

# REGULATIONS for OIL AND GAS DEVELOPMENT

City Council  
PUBLIC HEARING  
March 5, 2013

# Purpose

- Zoning conflicts with State law
- Lack of development standards

## Significant Events

- May 15, 2012 - Moratorium
- June 12, 2012 - City Council/Planning Commission study session
- August 21, 2012 - City Council Statement of Direction
- October 23, 2012 - City Council/Planning Commission public forum
- December 18, 2012 - Extension of moratorium

# Two Types of Standards/Processes

- Baseline Standards
  - Mandatory
  - Planning Commission review process
  - Protect public health, safety and welfare and the environment, while
    - Being in harmony with State law
    - Avoiding litigation
  
- Enhanced Standards
  - Voluntary
  - Administrative review process
  - Higher level of mitigation of impacts on public health, safety and welfare and the environment

# Planning Commission Review Process

- Mandatory
- Baseline standards
- Review by Development Review Team
- Neighborhood meeting - standing to appeal
- Planning Commission approval at fully noticed public hearing
- Could be appealed to City Council
- City Council approval at fully noticed public hearing

# Administrative Review Process

- Voluntary
- Enhanced standards
- Neighborhood meeting
- Review by Development Review Team
- Public comment period
- Negotiation with applicant
- Mitigation in addition to Enhanced Standards, only if agreed to by applicant
- Approval by director
- No appeal to Planning Commission or City Council
- Only appeal to Larimer County district court

## Commission's New Rules

- Groundwater baseline sampling and monitoring
  - Adopted January 7, 2013
  - Legally effective May 1, 2013
  - Greater Wattenberg Area
- Building setbacks
  - Adopted February 11, 2013
  - Require new mitigation measures within 1,000 feet of Building unit, High Occupancy Building Unit and Designated Outdoor Activity Area
  - Require waiver from all building owners if within Urban Mitigation Area and 500 feet from of a Building Unit

# Key Issues

- Feasibility of Enhanced Regulations
- Additional inspection services
- Setbacks for new development from existing and abandoned oil and gas facilities
  - 500 foot radius = 18 acres
  - 1,000 foot radius = 72 acres
- Creation of “no-build” areas within City limits and Growth Management Area

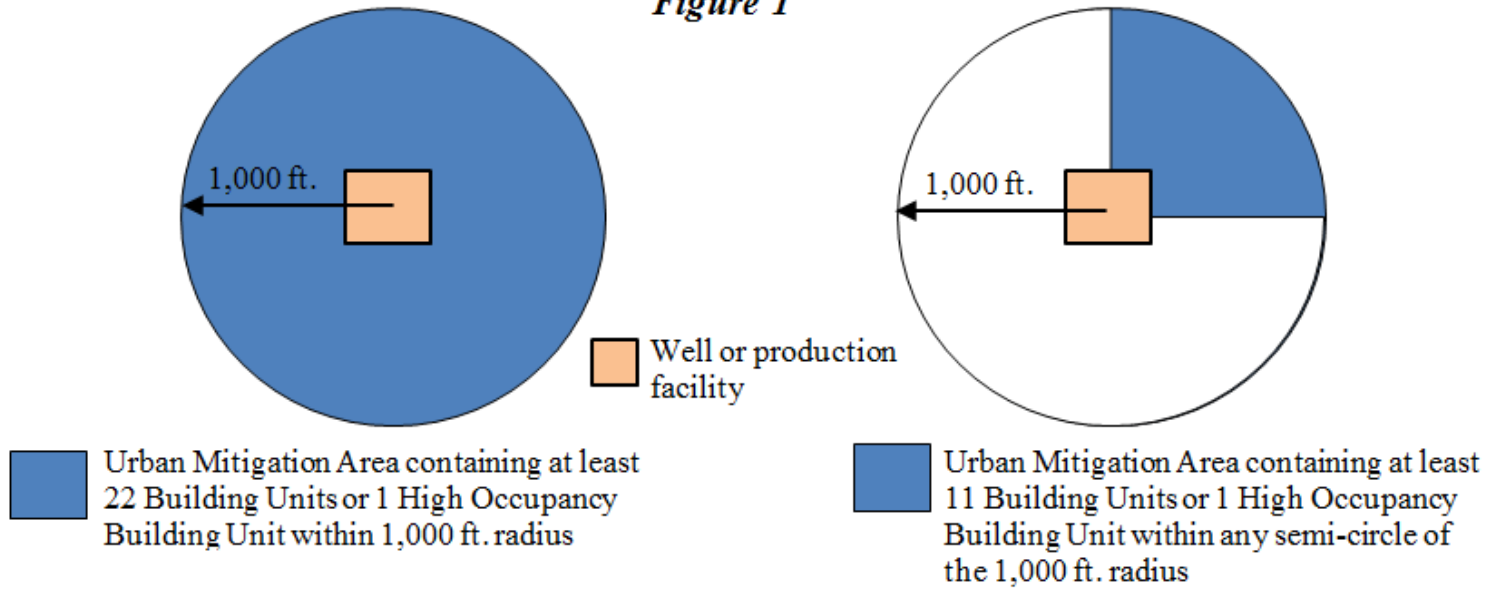


# New COGCC Setback Rules

- Definitions
  - Residential Building Unit: Building designed for use a place of residency
  - Building Unit: Residential Building Unit, every 5,000 sq. ft. commercial building and every 15,000 sq. ft. of warehouse building
  - High Occupancy Building Unit: Public school, non-public school, nursing facility, hospital, life care institution, correctional facility (50 or more persons)
  - Urban Mitigation Area: Intent to recognize urban level densities within cities
  - Designated Outdoor Activity Areas:
    - Designated by Commission upon application
    - Playgrounds, permanent sports field, amphitheaters and other similar places of public assembly owned or operated by a local government

# Urban Mitigation Area

*Figure 1*



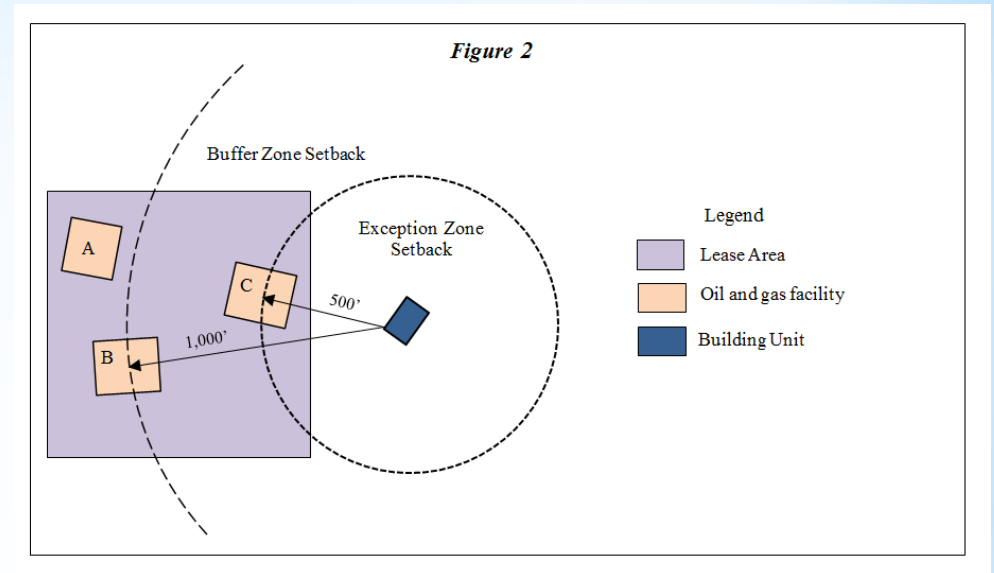
# Buffer Zone and Exception Zone

- Mitigation Measures

- Site A: State-wide
- Sites B and C: Commission's new mitigation measures

- Permit Requirements

- Site A: State-wide
- Sites B and C:
  - ✓ If High Occupancy Building Unit, Commission approval following public hearing
  - ✓ If Building Unit, operator must meet with Building Unit owners



# Urban Mitigation Area

- Mitigation Measures

- Site A: State-wide
- Sites B and C: Commission's new mitigation rules

- Permit Requirements

- Site A: State-wide
- Site B:
  - ✓ If a High Occupancy Building Unit, Commission approval following public hearing
  - ✓ If a Building Unit, operator must meet with Building Unit owners
- Site C: Operator must obtain waiver from all Building Unit owners and:
  - ✓ If a High Occupancy Building Unit, Commission approval following public hearing
  - ✓ If a Building Unit, operator must meet with Building Unit owners

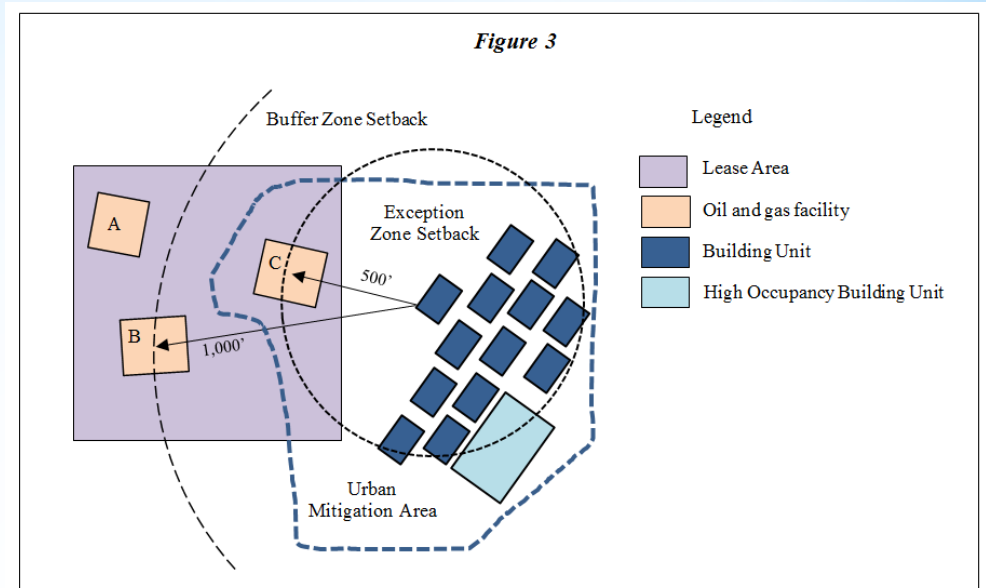


Table 1

# Regulations Comparison

Commission Rule	Current City Code Regulation
Noise	
<p>1. During well site development involving pipeline or gas facility installation or maintenance or use of a drilling rig noise levels shall not exceed 70 dB(A) day, 65 dB(A) night, measured at nearest building unit.</p>	<p>1. Measured at property line of adjacent land use:</p> <ul style="list-style-type: none"> <li>• Residential: 55 dB(A) day, 50 dB(A) night</li> <li>• Commercial: 60 dB(A) day, 55 dB(A) night</li> <li>• Industrial: 75 dB(A) day, 70 dB(A) night</li> </ul>
<p>2. Measured 350 feet from sound source:</p> <ul style="list-style-type: none"> <li>• Residential: 55 dB(A) day, 50 dB(A) night</li> <li>• Commercial: 60 dB(A) day, 55 dB(A) night</li> <li>• Light Industrial: 70 dB(A) day, 65 dB(A) night</li> <li>• Industrial: 80 dB(A) day, 75 dB(A) night</li> </ul>	

Table 1 (cont.)

Commission Rule	Current City Code Regulation
Noise	
<p>3. All facilities within 400 feet of a Building Unit with engines or motor which are not electrically operated shall be equipped with quiet design mufflers.</p>	
Water Quality	
<p>4. Closed loop drilling system and pit restrictions.                      5. Containment berms meeting specific standards.                      6. Within an Urban Mitigation Area, no more than 2 crude oil or condensate storage tanks shall be located within a single berm.</p>	None
Air Quality	
Closed loop drilling system	None

Table 1 (cont.)

Commission Rule	Current City Code Regulation
Traffic	
7. If required by local government, a traffic plan shall be coordinated with the local government prior to commencement of move in and rig up.	2. Compliance with Larimer County Urban Area Street Standards.
Multi-Well Pad	
8. Where technologically feasible and economically practicable, wells shall be consolidated to create multi-well pads located as far from building units as possible.	None
Leak Protection	
9. The oil and gas facility operator shall develop a plan to monitor production facilities on a regular schedule to identify fluid leaks.	None

Table 1 (cont.)

Commission Rule	Current City Code Regulation
Blowout Preventer Equipment	
10. Blowout prevention equipment shall be required.	None
Pit Level Indicators	
11. Pit level indicators shall be used.	None
Drill Stem Tests	
12. Closed chamber drill stem tests shall be allowed	None
Well Services Operations	
13. Adequate blowout prevention equipment and backup stabbing valves shall be used on well servicing operations.	None
Security	
14. Well sites shall be adequately fenced to restrict access by unauthorized persons.	None



Table 1 (cont.)

Commission Rule	Current City Code Regulation
Surface Trash	
<p>15. All surface trash, debris, scrap or discarded material shall be removed from the site and disposed of in a legal manner.</p>	<p>Title 7: Accumulation of Waste Material</p>
Tank Specifications	
<p>16. All crude oil and condensate storage tanks shall be designed, constructed and maintained in accordance with National Fire Protection Association (NFPA) Code 30 (2008 version).</p>	<p>None</p>
Emergency Access	
<p>17. All leasehold roads shall be constructed and maintained to accommodate local emergency vehicle access.</p>	<p>4. International Fire Code</p>

Table 1 (cont.)

Commission Rule	Current City Code Regulation
Well Site Clean Up	
18. Within 90 days after a well is plugged and abandon, the well site shall be cleared of all non-essential equipment, trash and debris.	None
Identification of Plugged and Abandon Wells	
19. Operator shall identify the location of the well bore with a permanent monument with the well number and date of plugging imbedded on the monument.	None
Development of Existing Well Pads	
20. Where possible, operators shall provide for the development of multi reservoirs by drilling on existing pads or by multiple completions or commingling in existing wellbores.	None

Table 1 (cont.)

Commission Rule	Current City Code Regulation
Visual	
<p>21. Production facilities, regardless of construction date, that can be seen from any public highway shall be painted a uniform, non-contrasting color tone that matches but is slightly darker than the surrounding landscape.</p>	<p>3. Bufferyards - Type EX. Plant density and width unspecified, allowing City to require bufferyard in excess of Type E as necessary to buffer high intensity uses, such as an industrial batch plant or gravel mine from residential or commercial uses.</p> <p>4. Screening of unsightly areas - Such areas shall be screened from view from public sidewalks, streets, and other public areas. Whenever plants are used for screening, the plants should be coniferous and provide an opaque screen within three years.</p>

Table 1 (cont.)

Commission Rule	Current City Code Regulation
Lighting	
<p>22. To the extent practicable, site lighting shall be directed downward and inward and shielded so as to avoid glare on public roads and building units within 1,000 feet.</p>	<p>5. Comprehensive standards for illumination:</p>
Structure Height	
<p>None - drilling rigs are typically 150 feet in height, or less.</p>	<p>6. In the Industrial zone - East of County Road 9 - 50 feet. Other locations in the Industrial zone - 40 feet</p> <p>7. It is unlawful to construct any tower or other structure which may constitute a hazard to the safe navigation of aircraft at the Fort Collins/Loveland Airport</p>
Vibration	
<p>None</p>	<p>8. Vibration at the level of human perception shall not be permitted beyond the lot lines.</p>

Table 1 (cont.)


Commission Rule	Current City Code Regulation
Floodplain	
None	<p>9. Flood Fringe - Non-residential structures shall be placed on fill so that the lowest portion of the structure is at or above the regulatory flood protection elevation or comply with the floodproofing requirements set forth in the International Building Code.</p> <p>10. Floodway - No use shall limit or restrict the floodway capacity, include fill or storage of material or equipment, increase flood heights during base flood, any well shall be protected from inundation from flood discharge and no new mobile home shall be permitted.</p>
Stormwater	
Best Management Practices	11. Compliance with City of Loveland Storm Criteria Manual

Table 1 (cont.)

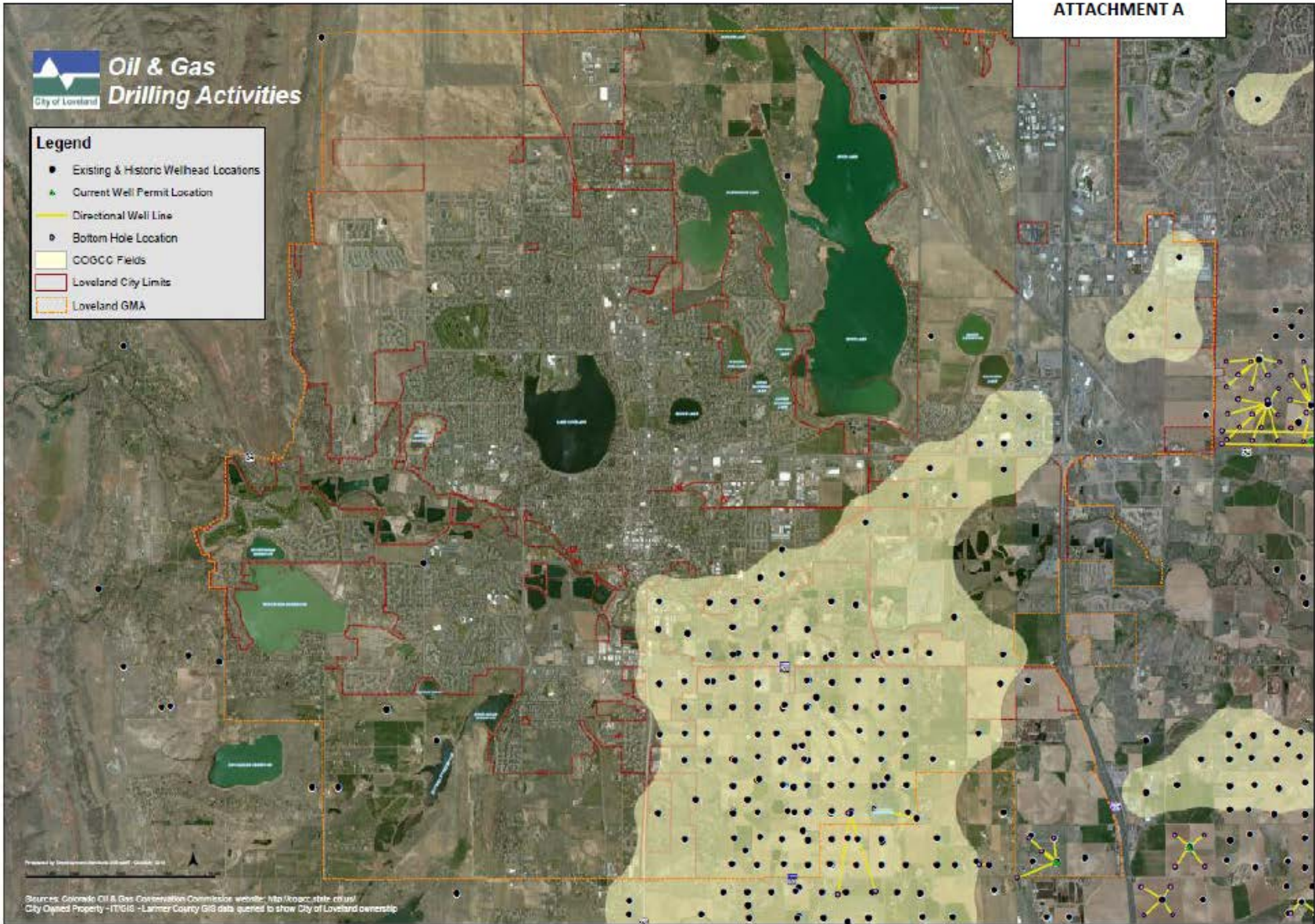
Commission Rule	Current City Code Regulation
Odors and Dust	
<p>23. Odor:</p> <p>(i) Compliance with Department of Public Health and Environment Air quality Control and odor Emissions regulations, plus specific regulations on crude oil, condensate, and produced water tanks, glycol dehydrators, pits, and pneumatic devices.</p> <p>(ii) Green completions practices required on wells that are likely to produce naturally flowing hydrocarbon gas in flammable concentrations.</p> <p>24. Fugitive dust: Operator shall employ practices such as speed controls, regular road maintenance, restrictions on construction activity during high-wind conditions, silica dust controls when handling sand, road surfacing, wind breaks and automation of well site to reduce truck traffic.</p>	<p>12. Odor: Title 7: Nuisance Abatement</p>

Table 1 (cont.)

Commission Rule	Current City Code Regulation
Weed Control	
25. All well and surface production facilities shall be kept free of weeds, rubbish, and other waste material.	13. Compliance with Title 7: Weed Control Ordinance

 **Oil & Gas Drilling Activities**

- Legend**
- Existing & Historic Wellhead Locations
  - ▲ Current Well Permit Location
  - Directional Well Line
  - Bottom Hole Location
  - COGCC Fields
  - Loveland City Limits
  - Loveland GMA



Prepared by Environmental Services Department, Loveland, CO

Sources: Colorado Oil & Gas Conservation Commission website: <http://www.coGCC.com>  
City Owned Property - IT/GIS - Larimer County GIS data, queried to show City of Loveland ownership



## Enhanced Setbacks (applicable to Administrative Review Process)

- Measured from the closest edge of the oil and gas facility to the nearest wall or corner of the building.
- Except for high occupancy buildings, 500 feet from any residential or non-residential occupied building.
- 200 feet from public roads, major above ground utility lines, railroads or any property or lease area line of the oil and gas facility.
- 500 feet from:
  - ✓ The boundary property line of any natural area or wetlands;
  - ✓ The property line of any property managed by the city's Parks and Recreation Department and any city park;
  - ✓ The operating high water line of any surface water body;
  - ✓ The boundary of the FEMA floodway zoning district;
  - ✓ The property line of any property subject to a conservation easement managed by a public or non-profit entity; and
  - ✓ Any domestic or commercial water well.
- 1,000 feet from any residential or non-residential building with an occupancy rating for fifty (50) persons or more and any outdoor assembly area with a capacity of fifty (50) persons or more.

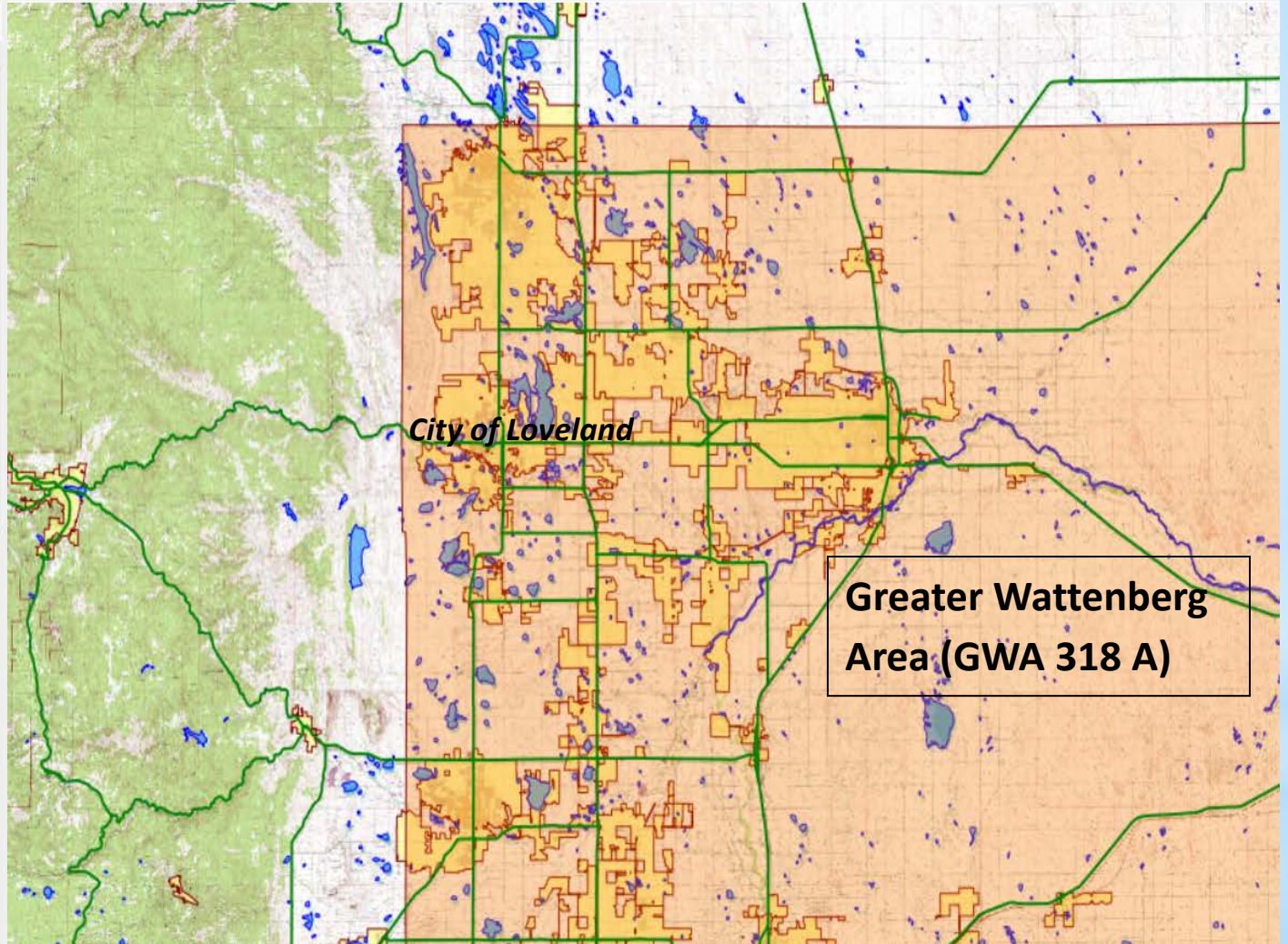
## Enhanced Mitigation (applicable to Administrative Review Process)

- All oil and gas operations shall comply with the COGCC's new mitigation rules, plus if the operator select to use the Administrative Process, the City of Loveland enhanced mitigation standards.



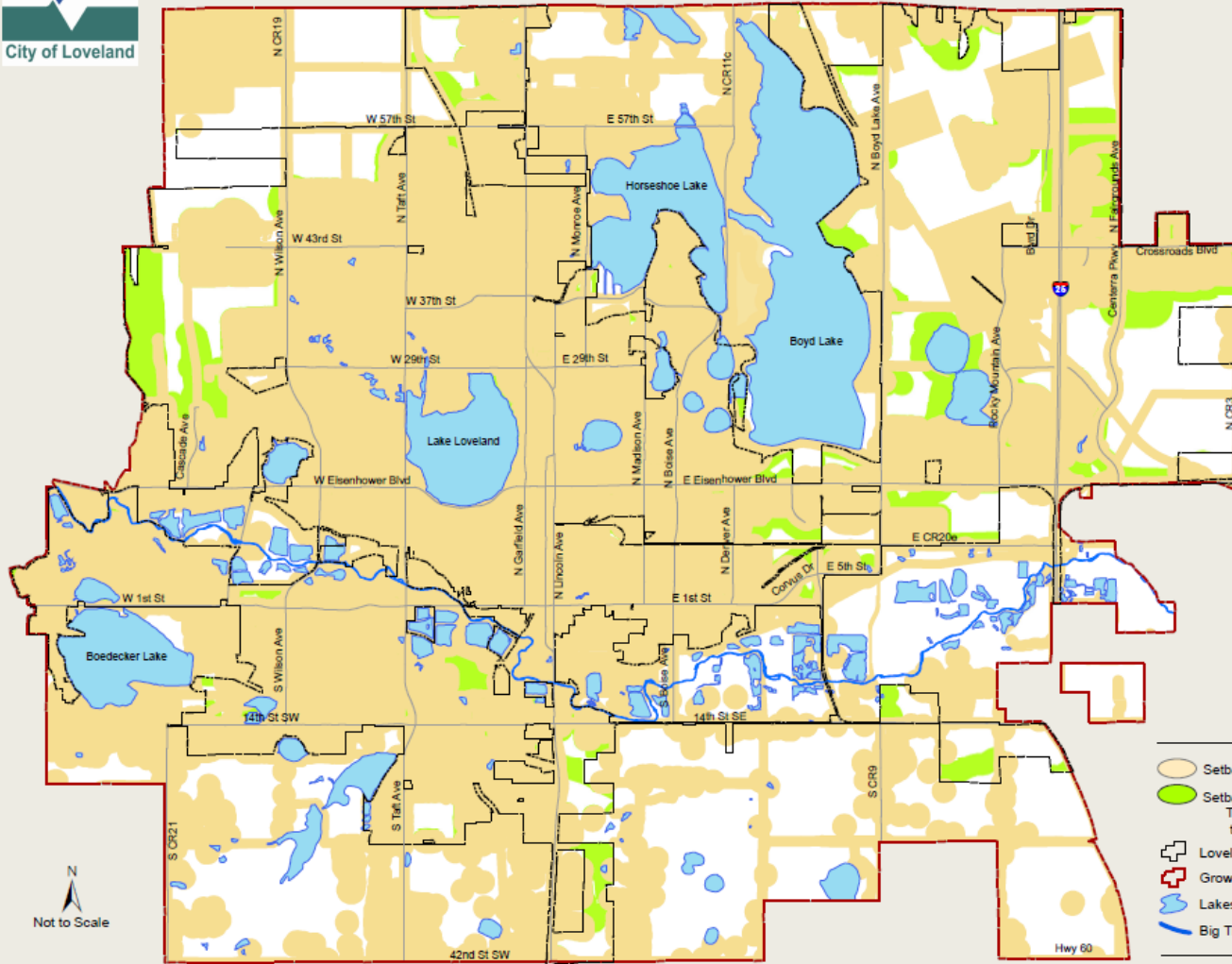
Layers

- O&G Facilities
  - Wells Overview
  - Pits
    - 'Active'
    - 'Closed'
    - 'Status=?'
  - PendingPermits
  - Pending2A (Diamond)
  - Permits
- COGCC Data
  - O&G Locations
  - Directionals
  - COGCC Rules
    - Roan Rim
    - Piceance
    - Paradox H2S
    - CDPS
    - GWA\_H2O Samples
    - WLR\_318B
    - GWA317A
    - GWA318A
      - 318A(I)
      - 318A(II)-Broomfield
    - Hearing Applications
    - Spacing
    - PWS
    - Contacts
    - 317B
    - CDPHE
  - O&G Fields
    - Horiz NBRR
    - COGCCFields





# Setback Areas as defined by New COGC Regulations and Proposed Loveland Enhanced Standards



This map represents general application of the Colorado Oil and Gas Conservation (COGC) newly adopted regulations under Section 603, effective August 1, 2013. In addition, this map shows general application of the proposed City of Loveland Enhanced Standards for setbacks. These setbacks apply to new wellheads or facilities.

This map is based on the best available information/GIS data and is considered a generalized analysis of both the COGC and City regulations and does not account for possible variation of how the setback rules are applied. Actual wellhead/facilities locations will be evaluated on a detailed site-specific analysis. This map is subject to change.

Please note: The new COGC regulations are applied to areas within the Loveland Growth Management Area (GMA). The proposed City Enhanced Standards are applied only within the city limits shown in the black dashed line.

### Legend

- Setback Areas as defined by New COGC Regulations
- Setback Areas as defined by Proposed City Enhanced Standards  
This map layer only shows where the standards are greater than the COG regulations within City Limits
- Loveland City Limits
- Growth Management Area (GMA)
- Lakes and Ponds
- Big Thompson River

Not to Scale

Date Saved: 2/19/2013  
Prepared by City of Loveland, Development Services Department

Attachment B

# Section 18.77.080 - Variances from City Regulations

- ▶ **Available through both Planning Commission and Administrative Review Processes**
  
- ▶ **Grounds:**
  - **City regulation is in operational conflict with State regulation**
  
  - **No technology commercially available at a reasonable cost to comply with City regulation and grant of variance will not adversely affect the public health, safety or welfare or the environment**
  
  - **Protection of public health, safety and welfare and of the environment would be enhanced by alternative approach not contemplated by City regulations**
  
  - **Application of City regulation would result in a regulatory taking of property without the City's payment of the just compensation required under the Colorado Constitution**
  
  - **Application of regulation impractical or would create an undue or unnecessary hardship because of unique circumstances or physical conditions existing on or near the oil and gas operations site**

## Section 18.77.130 – City's Enforcement Alternatives

- ▶ Misdemeanor violation prosecuted in Municipal Court for conducting oil and gas operations without a permit, violation of permit conditions, or violation of any applicable provision of Chapter 18.77 (\$1,000 fine or one year in jail, or both, and each day a violation continues is a separate offense)
- ▶ Administrative suspension or revocation of permit
- ▶ Civil action in Larimer County District Court seeking any and all available remedies under the law or in equity, such as an injunction, damages and recovery of attorneys fees and costs

# Water Wells in Loveland's Southeastern Growth Management Area

