

Hello – this presentation has been recorded to assist Manitoba water system owners and operators to establish their Residential Lead Monitoring Program – taking the dread out of lead one step at a time



Presentation Overview

- · Background:
 - Lead in drinking water
 - Residential lead program
- · What you need to do
 - Communication Strategy
 - Sampling Plans
 - Interpret Test Results
 - Corrective Actions
- · Next year and possibly reduced Monitoring



The first step in the presentation, I will provide a brief background: what is lead, lead in drinking water, and describe the residential lead monitoring program. The next step, provide information on what you need to do to develop a successful residential monitoring program. We'll walk through development of a communication strategy and sampling plans. The third step, interpreting sample result and determining corrective actions that may include targeted community notification. Lastly, we'll talk about corrective actions and reduced monitoring requirements.



Lead

- Lead is a metal found naturally in the environment
- Lead can be found in the air, soil, food, water and in certain consumer products
- Environmental lead levels have decreased significantly over the past few decades
- Lead is not found in natural water sources used for drinking water

Lead is a bluish grey metal found naturally in the environment Lead can be found in the air, soil, food, water and in certain consumer products such as car breaks and batteries. Lead was also an acceptable material used for water service lines until 1975.

Environmental lead levels have decreased significantly over the past few decades. Lead is not found in Manitoba's natural water sources such as groundwater or surface water, that we utilize for drinking water



Lead in Drinking Water

- Lead is released into drinking water from lead containing parts in the distribution system or plumbing systems
- Lead service lines (LSL) are the most significant source of lead in drinking water
- Plumbing materials and fittings such as solder, facets, or valves may also contain lead
- Lead is released into drinking water from lead containing parts in the distribution system or building plumbing systems
- Lead service lines (LSL) are the most significant source of lead in drinking water
- Plumbing materials and fittings such as solder, facets, or valves found in older homes built prior to 1990 may also contain lead.



Lead in Drinking Water

- Many things can effect the amount of lead released in drinking water:
 - -Chemistry of the treated water
 - Changes in source water or treated water quality
 - Age of the distribution/plumbing system
 - Length of time the water sits in the pipes

Many things can effect the amount of lead released in drinking water:

- The Chemistry of the treated and distributed water such as corrosivity, pH, temperature etc.
- Changes in source water such as rapid shifts in water quality or changing from one source water type to another.
- Changes to the water treatment process (from conventional to membrane) will affect water quality. This also would include water quality changes following connecting an existing water system to a regional water supply.
- The age of the system, the Canadian Plumbing Code phased out LSL in 1975 and the use of lead in solder and fixtures in 1990.
- And finally, the longer the water is in contact with lead components in the distribution or plumbing systems, the more lead will be released into the water.



Health Effects of Lead

- Fetuses and young children are the most sensitive to the effects of lead exposure.
- Even low levels of lead exposure can
 - affect neurological development (lower IQ) and behaviour (reduced attention) in children
- At slightly higher levels of lead exposure
 - effects on the kidney and increases in blood pressure have been reported in adults
- Lead levels should be kept as low as reasonably achievable.

Health Effects of Lead

Fetuses and young children are the most sensitive to the effects of lead exposure. Even low levels of lead exposure, can have effects on neurological development (lower IQ) and behaviour in children (reduced attention). No threshold for this effect has been identified.

At slightly higher levels of lead exposure, effects on the kidney and increased blood pressure have been reported in adults

Lead levels should be kept as low as reasonably achievable or an ALARA.



Manitoba's Lead Standard

- In 2019, Health Canada lowered the lead health based guideline from 0.010 to 0.005 mg/L based on a water sample collected at the consumers tap.
- In 2020, Manitoba adopted Health Canada's guideline as a standard in the Drinking Water Quality Standards Regulation.

In 2019, Health Canada lowered the lead health based guideline from 0.01 to 0.005 mg/L based on a water sample collected at the consumers tap. Moving the sampling point to the consumers tap was a significant shift for drinking water monitoring.

In 2020, Manitoba adopted Health Canada's lead guideline as a standard in the Drinking Water Quality Standards Regulation.



Residential Lead Monitoring Program

- Residential lead testing is being phased in
- Priority given to older, larger communities with known or suspected LSLs
- Public water system (PWS) Operating Licences contain lead monitoring requirements stating as per the instructions of the Drinking Water Officer
- · May reduce sampling after two years

Following the adoption of the new lead standard, Manitoba began a program to phase-in residential lead testing

Priority is being given to older, larger communities with known or suspected LSLs Public water system (PWS) Operating Licences contain lead monitoring requirements stating as per the instructions of the Drinking Water Officer.

Reduced sampling may be considered once two consecutive rounds of annual monitoring have been completed and lead levels are below the standard.



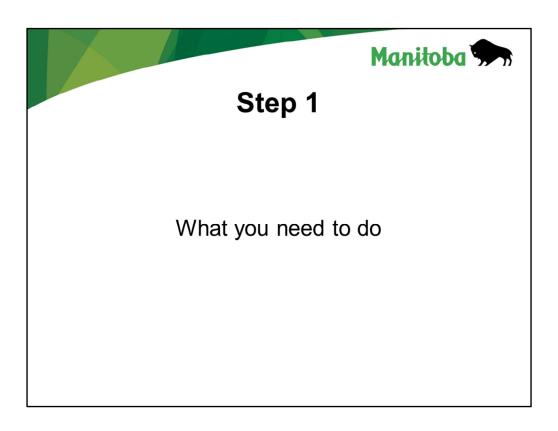
Residential Lead Monitoring Program

- Selected public water systems will receive a Director's letter in the fall, the year before they are expected to implement their Residential Lead Monitoring Program
- The letter directs water systems to begin developing sampling plans for testing between June and October of the following year

Selected public water systems will receive a letter from the ODW Director in the fall, the year before they are expected to implement their Residential Lead Monitoring Program.

The letter directs water systems to begin developing sampling plans for testing between 2/3 rds June and Oct of the following year.

However, water systems can voluntarily begin their Residential Lead Monitoring Program at any time. If this is the case, please touch base with your regional Drinking Water Officer before you begin your lead sampling program.



This is the first step in developing your residential lead monitoring program – what do you need to do



Review ODW Website

Lead in Drinking Water

Return to Drinking Water Page

In March 2019, Health Canada lowered the national guideline for lead in drinking water from a maximum acceptable concentration of 0.01 milligrams per litre (mg/L) to 0.005 mg/L. Manitoba adopted this new guideline as a drinking water quality standard in 2020.

Information for Manitoba Water System Owners and Operators.

Information for Manitoba home and building owners follows:

Lead in Drinking Water: Information for Manitoba Homeowners and Home Child Care Providers

https://www.gov.mb.ca/sd/water/drinking-water/lead/index.html

Over the years, the Office of Drinking Water has kept Manitoba water systems informed on Lead in Drinking Water, the lowering of Health Canada's guideline, and the shift to collecting water samples from within the water system to the consumer's tap. The Office of Drinking Water and Public Health have prepared information on Lead in Drinking Water for water systems, the general public, and schools and daycares that can be found on the Office of Drinking Water's website – please be familiar with our website and the information within



Review Operational Guideline

ODW-OG-17 Monitoring Lead at the Tap



Office of Drinking Water

Operational Guideline ODW - OG - 17

Operational Guideline for Manitoba Water Suppliers

Monitoring for Lead at the Tap

Purpose

This guideline has been established to ensure public and semi-public drinking water suppliers throughout the Province of Manitoba meet their regulatory requirements with regard to monitoring for lead exposure at the tap.

drinking water clearly identifies the monitoring point for lead as the consumer's tap.

Lead Sampling Requirement
Public and semi-public Public and semi-public water supplies should continue to follow current practices, testing for lead in the raw source water, the treated water at the entrance to distribution, and within the distribution system as directed by the regional Drinking Water

https://www.youtube.com/watch?v=ijXHh0vY1ag

Development of your residential lead monitoring program begins with reviewing and understanding your requirements as outlined in the operational guideline ODW-OG-17 Monitoring Lead at the Tap. The guideline is available on the Office of Drinking Water's website. It has been updated, so be sure you are reviewing the most up to date version off the website.

One of the most important points in the OG is to know if and where your LSL are located. If you're not sure if you have LSLs - take the time to find out. There are YouTube videos available to assist homeowners and water systems in determining if services lines are lead. The one offered on the slide is approximately 5 minutes in length and can be linked to your website.

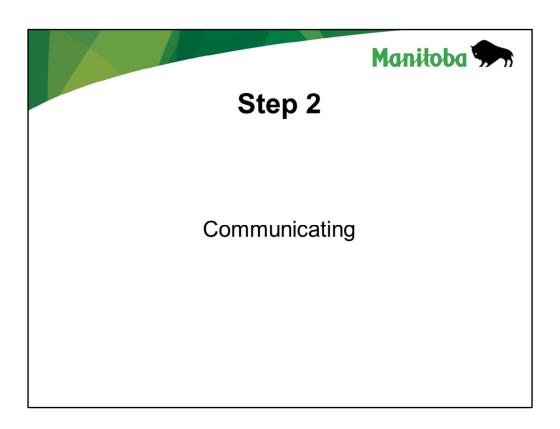


You are not alone

- Regional Drinking Water Officer
- · Regional Medical Officer of Health
- Water System Owner/Operator Support:
- Drinking Water, Medical Officer of Health
- Director, Office of Drinking Water

Remember, you are not alone - Lead monitoring is a partnership and each person has certain roles and responsibilities

- The Regional DWO provide technical guidance, coordinate meetings (if required), and is the first in line for any program questions
- The Regional MOH responds to public health questions, provides advice and direction on communicating health risk to water users, and will review test results and public correspondence and other public communication materials as needed.
- Water system owner/operator perhaps a Residential Lead Monitoring Program Coordinator – would be a single contact for the water system.
 - And as needed, the team has the support of the
- The Drinking Water MOH who can provide public health guidance, reviews correspondence, advises on whether a broader public communication strategy is required, and ensures a consistent application of the lead monitoring program throughout Manitoba; and
- The Director, Office of Drinking Water who reviews correspondence, may request a compliance plan be submitted to mitigate elevated lead levels, and ensures a consistent application of the lead monitoring program throughout Manitoba



The Residential Lead Monitoring Program centers on communication



Communication Strategy

Phase 1: Internal discussions

Phase 2: Public outreach – getting

homeowners to participate in the testing

program

Phase 3: Notifying results to participating

homeowners

Phase 4: Regulatory notification

Phase 5: Community notification

Develop your communication strategy with the following phases in mind: inform your municipal governing body early, reach out to homeowners to participate in the testing program, notify said homeowners with their results, notifying the ODW and Health of the results, and finally inform the broader community of the results



Phase 1 – Internal discussions

- Inform governing body of the regulatory requirement to monitor lead at the tap
 - Water system's operating licence
- Provide estimated testing budget include human resources
- Inform on the public communication strategy

Don't wait to have those internal discussions. They should begin now. Inform your municipal governing body of the regulatory obligation within your water system's operating licence regarding the Residential Lead Monitoring Program, include estimated testing budgets including human resources. Inform on or begin to develop your public communication strategy.



Phase 2: Public Outreach

- Getting homeowners to volunteer for sample collection
 - Media release, website development
 - Letter to residents (template)
 - Letter to home-based daycare (template)
- · Collecting personal information

https://www.gov.mb.ca/fippa/public_bodies/guide_public_b odies/index.html#i2

The public outreach part of your communication strategy will set the stage for your program. Consider a media release and developing a website, specific to your water system, your residents and your results. There are many examples on the internet.

The Office of Drinking Water and Public Health have developed a series of templates to assist you in communicating with your residents. The letter to residents can be used to inform your media release, assist in developing your webpage, and can be used to mail out to targeted sampling areas.

The ODW and Public Health have developed a template for communicating to home-based daycares in your community.

There are always concerns with collecting personal information when conducting a tap water sampling program. Please take time to review the information on the FIPPA website provided. Please note, personal information includes home addresses. You should not publicly report the addresses of the homes your are collecting from. A sample identification name for reporting to the DWO and a map with risk zones for reporting to the public works well.



Phase 3: Notifying Homeowners of Results

- Homeowners must receive a copy of their tap water results (within 30 days of receipt)
 - Elevated RDT Letter (template)
 - Elevated RDT + 5min Flush (template)
 - Results within the Guideline (template)

Homeowners must receive their tap water results. Water systems should target within 30 days of receipt of the COA as results below the standard are still a concern for young families. The ODW and Public Health have developed a series of templates designed to provide homeowners with their results, an interpretation of the results, and actions they can take to reduce lead levels at their home.

The Elevated RDT Letter (template) informs the homeowner on the health risks related to drinking water with elevated lead, provides immediate actions they can take to reduce lead levels, and informs the homeowner that you'll be following up with them regarding resampling.

The Elevated RDT + 5min Flush (template) provides the same information as the elevated RDT letter; however, it provides additional information on the lead in the home. If the 5 min flush sample is below the standard, the homeowner is recommended to take precautions (such as flushing the water before use) as the test is random in nature.

The Results within the Guideline (template) provides additional precautions for homeowners where pregnant people, infants or young children are in the home.



Phase 3: Notifying Homeowners of Results

- Information to be included with elevated RDT results
 - Copy of the provincial factsheet
 - Lead in Drinking Water: Information for Manitoba Homeowners and Home Child Care Providers
 - Community information including:
 - Lead service line replacement programs
 - · Lead reducing water filter programs
 - Where to find more information

Information to be included with all letters with elevated RDT results regardless if the 5 min flush sample was lower than the standard:

A copy of the provincial factsheet — Lead in Drinking Water: Information for Manitoba Homeowners and Home Child Care Providers located on the ODW website

Community information on LSL replacement replacements, lead reducing water filter programs, and where they can get more information



Phase 4: Regulatory Notification

All test results are to be provided to your regional drinking water officer including

- · A map of locations sampled
- Description of sampling locations
 - Service lines, older subdivision/area suspected to have lead fixtures and solder.
- Homes that were resampled

At the end of your sampling program, or as results come in if they are elevated, the individual test results are to be provided to the regional drinking water officer. When sending the results, please include:

A map of locations sampled

Description of sampling locations noting if the service lines were Lead to Lead (public to private respectively) or Copper to Lead service lines; or if the testing was contained to an older subdivision/area suspected to have lead fixtures and solder.

Clearly identify which homes were resampled

Please note: Test results will be considered confidential and shared with Manitoba Health.

		Exa	mpie	e Rep	ort		
Sample Id	Sample Date	SL Type	Area	RDT (mg/L)	5 min Flush (mg/L)	30Ms (mg/L)	Test results shared (Y/N)

Here is an example of how you can send your results to the DWO. Sample Id (not the address), sample date, SL or service line type – could be lead/lead, lead, copper, copper or other – depends on your distribution system. Area – the zone identifier – LSL area or a specific subdivision. Results of your test and retest results and whether the participating resident received their results.



Phase 4: Regulatory Notification cont...

· Summary of results:

Sample Method	Average mg/L	Minimum mg/L	Maximum mg/L	% of samples above the guideline
Random Daytime				
5 minute flush				
30MS				

- Public communication strategy plan
- Consultation with Public Health to ensure health risks are appropriately communicated

You may also want to include a table that summarizes all your data – this table can be used to inform your broader community. If you are sampling in more than one area/zone/subdivision, you may wish to report results from each sampling area. This will provide more information to your customers when you communicate the results.

Please advise your DWO of your communication strategy to publicly report your program – when, what and how you plan to publicly report on the program

If you are reporting elevated results, consult with public health to ensure you are communicating health risks appropriately.

If you have elevated results, the DWO will arrange a meeting with public health to discuss communication of health risks



Phase 5: Community Notification

- Broader community notification
 - Website summary included in the water system annual report
 - A media release or other appropriate community notification may be required if some results are above the standard.
- Targeted community notification for higher risk areas may be needed.

The results of your Residential Lead Monitoring Program will need to be communicated to your water users. The test results can be shared with your water users via map on your lead website or a summary of the results in your annual water system report. A media release or other appropriate community notification may be required if some results are above the standard. However, before publicly communicating elevated results – especially in your first year of testing, Public Health should be notified to assist in messaging.

Depending upon the results, Manitoba Health may require specific areas (high risk) or a certain demographic be targeted for additional messaging.



Phase 5: Community Notification

- Why do we need to communicate the results to the public?
 - Participating residents get results and information on reducing exposure to lead, but neighbours may also need to take action to reduce lead in drinking water.
 - Reporting results by areas of similar risk, helps residents, public health and the water system make decisions on what actions to take to try to reduce lead exposure.
 - Information on lead levels in flushed water helps other residents in higher risk homes decide if flushing would be a useful strategy to reduce lead in their home.

Why do we need to communicate the results to the public?

- Participating residents get results and information on reducing exposure to lead, but neighbours may also need to take action to reduce lead in drinking water.
- Reporting results by areas of similar risk, helps residents, public health and the water system make decisions on what actions to take to try to reduce lead exposure.
- The number homes above the guideline on a random sampling indicates how many families might be drinking water with increased lead at any given time. Information on lead levels in flushed water will help other residents in higher risk homes decide if flushing would be a useful strategy to reduce lead in their home.



Template Documents

Water from the City of [Name] Water Treatment Plant meets the lead limit guidelines; however, lead can enter drinking water from residential lead based plumbing materials. Elevated lead concentrations at the tap are more likely in older homes, built before 1950. Testing the drinking water in your home will help the City of [Name] assess whether lead is present in residential drinking water and the best course of action to take if it exceeds guidelines.

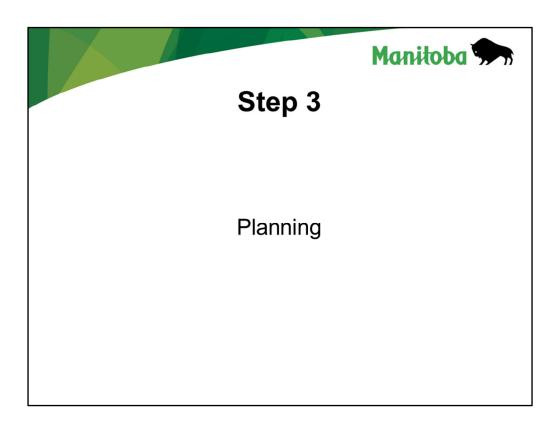
If you are interested in this free testing, please phone or email the City of (Name) by (give date) using the contact information below. Participants will be selected on a first come first serve basis. If you are selected, The City of (Name) will advise you on how water samples will be collected.

1st contact name: phone: email 2nd contact name: phone: email

You will receive the results of your drinking water test. If your drinking water has elevated lead levels, the City of [Name] will provide you with advice on how you can reduce lead in your drinking water.

City of [Name] website (Link) has details on the lead in drinking water testing program and the Province of Manitoba website provides additional details on lead in drinking water: https://www.gov.mb.ca/sd/water/drinking-water/lead/index.html

Template documents are available. The example shown here is used for requesting volunteers. Templates are designed to meet water systems requirements when communicating the lead program and test results to the public. The templates have been approved by the Office of Drinking Water and Public Health and the content or information within should not be revised. Water systems are to affix letterheads and complete highlighted area's (blue font areas) within the template documents only. You are required to share communication documents with your regional drinking water officer before they go out. Significant revisions to these templates may cause program delays.



OK let's get to the plan... Step 3



The Sampling Plan

- Your regional DWO will provide you with the number of samples required per year.
- The focus is on residential homes
 - Including home-based daycares
- Multi-family dwellings with 6 or less units
- Schools, childcare centres, and other large buildings have different sampling provisions – Not to be included

The number of samples required is based on population served. Your regional DWO will provide you with the number of samples required. Two thirds of the samples are to be collected over the peak period - June and October. All samples can be collected at one time; however, to fully assess community exposure to lead, it is preferred that the samples be spread out over the peak period to capture lead concentrations due to seasonal variations.

The focus of your sampling locations is on residential homes including home-based daycares. There is a process and a template to use to include home-based daycares in your sampling plan – speak to your drinking water officer. You may wish to sample multi-family dwellings providing they have 6 or less units

Schools, childcare centres, and other large buildings such as hospitals, have different sampling methods and should not be included in your sampling plan. Some Manitoba schools and childcare centres may have already sampled for lead in a separate program.



Priority Sampling Locations

The older the home the greater risk

- <u>High Risk:</u> Homes with known or suspected lead service lines (full or partial).
- Medium Risk: Homes that were <u>built between</u> 1975 and 1990 that are most likely to have lead plumbing fixtures and solder.
- Low Risk: Homes that were <u>built after 1990.</u>

Determine your priority sampling locations - the older the home the greater risk, <u>High Risk:</u> areas would be homes with known or suspected lead service lines (full or partial); they are likely homes built prior to 1950; however, it is possible to have a LSL up to 1975 when the National Plumbing Code was revised.

Medium Risk: areas are homes that were <u>built between 1975 and 1990</u> that are most likely to have lead plumbing fixtures and solder.

Low Risk: areas are homes that were built after 1990 as they might have lead fixtures.



Sampling Methods

- Random Day Time (RDT)
 - Provides typical community exposure level
 - Collected for compliance purposes
- 30 Minute Stagnation (30MS)
 - Investigate the where the lead is
 - Identifies mitigation measures
 - Monitor corrosion control programs
 - Resample method to confirm elevated RDT results
- 5 minute flush sample

Health Canada's technical document for lead in drinking water recommends two sampling methods for determining lead levels at the tap: The Random day time or the RDT method and the 30 minute stagnation method or 30MS.

The combined results of the RDT method provides typical community exposure levels. Manitoba has selected the RDT method to determine compliance with the lead standard. RDT sample collection is easy and can collected at any time during the day, by operators or homeowner. The residential sample location is the cold water tap most commonly used for drinking – normally the kitchen tap. The tap is not run or flushed prior to collection, no stagnation period is needed and the aerator or screen is not removed. One 1L water sample is collected and analyzed for total lead.

The 30MS method is used for investigating the cause of the exceedance, identifying appropriate mitigation measures when lead levels are high and used to monitor the efficiency of your corrosion control program. Water systems will use the 30MS method to resample high RDT results. Similar to the RDT, samples collected by the 30MS method can be collected anytime during the day by either the operator or a homeowner. However, written instructions should be provided to the homeowner if they are collecting the sample. The tap water is allowed to run for 5 minutes then the 30 minute stagnation period begins. During the stagnation period, water in the home should not be used (no flushing toilets, starting laundry etc). After 30 minutes 2 1 L samples should then be collected at a medium to high flow rate (greater than 5 L/minute). The lead concentration is determined by averaging the results from the two samples.

While not a recommended sampling method in the lead technical document, water systems that are sampling for lead especially in their first year, are encouraged to collect a 5 minute flush sample after the RDT sample is collected in homes expected to have high lead levels. The results can be used to inform on whether household lead levels can be reduced after flushing the water for 5 minutes. This information can inform a boarder communication strategy. After the 5 minute flush one 1L sample is collected.



Sampling Supplies

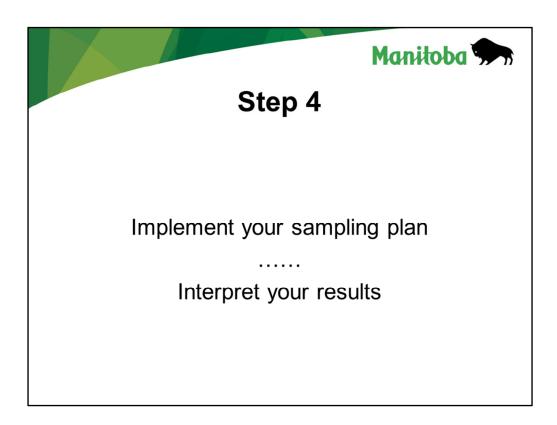
- Contact an accredited laboratory at the outset
 - List of laboratories is provided in
 ODW-OG-17 Monitoring Lead at the Tap
- The laboratory must
 - Use Health Canada's total lead analytical method
 - Provide Sample submission forms (COC)
 - Provide 1L wide-mouth bottles
 - Unpreserved

Contact an accredited laboratory well in advance of beginning your sampling program.

A list of accredited Manitoba laboratories is provided in OG-17 Monitoring Lead at the Tap operational guideline. You may wish to contact more than one laboratory to determine the best price.

Let them know what you will be sampling for – Total lead under the residential lead monitoring program. You are to ensure the laboratory understands the total lead analytical method for this program includes a 16hr hold time with the sample preserved with a 2% nitric acid by volume as specified by Health Canada.

Ask the laboratory to ship you sample submission forms and enough 1L wide-mouth bottles as per your sampling plan – don't forget to include bottles for resamples!



Implement your sampling plan – remember 2/3s of your samples are to be collected between June and October.

Well, your samples are collected and have been analyzed by the laboratory. Now to interpreting the results.



Interpreting Results

 Lead Standard: 0.005 mg/L

 Notify residents within 30 days of receiving results

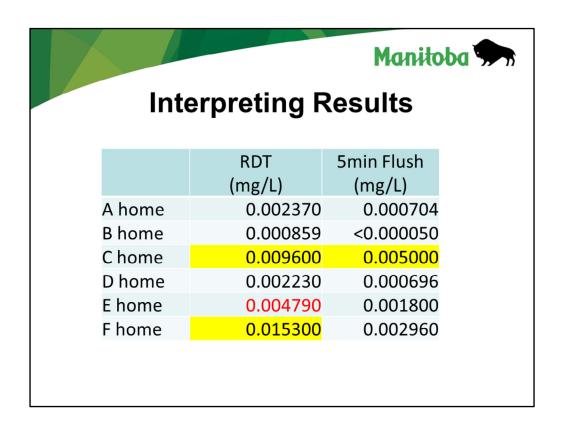
	RDT	
	(mg/L)	
A home	0.002370	
B home	0.000859	
C home	0.009600	
D home	0.002230	
E home	0.004790	
F home	0.015300	

The standard for total lead in drinking water is 0.005 mg/L. Results above this level exceed the standard.

This system has sampled 6 residences using the RDT method. Two homes, C and F are above the standard. The E home lead levels appear below the standard. However, if you round to the third decimal point, the result is just at the standard.

The C, E and F homes must be resampled using the 30MS method.

All residents should be notified of their results as soon as possible, target to get results to the homeowners within 30 days of receipt of the analysis.



Interpreting results

This water system elected to conduct a 5 minute flush sample after the RDT.

The two homes, C, E and F are at or above the standard using the RDT method. However, the 5 minute flush results for F home and E home are below the standard. The results for C home indicate flushing the water did not lower the lead level at the tap.

In this scenario, the C home must be resampled using the 30MS method. If the E or F home is a home-based daycare, the home should be resampled using the 30 MS method as children are at a greater health risk. The C, E and F homes should be included in next years sampling plan.

Water systems are to share elevated test results with their regional drinking water officer within two weeks of receiving them. The results will inform if any additional actions are required.



Step 5

Corrective Actions
And
What's next



Corrective Actions

Corrective actions can be comprised of short, medium, or longer term actions to address elevated lead in drinking water

- Short term focus on protecting water users, optimizing water quality, on-going notification
- Medium term install and monitor corrosion control
- Long term LSL replacement

The expectation is water systems will take some form of corrective actions following elevated lead results. Depending upon the results, you may be asked to submit a compliance plan on how you plan to meet the lead standard. Corrective actions and compliance plans (if required) should consider short, medium and long-term objectives. Every water system will be different. Some may need to optimize treated water quality, provide water users with advice on flushing and water filter use. Others may need an ongoing communication strategy. Some may need to install, optimize or monitor their corrosion control program. The long term objective is to remove LSL with the understanding this could take decades.

If you only have a few lead service lines in your community, it may be cheaper in the long run to remove them sooner rather than later.



Review Sampling Plan

- Water systems with elevated results will continue to collect the same number of samples annually.
 - Plan to resample homes (or a subset of homes) with elevated results.
 - Plan to resample homes with results close to the standard
 - Plan to sample other high risk areas first

Final step: Review your sampling plan – determine what went right and what went wrong – revise it.

Water systems with elevated results will continue to collect the same number of samples annually.

Sample locations should vary from year to year, but

Plan to resample homes with elevated results.

Plan to resample homes with results close to the standard

Plan to sample other high risk areas first before moving on to medium and lower risk areas



Reduced Lead Testing

- Reduced Sampling may be considered after
 - Completing two years of testing
 - Collecting the correct number of samples
 - Reporting test results below the standard

Reduced Sampling may be considered after

Completing two years of testing

Collecting the correct number of samples each year

Reporting test results below the standard

If after 2 years, all your sample results are below the standard, then the number of sites required each year will be reduced. For example, you are required to collect samples from 40 sites, after two years it can be reduced to 20 sites per year.



We have come to the end of the presentation. The ODW hopes this presentation will help you in preparing, developing and implementing your Residential Lead Monitoring Program. Please contact your regional drinking water officer with any questions or concerns regarding your Residential Lead Monitoring Program

Thank you