STATE OF COLORADO

Eschberger - DNR, Amy <amy.eschberger@state.co.us>

Objection Letter to Permit M2017-049

1 message

Nancy Reed <ncr.turkeycreek@gmail.com> Sat, Dec 9, 2017 at 12:32 PM
To: CO Division of Reclamation Mining and Safety <amy.eschberger@state.co.us>

Attached is a cover letter and attachment with more specific information about my objections to the proposed Hitch Rack Ranch Quarry (M2017-049)

Nancy Reed
4848 Little Turkey Creek Road
Colorado Springs CO. 80926

2 attachments

Reed Cover Letter for Detailed Objections.pdf
206K

Attachment - Details related to Objections.pdf
1044K

9 December 2017

Colorado Division of Reclamation, Mining and Safety
1313 Sherman Street, Room 215
Denver, CO 80203

Subject: Objection to the Hitch Rack Ranch Quarry, Permit Number M2017-049

Ms. Amy Eschberger:

This letter is in response to the application submitted by Transit Mix Concrete Company for a quarry to be located on Hitch Rack Ranch. My husband and I own a home located within the Eagles Nest development, which is immediately west of the proposed quarry area.

The attachment to this letter provides a detailed description of my objections to the proposed quarry.

Sincerely,

Nancy Reed

Nancy Reed
4848 Little Turkey Creek Road
Colorado Springs, CO 80926
Phone: 719-648-6715

Attachment: Details related to Objections to the Hitch Rack Ranch Quarry Permit Application (M2017-049)

Details related to Objections to the Hitch Rack Ranch Quarry Application

1. Application contains numerous inaccuracies and inconsistencies (item 115 (4) (a)

The application should be deemed to be incomplete because of the following inaccuracies and inconsistencies identified within the application:

a. Size of the permit area

On the initial permit form, the permit request is for 398.88. The requested number of acres on that form is inconsistent with other statements within the application. The 2016 permit (M2016-010) requested 392.75 acres. On page vii Transit Mix states that they have "re-designed the planned mining operations, and now proposes a significantly reduced mine area". The legal description from Exhibit A eliminated three 40 acre parcels of land in the NE ¼ of Section 16. Both the Index map (Exhibit B), dated 30 Oct 2017 and the General Layout Map (Figure C-1, dated 30 Oct 2017) show the northern edge of the permit area within Section 16 following along the creek and/or Little Turkey Creek Road rather than along the northern boundary of Section 16. How can the number of acres of the 2017 permit area be LARGER than the 2016 permit?

b. Proposed boundary of affected lands.

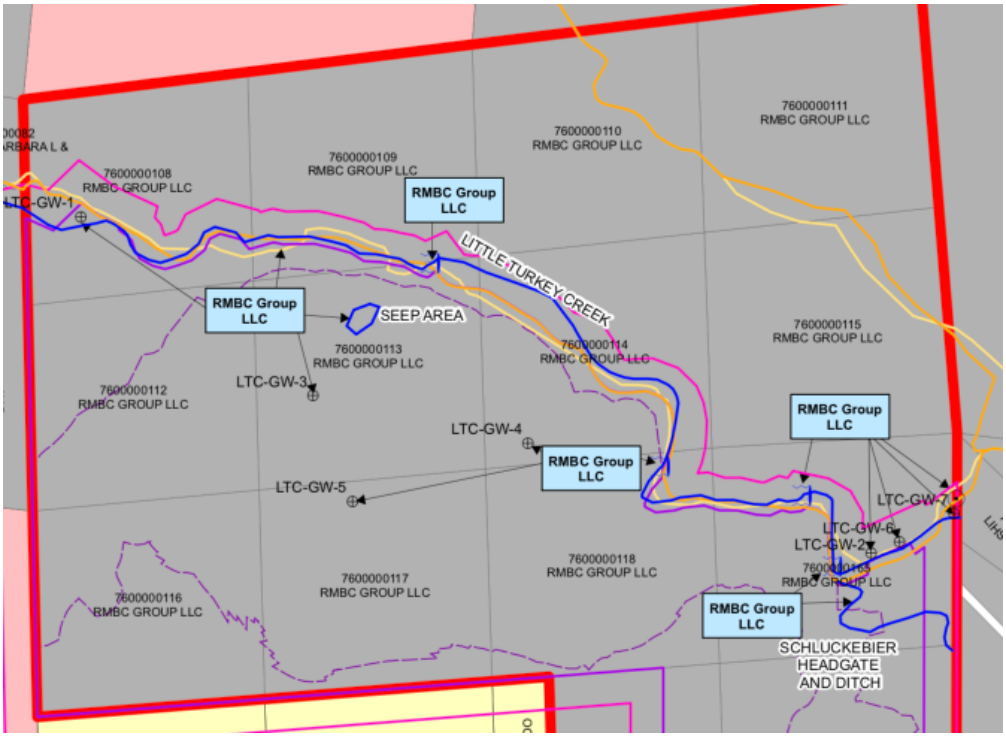
Some of the monitoring wells and blast monitoring equipment associated with the proposed mining operations will be located *outside* of the proposed affected land boundary.

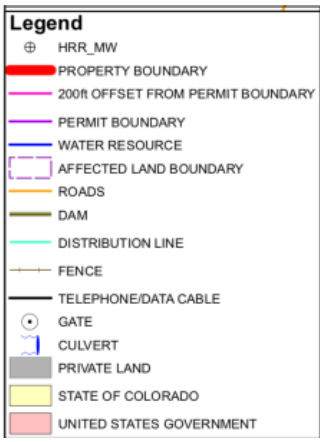
c. Maps within Exhibit C

1) None of the maps in the application include a line delineating 200 feet from the affected lands.
2) Page D-3 indicates that there will be a 100-foot buffer from the centerline of the creek. None of the maps in the application include a line delineating this offset.

d. Figure C-2

The figure on the next page is an extract from Figure C-2, as amended in the 30 October submission. It depicts the portion of the map that includes Section 16, where the majority of the mining activity will be occurring.





There are numerous omissions and inaccuracies in this map:

1) The map includes two different colors for roads within Section 16 (orange and yellow). There are ***NOT*** two roads.
2) Several segments of the line depicting the northern boundary of the permit area within Section 16 are missing. Knowing the EXACT location of the permit boundary with respect to Little Turkey Creek Road is critical to owners of the road easement.
3) A segment of the line depicting the northern boundary of the affected land area within Section 16 is missing. Knowing the EXACT location of the boundary of the affected lands with respect to Little Turkey Creek Road is critical to owners of the road easement.

4) There are numerous errors in the depiction of the locations where the road crosses the creek.
5) The four culverts marked as owned by RMBC Group are located within the road easement and were installed in 2013 by the Eagles Nest Association.
6) The location and the ownership of the gate depicted on the eastern edge of Section 16 are both incorrect.
7) Two other existing gates are NOT included in the figure.
8) The location and ownership of fences are not included in the figure, although an icon for fences is shown in the legend.
9) There is an inconsistency in the location of the monitoring wells between Figure C-2 and Figure 1-1 of NORWEST's "Transit Mix Concrete Co. Hitch Rack Ranch Quarry Surface Water and Groundwater Monitoring Program".
10) The depiction of the Schluckebier Headgate and Ditch is totally inaccurate.
11) Other water retention and diversion structures within Section 16 are omitted from the figure (e.g., dams, pipelines and ditches).

e. Proposed radius of pre-blast survey

There are inconsistencies in the proposed radius for the pre-blast survey.

f. Proposed vegetation

There are inconsistencies between the written text and tables on what species of vegetation will be planted.

g. Time to drain sediment detention basins.

There are inconsistencies in the length of time identified within the document and associated figures on how long it will take to drain the sediment basins. The differences are significant.

2. Planned mining operations would be contrary to Colorado easement law (item 115 (4) (d)

Landowners within Eagles Nest own an ingress/egress easement for Little Turkey Creek Road. A 1968 El Paso County court decree defines the location and width of that easement. Colorado easement law states that when the location and width of an easement is defined, then easement owners have the right to unobstructed access to that easement.

A letter provided by the Assistant Attorney General, Natural Resources & Environment Section (from Scott Shultz regarding "Little Turkey Creek Road Easement from 1968 El Paso County District Court Decree & Hitch Rack Ranch Quarry Permit Application M-2016-010, dated 28 Sept 2016) states that "the Construction Materials Act does not provide DRMS with sufficient jurisdictional authority to interpret specific conditions and rights of a private road easement contained within a District Court Decree. Unlike a State District Court, DRMS

does not have the jurisdictional authority to adjudicate private property rights." Further, that letter states that:

> *"The Division respectfully requests the Board to condition an approval of the Application as follows:*
>
> 1) *Obtain and provide the Division and Board with the necessary legal right to initiate a mining operation on the Affect Land, specifically the legal right to use Little Turkey Creek Road as proposed in the Application. The necessary legal right may be in the form of a:*
>   a. *Declaratory Judgment Order from an El Paso County District Court; or*
>   b. *Legally binding agreement with all of the owners of the dominant easement over Little Turkey Creek Road that the Application may use Little Turkey Creek Road as proposed in their application; or*
> 2) *Modify Permit Application M02016-010 in a manner by which the Division does not interpret the terms of the Little Turkey Creek Road easement contained within the 1968 El Paso County District Court Decree of Civil Action No. 54701.*

This application made no attempt to satisfy either of the first two criteria, as it did not include a declaratory judgment order or binding agreement from all owners of the easement.

The current application modifies the boundary of the affected lands, but does NOT remove the issue of the easement from consideration in the approval of the application. The proposed mining operation will still obstruct the easement. The application indicates that the road will be closed up to three times a week for blasting. Besides closing the road for blasting, it may also be closed at other times to repair damage caused directly by quarry operations (fly rock or rock falls triggered prematurely by ground vibrations from blasting), or by more frequent or more severe flooding caused by the combination of the removal of vegetation within the quarry area, the proposed design of their storm water management structures and the requirement to the drain the sediment ponds within hours of a major rain event.

The applicant has mentioned in the past that the road will only be closed for short periods of time and that the road is lightly travelled. The amount of time that the road would be closed as well as the amount of traffic on that road is irrelevant to the issue of obstructing

access. The easement law applies even if just ONE easement owner was obstructed from accessing his property.

The application fails to prove that the applicant can initiate mining operations that will obstruct the easement. The legal argument provided in this application that the easement is no longer an issue would need to be decided by a court of law.

3. **<u>Engineering assessment fails to prove that Little Turkey Creek Road shall not be damaged (item 115 (4) (e)</u>**

Little Turkey Creek Road is a man-made structure within 200 feet of the affected lands. Landowners within Eagles Nest own an ingress/egress easement along the road to access their properties. As part of the application approval process, the applicant mailed structure agreements to all easement owners asking them to sign and return those agreements for the road easement. Apparently, the applicant assumed that signed structure agreements would not be returned by all easement owners, and included an engineering assessment with the initial application which claims that "there will be no adverse impacts to Little Turkey Creek Road".

That engineering assessment has not met the burden of proof required by the mining rules which state that the engineering assessment needs to demonstrate that the road "*shall not be damaged*". The engineering assessment points out that the road contains none of the basic elements that are required to properly maintain a gravel road (a crowned surface, a shoulder that slopes away from the driving surface and a drainage ditch on either side of the road). The fact that the road is a simple, unimproved mountain road does NOT remove the requirement for the engineering assessment to prove that quarry operations "shall not damage" the road. It does, however, make that proof more challenging, as the road is more vulnerable to damage.

The following items support our claim that the road <u>*may*</u> be damaged by quarry operations:

a. The road is within range of fly rock that might be ejected from blasting operations, which might damage the road. To prove that fly rock would never damage the road, the applicant would have to prove that fly rock could NEVER hit the road.
b. In the discussion about the potential for erosion of the road, the engineering assessment claims that "no water from developed quarry areas will reach the existing road surface, and there will be no increase in erosion from the proposed mine on Little Turkey Creek Road.". The storm water management structures in the 2016 application were designed with total disregard for the location of Little Turkey Creek Road, resulting in water draining from the structures across the road on its way to the creek. This fact was clearly pointed out in testimony at the October 2016 Mining Board Hearing. In spite of this, the storm water management structures in this application have, ONCE AGAIN, been designed with total disregard for the

location of Little Turkey Creek Road. The current storm water management structure designs for all mining phases, as well as the reclamation phase, lack sufficient detail to support the claim that "no water will reach the existing road". In fact, the current figures leave it to the imagination of the reader to figure out how the water will reach the creek WITHOUT crossing the road.

c. The engineering assessment's discussion about increased flooding claims that "quarry development will not create any additional flooding problem". Current vegetation within the proposed quarry area and the underground fractured granite system causes water from heavy rains to be released through the watershed over a period of weeks or months. Removal of all vegetation will leave bare rock within the quarry area. Removal of millions of tons of granite from the quarry pits will remove the underground fracture infrastructure. These two factors will increase the amount of run-off that will flow out of the quarry during heavy rains. *All* of that water will now move through the quarry area and storm water management structures in a matter of hours rather than weeks or months. In some locations within the canyon below the quarry, the road runs directly beside the creek and the elevation of the road surface is barely above the top of the creek channel. *Any* increase in the amount of water flowing down the creek could therefore increase the risk of damage to those sections of the road.

   The assessment further claims that "this detention period and slow release of waters minimizes changes to the creek flood hydrograph". Properly designed and adequately sized storm water management structures may help regulate the release of water into the stream. However, the storm water management structures were designed using precipitation figures from the Colorado Springs Airport. Exhibit K (Climate) includes the following statements:

   - *"attempting to apply the official weather station data to conditions on this Quarry located in the hills southwest of the city must be done with considerable caution and interpretation"*
   - *"Direct application of that data to the site is not wise without interpreting the data after considering the climate modifying effects of mountainous topography"*
   - *"That provides further support to a conclusion that this site is significantly wetter than Colorado Springs."*

   The engineer ignored the cautions from the climate exhibit prepared for the application and made no adjustments in the estimated rainfall for the site. As a result, the storm water management structures may not be adequately sized for rainfall amounts within the canyon, which could result in unexpected failures or overtopping of those structures during heavy rain events. This could cause catastrophic damage to portions of the road in the lower canyon below the quarry area.

d. The engineering assessment's discussion about blocked or washed-out culverts claims that "development of the quarry will not impact the performance of the existing culverts". As stated above, there will likely be an increase in the volume of water flowing quickly out of the quarry area after heavy rains, which may cause more frequent overtopping and damage to the existing culverts.
e. The engineering assessment admits that "Human activities, including blasting, can cause rock to fall earlier than they would naturally". They further state that "should a rock fall occur, regardless of the cause, Transit Mix will have equipment available to clear rocks off the road". From these statements, the operator admits that blasting operations *may* cause premature rock falls onto the road, which *may* damage the road. Even if the vibrations from the blasting do not directly trigger rock falls, the vibrations from blasting may destabilize rock outcroppings, and subsequent rains may then trigger rock falls.

In summary, in the absence of the structure agreements for the road, the test about damage to the road is no longer *whether the applicant agrees to repair the road* if it is damaged, but rather whether the *quarry operations shall not damage the road*. The application has failed to meet that more stringent second criteria.

4. Release of pollutants into the surface drainage system and groundwater (items 116 (c) and (d)

The application does not adequately demonstrate that material disposed of within the affected lands will not result in any unauthorized release of pollutants to the surface drainage system and does not adequately demonstrate that there will be no unauthorized release of pollutants to groundwater from any material mined, stored or disposed of within the permit area.

Quarry operations will generate a tremendous amount of air borne silica dust, which will temporarily settle on the ground within the quarry area. The fines pile will also contain millions of tons of refuse containing silica. The frequent high winds experienced in the canyon tend to blow eastward down the canyon, which will cause the Little Turkey Creek watershed area below the proposed quarry to be covered with pollutant silica dust.

Storm water management structures associated with the fines piles may release large amounts of material into the Little Turkey Creek watershed, damaging the creek. Compared to the amount of sediment that currently washes into the creek during heavy rain events within the canyon, the amount of sediment washing from the future quarry operations area and fines piles will increase the quantity of material released into the creek. The sediment ponds will remove SOME of that additional sediment, but will not remove ALL of that additional material.

The application's Hazardous Materials Management Plan lists five pages of hazardous materials that will be used during quarry operations. The water quality tests mentioned in the pre-blast survey and the ground and surface water monitoring plan do not include tests

for those numerous chemicals. Because the application has not planned for the collection of baseline data for *all* of the hazardous items listed in their Hazardous Materials Management Plan and has not committed the operator to collecting that data throughout the life of the mine, it may be impossible to determine if quarry operations contaminate nearby surface or ground water.

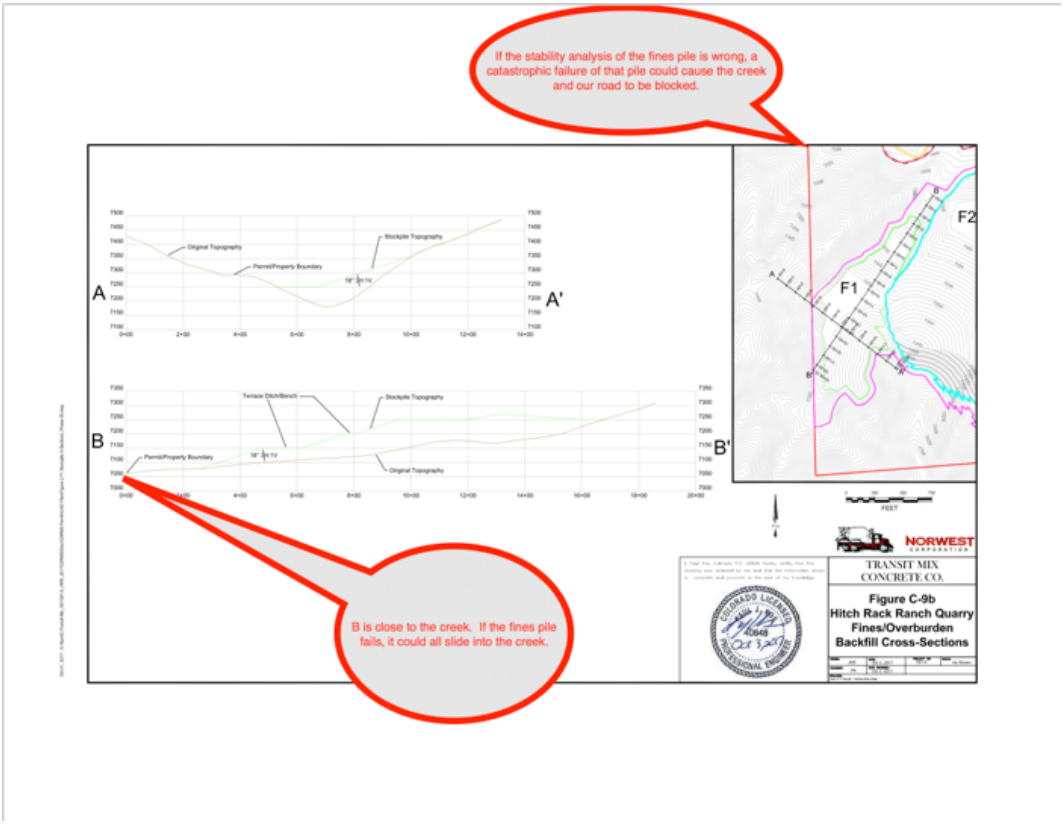
5. Disposal of refuse (item 116 (e)

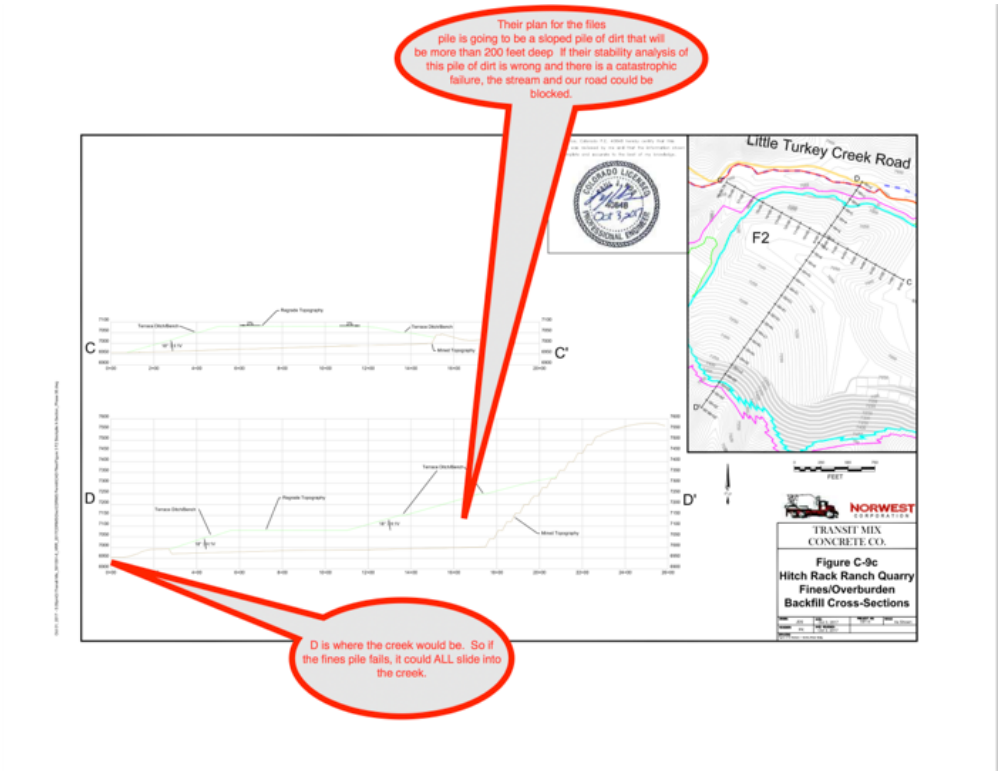
The application does not adequately demonstrate that all refuse will be disposed of in a manner that controls unsightliness or the deleterious effects of such refuse.

The fines piles will be stored at the western edge of the quarry operations area and will be clearly visible from properties within Eagles Nest. Properties that currently have a breath-taking view down a pristine mountain canyon and eastwards onto the plains will instead have an unsightly view of a pile of dirt and debris from mining operations.

Figures C-9b and C-9C (shown on the next page) depict the proposed fines piles. Point B in Figure C-9b is at the lower end of the F1 fines pile. That pile of material will be over 100 feet deep and the lower end of it is quite close to Little Turkey Creek. Point D in Figure C-9C is at the lower end of the F2 fines pile. That pile of material will be over 200 feet deep and the lower end of it is also quite close to Little Turkey Creek.

Given the proximity to the creek and the planned depth of the fines piles, the stability of those piles will be critical to preventing landslides of material into the creek. The application includes a Stability Analysis for the Fines Pile (NORWEST, Hitch Rack Ranch Quarry Waste Stockpile Stability Analyses, dated 29 August 2017). However, we know from the historical record at Pike View Quarry that stability analyses performed by the applicant's engineers can be WRONG. If any of the stability analyses for this permit are incorrect and there is a catastrophic failure of these fines piles, there could be a landslide which could block Little Turkey Creek, which could damage the creek and Little Turkey Creek Road.


If the stability analysis of the fines pile is wrong, a catastrophic failure of that pile could cause the creek and our road to be blocked.
A
A'
B
B'
F1
F2
B is close to the creek. If the fines pile fails, it could all slide into the creek.
NORWEST
TRANSIT MIX CONCRETE CO.
Figure C-9b
Hitch Rack Ranch Quarry
Fines/Overburden
Backfill Cross-Sections


Their plan for the files pile is going to be a sloped pile of dirt that will be more than 200 feet deep If their stability analysis of this pile of dirt is wrong and there is a catastrophic failure, the stream and our road could be blocked.
Little Turkey Creek Road
F2
C
C'
D
D'
D is where the creek would be. So if the fines pile fails, it could ALL slide into the creek.
NORWEST
TRANSIT MIX CONCRETE CO.
Figure C-9c
Hitch Rack Ranch Quarry
Fines/Overburden
Backfill Cross-Sections

6. Impact to Hydrologic Balance in adjacent land (item 116 (h))

The application does not adequately demonstrate that disturbances to the prevailing hydrologic balance of the affected land and of the surrounding area will be minimized.

The application claims that only three domestic wells located southwest of the proposed mining area might be impacted by quarry operations.

1) The application claims that wells to the north of the creek would not be impacted. To support this assertion, the applicant needed to prove that there is no interconnection of the granite fractures between the north and south sides of the creek.
2) The application claims that wells to the east of the quarry would not be impacted. To support this assertion, the applicant needed to prove that the granite fracture system located within the quarry is not the source of any of the water that feeds those wells.
3) The application claims that only wells within a half mile of the quarry might be impacted.

The report makes no attempt to prove any of the above assertions, which means that the number of wells negatively impacted by quarry operations could be much higher.

The application admits that quarry operations may intercept groundwater within the quarry area, but then claims that returning intercepted groundwater back into the creek eliminates the impact on the hydrologic balance. However, returning the intercepted groundwater back to the creek does not offset the damage caused to nearby wells once the network of granite fractures that supplies the water is damaged or removed by quarry operations. It only takes a tiny disruption in the delivery system to have a profound impact on those wells, as was demonstrated by the disruption of water supplied to wells on a nearby ranch during the construction of NORAD a number of years ago. The issue is NOT whether the quarry operations will be depleting water from the groundwater system. Rather, the issue is what impact a disruption of the water supply system might cause to nearby wells.

The operator has drilled several monitoring wells and claims that those wells will adequately assess whether quarry operations are impacting nearby wells. When water is being supplied through granite fractures, the data from those monitoring wells is meaningless unless those wells tap into the EXACT same fractures as the wells that might be impacted.

The applicant has offered to drill a new well if a well owner can prove that the damage to the well was caused by quarry operations. The source of water for most nearby wells is a fragile water supply fed by granite fractures. Given the fragility of that fracture system, it may be impossible to successfully drill a new well that reaches the historic production level and water quality of current wells. If the operator is unable to drill adequate wells, those properties would have been permanently damaged by the loss of their water supply.

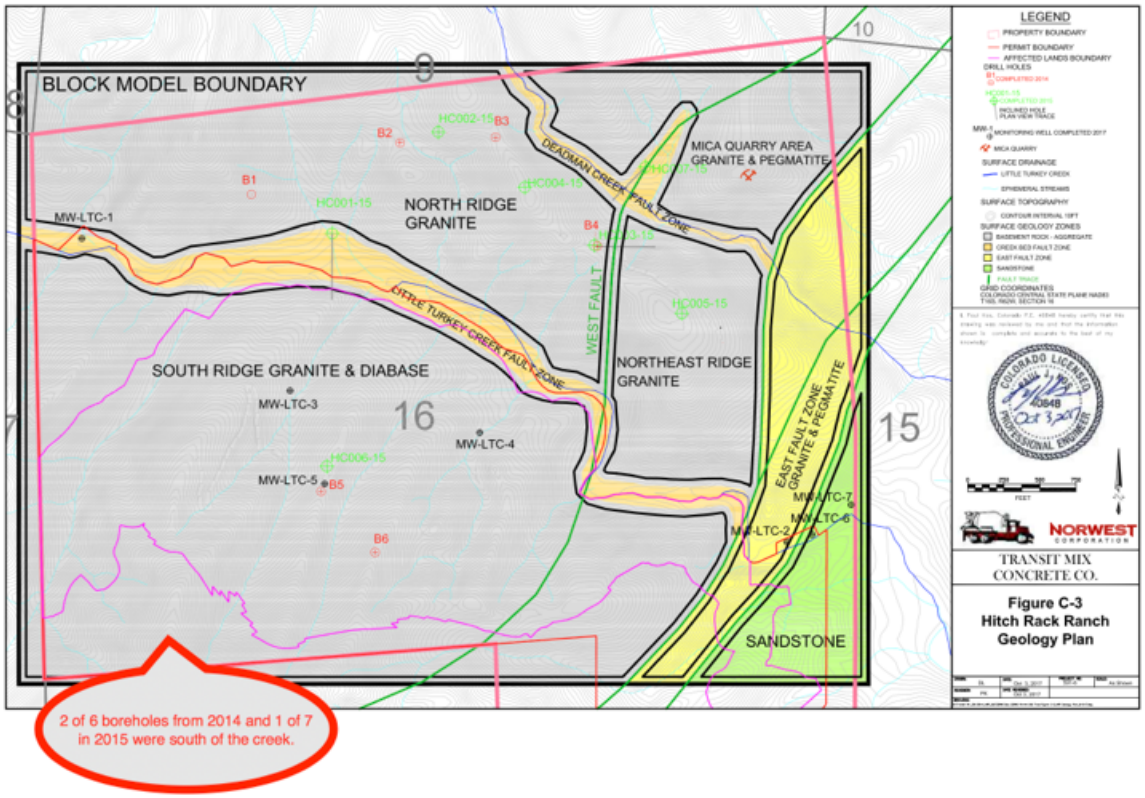
7. Areas outside of affected lands protected from slides or damage (item 166 (i)

The application does not adequately demonstrate that areas outside of the affected land will be protected from slides or damage occurring during the mining operation and reclamation.

The proposed quarry pit and fines piles will be located extremely close to both Little Turkey Creek and Little Turkey Creek Road. The pit walls and the fines piles will be hundreds of feet high. The stability of those pit walls and the fines piles will be critical to ensuring the safety of people driving near the quarry pits as well as ensuring that the road and creek are not damaged by rock falls or landslides.

The applicant is owned by the same Chicago company as the operator of the Pike View quarry. I learned from reading material in the mining permit database that numerous landslides have occurred at the Pike View quarry over the past 10 years. The engineering analyses prepared by the operator's engineers at that quarry were proven to be *wrong*. As a result, I am deeply concerned about the adequacy and quality of the engineering analyses that have been prepared by the applicant's engineers for the proposed quarry.

Figure C-3 (shown below) shows the locations of the test bores drilled in 2014 and 2015.



In their stability analysis for the pit walls, (NORWEST Geotechnical Pit Wall Geotechnical Assessment – Rev 0, dated Sept 11, 2017), NORWEST admits that the data collection from the 2014 drilling contained only limited geotechnical information and they therefore did not include data from those holes in their subsequent analysis. They also indicate that only 1 of 7 test bore holes completed in 2015 were drilled south of the creek. On pages 8 and 9 of their report they admit that "limited data is available for the proposed pit area but some aspects of the structural conditions *are expected to be similar* given the similar rock mass conditions, however additional drilling will be required to characterize the structure of the ultimate quarry pit footprint."

In NORWEST's analysis for the 2016 permit (M-2016-010) "Hitch Rack Ranch Pit Wall Geotechnical Assessment – Rev. B", dated January 26, 2015 the engineer recommended: "Additional geotechnical drilling and analyses are required to confirm conditions prior to mining the area south of Little Turkey Creek." In the transcript from the October 2016 Board Hearing, the CDRMS staff indicated "we have a commitment in the application that before they open that south pit, there's going to be a lot more research done" (Page 8974 of the Administrative Record).

Transit Mix did not follow the 2016 recommendation of their engineers and has failed to meet the commitment made in the 2016 application to perform more analysis before the south pit is opened for mining. Analysis and conclusions of stability analysis for this permit are therefore primarily based on data taken from bore holes that aren't even located within the area to be mined and yet the engineering analysis proceeded as though the data being used was a sufficient sample on which to draw their conclusions. If the pit wall stability analysis done by Transit Mix's engineers for this quarry is based on inadequate data and ends up being *wrong*, there could be a catastrophic failure of the pit walls.