

# Lead and Copper Rule Sampling Requirements and Forms

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# Course Objectives

- Understand the difference between monitoring frequency and monitoring period.
- Understand criteria for frequency changes, reduction or increase in sampling frequency.
- Review and understand all of the forms associated with a lead and copper sampling round.
- Review and understand the processes that should occur before, during and after sampling.
- Understand the timeline for sampling, reporting and filing of required paperwork.
- Be able to correctly fill out and submit appropriate forms, in their required timeframes.

# Let's Review Monitoring Frequency (*not to be confused with Monitoring Period*)

- Frequency = “How often do I need to sample”?
  - Semi-annual (twice per year)
  - Annual
  - Triennial (once every 3 years)
- Monitoring Period = “When do I need to collect my samples?”
  - Q2
  - Q3
  - Q4

# Standard Monitoring

- **Semi-Annual**: The highest frequency of sampling
- For all new systems and those with Action Level Exceedances (ALE)
- Two monitoring periods per calendar year:
- Monitoring in “Q2”: January 1<sup>st</sup> -June 30<sup>th</sup> monitoring period
  - Monitoring in “Q4”: July 1<sup>st</sup> -December 31<sup>st</sup> monitoring period

# Reduced Monitoring Frequency

- **Annual**: after a system has met the Action Level for both lead and copper in two consecutive semi-annual rounds
  - Monitoring in “Q3”: June 1<sup>st</sup> -September 30<sup>th</sup> monitoring period
  - Note: MWRA systems sampling annually have July 1st - October 31st monitoring period
- **Triennial**: after a system has met the AL for both lead and copper in three consecutive annual rounds
  - Monitoring in “Q3”: June 1<sup>st</sup> –September 30<sup>th</sup> monitoring period.

# Know your frequency!

- Make sure you are following your most up to date Water Quality Sample Schedule (WQSS).
- WQSS available at: <https://www.mass.gov/service-details/public-water-supplier-document-search>
- LCR Plan password: PWS ID #, followed by an underscore (\_), followed by the annual finished water volume in millions of gallons (rounded to three digits) as reported on the ASR
- PWS is responsible for knowing the frequency and number of samples required.

# QUESTION



# Monitoring Frequency Changes

- Can happen for a number of reasons
- It's not only about meeting the AL for lead and copper
- Change in source water: new source, deepening a well, jigsaw seal, etc.
- Change in treatment: addition of corrosion control treatment (CCT), change in chemical (i.e. Carus blend), interruption in treatment
- Overall system operations: poor operations as observed during a sanitary survey inspection can increase frequency of sampling to semi-annually (i.e. failure to maintain CCT components)



# DWP LCR Process for systems that propose any addition or long-term changes in source or treatment

- Any new source addition or treatment change has the potential to impact the effectiveness of the Corrosion Control Treatment (CCT) and therefore warrants more frequent monitoring in accordance with 310 CMR 22.06B(2)(b)3.c.
- Systems proposing any addition or long-term changes in source or treatment must provide DWP with a desktop study, a demonstration study or other study acceptable to the Department for review and approval. If DWP does not approve an alternative monitoring plan prior to installation of the source or treatment, the system will be required to go back to standard monitoring for lead and copper and must begin to collect samples twice a year in accordance with 310 CMR 22.06B(7)(c).

# Desktop Study



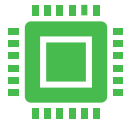
**Description of the System**



**System Constraints**



**Evaluation of New Treatment or Source**



**Providing Monitoring Data (Lead/Copper and WQPs at the Source and Distribution)**



**Justification for Selecting the New Treatment or Source.**

# Desktop Evaluation timeline



Submit desktop information to MassDEP at least 7 months for large systems and 6 months for small systems prior to planned installation date for source or treatment change.



MassDEP will evaluate the application and provide approval including required monitoring. MassDEP will consult with EPA Region 1 on its approval.

# Number of Samples Required

- Know how many samples you are required to take: standard monitoring vs reduced
- One-time reduction in the number of sites (reduced frequency only)
  - Submission of a new LCR Sampling Plan with reduced number of sites is required prior to sampling
- Do not use a standard monitoring LCR Sampling Plan if you qualify (and plan to sample) for reduced monitoring frequency and number of sites.
- Typically the WQSS is not updated to reflect a reduction in number of sites until the new sampling plan is approved.

# 310 CMR 22.06B(7)(c)

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| <u>System Size<br/>(No. People Served)</u> | <u>Number of sites<br/>(Standard Monitoring)</u> | <u>Number of sites<br/>(Reduced Monitoring)</u> |
|--|--|---|
| >100,000                                   | 100  | 50  |
| 10,001-100,000                             | 60   | 30  |
| 3,301 to 10,000                            | 40   | 20  |
| 501 to 3,300                               | 20   | 10  |
| 101 to 500                                 | 10   | 5   |
| ≤100                                       | 5  | 5   |

***MassDEP uses the population reported on the ASR to determine number of samples required. Notify MassDEP if your population crosses a threshold for change in the number of sites required.***

# Prior to Sampling

## ✓ Lead and Copper Sampling

**Checklist:** <https://www.mass.gov/files/documents/2019/02/28/lcrsamplchklst.pdf>

- Can be a useful tool to remind PWS of the steps and requirements for lead and copper sampling.

✓ Check MassDEP website for updates to forms and procedures: <https://www.mass.gov/lists/lead-and-copper-forms-and-templates>

✓ Make sure to review and gather necessary documentation **prior to sampling.**

✓ **Do not wait until the last minute!!**

# Is your lead and copper sampling plan current?

- There is a new Sampling Plan Form: **LCR-SP-A**
- Updated in July 2020
  - <https://www.mass.gov/media/1373886/>
- **LCR-SP-A must be approved by MassDEP prior to collecting samples.**
- If your plan has anything other than Tier 1 sites and you have no other Tier 1 sites you must submit a Material Survey:
  - <https://www.mass.gov/files/documents/2016/08/sn/mtrlsurv.doc>

# Let's get ready to sample!

- Use only primary locations on your approved sampling plan.
- Review sampling MassDEP Instructions/COC, available on MassDEP website:
  - NTNC: <https://www.mass.gov/doc/ntnc-sampling-instructions-and-chain-of-custody-form/download>
  - COM: <https://www.mass.gov/doc/home-sampling-instructions-and-chain-of-custody-form/download>
- Schools: plan your sampling dates accordingly, you must sample while school is in session.
- If you have a large number of required samples, consider sending out batches of 10 to 15 bottles, to keep the task more manageable.



# LCCA- What is it?



Lead Contamination Control Act (LCCA) was established under the federal Safe Drinking Water Act in 1988 to reduce lead in the drinking water of schools and childcare facilities.



For schools that are served by a PWS.



Required to collect 2 samples from 2 schools each round (MA Regulation). Schools include childcare facilities.



Collected in a 250 ml bottle, therefore **does not** count towards 90<sup>th</sup> percentile compliance.



Use **“LCCA”** designation on the COC for the school/daycare samples (NOT for schools that are PWSs).

# Sampling Details



Ensure that the sample bottles match the approved LCR sampling plan, which must match the COC, which must match the lab results. **Everything must match!**



If you are sampling in batches, but sending the samples to the lab at the same time, be aware that samples must be acidified, if not analyzed, within **14 days** of collection.



Samples that are not analyzed or acidified within the 14 day requirement will not be valid = potential M&R violation.

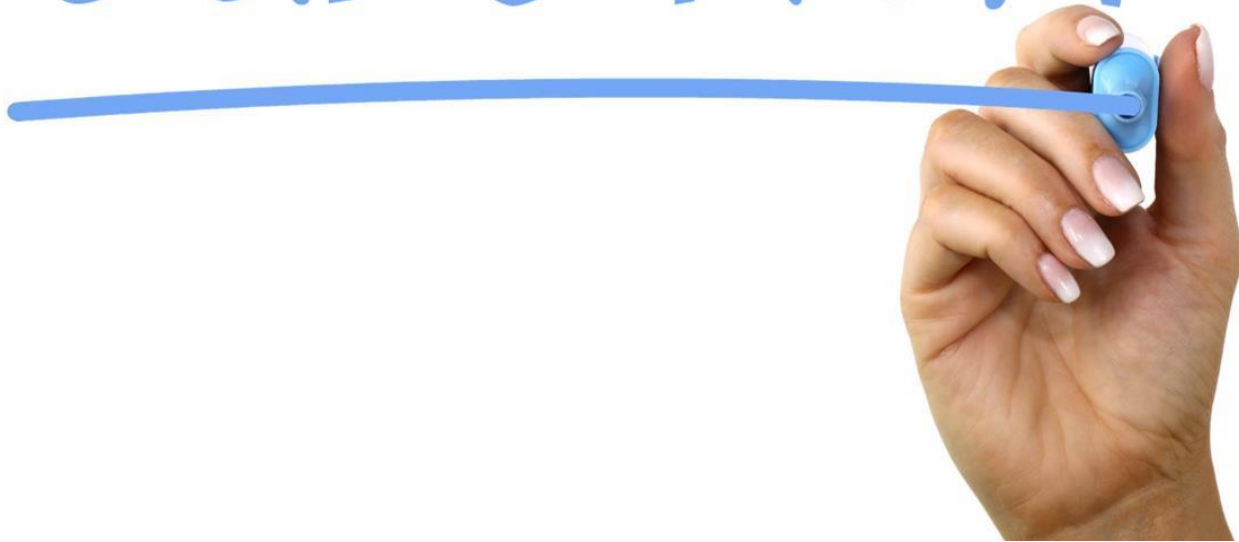


Be aware of timely pickup from participants once a sample has been collected.

# The Importance of COCs!

- Review the MassDEP COCs for accuracy and adherence to sampling protocol- this applies to both COM and NTNC!
- It is your job to review the MassDEP COCs and accept or reject the samples, prior to delivery to lab.
- Obtain a compliant sample for any rejected sample.
- You must still complete the Chain of Custody for the Lab when relinquishing the bottles for analysis.
- Keep the MassDEP COC attached to your copy of the Lab's COC.
- All COCs must be retained by the PWS for 12 years!!

# QUESTION



# After Sampling = Paperwork

- Submit Sample results – **Form LCR-C** or **eDEP**
- Do your results (either eDEP upload or LCR-C Form) match the locations on your approved LCR sampling plan? **TRIPLE CHECK!!!**
- If sending hardcopy data, LCR-C form is required.
  - <https://www.mass.gov/doc/lead-and-copper-analysis-report-lcr-c/download>
- Make sure LCR-C is signed by the lab director.
- All data must be received by MassDEP no later than the 10th of the month following the monitoring period.

# 90<sup>th</sup> Percentile- Form LCR-D and LCR-E

- Use form **LCR-D** for systems required to collect more than 5 samples:
  - <https://www.mass.gov/doc/lead-and-copper-90th-percentile-lcr-d/download>
- Use form **LCR-E** for systems required to collect 5 samples:
  - <https://www.mass.gov/doc/lead-and-copper-90th-percentile-lcr-e/download>
- Do not include LCCA sampling to calculate the 90th Percentile.
- All PWSs, regardless of eDEP data submission or LCR-C are required to submit 90th Percentile Form by the 10th of the month following the monitoring period.
- Signed by the PWS

# What if I Exceeded the AL?



**Contact your  
MassDEP  
regional office  
immediately!**



There are different requirements for systems with and without corrosion control treatment.



Requirements and corrective actions can also vary based on PWS population.



Your MassDEP regional office will assist with your compliance requirements.



PWS must still perform consumer notification (in addition to public education).

# Consumer Notification

- A PWS must provide the tap water monitoring results for lead and copper to owners/occupants of homes, and schools/childcare facilities that are part of the PWS's monitoring program.
- CN is required for every sampling round, for every sample collected.
- Different template forms and delivery methods for COM vs NTNC, however the timeline remains the same!
- Use the MassDEP template CN Forms/Letters to ensure you have all the required language.
- Certification must be sent to MassDEP that Consumer Notification was provided.



## Consumer Notification cont.

- There are 2 deadlines:
  1. Prepare the notices and send/post as required- **30 Day timeline** from *receipt of data*.
  2. Submit certification to MassDEP that the Consumer Notification was completed- **90 Day timeline** from the end of the *monitoring period*.
- Failure to meet either of the two deadlines will result in a NON.
- Double check letters for accuracy and required content.

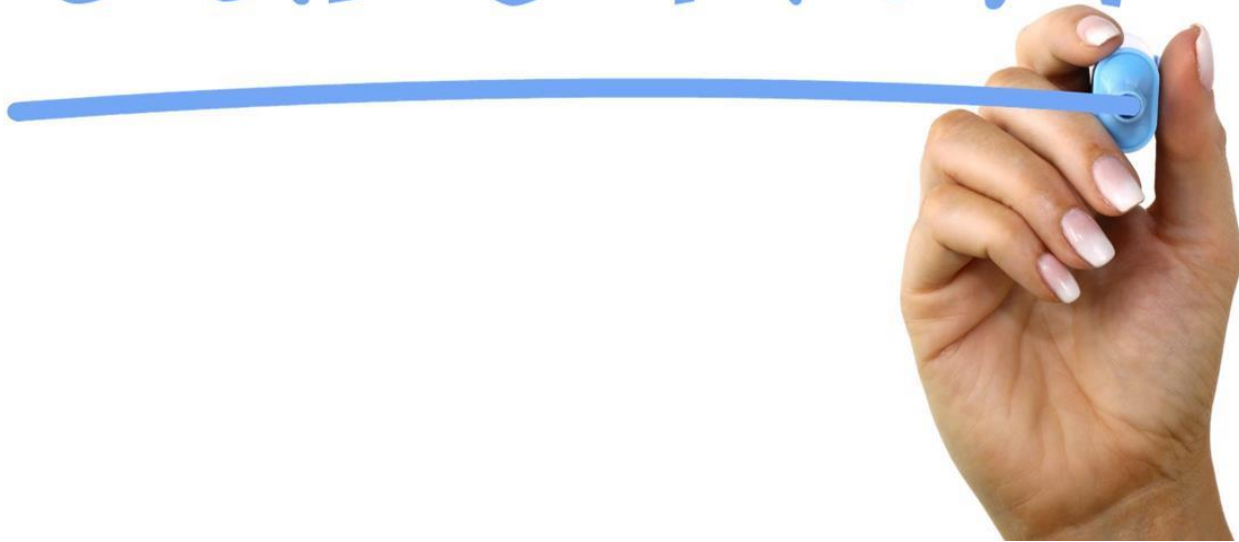
# Timeline Summary

| Monitoring Period (MP) | Samples collected (MP)                            | Data and 90% Percentile due          | Consumer Notification         | CN certification (90 days after MP)                                       |
|------------------------|---|--------------------------------------|-------------------------------|---|
| Quarter 2              | January 1 <sup>st</sup> – June 30 <sup>th</sup>   | July 10 <sup>th</sup>                | 30 days after receipt of data | September 28 <sup>th</sup>  |
| Quarter 3              | June 1 <sup>st</sup> – September 30 <sup>th</sup> | October 10 <sup>th</sup>             | 30 days after receipt of data | December 29 <sup>th</sup>   |
| Quarter 4              | July 1 <sup>st</sup> – December 31 <sup>st</sup>  | January 10 <sup>th</sup> (next year) | 30 days after receipt of data | March 31 <sup>st</sup> (next year);<br>March 30 <sup>th</sup> (leap year) |

*If your system had an ALE you must contact your MassDEP regional office immediately. There are numerous requirements based on treatment, PWS population, etc.*

*Make the call!*

# QUESTION



# LCR Forms:

- **Lead and Copper Sampling Checklist:**  
<https://www.mass.gov/doc/lead-and-copper-sampling-checklist/download>
- **Home Sampling Instructions and Chains of Custody:** <https://www.mass.gov/doc/home-sampling-instructions-and-chain-of-custody-form/download>
- **NTNC Sampling Instructions and Chain of Custody Form:**  
<https://www.mass.gov/doc/ntnc-sampling-instructions-and-chain-of-custody-form/download>

# LCR Forms Cont.

- **Lead and Copper Analysis Report (Form LCR-C):**  
<https://www.mass.gov/doc/lead-and-copper-analysis-report-lcr-c/download>
- **Lead and Copper 90th Percentile (Form LCR-D):**  
<https://www.mass.gov/doc/lead-and-copper-90th-percentile-lcr-d/download>
- **Lead and Copper 90th Percentile (Form LCR-E):**  
<https://www.mass.gov/doc/lead-and-copper-90th-percentile-lcr-e/download>

# LCR Forms Cont.

- **LCR Consumer Notification Certification Form:**  
<https://www.mass.gov/doc/lcr-consumer-notification-certification-form/download>
- **Consumer Notification Templates:**
  - **LCR Compliance Sampling Program- School Results (LCR-SN):** <https://www.mass.gov/doc/lcr-compliance-sampling-program-school-results-lcr-sn/download>
  - **Lead & Copper Compliance Sampling Program- Homeowner Results:** <https://www.mass.gov/doc/lcr-compliance-sampling-program-homeowner-results/download>
  - **LCR Compliance Sampling Program- NTNC Results:** <https://www.mass.gov/doc/lcr-compliance-sampling-program-ntnc-results/download>

# Questions?

