Guidance for the North Dakota Preliminary Lead Service Line Inventory Spreadsheet

(Date Feb 7, 2023)

(Please note: A correction was made on Page 12 & 14 from the Jan 12, 2023 version. Highlighted in yellow)

This document explains how to develop a Lead Service Line Inventory (LSLI) using the North Dakota Preliminary Lead Service Line Inventory spreadsheet template. LSLIs are required by the Lead and Copper Revised Rule (LCRR) passed by Congress in 2022. LSLIs must be submitted to the North Dakota Department of Environmental Quality – Division of Municipal Facilities (NDDEQ-MF) no later than October 16, 2024.

Getting Started

1. Save a copy of the template to your hard drive or network drive. Consider adding your system Public Water System (PWS) ID or other system identifier to the file name and indicate in the file name if this is the initial inventory or a modification of a previously submitted "MOD1" inventory.
2. Fill in the fields in the Public Water System (PWS) Data Entry, Community Water System (CWS) Inventory Template, Inventory Methods, and Inventory Summary tabs by following the instructions below.
3. Most PWSs will use this template to create their LSLIs. If PWS's wish to use a type or format other than this template, then they must request and receive NDDEQ approval before starting the creation of their LSLI in that alternate format.
4. When you have completed all the relevant information, submit this file to the North Dakota Department of Environmental Quality (NDDEQ-MF) – Division of Municipal Facilities Lead and Copper Program.
    a. **NOTE:** In North Dakota, all public water systems Lead Service Line Inventories must be submitted electronically whether through a portal or email. Additional directions on how to submit the LSL Inventory will be provided closer to the summer of 2024.

PWS Data Entry Tab

(Public Water Systems (PWS) Entry Information)

The purpose of this tab is to document basic system information and to indicate how the PWS will meet the public accessibility requirement of the LCRR. The **BOLD** headings below refer to each **dark-highlighted** section of the associated form.

Required Facility Information (Include water system name, PWSID number, population served, type and number of service connections).

1. Water system name is the city or name of system listed with the Attorney General's office as doing business in North Dakota.
2. PWS ID number is the identification number assigned to each system when the PWS was first registered with NDDEQ-MF.
3. Population served is the latest US Census population data for city. If no Census data is available for the CWS, (i.e., Rural Water Systems) then use the number of active service line and multiply by 2.5 people per occupied building.
4. Number of service lines includes **both** connected and non-connected lines (i.e., empty lots or buildings with service lines). All commercial, industrial, residential, agricultural, irrigation and fire service lines **must** be included.
5. PWS Type box needs to be checked as it pertains to your water system's classification. Community Water Systems serve at least 25 people or have 15 service connections. Non-transient non-community water systems serve the same 25 people at least six months of the year. Some Examples of an NTNCWS are schools, factories, office buildings and hospitals which have their own water systems.
6. If you indicated in question 5 above, that you are a **Community Water System** do multi-family residences (Apartments buildings, Condos, town homes) comprise at least 20 percent of the structures that you serve?

Mailing Address (address where all future correspondence will be sent)

- Provide a Street or P.O Box number, City or Town name along with zip code and the State.

System contact person (city/system contact for NDDEQ-MF to call with questions pertaining to the Lead Service Line inventory or other system-related questions),

- Provide name (first and last), Title, Phone Number and E-mail address.

Person Who Prepared Inventory (if different from system contact person listed above)

- Individual, whether a PWS/city employee or private consultant/engineer who prepared, reviewed, and documented the information to fill out the LSLI.

Documentation to State on How System Met the Public Accessibility Requirements

1. Check all the box/boxes from the list to indicate the location identifiers for the service line inventory. If you check “other” please explain in detail how you identified the service lines.
2. Does every service line have a location identifier please select yes or no? If “NO” please explain why. All Lead and Galvanized pipes requiring replacement service lines **must** have a location identifier under the LCRR rule.
3. Please check the box/es from the list on how the PWS plans to make their LSLI publicly available. If the system is over 50,000 people, you will also have to provide the website location address in the blue “other” box below.

Inventory Methods Tab

This tab documents the methods and resources used to develop and update LSLIs. The **BOLD** headings below refer to each **dark-highlighted** section of the associated form.

Inventory Methodology:

PWS Name: Water system name is the city or name of system listed with the Attorney General's office as doing business in North Dakota.

PWS Number: PWS ID number is the number assigned to each system by State for identification purposes when a system initially begins serving water to the public.

Enter Date Last Updated: Enter the date that the LSLI was completed and submitted to the Department.

1. **Historical Records Review**. Describe the records you reviewed for your inventory and the level of confidence in these records (low, medium, high) for each of the five types of records that must be reviewed under the LCRR. The five records that must be reviewed are:
    - *"Previous material evaluations"*. This can be locations of tier 1 lead tap sampling locations that are served by a lead service line located on existing lead and copper sampling site plans. Or previously reported information listed as construction material present in their distribution system.
    - *"Construction records and plumbing codes"*. Identify when lines were allowed or banned from use in local ordinance for your city or when the state adopted an international plumbing code. Identify the construction dates of homes/buildings and service line size. Review permits to replace lead service lines or construction permits for new development that was built after the lead ban went into effect.
    - *"Water system records"*. Review service line materials for system owned and customer owned service line materials. This can include capital improvement plans, standard operating procedures indicating if lead service line areas were required to be replaced or removed during certain activities, engineering plans and standards to see if service line were required to be inventoried for upgrade and/or removal.
    - *"Distribution system inspection and records"*. To identify service line material for the initial inventory systems must review all inspection and records of the distribution system that indicate material composition of service connections that connect the structure to the distribution system.
    - *"Additional Records required by Your State"*.
    - *"Other records"*. Refer to EPA's 2022 Inventory Guidance for assistance. Weblink: https://www.epa.gov/system/files/documents/2022-08/Inventory%20Guidance_August%202022_508%20compliant.pdf

2. Identifying Service Line Material During Normal Operation.

- During which normal operating activities are you collecting information on service line material: Check each line that indicates, during which normal operating activity(ies), your water system collects service line material information. If you check "Other", explain in the space below the question.
    a. Water meter reading.
    b. Water meter repair or replacement.
    c. Service line repair or replacement.
    d. Water main repair or replacement.
    e. Backflow prevention device inspection.
    f. Other – Please explain.
- Did you develop or revise standard operating procedures to collect service line material information? Use the dropdown menu to indicate if you developed or revised your standard operating procedures. If "yes", include a description in the space below the question.

3. Service Line Investigations.

1. Identify the service line investigation methods your system used to prepare the inventory (check all that apply). If a water system chooses an investigation method not specified by the state under 40 CFR 141.84(a)(3)(iv), State approval is required. If you check "Other", please explain in the space below the question.

   Approved service line investigation methods are:
   Visual inspection at the meter pit – The PWS and/or representative has made a physical visit and identified in person the service line material that is hooked up to the service meter or meter pit.
   Customer Self-Identification – Customer sent the PWS a picture showing the water meter and pipe types.
   Closed Circuit Television (CCT) investigation at curb stop (external) - PWS used a camera to scope and identify the external pipe material type by inserting a CCTV camera into the curb box to view the outside of the pipe on either side of the curb stop/ shut off valve. Water systems using this method should proof this method on known LSL's and other known service line materials to determine if they can differentiate the pipe materials.
   CCT Investigation at curb stop (internal) – PWS used a camera to scope and identify the inside pipe material type on either side of the curb stop going out a minimum of 3 feet in either direction of the curb stops.
   Water Quality Sampling – There are four types of water sampling used to detect the presence of lead in service lines. The four types are:
    - *Targeted service line sampling* involves flushing out the volume of water in the premise plumbing and collecting and analyzing a sample from the service line. The volume of water from the tap to the service line can be estimated based on pipe diameters and lengths.

- *Flush Sampling*: involves collecting a sample from the customer's tap after a set flushing time. For example, flushing for five minutes could result in a sufficient difference in lead levels to distinguish LSL sites from non-LSL sites. This method is simple and can be done as an initial screening
- *Sequential Sampling***:** uses a series of consecutive samples (typically 500 mL to 1 L) collected from an interior tap after a stagnation period (typically 6 hours or more). The number of samples needed depends on the length and diameter of the plumbing from the tap through the length of the premise plumbing and service line, but it is commonly between 8 and 15 liters. Although sequential sampling can be a sensitive tool for identifying LSLs, it is relatively invasive to the resident and more complex than other water quality sampling methods.
- *Water Quality Sampling Other***:** It is important to note that water quality sampling is a more appropriate screen for the presence of LSLs since low and non-detect lead levels may not reliably indicate the absence of LSLs. The key to using water quality sampling for identifying LSLs is establishing a ***community-specific threshold*** to indicate the possible presence of an LSL. Examples of water systems using water sampling protocols and thresholds to screen for LSLs include:

  Example: **Denver Water** (Denver, CO), which uses pH adjustment for corrosion control, uses a subset of three samples to assess if a location has an LSL: a first draw, a second draw after a 30-second flush, and a third draw after another 30-second flush. If the average lead concentration is 5 µg/L or greater, they consider it an LSL (Denver Water,2019, cited in Hensley et al.,2021).

Mechanical excavation at one location – PWS has dug down by either excavating or boring at one location to visually identify the service line material type. This single location can be on either the public or private side of the curb stop.
Mechanical excavation using Vacuum Excavation (single or multiple locations)- PWS has dug down by either excavating and vacuum truck excavation on both the public and private side of the curb stop to visually identify the service line material type.
Predictive Modeling**:** Any use of predictive modeling for the development of a LSLI will have to be preapproved by the NDDEQ – Division of Municipal Facilities, Lead and Copper Program. If approved, the PWS will need to explain and provide details about the inputs used for the model in the space provided.
Other **–** Explain what method was used to ensure that the identification method is accurate.

2. If "Predictive Modeling", please briefly describe the model and inputs used. Any use of predictive modeling for the development of a LSLI will have to be preapproved by the NDDEQ – Division of Municipal Facilities, Lead and Copper Program. If approved the

PWS will need to explain and provide details about the inputs used for the model in the space provided.

3. **How did you prioritize location for lead service line material investigation**?

Did you look at environmental justice and/or sensitive population census tracts? Did you prioritize or target areas with high numbers of unknowns or large numbers of known lead service lines? Or did you prioritize areas where existing construction projects are occurring with known and unknown service lines?

Inventory Summary Tab

When completed, this tab will offer a summary of the LSLI, including information on ownership, format, and the number of service lines for each of the four required materials classifications. The **BOLD** headings below refer to each **dark-highlighted** sections of the form.

PWS Name: Water system name is the city or name of system listed with the Attorney General's office as doing business in North Dakota.

PWS Number: PWS ID number the number assigned to each system by State for identification purposes when a system initially begins serving water to the public.

Enter Date: This is the date the PWS updated and completed their Lead service line inventory and submitted it to the NDDEQ - MF

Part 1: General Information.

1. Is this the Initial Inventory or an Inventory update? Using the dropdown menu, indicate if this is an initial inventory or inventory update.

2a. Who **owns the service lines** in your system? Full ownership by PWS, partial ownership, or other. If other, describe in the space below the question.

2b. Is there documentation that defines service line ownership in your system? Select 'Yes' or 'No' on the drop-down menu. If 'Yes': Include reference to any documentation that defines service line ownership in the system, such as a local ordinance/ bylaw and if appliable, where ownership is split (e.g., property line, curb stop).

3a. Describe when the lead service lines were generally installed in your system. Do you have records or building codes that indicate lead service lines were installed during a certain period of time?

3b. Describe when lead service lines were banned in your system. Reference the state or your local building ordinance that banned the use of lead in your system.

4. Do you have lead goosenecks, pigtails, or connectors on your system? Use the dropdown menu to select 'Yes', 'No' or 'Don't Know'. If you are unsure, select 'Don't Know'. **Note:** *Pigtails, goosenecks, or connector*s are defined as a short section of piping, typically not exceeding two (2) feet, which can be bent and used for connections between rigid service piping. For purposes of this subpart of the LCRR regulations, lead goosenecks, pigtails, and connectors are not considered to be part of the lead service line but may be required to be replaced pursuant to 141.84(c) *Operating procedures for replacing lead goosenecks, pigtails, or connectors* and 40 CFR 141.2 *definitions.*
5. What is your overall confidence in the inventory (e.g., Low, Medium, or High)? Please explain your rationale in the space provided below the question.

a. To help with the explanation ask yourself these questions:
    i. Do you know and have you documented the total number of service lines, location, and use of each service line within your system whether connected or not?
    ii. What level of actual documentation details all your distribution system's material types for both private and public sides of the system service line do you have? Does it go back to the installation date of each line?
    iii. Do you have regulations, by-laws or codes in place that indicate what type of material can be used in your system?
    iv. Do you have field records that back up your actual historical records, plans, "as builds", etc.…that correlate with each other?

Part 2: Inventory Format.

Describe your inventory format in the space provided (e.g., the detailed CWS Inventory worksheet, custom spreadsheet. Geographical information system (GIS) map). Provide the filename and/or web address if applicable.

Part 3: Inventory Summary Table.

The summary table is for classifying and reporting materials for entire service lines connecting water mains to customers' plumbing. If you are using the CWS Inventory Template tab, the classifications you select in the column "LSL Category Inventory" (Column AC) will be used to calculate the total number of service lines for each of the four material classifications (Lead, Galvanized Requiring Replacement, Non-Lead and Unknown) within the **Inventory Summary** worksheet. Insert each number in its representative spot and insert the total the number of service lines at the bottom where it says TOTAL.

Refer to the definitions provided as part of the summary table and the **Classifying SLs** worksheet for additional guidance on assigning a materials classification to the entire service line when ownership is split between the water system and customer.

Note:

- Systems must track the system-owned and customer-owned portions separately on their inventory, but it counts only as 1 service line.
- A lead-lined galvanized service line is consistent with the definition of a lead service line under the LCRR ("a portion of pipe that is made of lead, which connects the water main to the building inlet") (40 CFR §141.2) and must therefore be classified in the inventory as a lead service line. Do **NOT**, however, count non-lead service lines with only a lead gooseneck or pigtail as lead service line since **currently** this is not required by North Dakota or U.S. EPA.
- EPA encourages water systems to identify other sources of lead such as goosenecks, pigtails, lead solder, or other fittings and equipment that contain lead, as they are encountered or where records exist, and to include those in their inventories. North Dakota has added in a column in the inventory sheet for documentation of lead pigtails, gooseneck, connectors, and another column under the customer owned side for lead piping within the house if known or found.

CWS Inventory Template Tab

The purpose of this tab is to provide a standardized format that water systems can use to track materials within each service line within their distribution system.

General Instructions: Each row in this worksheet represents one service line connecting the water main to the customer's plumbing. (a service line is defined as from the water main to the water meter within the building or piping 18" into the building (past foundation wall and/or floor). If a water meter pit is outside the building, you will still need to identify the material used in the service line running from the meter pit into the building. Eighteen inches (18") past foundation wall and/or floor.

NOTE:

1) **If two (2) separate service lines enter a building** you will add a duplicate address line with the information for the second service line but with an 'A', 'D ', or an 'F' after the address; (D) = domestic drinking water, (F) = fire Service line and (A) = irrigation/agricultural.
2) **If the service line is a consecutive connection (CC) to another city or entity** (i.e., a rural water system to a city, nonpolitical subdivision, trailer park etc..) that consecutive connection line will be counted as a single service line. (Please see "CC Contact Information" Tab for additional requirements and information)

The CWS inventory worksheet is organized into three (3) sections.

- Location information
- Public-owned portion
- Customer-owned portion

Columns must be filled out unless listed as optional. As explained below, select responses from a dropdown menu or directly enter information. Six (6) of the columns will automatically fill as other columns and cells are filled. The columns that will autofill are:

1. Column AD -Replace Goosenecks/Pigtail Connectors,
2. Column AE - Lead Service line Category in Inventory,
3. Column AF - Sample Site Selection Criteria (Site tier)
4. Column AG - Would this count as Full LSLR if Lead is Removed,
5. Column AH - Requires Resident Notification if LSL Disturbed and,
6. Column AI - Requires Risk Mitigation (POU or Pitcher Filter).

Location Information

Column A – Recode ID Number – Will automatically fill in as you add-in information to the spreadsheet for each service line.

Column B – Public Water System ID Number (PWS ID#) – Must be filled for each service line.

Column C – Site or Address – Enter the physical location of each service line such as a street or 911 address.

Column D – Location Identifier – This will be the identifier that your PWS gives this service line. It can be the physical street address, GPS location, non-address location (i.e., block intersection, landmark, or water meter) etc.…but it must be identifiable if someone wants to know the physical location of the service line. **Note**: The LCRR required the publicly accessible inventory to include an identifier for each lead and galvanized service line requiring replacement.

Column E – Distribution Zone – Some PWSs have pressure zones in their distribution systems; these zones can be listed here.

Column F – Connectors, Pigtail and Goosenecks Material – List the material of the flexible connector between the water main corporate stop and the individual service line. These connectors are used to prevent shearing of connections due to a change in elevation, etc. Various terms have been used for these connectors including, gooseneck, pigtail, and connector.

Column G- PWS Service line Installation Date - What date and/or year was this service line installed or replaced? If not know, enter Unknown

Column H – Service Line Size – Diameter in inches. EPA has indicated lead piping was typically not constructed with interior diameters greater than 2” in size. This typically means that lead lines are only connected to single family homes and buildings with limited numbers of units.

Column I– Current Public Service Line Material – What is the material or composition of the service line owned by the public side of the utility? You must pick one of the following material types from the dropdown menu listed below:

- Lead,
- Copper,
- Galvanized Steel,
- Crosslinked Polyethylene (PEX),
- High Density Polyethylene (HDPE),
- Polyvinyl Chloride (PVC),
- Asbestos-containing pipe,
- Other Non-lead,
- Unknown.

- If you are not sure of what material is used and need to conduct additional field or records investigations, pick UNKNOWN.
- If partial replacement occurred on a service line and part of the existing line is still made of lead, then this service will be considered a lead service line.

Column J – Was Lead Ever Upstream of this Service? – If a review of records shows that a lead service line was removed during past upgrades or that such a line currently exists pick 'Yes', otherwise choose 'No', or "Unknown" from the dropdown menu, as appropriate.

Column K – Verification of Source (Public Side) – This column documents what type of information was used to determine the composition of the public side of each service line. This column cannot be left empty; you must pick one of the following verification types from the dropdown menu listed below:

- **Installation Date after Lead Ban** (In North Dakota anything built after January 1, 1988).
- **Records Only** – Found documentation in CWS records indicating service line composition.
- **Records Validation** – After records search, field verification showing that the written and documented records are correct should be conducted.
- **Records Invalidation** – If statistical analysis or records only were used for verification of service line material source and later field validation showed that the records were wrong, choose this option. The PWS will have to go back to the inventory and change the records on the inventory that used the statistical analysis approach to "Records Invalidation" until they can verify whether the records are correct or not.
- **Field Inspection Only** – Conducted field inspections to determine service line composition.
- **Statistical Analysis** – Choose this option if a large amount of documentation or as-built, blueprints and specifications show that all the housing units in a certain development/area were built using the same service line materials. You should do field verification or sequential sampling to show that this analysis is correct across the area specified.
- **Sequential Monitoring** – Choose this option if a series of consecutive water samples was used to determine service line type.

Column L – Record Verification Date (Public Side) – Enter the date that this record was created or updated (e.g., the line was installed in 1959, the line was replaced in 1990, or the materials used were verified in 2020).

Column M – Describe the Field Verification Method (Public Side) - This column informs what type of field investigation occurred to identify and verify the service line

material. This column cannot be left empty. Choose one of the following field verification method types from the following list:

- **Customer Self-Identification** – Customer sent a photograph showing the water meter and pipe types to the PWS.
- **CCT Investigation at curb stop internal** – PWS used a camera to scope and identify the inside pipe materials on either side of the curb stop going out a minimum of 3 feet in either direction of the curb stop.
- **CCT investigation at curb stop external** - PWS used a camera to scope and identify the external pipe material type by inserting a CCTV camera into the curb box to view the outside of the pipe on either side of the curb stop/shut off valve. Water systems using this method should use it on known LSL's and other known service line materials to determine if the visual element can allow them to differentiate the pipe material.
- **Water Quality Sample** – There are three types of water sampling used to detect the presence of Lead in Service lines. All collect water sample/s from an individual service line to indicate if elevated levels of lead are found in the analytical sample results. The three types are:
    - **Target Service Line Sampling**
    - **Flush Sampling**
    - **Sequential Sampling**
- **Mechanical excavation at One location** – PWS either excavated or bored at one location to visually identify the service line material type. This single location can be on either the public or private side of the curb stop.
- **Mechanical excavation multiple locations** - PWS either excavated or bored on both the public and private sides of the curb stop to visually identify service line material type.
- **Visual inspection at the meter pit** – The PWS and/or representative made a physical visit and identified the line material type connected to the service meter or meter pit.
- **Other –** If this option is selected explain and justification the methodology used to ensure the identification method ensure accuracy.

Column N – Field Verification Date (Public Side) – Enter in the date of the field verification or date that the record was updated.

Column O – Customer Service line Install Date – Enter the date and/or year the service line was installed or replaced.

Column P – Customer Service Line Usage – What is this service line used for? Is it domestic drinking water use, fire suppression line only non-drinking, agriculture/ irrigation? i.e., goes to a stock tank in a middle of a pasture or a crop irrigation system.

Column Q – Current Customer Service Line Material - What is the material or composition of the service line owned by the customer side of the utility? This column

cannot be left empty; you must pick one of the following material types from the dropdown menu listed below:

- Lead,
- Copper,
- Galvanized Steel,
- Crosslink Polyethylene (PEX),
- High Density Polyethylene (HDPE),
- Polyvinyl Chloride (PVC),
- Asbestos continuing pipe,
- Other Non-lead,
- Unknown. Choose this option if unsure of material type and if additional field or record investigation are necessary.

Column R – Is there a Community Outreach Program – Does this address have a local community service program/group that could assist the PWS by going door-to-door handing out information with in a 24-hour period of time (e.g., a rural water district that serves multiple rural towns/areas that could hand out information quickly)? Select yes or no.

Column S – Verification Source (Customer Side) - This column documents what type of information was used to determine the composition of the Customer side of each service line. This column cannot be left empty. Choose one of the following verification types from the dropdown menu listed below.

- **Installation Date after Lead Ban** (In North Dakota anything built after January 1, 1988).
- **Records Only** – Found documentation in CWS records indicating service line composition.
- **Records Validation** – After records search, field verification showing that the written and documented records are correct should be conducted.
- **Records Invalidation** – If statistical analysis or records only were used for verification of service line material source and later field validation showed that the records were wrong, choose this option. The PWS will have to go back to the inventory and change the records on the inventory that used the statistical analysis approach to “Records Invalidation” until they can verify whether the records are correct or not.
- **Field Inspection Only** – Conducted field inspections to determine service line composition.
- **Statistical Analysis** – Choose this option if a large amount of documentation or as-built, blueprints and specifications show that all the housing units in a certain development/area were built using the same service line materials. You should do

field verification or sequential sampling to show that this analysis is correct across the area specified.
- **Sequential Monitoring** – Choose this option if a series of consecutive water samples was used to determine service line type.

Column T – Record Verification Date (Customer Side) – Enter the Date that this record was created or updated. i.e., the line was installed in 1959 or line was replaced in 1990.

Column U – Describe the Field Verification Method (Customer Side) – This column informs what type of field investigation occurred to identify and verify the service line material. This column cannot be left empty. Choose one of the following field verification method types from the dropdown menu listed below.

- **Customer Self-Identification** – Customer sent a picture showing the water meter and pipe types to the PWS
- **CCT Investigation at curb stop internal** – PWS used a camera to scope and identify the inside pipe material type on either side of the curb stop going out a minimum of 3 feet in either direction of the curb stops.
- **CCT investigation at curb stop external** - PWS used a camera to scope and identify the external pipe material type by inserting a CCTV camera into the curb box to view the outside of the pipe on either side of the curb stop/ shut off valve. Water systems using this method should use it on known LSL's and other known service line material to determine if the visual element can allow them to differentiate the pipe material.
- **Water Quality Sample** – There are three types of water sampling used to detect the presence of Lead in Service lines. All collect water sample/s from an individual service line to indicate if elevated levels of lead are found in the analytical sample results. The three types are:
    - **Target SL Sampling**
    - **Flush Sampling**
    - **Sequential Sampling**
- **Mechanical excavation at one location** – PWS has dug down by either excavating or boring at one location to visually identify the service line material type. This single location can be on either the public or private side of the curb stop.
- **Mechanical excavation multiple locations** - PWS has dug down by either excavating or boring on both the public and private side of the curb stop to visually identify what the service line material type.
- **Visual inspection at the meter pit** – The PWS and/or representative has made a physical visit and identified in person what the Service line material that is hooked up to the service meter or meter pit.
- **Other –** Will need to explain and provide justification on what method was used to ensure that the identification method is accurate.

Column V – Field Verification Date (Customer Side) – Enter in the date of the field verification or date that the record was updated.

Column W – Is service line information maintained in a System Asset Management Program? – Select 'Yes' if your PWS uses a system that includes past updates and construction plans, blueprints, and records for the overall system.

Column X – Building Type/ Use – Identify the type of building/facility each service line is connected to.

- Meter Pit/ Single Service Connection – Select this option if the service line is a single connection to another city or entity (e.g., a rural water system to a city). The service connection will be considered a service line.
- Child Care – Select this option if the service line supplies a childcare facility other than a school building.
- Child care in Home – Choose this option if the service line supplies a residential house containing both a private residence and a privately-run child care service. Note: This information is needed for LCRR rule sampling compliance.
- Commercial – Choose this option if the service line supplies any other type of commercial, industrial building type that is not a school, public-, or government-owned building.

  If the building is a government/public-owned facility, please verify that the building is in compliance with the NDDEQ Backflow Program: https://deq.nd.gov/MF/BPCCC/

- Agricultural/ Irrigation – Select this option if service line supplies stock tanks in pastures, field irrigation, and if it does not supply a building.

Column Y – Point of Entry or Point of Use Treatment Present – Using the drop-down menu indicate if the home or building contains a point-of-entry or point-of-use device such as a water softener (POE device) or under the sink RO sink filter (POU device).

NOTE: Locations with POU devices cannot be used as compliance sampling locations unless the POU device can be bypassed during sample collection or unless there is another room with no POU device. Lead and copper compliance samples are only allowed to be collected from bathrooms and kitchen sinks.

Column Z - Structure Primary Plumbing Material 1 – Use the drop-down menu to indicate the home or building's most dominant premise plumbing material or the material used on the interior of the building side of the meter when field identification is occurring. This material identification can be the original piping material when the building was first built or newer material due to a remodel or combination.

- NOTE: Some copper with lead solder information can be found on prior/current PWS lead and copper sampling site plans for some address locations.

Column AA – Structure Primary Plumbing Material 2 – Use the drop-down menu to indicate the home or building's second most used premise plumbing material (if more than one plumbing material is notable).

Column AB – Building Plumbing Material Installation Date – Using the drop-down menu pick the year range the structure was built or, if the structure's premise plumbing was later modified, the year that the building underwent renovation. The year range options represent key lead plumbing regulation dates.

Column AC- Is this location to be used for a Lead and Copper Sample Site Plan – Use the drop-down menu and select 'yes' or 'no' to indicate if you have selected this location as a sampling location site for Lead and Copper Revised Rule tap sampling. **NOTE**: The LCRR requires new lead and copper sample site plans and, unlike the old rule, only locations with lead service lines will be approved as sampling locations. Unless, the PWS has no documented LSL, and all Unknowns are identified.

NOTE: Columns AD-AI are Auto-Fill Cells. These cells are locked and cannot be changed; they will be filled automatically based upon information entered in other cells.

Column AD – Replace Gooseneck/Pigtail Connector – (auto fill) Defined as a short section of piping; not to exceed two (2) feet, which can be bent and used for connections between rigid service piping. For the purpose of this inventory, lead goosenecks, pigtails and connectors are not considered to be part of the service line but may be required to be replaced under the "Find and Fix" part of the regulation (40 CFR 141.84 (c) and 40 CFR 141.2)

Column AE – LSL Category in Inventory – (auto fill) This column will be used by the PWS and NDDEQ to determine the total number of service lines of each type of material in each PWS. In addition, this column must be used to fill in the "Inventory Summary Tab Part 3: Total Number of Service Line material by type" (Required to be reported under the LCRR) the breakdown of the material type is:

1) Lead Service Lines,
2) Galvanized Service Line Requiring Replacement (GRR),
3) Non-Lead Service Line and
4) Unknowns

Column AF – Sample Site Selection Criteria (Site Tier) – (auto fill) There is a new five (5) tier system for Community Water Systems (CWS) and a new three (3)

tier system for non-transient non-community water systems (NTNCWS) that are be based on building type and service line material type.

Column AG - Would this count as full LSLR if Lead is Removed – (auto fill) NOTE**:** No partial service line replacement will be allowed. If part of a lead service line pipe is left in place to be used as part of the water systems service line, then this will not be considered a full replacement and cannot be counted as a replacement. If there was a partial service line replacement in the past, then it can count as a full replacement only once the remaining lead sections of the LSL are replaced.

Column AH – Requires Resident Notification if LSL Disturbed – (auto fill) Under the LCRR public notification, education, and tracking is required prior to LCSL replacement. If 'yes', then consumers at this location must be notified before LCSL replacement work commences.

Column AI – Required Risk Mitigation (POU or Pitcher Filter) – (auto fill) Under the LCRR POU or pitcher filters (and replacement filters), certified by the National Standards Institute to remove lead from drinking water, are required when LSLs are being removed. If 'yes', then the PWS must provide consumers at these locations such devices to ensure that the removal of LSLs do not pose additional lead hazards to residents and testing must occur to show when the POU devices are no longer needed.

Column AJ – Sample LC Identification # Assigned by State (NDDEQ) - This column should be left empty. It will be filled out by NDDEQ-MF for any LSL location selected as an LCRR compliance sampling location.

Column AK – Eligible for LSLR or GRR Funding – Use the drop-down menu to select 'yes' or 'no'. This will help the PWS track if this service line is eligible for SRF funding. Only LSLs defined as lead or galvanized requiring replacement will be eligible.

CC Contact Information Tab

The purpose of this tab is to provide a standardized format that water systems can use to track Consecutive Connection (CC) contact information served by PWS within their distribution system.

In the Inventory Spreadsheet, under column W "*Building Type/Use*" using the drop-down menu, choose "**Meter Pit/Single Service Connection"** to identify this consecutive connection service line for building type/use.

a. If the service line connection is hooked up to another regulated public water system/entity, then the **purchasing** regulated public water system will inventory their own public water system.
   The **Seller** still must collect the following information for the facility/entity to which they sell water and enter it under the Tab Labeled "**CC Contact Information**". (i.e., City of Smallville buys water from Coolville Rural Water System)
b. **If the entity is a NOT a public water system** (nonpolitical subdivision, trailer park etc..) then the public water system **Seller** must collect the following information for the facility/entity to which they sell water and enter it under the Tab Labeled "**CC Contact Information**". (i.e., Coolville Rural water System sells water to the Santa Clause Mobile Home Park).

The CC Contact Information that is collected must include:
Column A - Name of Facility/Entity - This information must match the ND Secretary of State's Office official name for this facility or political entity name. (Example: city of Smallville or Santa Claus Mobile Home Park)

Column B - Street Address of the Single Service Consecutive Connection – This address is the same as column B of the CWS Inventory Template and must match.

Column C - City the Facility/Entity is Located - This is the physical location of the site.

Column D – **GPS Location of the Single Service Consecutive Connection** – GPS reading in decimal form of the physical location where service line pipe connects to the facility/ entity. The GPS reading must be to the 6th unit past the decimal. (Example N 47.000011)

Column E - **Owner or Contact Person for Facility/Entity** - Owner's name, contact person name or management company in charge of the facility/entity. For regulated public water systems this could be their designated operator, city auditor or administrative contact person.

Column F - Mailing Address for Facility/Entity – This is the contact person address or the billing address where the Seller sends correspondence.

Column G - **Number of Service Lines Served by the Facility/Entity (If known)** - This will be the number of service lines located within the system that provides water to any type of buildings