



Public Works Department

1060 Main Avenue
Durango, CO 81301
(970)382-6363

Agency Comments

To: Planning Department, Daniel Murray
From: Public Works Department, Jim Davis
Date: December 10, 2015
Subject: **GCC Energy LLC – King Coal Mine**
Class II – Project No. 2012-0089
Traffic Impact Assessment / Conceptual Plan Review
 Agency Review Comments

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- A. General comments, limits of review:** Public Works / Engineering comments are, unless otherwise noted, limited to off-site improvements required to provide safe ingress/egress from the adjacent county road, the associated impacts to the traveling public, and drainage or utility installations in the county right-of-way.
- B. Conceptual Plan Review – Preferred Haul Route:** Documents received / reviewed include the following;
1. Letter - November 19, 2015 Roadrunner letter to Planning Department,
 2. “Highway Construction Bid Plans” County Road 120, by Roadrunner, “Last Modification Date” 11/17/15,
 3. Traffic Impact Assessment, Updated November 19, 2015
 4. “County Rd 120/Hay Gulch Corridor” – “Ownership Illustration”, Revision date 9-1-15, prepared by Gibbons – NBQ Inc.

Agency Comments:

The updated Traffic Impact Assessment, dated November 19, 2015, identified “Option I” - County Road 120 north to State Highway 140, as the primary haul route for coal trucks from the mine to State Highway and noted 99% of the EASL impacts associated with mine traffic.

To mitigate road impacts, the applicant’s consultant, Roadrunner, LLC, prepared conceptual level plans for future County Road 120 improvements for review with the Class II land use permit application. The purpose of conceptual level plans for proposed county road improvements is to determine the technical feasibility of proposed improvements, and potential right-of-way impacts and requirements.

1. **Right-of-way:** An item requested by the County in the July 8, 2015 letter, and not included in the original submittal with conceptual plans, is right-of-way

information. *“presumed prescriptive easements, and identification of known platted Right-of-Way.”* And restated August 20, 2015, *“Conceptual plans shall show presumed prescriptive easements, and known platted Right-of-Way.”*

Note 1.: The November 19, 2015 submittal included a 24” x 36” “Ownership Illustration” exhibit at a 1”=1,000’ scale prepared by Gibbons Survey – NBQ Inc. also showing known rights-of-way for County Road 120. The only identified plated right-of-way included approximately 570 feet adjacent to the McCue parcel, and it was assumed the remainder is prescriptive and in some sections may be defined by existing fences. **This submittal does address the original July 8th request** to identify presumed prescriptive easements and known platted Right-of-Way.

Note 2.: Typical assumption of presumed prescription easements is borrow ditch to borrow ditch. Thus, to attain the right-of-way must needed complete the Road Improvements, GCC shall negotiate in good faith with the owner of such property and shall be responsible for payment of the same. Any right-of-way so obtained shall be in fee or in the form of an easement reasonably acceptable to the County Attorney and conveyed to the County. The process of right-of-way acquisition shall comply with “The Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970” (Uniform Act).

2. **Cover Sheet: Maximum Grade**, issue **adequately addressed** with variance and latest submittal.
3. **Cover Sheet: Design Data, Full Depth Reclamation. Comment addressed** with latest submittal and the addition of note added to conceptual plans.
4. **Cover Sheet: Minimum Radius of Curve**, The county may consider a higher super, not to exceed 8% as noted, but only for extenuating circumstances. Will be evaluated during the preparation of final plans. **Comment addressed.**
5. **Cover Sheet: So noted, Sign and Striping plan** will be required with final plan set. **Comment addressed.**
6. **Typical Sections: For the final plan submittal, a geotechnical recommendation** based on actual field conditions. **Comment addressed** with latest submittal and the addition of note added to conceptual plans.
7. **Typical Sections: Minimum shoulder width** should be shown as specified in Section 74-91, for the type/classification of road based on design ADT. **Comment addressed** with latest submittal and the addition of note added to conceptual plans. Four foot wide (4’) shoulders required for the first 1.5 miles of County Road 120 from State Highway 140, with the remainder requiring three foot wide (3’) shoulders.

8. **Sheet 7, aerial overlay shows relocated curve involving complete “take” of the Meador property.** Applicant has not communicated this with the property owner, and plans on doing so during the development of preliminary plans.
Comment addressed
9. **The County will be required to vacate abandoned sections of the CR 120** right-of-way after new right-of-way is acquired and road re-construction is complete. **No action required at this time**, just an acknowledgement of a future action required by the County.
10. **Are mitigation measures proposed for other property owners** in close proximity to the road that will be significantly impacted by the proximity of the coal trucks and associated noise and dust?

Note: “The purpose of a Traffic Impact Assessment is to identify the associated development impact to area roads and propose mitigation to address impacts and public safety issues. According to the State Highway Access Code, this includes but is not limited to (17) the sensitivity of the adjacent neighborhoods or other areas that may be perceived as impacted”. Do to the close proximity to the county road of a couple of residential structures, the applicant should anticipate that **additional mitigation measures may be required** with the implementation of “Option 1”. Road reconstruction and paving may not be sufficient to adequately mitigate the related noise and dust impacts, and additional mitigation should be considered during final design.

11. **A number of curves at the following stations will result in significant hill side cuts;** 128+00, 159+00, 231+00, 242+00, 254+00, 283+00, 293+00, 307+00, 327+00. As shown, the alignment does not appear feasible without significant cuts or potentially large retaining walls to minimize cut slopes. Include cross sections at these locations to show this alignment is technically feasible or adjust alignment.

New comments: The revised plans now include cross sections, however the cross section do not appear to reflect the plan and profile stations. Example, station 118+00 plan and profile sheet 30 shows an 8 foot fill, and sheet 59 cross section 118+00 shows a 30’ cut. *“The purpose of conceptual level plans for proposed county road improvements is to determine the technical feasibility of proposed improvements, and potential right-of-way impacts and requirements.”* If cross sections are to be included with the conceptual, they should support the technical feasibility of the improvements and be consistent with the plan and profile elevations. **Revision required.**

Note: Any cut slopes 1:1 or steeper and higher than 4 feet or fill slopes 2:1 or steeper will not be allowed unless certified by a Colorado Licensed Geotechnical Engineer.

12. **Major curve re-alignment (204+00) proposed across Wiltse parcel.** Has applicant discussed acquisition needs with property owner and are they willing to sell the necessary right-of-way? This will also impact, lengthen driveway to Bird/Swift parcel 565729300019. Have they been notified? Proposed change will increase the length of their driveway and associated maintenance cost. **Comment addressed** with plan revisions and proposed road re-alignment.

13. **Major curve re-alignments (248+00, 265+00, 275+00) proposed across Ute Mountain Tribe parcel.** Has applicant discussed acquisition needs with property owner and are they willing to sell the necessary right-of-way?

Note: Based on the response, it is assumed the applicant has not contacted the adjacent property, however the plans were revised and the alignment changed to minimize impact to the adjacent property owner. However do to the prescriptive nature of the right-of-way, it is anticipated close coordination with the Ute Mountain Tribe will be required to mitigate impacts and potentially to acquire a new easement. **Comment addressed**

14. Areas of significant re-alignment will be required for the irrigation ditch. Has applicant discussed projects impacts with ditch rider or representative? Conceptual alignment revised to minimize impact to irrigation ditch. **Comment addressed**

C. **Traffic Impact Assessment (TIA):** *“GCC Energy LLC, King II Coal Mine, County Road 120, La Plata County, Colorado, Traffic Impact Assessment”* prepared by Roadrunner LLC., “Revised and Updated July 31, 2015”.

“Technical; Manuals and Public Data Utilized in Traffic Study.”

- State of Colorado, State Highway Access Code – Volume 2, Code of Colorado Regulations 601-1. (August 31, 1998)
- Colorado Department of Transportation – Pavement Design Manual 2012
- La Plata County Traffic Data (2014)

The Traffic Impact Assessment, updated November 19, 2015, identified County Road 120 north to State Highway 140 as the primary haul route for coal trucks from the mine to State Highway 140 and noted 99% of the EASL impacts are associated with the mine traffic.

The purpose of a Traffic Impact Assessment is to identify the associated development impact to area roads and propose mitigation to address impacts and public safety issues. According to the State Highway Access Code, this includes but is not limited to;

- *“(3)evaluation of current daily and peak hour traffic data and 20th year projections including movements at all intersections and any key year midpoints assuming build out of the study area based on zoning, comprehensive plans and growth estimates”*

- “(4) an evaluation of the level of service and capacity for all design and traffic operation elements including mainline roadway and affected intersections”
- “(12) a safety analysis including conflict points, and three years of accident history”
- “(17) the sensitivity of the adjacent neighborhoods or other areas that may be perceived as impacted”
- “(19) the ability of the adjacent existing or planned roadway system to handle increased traffic, or the feasibility of improving the roadway system to handle increased traffic”

Agency Comments - TIA:

1. **Executive Summary: Stated hours of operation** (coal hauling) are from 7:00 AM to 6:00 PM for 60% of the daily haul trips with the remainder (40%) occurring between 6:01 PM and Midnight. It is also our understanding the applicant has committed to halt operations during periods of extreme weather, which could include winter storms as well as high winds that limit visibility. This should be confirmed and any anticipated exceptions noted. **Hours of operation and extreme weather restrictions confirmed, and no exceptions noted.**
2. Proposed Site Uses (Pg 28): The mine currently operates seven days a week, and table 5 outlines the shift operational hours. **The applicant has proposed limiting hauling to six days per week** (approximately 300 days per year). Based on comments presented to the Citizens Advisory Panel it is understood **no coal hauling will occur on Sundays**. This should be confirmed and any anticipated exceptions noted. **Confirmed, and no exceptions noted.**
3. Executive Summary: The **impact analysis period is twenty-years** and the ESAL Calculation, Table 7 estimated road impacts for twenty years – “Plant Operation Study Duration”. If the applicant anticipates mine operation lasting longer than twenty years, provide mitigation measures to address impacts beyond the current proposal for twenty years. See attached email, May 28, 2015 to Roadrunner with option to consider annualized future cost. **Per the latest submittal, impacts of the mining operation extending beyond 20 years of operation will be addressed in the Road Improvement Agreement. Since these costs are required to complete the Road Improvement Agreement, costs have been proposed by staff, (see item 4. Below).**
4. **Table 11 – Projected cost addressing (interim) roadway maintenance:** The proposed \$0.05/ton road maintenance fee appears reasonable assuming it will be paid until all proposed road improvements have been completed. *“It is anticipated that gravel roadway mitigation costs will be incurred until such time that the roadway is paved. After pavement, on-going maintenance costs will be reduced with scope consisting of snow-plowing and every 7-years, the roadway receiving a chip-seal application.”* The “on-going maintenance costs” needs to be defined.

Per the latest submittal, on-going maintenance costs will be addressed in the Road Improvement Agreement. As identified in the original Traffic Impact Analysis, these costs should be defined at this time so they can be included in the Road Improvement Agreement (RIA). As the fee needs to be included in the RIA, staff is recommending this fee address both short and long term road maintenance as well as future to cover any costs incurred by the County for road repair, or reconstruction associated with the haul.

This fee will address the County’s interim cost of maintaining the gravel road until the road is completely reconstructed and paved, and future maintenance chip seals, as well as reconstruction or future overlays as may be required at 20 years and beyond. The fee will be \$0.35/ton initially, and will be reduced to \$0.25/ton upon completion and acceptance of all road improvements by the County. The County will re-evaluate the long term \$0.25/ton fee seven years after implementation, and every seven years thereafter to insure it remains adequate to offset ongoing maintenance, repairs, and future improvements to the road.

5. Executive Summary: Accident records, *“Modifications to the roadway at these locations could improve safety.”* **Provide a summary of all mitigation measures** proposed to address public safety issues associated with the truck traffic on County Road 120. **Submittal should include a summary of all measures, including road improvements, proposed, or already implement, to address road safety.**
6. Appendix 4, Pavement Design Worksheet, calculated the pavement thickness based on a 20 year design life, 983 ADT for County Road 120, and an 18K ESAL impact of 1,250,000. *“323 Non-mine traffic (use 2014 baseline)”* ESAL Calculation – Background Traffic County Road 120, Table 8, ESAL calculations based on 2014 traffic counts.

State Highway Access Code *“(3)evaluation of current daily and peak hour traffic data and 20th year projections including movements at all intersections and any key year midpoints assuming build out of the study area based on zoning, comprehensive plans and growth estimates”*

The County does not have zoning for the study area and growth projections are not included in the comprehensive plan however the State does provide reasonable growth estimates that should be applicable for this area. It is understood background will not significantly impact ESAL calculations or the 99% attributed to mine traffic, however per Section 74-91 of the Code, this may change the standards for designing roadways within the jurisdiction of the County. **Comment addressed**

7. **Appendix 4, Pavement Design Worksheet:** The final plan submittal, shall include a geotechnical recommendation based on actual field conditions that

supports road structural sections necessary to insure at least a 20 year pavement based on the anticipated EASL loading. **Comment addressed**

8. Mitigating Impacts – Haul Road Assessment: *“This information has been previously presented to the Citizens Advisory Panel (CAP). The CAP is an advisory panel assisting GCC Energy in identifying concerns and possible associated mitigation measures.”* If the CAP provided a written summary of concerns and possible mitigation measures, include as an appendix to the TIA. **Comment addressed**
9. State Highway Access Code: *“(17) the sensitivity of the adjacent neighborhoods or other areas that may be perceived as impacted”* Address mitigation measures proposed to address impacts to residential structures adjacent to County Road 120.

Note: “The purpose of a Traffic Impact Assessment is to identify the associated development impact to area roads and propose mitigation to address impacts and public safety issues. According to the State Highway Access Code, this includes but is not limited to (17) the sensitivity of the adjacent neighborhoods or other areas that may be perceived as impacted”. Do to the close proximity to the county road of a couple of residential structures, the applicant should anticipate that **additional mitigation measures may be required** with the implementation of “Option 1”. Road reconstruction and paving may not be sufficient to adequately mitigate the related noise and dust impacts, and additional mitigation should be considered during final design.

D. Road Improvement Agreement: A draft Road Improvement Agreement with Exhibit A and B was received by the County on December 2, 2015.

1. **Right of Way:** See item B.1, note 2 above
2. **Impact analysis period:** See item C.3 above
3. **Road Maintenance:** See item C.4 above
4. **“Proposed Schedule for Project Implementation”:** page 36 Traffic Impact Analysis (TIA). TIA schedule replaced with “Exhibit A – Proposed Construction Schedule for County Road 120”, stand along schedule. Starting in 2016, this schedule identifies three Phases with all road improvements to County Road 120 north completed by 2020.

Public Works supports this schedule, with all improvements completed by 2020, and will support the use of future Energy Impact Assistance Fund grants to help fund road improvements. It should be noted, Energy Impact Assistance Fund grant applications must be approved by the Board of County Commissioners, and ultimately are subject to award by the Colorado Department of Local Affairs. While we acknowledge our desire to work with the applicant to pursue Energy

Impact Assistance Funds for this project, County staff cannot support the concept of a “Funding of the Proposed Schedule”.

5. **Traffic Control:** Identify maximum delay times to which GCC is willing to commit and measures that will be taken to minimize impacts to adjacent landowners during construction.
6. **Phasing Plan:** The following revisions are needed to Exhibit A schedule:
 - a. ROW acquisition to occur in Phase 1 in 2016
 - b. Add survey stationing from construction plans (currently conceptual-level, to be updated to preliminary prior to BOCC) for each of the items a-1
 - c. Improvement D – is this a temporary or permanent improvement?
Continuous pavement between the McCue and Hunzeker properties?
7. Additionally, note that amongst other COAs related to the road, two will include:
 - a. Preliminary Plans as outlined in 74-20(1) shall be accepted by the Public Works Director prior to BOCC consideration.
 - b. There shall be no chaining up or chaining down along the CR (unless a specific location is identified by GCC that is accepted by the County).



Public Works Department

1060 Main Avenue
Durango, CO 81301
(970)382-6363

Agency Comments

To: Planning Department, Daniel Murray
From: Public Works Department, Jim Davis
Date: August 20, 2015
Subject: **GCC Energy LLC – King Coal Mine**
Class II – Project No. 2012-0089
Traffic Impact Assessment / Conceptual Plan Review
Agency Review Comments

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- A. General comments, limits of review:** Public Works / Engineering comments are, unless otherwise noted, limited to off-site improvements required to provide safe ingress/egress from the adjacent county road, the associated impacts to the traveling public, and drainage or utility installations in the county right-of-way.
- B. Conceptual Plan Review – Preferred Haul Route:** Plans reviewed; Prepared by Roadrunner LLC., “Last Modification Date” 07/31/15, Plan set included 50 sheets, including; Cover Sheet/Index, Reference to applicable CDOT M&S Standards, 3 typical sections by station, Roadway Plan Layout (12 sheets), Plan & Profile (33 Sheets).

As requested in a July 8, 2015 letter from the Community Development Director to Mr. Doug Roark, to begin La Plata County’s formal review process, “*Conceptual design of improvements for necessary for preferred haul alternative*”, further defined as “*Conceptual plans to include Plan and Profile of roadway centerline, edge of pavement, presumed prescriptive easements, and identification of known platted Right-of-Way. Include typical cross section.*”

Agency Comments – Conceptual Plans: The Traffic Impact Assessment, dated July 31, 2015, identified “Option I” - County Road 120 north to State Highway 140, as the primary haul route for coal trucks from the mine to State Highway and noted 99% of the EASL impacts associated with mine traffic.

To help mitigate road impacts, the applicant’s consultant, Roadrunner, LLC, prepared conceptual level plans for future County Road 120 improvements for review with the Class II land use permit application. The purpose of conceptual level plans for proposed county road improvements is to determine the technical

feasibility of proposed improvements, and potential right-of-way impacts and requirements.

1. An item requested by the County in the July 8, 2015 letter, and not included in the conceptual plans, is right-of-way information. “*presumed prescriptive easements, and identification of known platted Right-of-Way.*” While not requested, the addition of parcel boundaries adjacent to the road and ownership information would be helpful in evaluating initial impacts. Conceptual plans shall show presumed prescriptive easements, and known platted Right-of-Way.
2. Cover Sheet: Maximum Grade (noted to match existing) should show actual maximum grade of 8.73% as identified on P&P sheet 11.
3. Cover Sheet: Design Data, Full Depth Reclamation, widening Sta 0+000 to Sta 132+00. Note, the suitability of full depth reclamation (FDR) for this section of county road needs to be confirmed and specifications for the FDR process developed by a licensed engineer based on actual geotechnical borings taken at intervals suitable to establish subsurface conditions for the length of the project. May be addressed with a note on conceptual plans, that will be included as part of the final design.
4. Cover Sheet: Minimum Radius of Curve, maximum super elevation rate for 35 to 45 mph urban roads should be limited to 6%, not 8%, which sets minimum radius at 340 feet instead of 314 feet. The county may consider a higher super, but only for extenuating circumstances.
5. Cover Sheet: Sign and Striping plan will be required with final plan set.
6. Typical Sections: For the final plan submittal, a geotechnical recommendation based on actual field conditions should be included that supports road structural sections necessary to insure at least a 20 year pavement based on the anticipated EASL loading. May be addressed with a note on conceptual plans.
7. Typical Sections: Minimum shoulder width should be shown as specified in Section 74-91, for the type/classification of road based on design ADT. If the shoulder needs to be reduced in limited areas do to environmental or topographical constraints, guard rail may be allowed on a limited basis.
8. Sheet 7, aerial overlay shows relocated curve involving complete “take” of the Meador property. Has applicant communicated this with the property owner, and are they willing to sell?
9. The County will be required to vacate abandoned sections of the CR 120 right-of-way after new right-of-way is acquired and road re-construction is complete. No action required at this time, just an acknowledgement of a future action required by the County.

10. Are mitigation measures proposed for other property owners in close proximity to the road that will be significantly impacted by the proximity of the coal trucks and associated noise and dust?
11. A number of curves at the following stations will result in significant hill side cuts; 128+00, 159+00, 231+00, 242+00, 254+00, 283+00, 293+00, 307+00, 327+00. As shown, the alignment does not appear feasible without significant cuts or potentially large retaining walls to minimize cut slopes. Include cross sections at these locations to show this alignment is technically feasible or adjust alignment.
12. Major curve re-alignment (204+00) proposed across Wiltse parcel. Has applicant discussed acquisition needs with property owner and are they willing to sell the necessary right-of-way? This will also impact, lengthen driveway to Bird/Swift parcel 565729300019. Have they been notified? Proposed change will increase the length of their driveway and associated maintenance cost.
13. Major curve re-alignments (248+00, 265+00, 275+00) proposed across Ute Mountain Tribe parcel. Has applicant discussed acquisition needs with property owner and are they willing to sell the necessary right-of-way?
14. Areas of significant re-alignment will be required for the irrigation ditch. Has applicant discussed projects impacts with ditch rider or representative?

C. Traffic Impact Assessment (TIA): *“GCC Energy LLC, King II Coal Mine, County Road 120, La Plata County, Colorado, Traffic Impact Assessment”* prepared by Roadrunner LLC., “Revised and Updated July 31, 2015”.

“Technical; Manuals and Public Data Utilized in Traffic Study.”

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The purpose of a Traffic Impact Assessment is to identify the associated development impacts to area roads and propose mitigation to address impacts and public safety issues. According to the State Highway Access Code, this includes but is not limited to;

- *“(3)evaluation of current daily and peak hour traffic data and 20th year projections including movements at all intersections and any key year midpoints assuming build out of the study area based on zoning, comprehensive plans and growth estimates”*

- “(4) an evaluation of the level of service and capacity for all design and traffic operation elements including mainline roadway and affected intersections”
- “(12) a safety analysis including conflict points, and three years of accident history”
- “(17) the sensitivity of the adjacent neighborhoods or other areas that may be perceived as impacted”
- “(19) the ability of the adjacent existing or planned roadway system to handle increased traffic, or the feasibility of improving the roadway system to handle increased traffic”

Agency Comments - TIA:

1. Executive Summary: Hours of operation (coal hauling) from 7:00 AM to 6:00 PM for 60% of the daily haul trips with the remainder (40%) occurring between 6:01 PM and Midnight. It is our understanding the applicant has committed to halt operations during periods of extreme weather, including winter storms as well as high winds that limit visibility. This should be confirmed and any anticipated exceptions noted.
2. Proposed Site Uses (Pg 28): The mine currently operates seven days a week, and table 5 outlines the shift operational hours. The applicant has proposed limiting hauling to six days per week (approximately 300 days per year). Based on comments presented to the Citizens Advisory Panel it is understood no coal hauling will occur on Sundays. This should be confirmed and any anticipated exceptions noted.
3. Executive Summary: The impact analysis period is twenty-years and the ESAL Calculation, Table 7 estimated road impacts for twenty years – “Plant Operation Study Duration”. If the applicant anticipates mine operation lasting longer than twenty years, provide mitigation measures to address impacts beyond the current proposal for twenty years. See attached email, May 28, 2015 to Roadrunner with option to consider annualized future cost.
4. Table 11 – Projected cost addressing (interim) roadway maintenance: The proposed \$0.05/ton road maintenance fee is reasonable assuming it will be paid until all proposed road improvements have been completed. *“It is anticipated that gravel roadway mitigation costs will be incurred until such time that the roadway is paved. After pavement, on-going maintenance costs will be reduced with scope consisting of snow-plowing and every 7-years, the roadway receiving a chip-seal application.”* The “on-going maintenance costs” shall be defined.
5. Executive Summary: Accident records, *“Modifications to the roadway at these locations could improve safety.”* Provide a summary of all mitigation measures

proposed to address public safety issues associated with the truck traffic on County Road 120.

6. Appendix 4, Pavement Design Worksheet, calculated the pavement thickness based on a 20 year design life, 983 ADT for County Road 120, and an 18K ESAL impact of 1,250,000. “323 Non-mine traffic (use 2014 baseline)” ESAL Calculation – Background Traffic County Road 120, Table 8, ESAL calculations based on 2014 traffic counts.

State Highway Access Code “(3)evaluation of current daily and peak hour traffic data and 20th year projections including movements at all intersections and any key year midpoints assuming build out of the study area based on zoning, comprehensive plans and growth estimates”

The County does not have zoning for the study area and growth projections are not included in the comprehensive plan, however the State has growth estimates that should be applicable for this area. It is understood background will not significantly impact ESAL calculations or the 99% impact attributed to mine traffic, however per Section 74-91 of the Code, this may change the standards for designing roadways within the jurisdiction of the County.

7. Appendix 4, Pavement Design Worksheet: The final plan submittal, shall include a geotechnical recommendation based on actual field conditions that supports road structural sections necessary to insure at least a 20 year pavement based on the anticipated EASL loading.
8. Mitigating Impacts – Haul Road Assessment: “*This information has been previously presented to the Citizens Advisory Panel (CAP). The CAP is an advisory panel assisting GCC Energy in identifying concerns and possible associated mitigation measures.*” If the CAP provided a written summary of concerns and possible mitigation measures, include as an appendix to the TIA.
9. State Highway Access Code: “(17) the sensitivity of the adjacent neighborhoods or other areas that may be perceived as impacted” If required, address mitigation measures proposed for residential structures adjacent to County Road 120.



Agency Comments

To: Planning Department / Applicant

From: Public Works Department

Date: July 14, 2014

Subject: GCC Energy LLC – King Coal Mine (King II)
Traffic Impact Assessment – Roadrunner DS, LLS - June10, 2014
Agency - Review Comments

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- A. General comments, limits of review:** Public Works / Engineering comments are, unless otherwise noted, limited to off-site improvements required to provide safe ingress/egress from the adjacent county road, the associated impacts to the traveling public, and drainage or utility installations in the County right-of-way.
- B. Planning Director Assumption in 2006:** Executive Summary; States in “*August of 2006 La Plata County made the determination that the County did not have jurisdiction to review King II permit proposal to the Colorado Division of Reclamation, Mining, and Safety (CDRMS).*”

It should be noted, this determination was made by the Planning Director in 2006 who did not confirm this with the State Land Board. When the County determined the King II Mine and proposed expansion was located in part on fee land and on State Land Board land, in August 2010, GCC Energy was noticed that a county land use permit would be required for the proposed mine expansion.

- C. Proposed Road Impact Mitigation (Traffic Study – Executive Summary):**
- ESAL Evaluation:** The road impact evaluation is based on an evaluation of “equivalent single axle loading” (ESAL), where road impacts are evaluated utilizing 18,000 pound equivalent single axel loading.
 - Calculated ESALs:** The 2022 non-Mine ESAL loading represents 1% of total traffic, and the GCC (King II) 2022 Mine ESAL loading represents the remaining 99%.
 - 20th year traffic projections:** The (CDOT) State Highway Access Code, section (5) Traffic Impact Studies, requires the study looks at 20th year traffic projections. The King II Traffic Impact Study references 20 year trips as being 2022, when coal production is anticipated to reach the annual production of 1,000,000 tons per year. That would place the base year at 2002.

4. **Percent of Mine Impacts:** The study originally assumed the base year for background traffic was 2006, based on the County's position stated in a letter in August 2006. This would have resulted in the percent of King II traffic impacts, based on ESALs being reduced from 99% to 51% with mitigation provided only for traffic generated from 2006 on.
5. **Projected Cost of Impact Mitigation:** The proposed road impact mitigation is based on GCC's road impacts and a mitigation fee associated with each ton of coal transported off-site.
 - i. The cost of full depth reclamation for 2.6 miles of the paved road section, including a 10 year inflation factor results in a proposed mitigation fee of \$0.07/ton. The resultant annual mitigation fee generated with 1,000,000 tons per year with a \$0.07/ton fee is \$70,000.
 - ii. The mitigation fee to maintain 3.9 miles of gravel road with gravel & magnesium chloride is estimated at approximately \$10,000 per mile per year. The resultant annual mitigation fee generated with 1,000,000 tons per year with a \$0.04/ton fee is \$40,000.
 - iii. The mitigation of minor safety improvements to address sight distance and narrow road sections is proposed at \$0.01/ton. This mitigation fee is based on a *"ball park estimate of \$200,000 without right-of-way acquisition"*.
6. **Conclusions and Summary of Findings:** Page 32, lists 13 bullets under "Conclusions and Summary of Findings".
 - i. The first three bullets involve the need for immediate public safety improvements; clearing roadside vegetation to improve horizontal sight distance, and the installation of 'special signs to advise of heavy truck operations and to monitor CD channel while operating on CR 120. **The applicant shall be responsible for the initial clearing of vegetation along County Road 120, and the fabrication, installation, and maintenance of all 'special' signs as this was not included in the proposed mitigation impact fees. A permit to work in the County Road right-of-way will be required for the vegetation trimming and the installation of signs. A plan showing the proposed 'special' signs and locations shall be included in the permit application to work in the right-of-way.**
 - ii. The ninth bullet states *"Passenger car and Single-Unit vehicles to operate using available county roadway network. No restriction for passenger car and single-unit to northern segment of County Road 120."* **We agree with this statement in general with exception to the water trucks as they are fairly heavy vehicles and usually handle a little different than most other single-unit trucks. In regard to the impact analysis at the CR 120 / SH 140 intersection, page 18 "not enough data to determine flow of single unit vehicles". If water trucks are not limited to the north end of CR 120, we will required an equivalent ESAL impact and safety analysis of any alternate routes used by water trucks.**

D. Public Works - Review Summary:

In summary, the proposed \$0.12/ton mitigation fee if accepted will generate \$120,000 per year when production reaches 1,000,000 ton per year. Based on GCC's December 2013

report to Colorado Division of Reclamation Mining & Safety <http://mining.state.co.us/Reports/Reports/Pages/Coal.aspx> the annual coal production for 2013 was 737,131 tons. If the mitigation agreement had been in effect for 2013 it would have resulted in \$88,456 in road impact mitigation fees.

While not adequate to immediately address the 2.6 miles of pavement on County Road 120, these fees will help to address current maintenance cost, and will provide funds to start addressing some of the minor safety improvements. 58% of the funds (\$0.07 of the total \$0.12) received should be set aside each year to address the future reconstruction and paving of the 2.6 miles of County Road 120 that is currently paved. Ideally this amount would be used the local match for potentially an Energy Impact Grant to potentially reconstruct and pave the entire 6.5 miles of County Road 120 from the Mine to State Highway 140.

Since GCC uses contract services to haul their coal, the County will continue to rely on the assistance of the GCC administration to help educate these contractors on the need to insure safe operations on County Road 120 as well all roads and highways within La Plata County.

The County understands GCC is working with CDOT on access improvements on State Highway 140 and with the State Land Board in developing a vehicle pull-off and staging area just off the north end of County Road 120. Public Works endorses these efforts and believes they will help to mitigate some of the public safety issues associated with the hauling operations.

GCC shall be responsible for the initial clearing of vegetation along County Road 120, and the fabrication, installation, and maintenance of all 'special' signs as this was not included in the proposed mitigation impact fees. If water trucks are not limited to the north end of CR 120, we will required an equivalent ESAL impact and safety analysis of any alternate routes used by water trucks.