FUSS & O'NEILL

MEETING SUMMARY NOTES
EVALUATION OF STORMWATER GENERAL PERMIT AND LID
(Contract # PS2010-10172)
WORKSHOP 4—OCTOBER 20, 2010; PHOENIX AUDITORIUM

DISTRIBUTION: Attendees and Other Project Partners
DATE: November 10, 2010

The following discussion summarizes the October 20, 2010 Workshop for the Evaluation of Stormwater General Permit and Low-Impact Development held at the Department of Environmental Protection Offices (79 Elm Street, Hartford, CT) in the Phoenix Auditorium.

A list of workshop attendees is provided at the end of this summary.

INTRODUCTIONS

Opening Remarks
MaryAnn Nusom Haverstock opened the meeting. She then turned the agenda over to Fuss & O'Neill.

Introductions around the Table
Jim Riordan of Fuss & O'Neill gave a PowerPoint Presentation, entitled "Introductions, Meetings, and the Web Page."

Future Meeting Dates and Locations
Jim reconfirmed the final meeting date, which was set during Workshop 1 (May 26). The date is as follows:

Partner Workshop 5 Wednesday, December 15, 2010, 9:15 a.m. – 11:45 a.m.

Web Page
Jim reintroduced the project web page on DEP's website:

http://www.ct.gov/dep/cwp/view.asp?a=2719&q=459488&depNav_GID=1654

The web page continues to be used to provide project partners and other interested parties with general project information, schedules, and deliverables. Meeting materials for Partner Workshop 4 are provided on the website.

REVIEW OF TECHNICAL MEMORANDUM (TM) 3

Jim led a review of TM 3, entitled as follows:

- *Technical Memorandum 3: Rationale for Selection of Alternative Scenarios for Implementation*

This was followed by an open discussion of the technical memorandum. Participants made the following comments during the open discussion:

- Nisha Patel stated the Construction general permit (GP) draft will be out in one month and general guidance on LID will be adopted by October 1, 2011.
- Larry Coffman cautioned about potential for inconsistency between local regulations and SGP requirements for LID. Larry pointed out that top down regulation may result in resistance at the local level.
- One way to build flexibility into stormwater standards is to scale the standards based on the type of development.

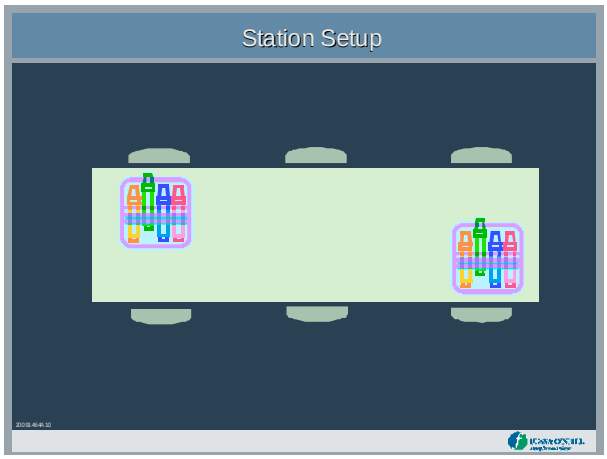
REVIEW OF SUMMARY 5 – LOW IMPACT DEVELOPMENT GUIDELINES AND STANDARDS

Jim Riordan and Larry Coffman provided an overview of *Summary 5: Low Impact Development Guidelines and Standards.* Larry Coffman presented the topic of LID design process and Jim Riordan presented the topics of proposed standards. The overview was followed by a group "design" activity and an open discussion.

GROUP "DESIGN" ACTIVITY AND DISCUSSION—CAFE WORKSHOP

Jim introduced the café workshop with a PowerPoint presentation. The purpose of the workshop was to:

- Examine how the LID design process and standards might work in relation to:
  - Form of the LID Manual.
  - Giving LID Priority.
  - Incorporating Performance Goals and Criteria in General Permits.
  - Adjusted Standards for Areas of Concern.
- Have an open dialog about the design process and standards
- Leverage collective knowledge
- Elicit innovation and good decision making



The café workshop included the following steps:

- Split into four groups (about 4 to 6 people per group) and pick a "reporter." The four groups addressed the following issues:
  - Form of the LID Manual.
  - Giving LID Priority.
  - Incorporating Performance Goals and Criteria in General Permits.
  - Adjusted Standards for Areas of Concern.
- Open café i.e., discussion (20 minutes).

- Document results (10 minutes).
- Reporter presents findings (2 minutes for each reporter).

Setup of each café workshop station (i.e., table) is diagramed in *Figure 1* (previous page) and included multicolor markers, a paper "table cloth" for brainstorming and documentation, and six seats.

Each of the four groups were asked to consider the following five "design" scenarios during their discussion:

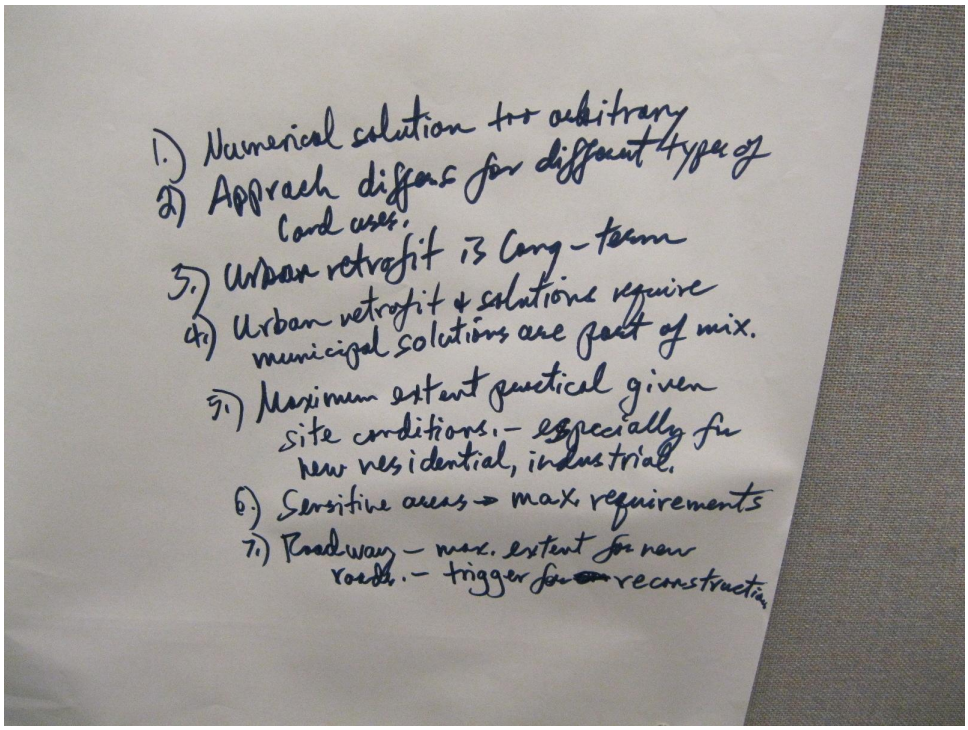
- Redevelopment or a highly urbanized setting
- New residential development
- New industrial or commercial development
- Development in a sensitive area
- Roadway projects

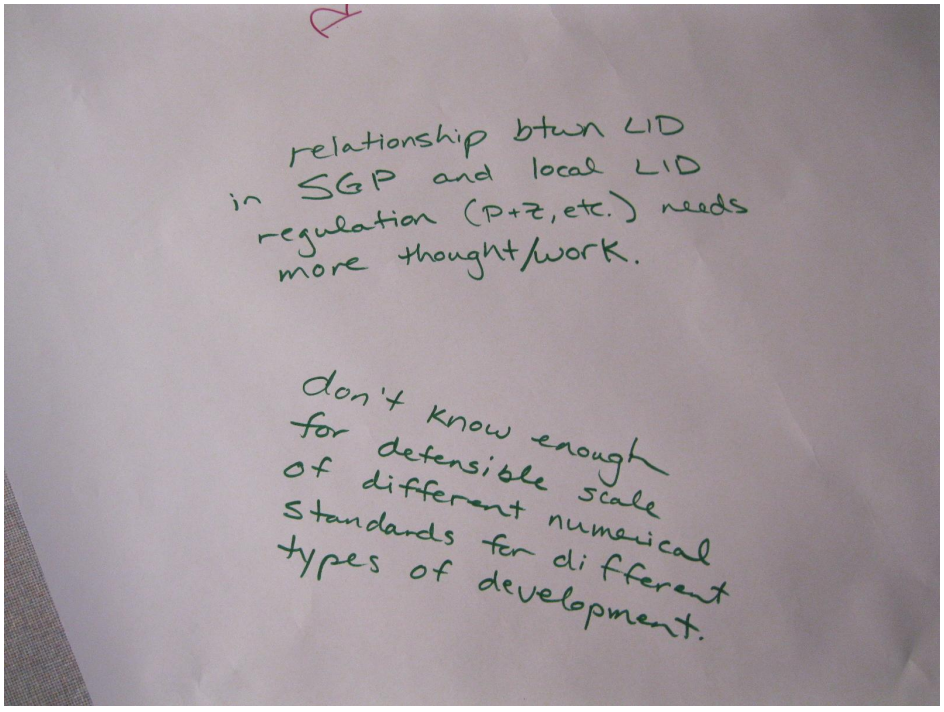
At the end of the café workshop, reporters reported results by group.[1] The written results on each "table cloth" are provided below:

Group 1:

- Numerical calculation is too arbitrary.
- Approach differs for different types of land uses.
- Urban retrofit is long-term [i.e., may take a long time to effectively implement].
- Urban retrofit and solutions require [that] municipal solutions are part of mix [i.e., also considered].
- Maximum extent practicable given site conditions – especially for new residential and industrial uses.
- Sensitive areas → maximum requirements.
- Roadways--maximum extent for new roads--trigger for reconstruction.
- Relationship between LID in SGP and local LID regulation (planning and zoning, etc.) need more thought/work.
- Do not know enough for defensible scale of different numerical standards for different types of development.

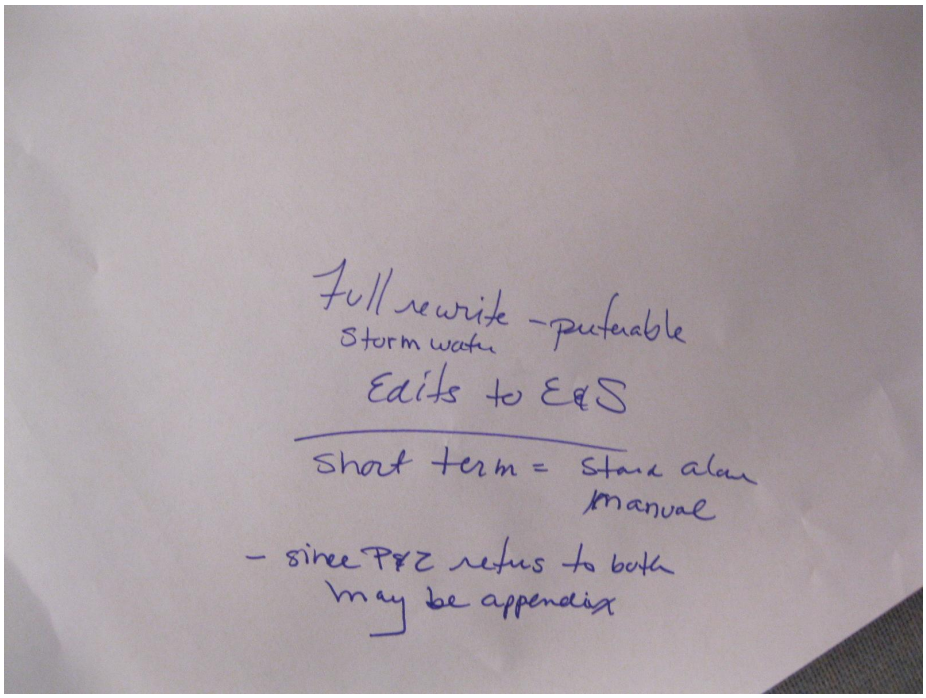
[1] Groups were not actually named or numbered during the exercise. Group numbers are provided in this summary for the sole purpose of differentiating the reports from each group.

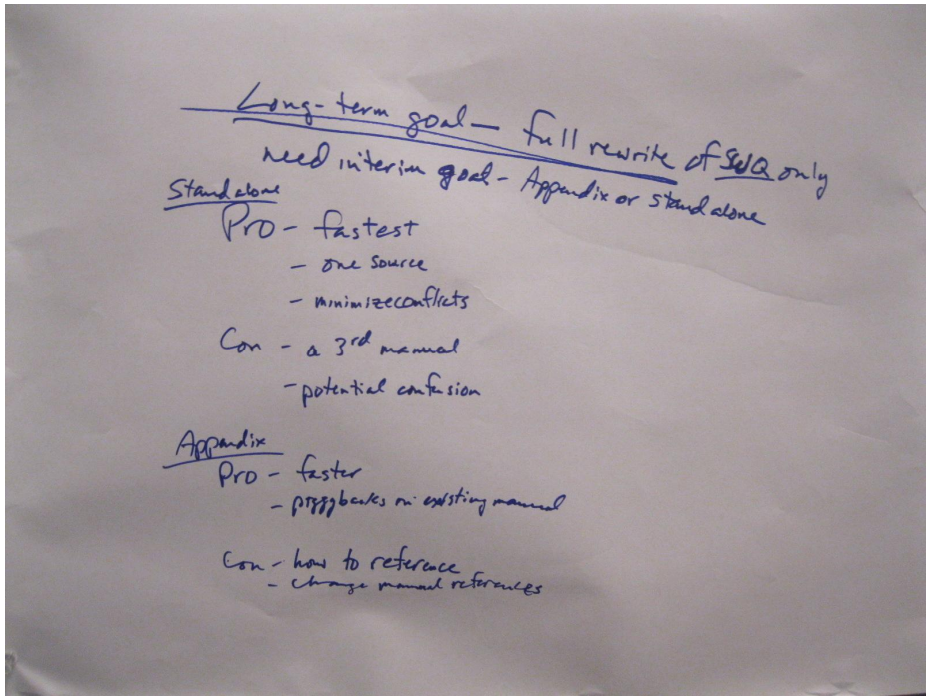

1.) Numerical solution too arbitrary
2.) Approach differs for different types of land uses.
3.) Urban retrofit is long-term
4.) Urban retrofit & solutions require municipal solutions are part of mix.
5.) Maximum extent practical given site conditions. – especially for new residential, industrial.
6.) Sensitive areas → max. requirements
7.) Roadway – max. extent for new roads. – trigger for reconstruction

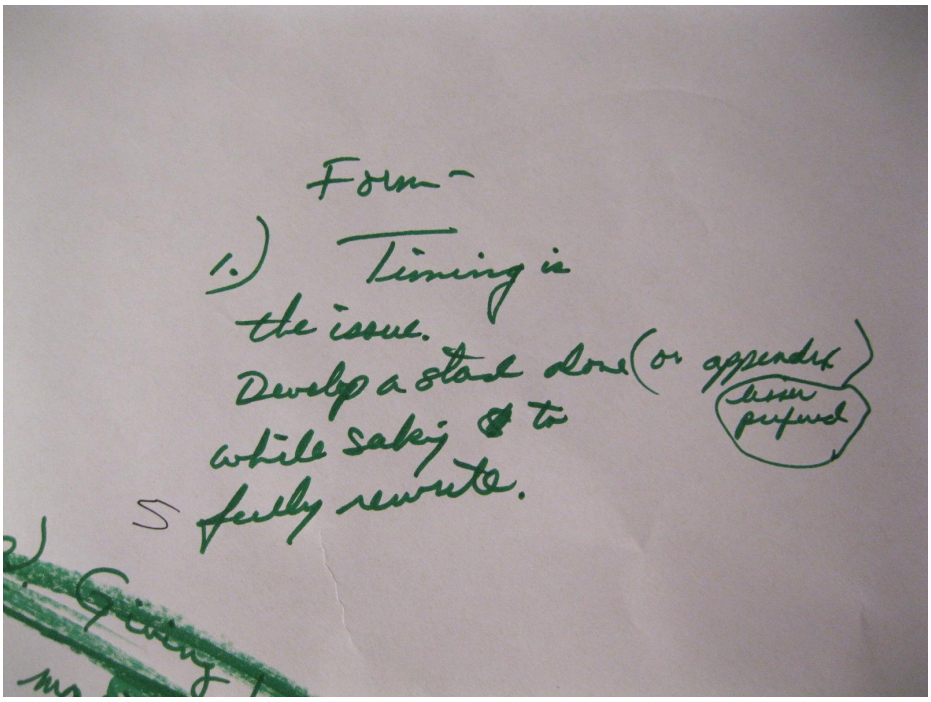

relationship btwn LID in SGP and local LID regulation (P+Z, etc.) needs more thought/work.
don't know enough for defensible scale of different numerical standards for different types of development.

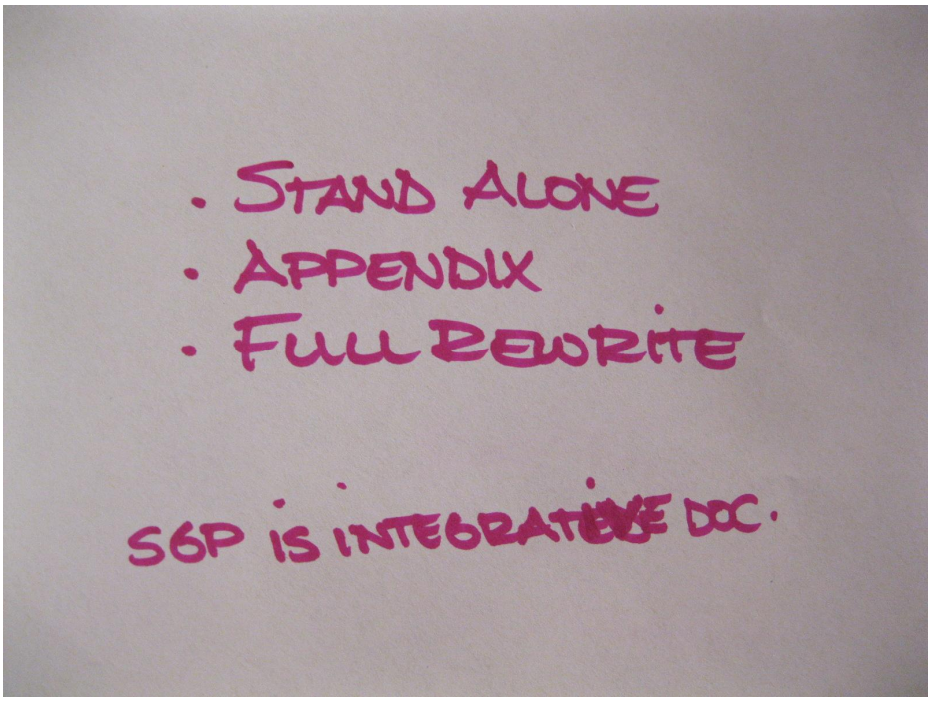
Group 2:

- Full rewrite
- SGP is integrative document
- Full rewrite – preferable
- Stormwater edits to E&S [*Soil Erosion and Sediment Control Guidelines*]
- Short term = standalone manual
- Since planning and zoning refers to both, may be appendix
- Long-term goal – full rewrite of SWQ [Stormwater Quality Manual] only
- Need interim goal – appendix or standalone
- Standalone
    - Pros:
        - Fastest
        - One source
        - Minimize conflicts
    - Cons:
        - A third manual
        - Potential confusion
- Appendix
    - Pros:
        - Faster
        - Piggybacks on existing manual
    - Cons:
        - How to reference
        - Change manual references
- Form
    - Timing is the issue
    - Develop a standalone (or appendix easier/preferred)
    - While seeking $$ [funding] to fully rewrite
- Standalone
- Appendix


Full rewrite - preferable
Storm water
Edits to E&S
Short term = Stand alone
manual
- since P&Z refers to both
may be appendix


Long-term goal - full rewrite of SWQ only
need interim goal - Appendix or stand alone
Stand alone
Pro - fastest
- one source
- minimize conflicts
Con - a 3rd manual
- potential confusion
Appendix
Pro - faster
- piggybacks on existing manual
Con - how to reference
- change manual references

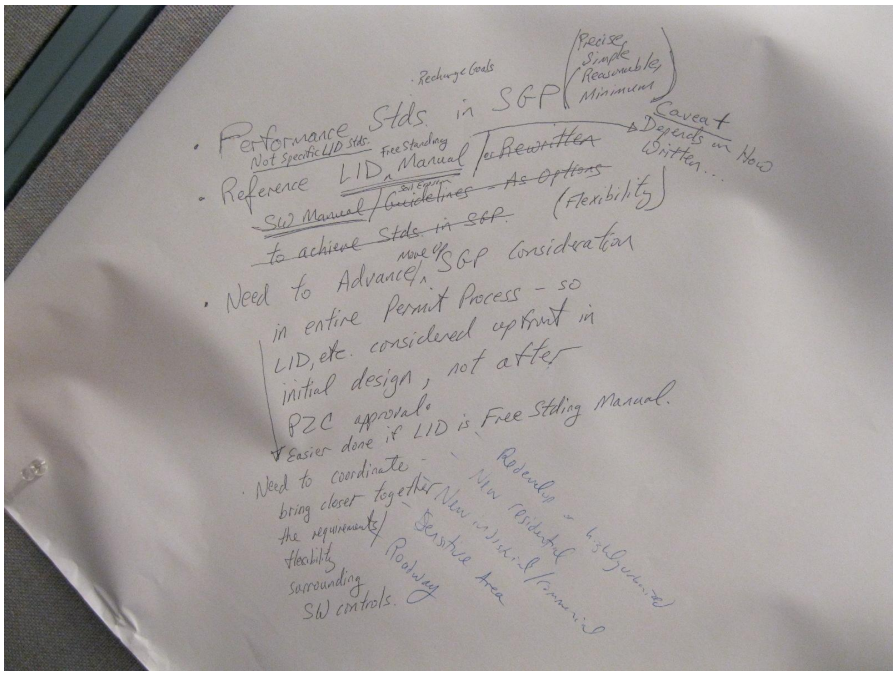




Group 3:

- Recharge goals
- Performance standards in SGP
  - Precise
  - Simple
  - Reasonable
  - Minimum

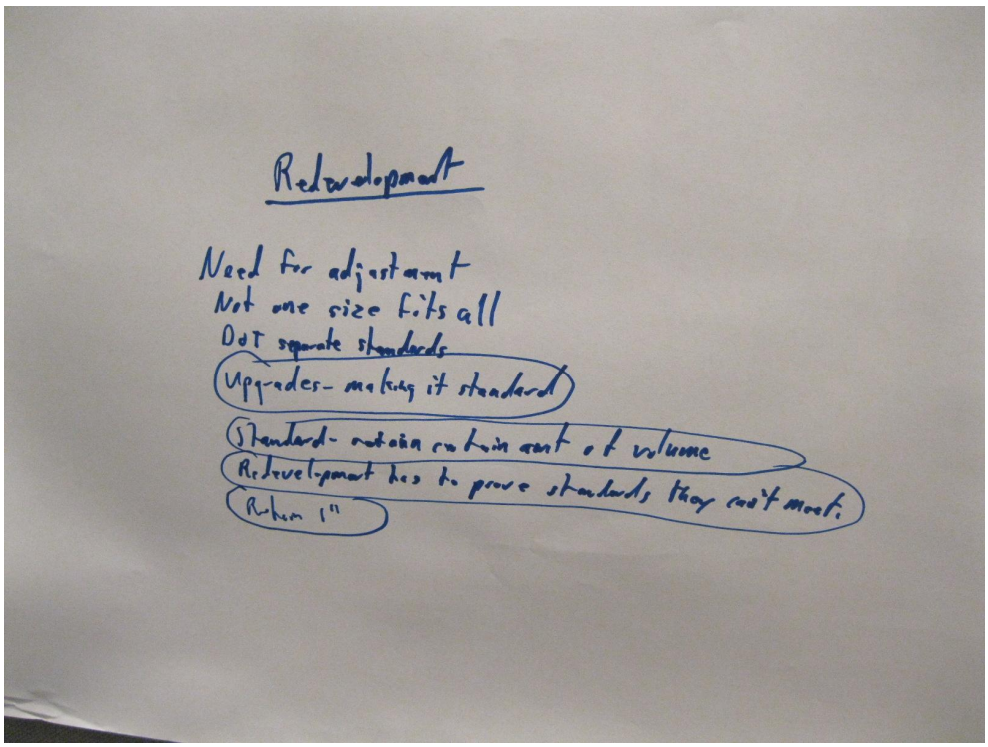
- Not specific LID standards
- Reference LID freestanding manual
    - Caveat: Depends on how it is written
- Soil erosion (flexibility)
- Need to advance/move up SGP consideration in entire permit process, so LID, etc., is considered upfront in initial design, not after planning, zoning, and conservation approval.
    - Easier done if LID is freestanding manual
- Need to coordinate – bring closer together the requirements/flexibility surrounding stormwater controls.

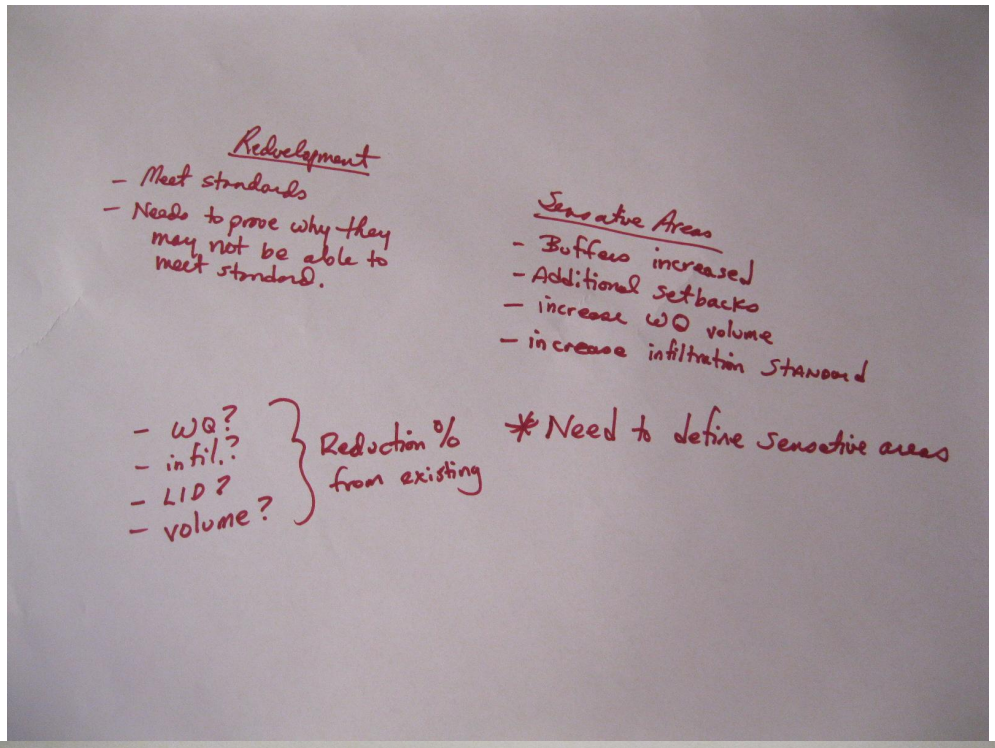


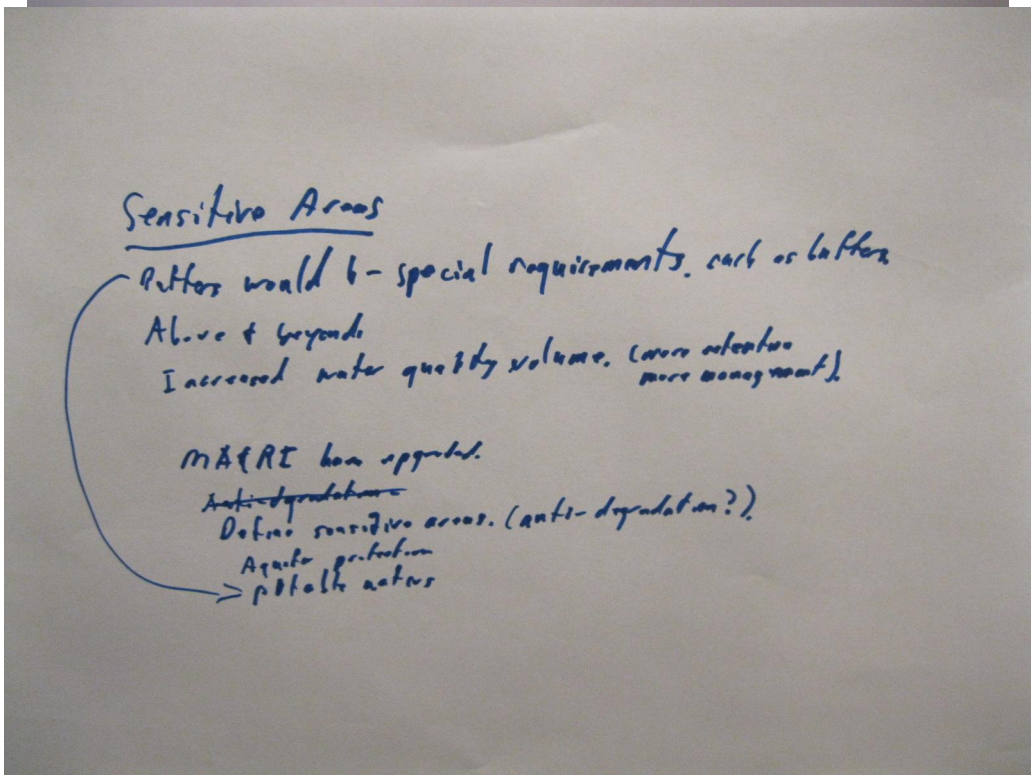
Group 4:

- Sensitive areas:
    - Buffers would be special requirements curb or gutter
    - Above and beyond
    - Increased water quality volume (More retention and more management)
    - MA and RI have upgraded
    - *Define sensitive areas (anti-degradation?)
    - Aquifer protection
    - Potable water
    - Buffers increased
    - Additional setbacks
    - Increase water quality volume
    - Increase infiltration standard
- Redevelopment
    - Need for adjustment

  - Not one size fits all
  - DOT separate standards
  - Upgrades – making it standard
  - Standard – retain certain amount of volume
  - Redevelopment has to prove standards they cannot meet
  - Retain 1-inch.
  - Meet standards
- Reduction percent from existing
  - Water Quality?
  - Infiltration?
  - LID?
  - Volume?




Redevelopment
- Meet standards
- Needs to prove why they may not be able to meet standard.
Sensative Areas
- Buffers increased
- Additional setbacks
- increase WQ volume
- increase infiltration Standard
- WQ?
- infil.?
- LID?
- volume?
Reduction % from existing
*Need to define sensative areas


Sensitive Areas
Buffers would be special requirements. such as buffers
Above & beyond
Increased water quality volume. (more retention more management)
MAERI has upgraded.
Define sensitive areas. (anti-degradation?)
Aquatic protection
potable waters

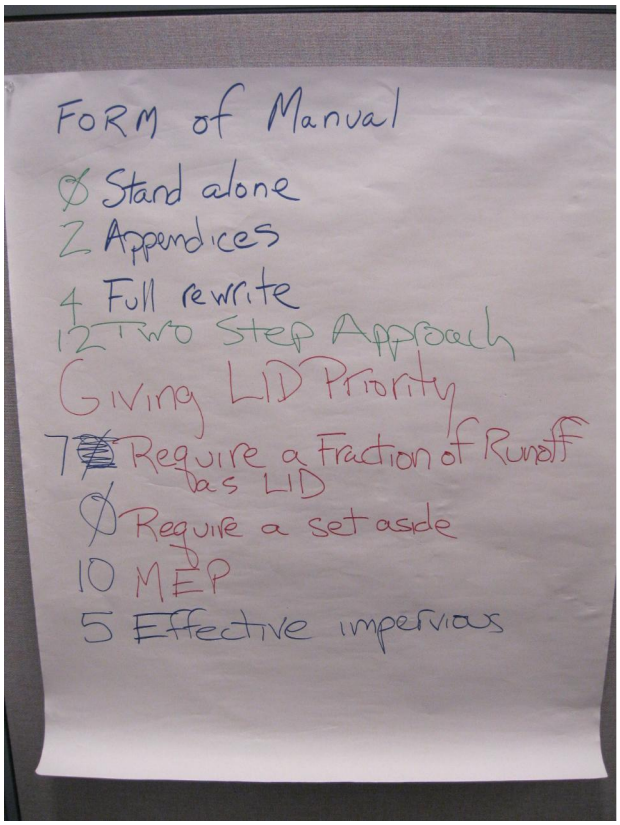
OPEN DISCUSSION

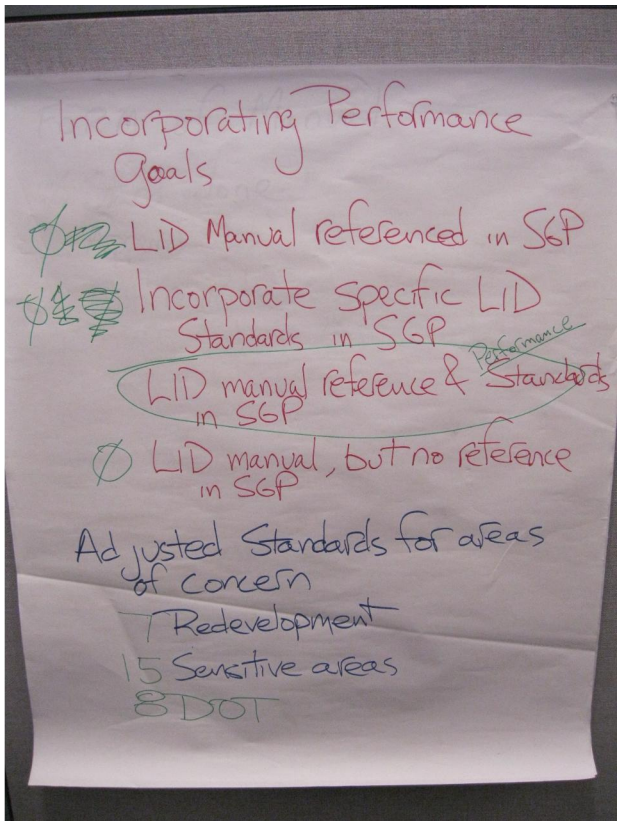
Jim led an open discussion/consensus covering the following topics:

- Incorporating performance goals and criteria into general permits
- Adjusted standards for areas of concern
- Form of the LID manual
- Giving LID priority

Attendees were presented with multiple options for implementing each topic and were asked to raise their hands for which option they preferred. Results of the consensus are provided below.

Topic and options for implementation	Consensus from Attendees
Incorporating Performance Goals	
LID Manual referenced in SGP	0
Incorporate Specific LID standards in SGP	0
LID Manual reference and standards in SGP (Performance)	16 (all)
LID Manual, but no reference in SGP	0
Adjusted standards for areas of concern	
Redevelopment	7
Sensitive Areas	15
DOT	8
Form of Manual	
Stand alone	0
Appendices	2
Full rewrite	4
Two-step approach(start with stand-alone manual, then prepare a full update of the full Stormwater Quality Manual at a later time)	12
Giving LID Priority	
Require a fraction of runoff as LID	7
Require a set aside	0
Use LID to the maximum extent practicable	10
Effective Impervious	5





PARTNER INVOLVEMENT AND IMPLEMENTATION

Due to time constraints, discussion of partner involvement and implementation has been deferred to Workshop 5 on December 15, 2010.

NEXT STEPS

The next workshop will be held on December 15th in the Phoenix Auditorium from 9:15 to 11:45 a.m. This meeting will focus on the final draft report and partner involvement and implementation. In preparation for the meeting Fuss & O'Neill will develop a technical memorandum regarding LID standards and guidance and a draft final project report.

FUSS & O'NEILL

ATTENDEES

Attendees of the October 20, 2010 workshop are listed below in alphabetical order by affiliation.

Attendee	Affiliation
Bill Ethier	Home Builders Association of Connecticut
Chris Malik	Connecticut Department of Environmental Protection-NPS Program
Chris Stone	Connecticut Department of Environmental Protection-Water Permitting
Cindy Baumann	CDM
Darin Overton	Connecticut Home Builders
Denise Savageau	Town of Greenwich
Greg Sharp	Murtha Cullina, LLP
Jim Riordan	Fuss & O'Neill
John Carrier	Connecticut Home Builders
John Pagini	CCAPA
Judy Rondeau	ECCD
Larry Coffman	LID Institute
MaryAnn Nusom Haverstock	Connecticut Department of Environmental Protection-NPS Program
Mary-Beth Hart	Connecticut Department of Environmental Protection OLISP
Michael Dietz	University of Connecticut—Nonpoint Education for Municipal Officials
Nisha Patel	Connecticut Department of Environmental Protection-Water Permitting
Phil Moreschi	Fuss & O'Neill
Roger Reynolds	Connecticut Fund for the Environment
Terrance Gallagher	Luchs

Virginia Mason	Council of Governments Central Naugatuck Valley