Stormwater Study Group Meeting Minutes
Sept.1, 2005 (First meeting)

Note: Information pertinent to the Stormwater Study Group and to the Redesigning the American Neighborhood (RAN) project can be found at http://www.uvm.edu/~ran. This site has special pages set up for use by the Study Group.

Present:
24 members of the Stormwater Study Group

Questions from the blackboard: The meeting was largely devoted a discussion about how the study group might work. As the discussion progressed, we keep a record on the blackboard of most of the key questions and comments that arose. The following questions are an unprioritized list of these questions, more or less as they arose during the discussion.

Ultimately, who will the Study Group make our comments to?

From a policy point of view the concept of 'total maximum daily loads0 (TMDL) is driving the process

What is the likely cost of the stormwater (SW) options we chose?
What are the information needs?
How should we select the engineer? NOTE: Juli Beth presented the results of a thorough search she had done to identify the best options for a consulting engineer of this project. A number of factors limited the scope choices. After some discussion, the Study Group decided to accept Juli Beth's recommendation to contract with Jack Meyers of DuFresne-Henry. See further discussion points below.

What is needed for field work, what data is available?

What exactly was the original subdivision design? What was actually built? How do the pre- and as-built designs differ?

We need an accurate history of the 'swab' [sic]. NOTE: The sense here may have been two-fold. First that we need an accurate history of the way in which the subdivisions were developed. And second, that we need an accurate history of the stormwater impacts in the neighborhood.

What is the current "plumbing" of the neighborhoods? Through what natural and engineered paths does stormwater currently move?

What stormwater-related issues are re-occurring?

Will the neighbors be willing to provide information about basement flooding? NOTE: Privacy issues my arise here.

How can we measure the amount of flooding?

Orthophoto history. Note: "Orthophotos" are high-resolution aerial photographs that have been correct (rectified) so that the scene in the picture is absolutely horizontal. This makes it easier to create photo-composite of larger areas. Recently, a colleague in NRCS has

used historical archives of orthophotos collected by the Natural Resources Conservation Service (NRCS, a part of USDA) to create a time-lapse photo-montage of development in the Potash Brook watershed, the watershed in which the Butler Farm and Oak Creek Village neighborhoods lie.

What happened to stormwater dynamics when the golf course came in? Note: While there have clearly been some places and periods were conditions have worsened due to the golf course, there remains some debate about the overall, long-term impact of the golf course. This is a point worth following up on.

What is the history of flooding? Is it getting more frequent?

“Social mapping” of the neighborhood would be valuable. Note: This is a process of asking individual homeowners to provide valuable observations about current and historical characteristics/conditions in the vicinity of their homes. The composite picture generated from many (all) homeowners doing this can be an extremely valuable resource for further discussion. This exercise can provide a different perception from field condition. Anecdote: Hockey stick in the drain

Is there an expectation that we are fixing ALL problems?

Groundwater is naturally near the surface of the soil in this area. This makes in virtually impossible to maintain dry basements in the long-term.

Microclimate. How much rain is falling in different parts of the area? It might be valuable to engage the neighborhoods in obtaining additional, fine-scale measurements.

Stormwater issues occur at on different scales, e.g., the neighborhood scale and individual lot scale. What is the optimal solution (or solutions) that could solve problems at all scales?

How close is the existing infrastructure from the benchmark of the 2002 Best Fix?

It's a given that any solution(s) should not make any individual’s situation worse.

Given option A and option B, if the cost of B is more than A it is almost impossible to sell B even if it is better than A.

If you do what's in the book, no one will come and measure the result. What is the bare bone solution? Note: The ‘book’ here is the Vermont Stormwater Management manuals (Vols 1 and 2). The sense of the discussion here was that the current standards are oriented to compliance with *prescribed* design criteria and not *performance* to specific water quality standards. In other words, by complying with the prescribed design standards, it is assumed that desired performance standards will be achieved.

Given that the desired outcome is the least expensive option that meets the minimum standards, what else can be done for about the same price? What long-term advantages might accrue from this option?

The Study Group seeks a unique relationship with the engineer chosen for this project. We want this person to provide answers to questions we pose.

In preparation for working with the engineer, the Study Group would like some background knowledge ("Stormwater 101"). Note: This will be provided by RAN on 22 September 2005.

We should ask the engineer to provide several very different solutions to address stormwater management in the neighborhoods so that we can choose among the options.

There is land available and there may be different options for this neighborhood

It is important to consider secondary values in the community. For example, a retention pond can be either valuable or not depending on if you live near or far from it. What are the community values?

How will our results translate to other areas in S.Burlington?

Heinsburg road construction - how can it impact us?

What is the legality of one property owner having to accept water running off another property?

The golf course is in compliance. But is it actually failing?

Do we have to take care of water coming from the Marceau Farm property? Note: Currently there are not active plans to develop this property. Development may occur at some point in the future. However, the most recent plans and permits expired recently.

It is important to identify nuisance conditions caused by the golf course.
There is less water coming off the golf course, than there is coming into the golf course. This needs to be checked.

Will the city council consider a holistic approach to stormwater?

A key question for engineer: What is currently broken in the system right now?

Requirements for the engineer:

- Can the engineer explain complicated matters clearly?
- Do they have the right personality to work with us?
- How will ANR feel about this engineer?
- They have to be very experienced
- Willing to work with different specialists?
- Able to go to the bid phase?

Do we need the same engineer to do all?

Can the group operate by consensus, or vote?

Note: If the Study Group does not like the engineer we can fire them and start with somebody new.

What's the scope of work?

- what are the alternatives to get to an approvable system?
- do site survey - "as built"
- offer options
- survey basement flooding problems
- quantify how far off the 2002 standards we are
- develop information on sub-basins, water flows, etc.

When are we compliant? Note: We are compliant when we have a plan. We do not need to be tested. This is the prescriptive vs performance standard idea.

Should we be looking for one solution for both systems (BF & OC), or two separate solutions for two at the same time?