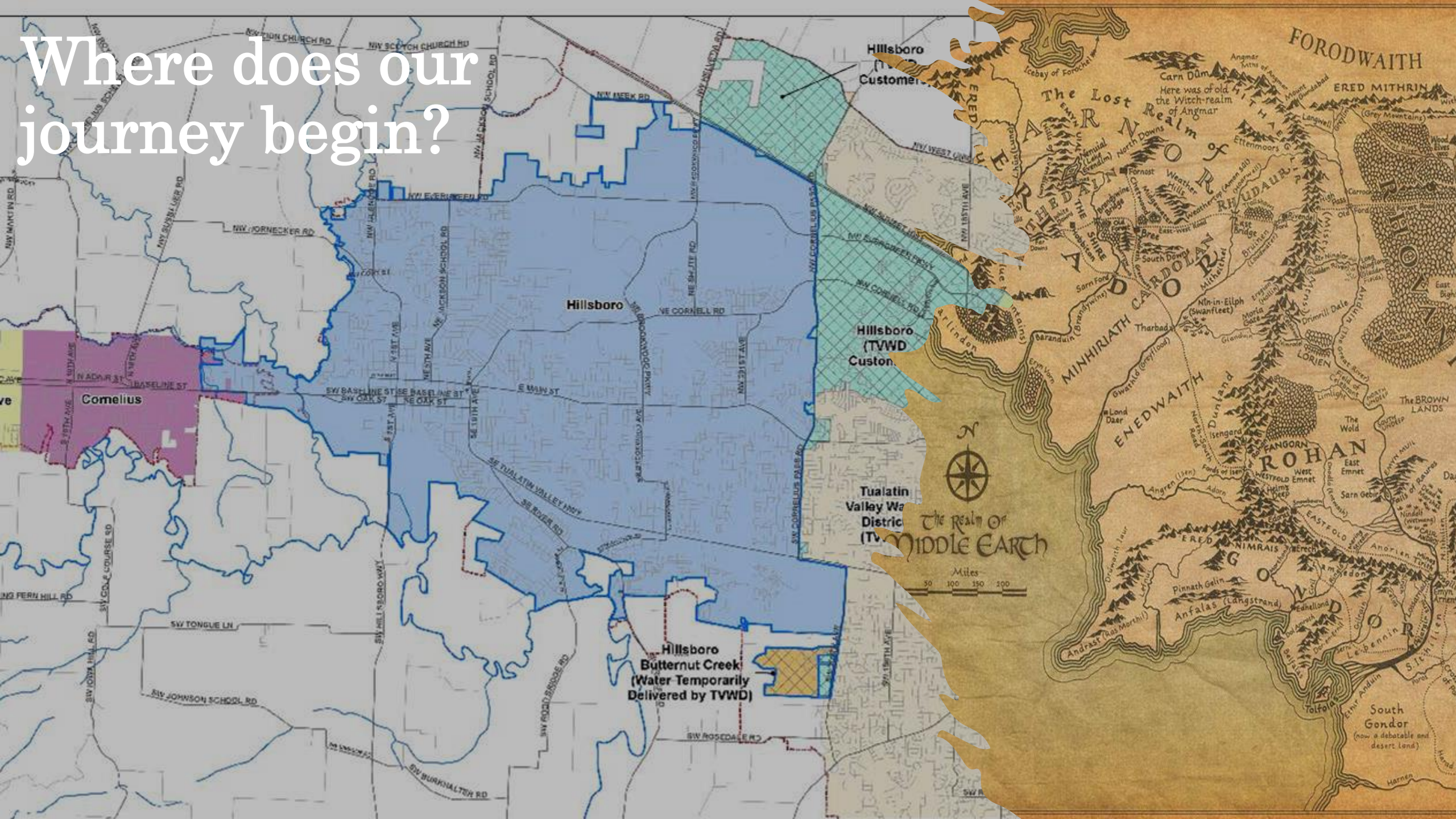




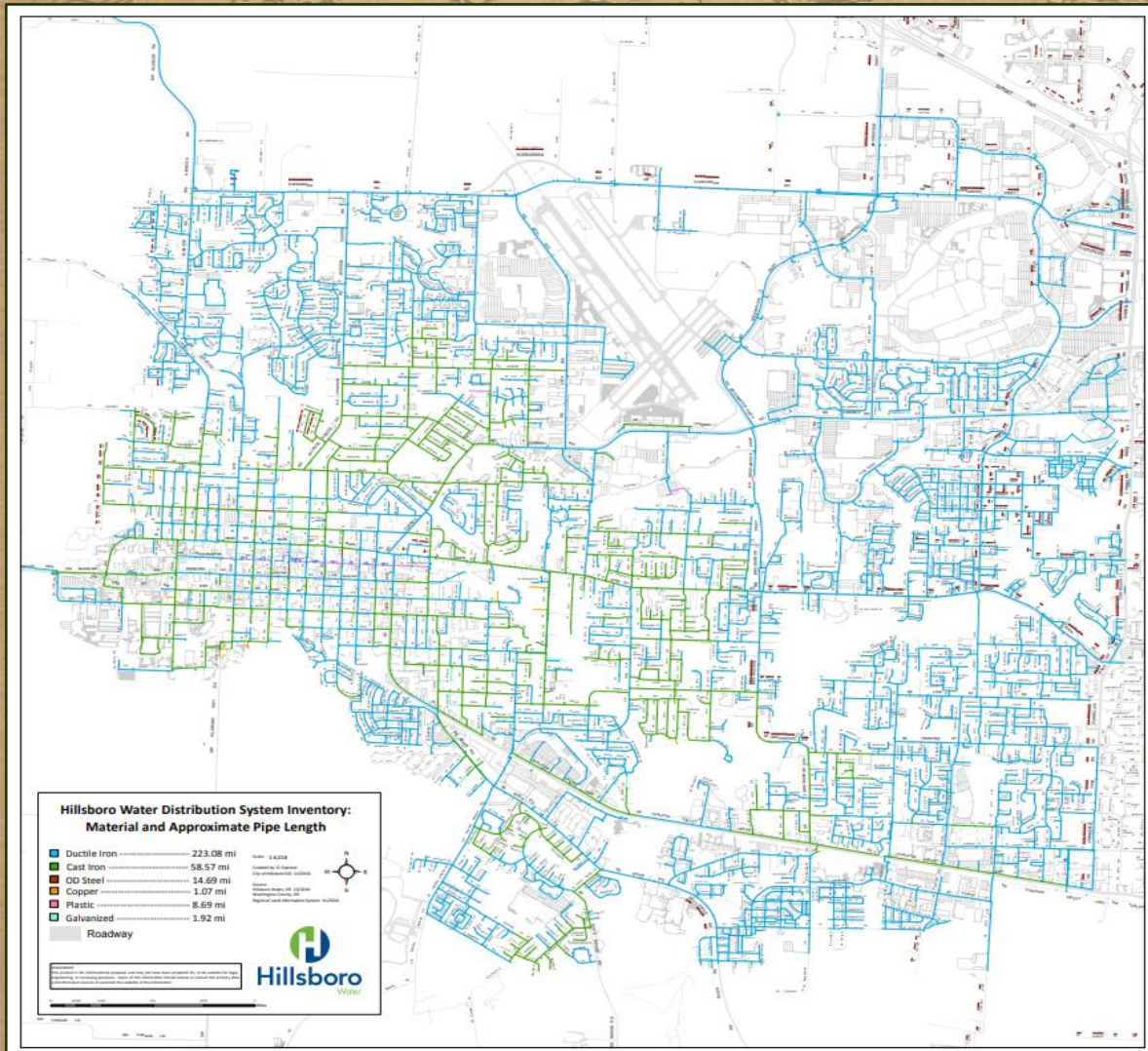
One Inventory to Rule them All: Hillsboro Water's Quest for LCRR Water Service Line Inventory (WSLI) Compliance

Symon Powlison & Alyssa MacDonald - 5.2.2024

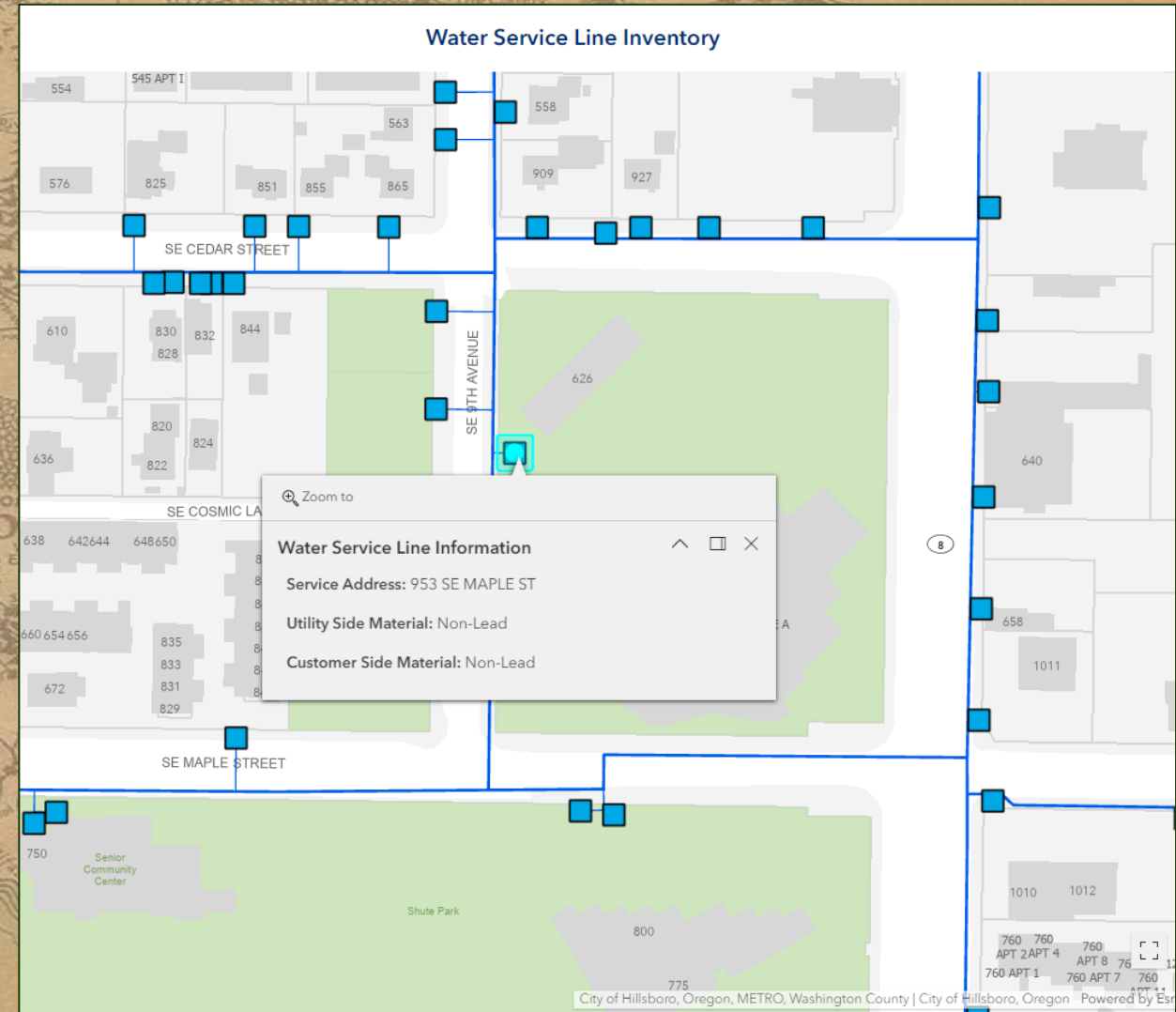
Where does our journey begin?



Roadmap to Compliance



Static legacy inventory



Live, public-facing, and interactive inventory

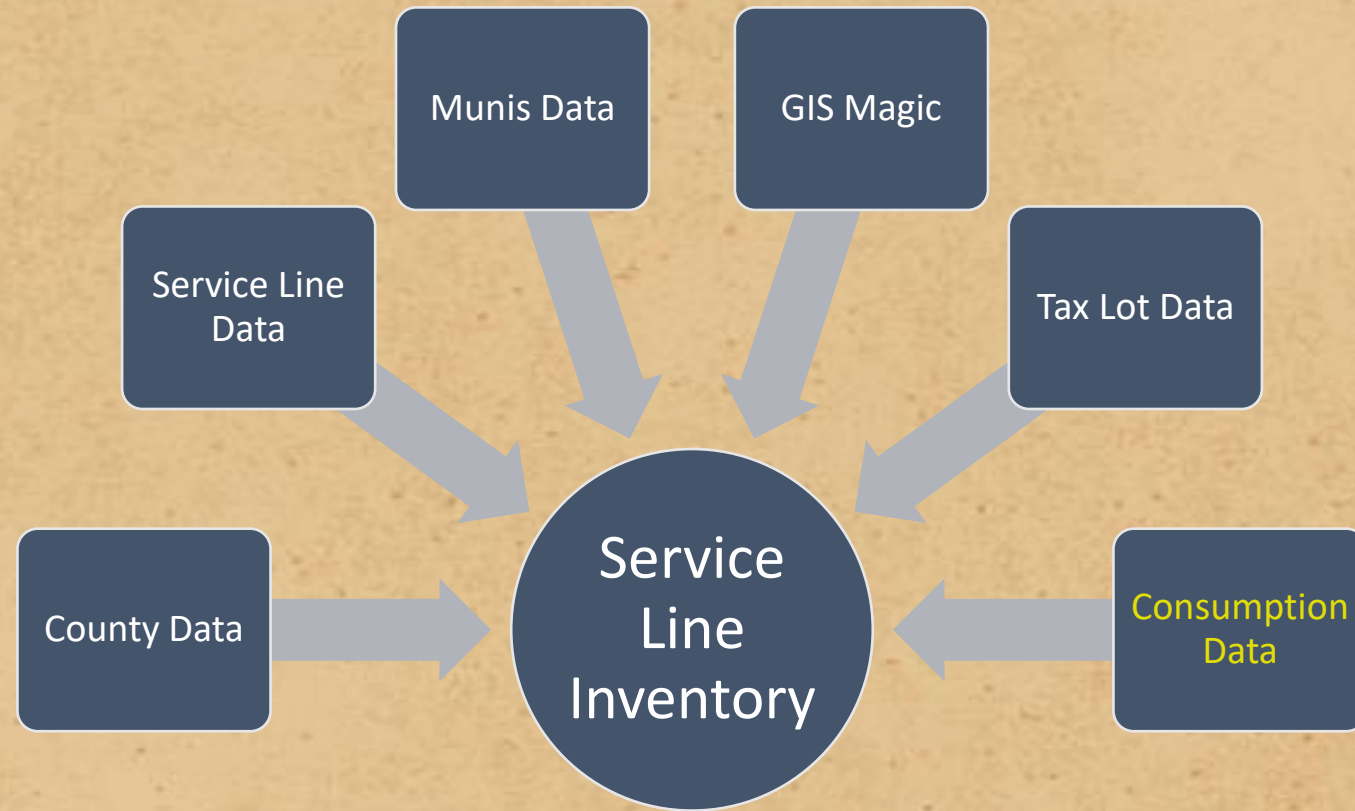


The WSLI Fellowship

Inter- & intra- departmental project

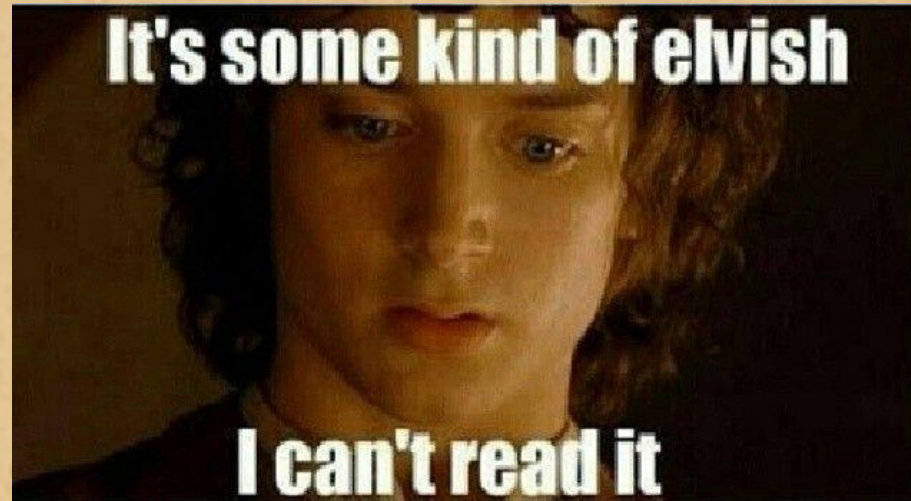
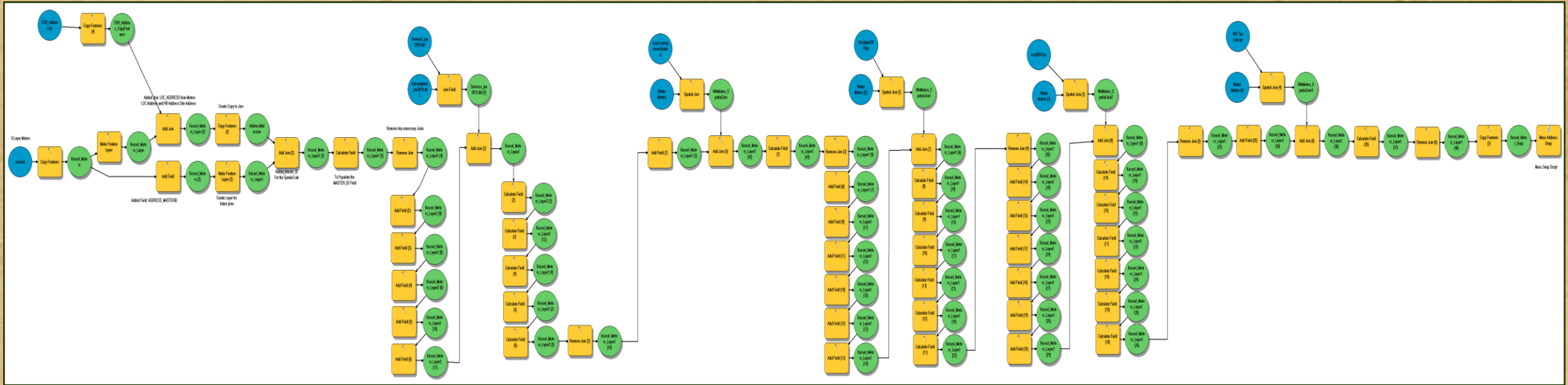
- Water Quality
- Water Resources
- Water Engineering - GIS
- Water Operations
- Information Services GIS
- City Manager Office
- Communications
- Web Works

WSLI Data Model Foundation

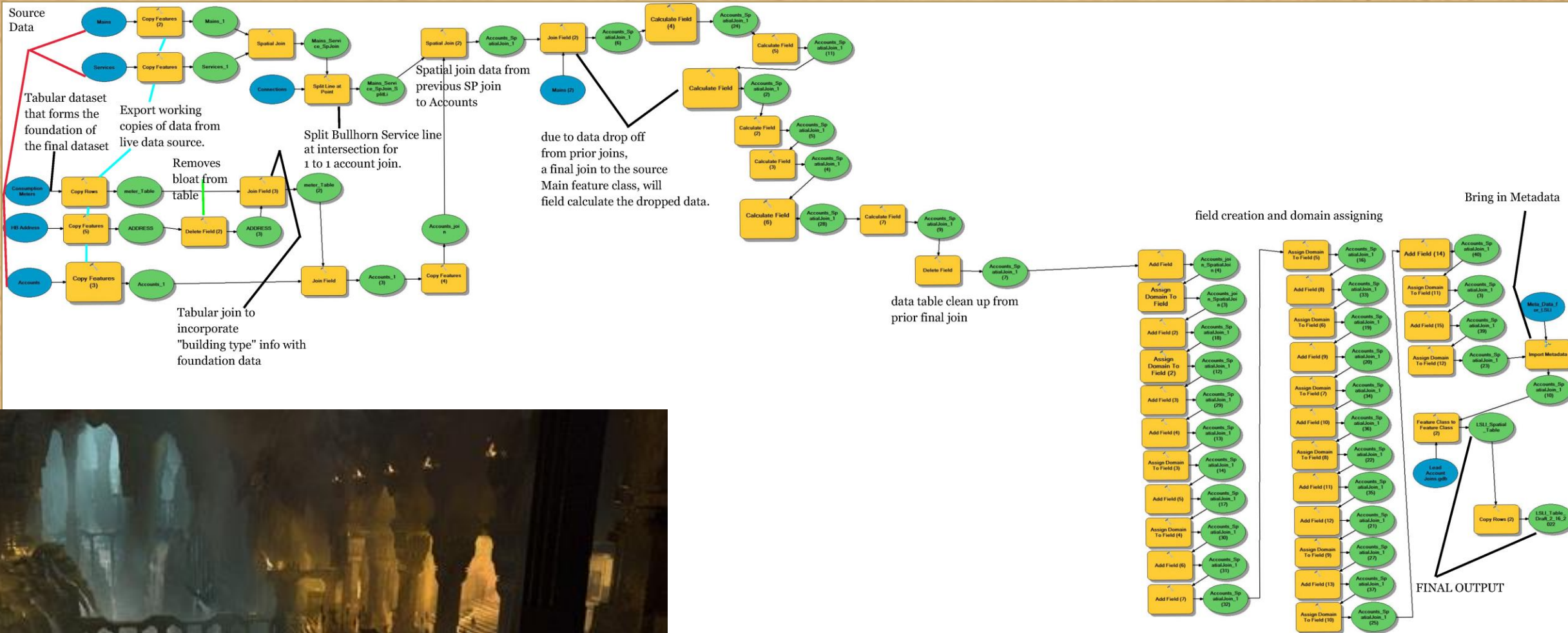


The consumption dataset provides the base foundation for the WSLI.

Consumption Dataset Model



Creation of WSLI Model



Migration from Static WSLI to Esri Solution

WSLI
Output

- Final output from multi-dataset model



Field
Mapping

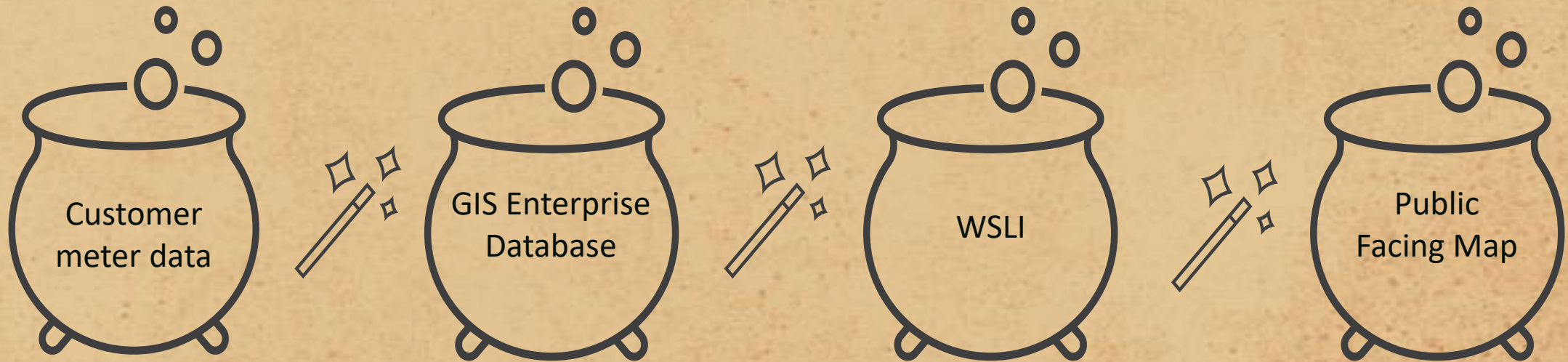
- Field Mapping to Esri Solution

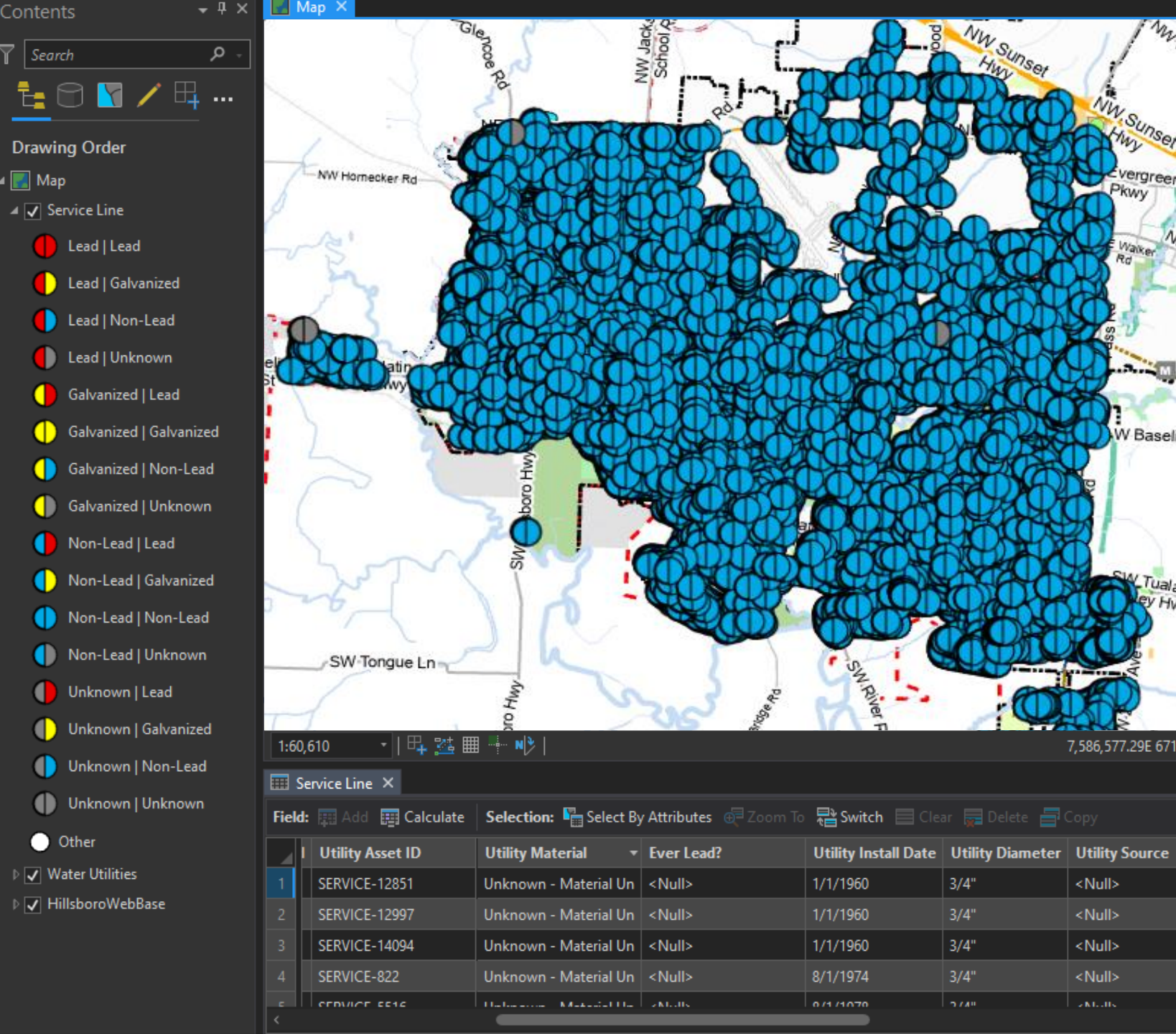
Deploy Esri
Solution

- Public-facing inventory map go-live

Automation

After the creation of the inventory and launching the Esri solution, we enlisted the help of our IS-GIS team to link the inventory back to our customer meters to append all new meters that migrate into our GIS Enterprise Database to the WSLI.





WSLI Editor's View

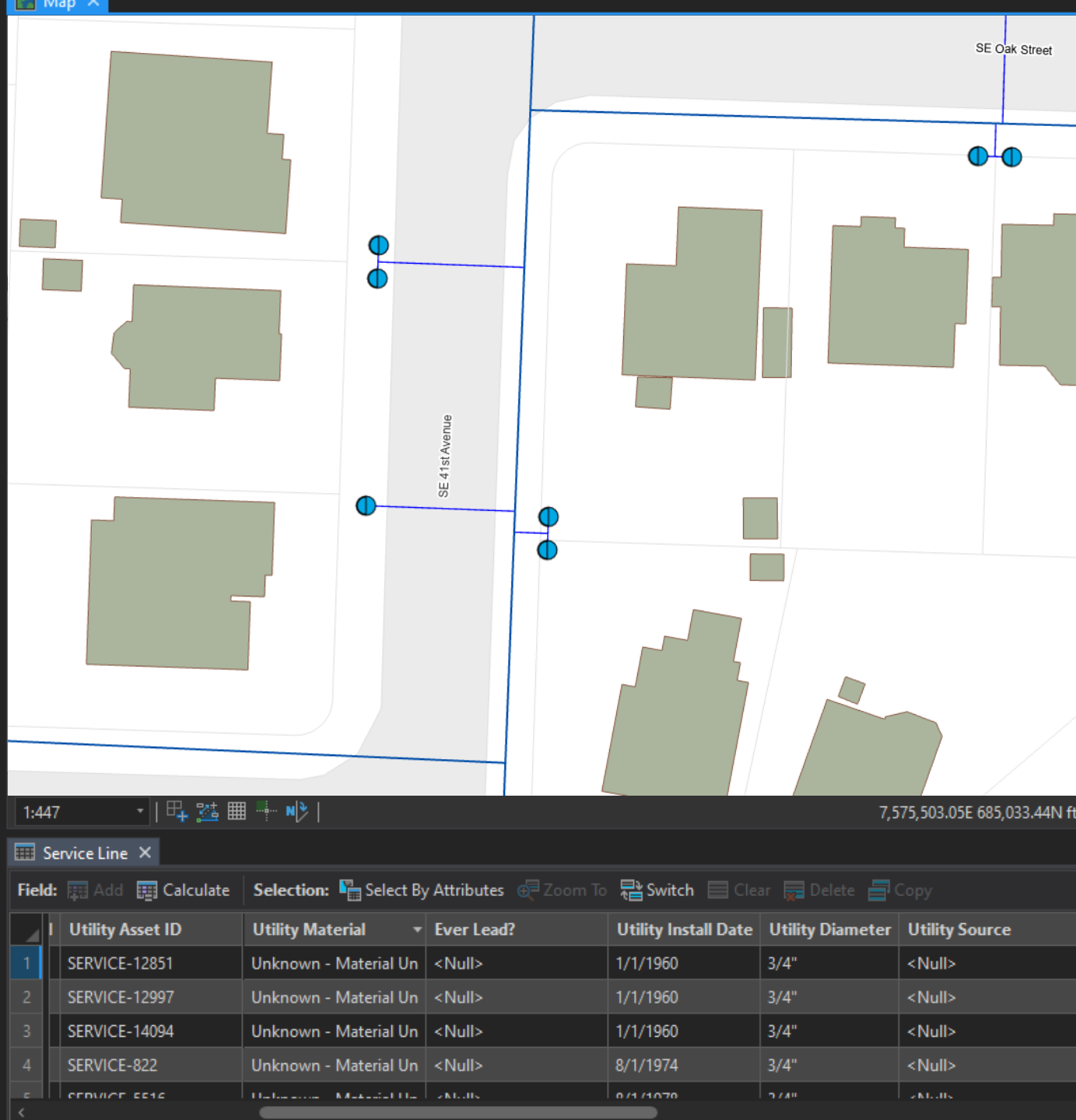
Per OHA's inventory guidance, service lines $\geq 2"$ in diameter and services installed after 1/1/1986 were denoted as non-lead based on Oregon's mid-1985 lead ban and history of not using lead for larger diameter lines

Contents

Search

Drawing Order

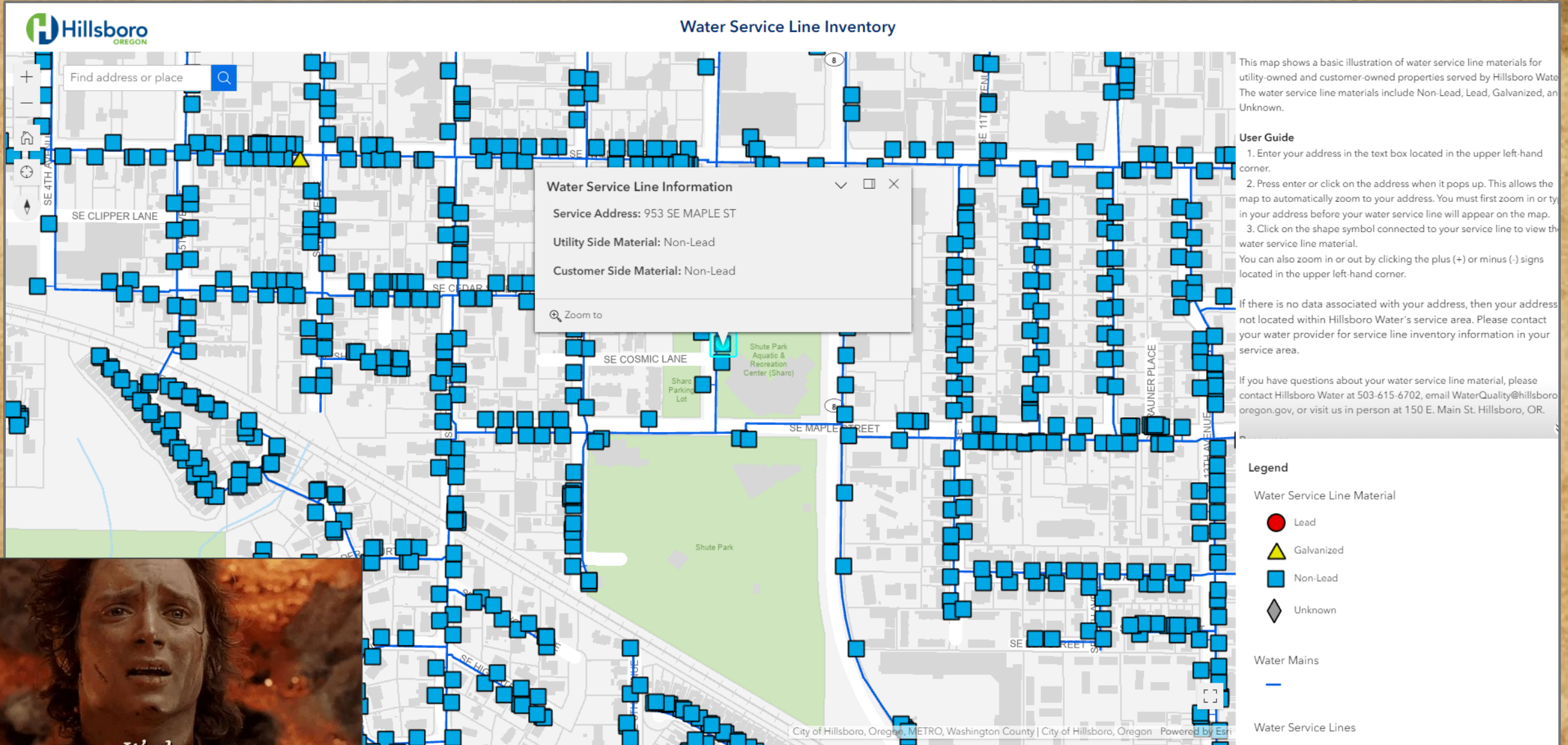
- Map
- Service Line
 - Lead | Lead
 - Lead | Galvanized
 - Lead | Non-Lead
 - Lead | Unknown
 - Galvanized | Lead
 - Galvanized | Galvanized
 - Galvanized | Non-Lead
 - Galvanized | Unknown
 - Non-Lead | Lead
 - Non-Lead | Galvanized
 - Non-Lead | Non-Lead
 - Non-Lead | Unknown
 - Unknown | Lead
 - Unknown | Galvanized
 - Unknown | Non-Lead
 - Unknown | Unknown
 - Other
- Water Utilities
- HillsboroWebBase



WSLI Editor's View—Bullhorns

Bullhorn service lines required a special process to ensure each meter was represented as its own data point

Live Public-Facing Inventory Map



Challenges & Lessons Learned

- Documentation
 - Data dictionary
 - Analysis steps
 - Data maintenance workflows
 - SOPs
- Navigating an ever-evolving regulatory landscape
- Bringing the right people in at the right time





Next Steps



Continue to identify all utility-owned unknowns



Roll-out Customer Service Line Self-Identification Program



Submit inventories to OHA



How to Get Started on Your Inventory

1

Assemble your
fellowship

2

Gather,
organize, and
review existing
data

3

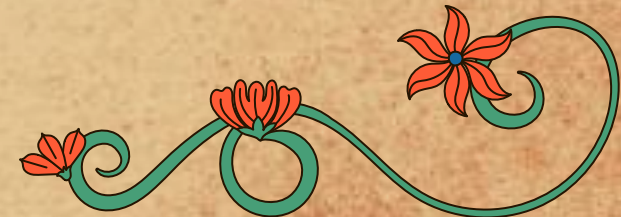
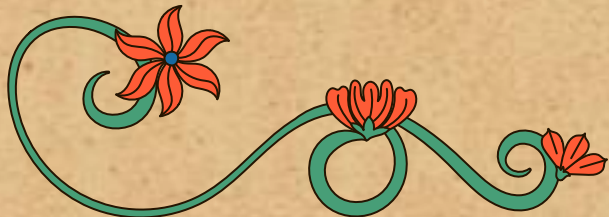
Establish
partnership
with consultant
or third party?

4

Select an
inventory
format

5

Develop
procedures for
collecting
service line
information



Service Line Inventory Resources

- ❖ [OHA's Inventory Guidance FAQ](#)
- ❖ [OHA's Statistical Guidance](#)
- ❖ [OHA Service Line Inventory Technical Assistance](#)
- ❖ [EPA Inventory Guidance](#)
- ❖ [Excel Inventory Templates](#) for community PWS', small community PWS', and NCNT PWS'
- ❖ [Lead Service Line Collaborative](#)
- ❖ [ESRI's LCRR Solution & Webinar](#)
- ❖ Other utility's inventories:
 - [City of Hillsboro Water Department](#)
 - [Seattle Public Utilities](#)
 - [Rockford Water](#)
 - [DC Water](#)



Questions?

Inventory Map: [Hillsboro-Oregon.gov/waterline](https://hillsboro-oregon.gov/waterline)

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