

September 19, 2023

Oil and Gas Reverse
Setback Buffer
Requirements

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New Oil & Gas Facilities

Siting requirements

Approval procedures

Design standards

✓I
Adopted April 4

Operational Standards

Emissions controls

Leak detection and repair

Spill detection and response

Larimer County & CDPHE partnership

Reverse Setback Buffer

Distance for new development from existing wells

Code refinements proposed; September 5



Increase Setback Distance Increase Monitoring Requirements Delay adoption of the Code until after wells are fully plugged and abandoned

Negative Market signal – soften home values

Adopted on first reading, September 5, 2023

		Ordinance No. 116, 2023		
Oil and Gas Well Status	Well not abandoned	Well abandoned, not	Well reglaimed	
Oli aliu Gas vveli Status	Well flot aballuoneu	reclaimed	Well reclaimed	
Building Types		All Buildings		
Oil and Gas Buffer	2,000-feet	500-feet	150-feet	
Alternative Compliance Buffer	No			
Monitoring	No	5-years	2x	
Variance	Yes – not less than 500-feet	No	No	
Common Area Playgrounds		No		
New Accessory Unit or New Primary Unit	No			
Platted Property Disclosure	Yes			
Point of Sale Disclosure	Yes			
	Projects under review prior to September 29, 2023			

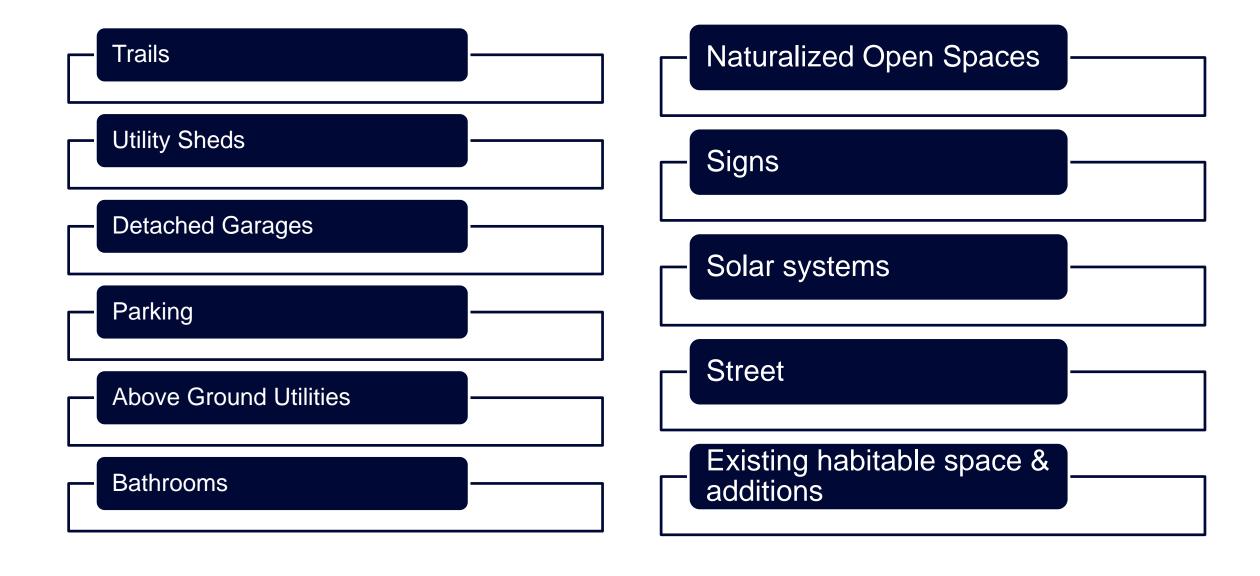
Exemptions

Approved Developments/Not Yet Built



Applicability	Applicable Setback/Buffer Under Proposed Code	Common Area Playgrounds	New Accessory Unit or New Primary Unit	Point of Sale Disclosure
Existing/Built Neighborhoods (Hearthfire, Richards Lake)	2,000-Feet	No new common areas allowed	No new units allowed	Yes
Approved Developments/Not Yet Built (Water's Edge, Country Club Reserve, Montava)	500-Feet	No new common areas allowed (beyond what is already approved)	No new units (beyond what is already approved)	Yes
Future Development/Projects Under Review (Mountain Vista Road area)	2,000 -Feet	No	No	Yes
Projects under review (Sonders Village, Water's Edge Parks)	500-feet	No	No	Yes







- Separate Point of Sale Disclosure notice 30days prior to close and provided in 14pt font
 - Sellers and Landlords

As required by 3.8.36 of the Fort Collins Land Use Code, notice is hereby given that [insert description of lot] is within [insert buffer standard set forth in Subsection (D) including well status and distance from well]. At the time of [sale or lease], environmental assessments, studies or reports done involving the physical condition of the Property impacted by oil and gas production are within the acceptable Environmental Protection Agency limits. For more information contact the City of Fort Collins Environmental Planner or the Energy and Colorado Carbon Management Commission formerly known as the Colorado Oil and Gas Conservation Commission.





Staff recommends adoption of the Ordinance on Second Reading with the following clarifying amendments:

- (1) Clarify that buildings containing occupiable space must have been constructed pursuant to an approved application submitted prior to September 29, 2023.
- (2) Clarify restrictions on playgrounds, play structures, recreational fields, or community gathering spaces to:
- Include special district and City-owned or maintained property;
- Exclude development applications submitted prior to September 29, 2023 (e.g., Water's Edge Parks);
- Exclude City parks planned as of September 29, 2023 (e.g., Richard's Lake Park).



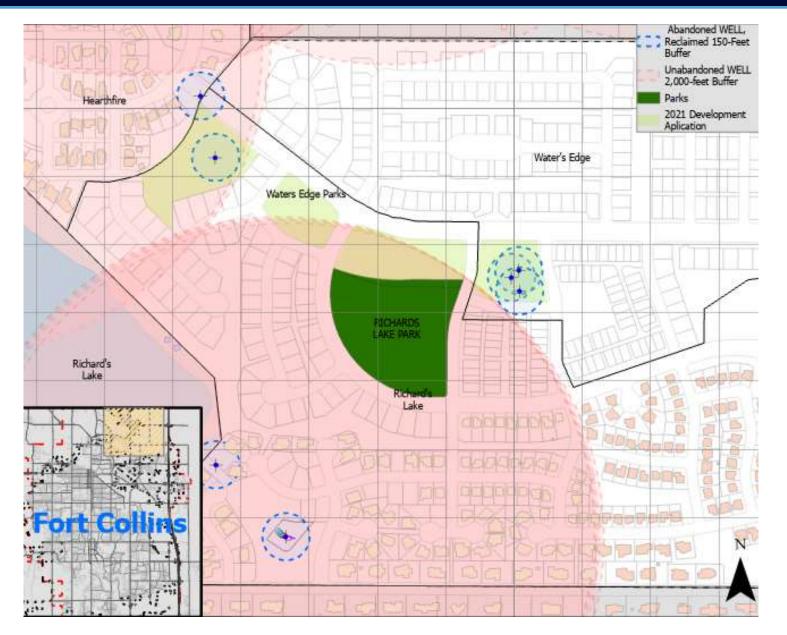
Back up

Code Comparison – old and new 10

		Code Companson - Old and new			
	Ordinance No. 114, 2018		Ordinance No. 116, 2023		
Oil and Gas Well Status	All Wells	Well not abandoned	Well abandoned, not reclaimed	Well reclaimed	
Building Types	Residential		All Buildings		
Oil and Gas Buffer	500-feet Single Family 1,000-feet High Occupancy or ECMC setback (e.g., 2,000-feet) 2,000-feet 500-feet		500-feet	150-feet	
Alternative Compliance Buffer	150-feet Well Reclaimed		No		
Monitoring	5-years alternative compliance only	No	5-years	2x	
Variance	Yes	Yes – not less than 500-feet	No	No	
Common Area Playgrounds	No	No	No	No	
New Accessory Unit or New Primary Unit	Yes	No			
Platted Property Disclosure	Yes		Yes		
Point of Sale Disclosure	No	Yes			
Exemptions	1.) No existing neighborhoods prior to September 14, 20182.) Buffers do not extend beyond major collector	Projects under review prior to September 29, 2023 Approved Developments/Not Yet Built			

street, arterial street, or highway



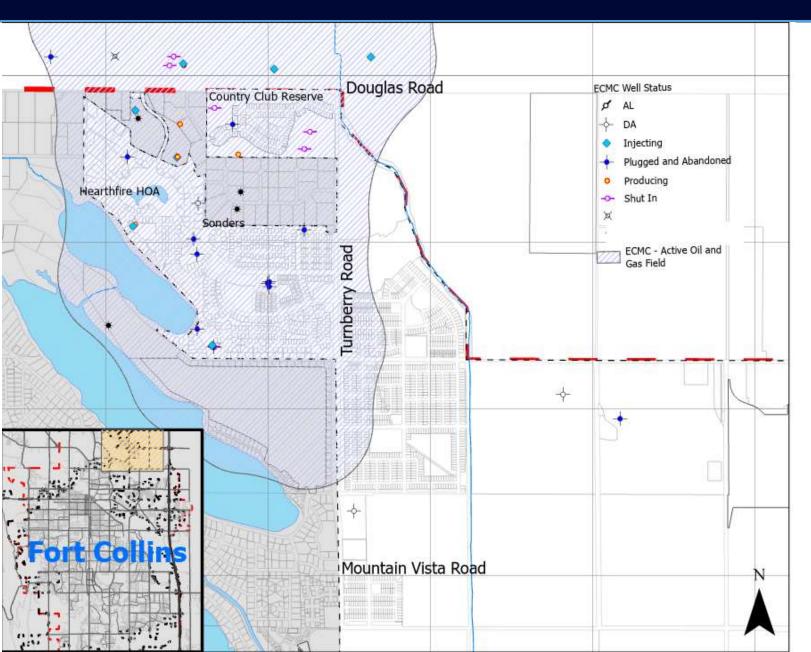


- Richard's Lake Park
 Purchased 2001
 Oil and Gas disclosure included.
- Water's Edge Park

 Development Application
 submitted 2021

 Approved community
 gathering spaces within the
 buffer
- Unabandoned wells adjacent site are ineligible for a Rule 211 claim.





One Operator

Prospect Energy

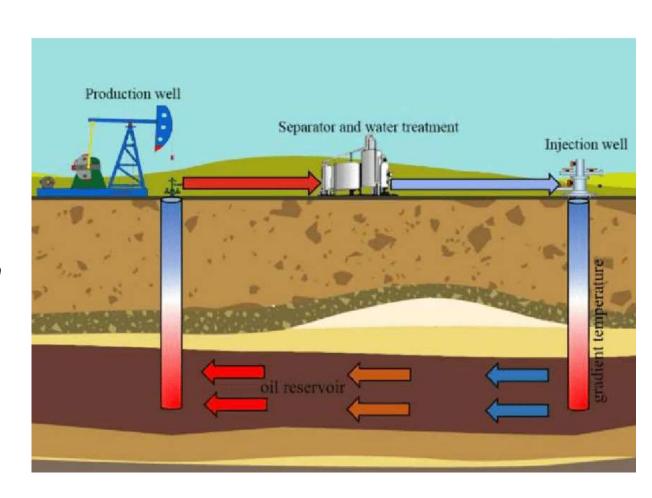
City

- 10 Active Wells
 - o 4 Producing
 - o 6 Injecting
- 20 Abandoned Wells
 - o 5 Drilled and Abandoned
 - o 15 Plugged and Abandoned



WELL NOT ABANDONDED

- Producing
- Enhanced Oil Recovery
- Injection (Enhanced Oil Recovery) Well
 Fluids consisting of brine, freshwater, steam, polymers, or carbon dioxide are injected into oil-bearing formations to recover residual oil through a Production Well.
 - ✓ 2,000-feet setback
 - ✓ No Monitoring required
 - ✓ Modification of standards allowed.
 - ✓ No less than 500-feet



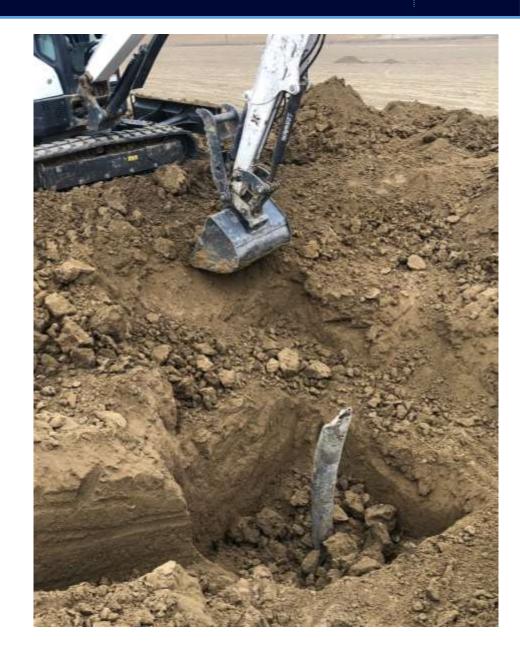


ABANDONDED, NOT RECLAIMED

- Drilled (Dry) and Abandoned Well which has proved to be nonproductive which means it was covered as soon as it was drilled and never produced.
 - ✓ 500-feet setback
 - √ 5-years of monitoring
 - √ No modification of standard

ABANDONDED, AND RECLAIMED

- Plugged and Abandoned Well is permanently shut down, plugged, wellhead removed, and considered safe and secure by COGCC inspection.
 - √ 150-feet setback
 - ✓ 1 environmental site assessment prior to permits and once again 5-years later
 - ✓ No modification of standard





New developments and existing neighborhoods

- ✓ Secondary (uninhabitable) structures allowed
- ✓ Secondary (habitable) structures <u>not</u> allowed
- ✓ No permanent playground structures in common areas
- ✓ **Additions to primary structures on parcels within a buffer are allowed





	Duna and I Maraitanian		
Well Status	Proposed Monitoring timeline	Risk	Trade-off
Plugging and Abandoning	1 X prior to Permit 1X 5yrs after Permit	Low	Potential casing failure & cement shrinkage in clay soil and salty soil
Dry and Abandoned	5 years	Low	Potential conduit to adjacent ground water source
Producing	None – operator requirement	High	Hydrocarbons present at the surface during production
Injection – Enhanced Oil Recovery wells	None – operator requirement	Medium	Closed loop greywater injection. subsurface risk for potential sources of benzene

Injection – Disposal wells

N/A

N/A = none in hydrocarbons at the surface and reinjected into the same or similar underground formations for disposal.

^{*}Greatest risk - older wells before 1950



MSSU #30-17 – County Club Reserve



MSSU #30-07



Municipality or County	Producing well	Plugged and Abandoned
Broomfield	2,000'	250'
Commerce City	1,000'	50'
Erie	2,000'	150'
Fort Collins	2,000'	150'
Loveland	500'	500'
Longmont	750'	150'
Larimer County	1,000'	200'



Peer City Research - reverse setback buffers from injection wells

Municipality	Differentiate Injection Wells	Injection Well Reverse Setback	Comments
<u>Boulder</u>	Yes	2000' single well 2500' multi well	Injection wells are defined as pre-production.
<u>Broomfield</u>	No	2000'	Producing and injection wells both have 2000-foot reverse setbacks. Broomfield does not have any water injection wells.
Commerce City	No	1000'	Producing and injection wells both have 1000-foot reverse setbacks.
<u>Erie</u>	No	2000'	Producing and injection wells both have 2000-foot reverse setback from wells being proposed or 500-foot from existing wells.
Loveland	No	1000'	Producing and injection wells both have 1000-foot reverse setbacks.
<u>Longmont</u>	No	750'	Producing and injection wells both have 750-foot reverse setbacks. Injection wells are defined as inactive wells in the Land Use Code.
<u>Thornton</u>	No	500'	Any development within 500 feet of the city will notify the owner/operator and triggers certain requirements



Municipality

Peer City Research - reverse setback buffers - Variances

,	Standards	
Boulder	No	
<u>Broomfield</u>	Yes	"The land use review commission and city council may authorize variances from these setbacks in cases where, due to exceptional topographical conditions or other conditions peculiar to the site, an unnecessary hardship is placed on the subdivider or developer. Such variances shall not be granted if it would be detrimental to the public good or impair the intent and purposes of this title. The conditions of any variance authorized shall be stated in writing."
Commerce City	No	
<u>Erie</u>	No	

Code Language

<u>Erie</u> Loveland

Longmont

Thornton

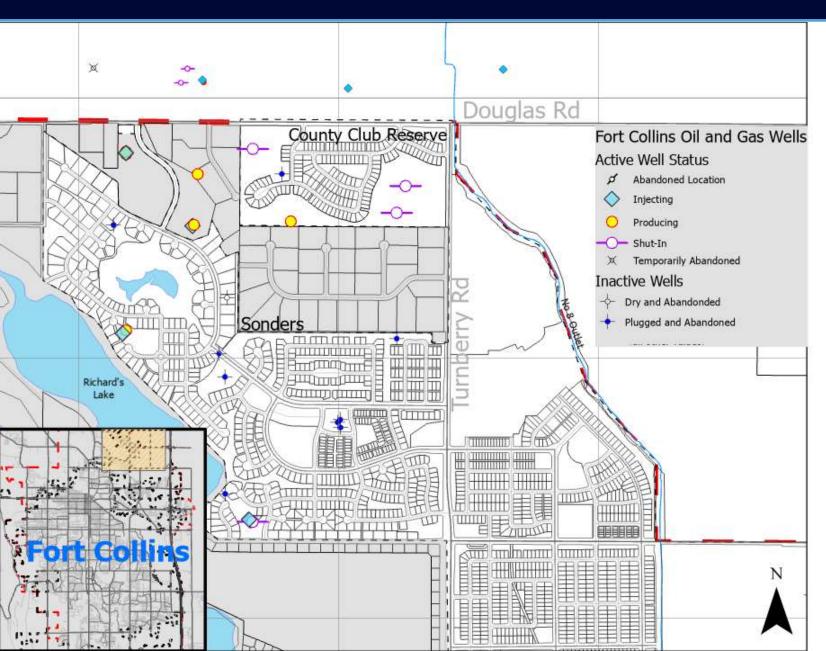
Yes

No

No

Modification of

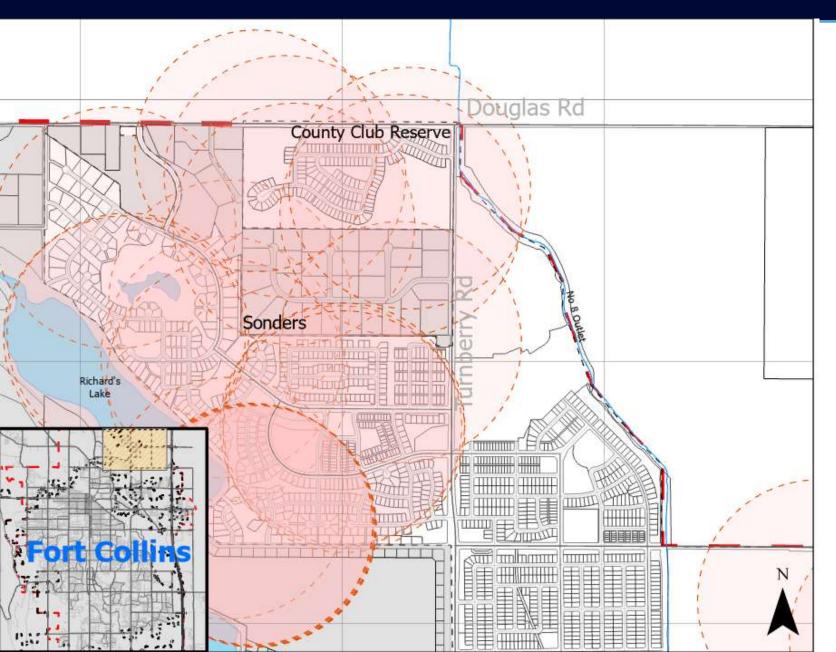
"An owner of any real property subject to the requirements and limitations of Division 18.10.04, Oil and Gas Overlay Zone, may request a variance from those requirements and limitations. The grounds for such variance shall be those set out in Section 18.17.15.07, Variances, to the extent applicable. However, any variance to the oil and gas overlay zone standards must be in compliance with the underlying zoning or approved development plan governing the subject property...."



Unabandoned and abandoned wells



Prior to the adoption of SB19-181 500 – Feet Reverse Setback



After the adoption of SB19-181 2,000 – Feet Reverse Setback





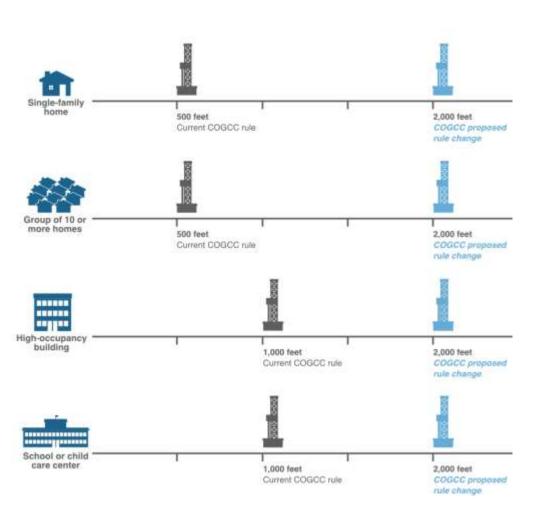
Staff Recommendation:

- 2,000-feet unabandoned wells
- 500-feet abandoned wells
- 150-feet abandoned wells, reclaimed



- 1. Apply oil and gas reverse setbacks to all occupiable buildings, not just residential uses.
- 2. Eliminate the buffer exemption for crossings of arterial roadways.
- 3. Increase buffer for developments near existing oil and gas operations from 500' to 2,000' to match ECMC and Fort Collins new code setbacks.
- 4. Allow modification of standards for Enhanced Oil Recovery (EOR) Injection well buffers, no less than 500'.
- 5. Decrease soil-gas and ground water monitoring requirements for plugged and abandoned wells from once every 5 years to once prior to permits and once again at the end of a five-year construction guarantee.
- 6. No change to buffer for developments near existing abandoned wells (not fully reclaimed) at 500'
- 7. No change to buffer near plugged and abandoned wells (fully reclaimed) at 150'
- 8. No change to disclosure requirements for future property owners via a property covenant
- 9. Add requirements for point-of-sale disclosure notice for new developments and existing homes within a 2,000' buffer.
- 10. Add prohibition on detached occupiable buildings from existing buildings located within the oil and gas buffer.



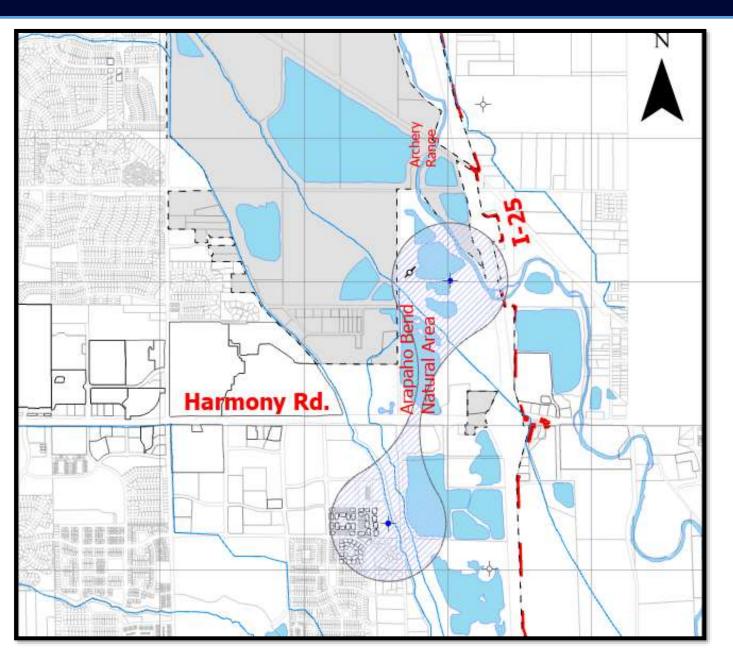


UPDATED: January 15, 2021

Rule 604 b.

- No Working Pad Surface will be located more than 500 feet and less than 2,000 feet from 1 or more Residential Building Units or High Occupancy Building Units
- Any Wells, Tanks, separation equipment, or compressors proposed on the Oil and Gas Location will be located more than 2,000 feet from all Residential Building Units or High Occupancy Building Units

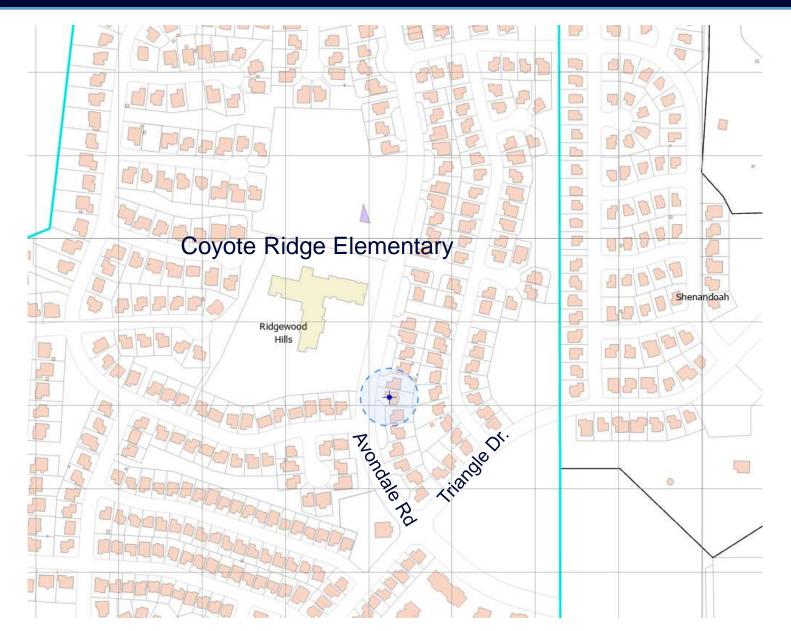




Within City Limits –

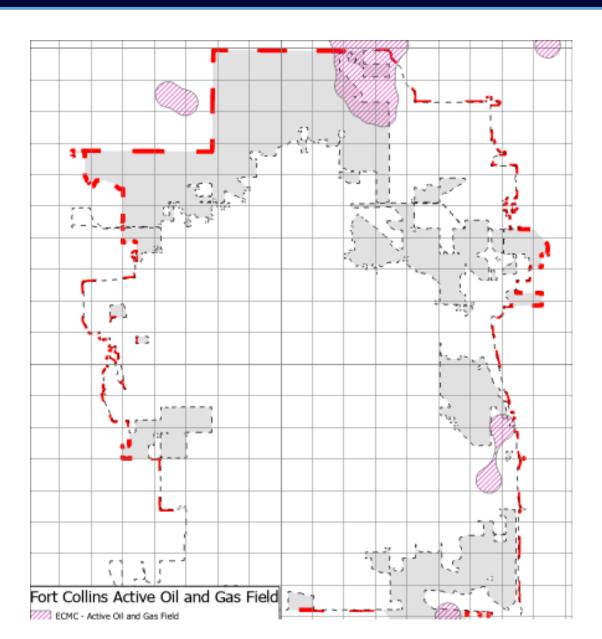
- ✓ Active oil and gas field
- ✓ 2 Abandoned wells
- ✓ Drilled and plugged 1983





Within City Limits –

- √ 8 parcels impacted
- ✓ Not Active oil and gas field
- ✓ Abandoned, Reclaimed
- √ 150-feet setback
- ✓ Fully Reclaimed 5/24/2001



Well TYPE	Neighborhood	Current Setback	Proposed Setback	Waters Edge Report Recommendation	On-site Storage tanks
Plugged and Abandoned	Water's Edge	150-feet	150-feet	75-feet	None
Plugged and Abandoned	Water's Edge	150-feet	150-feet	75-feet	None
Plugged and Abandoned	Water's Edge	150-feet	150-feet	75-feet	None
Plugged and Abandoned	Water's Edge	150-feet	150-feet	75-feet	None
Plugged and Abandoned	Ridgewood hills	150-feet	150-feet	n/a	None
Injection Well	Richard's Lake	500-feet	2,000-feet	75-feet	None
Injection Well	Richard's Lake	500-feet	2,000-feet	75-feet	None
Plugged and Abandoned	Richard's Lake	150-feet	150-feet	75-feet	None
Plugged and Abandoned	Richard's Lake	150-feet	150-feet	75-feet	None
Plugged and Abandoned	Richard's Lake	150-feet	150-feet	75-feet	None
Producing Well	Richard's Lake	500-feet	2,000-feet	n/a	None
Producing Well	Richard's Lake	500-feet	2,000-feet	n/a	None
Plugged and Abandoned	Morningside	150-feet	150-feet	n/a	None
Plugged and Abandoned	Montava	150-feet	150-feet	75-feet	None
Drilled (Dry) and Abandoned	Montava	500-feet	500-feet	ECMC add to Orphan Well list	None
Plugged and Abandoned	Montava	150-feet	150-feet	n/a	None
Drilled (Dry) and Abandoned	Hearthfire	500-feet	500-feet	ECMC add to Orphan Well list	None
Injection Well	Hearthfire	500-feet	2,000-feet	75-feet	None
Plugged and Abandoned	Hearthfire	150-feet	150-feet	75-feet	None
Plugged and Abandoned	Hearthfire	150-feet	150-feet	75-feet	None
Producing Well	Hearthfire	500-feet	2,000-feet	n/a	None
Drilled (Dry) and Abandoned	HARMONY-MCMURRAY LLC	500-feet	500-feet	ECMC add to Orphan Well list	none
Injection Well	Country Club Reserve	500-feet	2,000-feet	75-feet	none
Injection Well	Country Club Reserve	500-feet	2,000-feet	75-feet	none
Injection Well	Country Club Reserve	500-feet	2,000-feet	75-feet	none
Plugged and Abandoned	Country Club Reserve	150-feet	150-feet	75-feet	none
Producing Well	Country Club Reserve	500-feet	2,000-feet	n/a	none
Drilled (Dry) and Abandoned	City of Fort Collins	500-feet	500-feet	ECMC add to Orphan Well list	none
Plugged and Abandoned	City of Fort Collins	150-feet	150-feet	n/a	none
Drilled (Dry) and Abandoned	ANHEUSER-BUSCH COMPANIES	500-feet	500-feet	ECMC add to Orphan Well list	none