

**Workshop Summary Notes  
Land Use Regulatory Control In The  
Tankerhoosen Watershed  
Workshop 1—July 27, 2011  
Tolland Agricultural Center**

DISTRIBUTION: Attendees and Other Project Partners  
DATE: August 7, 2011

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The following summarizes Workshop 1 regarding Land Use Regulatory Control in the Tankerhoosen Watershed held on July 27, 2011 at the Tolland Agricultural Center.

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

## **INTRODUCTIONS**

### *Opening Remarks*

Ann Letendre opened the meeting. She then turned the agenda over to Fuss & O'Neill.

### *Housekeeping*

Jim noted “housekeeping” elements including sign-in sheet and handouts.

## **PROJECT STATUS**

Jim provided an overview of the project status. The following elements of the project have been completed to date:

- Kickoff
- Meeting notes for Kickoff
- Distribution of Material Set 1<sup>1</sup>

Chip Bellows requested that Len Tunderman download and provide hardcopies of project materials (e.g., Material Set 1) to the project committee. Len agreed to this.

## **REVIEW OF MATERIAL SET 1**

Jim provided an overview of Material Set 1 using a PowerPoint presentation (Attachment 1). The presentation was given in a manner that allowed for questions and comments at various points during the presentation.

Questions and comments regarding the presentation are listed below:

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<sup>1</sup> Revisions were requested on the Material Set 1 at the July 27 workshop. These revisions are in process.

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- Several questions were raised regarding the setup of workshops going forward and how the committee could be expanded to allow for input from other agencies and land-use commission members in the Town of Vernon (hereinafter “Town”). Significant discussion ensued as to how best to schedule and structure meetings following Workshop 1. Ultimately, Jim suggested tabling of this issue until the end of the presentation as discussion during the presentation might alter the approach. At the end of the meeting, the following agreement was reached:
  - Material Set 1 would be revised and redistributed.
  - Material Set 2 would be provided in September instead of October to allow for additional review time.
  - A combined land-use commission workshop would be held at night in November. The business community should be included through the Town Economic Development Commission.
  - A final presentation will be given in the spring.
  - Commissions will make revisions to their regulations/policies (as they determine to be appropriate) following completion of the project.
- Maximum impervious coverage is provided in the Zoning Regulations for each zoning category. Fuss & O'Neill agreed to review the Zoning Regulations again to look for this information.
- Participants requested that Fuss & O'Neill provide recommendations from Material Set 1 in MSWord format. Fuss & O'Neill agreed to do this through the File Transfer Site (FTS).
- Participants pointed out that the Inland Wetlands Regulations must follow the parameters of state regulations and can't be changed significantly. Therefore, the majority of LID policy will need to be implemented through planning and zoning policy.
- Participants recommended that tree protection policy (if included) should be done by regulation instead of ordinance. Participants also pointed out that tree protection has the potential to infringe on property rights and may, therefore, be undesirable.
- Discussion of regulating limits of disturbance (LOD) raised several concerns related to:
  - Feasibility for smaller residential projects.
  - Regulation may be more appropriate for large subdivisions and commercial development.
  - Use of outreach and education to encourage LOD limits as opposed to regulation.

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- Identify incentives for achieving preferred LOD.
- Implement LOD-related policy of single-family residential.
  
- Participants discussed impervious cover limitations and recommended reexamining the thresholds in the existing regulations as well as considering effective impervious surface limitations and LID incentives.
  
- In order to properly design cul-de-sacs, the fire department and school department should be asked about the turning radius required for their vehicles.
  
- Participants noted that the Town already allows for buy-down of up to 20% of the required parking spaces.
  
- Participants generally agreed that regulations should allow for the use of open channels, but should not require them. It was also suggested that open channels may be more appropriate for private roads than publicly owned roads.
  
- The Inland Wetland Regulations refer to 40,000 square foot areas. This is an applicability standard required by state statute.
  
- A request was made for a model post-development ordinance. Fuss & O'Neill agreed to provide a model post-development ordinance.

## **NEXT STEPS**

The following are next steps for the project pursuant to Workshop 1:

- Develop meeting summary and post to FTS
- Prepare revisions to Material Set 1 and post to FTS
- Develop Material Set 2 to be made available in September
- Schedule Workshop 2 in November

Attachments:

Meeting Agenda  
Sign-In Sheet  
PowerPoint Presentation (July 27, 2011)

Agenda  
Meeting 2  
Land Use Regulatory Control in the Tankerhoosen Watershed  
July 27, 2011

1. Opening and Introduction
2. Project Status
3. Review of Material Set 1
  - a. Common Impediments to LID
  - b. Summary of Assessment
  - c. Conclusions & Key Recommendations (see *Table 2* "Recommended Implementation Approaches")
    - i. Map of Natural Resources
    - ii. Limit Incidental Uses Allowed by Right
    - iii. Tree Protection
    - iv. Landscape Islands and Buffer Strips
    - v. Standards for Impervious Surfaces and Disconnection
4. Open Discussion (see *Table 2* "Recommended Implementation Approaches")
  - a. Map of Natural Resources
  - b. Limit Incidental Uses Allowed by Right
  - c. Tree Protection
  - d. Landscape Islands and Buffer Strips
  - e. Standards for Impervious Surfaces and Disconnection
5. Next Steps
6. Adjourn

**LID Regulation Development - Steering Committee  
Sign-In Sheet**

Agency	Name	Present?	email	Phone 1	Phone 2
Fuss & O'Neill	Erik Mas	✓	emas@fando.com	800-286-2469 x4433	
	Jim Riordan	✓	iriordan@fando.com	800-286-2469 x4571	
	Phil Moreschi		pmoreschi@fando.com	800-286-2469 x5223	
Town Staff	Terry McCarthy	✓	tmccarthy@vernon-ct.gov	870-3663	
	Craig Perry	✓	cperry@vernon-ct.gov	870-3638	
	Len Tundermann	✓	ltundermann@vernon-ct.gov	870-3640	
Commissions - PZC - IWC - CC	Charles Bardes	✓	posneg99@aol.com	871-2890	
	Vic Riscassi	✓	vriscassi@aol.com	872-4395	
	John Kopec	✓	ikopec@duncanandfox.com	643-9599	371-1770
	Mark Kalina	✓	wargame99@yahoo.com	875-2032	953-0060
	Tom Ouellette	✓	tom.ouellette52@att.net	872-6180	965-6180
	Ryan Goad		rgoad@cmgenv.com	729-4957	508-765-8510 x 109
Gardner & Peterson	Eric Peterson	✓	epeterson@gardnerpeterson.com	871-0808	
No. Central Cons District	David Askew	✓	david.askew@snet.net	875-3881 x2	
Friends of HRLP	Ann Letendre	✓	annletendr@aol.com	875-4623	305-7068
Citizen Representative	Chip Bellows	✓	chipbell2003@yahoo.com	872-8276	559-3739
	Jon Roe	✓	jon.roe@comcast.net		



FUSS & O'NEILL  
*Disciplines to Deliver*

Presentation to  
Friends of Hockanum  
River Linear Park

Workshop 1

July 27, 2011

# Agenda

1. Opening & Introductions *(5 minutes)*
2. Project Status *(5 minutes)*
3. Review of Material Set 1 *(75 minutes)*
  - a. Summary of Recommendations
  - b. Summary of Assessment
  - c. Open Discussion
4. Next Steps *(20 minutes)*
5. Adjourn

# Project Status

- ✓ Kickoff Meeting
- ✓ Material Set 1
- ✓ Workshop 1

## Approximate Timeline of What's Left:

Material Set 2 (October)

Combined Workshop (November)

Material Set 3 (January)

Final Presentation (February)

Final Report (March)



# Project Status

Deliverable	Contents
Material Set 1	<ul style="list-style-type: none"> <li>• Committee member invitation letter</li> <li>• Tabular summary of existing impediments to LID</li> <li>• Technical memorandum provided pre-workshop</li> <li>• Tabular summary of areas in local policy where LID could be implemented.</li> <li>• Draft LID guidelines</li> <li>• Draft regulatory and ordinance changes</li> </ul>
Material Set 2	<ul style="list-style-type: none"> <li>• Summary of developer incentives for using LID</li> <li>• Final draft LID guidelines</li> <li>• Final regulatory and ordinance changes</li> </ul>
Material Set 3	<p>Report</p> <ul style="list-style-type: none"> <li>• Final LID guidelines</li> <li>• Final regulatory and ordinance changes</li> <li>• Member list, meeting minutes, agendas and sign-in sheets</li> <li>• CD of final presentation</li> <li>• Our contract with the Town as an appendix</li> </ul>
Final Report	Compendium of Material Set 3, tabular summaries from Set 1 and meeting summaries, as written

# Material Set 1

**Land Use Regulatory Control in the  
Tankerhoosen Watershed  
Material Set 1**

**Friends of the Hockanum River Linear Park**  
Vernon, Connecticut

July 2011

146 Hartford Road  
Manchester, CT 06040



# Summary of Recommendations

# Recommendations (see Table 1)

## Preservation of Natural Resources

- Map natural areas
  - *Provide maps on line*
  - *Restrict uses, but allow stormwater management*
- Standardize design and uses for buffers
- Smaller projects
  - *Establish specific guidance*
  - *Consider peer-to-peer public outreach*

# Recommendations (see Table 1)

## Tree Protection

- Consolidate tree protection
- Specific protection for understory
- Standardize use of treed areas in guidance

# Recommendations (see Table 1)

## Landscaping Islands for Stormwater

- Use landscape buffers and parking lot islands for stormwater management

# Recommendations (see Table 1)

## Limits of Disturbance

- Require reduced limits of disturbance in subdivision regulations
- Allow for relaxed setbacks and yard dimensions

# Recommendations (see Table 1)

## Open Space and Cluster Development

- Limit disturbance of vegetated areas
- Reestablishment of disturbed vegetation
- Establish maximums on impervious cover



# Recommendations (see Table 1)

## Streets, Driveways, Parking Areas, Sidewalks

- Limit size and allow flexibility
- Allow for alternative surfaces
- Allow roads without curbs/gutters as part of stormwater management

# Recommendations (see Table 1)

## Encourage Retention with Vegetated Treatment

- Allow disconnection of impervious surfaces
- Allow vegetated open channels for conveyance

# Summary of Assessment

# What we looked for

- Vegetation and landscaping
- Minimizing land disturbance
- Open space and cluster development
- Impervious area management
- Open vegetated channels

# Where we looked

- *Town of Vernon Zoning Regulations* (revised November 17, 2010)
- *Town of Vernon Inland Wetlands and Watercourses Regulations* (revised October 1, 2010)
- *Subdivision Regulations of the Town of Vernon* (last amended April 7, 2003)
- *Vernon Draft Plan of Conservation and Development* (May 2011)
- *Town of Vernon Code of Ordinances*

# What we found—Vegetation & Landscaping

- Preservation of natural areas
- Tree protection
- Parking lot islands and screening
- Riparian buffers

# Preservation of Natural Areas

- Existing regulations:
  - *Protect wetlands from stormwater*
  - *Address some types of buffers*
  - *Designate and protect open space*
- Policy could be revised to:
  - *Preserve and enhance vegetated areas near wetlands*
  - *Use riparian buffers and open spaces for stormwater management*
  - *Identify (i.e., map) areas to protect*
  - *Protect sensitive, isolated areas (e.g., vernal pools)*
  - *Use grassroots public outreach*

# Tree Protection

- Existing regulations:
  - *Require depiction of principal treed areas*
  - *Replacement of damaged trees*
- Policy could be revised to:
  - *Established consolidated protection policy (e.g., tree protection ordinance)*
  - *Protect understory*
  - *Use wooded areas to manage stormwater*



# Common Elements of Tree Protection



- Purpose, authority, and definitions
- Inventory and information requirements
- Identification of protected trees
- Allowable uses (e.g., stormwater management)
- Applicability
- Administration (including enforcement)

# Parking Lot Islands and Screening

- Existing regulations:
  - *Require landscape buffers for screening*
  - *Require parking lot islands for landscaping*
- Policy could be revised to:
  - *Strongly encourage use of buffers and parking lot islands to manage stormwater*

# Parking Lot Island



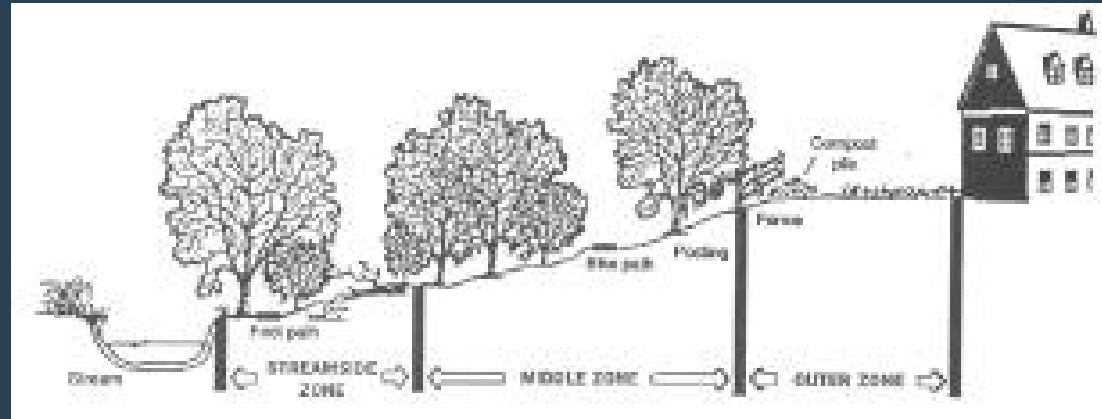
Parking lot islands should:

- a) Be at least 8 feet wide.
- b) Be constructed with sub-surface drainage.
- c) Incorporate compaction resistant soil.

# Riparian Buffers

- Existing regulations:
  - *Buffers in Appendix C of the Wetlands Regulations*
  - *Town may require a 20-ft wide easement on watercourses*
- Policy could be revised to:
  - *Establish specific buffer design standards and requirements for stormwater management*

# Preserving Natural Areas Preserving Natural Areas



- No disturbance to preservation areas.
- Clearly show limits of disturbance.
- Preservation areas must be in an easement.
- Preservation area min 10,000 sqft and 50-foot setback from wetlands.
- Create sheet flow, bypass higher flows.
- Maintain in natural unmanaged condition accept for debris removal.

# What found—Minimize Land Disturbance

- Limits of disturbance
- Open space and cluster development

# Limits of Disturbance

- Existing regulations:
  - *Minimum setbacks in zoning (but these do not limit disturbance)*
- Policy could be revised to:
  - *Use mapping to identify critical areas*
  - *Establish limits of maximum disturbance*
  - *Limit turf coverage*
  - *Prohibit clear cutting*
  - *Limit heavy construction vehicles to specific areas*
  - *Require as-built inspections*



# Open Space and Cluster Development

- Existing regulations:
  - *Zoning is established for both open space and cluster development*
- Policy could be revised to:
  - *Limit allowable disturbance in these zones*
  - *Reestablish vegetation in open space zones*
  - *Establish limits on impervious coverage or effective impervious coverage*



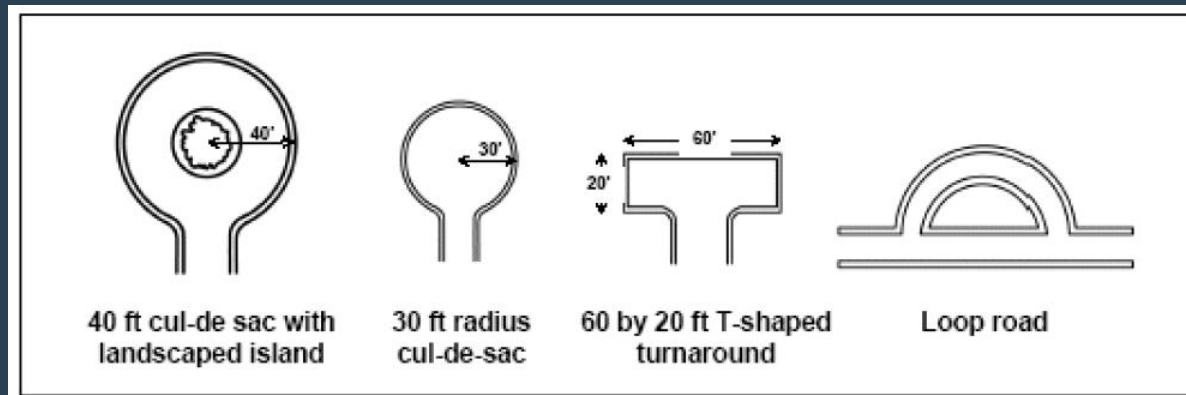
# What we found—Impervious Area Management

- Streets and driveways
- Parking areas and sidewalks
- Disconnecting impervious areas

# Streets and Driveways

- Existing regulations:
  - *Subdivision regulations establish minimum dimensions and standards*
- Policy could be revised to:
  - *Consider establishing maximum dimensions*
  - *Require that vegetated features accept runoff*
  - *Limit size of cul-de-sac or require vegetated center islands*
  - *Allow alternative turn-arounds*
  - *Allow alternatives to conventional curb and gutter*
  - *Allow reduced driveway widths and sharing as part of stormwater management*

# Minimizing and Disconnecting Impervious Surface Roadways



**Table 4.2**  
Roadway Design Standards for Five Street Types

Design Factor	Lane	Access	Standard Street	Dense Street	Collector
ADT	Less than 100	100 - 500	500 - 1,000	100 - 1,000 @ 4 dwell units/acre	1,000 - 3,000
Width (feet)	16	20	26	32	22 - 28
Extra ROW (feet)	8 - 16	8 - 24	20	20	22 - 28
Off-Street Parking	None	One lane	One lane	Two lane	Emergency shoulders
Drainage	Swale	Swale or curb/gutter	Curb/gutter	Curb/gutter	Swale or shoulder
Design Speed (MPH)	15	20	25	25	25
Sidewalks	None	One side	One or two side	Two side	One side
Frontage Lots	Yes	Yes	Yes	Yes	No

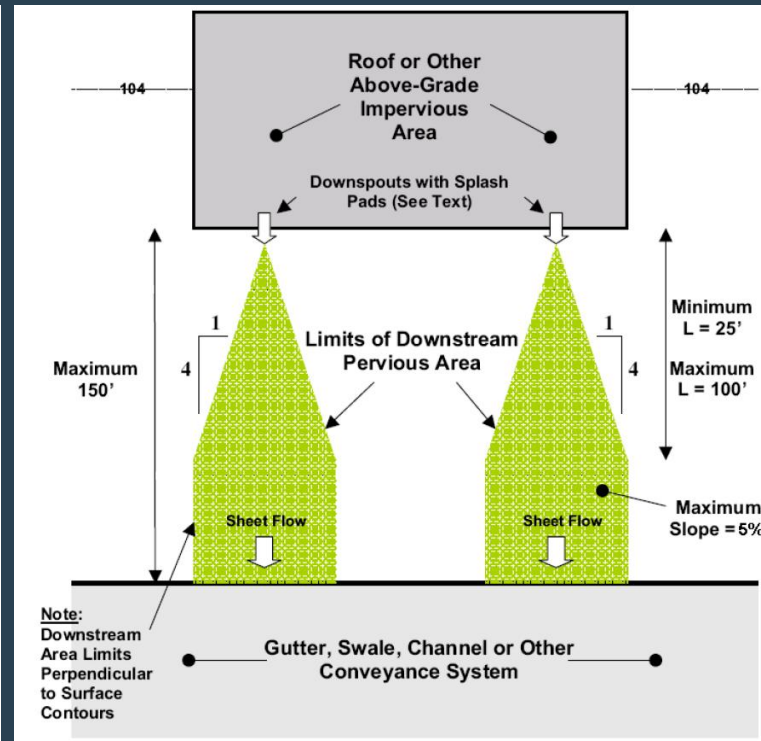
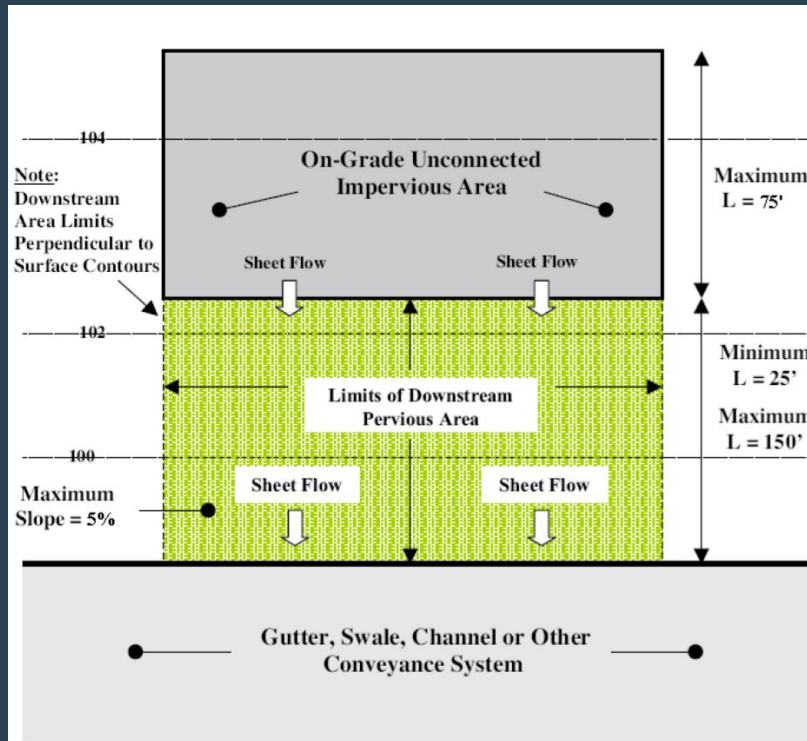
# Parking Areas and Sidewalks

- Existing regulations:
  - *Zoning (sect 14.1.2.2.12) may allow reduced parking minimums*
  - *Stall width of 9 feet and length of 17 feet*
- Policy could be revised to:
  - *Establish or clarify allowance for reduced parking minimums*
  - *Allow shared parking*
  - *Allow pervious materials*
  - *Allow alternative pedestrian networks*

# Disconnecting Impervious Surface

- Existing regulations:
  - *Not specifically addressed*
- Policy could be revised to:
  - *Require disconnection for groundwater recharge*
  - *Allow disconnection as a treatment technique*

# Disconnecting Impervious Surface



## Standards

### General

- Disconnect impervious surfaces to the extent practicable.
- Up to the first inch of runoff from an impervious surface may be disconnected to a pervious surface such as a lawn.

# What we found—Vegetated Open Channels

- Existing regulations:
  - *Not specifically addressed*
- Policy could be revised to:
  - *Require or encourage vegetated open channels where feasible*
  - *Allow vegetated open channels as a treatment technique*