



## Request for Comments

Case Name: Great Western Tollway LD Well Pad  
Project Number: USR2018-00005

August 22, 2018

Adams County Community and Economic Development Department is requesting comments on the following request:

**Request for a Use by Special Review Permit to allow one (30) horizontal well on one (1) well pad for the production of oil and gas.**

This request is located at approximately E 156<sup>th</sup> Avenue and Colorado Boulevard.

The Assessor's Parcel Number is 0157107000023

Please forward any written comments on this application to the Department of Community and Economic Development at 4430 South Adams County Parkway, Suite W2000A Brighton, CO 80601-8216 by September 12, 2018 so that your comments may be taken into consideration in the review of this case. Please send your response by way of e-mail to [cdougherty@adcogov.org](mailto:cdougherty@adcogov.org).

The complete Use by Special Review Permit application can be found at [www.adcogov.org/planning/currentcases](http://www.adcogov.org/planning/currentcases).

Additional Oil and Gas information can be found at [www.adcogov.org/oil-and-gas-information](http://www.adcogov.org/oil-and-gas-information).

Thank you for your review of this case.

*Christine Dougherty*

Christine Dougherty  
Case Manager

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## **Tollway LC Pad Final Written Explanation**

### **WRITTEN EXPLANATION**

The proposed project consists of the construction of one (1) well pad with up to thirty (30) new horizontal wells, associated production facilities and one (1) access road for an oil and gas location to be operated by Great Western Oil and Gas. (GWOG) GWOG does not intend to drill all 30 wells consecutively. The drilling schedule is subject to change due to economic conditions, business development priorities and equipment availability.

### **COMPATIBILITY/LAND USE IMPACTS**

The Tollway LC Pad is currently planned for 15.28 acres. The well pad, production facilities and access road will be located on the same parcel which is currently zoned by Adams County as Agricultural-3. According to the Adams County Comprehensive Plan, the future designated land use for the site is Mixed Use Neighborhood. Great Western has worked with the surface owner to develop a plan that is consistent with his future development strategy.

After evaluating numerous sites, the chosen location was selected for its size, proximity outside of existing neighborhoods, ability to extract the minerals in this area, and vicinity to a pipeline. This pad has been placed as far south as possible to ensure the furthest distance away from Building Units as possible. Furthermore, the production facilities have been placed on the east side of the pad to move them as far away as possible from Building Units. Because of residential restrictions, this is the last possible pad location available to drill the DSU without putting the location in a LUMA per Colorado Oil & Gas Conservation Commission regulations. Any southern movement of the pad location is restricted because of a pipeline easement.

### **SITE PREPARATION (30 Days)**

The proposed well site will be ±15.28 acres in size which will be reclaimed to ±5.35 acres once all wells have been drilled and completed. A closed loop fluids system will be used while drilling. Drilling pits will not be utilized. The attached Production Layout shows the maximum area to be disturbed by operations. The tank battery and wellhead access road will be constructed of a 6" layer of gravel compacted to minimum density of 95% and will be graded to provide drainage from the roadway surface. Any grading will have all topsoil horizons segregated per Colorado Oil & Gas Conservation Commission (COGCC) regulations to facilitate proper backfilling and reclamation/revegetation.

### **EROSION AND DRAINAGE CONTROL**

Culverts for cross-drainage will be installed as necessary and in conjunction with consultations with surface owner. Proper storm-water controls will be installed around the tank battery and drilling pad during construction. The wellhead access road will be crowned, ditched and graveled, and culverts for cross drainage will be installed as noted above. The operator will take steps to insure that access to the wellheads is maintained in all seasons. Storm-water controls will also be installed around the spoil piles to prevent sediment migration.

### **DRILLING PHASE**

After site preparation, drilling rig equipment is transported to location and rigged up. Drilling operations are conducted 24 hours a day and last approximately 6 days per well. The surface hole is drilled to at least 1700 ft using fresh water and surface casing is run and cemented back to ground level to protect all fresh water zones. Surface casing setting depth and construction is approved by the Colorado Oil & Gas Conservation Commission and complies with COGCC rules and regulations. Well control equipment is installed and tested and drilling of the main hole is then commenced. The rig uses a closed-loop pit-less drilling system. The average total measured depth for the proposed wells is 18,200 ft., (vertical depth is approx. 7,900 ft.) depending on the directional reach and the formation being targeted. Upon reaching total depth production casing is run to total

depth and cemented to isolate the oil and gas productive intervals from communication with shallower formations. Water used in drilling and completion of the wells will be obtained from a commercial water hauling contractor or piped from a local source.

### **COMPLETION PHASE**

The completion phase begins after the drilling equipment is transported off the location. Completion operations are conducted intermittently over a period of several weeks. Completion operations will be run 24 hours and last approximately 12 days per well. Additional operations including cementing, drilling and logging may occur as circumstances require. The Niobrara or Codell formations are perforated through the casing and are hydraulically fractured. In this form of stimulation water is pumped at high rates and pressures which hydraulically fractures the formation. Sand is then pumped into the formation to allow gas and oil to flow freely from the formation into the well bore. The equipment will consist of multiple tanks for water storage, pressure pumps, blending and bulk material trucks with other necessary equipment. Hydraulic fracturing will take about 7 days per well and preparing for the procedure requires up to three weeks to move in necessary equipment and schedule services. After fracturing is completed, the mobile equipment is removed, excluding tanks that are used to retain the water that is produced during flowback and testing operations. All water is hauled to approved disposal sites. The flowback tanks will remain on location until the well is rerouted through standard production equipment.

### **RESTORATION / RECLAMATION**

Interim reclamation will be conducted under company supervision per COGCC regulations after all planned wells are drilled. During drilling operations, all excess drilling mud and cuttings will be removed from the location and will be trucked offsite to an approved land farming site or to an approved commercial disposal facility, per COGCC regulations. The pad will be backfilled with soils in the reverse order removed and capped with the separated topsoil. Sub soils will be mechanically compacted while backfilling if necessary.

### **PRODUCTION PHASE**

Production facilities will comply with Adams County and COGCC regulations. The standard production equipment to be installed on the wellhead pad is a Plunger Lift Lubricator on each well and an Automation box. The separators and tanks must be located 75' from each other and the wellhead, per COGCC regulations.

The production facility pad will be located to the east of the proposed well pad. Twenty (20) low profile 533 bbls (16' tall) steel oil tanks, four (4) low profile 533 bbls (16' tall) fiberglass water tanks, thirty (30) 3-phase separators, five (5) Bulk oil treaters, two (2) Horizontal Free Water Knockout (12' tall), two (2) LACT units, four (4) gas compressors, eight (8) ECDs (25' tall), two (2) Modular Large Volume Tanks, and two (2) meter runs per the attached facility detail site plan. A berm will be constructed around the oil and water tanks to hold a minimum 110% of the capacity of the largest tank located within the berm.

A "pumper/lease operator" (Great Western employee or contractor), will monitor the well every day. The pumper/lease operator reports the tank measurements of the oil, gas sales and pressure readings and performs normal maintenance duties. This production information is compiled and submitted to the Colorado Oil & Gas Commission on a monthly basis. During the initial 120 days there will be a continuous operator on site. Water trucks will be on site to haul produced water. The frequency will be based on production rates. Trucks haul 130 bbls at a time. Oil trucks will be on site to haul oil off the site. The frequency will be based on production rates. The trucks haul between 180-250 bbls at a time.

### Oil Pipeline:

Great Western intends to transport oil and/or condensate from the Tollway Pad via pipeline. The oil line will be 4" line and will be approximately 885' to Discovery's existing oil and gas lines at the end point on the attached Oil & Gas Operations Plan. The attached site plan shows the planned tie-in route. In the rare case that the

pipeline goes down, Great Western has storage tanks on location and will haul fluids for a short period of time until the line is brought back into service.

Gas Pipeline:

Great Western intends to transport gas from the Tollway Pad via pipeline. The gas line will be a 6” line and will be approximately 735’ to Discovery’s existing oil and gas lines at the end point on the attached Oil & Gas Operations Plan. The attached site plan shows the planned tie-in route.

Produced Water Line:

During the first occupation, Great Western plans to drill 8 wells off of the Tollway Pad. Produced water will be hauled offsite during this visit. Great Western is currently evaluating proposals for produced water piping for the Tollway Pad. We reasonably expect to be able to begin piping produced water from this pad during the 2<sup>nd</sup> half of 2019. The initial 8 wells will be switched to the pipeline system when it comes online, and subsequent wells will utilize the pipeline system. In the rare case that the pipeline goes down, Great Western has storage tanks on location and will haul fluids for a short period of time until the line is brought back into service.

**VISUAL MITIGATION**

Pursuant to COGCC Rule 804, the tank battery shall be painted in uniform, non-reflective, earth tones selected after consultation with the surface owner. This site was chosen in cooperation with the Surface owner. There are four building units within 1000’ buffer of the pad disturbance. Great Western plans to put up fencing and landscaping as needed to match the surrounding areas. Temporary sound walls will be located based on baseline noise survey which will additionally reduce visual impacts during drilling and completions.

An Ambient Sound Study will be conducted no sooner than (3) weeks prior to the construction of the location to account for any new sounds not associated with this oil and gas location in order to get the most accurate baseline noise survey and recommendations for noise mitigation.

**LIGHT MITIGATION**

Light sources will be directed downwards, and away from occupied structures where possible. Once the drilling and completion rigs leave the site, there will be no permanently installed lighting on site.

**LANDSCAPING**

A plan has been provided with plants and landscaping materials.

**FENCING**

Great Western will comply with Colorado Oil and Gas Conservation Commission (COGCC) rule 604.c(2)M At a minimum GWOC will install appropriate fencing to restrict access by any unauthorized persons. This fencing may vary depending on site-specific situations. Fencing will be properly noted on facility layout diagrams for both drilling/completion and the production phases of operations.

**WEED CONTROL**

The site will be maintained to prevent accumulation of trash and noxious weeds. Great Western will comply with the Colorado Oil and Gas Conservation Commission (COGCC) rules 603g, 1003e1, 1003f, 1004c2 regarding weed control. All weeds, noxious or otherwise, will be prevented from growing or will be removed from the tank battery site, access road and wellhead pad. Weed spraying by a licensed applicator will be conducted annually, and any fugitive weeds will be removed manually.

## **ROAD MAINTENANCE**

Dirt access roads will be bladed or “dragged” to minimize ruts following wet weather. Fugitive dust is not expected to be a problem as disturbed areas will be either reseeded or graveled. GWOC will work with the county/Town road department to ensure any damage caused by GWOC activities is properly repaired.

## **SIGNS**

Signs required by COGCC will be maintained in good, readable condition.

## **AIR POLLUTION MITIGATION**

All drilling, well completion and production activities will be in compliance with the permit and control provisions of the Colorado Air Quality Control Program, Title 25, Article 7, C.R.S.

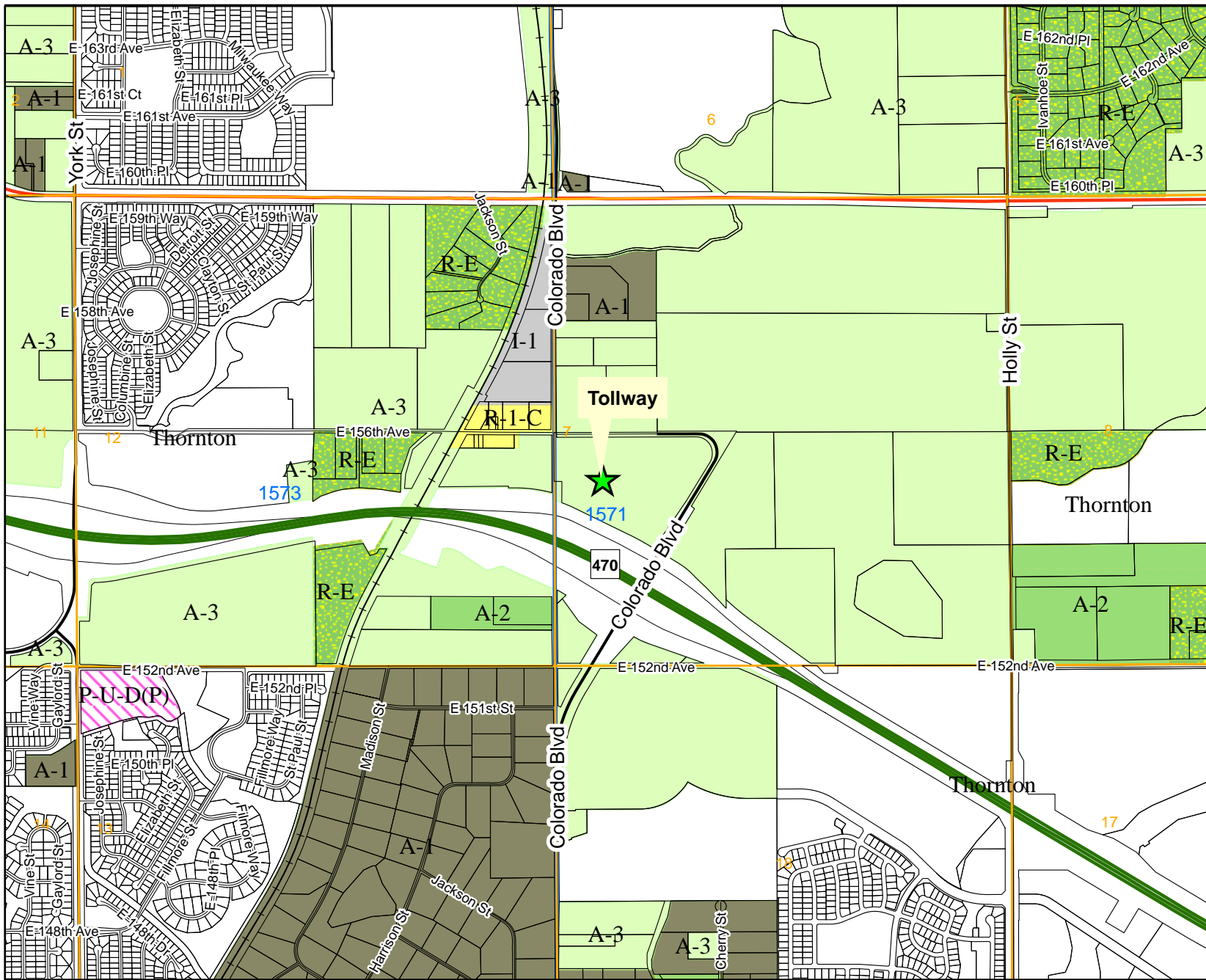
## **ENDANGERED SPECIES**

The site has been continuously maintained as cropland and as such is not a habitat for Preble’s meadow jumping mouse or other endangered species, and the operator will take all reasonable precautions to protect same if encountered.

## **ABANDONMENT**

At the time that the well becomes permanently sub-economic to operate Great Western will engage the services of a plugging rig to remove production equipment from the wellbore and plug the productive zones with a combination of bridge plugs and cement plugs in accordance with Section 319 of the rules and regulations promulgated by the Colorado Oil & Gas Conservation Commission. After the well has been plugged, the surface separator and tanks will be removed. Flow lines will be filled with water and capped in accordance with Section 1103 of the COGCC regulations. Surface restoration will involve removal of any above-ground casing and installation of required markers that will not interfere with subsequent surface use.

After all production equipment is removed, the surface will be restored to the original grade in a matter compatible with the then-existing surface usage.



**Legend**

- Railroad
- Major Water
- Zoning Line
- Sections

**Zoning Districts**

- A-1
- A-2
- A-3
- R-E
- R-1-A
- R-1-C
- R-2
- R-3
- R-4
- M-H
- C-0
- C-1
- C-2
- C-3
- C-4
- C-5
- I-1
- I-2
- I-3
- CO
- PL
- AV
- DIA
- P-U-D
- P-U-D(P)

**Great Western - Tollway LD**  
**USR2018-00005**



For display purposes only.

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This map is made possible by the Adams County GIS group, which assumes no responsibility for its accuracy