



## PRELIMINARY DISTRIBUTION SYSTEM MATERIALS INVENTORY

Issued under authority of the Safe Drinking Act, 1976 PA 399, and Administrative Rules, as amended. Administrative Rule R 325.10604(c)(i) requires a water supply to complete and submit a preliminary distribution system materials inventory to the Michigan Department of Environment, Great Lakes, and Energy (EGLE) by January 1, 2020.

Benton Harbor Water Department		0600
Supply Name		WSSN
9,639	3,400	Berrien
Population Served	Number of Service Connections	County

The primary focus of the preliminary Distribution System Materials Inventory (DSMI) is to identify lead service lines, galvanized steel previously connected to lead, or service lines of unknown material. This inventory will estimate the number of high-risk service lines and describe the reliability of existing records, thereby providing important information for planning service line verification and replacement efforts. The complete DSMI, which is due in 2025, will require characterization of all service line materials (lead, galvanized, copper, and plastic). Instructions for completing this form are provided at the end of the document.

### 1. Does this water supply have service lines meeting the following definition?

"Service line" means the pipe from the discharge of the corporation fitting to customer site piping or to the building plumbing at the first shut-off valve inside the building, or 18 inches inside the building, whichever is shorter.

Note: For the purposes of this inventory, Manufactured Housing Community (MHC) connections to units (risers) are considered service lines, so MHCs should fill out this entire form.

X **YES.** If yes, complete this form in its entirety. ☐ **NO.** If no, skip to Questions 7 and 8 and the Certification.

### 2. Complete the table below.

Estimated Number of Service Connections by Service Line Material						
A service line includes any section of pipe from the water main to the building plumbing at the first shut-off valve inside the building, or 18 inches inside the building, whichever is shorter.						
Any Portion Contains Lead	Contains Galvanized Previously Connected to Lead*	Unknown			Contains neither Lead nor Galvanized Previously Connected to Lead	Total**
		Likely Contains Lead	Likely Does <u>Not</u> Contain Lead	Material(s) Unknown		
848	571				104	5877

\*If a galvanized line is still connected to lead, it is a lead service line and must be counted in the first column.

\*\*The total number should equal the total number of potable water service lines in your water supply (residential, commercial, industrial, other).

$$571+277 = 848$$

### 3. Describe the sources of information used to summarize or estimate the data above (see instructions for a list of potential sources of information).

All lead and copper sampling from 2018 to July 2019

A very large tap record book, that has been modified to meet the City Only water services.

The GIS Database developed with the SAW Grant and imaged on CityWorks on-line.

The Water Payment center for active accounts through billing.

As Recorded Drawings from 2007 to present.

Driving by to count houses.



**4. Describe your level of confidence in the sources of information discussed in Question 3.**

X Very confident      X Somewhat confident      ☐ Not very confident      ☐ Not confident

Describe:

No one has had the time to investigate the number of water services that are still in the ground but no longer go to a home or other type of facility. Because this is a preliminary DSML, those will be addressed at a later date.

A reasonably accurate count of vacant lots served by the water system is 1,117 locations.  
A simple subtraction of 5,877 service lines in tap records, minus the 1,117 vacant lots served.  
Leaves 4,760 count for distribution tap records.

I chose, the 1<sup>st</sup> draw only in 2018 of samples having lead results of  $\geq 3$  ppb. That value was chosen as it was generally present in the new 1<sup>st</sup> & 2<sup>nd</sup> draw sampling. To add to the number requested in columns Any Portion & Contains Galvanized Previously Connected to Lead.

There are only 4 Subdivisions built in Benton Harbor that would have service lines of all copper.  
The total number of those homes and still un-built lots are: 84.

With funding we have and with the Pilot grant we made up to 20 Complete LSL Replacements.

That makes up the 104 for the Column Contains Neither Lead or Galvanized.

**5. How common is it to find discrepancies in your service line data (for example, services you expected to be lead turned out to be copper)?**

☐ Frequently      ☐ Occasionally      X Seldom      ☐ Never      ☐ Not Enough Information

Describe, including any common patterns:

Nearly all dig ups, result in Lead on galvanized piping.  
Occasionally, the location of the service is not where it is expected.  
And, many of the service lines are not described with an address and difficult to correct.

**6. In general, describe the composition of lead services lines identified in the column titled "Any Portion Contains Lead." For example, are services primarily full lead lines, partial lead lines (main to curb stop, curb stop to water meter), or lead goosenecks?**

Lead Service lines noted are primarily lead from Main to Curb Stops. And Galvanized from Curb stop to home.

In the Column Gav Previously connected to lead, was added to the 277 reliably known Any portion contains lead column. So, there is a substantial count; 571 line that was very Likely a Partial Lead Service Line Replacement from Early 2007 to June 2008. Thus, I would expect to uncover a copper service to the curb stop and unknown material to home.

**7. What other information can you share about your preliminary DSML?**

There are 5,877 tap records in the books. There are only 3,400 accounts used for billing  
There are roughly 12 water services to City Facilities. Added  $3400 + 12 = 3,412$  potential services in use.  
The Benton Harbor Water system experiences very few water main breaks. It is more common to have service line breaks instead.


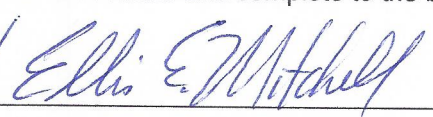
8. Beyond your service lines, do other documents previously submitted to EGLE (including the General Plan, Reliability Study, issued permits, and/or Asset Management Plan) in combination properly characterize the remainder of your current distribution system?

X YES, my general plan, reliability study, issued permits, and/or asset management plan characterize the rest of my current distribution system.

☐ NO. If no, please contact your district engineer to update your documentation.

**Certification of Preliminary Distribution System Materials Inventory**

I certify that I have reviewed available documentation related to the materials in this water supply's distribution system, and the information herein is accurate and complete to the best of my knowledge and information.

 / 

Signature

12/30/2019

Date

Mike O'Malley Ellis Mitchell

Print Name

Water Operator IN Charge; City Manager

Title

**When complete, submit this signed form to your EGLE district office no later than January 1, 2020.**