



**WORKSHOP SUMMARY NOTES
LAND USE REGULATORY CONTROL IN THE
TANKERHOOSEN WATERSHED
WORKSHOP 1—APRIL 20, 2011
TOLLAND AGRICULTURAL CENTER**

DISTRIBUTION: Attendees and Other Project Partners
DATE: April 26, 2011

The following discussion summarizes the April 20, 2011 Workshop for the Land Use Regulatory Control in the Tankerhoosen Watershed held 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.

Introductions around the Table

Erik and Jim both introduced themselves to the group each noting a background in low impact development (LID), stormwater policy, and water quality issues.

Point of Contact

Erik noted points of contact for both the project team and steering committee.

- Erik Mas, Fuss & O'Neill, Inc.
- Ann Letendre, Friends of the Hockanum River Linear Park
- Len Tundermann, Vernon, CT

Ann passed out a contact list and sign-in sheet that lists members of the steering committee, their affiliations, and contact information.

PROJECT OBJECTIVES

Erik described recent federal and state policy initiatives that lean in the direction of encouraging and requiring LID. The purpose of this project will be to address this relatively new direction in policy with the intent of encouraging development that is both sensitive to water quality and long-term economics. Erik noted that Vernon would not be the first Connecticut town to go forward with such policy, but would be ahead of the curve.

PRIOR REGULATORY ANALYSIS AND OVERVIEW OF LID

Erik discussed a prior regulatory analysis that Fuss & O'Neill conducted as part of the development of the *Tankerhoosen River Watershed Management Plan*. He gave a PowerPoint

presentation that provided both an overview of the regulatory analysis and LID in general. Some of the main points of the presentation were:

- LID is a relatively new stormwater management strategy that focuses on maintaining and/or restoring hydrologic regime in developed/developing watersheds.
- LID involves the use of multiple decentralized best management practices (BMPs), which typically use filtration and infiltration treatment mechanisms to manage water quality and flow.
- Since LID is a relatively new concept, implementation will require support and encouragement—likely a combination of incentives and requirements.
- LID is an economically viable technique. In fact, using LID can be less expensive than use of conventional BMPs.

Questions following the presentation are listed below with answers in italics text:

- Is the *Tankerhoosen River Watershed Management Plan* posted on the Town website?
The plan is not currently posted but will be added.
- One slide showed a comparison between LID and conventional development with fewer homes on the LID site.
It's true that when homes are clustered that the size of individual lots is typically smaller; however, studies show that developers generally achieve the same or greater net profit from LID. Although clustering is one technique that is used in conjunction with LID, LID does not necessarily require clustering. LID is flexible and does not necessitate a particular type of land use. In fact, LID retrofits have been implemented in a number of highly urbanized areas (e.g., Bridgeport, CT) without changing existing building footprints.
- How much LID will be required on redevelopment sites? (Some is done, how much more will be needed?)
There are several ways to go about standardizing the amount of LID that needs to be done on a given site. Two common ways include a "maximum extent practicable" standard and a fractional impervious surface treatment standard (e.g., 50% of impervious surface needs to be managed with LID). The actual standard that we develop as part of this project will be determined with your input over the course of our work with you. In other words, we will work with you collaboratively to tailor standards, such as redevelopment standards, to your needs.
- What about sensitive areas? Do we need to infiltrate everywhere?
Infiltration is not appropriate for all areas. Although many LID techniques rely on infiltration for treatment, there are LID techniques that use other treatment mechanisms (e.g., filtration). LID BMPs can be lined in areas where infiltration is undesirable or inappropriate. One of the advantages of setting local standards is that decision makers have the opportunity to set specialized standards in geographically small and unique areas.
- Do we risk conflict with state standards?



There is a very low risk of conflict with state standards. At least in part, this is due to the fact that the members of your project team are also the project team for the development of the state standards. Therefore, we can steer you away from potential conflict.

- What will be done to get the word out to the development community?
There are a number of ways that this could be done. The actual approach that you use should be considered as your project evolves. To help with this we have included a prominent development engineer on your steering committee—Eric Peterson. One example of rollout can be found in Greenwich, CT where they are using a training series to make developers aware of new standards.

PROJECT SCOPE OF WORK

Jim reviewed the project contract (see attached) and provided an overview of the scope of work. He noted that there are three basic parts to the scope, which include: (a) forming the project steering committee; (b) conducting a review of existing regulations and ordinances; (c) preparing revisions to existing regulations and policy and developing a LID standards manual.

DELIVERABLES

Jim directed meeting attendees to the “deliverables” section of the project contract. He reviewed the contents of the three materials sets.

SCHEDULE

Jim directed meeting attendees to the “schedule” section of the project contract. He noted that this project is to be conducted over approximately 12 months and that, in part, the purpose of this was to allow the steering committee an appropriate amount of time to consider potential barriers to LID in existing policy as well as how new policy should be implemented and transitioned to overcome those barriers.

PROJECT MANAGEMENT

Jim and Erik described the overall management of the project including monthly billing on a percent-complete basis. Ann noted that quarterly reports would be needed. Chip Bellows and Tom Ouellette will assist with project coordination. Ann reviewed documentation of activities by Steering Committee members that can be used to meet matching requirements of the grant.

NEXT STEPS

- The next workshop will be held in the Tolland Agricultural Center from 10AM to 12 noon in July on one of the following dates: 13, 14, 20, 21, 27, or 28. The actual date will be determined based on general availability. Jim will coordinate the date using a web-based scheduling tool (doodle.com), which was suggested by David Askew.
- Len will coordinate creating a folder on the Town website to hold project documents and reports.



- Ann will email the match form to each member for documenting time spent on project for matching requirements.
- Ann will distribute the final list of committee members and contact information.
- The current Town regulations (Zoning, Subdivision, and Inland Wetlands) and latest draft Plan of Conservation and Development are available on the Town of Vernon website. Erik to obtain a summary of regulatory updates since 2008 from Len and Craig Perry.

Attachments:

Meeting Agenda

Steering Committee Contact Information

Land Use Regulation Control in the Tankerhoosen Watershed Service Agreement

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	✓	jriordan@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	Charles Bardes	✓	posneg99@aol.com	871-2890	
	Vic Riscassi	✓	vriscassi@aol.com	872-4395	
- IWC	John Kopec	✓	lkopec@duncanandfox.com	643-9599	
	Mark Kalina	✓	wargame99@yahoo.com	875-2032	953-0060
- CC	Tom Ouellette	✓	tom.ouellet52@att.net	872-6180	965-6180
	Ryan Goad	✓	rgoad@emgenv.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	✓	chippbell2003@yahoo.com	872-8276	559-3739
	Jon Roe	✓	jon.roe@comcast.net	875-4101	



Agenda
Project Kickoff Meeting
Land Use Regulatory Control in the Tankerhoosen Watershed
April 20, 2011

1. Project Objectives
2. Points of Contact & Communication Protocol
 - a. Friends of the Hockanum River Linear Park
 - b. Fuss & O'Neill
3. Prior Regulatory Analysis
4. Project Scope of Work
 - a. Review of Scope
 - b. Materials for Regulatory Review
5. Deliverables
6. Schedule
7. Steering Committee
8. Project Management
9. Invoicing & Payment
10. Next Steps

LID Regulation Development - Steering Committee

Contact Information

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Fuss & O'Neill	Erik Mas	emas@fando.com	800-286-2469 x4433	
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	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	
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	Vic Riscassi	vriscassi@aol.com	872-4395	
	John Kopec	jkopec@duncanandfox.com	643-9599	953-0060
	Mark Kalina	wargame99@yahoo.com	875-2032	965-6180
	Tom Ouellette	tom.ouellette52@att.net	872-6180	508-765-8510
- CC	Ryan Goad	rgoad@cmgenv.com	729-4957	x 109
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	Jon Roe	jon.roe@comcast.net		



FRIENDS OF THE HOCKANUM RIVER LINEAR PARK, INC.

**875-9865 OR 875-4623
21 TIMBER LANE, VERNON, CT 06066**

Subcontract Service Agreement

Between

**Friends of the Hockanum River Linear Park, Inc.
and
Fuss & O'Neill**

**PROJECT Land Use Regulatory Control in the Tankerhoosen Watershed
(National Fish and Wildlife Foundation Project #2010-0071-020)**

Scope of Services

Fuss & O'Neill (Provider) will perform these tasks for the Friends of the Hockanum River Linear Park:

1. Form Project Steering Committee

A project Steering Committee will be formed to provide input and guide the development of LID standards and regulations in the Town of Vernon. Specifically, the committee will include members of the Vernon Planning and Zoning Commission, Inland Wetlands Commission, Conservation Commission, Engineering and Planning Departments, Town Council, and public stakeholders. A representative from the North Central Conservation District is also recommended.

2. Review Regulations

Fuss & O'Neill will update the previous land use regulatory review that was completed in 2008 in support of the development of the Tankerhoosen River Management Plan. The updated review will include review of current local land use zoning, subdivision, and inland wetland regulations and ordinances, and identification of barriers to the use of structural and non-structural (i.e., site planning) techniques for new development and redevelopment projects.

Fuss & O'Neill will meet with the Steering Committee to discuss common barriers to LID. Fuss & O'Neill will review the existing codes and regulations to document potential barriers to implementation of LID and will document the review in a tabular summary that includes:

- Regulatory/ordinance citation (e.g., article/chapter/section).

- Specific language of concern.
- Potential problems created.
- Recommended revisions.

Fuss & O'Neill will incorporate the tabular summary into a technical memorandum that will be provided to the Town for review prior to a Town workshop

3. Prepare Regulatory Revisions and LID Standards

Fuss & O'Neill will draft proposed revisions to the local land use regulations and ordinances to eliminate barriers and encourage the use of LID techniques in future development projects, as well as develop draft LID standards. Specific tasks include:

a. Identify areas in existing land use regulations and ordinances in which LID Guidelines or regulations could be implemented

Vernon's municipal code and regulation contains a number of references related to drainage and stormwater management. Some municipalities that adopt LID requirements codify the requirements within existing policy, others opt for stand-alone ordinances.

Fuss & O'Neill will meet with the Town to discuss a preferred approach and specific issues of concern in existing policy. Fuss & O'Neill will then prepare a tabular summary that includes the following information:

- Regulatory/ordinance citation (e.g., article/chapter/section) where a reference to LID may potentially be added.
- Proposed revision to existing language.
- Implementation issues associated with the proposed revision.

b. Draft Low Impact Development Manual and Regulations

Fuss & O'Neill will prepare a draft LID design manual that will address the following topics:

- Advantages of managing stormwater using LID.
- Four basic tenets of LID.
- LID Approaches:
 - BMPs for Minimizing Site Disturbance.
 - Working with Site Hydrology.
 - BMPs for Minimizing and Disconnecting Impervious Surface.
 - Applying Small-Scale BMPs at the Source.

Each BMP detailed in the manual will include an introductory discussion of the BMP, its general use, its advantages, and special considerations for its application. Fuss & O'Neill will also draft recommended revisions to the local land use regulations to remove barriers to and promote the implementation of LID practices. Fuss & O'Neill will provide the draft LID manual and recommended regulatory revisions to the Town for review.

c. Recommendations for Developer Incentives for Implementing LID

Fuss & O'Neill will evaluate and recommend incentives that may help the Town encourage developers to use LID and provide a summary of the incentives that includes the following information:

- Type of incentive.
- General description.
- Justification for its value to developers.
- Disadvantages to the Town.
- Implementation issues.

The summary will be provided to the Town prior to the combined Steering Committee and Land Use Commission Workshop.

4. Meetings

Involvement of Town staff, land use commissions, and the general public in this project is essential to its long-term successful implementation. The following meetings are included in this scope of services:

- **Kickoff Meeting**
This initial meeting will allow the project team to review the scope of work, schedule, deliverables, budget, communications, and to discuss materials that will be needed from the Town to complete the scope of work.
- **Steering Committee Workshop**
After development of Material Set 1 (summary of developer incentives, existing barriers, and draft LID standards—see Deliverables, below, for more detail), Fuss & O'Neill will conduct a workshop with the Steering Committee to gather input and discuss the information presented in Material Set 1.
- **Combined Steering Committee & Land-Use Commissions Workshop**
This workshop will be used to review Material Set 2 including developer incentives, draft LID standards, and proposed land use regulatory revisions. Input from the Steering Committee and land use commissions at this meeting will be used to finalize draft findings and recommendations (Material Set 3) for presentation to the public.
- **Final Presentation**
This presentation will involve review of project materials and findings at a Town Council meeting or other public meeting as determined and scheduled by the Town and will include a description of the general project approach, findings, and recommendations.

Schedule

Fuss & O'Neill will complete the project tasks in twelve (12) months.

Key project milestones are:

Project Milestones	Completed By
Kickoff Meeting	Month 1
Material Set 1	Month 3
Steering Committee Workshop	Month 4
Material Set 2	Month 7
Combined Steering Committee & Land-Use Commissions Workshop	Month 8
Material Set 3	Month 10
Final Presentation	Month 11
Final Report	Month 12

Deliverables

Fuss & O'Neill will provide these products:

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

Project Cost

Fuss & O'Neill will complete the scope of services for **\$26,900**.

A breakdown of estimated fees by task is:

Task	Fee
1. Form Project Steering Committee	\$200
2. Review Regulations	\$3,000
3. Prepare Regulatory Revisions and LID Standards	\$15,000
4. Meetings	\$8,700
Total:	\$26,900

Period of Performance

Fuss & O'Neill will complete the project in the time period **March 1, 2011 to June 1, 2012**

General Terms and Conditions

Subcontractor Lobbying

No funds provided by NFWF have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

Restrictions on Uses of Funds.

No funds provided by NFWF may be used to support overhead/indirect costs, litigation expenses, lobbying activities, terrorist activities, or activities in violation of the Foreign Corrupt Practices Act.

Disclaimers.

Payments made to the Provider under this grant agreement do not by direct reference or implication convey NFWF's endorsement nor the endorsement by any other entity that provides funds to the NFWF Recipient through this grant agreement, including the U.S. Government, for the Project. All information submitted for publication or other public releases of information regarding this grant agreement shall carry the following disclaimer:

"The views and conclusions contained in this document are those of the authors and should not be interpreted as representing the opinions or policies of the U.S. Government or the National Fish and Wildlife Foundation. Mention of trade names or commercial products does not constitute their endorsement by the U.S. Government or the National Fish and Wildlife Foundation."

Equal Employment Opportunity.

Provider shall comply with E.O. 11246, "Equal Employment Opportunity," as amended by E.O. 11375, "Amending Executive Order 11246 Relating to Equal Employment Opportunity," and as supplemented by regulations at 41 CFR part 60, "Office of Federal Contract Compliance Programs, Equal Employment Opportunity, Department of Labor."

