshop 6:30pm, Re: Special Town Meeting Article 2
- Wednesday January 4th, 2012** Weekly Observer runs combined ad – notice of PB Public Hearing, BOS Public Hearing and Special Town Meeting.
- Thursday, January 5th, 2012** Planning Board Public Hearing 7:00pm (*at least 30 days prior to the meeting of the governing body*)
- At conclusion, Planning Board Votes on Final Wording of Warrant Question and makes their recommendation
- Monday, January 9th, 2012** Warrant and Finance Final Vote on Warrant Article Recommendation; 6:30pm – Acton Town Hall
- Tuesday, January 10th, 2012** Smart Shopper runs combined ad – notice of BOS Public Hearing and Special Town Meeting.
- Thursday, January 12th, 2012** Board of Selectmen Public Hearing 7:00pm, Vote on Warrant Question Recommendations sign Warrant for Special Town Meeting
- Friday, January 13th, 2012** Posting of Special Town Meeting Notification
- Tuesday, January 31st, 2012** Smart Shopper Runs Notification of Special Town Meeting
- Tuesday, February 7th, 2012** Smart Shopper Runs Notification of Special Town Meeting
- Tuesday, February 7th, 2012** Special Town Meeting 7:00pm – Acton Elementary School

Last Updated 12/27/2011