



STOLL
KEENON
OGDEN
PLLC

DAMON R. TALLEY
PH: 270-358-3187
FAX: 270-358-9560
damon.talley@skofirm.com

PO Box 150
112 N. LINCOLN BLVD.
HODGENVILLE, KY 42748

July 22, 2024

Ms. Linda C. Bridwell, P.E.
Executive Director
Kentucky Public Service Commission
Frankfort, Kentucky 40602-0615

RE: Case No. 2024-00230
(Training or Certification)
Kentucky Rural Water Association

Dear Ms. Bridwell:

Enclosed for filing in the above referenced matter is Kentucky Rural Water Association's Application for accreditation of a water training program.

Should you need any additional information, please let me know.

Yours truly,

STOLL KEENON OGDEN PLLC


Damon R. Talley

COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

**ELECTRONIC APPLICATION OF)
KENTUCKY RURAL WATER)
ASSOCIATION FOR ACCREDITATION) CASE NO. 2024-00230
APPROVAL OF COMMISSIONER)
TRAINING AND CONTINUING)
EDUCATION CREDIT)**

APPLICATION

Kentucky Rural Water Association (“KRWA” or the “Applicant”) applies for an Order from the Public Service Commission accrediting and approving a proposed water district commissioner training program for continuing education credit pursuant to KRS 74.020(6) and (7) and 807 KAR 5:070.

In support of its application, KRWA states:

1. KRWA is a non-profit corporation incorporated in the Commonwealth of Kentucky pursuant to KRS Chapter 273 on March 19, 1979 and is currently in good standing.
2. KRWA’s mailing address is: 1151 Old Porter Pike, Bowling Green, Kentucky 42103. Its email address is: j.cole@krwa.org.
3. KRWA was organized to foster professionalism in the water and wastewater industry through non-regulatory training, technical assistance programs, and advocacy. Its membership consists of water districts, water associations, municipalities

with populations of 10,000 persons or less, and other similar entities that provide water and wastewater utility services to rural Kentucky.

4. Pursuant to 807 KAR 5:001, Section 4(8),¹ copies of all orders, pleadings, and other communications related to this proceeding should be directed to:

Damon Talley
Stoll Keenon Ogden PLLC
112 North Lincoln Boulevard
PO Box 150
Hodgenville, Kentucky 42748
Telephone: (270) 358-3187
Fax: (270) 358-9560
damon.talley@skofirm.com

Janet Cole
Kentucky Rural Water Association
1151 Old Porter Pike
Bowling Green, KY 42103
(270) 843-2291
Fax: (270) 796-8623
j.cole@krwa.org

5. KRWA proposes to sponsor and conduct a water management training program on August 26, 2024 as part of our 45th Annual Conference at the Central Bank Center in Lexington, Kentucky. The program is entitled “Water Commissioner Training.” A copy of the proposed agenda is attached to this Application at **Exhibit 1**. This program will be conducted in-person. The presenters, KRWA representatives, and all attendees will abide by the COVID-19 safety protocols and social distancing measures in place at the time of the training.

¹ On July 18, 2024, KRWA gave notice pursuant to 807 KAR 5:001, Section 8, of its intent to file this application and of its use of electronic filing procedures.

6. As reflected in **Exhibit 1**, the proposed training program will include presentations on the following topics:

a. **GIS with Benefits: What Commissioners Need to Know.** Explains how GIS and GPS tools are often used together and will demonstrate how the two location-based tools can be used to improve operations of a utility; therefore, improving efficiency and reducing costs;

b. **Basic Procedural Law for Governmental Water Utilities.** Highlights requirements in place for utilities when making purchases, including bidding statute, and procurement issues with state and federally funded projects;

c. **Unaccounted-For Water Loss.** Providing a comprehensive understanding of water loss and ways to manage it, alternative methods for water loss control, the 15% rule and its effect on operations and rate setting, and surcharges;

d. **The Value of Water: A Commissioner's Guide to Water Accountability Success.** Emphasizes the importance of water by equipping decision-makers with tools to efficiently manage water accountability. This includes offering alternative methods for calculating lost water, ensuring consistent tracking of water usage, and reviewing collected data to identify and address water loss;

e. **Kentucky Public Service Commission Inspections.** Focuses on PSC-regulated utilities by providing strategies to improve inspection outcomes. This includes an overview of the inspection process and common issues that may be identified during an inspection;

f. **Recent Developments in Utility Regulation.** A review of recent developments in public utility law and regulation, filing procedures, compliance with orders, maintaining accurate meeting minutes, a review of notable PSC cases, borrowing money, and pending cases of interest to utilities and other hot legal topics.

7. The proposed training program consists of six hours of instruction and should be accredited and approved as water management training satisfying the requirements set forth in KRS 74.020(7) to establish a water district commissioner's eligibility for a maximum annual salary of \$6,000. **KRWA is not requesting that the proposed training program be accredited as a program of instruction for newly appointed commissioners.**

8. A biographical statement containing the name and relevant qualifications and credentials for each presenter is attached at **Exhibit 2** of this application.

9. The PowerPoints for these presentations are attached at **Exhibit 3**. A copy of these presentations will be provided to each attendee. Should a presenter revise or amend his or her presentation prior to their scheduled session or provide additional written materials for the attendees, KRWA will include a copy of the revised presentation with its sworn statement and report regarding the instruction.

10. KRWA will apply or will shortly apply for accreditation of the proposed training program to the Department of Environmental Protection (Kentucky Operator Certification Program).

11. KRWA has sent notice of the proposed training program by electronic mail to the water districts, water associations, and municipal utilities that are under Commission jurisdiction as well as representatives of investor-owned utilities, county judge/executives, county attorneys and others who are believed to have an interest in the proposed program's subject matter.

12. KRWA will retain a record of all water district commissioners attending the proposed training program.

13. Within the Ordered number of days of the proposed training program's completion, KRWA will file with the Public Service Commission a sworn statement:

- a. Attesting that the accredited instruction was performed;
- b. Describing any changes in the presenters or the proposed program curriculum that occurred after certification; and,
- c. Containing the name of each attending commissioner, their utility and the number of hours that he or she attended.

14. KRWA will include with the sworn statement documentary evidence of the program's certification by certifying authorities and a copy of any written material given to the attendees that has not been previously provided to the Public Service Commission.

15. KRWA will admit representatives of the Public Service Commission to the proposed training program at no charge to permit such representatives to assess

the quality of the program's instruction, monitor the program's compliance with the Public Service Commission directives, regulations, or other requirements, or perform any other supervisory functions that the Public Service Commission deems necessary.

WHEREFORE, KRWA requests that the Commission approve and accredit the proposed training program entitled "Water Commissioner Training" for six hours of water district management training.

Dated: July 22, 2024

Respectfully submitted,



Damon R. Talley
Stoll Keenon Odgen PLLC
112 North Lincoln Boulevard
PO Box 150
Hodgenville, Kentucky 42748
Telephone: (270) 358-3187
Fax: (270) 358-9560
damon.talley@skofirm.com

Counsel for Kentucky Rural Water
Association and Stoll Keenon Ogden
PLLC

CERTIFICATE OF SERVICE

In accordance with 807 KAR 5:001, Section 8, I certify that this document was submitted electronically to the Public Service Commission on July 21, 2023, and that there are currently no parties that the Public Service Commission has excused from participation by electronic means in this proceeding.


Damon R. Talley

EXHIBIT 1

WATER COMMISSIONER TRAINING

Central Bank Center

430 W. Vine Street
Lexington KY, 40507

Presented by

Kentucky Rural Water Association

Monday, August 26, 2024

AGENDA

Morning Sessions

7:55 – 8:00 **Welcome and Program Overview**
Jason Pennell, Kentucky Rural Water Association

8:00 – 9:00 **GIS with Benefits: What Commissioners Need to Know**
Christa Campbell, ESRI
Sarah Alban, EOS Positioning Systems
Kenny Ratliff, Oldham Co. Water District

Global Positioning Systems (GPS) and Geographic Information Systems (GIS) are both location-based tools that are often used together. GIS is a computer-based system that captures, stores, analyzes, and visualizes geospatial data. GIS can be used to create maps, show relationships between locations, and target marketing to specific demographics. GIS maps can show things that are above, underneath, and invisible, as well as historical information. GPS is a satellite-based navigation system that uses signals from satellites to determine a location on Earth. This presentation will demonstrate how GIS and GPS can be used to improve operations of a utility with the ultimate goal of improving the efficiency of operations, reducing costs, and provide better customer service outcomes. Presenters will delve in to details of both types of systems and will conclude the session with an account of how Oldham County Water District has implemented these spatial tools to improve the operations at their utility.

9:00 – 9:10 **Break**

9:10 – 10:10 **Basic Procedural Law for Governmental Water Utilities**
Gerald Wuetcher, Stoll Keenon Ogden PLLC

Utilities governed by the PSC have rules they must follow when purchasing goods and services. This session will cover the requirements utilities have to comply with when making purchases. Topics covered in this presentation will include the bidding statute, including a discussion of professional services and the requirements for professional services versus other utility purchases. Other topics will include cooperative purchasing, statutory preferences, and procurement issues with state and federally funded projects.

10:10 – 10:20 **Break**

10:20 – 11:20 **Unaccounted-For Water Loss**
Tina Fredrick, Stoll Keenon Ogden PLLC

Water loss refers to water that never reaches the customer, impacting profitability, water quality, operational costs, and treatment. Presenter will offer a comprehensive understanding of water loss and effective strategies for managing it. This session will begin by defining unaccounted-for water from the perspectives of both the PSC and KYDOW. Other key topics will include the 15% rule and its effects on operations and rate setting; alternative methods for water loss control, such as the AWWA methodology; and will conclude with surcharges and the constraints that may be placed on them.

Afternoon Sessions

**12:30 – 1:15 p.m. The Value of Water: A Commissioner’s Guide to Water Accountability Success
Jason Pennell, Kentucky Rural Water Association**

Excessive water loss is one of the most common regulatory problems among PSC-governed water utilities. This session aims to highlight the value of water and equip decision-makers with tools to manage it effectively. Topics will include water accountability, calculating the value of lost water, and utilizing reports for tracking water usage, such as monthly and annual reports. The discussion will also cover expected system demand and its implications for utilities, data collection, distribution management, and methods for identifying and addressing water loss.

1:15 – 1:25

**1:25 – 2:10 Kentucky Public Service Commission Inspections
Jason Pennell, Kentucky Rural Water Association**

This session will focus on PSC inspections of regulated utilities and strategies for improving inspection outcomes. The presenter will begin by identifying which utilities are inspected by the Division of Inspections, followed by an overview of the inspection process, including risk assessments, point value metrics, and areas of concern. Additionally, the session will emphasize excessive water loss, a primary focus for the PSC during inspections and a common issue for utilities.

2:10 – 2:15 Break

**2:15 – 3:45 Recent Developments in Utility Regulation
Damon Talley, Stoll Keenon Ogden PLLC**

This presentation reviews recent developments in public utility law and regulation. Topics include proper procedures for PSC filings, the importance of compliance with PSC orders, and the maintenance of accurate meeting minutes. The presentation will also cover notable PSC cases, steps to follow when borrowing money, and significant bills passed during the 2024 General Assembly. Presenter will conclude with an overview of pending cases of interest.

EXHIBIT 2



Sarah Alban

EOS Positioning Systems

Sarah Alban is the Director of Marketing at Eos Positioning systems. Ms. Alban is passionate about facts-driven and visual storytelling, stemming from her scholastic and honored education at the prestigious University of Missouri Journalism School, where she studied as a decorated Walter Williams Scholar during her undergraduate and graduate years and won a Students' Choice Award for her service as a Teaching Assistant. Today, Ms. Alban applies her storytelling and organizational skills to the management and execution of marketing for Eos Positioning Systems, the Canadian manufacturer of GNSS receivers and world-leading provider of survey-grade (submeter/cm) solutions for the GIS market (i.e., GPS/GNSS for GIS users).



Christa Campbell

ESRI

Bridging the digital divide

Christa Campbell is an experienced water industry professional with 20 years of success using and promoting technology to solve problems in the water industry. She is recognized for water industry thought leadership, strategic thinking, and building success with organizations across the globe. She is a passionate GIS advocate, lifelong learner, and collaborator. Christa has a diverse background, with experience in conversion from paper to digital, drafting and design of engineering plans, superfund site remediation, environmental mitigation, managing geographic information systems, and implementation of new technology. She is a certified GIS Professional and holds bachelor's degrees in Geography & Environmental Studies and a graduate degree in Geography.

TINA FREDERICK

Stoll Keenon Ogden

Tina Frederick is Counsel to the Firm at Stoll Keenon Ogden, PLLC, and is a member of the firm's Utility and Energy Practice Group. She recently joined the firm after serving approximately five years with the Kentucky Public Service Commission ("Commission"), first as a Staff Attorney and then as an Assistant General Counsel. In those roles, she advised the Commission on various matters pending before the Commission involving the regulation of public utilities, including applications for rate adjustments, the construction of utility facilities, and the issuance of debt instruments. She represented Commission staff in administrative hearings involving those issues as well as those involving investigations of alleged violations of the Commonwealth's statutes and administrative regulations pertaining to utility service. Prior to her employment with the Commission, she maintained for five years a private practice that principally involved the representation of claimants asserting claims under the Social Security Act and Kentucky's Worker Compensation laws. Ms. Frederick is licensed to practice law in the Commonwealth of Kentucky. She holds a Juris Doctorate from Ohio Northern University College of Law, where she graduated cum laude, and a Bachelor of Science Degree in Family and Consumer Science from the University of Kentucky, where she graduated summa cum laude.

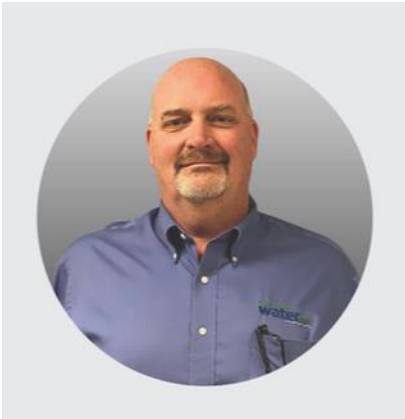


BIOGRAPHY

Jason Pennell **Kentucky Rural Water** **Association**

Jason Pennell joined the Kentucky Rural Water Association staff in August, 2017, as a project specialist. Jason's primary duties are focused on the Energy Program but he also assists on other training and technical assistance programs. Jason's experience in the water and wastewater business began in Whitesburg (Veolia Water) in 2005. There he worked as a meter reader, water treatment plant operator, laboratory manager, operations manager and from 2012-2014 he served as the Chief Operator. Most recently (2014-2017), Jason was a Utility and Regulatory Investigator for the Kentucky Public Service Commission. He holds Kentucky certifications/licenses as follows: Class IIIA Water Treatment Operator, Class II Water Distribution Operator, Class II Wastewater Treatment Operator, Class II Collection System Operator, and is certified in Pipeline and Manhole Assessment by NASSCO.

Jason resides in Georgetown, Kentucky, with his wife, Bridget, and two sons, Bryson and Colton.



Kenny Ratliff

GIS Manager



Kenny Ratliff is the GIS Manager for Oldham Co. Water District. Kenny has extensive knowledge of geographic information systems (GIS) and its application in many areas for more efficiency, sharing, and interoperability. His background consists of experience and knowledge in a broad range of industries that include GIS Manager for KYEM / NGKY, and KDPH Public Safety Branch Manager. Kenny has been employed with Oldham Co. Water District since July, 2016. He is a graduate of Morehead State University and has more than 25 years of experience working with GIS.



Damon Talley, Of Counsel
Stoll Keenon Ogden

Damon joined Stoll Keenon Ogden's Utility & Energy practice as Of Counsel in 2015 and serves clients through the firm's Hodgenville, Lexington, and Louisville offices. Damon represents public utility clients before federal and state courts at the trial and appellate levels. He handles matters such as rate adjustments, transfers of control, financing and construction applications, and consumer complaint proceedings.

Before his time at SKO, Damon worked for decades in private practice and has provided legal representation to public utilities throughout Kentucky. He has focused primarily on water utilities, and his deep expertise in drinking water has earned him a reputation statewide as a go-to legal resource in this area. Damon is general counsel of the Kentucky Rural Water Association and has served in this capacity since 1979.

Given his substantial experience, Damon is frequently called upon to speak at training sessions sponsored by the Kentucky Rural Water Association, Division of Water, Utility Management Institute, and other utility groups in the state.

Damon is highly active in the local community and serves as a board member of several nonprofit organizations. He is a past board member of the Kentucky Infrastructure Authority. He was a charter member, long-time board member, and two-term board chairman of the Kentucky FFA Foundation.



Gerald Wuetcher, Counsel
Stoll Keenon Ogden

Jerry is Counsel to the Firm in Stoll Keenon Ogden's Lexington office and is part of the Utility & Energy practice. He joined the firm in 2014, after working for more than 26 years at the Kentucky Public Service Commission (PSC) as a staff attorney, deputy general counsel, and executive advisor.

Over the course of his career, Jerry has frequently appeared before the PSC in administrative proceedings involving electric, natural gas, water, and sewer utility issues and has represented the PSC in state and federal courts. He also served as the PSC's representative in several interagency groups addressing water and wastewater issues. He drafted amendments to various provisions of Kentucky's public utility statutes and revisions to the PSC's administrative regulations.

From 2009-2013, Jerry was PSC's representative on the board of the Kentucky Infrastructure Authority. He developed and implemented the PSC's training program for water utility officials and was an instructor for that program.

Jerry is a frequent speaker on utility and local government issues before such organizations as the Kentucky Rural Water Association, Kentucky League of Cities, Kentucky Association of Counties, and Utility Management Institute.

Along with his significant experience in the realm of civilian law, Jerry served for 27 years in the U.S. Army as a judge advocate before retiring at the rank of colonel in 2011. He occupied numerous roles on active duty and in a reserve status.

EXHIBIT 3

GIS with Benefits: Oldham County Water District Using Maps to Bring Value to Everyone

What Commissioners Need to Know

2024 Kentucky Rural Water Conference

Presented by:

Christa Campbell, Esri

Sarah Alban, Eos

Kenny Ratliff, OCWD



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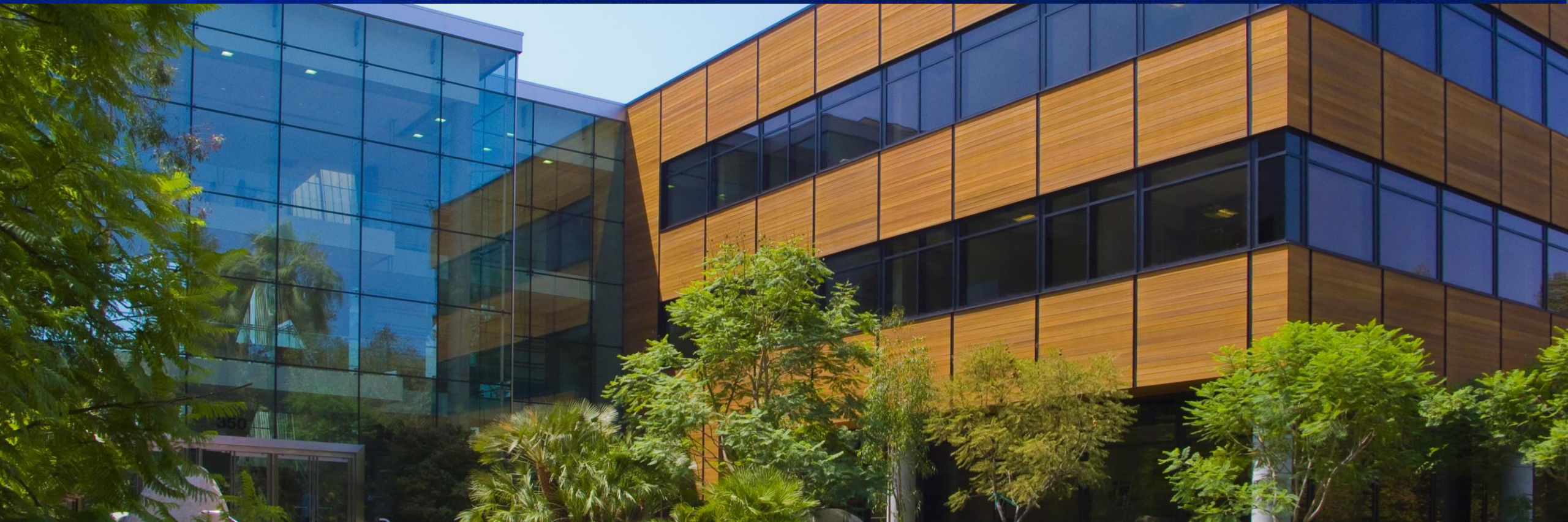
Christa Campbell, Director Industry Solutions - Water

What is GIS?

A Geographic Information System (GIS) creates, manages, analyzes, and maps all types of data.

- Hardware
- Software
- Data
- People
- Workflows

Esri | Redlands, California



Global market leader in GIS

ArcGIS

A System of Record – Data collection and management

- What type assets do you have?
- Where are your assets located?

A System of Engagement – Information sharing and collaboration

- Data shared with field staff and office staff
- What work has been completed?

A System of Insight – Data Visualization and Analytics

- Explore diverse data
- Discover patterns and evaluate trends

ArcGIS – Supporting Asset Management

A System of Record – Data collection and management

- Easily locate assets to perform operations and maintenance activities.
- View asset information from mobile devices.

A System of Engagement – Information sharing and collaboration

- Update asset data from the field or office, ensuring updated accurate information
- View asset data in real-time, enabling efficient monitoring of work progress

A System of Insight – Data Visualization and Analytics

- Explore asset data, identifying patterns and trends
- Make data driven decisions for strategic asset management

ArcGIS



 **Mapping & Visualization**

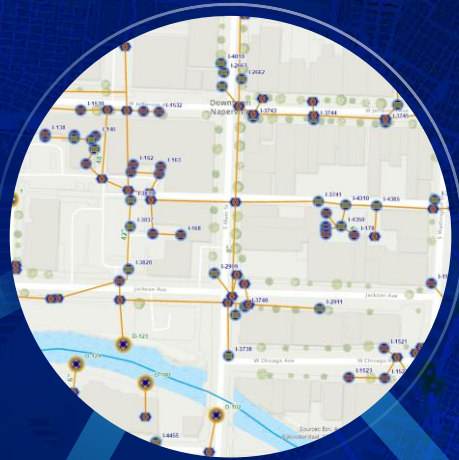
 **Data Management**  **Design & Planning**

 **Field Mobility**  **Decision Support**

 **Monitoring**  **Customer Engagement**

 **Analytics**  **Sharing & Collaboration**

Common Workflows



System Mapping



Field Operations



Operational Awareness

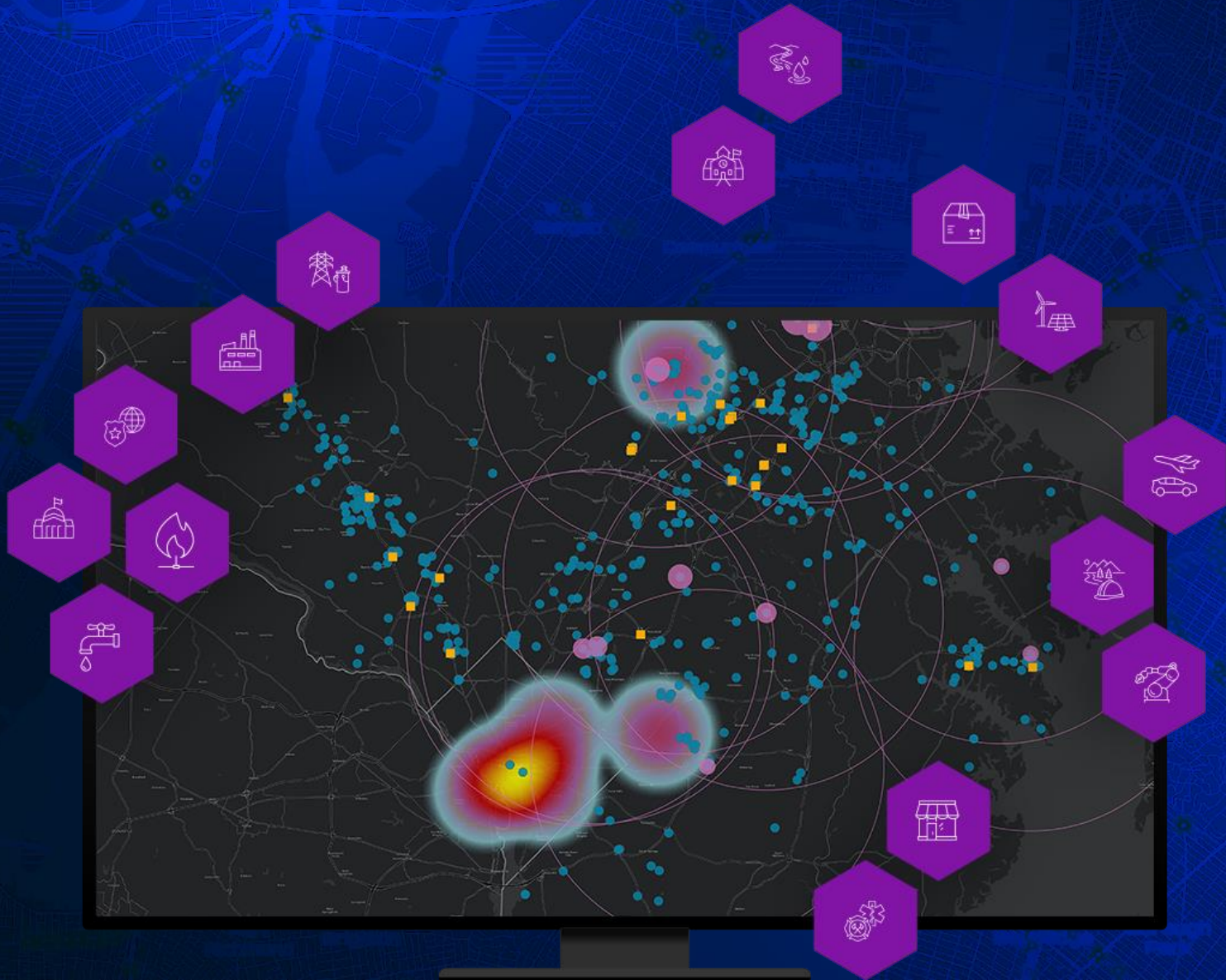


Planning & Analysis



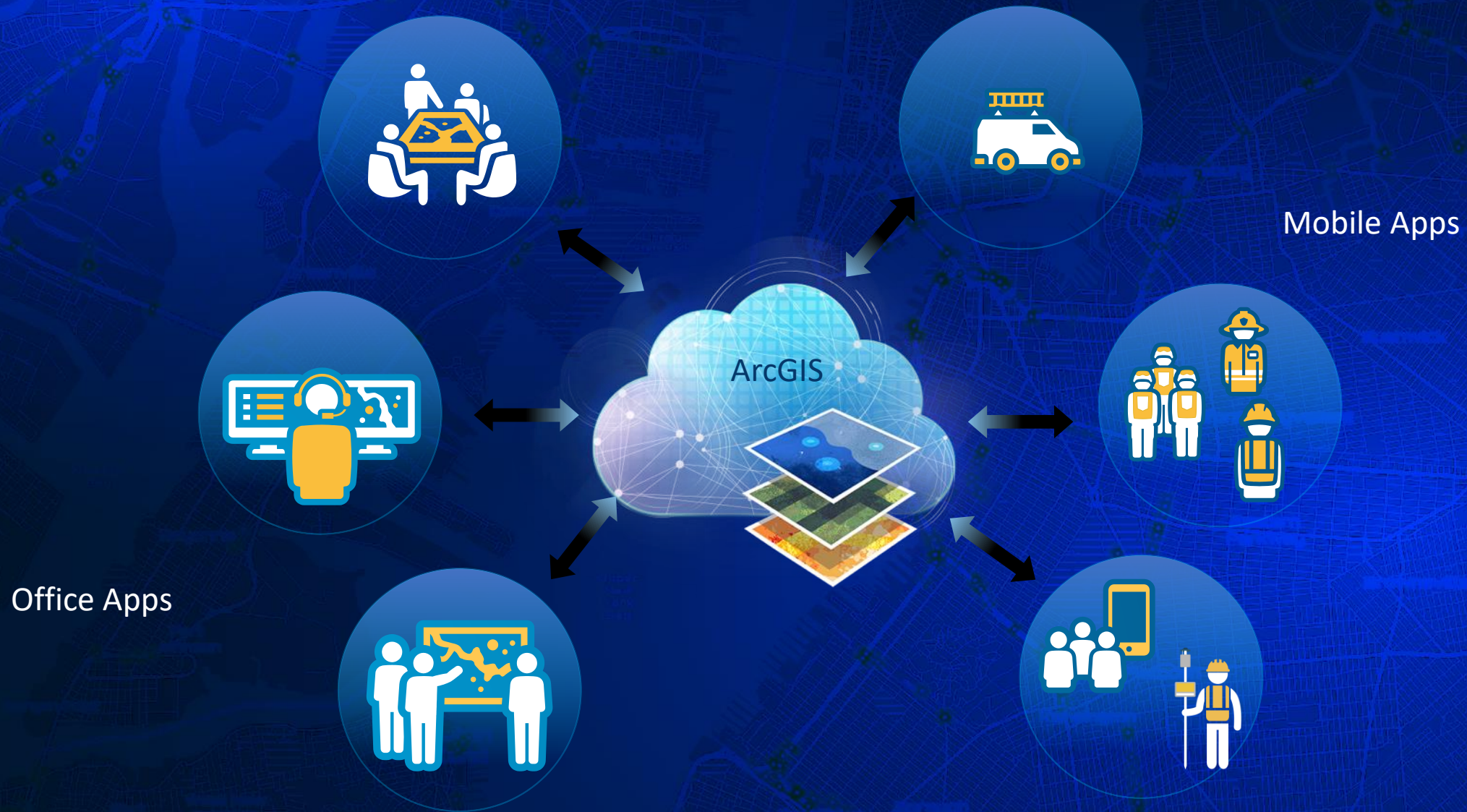
Stakeholder Engagement

ArcGIS Solutions | Industry-specific configurations of ArcGIS



solutions.arcgis.com

Getting Started with GIS | Web GIS and Digital Maps



Mobile Applications | Collect & Share Data in the Field

- View data on smart phones and tablets
- Collect asset locations
- Update asset information
- Collect asset inspection data



ArcGIS Field Maps



ArcGIS Survey123



ArcGIS QuickCapture

Online and Offline functionality

Mobile Applications | Collect & Share Data in the Field

Hydrant Flushing

This survey is designed to integrate with Collector. If the Hydrant ID field is empty, close this survey and open Collector to access it.

Hydrant Location

Flushing Hydrant

Flushing Record

Hydrant ID:
this field is auto-generated

Thread Type:

- York Thread
- National Standard

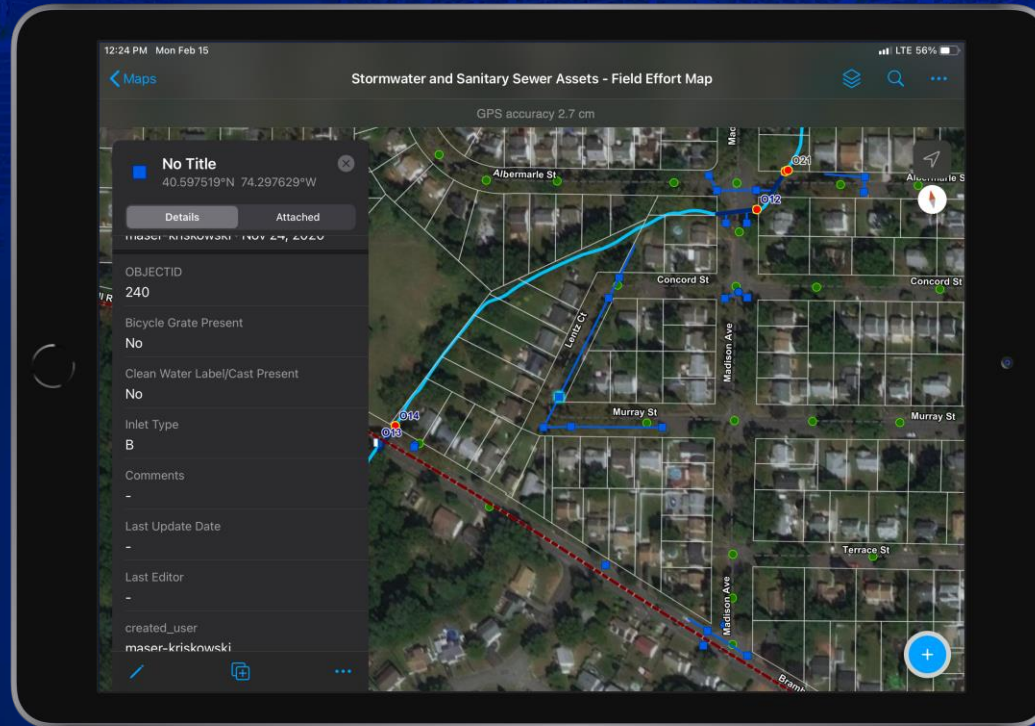
Hydrant Opens:

- Left
- Right

Pressure:



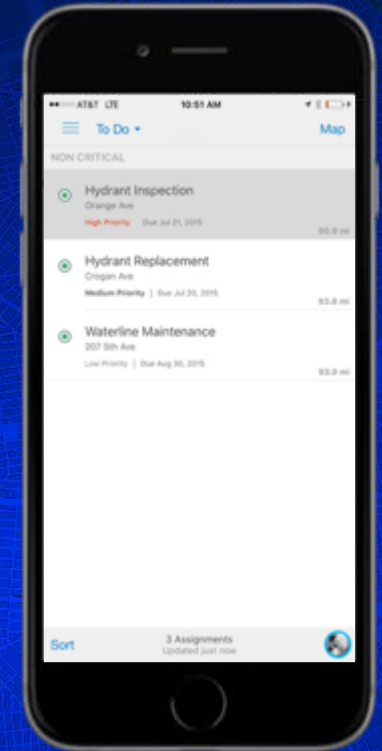
ArcGIS Survey123



ArcGIS Field Maps



ArcGIS QuickCapture



Dashboards | View Data at a Glance

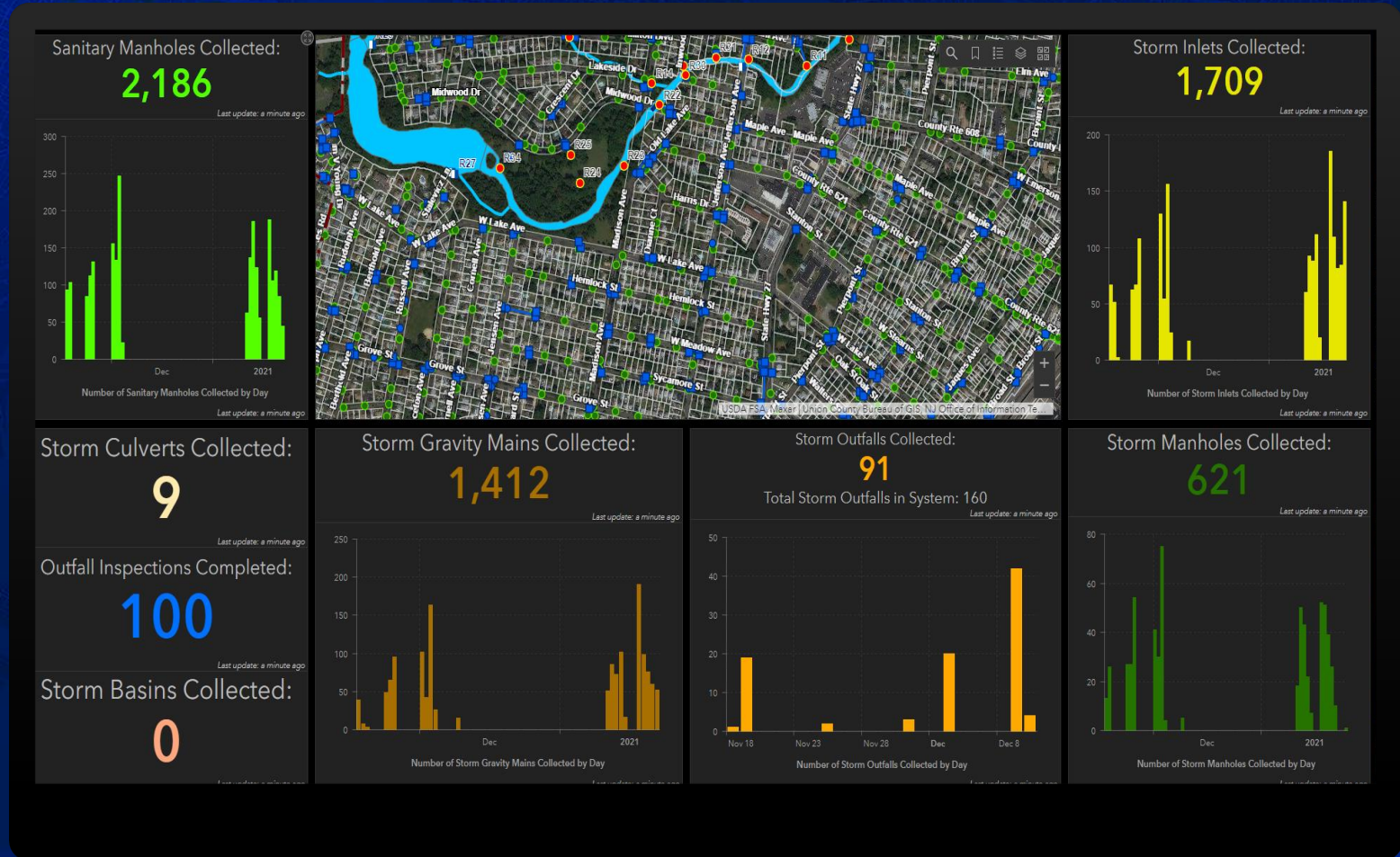
- Monitor work/project status
- Identify trends
- Share information with stakeholders
- Make data driven decisions



ArcGIS Dashboards

Visualize data in maps, charts, and graphs.

Dashboards | View Data at a Glance



Resources

Water Industry Web Pages – esri.com/water

- How GIS supports water industry workflows
- Case Studies and videos
- eBooks

Massive Open Online Courses – esri.com/training/mooc

- Free online courses to build new skills
- Self-paced hands-on learning

ArcGIS Learn Lessons – learn.arcgis.com

- Short tutorials (Free)
- Beginner to advanced options

GIS & Digital Water Report --

- Learn about the role of GIS in Digital Water Transformation
- Access case studies specific to digital transformation





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GPS for Better Asset Management

Sarah Alban, Director of Marketing

What is GPS?

Global Positioning System (GPS)

- Used for positioning and navigation
- Space segment (satellites)
- Control segment (mission control, control stations, operations)
- User segment (e.g., field workers with GPS receivers)





What's the difference between "GPS" and "GNSS"?

GPS is the U.S. "Brand" of GNSS

GPS – the U.S. satellites (the first “constellation”)

Global Navigation Satellite System (GNSS) – All satellites



GPS
USA



BeiDou
China



Galileo
European Union



GLONASS
Russia



IRNSS
India

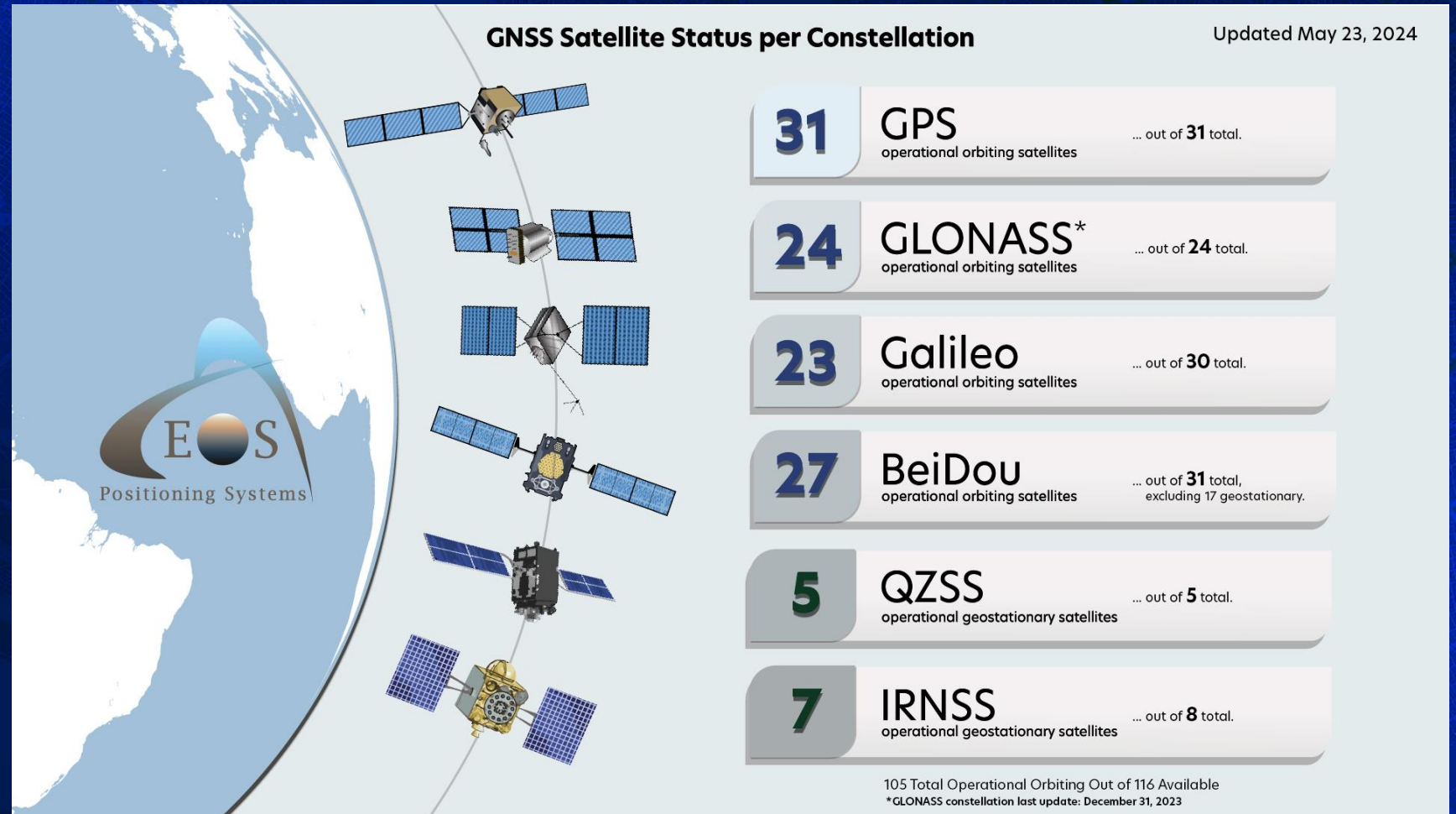


QZSS
Japan

Why use all GNSS satellites?

More satellites – faster positioning, higher accuracy

“Interoperability” – the idea you can use all satellites (with a compatible receiver) because countries developed them to work similarly



Who is Eos Positioning Systems?

Canadian GPS Designer & Manufacturer (Montreal, QC)

Mission: Make GPS easier & accessible for everyone who manages assets

Established 2014

What makes Eos different?

- Products: Easy to use
- Accuracy: Reliable
- Tech support: Responsive and free
- Mentality: Agnostic, helpful
- Pricing: No annual fees



What does Eos Positioning Systems offer?

Bluetooth GPS (GNSS) receivers

Range of accuracy levels (submeter, subfoot, centimeter)
& affordable prices

Arrow Series® (2014)

Skadi Series™ (2024)

Solutions:

- Skadi Tilt Compensation 
- Invisible Range Pole 
- Extensible Virtual Range Pole (laser) 
- Underground mapping (free)
- Laser offsets (free)



Arrow 100+™
Submeter
GNSS Receiver



Skadi Gold™
RTK (Cm)
GNSS Receiver

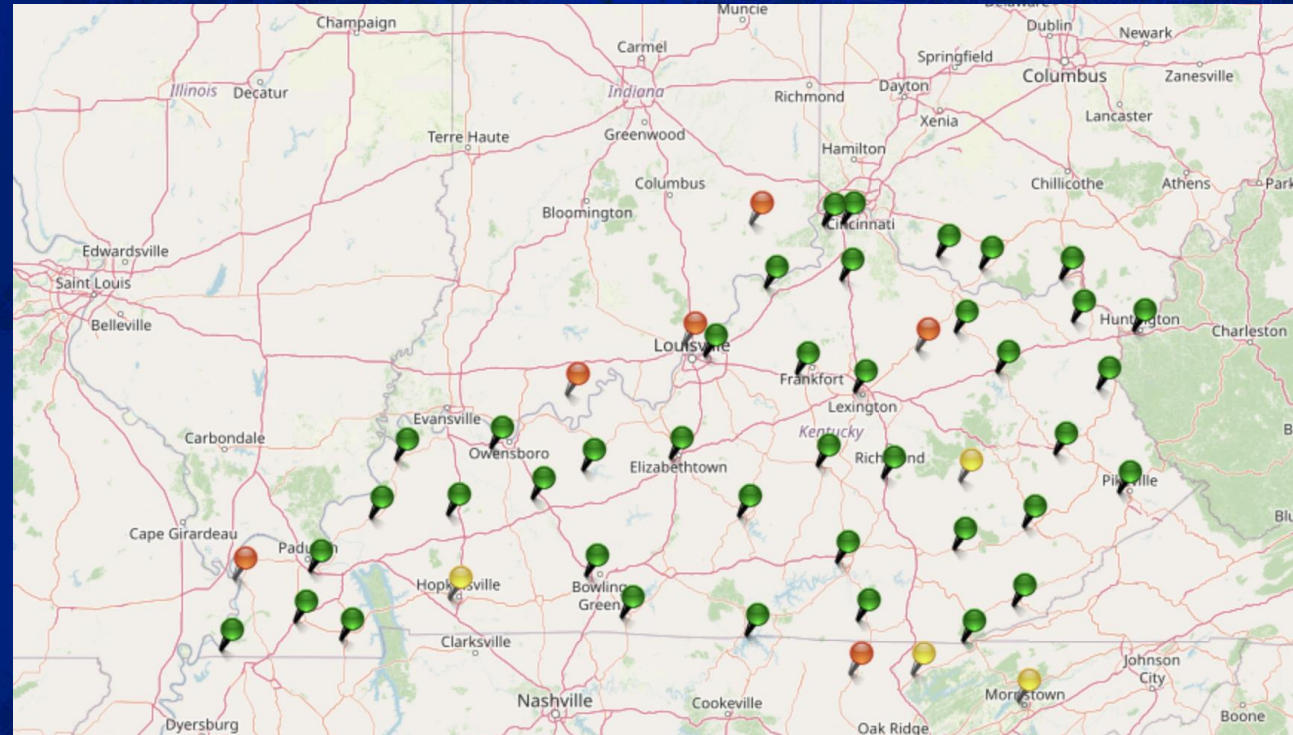
Kentucky is a GPS-Friendly State

KYCORS: Free centimeter (sub-inch) corrections statewide (operated by Kentucky Transportation Cabinet)

SBAS: Free 30-60 cm (1-2 foot) corrections nationwide (operated by U.S. FAA)

Galileo HAS: Free decimeter (~6 inch) corrections worldwide (operated by the E.U.)

All these are free!



<https://kycors.ky.gov/Map/SensorMap.aspx>

Resources

Water Case Studies

- https://eos-gnss.com/successes?_sft_industries=water-wastewater-stormwater

Free GNSS Training (Beginner to Advanced)

- <https://eos-gnss.com/request-workshop-access>

Recommended Educational Article:

- "GPS Overview Part 1: What is GPS and GNSS Positioning?"
- <https://eos-gnss.com/knowledge-base/gps-overview-1-what-is-gps-and-gnss-positioning>

Ask Our Team Anything, Any Time:



Contact Eos

OLDHAM COUNTY

Water **DISTRICT**

The word "Water" is written in a large, bold, blue font. Below the letters "t", "e", and "r" are three horizontal, wavy blue lines that resemble water ripples. The word "DISTRICT" is written in a smaller, bold, green font to the right of "Water".

Kenny Ratliff, GIS Manager

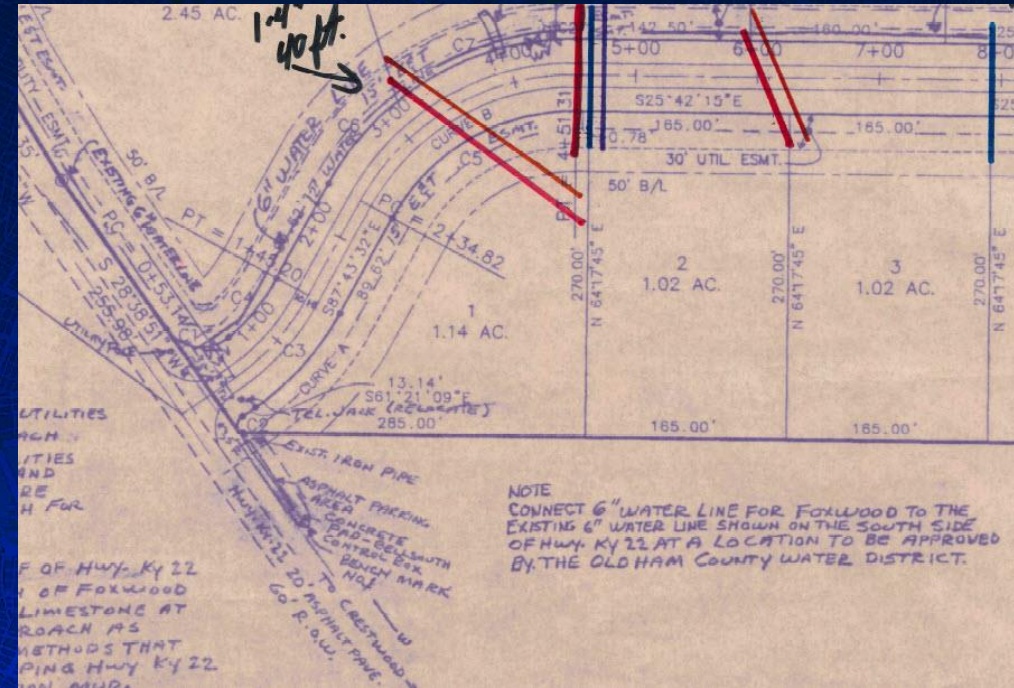
System Information



- District – 1,395 square miles
- 24 full-time staff
 - 2 part-time staff
- Currently 9,360 service meters
- Water main – 368 miles
- Source – 10 wells
 - 130 feet deep in aquifer
 - 13 storage tanks
- 3.5 million gallons of daily water use
- 13 million gallons daily treatment capacity
- 1.2 billion gallons treated annually

Our Map History

- Infrastructure as old as 1953
- Digital mapping started – 2001
 - Scanned drawings digitized
 - Map grade GPS obtained
- 2007 – Esri Local Government template
- 2013 – Survey grade GPS unit
- 2016 – Full-time GIS Manager
- 2017 – Small Utility ELA, Esri
- 2017 – GNSS receiver w/ mobile device
- 2020 – ArcGIS Online move
- 2024 – Currently have 6 GNSS receivers



OLDHAM COUNTY WATER
DISTRICT - HOME

NEWS

Water Outage/Alert Map

Boil Water Advisory
Questions & Answers

Customer Service

Construction

Links, Tips, Tools, & Facts

OCWD Service Area

Update Customer Contact
info

Employment

Employees Only Login
Required

Locate Request

Bid Information

Social Media



New Rates:

[Click here to view new water rates](#)

Public Facing Map Tools

Customer Engagement

Service Area

Legend

OC Water Service Area



La Grange Utilities Water Service Area



Louisville Water Service Area



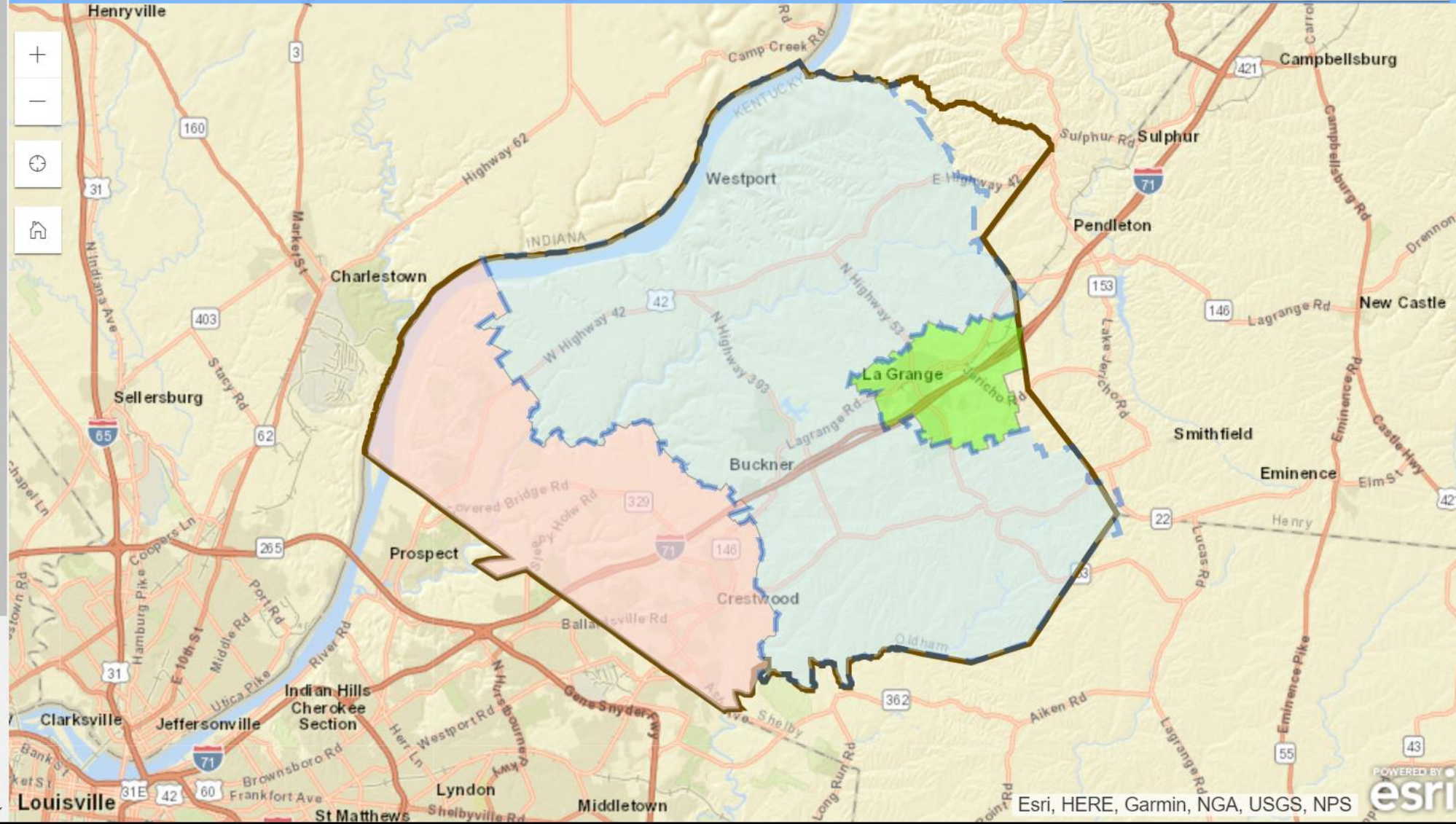
Oldham County



About

This web map allows current and future customers to determine if Oldham County Water District will be the provider for water services. An address or street can be input in the Search window. Once the map zooms to the result, the location will fall inside or outside the blue service area. If there are questions about a service, please contact OCWD at 502-222-1690. Feel free

Oldham County Water District - Service Area





Service Area Demo

Boil Water Advisory - Public

Legend Details Info

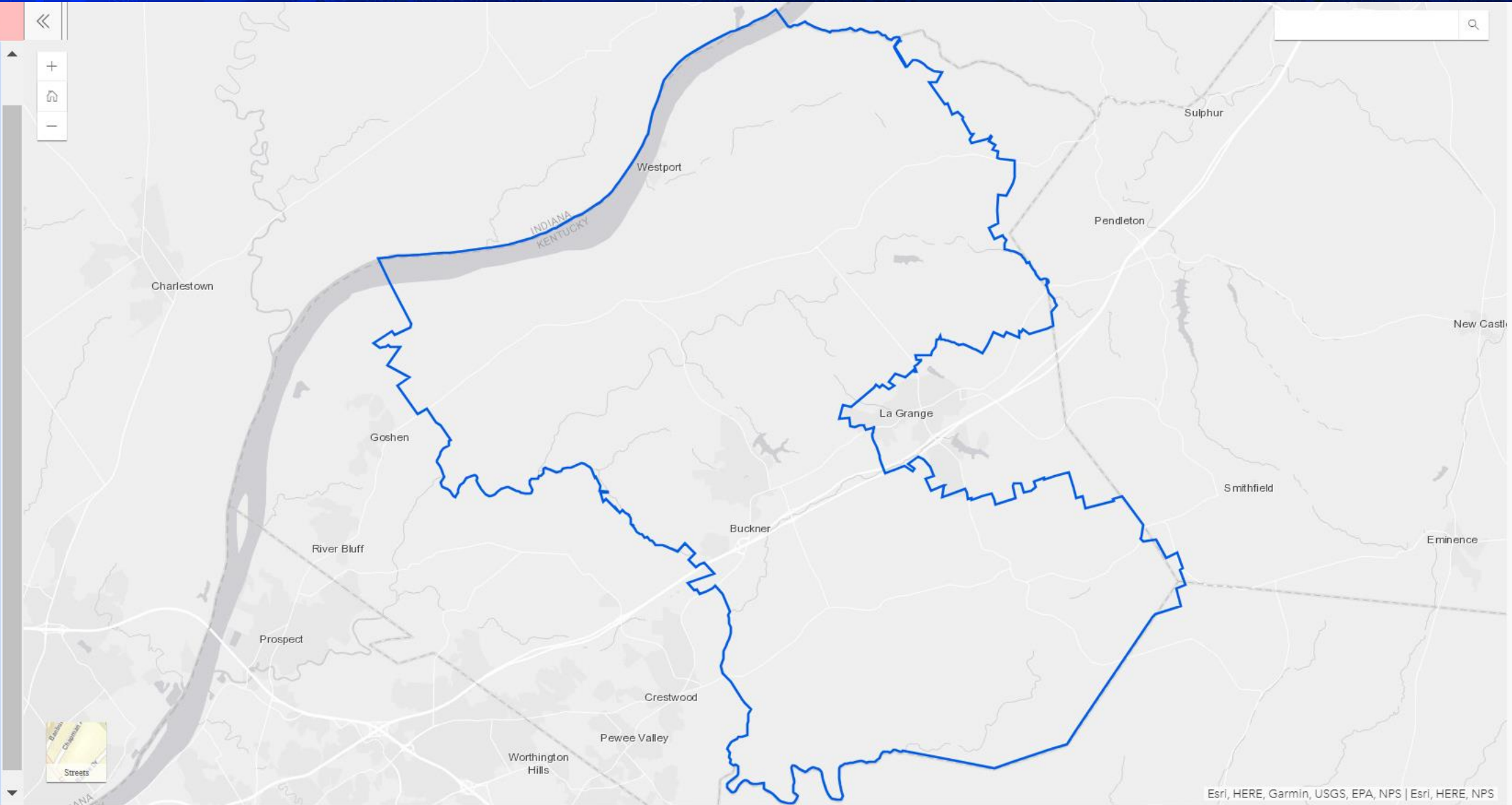
Boil Water Advisory is hereby issued for the area(s) shaded in red served by the Oldham County Water District. (There are no current advisories if the map shows no red areas.)

Although **no contamination has been confirmed**, the line break and or loss of pressure associated with the repair work may increase the possibility of potentially harmful bacteria getting into the water system.

Until further notice it is recommended that your drinking water be boiled for at least three (3) minutes at a rolling boil.

The Oldham County Water District and or its contractors will be repairing your service interruption as soon as possible; we expect service to be restored in a few hours but continue to boil your water until the advisory has been lifted. We apologize for any inconvenience this may have caused you. The advisory was issued as a precautionary action and can only be lifted with the approval of the Kentucky Division of Water. Appropriate laboratory testing will be done following all repairs. We will be notifying you as soon as the Kentucky Division of Water allows us to lift the advisory.

Oldham County Water District
2160 Spencer Ct, KY 40031(Public Water System ID# KY0930333), is issuing this Boil Water Advisory. 401 KAR 8:020 Section 2 (9) a.

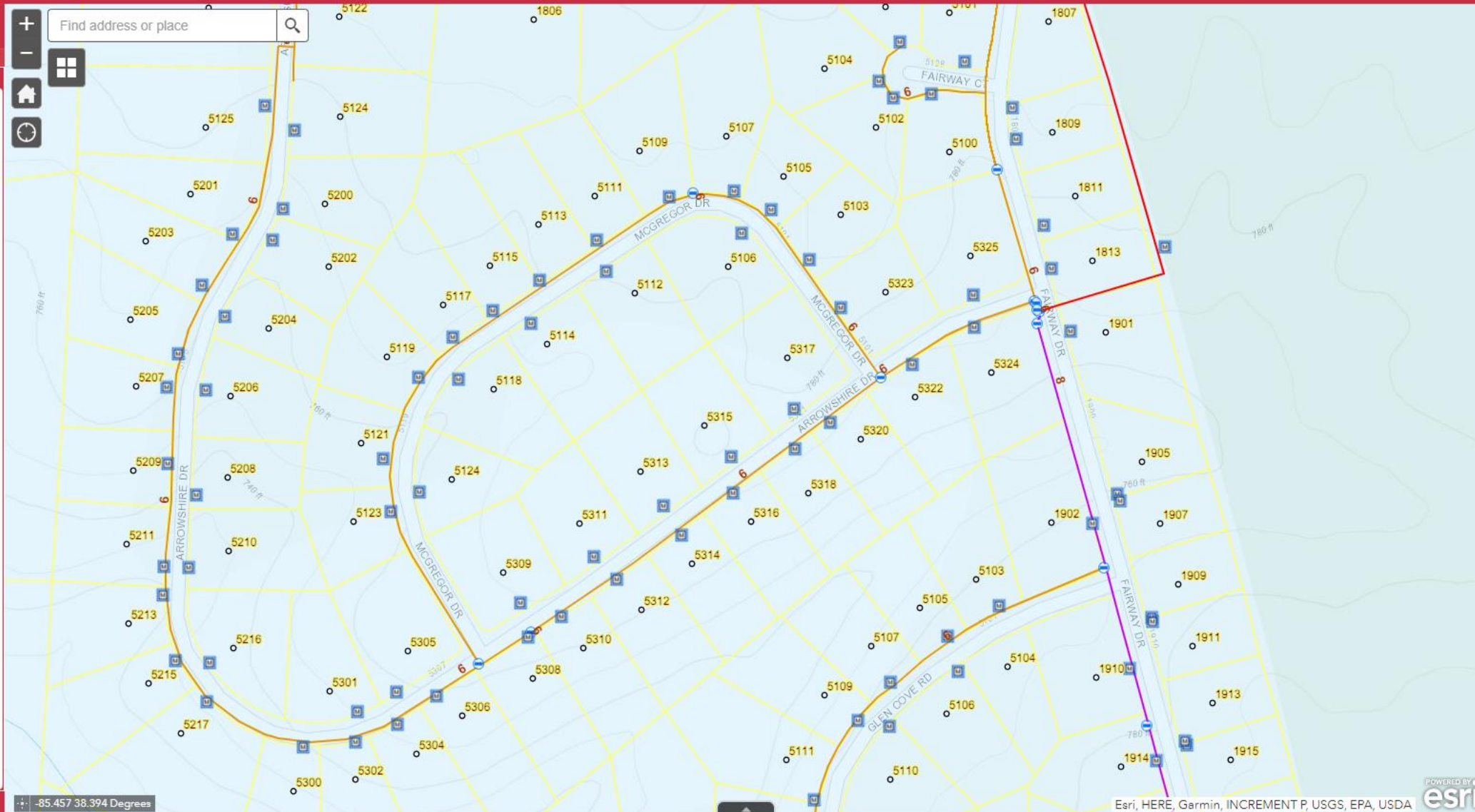


BWA – Layers Tab

Layer List

Layers

- OCWD Boil Water Advisory Area
- Address
- Water Meter
- Water Valve
- Water Main
- Parcel
- OCWD Service Area
- Imagery



Boil Water Advisory – Drawing Tool

Smart Editor

OCWD Boil Water Advisory Area

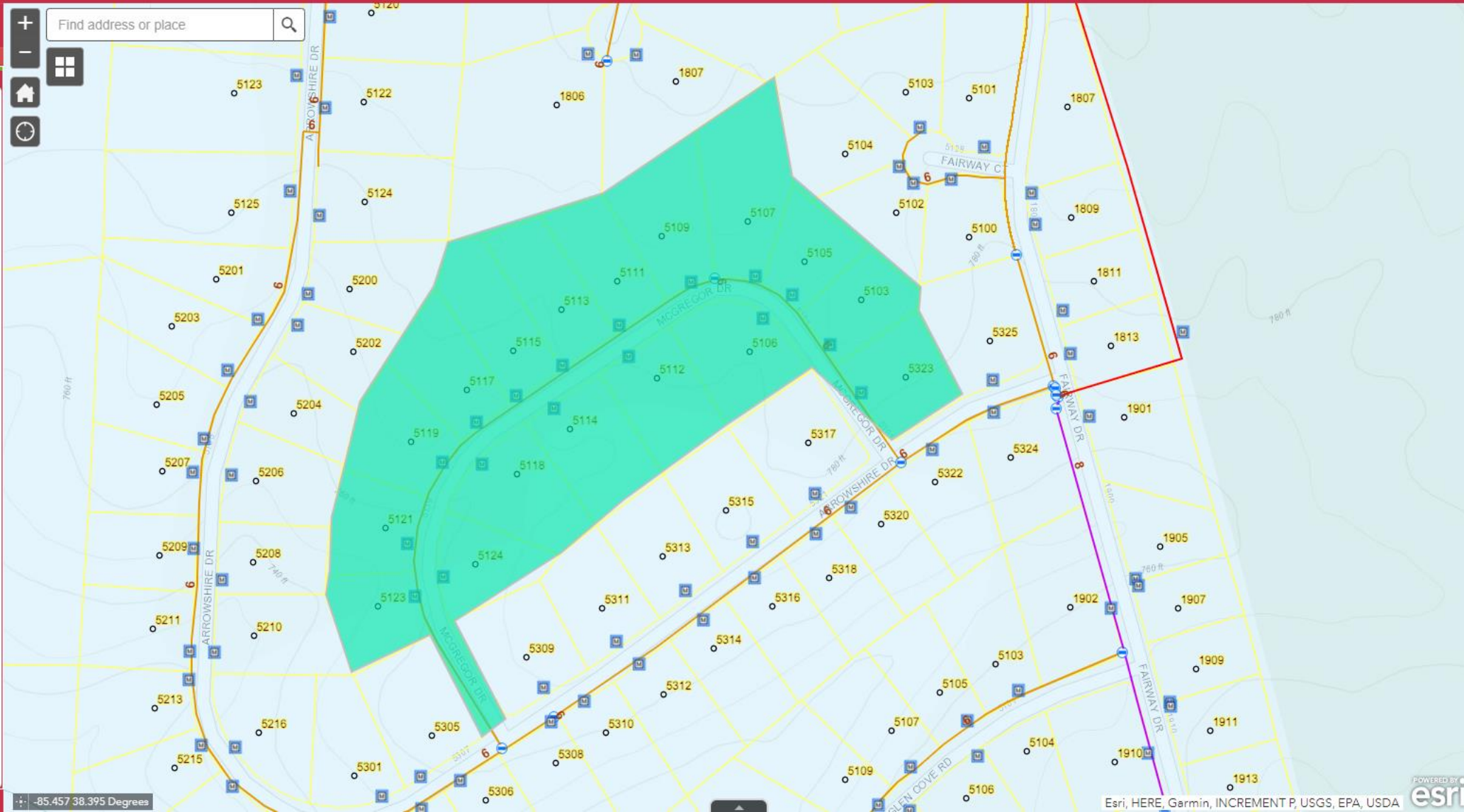
Issue Date
August 20, 2024

Type of Issue
Boil Water Advisory

Comments
Please see Details tab for water use during this

Attachments:
 No file chosen

Edit Geometry



Boil Water Advisory – Customer Selection

Water Alert Manager

Select

Select Clear

Layer

- Water Meter 17
- Water Valve
- Water Main
- OCWD Service

Selection actions

- Zoom to
- Pan to
- Flash
- Export to CSV file
- Export to feature collection
- Export to GeoJSON
- Statistics...
- Create layer
- Save to My Content
- View in Attribute Table
- Clear selection

Boil Water Advisory - Public

Legend Details Info

Drinking Water Alert

Boil Water Advisory is hereby issued for the area(s) shaded in red served by the Oldham County Water District. (There are no current advisories if the map shows no red areas.)

Although **no contamination has been confirmed**, the line break and or loss of pressure associated with the repair work may increase the possibility of potentially harmful bacteria getting into the water system.

Until further notice it is recommended that your drinking water be boiled for at least three (3) minutes at a rolling boil.

The Oldham County Water District and or its contractors will be repairing your service interruption as soon as possible; we expect service to be restored in a few hours but continue to boil your water until the advisory has been lifted. We apologize for any inconvenience this may have caused you. The advisory was issued as a precautionary action and can only be lifted with the approval of the Kentucky Division of Water. Appropriate laboratory testing will be done following all repairs. We will be notifying you as soon as the Kentucky Division of Water allows us to lift the advisory.

Oldham County Water District 2160 Spencer Ct, KY 40031 (Public Water System ID# KY0930333), is issuing this Boil Water Advisory. 401 KAR 8:020 Section 2 (9) a.



Customer Service
Construction
Links, Tips, Tools, & Facts
OCWD Service Area
Update Customer Contact info
Employment
Employees Only Login Required
Locate Request
Bid Information
Social Media

LOCATE REQUEST

Oldham County Water District maintains its own call center for locates and is not a member of KY811 call center.

If this is an ***EMERGENCY LOCATE REQUEST*** you must call **502-222-1690** and follow the instructions for an **emergency.**

You may also call our office during normal business hours to request a water main locate.

Line Locate Instructions

Line locates for Oldham County Water must be obtained prior to construction for any excavation regardless of depth.

Request locates for each location separately at least two full working days before work begins. If this is an emergency Line Locate, call our After-Hours phone line 502-222-1690 and follow the instructions for an emergency.

Please Note many of the water lines in the Oldham County Water District area are unlocatable using electronic equipment and are deemed unlocatable without potholing by the District. If this is the case you will be notified and should not proceed with any excavation until notified by the Oldham County Water District.

Call Before You Dig

[CLICK HERE TO MAKE A LOCATE REQUEST ON-LINE](#)

[CLICK HERE TO MAKE A LOCATE REQUEST ON-LINE](#)

[CLICK HERE TO MAKE A LOCATE REQUEST ON-LINE](#)

[CLICK HERE TO MAKE A LOCATE REQUEST ON-LINE](#)

Underground Locate Request - Public

Oldham County Water District

811 Locate Request

Please review the following information prior to submitting an underground locate request.

Prior to any excavation taking place, marking of underground utilities is required by Kentucky law. OCWD performs its own infrastructure marking activities. There is a call center available for notifying other utilities. Please visit kentucky811.org for more information or call 811 to submit a request.

Please note this site can only be used for "normal" or "re-mark" submissions. **ALL EMERGENCY LOCATE REQUESTS** must be made by calling the OCWD office at 502-222-1690. Normal business hours are 8:00 AM to 4:00 PM. Follow the prompts after-hours to leave a message - staff will respond as soon as possible.

How and when will OCWD respond to a facility locate request?

An operator shall respond to facility requests and provide a positive response within the timeframes outlined in the law. Response times are as follows:

- **Normal notice** - within two (2) working days after receiving the notification
- **Emergency** - as quickly as possible but not to exceed forty-eight (48) hours after receiving notification
- **Design information** - within ten (10) working days after receiving notification
- **Large project** - within two (2) working days the operator shall notify the excavator that an excavation area has been determined to be a large project, which is an area of excavation measuring more than two thousand (2000) feet in length. Multiple excavation notifications in an area may be considered together in determining if the excavations are part of a large project. The operator shall respond to the request within five (5) working days from the date of receiving the notification.

What happens if the operator doesn't respond?

If an operator has failed to give a positive response within the timeframes provided above, the excavator shall submit a second notice through the notification process.

(*For the OCWD system, please select the re-mark option, include the original ticket number, and comment it is a second notice.)

Within one (1) working day after receiving a second notice request from an excavator, an operator shall locate its facility and update via a positive response.

Please read and accept:

OCWD has created this electronic locate request tool for your convenience.

Only 2 type of requests will be accepted in this manner.

Normal or Re-mark Excavation Locate Requests that require a full 2 working day notice prior to excavation and Design Tickets that require a full 10 business day notice. As defined by law, "Working day" means every day except Saturday, Sunday, and holidays established by federal or state statute from 12:01 AM eastern time until 12:00 midnight eastern time, excluding the day the locate request was made.

A Design Ticket is a notification made to a utility or protection notification center in preparation for bidding, preconstruction engineering, or other advance planning efforts. A Design Ticket may not be used for excavation purposes.

All other locate requests must be submitted by calling OCWD at 502-222-1690.

I agree to hold OCWD free from all liability. By clicking the "I Accept" below, you indicate that you understand and agree to this User Agreement.

[I Accept](#)

[I Disagree and Do Not Accept](#)



Locate Request Demo

Underground Locate - Response



Welcome to the Oldham County Water District locate response system. This tool is intended for use by OCWD staff only.

Clicking the button below will open a Survey123 form.

Prior to filling in content, click the Locate Dig Site Selector tab, find and select the parcel outlined by the original request.

Then select the Locate Request Response tab to populate the survey fields.

Begin Locate Response



Locate Response Demo

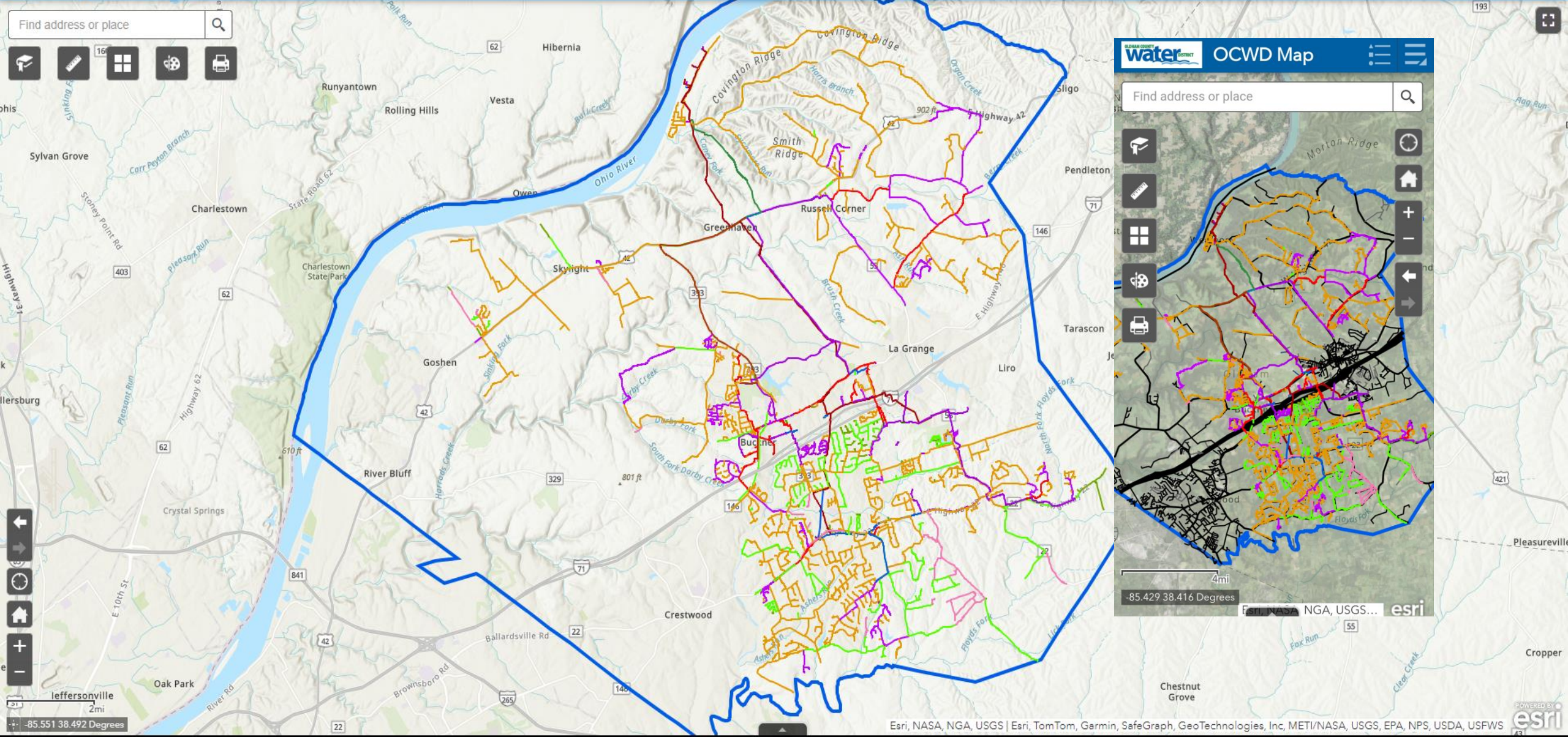


Internal Map Tools



Office & Management Engagement

OCWD Map



The background is a blue-tinted map of a city grid. A river winds through the left side of the map. A path, highlighted in a slightly lighter blue, starts from the top left and moves towards the bottom right, following a series of streets. The text 'OCWD Map Demo' is centered over the map.

OCWD Map Demo

Dashboards - Operations



Activity Status - Open



Activity Status - Under Review



Activity Status - Closed



Last update: 39 seconds ago

Last update: 39 seconds ago

Last update: 39 seconds ago

Archived Activity



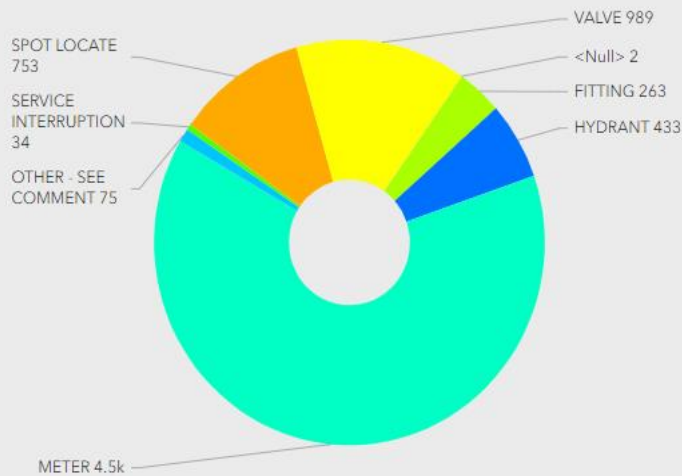
Last update: 39 seconds ago

Total Meters Mapped

9,360

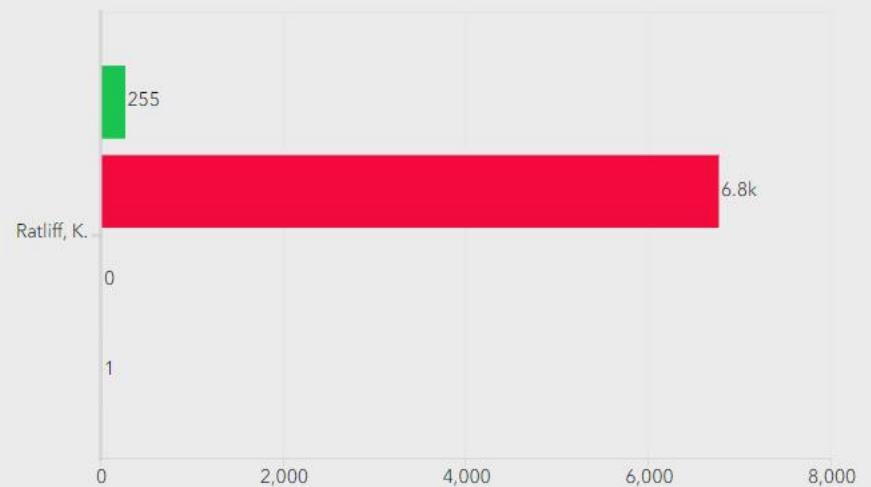
Last update: 39 seconds ago

Activity by Type



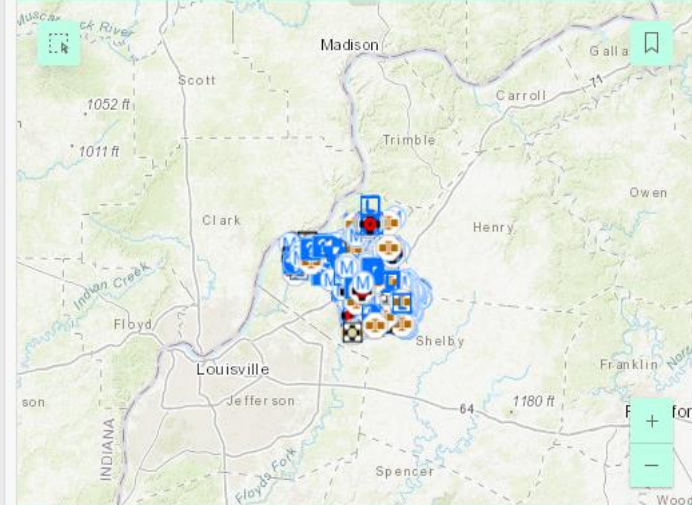
Last update: 37 seconds ago

Activity Assignments



Last update: 37 seconds ago

Need Locations



Esri, HERE, Garmin, FAO, USGS, NGA, EPA, NPS

Powered by Esri

Dashboards – Meter Inspections

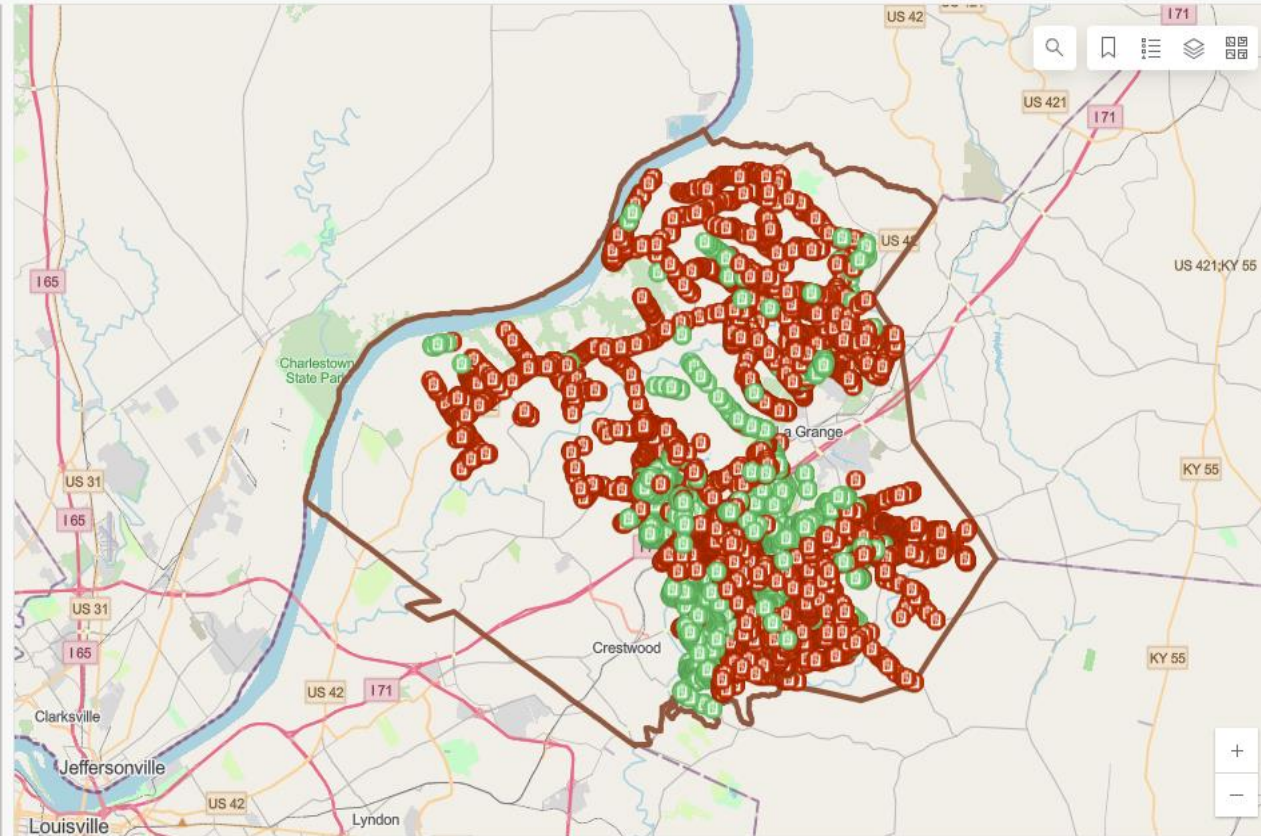
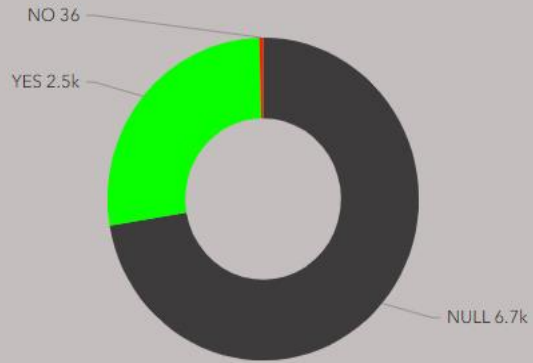
Inspected

3.4k

Not Inspected

5.8k

Check Valve Present



Inspected - Current Week

2

Inspected - Previous Week

136

Dashboards – Flush Tracking

Records Submitted

Current Week

Record Date - 7/6/2024, 8:59 AM
 Staff Reporting - Tingle
 Staff if Other -
 Location - FH-286
 Activity Type - N, S, E, W
 Water Source - Non-metered
 Total Gallons Flushed - 1,275
 Sample Quad - West
 Total Chlorine - 1.22 PPM
 Free Chlorine - 1.05 PPM
 Breakpoint - 86.07 %

Record Date - 7/6/2024, 8:38 AM
 Staff Reporting - Tingle
 Staff if Other -
 Location - FH-439
 Activity Type - N, S, E, W
 Water Source - Non-metered
 Total Gallons Flushed - 1,500
 Sample Quad - South
 Total Chlorine - 1.19 PPM
 Free Chlorine - 1.04 PPM
 Breakpoint - 87.39 %

Record Date - 7/6/2024, 8:17 AM
 Staff Reporting - Tingle
 Staff if Other -
 Location - FH-400
 Activity Type - N, S, E, W
 Water Source - Non-metered
 Total Gallons Flushed - 1,200
 Sample Quad - East
 Total Chlorine - 1.20 PPM
 Free Chlorine - 1.05 PPM
 Breakpoint - 87.50 %

Record Date - 7/6/2024, 7:53 AM
 Staff Reporting - Tingle
 Staff if Other -
 Location - FH-447
 Activity Type - N, S, E, W

Current Week

Previous Week

Total Chlorine - Average
Current Month

1.21

Free Chlorine Average -
Current Month

1.04

Breakpoint Average
Current Month

85.4 %

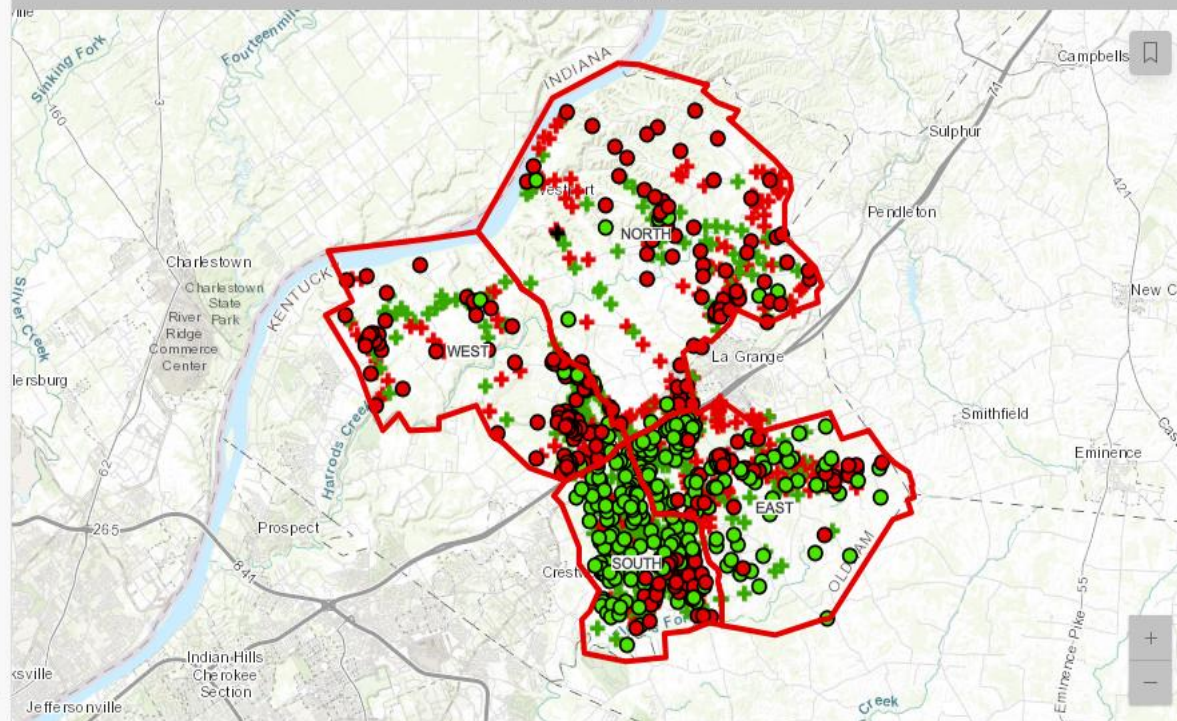
End System Hydrants - Exercised



Intermediate Hydrants - Exercised



Hydrant Location Map



End System Hydrants - West



End System Hydrants - North



End System Hydrants - South



End System Hydrants - East



Dashboards – Lead Service Line Inventory

Lead Service Line Inventory

Lead

0

Any portion of the service line is known to be made of lead

Galvanized

0

The service line is not made of lead, but a portion is galvanized and the system is unable to demonstrate that the galvanized line was never downstream of a lead service line.

Non-Lead

2,619

All portions of the service line are known NOT to be lead or GRR through an evidence-based record, method, or technique.

Unknown

444

The service line material is not known to be lead or GRR. For the entire service line or a portion of it (in cases of split ownership), there is not enough evidence to support material classification.

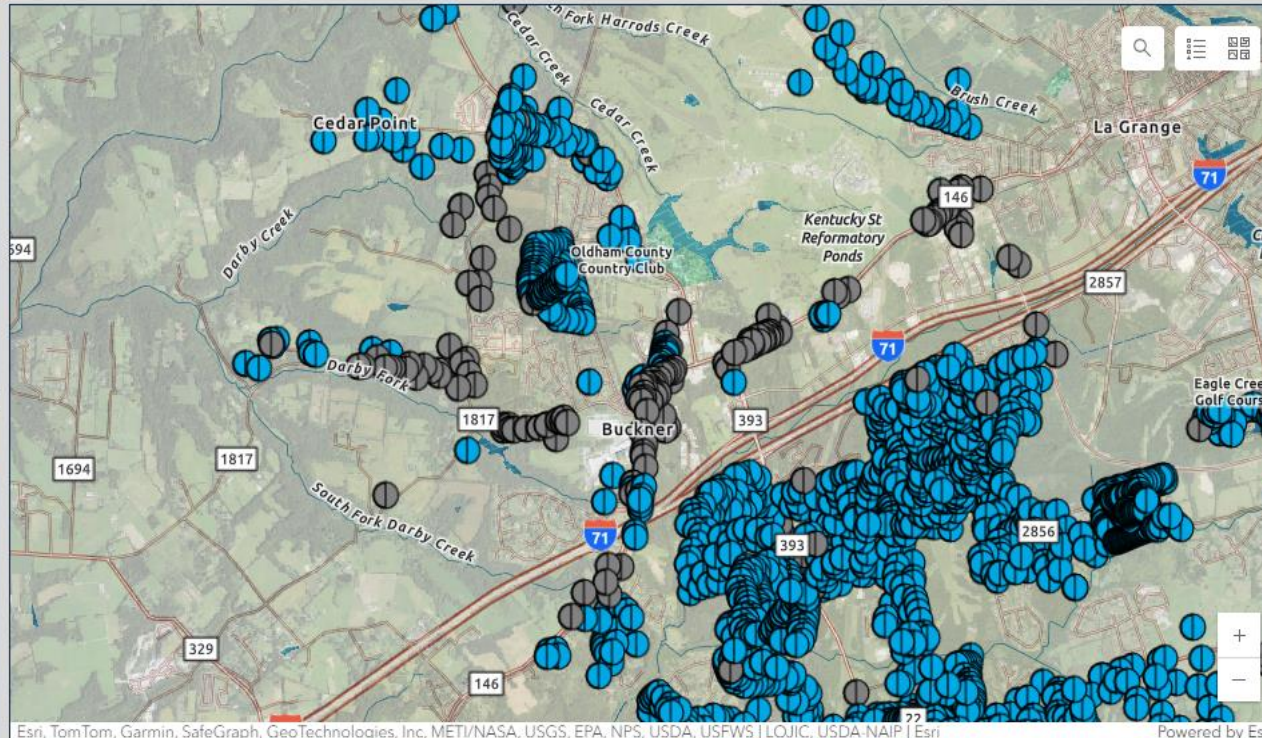
Verified Service Lines



Replaced

0

Total number of lead service lines replaced.



Esri, TomTom, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, USDA, USFWS | LOJIC, USDA-NAIP | Esri Powered by Esri

Lead Service Lines

No data

[Lead Service Line Inventory Table](#)

[Lead Service Line Inventory Map](#)

Dashboards – Field Notes

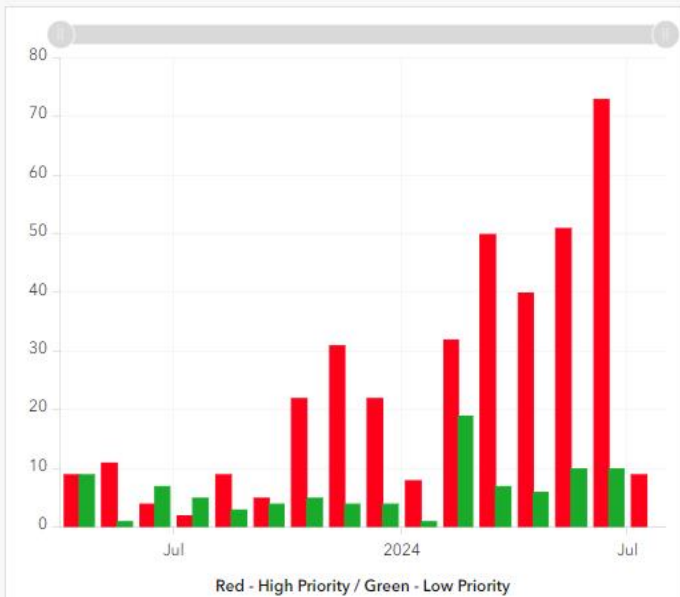
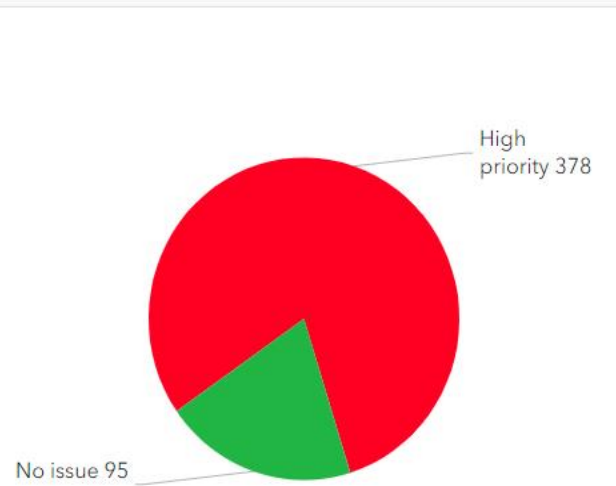
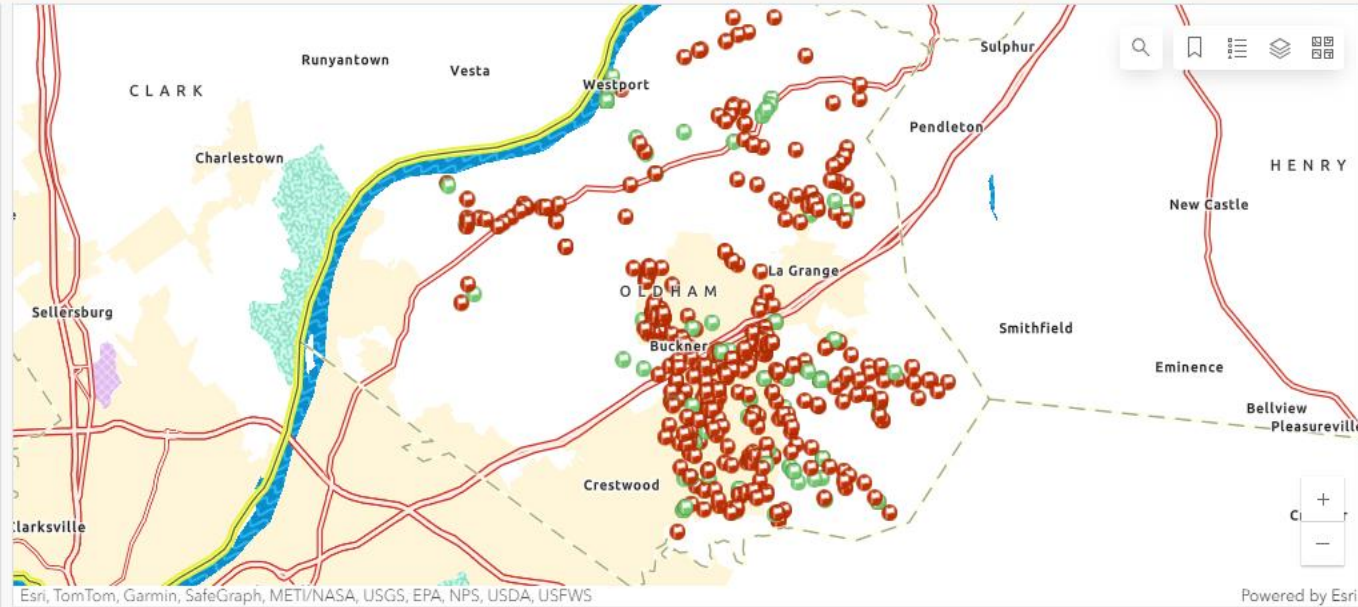
1 of 473

Photo

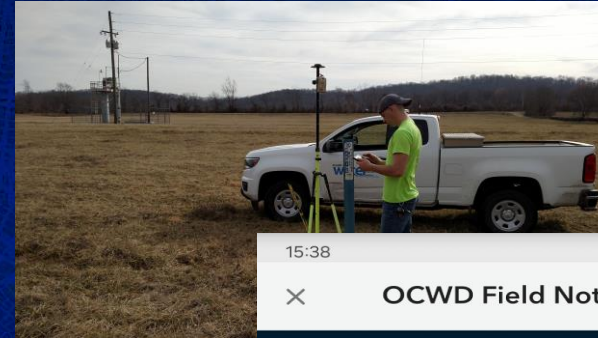
Comments	3163 N HWY 393 Inline check valve
Inspector	J. Coombs
Priority	High priority
Acquisition Date	7/3/2024, 3:04 PM



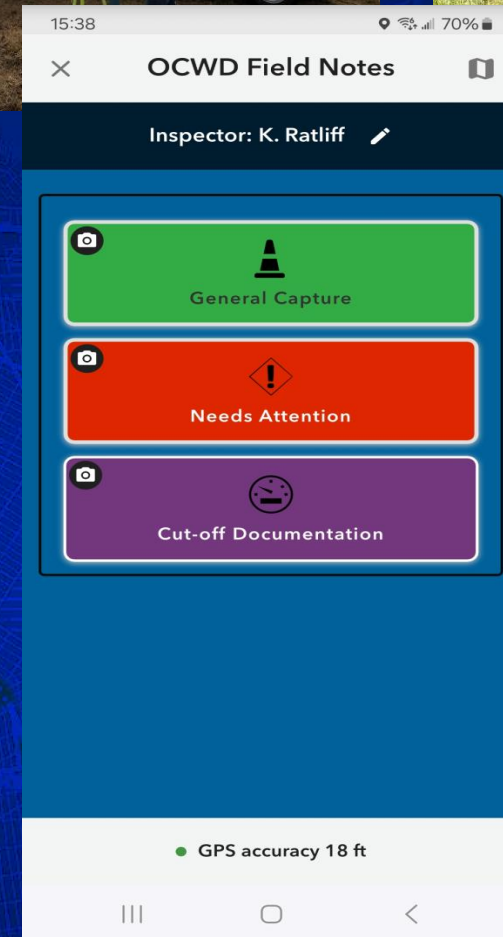
- 7/3/2024, 3:05 PM, J. Coombs
3163 N HWY 393 Inline check valve
- 7/3/2024, 11:13 AM, J. Coombs
3226 N HWY 393 Longtail setter no check valve
- 7/2/2024, 3:29 PM, J. Coombs
4511 N CAMDEN LN Longtail setter no check valve In driveway
- 7/2/2024, 11:22 AM, J. Coombs
9100 W HWY 42 No check valve Copper on both sides
- 7/2/2024, 10:08 AM, J. Coombs
9601 W HWY 42 ert splice kit pulled apart
- 7/2/2024, 10:00 AM, J. Coombs
2in iron pipe
- 7/2/2024, 9:27 AM, J. Coombs
9319 W HWY 42 No ert looks like mower hit it needs new lid
- 7/2/2024, 8:57 AM, J. Coombs
8905 W HWY 42 No check valve copper both
- 7/1/2024, 3:13 PM, G. Black
In between 4002 and 4004 tara dr. Main leaking likely @ T to hydrant. Valved off hydrant, leaking sound still audible. Leak is before hydrant valve and likely on the main at the T.
- 6/28/2024, 3:08 PM, J. Coombs
8115 MEADES LANDING LN Meter Is dripping water try to tighten meter But leak s on fitting that extends meter length.
- 6/28/2024, 2:09 PM, J. Coombs
8001 W HWY 42 Inline check valve
- 6/28/2024, 1:22 PM, J. Coombs



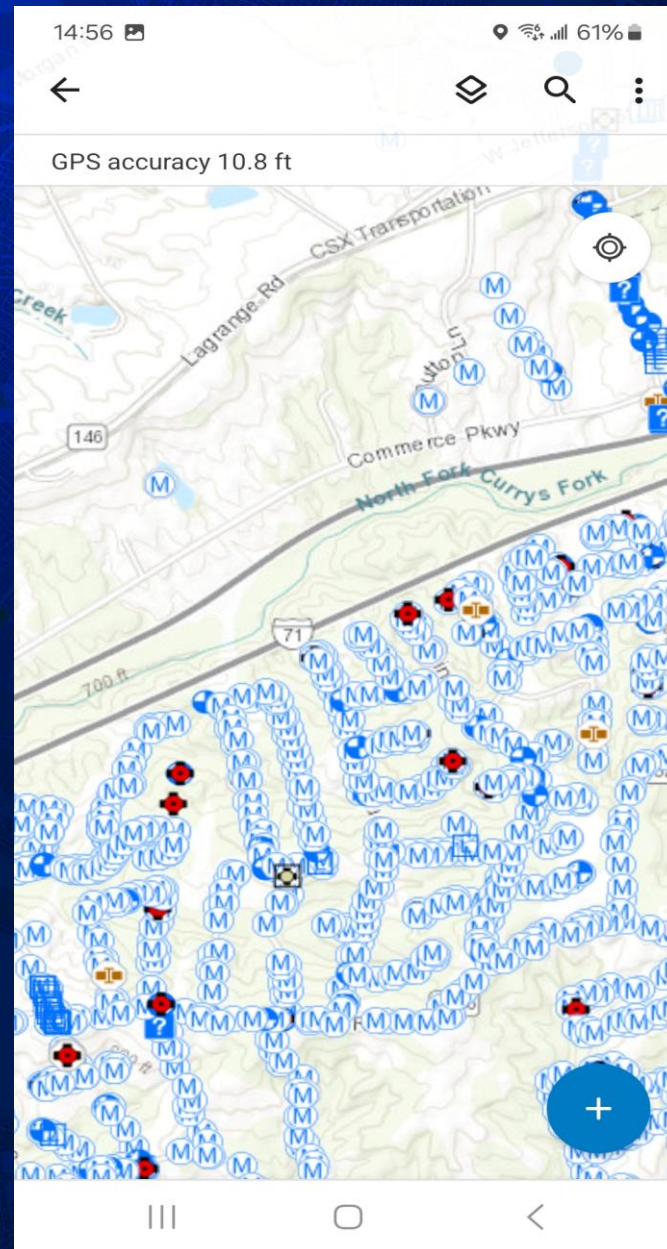
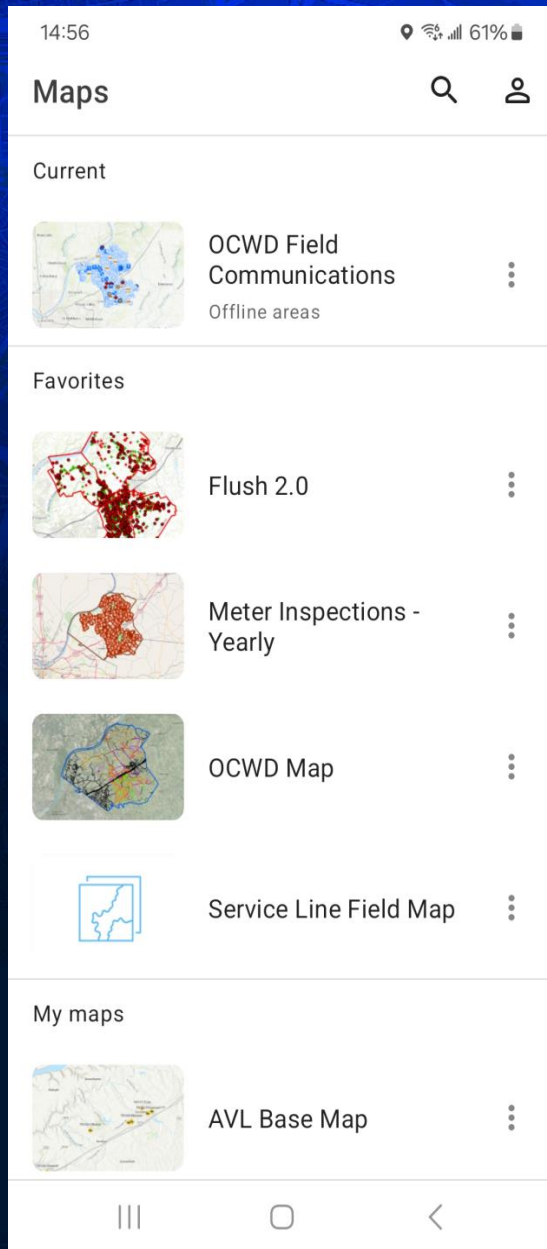
Field Worker Engagement



Mobile Support & Asset Management

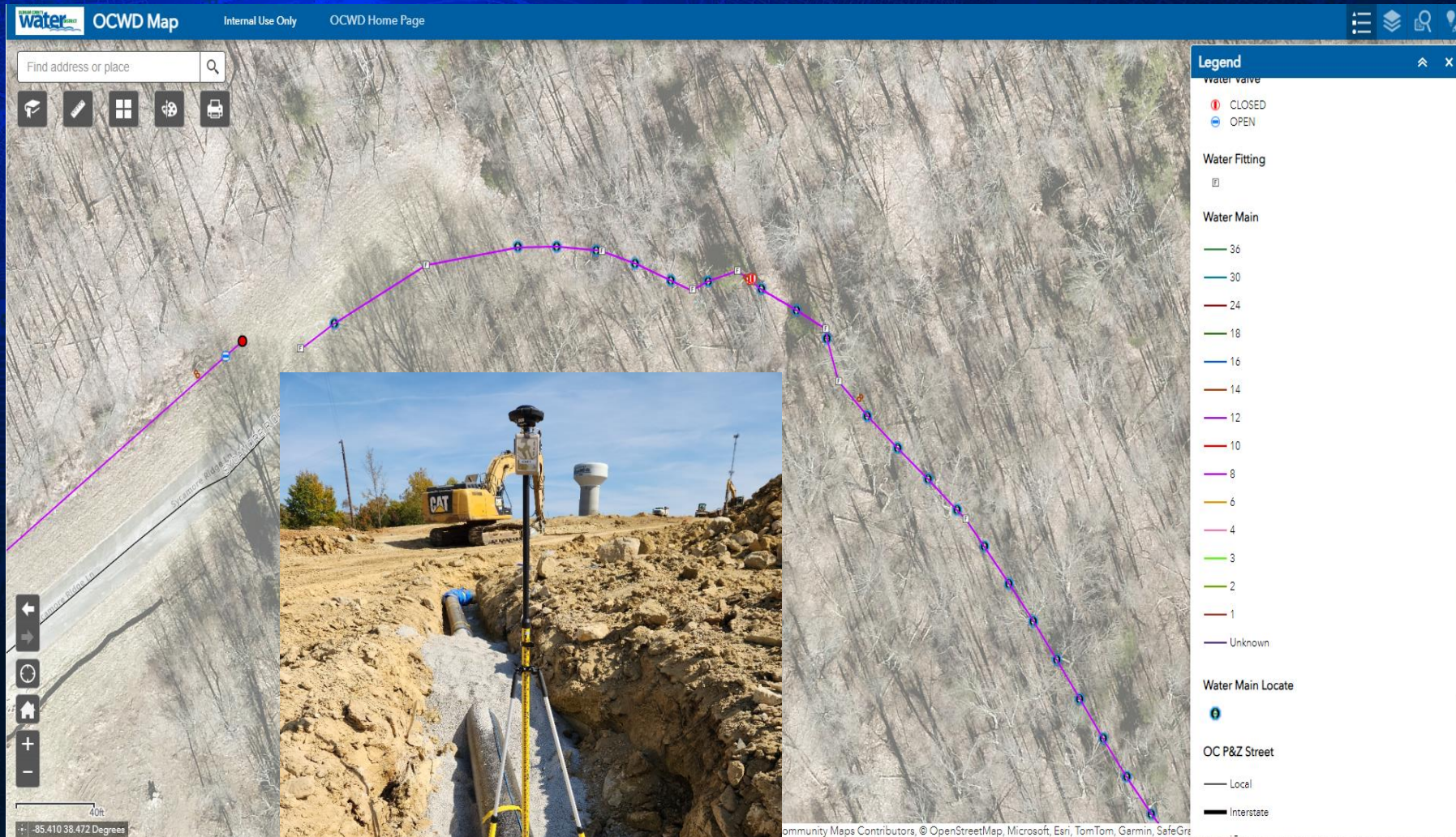


Field Comms



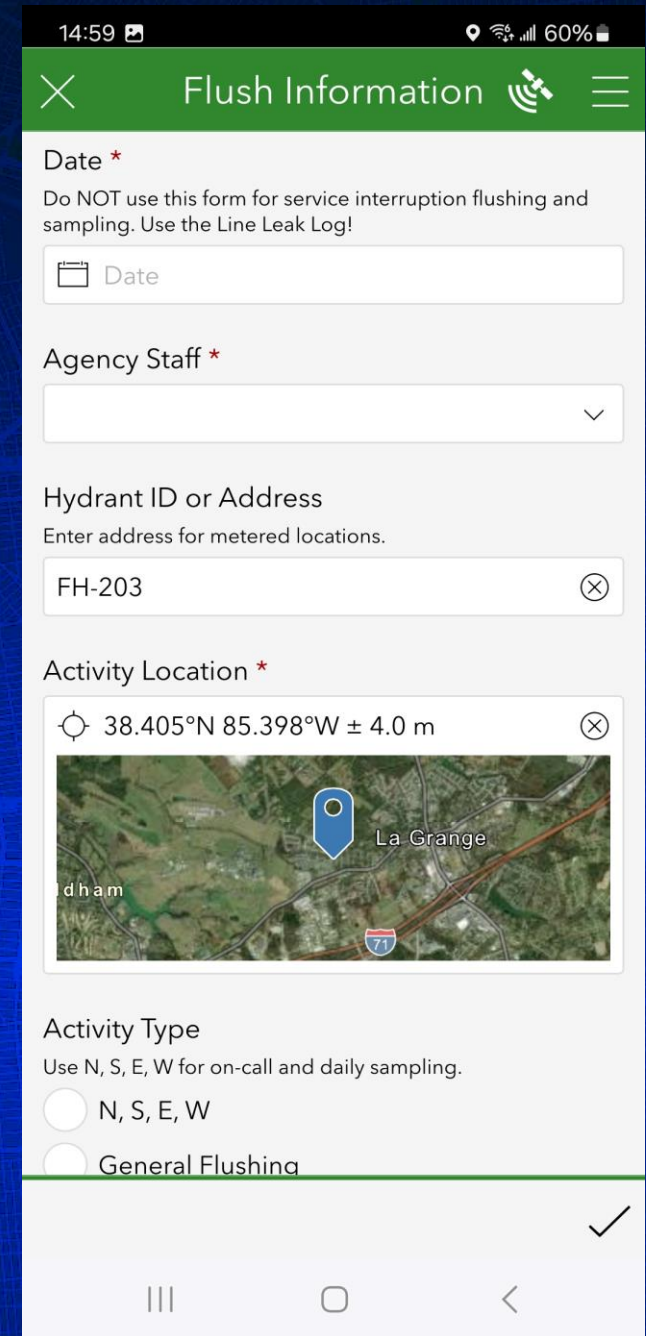
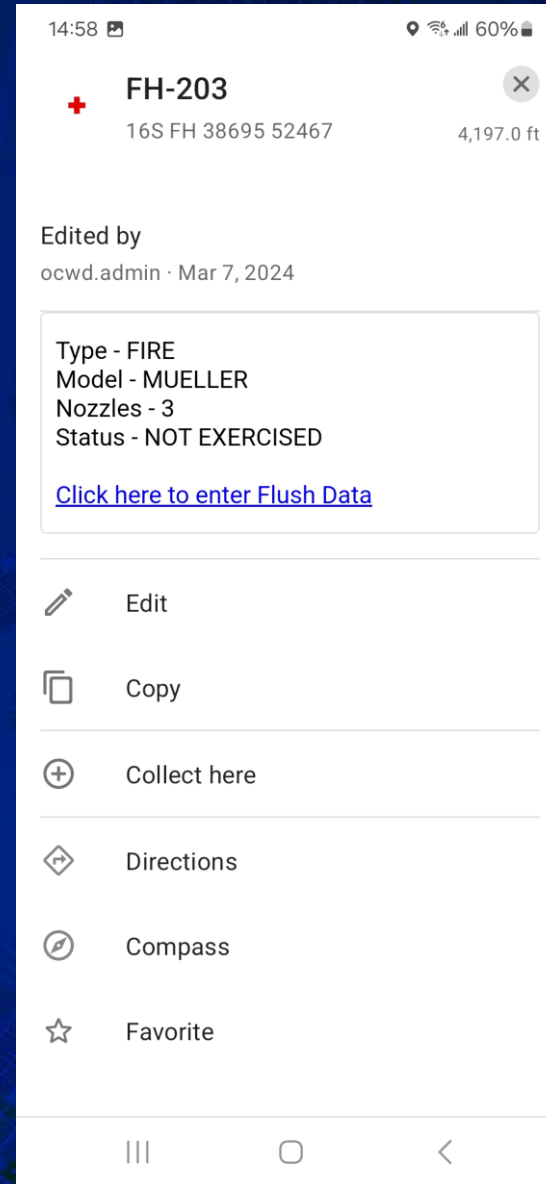
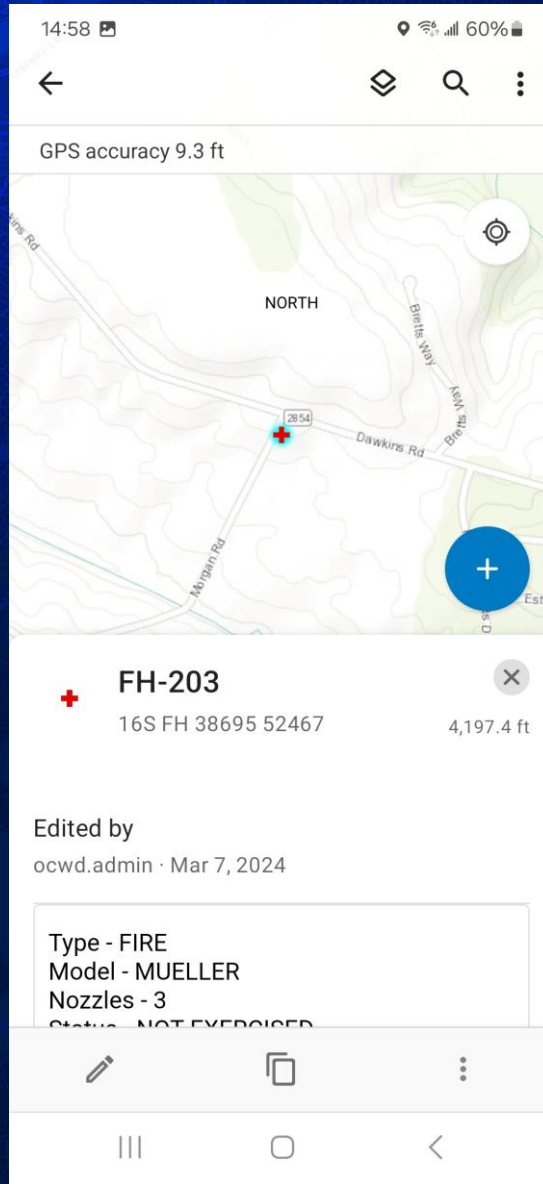
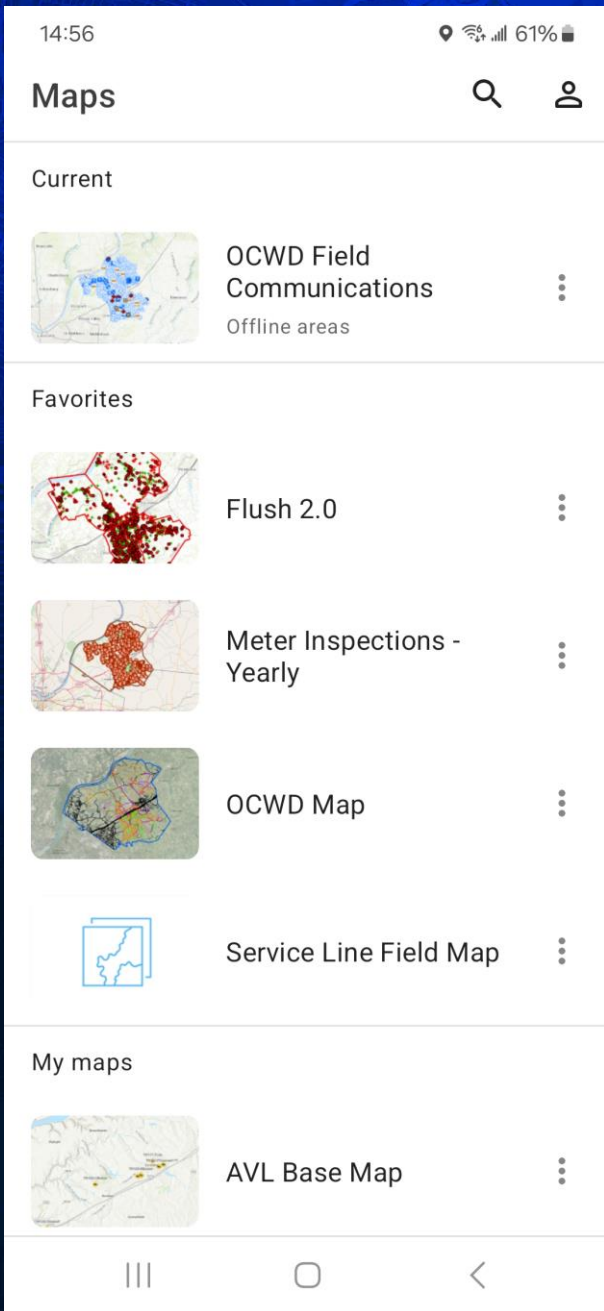
- Using the Eos workflow since 2017
 - Archived >17,000 collections
 - Current FC to digitize - ?
 - 2023 collected all water meters (>9K)

New Installation Collection

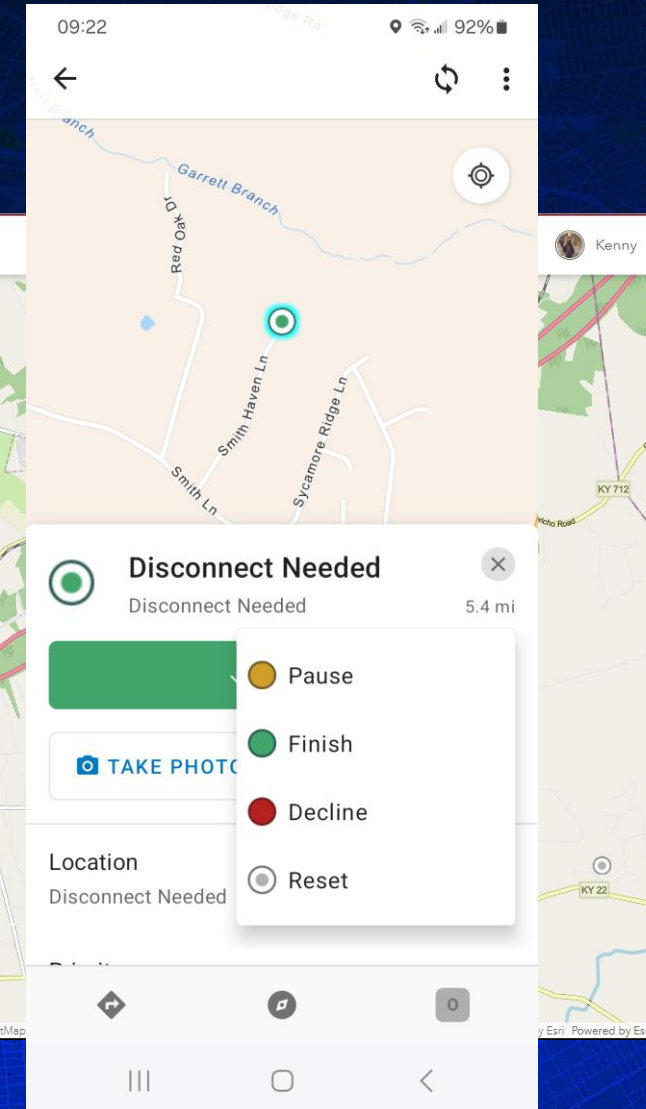
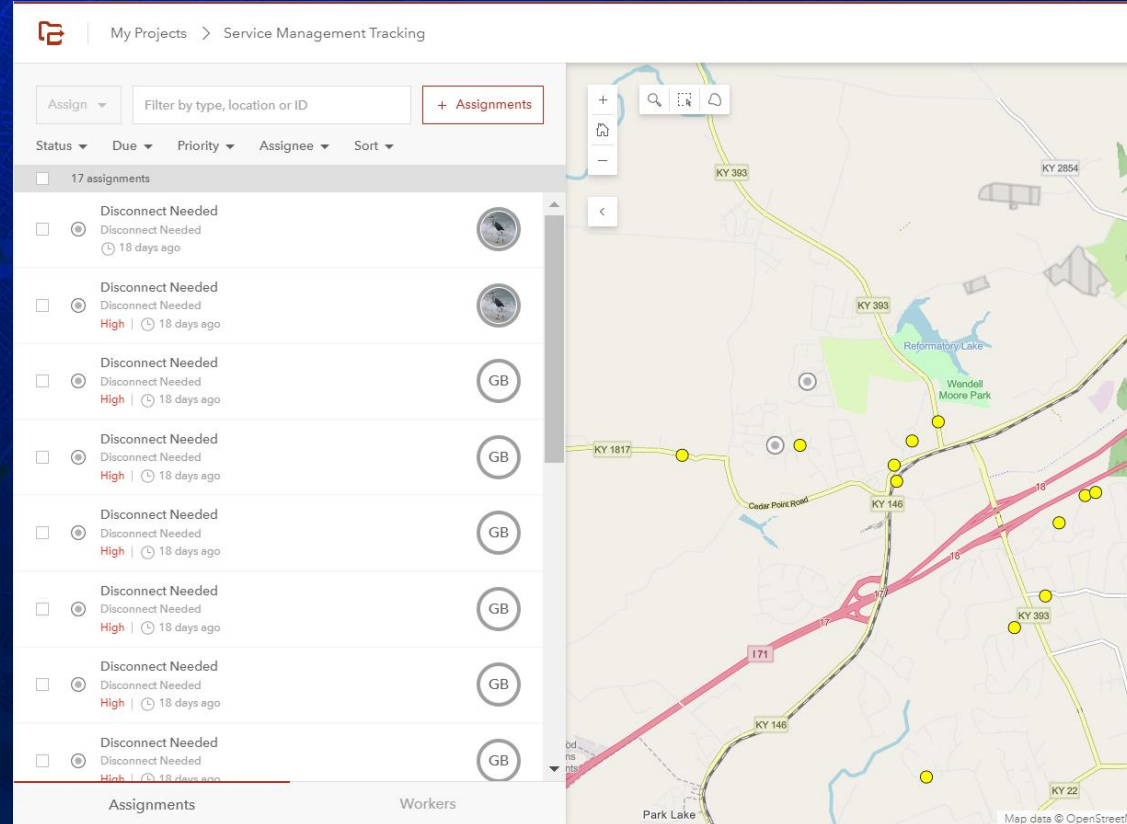
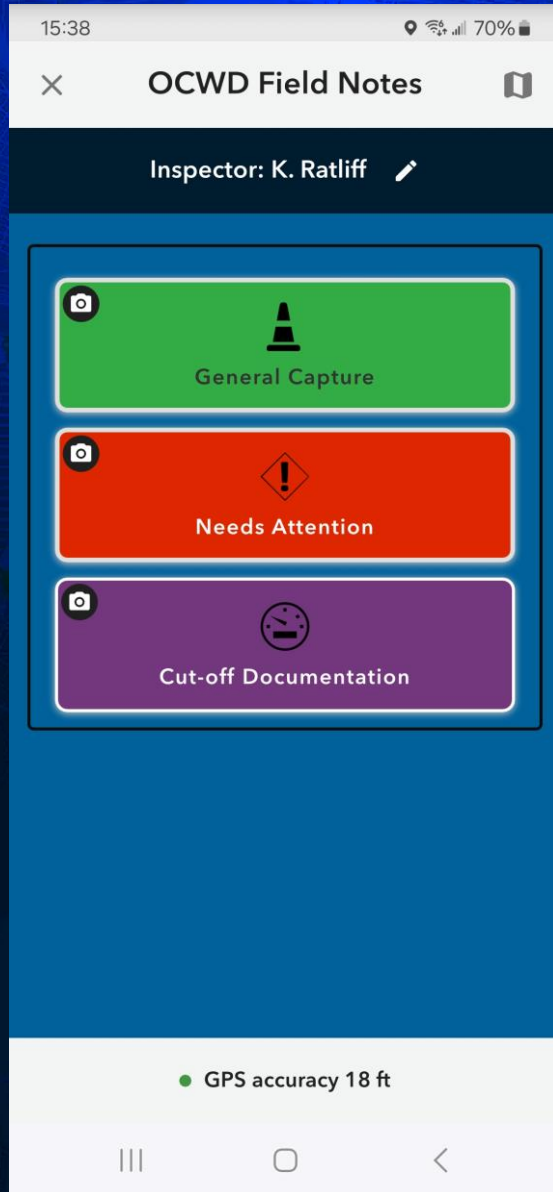


- Collect every bell location
- Collect every fitting
- Collect every pipe casing

Flush 2.0



Field Notes – Quick Capture



Work Force

Summary & Questions

Thank you for your time.



Christa Campbell

Director Industry Solutions - Water
ccampbell@esri.com



Sarah Alban

Director of Marketing
sarah@eos-gnss.com



Kenny Ratliff

GIS Manager
kratliff@oldhamcountywater.com



BASIC PROCUREMENT LAW FOR GOVERNMENTAL WATER UTILITIES

AUGUST 26, 2024

**Gerald Wuetcher
Stoll Keenon Ogden PLLC
gerald.wuetcher@skofirm.com
(859) 231-3017**



Order of Presentation

- KRS 424.260: Bidding Statute
- Local Model Procurement Code
- Cooperative Purchasing
- Statutory Preferences
- Procurement Issues With State and Federally Fund Projects



KRS 424.260



KRS 424.260(3): Bidding Statute

No city or district may make a **contract**, **lease**, or **other agreement** for **materials**; **supplies** (except perishable foods); **equipment**; or **contractual services** other than professional involving an expenditure of **more than \$40,000** without first making **newspaper advertisement for bids**.



Subject to Bidding Requirement

Applicable to Purchases exceeding **\$40,000** of:

- Materials
- Supplies (Perishable Goods Excluded)
- Equipment
- Contractual Services (not professional services)



What is a Professional Service?

“[A] profession includes any occupation or vocation in which a professed knowledge of some department of science or learning is used by its practical application to the affairs of others, either advising, guiding or teaching them, and in serving their interests or welfare in the practice of an art founded on it. The word implies attainments in professional knowledge, as distinguished from mere skill, and the application of such knowledge to uses for others as a vocation.”

City of New Rochelle v. Friedman, 78 N.Y.S.2d 681 (1947)



Professional Service: Examples

- Legal Services
- Engineering Services
- Architectural Services
- Banking Services
- Insurance Broker Services
- Accounting Services
- Construction Manager Services



Not Considered Professional Services

- Computer Billing Services
- Construction Inspector
- Design-Build Contracts



Threshold Amount: \$40,000

- Bidding Required if total cost exceeds **\$40,000**
- Severing Contract/Project to avoid amount not permitted
- Supply Contracts: Estimated Need Should be Used Unless Extenuating Circumstances



Publication of Notice

- Published in newspaper of general circulation
- Not more than 21 days nor less than 7 days
- Must publish notice even if good faith belief that only one supplier exists
- Multicounty Districts: Published in Newspaper of Each County



Notice

Notice Must Contain:

- Time/place for receipt of Bids
- Description of goods/services sought
- Any special terms
 - Where contract specifications can be obtained
 - Funding agency requirements
 - Award Criteria



Newspaper Qualifications

- Published in utility's area
- Principal business office in County of Agency
 - Published at least once weekly
 - If utility's area less than county, published in county
 - If no county newspaper, then newspaper in adjoining county
 - Digital newspaper



Awarding Bids

- Not required to accept lowest bid
- Purpose of statute
 - Opportunity for competition
 - Basis to compare bids
- If lowest bid is not accepted, provide basis for non-acceptance
- Required Preference for Certain Bidders

Failure to Comply

- No contract exists - Bid award is voidable
- Injunctive relief available
- Citizen suits permitted to void award and seek civil penalties
- Civil penalties against utility (\$50-\$500)
- Attorney Fees awarded for successful actions



Exceptions

- Emergency Purchases
- Purchases from Federal Government
- State Contract Purchases
- Cooperative Purchases



Conflict of Interest Rules

- KRS 424.260: None
- KRS 74.020: removal of WD Commissioners voting on matters with direct financial interest
- KRS 96.533: removal of City Utility Board member failing to act in good faith
- KRS 65A.070: County/City Code of Ethics apply



LOCAL MODEL PROCUREMENT CODE



Local Model Procurement Code

- KRS 45A.345-.460
- Voluntary – Local Public Agencies **MAY** Adopt
- If Adopted Other purchasing statutes do not apply
- **Requires all contracts and purchases be awarded by competitive seal bidding**



Invitation to Bid: Contents

- Basis of Award
 - Lowest Price
 - Lowest Evaluated Price
- Objective Measurable Criteria For Award (if Lowest Evaluated Price)
- Reciprocal Preference for Resident Bidders

Notice of Invitation

- Adequate Public Notice Prior to Bid Opening
- Alternative Publication Methods:
 - Posting on Internet
 - Publication in Newspaper of General Circulation
- Notice: At least 7 days before bid opening
- Contain Time & Place of Bid Opening
- Contain Time & Place to Obtain Bid Specs



Bid Award

- Public opening
- Award to responsive bidder with lowest bid price or lowest evaluated bid
- Reciprocal preference applied to lowest evaluated bids
- If no responsive bids or all greater than available funds, **noncompetitive negotiations** may be used



Competitive Negotiations Permissible

- Unable to develop specs sufficiently specific to permit award based on LB or LEB
- Sealed Bidding is inappropriate:
 - Available sources limited
 - Time & Place of performance undetermine
 - Law regulates Price
 - Price cannot be fixed in advance
- Sealed Bid prices unresponsive/unreasonable



Competitive Negotiations: Notice

- Requests for Proposals
- Use Competitive Bidding Methods
- Any Other Means to Notify Adequate Number of Qualified Sources to Permit Reasonable Competition
- RFPs must indicate Factors Considered, Relative Importance & Reciprocal Preference



Competitive Negotiations: Discussions

- May be oral or written
- Held with ALL responsible offerors
- May not disclose any info derived from competing proposals
- Discussion of revised proposals must be discussed with all offerors



Competitive Negotiations: Award

- Must be based upon evaluation factors in RFP
- Standard: Most advantageous to the Agency
- Must be in Writing to responsible offerer



Noncompetitive Negotiations Permissible

- Emergency – Public Harm resulting from delay
- Single Source within reasonable geographic area
- Contract for services of licensed professional
- Purchase of perishable items
- Contract for replacement parts
- Purchase of proprietary items for resale



Noncompetitive Negotiations Permissible

- Purchase of supplies at public auction or by receiving sealed bids
- Insurance
- Contract for sale of supplies at reduced prices that will afford a purchase at savings
- Contract with private real estate developer w/ arrangements for sanitary sewer/stormwater



Small Purchases

- Purchase under \$40,000 may use small purchase procedures ILO bidding
- Agency must have developed such procedures
- Procedures must be in writing
- Procedures must be available for public inspection



Other LMPC Provisions

- Agency must make reasonable inquiry/written determination re: responsibility of bidder
- Bidder must submit sworn statement on non-violation of campaign finance laws
- Suppliers may be prequalified as responsible
- Agency has right to inspect contractor's plant or place of business



LMPC Conflict of Interest Rules: Breach of Ethical Standards

- Employee participation in procurement decision in which:
 - Employee/Family member has financial interest
 - Business or organization in which employee/family member is officer, director, trustee, partner or employee is a party
 - Any person, business, or organization w/whom employee or FM is negotiating employment is a party



LMPC Conflict of Interest Rules: Breach of Ethical Standards

- Offering or giving any agency employee or former employee a gratuity or offer of employment in connection with procurement or administration of contract
- Employee or former employee soliciting, demanding, or agreeing to accept gratuity or offer of employment in connection with procurement or administration of contract



LMPC Conflict of Interest Rules: Breach of Ethical Standards

- Making any payment, gratuity, or offer of employment by or on behalf of a subcontractor to the prime contractor or higher tier contractor or associated person as an inducement for the award of a subcontract or order
- Any current or former employee knowingly using confidential information for his actual or anticipated personal gain



LMPC Conflict of Interest Rules

- Conflict of Interest provisions must conspicuously set forth in every contract & solicitation
- Value of anything transferred or received in breach of ethical standards may be recovered
- Agency may recover value of any kickback may by subcontractor to prime contractor or higher tiered subcontractor



WHICH IS BETTER: KRS 424.260 OR LMPC?



COOPERATIVE PURCHASING



STATUTORY PREFERENCES



PROCUREMENT ISSUES WITH STATE AND FEDERALLY FUNDED PROJECTS



QUESTIONS?



Contact Information:

Gerald E. Wuetcher
Stoll Keenon Ogden PLLC
300 W. Vine Street, Suite 2100
Lexington, Kentucky 40507
gerald.wuetcher@skofirm.com
(859) 231-3017

Unaccounted-For Water Loss

August 26, 2024

**Tina Frederick
Stoll Keenon Ogden PLLC
tina.frederick@skofirm.com**

Under Discussion

1. What is Unaccounted-for Water Loss
2. Current Statistics
3. Alternative Terminology and Methodology
4. PSC's November 2019 Report
5. Water Loss Reduction Surcharges





DISCLAIMER



Kentucky Division of Water

"Unaccounted for water" means water that is withdrawn and not used for commercial, residential, industrial, or municipal purposes.

401 KAR 4:220



Kentucky

Public Service Commission

“Unaccounted for water” means the volumetric sum of all water purchased and produced less the volume of water: (a) Sold; (b) Provided to customers without charge as authorized by the utility’s tariff; and (c) Used by the utility to conduct the daily operation and maintenance of its treatment, transmission, and distribution systems.

807 KAR 5:067



Unaccounted-For Water

- Water that is not:
 - Sold
 - Provided without charge
 - Used in maintenance of the system



“Accounted-For” Water

- **Sales**

- Residential
- Commercial
- Industrial
- Bulk Loading Station
- Wholesale
- Public Authorities
- Other sales (PSC forms require an explanation)



“Accounted-For” Water

- **Other Water Used**
 - Water Treatment Plant
 - Wastewater Plant
 - System Flushing
 - Fire Department
 - Other Usage (PSC forms require an explanation)



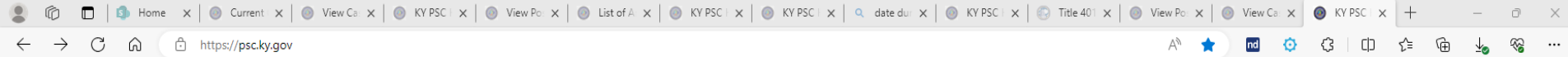
“Unaccounted-For” Water

- **Water Loss**

- Tank Overflows
- Line Breaks
- Line Leaks
- Excavation Damages
- Theft
- Other Loss (PSC forms require an explanation)



Water Loss Calculation Form



Register Login


Search PSC Site

- Conferences / Training
- Electric Generation and Transmission Siting Board
- Utility Forms
- Industry Specific Info
- Maps and GIS Data
- Master Utility Search
- Outage Reporting
- Interest on Deposits

Reminder for Annual and Gross Reports

2023 Annual Financial and Statistical Reports and Reports of Gross Operating Revenues due March 31, 2024


The Report of Gross Operating Revenues is required to be filed by March 31, pursuant to KRS 278.140 and 807 KAR 5:006, Section 4(1), and may be emailed to **PSC.Reports@ky.gov**. No hard copy is required.



Further, most utilities are also required to electronically file an Annual Financial and Statistical Report by March 31, pursuant to 807 KAR 5:006, Section 4(2), via the **Utility Financial Report (UFR) Electronic Filing System**.

Any officer, agent, or employee of a utility failing to comply with reporting requirements may be subject to a civil penalty assessed by the commission up to the amount of two thousand five hundred dollars (\$2,500) for each offense or a criminal penalty of imprisonment for up to six (6) months, or both, as provided under KRS 278.990.

If you have any questions or did not receive the annual reminder email notice in January, please inquire via email at **PSC.Reports@ky.gov** to update your contact information, pursuant to 807 KAR 5:006, Section 3(c).




807 KAR 5:006, Section 4(1)

A public hearing of the Commission will be held on **May 21, 2024**, at 10:00 a.m. eastern daylight time at the Kentucky Public Service Commission, 211 Sower Boulevard, Frankfort, Kentucky 40601. Individuals interested in being heard at this hearing shall notify this agency in writing by five business days prior to the hearing. If notification of intent to attend the hearing is received by that date, the hearing may be canceled. This hearing is open to the public and instructions on how to attend and participate virtually will be published on the commission's website at psc.ky.gov. Any person who wishes to be heard will be given an opportunity to comment on the proposed administrative regulation. A transcript of the public hearing will not be made unless a written request for a transcript is made. If you do not wish to be heard at the public hearing, you may submit written comments on the proposed administrative regulation. Written comments shall be accepted through May 31, 2024. Written notification of intent to be heard at the public hearing.

Written comments on the proposed amendment should be sent or delivered to John E.B. Pinney, Executive Advisor, Kentucky Public Service Commission, 211 Sower Boulevard, Frankfort, Kentucky 40601, phone (502) 782-2587, fax (502) 564-7279 and email: jeb.pinney@ky.gov.


[For More Details](#)

To File a Consumer Complaint



Call: 1-800-772-4636
File online

Current Rate Cases



2024-00068	Simpson County Water District
2024-00067	Levee Road Water Association, Inc.
2024-00061	Butler County Water System, Inc.

Call 811 Before you Dig

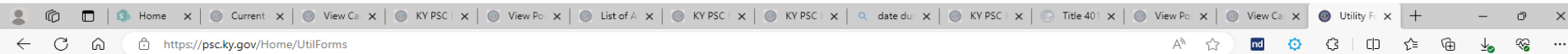


Don't Risk It!

Nearly two in five U.S. homeowners will put themselves and their communities at risk this year by digging without calling 811 beforehand.

©2018-2021, Civitech, Inc.

Water Loss Calculation Form



Register Login

Search PSC Site

Utility Forms

- All Utilities
- Electric
- Natural Gas
- Telecom
- Water**
- Sewer

Water Specific Forms

- Water Use & Loss Calculations: [\(Excel format\)](#), [HELP - How To Complete Form](#)
- Surcharge Reporting: [\(Excel format\)](#)
- Average Meter Connection Expense Cost Justification (Tap Fee): [\(PDF format\)](#), [\(Word format\)](#)
- PSC Guidance on Municipal Utility Rate Adjustment (letter of 12/18/98) [\(PDF format\)](#)
- Purchased Water Adjustment (Privately Owned Companies): [\(PDF format\)](#), [\(Word format\)](#)
- Purchased Water Adjustment (Water Districts and Associations): [\(PDF format\)](#), [\(Word format\)](#)
- Quarterly Water Meter Testing Report: [\(PDF format\)](#), [\(Excel format\)](#)
- Water Storage Requirement Deviation Request: [\(PDF format\)](#), [\(Word format\)](#)
- Components of a Water Loss Prevention Plan
- Tariff Samples
- Incident Reporting:

For use by utilities notifying the PSC of specific incidents pursuant to regulatory requirements.
Members of the Public reporting incidents or hazardous situations please call 911 or your local emergency responders

- Incident Reporting Regulations - Section 27: <https://apps.legislature.ky.gov/law/kar/807/005/006.pdf>

Kentucky Public Service Commission
Address: P.O. Box 615, 211 Sower Boulevard, Frankfort, Kentucky 40602-0615
Phone: (502) 564-3940, Fax: (502) 564-3460, Hotline: 1-800-772-4636
Office Hours: Monday - Friday 8am - 5pm



UNACCOUNTED-FOR WATER AND UTILITY RATES

807 KAR 5:067, Section 6(3):

“[F]or rate making purposes a utility’s unaccounted-for water loss shall not exceed fifteen (15) percent of total water produced and purchased, excluding water used by a utility in its own operations.”



Effect of 807 KAR 5:066, §6(3)

- Water Utility may not recover cost of unaccounted-for water exceeding 15 percent of total water produced or purchased
- Disallowance based upon:
 - Total production cost of water
 - Water purchase costs
 - Pumping costs (purchased power)



Reasons for the Regulation

- Protect Ratepayers from excessive losses
- Encourage Management to take reasonable actions to control water loss



Criticism of the Regulation

- No profit incentives for non-profit water utilities
- Incentives to under-report or falsely report water usage
- Percentage based system misleading



Criticism of the Regulation Con't

- Failure to limit water loss to no more than 15% is a failure to provide adequate service per 807 KAR 5:066, § 7
 - Results in inspection violations for PSC jurisdictional utilities
 - Repeated inspection violations can lead to investigation proceedings and result in financial penalties for utilities



807 KAR 5:066, Section 7

“The utility's facilities shall be designed, constructed and operated so as to provide adequate and safe service to its customers and shall conform to requirements of the Natural Resources Cabinet with reference to sanitation and potability of water.”



2022 Water Loss Statistics

116 PSC- Regulated Utilities

- 10 utilities reported $< 10\%$
- 35 utilities reported $10\%-15\%$
- More than half reported $> 15\%$
- 18 utilities reported $> 30\%$
- Highest reported 73.30%
- Lowest reported 5.03%



A Brief Note About Terminology & Methodology

- In 2003 the American Water Works Association (AWWA) adopted the concept of “**Non-Revenue Water.**”

The volume of water that is produced/purchased by the utility, but is not reflected in customer billings



Why?

Because ALL water entering a distribution system can be defined as a component of either authorized consumption or water loss...nothing is really “unaccounted-for.”



AWWA Terms

- **Water Losses-** The Difference between System Input **Volume** and Authorized Consumption, consisting of Apparent Losses and Real Losses.
- **Apparent Losses-** Unauthorized consumption, metering inaccuracies, systematic data handling errors.
- **Real Losses-** Annual **volume** lost through leaks, breaks and overflows, up to the point of the customer meter



AWWA Water Audit Methodology

Water from Own Sources (corrected for known errors)	System Input Volume	Water Exported	Authorized Consumption	Billed Authorized Consumption	Billed Water Exported	Revenue Water
		Water Supplied			Water Losses	
Apparent Losses	Billed Unmetered Consumption		Unbilled Metered Consumption			
	Real Losses		Unauthorized Consumption	Unbilled Unmetered Consumption		
Water Imported					Customer Metering Inaccuracies	Non-Revenue Water (NRW)
	Leakage on Transmission and Distribution Mains				Systematic Data Handling Errors	
					Leakage and Overflows at Utility's Storage Tanks	
					Leakage on Service Connections up to point of Customer metering	

All data in volume for the period of reference, typically one year

Figure 1 Water Balance: AWWA Water Audit Methodology⁴

AWWA Methodology

Focuses on:

- **Volume** of annual losses, apparent and real
- **Value** of annual losses (uncaptured revenue and excessive production costs)
- **Validity** of data quality

AWWA Methodology

- Attempts to Answer:
 - Where was the water lost?
 - What volume of water was lost?
 - How much did the lost water cost?
 - Why was the water lost?



Adopted AWWA Water Audit Methodology

Fully Adopted:

- California
- Georgia
- Hawaii
- Indiana
- Canadian Province of Quebec

Source: *Governmental Policies for Drinking Water Utility Water Loss Control*, AWWA, January 2022.



Adopted

AWWA Water Audit Methodology

Partially Adopted:

- Texas
- Florida
- Colorado
- New Mexico
- Nevada
- Tennessee
- Wisconsin
- Minnesota

Source: *Governmental Policies for Drinking Water Utility Water Loss Control*, AWWA, January 2022.



Good to Know, but. . .

Most states, including Kentucky, still use a percentage to express “unaccounted-for water loss,” and determine regulatory requirements



Better to Understand

What Guides the Kentucky PSC's
Approach?

Report in Case No. 2019-00041

Commission examined 13 water utilities with the highest percentage of water loss and issued a report of the factors contributing to water loss and made recommendations for addressing the issue.



November 2019 Report

- A water utility is a business, and should be run accordingly;
 - Remove/minimize political pressure
- Boards and General Managers must be trained;
- Regular review of rate sufficiently;
 - Utility to review annually
 - Rate cases every 3-5 years, generally



November 2019 Report

- Water utilities should develop Infrastructure Improvement Plans;
 - Capital spending plan designed to reduce water loss
- Merger or consolidation through operating agreements should be considered for very small water utilities;
 - Economies of scale result in greater efficiency
 - Short of merger or joint management, consider sharing the cost of employing a staff engineer



November 2019 Report

- Annual Financial Audits should be performed;
 - All districts and associations
 - Include a discussion of internal controls, operating procedures, and any deficiencies in management practices
 - Utilities to bid out auditing services and change auditors every 3 years
- Surcharges should be assessed to devote funds exclusively to infrastructure improvement and replacement to address water loss;
 - Use of funds guided by the Infrastructure Improvement Plan
 - Subject to PSC review and approval



November 2019 Report

- Acknowledged need for state regulatory agencies to work together in reducing water loss
 - Reduce reporting redundancy with shared databases
 - Other aspirational recommendations

Post-Case No. 2019-00041

- PSC is ordering Rate Cases to be filed
- If Rate Case is ordered, but not filed, Investigation proceeding is started
- PSC Staff is including Water-Loss Reduction Surcharge recommendation in Alternative Rate Filing (ARF) Staff Reports when water loss exceeds 15%



Why Use a Surcharge

- Excessive Water Loss requires \$\$ to implement control measures
- No funds to take corrective measures
- Disallowance creates “Death Spiral”
- Q: How can corrective measures be funded if not through general rates



Water-Loss Reduction Surcharge

- Collect Disallowed Water Expense as Surcharge
- Surcharge Proceeds used only for water loss control measures
- PSC must approve measures
- Strict accounting and reporting requirements



Accounting and Reporting Requirements

- Surcharge proceeds deposited into **interest-bearing account** used only for surcharge proceeds
- A “Qualified Infrastructure Improvement Plan” (**QIIP**) must be filed within **120 days**
 - This plan is intended to guide water-loss reduction efforts and spending of surcharge proceeds



Accounting and Reporting Requirements

- Utility must file monthly reports of:
 - Water loss
 - Surcharge billings, collections, and deposits
 - » Forms on PSC website
 - Surcharge bank statement
 - List of payments made from the account
 - Include payee,
 - Description of the purpose of the purchase,
 - Invoice supporting payment



Understand All of 807 KAR 5:006, Section 6(3)

- Utility may propose an alternative level of water loss
- Proposal may be made in rate case or separate proceeding
- Burden of proof on Utility to demonstrate alternative level is **more reasonable**

More Reasonable?

- Case No. 2022-00366
 - Utility proposed 22%
 - Large service area
 - Challenging topography
 - Significant efforts made to reduce water-loss already
- PSC denied request
 - “More Reasonable” yet to be determined



QUESTIONS?

Tina.frederick@skofirm.com



The background of the slide is a dense, overlapping collage of US dollar bills, including \$100, \$20, and \$50 denominations. The bills are slightly faded and have a blue tint, creating a textured, financial backdrop.

The Value of Water

**A Commissioner's Guide to Water
Accountability Success**

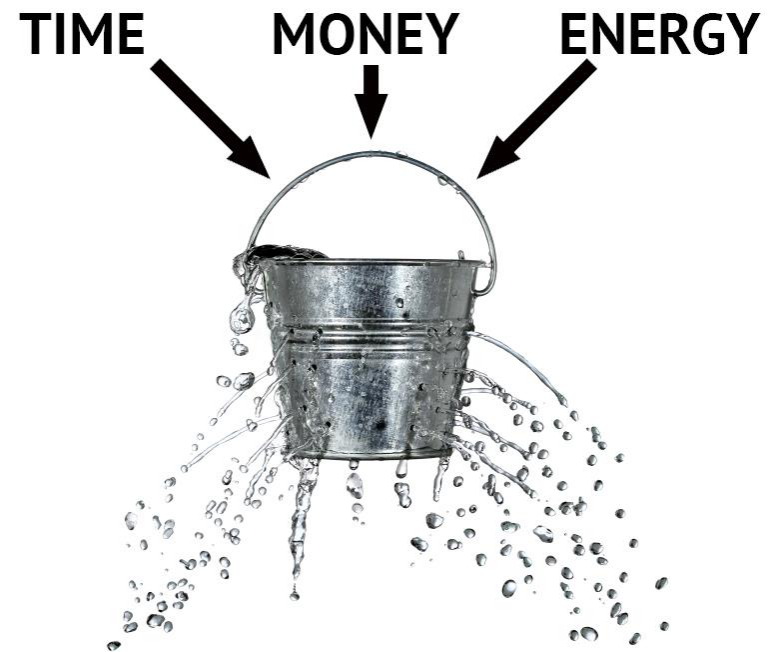
Commissioner Wisdom

- **Water is Money**
- **Water loss happens**
 - **Lines break, tanks overflow, meters misread & theft**
- **Controlling water loss can make or break a utility**
- **Not all non-revenue water is bad**
 - **Flushing is necessary for preventative maintenance and to safeguard water quality**



Topics Covered

- Water Accountability
- Water Loss - Value
- Water Use Reports
- System Demand
- Planning



Water Accountability

Water Purchased – Water Sold = Non-Revenued Water

Non-Revenued Water – Water Used (i.e. flushing, breaks, ect.) =
Accounted-for Water

Non-Revenued Water - Accounted-For Water = Unaccounted-For
Water

Unaccounted Water = Leakage??

Water Loss

- Real Loss
 - Real loss consists of physical water losses from leaks, line breaks, tank overflows, etc.
- Apparent Loss
 - Apparent loss consists of unauthorized consumption, customer metering inaccuracies, and errors in the meter reading and billing processes.

Value of Lost Water

Lost Water			Production \$1.25 /k	Wholesale \$3.00 /k
GPM	Day	Month	Monthly Cost (\$)	
5	7,200	216,000	270	648
10	14,400	432,000	540	1,296
15	21,600	648,000	810	1,944
20	28,800	864,000	1,080	2,592
25	36,000	1,080,000	1,350	3,240
30	43,200	1,296,000	1,620	3,888
40	57,600	1,728,000	2,160	5,184
50	72,000	2,160,000	2,700	6,480
60	86,400	2,592,000	3,240	7,776
70	100,800	3,024,000	3,780	9,072
80	115,200	3,456,000	4,320	10,368
90	129,600	3,888,000	4,860	11,664
100	144,000	4,320,000	5,400	12,960
500	720,000	21,600,000	27,000	64,800



Value of 5.0 gpm

(actual revenue loss)

- 5.0 gpm = 216,000 gals/month
- Cost per thousand = \$3.00
- $216 \times \$3.00 = \$648 / \text{month}$

- \$648 / month = new truck payment
- \$7,776 / year = \$3.73 / hr pay raise

Water Use Reports

Monthly Water Use Report

Microsoft Excel - KRWA Monthly Water Use Report

File Edit View Insert Format Tools Data Window Help

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H48

	A	B	C	D	E	F	G	H	I	J	K	L
1	Monthly Water Use Report											
2	(insert water system name)						(insert PWSID)					
3	Water Utility:	<input type="text"/>					PWSID:	<input type="text"/>				
4	(insert month)						(insert year)					
5	For the Month of:	<input type="text"/>					Year:	<input type="text"/>				
7	1	PRODUCTION COST PER THOUSAND					(insert cost)	<input type="text"/>				
8	2	PURCHASE COST PER THOUSAND					(insert cost)	<input type="text"/>				
10	GALLONS											
11	WATER PRODUCED or PURCHASED											
12	3	Water Produced					<input type="text"/>					
13	4	Water Purchased					<input type="text"/>					
14	5	TOTAL PRODUCED AND PURCHASED									0	
15	6	TOTAL COST										
16	WATER SOLD											
17	7	Residential					<input type="text"/>					
18	8	Commercial					<input type="text"/>					
19	9	Industrial					<input type="text"/>					
20	10	Bulk Loading Stations					<input type="text"/>					
21	11	Wholesale					<input type="text"/>					

Water Use Report / System Flushing / Fire Department / Excavation Breaks / Repaired Line Breaks

Draw AutoShapes

Ready

system data, dates, and costs

1	<u>Monthly Water Use Report</u>		
2			
3	Water Utility:	<input type="text" value="Countywide Water District"/>	PWSID: <input type="text" value="KY0000123"/>
4			
5	For the Month of:	<input type="text" value="July"/>	Year: <input type="text" value="2010"/>
6			
7	1	PRODUCTION COST PER THOUSAND	<input type="text" value="\$1.95"/>
8	2	PURCHASE COST PER THOUSAND	<input type="text" value="\$2.37"/>
9			

gallons produced/purchased

9					
10					GALLONS
11		WATER PRODUCED or PURCHASED			
12	3	Water Produced	\$8,569.50	4,350,000	48%
13	4	Water Purchased	\$11,198.25	4,725,000	52%
14	5		TOTAL PRODUCED AND PURCHASED	9,075,000	
15	6		TOTAL COST	\$19,767.75	

list all water “sold”

16		WATER SOLD		
17	7	Residential	5,244,900	
18	8	Commercial	127,780	
19	9	Industrial	180,000	
20	10	Bulk Loading Stations	41,514	
21	11	Wholesale	120,000	
22	12	Other Sales (explain)	Building Contractor	85,000
23				
24	13		TOTAL WATER SOLD	5,799,194 63.90%
25	14		TOTAL WATER NOT SOLD	3,275,806 36.10%

water “used” needs to be identified

F23 fx									
A	B	C	D	E	F	H	I	J	
1	Monthly Hydrant Flushing Report								
2									
3	Countywide Water District (name of Water System)					Month		July	
4						Year		2010	
5	KY0000123 (PWSID)								
6						unit conversion factor		29.83	
7	Formula: $GPM = 29.83 \text{ cd}^2 \sqrt{p}$					coefficient value		0.95	
8	Date	Hydrant Location and/or Number	Reason Operated	Total Minutes Operated	Nozzle size (typically 2.5 or 4.5)	Pitot Pressure	GPM	Gallons Flowed	Estimated Flow if Pitot not used
9	07/08/2010	End of Highway 112	DBP	35.00	4.5	55	4256	148,954	
10	07/08/2010	9th and High Street	DBP	18.00	4.5	60	4445	80,011	
11	07/08/2010	Frank Hollow	DBP	23.00	4.5	63	4555	104,761	
12	12-Jul	Pike Road	Break	32.00	4.5				125,000
13	07/12/2010	Cross Road	Break	35.00	4.5				150,000
14	07/18/2010	Calloway Avenue	DBP	25.00	4.5	65	4627	115,664	
15	07/18/2010	West End	DBP	27.00	4.5	73	4903	132,381	
16	07/23/2010	Chicken Gizzard Ridge	DBP	42.00	4.5	45	3850	161,680	
17	07/23/2010	Bull Run	DBP	37.00	4.5	53	4178	154,576	
18	07/26/2010	Bass Ridge	Complaint	26.00	2.5	65	1428	37,127	
19	07/26/2010	Dry Creek	Complaint	32.00	2.5	56	1325	42,413	
20									
21									
22									

water “used” by fire departments

1	Fire Department - Water Usage Report Form								
2	KRS 278.170(3) 807 KAR 5:095 Section 9								
3	Any city, county, urban-county, charter county, fire protection district, or volunteer fire protection district (“User”) may withdraw water from the utility’s water distribution system for the purpose of fighting fires or training firefighters at no charge on the condition that it maintains estimates of the amount of water used for fire protection and training during the calendar month and reports the amount of this water usage to the utility no later than the 15th day of the following calendar month.								
4	Any city, county, urban-county, charter county, fire protection district, or volunteer fire protection district that withdraws water from the utility’s water distribution system for fire protection or training purposes and fails to submit the required report on water usage in a timely manner shall be assessed the cost of this water.								
5	A non-reporting user’s usage shall be presumed to be 0.3 percent of the utility’s total water sales for the calendar month.								
6									
7	Valley Station Fire Department (name of Fire Department)						Month		July
8							Year		2010
9	Countywide Water District (name of Water System)								
10							unit conversion factor		29.83
11							coefficient value		0.95
12	Date	Hydrant Location and/or Number	Reason Operated	Total Minutes Operated	Nozzle size (typically 2.5 or 4.5)	Pitot Pressure	GPM	Gallons Flowed	Estimated Flow if Pitot not used
13	07/10/2010	Fairground Road	Training	10.00	2.5	70	1482	14,819	
14	07/16/2010	Maple and Dale	Fire						150,000
15									
16									
17									
18									

Water Use Report / System Flushing / **Fire Department** / Excavation Breaks / Repaired Line Breaks

all water “used” for O&M

26			
27		BREAKDOWN OF WATER USAGE	
28	15	Water Treatment Plant	125,000
29	16	Wastewater Treatment Plant	84,000
30	17	System Flushing	1,252,600
31	18	Fire Department Usage	165,000
32	19	Other Usage (explain)	
33			
34	20	TOTAL USAGE	1,626,600
35	21	WATER LOSS PERCENTAGE FOR RATE PURPOSES	18.17%

identify water "lost"

Monthly Excavation Break Report				Area Calculator						
Countywide Water District		(name of Water System)		Hole =	diameter in inches		Insert the approximate dimensions of the hole or crack to determine the area of the break. Insert the area in the spreadsheet below.			
KY0000123		(PWSID)		Area =	7.065 sq. in.					
Month	July		Crack =	length (in)	width (in)					
Year	2010		Area =	10	0.125					
Date	Excavation Break Location	Excavator	Minutes	Hole or Crack?	Area of hole or crack	Normal PSI	GPM	Gallons Lost During Break		
07/14/2010	143 Davidson Street	J&J Contracting	22	hole	7.065	65	1731	38,087		
07/30/2010	288 Smith Road	John Smith	28	crack	1.250	75	247	6,910		

long-term for current month

Monthly Leak Repair Report									
Countywide Water District				Hole=		Area Calculator			
(Water System)				diameter in inches		0.25			
KY0000123				Area=		0.049 sq. in.		Insert the approximate dimensions of the hole or crack to determine the area of the break. Insert the area in the spreadsheet below.	
(PWSID)				Crack=		length (in) width (in)			
Month		July		1.4		0.063			
Year		2010		Area=		0.0875 sq. in.			
Date of Repair	Location of Leak or Line Break	Days Line Leaked?	Hole or Crack?	Area of hole or crack	Normal PSI	GPM	Calculated Loss for Month	Estimated Loss for Month	
7/12/10	Highway 222 milepoint 6.7	12	hole	0.049	53	11	187,355		
7/25/10	Pond Hollow	25	crack	0.088	81	18	646,267		

cost of water not sold or used

36	BREAKDOWN OF WATER LOST			
37	22	Tank Overflows	0	
38	23	Excavation Breaks	45,000	
39	24	Repaired Line Breaks	833,800	
40	25	Unknown Loss	770,406	8.49%
41				
42	26	TOTAL WATER NOT SOLD OR USED	1,649,206	
43	27	COST OF WATER NOT SOLD OR USED	\$3,592.41	
44				

“unknown Loss”

44

45

46

47

48

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50

51

52

53

28

29

30

31

32

33

"UNKNOWN LOSS" FLOW RATE AND COST:

"Unknown Loss" 770,406

% "Unknown Loss" 8.49%

Number of Days in Period 31

"Unknown Loss" per Day (Gallons per Day) 24,852

"Unknown Loss" per Minute (GPM) 17.26

"Unknown Loss" Cost for Month \$1,678.15

Using The Monthly Water Accountability Report

- Document how much is sold, used and “lost”
- Separate zones of a distribution system
- Billing system code for each meter
- Decide where to focus search efforts
- Entered into the Annual Water Use Report

Annual Water Use Report

Microsoft Excel - KRWA Annual Water Use Report

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Reply with Changes... End Review...

	A	B	C	D	E	F	G	H	I	J	K	L	
1	<u>Water Use Report</u>												
2		(insert water system name)						(insert PWSID)					
3	Water Utility:	<input type="text"/>					PWSID:	<input type="text"/>					
4								(insert year)					
5	For the Month of:	<input type="text" value="January"/>					Year:	<input type="text"/>					
6													
7	1	PRODUCTION COST PER THOUSAND					(insert cost)	<input type="text"/>					
8	2	PURCHASE COST PER THOUSAND					(insert cost)	<input type="text"/>					
9													
10		GALLONS											
11		WATER PRODUCED or PURCHASED											
12	3	Water Produced					<input type="text"/>						
13	4	Water Purchased					<input type="text"/>						
14	5	TOTAL PRODUCED AND PURCHASED							0				
15	6	TOTAL COST											
16		WATER SOLD											
17	7	Residential					<input type="text"/>						
18	8	Commercial					<input type="text"/>						
19	9	Industrial					<input type="text"/>						
20	10	Bulk Loading Stations					<input type="text"/>						
21	11	Wholesale					<input type="text"/>						
22	12	Other					<input type="text"/>						
23	13	Total					<input type="text"/>						
24	14	Total					<input type="text"/>						

Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec Annual

Draw AutoShapes

Ready

Annual Water Use Report

- Provides “running totals”
 - Gallons produced/purchased
 - Production/purchase cost
 - Amounts sold, used, lost
 - Revenue generated
 - Revenue lost
 - Unknown loss cost, volume, GPM
 - % loss for PSC reporting (rate making purpose)

System Demand

- The first step is to understand the current system demand as it relates to the “theoretical” system demand. This is determined by calculating the demand factor. This can be calculated for the entire customer base or by discrete zones where water flow can be monitored.

Demand Factor

Average Customer Usage /30 days/1,440 minutes = Demand Factor

$$5,000 \text{ gal} / 30 \text{ days} / 1,440 \text{ minutes} = 0.1157 \text{ gpm}$$

Demand Factor X # of Customers = Expected daytime flow (gpm)

Demand Factor X # of Customers X 33% = Expected nighttime flow (gpm)

$$0.1157 \times 200 = 23.14 \text{ gpm}$$

$$0.1157 \times 200 \times 0.33 = 7.7 \text{ gpm}$$

Actual -vs- Demand

- By dividing the system into zones and comparing actual flow to the expected flow allows an operator to quickly assess the volume and significance of the loss. The quickest way to find leaks is to knowing where not to look.

Actual -vs- Demand

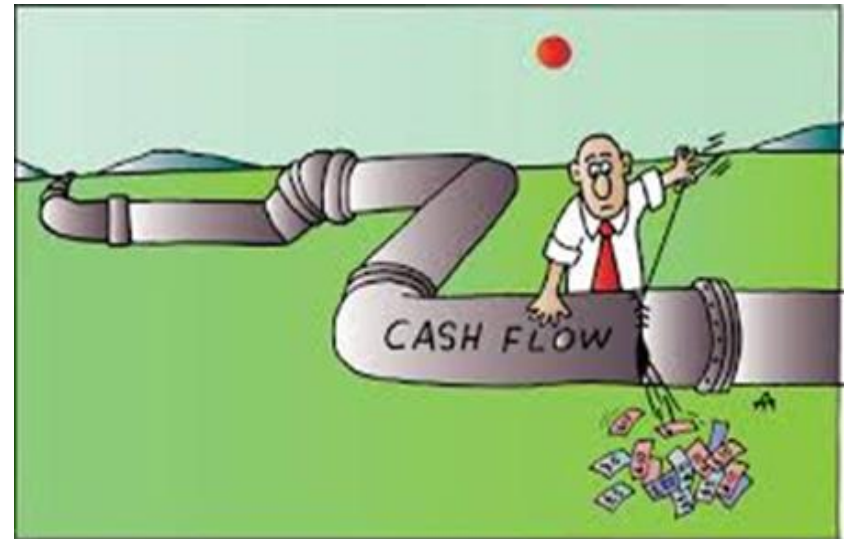
Actual Flow =< Expected Flow = Do Nothing

Actual Flow => Expected Flow = Continue to Monitor

Actual Flow >> Expected Flow = You Have Leakage

Key to Control Water Loss

- Distribution management is the key to reducing water loss. Creating hydraulically isolated zones, accurate metering, customer usage monitoring, pressure monitoring, tank performance, demand factoring and preventative maintenance are needed to identify real & apparent water loss.



Words you never want to hear
“we can’t afford to fix our leaks”

Develop a Water Loss Plan

- Maintain Accurate Records
- Establish Routine Procedures
- Dedicate resources to leak detection



It's Your Choice

Will water loss cost you dollars...



... or cost you pennies

Records

- **Infrastructure:** Knowledge of water system components and how they function under normal operating conditions is crucial to identifying where water loss occurs. Infrastructure inventory, maintenance and operational performance records are maintained where applicable.

Meters

Hydrants

Mains

Control Valves

Service lines

Pumps

Line valves

Tanks

- **Customer:** Billing and water usage data needs to be maintained as a historic record so that apparent losses can be identified

Meter readings

Adjustments

Active / inactive meter count

Water sales

Routine Procedures

- **Daily**

- Record master / zone meter readings;
- All distribution personnel (meter readers, maintenance, etc.), shall immediately report any identified water leaks, tank overflows, or other concerns that are presently or could result in water leaks or loss.
- Water leaks, given the urgency of the problem reported are repaired immediately or at the earliest possible time;
- All office personnel shall immediately report any customer reported leaks, tank overflows, pressure problems, or other issues (whether during regular operational hours or after hours) to the Operator.

- **Weekly**

- Utilize SCADA or other means to assess system demand.
- Analyze data with water audit and demand factor spreadsheets

Routine Procedures

- **Monthly**

- Read customer meters approximately the same time;
- Record fire department usage
- Compile estimated loss from flushing, line brakes, overflows, etc.;
- Compile customer usage by hydraulic zone

- **Annually**

- Customer meters will be tested every ten years to ensure that they are registering water accurately;
- Meters between 1" and 3" shall be tested every three years;
- Meters larger than 4" shall be tested annually; and
- All meters will be replaced as warranted

Leak Detection

- Invest in the utility
 - Labor
 - Training
 - Tools
- Utilize Outside Resources
 - Technical assistance
 - Engineers
 - Other industry professionals



Infrastructure Planning

- Some of the youngest water utilities in Kentucky are celebrating 50 years
- Maintenance will only take you so far; at some point replacement is the only answer
- Planned replacement is always better than emergency response
- Plan wisely; customer rates pay for the future



Asset Management Policy Program
Renewing New Jersey's Water Infrastructure

Final Words

- Govern for 40 years ahead
- A utility loosing money is a result of bad management / leadership or bad operations – if operations are bad so is management
- Drive the system – don't let it drive you
- Preventative maintenance is always cheaper than reactive repair

Parting Thought

"If you don't have time to do it right, you must have time to do it over." - John Wooden

Kentucky Public Service Commission Inspections

Jason Pennell
Kentucky Rural Water Association

Today's Topics

- Division of Inspections
- Inspection Process
- Areas of Concern
- Water Loss

PSC Mission Statement

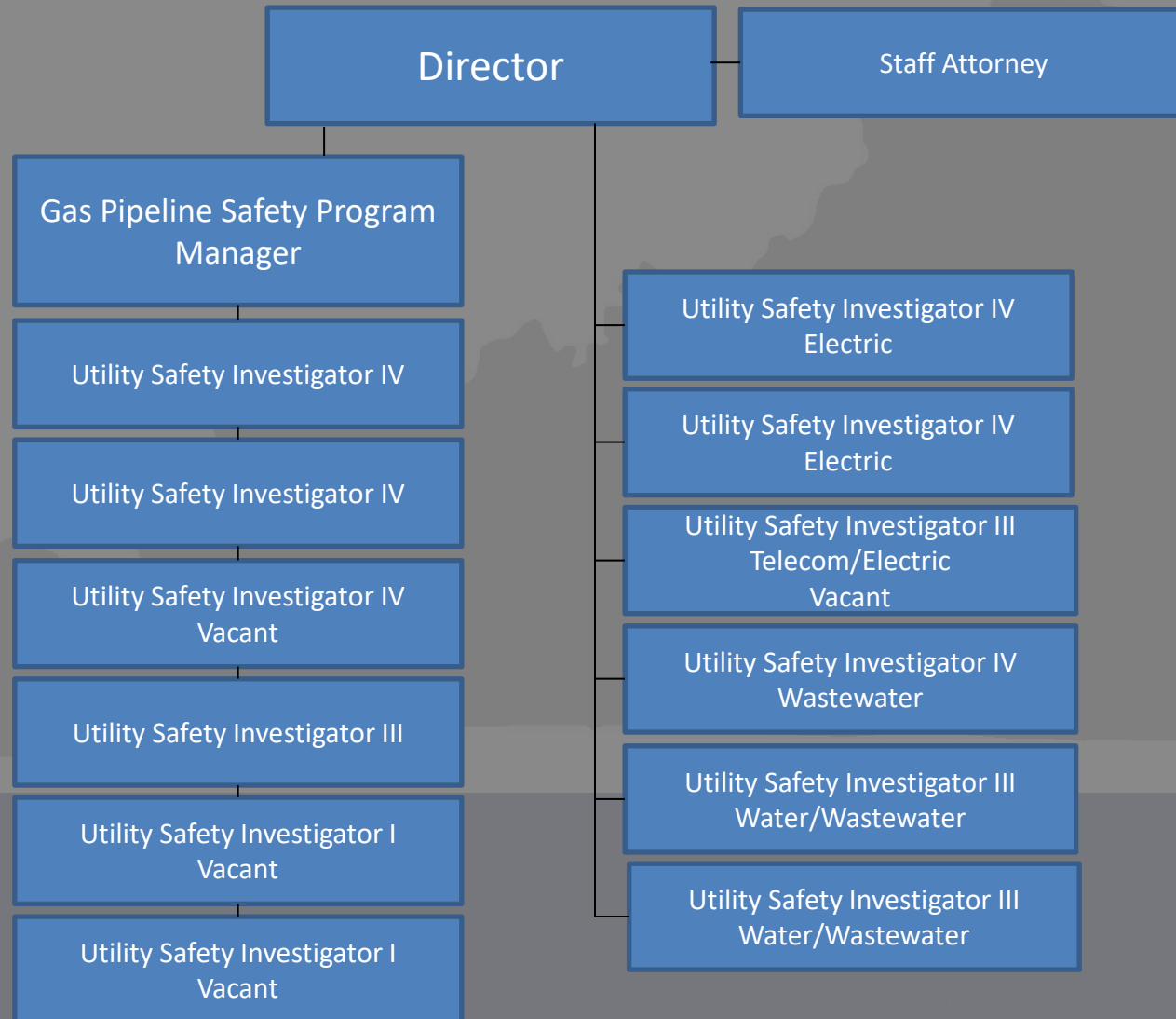
- To foster the provision of safe and reliable service at a reasonable price to the customers of jurisdictional utilities while providing for the financial stability of those utilities by setting fair and just rates, and supporting their operational competence by overseeing regulated activities.

Water and Wastewater Utilities Under PSC Jurisdiction

- Investor-owned utilities
- Water districts
- Water associations
- Municipal water utilities BUT only the wholesale rates for water sold to a utility under full PSC jurisdiction
- Wastewater utilities – No municipalities*

* KRS 278.010(3) excludes “a city” from the definition of a “Utility”

Division Of Inspections



Regulated Water Utilities

- In 2017, the PSC received annual reports from 128 of 138 drinking water utilities throughout the state serving residential, commercial and industrial customers:
 - 5 Investor-Owned – AMB \$ 60.70
 - 19 of 21 Water Associations – AMB \$ 37.30
 - 104 of 112 Water Districts – AMB \$ 42.08
- 721,551 Customers
- \$ 389,762,926 Total Revenues
- 645,654,421,000 gallons sold

* Source - 2017 annual reports submitted to the Kentucky Public Service Commission



Regulated Wastewater Utilities

- In 2017, the PSC received annual reports from 39 of 53 wastewater utilities throughout the state serving residential, commercial and industrial customers
- 20,730 Customers
- Total Revenues \$ 12,211,198
 - Residential AMB - \$ 33.06
 - Commercial AMB - \$ 105.97
 - Industrial AMB - \$ 2,307.15

Improving The Inspection Process

- Three investigators for the water and wastewater sectors
- IRS database
- Standard Operating Procedures
- Inspection cycle
- As of January 2019, now scheduled annually
- **Risk Assessment (Water Utilities)**
- Now collaborating with the Division of Water
 - Drinking Water and Wastewater Advisory Councils
 - Data sharing – Boil Water Advisories

Risk Assessment

- Seven Metrics
 - Number of deficiencies last inspection
 - Unresolved deficiencies
 - Excessive water loss %
 - Management/employee turnover
 - Inspector's subjective knowledge
 - Construction activity
 - Elapsed time since last inspection
- Higher point value will warrant more attention

Inspection Process

- Contact utility to set inspection date(s)
- Utility is provided a document list and inspection checklist
- Internal records review
 - Case history
 - Annual Reports/Water Produced/Purchased/Loss
 - Previous Inspections
- Go through inspections checklist, reviewing utility documentation at office
 - Line break logs
 - Fire Dept. usage
 - Pressure charts
 - Facility self-inspections (plant, tanks, manholes, etc.)

Inspection Process cont.

- Field Review
 - Plant
 - Tanks
 - Pump/lift stations
 - Construction projects
 - Safety/Security
- Exit Interview
- Inspection provided to utility approximately 30 days later

Inspection Process cont.

- Full internal review of inspections by executive staff and the commissioners
- Frequent internal discussion on cited deficiencies
- Utility given 30 days to respond to deficiencies
- Failure to respond or to correct deficiencies will result in initiation of formal action
 - Informal Conference
 - Show Cause Hearing

Areas of Concern

- **Water loss***

- Water Districts – 13.68% or 97.6 billion gallons
- Water Associations – 12.61% or 13.7 billion gallons
- Investor-Owned – 14.58% or 4.4 billion gallons

- Abandonment of Utilities

- Infrastructure

- Written documentation of facility inspection procedures and other required records

*Source - 2017 annual report statistics compiled by the Kentucky Public Service Commission

Water Loss

- Excessive water loss will be a primary focus of PSC interactions with water utilities
 - PSC's position is that excessive water loss poses a threat to the utility's financial and operational stability & viability
 - Point of emphasis at PSC training seminars
 - Water loss exceeding 15% will be cited as a deficiency by water system inspectors
 - Rate cases, purchased water adjustments, CPCNs and water financing cases will all include language on water loss in excess of 15%
 - A utility's inability or continued inaction to reduce water loss will lead to greater PSC attention

Water Loss

- Annual Reports are being reviewed to identify utilities with water loss in excess of 15% (61 systems reported > 15%)
- Deficient utilities will:
 - Be cited with 5:066, Section 7 – Standards of Construction
 - Receive letter with estimate of \$ costs, copying water commissioners and where applicable, the County Judge Executive/Magistrates
 - Listed on PSC website with \$ impact

Water Loss

“**Water loss**” means the sum of all water purchased and produced by the utility less the volume of water:

(a) Sold;

(b) Provided to customers without charge as authorized by the utility’s tariff; and

(c) Used by the utility to conduct the daily operation and maintenance of its treatment, transmission, and distribution systems.

807 KAR 5:095

Section 9. A utility that permits a fire department to withdraw water from its water distribution system for fire protection and training purposes at no charge or at reduced rates shall:

- (1) Require a fire department to submit quarterly reports demonstrating its water usage for the quarter; and
- (2) State in its tariff the penalty to be assessed for failure to submit the reports required by subsection (1) of this section.

Commission Orders

- The Commission is placing greater emphasis on monitoring utilities that consistently exceed the fifteen (15) percent water loss threshold and strongly encourages *Subject Utility* to pursue reasonable actions to reduce its water loss. Failure by *Subject utility* to make significant progress towards reducing water loss may cause the Commission to pursue additional action with the utility.

Suggestions

- Ensure accurate reporting
- Review and document water loss reduction efforts
- PSC will consider utility requests for surcharges to assist in financing water loss reduction efforts

Contact Information

Jason Pennell

j.pennell@krwa.org

270-843-2291



HOT LEGAL TOPICS

Damon R. Talley
Stoll Keenon Ogden PLLC
damon.talley@skofirm.com

August 26, 2024



DISCUSSION TOPICS

1. PSC Filings
2. Comply with PSC Orders
3. Minutes
4. Notable PSC Cases

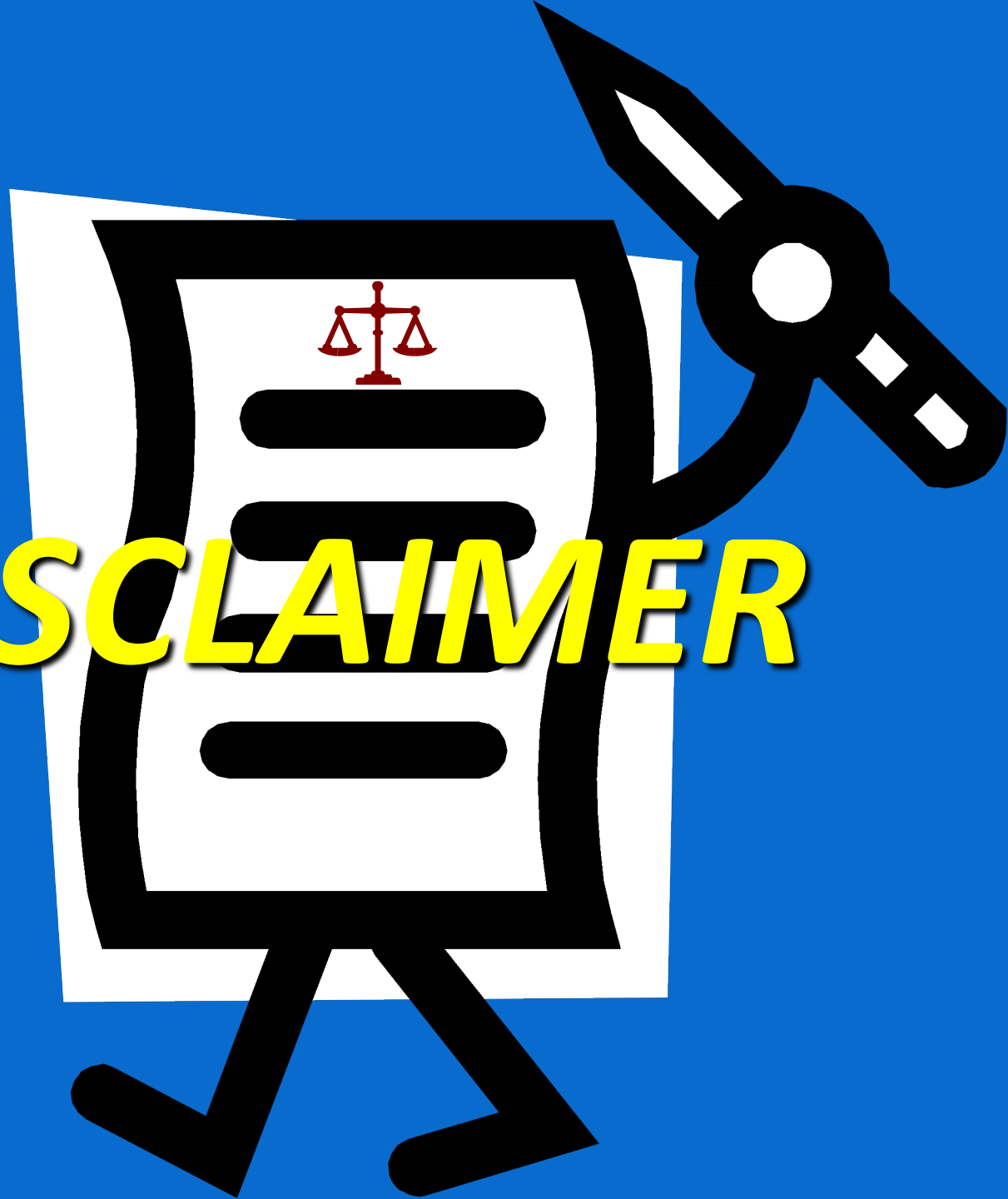


DISCUSSION TOPICS

5. Borrowing Money
6. 2024 General Assembly
7. Cases to Watch



DISCLAIMER



PSA for PSC



Reporting Requirements

- Must Notify PSC if . . .
 - Vacancy Exists
 - Appointment Made
- When? Within 30 Days
- Consequences



Vacancy

- Inform CJE 60 Days Before Term Ends (KRS 65.008)
- CJE / Fiscal Court – 90 Days
- Then, PSC Takes Over
 - CJE Loses Right To Appoint





E-Mail Address Regs.

- All PSC Orders Served by E-mail
- Duty to Keep Correct E-mail Address on file with PSC
 - Default Regulatory E-mail Address
- Duty to List E-mail Address in Application & All Other Papers
 - Utility Official
 - Its Attorney



E-Mail Address

- Who is Covered?
 - Water Districts
 - Water Associations
 - Investor Owned Utilities
 - **Municipal Utilities**



Why Municipals?

- Contract Filing
- Tariff Change (Wholesale Rate)
- Protest Supplier's Rate Increase
- Acquiring Assets of Another Utility
- Avoid Delays





Default Regulatory E-mail Address

- Send E-mail to PSC
 - psc.reports@ky.gov
 - PSCED@ky.gov
- Send Letter to PSC
 - Linda C. Bridwell,
Executive Director



PSC Case No. 2016 - 00310

Opened: 9-09-2016

Utility: Unlucky WD

Type: Show Cause Case

Issue: Ignored PSC Order &
Wrong Email Address

Settled: \$500 Fine



PSC Case No. 2023 - 00125

Opened: 6-07-2023

Utility: Uninformed WD

Type: Investigation Case

Issue: Board had no access to Email Account. Manager did not inform Board of Order.

Hearing: 1-18-24

Decided: 4-02-24



**Comply
With All
PSC
Orders**



“ . . . for allegedly failing to comply with the Commission’s March 10, 2020 Order in Case No. 2019-00458. The willful failure to comply presents prima facie evidence of incompetency, neglect of duty, gross immorality, or nonfeasance, misfeasance, or malfeasance in office sufficient to make [the District’s] officers and manager subject to the penalties of KRS 278.990 or removal pursuant to KRS 74.025. The Commission finds that a public hearing should be held on the merits of the allegations set forth in this Order.”



PSC Case No. 2022 - 228

Date: 08-22-2022

Type: Failure to Comply
with PSC Order

Issue: Did Not Timely File
Rate Application


Decided: 12-08-2022



PSC Case No. 2022 - 228

(cont.)

Facts:

- PWA Case 2 Penny 
- Must File Rate Case by 04-15-2022
(6 Months)
- Nothing Filed by 08-22-2022
- PSC Opened Case



PSC Case No. 2022 - 228

(cont.)

Manager's Defense:

- Honesty
- I Never Read the Order
- I Never Told the Board
- Fell on His Sword †



PSC Case No. 2022 - 228

(cont.)

Board's Defense:

- Ignorance is Bliss
- Manager Never Told Us
- Manager's Job to Tell Us
- Acknowledged Ultimate Responsibility



PSC Case No. 2022 - 228

(cont.)

Affirmative Steps to Mitigate:

- Adopt New Procedure
 - All PSC Orders Forwarded to Board Members
- Engaged Services of RCAP to File Rate Case



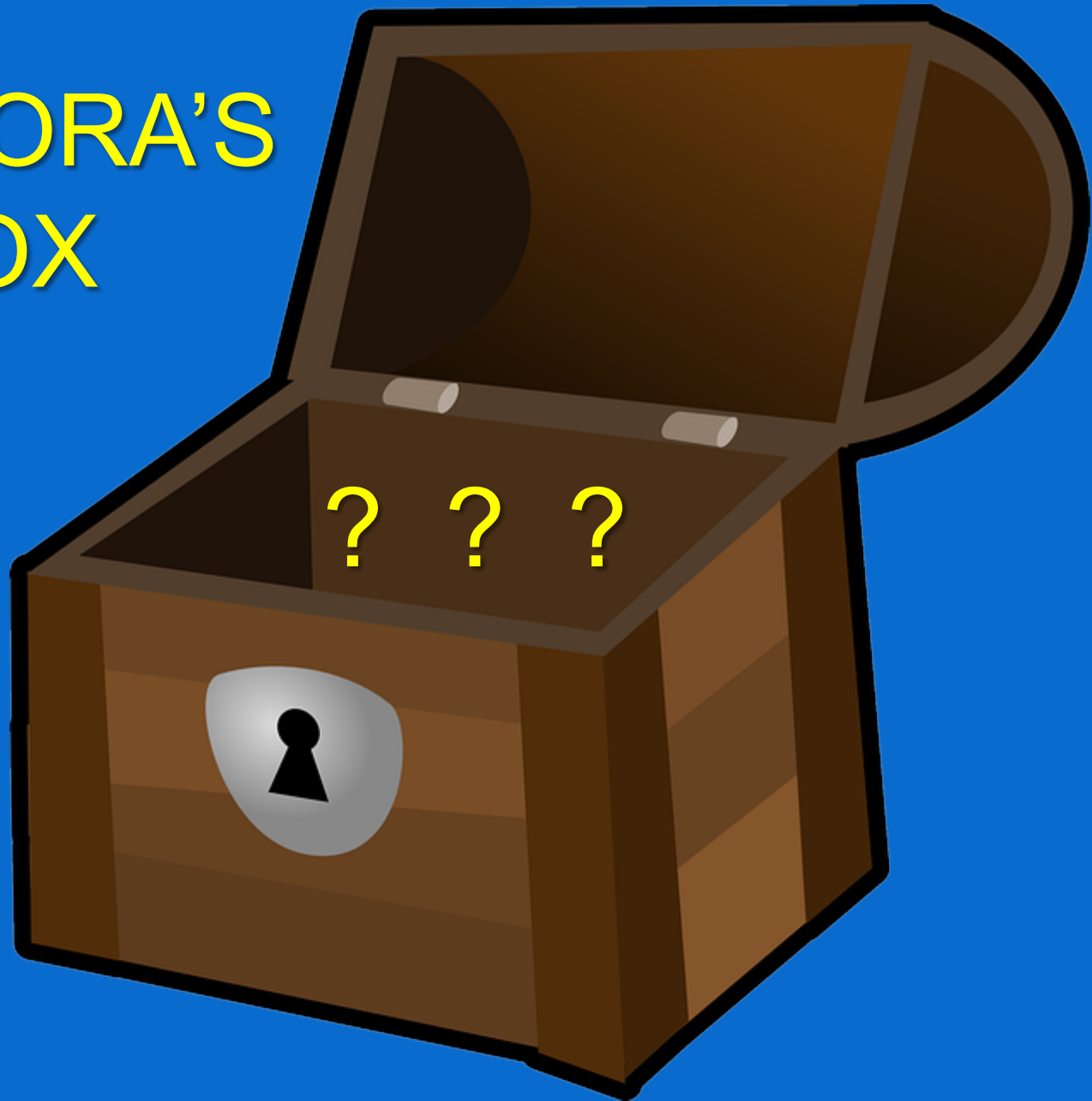
PSC Case No. 2022 - 228

Outcome:

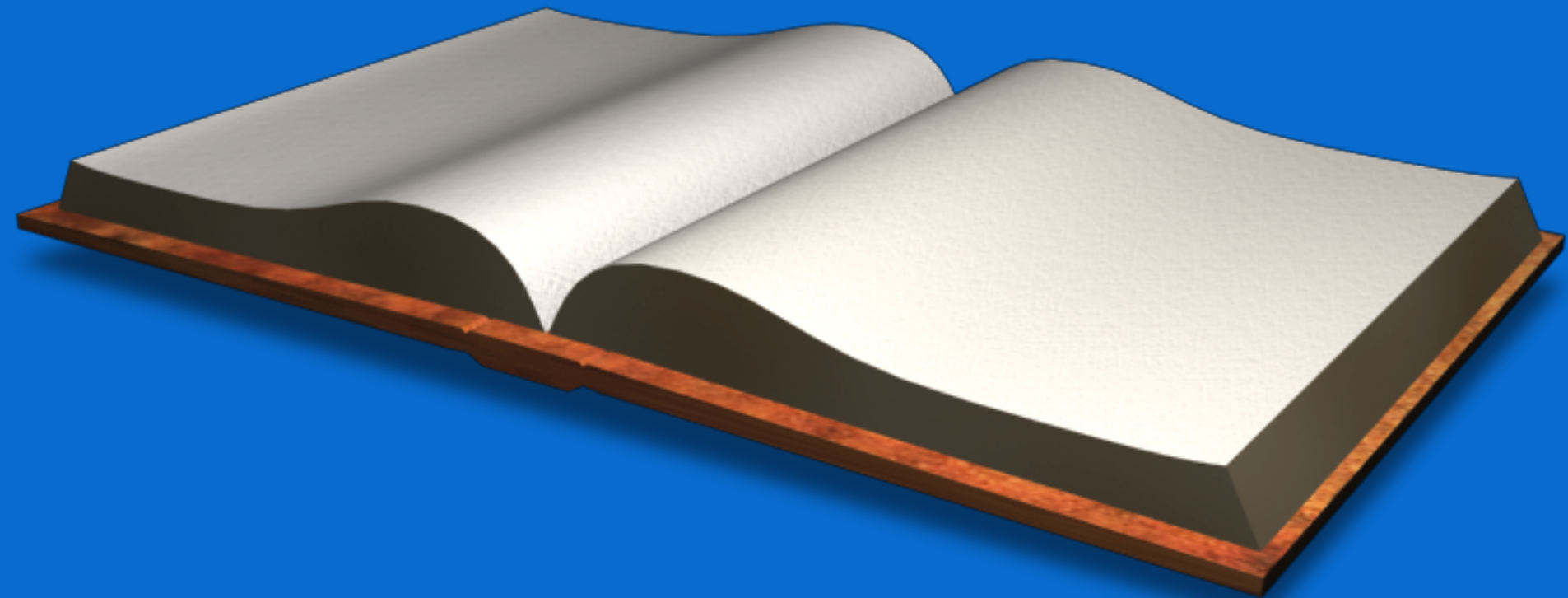
- No Hearing
- Commissioners & GM
 - Fined \$250
 - Waived
 - 12 Hours PSC Training
 - Good Behavior



PANDORA'S BOX



MINUTES



What Are MINUTES?

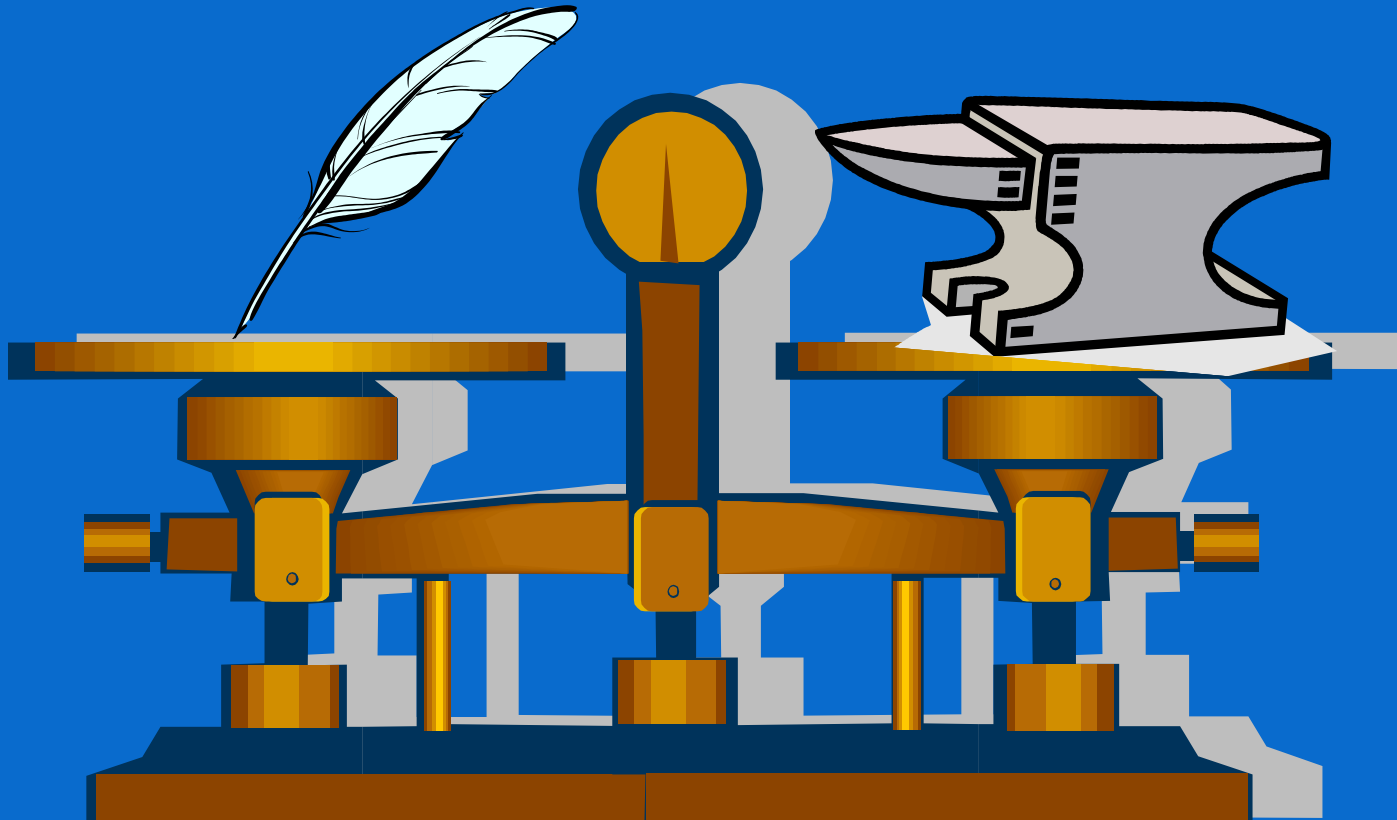
- Official Record
- Much, Much More . . .



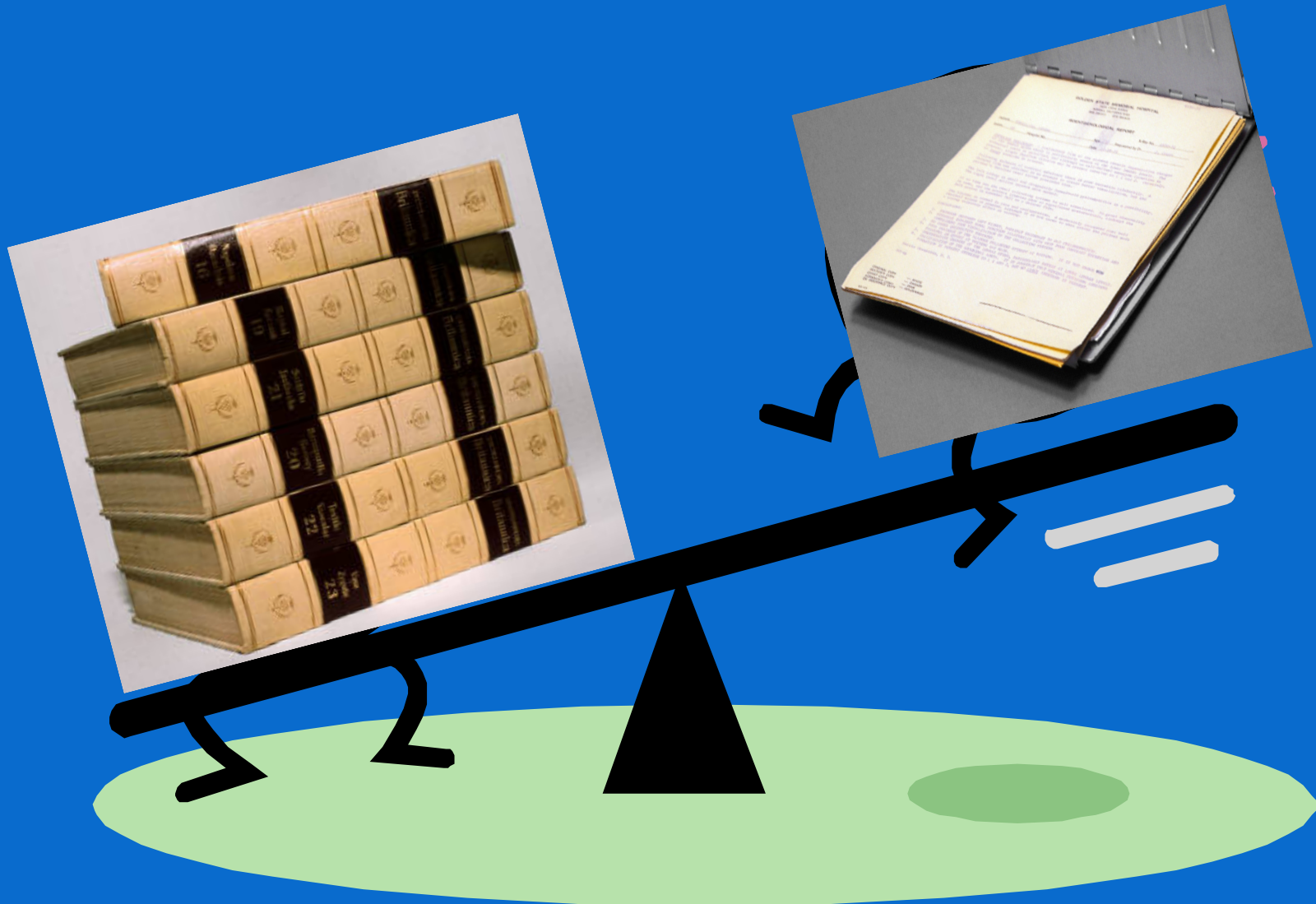
**AN OUNCE
OF
PREVENTION**

=

**A POUND
OF CURE**



How much information **SHOULD** be included in the **MINUTES**?



Minutes

How MUCH is too MUCH?

- No definitive answer
- Art not a science

Cont.



Minutes ...

How MUCH is too MUCH?

- Guidelines . . .
 - Minutes are **NOT** a transcript
 - Minutes are **NOT** the Congressional Record
 - Include rationale for action taken if it might avoid lawsuit



“Conversations are
NOT official actions of
the Board.”

Virginia W. Gregg

Former PSC Staff Attorney



WHY Include Summary of Conversations in Minutes?

- Document Board's Due Diligence (e.g. Water Loss)
- Document Board's Oversight Role (e.g. Compliance with PSC Orders)
- Avoid or Win Litigation



TALLEY'S TIPS



Talley's Tips

Prepare Minutes for a Reader...

1. Who did not attend the meeting.
2. Who will not read the Minutes until at least one year later.
3. Who is employed by PSC.
4. Who will access Minutes via www.



Notable PSC Orders



PSC Case No. 2023-306

Filed: 09-15-2023

Utility: Bullock Pen WD

Type: Declaratory Order

Issue: Is CPCN Needed
To Buy Land?

Decided: 10-06-2023

Answer: NO



Oldham County Water District

WHO? Oldham Co. W.D. (OCWD)
versus
PSC

WHERE? Franklin Circuit Court
Case No. 23-CI-00630

WHEN? 07-10-23

WHAT? Declaration of Rights



Oldham County Water District

WHY? OCWD Is Seeking a Court Ruling Whether It is Lawful or Unlawful to Pay Water District Commissioners Benefits (e.g. Health Insurance)



Oldham County Water District

Legal Issue:

- Whether “salary” limits of KRS 74.020 include the cost of “benefits” paid to water district commissioners
- Are Benefits Considered Salary?



Oldham County Water District

Not An Issue:

- Whether Cost of Commissioners' Benefits Can Be Recovered Through Rates
- PSC Decides This



Oldham County Water District

Oral Arguments: 03-10-24

Decision: 04-15-24

Holding:

- (1) Benefits are Not “Salary”
- (2) OK to Pay Benefits to
Water District Commissioners



Oldham County Water District

Not Decided: Can PSC Disallow Cost of Commissioners' Benefits in Rate Case?

Answer: Yes
(Read Page 8 of Order)





Caution !

1. Do Not Vote to Provide Benefits to Yourself !
 - KRS 74.020(3) Voting on Matter which Results in Direct Financial Benefits Is Grounds for Removal from Office
 - Delay Effective Date



Caution !

2. Commissioners' Benefits Should be same as Employees' Benefits
3. PSC May Disallow Recovery of Cost of Benefits in Rate Case
 - Is this Expenditure “Fair, Just, & Reasonable?”
 - PSC is Fact Finder



PSC Case No. 2023 - 257

Filed: 09-23-2023

Utility: Harrison Co. W. A.

Type: (1) Financing Approval
(2) CPCN – Rehab of 3 Tanks
or
(2A) Declaratory Order

Decided: 11-28-23



PSC Case No. 2023 - 257

Facts: Water Tank Maintenance Contract

- 3 Contracts with Utility Service
- Rehab 3 Tanks
- Cost: \$524,335
- Initial Term: 5 Years
- Level Payments for First 5 Years
- Auto Annual Renewal Thereafter
- Much Lower Annual Fee



PSC Case No. 2023 - 257

Issues:

1. Is the Tank Maintenance Contract an Evidence of Indebtedness ?

Answer: Yes

2. Is CPCN Needed ?

Answer: No



Evidence of Indebtedness

- Significant Work in Year 1 & 3
- Level Payment each Year for 5 Years
- Work Now; Pay Later
- If Terminated, Still Must Pay for 5 Years



Change the Facts

- Initial Term Still 5 Years
- Pay as Work is Performed
- No Longer an Evidence of Indebtedness



Is a CPCN Needed ?

- NO
- Why? Ordinary Extension in the usual course of Business
 - Looked at Each Tank Separately
 - Not a Sufficient Capital Outlay



PSC Case No. 2023 - 417

Filed: 12-18-2023

Utility: Breathitt Co. W.D.

Type: CPCN or Declaratory Order

Holding: No CPCN Needed

Decided: 03-13-24



PSC Case No. 2023 - 417

Facts:

- Construct 11 Miles of Waterline
- Install Pump Station
- 27,000 Gallon Storage Tank
- Cost: \$3.5 Million
- Grant: \$3.6 Million
Cleaner Water Grant



PSC Case No. 2023 - 417

Holding: No CPCN Needed

Rationale:

- Exempt Under KRS 278.020(1)(a)(3)(b)
- No Borrowed Money
- No Rate Increase
- Cleaner Water Grants



PSC Case No. 2022 - 065

Filed: 3-29-2022

Utility: Southeastern Water Assoc.

Type: CPCN – New Office Bldg.

Issue: Reasonable Alternatives
Considered

Decided: 8-30-22



PSC Case No. 2022-065

- CPCN: Standard of Review
 - Need
 - Absence of Wasteful Duplication



PSC Case No. 2022-065

- Proving Lack of Wasteful Duplication:
 - All Reasonable Alternatives Considered
 - Cost is Not Sole Criteria
 - Initial Cost
 - Annual Operating Cost



PSC Case No. 2023 - 192

Filed: 6-09-2023

Utility: Ohio Co. WD

Type: CPCN – Raw Water
Intake Rehab

Issue: Reasonable Alternatives
Considered

Decided: 7-31-23



PSC Case No. 2023-192

- Preliminary Engineering Report
 - Alternative 1: Cadillac
 - Alternative 2: Chevrolet
- Final Engineering Report
 - Only Discussed Alt. 2



PSC Case No. 2023-192

- Extensive Discovery Alt. 1
 - Initial Cost
 - Depreciation Expense
 - Annual Operating Cost
 - Rate Increase Needed
- Comparison of Both Alternatives



Borrowing

LOANS



Money

KRS 278.300(1)

No utility shall issue any securities or evidences of indebtedness . . . until it has been authorized to do so by order of the Commission.



Practical Effect

- Must Obtain PSC Approval Before Incurring Long-term Debt (Over 2 Years)
- Exception:
 - 2 Years or Less
 - Renewals
 - (3 X 2 = 6 Years)
 - (6 X 1 = 6 Years)





Violation

Show Cause Cases



Show Cause Cases Borrowing Money

First Case: 2022-197

Second Case: 2022-252

Third Case: 2023-344



Case # 1

Case No. 2022 - 197

Opened: 08-11-2022

Issues: Violated:

➤ KRS 278.300

➤ KRS 278.020

Hearing: 07-06-2023

Decided: 03-04-2024



Case # 1

Background Facts:

- 11-18-21: Purchased Office Bldg.
- 11-18-21: Financed Portion of Cost with a 7 year Loan
- 03-15-22: Applied for Retroactive Approval of Loan

... continued



Case # 1

Background Facts (continued):

- 05-13-22: PSC Issues DR
- 05-19-22: Bank Loan PIF
- 05-27-22: PSC Application
Withdrawn by Utility

... continued



Case # 1

Background Facts (continued):

- 06-20-22: PSC Dismisses Case & States Intent to File Show Cause Case
- 08-11-22: PSC Opens Show Cause Case



Case # 1

Utility's Defenses:

- Loan Paid Off
- No CPCN Needed Since Building was Purchased & Not Constructed
- Relied Upon Advice of Counsel
- Good, Honest & Decent People



Case # 1

Case Status:

- Multiple Rounds of DR
- Hearing: 07-06-2023
- Post Hearing Data Request
- Brief Filed: 09-08-2023
- Decided: 03-04-2024



Case # 1

Outcome:

- CPCN Needed to Buy & Remodel Office Building
- Cost \$206,000
(12% of Net Utility Plant)
- Headquarters Facilities
Closely Scrutinized

. . . Continued



Case # 1

Outcome:

- Board Members
 - Fined \$500 (Waived)
 - 12 Hours of Training
- GM Retired
 - No Fine



Case # 2

Case No. 2022 - 252

Opened: 02-16-2023

Issue: KRS 278.300
(4 Violations)

Hearing: 08-01-2023

Decided: 10-17-2023



Case # 2

Facts: Leased 4 Trucks
4 & 5 Year Terms

Issue: Is Long Term Lease
An evidence of
Indebtedness ?

Holding: Yes



Case # 2

Outcome:

- GM & Directors (Water Assoc.)
 - Fined \$250 (Waived)
 - 12 Hours of Training
 - 6 More Hours Annually
- Future Directors
 - 6 Hours Training Annually



Case # 3

Case No. 2022 - 344

Opened: 04-14-2023

Issue: KRS 278.300
(4 Violations)

Hearing: 07-06-2023

Decided: 10-31-2023



Case # 3

Defenses:

- Advice of Counsel
 - No Opinion Letter from Counsel
- No Answer Filed
- Lawyer Mea Culpa Letter



Case # 3

Case Status:

- 3 Rounds of DR
- Hearing: 07-06-2023
- Very Interesting Hearing
- Post Hearing DR
- No Brief Filed



Case # 3

Outcome:

- Board Members
 - Fined \$250
 - Not Waived
 - 12 Hours of PSC
Conducted Training



2024 General Assembly



Notable Bills

- HB 1 Budget Bill
- HB 563 Funds for Capital
and Non-Capital
Expenses



HB 1 Budget Bill

Outcome:

- Water & Wastewater: \$ 340 Million

- KIA: \$ 150 Million

- Earmarks \$ 174 Million

- DLG \$ 16 Million

Total \$ 340 Million



HB 563

- Ky. Water & Wastewater Assistance for Troubled or Economically Restrained Systems
- Ky. WWATERS Program



Ky. WWATERS Program

- Purposes:
 - Provide Funds to Assist “Troubled” Systems
 - Emergency Funds
- Both Non-Capital & Capital Expenses



Ky. WWATERS Program

- Application Process
- KIA Board Evaluates & Scores Each Applicant
- General Assembly Makes Final Decision



Ky. WWATERS Program

- Eligibility Criteria:
 - $MHI < Ky. MHI$
 - User Rates $> 1.0\%$ of MHI
 - Missing Audits
 - Negative Income
(2 of last 5 years)



Eligibility Criteria (continued)

- DSC Ratio < 1.1
(In 3 of Last 5 Years)
- High Accounts Receivable
(Greater Than 45 Days)
- NOV or Agreed Order
- Water Loss $> 30\%$



Eligibility Criteria (continued)

- Use Funds to Regionalize, Consolidate or Joint Management
- Funds Will Solve the Problem
- Other Criteria



Ky. WWATERS Program

- Not Necessary to Meet All Criteria
 - One Is Enough
 - More You Meet - Higher Your Score



Ky. WWATERS Program

- Funds:
 - Grants
 - Loan
 - No Interest Loans
 - Forgivable Loans



Cases To Watch



PSC Case No. 2023 - 252

Filed: 08-18-2023
Utility: Oldham Co. W.D.
Type: ARF Case
Issue: Full Recovery of Cost of Employee Benefits
Hearing: 04-19-24
Decided: Before 06-18-24



PSC Case No. 2023 - 247

- Filed: 09-29-2023
- Utility: Hardin Co. W.D. No. 2
- Type: General Rate Case
- Issue: Full Recovery of Cost of
- Employee Benefits
 - Commissioners' Benefits

(cont. . .)



PSC Case No. 2023 - 247

Hearing: 01-11-2024

Brief: 02-16-2024

Statutory

Deadline: 07-29-2024





QUESTIONS?

damon.talley@skofirm.com

270-358-3187

