

Water Resources Advisory Committee
Minutes of Meeting
Town Hall Room 121
December 15, 2010

Members present: Helen Probst, Ron Beck (chair), Carol Holley (clerk), Justin Snair (staff), Barry Rosen, Matt Mostoller, Jeff Clymer, Janet Adachi (Selectman liaison)

The meeting opened at 6:52 p.m. The minutes of the prior meeting were reviewed, and corrections submitted. Ms Probst moved to accept the minutes as corrected, Mr. Rosen seconded, and all voted in favor.

Ms Probst and Ms Holley reported on the Low Impact Development education event they had attended in Littleton. Ms Probst noted it was essentially a "homeowners' guide to LID" that included discussion of rain barrels, pervious paving, rain gardens, etc. Ms Holley noted that she had talked to Alison Field-Juma of OAR, the sponsoring organization, and was told that it might be possible to hold this educational event in Acton in the future. Unfortunately, the presentation had not been videotaped for further distribution. The presentation was very detailed, but Ms Probst, noted, the discussion of the environmental value of LID was held until the end. Suggestions on how to implement LID were very specific. Ms Holley will follow up with Ms Field-Juma regarding getting the slides posted on the OAR website. Ms Probst described the redesign of a residential street in Seattle, where pavement had been narrowed, rain gardens and swales installed, etc. It was noted that Acton's subdivision regulations will have to be redesigned in order to facilitate use of LID technologies.

A brief debriefing on Sen. Eldridge's green committee meta-meeting was given – Green Advisory Boards, Water Resources Advisory Committee, Conservation Commissions, and Land Stewards from several towns attended, as well as some builders. This had been an organizational meeting with a lot of discussion. Several topics were covered. The future of these events is still in the air, per Ms Adachi. Mr. Beck noted there were a couple of interesting things relating to stormwater. People in Harvard have designed and built a stormwater remediation structure in their town – Mr. Mostoller noted that this was for the Bare Hill Pond watershed. There was also the conservation administrator from Westborough, where they have gone through the development of by-laws and they have a permitting and inspection program that they administer. Ron asked, when people agree to clean drains but there's no regulation, what happens to that agreement? Getting rid of stuff from drains responsibly can be difficult as well; this isn't licensed like wastewater haulers. One of the thoughts Mr. Beck had was the need for a network of people around the stormwater issue. Everybody is rewriting this stuff and one of the things we need to do is to find people to talk to so that we can learn from them – why they did what they did, and how what they did is working.

Mr. Snair noted that Sudbury isn't happy with what they did. Mr. Rosen related an article he had read about a condominium in Medford, which has a problem with parking lots. discharging their "polluted" water into the Charles River. They are being asked to "treat" the water prior to discharge from the parking areas. The condominium feels that this will be at great cost to them. At the Eldridge meeting in the Jazz Café, there was a great deal of discussion about contamination from cars and parking lots.

Homework assignments from the prior meeting were reviewed. Mr. Snair noted that Sudbury isn't happy with the 5,000 square foot limit; Ms Adachi noted they have created too much regulatory work for themselves. They are capturing a large number of people but it might not be productive in terms of

what they want to improve. Sudbury is capturing septic system construction through subdivision regulations. Any slope change for a raised bed would involve a permit. Most regulations of the past 25 years were to protect groundwater and recharge, but now you also have to consider stormwater and the impacts it has on surface water quality and flow. Septic system projects might require hay bales or other siltation barriers. Mr. Rosen noted that Sudbury's disturbed area triggers go in accordance with slope. Mr. Rosen didn't think Acton had the slope issues you find in Sudbury. The 5,000 square foot cut-off isn't the problem but the slope and not exempting septic systems.

At 7:18, Mr. Rosen left to attend a Conservation Commission hearing.

Mr. Snair related some things about septic system changes might need to be captured for a permit process for a compliance program where you identify and manage stormwater – you have a list of sites you manage annually. Ms Probst noted septic system replacement design issues regarding stormwater could be added into the septic system approval process. Mr. Snair felt that septic system replacements should be exempted because public health overrides stormwater. Ms Adachi felt that you had to make sure that the Board of Health pays attention to erosion, etc. during construction. Mr. Snair observed that through the bylaw, we could require more effluent treatment and allow a lesser distance to groundwater, which would reduce the slopes around raised beds. Things could be modified in our bylaws to change design regarding slopes. The size of a site, Mr. Snair observed, is also a major variable.

Ms Adachi related that she had spoken to the Sudbury Town Planner regarding their stormwater regulations, but not in any depth. Mr. Snair noted that there could be an opportunity to reduce impervious surface, and he brought up the disaster at the proposed day care center site on Main Street as a poster child for what happens when you don't have regulations. Mr. Beck noted that the goal is to spend time reviewing projects that will have a significant effect, rather than imposing on minor residential projects.

Impervious surface thresholds were discussed – these vary from one community to another. Mr. Mostoller noted that the State of Massachusetts did some real work on researching this, and concluded that leaving land alone is the best stormwater management method. Instead of talking about a number of square feet, maybe you need to look at a percentage. Retrofits and new developments need to minimize impervious surface. Maintenance of best management practices post construction remains a big issue. Maintenance could lead to requirements for an annual permit with an operations and maintenance contractor.

Mr. Beck noted that there were a couple of key concepts here – everybody agrees that if you can come up with a way to measure percentage change of impervious surface, that is valuable. Mr. Snair added, change in impervious surface and disturbance and change in slope. For new construction you could need to meet a threshold or require it in a subdivision plan. Mr. Mostoller reiterated the three variables – impervious surface, land disturbance, and slope. Mr. Beck continued, one is the percentage of impervious surface. The second is the amount of disturbed property. It seemed to Mr. Beck like everybody in one way deals with the slope issue. There is also the consideration of critical resources. The State says that single family homes are excluded unless they are near critical resources, e.g. water supplies and streams. We care about Zone IIs.

At 8:46, Mr. Rosen returned.

The discussion turned to recharge in specific areas, which is also an issue. In some areas stormwater should be treated before recharge, which would involve a lot of infrastructure, like in zone IIs. Mr. Mostoller observed that, basically, we will start out in the zone 4 where we care what goes on because of the MS4 – control or decrease. Treatment is not an issue but retention should be. Or recharge – keep the water on site is the mantra for zone 4 if subsurface soil conditions allow it.

Mr. Beck asked – what is the scenario if you have noncompliance? Mr. Snair replied, if they are in an area that isn't sensitive they could contribute to helping more sensitive areas. In Zone 3s, retain with not a lot of concern about treatment. There the value is in quantity. In Zone IIs, retain, recharge but treat. Another option for Zone II would be to minimize land disturbance and offer incentives to minimize stormwater impacts. Zone Is stay natural. The structure for the bylaw could be according to zones. Thresholds need to be drafted. Subdivision plans will require stormwater sections (this isn't the word but I can't read my shorthand, sorry). Regulatory structures for enforcing maintenance of treatment need to be promulgated. The cumulative impact of the entire project needs to be determined. We have to capture something – number of square feet? Quarter acre? Mr. Rosen noted that current permitting process does not capture the increase of impervious surface unless the impervious surface connects to a building structure. We could have 5,000 square feet of disturbance, which is a median threshold. Mr. Snair recommended looking at Wilmington's approach. 10,000 square feet would capture a single lot. A half acre captures bigger developers with financial resources to comply. The EPA as well as other towns' bylaws use cumulative square feet – that is, if a developer is disturbing only 2000 square feet on EACH of 5 lots, s/he is considered to be disturbing 10,000 square feet. Mr. Beck stated that he would like to keep the rules simple – not one for 10,000 and one for 20,000 square feet. It was noted that Approval Not Required (ANR) plans don't go under the subdivision regulations.

8:04 p.m. Departure of Ms Probst.

Mr. Clymer suggested picking some area of town for a town meeting presentation, where a stormwater permit would be good – here's a couple of sites that would meet this requirement and as of now there are problems in the area because rules are not in place yet.

Mr. Rosen noted that some people look at discharges, like discharge permits for groundwater. Mr. Snair noted that Michigan does mathematical modeling on runoff. New York also mentions sensitive areas. Mr. Snair observed that surface waters and MS4s are sensitive – MS4s because of their discharge points.

Mr. Mostoller observed that stormwater quality is an issue of velocity and retention in addition to pollutants – you could have a credit for undisturbed and restored areas where you take away impervious surface. Mr. Snair noted that you could encourage LID. Per Mr. Snair, the overall problem isn't impervious surface but where the runoff goes. You can collect 100% of rainfall and recharge it even if most of the area is paved.

The conversation was recapped: going over a threshold, credits, trades, this 5,000 square foot level, per Mr. Beck, doesn't make sense. Mr. Rosen thought 10,000 square feet should capture most things, noting the group will have to deal with creation of impervious surface as well. It was noted that an increase in impervious surface of 10% or more could be the threshold. Different levels of rigorousness will apply in zones I and II. There was a concern with treatment of recharge, retention in zones III and IV, and also concerns with slope. Exactly what slope will trigger action had not been discussed; Mr. Snair thought it should be greater than 30%, which is a slope that Title 5 allows, but it could be greater.

Mr. Mostoller observed that the Massachusetts Stormwater Policy looks at 20% slope because most BMPs are not effective at greater slopes than that. Mr. Rosen would like to look at the topographical map of the town to see if the group has to worry about this – do we have greater than 20%? Than 30%? Mr. Snair noted he might have data up to 2007. He thought that the creation of slopes might require an application. Potential examples around town were discussed.

The consultant question was raised. Mr. Snair stated that he had held discussions with Ms Rosenzweig and had recommended that the by law be fast-tracked to the 2011 Spring Town Meeting. Ms Rosenzweig had further proposed the MAPC as a no-cost consultant. But Mr. Snair felt that staff had all the expertise needed and no consultants at all were required. Mr. Snair proposed to have a staff working group draft the bylaw. Mr. Snair stated that Ms Rosenzweig had been positive to his proposals. Mr. Snair also stated he had had separate discussions with Ms Adachi on the same subjects. Mr. Snair stated that there was a lot of precedent for these bylaws and he didn't see the need for a consultant. Ms Adachi had talked to Ms Rosenzweig-Morton, but they haven't gotten their budget books yet. Ms Rosenzweig-Morton had implied that the Metropolitan Area Planning Council (MAPC) can provide free assistance. Mr. Snair noted that one of the things that has come out of this is that the Board of Health will try to add a 20 hour/week person working on stormwater. He stated that if the bylaw was fast tracked and annual permits required, then the Health Department could argue to the Finance Department that a full-time staff person rather than a half-time person should be added. There is a certain amount of pressure – not the Selectmen but the Health Department. There was a revisiting which department should own the bylaw, which Mr. Snair felt had been decided as the Health Department, but other committee members did not believe a decision had been reached in this committee. Ms Adachi would like staff to facilitate the process, noting that Mr. Snair had put together a framework and people could give options.

Per Mr. Snair, the new NPDES permit will require another 20 hours of Board of health staff, and Mr. Snair felt there were enough documents in place that a consultant would not be required. He was concerned about a timeline for a warrant article for the coming spring town meeting. Mr. Beck was surprised by both the decision to not consider a consultant, and by the suggestion that a warrant article for staff be submitted for the upcoming spring town meeting. Mr. Beck stated that the consultant request had been presented to Selectmen at the WRAC annual oversight, and that Ms Rosenzweig-Morton had stated her support for that approach at that time.

Mr. Clymer noted that one reason the group wanted to look into getting a consultant was to find information on ideas on how other people got to where they got in this process. With a consultant you get decisions made, you send out an RFP. The thought was that we could be working on this.

Mr. Rosen observed – issue one – the consultant. Issue two – making assumptions that this will reside in the Health Department. The first bylaw was agreed to belong in the Health Department. The stormwater issue got dumped on this committee because, we were told, there was no bandwidth left in the town to get the bylaw written that will allow us to get a NPDES permit renewal with compliance status. When we came back after the first bylaw was done, the committee rehashed and we decided not to make a decision on that but to get the bylaw structured. There is a great deal of construction in this bylaw. This is just one piece. We thought it made sense to write a handbook to go with the bylaw. When we got to that point we didn't think there was expertise to write the manual and we needed to consider outside help. Mr. Rosen didn't think anybody said, up to the date of this meeting, don't use a consultant. He thought Mr. Snair was saying, we can get MAPC to start faster. Mr. Rosen thought that

Mr. Snair believed the Board of Health is one who can enforce the manual because it will reside at the Board of Health, but the Board of Selectmen hasn't made that judgment. There are a number of issues out there.

Mr. Snair stated that, as he recalled, the committee had had a discussion about a custodial board and department. It will take absolute buy-in from the department to do this work. The work right now – all the water balancing and engineering – is getting done. Most of the bylaws have the applicant paying for an expert. We don't have to reinvent technology – information exists. If you spend time you don't need a PhD - but you need to be aware of how this town works. In terms of plan review, etc., a consultant will come in and tell what staff already knows. We are expert on our own bureaucracy. From an environmental standpoint, the Board of Health has more environmental bylaws. We do more permitting.

At 9:05, Mr. Clymer left.

Mr. Rosen noted that, as the committee reads the bylaws, maybe this will reside in two departments. Mr. Snair noted that in other towns in Massachusetts the Board of Health isn't the custodial board because they don't have the environmental programs that Acton does. Mr. Rosen noted that the Selectmen are the managers of the town and everybody works under them.

Mr. Beck stated that there is a reason we set the schedule we set, and it didn't have to do with a consultant, but with the complexity of the bylaw and the public education challenge. We went through the timeline of what needed to be done by April Town Meeting and felt it couldn't happen.. We also didn't feel comfortable enacting a bylaw without a handbook. Unless somebody tells us there is a compelling reason – this is an important bylaw. For several years, engineers have run calculations to get around the intent of storm water and wetland protection, and laypeople don't have the expertise that a consultant could provide in drafting the procedures for modeling and other application aspects to achieve the intent. Mr. Snair questioned Mr. Beck's ability to make these remarks, as Mr. Beck is not a registered professional engineer.

Mr. Mostoller noted that he was no longer convinced that, at this point in the process, we will need a consultant. This was based on the progress and decision making that had occurred between the November and December meetings.

At 9:26, Ms Holley moved to adjourn, Mr. Rosen (I think, didn't write it down) seconded, and all voted in favor.

Committee post meeting homework assignment: find out what is available for technical manuals. Mr. Snair's assignment: find slope maps.

Respectfully submitted,

Carol Holley
Clerk