



**COMMUNITY AND ECONOMIC DEVELOPMENT
DEPARTMENT
STAFF REPORT**

Administrative Review Memo

04/03/2019

CASE No.: USR2018-00010	CASE NAME: Great Western – Baseline LE
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Owner’s Name:	Great Western Operating Company, LLC
Applicant's Name:	Great Western Operating Company, LLC
Applicant's Address:	1801 Broadway, Suite 500, Denver, CO 80202
Location of Request:	Section 2, Township 1S, Range 67W Parcel number 0157102100003
Nature of Request:	A Use by Special Review Permit to allow up to twenty-six (26) horizontal wells and one (1) production facility on one (1) well pad for the production of oil and gas
Zone District:	Agriculture - 1 (A-1) / Baseline Lakes PUD
Site Size:	Approximately 15.5 acres (53.5-acre parcel)
Proposed Uses:	Multi-well pad for the production of oil and gas
Existing Use:	Vacant (PUD)
Report Date:	04/03/2019
Case Manager:	Christine Dougherty
Director Options:	Approval with 4 Findings of Fact, 4 Conditions Precedent, and 21 Conditions; Denial; or Referral to the Board of County Commissioners
Staff Recommendation:	Approval with 4 Findings of Fact, 4 Conditions Precedent, and 21 Conditions

SUMMARY OF APPLICATION

Background:

Great Western Operating Company, LLC (Great Western), the applicant, engages in exploration and development of oil and natural gas primarily in the Denver-Julesburg Basin. The applicant has proposed an oil and gas well pad location in unincorporated Adams County. The proposed project, Baseline LE, consists of the construction of one well pad with up to twenty-six (26) horizontal wells, associated equipment, a production facility, and one access road.

The proposed well pad location is on a 53.5-acre parcel southeast of the intersection of Lima Street and East 168th Avenue. Access to the site is proposed to be from 168th Avenue. Currently the parcel does not have any buildings or residences located on it. There are three (3) producing oil and gas wells owned by PetroShare located on the parcel with several more located in close proximity.

Summary of Application:

The project proposed by Great Western consists of twenty-six (26) wells and one (1) production facility on a single well pad, with one (1) access road to accommodate all traffic throughout construction, production, and long-term maintenance. Construction of the well pad will require up to thirty (30) days. The drilling period is expected to last six (6) days per well with up to an additional twelve (12) days for the completion of each well. In total, the drilling and completion phase will take approximately 468 days if all the wells are drilled consecutively.

The well pad size throughout the drilling and completion phases will be approximately fifteen and one-half (15.5) acres; however, this will be reduced to approximately five and one-quarter (5.25) acres after the construction phase is completed. On-site production facilities include thirty-two (32) oil tanks, eight (8) produced water tanks, twenty-six (26) separators, five (5) bulk oil treaters, three (3) vapor recovery units, seven (7) gas scrubbers, two (2) Lease Automatic Custody Transfer (LACT) units, and one (1) free water knock out.

The mitigation measures that have been proposed by Great Western include the following:

- **Pipelines:** Great Western has agreed to utilize pipelines for transferring product off site. The use of pipeline will reduce the need for the onsite storage of product and reduce truck traffic for the production phase of the wells. The total reduction of trucks realized is dependent upon the number of wells, production rates, and age of the wells, but generally a single well requires an average of two truck trips per day over the first ten (10) years.
- **Traffic Controls:** Great Western evaluated four (4) route options as part of their Traffic Study from which they identified one (1) primary route and two (2) alternative routes that they will use if the primary route is inaccessible for any reason. The primary traffic route for exiting the site is not the same as the route entering the site. This separation is intended to address the City of Thornton's concerns about the left turning lane pocket at the intersection of 168th and Highway 7, as well as weight limits of the existing roads.
- **Noise:** Great Western will abide by COGCC rule 604.c.(2)A noise standards for all activities and will post 24-hour, 7 days a week, contact information to address all noise complaints that arise from the oil and gas facility. In addition, Great Western will conduct an Ambient Sound Study three weeks prior to site occupancy in order to establish a baseline noise survey and receive recommendations for noise mitigation.
- **Odor Mitigation:** All drilling, completions, and production activities will comply with Colorado Department of Public Health and Environment Air Quality Control regulations. During drilling operations a closed loop system will be used to reduce odor

and emissions. Meanwhile, during the production phase Emission Control Devices (ECD's) and pipelines will be used to mitigate emissions.

- **Visual Mitigation:** Sound walls will be erected that will reduce visual impacts throughout the drilling and completion phases, and landscaping will reduce visual impacts during the production phase. In addition, pursuant to COGCC Rule 804, the tank battery will be painted in uniform, non-contrasting, non-reflective color tones with the colors matched with (but slightly darker than) the surrounding landscape. After the development phase there will be no permanently installed lighting on site.
- **Landscaping:** A landscape plan has been provided and will serve as interim restoration for the site. The interim landscape plan will consist of a perimeter fence bordered with a mixture of native grasses, shrubs, and plants along the perimeter of the facility to reduce visual impacts. Final reclamation will involve returning the area to pre-disturbance conditions by removing all equipment and landscaping.

Development Standards and Regulations Requirements:

In order to obtain an Administrative Use by Special Review approval, an Oil and Gas Facility must satisfy certain criteria.

1. Memorandum of Understanding (MOU)

Great Western signed the standard County MOU, which was executed by Adams County Board of County Commissioners on January 6, 2015.

2. Satisfy Submittal Requirements

The applicant has satisfied all required submittal items as outlined in the Development Standards and Regulations. These include:

- Conceptual Review Meeting – Great Western attended a Conceptual Review Meeting with the Adams County Development Review Team to discuss their proposed site on July 16, 2018.
- Neighborhood Meeting – Great Western notified property owners within one-half mile of the parcel boundary of the proposed oil and gas facility and invited them to an open house neighborhood meeting where residents were able to ask the applicant questions directly. The Neighborhood Meeting was held on September 13, 2018, at the Todd Creek Golf Club in Thornton, CO. The operator provided an overview of the project, operation timeline, and proposed mitigation measures.
- Application Form and Fees – Great Western submitted the required applications and paid the applicable permit fees. A Traffic Impact Fee will be assessed according to the application and the Oil and Gas Traffic Impact Fee Schedule. The operator may

also be required to obtain a Right-of-Way permit, Access Permit, and/or an Oversize Load Permit before starting construction activities.

- Oil and Gas Operations Plan – Great Western submitted an Oil and Gas Operations Plan, an Impact Area Map showing all oil and gas wells and water wells within one half (1/2) mile, a Drilling Operation Plan, a Production Plan, and a Sign Plan.
- Emergency Preparedness Plan – The applicant submitted a site-specific Emergency Preparedness Plan that has been reviewed and approved by the Adams County Office of Emergency Management.
- Engineering Documents – Great Western provided a Grading, Erosion, and Sediment Control Report & Plan, as well as a Traffic Impact Plan, in accordance with the Development Standards and Regulations.
- Surface Owner Documentation – Great Western provided a Memorandum of Surface Use Agreement to verify that the proposed oil and gas facility is authorized by the surface owner.

3. Compatibility / Land Use Impacts

The subject site is approximately fifty-three and one-half (53.5) acres, of which fifteen and one-half (15.5) acres are proposed to develop a twenty-six (26) well oil and gas well pad, associated production facility, and access road. The parcel is located within the Baseline Lakes PUD (PRJ2006-00007). Currently, the parcel is undeveloped and contains two (2) producing oil and gas wells and one (1) plugged and abandoned well. The zoning for the surrounding properties is Weld County to the north, Agriculture 1 (A-1) to the east, and Todd Creek Village PUD (PUD2001-00030) to the south and west. The purpose of Agriculture 1 zone district is to provide a rural single family dwelling and for the utilization and enjoyment of the County's rural environment. The purpose of the Todd Creek Village PUD is to allow for the planned development of residential communities.

According to the Adams County Comprehensive Plan, the future land use designation for this parcel is Estate Residential. The Estate Residential designation is intended for housing at a gross density not greater than one (1) unit per two (2) acre lot. This level of housing density is intended to provide low intensity neighborhoods and minimize impacts of environmentally sensitive areas. Secondary uses for this land use designation may include neighborhood schools, parks, open space and agriculture. Multi-well pads, such as this application, can be constructed while future subdivisions are developed in accordance with the Comprehensive Plan.

Alternative sites in the area were evaluated by the applicant and this location was selected for its size, distance from existing residential development, and proximity to an existing pipeline for transporting oil and gas from the facility. The closest building to the proposed oil and gas

wells is approximately seven hundred and seventy feet (770) and located to north of 168th Avenue in Weld County.

Visual impacts from oil and gas well pads can be divided into two phases: the construction and development of the well pad and the long-term impacts of the pad and production equipment. During the first phase, mitigation measures will include sound walls and lights directed downward and inward to the pad. Visual mitigation for post-construction and drilling will be addressed using landscaping. Great Western is proposing a twelve (12) foot high earth berm that will include vegetative landscaping along the exterior base of the slope. The earth berm will be seeded with native grass to help blend the slope into the surrounding area.

Industrial impacts inherent to large-scale oil and gas development require significant mitigation from residential and commercial developments. The most significant long-term oil and gas production impacts are the daily truck trips and the number of tanks required for on-site storage of oil. Taking into consideration the compatibility requirements of the Adams County Development Standards and Regulations, Great Western plans to construct a pipeline for transporting oil from the Baseline facility to the Shook facility (USR2016-0001) which is located less than two (2) miles southwest from the Baseline facility. After connecting to the Shook facility, the produced oil will then be transferred to the Discovery Boardwalk Brighton West Interconnect Pipeline (RCU2017-00019) which will carry the oil north to a processing facility located in Weld County.

The Discovery Boardwalk Brighton West Interconnect Pipeline was presented to the Adams County Planning Commission on September 28, 2017. A recommendation of approval was forwarded to the Board of County Commissioners for a hearing on October 17, 2017. After approval, the pipeline was constructed and is currently in operation. Connection to the pipeline will reduce truck traffic, reduce on-site storage, and reduce the facilities surface area, all of which supports compatibility with the current and planned future land uses in the area.

An Ambient Sound Study will be conducted to assess average noise levels and to create noise mitigation models for each phase of the project. Implementation of the recommended noise mitigation models will meet or exceed the COGCC requirements. Typically, sound mitigation measures require the use of acoustical walls up to thirty-two (32) feet in height located along the perimeter of the project.

Through a combination of site planning decisions, traffic and access management, and sound mitigation measures with long-term compatibility being addressed, it is staff's recommendation that the criteria for an Administrative Use by Special Review permit has been satisfied by the applicant's proposal and through the recommended conditions of approval listed within this staff report.

4. Emergency Service Providers

The applicant has provided the required 'will serve' letter from the Brighton Fire District, the emergency service provider for that area.

Staff Recommendation:

Based upon the application, the criteria for an Administrative Use by Special Review permit, and a recent site visit, staff recommends approval of this request with 4 findings-of-fact, 4 conditions precedent, and 21 conditions.

Findings of Fact:

1. The applicant and the County have executed a Memorandum of Understanding (MOU) that is currently in full force and effect, and the oil and gas facility is in compliance with the provisions of the MOU.
2. The applicant has satisfied the submittal requirements for an Administrative Use by Special Review application as outlined in the Development Standards and Regulations.
3. Based upon compliance with the recommended conditions of approval, the oil and gas facility is compatible with the surrounding area and does not create any site specific or material impacts to nearby land uses.
4. The applicant has provided a commitment to serve the facility from the authority having jurisdiction for providing emergency services.

Recommended Conditions of Approval:

Conditions Precedent:

1. Pad construction and/or drilling shall not commence until combined State approval of Colorado Oil and Gas Conservation Commission (COGCC) Form 2 and 2A and County approval of AUSR permit. Drilling shall only occur during the COGCC Form 2 permit validity timeframe.
 - a. Per section 4-10-02-03-03-07-10 of the Adams County Development Standards and Regulations, proposed changes to the plans, including but not limited to any changes in the source or location of water to be used by the Oil and Gas Facility, shall be submitted as amendments to the Administrative Use by Special Review application, reviewed by staff, and approved by the Director or BOCC (if the BOCC approved the original application).
2. Adams County has determined that noise mitigation measures will be required to provide compatibility with the surrounding area. A Sound Impact Assessment must be conducted

and the operator will be required to implement the best management practices identified by the study in order to meet COGCC rule 802 Noise Abatement and the MOU section 9.

3. A traffic impact fee in the amount of \$549,665.00 for the construction and production of twenty-six (26) oil and gas wells using product pipelines is due prior to ground disturbing activities.
4. The applicant shall receive a "Notice to Proceed" from the Department of Community and Economic Development. Written proof that all of the condition precedents have been satisfied shall be required prior to receiving this notice.

Conditions:

1. Great Western is required to provide notice to parcel owners and occupants located within a one-half (1/2) mile radius of the parcel boundary on which the well pad is located at least fourteen (14) days prior to the commencement of any drilling or completions operations.
2. As referenced in 8.(c.) of the Great Western Oil and Gas/Adams County MOU the applicant agrees to conduct a baseline test of any registered water well requested by the owner on a one-time basis if such well is within a half (1/2) mile radius of the new oil and gas facility.
3. The applicant or the applicant's subcontractors may be required to obtain Oversize Load Permits, and/or Access Permits, and/or a Right-of-Way Construction Permit. These permits may be obtained through the Adams County One-Stop permit center.
4. Per Section 12 of the executed MOU, Great Western will construct the lease/access road to be capable of supporting a 75,000-pound emergency response vehicle. The access road to this site shall be outfitted with a vehicle-tracking pad.
5. The applicant shall be responsible for the cleanliness and safety of all roadways adjacent to this site. If at any time, Adams County staff determines these roadways to be dangerous or not passable due to debris or mud, the applicant will cease use of the roadways until the roadway conditions have improved and are deemed acceptable by the County. If the contractor/applicant fails to keep the adjacent roadways clean and free from debris, Adams County has the option to complete the required clean up and bill the charges directly to the applicant, Great Western.
6. Per Section 14 of the executed MOU, fresh water as referenced in the COGCC's rules and Regulations, or another source as approved by the County on a case by case basis, may be applied to roads and land surfaces for the purpose of dust mitigation. Absolutely no other liquid or substance generated by the production of the operator's facility, including, but not limited to, exploration and production waste (as defined by the COGCC) or any other application of liquids that would have negative impact to natural resources, shall be permitted to be applied to roads and land surfaces.

7. Per Section 5 of the executed MOU, in an effort to reduce truck traffic, where feasible, the Operator will identify a water source close to the facility location that is lawfully available for industrial use, including oil and gas development, to be utilized by the operator and its suppliers. The Operator will comply with the Colorado Department of Public Health and Environment requirements and Tri-County Health Department (TCHD) regulations that address water quality. With respect to wastewater treatment, the Operator agrees to comply with TCHD's Regulations, NO. O-14 (On-site Wastewater Treatment Systems), as adopted or modified. The Operator agrees to contact TCHD in a timely manner to arrange for the processing of necessary applications and required inspections.
8. The approved traffic route for travelling to and from the site will be as follows:

Route (To Site)

1. Direct access off of Highway 85 to 168th Avenue.
 2. 168th Avenue to access road
 3. Left turn onto access road to site
- * Egress from the site will be the same route in reverse order

Alternative (To site)

1. Interstate 25 to Highway 7
 2. Right on Highway 7 to Havana street
 3. Left on Havana Street to 168th Avenue
 4. Right on 168th Avenue to Access Road
- * Egress from the site will be the same route in reverse order

9. Great Western intends to transport oil from the Baseline well pad via pipeline. Connection to the pipeline is planned to be completed by a 3rd party prior to production of oil. In the event that the 3rd party produced oil pipeline is temporarily out of service, Great Western is permitted to store produced oil on site. Under these circumstances Great Western may truck oil from the site for a short period of time. If it is estimated that the pipeline downtime will be less than 7 calendar days, Great Western will provide Adams County with a written notice which includes an estimate of the number of trucks, length of time trucking will occur, and the truck route that will be required for transporting the produced oil prior to trucking operations beginning. If it is estimated that pipeline downtime will go beyond 7 calendar days, Great Western will provide Adams County with a written notice which includes an estimate of the number of trucks, length of time trucking will occur, and the truck route that will be required for transporting the produced oil. Adams County agrees to provide a written decision no later than 72 hours after receipt of a request for the use of trucks for the transportation of oil for more than 7 calendar days. Adams County cannot deny the request without reasonable cause. Adams County reserves the right to re-evaluate the Traffic Impact and Maintenance Fee based on the information provided by Great Western if the estimated

trucking time is more than 30 calendar days when requesting to transport produced oil via trucks.

10. Prior to initiation of production, the applicant will submit to the county written certification that the facility is connected to a pipeline for the transfer of product off-site.
11. The applicant has submitted a landscaping and screening plan for the site, which has been reviewed and approved by the Community & Economic Development Department staff. Screening of the site shall be provided through a combination of fencing and landscape materials. This plan shall serve as the interim restoration plan and it shall be implemented by the applicant within ninety (90) days of completion for the construction of the final well if all twenty-six (26) approved wells are drilled and completed at the same time. If the applicant staggers well completion (i.e., completes a lesser number of wells initially with plans to complete the remaining wells at a future date), then the interim restoration plan shall be implemented within ninety (90) days of completion of the initial set of wells.
12. If additional material is brought to the site for construction of the berms, an inert fill permit is required. The permit type (temporary, special, conditional) will be based on the length of hauling time and volume of fill.
13. An engineering review application is required as part of the building permit review process in order to verify the structural and drainage aspects of the proposed berms.
14. If requested by the surface owner, or practicable for site security, the fence shall contain a gate and the gate shall remain closed and locked when the well pad and associated facilities are not in use.
 - a. The local fire district shall have access to ALL gate key(s)/combination(s) at all times for use in case of emergency.
 - b. Adams County oil & gas inspector shall have access to ALL gate key(s)/combination(s) at all times for use in case of emergency.
15. Applicant is required to receive an approved Waiver of Responsibility/Completion of Reclamation from Adams County upon abandonment and reclamation of the well pad and its associated facilities.
16. Well pad, its associated facilities, and the access road shall be free of any County and State identified noxious weeds throughout the drilling, completion, and production stages of operation.
17. Upon request by the County's Local Government Designee, Emergency Manager, Local Emergency Planning Commission, Sheriff's Office, site-specific Fire District, or Transportation Department, a tabletop exercise pertaining to the Emergency Response Plan will be required.

18. Per COGCC Section 604.c (4) B. IV. Zero Flaring or venting of gas upon completion of flowback, excepting upset or emergency, or with prior written approval from the COGCC Director for necessary maintenance operations.
 - a. The applicant shall provide a copy of written COGCC Director approval to the CEDD Director within 24 hours of flaring operations and/or approval, whichever occurs first.
19. All permanent lighting shall be directed downward and internally. Temporary lighting shall conform to COGCC Rule 803 and not adversely affect adjacent residential properties. Any complaints regarding lighting shall be communicated to the Adams County Oil & Gas Liaison in order to ensure resolution.
20. Provided at least one well is drilled and completed within a three (3) year period following approval of a multi-well pad locations, such approval permanently vests the permitted location for the number of wells as contained within the initial permit approval. If additional wells are to be drilled following expiration of the initial three (3) year period, the permits for those wells shall be revised pursuant to the Development Standards and Regulations section 4-10-02-03-03-07-07(3).
21. All representations and commitments by the applicant made during the AUSR process are incorporated herein as conditions of approval.

CITIZEN COMMENTS

Of the 224 referral notices sent to property owners within one-half (1/2) mile of subject parcel boundary, one comment was received during the referral period and one comment was received after the referral period. The concerns expressed included potential structural impacts to nearby residences as well as a request to plug and abandon specific oil and gas wells located in the area. The application and Request for Comments were also posted on the Adams County website for review by the general public.

Referral Notifications Sent	Referral Comments Received
224	2

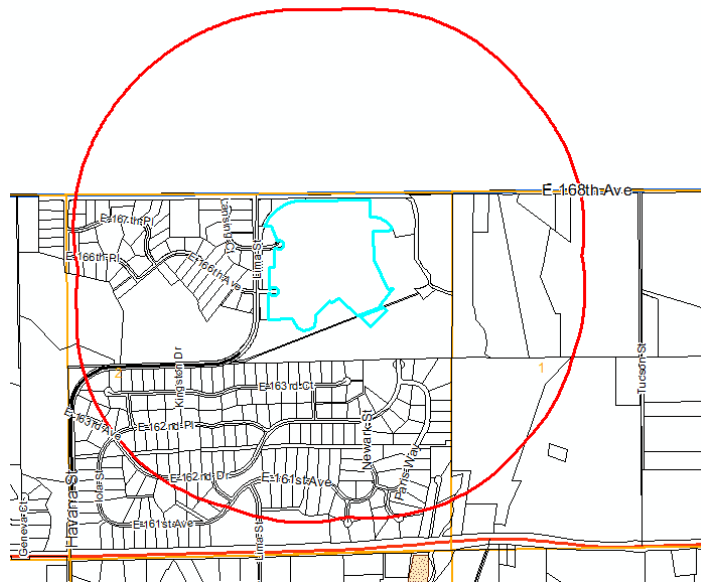


Figure 1. Map showing the 1/2 mile mailed referral radius from the parcel boundary.

COUNTY REFERRAL COMMENTS

Referral Comments:

Adams County reviewed the application and provided comments specific to the landscaping plan and visual mitigation. Additional information was also requested concerning the proposed pipelines for transporting the produced oil from the site. The applicant responded to staffs comments and there are no outstanding issues or concerns.

REFERRAL AGENCY COMMENTS

Responding with Concerns:

Colorado Parks and Wildlife (CPW) provided guidance on best management practices when prairie dogs, raptors and /or migratory birds are present. CPW also provided guidance to

minimize the spreading of noxious weeds. Great Western has agreed to follow the guidance and recommendations provided.

Tri-County Health Department (TCHD) provided guidance for the applicant concerning on-site wastewater treatment systems if they are implemented as well as notification to water well permit holders and water rights holders located within a one-half (1/2) mile radius. TCHD also requested to review information regarding the water source for workers. Great Western has acknowledged TCHD's comments.

Colorado Department of Health and Environment (CDPHE) provided guidance on six (6) topics related to oil and gas development, including electrical equipment, odor mitigation, waste management, use of pipelines, flaring, and plugging and abandoning of the wells. Great Western has reviewed the best management practices and has agreed to implement them where feasible and/or required.

Notified but not Responding / Considered a Favorable Response:

Adams County Office of Emergency Management
Adams County Sheriff's Office
Brighton Fire Rescue District
Brighton School District 27J
United Power

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- 2.4 Traffic Impact Fee Schedule

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- 3.1 Request for Comments
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