

KENTUCKY-AMERICAN WATER COMPANY
CASE NO. 2023-00030
COMMISSION STAFF'S FIRST REQUEST FOR INFORMATION

Witness: Krista E. Citron

1. Refer to the Direct Testimony of Krista Citron (Citron Direct Testimony), page 8. Provide the actual per linear foot expense for main replacement for QIP Year 3.

Response:

Based on actual project costs for July 2022 through January 2023 and forecasted project costs for February 2023 through June 2023 as described at page 15 and Exhibit 6 of my Direct Testimony, the per linear foot expense for QIP Year 3 main replacements is, on average, \$331 per linear foot.

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2. Refer to the Citron Direct Testimony, page 9. Provide supporting documentation for the statement that material costs have increased and are anticipated to continue to increase, by as much as 12 percent to 50 percent for direct materials such as hydrants, service line, and pipe.

Response:

KAW routinely receives updates on market trends, lead times, pricing changes, and other information from the American Water Supply Chain group which relies upon sources such as the following:

<https://www.bls.gov/news.release/cpi.nr0.htm>

<https://www2.deloitte.com/us/en/pages/energy-and-resources/articles/chemical-industry-outlook.html>

<https://www.epa.gov/waterutilityresponse/chemical-plant-fire-and-potential-impact-supply-chain-disruptions>

<https://abcnews.go.com/Business/gdp-data-show-economic-health-amid-recession-fears/story?id=96660379>

Throughout the COVID-19 pandemic and still today, material costs and delivery times have continued to be impacted. Attached are a sampling of Supply Chain updates indicating the anticipated cost increases as well as delivery lead times. The attachment is confidential and is being filed pursuant to a Petition for Confidential Treatment.

ATTACHMENT BEING PROVIDED UNDER
CONFIDENTIAL SEAL

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3. Refer to the Citron Direct Testimony, pages 11-12. Provide a draft copy of the Paving Share Agreement.

Response:

The initial draft Paving Sharing Agreement provided to utility companies by LFUCG on July 14, 2022 is attached as KAW_R_PSCDR1_NUM003_050123_Attachment A. It should be noted that this is not the final version; all utility companies were provided with the opportunity to review and submit comments. KAW returned comments and the draft agreement is currently under review by LFUCG.

**MASTER AGREEMENT
UTILITY PAVING SHARE**

THIS MASTER AGREEMENT is made and entered into as of the ____ day of _____, 202_ (the “Effective Date”) by and between _____ [UTILITY NAME], having an address of _____ [UTILITY ADDRESS] (hereinafter referred to as [SHORT NAME]) and the **LEXINGTON-FAYETTE URBAN COUNTY GOVERNMENT**, an urban-county government pursuant to KRS Chapter 67A, located at 200 East Main Street, Lexington, KY 40507 (hereinafter referred to as “LFUCG”), collectively referred to as the “Parties.”

RECITALS

WHEREAS, LFUCG owns and maintains public rights-of-way under the authority of Chapter 17C of the Code of Ordinances of the Lexington-Fayette Urban County Government, which is incorporated by reference as if fully stated herein; and

WHEREAS, Chapter 17C of the Code of Ordinances requires that all activities occurring in the public rights-of-way shall be performed in compliance with all applicable laws, ordinances, rules, and regulations and requires each party engaged in activities in the public rights-of-way to obtain all necessary permits, licenses, and authority and to pay all fees required by Chapter 17C or by other applicable laws, rules, or regulations; and

WHEREAS, Chapter 17C of the Code requires that each party engaged in activities in the public rights-of-way to make all reasonable efforts to minimize the number of surface cuts made and to make reasonable efforts to coordinate surface cuts with LFUCG’s paving schedule, and if appropriate, to enter into joint arrangements with other parties to coordinate activities in the public rights-of-way; and

WHEREAS, Chapter 17C of the Code requires that any right-of-way that is disturbed or damaged during construction, excavation, installation, operation, maintenance, or repair of a facility within the right-of-way shall be repaired and restored by the party performing such activities in the public right-of-way; and

WHEREAS, _____ [UTILITY NAME] routinely performs activities to construct, excavate, install, operate, maintain, repair, and replace utility facilities located in the public right-of-way and is subject to the requirement to restore the public right-of-way; and

WHEREAS, LFUCG routinely maintains and improves the public right-of-way in accordance with a paving management plan and a paving schedule approved by LFUCG; and

WHEREAS, the parties to this Master Agreement mutually agree that the residents of Fayette County are best served with regard to activities in the public rights-of-way if such activities can be effectively coordinated by the parties and where a structure for the sharing of costs for final paving restoration of the public rights-of-way can be mutually agreed upon and administered by

LFUCG pursuant to a Master Agreement, in those specific situations where LFUCG’s proposed paving improvements pursuant to LFUCG’s paving schedule and the proposed work of _____ [UTILITY NAME] coincide in terms of the timing and location of intended utility work and LFUCG’s intended paving activity; and

WHEREAS, the parties desire to agree upon a structure for the sharing of the costs for final paving restoration, to be administered on a project-by-project basis, as determined to be appropriate by LFUCG in light of its pavement management plan and proposed paving schedule; and

WHEREAS, the parties have agreed that this agreement shall serve as a Master Agreement setting forth a structure for the sharing of the costs of final paving and for the coordination of paving activity associated with utility work in the public rights-of-way, and the parties now desire to reduce their agreement to writing.

NOW, THEREFORE, in consideration of the premises and the foregoing mutually agreed upon promises, conditions, and covenants hereinafter set forth, _____ [UTILITY NAME] and LFUCG hereby covenant and agree as follows:

(1) **INCORPORATION OF RECITALS.** The above recitals are incorporated herein as if fully set forth.

(2) **COST ESTIMATES AND COST ALLOCATION.** For any project for which LFUCG has determined that a paving cost share with _____ [UTILITY NAME] is appropriate, LFUCG shall provide an estimate of the total cost of final paving restoration in the public right-of-way to _____ [UTILITY NAME]. The estimated cost of final paving restoration shall be calculated in accordance with LFUCG’s unit price contract with its paving contractor based on then-applicable unit prices. LFUCG shall also provide a proposed percentage allocation to allocate the total estimated cost for final paving restoration between the parties. The allocation shall be calculated by LFUCG based on the proportion that each party’s equitable share of the final paving cost bears to the total work to be performed for the benefit of each party. In the event that a project involves work by more than one utility, LFUCG shall provide a proposed percentage allocation to allocate the total estimated cost for final restoration between LFUCG and all interested utilities based on each party’s equitable share of the final paving cost bears to the total work to be performed for the benefit of each utility, provided that each interested utility has agreed to a structure for the allocation via master agreement or otherwise.

Each party shall pay the actual costs of final paving as allocated by LFUCG on a percentage basis under the authority of this Master Agreement. If the total estimated cost of the final paving restoration changes, LFUCG shall provide prompt notice to _____ [UTILITY NAME] of the change in cost. If the proposed utility work changes, LFUCG shall be entitled to recalculate the percentage allocation to reflect material changes in the work. In no event shall either party be required to pay an amount in excess of the percentage allocation provided by LFUCG under the authority of this Master Agreement as applied to the total actual cost of the paving work, except by written modification to this Agreement approved by both parties.

(3) **BILLING.** All paving work in the public rights-of-way that is subject to an agreed-upon cost share under this Master Agreement shall be performed by LFUCG’s unit price paving contractor, who shall be required to bill LFUCG and _____ [UTILITY NAME] separately based on a percentage allocation that is to be calculated by LFUCG as set forth herein. The percentage allocation shall be determined by LFUCG prior to any work being performed and shall be provided by LFUCG to _____ [UTILITY NAME] and to LFUCG’s unit price paving contractor prior to the beginning of the work. Each party shall be entitled to receive a copy of the billings made to the other party by LFUCG’s unit price paving contractor. Each party shall separately pay their respective portion of the total costs to the paving contractor, and shall notify the other party of such payment in writing when payment has been made.

(4) **ADMINISTRATIVE FEE.** The parties recognize that the administration of paving work in the public right-of-way performed under the authority of this Master Agreement by LFUCG, including the tracking of costs, administrative oversight of the Master Agreement and LFUCG’s unit price paving contractor, and the calculation and allocation of costs between the parties, results in additional administrative burden incurred by LFUCG and reduces the administrative burden incurred by _____ [UTILITY NAME]. Therefore, in order to defray the administrative expense incurred by LFUCG in administering this agreement, the parties agree that LFUCG shall be entitled to assess and collect an administrative fee from _____ [UTILITY NAME] in an amount equal to 15% of the total billings made to _____ [UTILITY NAME] by the paving contractor performing such work under the authority of this Agreement. The administrative fee shall be billed once annually by LFUCG to _____ [UTILITY NAME] in an amount calculated by LFUCG based on invoices issued by the paving contractor(s) who performed work subject to a cost share under this Master Agreement during the previous year.

(5) **CONSTRUCTION APPROVALS; CHANGES IN THE WORK; CHANGE ORDERS.** Any and all work performed pursuant to this Master Agreement shall be approved by LFUCG. _____ [UTILITY NAME] shall be responsible for all surface cuts and for maintenance of all temporary pavement and base preparation of the public right-of-way until such time as final paving restoration is completed by LFUCG, by and through its unit price paving contractor. _____ [UTILITY NAME] hereby agrees to submit any changes or modifications to the planned utility work to LFUCG’s Division of Engineering for consideration and approval. LFUCG reserves the right to recalculate the percentage allocation of the cost share based on material changes in the proposed utility work. LFUCG further retains the right in its sole discretion to demand that paving contractors or subcontractors immediately cease any portion of, or all further work undertaken within the right of way or in the scope of work described in this agreement. Any authorized services performed, materials used or installed to the satisfaction of LFUCG before the demand to cease any and all further work shall be paid by each party in accordance with the terms of this Agreement and the allocation made thereto. _____ [UTILITY NAME] shall notify LFUCG in writing, and obtain their approval, prior to any change to construction plans for the site or service area that will affect the shared project costs.

(6) **CHAPTER 17C OF THE CODE OF ORDINANCES INCORPORATED BY REFERENCE.** The parties hereto acknowledge and agree that nothing herein shall alter, amend, reduce, or eliminate any requirements set forth in Chapter 17C of the Code of Ordinances, and that Chapter 17C of the Code of Ordinances be and hereby is incorporated herein by reference as if fully stated herein. In the event of a conflict between Chapter 17C of the Code and this Agreement, the provisions of Chapter 17C shall control. Unless specifically waived herein, all LFUCG ordinances, manuals, rules, regulations, or similar requirements of LFUCG applicable to the subject matter of this Master Agreement shall control.

(7) **WARRANTY.** _____ [UTILITY NAME] acknowledges and agrees that Chapter 17C of the Code of Ordinances makes the party who disturbs or damages the public rights-of-way during construction, excavation, installation, operation, maintenance, or repair of a facility responsible for the repair and restoration of the public rights-of-way following completion of the activities that cause the disturbance or damage. _____ [UTILITY NAME] acknowledges and agrees that, in the event that any final paving restoration performed under the authority of this agreement and which is subject to a cost share under this agreement fails with regard to pavement condition or surfacing due to a failure in the base work performed by the utility and/or in the event of any damage or deterioration to the final paved surface that occurs due to a failure in the base work performed by the utility, _____ [UTILITY NAME] remains responsible for such damage or deterioration, notwithstanding LFUCG’s participation in the final restoration of the public right-of-way by and through a sharing of costs under this Master Agreement. _____ [UTILITY NAME] remains responsible for complying with all requirements of Chapter 17C of the Code of Ordinances and other applicable law. This expressly includes, but is not limited to, the establishment of a performance bond in favor of LFUCG issued by an entity subject to jurisdiction and venue in Fayette County, Kentucky, in an amount to be determined by LFUCG, which shall be in effect and shall cover all surface cuts made by or on behalf of that party for a period of two (2) years after the final inspection and approval of the surface cut by LFUCG; in lieu of a performance bond, LFUCG may allow _____ [UTILITY NAME] to deposit with LFUCG an amount appropriate to cover LFUCG’s cost of repairing the surface cut, to be held for a period of two (2) years after the final inspection and approval of the surface cut by LFUCG.

(8) **INSURANCE.** _____ [UTILITY NAME] shall procure and maintain insurance coverage at levels approved by LFUCG at all times during the period of this Master Agreement, and shall provide LFUCG with a certificate of insurance evidencing the insurance policy required by this section. _____ [UTILITY NAME] shall provide at least thirty (30) days advance written notice via certified mail, return receipt requested, in the event that any required insurance coverages are canceled or not renewed.

(9) **TERM.** The initial term of this Master Agreement shall be for one (1) year from the date of execution. The agreement may be renewed for two (2) additional one (1) year terms by mutual agreement of the parties.

(10) **TERMINATION.** _____ [UTILITY NAME] may only terminate this Master Agreement due to LFUCG’s material breach of the terms hereof which causes _____ [UTILITY NAME] to be unable to perform its duties or responsibilities under this Agreement, and only upon thirty (30) days written advance notice to LFUCG by registered or certified mail. LFUCG shall have the right to terminate and cancel this Agreement at any time upon thirty (30) days written notice served on _____ [UTILITY NAME] by registered or certified mail.

(11) **DEFAULT.** No party shall be in default under this Agreement unless and until the non-defaulting party shall have given the defaulting party written notice of such default and the defaulting party shall have failed to cure the default within thirty (30) days after written receipt of such notice. Upon the failure by the defaulting party to timely cure any default after notice thereof from the non-defaulting party, the non-defaulting party shall have the right to terminate the Agreement and pursue an appropriate remedy.

(12) **INDEMNIFICATION AND HOLD HARMLESS.** It is understood and agreed by the parties that, to the extent permitted by law, _____ [UTILITY NAME] hereby assumes the entire responsibility and liability for any and all damages to persons or property caused by or resulting from or arising out of any act or omission on the part of _____ [UTILITY NAME], including but not limited to any act or omission related to all surface cuts made by the utility and/or temporary pavement and base preparation of the public right-of-way and/or the provision of services and the performance or failure to perform any work required thereby. _____ [UTILITY NAME] shall indemnify, save, hold harmless, and defend LFUCG and its elected and appointed officials, employees, agents, volunteers, and successors in interest from and against any and all liability, damages, and losses, including but not limited to, demands, claims, causes of action, judgments, penalties, fines, liens, costs, expenses, interest, defense costs, and reasonable attorney’s fees that are in any way incidental to or connect with, or that arise or are alleged to have arisen, directly or indirectly, from or by the performance or breach of this Master Agreement and/or the provision of goods or services by the paving contractor under the authority of this Agreement, provided that (a) it is attributable to personal injury, bodily injury, sickness, or death, or to injury to or destruction of property (including the loss of use resulting therefrom), or to or from the negligent acts, errors or omissions or willful misconduct of _____ [UTILITY NAME]; and (b) not caused solely by the active negligence or willful misconduct of LFUCG. These provisions shall in no way be limited by any financial responsibility or insurance requirements, and shall survive any termination of this Master Agreement.

(13) **BINDING EFFECT.** This Master Agreement shall be binding upon, and shall inure to the benefit of, the executors, heirs, successors, and assigns of the parties hereto, and no party shall assign, sublet, or transfer its interests in this Master Agreement without the written consent of the other parties.

(14) **NON-WAIVER.** The failure or delay on the part of _____ [UTILITY NAME] or LFUCG to exercise any right, power or privilege hereunder shall not operate as a waiver thereof.

(15) **AMENDMENTS.** This Master Agreement may only be amended by a written agreement of all the parties hereto. No revision of this Master Agreement shall be valid unless made in writing and signed by an officer of _____ [UTILITY NAME] and an authorized signatory on behalf of LFUCG.

(16) **GOVERNING LAW; CHOICE OF FORUM.** The laws of the Commonwealth of Kentucky shall govern this Master Agreement. This Master Agreement shall be interpreted, applied and enforced according to the fair meaning of its terms and not be construed strictly in favor of or against either party, regardless of which party may have drafted any of its provisions. Any action brought against _____ [UTILITY NAME] and/or LFUCG on this Master Agreement, including but not limited to actions either for breach of the agreement or for enforcement of the agreement, shall be brought in a court of appropriate jurisdiction in Fayette County, Kentucky.

(17) **SEVERABILITY.** In the event that any one or more of the provisions contained herein shall, for any reason, be held to be invalid, illegal or unenforceable in any respect, such invalidity, illegality or unenforceability shall not affect any other provisions of this Master Agreement.

(18) **NO THIRD PARTY RIGHTS.** Nothing in this Master Agreement, expressed or implied, is intended or shall be construed to confer upon or give to any person other than the parties hereto any right, remedy, or claim under or by reason of such agreement or covenant, condition, or stipulation herein contained. Nothing expressed or mentioned in or to be implied from this Master Agreement is intended or shall be construed to give to any person other than the parties hereto any legal or equitable right, remedy, or claim under or in respect to this Master Agreement.

(19) **NOTICES.** All notices, consents, demands, or other communications required or permitted to be given or made hereunder shall be sufficiently given or made if given in writing, mailed by reliable overnight courier or by Certified Mail, return receipt, in a sealed envelope, postage prepaid, addressed to the following addresses:

LFUCG: Urban County Engineer, LFUCG Division of Engineering
 Lexington-Fayette Urban County Government
 101 E Vine St.
 Lexington, KY 40507

With
copies to: Commissioner of Law
 Lexington-Fayette Urban County Government
 200 East Main Street
 Lexington, KY 40507

UTILITY: [UTILITY NAME]
 [UTILITY ADDRESS]

_____ [UTILITY NAME] or LFUCG may from time to time designate any other address for this purpose by written notice to the other Party.

(20) This Master Agreement may be executed in duplicate counterparts, each of which shall be deemed an original. In the event that any signature is delivered by facsimile or by email of a “.pdf” format data file, such signature shall create a valid and binding obligation of such party with the same force and effect as if such facsimile or “.pdf” signature page were an original thereof.

(21) The execution, delivery and performance of this Master Agreement and any documents relating hereto have been duly authorized by all necessary parties, and this Master Agreement is enforceable in accordance with its terms. _____ [UTILITY NAME] and LFUCG have full power and authority to enter into this Master Agreement, to execute and deliver all instruments and documents referred to herein and to consummate the transactions contemplated hereby.

IN WITNESS WHEREOF, the parties by their authorized representative have executed this Master Agreement as of the Effective Date.

**LEXINGTON-FAYETTE URBAN
COUNTY GOVERNMENT**

BY: _____
Linda Gorton, Mayor

ATTEST:

Clerk of the Urban County Council

[UTILITY NAME]

BY: _____

Name: _____

Title: _____

ACKNOWLEDGMENT

STATE OF)
)
COUNTY OF FAYETTE)

On the ____ day of _____, 202_, before me personally appeared _____, and acknowledged under oath that he/she is the authorized representative of _____ [UTILITY NAME], and as such was authorized to execute this Master Agreement.

My Commission Expires: _____

NOTARY PUBLIC

KENTUCKY-AMERICAN WATER COMPANY
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Witness: Krista E. Citron

4. Refer to the Citron Direct Testimony, pages 14-15.
 - a. Provide the estimated cost impact Kentucky-American's Paving Pilot has had on the cost of QIP 2 and QIP 3 projects.
 - b. Explain the reason for executing a second contract with a paving and restoration contractor. Does this contradict the efficiency cited in the reason for the pilot as having a single point of contact?
 - c. Identify the second paving contractor which Kentucky-American has executed an executed an agreement with.
 - d. Provide copies of the executed the paving contracts for both contractors, the request for proposals (RFP) that were issued by Kentucky-American, and all responses that Kentucky-American received that were referenced in Citron Direct Testimony, pages 14-15.

Response:

a. By contracting with a paving company directly, KAW is saving a contractor mark-up percentage that would typically be charged by a construction firm for managing a sub-contractor. When the construction firms were responsible for paving, their costs could vary from bid to bid. By executing a Master Service Agreement (MSA) with a paving company, KAW is able to negotiate a set price for paving services, which in turn helps with cost estimating at the outset of a project. Additionally, KAW's construction firms were not always able to receive immediate response from their contracted paving companies, regularly leading to the use of temporary cold patch, sometimes through an entire winter until the next paving season. Having a dedicated paving company has essentially eliminated these wait times for paving, as well as the need for temporary cold patch. Overall, KAW has seen a more predictable paving cost on QIP projects, although the extents of the required restoration are still greater than they were at the time the QIP began.

A range of contractor bid prices for 6" concrete base, 2" asphalt pavement, and temporary cold patch is shown below compared to the set pricing for the same items from KAW's primary paving company. The redacted information is confidential and is being filed pursuant to a Petition for Confidential Treatment.

Item	Unit	Contractor Bid Prices	Paving Company
6" Concrete Base	SF	\$3-\$12	\$ [REDACTED]

2" Asphalt Pavement	SF	\$2-\$8	\$ [REDACTED]
Temporary Cold Patch	SF	\$3-\$5	
Contractor Mark-Up		5-15%	N/A

b. The second paving contractor was brought on to provide *supplementary* assistance with KAW paving projects. Tri-State Paving, KAW's primary QIP paving contractor, does not have unlimited capacity. Due to the amount of projects that require paving during the asphalt plant season (roughly end of March through mid-to-end of November), Tri-State Paving is occasionally unable to take on additional projects. When this occurs, KAW utilizes HG Wilson, the secondary QIP paving contractor. Both of these paving companies are contracted directly with KAW. In the past, paving contractors were hired by and contracted to KAW's construction contractors. By contracting with them directly, KAW has reduced the number of parties involved in paving discussions with LFUCG. Even with two paving companies involved, the number of contacts that LFUCG would need to coordinate with has decreased. Furthermore, the creation of the construction project manager position at KAW provides efficiency in channeling communications about construction and paving. Therefore, no, the referenced efficiency is not affected.

c. HG Wilson is the second paving contractor that KAW has brought on to assist with QIP paving. Historically, HG Wilson provided paving services for KAW's field operations group, responding to main breaks, unscheduled roadway cuts, and other as-needed restoration work. Their MSA allowed for the expansion of their role with paving and restoration projects for KAW.

d. The executed contracts for Tri-State Paving and HG Wilson are included in KAW_R_PSCDR1_NUM004_050123_Attachment A and KAW_R_PSCDR1_NUM004_050123_Attachment B, respectively. KAW did not issue an RFP for paving services. The contracts are confidential and are being filed pursuant to a Petition for Confidential Treatment.

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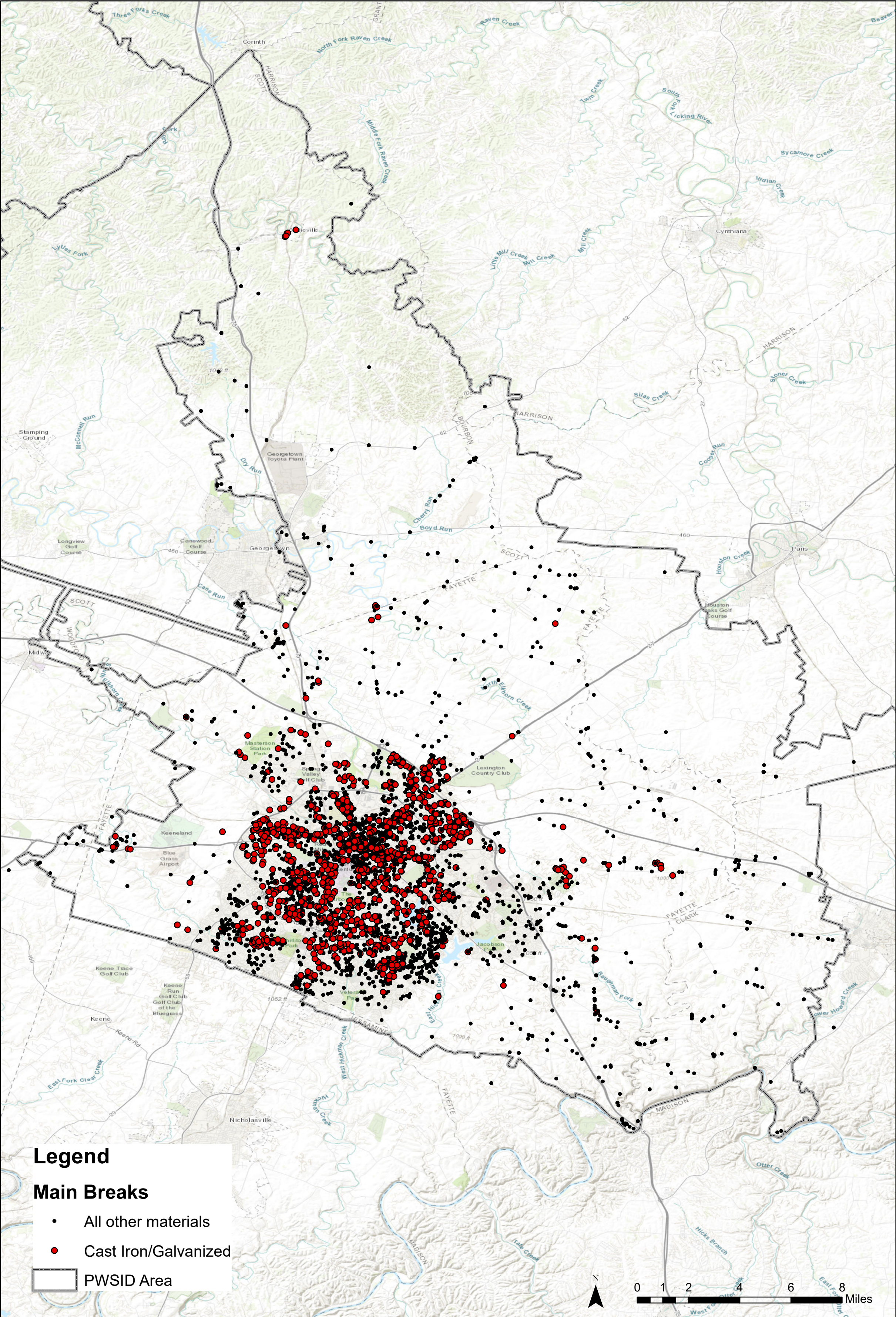
Witness: Krista E. Citron

5. Refer to Case No. 2018-00358, the Direct Testimony of Brent O'Neill (O'Neill Direct Testimony) Exhibit 2, at 17² and to the Citron Direct Testimony, QIP Year 4 Project List. In Case No. 2018-00358, Kentucky-American identified main breaks that occurred during the 2012-2015 period in the context of a map of Kentucky-American's cast iron and galvanized steel mains.
 - a. Provide the number of main breaks that occurred during the 2012-2015 period that are contained on Kentucky-American's map in the referenced Exhibit 2 at 17.
 - b. Provide a comparison of the total number of main breaks Kentucky-American incurred during the ten year period referenced in the final column in QIP Year 4 Project List to the number of main breaks listed on the QIP Year 4 Project List.
 - c. Provide an updated and legible main break map showing the location of the total main breaks Kentucky-American incurred during the ten-year period referenced in Item 7.b, in relation to the remaining cast iron and galvanized steel mains that are in Kentucky-American's system. Also, in the updated map, identify the main breaks that were reported in Kentucky-American's QIP Year 4 Project List.

Response:

- a. During the 2012-2015 period referenced in Exhibit 2, there were 1,544 documented main breaks.
- b. During the ten-year period referenced (2012-2022), there were 3,128 documented main breaks. The total number of main breaks for QIP Year 4 projects during that same time period was 50.
- c. Refer to KAW_R_PSCDR1_NUM005_050123_Attachment A. This attachment shows a larger map of KAW's system, including the Owenton service area, as well as a map of just the Lexington-area system and main breaks. Breaks on cast iron/galvanized steel mains are the larger, red dots. Those main breaks that also appear in KAW's QIP Year 4 Project List are shown in yellow.

² Case No. 2018-00358, *Electronic Application of Kentucky-American Water Company for an Adjustment of Rates* (filed Nov. 28, 2018), Direct Testimony of Brent E. O'Neill, Exhibit 2 at 17.

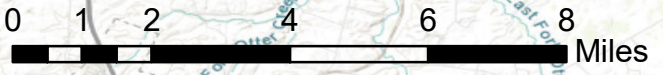


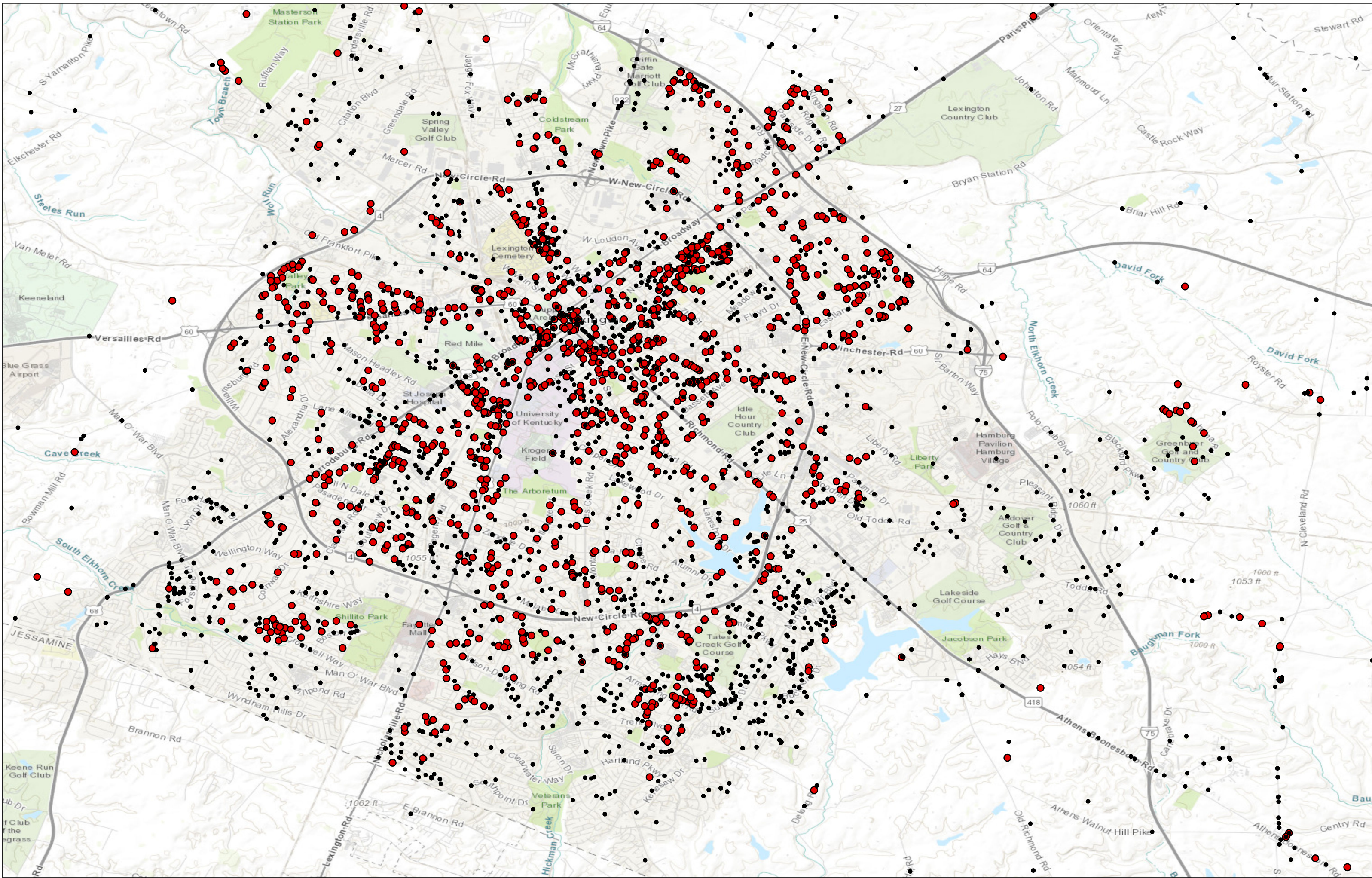
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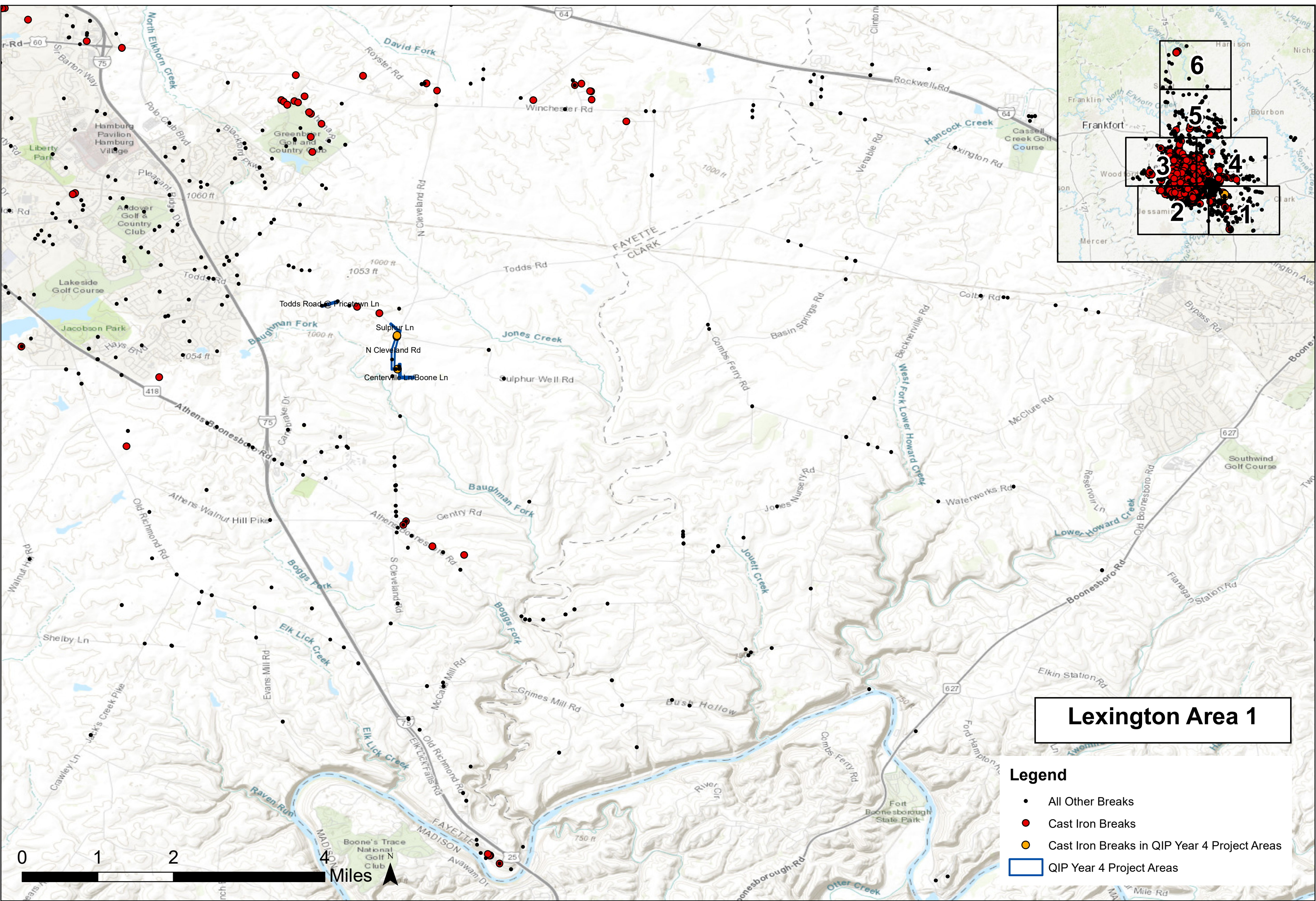
Main Breaks

- All other materials
- Cast Iron/Galvanized

□ PWSID Area







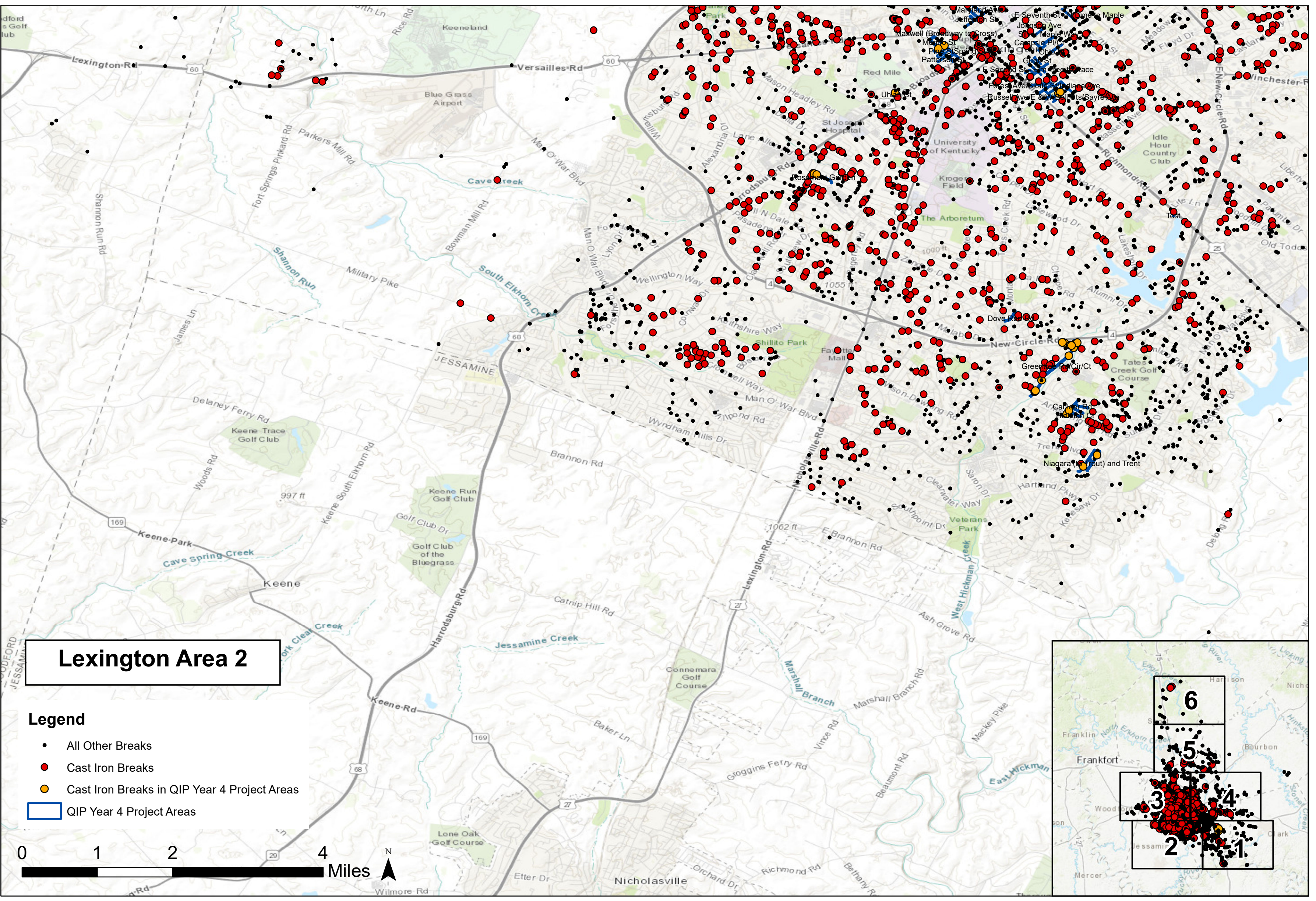
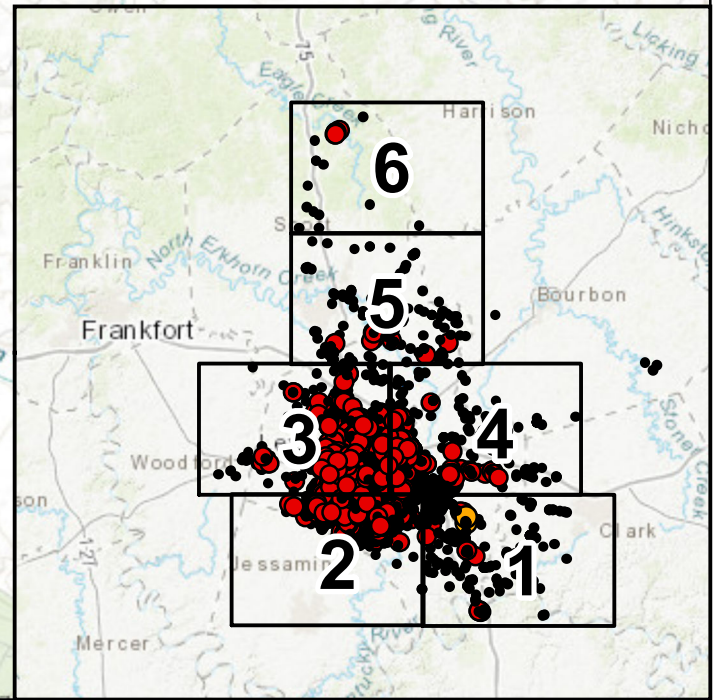
Lexington Area 1

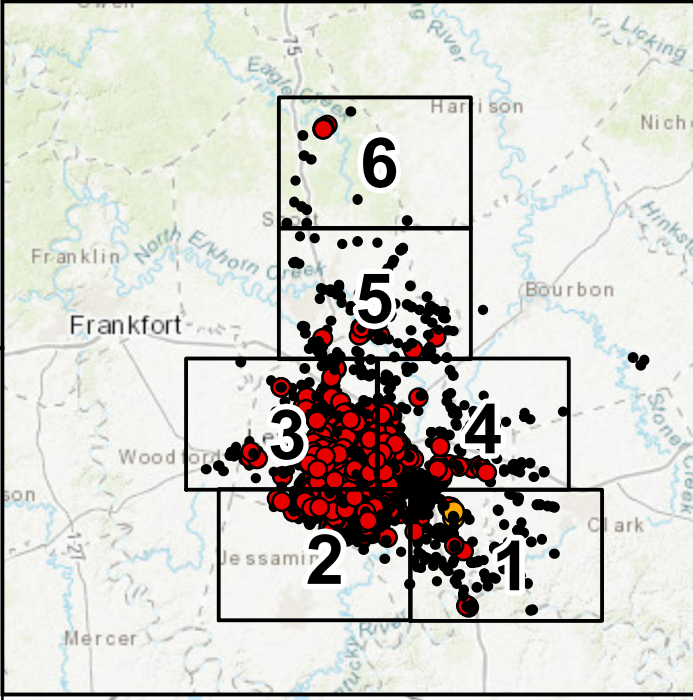
- Legend**
- All Other Breaks
 - Cast Iron Breaks
 - Cast Iron Breaks in QIP Year 4 Project Areas
 - ▭ QIP Year 4 Project Areas



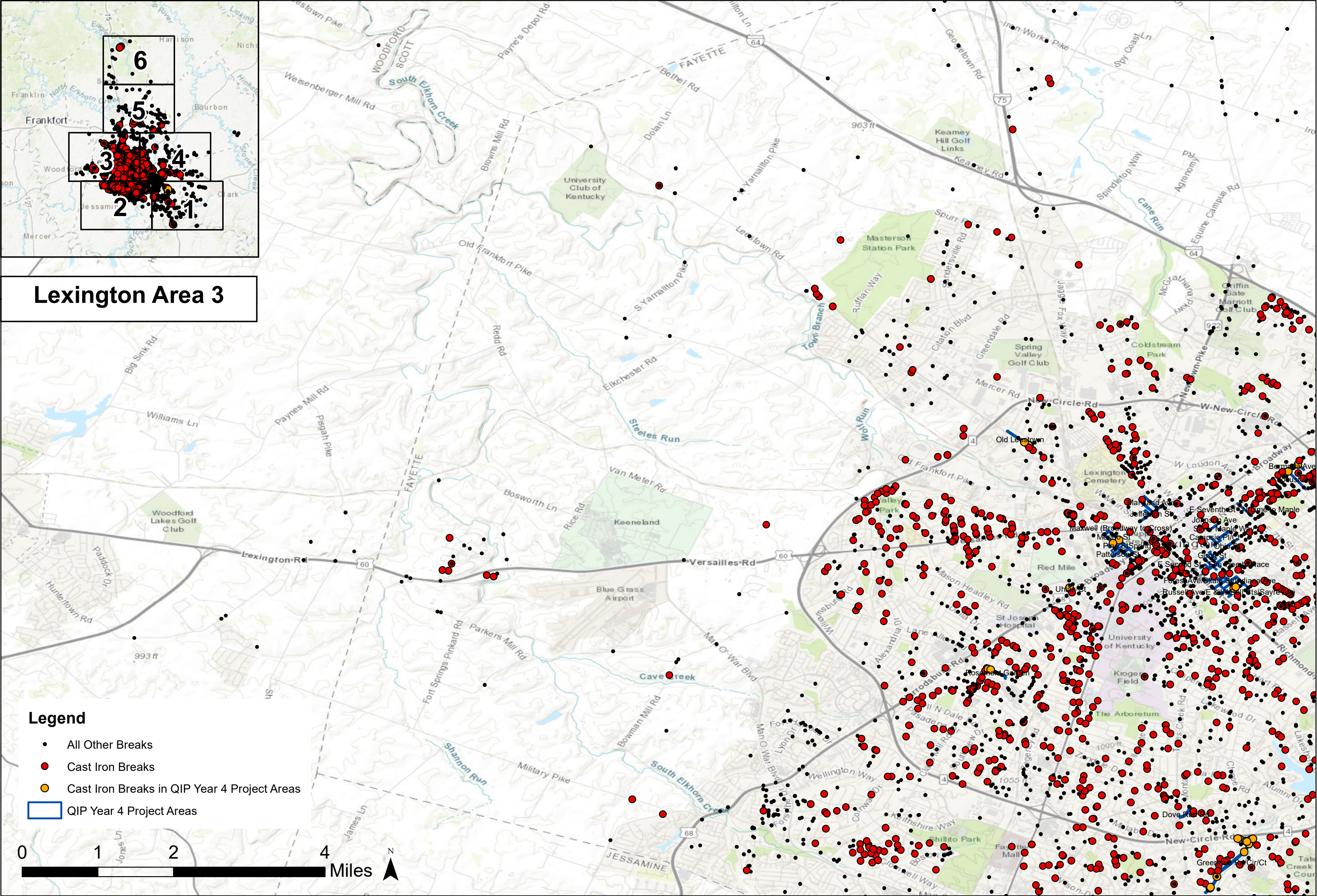
Lexington Area 2

- Legend**
- All Other Breaks
 - Cast Iron Breaks
 - Cast Iron Breaks in QIP Year 4 Project Areas
 - QIP Year 4 Project Areas



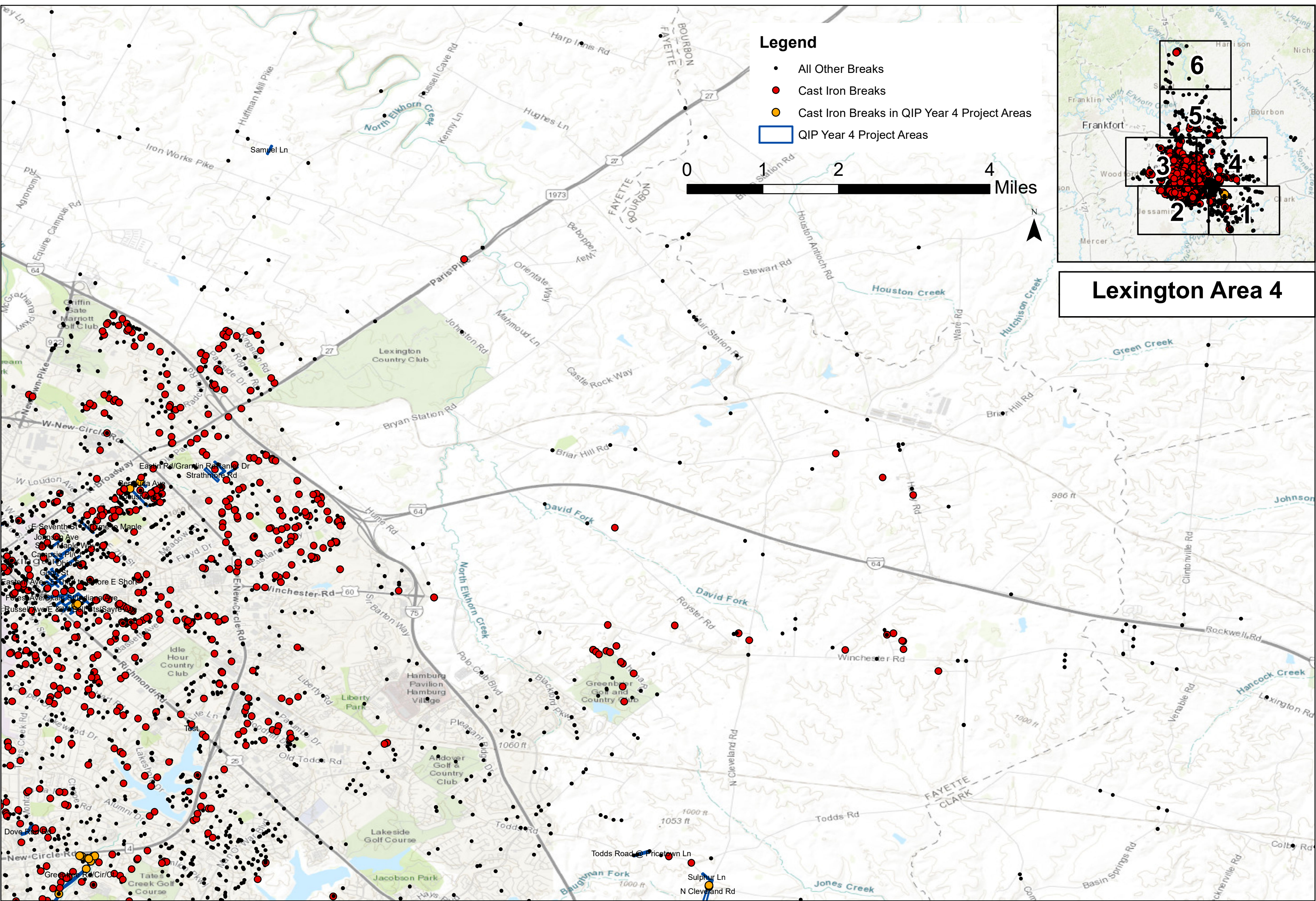


Lexington Area 3



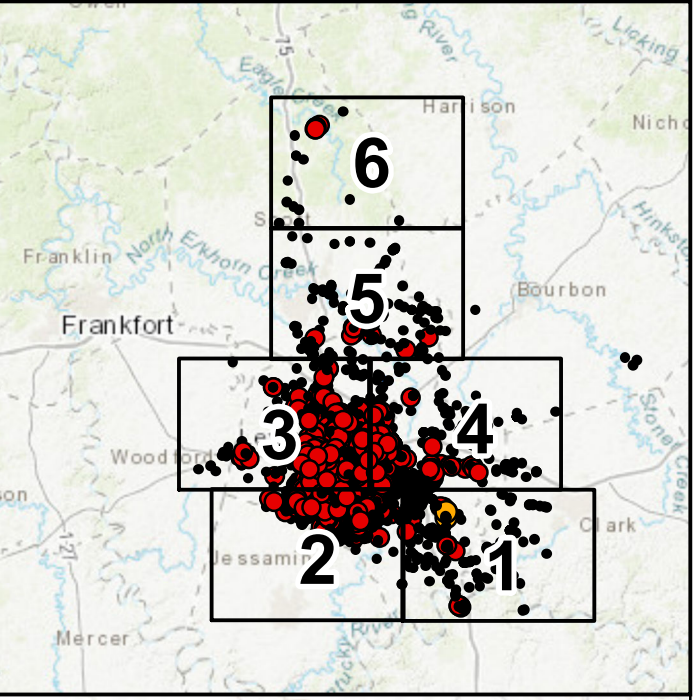
- Legend**
- All Other Breaks
 - Cast Iron Breaks
 - Cast Iron Breaks in QIP Year 4 Project Areas
 - QIP Year 4 Project Areas





Legend

- All Other Breaks
- Cast Iron Breaks
- Cast Iron Breaks in QIP Year 4 Project Areas
- QIP Year 4 Project Areas

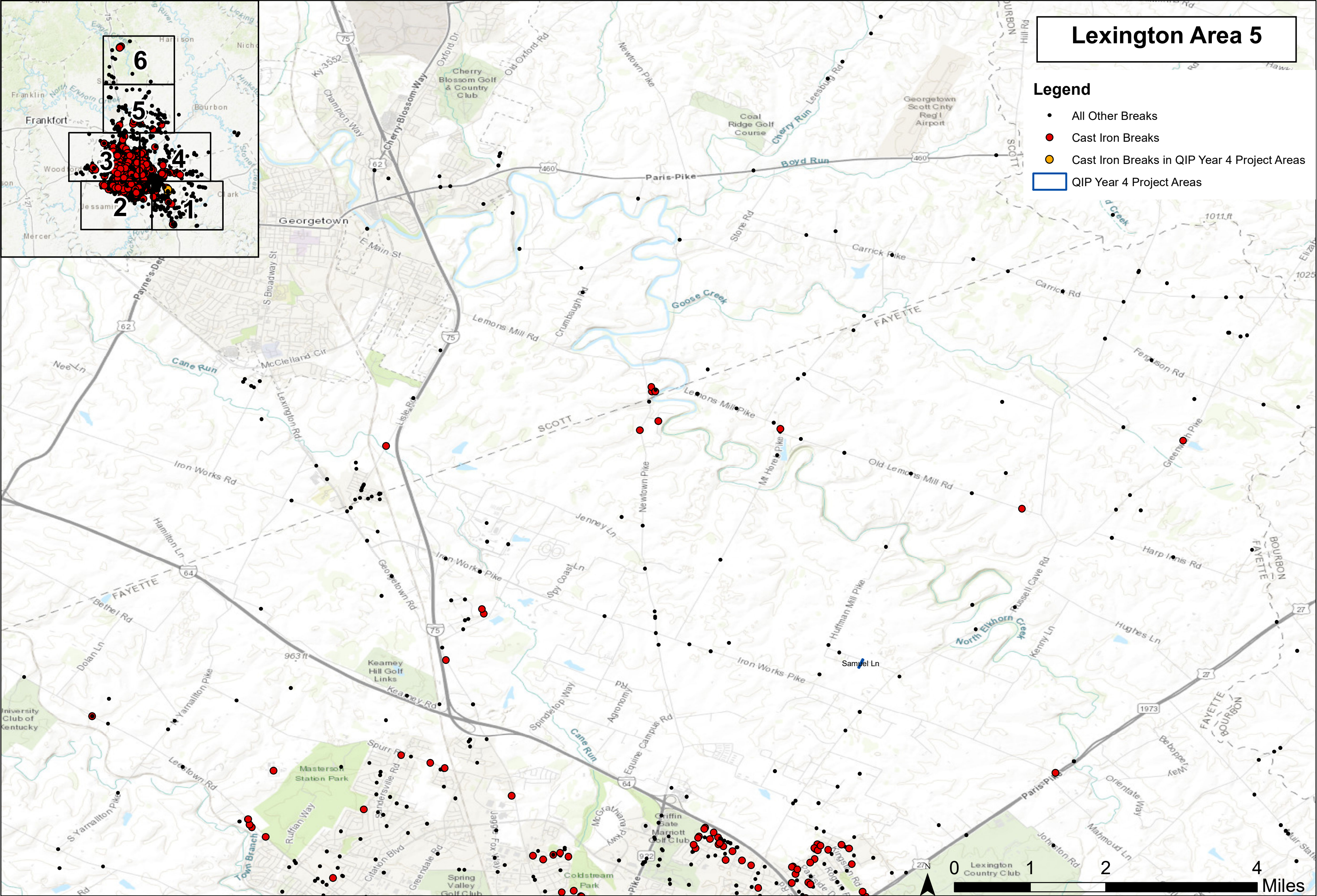
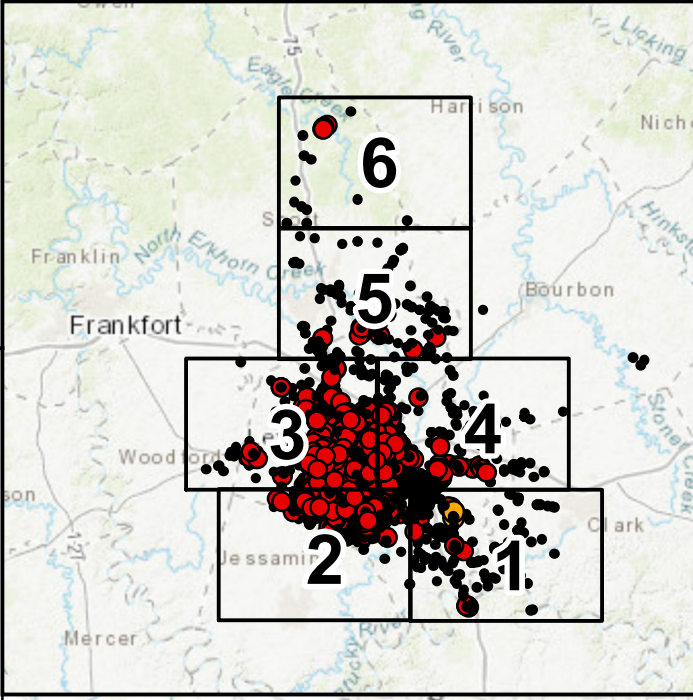


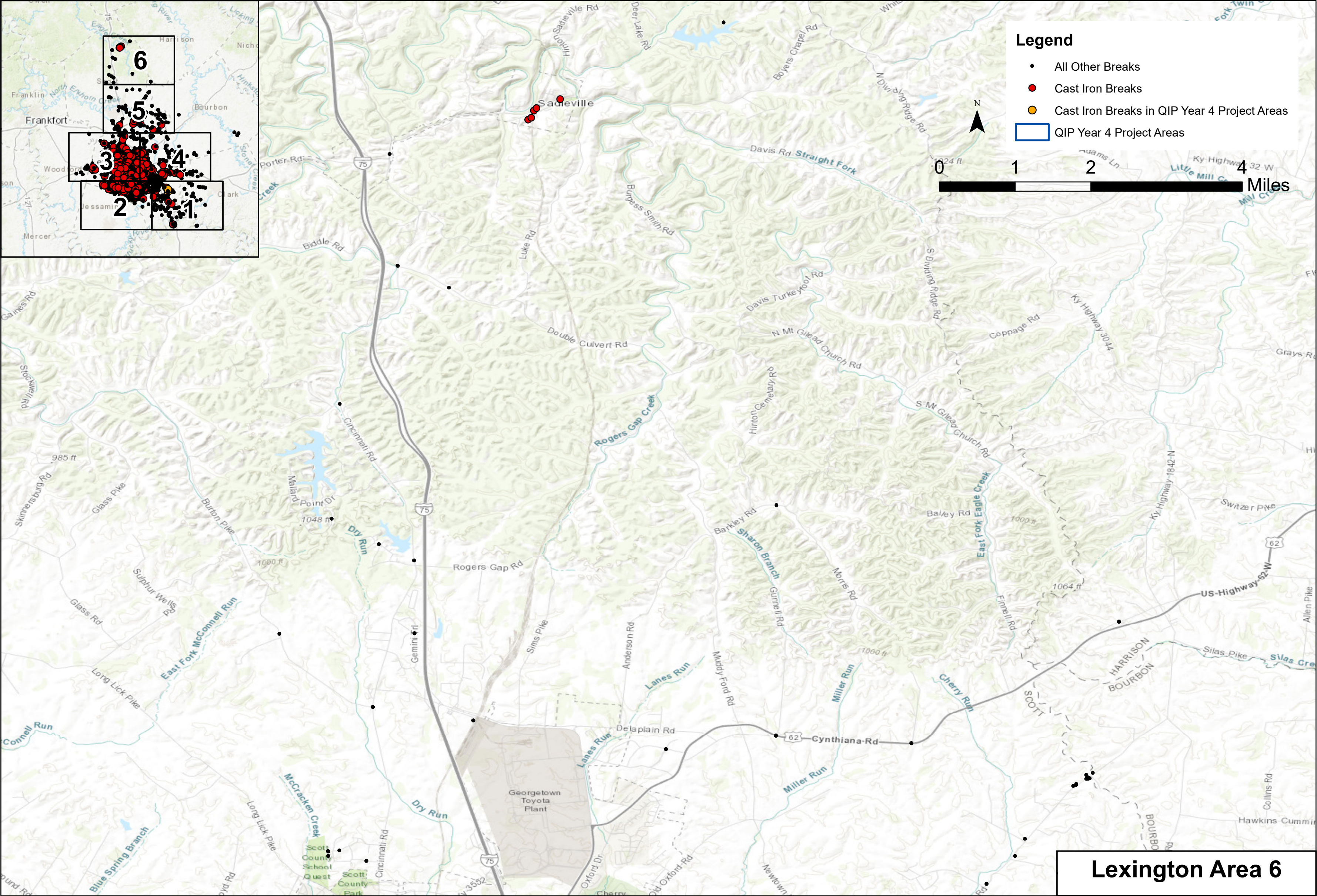
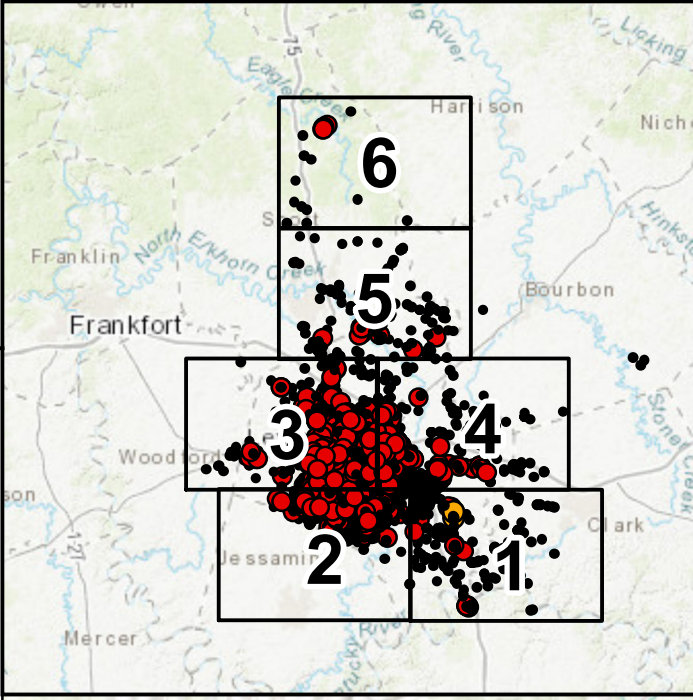
Lexington Area 4

Lexington Area 5

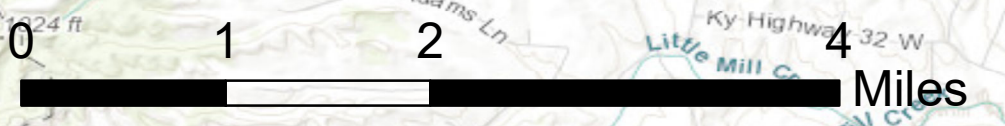
Legend

- All Other Breaks
- Cast Iron Breaks
- Cast Iron Breaks in QIP Year 4 Project Areas
- QIP Year 4 Project Areas





- Legend**
- All Other Breaks
 - Cast Iron Breaks
 - Cast Iron Breaks in QIP Year 4 Project Areas
 - QIP Year 4 Project Areas



Lexington Area 6

KENTUCKY-AMERICAN WATER COMPANY
CASE NO. 2023-00030
COMMISSION STAFF'S FIRST REQUEST FOR INFORMATION

Witness: Krista E. Citron

6. Refer to Case No. 2018-00358, O'Neill Direct Testimony, Exhibit 2, Appendix. For each project listed for QIP years 1-5, provide a schedule of the information below in the provided format:

<u>Project No.</u>	<u>Project Location</u>	<u>Original QIP Year</u>	<u>QIP Year Completed/Revised</u>	<u>Original Estimated Cost</u>	<u>Revised/Actual Cost</u>
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Response:

Refer to KAW_R_PSCDR1_NUM006_050123_Attachment A for the requested schedule. Please note the addition of the three columns at the right side of the schedule.

Another note on the O'Neill Exhibit 2 cost figures: in 2016 when this exhibit was created, final paving and restoration requirements were not being enforced by LFUCG to the same extent as they are currently. At the time these projects were estimated, final paving and restoration would have only included the trench width, which is typically 4-5 feet; current QIP project estimates use greater extents of paving and restoration for cost estimating based on more recent paving and restoration experience.

KAW_R_PSCDR1_NUM006_050123_Attachment A

Project #	Project Location	Original QIP Year	QIP Year Completed/Revised	2017 Original Estimated Cost	2023 Revised/Actual/Proposed Cost	2017 Estimated Main to be Replaced (ft)	2023 Revised/Actual Main Replaced (ft)	Comments
1	600 Block Sayre Avenue	1	4	\$31,800	\$338,400	212	1,071	2023 revised cost for Sayre has been prorated from overall Russell Ave project costs
2	900 Block Whitney Ave	1	2	\$154,500	\$1,260,722	1,030	1,934	
3	200 Block Perry St	1		\$69,900		466		
4	1000 Block Kastle Rd	1		\$76,800		512		
5	1200 Block Embry Ave	1		\$80,400		536		
6	200 Block Spruce St	1		\$93,600		624		
7	200 Block Hamilton Park	1	2	\$146,700	\$890,520	978	1,439	2023 revised cost and linear footages for Hamilton have been prorated from overall Westgate/Hamilton project costs
8	300 Block Gunn St	1	4	\$27,600	\$172,843	184	488	
9	100 Block Shawnee Pl	1		\$85,200		568		
10	200 Block Warnock Street	1		\$73,800		492		
11	600 Orchard Ave	1		\$57,000		380		
12	100 Block Avon Ave 100 Block Burnett Ave	1	1	\$201,000	\$756,729	1,340	2,640	2023 revised cost and linear footages for Avon/Burnett have been prorated from
13	1400 Block Camden Ave	1	3	\$162,300	\$177,347	515	550	
14	100 Block Wabash Dr 1800 Block Pensacola Dr 200 Block Lackawanna Rd 180 Wabash Dr 140 Wabash Dr	1	N/A	\$474,000	N/A	3,160	N/A	Completed outside of QIP
16	200 and 200 Block Lincoln Ave	1		\$589,200		2,928		
17	200 to 400 Blocks of Preston Ave	1		\$367,800		2,452		
18	300 Block Richmond Ave 200 Block White Ave	1	2	\$122,100	\$117,585	814	452	2023 revised cost and linear footages for Richmond/White have been prorated
19	300 Block Pennsylvania Ct	1		\$213,300		1,422		
20	300 Block Strathmore Rd	1	4	\$215,400	\$306,794	1,436	970	
21	100 Block Garrett Ave	1	N/A	\$145,200	N/A	968	N/A	Completed outside of QIP
22	200 Block Garrett Ave	1	N/A	\$226,200	N/A	1,508	N/A	Completed outside of QIP
23	300 Block N Picadome Park	1		\$247,200		1,648		
24	600 Block Cooper Dr	1		\$32,700		218		
25	1300 Block Willowlawn Ave	1		\$65,700		438		
26	400 Block Uhlan Ct	1	4	\$115,200	\$134,902	768	390	

KAW_R_PSCDR1_NUM006_050123_Attachment A

Project #	Project Location	Original QIP Year	QIP Year Completed/Revised	2017 Original Estimated Cost	2023 Revised/Actual/Proposed Cost	2017 Estimated Main to be Replaced (ft)	2023 Revised/Actual Main Replaced (ft)	Comments
27	100 Delmont Dr	1	1	\$157,800	\$642,973	1,052	2,167	2023 revised cost and linear footages for Delmont have been prorated from overall Versailles Rd Phase I project costs
28	200 Block E Vista St	1		\$189,000		1,260		
29	200 Block W Vista St	1		\$180,600		1,204		
30	100 Block E Vista St	1		\$225,300		1,502		
31	400 Block Morrison Ave	1		\$91,200		608		
32	200 Block Linwood Dr	1		\$142,200		948		
33	500 Block McCubbing Dr	1		\$343,500		2,290		
34	100 Block Sparks Rd	1		\$353,700		2,358		
35	600 Block Lagonda Ave	1		\$297,000		1,980		
36	700 Block Appletree Ln	1	2	\$147,000	\$232,533	980	491	2023 revised cost and linear footages have been prorated from overall Clays Mill Rd project costs
37	1600 Block Clayton Ave	1	2	\$246,600	\$496,344	1,644	803	
1	1600 Block Courtney Ave	2	2	\$223,500	see Project 2 below	1,490	see Project 2 below	
2	Emery Ct	2	2	\$308,700	\$694,378	2,058	1,549	
	1600 Block Courtney Ave							
3	600 Block Blue Ash Dr	2	2	\$141,000	\$199,273	940	697	
4	200 Block Koster Dr	2		\$279,000		1,860		
5	200 Block Norway St	2		\$255,300		1,702		
6	100 Block Halls Lane	2		\$243,900		1,626		
7	Lone Oak Dr	2	3	\$520,200	\$382,367	3,468	1,750	Pending final paving & restoration
8	200 Block Rainbow Rd	2	3	\$226,200	\$262,131	1,508	890	
	200 Block Derby Dr							
	2000 Block Rebel Rd							
9	4800 Boone Ln	2	4	\$564,300	\$489,097	3,762	1,865	Includes Centerville Ln
10	1100 N Cleveland Rd	2	4	\$803,400	\$210,106	5,356	2,620	
11	5400 Block Briar Hill Rd	2		\$642,000		4,280		
12	4400 Block Haley Rd	2		\$7,500		50		
13	4600 Block Todds Rd	2	4	\$524,400	\$254,571	3,496	850	Section near Pricetown Ln only
14	3500 Block Rolling Hills Ct	2		\$91,500		610		
15	5000 Block Sulphur Ln	2	4	\$219,300	\$219,231	1,462	730	
16	5200 Block Winchester Rd	2		\$813,450		5,423		
17	5400 Block Winchester Rd	2		\$34,500		230		
18	1900 Block Beacon Hill Rd	2		\$236,400		1,576		
19	3100 Block Breckenwood Dr	2		\$53,400		356		
20	Lamont Ct	2		\$33,900		226		

KAW_R_PSCDR1_NUM006_050123_Attachment A

Project #	Project Location	Original QIP Year	QIP Year Completed/Revised	2017 Original Estimated Cost	2023 Revised/Actual/Proposed Cost	2017 Estimated Main to be Replaced (ft)	2023 Revised/Actual Main Replaced (ft)	Comments
21	700 Block Landsdowne Cir	2		\$47,100		314		
22	3500 Maddox Ln	2		\$409,800		2,732		
1	100 Block New Zion Rd	3		\$345,300		2,302		
2	Samuel Ln	3	4	\$173,400	\$168,046	1,156	575	
3	Tillybrook Ct	3		\$93,600		624		
4	3200 Block Raven Circle	3		\$54,000		360		
5	Malabu Ct	3	3	\$233,400	\$271,987	1,556	900	
	Hunter Circle							
	Heather Ct							
	300 Block Belvoir Dr							
6	200 Block Bradford Cir	3		\$52,800		352		
7	Shirlee Ct	3		\$55,800		372		
8	Old Dobbin Rd	3		\$72,300		482		
9	Delmont Ct	3	1	\$25,200	\$60,232	168	203	2023 revised cost and linear footages for Delmont have been prorated from overall Versailles Rd Phase I project costs
10	1300 Block Hialeah Ct	3	3	\$252,300	\$709,597	1,682	2,209	2023 revised cost and linear footages have been prorated from overall Caulder Rd project costs
	1300 Block Hot Springs Ct							
	1300 Block Keeneland Ct							
11	Cross Keys Ct	3	2	\$73,500	\$50,801	490	230	
12	200 Block Lewis St	3		\$39,000		260		
13	Thistleton Circle	3	2	\$78,300	\$32,019	522	276	
14	Edinburgh Ct	3	3	\$38,700	\$99,000	258	330	
15	Croyden Ct	3	2	\$141,300	\$159,471	942	482	
	Sheffield Ct							
16	100 Block Gentry Rd	3		\$26,400		176		
17	100 Block N. Cleveland Rd	3		\$35,700		238		
18	7300 Block Old Richmond Rd	3		\$96,900		646		
19	Williamsburg Ct	3		\$55,200		368		
20	Woodside Circle	3	3	\$45,600	\$172,975	304	620	
21	600 Block Tateswood Dr	3		\$51,000		340		
22	Range Ct	3	2	\$100,800	\$76,305	672	339	2023 revised cost and linear footages for Range have been prorated from overall Range/Writt/Fordson project costs
23	Greenlawn Ct	3		\$215,700		1,438		
	Jade Circle							
	Kimberlite Ct							

KAW_R_PSCDR1_NUM006_050123_Attachment A

Project #	Project Location	Original QIP Year	QIP Year Completed/Revised	2017 Original Estimated Cost	2023 Revised/Actual/Proposed Cost	2017 Estimated Main to be Replaced (ft)	2023 Revised/Actual Main Replaced (ft)	Comments
	Granite Circle							
24	Durham Ct	3		\$75,600		504		
25	100 Block College St	3		\$164,700		1,098		
26	Gayle Circle	3		\$58,200		388		
27	Saybrook Ct	3		\$42,300		282		
28	Waycrosse Circle	3		\$101,400		676		
	Shiloh Ct							
29	Kelsey Ct	3	3	\$254,100	2,415,824	1,694	6,270	
	Kelsey Pl							
	Yarmouth Ct							
	1100 Block Kilrush Dr							
30	Cricklewood Ct	3		\$51,000		340		
31	1100 Block Appian Crossing Way	3		\$146,700		978		
32	600 Block Cardigan Ct	3	3	\$212,400	\$195,817	1,416	500	2023 revised cost and linear footages for Cardigan have been prorated from overall Birkenhead project costs
	3500 Block Berwin Ct							
	3400 Block Ipswich Ct							
33	3400 Block Flintridge Circle	3		\$63,900		426		
34	500 Block Folkstone Dr	3		\$45,300		302		
35	1100 Block Greentree Ct	3	4	\$187,800	\$1,533,697	1,252	5,765	
	Greentree Pl							
	Greentree Circle							
36	King Arthur Ct	3	2	\$190,800	\$469,364	1,272	868	2023 revised cost and linear footages for King Arthur have been prorated from
	3400 Block King Arthur Dr							
37	Paddock Ct	3		\$65,400		436		
38	Tanner Ct	3		\$65,700		438		
39	Penway Ct	3		\$65,700		438		
40	400 Block Plainview Rd	3		\$37,200		248		
41	100 Block Toronto Dr	3		\$192,900		1,286		
	4000 Block Victoria Way							
	4000 Block Victoria Way							
	200 Block Toronto Rd							
42	2600 Block Winbrooke Ln	3		\$61,200		408		
43	2800 Block Middlesex Ct	3		\$116,700		778		
44	700 Block Hil Rise Ct	3		\$81,300		542		
45	1500 Block Halsted Ct	3		\$363,000		2,420		
	Kildare Ct							

KAW_R_PSCDR1_NUM006_050123_Attachment A

Project #	Project Location	Original QIP Year	QIP Year Completed/Revised	2017 Original Estimated Cost	2023 Revised/Actual/Proposed Cost	2017 Estimated Main to be Replaced (ft)	2023 Revised/Actual Main Replaced (ft)	Comments
	Kirk Ct							
46	800 Block Gentry Ln	3		\$185,400		1,236		
47	200 Block Mulberry Rd	3		\$172,200		1,148		
	Osage Ct							
	2500 Block Butternut Hill Ct							
48	Black Arrow Ct	3		\$109,500		730		
49	Barbados Ln	3		\$376,200		2,508		
	3100 Block Tabago Ct							
	2700 Block Martinique Ln							
50	1800 Block Colchester Dr	3	2	\$372,600	\$605,570	2,484	1,800	2023 revised cost and linear footages have been prorated from overall Colchester project costs
	Feltner Ct							
	1800 Block Bowen Ct							
	1800 Block Colchester Dr							
51	Havelock Cir	3		\$242,100		1,614		
	600 Block Saginaw Ct							
	3400 Block Aldershot Dr							
52	Kilkenny Ct	3		\$139,800		932		
1	3100 Block Old Crow Ct	4	2	\$287,400	\$231,428	1,916	1,104	2023 revised cost and linear footages have been prorated from overall Montavesta project costs; Pending final
	3100 Block Clair Rd							
	Montavesta Ct							
2	2000 Block Cummins Ct	4		\$113,700		758		
	2000 Block Daniel Ct							
3	400 Block Curry Ave	4		\$70,200		468		
4	4000 Block Lilydale Ct	4		\$245,100		1,634		
	4000 Block Whitemark Ct							
5	3500 Block Ormond Cir	4		\$95,400		636		
6	1900 Block Rittenhouse Ct	4		\$49,200		328		
7	2400 Block Plumtree Ct	4		\$185,400		1,236		
	2400 Block Thornberry Ct							
8	1200 Block Maywood Park	4	3	\$411,600	\$1,110,453	2,744	3,800	Not including Latonia
	1200 Block Oaklawn Park		3					
	1200 Block Tanforan Dr		3					
	1200 Block Narragansett Park		3					
	Latonia Park							
	3200 Block Waterford Park		3					
9	200 Block Kelly Ct	4		\$202,800		1,352		
	600 Block Fogo Ct		2		\$524,956		1,100	2023 revised cost and linear footages have been prorated from overall
	600 Block Crewe Ct		2					

KAW_R_PSCDR1_NUM006_050123_Attachment A

Project #	Project Location	Original QIP Year	QIP Year Completed/Revised	2017 Original Estimated Cost	2023 Revised/Actual/Proposed Cost	2017 Estimated Main to be Replaced (ft)	2023 Revised/Actual Main Replaced (ft)	Comments
10	3400 Block Fraserdale Ct	4	2	\$303,000	\$158,401	2,020	470	2023 revised cost and linear footages have been prorated from overall Tisdale project costs
	3400 Block Birkenhead Cir		3		\$450,500		1,700	2023 revised cost and linear footages have been prorated from overall Birkenhead project costs
11	Lookout Cir	4	2	\$129,900	\$588,214	866	2,806	2023 revised cost and linear footages have been prorated from overall
	2900 Block Montavesta Rd							
12	Wem Ct	4		\$84,300		562		
13	4100 Block Winnipeg Ct	4		\$94,500		630		
14	400 Block Woodlake Way	4		\$37,500		250		
15	3200 Block Wood Valley Ct	4	3	\$38,400	\$262,071	256	910	
16	3500 Block Sutherland Dr	4		\$153,000		1,020		
17	3500 Block Niagra Dr	4	4	\$103,200	\$1,320,790	688	4,027	
18	3300 Moundview Ct	4	3	\$65,100	\$262,798	434	920	
19	Lisa Cir	4		\$136,800		912		
	Mona Ct							
20	Margo Ct	4		\$276,900		1,846		
	Karen Ct							
21	Versie Ct	4	3	\$190,500	\$155,008	1,270	558	2023 revised cost and linear footages have been prorated from overall
	Jannelle Ct							
22	200 Block Hedgewood Ct	4		\$76,800		512		
23	Tammy Ct	4		\$408,900		2,726		
	Laverne Ct							
	Grevey Ct							
	Harris Ct							
24	Grant Ct	4		\$155,100		1,034		
	Hollow Creek Ct							
	Grant Pl							
25	Graig Ct	4		\$93,900		626		
26	Lynwood Ct	4		\$261,900		1,746		
	Woodston Ct							
	Clearwood Ct							
27	3600 Block Cayman Ln	4		\$236,100		1,574		
	Jamaica Ct							
28	Waters Edge Pl	4		\$237,000		1,580		
	2000 Block Harmony Ct							
	2100 Block Bridgeport Dr							
	1600 Block Costigan Dr							

KAW_R_PSCDR1_NUM006_050123_Attachment A

Project #	Project Location	Original QIP Year	QIP Year Completed/Revised	2017 Original Estimated Cost	2023 Revised/Actual/Proposed Cost	2017 Estimated Main to be Replaced (ft)	2023 Revised/Actual Main Replaced (ft)	Comments
29	1900 Block Leitner Ct	4	2	\$530,400	\$1,618,807	3,536	5,306	
	1900 Block Bedinger Ct							
	1900 Block Cobyville Ct							
	900 Block Valley Farm Dr							
	1900 Block Chris Dr							
30	3400 Block Bellmeade Rd	4		\$132,600		884		
	3400 Block Warwick Ct							
31	1300 Block Ox Hill Dr	4	3	\$113,700	\$235,055	758	700	
	Bass Ct							
32	1200 Block Ascot Park	4		\$239,100		1,594		
	1200 Block Beulah Park							
	1300 Block Atokad Park							
	1300 Block Golden Gate Park							
	1200 Block Ak-Sar-Ben Park							
33	Brandon Ct	4		\$62,700		418		
34	Swoonalong Ct	4		\$352,500	\$370,590	2,350	1,340	Not including Swoonalong; Pending final restoration & paving
	Personality Ct							
	1300 Block Canonero Dr							
	Gunbow Ct							
	Personality Ct							
35	3500 Block Gingertree Cir	4		\$72,600		484		
36	Kenil Ct	4		\$20,700		138		
37	2000 Block Von List Way	4		\$323,400		2,156		
1	Trepassey Ct	5		\$121,200		808		
2	100 Block Westgate Dr	5	3	\$303,300	\$738,015	2,022	1,400	2023 revised cost and linear footages for Westgate have been prorated from overall Westgate/Hamilton project costs
3	100 Block Moore Dr	5		\$25,500		170		
4	3300 Block Pittman Creek Ct	5		\$95,100		634		
5	4700 Block Huffman Mill Pike	5		\$8,400		56		
6	300 Block Robertson St	5	3	\$521,400	\$644,464	3,476	2,155	2023 revised cost and linear footages have been prorated from overall Jane St project costs
	1100 Block Martin ave							
	300 Block Ferguson St							
	300 Block Anderson St							
	300 Block Robertson St							
7	3200 Block Bracktown Rd	5		\$291,900		1,946		
8	400 Block Bradley Ct	5	3	\$240,300	N/A	1,602	840	Delayed due to recent paving
9	100 Block Castlewood Dr	5		\$172,800		1,152		

KAW_R_PSCDR1_NUM006_050123_Attachment A

Project #	Project Location	Original QIP Year	QIP Year Completed/Revised	2017 Original Estimated Cost	2023 Revised/Actual/Proposed Cost	2017 Estimated Main to be Replaced (ft)	2023 Revised/Actual Main Replaced (ft)	Comments
10	800 Block Campbell Ln	5	2	\$177,600	\$248,113	1,184	507	
11	600 Block Central Ave	5		\$54,300		362		
12	100 Block Chelan Ct	5		\$105,000		700		
13	700 Block E Euclid Ave	5		\$56,700		378		
14	200 Block E Main St	5		\$71,700		478		
15	200 Block Southport Dr	5		\$400,800		2,672		
16	Timberhill Ct	5	2	\$128,700	\$105,206	858	347	2023 revised cost and linear footages have been prorated from overall Codell
	Elderberry Ct							
17	Heaton Ct	5	2	\$156,300	\$497,835	1,042	1,642	2023 revised cost and linear footages have been prorated from overall Codell Dr project costs
	2400 Block Mirahill Dr							
	2400 Block Windwood Ct							
18	1400 Block Elizabeth St	5		\$352,800		2,352		
	100 Block Forest Park Rd							
19	200 Block Westwood Ct	5		\$204,600		1,364		
20	100 Block Westwood Dr	5		\$246,000		1,640		
21	1100 Block Fern Ave	5		\$284,400		1,896		
22	1000 Block Floyd Dr	5		\$34,800		232		
23	400 Block Greenwood Ave	5	3	\$192,000	N/A	1,260	750	Delayed due to recent paving
24		5	2	\$82,800	\$150,953	552	540	2023 revised cost and linear footages have been prorated from overall Wyatt Ave project costs
	800 Block Johnsdale Dr							
25	3200 Block Haley Rd	5		\$242,400		1,616		
26	500 Block Longview Dr	5		\$14,100		94		
27	400 Block Macadam Dr	5		\$390,600		2,604		
	600 Block Rosemill Dr							
28	3400 Block McFarland Ln	5		\$547,500		3,650		
29	500 Block McKinley Way	5		\$46,200		308		
30	500 Block Merino St	5	4	\$81,300	\$254,840	542	753	
31		5	2	\$59,400	\$157,230	396	700	2023 revised cost and linear footages have been prorated from overall N Ashland project costs
	300 Block Memory Ln							
32	600 Block Montgomery Ave	5		\$33,900		226		
33	700 Block National Ave	5	2	\$186,300	\$688,865	1,242	2,648	2023 revised cost and linear footages have been prorated from overall
	900 Block National Ave							
34	1100 Block Oak Hill Dr	5		\$70,500		470		
35	300 Block Old Vine St	5		\$24,300		162		
36	2100 Block Paige Ct	5		\$53,700		358		
37	400 Block Park Ave	5		\$95,100		634		
38	500 Block Pine St	5	4	\$57,300	\$584,742	382	2,040	

KAW_R_PSCDR1_NUM006_050123_Attachment A

Project #	Project Location	Original QIP Year	QIP Year Completed/Revised	2017 Original Estimated Cost	2023 Revised/Actual/Proposed Cost	2017 Estimated Main to be Replaced (ft)	2023 Revised/Actual Main Replaced (ft)	Comments
39	200 Block Ridgeway Rd	5		\$83,400		556		
40	1400 Block Russell Cave Rd	5		\$31,500		210		

KENTUCKY-AMERICAN WATER COMPANY
CASE NO. 2023-00030
COMMISSION STAFF'S FIRST REQUEST FOR INFORMATION

Witness: Krista E. Citron

7. Refer to Case No. 2018-00358, the O'Neill Direct Testimony Exhibit 2, and to the Citron Direct Testimony, QIP Year 4 Project List.
 - a. According to the schedule, of the 47 projects listed on the QIP Year 4 Project List, 33 were not included in O'Neill Exhibit 2 QIP project lists. For each of the 33 QIP 4 projects, provide a detailed explanation for these projects being excluded from the O'Neill QIP project lists for QIP1-QIP5.
 - b. According to Kentucky-American, over the ten-year period Project 13, Greentree Rd/Cir/Ct, has had 14 main breaks and it was originally scheduled to be completed in QIP Year 3. Given the number of main leaks, provide a detailed explanation as to why this project was postponed until QIP Year 4.
 - c. Project 31, Niagara (to Trout) and Trent, is the only project proposed to be completed in the QIP 4 that was the O'Neill Exhibit 2 original QIP 4 projects. Provide a detailed explanation as to why this is the only project that was originally scheduled for QIP Year 4.
 - d. In the QIP 4 project list there are two proposed projects that are in the Owenton service area. Identify the QIP projects completed in QIP1-QIP3 that were outside the Lexington Fayette Urban County Government (LFUCG) service territory.

Response:

a. The referenced O'Neill Exhibit 2 is approximately five years old and review and comparison to that document should properly consider the fact that KAW's system is not a static system. Conditions do change over time, and the QIP should be flexible enough to allow for adjustments for efficiency and changing conditions. On this point, in KAW's 2022 QIP case, Case No. 2022-00032, KAW provided discussion and explanation on how or why a project might move up or down in the rankings. Please see KAW_R_PSCDR1_NUM001_040822 in that case. Please see the attachments to PSC 1-6 and PSC 1-12 in this matter which provide more detail on specific projects, when they were or are to be completed, and reasons for changes in the timing of projects.

KAW considers the prioritization model results, upcoming paving and utility coordination opportunities, and customer disturbance/construction fatigue when creating the schedule of projects to be completed within each QIP year. Failing to make adjustments to changing information or denying KAW the right to make such prudent adjustments could lead to situations

where KAW is not being the most efficient from a construction – and therefore, residential disturbance – standpoint.

There are simply far more projects that could be completed than can reasonably fit into a five-year time frame. The O’Neill Exhibit 2 did not include any mains located in KAW’s Owenton service area. Given that several Owenton mains are small diameter, cast iron or galvanized steel, they can and should be considered in the QIP planning. At the time that the O’Neill Exhibit 2 was created, paving cost-share opportunities were not as much of a focus.

b. Situational changes can and should be considered when actually executing a project. During the planning phase for QIP Year 3, KAW was aware that Greentree Road was an upcoming LFUCG sanitary sewer project in conjunction with their Consent Decree. The tentative schedule for LFUCG for this project was upcoming but not short-term. Had KAW decided to construct and complete this project during our QIP Year 3 time period of July 2022 through June 2023, the entirety of the paving and restoration cost would be KAW’s; furthermore, if KAW were to complete final restoration on this road prior to the sewer project, then, according to LFUCG’s Ordinance 17-C, LFUCG itself would have been required to wait a minimum of 12 months before they could cut the new pavement. Alternatively, KAW could have been required to install long-term temporary restoration (cold patch) which must be maintained and repaired throughout its life until final restoration could be completed. Given that the timeline for the LFUCG sewer project was still many months away at the time, this option was not preferred either. Rather, it was much more efficient and much less inconvenient to area residents to simply wait and perform this work in conjunction with the sanitary sewer project. This provides several benefits: one, the opportunity to share the restoration and paving costs with at least one other entity; two, reduce the total amount of time that the roadway is disturbed; and three, ensure that no scheduled utility work would need to occur in the area for many years to come.

The prioritization model rankings for these streets are:

310 – Greentree Cir.

280 – Greentree Ct.

260 – Greentree Pl.

260 – Greentree Rd.

Although the ranking score of 260 does not place Greentree Rd. as high on the prioritization model listing as other projects, the opportunity to coordinate this work with LFUCG – while also addressing the higher-ranked projects of Greentree Cir./Ct. – is a consideration that KAW believed was worth “postponing” to QIP Year 4.

An LFUCG press conference about this project is here: <https://www.wkyt.com/2023/02/11/lexington-begin-major-sewer-project/>

c. The Niagara Drive project that is listed in the O’Neill Exhibit 2 is referred to as “3500 Block Niagara Dr” for a total of 688 feet. The area this project references is highlighted below:



The remainder of Niagara Drive does not appear in the O'Neill Exhibit 2 five-year list. While KAW *could* replace only the 2" cast iron main in the 3500 block, this would leave a section of 6" cast iron main leading up to Trent Blvd., as well as the entire length of 8" cast iron main around the entirety of Niagara Dr. to be replaced at some point in the future. However, it is more efficient and less disruptive to replace the length of the street in one project.

d. QIP Years 1 and 2 did not have any projects outside the LFUCG service area. QIP Year 3 had one project in Owenton, Gaines Village Drive.

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8. Refer to Case No. 2018-00358, O'Neill Direct Testimony, Exhibit 2, at 17. The narrative indicates "development during the time was with the inner circle". Provide a schedule listing each main that Kentucky-American has replaced that was located in Lexington's inner circle as reference on the map, the QIP year it was replaced, the size of the main, the material type, the cost of the new main, and the estimated impact to annual water loss.

Response:

Refer to KAW_R_PSCDR1_NUM008_050123_Attachment A.

Regarding estimated impact to annual water loss: a per-street annual water loss number is not possible to accurately quantify. When responding to main breaks, crews estimate the water loss at the scene using water loss calculators along with the pressure of the main and size/type of break (crack, pinhole, etc.). The associated "total water loss" is then estimated back to the time that the first call was received about the break. In the case of hidden leaks, the associated "total water loss" is back-calculated for 30 days. These calculations, however, are estimates and limited to a certain time frame. If a water main was leaking for longer than 30 days, total water loss may have been much greater than indicated. Additionally, if a main was leaking prior to a large break, that leak loss is not known or captured. If a large break occurs but a call is not received until several hours later, those hours of water loss are not captured.

Cast iron mains, in particular, are prone to small pinhole deterioration. These pinhole mains contribute to annual water loss but are very difficult to locate and repair because of the fact that the losses are gradual and not always noticeable at the ground surface. This was a notable consideration when the QIP was implemented, and one of the reasons that the focus to date has been centered on aging cast iron material. Overall, through the accelerated replacement of aging cast iron and galvanized steel mains, annual water loss from unscheduled main breaks and hidden leaks is expected to decrease year over year.

Montavesta Road provides an example of both types of water loss estimates. By replacing the mains on Montavesta Rd and the associated cul-de-sacs, KAW is able to avoid future water losses in the area from these types of breaks and leaks. See the following Montavesta data:

01/08/21 – Main break - Montavesta Rd @ Montavesta Ct	115,200 gallons
01/12/21 – Hidden leak - 2978 Montavesta Ct	3,888,000 gallons

Project Name	QIP Year	Size and Material Information	Cost	Estimated Impact on Annual Water Loss
State St	1	Case No. 2020-00027, Stafford Direct Testimony, Pages 8-9	\$1,618,992	
University Ave				
Crescent Ave				
Conn Terrace	1	Case No. 2020-00027, Stafford Direct Testimony, Pages 8-9	\$1,502,669	
Journal Ave				
Transcript Ave				
Press Ave				
Gazette Ave				
Arceme Ave	1	Case No. 2020-00027, Stafford Direct Testimony, Pages 8-9	\$1,093,269	
Orion Way				
Carlisle Ave				
Devonia Ave	1	Case No. 2020-00027, Stafford Direct Testimony, Pages 8-9	\$2,012,698	
Avon Ave				
Glenn Ave				
Wittland Ave				
Burnett Ave	1	Case No. 2020-00027, Stafford Direct Testimony, Pages 8-9	\$1,022,195	
Delmont Dr				
Delmont Ct				
Halls Ln				
Terrace View Dr	1	Case No. 2020-00027, Stafford Direct Testimony, Pages 8-9	\$979,330	
Hill View Pl				
Hill Rise Dr				
Hill Rise Ct				
Wickcliffe St	2	Case No. 2021-00090, Stafford Direct Testimony, Pages 9-11	\$20,548	
Corral St				
CLAYTON	2	Case No. 2021-00090, Stafford Direct Testimony, Pages 9-11	\$1,276,423	
APPLETREE				
Courtney				
Emery Ct				
Wyatt Pkwy	2	Case No. 2021-00090, Stafford Direct Testimony, Pages 9-11	\$1,132,149	
LINDY				
APPLETREE REPLACEMENT				
Johnsdale				
Benwood	2	Case No. 2021-00090, Stafford Direct Testimony, Pages 9-11	\$356,661	
Bluegrass Ave				
Highlawn Ave				
N ASHLAND	2	Case No. 2021-00090, Stafford Direct Testimony, Pages 9-11	\$1,490,453	
MEMORY				
AURORA				
Given				
National Ave	2	Case No. 2021-00090, Stafford Direct Testimony, Pages 9-11	\$747,427	
Richmond Ave				
White Ave				
WHITNEY	2	Case No. 2021-00090, Stafford Direct Testimony, Pages 9-11	\$3,020,523	
ASH				
MICHIGAN				
ELM				
BOOKER				
OAK	2	Case No. 2021-00090, Stafford Direct Testimony, Pages 9-11	\$2,064,209	
Clays Mill Rd Ph II-A				
Clays Mill Rd Ph II-B				
Clays Mill Rd Ph II-C				
Blue Ash	2	Case No. 2021-00090, Stafford Direct Testimony, Pages 9-11	\$772,812	
Montclair Dr				
SUMMIT	2	Case No. 2021-00090, Stafford Direct Testimony, Pages 9-11	\$937,202	
SCOVILLE				
ELDEMERE				
WESTGATE	2	Case No. 2021-00090, Stafford Direct Testimony, Pages 9-11	\$1,897,752	
Hamilton Park				
Leisure Ln				
KILRUSH	2	Case No. 2021-00090, Stafford Direct Testimony, Pages 9-11	\$2,415,824	
KELSEY DR/CT/PL				
Yarmouth Ct				
CAYWOOD	2			<i>Planned, could not complete due to paving</i>
CARSON				
Montavesta	2	Case No. 2021-00090, Stafford Direct Testimony, Pages 9-11	\$818,385	
OLD CROW				
CLAIR				
MONTAVESTA CT				

Project Name	QIP Year	Size and Material Information	Cost	Estimated Impact on Annual Water Loss
LOOKOUT CIR				
Thistleton Cir	2	Case No. 2021-00090, Stafford Direct Testimony, Pages 9-11	\$32,019	
Crosskeys Ct	2	Case No. 2021-00090, Stafford Direct Testimony, Pages 9-11	\$50,801	
Aylesford	3	Case No. 2022-00032, Citron Direct Testimony, QIP Year 3 Project List	\$455,816	
Linden Walk/Rose St	3	Case No. 2022-00032, Citron Direct Testimony, QIP Year 3 Project List	\$549,210	
Colonial Dr	3	Case No. 2022-00032, Citron Direct Testimony, QIP Year 3 Project List	\$734,319	
Standish Way	3	Case No. 2022-00032, Citron Direct Testimony, QIP Year 3 Project List	\$545,258	
Kentucky Ave South	3	Case No. 2022-00032, Citron Direct Testimony, QIP Year 3 Project List	\$1,089,853	
Kentucky Ave North	3	Case No. 2022-00032, Citron Direct Testimony, QIP Year 3 Project List	\$724,455	
Woodland Ave North	3	Case No. 2022-00032, Citron Direct Testimony, QIP Year 3 Project List	\$842,825	
American Ave	3	Case No. 2022-00032, Citron Direct Testimony, QIP Year 3 Project List	\$660,972	
Southern Ave	3	Case No. 2022-00032, Citron Direct Testimony, QIP Year 3 Project List	\$201,276	
Camden Ave	3	Case No. 2022-00032, Citron Direct Testimony, QIP Year 3 Project List	\$177,347	
Stanley Ave	3	Case No. 2022-00032, Citron Direct Testimony, QIP Year 3 Project List	\$158,889	
Lone Oak Dr/Southbend Dr	3	Case No. 2022-00032, Citron Direct Testimony, QIP Year 3 Project List	\$579,793	
Greenwood Ave	3	Case No. 2022-00032, Citron Direct Testimony, QIP Year 3 Project List		Planned, could not complete due to paving
Bradley Ct	3	Case No. 2022-00032, Citron Direct Testimony, QIP Year 3 Project List		Planned, could not complete due to paving
Douglas Ave	3	Case No. 2022-00032, Citron Direct Testimony, QIP Year 3 Project List	\$451,873	
Chiles Ave	3	Case No. 2022-00032, Citron Direct Testimony, QIP Year 3 Project List	\$359,985	
Breathitt Ave	3	Case No. 2022-00032, Citron Direct Testimony, QIP Year 3 Project List	\$366,218	
Florence Ave	3	Case No. 2022-00032, Citron Direct Testimony, QIP Year 3 Project List	\$234,233	
Woodstock Cir	3	Case No. 2022-00032, Citron Direct Testimony, QIP Year 3 Project List	\$172,975	
Woodside Way/Ct	3	Case No. 2022-00032, Citron Direct Testimony, QIP Year 3 Project List	\$143,230	
Malabu Cir	3	Case No. 2022-00032, Citron Direct Testimony, QIP Year 3 Project List	\$271,987	
Moundview Ct	3	Case No. 2022-00032, Citron Direct Testimony, QIP Year 3 Project List	\$262,798	
Wood Valley Ct	3	Case No. 2022-00032, Citron Direct Testimony, QIP Year 3 Project List	\$262,071	
Derby Dr	3	Case No. 2022-00032, Citron Direct Testimony, QIP Year 3 Project List	\$262,131	
Headley Ave	3	Case No. 2022-00032, Citron Direct Testimony, QIP Year 3 Project List	\$462,821	
Jane St	3	Case No. 2022-00032, Citron Direct Testimony, QIP Year 3 Project List	\$266,007	
Ferguson St/Martin St	3	Case No. 2022-00032, Citron Direct Testimony, QIP Year 3 Project List	\$286,055	
Coolidge St	3	Case No. 2022-00032, Citron Direct Testimony, QIP Year 3 Project List	\$153,192	
Anderson St	3	Case No. 2022-00032, Citron Direct Testimony, QIP Year 3 Project List	\$358,409	
Warren Ct	3	Case No. 2022-00032, Citron Direct Testimony, QIP Year 3 Project List	\$106,638	
Chrysalis Ct	3	Case No. 2022-00032, Citron Direct Testimony, QIP Year 3 Project List	\$106,679	
Kenton St	3	Case No. 2022-00032, Citron Direct Testimony, QIP Year 3 Project List	\$238,198	
Campbell St	3	Case No. 2022-00032, Citron Direct Testimony, QIP Year 3 Project List	\$247,559	
Toner St/Sheila Ct/Harken Ct	3	Case No. 2022-00032, Citron Direct Testimony, QIP Year 3 Project List	\$330,838	
Elsmere Park	3	Case No. 2022-00032, Citron Direct Testimony, QIP Year 3 Project List	\$402,293	
Uhlan Ct	4	Case No. 2023-00030, Citron Direct Testimony, QIP Year 4 Project List	\$134,902	
Dove Run Rd	4	Case No. 2023-00030, Citron Direct Testimony, QIP Year 4 Project List	\$267,488	
Campsie Pl/Ct	4	Case No. 2023-00030, Citron Direct Testimony, QIP Year 4 Project List	\$290,288	
Ohio St	4	Case No. 2023-00030, Citron Direct Testimony, QIP Year 4 Project List	\$445,041	
Johnson Ave	4	Case No. 2023-00030, Citron Direct Testimony, QIP Year 4 Project List	\$312,323	
Silver Maple Way	4	Case No. 2023-00030, Citron Direct Testimony, QIP Year 4 Project List	\$306,703	
E Seventh St - N Lime to Maple	4	Case No. 2023-00030, Citron Direct Testimony, QIP Year 4 Project List	\$440,659	
Bermuda Ave	4	Case No. 2023-00030, Citron Direct Testimony, QIP Year 4 Project List	\$213,025	
Locust Ave	4	Case No. 2023-00030, Citron Direct Testimony, QIP Year 4 Project List	\$510,570	
Old Leestown	4	Case No. 2023-00030, Citron Direct Testimony, QIP Year 4 Project List	\$513,665	
Curley Ave	4	Case No. 2023-00030, Citron Direct Testimony, QIP Year 4 Project List	\$139,167	
Wilson St - Curley to Eastern	4	Case No. 2023-00030, Citron Direct Testimony, QIP Year 4 Project List	\$147,984	
Corral St - Elm Tree to Race	4	Case No. 2023-00030, Citron Direct Testimony, QIP Year 4 Project List	\$364,865	
E Second St - Elm Tree to Race	4	Case No. 2023-00030, Citron Direct Testimony, QIP Year 4 Project List	\$400,791	
Eastern Ave - E Third to E Short	4	Case No. 2023-00030, Citron Direct Testimony, QIP Year 4 Project List	\$384,304	
Gunn St	4	Case No. 2023-00030, Citron Direct Testimony, QIP Year 4 Project List	\$172,843	
Maryland Ave	4	Case No. 2023-00030, Citron Direct Testimony, QIP Year 4 Project List	\$427,452	
W Second St (Gtown to Jefferson)	4	Case No. 2023-00030, Citron Direct Testimony, QIP Year 4 Project List	\$339,121	
Jefferson St (W Short to W Third)	4	Case No. 2023-00030, Citron Direct Testimony, QIP Year 4 Project List	\$630,707	
Tower Plz	4	Case No. 2023-00030, Citron Direct Testimony, QIP Year 4 Project List	\$161,025	
Delmar Ave				
Boonesboro Ave	4	Case No. 2023-00030, Citron Direct Testimony, QIP Year 4 Project List	\$810,534	
Bell Pl/Ct				
Russell Ave				
E & W Bell Cts	4	Case No. 2023-00030, Citron Direct Testimony, QIP Year 4 Project List	\$1,067,965	
Sayre Ave				
Forest Ave				
Skain St	4	Case No. 2023-00030, Citron Direct Testimony, QIP Year 4 Project List	\$927,880	
Indiana Ave				
Cross St	4	Case No. 2023-00030, Citron Direct Testimony, QIP Year 4 Project List	\$131,495	
Pine St	4	Case No. 2023-00030, Citron Direct Testimony, QIP Year 4 Project List	\$584,742	

Project Name	QIP Year	Size and Material Information	Cost	Estimated Impact on Annual Water Loss
Merino St	4	Case No. 2023-00030, Citron Direct Testimony, QIP Year 4 Project List	\$254,840	
Patterson St	4	Case No. 2023-00030, Citron Direct Testimony, QIP Year 4 Project List	\$231,523	
Spring St	4	Case No. 2023-00030, Citron Direct Testimony, QIP Year 4 Project List	\$133,860	
Dunaway St	4	Case No. 2023-00030, Citron Direct Testimony, QIP Year 4 Project List	\$208,313	
Maxwell (Broadway to Cross)	4	Case No. 2023-00030, Citron Direct Testimony, QIP Year 4 Project List	\$921,643	
Rosemont Garden	4	Case No. 2023-00030, Citron Direct Testimony, QIP Year 4 Project List	\$562,844	

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9. Refer to the Citron Direct Testimony at 6. In selecting its proposed QIP 4 projects, Kentucky-American relied on the pavement condition rating and the coordination of the QIP 4 projects with upcoming LFUCG projects.
 - a. Provide a schedule listing the QIP 4 projects for the period from July 1, 2023, through June 30, 2024, that have been delayed due to the pavement condition rating and the coordination. Include in the schedule the project information that is contained in the QIP 4 Project List.
 - b. Provide a schedule listing the QIP 4 projects for the period from July 1, 2023, through June 30, 2024, that have been accelerated due to the pavement condition rating and the coordination. Include in the schedule the project information that is contained in the QIP 4 Project List.
 - c. Provide the estimated cost impact the pavement condition rating and the coordination will have on the proposed QIP 4 projects for the period from July 1, 2023, through June 30, 2024.

Response:

- a. For all of the QIP Year 4 projects in this case, the projects that were delayed because of pavement ratings or to better coordinate paving efforts and the requested project information are shown in KAW_R_PSCDR1_NUM009_050123_Attachment A.
- b. For all of the QIP Year 4 projects in this case, the projects that were accelerated because of pavement ratings or to better coordinate paving efforts and the requested project information are shown in KAW_R_PSCDR1_NUM009_050123_Attachment A.
- c. The extents of final paving and restoration are not fully known by KAW until the completion of the construction project and an on-site walk-through and assessment with LFUCG's inspector. However, *in general*, previous completed projects where final paving and restoration has been cost-shared with one or more other utilities has resulted in a savings of anywhere from 25-50% of what KAW's final paving and restoration cost would have been. One example is the QIP Year 1 Castlewood Phase I project. There were three streets that some combination of KAW, Columbia Gas, and LFUCG's Division of Water Quality (DWQ) group disturbed. Had KAW been the only utility to disturb the roadway, our final paving and restoration cost would have been approximately \$163,560; however, since portions of each road were shared with one or two other entities, KAW's actual cost for final paving and restoration will be approximately \$66,558, a

savings of over \$97,000 (nearly 60 percent). Additionally, planning KAW's work on roadways that are scheduled to be disturbed with another project or scheduled to be paved minimizes disruption to the residents and businesses in the area. While this does not have a qualitative cost impact, it is nevertheless a benefit to all involved and remains the most prudent practice for our customers.

QIP Year 4 Project List

NUM009 (a) - Projects Delayed for Pavement Condition or Coordination

#	NAME	WBS NUMBER	LOCATION	PROJECT LENGTH (FT)	PRIORITIZATION MODEL RANKING	PAVEMENT RATING	O'NEILL EXHIBIT 2	< 4" Main			4" Main			6" Main			8" Main			≥ 12" Main			# BREAKS (PAST 10 YEARS)
								Est. Linear Feet Retired	Est. Age of Main Retired	Material Type	Est. Linear Feet Retired	Est. Age of Main Retired	Material Type	Est. Linear Feet Retired	Est. Age of Main Retired	Material Type	Est. Linear Feet Retired	Est. Age of Main Retired	Material Type	Est. Linear Feet Retired	Est. Age of Main Retired	Material Type	
12	Greentree Rd/Cir/Ct	R12-02B1.22-P-0004	FAYETTE	5765	260/310/280	10%-25%	Year 3 - Project 35	600	1967	CI				500	1967	CI	3820	1967	CI	845	1967	CI	14
27	Caulder Rd	R12-02B2.23-P-0028	FAYETTE	1235	215	70%-85%											1235	1961	CI				1
28	Keeneland Ct	R12-02B2.23-P-0029	FAYETTE	785	235	55%-70%	Year 3 - Project 10	300	1961	CI				485	1961	CI							0
29	Hot Springs Ct	R12-02B2.23-P-0030	FAYETTE	710	235	40%-55%	Year 3 - Project 10	185	1961	CI				525	1961	CI							0
30	Hialeah Ct	R12-02B2.23-P-0031	FAYETTE	714	235	55%-70%	Year 3 - Project 10	212	1961	CI				502	1961	CI							0
37	Russell Ave/E & W Bell Cts/Sayre Ave	R12-02B2.23-P-0038	FAYETTE	3380	275	0%-25%	Year 1 - Project 1	150	1904	CI	700	1904-1905	CI	1730	1905	CI	800	1969	CI				1

NUM009 (b) - Projects Accelerated for Pavement Condition or Coordination

#	NAME	WBS NUMBER	LOCATION	PROJECT LENGTH (FT)	PRIORITIZATION MODEL RANKING	PAVEMENT RATING	O'NEILL EXHIBIT 2	< 4" Main			4" Main			6" Main			8" Main			≥ 12" Main			# BREAKS (PAST 10 YEARS)
								Est. Linear Feet Retired	Est. Age of Main Retired	Material Type	Est. Linear Feet Retired	Est. Age of Main Retired	Material Type	Est. Linear Feet Retired	Est. Age of Main Retired	Material Type	Est. Linear Feet Retired	Est. Age of Main Retired	Material Type	Est. Linear Feet Retired	Est. Age of Main Retired	Material Type	
11	Dove Run Rd	R12-02B2.23-P-0012	FAYETTE	930	200	55%-70%							264	1970	CI	666	1970	CI					0
13	Campsie Pl/Ct	R12-02B2.23-P-0014	FAYETTE	775	280	25%-40%					260	1906	CI	515	1906	CI							0
14	Ohio St	R12-02B2.23-P-0015	FAYETTE	1575	260	40%-55%							800	1905	CI								0
													775	1915	CI								0
15	Johnson Ave	R12-02B2.23-P-0016	FAYETTE	780	255	25%-40%							780	1902	CI								0
16	Silver Maple Way	R12-02B2.23-P-0017	FAYETTE	795	265	25%-40%										795	1901	CI					0
17	E Seventh St - N Lime to Maple	R12-02B2.23-P-0018	FAYETTE	1190	260	25%-40%							1190	1900s	CI								0
19	Locust Ave	R12-02B2.23-P-0020	FAYETTE	1760	280	25%-40%				1100	1911	CI	1265	1938	CI								2
32	Maryland Ave	R12-02B2.23-P-0033	FAYETTE	1144	250	25%-40%				575	1893	CI	347	1893	CI	552	1966	CI					2
									254	1903	CI												
33	W Second St (Old Gtown to Jefferson)	R12-02B2.23-P-0034	FAYETTE	916	250	25%-40%				172	1884	CI	462	1884	CI	621	1929	CI					0
												300	1902	CI									
36	Delmar Ave/Boonesboro Ave/Bell Pl/Bell Ct	R12-02B2.23-P-0037	FAYETTE	2281	235/265	25%-40%				984	1905	CI	1030	1905	CI	516	1969	CI					1
																526	1972	CI					
39	Cross St	R12-02B2.23-P-0040	FAYETTE	400	230	25%-40%							190	1910	CI					420	1947	AC	0
40	Pine St	R12-02B2.23-P-0041	FAYETTE	2040	275	25%-40%	Year 5 - Project 38				700	1884	CI	600	UNK	CI				2050	1947	AC	2

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10. Refer to the Citron Direct Testimony at 7, Table – Miles of Proposed Replacements by Material Types – QIP Year 1-5. In the table, Kentucky-American estimates that at the close of QIP 5 it would have replaced 57.2 miles of Cast Iron Mains, 1.6 miles of Asbestos Cement Mains, and 0.9 miles of Galvanized Mains. Provide the amount of each cited type of main that still needs to be replaced.

Response:

As proposed in the above-referenced table, at the end of QIP Year 5, the approximate miles of each type of main that still needs to be replaced is as follows:

324.1 miles of cast iron (primarily pre-1950s vintage)
325.9 miles of asbestos cement (primarily 1940s to 1990s vintage)
2.4 miles of galvanized steel

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11. Refer to the Citron Direct Testimony at 13-14, beginning at Line 17, Utility Partnering Opportunities. Kentucky-American indicates that it moved QIP projects up or down on the priority ranking based on other utilities' planned work schedules.
- a. Provide a schedule listing the QIP 4 projects that that have been moved up on the priority list due to Kentucky-American's Utility Partnering Opportunities. Identify the utility that Kentucky-American is coordinating its QIP project schedule with, the original year the QIP project was to be completed, and the estimated cost impact of the QIP project coordination.
 - b. Provide a schedule listing the QIP 4 projects that that have been moved down on the priority list due to Kentucky-American's claimed Utility Partnering Opportunities. Identify the utility that Kentucky-American is coordinating its QIP project schedule with, the original year the QIP project was to be completed, and the estimated cost impact of the QIP project coordination.

Response:

- a. The estimated cost impact of these utility partnering opportunities is largely based on the amount of final paving and restoration that KAW will be responsible for compared to if KAW had been working in the area alone. Additionally, it is more efficient when utilities are planning relocations together in order to avoid conflicts and having to work around one another later on.

Project	Utility	Original QIP Year	Estimated Cost Impact
Dove Run Road	LFUCG DWQ (sanitary sewer), Columbia Gas		~ \$70,000 in paving
Ohio Street	LFUCG DWQ (storm sewer)		~ \$64,000 in paving
Locust Avenue	LFUCG Engineering, Columbia Gas	5	~ \$75,000 in paving

- b. The estimated cost impact of these utility partnering opportunities is largely based on the amount of final paving and restoration that KAW will be responsible for compared to if KAW had been working in the area alone. Additionally, it is more efficient when utilities are planning relocations together in order to avoid conflicts and having to work around one another later on.

Project	Utility	Original QIP Year	Estimated Cost Impact
Greentree Rd/Cir/Ct	LFUCG DWQ (sanitary sewer)	3	~ \$231,176 in paving

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12. Refer to the Citron Direct Testimony, QIP Year 4 Project List and to Exhibit 4, Prioritization Model. Project 10, Dove Run Road has a Prioritization Model Ranking of 200. For each project listed in the Exhibit 4, Prioritization Model that has a Total Weighted Score (Prioritization Model Ranking) greater than 200 and has not been included in QIP 1-4 main replacement projects, provide a detailed explanation as to why they were excluded from QIP 4.

Response:

Refer to KAW_R_PSCDR1_NUM012_050123_Attachment A which has been modified to show only the projects indicated above. Please note that the Commission has limited QIP to 10-13 miles of main replacement each year, with the added focus of primarily cast iron and galvanized steel material types. Even if KAW were to select the top projects on this list totaling 10-13 miles, there would still be many more miles of projects with weighted scores greater than 200 but less than 300 that could not be completed within a single QIP year.

Street/Project	Address	City	Total Weighted Score	QIP YEAR	CASE NO. 2018-00358	Reason Excluded from QIP 4
Lincoln Ave	Entire Street	Lexington	325	IN DESIGN	CASE YEAR 1	Recent paving, delay
McCubbing Dr	Entire Street	Lexington	320		CASE YEAR 1	Delay - Large trees, narrow road
Fern Ave	1100 Block	Lexington	310		CASE YEAR 5	To be completed with larger Simpson/Burley project
Preston Ave	Entire Street	Lexington	295	IN DESIGN	CASE YEAR 1	Recent paving, delay
Greenwood Ave	Entire Street	Lexington	295	QIP YEAR 3	CASE YEAR 5	LFUCG paving delayed
Elizabeth St	Sioux to Waller	Lexington	290		CASE YEAR 5	Opportunity to replace with upcoming UK project
Old Richmond Rd	7300 Block	Lexington	290		CASE YEAR 3	Need confirmation this CI still exists
Kastle Rd	Entire Street	Lexington	285		CASE YEAR 1	Recent paving, delay
Hunter Cir	Entire Street	Lexington	285		CASE YEAR 3	To be completed with larger Malabu project, recent paving
Melrose Avenue	Entire Street	Lexington	285	IN DESIGN		Delayed due to difficulty with placement of trees, sewer
Forest Park Rd	100 Block	Lexington	280		CASE YEAR 5	Opportunity to replace with upcoming UK project
Euclid Ave	Rose to High St	Lexington	280		CASE YEAR 5	Unable to replace at time of Avenue of Champions project
Westwood Ct	200 Block	Lexington	280		CASE YEAR 5	Recent paving, delay
Jade Cir	Entire Street	Lexington	280		CASE YEAR 3	To be completed with larger Greenlawn project
Granite Cir	Entire Street	Lexington	280		CASE YEAR 3	To be completed with larger Greenlawn project
Cricklewood Ct	Entire Street	Lexington	280		CASE YEAR 3	To be completed with larger Cricklewood project
Berwin Ct	3500 Block	Lexington	280		CASE YEAR 3	To be completed with larger Cromwell project
Ipswich Ct	3400 Block	Lexington	280		CASE YEAR 3	To be completed with larger Cromwell project
Paddock Ct	Entire Street	Lexington	280		CASE YEAR 3	To be completed with larger Plainview project
Penway Ct	Entire Street	Lexington	280		CASE YEAR 3	To be completed with larger Plainview project
Kirk Ct	Entire Street	Lexington	280		CASE YEAR 3	To be completed with larger Asbury project
Black Arrow Ct	Entire Street	Lexington	280		CASE YEAR 3	To be completed with larger Severn project
Lilydale Ct	Entire Street	Lexington	280		CASE YEAR 4	To be completed with larger Eastpoint project
Margo Ct	Entire Street	Lexington	280		CASE YEAR 4	To be completed with larger project; surrounding area is AC
Jamaica Ct	Entire Street	Lexington	280		CASE YEAR 4	To be completed with Greenbrier neighborhood project
Ralston Lane	Entire Street	Winchester	280			PVC material
Rosemill Dr	Entire Street	Lexington	275			To be completed with larger Southgate project; neighborhood construction fatigue
Cooper Dr	Entire Street	Lexington	275		CASE YEAR 1	Comprises over 2 miles of mixed cast iron/AC material on an arterial - needs to be completed in phases
Lansdowne Cir	700 Block	Lexington	275		CASE YEAR 2	To be completed with larger Lansdowne project
Westwood Dr	100 Block	Lexington	275		CASE YEAR 5	Opportunity to replace with upcoming UK project
Monroe Ave	Entire Street	Lexington	275	IN DESIGN		Recent paving, delay
Wilderness Rd	Most of Street	Lexington	270			Need confirmation this GALV still exists
Briar Hill Rd	N Cleveland to Avon	Lexington	270		CASE YEAR 2	Has a larger, parallel AC main
Hart Road		Lexington	270	IN DESIGN		Delayed due to difficulty with placement of trees, sewer
Dudley Road		Lexington	270	IN DESIGN		Delayed due to difficulty with placement of trees, sewer
Tillybrook Ct	Entire Street	Lexington	265		CASE YEAR 3	Rating largely due to material, size; surrounding area is largely AC material
Shirlee Ct	Entire Street	Lexington	265		CASE YEAR 3	To be completed with larger Albany project
Bradford Dr	Entire Street	Lexington	265			To be completed with larger project; neighborhood construction fatigue
Williamsburg Ct	Entire Street	Lexington	265		CASE YEAR 3	To be completed with larger Lane Allen project
Kimberlite Ct	Entire Street	Lexington	265		CASE YEAR 3	To be completed with larger Greenlawn project
Durham Ct	Entire Street	Lexington	265		CASE YEAR 3	To be completed with larger Eastland project
Saybrook Ct	Entire Street	Lexington	265		CASE YEAR 3	To be completed with larger Monticello project
Tanner Ct	Entire Street	Lexington	265		CASE YEAR 3	To be completed with larger Plainview project
Whitemark Ct	4000 Block	Lexington	265		CASE YEAR 4	To be completed with larger Eastpoint project

Street/Project	Address	City	Total Weighted Score	QIP YEAR	CASE NO. 2018-00358	Reason Excluded from QIP 4
Ormond Cir	3500 Block	Lexington	265		CASE YEAR 4	To be completed with larger Redding project
Lisa Cir	Entire Street	Lexington	265		CASE YEAR 4	To be completed with larger Lisa project
Mona Ct	Entire Street	Lexington	265		CASE YEAR 4	To be completed with larger Lisa project
Tammy Ct	Entire Street	Lexington	265		CASE YEAR 4	To be completed with larger Ward project
Laverne Ct	Entire Street	Lexington	265		CASE YEAR 4	To be completed with larger Ward project
Grevey Ct	Entire Street	Lexington	265		CASE YEAR 4	To be completed with larger Ward project
Lynnwood Ct	Entire Street	Lexington	265		CASE YEAR 4	To be completed with larger Larkwood project
Woodston Ct	Entire Street	Lexington	265		CASE YEAR 4	To be completed with larger Larkwood project
Clearwood Ct	Entire Street	Lexington	265		CASE YEAR 4	To be completed with larger Larkwood project
Waters Edge Pl	Entire Street	Lexington	265		CASE YEAR 4	To be completed with Lakeshore neighborhood project
Bass Ct	Entire Street	Lexington	265		CASE YEAR 4	To be completed with larger Crosby project
Swoonalong Ct	Entire Street	Lexington	265		CASE YEAR 4	To be completed with larger Pimlico project
Pittman Creek Ct	Half Street	Lexington	265		CASE YEAR 5	Half of cul-de-sac has ductile iron material
La Somme Dr & Riviera Rd	Entire Street	Lexington	265			Rating largely due to material, size
Old Vine St	300 Block	Lexington	260		CASE YEAR 5	Project requires disturbance to E Vine/E Main and new main extensions
Barbados Ln	Entire Street	Lexington	260		CASE YEAR 3	To be completed with Greenbrier neighborhood project
Central Ave	600 Block	Lexington	260		CASE YEAR 5	To be completed with Old Park and Old Lafayette
Cayman Ln	3600 Block	Lexington	260		CASE YEAR 4	To be completed with Greenbrier neighborhood project
Macadam Dr	Entire Street	Lexington	260		CASE YEAR 5	To be completed with larger Kirklevington project
Gentry Road	177-550	Winchester	260			PVC material; to be completed with larger N Cleveland project
Haley Rd	Small Section	Lexington	255		CASE YEAR 2	Incorrectly categorized - Haley Rd main is 4" AC material
Rolling Hills Ct	3500 Block	Lexington	255		CASE YEAR 2	To be completed with larger N Cleveland project
New Zion Rd	100 Block	Lexington	255		CASE YEAR 3	Rating largely due to material, size
Newtown Pike	Louden Ave-Charles Ave	Lexington	255			Recent paving, delay
Shawnee Pl	100 Block	Lexington	255		CASE YEAR 1	Single street requiring connection on section of Nicholasville Rd that was recently paved
Rainbow Rd	2000 Block	Lexington	255		CASE YEAR 2	Road is mostly 6" AC material
Bradford Cir	200 Block	Lexington	255		CASE YEAR 3	To be completed with larger project; neighborhood construction fatigue
Ridgeway Rd	Entire Street	Lexington	255		CASE YEAR 5	Delayed due to difficulty with placement of trees, sewer
Russell Cave Rd	1400 Block	Lexington	255		CASE YEAR 5	Largely 12", 1970s vintage cast/other iron material
Sherman Ave	Entire Street	Lexington	255	IN DESIGN		Recent paving, delay
Perry St	200 Block	Lexington	255		CASE YEAR 1	To be completed with larger Manchester project
Warnock St	200 Block	Lexington	255		CASE YEAR 1	Likely QIP Year 5 project area
Castlewood Dr	Entire Street	Lexington	255		CASE YEAR 5	To be completed with larger Castlewood project
Gentry Ln	Small Section	Lexington	255		CASE YEAR 3	To be completed with larger N Cleveland project
N Limestone St	E. Loudon Ave - New Circle Rd	Lexington	255			Requires LFUCG and/or KYTC coordination
Martinique Ln	Entire Street	Lexington	255		CASE YEAR 3	To be completed with Greenbrier neighborhood project
Columbus Ln	Entire Street	Lexington	250			To be replaced with Uttinger Ln
Uttinger Ln	Entire Street	Lexington	250			To be replaced with Columbus Ln
Raven Cir	Entire Street	Lexington	250		CASE YEAR 3	To be completed with larger Lansdowne project
Lamont Ct	Entire Street	Lexington	250		CASE YEAR 2	To be completed with larger Pasadena project
Longview Dr	500 Block	Lexington	250		CASE YEAR 5	To be completed with larger Southgate project; neighborhood construction fatigue
Oak Hill Dr	1100 Block	Lexington	250		CASE YEAR 5	To be completed with larger Castlewood project
Ransom Ave	Entire Street	Lexington	250			Requires new main extension
Shreve Ave	Entire Street	Lexington	250			To be completed with larger Old Vine project

Street/Project	Address	City	Total Weighted Score	QIP YEAR	CASE NO. 2018-00358	Reason Excluded from QIP 4
Grand Ave	Entire Street	Lexington	250			To be completed with larger Old Vine project
Chelan Ct	100 Block	Lexington	250		CASE YEAR 5	To be completed with larger Pin Oak project
Old Dobbin Cir	Entire Street	Lexington	250		CASE YEAR 3	To be completed with Shadebrook neighborhood project
Shiloh Ct	Entire Street	Lexington	250		CASE YEAR 3	To be completed with larger Kilkenny project
Flintridge Cir	3400 Block	Lexington	250		CASE YEAR 3	To be completed with larger Lansdowne project
Cummins Ct	Entire Street	Lexington	250		CASE YEAR 4	To be completed with larger Village project
Paige Ct	2100 Block	Lexington	250		CASE YEAR 5	To be completed with larger Edgewater project
Tabago Ct	Entire Street	Lexington	250		CASE YEAR 3	To be completed with Greenbrier neighborhood project
Wem Ct	Entire Street	Lexington	250		CASE YEAR 4	To be completed with larger E Tiverton project
Harris Ct	Entire Street	Lexington	250		CASE YEAR 4	To be completed with larger Ward project
Grant Ct	Entire Street	Lexington	250		CASE YEAR 4	To be completed with Hollow Creek neighborhood project
Hollow Creek Ct	Entire Street	Lexington	250		CASE YEAR 4	To be completed with Hollow Creek neighborhood project
Graig Ct	Entire Street	Lexington	250		CASE YEAR 4	To be completed with larger Severn project
Harmony Ct	Entire Street	Lexington	250		CASE YEAR 4	To be completed with Lakeshore neighborhood project
North Cleveland Road	176-584	Lexington	250			PVC material; to be completed with larger N Cleveland project
Sutherland Dr	3500 Block	Lexington	245		CASE YEAR 4	To be completed with Gainesway neighborhood project
Plainview Rd	Small Section	Lexington	245		CASE YEAR 3	To be completed with larger Plainview project
Kenil Ct	Entire Street	Lexington	245		CASE YEAR 4	To be completed with Southpoint neighborhood project
Gingertree Cir	3500 Block	Lexington	245		CASE YEAR 4	To be completed with larger Pepperhill project
Newtown Pike	3500-4305	Lexington	245			AC material
Folkstone Dr	Plainview to RR track	Lexington	240		CASE YEAR 3	To be completed with larger Plainview project
Curry Ave	Most of Street	Lexington	240		CASE YEAR 4	To be completed with Angliana Dr
Lakeshore Dr	Backside of RR to Island	Lexington	240			To be completed with Lakeshore neighborhood project
Floyd Dr	Small Cluster	Lexington	240		CASE YEAR 5	Road has 24" parallel ductile iron
Grant Pl	Entire Street	Lexington	240		CASE YEAR 4	To be completed with Hollow Creek neighborhood project
Bridgeport Dr	Entire Street	Lexington	240		CASE YEAR 4	To be completed with Lakeshore neighborhood project
Von List Way	Entire Street	Lexington	240		CASE YEAR 4	To be completed with Lakeshore neighborhood project
Gemini Trail Road	Entire Street	Georgetown	240			AC material
Gentry Rd	100 Block	Lexington	235		CASE YEAR 3	To be completed with larger N Cleveland project
Gayle Cir	Entire Street	Lexington	235		CASE YEAR 3	To be completed with larger Eastland project
Waycrosse Cir	Entire Street	Lexington	235		CASE YEAR 3	To be completed with larger Kilkenny project
Toronto Rd	Entire Street	Lexington	235		CASE YEAR 3	To be completed with Toronto neighborhood project
Middlesex Ct	2800 Block	Lexington	235		CASE YEAR 3	To be completed with larger Severn project
Halsted Ct	1500 Block	Lexington	235		CASE YEAR 3	To be completed with larger Asbury project
Kildare Ct	Entire Street	Lexington	235		CASE YEAR 3	To be completed with larger Asbury project
Butternut Hill Ct	Entire Street	Lexington	235		CASE YEAR 3	Opportunity to replace with upcoming LFUCG project
Montgomery Ave	600 Block	Lexington	235		CASE YEAR 5	Half of roadway is 6" ductile iron material
Daniel Ct	2000 Block	Lexington	235		CASE YEAR 4	To be completed with larger Village project
Victoria Way	4000 Block	Lexington	235		CASE YEAR 3	To be completed with Toronto neighborhood project
Rittenhouse Ct	1900 Block	Lexington	235		CASE YEAR 4	To be completed with larger Pennebaker project
Karen Ct	Entire Street	Lexington	235		CASE YEAR 4	To be completed with larger project; surrounding area is AC
Newtown Pike	4305-4626	Lexington	235			AC material
Sidwell Lane	204-dead end	Lexington	235			PVC material
E Main St	MLK to Richmond Rd	Lexington	230		CASE YEAR 5	Requires LFUCG and/or KYTC coordination

Street/Project	Address	City	Total Weighted Score	QIP YEAR	CASE NO. 2018-00358	Reason Excluded from QIP 4
Eastland Parkway	E Cantrill Dr - Biloxi Ct	Lexington	230			To be completed with larger Eastland project
Pennebaker Dr	Entire Street	Lexington	230			To be completed with larger Pennebaker project
Old Richmond Rd	7641-Durbin Ln	Lexington	230			AC material
Bahama Road	2030-Winchester Rd.	Lexington	230			To be completed with Greenbrier neighborhood project
Latonia Park	Entire Street	Lexington	230		CASE YEAR 4	Recent paving, delay
Bellmeade Rd	Entire Street	Lexington	230		CASE YEAR 4	To be completed with larger Redding project
Pepperhill Rd	Gingertree to Simcoe	Lexington	230			To be completed with larger Pepperhill project
Wyse Sq	Entire Street	Lexington	230			To be completed with larger project; surrounding area is AC
Osage Ct	Entire Street	Lexington	230		CASE YEAR 3	Opportunity to replace with upcoming LFUCG project
Burton Road	578-1457	Georgetown	230			AC material
Schoolhouse Lane	Entire Street	Winchester	230			PVC material
Breckenwood Dr	Small Section	Lexington	225		CASE YEAR 2	To be completed with larger Lansdowne project
W Main St	Vine to Old Georgetown	Lexington	225			Requires LFUCG and/or KYTC coordination
Eastland Drive	Industry Rd-New Circle Rd	Lexington	225			To be completed with larger Eastland project
Meadow Lane	950-1199	Lexington	225			Replace as part of larger project; most of surrounding area is AC material
Beacon Hill Rd	1900 Block	Lexington	225		CASE YEAR 2	To be completed with Pine Meadows neighborhood
Rebel Rd	2000 Block + Court	Lexington	225		CASE YEAR 2	Road is mostly 6" AC material
Leesburg-Newtown Road	100-1899	Paris	225			AC material
Tateswood Dr	600 Block	Lexington	220		CASE YEAR 3	To be completed with Shadebrook neighborhood project
Turner Station Road	Entire Street	Lexington	220			AC material
Lewis St	Entire Street	Lexington	220		CASE YEAR 3	Likely QIP Year 5 project area
Kilkenny Ct	Entire Street	Lexington	220		CASE YEAR 3	To be completed with larger Kilkenny project
Plumtree Ct	2400 Block	Lexington	220		CASE YEAR 4	Opportunity to replace with upcoming LFUCG project
Thornberry Ct	2400 Block	Lexington	220		CASE YEAR 4	Opportunity to replace with upcoming LFUCG project
Woodlake Way	Entire Street	Lexington	220		CASE YEAR 4	Replace with Cooper Dr
Warwick Ct	Entire Street	Lexington	220		CASE YEAR 4	To be completed with larger Redding project
Brandon Ct	Entire Street	Lexington	220		CASE YEAR 4	To be completed with larger Pepperhill project
Winnipe Ct	Entire Street	Lexington	220		CASE YEAR 4	To be completed with Toronto neighborhood project
Newtown Pike	3290-3500	Lexington	220			AC material
Montrose Drive	Entire Street	Lexington	215			To be completed with larger Asbury project
Kilkenny Dr	End of Street	Lexington	215			To be completed with larger Kilkenny project
Moore Dr	Entire Street	Lexington	215		CASE YEAR 5	12" diameter main
Bassett Ave	Entire Street	Lexington	215	IN DESIGN		Recent paving, delay
Lakeshore Dr	Island	Lexington	215			To be completed with Lakeshore neighborhood project
Wilderness Rd	Entire Street	Lexington	215			AC material
Iron Works Pike	1600-289	Lexington	215			AC material
Robertson St	300 Block	Lexington	215	IN DESIGN	CASE YEAR 5	Recent paving, delay
Trepassey Ct	Entire Street	Lexington	210		CASE YEAR 5	On list for KAW crew work
Hedgewood Ct	Whole Complex	Lexington	210		CASE YEAR 4	To be completed with larger Larkwood project
Lagonda Ave	Entire Street	Lexington	205		CASE YEAR 1	To be completed with Delaware, Henry Clay
US 25	Hurricane Hall Rd-Lisle Rd	Lexington	205			AC material
Aqueduct Dr	Half of Street	Lexington	200			To be completed with larger Pimlico project
Dove Run Rd	Entire Street	Lexington	200	QIP YEAR 4		