



## **Lexington-Fayette Urban County Council**

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# **STREAM CONSTRUCTION AND RESTORATION TASKFORCE**

## **FINAL REPORT**

**June 5, 2007**

**Council Office, 10<sup>th</sup> District**

**Don Blevins, Council Member**

**Lori Kidwell, Legislative Aide**

### ***Executive Summary***

Mayor Jim Newberry asked 10<sup>th</sup> District Council Member Don Blevins to create and lead the Stream Construction and Restoration Taskforce. The taskforce was created at the request of the Friends of Wolf Run Creek, a non-profit supporter of stream protection and restoration. The group became concerned about the city's regulatory capabilities when a project in the Wolf Run watershed uncovered some inconsistencies in the handling of construction projects that impact streams.

The taskforce began by discussing best practice techniques for stream restoration, and by reviewing the existing permitting process. The taskforce then reviewed issues and concerns that arose during the initial meetings, and concluded by creating a list of recommendations for Lexington Fayette Urban County Government (LFUCG). The list of recommendations is included at the end of this report (Appendix A, Stream Construction and Restoration Taskforce Recommendations).

Initially, the taskforce had hoped to make minor modifications to the permitting process to insure that best practices are used with regard to our streams. However, the taskforce found that the existing permitting process for construction projects around urban streams is very porous and thus ineffective in protecting our watersheds. As a result, the taskforce recommendations include ideas that extend well beyond the permitting process.

The recommendations are organized by when they can be implemented, and grouped when the recommendations are related. They are assigned to organizations for completion. The taskforce will reconvene in October, 2007 to assess progress on the recommendations.

## ***Key Findings***

The taskforce found that Lexington should be using techniques and best practices to restore and improve our streams. These best practices have been used successfully in other areas and should be encouraged and required for both the city itself as well as private property owners.

The taskforce created many recommendations, a few of which should be initiated immediately:

- Assign a single entity to oversee management and protection of our watersheds.
- Long-term, LFUCG must realign its resources to better address water quality issues and to proactively manage our watersheds.
- Create a taskforce to identify and address the sources of water quality problems, and then begin work to eliminate the sources.
- Bring LFUCG properties into compliance with best practices. (Examples include our parks and greenways.)
- Initiate pilot projects to demonstrate the effectiveness of the best practices and to serve as educational examples.

The taskforce found that there are many challenges in an urban environment. These include:

- There is a large learning curve for not only the general public, but also the city's workforce and private concerns (engineering firms, concrete construction firms, etc.). All parties need to be educated about the need, urgency and the best practices themselves.
- It is best to manage a watershed in its entirety, but difficult when the watershed is comprised of a patchwork of property owners. We must find a way to manage and protect our streams holistically, instead of one property at a time.
- There are physical constraints in an urban environment that preclude the use of best practices.

## ***Methodology***

The taskforce was run as a series of public meetings in compliance with the Kentucky Open Records and Open Meetings Acts. Representatives from state government, LFUCG, and private engineering practices were the initial invitees. An effort was made to include the non-engineering community as well.

Attendees of one or more meetings are listed in Appendix B, Stream Construction and Restoration Task Force Attendees.

The taskforce employed an aggressive schedule, meeting only four times on March 1, March 15, March 22, and April 12, 2007. The first meeting included an overview of current stream restoration and protection techniques, in order to inform all members of the taskforce about current best practices. The primary presenter was Bill Sampson, KY Department of Fish and Wildlife.

The second meeting included presentations about the state and local permitting processes. The purpose of the meeting was to educate the taskforce on the current processes so that entry points could be identified for inserting best practices. However, it was found that the existing permitting processes are too porous to be effective as a tool for implementing best practices. The primary presenters were Jenni Garland, KY Division of Water, and Darryl Bennett, LFUCG Division of Engineering.

The third meeting included reports by taskforce members addressing issues raised during the first two meetings. Here are the issues and presenters:

- Jim Rebmann, LFUCG Division of Planning reported on a variety of problems and situations from the planning perspective. Many of the obstacles are represented in the recommendations of the taskforce.
- Ryan Slack, Eco-Tech Consultants, reported on ways to improve the aesthetics of vegetation used in restoration projects.
- Tony Miller, Third Rock Consultants, presented options and challenges in the urban, residential and commercial stream environments.
- Ken Cooke, KY Division of Water, reported on gathering example projects.
- Wanda Lawson, CDP Engineers, reported on cost comparisons between traditional and current best practices.
- David Gabbard, LFUCG Division of Engineering presented project examples and ideas for implementation within LFUCG. His ideas are also represented in the recommendations.

All taskforce attendees were encouraged to prepare recommendations after the second and third meetings. The recommendations were presented and discussed at the fourth and final meeting of the taskforce.

The taskforce agreed to reconvene in October, 2007 in order to review progress made on the recommendations.

## ***Recommendations***

The taskforce put forth a total of 38 recommendations. Each recommendation was assigned to an entity to begin work on refining and implementing the recommendation.

Organizing the recommendations of the taskforce proved to be a challenge. The recommendations cover a wide range of topics, and involve many different aspects of LFUCG. In addition, the ongoing negotiations between LFUCG and US EPA with respect to violations of the Clean Water Act further complicate the timing for addressing the recommendations.

The list of recommendations that follows is organized in two ways. First, we classified the ideas by when they can be addressed. All recommendations are either addressable *now*, or are better suited to occur in conjunction with the implementation of the US EPA consent decree. As a result, a few recommendations were created to be interim solutions.

Second, some of the recommendations are grouped. Those that are related in both the timing and the substance of the ideas are grouped together and assigned to one organization to be addressed.

The remaining recommendations are simply assigned to an organization.

The detailed recommendations are in Appendix A, Stream Construction and Restoration Task Force Recommendations.

## Appendix A: Stream Construction and Restoration Task Force Recommendations

	Owner	Group	Idea	Timeframe
1	Public Works	Public Works	Review existing procedures and legislation to improve/streamline process, close loopholes, etc.	Now
2	Public Works	Public Works	Overcome a lack of coordination and communication within existing LFUCG permit processes. I.e. demolition permits do not trigger watershed <sup>1</sup> impact reviews.	Now
3	Public Works	Public Works	Overcome conflicting interpretations of existing laws.	Now
4	Public Works	Public Works	Investigate using the existing Grading Permit as a possible place for a watershed impact assessment to occur.	Now
5	Public Works	Public Works	Investigate/fix existing demolition permit process to include watershed impact assessments.	Now
6	Public Works	Public Works	Create Watershed Protection Policy or legislation, identify a clear owner within LFUCG, including enforcement mechanism and fines. <i>Interim solution.</i>	Now
7	Public Works	Public Works	Review/update of existing ordinances. (I.e. Articles 19 and 20.)	Now
8	Public Works	Public Works	Create construction/restoration guidelines for developed watershed areas. <i>Interim solution.</i>	Now
9	Planning	Planning	Create development plan requirements that are more stream friendly, and enforce. (Preserve existing vegetation, limit topsoil removal, use of swales/rain gardens, etc.)	Now
10	Planning	Planning	Compare existing watershed buffer zone requirements to current research, changing as needed.	Now
11	Planning	Planning	Use low-technical methods during new development, such as linear parks and greenways, to protect and preserve watersheds.	Now
12	Planning	Planning	Consider creating a local program that uses "in-lieu of" funds for watershed impacts by development.	Now
13	Planning	Planning	Include elements from the point of view of infill and redevelopment as it applies to watersheds.	Now
14	Bluegrass Partnership for a Green Community	Communication and Education	Educate the general public.	Now
15	Bluegrass Partnership for a Green Community	Communication and Education	Education and communication to overcome stigma of vegetation on stream banks.	Now

<sup>1</sup> The word "watershed" is used in this context to mean the components of a watershed like greenways, streams, wetlands, as well as storm water features like retention basins. Using "stream" only would be too restrictive.

## Appendix A: Stream Construction and Restoration Task Force Recommendations

	Owner	Group	Idea	Timeframe
16	Bluegrass Partnership for a Green Community	Communication and Education	Educate service and supplier firms working in region. (I.e. engineering firms, concrete companies, etc.) Investigate integrating with continuing education programs.	Now
17	Bluegrass Partnership for a Green Community	Communication and Education	Educate LFUCG employees that are in a position to investigate, approve, enforce, etc. activities that affect watersheds.	Now
18	Bluegrass Partnership for a Green Community	Communication and Education	Create publications for property owners with references and information regarding watershed restoration and management. (Toolkit, checklist, or brochures.)	Now
19	Bluegrass Partnership for a Green Community	Communication and Education	Educate and communicate the need for watershed oversight within the LFUCG permitting agencies.	Now
20	Friends of Wolf Run Creek	Communication and Education	Publish a Fayette County project portfolio.	Now
21	Mayor	Immediate Need	Bring LFUCG parks and green space into compliance with accepted watershed management techniques.	Now
22	Mayor	Immediate Need	Initiate pilot projects, perhaps in LFUCG-owned areas like parks, green space, flood-control areas, or schools. (Consider prioritizing trail projects along stream areas to capitalize on both needs.)	Now
23	Mayor	Immediate Need	Create a taskforce to identify and address the <i>source(s)</i> of water quality problems in the Fayette County watersheds, and then begin work to eliminate the sources.	Now
24	Mayor	Post-EPA Solutions	Investigate a way to review and approve activities that impact a watershed: new or modified permits, such as "pavement", "parking lot", "impervious surface", "watershed impact", etc.	EPA
25	Mayor	Post-EPA Solutions	Create Watershed Protection Policy or legislation, identify a clear owner within LFUCG, including enforcement mechanism and fines.	EPA
26	Mayor	Post-EPA Solutions	Create/fund a matching program for watershed restoration similar to the existing program for retention basins.	EPA
27	Mayor	Post-EPA Solutions	Create an LFUCG Watershed Protection Policy, identify a clear owner within LFUCG, and include enforcement.	EPA

**Appendix A: Stream Construction and Restoration Task Force Recommendations**

	<b>Owner</b>	<b>Group</b>	<b>Idea</b>	<b>Timeframe</b>
<b>28</b>	Mayor	Post-EPA Solutions	Create an LFUCG Watershed Review Board, composed with members and authority to review and approve projects and plans.	EPA
<b>29</b>	Mayor	Post-EPA Solutions	Create a method for mitigation when a stream must be moved or modified, possibly under purview of a review board.	EPA
<b>30</b>	Mayor	Post-EPA Solutions	Create construction/restoration policy and/or guidelines for developed watershed areas.	EPA
<b>31</b>	Mayor	Post-EPA Solutions	Investigate using public-private partnerships.	EPA
<b>32</b>	Law		Create enforcement mechanism and fines for perjury/inaccurate information on permit applications.	Now
<b>33</b>	Public Works		Investigate changes to Engineering Manual to support watershed protection. For example, swales, rain gardens in parking lots.	Now
<b>34</b>	Planning		Investigate how the Comprehensive Plan can or should be used to assist.	Now
<b>35</b>	Planning/Law		Investigate how to overcome the patchwork property ownership of the watersheds. Easements? Incentives for watershed-wide projects? Would a program similar to PDR work?	Now
<b>36</b>	Don Blevins		Produce a taskforce report.	Now
<b>37</b>	Parks/Law		Investigate a way to educate/prevent/enforce citizens that place inappropriate objects (fences, tool sheds, trampolines, trees, etc.) on public land adjacent to their property, especially in floodplains.	Now
<b>38</b>	Parks/Law		Include limited mowing schedules ("no-mow" zones) and reforestation efforts in parks in water quality educational programs	Now

## Appendix B: Stream Construction and Restoration Task Force Attendees

FIRST	LAST	ORGANIZATION
Mike	Adams	FMSM Engineering
Jennifer	Arnold	Tetra Tech
Vince	Attardi	FMSM Engineering
Darryl	Bennett	LFUCG
Don	Blevins	LFUCG Council Member, 10 <sup>th</sup> District
Erin	Britton	FMSM Engineering
Barry	Brock	LFUCG Division of Engineering
Liz	Bullock	Third Rock Consultants
Sandy	Camargo	CDP Engineers
Tim	Clark	LFUCG Division of Parks & Recreation
Ken	Cooke	KY Division of Water
Melvin	Dean	Conservation Tech
Lee	Droppelman	Eco-Tech Consultants
David	Gabbard	LFUCG
Ed	Gardner	LFUCG
Jenni	Garland	KY Division of Water
Amanda	Abnee Gumbert	UK Cooperative Extension Service
Chris	Hart	KY Division of Water
Ed	Hartowicz	Third Rock Consultants
Steve	Higgins	UK Cooperative Extension Service
Margi	Jones	KY Division of Water
Don	Kelly	LFUCG
Lori	Kidwell	LFUCG Council Office
Tim	Koch	LFUCG
Michelle	Kosieniak	LFUCG Parks
Wanda	Lawson	CDP Engineers
Keith	Lovan	LFUCG
Tony	Miller	Third Rock Consultants
Gina	Morris	Third Rock Consultants
Marwan	Rayan	LFUCG
Jim	Rebmann	LFUCG
Jim	Roe	KY Division of Water
Bill	Sampson	KY Department of Fish & Wildlife Resources
Chuck	Saylor	LFUCG Division of Engineering
Kurt	Schaefer	FMSM Engineering
Brooke	Shireman	KY Division of Water
Brooke	Slack	Eco-Tech Consultants
Ryan	Slack	Eco-Tech Consultants
Scott	Southall	CDP Engineers
Barry	Tonning	Tetra Tech
Russ	Turpin	EcoGro
Jean	Watts	BCTCS Envir. & Tech Program Director
Michael	Winkler	No Affiliation Given