MORGAN COUNTY PLANNING AND ZONING DEPARTMENT

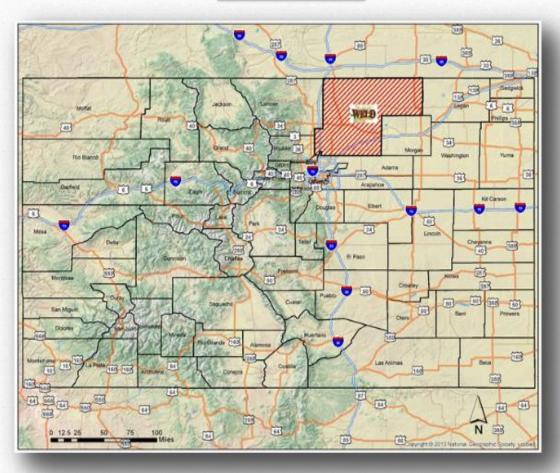
UIC WELL STAKEHOLDER MEETING



OCTOBER 24, 2017





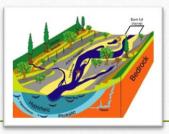


- Formed in 1861
- 3rd largest county in Colorado (4,000 square miles)
- 31 municipalities (most of any county in Colorado)
- Population 284,826 (45,928 in the unincorporated area)
- No.1 ranked agricultural county in State (856,240 irrigated acres)
- No.1 ranked mineral resource county in State (90% of all oil and 26% of all natural gas produced in Weld)

Department of Planning Services











Planning Services

Use by Special Review Permits

Site Plan Review Permits

Recorded Exemptions

Subdivision Exemptions

Zoning Permits

Temporary Seasonal Use Permits

Subdivisions

Zoning Changes

Building Services

Building Inspections

Plan Review

OTC Permits

Floodplain Administration

Floodplain management and enforcement

Oil and Gas

LGD / Local Government Liaison

WOGLA (Weld Oil and Gas Location Assessment)

Employment Residency Reports (CERR)

Public Relations

Economic Development

Demographics

SBIP (Small Business Incentive Program)

Code Compliance

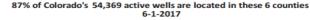
Zoning Code Compliance

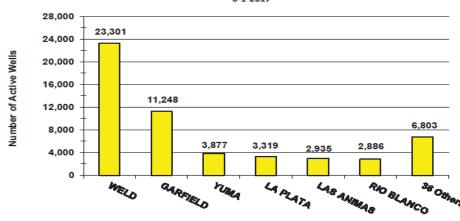
Building Code Compliance

WELD COUNTY 23,589 Active Wells

(AS OF 9/1/2017)







NATURAL GAS PRODUCTION

Weld County #1 Natural Gas Producing County in Colorado.

1st Half 2017 Colorado Natural Gas Production ~827 Billion Cubic Feet with ~39% produced in Weld County (~322 Billion Cubic Feet)

2016 Colorado Gas Production ~1.7 Trillion Cubic Feet 38% Weld County ~640 Billion Cubic Feet (47% of Conventional Natural Gas)

2015 Colorado Gas Production ~1.7 Trillion Cubic Feet 34% Weld County (42% of Conventional Natural Gas)

2014 Colorado Gas Production ~1.6 Trillion Cubic Feet 24% Weld County (31% of Conventional Natural Gas)

Total Colorado Gas Production includes both Coal Bed Methane (not produced in Weld) and Conventional Natural Gas from COGCC Production Data.

CRUDE OIL PRODUCTION

Weld County #1 Oil Producing County with almost 90% of Colorado's Oil Production!

1st Half 2017 Colorado Oil Production = ~56 Million Barrels (BBL) with ~89.5% Produced in Weld County (~50 Million BBL)

2016 Colorado Oil Production = \sim 116 BBL with \sim 89% produced in Weld County (\sim 103.6 Million BBLS)

2015 Oil Production = 127.4 Million BBLS with ~ 90% produced in Weld County (114 Million BBLS).

2014 Oil Production = 95 Million BBLS with ~86% produced in Weld County (81 Million BBLS).

WELD DRILLING ACTIVITY = 23 Rigs

-vs- ~18 Rigs Oct 2016, ~21 Rigs Oct 2015

WELD COUNTY DRILLING ACTIVITY:

2017 = 71% of Colorado's well starts (895 of 1261 as of 9/1/2017)

2016 = 731 (76% of 968 Colorado well starts)

2015 = 1084 (75% of 1437 Colorado well starts)

2014 = 1560 (70% of 2239 Colorado well starts)

Current Drilling Rigs Leased by Company Operating in Weld County:

Anadarko/Kerr McGee = 5 SRC Energy = 2

PDC Energy = 4 Crestone Peak = 2

Extraction = 3 (1 in temporarily in Arapahoe County)

Great Western = 1

Noble Energy = 2 Bayswater = 1

Bill Barrett = 2 Bonanza Creek = 1

Longs Peak = 1

Reflects near term changes (Data gathered from Form 42's and O&G producers). Surface and Work Over Rigs excluded.

DRILLING PERMITS

2017 Drilling Permits Issued in Weld

= 1547 (62% of 2479 in CO through 9/1/2017)

2016 Drilling Permits Issued in Weld

= 1704 (60% of 2835 in CO)

2015 Drilling Permits Issued in Weld

= 1841 (62% of 2568 in CO)

2014 Drilling Permits Issued in Weld

= 2303 (55% of 4190 in CO)

Permitting Trends: Horizontal drilling in Weld with longer laterals - permitting of 2 & 2.5 mile laterals becoming more common. Fresh water for completions transported via temporary surface pipelines from source to point of use. Increased instances of moving crude oil from production facilities via pipeline instead of truck. The grouping of horizontal wells on multi-well pads and combining production facilities results in less overall surface impact, albeit with larger individual tank battery locations. Operators are also building and permitting these locations with fewer on-site storage tanks, which decreases the foot print and over-all size (appearance).

Classes of Injection wells

- Class I (Industrial & Municipal Waste Injection Wells)
- Class II (Upstream Oil and Gas Related Injection Wells)
- > Class III (In-situ Mining Wells [salt, potash, uranium])
- > Class IV (Shallow Hazardous and Radioactive Injection Wells; prohibited)
- > Class V ("Other" and Municipal Wells); may be shallow or deep
- ➤ Class VI (Geologic Sequestration Wells [primarily CO₂])

Number and type of Injection wells

Number of Injection wells in US by Class (2016; EPA)

https://www.epa.gov/uic/underground-injection-well-inventory

> Class I Hazardous	140	
Class I non-Hazardous	692	WA NT ND MN
Class II Injection/Disposal	38,169	NV UT CO KS MO NO
Class II Recovery	145,707	
Class III In-situ Mining	24,669	
> Class IV	20	Puerto Rico Virgin Islands American Somoa Primacy/well class II only
> Class V	498,190	Indian Tribes, excluding Class II for Navajo Nation (NN) and Ft. Peck (FP) Commonwealth of Northern Mariana Islands Guam Figure 1 EPA implements well class I-V EPA retains direct implementation authority for class II wells in Florida
➤ Class VI	7	

Injection wells in Colorado

• 18 Class I

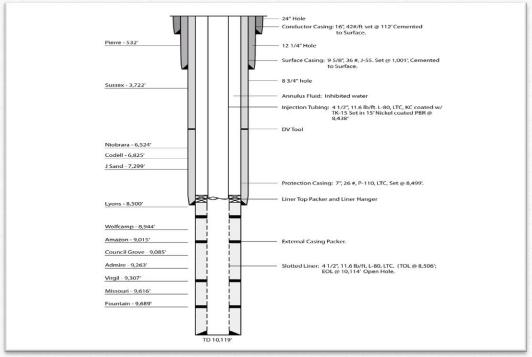
• 384 Class II Disposal

• 574 Class II Recovery

• 22 Class III

• 2,573 Class V

Source: COGCC and EPA



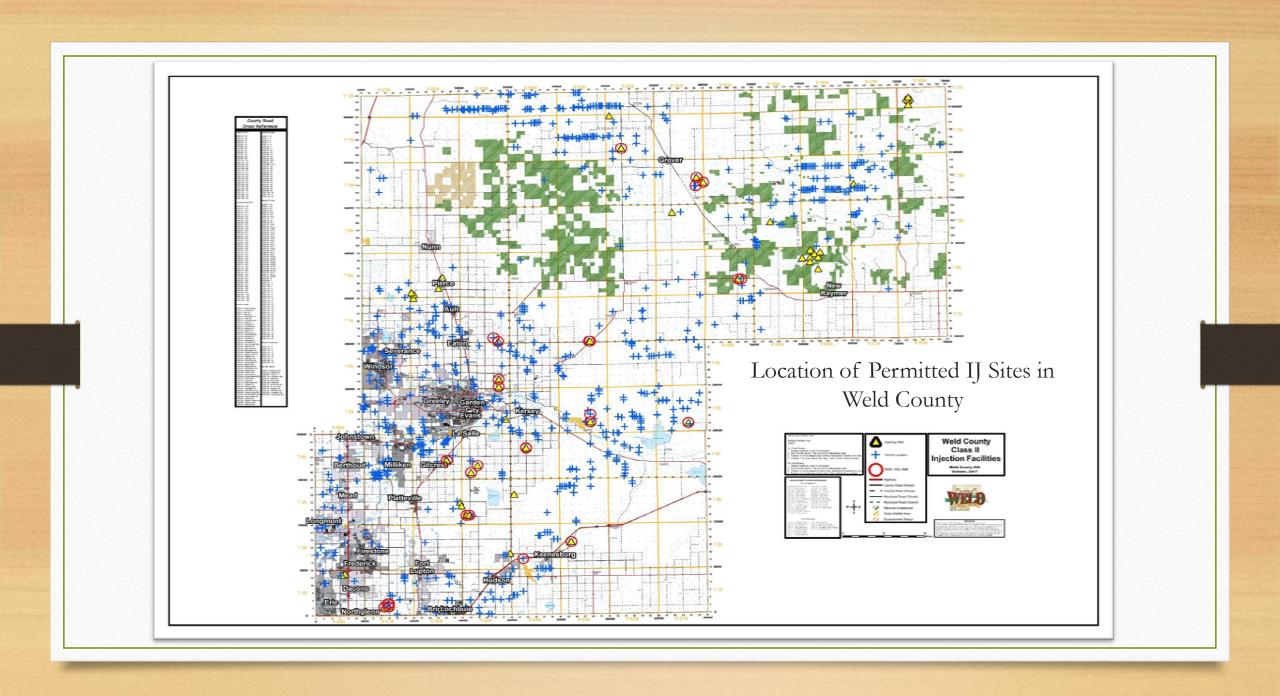
Permitted Injection wells in Weld County

• 1 Class I

• 25 Class II Disposal

Source: Weld County Planning Department





Permitting IJ Wells (Class II Facilities) In Weld County

USR INTENT AND APPLICABILITY

Uses by Special Review are uses which have been determined to be more intense or to have a potentially greater impact than the Uses Allowed by Right in a particular zone district. Therefore, Uses by Special Review require additional consideration to ensure that they are established and operated in a manner which is compatible with existing and planned land uses in the neighborhood. The additional consideration or regulation of Uses by Special Review is designed to protect and promote the health, safety, convenience, and general welfare of the present and future residents of Weld County.

Chapter 23; Sec. 23-3-40. Uses by special review (USR)

The following BUILDINGS, STRUCTURES and USES may be constructed, occupied, operated and maintained in the A (Agricultural) Zone District upon approval of a permit in accordance with the requirements and procedures set forth in Article II, Division 4 of this Chapter.

Mineral resource development facilities including:

- 1. OIL AND GAS STORAGE FACILITIES.
- 2. OIL AND GAS SUPPORT AND SERVICE.
- 3. Open pit MINING and materials processing, subject to the provisions of Article IV, Division 4 of this Chapter.
- 4. Asphalt and concrete batch plants.
- 5. Coal gasification facilities.
- 6. MINING or recovery of other mineral deposits located in the County, subject to the provisions of Article IV, Division 4 of this Chapter.
- 7. TRANSLOADING.

Chapter 23; Section 23-1-90

<u>OIL AND GAS SUPPORT AND SERVICE</u>: Location and operation bases for businesses whose primary activity includes the following kinds of USES:

- a. Parking and maintenance of exploration, production or workover equipment.
- b. Equipment and storage yards for road and pipeline construction contractors, and production unit set-up and maintenance contractors.
- c. Parking and maintenance for tank and water service companies.
- d. Storage and rental yards for pipe and production equipment.
- e. Field OFFICES USED by production-related records and maintenance personnel.
- f. Disposal and recycling sites for production waste (except production water disposed through either SECONDARY RECOVERY or deep well disposal methods and the mode of transport to such injection wells is exclusively via pipeline from the source and no on-site storage occurs), except businesses whose activities are primarily manufacturing and fabricating or whose use is primarily for general company OFFICES used by other than company officials.
- g. Oil and gas processing facilities and related equipment, including, but not limited to, compressors associated with gas processing or which compress gas to enter a pipeline for transport to market.
- h. Midstream activities including the processing, storing, transporting and marketing of oil, natural gas and natural gas liquids.

Chapter 23; Sec. 23-3-40.

Uses by special review (USR)

Solid Waste Disposal sites and facilities, subject to the additional requirements of <u>Section 23-4-380</u>.

Sec. 23-4-380.

Solid waste sites and facilities or hazardous waste disposal sites.

A. Certificates of designation for solid or hazardous waste disposal sites and facilities as required by Colorado Revised Statutes and Code of Colorado Regulations shall not be deemed approved until or unless a Use by Special Review Permit has been approved by the Planning Commission or the Board of County Commissioners where required by this Chapter. The Board shall be guided in its review of a certificate of designation by state statute and regulations contained in Colorado Revised Statutes and Code of Colorado Regulations.

B. Applicants for activities reviewed pursuant to Article II, Division 4 of this Chapter for any Solid Waste sites and facilities or Hazardous Waste disposal sites shall have the burden of proof to demonstrate that there is a need for the facility within the proposed area of service, and the Planning Commission and Board of County Commissioners shall be satisfied that a need exists as part of the determinations for any such permit.

COLORADO REVISED STATUTES

TITLE 25. PUBLIC HEALTH AND ENVIRONMENT ENVIRONMENTAL CONTROL ARTICLE 15. HAZARDOUS WASTE PART 2. HAZARDOUS WASTE DISPOSAL SITES

C.R.S. 25-15-200.3 (2017)

25-15-200.3. Definitions

- (1) Repealed.
- (2) "Existing hazardous waste disposal site" means a hazardous waste disposal site which is in active operation prior to July 1, 1981.
- (3) "Governmental unit" means the state of Colorado, every county, city and county, municipality, school district, special district, and authority located in this state, every public body corporate created or established under the constitution or any law of this state, and every board, commission, department, institution, or agency of any of the foregoing or of the United States.
- (4) (a) "Hazardous waste disposal" means any final action to abandon, deposit, inter, or otherwise discard hazardous waste after its use has been achieved or a use is no longer intended or any discharging of hazardous waste into the environment.
- (b) The term includes the off-site surface impoundment of hazardous waste such as a holding, storage, settling, or aeration pit, pond, or lagoon, except as provided in paragraph (c) of this subsection (4) or section 25-15-201 (4).
- (c) The term does not include:
- (I) (A) Recycling, reclaiming, incineration, processing, or other treatment of hazardous waste.
- (B) For the purposes of this subparagraph (I), the surface impoundment which is part of a sewage treatment works or feedlot operation shall be considered as treatment and not disposal.
- (C) Any recycling, reclaiming, incineration, processing, or treatment facility shall be subject to all local land use regulations.
- (II) The beneficial use, including use for fertilizer, soil conditioner, fuel, or livestock feed, of sludge from wastewater treatment plants if such sludge meets all applicable standards of the department.
- (5) "Hazardous waste disposal site" means all contiguous land, including publicly-owned land, under common ownership which is used for hazardous waste disposal; except that such term shall not include any site which is in compliance with an approved reclamation plan contained in a permit issued pursuant to article 32 of title 34, C.R.S., or article 33 of title 34, C.R.S.
- (6) "Publicly owned land" means any land owned by the federal government or any agency thereof or land owned by the state or any agency or political subdivision thereof.

COLORADO REVISED STATUTES

TITLE 25. PUBLIC HEALTH AND ENVIRONMENT ENVIRONMENTAL CONTROL ARTICLE 15. HAZARDOUS WASTE PART 2. HAZARDOUS WASTE DISPOSAL SITES

C.R.S. 25-15-202 (2017)

25-15-202. Application for certificate

(1) Any person desiring to operate a hazardous waste disposal site shall make application for a certificate of designation to the board of county commissioners of the county or to the governing body of the municipality in which such site is proposed to be located.

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MEMORANDUM OF UNDERSTANDING

Between the Hazardous Materials and Waste Management Division and the Colorado Oil and Gas Conservation Commission Regarding the Disposal of Eligible Wastes at Commercial Class II Injection Wells

WHEREAS, the Oil and Gas Conservation Commission ("OGCC") has regulatory authority over the disposal of exploration and production wastes ("E&P wastes") from oil and gas operations, pursuant to §§ 34-60-105 and 106, C.R.S.; and

WHEREAS, pursuant to § 34-60-106(9), C.R.S., the OGCC has authority to regulate Class II injection wells for the purpose of protecting underground drinking water supplies; and

WHEREAS, the Environmental Protection Agency and the OGCC have entered into a Memorandum of Agreement that grants the OGCC primacy over Class II injection wells pursuant to 42 U.S.C. § 300h-1(b); and

WHEREAS, pursuant to the Solid Waste Disposal Sites and Facilities Act, § 30-20 100.5 et seg., the Hazardous Materials and Waste Management Division ("the Division") in the Department of Public Health and Environment has requi over disposal of solid waste; and

WHEREAS, pursuant to § 30-20-101(6)(b)(VI), C.R.S. the E&P wastes when such wastes are deposited at a cor-

WHEREAS, the term "Class II wastes" include with Filigible Wastes at Commet brought to the surface in connection with erations or convent oil and natural gas production, which with waste waters fr ons provided those plants which are an integral proclassified as hazardous w cion. Class II waste E&P wastes eligible for disc

commercial solid WHEREAS, there exist in this include the use of Class II injection wells for the di JII wastes, with incidental processing or disposal of E&P was

CONSEQUENTLY, the OGCC and the Divis y have overlapping authority regarding the disposal of E&P wastes at commercial soll Class II injection wells.

NOW, THEREFORE, the OGCC and the Division agree a

1. The Division will defer to OGCC regulation of disposal of E&P wastes at C commercial injection well disposal sites, including OGCC regulation placed in surface structures appurtenant to such wells, prior to wastes down the well (collectively, "downhole disposal").

well as a Clay under the Solid Waste Disposal Sites and legarding disposal of E&P wastes at commercial winhole disposal. OGCC will date to such commercial.

cts the authority of any local governing body having jurisdiction to under the Solid Waste Act.

OF UNDERSTANDING
The Digeting of the Digeting The translations with the Conservation Community will def with the Conservation Con requires a CD for surface facilities on will be the point of contact for ounty. The Division was comptly forward a copy of eview set out in \$ 200 control of the Code agree to eview set out in \$ 200 control of the Code agree agree to eview set out in \$ 200 control of the Code agree in The state regulator in provide oversight for the CD on shall provide the or the CD on shall provide the or the CD on shall provide the or the CD one comment required by § 30-20-20 (i.). When the OGCO of the CD application, the Division of the CD application, the Division of the CD application of the CD and the CD a gnt over the CD application, the Division the environmental impacts of such disposal. will defer to the OGC

authority over disposal of E&P wastes at non-

Department of Public Health and Environment

Howard Roitman, Director Hazardous Materials and Waste Oil and Gas Conservation Commission

Date: 10-06-00

Richard Griebling, Director

Management Division 10-5-00

MOU

- The Division will defer to OGCC regulation of disposal of E&P wastes at Class II commercial injection well disposal sites, including OGCC regulation of E&P wastes placed in surface structures appurtenant to such wells, prior to disposal of Class II wastes down the well (collectively, "downhole disposal").
- The OGCC shall determine which E&P wastes may be eligible for disposal into a Class I injection well as a Class II waste.
- The Division will exercise its authority under the Solid Waste Disposal Sites and . Facilities Act ("Solid Waste Act") regarding disposal of E&P wastes at commercial disposal sites, other than downhole disposal. OGCC will defer to such regulation.
- Nothing herein affects the authority of any local governing body having jurisdiction to require a Certificate of Designation ("CO")
 under the Solid Waste Act.
- If a local governing body having jurisdiction requires a CD for surface facilities related to downhole disposal, the Division will be the point of contact for communications with the city or county. The Division will promptly forward a copy of the CD application to the OGCC for review. The Division and the OGCC agree to meet the time frames for review set out in § 30-20-103(2) and (3) of the Solid Waste Act, and to determine the state regulatory agency that will provide .oversight for the CO application. The state regulatory agency providing oversight for the CD application shalt provide the opportunity for public comment required by § 30-20-103(1). When the OGCC exercises oversight over the CD application, the Division will defer to the OGCC's evaluation of the environmental impacts of such disposal.
- The Division does not have authority over disposal of E&P wastes at non commercial facilities.



USE BY SPECIAL REVIEW (USR) PROCEDURAL GUIDE CHECKLIST

EPARTMENT OF PLANNING SERVICES * 1555 N. 17TH AVENUE * GREELEY, CO 80631

APPLICATION REQUIREMENTS

The applicant shall submit 1-hard copy and 1-electronic copy containing one of all of the items listed.

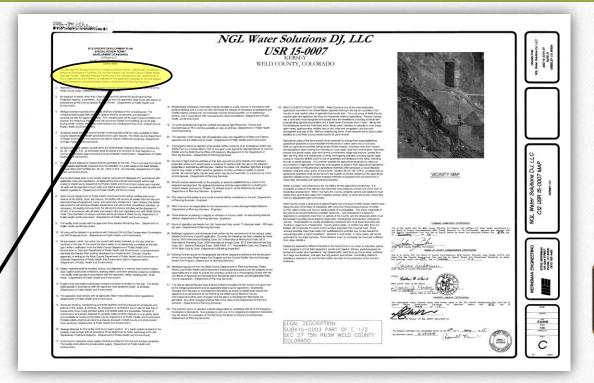
The application will be reviewed for completeness during the Completeness Review.

	The application will be reviewed for completeness during the completeness review.
	Submit a copy of the Pre-application meeting minutes
	Submit application form
	Submit Applicant's representative/authorization form if applicant or authorized agent is different than owner. Submit incorporation documents if the owner is an LLC, INC, etc.
	Submit responses to USR questionnaire.
	Submit USR map with paper dimensions of 24" X 36". See attached for map requirements.
	Submit Certificate of Conveyances form and all attachments. Contact a title company to obtain a Certificate of Conveyances. The Certificate of Conveyances expires in thirty days of the signing date on the cover sheet.
_	Submit a list of all the surrounding property owners (surface estate) within 500 feet of the property under consideration. This list must be a certified list of the names, addresses, and the corresponding parcel number assigned by the Weld County Assessor of the owners of property. Also submit the affidavit stating that the list is accurate. This list shall be compiled from the records of the Weld County Assessor, the Weld County Website, www.co.weld.us , or a person qualified to do the task. This list expires in thirty days of the date compiled.
	Submit copy of document showing evidence of adequate water supply (e.g. well permit or letter from water district). If using a well, please complete the attached Water Supply Information Summary.
	Submit copy of document showing evidence of adequate sewage disposal (e.g. septic permit or letter from the sanitary sewer district) $$
	Notice of Inquiry or letter/email from a municipality if the site is located within an Intergovernmental Agreement (IGA) boundary or a Cooperative Planning Area (CPA).
	Detention design summarized in a Drainage Report if required per pre-application meeting minutes.
	Traffic Study, if required per pre-application meeting minutes.
	If violation case, hold a community meeting for owners within 500 feet of property boundary and submit meeting minutes.
	Submit all required documents on electronically or via email in .pdf format.
	Application fee
	Investigation fee, due only if this is a violation.

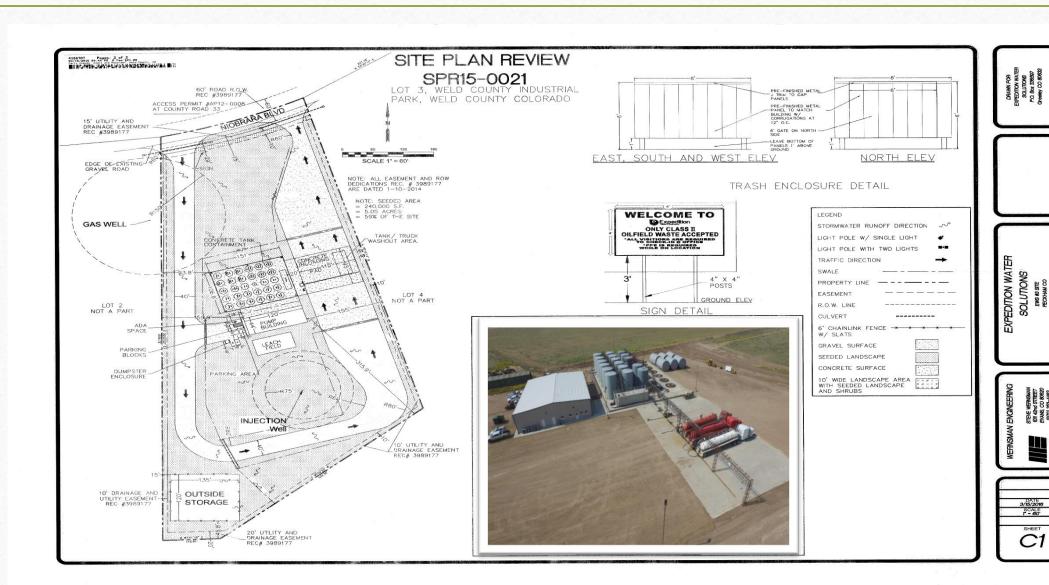
USR / SPR Application Requirements

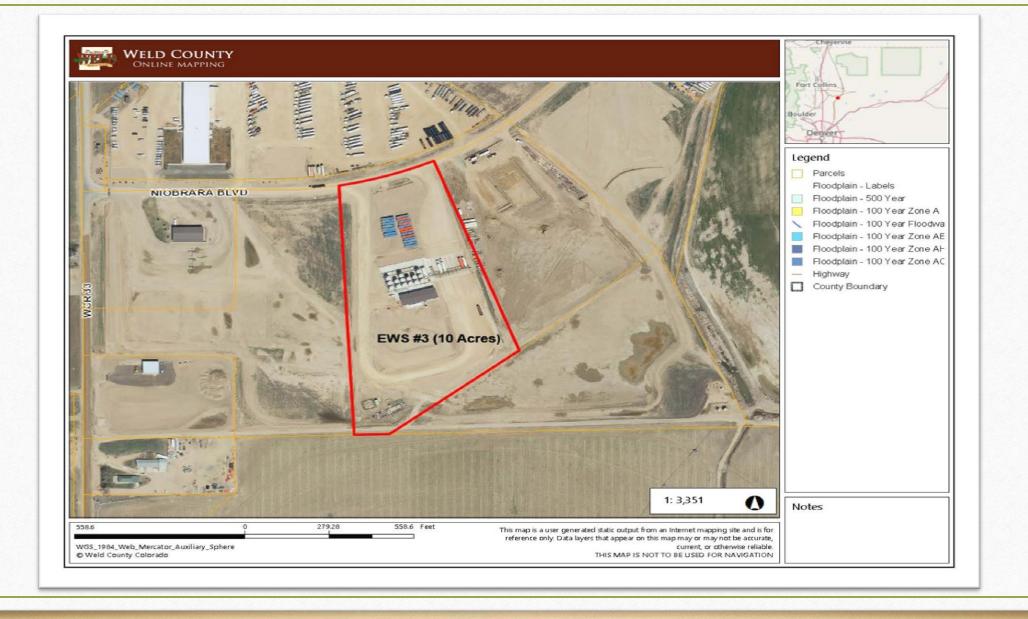
The application requirements are outlined under Chapter 23;
Division III (SPR)
&
Division IV (USR).

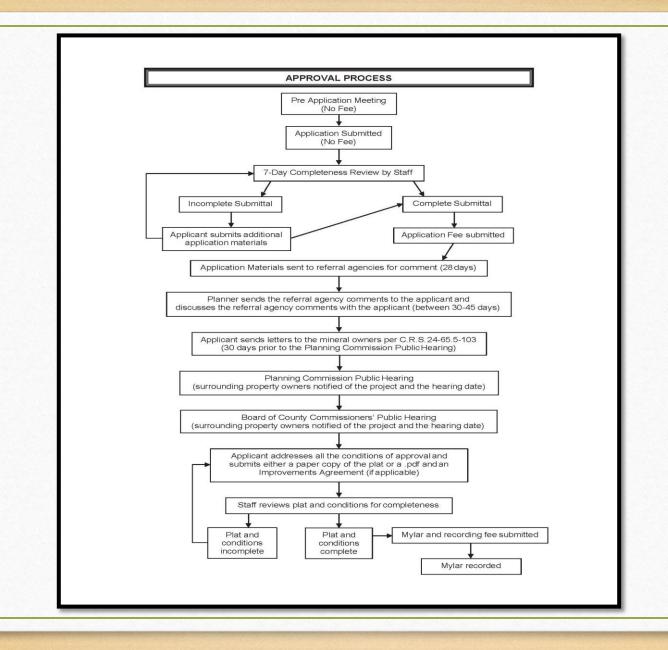
SITE SPECIFIC DEVELOPMENT PLAN
SPECIAL REVIEW PERMIT
DEVELOPMENT STANDARDS
70 Ranch LLC
c/o NGL Water Solutions DJ, LLC
USR15-0007



The Site-Specific Development Plan and Special Review Permit, USR15-0007, for Mineral Resource Development Facilities, Oil and Gas Support and Service (Class II Oilfield Waste Disposal Facility Saltwater Injection Facility and a tank storage area with containment) in the A (Agricultural) Zone District, as indicated in the application materials on file and subject to the Development Standards stated hereon.







Sec. 22-4-120. - Waste final disposal Goals and Policies.

F.Goal 1. All final disposal facilities in the County will locate, develop and operate in a manner that minimizes interference with other agricultural uses, rural settlement patterns and existing residential communities.

- 1. F.Policy 1.1. The County should collect surcharges from final disposal facilities, which fund waste-monitoring tasks performed by staff, road maintenance, litter pickup, public education, household hazardous waste collection and any other costs identified by the Board of County Commissioners.
- 2. F.Policy 1.2. Final disposal facilities should demonstrate compatibility with existing and future land uses (identified at the time of any land use application) in terms of items, including but not limited to visual impact, pollution prevention, pollution control, traffic, dust, noise, land use scale and density, infrastructure, topographic form geology, operating plans, closure and reclamation plans and buffer zones. Land use incompatibilities may require additional mitigation if it is determined that the final disposal facility site is causing negative environmental impacts.
- 3. F.Policy 1.3. Require appropriate infrastructure, which provides adequate access to final disposal facilities, for approval of any applicable land use application.
- 4. F.Policy 1.4. Applications submitted for final disposal facilities should be evaluated by the Department of Public Health and Environment for compliance with federal, state and County statutes, regulations and ordinances. Applicants should demonstrate adequacy of access roads, grades, leachate and drainage controls, liners, fencing, site improvements, reclamation plans, general operations, service area, permitted capacity or air space, buffer zones and other applicable elements of land use.
- 5. F.Policy 1.5. The County may require new final disposal facility applicants to demonstrate that resource recovery and recycling programs have been adequately studied as an alternative or component.

Sec. 22-4-130. - Mineral resource exploration and production waste.

- A. A large amount of water is extracted during the production of crude oil and natural gas. The wastewater produced from mineral resource exploration and production waste is frequently brackish or salty and must be processed and disposed of in a satisfactory manner to protect both human and environmental health.
- B. Groundwater contamination must be prevented by following state regulations that require cementation of wells (including injection wells) to prevent commingling of water, oil and gas into other formations.

Sec. 22-4-140. - Mineral resource exploration and production waste Goals and Policies.

- A. EP.Goal 1. Encourage the minimization of mineral resource exploration and production waste and require the safe disposal of it.
 - 1. EP.Policy 1.1. Due to the impacts from surface impoundments and increasing public concern about them, other alternatives for disposal should be considered.
- B. EP.Goal 2. Mineral resource exploration and production waste facilities should be planned, located, designed and operated to encourage compatibility with surrounding land uses in terms of items such as general use, scale, height, traffic, dust, noise and visual pollution.
 - 1. EP.Policy 2.1. In reviewing the operational and reclamation plans for solid and brine waste disposal facilities, the County should impose such conditions as necessary to minimize or eliminate the potential adverse impact of the operation on surrounding properties and wildlife resources.
 - 2. EP.Policy 2.2. All applicable land use applications will be reviewed by the Department of Public Health and Environment for compatibility with federal, state and County statutes, regulations and ordinances.
- C. EP.Goal 3. Monitor and report violations of state odor regulations and groundwater impacts at mineral resource exploration and production waste surface impoundment facilities.

The future of IJ Wells



QUESTIONS?



DEPARTMENT OF PLANNING SERVICES

TOM PARKO DIRECTOR

1555 N 17TH AVENUE GREELEY, COLORADO 80631 WEBSITE: www.weldgov.com (970) 353-6100 ext. 3572 (970) 302-5333 Cell Phone FAX: (970) 304-6498 tparko@weldgov.com