COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

ELECTRONIC APPLICATION OF)
NORTHERN KENTUCKY WATER DISTRICT)
AND STOLL KEENON OGDEN PLLC FOR) CASE NO. 2024-00090
ACCREDITATION AND APPROVAL OF A)
PROPOSED WATER DISTRICT)
MANAGEMENT TRAINING PROGRAM)

APPLICATION

Northern Kentucky Water District ("NKWD") and Stoll Keenon Ogden PLLC (collectively "Joint Applicants") jointly apply for an Order from the Public Service Commission accrediting and approving a proposed water district management training program pursuant to KRS 74.020 and 807 KAR 5:070.

In support of their application, the Joint Applicants state:

1. NKWD is a water district organized pursuant to KRS Chapter 74.

NKWD's mailing address is: 2835 Crescent Springs Road, Erlanger, Kentucky
 41018-0640. Its email address is: tedge@nkywater.org.

3. NKWD provides retail water service to all or portions of Boone, Campbell, and Kenton Counties, Kentucky and provides wholesale water service to non-affiliated water distribution systems in Boone, Campbell, Kenton and Pendleton Counties, Kentucky.

4. NKWD is not a corporation, limited liability company or partnership. It has no articles of incorporation or partnership agreements.

5. Stoll Keenon Ogden PLLC is a Kentucky Limited Liability Company that was organized under the laws of the Commonwealth of Kentucky on December 28, 2005 and is currently in good standing. It provides legal services to local, regional, national and international clients.

 Stoll Keenon Ogden PLLC's mailing address is: 300 West Vine Street, Suite 2100, Lexington, Kentucky 40507-1801. Its email address for purposes of this Application is: gerald.wuetcher@skofirm.com.

7. The Joint Applicants propose to sponsor and conduct a water management training program on May 8, 2024 at NKWD's offices in Erlanger, Kentucky. The program is entitled "Northern Kentucky Water Training 2023." A copy of the proposed agenda is attached to this Application as **Exhibit 1**.

8. As reflected in Exhibit 1, the proposed training program includes presentations that will enhance the attendees' understanding of relevant legal issues involved in the management, operation, and maintenance of water and wastewater systems and are calculated to enhance and improve the quality of the management, operation and maintenance of the attendees' water and wastewater systems. These presentations are:

a. **Recent Developments in Utility Regulation.** This presentation reviews recent developments in public utility law and regulation. Topics include revisions to the Sales Tax laws concerning "Residential" exemptions, borrowing money, compliance with Public Service Commission Orders, keeping Minutes, and laws enacted by the 2024 General Assembly. The presenter also examines and discusses recent court and Public Service Commission decisions.

b. Environmental Regulation Update: Lead and Rule/PFAS. This presentation reviews recent developments in the Environmental Protection Agency's ("EPA") efforts to address lead and copper and Per- and polyfluoroalkyl substances ("PFAS") in drinking water. It focuses on the requirements of the Lead and Copper Revisions, the proposed Lead and Copper Rule Improvements and the EPA's proposed rules to monitor and regulate PFAS in drinking water. The interplay of these environmental regulations with the current constitutional,

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statutory and regulatory framework for Kentucky public utilities and discuss current court cases involving these rules.

c. Reducing Unaccounted-For Water Loss. This presentation addresses practical and technical approaches to reduce water loss, with an emphasis on those that NKWD and other water utilities have successfully used. It will also review the Public Service Commission's efforts to encourage a reduction in water loss and the Commission's regulations and recent regulatory decisions addressing unaccounted-for water. It also examines how the Public Service Commission establishes and monitors water loss reduction surcharges that are intended to finance water loss reduction improvements and practices.

d. Practical Suggestions for a Successful Rate Adjustment Filing. This presentation provides practical suggestions for preparing and presenting applications for a rate adjustment to the Public Service Commission and discusses common mistakes made in rate adjustment proceedings. Topics addressed include frequency of rate applications, timing considerations for a rate filing, need for a rate consultant or attorney, strategies for preparing the rate application, common issues in ratemaking proceedings, responding to discovery requests, reviewing and responding to Public Service Commission Staff's reports.

e. Legal Issues in the Operation and Management of Water Systems. A panel of attorneys entertain audience questions regarding frequently recurring legal issues that regulated water utilities face. Discussion will address KRS Chapter 74 and its effects on the management and operation of water districts, as well as other highly relevant statutory provisions, such as the Claims against Local Government Act, Bidding Requirements provision of KRS Chapter 424, Eminent Domain, Local Model Procurement Law, Whistle Blowers Act, and general laws related to special districts. Public Service Commission regulatory requirements will also be discussed.

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9. 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. Joint Applicants are not requesting that the proposed training program be accredited as a program of instruction for newly appointed commissioners.

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

11. The written materials to be provided to each attendee are attached at **Exhibit 3**. These materials are of the same type and nature as those previously provided at the accredited training program conducted at NKWD's offices in prior years.¹ The Joint Applicants will provide each attendee with a copy of each speaker's presentation. In addition, presenters may provide attendees with copies of applicable laws, regulations, Kentucky court decisions, and Public Service Commission orders. The Joint Applicants will include a copy of these materials with their sworn statement and report regarding the instruction. Should any presenter revise or amend his or her presentation prior to the presentation or provide additional written materials to the attendees, a copy of the revised presentation will also be submitted.

¹ See Electronic Application of Northern Kentucky Water District and Stoll Keenon Ogden PLLC for Accreditation and Approval of A Proposed Water District Management Training Program, Case No. 2022-0338 (Ky. PSC Dec. 22, 2022); Electronic Application of Northern Kentucky Water District for Approval of Commissioner Training and Continuing Education Credit, Case No. 2019-00081 (Ky. PSC June 4, 2019); Application of Northern Kentucky Water District For Accreditation and Approval of A Proposed Water District Management Training Program, Case No. 2018-00091 (Ky. PSC May 9, 2018); Application of Northern Kentucky Water District For Accreditation and Approval of A Proposed Water District Management Training Program, Case No. 2017-00144 (Ky. PSC March 23, 2017); Application of Northern Kentucky Water District and Stoll Keenon Ogden PLLC For Accreditation and Approval of A Proposed Water District Management Training Program, Case No. 2016-00146 (Ky. PSC May 5, 2016); Application of Northern Kentucky Water District and Stoll Keenon Ogden PLLC For Accreditation and Approval of A Proposed Water District Management Training Program, Case No. 2016-00146 (Ky. PSC May 5, 2016); Application of Northern Kentucky Water District and Stoll Keenon Ogden PLLC For Accreditation and Approval of A Proposed Water District Management Training Program, Case No. 2016-00146 (Ky. PSC May 5, 2016); Application of Northern Kentucky Water District and Stoll Keenon Ogden PLLC For Accreditation and Approval of A Proposed Water District Management Training Program, Case No. 2015-00147 (Ky. PSC May 18, 2015).

12. The Joint Applicants have applied or will shortly apply to the Kentucky Bar Association, the Division of Compliance Assistance, and the Department of Local Government for accreditation of the proposed training program for six hours of continuing education credit.

13. The Joint Applicants have sent notice of the proposed training program by electronic mail to the water districts and water associations that are under Public Service Commission jurisdiction as well as representatives of investor-owned and municipal utilities, county judge/executives, county attorneys, and members of the Kentucky Bar Association who are believed to have an interest in the proposed program's subject matter.

14. The Joint Applicants will retain a record of all water district commissioners attending the proposed training program.

15. No later than June 1, 2024, the Joint Applicants 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 water district commissioner, his or her water district, and the number of hours that he or she attended.

16. The Joint Applicants will include with the sworn statement documentary evidence of the program's certification for continuing education credit by certifying authorities and a copy of any written material provided to the attendees that is not included in this Application.

17. Joint Applicants 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

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directives, regulations or other requirements, or perform any other supervisory functions that the Public Service Commission deems necessary.

WHEREFORE, the Joint Applicants request that the Public Service Commission approve and accredit the proposed training program entitled "Northern Kentucky Water Training 2023" for six hours of water district management training.

Dated: April 5, 2024

Respectfully submitted,

Gerald E. Wuetcher Stoll Keenon Ogden PLLC 300 West Vine Street, Suite 2100 Lexington, Kentucky 40507-1801 gerald.wuetcher@skofirm.com Telephone: (859) 231-3017 Fax: (859) 259-3517

Damon R. Talley Stoll Keenon Ogden PLLC P.O. Box 150 Hodgenville, Kentucky 42748-0150 damon.talley@skofirm.com Telephone: (270) 358-3187 Fax: (270) 358-9560

Counsel for Stoll Keenon Ogden PLLC

Tom Edge General Counsel Director of Compliance, Communications, and Regulatory Affairs Northern Kentucky Water District 2835 Crescent Springs Rd. P.O. Box 18640 Erlanger, KY 41018 tedge@nkywater.org Telephone: (859) 578-5457 Fax: (859) 426-2770

Counsel for Northern Kentucky Water District

CERTIFICATE OF SERVICE

In accordance with 807 KAR 5:001, Section 8, and the Public Service Commission's Order of July 22, 2021 in Case No. 2020-00085, I certify that this document was transmitted to the Public Service Commission on April 5, 2024 and that there are currently no parties that the Public Service Commission has excused from participation by electronic means in this proceeding.

Gerald E. Wuetcher

EXHIBITS

EXHIBIT 1

Northern Kentucky Water Training 2024 Presented by Northern Kentucky Water District & Stoll Keenon Ogden PLLC May 8, 2024 2835 Crescent Springs Road Erlanger, Kentucky

Morning Agenda

- 7:45 8:30 **Registration and Refreshments**
- 8:30 8:35 **Program Overview and Welcome**
- 8:35 10:05 **Recent Developments in Utility Regulation Damon Talley** This presentation reviews recent developments in public utility law and regulation. Topics include revisions to the Sales Tax laws concerning "Residential" exemptions, borrowing money, compliance with Public Service Commission Orders, keeping Minutes, and laws enacted by the 2024 General Assembly. The presenter also examines and discusses recent court and PSC decisions.
- 10:05 10:20 **Break**

10:20 – 11:50 Environmental Regulation Update: Lead and Copper Rule/PFAS – Amy Stoffer and Tom Edge

This presentation reviews recent developments in the Environmental Protection Agency's efforts to address lead and copper and PFAS chemicals in drinking water. It focuses on the requirements of the Lead and Copper Revisions, the proposed Lead and Copper Rule Improvements and the EPA's proposed rules to monitor and regulate PFAS in drinking water. Presenters will discuss the interplay of these environmental regulations with the current constitutional, statutory and regulatory framework for Kentucky public utilities and discuss current court cases.

11:50 – 12:30 **Lunch (Provided on site)**

Afternoon Agenda

12:30 – 1:30 Special Session I – PSC Consumer Services, One-on-One Discussion – Rosemary Tutt

This is a question-and-answer session for utility customer representatives with the Manager of the Public Service Commission's Consumer Services Branch. The requirements of the Commission's regulation on customer relations will be examined in detail. Seating is limited.

12:30 – 1:30 Reducing Unaccounted-For Water Loss – Amy Stoffer, Tom Edge, Tina Frederick

Since 2019 the Public Service Commission has engaged in a significant campaign to address water loss among Commission regulated utilities. The first half of this presentation addresses practical and technical approaches to reduce water loss, with an emphasis on those that Northern Kentucky Water District and other water utilities have successfully used. The second half of this presentation reviews the Public Service Commission's efforts to encourage a reduction in water loss and the Commission's regulations and recent regulatory decisions addressing unaccounted-for water. It also examines the Commission's practices to establish and monitor water loss reduction surcharges to finance improvements and practices designed to reduce water loss.

1:30 – 1:40 Break

1:40 – 2:40 Special Session II – PSC Consumer Services, One-on-One Discussion – Rosemary Tutt Second session.

1:40 – 2:40 Practical Suggestions for a Successful Rate Adjustment Filing, Or Avoiding Common Mistakes in Rate Adjustment Proceedings – Gerald Wuetcher

The presenter provides practical suggestions for preparing and presenting applications for a rate adjustment to the Public Service Commission and discusses common mistakes made in rate adjustment proceedings. Topics addressed include: frequency of rate applications, timing considerations for a rate filing, need for a rate consultant or attorney, strategies for preparing the rate application, common issues in ratemaking proceedings, responding to discovery requests, reviewing and responding to Commission Staff's reports.

2:40 – 2:45 Break

2:45 – 3:45 Legal Issues in the Operation & Management of Water Systems – Panel Discussion - Panelists: Tom Edge, Tina Frederick, Damon Talley, Gerald Wuetcher

A panel of attorneys entertain audience questions regarding frequently recurring legal issues faced by water utilities. Discussion is expected to address KRS Chapter 74 and its effects on the management and operation of water districts, as well as other highly relevant statutory provisions, such as the Claims against Local Government Act, Bidding Requirements provision of KRS Chapter 424, Eminent Domain, Local Model Procurement Law, Whistle Blowers Act, and general laws related to special districts. Kentucky Public Service Commission regulatory requirements will also be discussed.

3:45 **Closing Remarks/Administrative Announcements**

EXHIBIT 2

TOM EDGE

TOM EDGE is General Counsel and Director of Compliance, Communications, and Regulatory Affairs at the Northern Kentucky Water District. As General Counsel, Tom provides legal counsel and guidance to the District's Board of Commissioners and its Management Team on all legal matters including personnel law, real estate, contracts, tax, insurance, public monies and purchasing. He has been with Northern Kentucky Water District since January 2021. He previously served in the Campbell County Attorney's Office and maintained a private practice that included several municipalities. Tom has an Associate Degree in Information Systems Technology from the Community College of the Air Force, a Bachelor's Degree in Information Technology from American Military University, a Master's in Business Administration from American Public University, and a Juris Doctorate from Northern Kentucky University.

TINA FREDERICK

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 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*.

AMY STOFFER

AMY STOFFER is Vice President of Engineering, Production & Water Quality at the Northern Kentucky Water District. She has a Bachelor of Science Degree in Civil Engineering from the University of Cincinnati and is a Licensed Professional Engineer in the States of Kentucky and Ohio. The group she manages is responsible for engineering services, water treatment, production, and treatment-related facility management.

Amy is a member of the Northern Kentucky Society of Professional Engineers, the American Water Works Association, and the American Society of Civil Engineers. She is serving on the Board of Directors for Confluence and is a Director-at-Large for the American Water Works Association.

Amy has been with the Northern Kentucky Water District since 2001.





Damon R. Talley Direct Phone: 270.358.3187 damon.talley@skofirm.com

BAR & COURT ADMISSIONS

Kentucky

U.S. District Court, Eastern District Of Kentucky U.S. District Court, Western District Of Kentucky United States Supreme Court

EDUCATION

University of Kentucky College of Law 1975, J.D. University of Kentucky College of Engineering 1972, B.S.M.E.

RECOGNITION

Best Lawyers®, Lawyer of the Year (Lexington), Utilities Law, 2023

Best Lawyers®, Utilities Law, 2021-present

Sullivan Medallion, presented to Outstanding Graduating Student, University of Kentucky

Moot Court Board, President, University of Kentucky College of Law

Outstanding Student, University of Kentucky College of Engineering

Omicron Delta Kappa, President, University of Kentucky

Kentucky Association of Future Farmers of America, President

Outstanding Citizen Award, LaRue County Chamber of Commerce, 1990

Outstanding Citizen Award, Cave City Chamber of Commerce, 1981

Outstanding Citizen Award, Horse Cave Chambers of Commerce, 1979

Damon R. Talley

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.

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.

Utility & Energy: 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.

Work Highlights

Damon serves as General Counsel of the Kentucky Rural Water Association and has served in this capacity since 1979.

Damon serves as General Counsel of the Kentucky Rural Water Finance Corporation and has served in this capacity since 1995.





Gerald E. Wuetcher Direct Phone: 859.231.3017 gerald.wuetcher@skofirm.com

BAR & COURT ADMISSIONS

Kentucky U.S. Court Of Appeals For The Armed Forces U.S. District Court, Eastern District Of Kentucky U.S. District Court, Western District Of Kentucky

EDUCATION

Emory University 1984, J.D.

Johns Hopkins University 1981, B.A.

RECOGNITION

Best Lawyers®, Utilities Law, 2021-present

Gerald E. Wuetcher

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.

Utility & Energy: Jerry concentrates on public utility law in Kentucky, but also participates in general and commercial litigation, transactions, employment concerns, securities issues and mergers and acquisitions involving gas, electric and water companies. He handles all facets of regulatory matters, including the negotiation of complex agreements and representation before state agencies and courts.

Work Highlights

Attorney, Kentucky Public Service Commission (1987-2014). Served as a staff attorney, deputy general counsel and executive advisor. Frequently appeared before the Commission in administrative proceedings involving electric, natural gas, water and sewer utility issues and represented the Commission in state and federal courts. Responsible for drafting and revising the Commission's regulations. Served as the Commission's representative in various interagency groups addressing water and wastewater issues. Served as the Commission's representative on the Kentucky Infrastructure Authority's Board of Directors (2009-2014). Developed the Public Service Commission's water training program for water utility officials.

Judge Advocate, U.S. Army (1984 – 2011). Served as a judge advocate in the U.S. Army on active and reserve status in numerous roles. Retired at the rank of Colonel.

Adjunct Professor of Law, University of Louisville (2011)

EXHIBIT 3



DISCUSSION TOPICS

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

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DISCUSSION TOPICS

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







Reporting Requirements

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





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

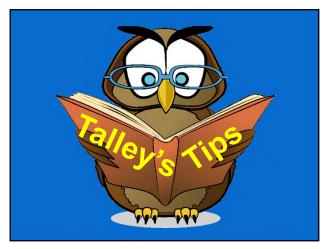
E-Mail Address

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

10

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

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PSC Case No. 2016 - 00310

Opened:	9-09-2016
Utility:	<u>Unlucky</u> WD
Туре:	Show Cause Case
Issue:	Ignored PSC Order &
	Wrong Email Address
Settled:	\$500 Fine

14

PSC Case No. 2023 - 00125Opened:6-07-2023Utility:Uninformed WDType:Investigation CaseIssue:Board had no access to
Email Account. Manager did
not inform Board of Order.Hearing
Held:1-18-24

Comply With All PSC Orders

16

PSC C	ase No. 2021 - 343
Filed:	12-14-2021
Туре:	Failure to Comply with PSC Order
Issue:	Did Not Timely File Rate Application & Failure to File PSC Annual Report
Decided:	07-15-2022

17

PSC Case No. 2021 - 343

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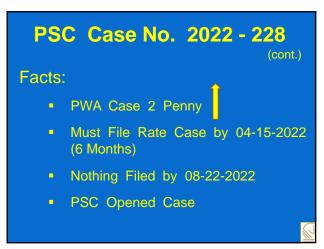
Result: WD Fined \$5,000

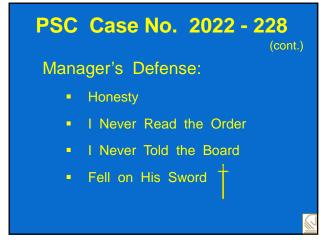
- WD Pay \$250
- Board Members & GM Attend 12 Hours of PSC Training
- Balance of Fine Suspended for 12 Months
- No More Violations

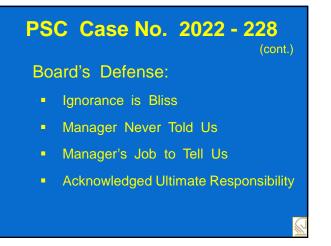
"... for allegedly failing to comply with the Commission's March 10, 2020 Order in Case No. 2019-00458. The willful failure to comply presents prima facie evidence of incompetency, neglect of duty, gross immorality, or nonfeasance, misfeasance, or malfeasance in office sufficient to make [the District's] 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."

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PSC Ca	ase No. 2022 - 228
Date:	08-22-2022
Туре:	Failure to Comply with PSC Order
Issue:	Did Not Timely File Rate Application
RD Case:	Filed 09-29-2022
Decided:	12-08-2022

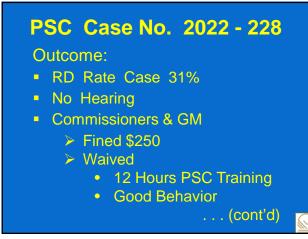


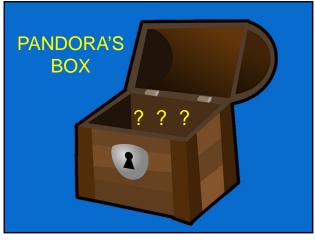


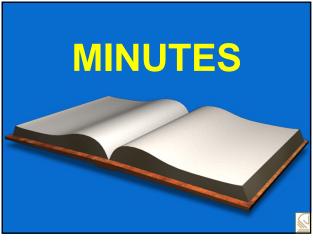






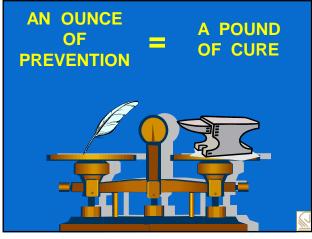


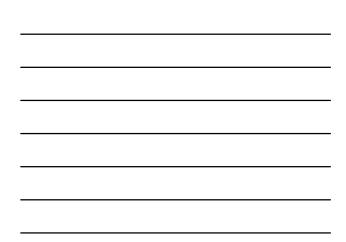


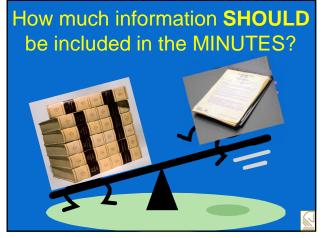


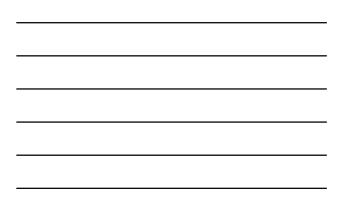


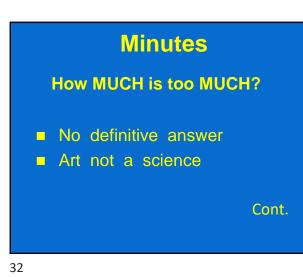














How MUCH is too MUCH?

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

J

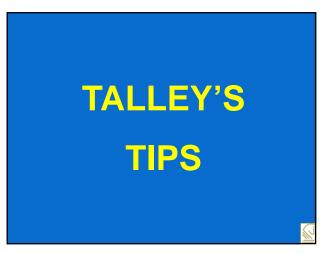
"Conversations are NOT official actions of the Board."

Virginia W. Gregg Former PSC Staff Attorney

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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

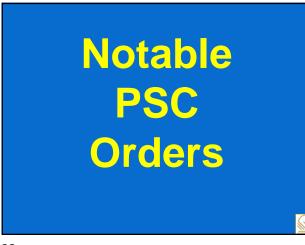


Talley's Tips

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.

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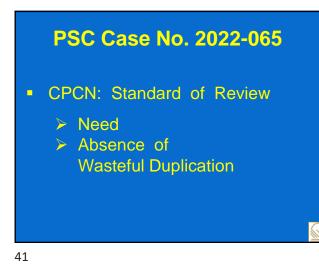
PSC Case No. 2023-306

Filed:	09-15-2023
Utility:	Bullock Pen WD
Туре:	Declaratory Order
Issue:	Is CPCN Needed To Buy Land?
Decided:	10-06-2023
Answer:	NO

PSC Case No. 2022 - 065

Filed:	3-29-2022
Utility:	Southeastern Water Assoc.
Туре:	CPCN – New Office Bldg.
Issue:	Reasonable Alternatives Considered
Decided:	8-30-22

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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
Туре:	CPCN – Raw Water Intake Rehab
Issue:	Reasonable Alternatives Considered
Decided:	7-31-23

43

PSC Case No. 2023-192

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

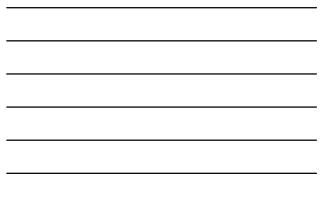
44

PSC Case No. 2023-192

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

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KRS 278.300(1)

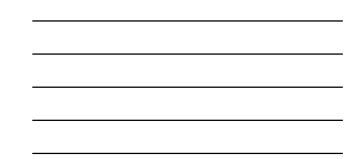
No utility shall issue any securities or evidences of indebtedness . . . until it has been authorized to do so by order of the Commission.

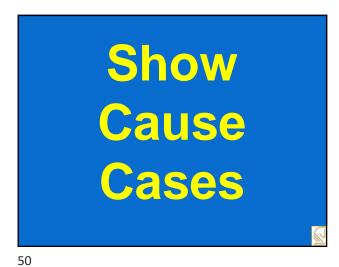
47

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)







2022 Show Cause Cases Borrowing Money

First Case:	2022-061
Second Case:	2022-197

2022 Case # 1	
Case No	. 2022 - 061
Opened:	04-08-2022
Issue:	KRS 278.300 (2 Violations) Repeat Offender - 2013
Decided:	11-14-2022

2022 Case #1

Facts: (1) Refinanced RD Loans w/o PSC Approval 07-23-2021 Facts: (2) Bought Truck w/o PSC Approval ➤ Bank Loan ➤ 75 Months Discovered: PSC Staff – Rate Case

53

2022 Case #1

Corrective Action:

- Filed Application for Retroactive Approval (Case No. 2021-465)
 - ➢ PSC Denied
 - > No Retroactive Approval

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2022 Case #1

Defenses:

- Ignorance
- Lawyer Said No PSC Approval Needed
- Relied on Bank
- New Manager

55

2022 Case #1

Case Status:

- Switched Lawyers
- Discovery Stage
 > 2 Rounds
- Hearing Date: None

56

2022 Case #1

Outcome:

- Chairman
 - ➢ Fined \$500
 - > 12 Hours of Training
 - Previous Offender (2012)
 - Tongue Lashing

J

2022 Case #1

Outcome:

- Other Commissioners
 No Fine
 - > 12 Hours of Training
- Bond Lawyer
 - Reimburse Utility for Lawyer Fees

58

2022 Case # 2

Case No.	2022 - 197
Opened:	08-11-2022
Issues:	Violated:
	≻KRS 278.300
	≻KRS 278.020
Hearing:	07-06-2023
Decided:	03-04-2024

59

2022 Case # 2

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



2022 Case # 2 Background Facts (continued): • 06-20-22: PSC Dismisses Case & States Intent to File Show Cause Case • 08-11-22: PSC Opens Show Cause Case

62

2022 Case # 2

Utility's Defenses:

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

2022 Case # 2

Case Status:

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

64

2022 Case # 2

Outcome:

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

... Continued

65

2022 Case # 2

Outcome:

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

2023 Show Cause Case Borrowing Money			
First Case:	2022-252		
Second Case:	2022-344		

2023 Case # 1			
Case No.	2022 - 252		
Opened:	02-16-2023		
Issue:	KRS 278.300 (4 Violations)		
Hearing:	08-01-2023		
Decided:	10-17-2023		

2023 Case #1

Facts:	Leased 4 Trucks 4 & 5 Year Terms
Issue:	Is Long Term Lease An evidence of Indebtedness ?
Holding	: Yes

2023 Case # 1

Outcome:

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

70

2023 Case # 2			
Case No.	2022 - 344		
Opened:	04-14-2023		
Issue:	KRS 278.300 (4 Violations)		
Hearing:	07-06-2023		
Decided:	10-31-2023		

71

2023 Case # 2

Defenses:

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

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2023 Case # 2

Case Status:

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

73

2023 Case # 2

Outcome:

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



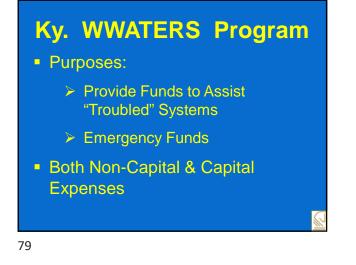
Notable Bills• HB 1Budget Bill• HB 563Funds for Capital
and Non-Capital
Expenses

76



HB 563

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



Ky. WWATERS Program Application Process KIA Board Evaluates & Scores

- Each Applicant
- General Assembly Makes Final Decision

80

Ky. WWATERS Program

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

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

82

Eligibility Criteria (continued)

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

83

Ky. WWATERS Program

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





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)

88

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?

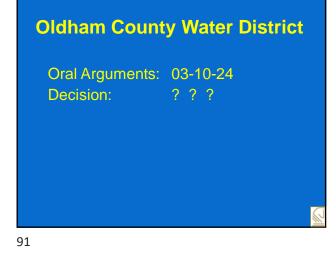
89

Oldham County Water District

Not An Issue:

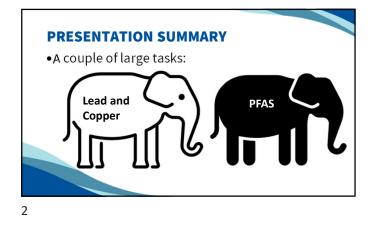
- Whether Cost of Commissioners' Benefits Can Be Recovered Through Rates
- PSC Decides This

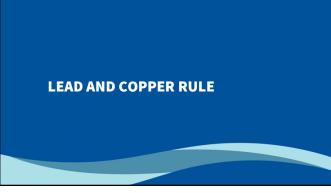
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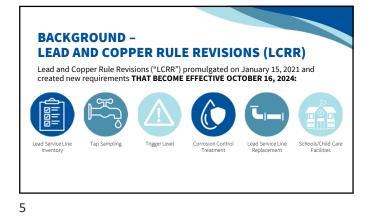






BACKGROUND - LEAD AND COPPER RULE

- EPA authorized to establish standards under the Safe Drinking Water Act.
- Lead and Copper Rule began in 1991.
- \bullet Maximum Contaminant Level Goal (MCLG) for lead: 0 $\mu g/L$
- Test water at the tap in homes that have lead service lines or copper with lead solder.
- \bullet Action Level for lead: 15 $\mu g/L$
- >AL Install corrosion control treatment; and
 Replace lead service lines at a rate of 7%





PROPOSED LCRI COMPLIANCE

- Tap Sampling
 - Reduce action level from 15 to 10 ug/L
 - Requires use of 100% lead service lines in sample pool
 - Use higher of $1^{\mbox{\scriptsize st}}$ and $5^{\mbox{\scriptsize th}}$ liter samples
- Communications
 - Requires several new communications and outreach efforts for various compliance levels
 - Example: 3-calender day notification of lead testing results.

7

ACTION LEVEL EXCEEDANCE

EPA is proposing systems with first and second action level exceedances must:

- Notify customers within 24 hours
- Conduct system-wide public education outreach, such as conducting a townhall meeting or participating in a community
 event, to raise additional awareness of the health effects of lead in drinking water, identify steps consumers can take to
 reduce their exposure, and provide information about

EPA is proposing systems with 3 action level exceedances must:

Make filters certified for lead reduction available to all consumers served by the system

Conduct at least one additional system-wide public education outreach activity, such as conducting a townhall meeting
or participating in a community event, to raise additional awareness of the health effects of lead in drinking water,
identify steps consumers can take to reduce their exposure, and provide information about how the water system is
addressing the issue.

Repeat the public education activity every 6 months

8

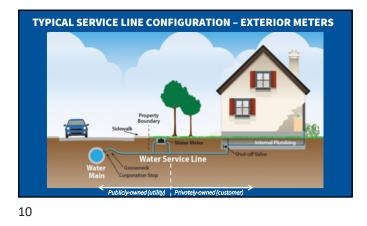
PROPOSED LCRI RULE COMPLIANCE OUTLOOK - INVENTORY

• Under LCRR

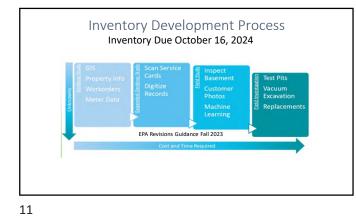
- Publish map online by October 16, 2024
- Submit initial inventory to state by October 16, 2024
- Send letters to selected customers within 30 days of state submittal

• New LCRI Requirements

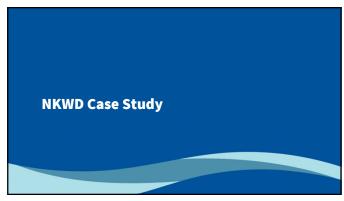
- Add connector material for each service line
- Resolve all unknown lines within 10 years (est. October 2037)

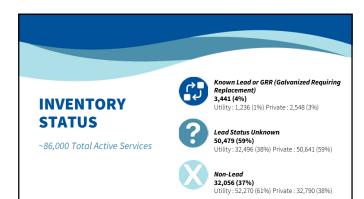












INVENTORY ACTIVITIES

Customer Engagement

- Mailed letters to several disadvantaged communities
 Placed material identification instructions on website for customer-owned service line
- Over 200 customers have submitted response
- Passed out flyers at several community events
- Put article in January "What's Happening" publications
- Including bill stuffers January April



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PROPOSED LCRI RULE COMPLIANCE OUTLOOK



• Lead Service Line Removal

Remove all lead service lines within 10 years in control of utility;
Must fully replace 10% annually on three-year rolling average.

Outlook: NKWD is not "in control" of private service lines:

Kentucky Administrative Regulation, 807 KAR 5:066 Section 12 lays **ownership of service lines past the meter and meter box with the customer**. After the point where NKWD's ownership ends, NKWD, as a special purpose government entity whose statutory purpose under Kentucky Revised Statute 74.012 is **limited to furnishing public water supply**, is prohibited from setting ownership of the service line beyond that point in accordance with Kentucky Constitution Sections 10, 13 and 242.

In limited circumstances, NKWD may arguably replace private lead service lines with consent as an implied power when reasonably incidental and indispensable to its power of furnishing a public water supply (i.e., as part of water main replacement project). See e.g., Commonwedith × Greyette Caunty, 39 SN/2d 962 (Ky. 1931); OAG 84-148 (water district could probably require hook up in interest of public health, safety and welfare).

Consent only applicable in limited circumstances, but in any case, funding is open auestion ...

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SERVICE LINE REPLACEMENT

What is required by utility to obtain consent and what does that mean?

EPA is proposing that where customer consent is required by State or local law or tariff agreement that
system must make a reasonable effort to obtain property owner consent.

• A minimum of 4 attempts using at least 2 different methods.

- If unable to obtain consent, then system would not be required to conduct full service line replacement because, under those circumstances, the full service line would not be "under the control" of the system.
- EPA does not propose any type of funding requirement by the utility, but only that the utility submit a
 plan that includes a funding strategy.

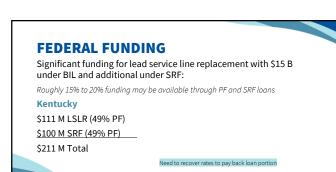
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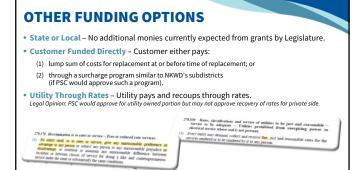


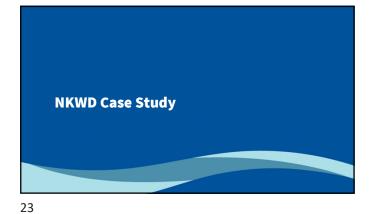
NKWD Case Study

		Estimated Cost	
Option Description	Service Line Replacement		Total
Conduct LSLR with W Main Replacement	/ater \$240 M	\$636 M	\$876 M
Conduct LSLR First an Water Main Replace Later		\$636 M	\$1,060 M

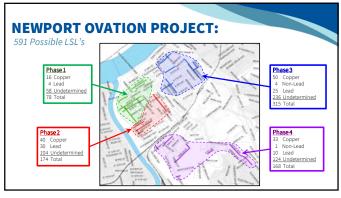
HOW DO WE PAY FOR IT? FUNDING SOURCES OVERVIEW Federal Government - \$15 Bin BIL (SRF)





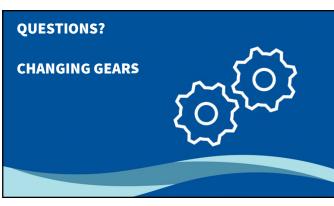






NEWPORT OVATION PROJECT

- **Contractor Responsibilities:**
- Inspect service line to confirm its material type prior to work and coordinate work with property owner.
- Furnish all labor, equipment, materials, plumbing permits, restoration.
- New service line will be copper and utilize trenchless construction methods if possible. · Reinstall interior electrical grounding system (if applicable).
- Property Owner Responsibilities:
- Sign agreement to allow private service line replacement; continue to own and maintain new service line; and waive all claims for damages if items not removed prior to work.
- Remove/replace any exterior obstacles (walls, fences, sculptures, furniture, sidewalks, driveways, landscaping) and
 interior obstacles (furniture, drywall, paneling) obstructing access to or impeding work.
- Conduct flushing as recommended by NKWD.
- Property Owner may decline; in such event, NKWD to do partial replacement only to meter pit.





PFAS EXPLAINED

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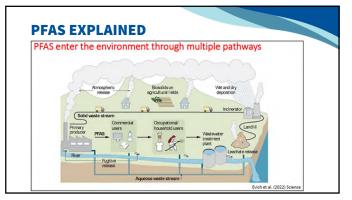
What are Per- and Polyfluorinated Substances (PFAS)?

- Synthetic chemicals used in industry and consumer products since the 1940s.
- Thousands of different PFAS (9,000+), some more widely used and studied than others.
 Used in firefighting foams, coating additives for non-stick cookware (Teflon™), paper and cardboard food packaging (microwave popcorn bags), dental floss, stain-resistant carpets and fabrics, and cleaning products.

PFAS are found in many consumer products due to water- and grease- resistant properties. Examples of its use in products include:







PFAS EXPLAINED

What is the Impact of PFAS?

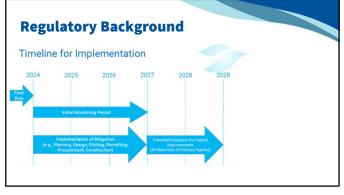
- "Early estimates of the cost of removing PFAS from drinking water nationwide are about \$400 billion —dwarfing the cost of settlements and cleanup costs from environmental contamination like asbestos and lead pipes or other public health settlements tied to tobacco and opioids." <u>See</u> R. Rivard& J. Wolman, *Forever chemicals' are everywhere*. The battle over who pays to clean them up is just getting started, Politico (Sep. 13, 2022).
- EPA has estimated annual costs of compliance with its new proposed standards for utilities nationwide at between \$772 million and \$1.2 billion.
- It is estimated that compliance costs to reduce PFAS compounds of PFOA and PFOS only to under 4 parts per trillion at over \$3.8 billion annually, with a life cycle cost of \$40 billion.

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REGULATORY HISTORY

- May 2, 2012 EPA required collection of finished drinking water samples for 6 PFAS (PFOA, PFOS, PFNA, PFHxS, PFHpA, PFBS) in UCMR3.
- May 9, 2016 EPA issued Drinking Water Health Advisories for PFOS/PFOA at 70 parts per trillion (ppt).
- February 13, 2019 EPA released PFAS Action Plan to address PFAS in drinking water, identify and clean up PFAS contamination, expand monitoring of PFAS in manufacturing, increase scientific research, and exercise effective enforcement tools.
- December 27, 2021 EPA published UCMR5 to require sampling of 29 PFAS.
- June 15, 2022 EPA released health advisory levels (EPA's advised level where no adverse health effects are
 expected to occur over a lifetime of exposure): PFOA (0.004 ppt), PFOS (0.02 ppt), GenX (10 ppt), PFBS (2,000 ppt)*
- August 26, 2022 EPA proposed rule to designate PFOA and PFOS as hazardous substances under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). <u>No final rule yet</u>.
- March 14, 2023 EPA proposed rule to regulate 6 PFAS in drinking water. EPA currently projects final rule to be issued by Fall 2023. <u>No final rule yet.</u>
- *These levels are trace amounts. A part per trillion equals 1 gallon of water in 1,514,570 Olympic staed swimming pools or 1 second in 2,000 years. The ability to test compounds at these minute levels is reard

	MCLG	MCL			
Compound PFOA	0 ppt	4.0 ppt			
PFOS	0 ppt	4.0 ppt			
PFHxS					
PFBS	Hazard Index	Hazard Index			
PFNA	> 1.0	> 1.0	PFAS Hazard Index		
HFPO-DA (GenX)					
. ,			$Havard \ Index = \sum Havard \ Quattent_{FFAS}$	Record Qualitati	Teath Seat Price
			Compound	I do not the second second	
			Compound		
			Performance.if and (PPHD)	Thyod Iffeds	HSW0 E0 pdt
					00000
			Performineuroufonc and (PPHD)	Thyroid Effects	F 0 ppr







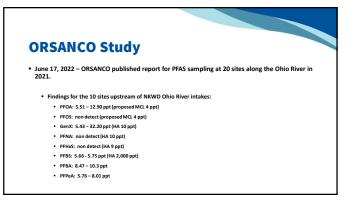
What is Kentucky Energy & Environment Cabinet doing?

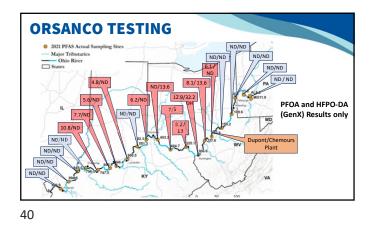
- 2019 Study of Finished Water at 81 Drinking Water System tested for 8 PFAS (PFOA, PFOS, PFNA, PFHxS, PFHpA, PFBS from UCMR3 plus GenX and ADONA)
 Each chemical was found throughout state except ADONA.
- 2020 Study of Raw Water tested same 8 PFAS in source waters
 - Each chemical was found throughout state except ADONA.
 - South Fork of Licking River detected PFOA at 1.82 ppt; PFOS at 3.12 ppt
- January 2023 initiated workgroup under the Drinking Water Advisory Council
- March through June 2023 collecting finished water samples at ~113 water systems
- April 2023 filed lawsuits against DuPont, Chemours, 3M and other PFAS manufacturers for PFAS contamination to Kentucky lands and waterways. State cases removed to federal court and eventually transferred to MDL.

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UCMR 5

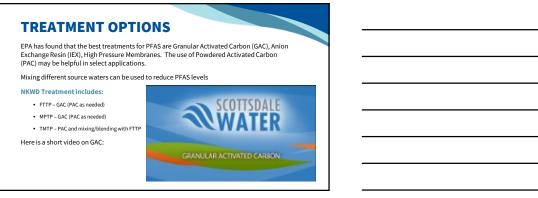
- The Safe Drinking Water Act (SDWA) requires that once every five years the EPA issue a list of unregulated contaminants to be monitored by public water systems (PWSs).
- UCMR 5 requires sample collection for 30 chemical contaminants between 2023 and 2025 using analytical methods developed by the EPA and consensus organizations.
- Consistent with the EPA's <u>PFAS Strategic Roadmap</u>, UCMR 5 will provide new data that will improve the agency's understanding of the frequency that 29 per- and polyfluoroalkyl substances (PFAS) and lithium are found in the nation's drinking water systems, and at what levels.
- The monitoring data on PFAS and lithium will help the EPA make determinations about future regulations and other actions to protect public health under SDWA.







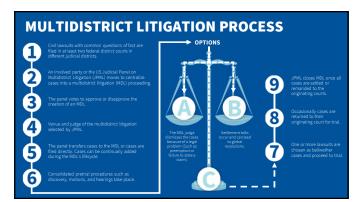






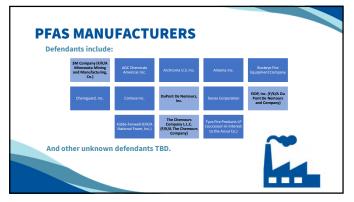
PFAS LITIGATION SUMMARY

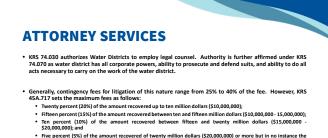
- The PFAS Multidistrict Litigation (a special type of proceeding used for judicial efficiency or MDL for short started in December 2018 and is currently home to over 15,000 cases.
- Cases that involve PFAS-containing aqueous film-forming foam (AFFF) are primarily litigated on the
 consolidated docket although many claimants, such as NKWD, have expanded to all PFAS related claims, directly and indirectly.
- There are four categories of cases that are currently on the MDL:
 - (1) Water Utilities seeking costs of necessary testing and remediation technology for PFAS;
 - (2) States, for environmental PFAS pollution (broadly, not limited to only drinking water issues) within state borders seeking monetary relief for necessary testing, natural resource damages, and remediation;
 - (3) Individual Persons for personal injury claims and medical monitoring brought alleging that PFAS in the AFF products used by the fire fighters led to an injury; and
 - (4) Property damage claims of individuals, governmental entities and others for PFAS impacts to real property, including but not limited to, private wells, airports, wastewater systems, and fire training locations.
- PFAS problem is bigger than Defendants and what can be recovered from the litigation. This is only one
 piece to the solution of PFAS problem which will likely also include funding from various government ntities and our rate pave











CURRENTLY

- Global Settlements being processed for 3M and Dupont/ChemoursIf you did not opt out, you will need to submit claim forms soon
- Cases in MDL for other Defendants still moving forward and currently unclear on how or if they will reach a similar resolution.

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GOING FORWARD

- Lead and Copper Rule Improvements Final Rule is anticipated in October 2024
- PFAS Drinking Water Final Rule is anticipated in May 2024
- Each present unique compliance requirements.



Water District

Northern Kentucky Water Training 2024

Reducing Unaccounted-For Water Loss

Presented by Amy Stoffer & Tom Edge

PRESENTATION SUMMARY

- •General Overview
- Regulatory Requirements
- •Water Loss Calculations
- •Best Practices AWWA
- •Combating Water Loss Case Study



2

1

GENERAL OVERVIEW

From American Water Works Association:

- Water loss control represents the efforts of water utilities to provide accountability in their operation by reliably auditing their water supplies and implementing controls to minimize system losses.
- Utilities incur real losses from pipeline leakage and apparent losses when customer water consumption is not properly measured or billed.

From the PSC (November 2019 Investigative Report):

- Water loss is defined as the difference between the quantity of water that a utility produces at its own treatment plant or purchases from another producer and the total amount of water that is sold, used by the utility, used for fire protection or otherwise accounted for.
- Leaks from the system, line breaks, theft, unauthorized usage, and metering inaccuracies are common sources for unaccounted-for water loss.

Why Water Loss is a Problem?

From the PSC (November 2019 Investigative Report):

Water loss and failing water infrastructure are nationwide problems facing water utilities.

- In a 2017 report on Kentucky's infrastructure challenges, the Kentucky Chamber of Commerce estimated that \$6.2B will be required over the next 20 years to address the state's drinking water infrastructure needs.
- Utility water loss can be classified into two categories:

 apparent losses due to customer meter inaccuracies, billing system data errors, and/or unauthorized consumption (theft); and

(2) real losses - water that escapes the distribution system from leaks or storage overflows.

With the first category - apparent losses-utilities lose revenue, and the water loss distorts the data on customer consumption patterns. The second type of water loss-real loss-increases the water utility's production costs (energy and chemicals needed to treat water) and stresses water system resources because these losses represent water that is extracted and treated (or purchased) but generates zero revenue because it never reaches the end user.

4

Continued.

From the PSC (November 2019 Investigative Report):

- Well-run utilities establish <u>metrics to gauge performance over time, adopt policies and</u> <u>internal controls</u> to ensure that business best practices are followed, and maintain complete and accurate records relating to their operations.
- Some district boards have lacked the will to raise rates to generate the revenue needed to maintain system reliability, citing a concern for the impact of higher rates on lowincome customers. <u>Delaying or ignoring</u> the need for regular, gradual rate adjustments, however, <u>results in a deterioration of system integrity</u> and failing infrastructure.

 Ultimately, customers are shocked with a much higher rate increase to fix deferred problems than they would have if the water utility had maintained the system over time.

5

REGULATORY REQUIREMENTS

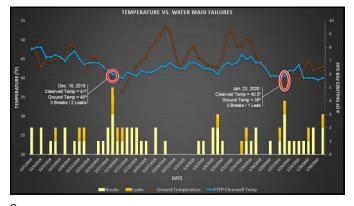
807 KAR 5:066 Section 6 (3) Unaccounted-for water loss.

Except for purchased water rate adjustments for water districts and water associations, and rate adjustments pursuant to KRS 278.023(4), for 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.

Upon application by a utility in a rate case filing or by separate filing, or upon motion by the commission, an alternative level of reasonable unaccounted for water loss may be established by the commission. A utility proposing an alternative level shall have the burden of demonstrating that the alternative level is more reasonable than the level prescribed in this section.

KRS 278.030 (2) - Every utility shall furnish adequate, efficient and reasonable service...

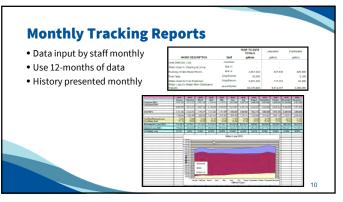


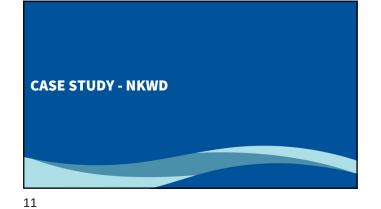


Solution: Water Loss Prevention Plan

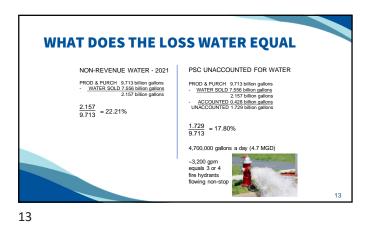
Components of a Water Loss Prevention Plan should include but not limited to the following:

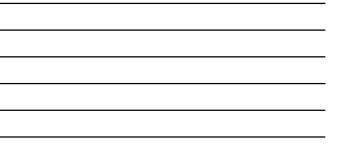
- Monthly Tracking Report
- Leak Detection Program
- Meter Testing ProgramFire Lines
- Water Audit per AWWA Method











THE SOLUTION

NKWD attacked the problem from multiple angles:

• Leak Detection – ASTERRA

Large Meter Changeout Program





14

LEAK DETECTION - ASTERRA

- Leak detection through satellite imagery is newer technology that takes aerial scans about 300 miles above the Earth's surface.
- Images are analyzed using proprietary algorithms that can detect the unique signature of treated water in saturated soils around the area of the leak.
- The results are complied to a report that identifies the leak to an area within a 300-foot radius



LEAK DETECTION - ASTERRA

- Case studies using satellite scans combined with acoustical surveys suggests that using this approach will find over 2.5 times more leaks per day as compared to using acoustical surveys alone.
- Finds leaks 60% of the time within the targeted area.



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LEAK DETECTION - ASTERRA

The Results:

	# of Miles Surveyed	# of Points of Interest	# of Leaks	GPM Loss Discovered	Cost per leak	Realized Savings (Annually)
Area 1	297.5					\$
Area 2	287.2					\$
Area 3	263.9					\$
Remainder	464.2					\$
TOTAL	1,312.8					\$
IUIAL	1,512.0					ş

LARGE METER REPLACEMENT PROGRAM

The Secret: Many large meters allow lots of water and money go unaccounted for during low flows. Even though the existing meters were meeting the testing requirements, does not mean the meters are picking up all the usage.

Specified Low Flow	Meter Size	Ultrasonic (gpm)	Turbine (gpm)	Compound (gpm)	Fire (gpm)	
Testing Rates:	3"	1	8	0.75		
	4"	1.5	15	0.75	0.75	
	6"	3	30	0.75	1.5	
	8"	5	40		2	
	10"	14	55		2	
				LOSE ACCURACY AT LOWER FLOW		

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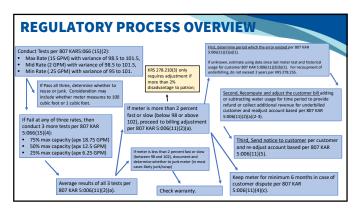


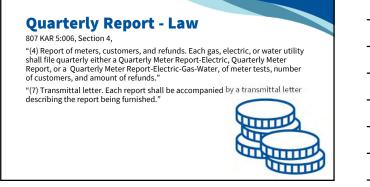


REGULATORY REQUIREMENTS

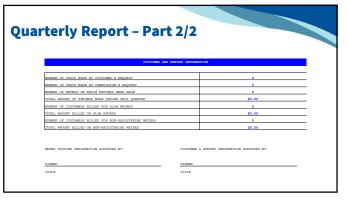
- 807 KAR 5:066 Section 15 outlines the accuracy requirements for which vary by type of water meters but in most instances save Class 1 Turbines and Propeller meters the accuracy requirement is different than 2%.
- 807 KAR 5:066 Section 15 (4) goes onto instruct "[w]hen upon periodic, request or complaint test, a meter is found to be in error in excess of the limits allowed by the commission's administrative regulations, three (3) additional tests shall be made: one (1) at seventy-five (75) percent of rated maximum capacity; one (1) at fifty (50) percent of rated maximum capacity; one (1) at twenty-five (25) percent of the rated maximum capacity. The average meter error shall be the algebraic average of the errors of the three (3) tests.
- <u>Note</u> 807 KAR 5:006 Section 11 outlines billing adjustment requirements for meters that average test is outside of 2%.

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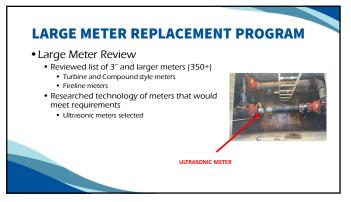
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Г	CT197	OMER TYPE	METERED	NON-METER	ED	TOTAL	1
		IDENTIAL					1
F		MERCIAL		•			
	INI	OUSTRIAL	•	•		•	
		OTHER	•	•		•	
L	3	TOTALS	•	•		•	
Г		21	ATUS OF METER TEST P	ROGRAM		QUANTITY	1
		NE	TERS TO BE TESTED THI	S YEAR		•	,
		METE	RS TESTED THIS YEAR (TO DATE)		•	
		XE	TRS STILL TO TEST TH	LS YEAR		•	
			VER	ER TESTING			
YEARS SINCE N	GETER		METER TEST R	LIULTS		NETERS	METERS
WAS LAST TES	TED	WITHIN #2%	> 2% FAST	> 2% SLOW	NR*	TESTED	NOT TESTED
NEW - 5 YEA	us .	٥	•	0	•	•	0
5 - 8 YEAR	8	۰	•	0	0	•	0
9 YEARS		•	•	•	•	•	•
10 YEARS		•	•	0	•	•	0
10+ YEARS		0	0	0	•	•	0
UNKNOWN		0	•	0	0	•	0
		0	•	0	•	•	0
TOTALS							



26

Quarterly Report - As Applied

- Report Template last revised July 11, 2017
- Template Excel spreadsheet has pages that provide prompts with questions. Template then auto populates onto final form the answers to each question.
- Data requirements:
 - Years since last tested including 9 years, 10 years and 10+ (11 or more).
 - Meter Test Results give options of within 2%, fast, slow or non registering
 - Non-registering not defined specifically but in context of regulation and report means no read.
 - 2% error limit not specifically defined in form; logical assumption is 2% of error on average of three test required under 807 KAR 5:066 Section 15 (4).



LARGE RESULTS S		REPLACI	EMENT P	ROGRAM
	Year	# of Meter Replacements	% Increase of Water Accounted for	\$ Increase
	2019	9	30-40%	
	2020	12	35-45%	
	2021	7	25-35%	
	2022			
	2023			
	TOTAL			
		realized ove	meters is 2 years or le r \$ in addition reption with many mo	al revenue since the





FIRE SERVICE AUDIT

Applicable Law:

KRS 278.170(3) provides that a utility may provide free or reduced rate water service to any city, county, urban-county, fire protection district or volunteer fire protection district for fighting fires or training firefighters under a tariff that is approved by the commission and that requires the water user to provide water usage reports to the utility on a regular basis.

- 807 KAR 5:095 outlines PSC regulation of Fire Protection Service for Water Utilities. Addresses:

 - Utilities. Addresses: Rates for Private Fire Protection Service Lines (non sprinkler systems) Reporting of estimated usage annually if unmetered Requiring double back flow preventers Fire Sprinker Systems Reporting of Fire Department Usage at least quarterly

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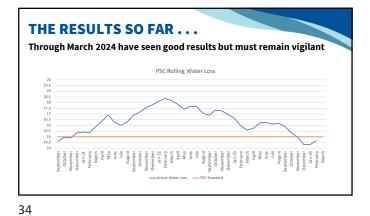


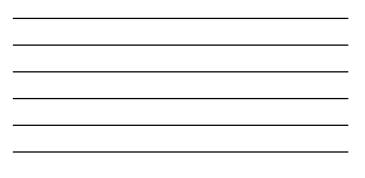
Actions Taken:

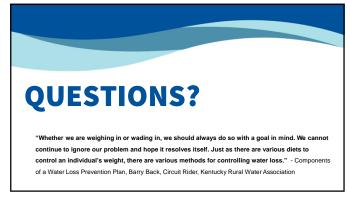
- Audit of fire line usage on detector check meters. Detector check meters not on all fire lines.
- Additional Inspection and Investigation into largest estimated usage users. Investigation found numerous fire lines with outside leaks.

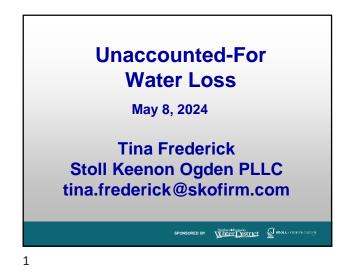
• Enforcement of Regulation as adopted by Tariff for Fire Departments.











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





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

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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

5

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)

7

"Accounted-For" Water

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

8

"Unaccounted-For" Water

Water Loss

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

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Kentucky Public Service Commis	sion .	THE PARTY IN	Seal County	parant or		
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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."

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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)

13

Reasons for the Regulation

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

14

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

16

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."

17

2022 Water Loss Statistics PSC- Regulated Utilities

- Highest 73.30%
- Lowest 5.03%
- More than half reported > 15%

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

urce: Water Loss Control: Water Loss Control Terms Defined, AWWA, 2012

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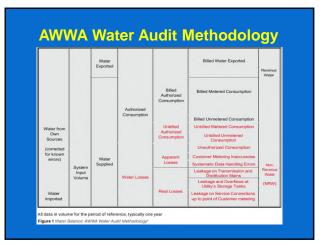
Why?

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."

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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
- Source: The Water Audit Handbook for Small Drinking Water Systems, EFCN, 2013



AWWA Methodology

Focuses on:

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

nce Indicators for Non-Revenue Water, AWWA, November 2019

> Validity of data quality

23

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?

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Adopted AWWA Water Audit Methodology

Partially Adopted: • Texas

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

26

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.

28

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

29

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

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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

31

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

32

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%

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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

34

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

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Accounting and Reporting Requirements

- Surcharge proceeds deposited into interestbearing account used only for surcharge proceeds
- A "<u>Qualified Infrastructure Improvement Plan</u>" (QIIP) must be filed within 120 days
 - This plan is intended to guide water-loss reduction efforts and spending of surcharge proceeds

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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

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

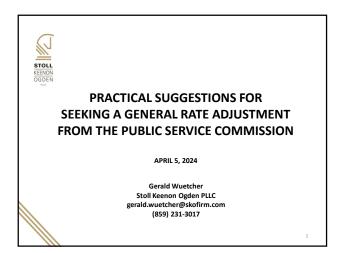
- Utility may propose an alterative level of water loss
- Proposal may be made in rate case or separate proceeding
- Burden of proof on Utility to demonstrate alternative level is **more reasonable**

38

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





Confronting the Problems Plaguing Kentucky's Water Utilities

"Every water district and association should be subjected to a rate and operations review every three years to ensure that revenue is adequate to properly operate the system over the long term. Rate increases recommended by Commission Staff should be required to be implemented in full by the utility. The Commission further recommends that its authority to require that the portion of rates applicable to infrastructure replacement be utilized only for that purpose and be specifically codified."

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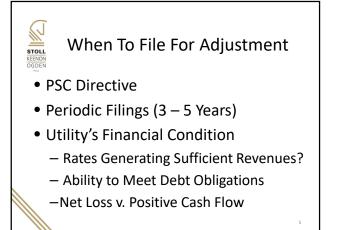
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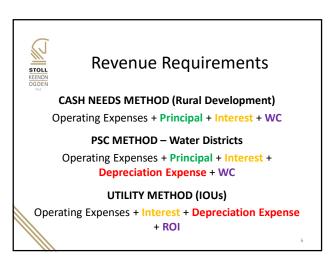
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Order of Presentation

- Planning Considerations
- Pre-Application Preparations
- Preparing Application
- Post-Application Actions







Difference in Approaches

- Cash Needs: CapEx recovered through Principal (No Depreciation Recovery)
- Utility Approach: CapEx recovered through Depreciation
- PSC Method (WD): CapEx over-recovered thru Principal AND Depreciation

Significance of Depreciation "[D]epreciation is the loss, not restored by current maintenance, which is due to all the factors causing

maintenance, which is due to all the factors causing the ultimate retirement of the property. These factors embrace wear and tear, decay, inadequacy, and obsolescence. Annual depreciation is the loss which takes place in a year. In determining reasonable rates for supplying public service, it is proper to include . . . an allowance for consumption of capital . . ."

Lindheimer v. Illinois Bell Tele. Co., 292 U.S. 151, 167 (1934)

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Effect of Depreciation: Example

- Assumptions:
 - Asset Purchase Price: \$1,000,000
 - Loan Principal: \$1,000,000
 - Loan Term: 40 years
 - Interest Rate: 3%
 - Asset Useful Service Life: 50 years
 - Asset Salvage Value: None
 - Annual Depreciation Expense: \$20,000

STOLL KEENON OGDEN	ect of	Depr	eciatic	on: Exar	nple
Approach	Principal	Interest	Deprecation	Total Revenue Requirement	Recovery Period
Cash Method	\$1,000,000	\$719,330	\$0	\$1,719,330	40 years
Utility Method	\$0	\$719,330	\$1,000,000	\$1,719,330	50 years
PSC Method (Water District)	\$1,000,000	\$719,330	\$1,000,000	\$2,719,330	50 years
PSC Me	ethod Ger	nerates A	An Additic	onal \$1,000),000 10



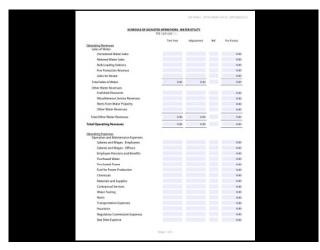
Timing Considerations

- Rates that fail to generate sufficient cash to meet Cash Needs will result in default – Immediate Action Required
- PSC Approach: Apply for adjustment when rates fail to generate revenues required by PSC Method
- When rates fail to generate PSC Approach level – Planning for Application Should Begin

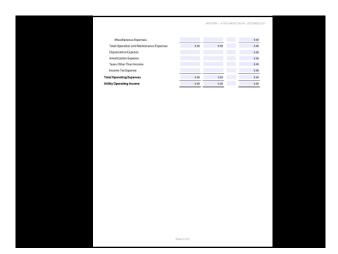
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Planning for Rate Adjustment

- Continuous monitoring of financial condition and need for rate adjustment
- Incorporate ARF Forms SAO-W and RR-DC into planning and to assess financial condition
- Prepare Projections 2X yearly short-term and long-term projections
- Projections should include known/expected adjustments















Planning for Rate Adjustment

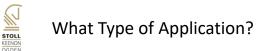
- Document Results & Discuss with Board
- Consider Periodic Filings to Reduce Rate Shock and Increase Customer Acceptance
- Consider Phasing-In Rate Adjustment to allow for more gradual increases

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- Alternative Rate Filing
- Application PSC Rules of Procedure
- RD-Financing Statute
- Purchased Water Adjustment

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Who Will Prepare Application?

- Type of Application
- Cost-of-Service Study Required
- Complexity of Issues/Adjustments
- Familiarity/Experience of Utility Staff with Ratemaking/KPSC Precedent

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Selecting Consultant: Factors to Consider

- Accounting/Ratemaking Experience
- Familiarity with KPSC Methodology/ Ratemaking Practices/Precedent
- Past work before KPSC
- KPSC treatment of Past Work

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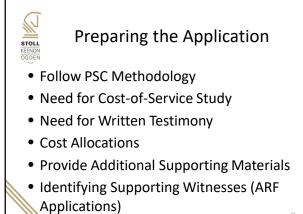
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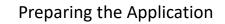
Is An Attorney Required?

- ARF Filings: No Attorney Required
- 807 KAR 5:001 Filings: Atty Required
- What are Expected Issues?
- Familiarity with KPSC Methodology/ Ratemaking Practices/Precedent
- Role of An Attorney





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- Timing Concerns
- Requesting Lower Revenue Requirement

Adjustments

- Make Adjustments to Reflect Known & Measurable Changes Regardless of Effect on Revenue Requirement
- Evaluate Likelihood of Acceptance
- Proof for Proposed Adjustment
- Timing

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Types of Adjustments

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- Wages
- Increase Insurance/Pension/Fringe Benefits
- Property Insurance
- New Construction
- Purchased Power
- Unusual Expenses
- Rate Case Expenses

26

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Contested Issues

- Employer Contribution for Health Insurance
- Commissioner Fringe Benefits
- Donations
- Employee Bonuses
- Excessive Wage Increases
- Useful Lives of Utility Assets

Excessive Water Loss

Skeletons In the Closet

- Debt Issuances Not Authorized
- Chargining Unfiled/Unauthorized Rates
- Construction without CPCNs
- Derogatory Comments in Board Minutes
- Open Meeting Issues
- Nepotism/Non-Arms-Length Transactions
- Improper/Unlawful/Embarrassing

Expenditures

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Skeletons In the Closet

• Responses:

- Make adjustments to test period expenses to remove unlawful/embarrassing expenditures
- Correct Problems and Note the Corrections Taken when questioned

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- Report violations prior to filing application

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Packaging The Application

- Make the Application easy to navigate/use
- Use Bookmarks
- Paginate Exhibits
- Hyperlinks
- Prepare an Index for Application
- Include Built-in Index for Quick Searching
- Provide Spreadsheets for Exhibits based on Spreadsheets



Responding To Requests for Information • Expect Extensive Requests

- Answer Requests Directly
- Provide Context for Your Responses/Do not assume knowledge of past history

32

- Use Response to Buttress Position
- Request Clarification when necessary



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Responding To Staff Report

- Read Report Carefully
- Identify Any Errors in Report's Calculations or Assumptions
- Identify Proposed Staff Adjustments with which Utility Disagrees
- Identify the Effect of Those Adjustments on Requested Revenue Requirement

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Responding To Staff Report

- Before contesting any proposed Staff adjustment, considered the cost of delay in final decision vs. the revenue at issue and likelihood of successfully challenging
- If cost of delay is greater or challenge unlikely to succeed, accept the recommended revenue requirement level but . . .

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Responding To Staff Report

- Accept only the recommended revenue requirement level and reserve right to contest the remaining issues in future proceedings
- If Staff proposes a higher level of revenue than utility proposed, notice of acceptance must be published in newspaper of general circulation
- Requesting a hearing on disputed issues will
 generally result in extensive delay

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Responding To Staff Report

- If disputed issue is factual or resulted from "lack of evidence," consider submitting additional evidence as part of response and requesting a conference with staff to provide additional proof
- Request a hearing on disputed issues only if utility has witnesses to support its position

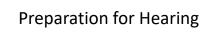
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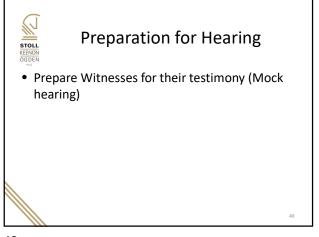
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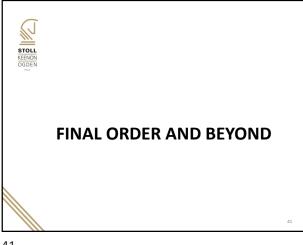
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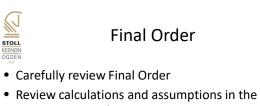


- (Application Under 807 KAR 5:001) Assume Hearing Will Not Be Limited to Issues Presented in Rate Application
- Witness should limit their testimony to the issues to which he/she provided testimony or response to information request





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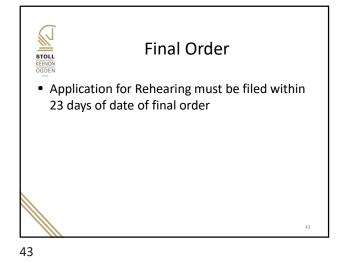


- Order for errors/misstatements

 Confirm that the approved rates will produce
- the determined revenue requirement

42

Phase-In of Rates not requested



QUESTIONS?

