

MEETING NOTES
of the
STORMWATER STAKEHOLDER ADVISORY COMMITTEE (SSAC)
Lexington-Fayette Urban County Government (LFUCG)

Meeting: March 3, 2023
Time of Meeting: 9:00 a.m.
Location of Meeting: Phoenix Building – 3rd Floor Conference Room

Attendees:

COMMITTEE MEMBERS

Eileen Burk – Kentucky River Watershed At-Large
Doug Burton – LFUCG Division of Engineering
Jennifer Carey – LFUCG Division of Environmental Services
Jim Conner – Cane Run Watershed At-Large
Jerry Davis – Friends of Wolf Run
Steve Evans – Kentucky Water Resources Research Institute
Jim Griggs – Boone Creek Watershed At-Large
Amanda Gumbert – Friends of Cane Run
Don Hill – Fayette County Neighborhood Council
Charlie Martin – LFUCG Division of Water Quality
Tom Martin – LFUCG Division of Planning (for Jim Duncan)
Richard McClure – University of Kentucky
Amy Sohner – Chair, Bluegrass Greensource
Scott Southall – West Hickman Watershed At-Large
Clay Turner – Hickman Creek Conservancy
Russ Turpin – Wolf Run Watershed At-Large
Jerry Weisenfluh – Kentucky River Watershed Watch

LFUCG STAFF AND REPRESENTATIVES

Denice Bullock – LFUCG Division of Water Quality
Jeffinisha Cobb – LFUCG Division of Water Quality
Sarah Donaldson – LFUCG Division of Environmental Services
Emily Epperson – LFUCG Division of Water Quality
Brooke Gray – LFUCG Division of Water Quality
Gabe Hensley – LFUCG Division of Water Quality
Becky Irwin – LFUCG Division of Water Quality
Jennifer Myatt – LFUCG Division of Environmental Services
Greg Lubeck – LFUCG Division of Water Quality
Frank Mabson – LFUCG Division of Water Quality
Lindsie Nicholas – LFUCG Division of Water Quality
Angelo Poe – LFUCG Division of Environmental Services
Mark Sanders – LFUCG Division of Water Quality
Chris Taylor – LFUCG Division of Planning
Abby Terry – Tetra Tech, LFUCG MS4 Program Management
Richard Walker – Tetra Tech, LFUCG MS4 Program Management

OTHER ATTENDEES

Ben Currens – UK Cooperative Extension Service
Sam Lee – Stantec
Tiffany Messer – University of Kentucky
Wes Morris – BCTC
Steve Vogel – Strand Associates

Opening Remarks

Amy Sohner opened the March meeting at 9:05 a.m. and asked those attending to share their name and organization when speaking.

Approval of 12/02/2022 Minutes

Ms. Sohner asked if there were any additions or corrections to the minutes. There were none.

A motion was made by Tom Martin; seconded by Eileen Burk, and carried unanimously to approve the minutes of the December 2, 2022, meeting.

Emerging Contaminants Entering, Leaving, and Flowing Past Wastewater Treatment Plants in Central Kentucky

Dr. Tiffany Messer, Ph.D., EIT, Assistant Professor at the University of Kentucky, started by thanking Kyra Sigler, a University of Kentucky graduate student, for her help with this research and presentation.

The Department of Biosystems and Agricultural Engineering receives funding through the U.S. Geological Survey's (USGS) 104b Grant Program to study the emerging contaminant exposure following a wastewater treatment plant (WWTP) process. She explained that because of concerns over the past five years, the study examines what is leaving wastewater treatment plants in the Central Kentucky Region focusing on the per-and polyfluoroalkyl substances (PFAS). Dr. Messer noted that there are thousands of PFAS compounds that are found in water, grease, dirt repellents, non-stick pans, or anything that repels water. This includes clothing, as well as foam that is used to put out fires. PFAS is a manmade chemical; it is not something that occurs in nature, and can be transferred through the air, water, or soil, and by people or animals. The study shows that there is a human health implication, particularly the carcinogen effect. This is why there has been a recommendation as to what the limits should be. The study also shows that PFAS is everywhere, it is ubiquitous in all environments in every country.

Another contamination that the University of Kentucky is focusing on is neonicotinoid insecticides. There are profound findings that show a link between pesticides and Colony Collapse Disorder, particularly in pollinators such as Honeybees. There are seven (7) neonicotinoid insecticides on the US market that potentially contribute to Colony Collapse Disorder and other unintended consequences. The neonicotinoid insecticides are ubiquitous in surface and groundwater, as well as detected in human biological samples.

The overall objectives of the study are to improve the understanding of the prevalence of PFAS and neonicotinoids in the surface water and sediments surrounding wastewater treatment plants in the Central Kentucky Region, and to quantify PFAS and neonicotinoids presence in wastewater treatment plants produced biosolids. Agricultural Engineers are particularly interested in biosolids because of their use as fertilizer in agricultural fields, where PFAS prevalence over application of pesticides is a concern.

Dr. Messer showed the Experimental Setup and gave a brief description of what is being measured:

- PFAS (18 analytes)
- Neonicotinoids (20 analytes)
- Nutrients (NH₃, Br-, Cl-, NO₃-, PO₄3-, TN,TP, TOC, DOC)
- Depth, temperature, pH, etc.

Dr. Messer added additional considerations:

- Two (2) WWTPs (urban vs rural)
- Two (2) seasons (April 2021 vs July 2021)

Dr. Messer explained sample locations at each WWTP:

- Upstream (Water and Sediment)
- WWTP Influent
- Biosolids
- WWTP Effluent
- Downstream (Water and Sediment)

Dr. Messer indicated that water samples were collected using a Polar Organic Chemical Integrative Sampler (POCIS). The POCIS is a device that allows water and chemicals to pass through a series of filters where the chemical is absorbed to get an average concentration and to show chronic exposure in different water systems. She gave examples of how the POCIS can be installed to get an average concentration. Water table data loggers were also installed to measure flow through the system and calculate a load of PFAS and neonicotinoids. She added that once the water samples are collected the PFAS and neonicotinoids are shipped to the Nebraska Water Science Laboratory (Lincoln, NE), and the supplemental surface water parameters are taken to the Kentucky Geological Survey for analysis.

Dr. Messer presented and gave a brief description of the water quality data that was collected:

WATER QUALITY DATA										
	Sample Field ID	Ammonia (NH ₃)	Ammonia (NH ₃ -N)	Bromide	Chloride	NO ₃ -N	Orthophosphate-P (PO ₄ -P)	Sulfate	Total Nitrogen	Total Recoverable
April Large Urban City	Upstream	0.061	0.05	Less than MDL	51.3	0.884	0.14	17.6	1.25	0.2
	Downstream	0.146	0.12	Less than MDL	104	8.859	0.79	41	10.5	1.07
April Small Rural City	Upstream	0.426	0.35	Less than MDL	40.7	0.438	0.26	21.1	2.35	0.46
	Downstream	0.45	0.37	Less than MDL	64.7	0.954	0.11	38.8	2.51	0.25
July Large Urban City	Upstream	0.146	0.12	Less than MDL	177	2.373	0.22	44.7	2.6	0.33
	Downstream	0.097	0.08	Less than MDL	103	4.181	0.6	67.5	5.2	0.87
July Small Rural City	Upstream	0.109	0.09	Less than MDL	19.1	0.904	0.18	21.2	2.4	0.55
	Downstream	0.134	0.11	Less than MDL	37.7	1.351	0.16	34.3	2.4	0.41

Dr. Messer presented a series of graphs and gave a brief description of each:

- PFAS concentrations decrease upstream to downstream of the WWTP in the Large Urban City and increase upstream to downstream in the Small Rural City in both April and July.
- PFAS concentrations are significantly higher in July upstream of Large Urban City WWTP (upstream sampling location just downstream of a firefighting training station)
- PFAS concentrations increase from the WWTP influent to effluent for both WWTPs in both seasons.

- PFAS concentrations in upstream to downstream sediments and biosolids are much less than what was found in water.
- Neonicotinoids were detected at all eight sites.
- Large Urban WWTP had higher concentrations of neonicotinoids in the influent than the effluent.
- Small Rural WWTP had higher concentrations of neonicotinoids in the effluent than in the influent due to UV exposure degradation.
- Large Urban WWTP had higher concentrations of neonicotinoids downstream of the plant most likely due to non-point source influence.
- Imidacloprid concentrations are higher in influent for both systems
- Large Urban WWTP yielded higher concentrations of neonicotinoids in biosolids.

Question

Lindsie Nicholas asked what source is responsible for the higher concentration of PFAS in the influent. Dr. Messer explained that they are not sure of the exact source, however one hypothesis is the residual wastewater containing pesticides when store bought fruit and vegetables are washed.

Overall Trends:

- Large Urban saw higher concentrations than Small Rural
- Effluent (specifically with PFAS) yielded higher concentrations than Influent
- Higher concentrations found in water compared to the sediments

Dr. Messer concluded with the following recommendations:

1. PFAS is being detected in surface waters and will need further consideration for water treatment processes if new recommendations become enforced.
2. PFAS has the potential to increase following treatment, particularly during warmer months. More research is needed to determine why this is occurring.
3. While neonicotinoids are high, the primary concern with these levels is for non-target species (e.g. honey bees) as they are not regulated for humans. Consideration of longer UV exposure may reduce concentrations substantially.

Dr. Messer acknowledged this material was based upon work supported by the U.S. Geological Survey and the Kentucky Water Resources Research Institute under Grant No. G21AP10631.

Questions and comments

Richard Walker asked what it would mean if the EPA had to enforce PFAS recommended levels. Dr. Messer answered the EPA is not enforcing the limits or issuing fines at this time. They are only making recommendations. There is some optimism about Australia finding cost-effective ways to remove the PFAS from the system.

Emily Epperson asked if longer UV exposure would be beneficial. Dr. Messer said that the University of Kentucky Laboratories does show contaminants do degrade faster with ultraviolet exposure. The degradation of the containment depends on the amount of exposure to where the element becomes non-toxic. Potentially, if it is cost-effective, that could mean longer exposure to ultraviolet radiation; and if it is not cost-effective then using a settling pond and exposure to UV could help the situation.

Russ Turpin asked if there is a parallel between neonicotinoid that is synthetic and the nicotine in cigarettes. Dr. Messer said that both are based on the nicotine element, and both impact the brain-ultimately breaking down the nervous system.

Mr. Turpin then asked if it would be possible to track tobacco-based nicotine that comes from the human source. Dr. Messer said that neonicotinoids and nicotine are very different elements in how they are assessed and analyzed. Both have a base reaction on the nervous system, but it is pretty easy to discern between neonicotinoid and nicotine.

Abby Terry asked if there are treatment methods being investigated other than granular activated carbon for PFAS. Dr. Messer indicated affirmatively and explained that funding is available to study the treatment of PFAS. For example, Australia is studying the use of magnets as a potential means to remove contaminants; and other groups are studying activated carbon sources or bacteria as a source of removal. The biggest concern is how to remove the contaminant in a cost-effective way.

Gabe Hensley asked if the University of Kentucky used Method 1633 when analyzing the Large Urban Treatment Plant. Dr. Messer answered they did use Method 1633 but she could not disclose the sampling location.

Infill and Redevelopment: The Area versus the Practice

Thomas Martin, Division of Planning, said to understand the infill and redevelopment in Lexington, the history of Planning must be understood. He spoke about Lexington's first Comprehensive Plan, which was the 1935 Segoe Plan. He indicated that the most significant event in Lexington's planning legacy was the adoption of the Urban Service Boundary (USB) in 1958.

The Urban Service Boundary is a defined boundary that maintains and protects the rural character of the county as well as provides agricultural services. Development has always been allowed, but urban life is compact which keeps the services minimal, making it cheaper.

Since the adoption of the Urban Service Boundary, there have been several expansions and contractions made with the last expansion adopting the 1996 Expansion Area Master Plan. The 1996 Expansion Area Master Plan (EAMP) resulted in approximately 5,400 acres being added near the Winchester Road area. The 1996 Expansion Area Master Plan also resulted in the adoption of zoning regulations, development standards, and legal requirements specifically for the expansion area. He indicated that developers must follow the same engineering requirements that are normally followed to develop in this area. The EAMP was laid out beforehand to ensure certain items were done so there was a unified concept.

Everything that the Division of Planning does, whether regulations, design, or manuals is considered administrative law. He explained that the State of Kentucky granted the Division of Planning the authority to administer that law. The Urban County Council adopted an Ordinance outlining the Infill and Redevelopment Area, which was based on the 1935 city boundary. It has its own regulations, development standards, and legal requirements specific to that area.

Question

Mr. Walker asked for clarification on when the city had built some sanitary sewers back in the day. Mr. Martin replied that it was around the same time when IBM was expanded through a federal government funding program for municipalities to build sewer lines.

Mr. Martin continued that because of the challenges in the older areas, specific changes were made to the Zoning Ordinance and Land Subdivision Regulations that dealt with lot sizes, setbacks, lot coverage, floor area ratios, and parking within the Infill and Redevelopment Area. Development is encouraged in these areas, but if a challenge does come about the applicant can request the Planning Commission to grant a waiver to the Land Subdivision Regulations, and/or request the Board of Adjustment to grant a variance to the Zoning Ordinance.

The concept of the infill and redevelopment area must be evaluated within the concept of the Urban Service Boundary. It can be argued that everything inside the Urban Service Boundary is considered infill and redevelopment to a certain extent. However, the city does not control when land becomes available to develop; but rather the market dictates development when land becomes available.

In addition to our designated infill areas, the city has a planning tradition of implementing Small Area Plans to encourage the redevelopment of our community. Small area plans, sector plans, neighborhood plans, and corridor plans are all various planning efforts to guide the redevelopment of identified areas of our community. This has been going on for years from the first Urban Renewal Plan in 1965 to the present. These plans generally make policy recommendations and do not result in specific land use regulations.

The city utilizes Overlay Zones that are designed to primarily protect the established character of a neighborhood. The Historic District (H-1) zone and the Neighborhood Development (ND) zone have specific land use and design requirements in the Zoning Ordinance. It is important to remember that outside of the adopted Infill and Redevelopment Area and any Overlay Zone, only the specific requirements in the existing zone apply to development whether it is redevelopment or new greenfield development. It is important to remember there are no perfect Ordinances or regulations. There are gray areas and there has to be some wiggle room because of the unforeseen circumstances that may come up.

Lexington is operating under the adopted 2018 Comprehensive Plan and the Division of Planning is in the process of updating that plan. He explained that when the 2018 Comprehensive Plan was being updated there were over 10,000 participants, 14 public input meetings, 67 outside experts consulted, 500+ pages of public comments, 60+ community organization input time slots, a dedicated website, and social media presence. The Comprehensive Plan, like all previous plans, maintains the Urban Service Boundary as the cornerstone of our planning principles. Lexington is a growing community and we must accommodate that growth. That requires an emphasis on maximizing the use of our existing vacant land as well as overseeing appropriate redevelopment. It may also require expansion of the Urban Service Boundary at some future date.

There was a concern about Accessory Dwelling Units being allowed and it took several years before the Ordinance was adopted by the Council. Now Accessory Dwelling Units are allowed in certain areas, under certain parameters, including the expansion area. He indicated that Accessory Dwelling Units are reviewed by the different divisions of the government before they are approved for development, and he noted that since the Ordinance was adopted, there have been six (6) requests approved.

Mr. Martin touched on private property stormwater runoff issues in general, distinguishing between LFUCG review against local requirements and private property issues between homeowners. He provided an example of a property located on Cardinal Lane and explained that this property is zoned Single Family Residential (R-1C) to demonstrate how infill works. Stormwater infrastructure was minimal and lots were graded to drain stormwater runoff to the street or to backyard swales or streams. Based on setbacks and zoning requirements for the lot, Mr. Martin showed a large 5,000 square foot area of the lot that could be legally built out if the property owner wished by pulling a permit, whereas, Accessory Dwelling Units are limited to 800 square feet. If the property owner creates a drainage problem for neighbors, it's between the two owners.

He then provided an example of a 1950s plat for the property and explained that there is not a lot of information/requirements shown versus a plat that was recently approved by the Planning Commission. Today, easements, setbacks, site statistics, notes, and sign-offs are required to be listed on a plan.

Mr. Martin acknowledged Chris Taylor, Division of Planning, was present should there be questions regarding Accessory Dwelling Units.

Questions and comments

Russ Turpin said given that the Division of Planning has a good perspective on the bigger picture, would the staff make recommendations on detention basins to mitigate downstream flooding on a regional basis? He then asked how the divisions engage in watershed plans such as the Royal Springs Aquifer water protection area and Water Quality Fees Board. Mr. Martin explained that the Division of Planning coordinates with the other divisions of the Lexington-Fayette Urban County Government who get into those specifics with flooding and drainage issues. When a development plan or plat is filed, that plan must go through the Technical Review Committee, which consists of the different divisions of the LFUCG, utility companies, and other outside entities. Before a plan can move forward, the applicant must address any issues that were identified by that division before their signoff is given otherwise that plan does not go forward.

Mr. Martin noted that the Royal Springs Water Supply Protection Committee is incorporated into the Stormwater Manual. The LFUCG is very conscientious about proposals within the community; and if needed, conditional zoning restrictions can be imposed to protect the aquifer. Some of those restrictions include underground storage tanks and certain types of activities that are prohibited.

LFUCG Stormwater Management Regulations for Redevelopment, ADUs, and Residential Additions

Richard Walker, P.E., Tetra Tech, noted that there is nothing in the Stormwater Manual that references Accessory Dwelling Units and residential additions. He said, with the exception of erosion and sediment control, there are three (3) objectives/purposes of the Stormwater Manual, which is water quantity control, water quality, and the type of stormwater infrastructure that is needed and where it should be located.

The Stormwater Manual applies to infrastructure in the public drainage system. This include storm sewer inlets, manholes, culverts, as well as stormwater controls on commercial properties and residential private properties. The properties are not owned by the city, but are regulated by the city requiring the owner to have a detention basin or a water quality facility.

Redevelopment has two rules – the 20 percent rule and the one-acre rule. He gave two scenarios of the developer redeveloping a one and-a-half acre parcel for a parking lot and purchasing a one-and-a-half-acre green field. He asked what the 20 percent rule means. Jennifer Carey replied that the rule means to reduce the impervious surface by 20 percent or treat 20 percent. Mr. Walker explained that the 20 percent rule originated from the Chesapeake Bay area and its redevelopment standards. The Chesapeake Bay became the benchmark for Lexington and the city adopted those standards in 2004.

Mr. Walker asked about the one-acre rule. Ms. Carey answered redevelopment standards apply to projects that are one acre or greater. Mr. Martin added unless they are a part of a larger common plan of development. Mr. Walker noted that if there is less than an acre of disturbance there are no water quality requirements, but there might be water quantity requirements.

Mr. Walker explained redevelopment in Fayette County includes:

- 20-30 projects annually
- Approximately half of them disturb less than one acre
- Many projects can meet the stormwater requirements by reducing the existing impervious area by 20%
- Most common installed stormwater control is an underground Manufactured Treatment Device
- Approximately half are part of a larger common plan of development

Mr. Walker provided the following examples and gave a brief description of each property:

Candlewood Suites on Waller Ave

- Limits of Disturbance = 2.64 acres
- Before/After Impervious Area = 1.61 acres/ 1.51 acres: 6% reduction
- No detention required because impervious area was reduced
- Manufactured Treatment Device was installed to meet Water Quality

Jiffy Lube on Meijer Way reduced impervious by 23%.

- Limits of Disturbance = 0.922 acres
- Before/After Impervious Area = 0.613 acre/ 0.475 acres: 23% reduction
- No detention required because the site impervious was reduced
- Water Quality met by 23% reduction in impervious area

He briefly touched on the following slides:

Key Regulatory Definitions

- **Redevelopment** refers to “alterations of a property that change the ‘footprint’ of a site or building in such a way that results in the disturbance of equal to or greater than 1 acre of land. The term is not intended to include such activities as exterior remodeling, which would not be expected to cause adverse stormwater quality impacts and offer no new opportunity for stormwater controls” (EPA, Phase II Stormwater Rule, 1999).
- **Larger Common Plan of Development or Sale** means “a contiguous area where multiple separate and distinct construction activities may be taking place at different times on different schedules under one common plan. The ‘common plan’ of development or sale is broadly defined as any announcement or piece of documentation (including a sign, public notice or hearing, sales pitch, advertisement, drawing,

permit application, zoning request, computer design, etc.) or physical demarcation (including boundary signs, lot stakes, surveyor markings, etc.) indicating construction activities may occur on a specific plot” (EPA Construction General Permit, 2017).

Fundamental Requirements for Redevelopment

1. Provide water quality controls for 20% of the Baseline Impervious plus 100% of New Impervious
2. Provide detention for New Impervious if necessary to prevent downstream flooding.
 - No detention is required if the impervious area is not increased.

New Development & Redevelopment

	New Development	Redevelopment
Water Quantity	Peak flow shall be reduced to pre-development levels for the 10-year, 100-year, 1995, and 2006 storms.	Peak flow shall be reduced to baseline (before demolition) levels for the 10-year, 100-year, 1995, and 2006 storms. No detention is required if the impervious area is not increased.
Water Quality	Water Quality Volume – All runoff from impervious areas shall pass through a stormwater control sized for the 90th percentile storm of 1.2 inches. Runoff Reduction – Green infrastructure controls shall be designed to retain on-site the runoff volume equal to 0.8 inches multiplied by the impervious area. Channel Protection – To minimize streambank erosion, detention shall be provided for drainage areas greater than 10 acres, sized to provide 24-hour detention of the runoff volume for the 10-year 6-hour storm.	The baseline impervious area shall be reduced by 20%, or stormwater controls shall be provided for 20% of the baseline impervious area, or a combination thereof. If a redevelopment project results in a net increase of impervious area, the <u>new development standards</u> shall apply to the net increase.

Mr. Walker indicated that he has encountered the following questions over the years:

Q - Can the 20% design standard be increased?

A – Yes, it would require a change to the Stormwater Manual, which would have to be approved by the Planning Commission and the Urban County Council. The 20% standard has been in place since 2004.

Q - What are the concerns with increasing the design standard?

A - It would increase the cost, which could hinder redevelopment activity. It might require more space to build stormwater controls, which would reduce the space available for buildings and parking.

Q - Can the one-acre land-disturbance threshold be lowered?

A – Yes, it would require a change to the Stormwater Manual, which would have to be approved by the Planning Commission and Urban County Council. The one-acre threshold was set by EPA and KYEEC.

Q - What are the concerns with lowering the threshold?

A - It would impose a standard greater than the EPA's, and it would increase the cost.

Q - Are developers intentionally splitting up projects into parcels less than one acre to avoid having to install water quality controls?

A – It is unlikely since these projects would be considered part of the larger common plan of development and therefore subject to the water quality requirements in the Stormwater Manual.

Question - Chris Taylor asked what policy goal necessitated the 20% standard. Mr. Walker replied the MS4 Permit administered by the Kentucky Division of Water requires the city to have a program to control runoff from new developments and redevelopments. The 20 percent came from Chesapeake Bay Redevelopment Standards as a way to reduce runoff volume. This is not to treat oil and pollutants coming off of parking lots.

Mr. Taylor then asked if this is a way to provide developers an incentive in lowering impervious areas or act as a punishment if they do not. Mr. Walker replied that it is a requirement; it has to be done. Mr. Taylor agreed but asked what the policy is trying to achieve. He explained that the Planning Commission recently approved a change to the parking regulations that will have a drastic impact on the 20 percent rule. Even though the Planning Commission omitted the parking requirement, there is an increase in tree canopy and landscape buffer requirements. He understands that it must meet the threshold, but there are other ways to reduce runoff without changing the Engineering standard. Mr. Walker responded those are very good points, adding that sometimes the focus is getting the developer to do something but from the bigger picture the Urban Service Boundary greenspace is what we are trying to protect from becoming impervious.

Steve Evans asked if there is a layer showing parcels larger than one acre that would potentially fall under the redevelopment standards. Mr. Walker said that there is a layer showing the vacant land. Mr. Martin said that GIS does have a layer showing parcels that have been created

by a deed. Mr. Taylor said that doesn't answer if that parcel is part of the larger common plan. Mr. Martin agreed, but GIS has other layers that would.

Mr. Walker showed three (3) slides that referenced the application of the redevelopment standards from the Stormwater Manual

Date of the original development	Typical stormwater requirements at the time of original development	2020 Stormwater Manual Requirements
Before 1974	None	Reduce baseline impervious area by 20%; or provide stormwater quality controls for 20% of the baseline impervious area; or a combination thereof. If the project results in a net increase in the impervious area: • provide stormwater controls to reduce peak flows to baseline conditions in accordance with Section 1.6 • provide stormwater quality controls for 100% of the net increase in impervious area in accordance with Section 1.7
1974-2001	Typically, detention basins for water quantity and no water quality BMPs	Reduce baseline impervious area by 20%; or provide stormwater quality controls for 20% of the baseline impervious area; or a combination thereof. Existing quantity controls shall remain in place or be replaced in kind to the same level of protection. If the project results in a net increase in the impervious area: • provide new or modify existing stormwater controls to reduce peak flows to baseline conditions in accordance with Section 1.6 • provide stormwater quality controls for 100% of the net increase in impervious area in accordance with Section 1.7
2001-present	Water quantity and water quality controls as required by the Stormwater Manual for new development or redevelopment.	Existing controls shall remain in place or be replaced in kind to the same level of protection. If the project results in a net increase in the impervious area: • provide new or modify existing stormwater controls to reduce peak flows to baseline conditions in accordance with Section 1.6 • provide stormwater quality controls for 100% of the net increase in impervious area in accordance with Section 1.7

Mr. Walker touched on Accessory Dwelling Units and indicated that the new Ordinance was adopted in 2021. There have been five or six units completed or under construction. There have been fifteen (15) completed pre-application meetings. The maximum size allowed for the unit is between 625 sq. ft. and 800 sq. ft. The unit must be attached to the existing structure. Mr. Taylor added that the structure can be a conversion of an existing detached structure, which is what we are seeing.

Mr. Walker read the below questions regarding Accessory Dwelling Units:

Q - Does the Stormwater Manual have requirements for ADUs?

A - *No, the latest update to the manual in 2020 occurred before the ADU Ordinance was adopted in 2021. Furthermore, ADUs don't involve the construction of new public stormwater infrastructure, and they disturb less than one acre of land.*

Q - Does the city review Accessory Dwelling Units applications for drainage impacts on the adjacent property?

A - *Yes, the applicant must meet with the Division of Planning before filing a permit application to construct an ADU. Planning will coordinate with the Division of Water Quality.*

Mr. Walker noted that the residential additions include new detached garages, additions to existing homes, enlarging driveways and replacing an existing house with a larger house.

Mr. Walker read the below questions regarding residential additions:

Q - Does the Stormwater Manual have requirements for Residential Additions?

A - *No, they don't involve the construction of new public stormwater infrastructure and they disturb less than one acre of land.*

Q - Are these projects considered redevelopment in the Stormwater Manual?

A - *No, redevelopment is defined in the Stormwater Manual as alterations of developed property that will disturb one acre or more of land. Furthermore, these projects only require the applicant to apply for a Building Permit, and they don't involve the construction of new public stormwater infrastructure.*

Q - Does the city review Building Permit applications or Land Disturbance Permit applications for potential drainage impacts on the adjacent property?

A- *The city reviews the permit application to ensure there are no encroachments onto any easement. If any easement appears to be encroached upon, the applicant may request an Encroachment Agreement, which is also reviewed by LFUCG staff before a recommendation to grant the encroachment is put before the UCC for approval.*

Questions and comments

Mr. Martin commented that there are restrictions on driveway sizes.

Jerry Weisenfluh asked that, with regard to the low number of Accessory Dwelling Unit applications does that signify the units are not being built. Mr. Taylor explained that there are a number of issues that may impact Accessory Dwelling Units. The policy that is in place stems from over 20 years of advocating for the National Gold Standard for Accessory Dwelling Units. In the beginning, the Ordinances start out pretty tight then as people get an understanding of how the regulations work they become more permissive. The staff is in the review process now trying to make the Ordinances more tolerant because of the restriction on only allowing conversions of existing detached structures which has become a big impediment. There are many existing detachable structures that people are interested in converting, but for a variety of reasons they cannot.

There are site constraints on lots, whether it is self-imposed or natural constraints, it can hinder a unit from being built. If you start to look at all the available single-family lots where ADUs could go under the Zoning Ordinance then you apply the topography, the available sewer, access, and so forth, and the number of lots starts to be eliminated, narrowing the pool down quite a bit.

The Zoning Ordinance starts with a lot of restrictions in place as a form of protection, but as time goes on and there is an understanding of how the ADU will work under the Consent Decree and the Capacity Assurance Program, the staff wants to be able to commit to Council these structures will not be placed in areas where it floods or there are infiltration or overflow issues and so forth.

It will take time to work out and tweak the Accessory Dwelling Units and determine how the city can incentivize bringing them here. It is extremely expensive to build one of these units.

Nominations for Expiring Watershed At-Large Seat

Ms. Sohner commented that there are two (2) people interested in the Boone Creek Watershed At-Large seat. Mr. Jim Griggs and Mr. Burgess Carey.

Mr. Griggs provided his background information to the audience. Ms. Sohner provided Mr. Carey's background information to the Committee.

Mr. Griggs excused himself from the room to allow discussions among the Committee members. There was no discussion.

Ms. Sohner confirmed from a show of hands the Stormwater Stakeholder Advisory Committee nominated Jim Griggs as the Boone Creek Watershed At-Large representative.

Potential Topics for Next Meeting

Ms. Nicholas briefly discussed the following potential topics for the next Stormwater Stakeholder Advisor Committee.

- North Elkhorn Watershed-Focused Monitoring Results on June 2
- Composite Drainage Plan Draft Updates on June 2
- West Hickman Watershed Management Plan Update
- Commerce Lexington - water quality management success stories

Mr. Turpin said that there has been talk about a litter or trash characterization or assessment through Keep Lexington Beautiful and asked if that could be presented to the Committee. Ms. Sohner replied that there will be a presentation on Keep Lexington Beautiful's Litter Index given at the next Corridors Commission on March 16th.

Scott Southall indicated that he could present on the Stormwater Quality Projects Incentive Grant for Lansdowne-Merrick Neighborhood Association Feasibility Study, which is a subset of West Hickman. The grant will be completed in June.

There is a Committee discussing updating the LFUCG Empower Lexington Plan. There are a number of components that have a nexus between energy and water. Ms. Nicholas asked if this would be a presentation of what comes out of the Committee or just discussing the topic. Mr. Southall replied to discussions at this point in time and suggested the September or December meeting.

Announcements

- March 8th – Sustainability Summit
- March 18th - 25th – Water Week
- March 18th – Reforest 5K (Briar Hill)
- March 21st – Incentive Grant Q&A (Zoom @ 6PM)

- March 22nd – Incentive Grant Q&A (Zoom @ 2PM)
- March 25th – Household Hazardous Waste Day
- April 15th – Reforest the Bluegrass
- April 22nd – Reforest at Home
- May 5th – Incentive Grant Class B Education & Class A Neighborhood Applications due (Now available)
- May 5th – Volunteer Sampler Training for Wolf Run

Mr. Weisenfluh welcomed the Committee to attend the Annual Kentucky River Watershed Watch at Midway University on March 4th. There will be presentations, and field exercises for the Stream Habitat Assessment Training.

Adjournment

The meeting concluded at 11:05 a.m.