

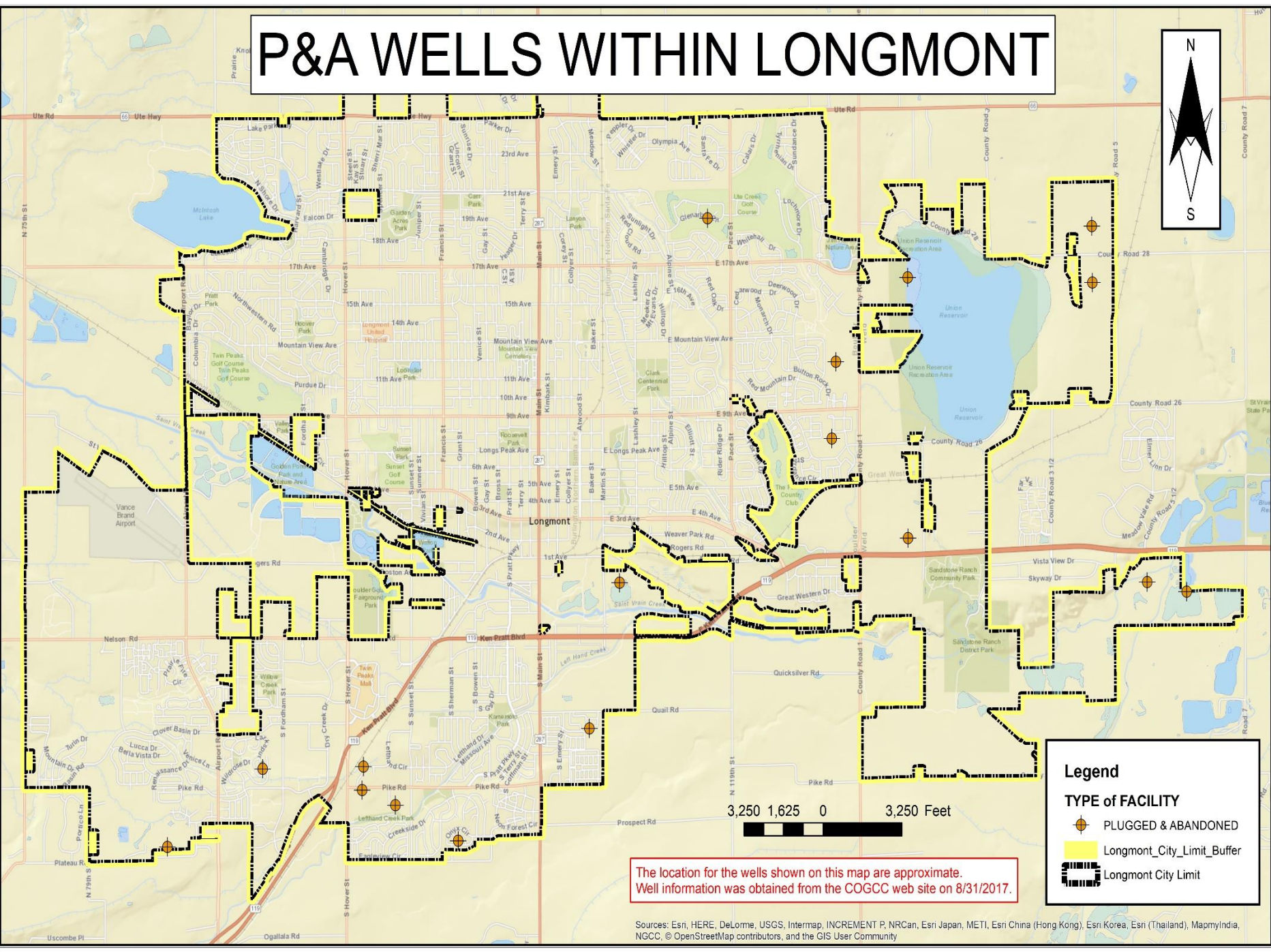
Agenda

- Discussion of Potential Further Charter Restrictions on Lease of Water for Oil & Gas Operations - *Ken Huson*
- Pipeline Presentation - *Josh Jostwick*
- Update on site investigations of existing Plugged and Abandoned Wells and Facilities - *Jason Elkins*
- Report and Discussion on Setbacks from Existing Plugged and Abandoned Wells and Pipelines – *Brad Schol*

Update on site investigations of Existing P&A Well and Facilities




- 2012 City conducted historical records investigation into all P&A wells within city limits
 - P&A Research Summary Report issued in 2013
 - Report located on City website
- 2013 City conducted site investigations of active wells and installed water quality monitoring wells
- Site investigations now being conducted on existing P&A wells
- City hired Terracon, Ajax Analytics, and partnering with local universities and researchers to conduct thorough investigation

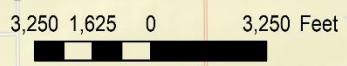
P&A WELLS WITHIN LONGMONT



Legend

TYPE of FACILITY

-  PLUGGED & ABANDONED
-  Longmont_City_Limit_Buffer
-  Longmont City Limit



The location for the wells shown on this map are approximate.
Well information was obtained from the COGCC web site on 8/31/2017.

Sources: Esri, HERE, DeLorme, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), MapmyIndia, NGCC, © OpenStreetMap contributors, and the GIS User Community

Scope of P&A Well Site Investigations

- Locating wellhead, flow lines, former location of production equipment and circulations pits, etc.
- 3 soil sample tests
- 2 soil vapor points (permanent feature)
- 3 groundwater monitoring wells (permanent feature)
- 2 soil vapor tests
- 3 groundwater sample tests
- Real-time monitoring for methane

Investigation Progress Update

Rider #1

- Terracon mobilized
- Partial investigation complete
- Samples taken
- Results are pending
- Remaining investigation scheduled for 18-Oct



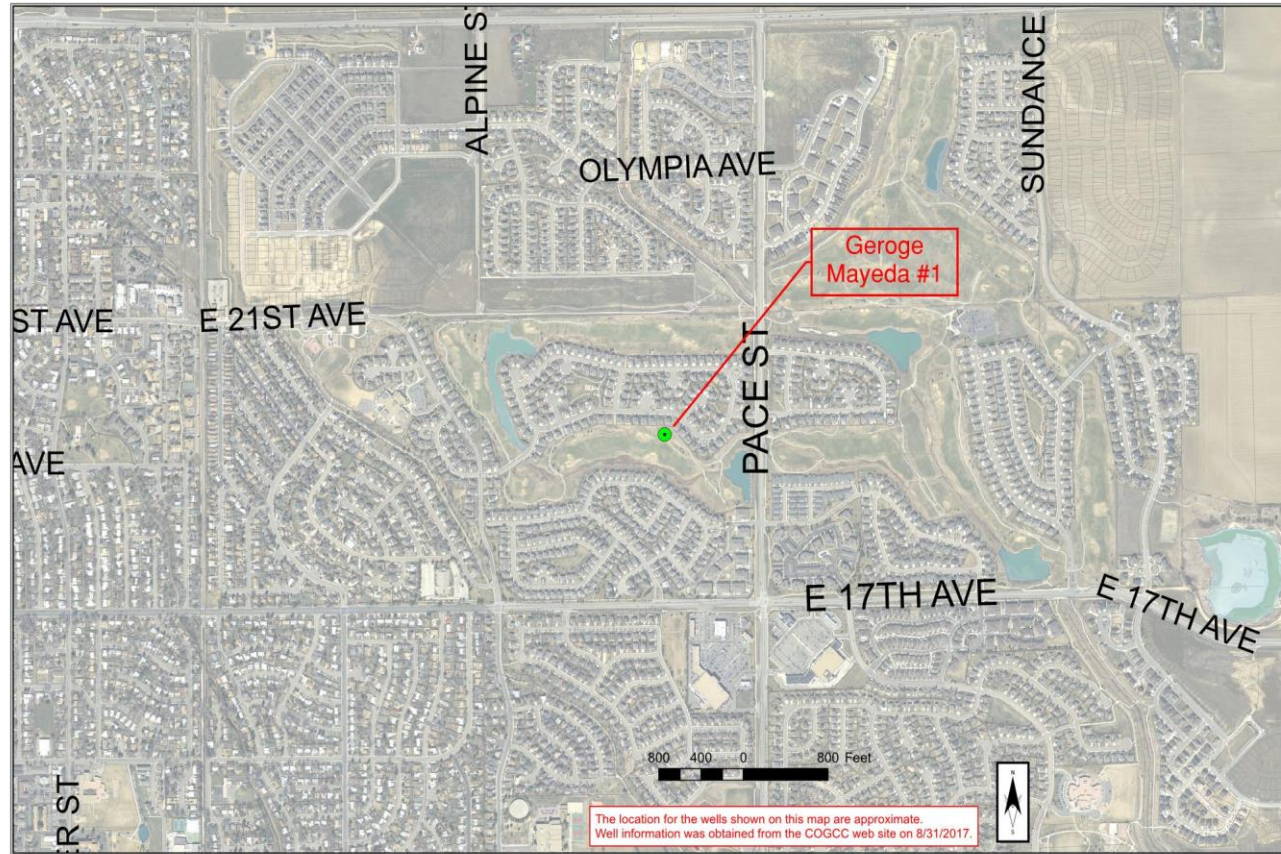
YOU BELONG IN
LONGMONT
COLORADO



Investigation Progress Update...continued

George Mayeda #1

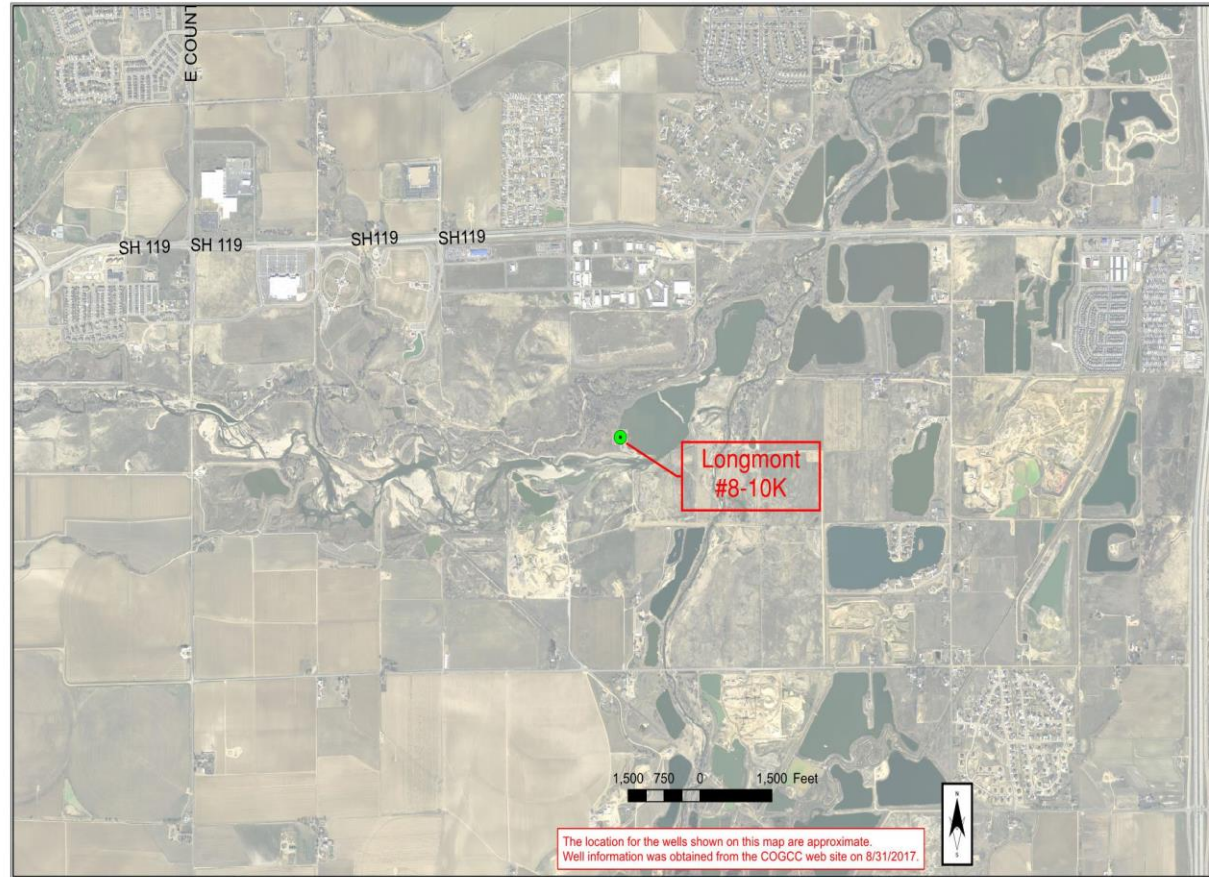
- Records investigation complete
- Notice to nearby residents
- Feedback has been positive
- Terracon mobilizing 18-Oct
- Ground Penetrating Radar (GPR) in an attempt to locate any remnants of flow/gathering lines



Work to Plug & Abandon Existing Wells

Longmont #8-10k

- Currently shut-in well
- Located on City Sanitation Fund Property
- Scheduled to be P&A this fall
- Terracon mobilizing after abandonment and remediation



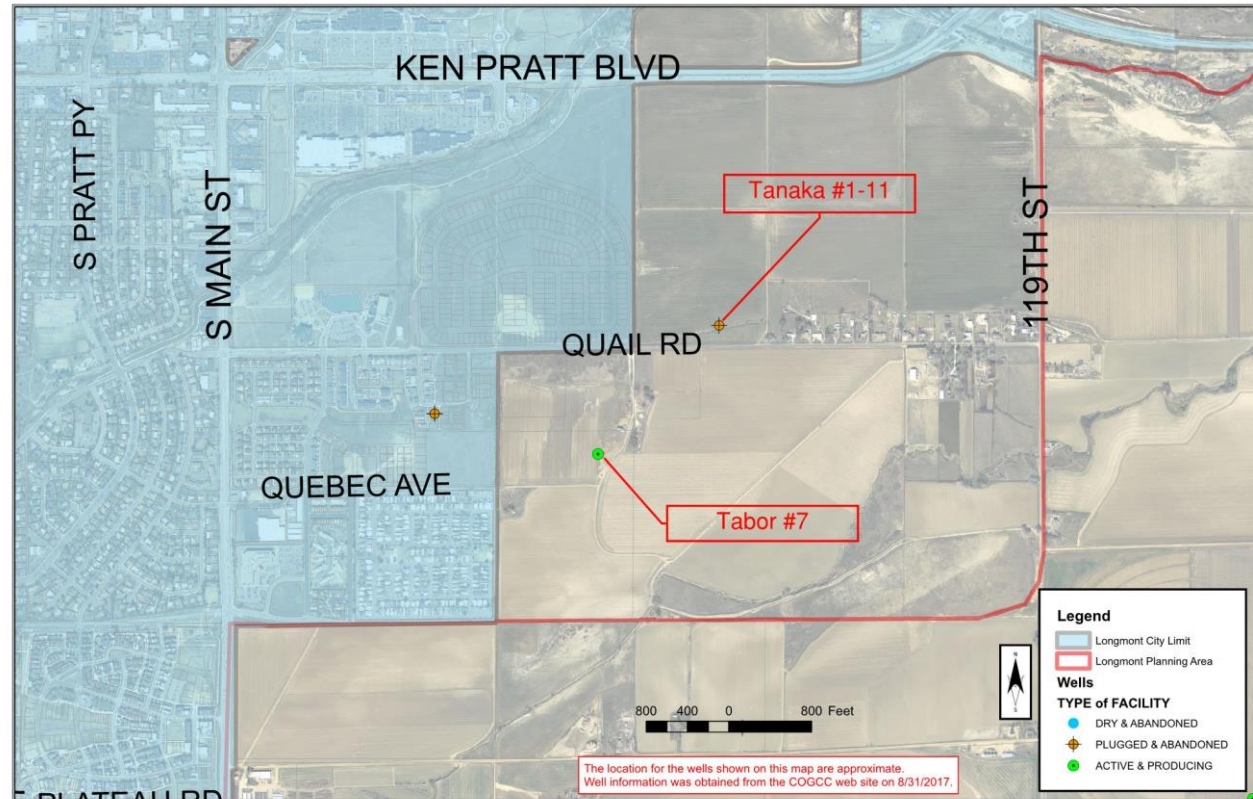
Existing Wells on Lands Currently Being Annexed

Tabor #7

- Active well
- Notified operator of intent to monitor
- Terracon mobilizing 30-Oct.
- Full investigation planned
- Annexation pending

Tanaka #1-11

- Plugged & Abandoned
- Annexation recently approved by Council



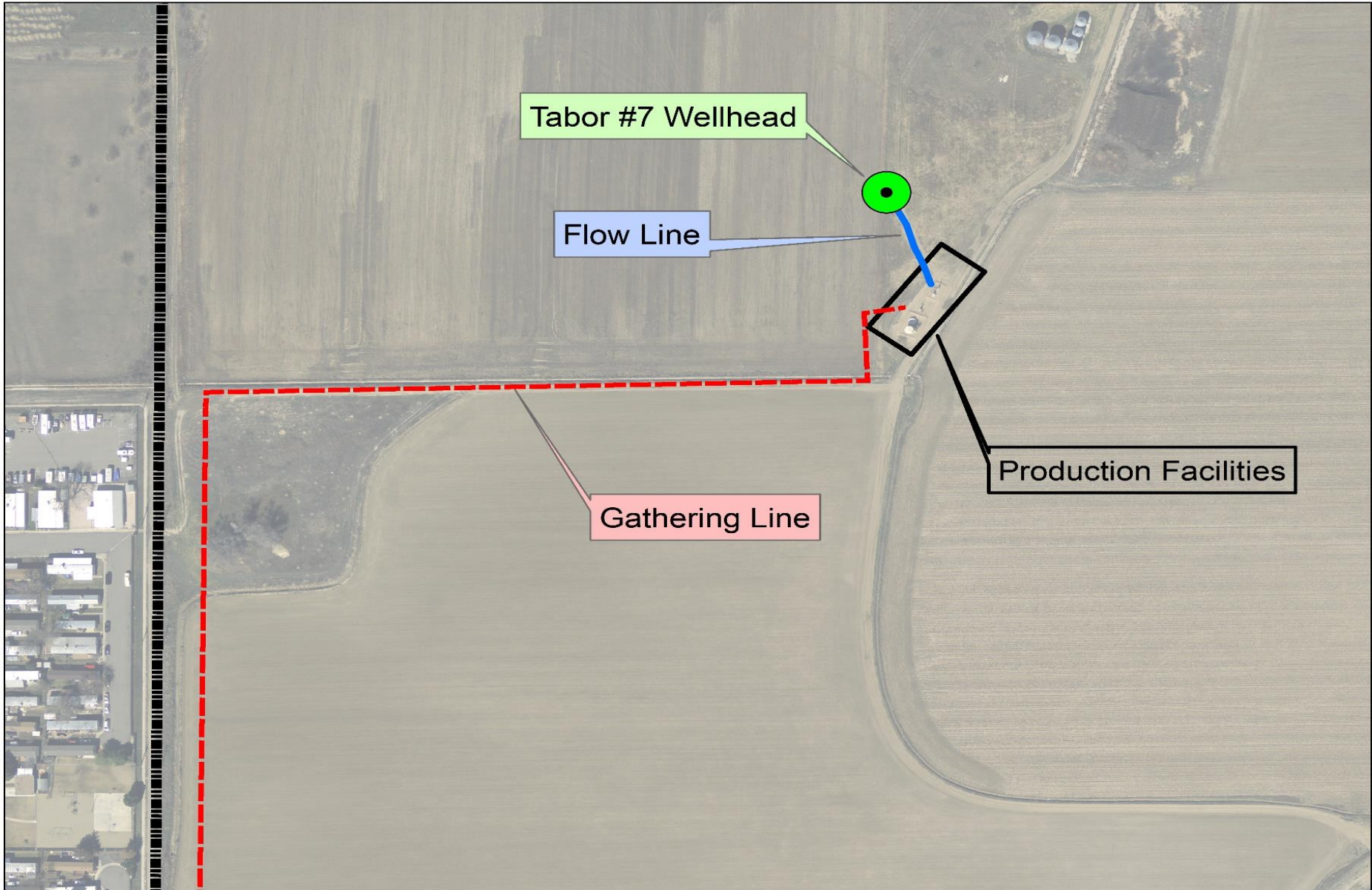
Discussion of setbacks from Plugged and Abandoned Wells and Inactive Pipelines

- Conflicts – When new development occurs near existing P&A oil and gas wells
- Code requires
 - Set back 150' from P&A well to occupied building
- Requirement to show locations of P&A wells on development applications
 - This must include pipelines and gathering lines

Setbacks from Active Pipelines

- Pipelines and gathering lines are an “oil and gas operation or facility” under Longmont code
- All lines require a land use permit
- No specific setback standard except for flow lines. Fall into the 750’ definition of “production facility”
- Limited existence of pipelines and gathering lines in Longmont

Flow & Gathering Line Diagram

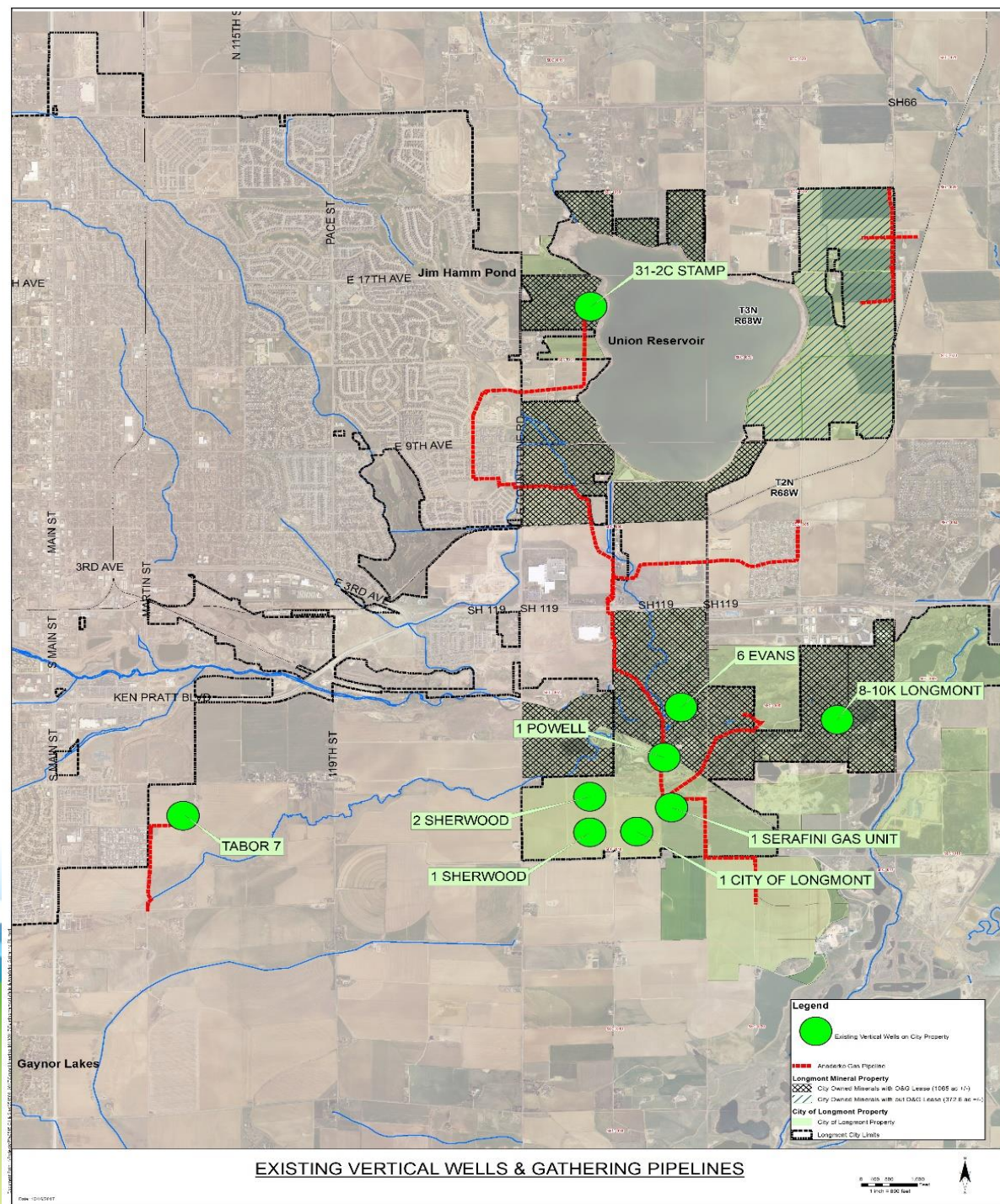


Existing Gathering Lines in and near Longmont

Currently includes the gathering line from the Stamp Well

Following annexation of the Tabor Well site an additional gathering line will be located within the City

- Both of the gathering lines are owned and operated by Anadarko (Kerr McGee)



Pipeline Setbacks

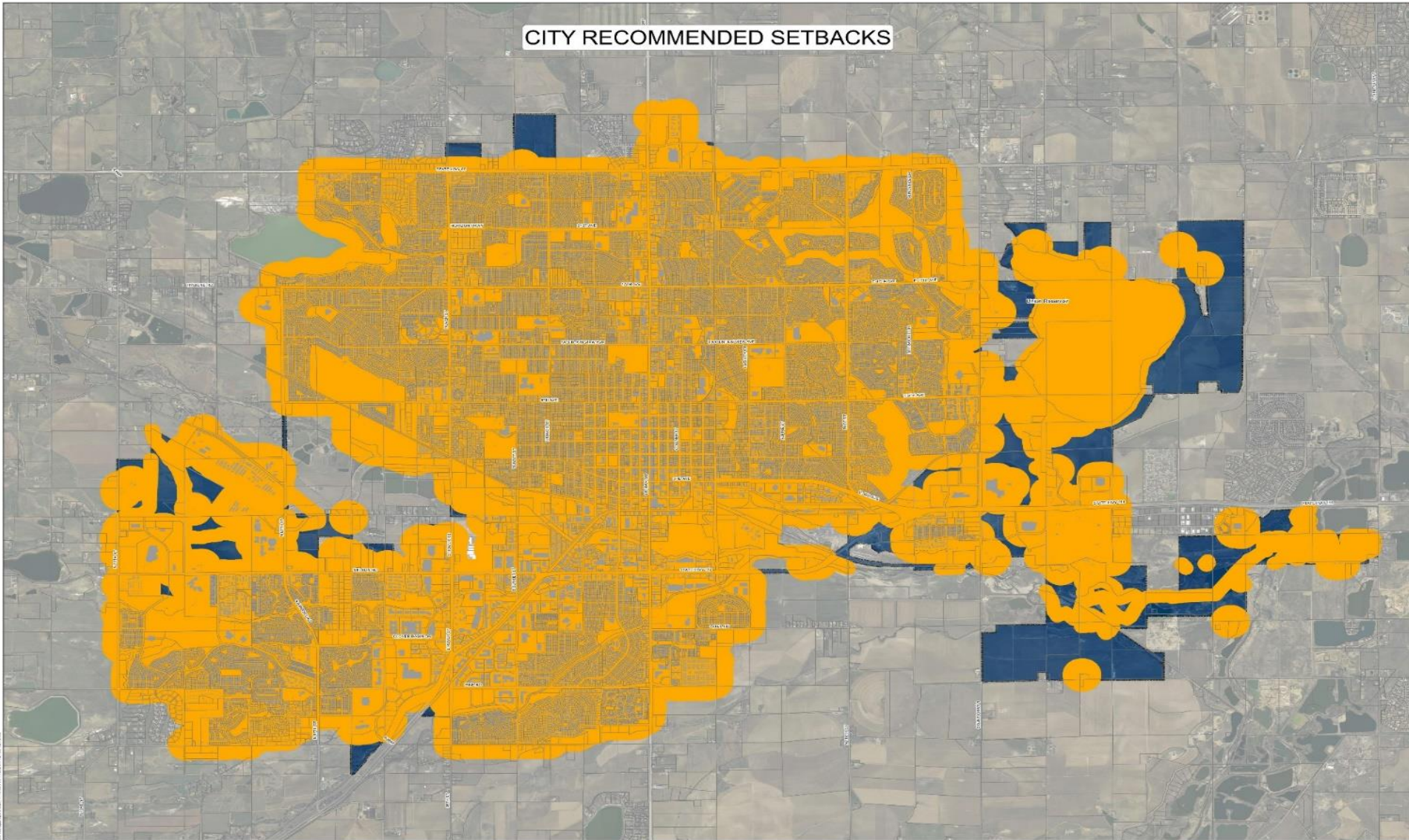
- Pipeline setbacks generally not regulated
 - 500' Thornton
- Management of setbacks can be through “pipeline impact radius” (PIR) calculation or “consultation zones”
- COGCC has started rulemaking process around flow lines but not gathering lines

Setback Determinations

- Standards for setbacks from P&A wells and pipelines are not well advanced
- Rule making at COGCC and pipeline working group at Weld County may yield information and recommended standards
- Setbacks can be arrived at using PIR

Understanding the Risks (750' set back)

CITY RECOMMENDED SETBACKS



Think Data: 856077
 Name: LONGMONT 750 FT. RECOMMENDED STANDARD SETBACK
 Home Scale:

As Constructed	Comments	Date	By

CITY OF LONGMONT
 385 Kimbark Street
 Longmont, Co. 80501
 Phone: 303-451-6304 FAX: 303-651-8362
PUBLIC WORKS & NATURAL RESOURCES DEPT.

As Constructed
No Revisions:
Revised:
Void:

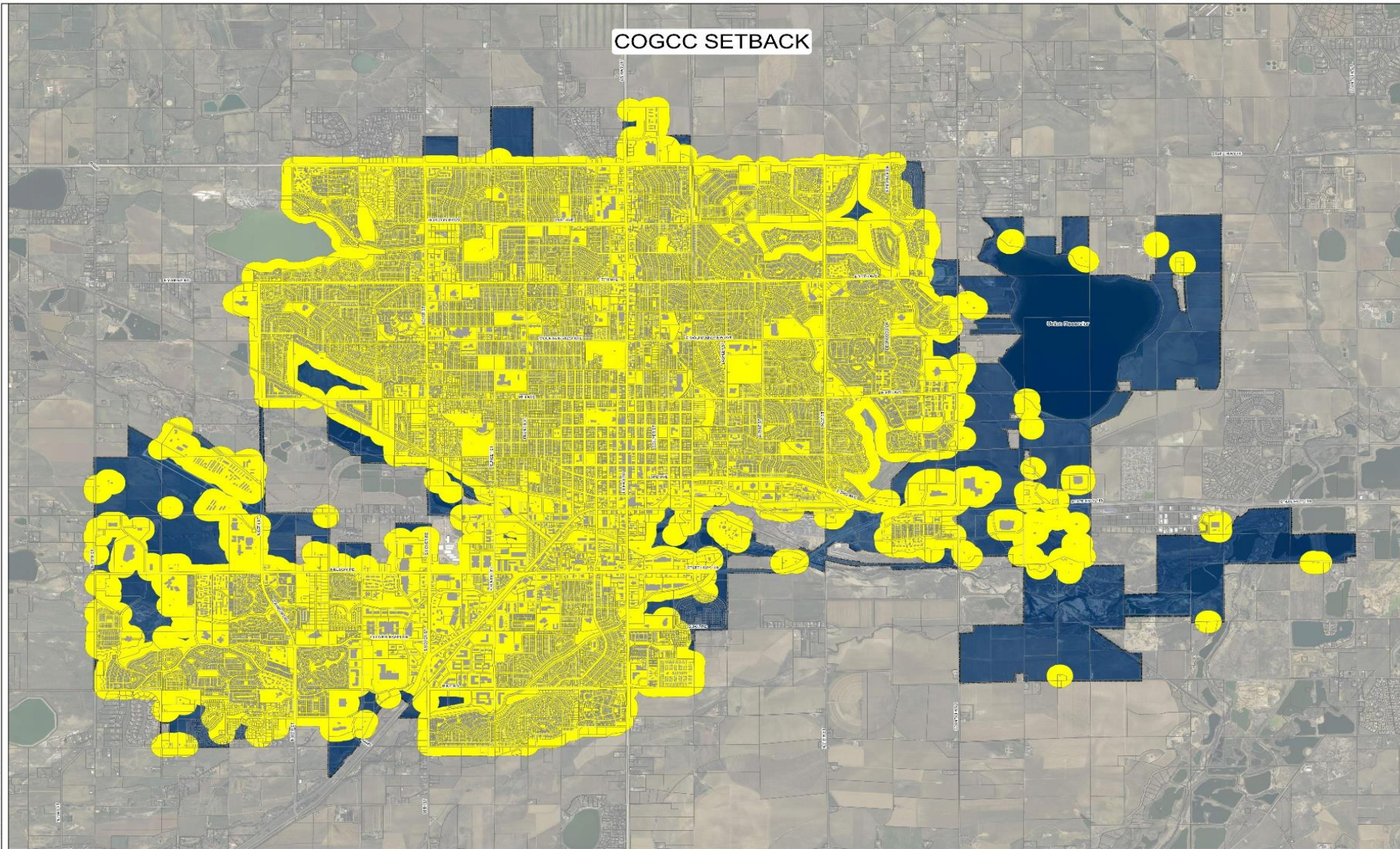
LONGMONT 750 FT. RECOMMENDED STANDARD SETBACK
Designer:
Detailer: A. Vasco
Contractor:

Project No.	PW0545
Sheet	1 of 2

North Arrow
 1" = 1,200'

Legend
Existing Buildings
Longmont Recommended Setbacks
Longmont City Limits

Understanding the Risks (500' set back)



Print Date: 5/4/2017
 Name: 500 Ft. Occupied Building Setback per COGCC Regulation
 Plot: Scale:

As Constructed		
Date:	Comments:	Init:



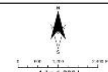
CITY OF LONGMONT
 385 Kimbark Street
 Longmont, Co. 80501
 Phone: 303-651-4204 FAX: 303-651-8352

PUBLIC WORKS & NATURAL RESOURCES DEPT.

As Constructed
No. Revisions:
Revised:
Void:

500 FT. OCCUPIED BUILDING SETBACK per COGCC REGULATION
Designer:
Detactor: A. Anzures
Committer:

Project No. PW0545
Sheet 2 of 2



Legend
Existing Buildings
500 Ft. Occupied Buildings Setback per COGCC Regulations
Longmont City Limits

Council Direction

- Is 150' set back acceptable?
- Do you want to complete environmental monitoring of P&A wells, evaluate the information and potential risks prior to determining whether or not to establish new setbacks?
- Do you want to increase the setbacks from pipelines for new development?
 - This will be done through the Land Development Code as it pertains to development

End

