



**COMMUNITY AND ECONOMIC DEVELOPMENT  
DEPARTMENT  
STAFF REPORT**

**Administrative Review Memo**

**February 24, 2017**

CASE No.: <b>USR2016-00005</b> CASE NAME: <b>Great Western Ocho Well Pad</b>
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Owner's Name:	Great Western Oil & Gas Company, LLC
Applicant's Name:	Great Western Oil & Gas Company, LLC
Applicant's Address:	1801 Broadway, Suite 500, Denver, CO 80202
Location of Request:	15751 Monaco Street Section 8, Township 1S, Range 67W (NE/4 NW/4) Parcel number 0157108200002
Nature of Request:	A Use by Special Review Permit to allow thirty-two (32) horizontal wells on one (1) well pad for the production of oil and gas and one (1) production facility.
Zone District:	Agriculture - 3
Site Size:	Approximately 11.110 acres (106.44-acre parcel)
Proposed Uses:	Multi-well pad for the production of oil and gas
Existing Use:	Agricultural with five (5) producing conventional oil and gas wells
Report Date:	February 24, 2017
Case Manager:	Christopher Simmons
Director Options:	Approval with 4 Findings of Fact, 6 Conditions Precedent, and 20 Conditions; Denial; or Referral to the Board of County Commissioners
Staff Recommendation:	Approval with 4 Findings of Fact, 6 Conditions Precedent, and 20 Conditions

**SUMMARY OF PREVIOUS APPLICATIONS**

This parcel is used agriculturally for irrigated cropland and contains five (5) producing conventional oil and gas wells, all operated by Blue Chip Oil, Inc. One of the wells was drilled in 1985 and the other four were drilled in 2010.

## **SUMMARY OF APPLICATION**

### **Background**

Great Western Oil & Gas Company, LLC (Great Western) is based in Denver, Colorado and engages in the exploration and development of oil and natural gas, with active operations in the Denver-Julesburg Basin. Great Western has proposed an oil and gas well pad location in unincorporated Adams County to continue developing those minerals. The proposed project, the Ocho Pad, consists of the construction of one well pad with up to 31 wells, one production facility, and one access road. Oil and gas products from this well pad are planned to be trucked off-site using a haul route depicted in their application and described below.

The proposed pad location is on a 106.44-acre parcel, southwest of the intersection of Highway 7 and Monaco Street. Access to the site will be from Monaco Street, which is located on the eastern boundary of the property. Surrounding land uses are agricultural and residential estate, as well as undeveloped residential subdivisions within the City of Thornton to the southeast.

### **Summary of Application**

The project proposed by Great Western consists of 32 wells on a single well pad and a production facility with 36 oil tanks, six (6) water tanks, 30 separators, five (5) heater treaters, one horizontal free water knockout, five (5) vapor recovery towers, 12 emission control devices, three (3) vertical gas line scrubbers, two (2) vapor recovery units, two (2) gas sales wellhead compressors, two (2) custody transfer gas meters. There is one access road planned to accommodate all traffic during construction, production, and long-term maintenance. The drilling period is expected to last 7-12 days per well, with an additional 5-10 days per well for the completion period. Overall, the drilling and completion phase will take approximately 360-660 days total. Proposed drilling schedule start date is November 2017.

The well pad size during the drilling and completion phases is proposed to be approximately 11.110 acres; this will ultimately be reduced in size to 5.304 acres after the completion phase has concluded.

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

- Placement of the wellpad will allow access to Sections 24 and 25, minimizing overall surface impacts, while preserving croplands so that the surface may continue to be farmed.
- The proposed traffic plan shows vehicles utilizing the access road from the property to Monaco Street to State Highway 7. This plan minimizes impacts to County roads and reduces conflicts with local traffic.
- Pursuant to COGCC Rule 804, the tank battery shall be painted in uniform, non-reflective, earth tones. This site was chosen in cooperation with the Surface owner, as there are no other houses within 1,000 feet.

- Great Western has included in their application a visual mitigation plan consisting of landscaping and fencing to provide security as well as a visually appealing line of sight in the case that the parcel and surrounding land is developed in the future. The visual mitigation plan also disguises the associated facilities from view along State Highway 7. A more detailed landscape and fencing plan will be provided to Adams County prior to the commencement of construction.
- During the drilling and completions phase, Great Western will construct sound/visual walls that will be placed along the edges of the pad. This will also assist to block out any lighting that may impact nearby residences. This pad will be constructed in such a manner that noise mitigation may be installed and removed without disturbing the site or landscaping. The wall to the north will be taller than those to the south, east, and west due to the presence of the residential subdivision.

### **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)***

The form Oil and Gas MOU was signed by Great Western and executed by the Adams County Board of County Commissioners on January 27, 2015. The MOU includes all the best management practices determined necessary by the County Manager.

#### ***2. Satisfy Submittal Requirements***

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

- Conceptual Review Meeting – Great Western attended a Conceptual Review Meeting on October 31, 2017 with the Adams County Development Review Team where their proposed site was discussed.
- Neighborhood Meeting – Great Western noticed property owners within one half mile of the parcel boundary of the proposed oil and gas facility and invited them to an open house. The Neighborhood Meeting was held on November 30, 2016 at the Todd Creek Farms Golf Club and approximately thirty-six (36) people attended. Great Western introduced their management team and provided an overview of the project, operation timeline, and mitigation measures that they are planning.
- Application Form and Fees – Great Western submitted the required Oil and Gas Facility application form and paid the applicable permit fees. Prior to construction and operation, the operator will obtain the required Transportation Department permits, including an Access Permit for the access road and Oversize Load Permits for the drill rigs and other oversize equipment.
- Oil and Gas Operations Plan – Great Western submitted an Oil and Gas Operations Plan that included an Impact Area Map that shows all oil and gas wells and water wells within one half mile, a Drilling Operation Plan Map that shows a site plan with

drilling equipment, a Production Plan Map that shows a site plan during the production phase, and a Sign Plan that shows the signs to be posted and describes their location.

- Emergency Preparedness Plan – Great Western 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 show that the proposed oil and gas facility is authorized by the surface owner.

### ***3. Compatibility / Land Use Impacts***

The subject parcel is 106.44 acres and currently zoned Agricultural-3 (A-3); the land is being farmed and has five (5) producing conventional oil and gas wells. The purpose of the A-3 District is to provide land primarily in holdings of at least thirty-five acres for dryland or irrigated farming, pasturage, or other related food production uses; the current uses meet the purpose of the A-3 zone district. To the north is the Eagle Shadow Subdivision, which is a low-density, single-family neighborhood. The properties to the east and west are zoned A-3 and are mainly used for farming or other agricultural uses. The land to the south is zoned R-E or within the City of Thornton municipal boundaries; there is an undeveloped residential subdivision to the southeast that is located within the City of Thornton.

The development of the oil and gas facility, including well pad construction and the drilling and completion of the wells will have impacts to the surrounding area akin to those of an industrial facility. Specific impacts include noise, lights, traffic, and dust. To make this facility compatible with the surrounding residential uses, noise mitigation, visual mitigation, and dust suppression will be utilized.

To provide sound and visual mitigation during the drilling and completions phase, Great Western will construct temporary walls that will be placed along the edges of the pad; this will also block out lighting that may impact nearby residences. The wall to the north will be taller than those to the south, east, and west due to the presence of the residential subdivision. To address the potential for dust, the applicant is using a gravel surface for the well pad and access road. Finally, to address the traffic concerns, the applicant has proposed that all traffic into and out of the subject site will be directed from Monaco Street onto Highway 7, rather than through the local, county roads. This will allow the truck traffic to be separated from the residential and other local traffic that uses the roads in the area. In addition, since Adams County does not presently have maintenance responsibility for Monaco Street, Great Western will be solely responsible for the maintenance of the 1,000 feet of Monaco Street utilized by the operator to maintain baseline conditions, as well as utilize additional vehicle tracking pads and employ water trucks to spray fresh water, as necessary, for dust suppression. Great Western will submit a traffic control plan for State Highway 7 to Colorado Department of Transportation to be reviewed and approved prior to commencing construction.

The future land use designation of the site, according to the Adams County Comprehensive Plan, is Mixed Use Neighborhood. The surrounding area is comprised of Mixed Use Neighborhood, Residential Estate, and the City of Thornton Municipal Area. Mixed Use Neighborhood areas contemplate a range of urban-level residential uses, including single and multi-family housing, as well as compatible and supporting uses that serve the neighborhood. According to the Comprehensive Plan, future development in these areas should compliment or be designed to minimize impacts to existing residential development. As the property owner has brought plans of a potential Metro District to the County, it is crucial that the industrial nature of the large scale oil and gas facility be mitigated from the intended future use.

Great Western has worked closely with the property owner to determine the best placement of the proposed Ocho Wellpad to minimize surface disturbance to the existing agricultural use, as well as employ mitigation measures in anticipation of the future residential land use. Great Western has included in their application a visual mitigation plan consisting of landscaping and fencing to provide security as well as a visually appealing line of sight, understanding that the parcel and surrounding land will be developed. The visual mitigation plan also disguises the associated facilities from view along State Highway 7. Finally, the greatest impacts of the oil and gas development will occur prior to the development of the Metro District. Short-term impacts from the oil and gas well facility will occur during the construction, drilling, and completion phases, and will be mitigated using sound walls. The long-term impacts from the well pad will largely be visual in nature and will be mitigated through landscaping and fencing.

The applicant has thoughtfully considered the surface owner's request to maintain the majority of the parcel as active farmland and to provide mitigation measures for the future development of a Mixed Use Neighborhood. The impacts have been mitigated through a combination of site planning decisions, traffic and access management, and sound mitigation measures, with long-term compatibility being addressed through the requirement for landscaping and screening upon completion of construction. It is staff's recommendation that this criterion has been satisfied by the applicant's proposal, and through the recommended conditions of approval within this staff report.

#### *4. Emergency Service Providers*

The applicant provided the required 'will serve' letter from the North Metro Fire Rescue 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, 6 conditions precedent, and 20 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 4-10-02-05-10 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, need to 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 visual mitigation of the site is required to provide compatibility with the surrounding area. Prior to initiation of drilling, the applicant shall submit a landscaping and screening plan for the site to be 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, as determined by the County through the review and approval of the landscape and screening plan. The screening and landscaping plan shall be designed to provide compatibility with the future development of the area. With this respect, Adams County highly recommends consultation with the surface landowner. This plan shall be implemented by the applicant within 90 days of conclusion of the completion of the final well, if all thirty-two approved wells are drilled and completed at the same time. If 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 landscape plan shall be implemented within 90 days of completion of the initial set of wells, taking into account the planting season.

3. Adams County has determined that noise mitigation measures will be required to provide compatibility with the surrounding area. During the drilling and completions phase, Great Western will construct sound/visual walls that will be placed along the edges of the pad; this will block out any lighting that may impact nearby residences. The pad will be constructed in such a manner that noise mitigation may be installed and removed without disturbing the site or landscaping. The wall to the north will be taller than those to the south, east, and west due to the presence of the residential subdivision.
4. Prior to initiation of construction, the applicant shall provide the applicable title commitment documents to Adams County for review of the easement rights necessary to construct the oil, water, and gas pipelines for the facility.
5. If required by the Colorado Department of Transportation, the applicant shall be responsible for obtaining an approved traffic control plan for State Highway 7 and an access permit to utilize Highway 7 prior to commencing construction.
  - a. A courtesy copy of the approved traffic control plan and access permit shall be provided to the Adams County Community and Economic Development Department for review and inclusion in the case file.
6. The applicant shall perform a baseline survey of the existing road condition for the segment of Monaco St. between the site entrance and Highway 7. This shall be submitted to Adams County staff prior to initiation of any construction activity. This survey shall serve to document the existing condition of the roadway for purposes of required maintenance that will be the responsibility of the applicant.

**Conditions:**

1. The approved traffic route for this permit is Interstate 25 to Highway 7, Highway 7 to Monaco St., Monaco St. to the site access. The site access is located approximately 1,000 feet south from the intersection of Highway 7 and Monaco St. This route is depicted in the site plan submitted with this application.
2. Maintenance of required landscaping and fencing shall be in compliance with the Adams County Development Standards and Regulations at all times.
3. 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 ½ mile radius of the new oil and gas facility.
4. The access road to this site shall be outfitted with a vehicle tracking pad.
5. The applicant shall be responsible for all required maintenance of Monaco Street from the site entrance to Highway 7 throughout the life of the wells. It should be noted that this segment of Monaco Street is not a publicly maintained right-of-way. In addition, the following provisions apply to this permit:

- a. The applicant shall maintain the baseline condition of the road as established in Condition Precedent #6 at all times.
  - b. The applicant shall be fully responsible for the maintenance of Monaco Street to access their site approximately 1,000 feet south of Highway 7 during adverse weather.
  - c. The applicant shall respond to any complaints from the public regarding the condition of Monaco Street from Highway 7 to the site access within 24 hours and shall provide a written resolution to the complaint to Adams County staff.
  - d. If any trucks serving this site utilize any other route different from the approved traffic route, the applicant shall be responsible for any damage to other segments of roads caused by this activity.
6. 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.
  7. 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 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.
  8. Noise levels during the construction, drilling, completions, and production life-cycles shall not exceed levels established under COGCC 802.
  9. Financial assurance shall meet or exceed the requirements of COGCC 700 Series Rules Financial Assurance and Oil and Gas Conservation and Environmental Response Fund.
  10. A closed loop system will be used, as depicted in the permit application.
  11. Use of pits is prohibited.
  12. Steel-rimmed berms and synthetic liners shall be required for all overflow containment facilities.
    - a. Per COGCC Rule 604.c. G Overflow containment facilities shall be constructed around crude oil, condensate, and produced water storage tanks and shall enclose an area sufficient to contain and provide secondary containment for one-hundred fifty percent (150%) of the largest single tank. Berms or other secondary

containment devices shall be sufficiently impervious to contain any spilled or release material.

13. Per Section 5 of the executed MOU, in an effort to reduce truck traffic, where feasible, the Operator will identify a water source lawfully available for industrial use, including oil and gas development, close to the facility location, to be utilized by Operator and its suppliers. Operator will comply with the Colorado Department of Public Health and Environment requirements and Tri-County Health Department (TCHD) regulations concerning water quality. With respect to wastewater treatment, 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 appropriate application matters as required inspections.
14. 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.
15. Upon conclusion of construction, drilling, and completion, the site shall be fenced according to the Adams County Development Standards and Regulations Section 4-10-01-03.
16. 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.
17. Applicant is required to receive an approved waiver of responsibility/completion of reclamation from Adams County upon abandonment and reclamation of well pad and associated facilities.
18. Well pad, associated facilities, and access road shall be free of any county and state identified noxious weeds throughout the drilling, completion and production portions of operations.
19. A tabletop exercise pertaining to the Emergency Response Plan will be required. This may be requested by the County's Local Government Designee, Emergency Manager, Local Emergency Planning Commission, Sheriff's Office, site-specific Fire District, or Transportation Department.
20. All representations and commitments of the applicant made during the AUSR process are incorporated herein as conditions of approval.



## REFERRAL AGENCY COMMENTS

### **Responding with Concerns:**

City of Thornton

### **Responding without Concerns:**

Brighton 27-J School District

Xcel Energy

Tri-County Health Department

### **Notified but not Responding / Considered a Favorable Response:**

North Metro Fire Rescue District

Colorado Department of Public Health and Environment

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3.2 Referral Comments (Xcel Energy)

3.3 Referral Comments (City of Thornton)

3.4 Referral Comments (Brighton School District 27J)

3.5 Referral Comments (Tri-County Health Department)

### **Exhibit 4- Citizen Comments**

4.1 Citizen Comments

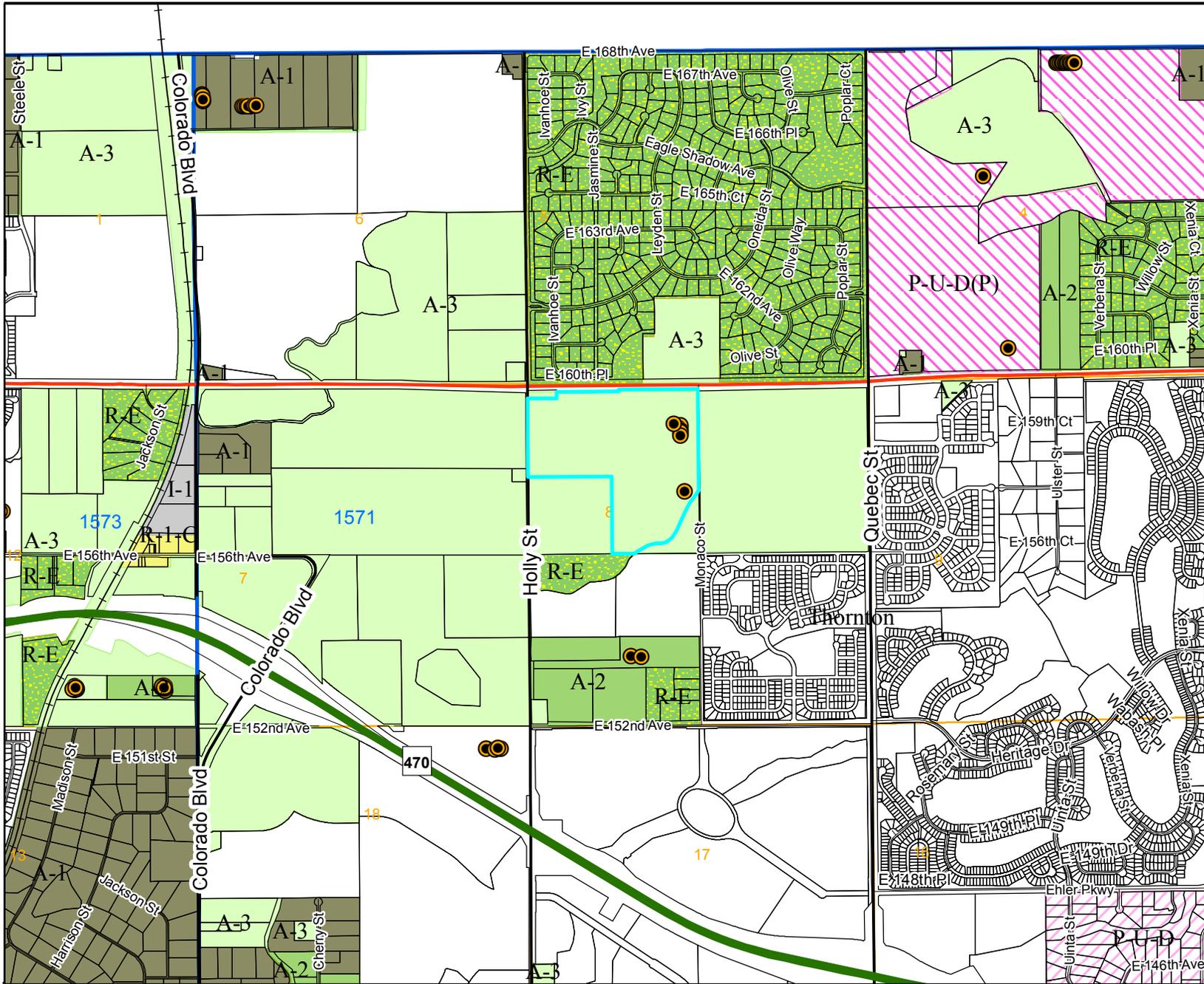
4.2 Applicant's Responses

### **Exhibit 5- Associated Case Materials**

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EXHIBIT 1.1  
ZONING MAP



**LEGEND**

- Special Zoning Conditions
- Section Numbers
- 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)
- Airport Noise Overlay

**Great Western Ocho**  
**USR2016-00005**

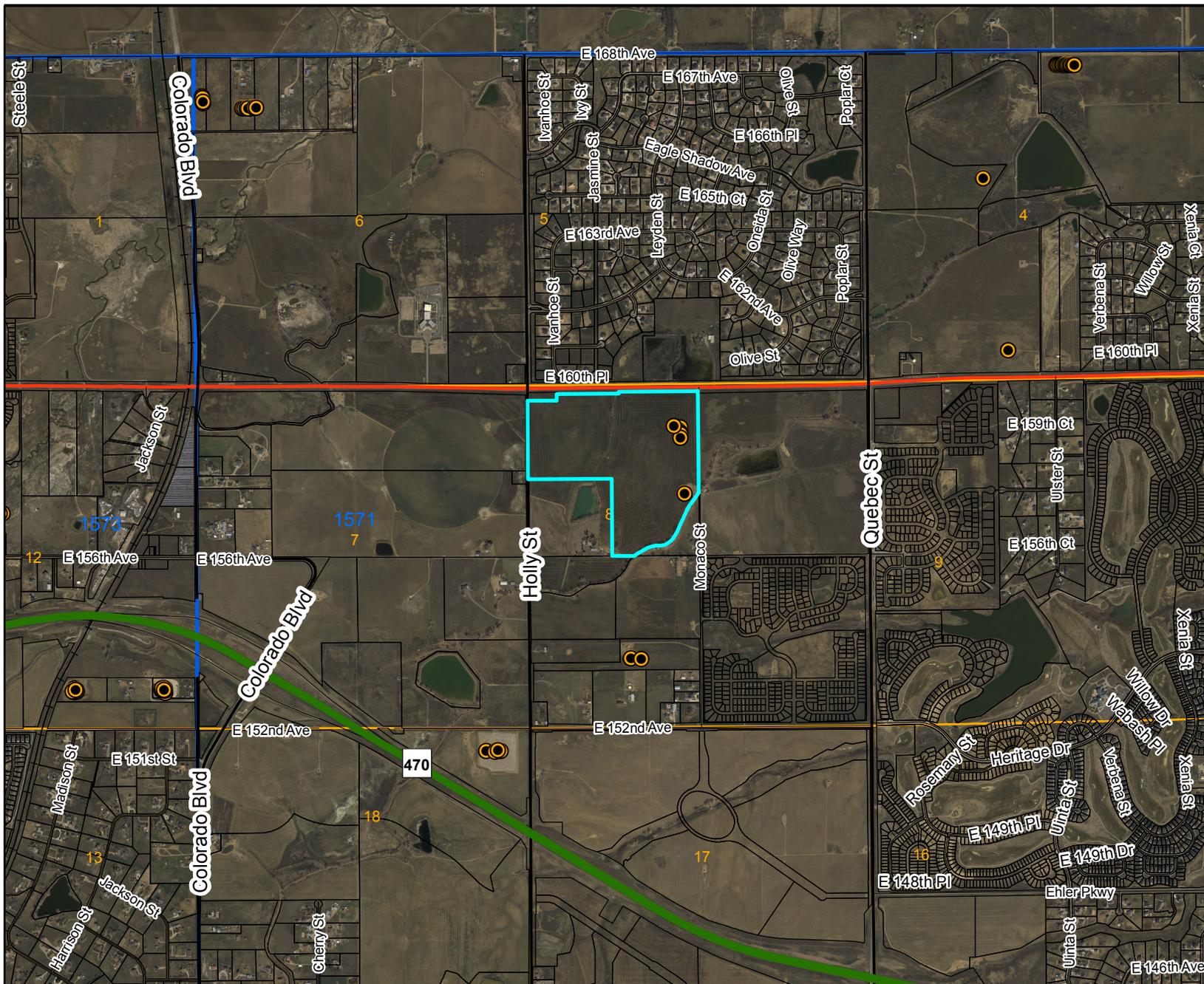


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EXHIBIT 1.2  
AERIAL MAP



### LEGEND

- Special Zoning Conditions
- Section Numbers
- 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)
- Airport Noise Overlay

**Great Western Ocho**  
**USR2016-00005**

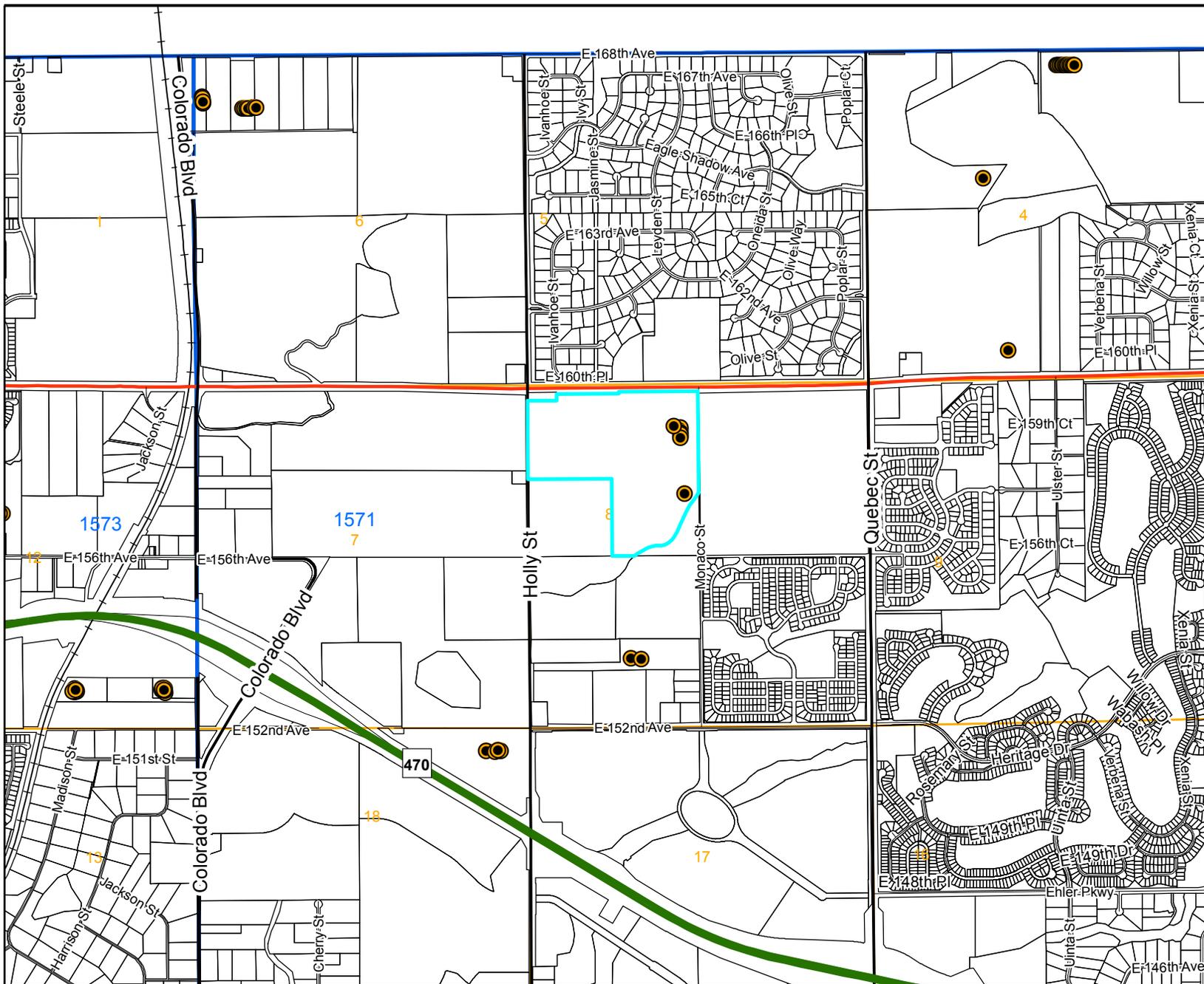


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EXHIBIT 1.3  
SIMPLE MAP



**LEGEND**

- ★ Special Zoning Conditions
- 3 Section Numbers
- 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)
- Airport Noise Overlay

**Great Western Ocho**  
**USR2016-00005**

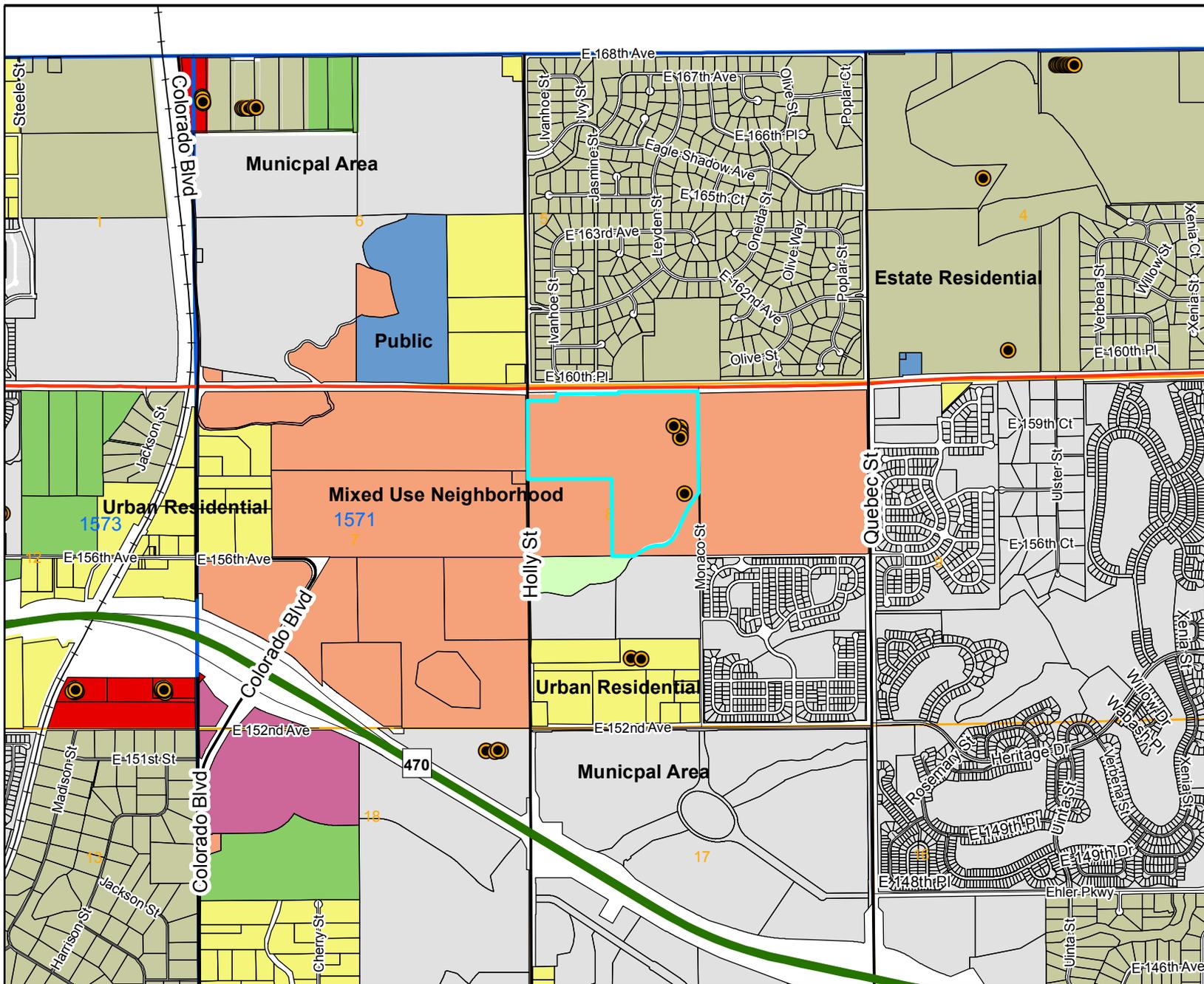


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EXHIBIT 1.4  
COMPREHENSIVE PLAN MAP



**LEGEND**

- ★ Special Zoning Conditions
- 3 Section Numbers
- 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)
- ⊞ Airport Noise Overlay

**Great Western Ocho**  
**USR2016-00005**



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EXHIBIT 2.1  
APPLICANT WRITTEN EXPLANATION

## **WRITTEN EXPLANATION**

The proposed project consists of the construction of one (1) wellpad with up to thirty-one (31) wells and one (1) access road for an oil and gas location to be operated by Great Western Oil and Gas. Great Western Oil and Gas does not intend to drill all (31) wells consecutively. The drilling schedule is subject to change due to economic conditions, business development priorities and equipment availability.

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

The proposed drill site will be 11.110 acres in size which will be reclaimed to 5.304 acres once all wells are done drilling and completed. Construction of this site includes upgrading the existing access road and leveling the site. A closed loop fluids system will be used while drilling; so, no drilling pits will be used. The attached Rig Plan Layout shows the maximum area to be disturbed by drilling 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 (Approximately 7 days per well)**

After site preparation, drilling rig equipment is transported to location and rigged up. Drilling operations are conducted 24 hours a day until completed. 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 18,000 ft, (vertical depth is approx. 7900 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 from a source approved by both COGCC and the State Engineer's office.

### **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 7 days per well. Prior to beginning Completion activities, the site is bladed and leveled to accommodate the completion rig, anchors are set for the completion rig, and drilling mud is removed from the pits. 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 seven 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. Each horizontal well will be completed in a single zone in the Codell or Niobrara formation.

### **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 South of the proposed well pad. Thirty Six (36) low profile 533 bbls (16' tall) steel oil tanks, six (6) low profile 533 bbls (16' tall) fiberglass water tanks, thirty (30) 2-phase separators, five (5) Horizontal heater treaters (12' tall), one (1) Horizontal Free Water Knockout (12' tall), five (5) Vapor Recovery Towers (32' tall), twelve (12) ECDs (25' tall), three (3) vertical gas line scrubbers (12' tall), two (2) vapor recovery units, two (2) gas sales wellhead compressors, two (2) custody transfer gas meter 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.

Within thirty days after completion of operations, Great Western shall provide to the Town "as built" drawings showing all facilities, pipelines, flow lines and gathering lines installed to service the proposed wells. Building permits will be obtained for permanent above-ground structures. 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. Pumper traffic will be light after the initial 120 days of production after each drilling rig visit. 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. Initially there will be trucks through the site continuously. 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. Initially they will be on site continuously.

If an oil line is installed oil will be pipelined out and only trucked if the pipeline is down.

### **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 as there are no other houses within 1000' buffer Great Western does not plan to utilize any other visual barriers. Sound walls will be located as needed based on baseline noise survey. They will reduce visual impacts.

### **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.

### **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**

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**

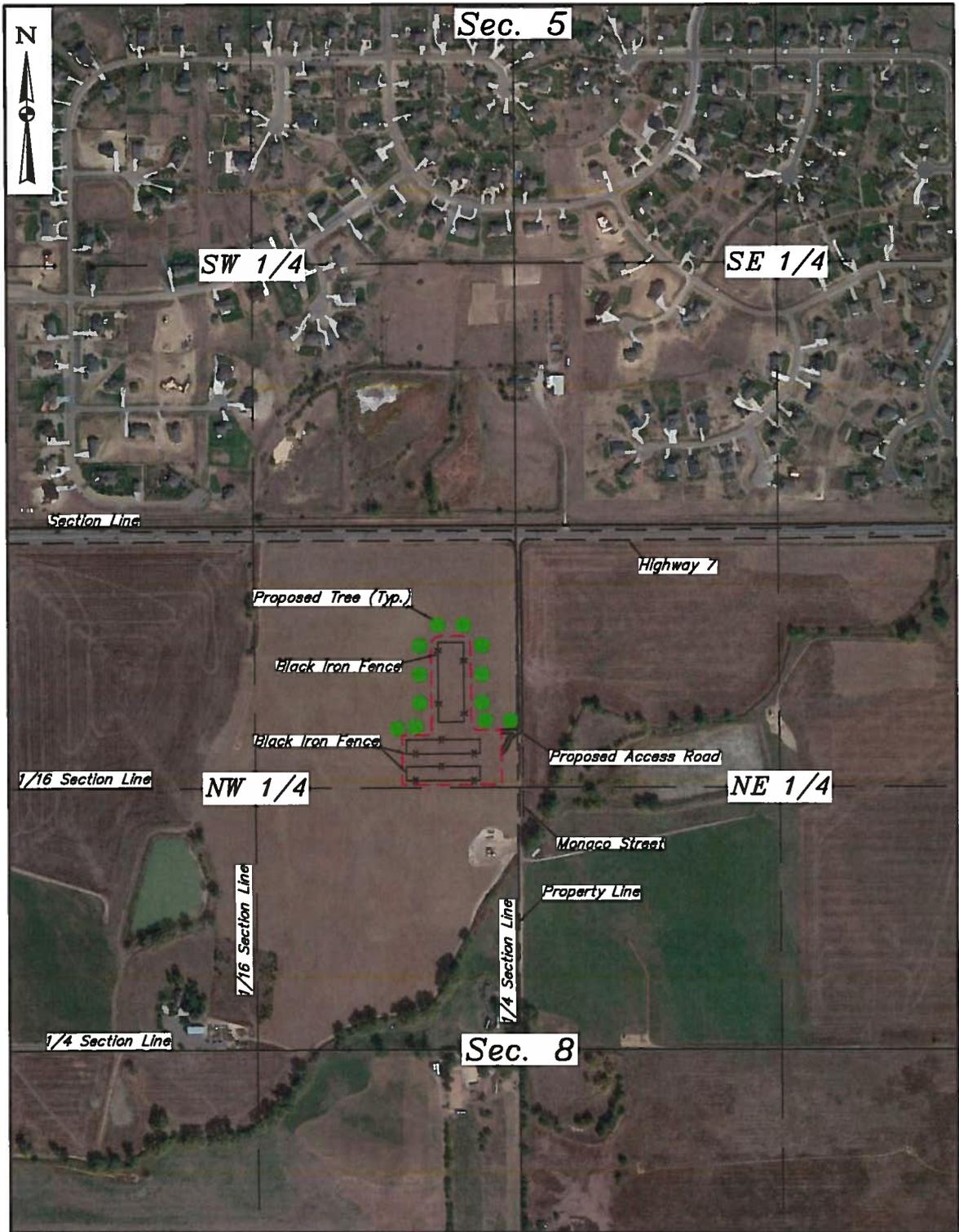
The site has been continuously maintained as cropland and as such is not a habitat for Preble's meadow jumping mouse or other endangered species, and the operator will take all reasonable precautions to protect same if encountered.

**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.

EXHIBIT 2.2  
APPLICANT SITE PLAN



NOTES:

**GREAT WESTERN OPERATING COMPANY**  
 NE 1/4 NW 1/4, SECTION 8, T1S, R67W, 6th P.M.  
 ADAMS COUNTY, COLORADO

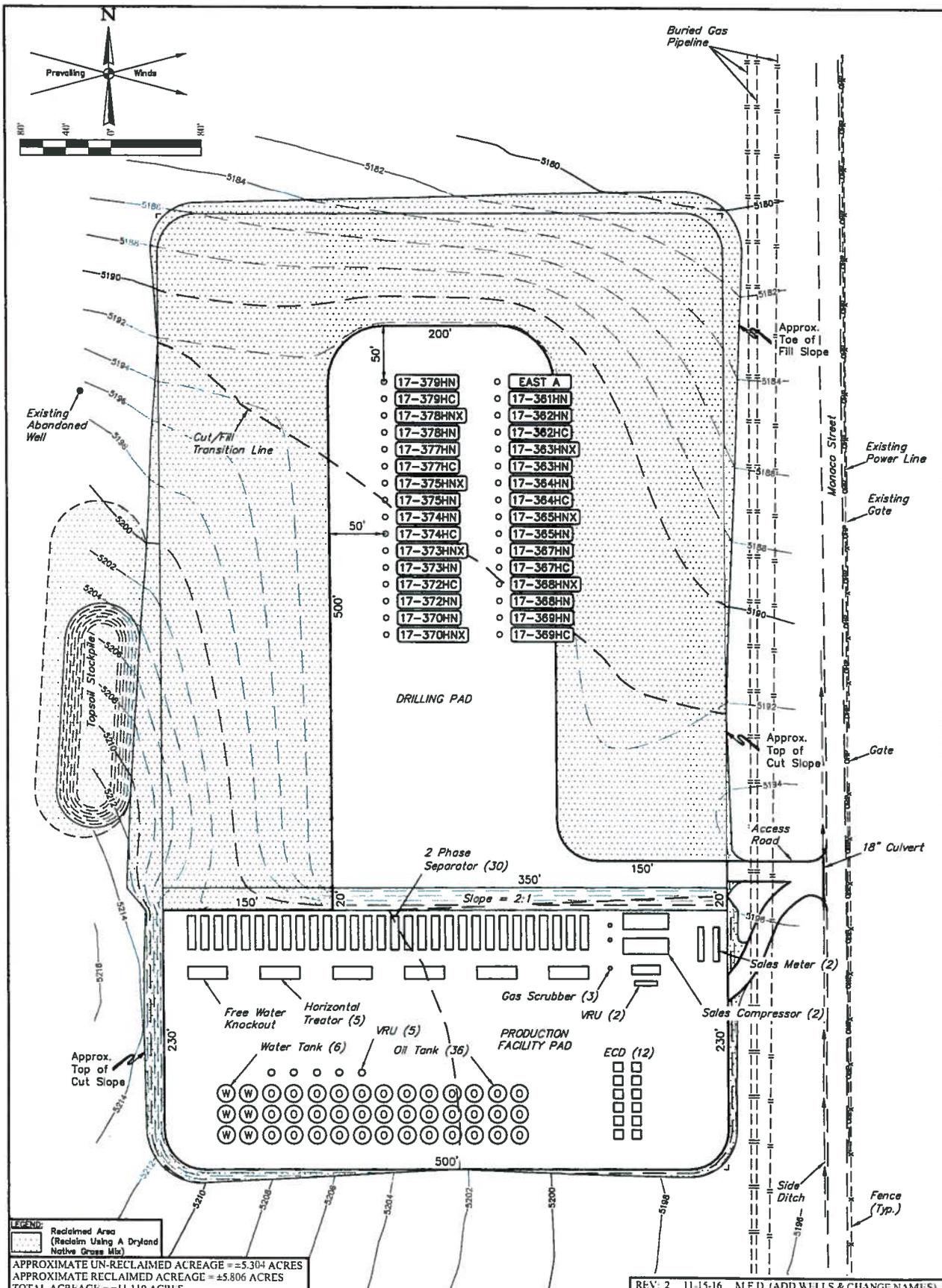


**UELS, LLC**  
 Corporate Office \* 85 South 200 East  
 Vernal, UT 84078 \* (435) 789-1017

SURVEYED BY	ZANE BULLARD, G.W.	05-23-16	SCALE
DRAWN BY	K.B.	12-06-16	NONE

**SITE PLAN**

EXHIBIT 2.2  
APPLICANT SITE PLAN



**LEGEND:**  
 Reclaimed Area (Reclaim Using A Dryland Native Grass Mix)

APPROXIMATE UN-RECLAIMED ACREAGE = ±5.304 ACRES  
 APPROXIMATE RECLAIMED ACREAGE = ±5.806 ACRES  
 TOTAL ACREAGE = ±11.110 ACRES

- Drilling Schedule:**
- Proposed drilling schedule from November 2017 through February 2018.
  - Proposed completion schedule February 2018.

**BASIS OF BEARINGS**  
 BASIS OF BEARINGS IS A G.P.S. OBSERVATION  
**BASIS OF ELEVATION**  
 BENCHMARK JR 53 5028 LOCATED IN THE SW 1/4 SE 1/4 OF SECTION 18, T18N, R67W, 6th P.M., TAKEN FROM 1988 PUBLISHED DATUM BY THE UNITED STATES DEPARTMENT OF THE INTERIOR, GEOLOGICAL SURVEY AS BEING 5028 FEET

**ADMINISTRATIVE USE by SPECIAL REVIEW**  
 for  
**GREAT WESTERN OPERATING COMPANY**  
 OCHO LD PAD  
 NE 1/4 NW 1/4, SECTION 8, T18, R67W, 6th P.M.  
 ADAMS COUNTY, COLORADO

Sheet 4 of 5

**UELS, LLC**  
 Corporate Office • 85 South 200 East  
 Vernal, UT 84078 • (435) 789-1017



SURVEYED BY	Z.B., G.W.	05-24-16	SCALE
DRAWN BY	K.B.	09-14-16	1" = 80'
<b>PRODUCTION PLAN</b>			

REV: 2 11-15-16 M.F.D. (ADD WELLS & CHANGE NAMES)

EXHIBIT 3.1  
REFERRAL COMMENTS (ENGINEERING)

**From:** [Greg Labrie](#)  
**To:** [Chris Simmons](#)  
**Cc:** [Jen Rutter](#)  
**Subject:** RE: AUSR2016-00005 Great Western Ocho Wellpad Comments  
**Date:** Wednesday, January 11, 2017 4:37:22 PM  
**Attachments:** [image002.png](#)

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Chris,

In short, I am in agreement with the proposed traffic route by the applicant. I do agree with the City of Thornton in terms of paving Monaco road to the access driveway of the oil pad site. Additional Development Engineering Review comments are as follows:

Eng1; The traffic impact study was not signed and stamped by a Professional Engineer. The study is required to be signed and stamped by a registered professional engineer with the state of Colorado.

Eng2; Access will only be allowed onto Monaco. No direct access to Highway 7 from well pad site.

The proposed route for the traffic generated by construction, drilling, and the completion phase of the oil pad is acceptable. This proposed route includes using Monaco street to access and exit from the site and then connecting to highway 7 and traveling westbound to I-25.

Eng3; Flood Insurance Rate Map – FIRM Panel # (08001C0306H), Federal Emergency Management Agency, March 5, 2007. According to the above reference, the project site is NOT located within a delineated 100-year flood hazard zone; A floodplain use permit will not be required.

Eng4; The proposed erosion and sediment control BMPs are acceptable.

Eng5; The drainage report shows that the development will not have an adverse impact on adjacent properties with the stormwater run-off generated from the site improvements.

Email or call with questions, 720-523-6824.

Sincerely,

T. Greg Labrie, PE, CFM  
Senior Engineer  
Adams County  
Development Engineering Services  
4430 S. Adams County Parkway  
Brighton, CO 80601  
Ph # 720-523-6824



---

**From:** Chris Simmons  
**Sent:** Wednesday, January 11, 2017 3:55 PM  
**To:** Greg Labrie  
**Cc:** Jen Rutter

**Subject:** AUSR2016-00005 Great Western Ocho Wellpad Comments

Greg,

While reviewing the Ocho Request for Comments we came across specific comments from the City of Thornton. I'm including them below for your review. What are your thoughts?

Transportation and Traffic: The City of Thornton is concerned about the current traffic plan and access onto Highway 7 from Monaco Street. There is the potential for stacking on Monaco Street as well as traffic conflicts for trucks turning onto Highway 7. Due to these potential vehicle conflicts coupled with high vehicle speeds on Highway 7 and the absence of a westbound to southbound left turn lane, turning movements onto and off Monaco Street at Highway 7 may need to be restricted to right turns only. Monaco Street is an unimproved road, and the City requests that the operator be required to pave Monaco Street leading up to the Highway 7 intersection to avoid tracking road material onto Highway 7. The City requests additional information on the truck routes to include the ultimate destination of the vehicles. In addition, the City requests additional information on the definition of heavy and light vehicles.

Thanks,  
Chris

**Christopher Simmons**

Oil & Gas Liaison, *Community & Economic Development Department*

ADAMS COUNTY, COLORADO

4430 South Adams County Parkway, 1st Floor, Suite W2000A

Brighton, CO 80601

o: 720.523.6891 | [csimmons@adcogov.org](mailto:csimmons@adcogov.org)

[www.adcogov.org](http://www.adcogov.org)

EXHIBIT 3.2  
REFERRAL COMMENTS (XCEL ENERGY)



**Right of Way & Permits**  
1123 West 3<sup>rd</sup> Avenue  
Denver, Colorado 80223  
Telephone: **303.571.3306**  
Facsimile: 303. 571.3284  
donna.l.george@xcelenergy.com

January 12, 2017

Adams County Community and Economic Development Department  
4430 South Adams County Parkway, 3<sup>rd</sup> Floor, Suite W3000  
Brighton, CO 80601

Attn: Jen Rutter

**Re: Great Western Oil and Gas Company Ocho Well Pad  
Case # USR2016-00005**

Public Service Company of Colorado (PSCo) has reviewed the plans for the above captioned project and has **no apparent conflict**.

If you have any questions about this referral response, please contact me at (303) 571-3306.

Sincerely,

Donna George  
Contract Right of Way Referral Processor  
Public Service Company of Colorado

EXHIBIT 3.3  
REFERRAL COMMENTS (CITY OF THORNTON)



# City of Thornton

**TO:** Chris Simmons, Adams County Community and Economic Development Department  
**FROM:** Robb Kolstad, City of Thornton City Manager's Office *RK*  
**DATE:** January 10, 2017  
**SUBJECT:** Great Western Oil and Gas Company Ocho Well Pad (#USR2016-00005)

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Please accept the following comments regarding the Great Western Oil and Gas Company Ocho Well Pad (#USR2016-00005). Based on the response to the comments below, the City of Thornton may have additional comments or request for information.

**Land Use:** The City of Thornton requests the requirement for specific fencing, lighting, berms, and landscaping, including trees, to secure and visually mitigate the site. The application materials reference various mitigation but lacked specificity regarding the exact measures that would be required. As such, the City requests a landscaping, lighting, and grading plan. In addition, the permit materials also were unclear as the number of wells on the pad site (32 versus 31).

**Emergency Response:** The City of Thornton requests that Great Western Oil and Gas Company provide an updated emergency management plan for this site. In addition, the City requests that the operator supply fire suppression equipment and supplies on site and prior to commencing operation, provide training to first responders on how to use the equipment and supplies.

**Transportation and Traffic:** The City of Thornton is concerned about the current traffic plan and access onto Highway 7 from Monaco Street. There is the potential for stacking on Monaco Street as well as traffic conflicts for trucks turning onto Highway 7. Due to these potential vehicle conflicts coupled with high vehicle speeds on Highway 7 and the absence of a westbound to southbound left turn lane, turning movements onto and off Monaco Street at Highway 7 may need to be restricted to right turns only. Monaco Street is an unimproved road, and the City requests that the operator be required to pave Monaco Street leading up to the Highway 7 intersection to avoid tracking road material onto Highway 7. The City requests additional information on the truck routes to include the ultimate destination of the vehicles. In addition, the City requests additional information on the definition of heavy and light vehicles.

**Operations:** The City of Thornton requests that Adams County provide the inspection reports for the Ocho Well Pad.

EXHIBIT 3.4  
REFERRAL COMMENTS (SCHOOL DISTRICT 27J)

**From:** [Jen Rutter](#)  
**To:** [Chris Simmons](#)  
**Subject:** FW: USR2016-00005 Great Western Ocho - Request for Comments  
**Date:** Tuesday, January 10, 2017 4:12:29 PM

---

## Jen Rutter

Senior Environmental Analyst, *Community & Economic Development Department*

ADAMS COUNTY, COLORADO

4430 South Adams County Parkway, 1st Floor, Suite W2000A

Brighton, CO 80601

o: 720.523.6841 | [jrutter@adcogov.org](mailto:jrutter@adcogov.org)

[www.adcogov.org](http://www.adcogov.org)

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**From:** Kerrie Monti [mailto:[kmonti@sd27j.net](mailto:kmonti@sd27j.net)]  
**Sent:** Tuesday, January 10, 2017 3:45 PM  
**To:** Jen Rutter  
**Subject:** Re: USR2016-00005 Great Western Ocho - Request for Comments

Hi Jen,

The District has no objection to this case. Thanks, as always, for asking!

## Kerrie Monti | Planning Manager

School District 27J | 18551 E 160<sup>th</sup> Avenue | Brighton, CO 80601  
303-655-2984 | Fax 303-655-2805

[kmonti@sd27j.net](mailto:kmonti@sd27j.net) | [www.sd27j.org](http://www.sd27j.org)

On Thu, Dec 22, 2016 at 5:06 PM, Jen Rutter <[JRutter@adcogov.org](mailto:JRutter@adcogov.org)> wrote:  
The Adams County Community & Economic Development Department is requesting comments on the following application:

**Request for a Use by Special Review Permit to allow thirty-one (31) horizontal wells on one (1) well pad for the production of oil and gas.**

Please find attached:

- Request for Comments & Project Description
- Oil & Gas Operations Plan
- Traffic Impact Study/Report
- Emergency Response Plan

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 or (720) 523-6891 by **1/12/2016** in order that your comments may be taken into consideration in the review of this case. If you would like your comments included verbatim please send your response by way of e-mail to [csimmons@adcogov.org](mailto:csimmons@adcogov.org).

Thank you,

**Jen Rutter**

Environmental Analyst, *Community & Economic Development Department*

ADAMS COUNTY, COLORADO

4430 South Adams County Parkway, 1st Floor, Suite W2000A

Brighton, CO 80601

o: 720.523.6841 | [jrutter@adcogov.org](mailto:jrutter@adcogov.org)

[www.adcogov.org](http://www.adcogov.org)

EXHIBIT 3.5  
REFERRAL COMMENTS (TRI-COUNTY HEALTH DEPARTMENT)



January 17, 2017

Christopher Simmons  
Adams County  
Community & Economic Development Department  
4430 S Adams County Pkwy, Suite W2000A  
Brighton, CO 80601

RE: Great Western Ocho Oil and Gas, USR2016-00005  
TCHD Case No. 4220

Dear Mr. Simmons:

Tri-County Health Department (TCHD) has reviewed the application for a Use by Special Review Permit to allow thirty-one horizontal wells on one well pad for the production of oil and gas located at NE 1/4 NW 1/4, Section 8, T1S, R67W, 6<sup>th</sup> PM. After reviewing the materials received in the referral, TCHD staff has the following comments.

#### **Domestic Wastewater Management**

Proper wastewater management promotes effective and responsible water use, protects potable water from contaminants, and provides appropriate collection, treatment, and disposal of waste that protects public health and the environment. TCHD, as the local public health agency, plays a role in reviewing whether a new proposed land use has addressed the domestic water and wastewater needs and is the regulating agency for On-Site Wastewater Treatment Systems (OWTS). Because of the nature of oil and gas operations and the typical location of this land use, not in close proximity to existing wastewater facilities, many of the oil and gas sites utilize OWTS.

TCHD permits the use of OWTS including septic tanks and vault systems. If the site utilizes an OWTS or vault system for domestic wastewater, the applicant will need to obtain a Use Permit from TCHD. Please contact Mike Weakley at 720-200-1593 or [mweakley@tchd.org](mailto:mweakley@tchd.org).

#### **Baseline Water Quality Testing**

Water quality is unregulated in domestic and irrigation wells in Colorado and monitored in a limited manner for commercial wells. This means water quality testing is typically not required, and the water quality is often unknown. In general, TCHD supports baseline water quality testing to establish the existing water quality relative to the water well's permitted use and to identify water quality issues that should be known and addressed by the well's owner. Baseline water quality testing can also provide an understanding of pre-existing conditions should the water quality change in the future. Baseline and subsequent water quality testing data can support a determination of whether water treatment may be needed to protect the health of well water users and the health of the environment.

#### **Specific Recommendations for Water Wells within ½ mile:**

TCHD believes that any owner of a well within one-half mile of the proposed oil and gas operation should have the opportunity to obtain a baseline water quality test prior to the change in land use. One-half mile is the area of influence established by the Colorado Oil and Gas Conservation Commission's Final Rule 609 Statewide Groundwater Baseline Sampling and Monitoring.

TCHD recommends the following for well permits and water rights holders located within one-half mile of the proposed oil and gas well as they are likely used or will be used for drinking water for humans or animals.

- That the County or applicant notify owners of the wells or groundwater rights owners of the proposed application;
- That the County refer well owners who want to test their wells to TCHD for guidance on recommended testing parameters, procedures for selection of qualified sampling professionals and laboratories, and sharing of data; and
- That the County refers well owners desiring guidance for wellhead protection to TCHD.

### **Water Supply for Use by Workers**

Providing clean and safe water for use by workers for ware washing, food preparation, hand washing, and showering is important. The majority of foodborne illnesses can be traced to improper food handling procedures in home, retail, or office kitchens. Improper transport, storage, cross-connections, and backflow also pose dangers to potable water quality.

TCHD will need to review information regarding the source of water for workers as well as any proposed potable water system used by workers. If the drinking water is to be hauled, a public water system identification number for the water hauler must be provided to TCHD.

### **Potential Temporary Water Storage**

Non-potable water is often used onsite at oil and gas sites. The storage tank should be marked with a sign indicating the water is non-potable. In addition, these very large water storage tanks have the potential to collapse if not properly constructed with appropriate quality controls. A collapse can result in significant damage to the environment, property, and individuals that may be nearby. TCHD recommends the applicant employ proper quality control techniques when constructing the water storage tank.

### **Above Ground Storage Tanks**

Fuel is often stored onsite at oil and gas sites. All storage tanks must have a secondary containment area, a routine monitoring system to check for leaks, and best management practices implemented in order to prevent the release of contaminants into the soil and water supplies.

### **Emergency Response Plan**

One of the most common environmental releases associated with oil and gas drilling operations is the inadvertent surface spill of chemicals, produced water, or flowback water. TCHD commends the applicant for including response and notification procedures for responding to and effective strategies for minimizing the risk of spills and other incidents in the Emergency Response Plan.

If a spill or incident were to occur, the emergency response to spills should be indicated in the Spill Prevention, Control, and Countermeasures Plan that is kept onsite.

Specific information related directly to a potential leak or spill from the domestic wastewater system should also be addressed. In the event there is a domestic wastewater spill or leak, TCHD should be contacted immediately.

### **Air Quality Permitting**

Air pollutant emissions including flares are regulated by the Colorado Department of Public Health and Environment. Vapor recovery equipment should be used to control the release of

vapors into the environment. The use of green completion technology is strongly encouraged at every site. If the site is to use multiple flares and combustors, the oil and gas industry permits should include a regulatory analysis determining the applicability of state and federal air quality permitting requirements and air pollution control regulations for the proposed emissions source(s). More information as well as all forms can be found online at <https://www.colorado.gov/pacific/cdphe/all-permits>.

### **Dust Control and Mitigation**

TCHD encourages the applicant to follow best management practices for erosion control on the site, specifically to minimize excessive dust from land disturbance. This will help minimize the environmental impact resulting from any construction and land disturbance on the site. TCHD encourages any reclamation, including site pad minimization, and reseeded activities to occur as early as possible. This prevents erosion, helps control excessive weeds, and can provide some benefit to air quality.

### **Traffic Safety**

Oil and gas production and monitoring wells involve significant truck traffic to and from a site during the construction and drilling process. TCHD commends the applicant for including a traffic impact study along with traffic mitigation methods in their application and TCHD encourages the County to designate a primary traffic route for all construction traffic and deliveries. If the trucks servicing the site will be traveling on a local school bus route, we encourage the County to work with the applicant to minimize traffic during hours when school buses are in operation.

Please feel free to contact me at (720) 200-1585 or [lbroten@tchd.org](mailto:lbroten@tchd.org) if you have any questions on TCHD's comments.

Sincerely,



Laurel Broten, MPH  
Land Use and Built Environment Specialist  
Tri-County Health Department

CC: Sheila Lynch, Monte Deatrich, TCHD

EXHIBIT 4.1  
CITIZEN COMMENTS

**From:** [Jennifer Gamble](#)  
**To:** [Chris Simmons](#)  
**Cc:** [Jen Rutter](#); [Kristin Sullivan](#)  
**Subject:** Comments on Great Western Oil and Gas Company Ocho Well Pad USR2016-00005  
**Date:** Monday, January 09, 2017 1:02:42 PM

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Chris Simmons,

Please accept this as formal official comment submitted during the referral period for the Ocho Well Pad permit application to Adams County.

First, I would like to commend the operator and the county for heeding public input received at and before the neighborhood meeting to adjust the access route for the site such that no oil and gas traffic will travel on 144th Avenue/past the Stargate school and through neighborhoods. I can see by the new access route presented in the application that all oil and gas traffic will remain on I-25 to Highway 7 east to Monaco Road and then south on Monaco to the proposed Ocho site. This is a noted improvement.

I have a couple of questions/comments on the application, the information on operation traffic seems incomplete. It does not indicate the number and type of vehicle anticipated per month during the operations phase. It is too general/generic in nature. I refer to page 115 of the pdf file of the application. We would like to understand how many trucks of each type during operations. Thanks.

We would also like Adams County to prepare an integrated Adams County transportation plan for oil and gas that takes into account the cumulative compounding effect of traffic from the >200 new wells being proposed in Adams County between Washington and Riverdale and between 136th and 168th Avenue.

We would like for the Ocho site to have mandatory security fencing around all operational equipment that is 6 feet tall and locked and substantial (i.e. wrought iron) to keep any children or teenagers from going near the equipment and to protect neighborhoods to the north of Highway 7 from the site.

In addition, we encourage the county to consider future residential developments that might encroach on the oil and gas and ensure the site is made compatible with current and future development.

Thanks, Jennifer

--

Jennifer Gamble

Managing Director  
**OnPoint Power, LLC**  
2280 E. 138th Avenue  
Brighton, CO 80602  
+1 720-334-0709  
[jennifer.gamble@oppowerllc.com](mailto:jennifer.gamble@oppowerllc.com)

**From:** [kajiwarratt@comcast.net](mailto:kajiwarratt@comcast.net)  
**To:** [Chris Simmons; regulatorypermitting@gwoqco.com](mailto:Chris.Simmons@regulatorypermitting@gwoqco.com)  
**Subject:** Great Western Oil and Gas Company Ocho Well Pad USR2016-00005  
**Date:** Thursday, December 22, 2016 9:00:56 PM

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This letter is in response to the November informational community meeting arranged by Great Western Oil and Gas as well as the "Request for Comments" letter issued by Adams County in regard to the proposed construction and maintenance of an oil and gas project to be operated by Great Western Oil and Gas.

I am a Colorado native and have lived in the same ten mile radius as this proposed gas and oil project all fifty-six years of my life. My Colorado roots run deep and wide giving me such a love of this great state, the beauty and potential for unsurpassed quality of living as few people have today. I am proud of my Colorado heritage and it's lands that my ancestors settled. Until fairly recently, I have felt that most people claiming Colorado as their home also shared my same passion and vision for doing what's best to preserve the nature and health of our little square of planet Earth.

It stings me to my very core to witness how land owners in combination with energy companies have gutted Earth's layers and destroyed Colorado's magnificent open spaces and prairie lands wringing out every ounce of oil and gas to power our ever-growing population's energy needs. A few years ago fracking and drilling wells was cutting edge technology producing "clean" energy to consumers. However, this antiquated method is costing us all dearly in terms of finite energy, clean water, stability of Earth's layers, wild life habitats, and clean air. Also, the visual pollution and obstruction of seeing the holding tanks and systems operations equipment scattered all over the countryside is appalling. What are we doing to this one and only planet we call home?

The world is filled with brilliant minds who have developed cutting-edge technology. They have proven we now have the capabilities to provide our communities with sustainable, clean energy. At the recent meeting, when I questioned one of the Great Western Oil and Gas engineers as to why their company wasn't on-board to move to more sustainable energy projects, the response was so typical and condescending, "Right now we can't produce enough sustainable energy for everybody." The message was clear that this energy company and this land and mineral rights owner, like so many, have no interest in thinking outside the box and being leaders in the world of energy production with sustainable energy options that will not destroy what's left of Colorful Colorado and the Great Plains. Sustainable energy will never happen if we as a society don't begin to take significant steps to shift the thinking and the greed for money (yes, greed for money is a big player) toward sustainable energy. Change can and must begin at the local community level.

Colorado should be at the forefront of the energy movement, setting the example for the rest of our nation and the world. Colorado energy corporations should be crown jewels for innovative thinking and action right now and in the years to come.

Community voices should be insisting on leading the way for sustainable energy and giving nature a supporting hand to heal from these drilling and extraction atrocities. I

am not one voice in this matter. I believe that multitudes of people share my same convictions, but are either afraid to speak up, feel as though they don't count, or have voices collectively snuffed out in the name of big energy business and the billions of dollars attached to such.

When I read over the Adams County documents describing the phases of this project, I felt sickened about the fracking process that will be imposed to extract a bit of energy from under our feet to satisfy today's lusty energy needs. All residents living in the metro area and eastern high plains desert encounter constant drought situations each year with suggested and/or imposed water restrictions. Water is the most precious natural resource that we have on this planet and yet millions of gallons of water are needed for each well to crack apart layers deep within the earth, never to be used again because of the toxicity. This entire drilling operation and mitigation process is absolutely shameful.

I live one-half mile directly north of this proposed project, and my neighborhood has been surrounded by numerous fracking ventures in the last handful of years. I've experienced it and know what's coming - heavy trucks snarling traffic depositing mud on the paved roads, constant 24 hour obscene noise and bright flood lights for months, dust in the air thick as fog, permanent 2% toxic emissions spewing into the air, the visual clutter of "camouflaged" tanks, small animals displaced from their homes, millions of gallons of water sucked from our precious aquifers, and all this toxic water being trucked out to some undisclosed land in eastern Colorado. I am so disappointed in individuals, corporations, and members of society who continue to support this ravaging of our earth for it's limited natural resources.

I don't deny that I have benefited from the oil and gas industry. For years this type of oil and gas is all we've known and had available to us, but it's time to move forward to the next energy frontier - that of sustainable energy.

I implore and beg the land owner, mineral rights holder(s), Great Western Operating Company, Adams County, and the State of Colorado to reconsider this project. Step up to the plate, and BE THE SUSTAINABLE ENERGY LEADERS WE NEED FOR THE FUTURE! How about a solar farm instead? That I can get behind and support!

Respectfully,

Teresa Kajiwara

**From:** [J. Kowalsky](#)  
**To:** [Chris Simmons](#)  
**Subject:** Ocho Well Pad Comments  
**Date:** Tuesday, January 10, 2017 1:44:48 PM

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**To:** Chris Simmons, LGD  
**From:** Jacky Kowalsky  
**Project Number:** USR2016-00005  
**Case Name:** Great Western Oil and Gas Company Ocho Well Pad

My comments on the Ocho Well Pad are as follows:

- 1) The COGCC 2A permit shows road access to the Ocho site from I-25, exiting on 144th and going east to Colorado Blvd and then north to Hwy 7 and east to Monaco. Great Western changed their access plan for the county AUSR permit application so that truck traffic uses I-25 north to Hwy 7 and then east to Monaco. Does this mean the operator can use both access routes? How will road access be enforced?
- 2) Comments from Adams County following the conceptual meeting indicate a traffic study, done by a licensed professional engineer, is REQUIRED (Eng6 written by Greg Lebrie). Yet there is no evidence of a traffic study in the application package. Will a permit be granted for the Ocho site prior to completion of the traffic study? Will the public have an opportunity to review the study prior to the county issuing a permit?
- 3) The current road access, whether it be the access granted by the COGCC permit or the access being considered by Adams County, is fraught with safety problems. Residential roads such as 144th should not be used for industrial access due to pedestrians (note the designated walkway on 144th south of Stargate), school traffic, bike riders, etc. Highway 7 poses challenges as well due to the 60 mile per hour speed limit on a 2 lane highway without a median or divider - just a single yellow line separating the 2-way traffic. The safest road access to the Ocho site may be from E470, exiting at Colorado Blvd which would shorten the time these heavy trucks are on Highway 7. Additionally, it might be worth exploring the creation of a temporary haul road from the E470 exit at Colorado Blvd to the south end of the Ocho site along Monaco.

Thank you,  
Jacky Kowalsky

**From:** [Mike Elshof](#)  
**To:** [Chris Simmons](#)  
**Subject:** Re: Great Western Oil and Gas Company Ocho Well Pad Project USR2016-00005  
**Date:** Tuesday, December 27, 2016 2:53:25 PM  
**Attachments:** [image001.png](#)

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**Re: Great Western Oil and Gas Company Ocho Well Pad Project USR2016-00005**

To Christopher Simmons c/o Adams County Dept of Community and Economic Development,

I am a home owner directly across Hwy7 from the proposed 32 Fracking Wells on parcel 157108200002 and I have a couple of points that I would like Adams County to consider before issuing permits for this activity.

First, I understand that Oil and Gas is a big economic driver for the State of Colorado but real estate development in the current housing boom is in my opinion just as big if not more so. I find it distasteful that the oil company's seem to be hell bent on land grabs anywhere possible. It appears to me that they are in a panic to drill as many holes as possible before regulations slow them down or real estate development can take place which may limit the location of future wells. My concern is that many of the new wells over the last 3 years, including this one, are smack in the middle of prime real estate development. This removes the possibility of developing that parcel for housing or commercial activities which hurts our citizens and ultimately drives the cost of real estate even higher because all of the "good" sites have oil wells on them. This is not good for Colorado because we will price ourselves out of future business growth due to high land costs, just like California and we make it harder for our future generations to be able to stay in Colorado for work because they can't afford housing. I have no problem with Oil and Gas, but let's please be judicious about locations. Colorado has millions of acres of land that is not considered prime real estate. I would hope that my government representatives will do everything in their power to encourage drilling on those lands and restrict drilling near current or future PUD. Our Government uses Eminent Domain to protect or acquire land for the "good of the community" Let's use this attitude towards drilling and be sure that we are using our lands wisely.

Second, My house at 16002 Olive Ct. was built on severe expansive soil. So much so that the foundation plans from Lennar (the builder) on file with the building dept. show that there are more than a dozen concrete pylons drilled no less than 30 feet into bed rock for this house. In the few years that I have lived in the house it is clear that expansive soil is taking its toll on all of the concrete on this property, but an even bigger concern is that hydrostatic pressure from the water table is causing ground water to wick up the pylons via capillary action. This water fills the French drain around my footings 24 hours a day. Every day. My sump pump runs approximately once every hour, all year long. Speaking with my direct neighbors, who had houses here several years before mine was built, tell me that their sump pits were bone dry until the pylons for this house were drilled, and now they too pump water out of their basements just like I do. I believe that the combination of the hydrostatic pressure from the water table and the expansive soil in the area will cause the casings on these proposed oil wells to fail. I am sure their pipes and scrubbers will keep ground water from contaminating their oil and gas output, but there is nothing to keep the fractured bed rock from wicking oil and gas into our ground water via capillary action up the outside of the casing. This local ground water is already entering our foundations and is being pumped into storm water drains as runoff from our sump pumps. With the location of the proposed 32 wells sitting at 5200 feet elevation, it is the highest point for many miles around and any contamination created has no choice but to run downhill into our neighborhoods where our children and pets play. Again, in my opinion, this location is the worst possible place to drill 32 fracking wells, and I respectfully ask that its location be moved to a more rural parcel where the chance of a disaster will have a less catastrophic impact.

Last is my purely selfish concern. 32 tanks the size of my pole barn, located on the tallest hill for miles around is just an outright eye sore, contaminating the view of the Colorado Mountains for thousands of citizens that live and drive on Hwy 7 every day. This will have a very negative impact on our property values and therefore the tax dollars the county will collect. Yet another reason for people to leave Colorado. Lets not allow our back yards to look like oil refineries. That is not what Colorado is all about.

Thank you for considering these very real concerns,

**Mike Elshof**  
*Sr. Mechanical Engineer*



BluePrint Robotics  
1801 Iron Horse Drive | Longmont CO 80501  
T 303.682.1200 x 242

**From:** [MCSFH157@aol.com](mailto:MCSFH157@aol.com)  
**To:** [Chris Simmons](#)  
**Subject:** Request for Comments (Great Western Oil and Gas)  
**Date:** Tuesday, January 10, 2017 6:43:30 PM

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January 10, 2017

Regarding "**Request for Comments**" on the Request for a "**Use by special Review Permit to allow thirty-two horizontal wells on one (1) well pad for the production of oil and gas.**" (*Great Western Oil and Gas Company Ocho Well Pad*)

I would like to make comments from several perspectives including those relative to my and *our* family's **personal experience**. (reality!) :-)

One: We live roughly half way between Hwy 7 (160th) and County Rd. 2 (168th) near Holly. In all the battles (pro/con) relative to drilling/fracking there has not been much said relative to the **NOISE factor**. Over the past several years there have been several wells that were drilled over in Weld County (several miles from us). **Drilling was insanely LOUD - and existed 24/7 for months on end!** It is audible with all windows closed AND often magnified relative to cloud cover (sound banking) or wind direction. VERY VERY ANNOYING!

I can't imagine ANY other business (or individual for that matter) being allowed to conduct activities that would generate that amount of noise without facing the repercussions of the law! When people go to bed at night, they shouldn't be forced to close their windows! Additionally, the light shining in our bedroom at night was INSANE (and this was from several miles away) - there was no darkness unless we closed the blinds! NOTE: The "Well" which we encountered the light from had a HUGE hay bale wall around it. Neighbors, which had light from another well, had to buy "blackout" blinds to be able to sleep. AGAIN, this was 24 & 7!!!

If all businesses (or individuals) were entitled to step upon the rights of others to achieve their profits this world would be a miserable place to live. Communities, Cities, Counties, etc. should ALL have standards (laws, ordinances, etc.) relative to the positive good of the community and out of respect to all individuals.

Additionally we have experienced the lovely "oil traffic" aspect (ongoing and very noisy!) and ESPECIALLY annoying is the amount of MUD that gets tracked out onto the road from all the construction and maintenance. (winter and summer!)

Two: I have a 30+ year history in the real estate business and over the years have experienced buyer's at large perceiving Adams County as an Industrial zone and therefore not the most desirable place to live. Over the years I have watched Metro Denver expand and so many of the outlying communities and towns blossom and grow (some of them insanely!) - with their real estate values growing right alongside. Unfortunately, Brighton hasn't enjoyed the same appreciation of values, or the degree of success that many of the other communities/counties have. (i.e. the same house in Brighton would cost a lot more down in Parker or Castlerock - other new growth areas).

There is a lot of profit to be gained by municipalities relative to the development and the value of real estate and while it has been exciting to see some of the growth along Highway 7, (and the increase of land values-finally!) I believe that permitting the

"growth" of oil wells in that particular corridor is ludicrous and will counter and destroy ALL the slow earned gains of the housing market/developers and the community at large. In the housing market, some of the areas along this corridor have long fought for their success/appeal and, . . . given ALL the UGLY (sorry), open, or industrial areas of Adams County, it absolutely amazes me that the county will counter the appeal of one of its better locations by allowing the growth and construction of something that deters so many homebuyers and developers. **SPEAKING FROM YEARS OF EXPERIENCE, IT DOES DETER HOMEBUYERS AND DEVELOPERS and it DOES BRING DOWN PROPERTY VALUES!** And is not fair to the existing homeowners and those that have chosen to call this home - their rights should not be any less than that of an oil company.

Additional thoughts:

### **The Fracking aspect (earthquake activity):**

In 2015 the USGS issued a statement that the sharp increase in earthquake activity in the central and eastern United States since 2009 "is linked to industrial operations that dispose of wastewater by injecting it into deep wells."

<http://www.commondreams.org/news/2015/04/23/fracking-induced-earthquakes-highlighted-new-usgs-map>

The Rocky Mountain Arsenal came to that conclusion back in 1966. RMA contained a deep [injection well](#) that was constructed in 1961.<sup>[5]</sup> It was drilled to a depth of 12,045 feet (3671 m). The well was cased and sealed to a depth of 11,975 feet (3650 m), with the remaining 70 feet (21 m) left as an open hole for the injection of [Basin F](#) liquids. For testing purposes, the well was injected with approximately 568,000 US [gallons](#) (2150 m<sup>3</sup>) of city water prior to injecting any waste. The injected fluids had very little potential for reaching the surface or usable [groundwater](#) supply since the injection point had 11,900 feet (3630 m) of rock above it and was sealed at the opening. The Army discontinued use of the well in February 1966 because the fluid injection triggered a series of earthquakes in the area.<sup>[5][6]</sup> The well remained unused until 1985 when the Army permanently sealed the disposal well.

[https://en.wikipedia.org/wiki/Rocky\\_Mountain\\_Arsenal](https://en.wikipedia.org/wiki/Rocky_Mountain_Arsenal)

(the earthquakes then caused an estimated million dollars worth of damage - today, something comparable is estimated to run in the billions.

<http://coloradogeologicalsurvey.org/geologic-hazards/earthquakes/>

Even a small tremor or earthquake can leave endless cracks in drywall, concrete, and concrete foundations and destroy the resale value of homes. I can't imagine gambling this sort of possibility for the profits of a few.

### **Hwy 7 Access:**

This size of this pad would involve (both in its construction and maintenance) **lots of traffic** and some of that traffic would be **very large semis and big rigs**. The accel/decel lane that would be required to accommodate this sort of traffic, to ensure the safety of those who travel Hwy 7, would have to be **considerable** to insure the safety of those who are traveling on this road.

PLEASE, PLEASE consider all this when deciding on these permits. There are so many things that in and of themselves are fine, or not dangerous, or beneficial - but time and place and location can make a difference in all of that and I think that needs to be remembered. This should not be about whether oil or fracking is good or bad but whether or not it is good or bad here in this location and in this size.

Kind regards,

Sherie Gould

**From:** [Spurgeon, Mark](#)  
**To:** [Chris Simmons](#)  
**Cc:** [Spurgeon, Mark](#)  
**Subject:** USR2016-00005, parcel 15710800002  
**Date:** Friday, December 23, 2016 9:46:53 AM

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I am writing in regards to the letter I received at my home address of 16032 Olive Street, Brighton Colorado, reference to Request for Comments, project number USR2016-00005, parcel number 157108200002.

I am concerned about the location of the wells, Hwy 7 and Monaco, south west corner. That location is in direct sight of my home and will significantly obstruct the mountain view we have, which will have a significant impact our enjoyment of our home, and will significantly devalue our property.

My wife and I purchased our home in 2010 and this is our dream home and the home we hope to retire in. As stated above this development will have a significant impact on the quality of our lives, enjoyment of our property, and value of our property.

I hope Adams County take this into consideration when determining the issuance of the special use permit for parcel number 157108200002, project number USR2016-00005.

Thanks Mark and Kathy Spurgeon  
16032 Olive Street  
Brighton, Co 80602  
303-817-1138 cell  
303-659-4199 home

**Detective Mark Spurgeon #537**

*Boulder County Sheriff's Office*  
5600 Flatiron Parkway  
Boulder CO. 80301  
Desk (303) 441-3615  
Fax (303)-441-3630  
[mspurgeon@bouldercounty.org](mailto:mspurgeon@bouldercounty.org)



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**From:** [Ann Blair](#)  
**To:** [Chris Simmons](#)  
**Cc:** [Ann Blair](#)  
**Subject:** USR2016-00005  
**Date:** Friday, December 23, 2016 10:58:01 AM  
**Importance:** High

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Hi,

I am totally against allowing 32 horizontal wells on one well pad for the production of oil and gas.

I believe this site is far too close to the Todd Creek and other housing developments all around it. I would like to see this operation of this magnitude moved farther away from homes and people.

This will be an unsightly operation and will bring down the property values all around it.

They will operate 24 hours a day, 7 days a week, the noise will be intolerable. We have HOA guidelines and we can't have builders or us building on Sundays. So why should we allow a gas company more rights than we have?

We use non potable water for our outside landscaping and the run off from the wells use of water will end up in this water supply.

I am sure my plants and trees are not going to like this water.

It also will end up in our drinking water causing the Water district to have to increase their purification procedures.

We already have some of the worst water in the State, we really don't need to invite more trouble.

The air pollution will increase and this will be detrimental for all of us and young children especially, I have asthma and this will be bad for my health too.

I see nothing good to come from allowing 32 wells in a highly populated area.

Please protect the children, adults, and animals that live near this proposed well site, please deny them 32 wells on 1 pad.

Sincerely,

Ann Blair  
16179 Oneida Ct  
Brighton, CO 80602

**From:** [Jerry Blair](#)  
**To:** [Chris Simmons](#)  
**Subject:** USR2016-00005  
**Date:** Friday, December 23, 2016 11:09:29 AM  
**Importance:** High

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Hi,

I am totally against allowing 32 horizontal wells on one well pad for the production of oil and gas.

I believe this site is far too close to the Todd Creek and other housing developments all around it. I would like to see this operation of this magnitude moved farther away from homes and people.

This will be an unsightly operation and will bring down the property values all around it.

They will operate 24 hours a day, 7 days a week, the noise will be intolerable. We have HOA guidelines and we can't have builders or us building on Sundays. So why should we allow a gas company more rights than we have?

We use non potable water for our outside landscaping and the run off from the wells use of water will end up in this water supply.

I am sure my plants and trees are not going to like this water.

It also will end up in our drinking water causing the Water district to have to increase their purification procedures.

We already have some of the worst water in the State, we really don't need to invite more trouble.

The air pollution will increase and this will be detrimental for all of us and young children especially, my wife has asthma and this will be bad for her health too.

I see nothing good to come from allowing 32 wells in a highly populated area.

Please protect the children, adults, and animals that live near this proposed well site, please deny them 32 wells on 1 pad.

Sincerely,

Jerry Blair  
16179 Oneida Ct  
Brighton, CO 80602

EXHIBIT 4.2  
APPLICANT RESPONSES

**Adams County  
Community and Economic Development Department  
Development Review Comments**

	<b>Case Number: USR2016-00005</b>		<b>Case Name: Great Western Ocho</b>	
	<b>Applicant: Great Western</b>		<b>Date Initiated: 1/10/17</b>	
<b>Referral Comment No.</b>	<b>Mapped?</b>	<b>Reviewer Initials</b>	<b>County Comment</b>	<b>Applicant Response (date)</b>
1	TBD	CS	Staff has reviewed comments and is discussing Oil and Gas traffic impacts internally to determine a timeline for an Adams County Transportation Study	<p>GWOG appreciates Commenter's (J. Gamble) commendation on rerouting our traffic access route. We also have revised the Traffic Impact Study to hopefully present a more precise picture of traffic during and post Operations phases. The initial study was based on information and format provided by other operators on previous permits. After discussions with ADCO staff members several activities were added as well as we revised the study to more accurately reflect actual operations phases, including light and heavy truck counts for each activity. The Traffic Impact Study has now also been reviewed and stamped by a Colo. Registered Professional Engineer (P.E.).</p> <p>GWOG agrees that our sites should be secure. Great Western will comply with Colorado Oil and Gas Conservation Commission (COGCC) rule 604.c(2)M regarding site security. At a minimum, GWOC will install appropriate fencing to restrict access by any unauthorized persons. This fencing may vary depending on the site-specific situation. Fencing is noted on facility layout diagrams (page 16 of our site plan) for the production phase of operations. The site is attended 24 hours per day during drilling and completion operations and strict admittance requirements are followed. Great Western plans to have wrought iron fencing around all well equipment as depicted on Page 16 on the proposed Ocho Site plan.</p> <p>Fencing will be installed as per ADCO requirements.</p>
2	TBD	CS	Staff has reviewed comments and is evaluating how Conditionals of Approval (COAs) may be used to	GWOG takes our activities and any related impacts seriously including their potential effect on the environment and the

			mitigate impacts	<p>safety of neighbors and our employees. Colorado has the most stringent regulations relating to oil &amp; gas operations in the U.S., and we are well ahead of most states in regulation and reductions of air emissions. Carbon emissions have declined significantly due to the use of natural gas versus coal for energy generation. The approximate relative ground surface footprint (eg. acres) to produce an equal output of energy from wind turbines is 33 times larger, and from a solar field 6 times larger, than a single average U.S. natural gas/oil well.</p> <p>Environmental Facts regarding Natural Gas use:  Natural gas-fired generation has the potential to:  -Reduce carbon monoxide and particulate emissions by 90%  -Emit 80% less nitrogen oxide (NOx) than burning coal  -Emit virtually no SO2 or Mercury</p> <p>Hydraulic fracturing is a proven and safe technique used by industry for over 60 years.</p> <p>GWOG plans to install walls around the site to mitigate and minimize noise and light impacts during the drilling and completions phases of operation. Noise levels from our operations will meet or be below requirements set by the state. In addition light sources will be directed downwards, and away from occupied structures where possible. Once the drilling and completion activities are finished, there will be no permanently installed lighting on site.</p> <p>We agree that the use of ‘sustainable’ energy types is an important piece of the overall energy blueprint. Unfortunately at this time there is not sufficient sustainable generation to meet society’s growing needs, and new generation of sustainable energy sources is a high-cost solution for consumers.</p>
3	TBD	CS	Staff has reviewed comments. Traffic route enforcement lies with the County and will be enforced by an Adams County Code Enforcement Officer or the Adams County Oil and Gas Inspector. Signed Traffic Study has been requested	After receiving citizen input GWOG has abandoned the 144 <sup>th</sup> access route and replaced it with the I-25 access directly to Highway 7 east to Monaco and south to the pad location. The Traffic Impact Study has been revised and reviewed and stamped by a Colo. Registered Professional Engineer (P.E.). An access route from E-470 to either Monaco or Highway 7 was deemed impracticable.
4	Yes	CS	Staff has reviewed comments and is evaluating how Conditions of Approval (COAs) may be used to	Mineral rights are also ‘property rights’ just as real estate is a property right. Recovering the minerals from mineral leases

			mitigate impacts	<p>is based on where commercially obtainable minerals are located and can be accessed from on the surface. In many cases Operators are very limited in surface location choices to access the minerals.</p> <p>Colorado is known for expansive soils in many areas where oil and gas development has occurred. The COGCC requires, and Industry takes significant steps to avoid the issues of concern raised by the commenter regarding ensuring the protection of ground water resources. Redundant layers of protective steel casing and cement are utilized in the borehole to isolate the borehole and produced fluids and prevent potential releases to the environment.</p> <p>The redundant levels of protection at the Ocho site include a surface casing to a depth of 1700-feet which is cemented in place to the surface. GWOG goes beyond COGCC's minimum requirements for the depth of surface casing and will install surface casing to a depth of 1700-feet. Production casing is then installed and cemented all the way to surface (COGCC requirement is for cement to 200-feet above the shallowest producing zone only) and a cement bond log (CBL) is run to confirm cement density. On the surface all chemical or oil storage vessels are required to have minimum 110% containment capacity for the largest tank inside any containment structure. GWOG uses a minimum 150% containment capacity and it is constructed of corrugated steel with man-made liners underlying each containment structure and welded to the containment walls. GWOG also maintains a Spill Prevention Control Countermeasures (SPCC) Plan and makes regular formal and informal inspections looking for leaks or releases. If a release is encountered it is repaired and cleaned up as soon as practicable (typically immediately) and reported and tested as per state and county requirements until meeting state standards for cleanup.</p>
5	TBD	CS	Staff has reviewed comments- noise and traffic are of significant concern. Staff is evaluating how Conditions of Approval (COAs) may be used to mitigate impacts	<p>GWOG plans to install walls around the site to mitigate and minimize noise and light impacts during the drilling and completion phases of operation. Noise levels from our operations will meet or be below requirements set by the state. In addition light sources will be directed downwards, and away from occupied structures where possible. Once the drilling and completion activities are finished, there will be no</p>

				<p>permanently installed lighting on site.</p> <p>The drilling location will have the required mud-tracking pad to reduce mud tracked onto Monaco Street. Additional measures are being considered to reduce tracking onto Highway 7.</p> <p>The earthquakes mentioned by the commenter are all related to deep injection wells, and are not related to hydraulic fracturing. There are no injection wells near the proposed pad and Colorado has instituted stringent requirements including pre-approval geologic studies and fault identification and also related to injection pressure restrictions and injected water volumes to reduce the chances of earthquakes occurring.</p>
6	Yes	CS	Staff has reviewed comments and is evaluating how visual mitigation Conditions of Approval can mitigate these concerns	<p>Home valuations are typically affected by numerous factors and it is difficult to ever pinpoint any exact or single reason when properties lose value in an area relative to the general market. There have been independent studies in Colorado that show no appreciable devaluation due to oil and gas activity and there may be other studies that show other results. GWOG will utilize low-profile tanks on the proposed pad to help mitigate the potential visual impacts. Wrought iron fencing will be constructed around all pieces of equipment and vegetative mitigation (as per page 16 of our site plan) will also be used to help relieve potential visual impacts.</p>
7	Yes	CS	Staff has reviewed comments; air pollution is of significant concern to the commenter.	<p>GWOG plans to install walls around the site to mitigate and minimize noise and light impacts during the drilling and completions phases of operation. Noise levels from our operations will meet or be below requirements set by the state. In addition light sources will be directed downwards, and away from occupied structures where possible. Once the drilling and completion activities are finished, there will be no permanently installed lighting on site.</p> <p>Please see the above response to Comment # 6 regarding property values.</p> <p>Please see the above response to Comment #6 regarding visual mitigations.</p> <p>All oil and gas facilities are required to have a storm-water runoff permit and to implement both operational practices and install and maintain site border controls to restrict run on and runoff to and from the pad.</p> <p>Please see the above response to Comment # 4 regarding</p>

				<p>protection of ground water resources.  Please see the above response to Comment #2 regarding air emissions and protections.  We define 'Heavy' vehicles as those rated over 1-ton capacity and 'Light' vehicles as 1-ton or under (typically pickups and small flatbed vehicles).</p>
8	Yes	CS	Staff has reviewed the comments, it is a reiteration of referral comment 7	Identical comments as in Comment 7.

Agency Referral Comments:

- 1) City of Thornton referral comments:
  - a. Request visual mitigation.
  - b. Requests an updated emergency management plan for this site
  - c. Requests fire suppression equipment and supplies on site
  - d. Requests right hand turns only with respect to traffic route

Great Western Response to Comments:

- a. Visual mitigation has been addressed in our application for both the drilling/completions phases and the post completions phase.
- b. Emergency Response Plan has been updated and resubmitted.
- c. Fire suppression equipment is always onsite during the drilling/completions phases of a project. In addition, all Great Western Operations personnel carry ABC fire extinguishers for extinguishing small fires. Great Western has received a "will-serve" letter from the North Metro Fire Rescue Department. Great Western will also meet with the Fire Rescue Department prior to initiating drilling activities to brief them on the site and emergency contacts etc.
- d. While the City of Thornton desires right hand turns only, Adams County Development Review Engineering has reviewed this comment and does not deem right hand turns necessary, and this is addressed in Greg Labrie's comments.

- 2) School District 27J has no objections to the case
- 3) Xcel Energy has no apparent conflict

General comments:

- 1) Traffic concerns for Hwy 7 due to increase of Oil and Gas traffic have alternate routes such as E470/NW Parkway been considered?

GWOG Response:

This concern is addressed above in response to public Comment # 3 above as follows: After receiving citizen input GWOG has abandoned the 144<sup>th</sup> access route and replaced it with the I-25 access directly to Highway 7 east to Monaco and south to the pad location. The Traffic Impact Study has been revised and reviewed and stamped by a Colo. Registered Professional Engineer (P.E.). An access route from E-470 to either Monaco or Highway 7 was deemed impracticable.

- 2) What is the timeline of the visual mitigation plan which includes landscaping and fencing?

GWOG Response:

Visual and noise mitigation walls will be installed prior to drilling and completions phases at the site. The walls will be removed post completions phase. Great Western will work with Adams County on specific visual mitigation dates. Typically the fencing is installed as soon as practicable after the completions phase and the vegetation planted in the first growing season (spring or fall) after interim reclamation is completed. This is typically less than a year after completions are finished. At present the plan is to fence all site equipment with wrought-iron fencing and plant vegetation, including trees, along the east, west, and north sides of the project area.

- 3) Provide a general timeline for the phases of development, including the estimated date of completion of all of the proposed wells.

GWOG Response:

GWOG will initially complete a Phase 1 drilling/completions program for 4 wells. This is scheduled to begin in approximately April 2017. An additional phase or phases are dependent on numerous factors including but not limited to; initial well results, commodity prices, rig and completion equipment availability, etc. Additional phase(s) might begin in first quarter 2018 but an exact date is impossible to predict at this time.

EXHIBIT 5.1  
REQUEST FOR COMMENTS



## Request for Comments

Case Name: Great Western Oil and Gas Company Ocho Well Pad  
Project Number: USR2016-00005

December 19, 2016

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

**Request for a Use by Special Review Permit to allow thirty-two (32) horizontal wells on one (1) well pad for the production of oil and gas.**

This request is located at approximately the southwest corner of Hwy 7 and Monaco St.

The Assessor's Parcel Number is 157108200002.

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 January 10, 2017 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 [csimmons@adcogov.org](mailto:csimmons@adcogov.org).

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

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

Thank you for your review of this case.

Christopher Simmons  
Case Manager

## **WRITTEN EXPLANATION**

The proposed project consists of the construction of one (1) wellpad with up to thirty-one (31) wells and one (1) access road for an oil and gas location to be operated by Great Western Oil and Gas. Great Western Oil and Gas does not intend to drill all (31) wells consecutively. The drilling schedule is subject to change due to economic conditions, business development priorities and equipment availability.

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

The proposed drill site will be 11.110 acres in size which will be reclaimed to 5.304 acres once all wells are done drilling and completed. Construction of this site includes upgrading the existing access road and leveling the site. A closed loop fluids system will be used while drilling; so, no drilling pits will be used. The attached Rig Plan Layout shows the maximum area to be disturbed by drilling 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 (Approximately 7 days per well)**

After site preparation, drilling rig equipment is transported to location and rigged up. Drilling operations are conducted 24 hours a day until completed. 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 18,000 ft, (vertical depth is approx. 7900 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 from a source approved by both COGCC and the State Engineer's office.

### **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 7 days per well. Prior to beginning Completion activities, the site is bladed and leveled to accommodate the completion rig, anchors are set for the completion rig, and drilling mud is removed from the pits. 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 seven 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. Each horizontal well will be completed in a single zone in the Codell or Niobrara formation.

### **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 South of the proposed well pad. Thirty Six (36) low profile 533 bbls (16'tall) steel oil tanks, six (6) low profile 533 bbls (16' tall) fiberglass water tanks, thirty (30) 2-phase separators, five (5) Horizontal heater treaters (12' tall), one (1) Horizontal Free Water Knockout (12' tall), five (5) Vapor Recovery Towers (32' tall), twelve (12) ECDs (25' tall), three (3) vertical gas line scrubbers (12' tall), two (2) vapor recovery units, two (2) gas sales wellhead compressors, two (2) custody transfer gas meter 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.

Within thirty days after completion of operations, Great Western shall provide to the Town "as built" drawings showing all facilities, pipelines, flow lines and gathering lines installed to service the proposed wells. Building permits will be obtained for permanent above-ground structures. 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. Pumper traffic will be light after the initial 120 days of production after each drilling rig visit. 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. Initially there will be trucks through the site continuously. 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. Initially they will be on site continuously.

If an oil line is installed oil will be pipelined out and only trucked if the pipeline is down.

### **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 as there are no other houses within 1000' buffer Great Western does not plan to utilize any other visual barriers. Sound walls will be located as needed based on baseline noise survey. They will reduce visual impacts.

### **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.

### **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**

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.

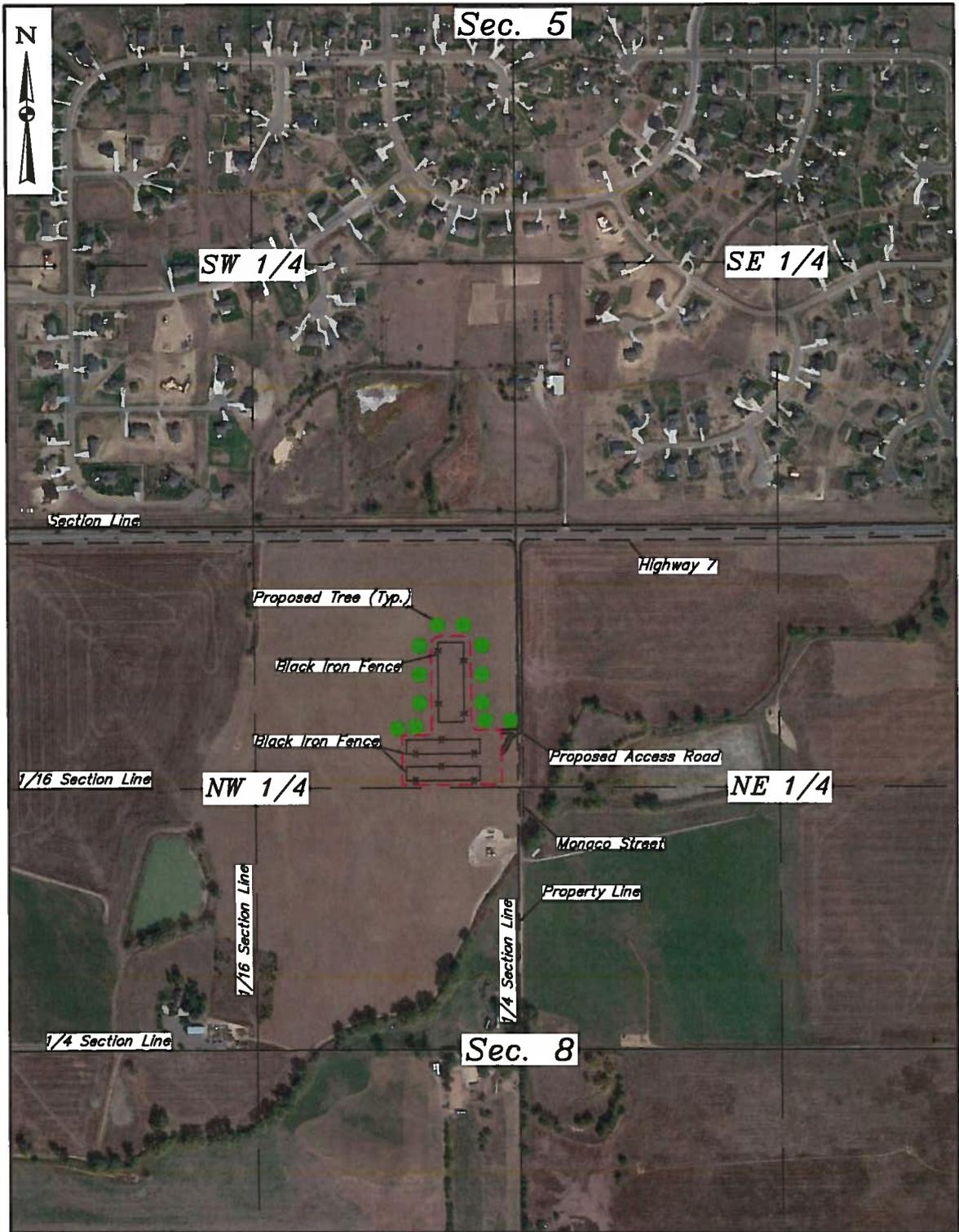
**ENDANGERED SPECIES**

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.



NOTES:

**GREAT WESTERN OPERATING COMPANY**  
 NE 1/4 NW 1/4, SECTION 8, T1S, R67W, 6th P.M.  
 ADAMS COUNTY, COLORADO



**UELS, LLC**  
 Corporate Office \* 85 South 200 East  
 Vernal, UT 84078 \* (435) 789-1017

SURVEYED BY	ZANE BULLARD, G.W.	05-23-16	SCALE
DRAWN BY	K.B.	12-06-16	NONE

**SITE PLAN**

EXHIBIT 5.2  
PROPERTY OWNER MAILING LABELS

ABEYTA MICHELE AND  
ABEYTA JOE  
6195 E 162ND AVE  
BRIGHTON CO 80602-7966

ANDERSON MATTHEW DOUGLAS AND  
ANDERSON MEL LING  
16110 POPLAR ST  
BRIGHTON CO 80602-6080

ABOTE JOHN F TRUST AND  
ABOTE SHANNON L TRUST  
16131 POPLAR ST  
BRIGHTON CO 80602-6081

ANTHONY RODNEY A AND  
ANTHONY VICKI A  
16081 PONTIAC CT  
BRIGHTON CO 80602-6077

ACKLIN MARIO A AND  
ACKLIN MICHELE J  
16144 ONEIDA CT  
BRIGHTON CO 80602-7596

ARTER FRANK L AND  
ARTER VICKI J  
7075 E 162ND AVENUE  
BRIGHTON CO 80602

ADAM SCOTT D AND  
ADAM SHERYL J  
16075 OLIVE ST  
BRIGHTON CO 80602-6002

ARVAY JOSEPH S AND  
ARVAY ILENE  
16203 OLIVE WAY  
BRIGHTON CO 80602

ALGARD BERNARD M AND  
ALGARD TAMARA K  
6355 E 152ND AVE  
BRIGHTON CO 80602

ASUCHAK EDWARD  
6444 E 162ND DR  
BRIGHTON CO 80602-7597

ALLEN RONNIE CLAYTON AND  
ALLEN CAROLINE LOVANE  
16040 IVANHOE ST  
BRIGHTON CO 80602

ATTEBERY STEVEN B AND  
ATTEBERY JAN L  
15233 MONACO ST  
BRIGHTON CO 80602-7937

ALLSOPP WILLIAM AND  
ALLSOPP TRINA  
16170 POPLAR ST  
BRIGHTON CO 80602-6080

ATWELL JOSEPH H AND  
ATWELL MICHELE D  
6535 E 162ND DR  
BRIGHTON CO 80602-7595

ALVARADO MARK A  
16295 IVANHOE ST  
BRIGHTON CO 80602-7960

BAKER DAVID N AND  
BAKER CATHERINE B  
7064 E 162ND AVE  
BRIGHTON CO 80602-7594

ANDERSON LANE AND  
ANDERSON SUSAN  
16130 POPLAR ST  
BRIGHTON CO 80602-6080

BARSCH FRIEDRICH W AND  
BARSCH RUTH  
16140 KRAMERIA CT  
BRIGHTON CO 80602-7973

ANDERSON MARK E  
6648 E 163RD AVE  
BRIGHTON CO 80602-7696

BEAL JEFFREY D AND  
BEAL CHRISTINA M  
16052 OLIVE ST  
BRIGHTON CO 80602-7598

BEDDO CHRISTOPHER AND  
BEDDO AUBRIE  
16235 IVANHOE ST  
BRIGHTON CO 80602-7960

BROW GARY T AND  
BROW DOROTHY J  
7137 E 162ND COURT  
BRIGHTON CO 80602

BEDDO MICHAEL D  
6099 E 163RD AVE  
BRIGHTON CO 80602-7969

BROWN BRYAN R  
5755 E 162ND AVE  
BRIGHTON CO 80602

BENES AARON AND  
OLSTAD JESSICA  
6564 E 162ND DR  
BRIGHTON CO 80602-7595

BROWN DOUGLAS W AND  
BROWN GWENDOLYN I  
16021 PONTIAC CT  
BRIGHTON CO 80602-6077

BLAIR JERRY AND  
BLAIR ANN  
16179 ONEIDA CT  
BRIGHTON CO 80602

BROWN HARVEY E AND  
BROWN MARILYN L  
15380 HOLLY ST  
BRIGHTON CO 80602

BLEA RONNIE C AND  
BLEA LAURIE M  
13149 CLERMONT CT  
THORNTON CO 80241-2290

BROWN MARILYN L AND  
BROWN HARVEY E  
15380 HOLLY ST  
BRIGHTON CO 80602

BOMARETO JOSEPH R  
6679 E 163RD AVE  
BRIGHTON CO 80601

BULLEN TIMOTHY J AND  
BULLEN CYNTHIA A  
6359 E 163RD AVE  
BRIGHTON CO 80602-7970

BONDOC NICOLE AND  
BONDOC NESTOR  
380 BARON CT  
ERIE CO 80516-8113

CAMERON HOLLY T AND  
CAMERON PHILLIP J  
5777 E 162ND PL  
BRIGHTON CO 80602-7988

BOZEMAN ANN M AND  
BOZEMAN ERIC E  
16184 ONEIDA CT  
BRIGHTON CO 80602-7596

CARLSON CLAY F 2014 TRUST  
PO BOX 247  
EASTLAKE CO 80614-0247

BRADY JAMES AND  
BRADY SANDRA  
6006 E 162ND PL  
BRIGHTON CO 80602-7965

CARNAHAN DANIEL P AND  
CARNAHAN GINA M  
6745 E 162ND AVE  
BRIGHTON CO 80602-7592

BRIGHTON FARM LLC  
15600 HOLLY ST  
BRIGHTON CO 80602-7911

CHACON RUBEN MICHAEL AND  
CHACON CATHERINE SUE  
16012 OLIVE ST  
BRIGHTON CO 80602-6002

CHIOVITTI NICHOLAS AND  
CHIOVITTI DEBORAH MAE  
15555 MONACO ST  
BRIGHTON CO 80602

CURRAN BILL STUART AND  
CURRAN PAMELA BETH  
16070 POPLAR ST  
BRIGHTON CO 80602-6079

CHIOVITTI NICHOLAS AND DEBORAH M  
15555 MONACO ST  
BRIGHTON CO 80602

CVANCARA GRETCHEN  
472 RIO RANCHO WAY  
BRIGHTON CO 80601-3419

CITY OF THORNTON  
9500 CIVIC CENTER DR  
THORNTON CO 80229

CVANCARA SHARON AND  
CVANCARA EUGENE A  
5973 E 161ST AVE  
BRIGHTON CO 80602-7964

CLARK KENDALL W AND  
CLARK VERA E  
16123 KRAMERIA CT  
BRIGHTON CO 80602-7973

DARNOFALL WILLIAM R  
6279 E 163RD AVE  
BRIGHTON CO 80602-7970

CLARK ROBERT L JR AND  
CLARK JOAN A  
7154 E 162ND AVENUE  
BRIGHTON CO 80602

DAVIS TAYLOR AND  
DAVIS REBECCA  
16257 ONEIDA ST  
BRIGHTON CO 80602-7593

CLEMENT BRIAN K AND  
CLEMENT ROBIN ELIZABETH  
5867 E 162ND PL  
BRIGHTON CO 80602-7965

DEJEAN MATT W AND  
DEJEAN TERESA M  
16190 IVANHOE ST  
BRIGHTON CO 80602-7982

COCHI JANEEN AND  
COCHI ROBERT  
16185 OLIVE ST  
BRIGHTON CO 80602-7598

DOLLINGER PAUL M AND DOLLINGER LAUREN C  
DAHL LAWRENCE A AND DAHL JERRI E  
16011 POPLAR ST  
BRIGHTON CO 80602-6078

CONN DALE J AND  
CONN JUDY L  
16010 PONTIAC CT  
BRIGHTON CO 80602-6082

DONNELLY MICHAEL GEORGE SANCHEZ  
6265 E 162ND AVE  
BRIGHTON CO 80602-7966

COX PAMELA M AND  
COX MICHAEL  
104 MILLER AVE APT 107  
BRIGHTON CO 80601

DRENNAN CHARLES AND  
DRENNAN CHRISTEN  
16125 OLIVE STREET  
BRIGHTON CO 80602

CROLEY BILLY L JR AND  
CROLEY LORI A  
6489 E 163RD AVE  
BRIGHTON CO 80602-7970

DRENNAN ERIC R AND  
DRENNAN TRINITY N  
16298 ONEIDA ST  
BRIGHTON CO 80602-7593

DROTAR ARTHUR DUANE AND  
DROTAR JENNIFER M  
5779 E 163RD AVE  
BRIGHTON CO 80602-7983

FISK AARON M AND  
JACKSON WYETH R  
16051 PONTIAC COURT  
BRIGHTON CO 80602

DUIITS THOMAS B AND  
DUIITS CARRIE P  
6449 E 163RD AVE  
BRIGHTON CO 80602-7970

FITZGIBBONS JULIO C AND  
FITZGIBBONS DELORES E  
6149 E 163RD AVE  
BRIGHTON CO 80602-7972

DUKE JOHN AND DUKE KATHLEEN AND  
DUKE JONATHAN AND DUKE SARA  
16263 OLIVE WAY  
BRIGHTON CO 80602-6084

FOR-SMITH JENNIFER W AND  
SMITH TOBY W  
16226 OLIVE WAY  
BRIGHTON CO 80602

EGAN CURTIS W AND  
EGAN JODI C  
6519 E 163RD AVE  
BRIGHTON CO 80602-7959

FRAMPTON KYLE B AND  
FRAMPTON ADREA M  
16285 IVANHOE ST  
BRIGHTON CO 80602-7960

ELLIOTT ROBERT L AND  
ELLIOTT KATHLEEN E  
12149 SUNFLOWER ST  
BROOMFIELD CO 80020-7908

FRESHOUR WILLIAM R AND  
FRESHOUR SALLY M  
16182 OLIVE ST  
BRIGHTON CO 80602-7598

ELSHOF MICHAEL W AND  
ELSHOF SARAH R  
16002 OLIVE CT  
BRIGHTON CO 80602-7599

FROTTEN THOMAS S  
16122 OLIVE ST  
BRIGHTON CO 80602-7598

ERN LIMITED PARTNERSHIP ET AL  
7100 W 44TH AVE NO. 201  
WHEATRIDGE CO 80033-4754

GARCIA DAVID D II AND  
PADILLA CHRISTINE E  
16102 OLIVE ST  
BRIGHTON CO 80602-7598

FELTMAN JOLEEN M  
16240 KEARNEY CT  
BRIGHTON CO 80602-7968

GARRISON WILLIAM A  
16221 POPLAR STREET  
BRIGHTON CO 80602

FERGUSON PAUL D AND  
FERGUSON RUBY M  
6201 E 152ND AVE  
BRIGHTON CO 80602

GRANDCHAMP KILLIAN R AND  
GRANDCHAMP CAROLINE E  
6225 E 162ND AVE  
BRIGHTON CO 80602-7966

FERLAND LISA R AND  
CLOUTIER JON P  
6124 E 162ND AVE  
BRIGHTON CO 80602-7966

HADAWAY LEAH AND  
HADAWAY RYAN  
6508 E 163RD AVE  
BRIGHTON CO 80602-7959

HALBROOK TERRY L AND  
HALBROOK KRISTEL  
7084 E 162ND AVE  
BRIGHTON CO 80602-7594

HOLGATE JULIE A AND  
HOLGATE DANNY D  
5749 E 163RD AVE  
BRIGHTON CO 80602-7983

HALL BRIAN L AND  
HALL SUSAN N  
16284 LEYDEN STREET  
BRIGHTON CO 80602

HOLLY HOLDINGS LLC  
PO BOX 247  
EASTLAKE CO 80614-0247

HANLON GEORGE ET AL  
23684 E MINNOW DR  
AURORA CO 80016

HUNTLEY GRANT AND  
HUNTLEY DANA  
16287 ONEIDA STREET  
BRIGHTON CO 80602

HANLON GEORGE R JR 1/3 INT/HOLLARD  
ROGER G 1/3/HAMMERLE KENNETH J 1/3 INT  
21436 E OTTAWA CIR  
AURORA CO 80016-2658

HUPP ERIC M AND  
HUPP SUSAN G  
16183 KRAMERIA CT  
BRIGHTON CO 80602-7973

HAPPS JOHN T REVOCABLE TRUST 1/2 INT AND  
MEETZ ROBIN R REVOCABLE TRUST 1/2 INT  
16165 IVANHOE ST  
BRIGHTON CO 80602-7982

JACOBSON ISAAC  
15200 HOLLY ST  
BRIGHTON CO 80602

HARDING DEBRA J  
5585 E 160TH AVE  
BRIGHTON CO 80602

JARAMILLO JOSE J AND  
CANCHOLA DELFINA  
16025 IVANHOE ST  
BRIGHTON CO 80602

HARRIS SCOTT L  
16283 OLIVE WAY  
BRIGHTON CO 80602-6084

JOHNSON MELISSA AND  
JOHNSON SHAWN  
16243 OLIVE WAY  
BRIGHTON CO 80602-6084

HARRISON BEVERLY  
3476 COUNTY ROAD KK.75  
FOWLER CO 81039-9713

JOHNSON STEPHEN C AND  
JOHNSON TAMARA L  
16260 KEARNEY CT  
BRIGHTON CO 80602-7968

HILKEY RODNEY L AND  
DUHN KELLI A  
15277 MONACO STREET  
BRIGHTON CO 80601

JONES BRIAN D AND  
JONES SHERYL A  
16072 OLIVE ST  
BRIGHTON CO 80602-7598

HOFF BRADLEY G  
6239 E 163RD AVE  
BRIGHTON CO 80602-7970

JORGENSEN ORDEAN L AND  
JORGENSEN LAURIE L  
6103 E 161ST AVE  
BRIGHTON CO 80602

KAJIWARA TOM JR AND  
KAJIWARA TERESA L  
6008 E 163RD AVE  
BRIGHTON CO 80602-7969

LOOP MONICA A  
16142 OLIVE ST  
BRIGHTON CO 80602

KATHOL DEREK AND  
KATHOL GAIL  
6285 E 162ND AVE  
BRIGHTON CO 80602-7966

MAGOON ERIC J AND  
MAGOON ANGELA J  
6384 E 162ND DR  
BRIGHTON CO 80602-7597

KEARNS JOHN P AND  
KEARNS DEANA D  
16160 KRAMERIA CT  
BRIGHTON CO 80602-7973

MAHAFFEY KRISTOPHER A AND  
MAHAFFEY JENNIFER S  
6425 E 162ND DRIVE  
BRIGHTON CO 80602

KONDORF PETER AND  
KONDORF MICHELLE  
6052 E 161ST AVE  
BRIGHTON CO 80602-7964

MANZANARES C WAYNE AND  
MANZANARES REBECCA S  
6064 E 162ND AVE  
BRIGHTON CO 80602

KYLES HAROLD R AND  
LEPTICH ADELAIDA  
16259 LEYDEN ST  
BRIGHTON CO 80602-7971

MARTINEZ DEBBIE L  
7035 E 162ND AVENUE  
BRIGHTON CO 80602

LACINA SHARON M AND  
LACINA GREGORY H  
16153 KRAMERIA CT  
BRIGHTON CO 80602-7973

MC DONALD WILLIAM G AND  
MC DONALD DEANNA L  
16055 IVANHOE ST  
BRIGHTON CO 80602-7981

LEASE THOMAS S AND  
LEASE LINDA R  
16265 IVANHOE ST  
BRIGHTON CO 80602-7960

MCCREA ANTHONY AND  
MCCREA ANGELIA  
16278 ONEIDA STREET  
BRIGHTON CO 80602

LETCHER DANIEL AND  
LETCHER ERICA  
6059 E 163RD AVE  
BRIGHTON CO 80602-7969

MCDONOUGH MICHAEL R  
6320 MCINTYRE WAY  
ARVADA CO 80403-2148

LEVIN EVELYN G  
6688 E 163RD AVE  
BRIGHTON CO 80602-7697

MEINEKE JUSTIN T AND  
GOBLE MEREDITH L  
6478 E 163RD AVE  
BRIGHTON CO 80602-7970

LONG DENNIS E AND  
LONG PAMELA J  
6559 E 163RD AVE  
BRIGHTON CO 80602-7959

MERIAM TRUST  
PO BOX 625  
BRIGHTON CO 80601-0625

MITCHELL DAN W  
16255 IVANHOE ST  
BRIGHTON CO 80602-7960

O ROURKE KEVIN M AND  
O ROURKE BARBARA  
16230 IVANHOE ST  
BRIGHTON CO 80602-7960

MOORE MICHAEL AND  
MONK MICHELLE  
4961 E 116TH AVE  
THORNTON CO 80233-5823

OVERHOLT DONALD L  
6301 E 152ND AVE  
BRIGHTON CO 80602

MYERS JAMES I AND  
MYERS MELISSA L  
16225 IVANHOE ST  
BRIGHTON CO 80602-7960

OVERHOLT DONALD L AND LISANNE M  
6301 E 152ND AVE  
BRIGHTON CO 80602

NEYRINCK KIMBERLY AND  
NEYRINCK NOREEN  
16280 KEARNEY CT  
BRIGHTON CO 80602-7968

OZA KAY  
6475 E 162ND DR  
BRIGHTON CO 80602-7597

NICHOLAS TIMOTHY A AND  
NICHOLAS LESLIE D  
6599 E 163RD AVE  
BRIGHTON CO 80602-7959

PALMER JAMES J AND  
PALMER LORI A  
1504 GOSHAWK DR  
LONGMONT CO 80504-2273

NIEDRINGHAUS MELANIE G  
6015 E 162ND AVE  
BRIGHTON CO 80602-7967

PAPPAS MICHAEL J AND  
PAPPAS MICHELLE A  
16150 IVANHOE ST  
BRIGHTON CO 80602-7982

NIKOLENKO SERGEY  
1781 W 64TH LN  
DENVER CO 80221-2346

PASCHEN RONALD L AND  
PASCHEN CAROLYN F/WILLIAM P  
16050 POPLAR ST  
BRIGHTON CO 80602-6079

NORTHERN HILLS CHRISTIAN CHURCH  
5061 E 160TH AVE  
BRIGHTON CO 80602

PECK RYAN E AND  
PECK ROBIN L W DANNI  
5901 E 160TH PLACE  
BRIGHTON CO 80602

NYLANDER ERIK W AND  
NYLANDER JENNIFER M  
7095 E 162ND AVENUE  
BRIGHTON CO 80602

PETERS OSCAR L AND  
HILLMAN ELISE R  
16206 OLIVE WAY  
BRIGHTON CO 80602-6084

O AND G LAND HOLDINGS LLC  
7501 VILLAGE SQUARE DR STE 205  
CASTLE PINES CO 80108-3700

PETTY ROBERT E JR AND  
WATHEN ABBIE  
6019 E 163RD AVE  
BRIGHTON CO 80602-7969

PLAMBECK BRIAN S  
7176 E 162ND CT  
BRIGHTON CO 80602-8069

SANTISTEVAN JESSE E AND  
SANTISTEVAN SUSAN E  
6739 E 163RD AVE  
BRIGHTON CO 80602

POWERS KENNETH A AND  
POWERS COLETTE M  
16224 LEYDEN ST  
BRIGHTON CO 80602

SCALES WILLIAM A AND CYNTHIA J LIVING  
TRUST  
16289 LEYDEN ST  
BRIGHTON CO 80602-7971

PRITZKAU MICHAEL AND  
PRITZKAU XUE  
16162 OLIVE ST  
BRIGHTON CO 80602-7598

SCHMITT JACOB M AND  
SCHMITT COURTNEY N  
6085 E 162ND AVE  
BRIGHTON CO 80602-7967

QUIN AARON G AND  
QUIN KELLY R  
16233 KEARNEY CT  
BRIGHTON CO 80602-7968

SCHOOL DISTRICT NO.27J  
18551 E 160TH AVENUE  
BRIGHTON CO 80601

RANDALL KURTIS J AND  
RANDALL DENA K  
15299 MONACO STREET  
BRIGHTON CO 80602

SCHUTZ DENNIS J AND  
SCHUTZ SUE E  
6474 E 162ND DR  
BRIGHTON CO 80602-7597

REDDY MALIREDDY S AND  
REDDY SYAMA M  
1250 S PARKER RD STE 205  
DENVER CO 80231-2178

SEMP TONY AND SEMP BETH  
5889 E 163RD AVE  
BRIGHTON CO 80602

ROLLMAN JAN A AND  
ROLLMAN TIMOTHY S  
16293 KEARNEY CT  
BRIGHTON CO 80602-7968

SHEPHERD LEVI JOSEPH AND  
SHEPHERD LAUREN G  
16180 KRAMERIA CT  
BRIGHTON CO 80602-7973

ROSALES JOSE AND  
ROSALES NAOMI  
16161 POPLAR ST  
BRIGHTON CO 80602-6081

SICHTING ZERRI J AND  
SICHTING MELLISA C  
16071 POPLAR STREET  
BRIGHTON CO 80602

SACHANANDANI CHRISTOPHER G AND  
SACHANANDANI MARCIA A  
6524 E 162ND DR  
BRIGHTON CO 80602

SPURGEON LIVING TRUST  
16032 OLIVE ST  
BRIGHTON CO 80602-6002

SANTEE VERONICA J  
6294 E 162ND AVE  
BRIGHTON CO 80602-7966

STARK BRIAN AND  
STARK SARAH  
7126 E 162ND CT  
BRIGHTON CO 80602-8065

STILSON TYLER S AND  
STILSON SARA E  
16254 LEYDEN ST  
BRIGHTON CO 80602-7971

TALON POINTE LAND LLC  
1610 WYNKOOP ST STE 500  
DENVER CO 80202-1158

STIMMEL CHRISTOPHER J AND  
MCGINNESS MELISSA R  
6051 E 160TH PLACE  
BRIGHTON CO 80602

TEDROW DAVID AND  
TEDROW JANIS  
6855 E 162ND AVE  
BRIGHTON CO 80602

STOCKEY PATRICK J AND  
STOCKEY SANDRA L  
1879 DORLAND CT  
FAIRFIELD CA 94534-3025

TERRELL JOHNNY R AND  
TERRELL TANYA M  
6695 E 162ND AVENUE  
BRIGHTON CO 80602

STONE THOMAS J JR AND  
STONE JUIANNE M  
6409 E 163RD AVE  
BRIGHTON CO 80602-7970

THAN TAM  
6033 E 161ST AVE  
BRIGHTON CO 80602-7964

STONEBERGER CASEY J AND  
STONEBERGER LAURA J  
6145 E 162ND AVE  
BRIGHTON CO 80602-7966

THENHAUS BRIAN C AND  
THENHAUS ALLISON MARIE  
6048 E 163RD AVE  
BRIGHTON CO 80602-7969

STONEHOCKER WALTER AND  
STONEHOCKER ROSEWITHA M  
15600 HOLLY ST  
BRIGHTON CO 80602-7911

THOMPSON STEVEN P AND  
THOMPSON DEBORAH A  
5853 E 161ST AVE  
BRIGHTON CO 80602-7964

STOPPEL DENNIS D AND  
STOPPEL ABBIE L  
15323 MONACO STREET  
BRIGHTON CO 80601

TIEN LE D AND  
TIEN ANGELA S  
16273 KEARNEY CT  
BRIGHTON CO 80602-7968

STRUNK GARY W AND  
STRUNK CINDY L  
5878 E 163RD AVE  
BRIGHTON CO 80602-7983

TING LIVING TRUST  
1476 SPRING CREEK DR  
LAFAYETTE CO 80026-3435

SW BIG CIRCLE RANCH LLC  
5600 S QUEBEC ST STE 110A  
GREENWOOD VILLAGE CO 80111-2205

TINNON RICHARD M AND  
TINNON TERESA A  
6254 E 162ND AVE  
BRIGHTON CO 80602-7966

SWANTKOSKI JAROD AND  
SWANTKOSKI ANGELA  
16080 IVANHOE ST  
BRIGHTON CO 80602

TODD CREEK VILLAGE PARK  
AND RECREATION DISTRICT  
1700 N LINCOLN ST STE 2000  
DENVER CO 80203-4554

TODD CREEK VILLAGE PARK AND  
RECREATION DISTRICT  
1700 N LINCOLN ST STE 2000  
DENVER CO 80203-4554

WINE LEWIS L AND  
WINE HEATHER C  
5862 E 161ST AVE  
BRIGHTON CO 80602

TONI SANDERS MARY A  
16223 OLIVE WAY  
BRIGHTON CO 80602

WINSLOW RICHARD S AND  
WINSLOW MICHELE R  
16015 OLIVE ST  
BRIGHTON CO 80602-6002

TORRES FRANK AND  
TORRES GINNY  
16149 ONEIDA CT  
BRIGHTON CO 80602-7596

WINTERS LAURIE A  
15651 MONACO ST  
BRIGHTON CO 80602

TSCHERTER MATTHEW AND  
TSCHERTER JOELLE M  
16253 KEARNEY CT  
BRIGHTON CO 80602-7968

WISOTZKEY RICHARD J AND  
GREFRATH LISA H  
16045 OLIVE ST  
BRIGHTON CO 80602

WALKER TIMOTHY AND  
WALLIS CARRIE  
16297 OLIVE WAY  
BRIGHTON CO 80602-6084

WOLF JOSEPH J AND  
WOLF DIANE M  
16227 ONEIDA ST  
BRIGHTON CO 80602-7593

WALTER ERIC C AND  
WALTER KATHERINE A  
16135 IVANHOE ST  
BRIGHTON CO 80602-7982

YOUNG KEVIN E AND  
YOUNG JEANNINE M  
6629 E 163RD AVE  
BRIGHTON CO 80602-7696

WATERMAN FREDERICK SCOTT AND  
WATERMAN KRISTY LEE LYNE  
16246 OLIVE WAY  
BRIGHTON CO 80602

ZANGANEH ALI  
16095 OLIVE ST  
BRIGHTON CO 80602-6002

WATSON TONY M AND  
WATSON PATRICIA M  
6017 E 162ND PL  
BRIGHTON CO 80602-7965

ZEVENBERGEN DAVID AND  
ZEVENBERGEN LYNN  
5886 E 162ND PL  
BRIGHTON CO 80602-7965

WENZEL DANIEL D AND  
WENZEL JUDITH G  
16238 ONEIDA STREET  
BRIGHTON CO 80602

WIDRIG JAMES R REVOCABLE TRUST AND  
WIDRIG KRISTIE L REVOCABLE TRUST  
6428 E 163RD AVE  
BRIGHTON CO 80601