

# 2021 Triennial Review Public Listening Session

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*To Protect and Enhance Kentucky's Environment*

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# 2021 Triennial Review

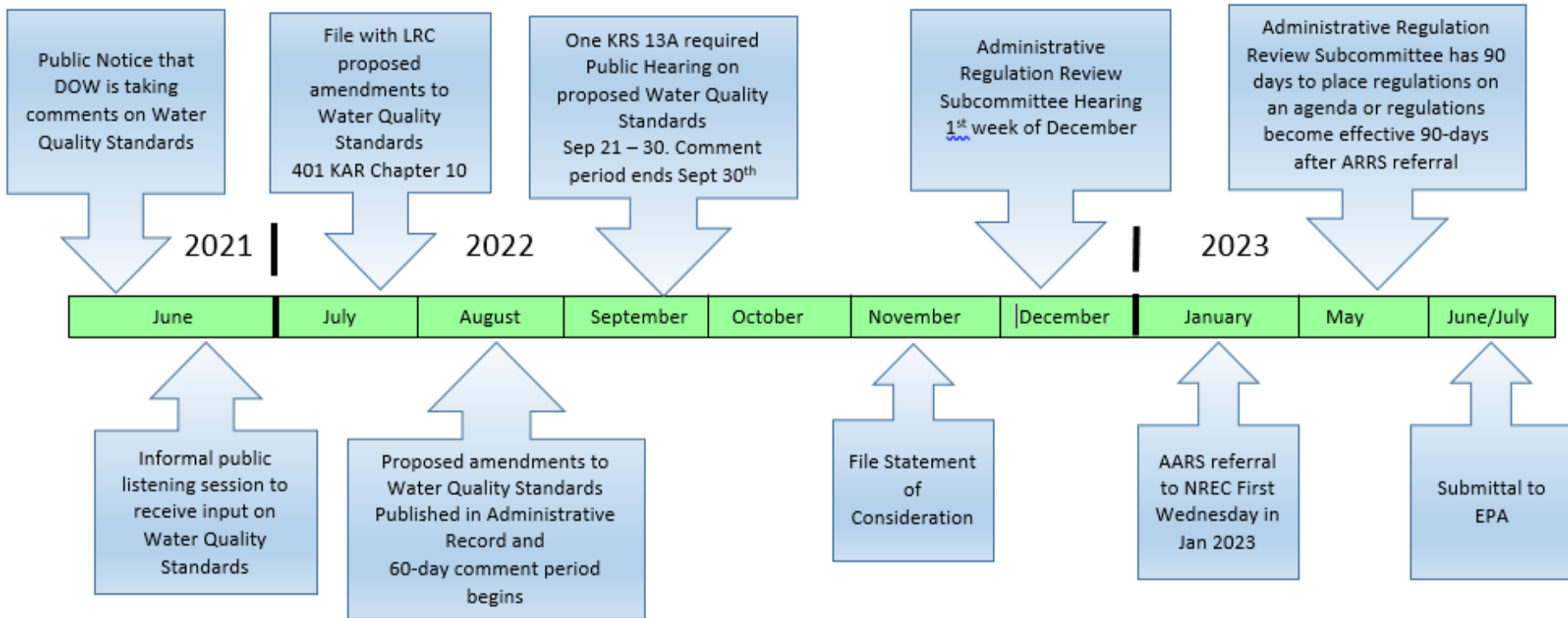
- **Clean Water Act (CWA) Section 303(c)(1) Requirements:**
  - At least every 3 years
  - Review State Water Quality Standards
  - Public Participation:
    - Public Hearing(s)
    - Minimum of 45-day public comment period

# WQS Amendments

- **KRS 13A**

- File with Legislative Research Commission
- Publish in Administrative Register
- Minimum 60-day Comment Period
- Public Hearing

# Tentative Timeline



# Purpose of Listening Session

- **Provides an opportunity for the public to learn more about changes the Division of Water is considering and an initial opportunity to provide comments on:**
  - Water Quality Standards (WQS) located in 401 KAR Chapter 10
  - Proposed 401 KAR Chapter 10 Revisions

# KDOW Considerations

- Human Health Criteria for 94 Pollutants
- Aquatic Life Criteria for Ammonia
- Aquatic Life Criteria for Aluminum
- Promulgating New Outstanding State Resource Waters (OSRWs) and Exceptional Waters

# Human Health

- **94 Chemicals**

- Update recommended criteria using:

- body weight = 84.7 kg (Kentucky average, age 18+)

- drinking water ingestion = 2.4 L/day,

- fish consumption rate = 22.8 g/d (Inland South value)

- Possible static or probabilistic approach

# Aquatic Life

- Ammonia

- Update to EPA's 2013 recommended criteria

- Acute Cold Water

Unionid Mussels Present and Oncorhynchus species Present

$$CMC = MIN \left( \left( \frac{0.275}{1 + 10^{7.204 - pH}} + \frac{39.0}{1 + 10^{pH - 7.204}} \right), \right. \\ \left. \left( 0.7249 \times \left( \frac{0.0114}{1 + 10^{7.204 - pH}} + \frac{1.6181}{1 + 10^{pH - 7.204}} \right) \times (23.12 \times 10^{0.036 \times (20 - T)}) \right) \right)$$

- Acute Warm Water

Unionid Mussels Present and and Oncorhynchus spp. Absent

$$CMC = 0.7249 \times \left( \frac{0.0114}{1 + 10^{7.204 - pH}} + \frac{1.6181}{1 + 10^{pH - 7.204}} \right) \times MIN(51.93, 23.12 \times 10^{0.036 \times (20 - T)})$$

- Chronic

Unionid Mussels Present and Early Life Stage (ELS) Protection Necessary

$$CCC = 0.8876 \times \left( \frac{0.0278}{1 + 10^{7.688 - pH}} + \frac{1.1994}{1 + 10^{pH - 7.688}} \right) \times (2.126 \times 10^{0.028 \times (20 - MAX(T, 7))})$$



# Aquatic Life

- **Ammonia**

- Possible allowance for compliance schedule in discharge permit if discharger cannot immediately meet the new ammonia limits
  - Must include an enforceable sequence of actions or operations leading to compliance with ammonia effluent limitation as soon as possible
  - If longer than 1 year, must include interim requirements and dates for their achievement

# Aquatic Life

- **Aluminum**

- Adopt EPA's 2018 recommended criteria
- EXCEL Macro
  - Dissolved Organic Carbon, Total Hardness, and pH modifiers

# Special-Use Waters

- **Add Outstanding State Resource Waters**
  - based on a water body supporting a federally listed threatened or endangered species

# Special-Use Waters

- **Add Exceptional Waters**
  - Based on finding an excellent fish or macroinvertebrate community

# Written Comments

- **Due August 6, 2021 @ 4:00 PM ET**

- **Via email (preferred method) to:**

[water@ky.gov](mailto:water@ky.gov)

Subject line: “2021 Triennial Review”

- **Via U.S. Mail to:**

Water Quality Branch (ATTN: 2021 Triennial Review)

Kentucky Division of Water

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Frankfort, KY 40601

# 2021 Triennial Review Information

- <https://eec.ky.gov/Environmental-Protection/Water/Regs/Pages/Triennial-Review.aspx>