

STATE OF  
COLORADO

Reilley - DNR, Robin &lt;robin.reilley@state.co.us&gt;

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**RE: M2018030 Shorefox Pit TR1 Adequacy #2**

1 message

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**David Kotz** <DaveK@sgm-inc.com>

Fri, Jan 5, 2024 at 9:34 AM

To: "Reilley - DNR, Robin" &lt;robin.reilley@state.co.us&gt;

Here you go. Hopefully, I got it right this time and these are true insert pages for the original PDF. Filename changed to 5Jan2024 at end.

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**From:** David Kotz**Sent:** Friday, January 5, 2024 8:43 AM**To:** Reilley - DNR, Robin <[robin.reilley@state.co.us](mailto:robin.reilley@state.co.us)>**Subject:** RE: M2018030 Shorefox Pit TR1 Adequacy #2

Hey Robin,

Driving in this morning, I realized I forgot to check that the start and end of the replacement pages matched the original 63 Mb document. Turns out, they don't. I'll get you revised pages shortly that are true replacement pages and can simply be inserted into the original. There will be no changes to text content unless you direct those changes in your review.

Thank you,

**David M. Kotz, PE, CFM***Principal Civil Engineer*

118 W Sixth St, Suite 200  
Glenwood Springs, CO 81601  
970.384.9008 / 970.379.9792 cell  
[www.sgm-inc.com](http://www.sgm-inc.com)





- (g) Show the owner's name, type of structures, and location of all significant, valuable, and permanent man-made structures contained on the area of affected land and within two hundred (200) feet of the affected land.

Exhibit C b & g shows the one structure present just outside the affected area but within the permit area as a Town of Granby Raw Water Pump Station to be Owned by Sun Granby RV Resort.

- (h) In conjunction with Exhibit I - Soils Information, Subsection 6.4.9, soils information may be presented on a map in this section;

- (i) Aerial photos, if available, may be included in this section.

See Exhibit C-h shows the soil map units mapped from the NRCS Grand County Area.

#### **6.4.4 EXHIBIT D - Mining Plan**

The mining plan shall supply the following information, correlated with the affected lands, map(s) and timetables:

- (a) description of the method(s) of mining to be employed in each stage of the operation as related to any surface disturbance on affected lands;

See information below in subsequent bullets

- (b) earthmoving;

The mine will use of conventional earth moving equipment to stockpile gravel and soil and grade the project. Most of the gravel is already stockpiled from operations for the Shorefox Development circa 2007.

- (c) all water diversions and impoundments; and

Water will not be diverted for mining purposes. There are existing wet and dry ponds shown on Exhibit D.

- (d) the size of area(s) to be worked at any one time.

The size of area(s) to be worked at any one time are approximately 35 acres or less, and as necessary for construction within the planning areas and roads

- (e) An approximate timetable to describe the mining operation. The timetable is for the purpose of establishing the relationship between mining and reclamation during the different phases of a mining operation. An Operator/Applicant shall not be required to meet specific dates for initiation, or completion of mining in a phase as may be identified in the

timetable. This does not exempt an Operator/Applicant from complying with the performance standards of Section 3.1. If the operation is intended to be an intermittent operation as defined in Section 34-32.5-103(11)(b), C.R.S., the Applicant should include in this exhibit a statement that conforms to the provisions of Section 34-32.5-103(11)(b), C.R.S. Such timetable should include:

- (i) an estimate of the periods of time which will be required for the various stages or phases of the operation;

Construction of River Run Phase 1 (PA 7 through 17 and parcel X) was deemed substantially complete in November 2022. The start of Phase 2 is dependent on the success of Phase 1. Development of PAs 5, 6, 18, 19, 20, 21, and 22 is dependent on market conditions. PA numbers are shown on Exhibit D. The Town envisions continued operations for the next decade or more in the 14.4 acre Affected Area shown in the 2023 Annual Report – Affected Areas Exhibit C\_c.

- (ii) a description of the size and location of each area to be worked during each phase;

The Town plans to use existing stockpiles in the 14.4 acre Affected Area will additional minin there as needed. Future construction will use the nearest available source of gravel and/or fill materials. Size of disturbance will vary according to adjacent fill material needs.

- (iii) outlining the sequence in which each stage or phase of the operation will be carried out.

A portion of the area has been mined and there are existing stockpiles present that will be used. by Town of Granby. More mining may occur, as needed, based on what is needed for use by the Town.

(Timetables need not be separate and distinct from the mining plan, but may be incorporated therein.)

The Town of Granby plans to use the previously mined and stockpiled material on town projects. Additional minind will be driven by construction needs and conditions over the next two decades.

- (f) A map (in Exhibit C - Pre-Mining and Mining Plan Maps(s) of Affected Lands, Subsection 6.4.3) may be used along with a narrative to present the following information:

- (i) nature, depth and thickness of the deposit to be mined and the thickness and type of overburden to be removed (may be marked "CONFIDENTIAL," pursuant to Paragraph 1.3(3)); and

Refer to Exhibit C -c for a map of the topo in the permit area.

- (ii) nature of the stratum immediately beneath the material to be mined in sedimentary deposits.

Refer to the boring logs Appendix C “Preliminary Geotechnical Engineering Study and Geologic Hazards Study” by Kumar & Associates July 20, 2017. Generally, alluvial sands and gravels exist below areas to be mined.

- (g) Identify the primary and secondary commodities to be mined/extracted and describe the intended use; and

Sand and Gravel and reclamation material are the primary and secondary commodities that are mined/extracted for use on Town projects..

- (h) name and describe the intended use of all expected incidental products to be mined/extracted by the proposed operation. The intended use of the materials mined are to be used for new parks, water plant, bike paths, roads, and other site development.

- (i) Specify if explosives will be used in conjunction with the mining (or reclamation). In consultation with the Office, the Applicant must demonstrate pursuant to Subsection 6.5(4), Geotechnical Stability Exhibit, that offsite areas will not be adversely affected by blasting.

Explosives will not be used during mining or reclamation of the property.

#### **6.4.5 EXHIBIT E - Reclamation Plan**

- (1) In preparing the Reclamation Plan, the Operator/Applicant should be specific in terms of addressing such items as final grading (including drainage), seeding, fertilizing, revegetation (trees, shrubs, etc.), and topsoiling. Operators/Applicants are encouraged to allow flexibility in their plans by committing themselves to ranges of numbers (e.g., 6"-12" of topsoil) rather than specific figures.

Refer to Appendix D River Run Resort plans, and Appendix E Drainage Reports for North and South Area of River Run Resort for final grading and reclamation procedures. The Town will generally employ the procedures to reclaim the affected area to have 3:1 or flatter slopes with 3" + topsoil and native grasses. The Town of Granby and River Run Resort have a stockpiled materials agreement as shown in Appendix F.

- (2) The Reclamation Plan shall include provisions for, or satisfactory explanation of, all general requirements for the type of reclamation proposed to be implemented by the Operator/Applicant. Reclamation shall be required on all the affected land. The Reclamation Plans shall include:

- (a) A description of the type(s) of reclamation the Operator/Applicant proposes to achieve in the reclamation of the affected land, why each was chosen, the amount of acreage accorded to each, and a general discussion of methods of reclamation as related to the mechanics of earthmoving;

Refer to Appendix D and Exhibit D for a map of the planned development in the Gravel Mine area. The reclamation of the gravel pit will include RV resort development (as approved by Town of Granby Land Use process), recreation open space, future development for Town of Granby, and native areas.

Detailed studies and plans exist for the area. While the gravel mine is permitted outside of the RV park area, the majority of the existing disturbance and commodity location is within that project boundary. The Town and River Run RV park plan to reclaim/develop the area according to their master plan, as seen in Appendix D. The River Run RV park has developed a permanent and temporary seed mix (recommended by Grand County, NRCS). The permanent seed mix is a dry land non-irrigated grassland mix that includes smooth brome, sheep fescue, pubescent wheatgrass, and blue flax. The temporary seed mix includes an equal mixture of smooth brome and pubescent wheatgrass. Full seed mixes as well as seedbed preparation is included in the Stormwater Management Plan, Appendix G.

The recreation open space is primarily in the big sagebrush shrubland and is not planned for further development. The disturbance in this space will be reclaimed using a grass and shrub seed mix as approved by the Town of Granby. Ponds will either remain as ponds or be filled and reclaimed with a grassland seed mix. Future development areas (blue and green) on Exhibit D will be reclaimed using a grassland seed mix, as this is more of an interim vegetation/soil cover till some future development occurs.

The no build area has limited disturbance. The disturbance will be reclaimed using a native grassland seed mix.

There are currently stockpiled materials that will be used for construction. Disturbed areas will be seeded with a native seed mix until such time that more development may occur. The mine has also stripped the topsoil and has stockpiled it to be used for reclamation purposes. If there is less topsoil than needed, topsoil will be imported into the area. Topsoil will be placed at 3-6 inches in areas that will be seeded.

- (b) A comparison of the proposed post-mining land use to other land uses in the vicinity and to adopted state and local land use plans

and programs. In those instances where the post-mining land use is for industrial, residential, or commercial purposes and such use is not reasonably assured, a plan for revegetation shall be submitted. Appropriate evidence supporting such reasonable assurance shall be submitted;

The Town of Granby has approved the development areas within the permit area thru the Town's Land Use process and has retained security for revegetation. All development is consistent with the Town's Master Plan. The 14.4 acre affected area is slated to be Open Space.

- (c) A description of how the Reclamation Plan will be implemented to meet each applicable requirement of Section 3.1;

The reclamation plan includes planned development and ground cover for wildlife. Once mining is completed in an area the reclamation will be completed within five years of mining completion. Mining completion includes the use of all mining material from stockpiled areas.

Some of the permit lands may be open to the public including the planned recreational uses as indicated on Exhibit D.

- (d) Where applicable, plans for topsoil segregation, preservation, and replacement; for stabilization, compaction, and grading of spoil; and for revegetation. The revegetation plan shall contain a list of the preferred species of grass, legumes, forbs, shrubs or trees to be planted, the method and rates of seeding and planting, the estimated availability of viable seeds in sufficient quantities of the species proposed to be used, and the proposed time of seeding and planting;

Refer to Appendix G Stormwater Management Plan for a list of seed mixes that the River Run Resort will utilize. The Town of Granby will design their own seed mix based on the Middle Park Conservation District (MPCD) Seed Mixes. The MPCD seed mixes are primarily grassland seed mixes which will work well for the areas of disturbance (Appendix I). Appendix I also includes information from MPCD on planting for success.

- (e) A plan or schedule indicating how and when reclamation will be implemented. Such plan or schedule shall not be tied to any specific date but shall be tied to implementation or completion of different stages of the mining operation as described in Subparagraph 6.4.4(1)(e). The plan or schedule shall include:

- (i) An estimate of the periods of time which will be required for the various stages or phases of reclamation;

Refer to Exhibit D and Appendix D regarding the plan for the River Run Resort. Other areas will be reclaimed by Town of Granby once mining is complete.

- (ii) A description of the size and location of each area to be reclaimed during each phase; and

Refer to Exhibit D and Appendix D regarding the plan for the River Run Resort. Other areas will be reclaimed by Town of Granby once mining is complete.

- (iii) An outline of the sequence in which each stage or phase of reclamation will be carried out.

Reclamation will occur within six months of the completion of mining in an area and/or when the stockpiles have been used. Areas within the River Run Resort will be temporarily stabilized within 14 calendar days after activity has ceased, unless work is to be resumed within 45 days (Appendix G).

(The schedule need not be separate and distinct from the Reclamation Plan, but may be incorporated therein.)

- (f) A description of each of the following:

- (i) Final grading - specify maximum anticipated slope gradient or expected ranges thereof;

Appendix C- Geotechnical Study in the Site Grading and Earthwork section discusses fill placement, site preparation, permanent cut and fill slopes, excavation considerations, utility trenches, material specifications, and compaction specifications. Permanent unretained cuts should have a maximum slope of 3:1.

- (ii) Seeding - specify types, mixtures, quantities, and expected time(s) of seeding and planting;

Refer to Appendix G and appendix I.

- (iii) Fertilization - if applicable, specify types, mixtures, quantities and time of application;

Quantitative estimates of cover and height for the principal species in each life-form was not conducted in the permit area. The Phase 1 report from Atwell reports that the majority of the project area is dominated with arid grassland with some trees and shrubs (Appendix A). The area to the north of the affected area is dominated with big sagebrush shrubland (Appendix B). Areas around the Colorado River are dominated with riparian species including willows and shrub habitats.

- (b) the relationship of present vegetation types to soil types, or alternatively, the information may be presented on a map; Refer to Exhibit J-b map of vegetation types and soil map units.
- (c) estimates of average annual production for hay meadows and croplands, and carrying capacity for range lands on or in the vicinity of the affected land, if the choice of reclamation is for range or agriculture.  
There is no annual production for hay meadows or croplands in the permit area.

- (2) The Operator/Applicant shall show the relation of the types of vegetation to existing topography on a map in Exhibit C. In providing such information, the Operator/ Applicant may want to contact the local Soil Conservation District.  
Exhibit J-2 shows the vegetation types and topography.

#### **6.4.11 EXHIBIT K - Climate**

Provide a description of the significant climatological factors for the locality. The Town of Granby's website state (Town of Granby 2018) the average elevation is 7,935 feet. The average precipitation is 12.26" of rainfall and 128.4" of snow. The average temperature in the summer ranges between 50 and 85 degrees and mid-teens in the winter.

#### **6.4.12 EXHIBIT L - Reclamation Costs**

- (1) All information necessary to calculate the costs of reclamation must be submitted and broken down into the various major phases of reclamation. The information provided by the Operator/Applicant must be sufficient to calculate the cost of reclamation that would be incurred by the state.  
Refer to Appendix K for a history of the Shorefox Mining Permit. In March 2006, the Mined Land Reclamation Board determined that

Shorefox would not need a state mining permit. The earthwork material and gravel mined at Shorefox would primarily be used on site for construction. No state mining permit was needed so long as the Town of Granby requires some minimal performance bond. The Town of Granby issued a conditional use permit in August 2006, Appendix K, for the Shorefox Onsite Earthwork and Gravel Amendment. The estimated cost for reclamation in 2006 for approximately 15 acres was \$26,000 or \$1733 an acre.

Based on significant project area experience, the Town estimates the cost of reclamation is \$3,750/acre in 2024 \$.

- (2) The Office may request the Operator/Applicant to provide additional, reasonable data to substantiate said Operator/Applicant's estimate of the cost of reclamation for all Affected Lands.

#### **6.4.13 EXHIBIT M - Other Permits and Licenses**

A statement identifying which of the following permits, licenses and approvals the Operator/Applicant holds or will be seeking in order to conduct the proposed mining and reclamation operations: effluent discharge permits, air quality emissions permits, radioactive source material licenses, the State Historic Preservation Office clearance, disposal of dredge and fill material (404) permits, permit to construct a dam, well permits, explosives permits, highway access permits, U.S. Forest Service permits, Bureau of Land Management permits, county zoning and land use permits, and city zoning and land use permits. The Town of Granby is the permitting authority for this property. No other permits (besides NPDES) are required for gravel operations.

#### **6.4.14 EXHIBIT N - Source of Legal Right to Enter**

The source of the Operator's/Applicant's legal right to enter and initiate a mining operation on the affected land. (Same requirements as Rule 6.3.7).

The Town and Sun Communities own all of the property.

#### **6.4.15 EXHIBIT O - Owner(s) of Record of Affected Land (Surface Area) and Owners of Substance to be Mined**

The complete list of all owners can be submitted as a list or on a map in Exhibit C.