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ATTORNEYS FOR OBJECTOR
BIG HORN COAL COMPANY

BEFORE THE ENVIRONMENTAL QUALITY COUNCIL
STATE OF WYOMING

IN RE BROOK MINE APPLICATION	)	
	)	**Docket Nos. 17-4802, 17-4803,**
	)	**and 17-4804 (Consolidated)**
TFN 6 2-025	)	

BIG HORN COAL COMPANY'S PROPOSED FINDINGS OF FACT AND CONCLUSIONS OF LAW

Big Horn Coal Company, LLC ("Big Horn"), by and through its undersigned counsel of record, hereby submits its Proposed Findings of Fact and Conclusions of Law as directed by the Environmental Quality Council's ("EQC" or the "Council") order following the close of evidence at hearing.

INTRODUCTION

The permit application submitted by Brook Mining Company, LLC ("Brook Mine") fails to meet the legal requirements of a surface coal mining permit application. Brook Mine's multiple failures to provide critical and required information in its permit application are not minor omissions. Rather, these failures are "deficiencies" that preclude permit approval. The EQC therefore should enter its Findings of Fact, Conclusions of Law,

and Order directing the Department of Environmental Quality ("DEQ") to either deny Brook Mine's requested permit, or deem the permit application deficient and require Brook Mine to affirmatively address each of the deficiencies, resubmit its permit application to DEQ, and then republish notice of the compliant permit application for public comment pursuant to the Environmental Quality Act ("EQA"), Wyo. Stat. Ann. § 35-11-406(h)-(k),[1] and the applicable rules and regulations.

I. Background

The record of this contested case hearing patently demonstrates that Brook Mine has spent over three years preparing a permit application that fails to meet statutory and regulatory requirements. Less critical for this Council's decision, but an important consideration nonetheless, throughout the permit application process and in the hearing before the EQC, Brook Mine consistently demonstrated it has no intent to seriously consider the objections and concerns of nearby landowners or otherwise address the deficiencies in its permit application. It is now up to this Council to do so.

Broadly speaking, this Council must determine whether Brook Mine has satisfied its burden to affirmatively establish that its permit application is legally sufficient and direct whether (and on what terms) the permit application can proceed to the DEQ for final written findings and eventual issuance or denial. *See* Wyo. Stat. Ann. § 35-11-406(k), (p). To be sure, it is not the burden of Big Horn or any other objector to establish that the permit application is insufficient. Brook Mine readily admits it bears the burden of proof in these

[1] According to Wyo. Stat. Ann. § 35-11-103(e)(xxiv) "'Deficiency' means an omission or lack of sufficient information serious enough to preclude correction or compliance by stipulation in the approved permit to be issued by the director[.]"

proceedings, which includes the burden of proving to the Council that its permit application is complete and without deficiencies. *See Brook Mine's Brief on Statutes and Regulations that the Council Must Consider*, p. 10. Yet when objectors identified application deficiencies at hearing, Brook Mine never showed the Council or the objectors where the required information could be found in the permit application, nor did Brook Mine demonstrate that the information contained in the application is accurate and complete. Brook Mine instead attempted to silence or cast doubt on objector testimony, and addressed the identified deficiencies in generalities – affirming the type of information contained in the application, how many pages the application contains, and how long Brook Mine and DEQ personnel spent preparing and reviewing the application. Generalities do not satisfy Brook Mine's burden of proof.

The law requires Brook Mine's permit application to stand on its own. Analytical gaps, missing data and inaccurate information required by law to be included in a surface coal mine permit application simply cannot be remedied with testimonial assurances or by reference to DEQ's review process. Moreover, specific surface coal mine application requirements cannot be satisfied with inaccurate assumptions resulting from limited data taken from a large, data diverse geographic area. Brook Mine's permit application itself must contain the information required by statute and regulation. The required data and analysis is either present in the permit application or it is not. Without establishing that its permit application contains ***all*** required information, and that ***all*** the required information is ***accurate***, Brook Mine fails to meet its burden as a matter of law.

II. Scope of the Council's Review

As this Council is well aware from prior briefing, the parties disagree as to the proper role of the Council and the scope of its review and decision, particularly as to whether the Council is to consider the requirements of section -406(n) and whether the Council is to direct DEQ to approve or deny Brook Mine's permit application at this time. The Council is now well aware of precedent[2] and the parties' respective positions on this issue, and Big Horn will not repeat those arguments here. Because the Council has declined to rule on whether it will consider Section -406(n)'s requirements prior to the parties' submission of proposed findings of fact and conclusions of law, Big Horn will present its proposed conclusions of law related to section -406(n) requirements separate from its proposed conclusions of law related to the legal requirements for surface coal mine permit applications found elsewhere in the EQA and the DEQ's Land Quality coal rules and regulations. All parties do seem to agree that the Council must review and consider whether Brook Mine's permit application satisfies Wyo. Stat. Ann. § 35-11-406(a)-(k) and the DEQ's Land Quality coal rules and regulations. *See* Briefs of the Parties in response to the Council's *Briefing Order*, dated June 13, 2017.

III. Scope of Big Horn's Objections to Brook Mine's Permit Application

Brook Mine (also often denominated RAMACO in permit documents or testimony) plans to develop coal resources via both open pit and highwall/auger mining methods. DEQ

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[2] *See* Exhibit 1 to *Brook Mine's Response Brief to Big Horn Coal's Brief Regarding the Scope of the [EQC's] Review and Request for Oral Argument* (demonstrating that in *The Matter of Objections to Amax Coal Company, Eagle Butte Mine, TFN 1 6/212,* the Council specifically made findings of fact and conclusions of law related to the requirements of Section -406(n), and ordered DEQ to take specific action on the permit application).

Exh. 12, p. 12-192. Big Horn is the owner of surface lands, including valuable improvements and facilities, located within Brook Mine's proposed permit area. BHC Exh. 2; Tr. Vol. IV, p. 840, ln. 7-25, p. 840, ln. 1-18. Big Horn also holds an existing coal mine permit that overlaps Brook Mine's proposed permit area and imposes certain reclamation responsibilities on Big Horn, which are enforceable by DEQ. Tr. Vol. IV, p. 836, ln. 11-16. Big Horn's objections to Brook Mine's permit application therefore are reasonably focused on Brook Mine's proposed operations within this overlapping area, more particularly known as the TR-1 mining area, located in in the SE¼ of Section 15 and the NE¼ of Section 22, Township 57 North, Range 84 West, 6th P.M. *See* **Figure 1**; *see also* DEQ Exh. 12, p. 12-134, Tr. Vol. II, p. 204, ln. 10-13.

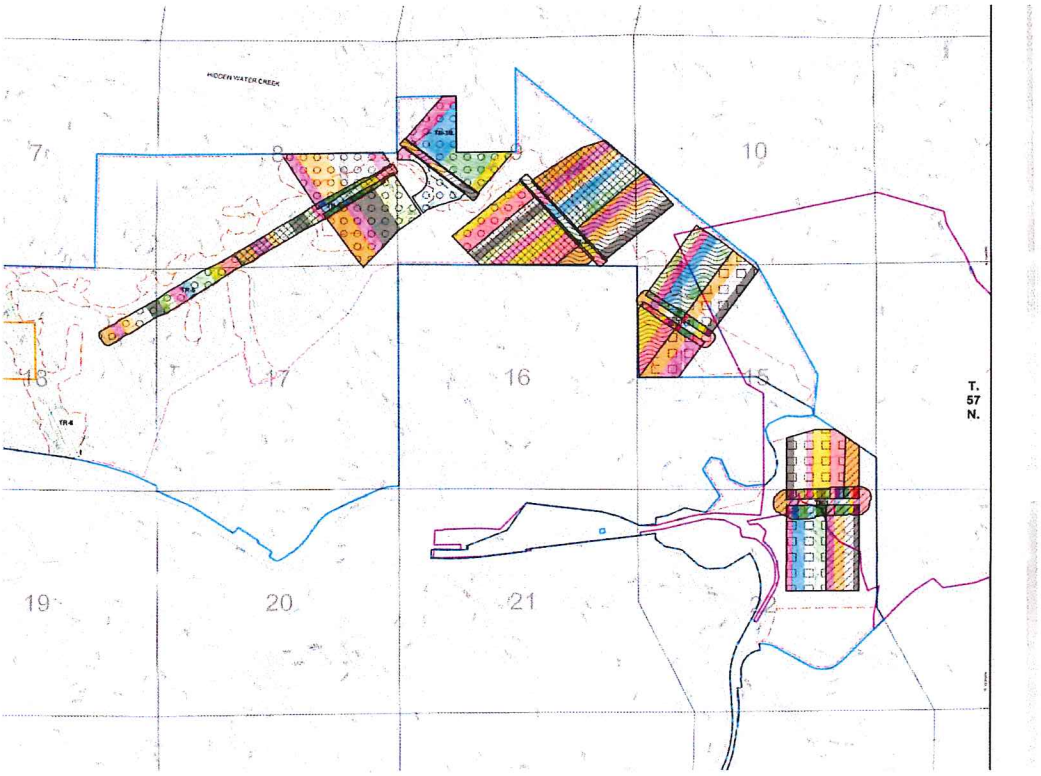

Figure 1. Taken from DEQ Exh. 12, p. 12-134 and showing the TR-1 mining area as the southeastern most mining area.

Evidence of record indisputably demonstrates that Brook Mine failed to provide required, accurate TR-1 area information in its surface coal mine permit application. The evidence further demonstrates that Brook Mine has not satisfied certain legal requirements related to surface water monitoring, underground coal fire analysis and management, overlapping permit boundary analysis and management, and surface owner protection bonding. These requirements must be satisfied prior to permit approval and issuance.

More specifically, Brook Mine's permit application contains and relies on inaccurate, missing or inadequate data and analysis for the TR-1 area, predominantly as it relates to the geology and groundwater located in the overburden above the coal seams Brook Mine proposes to mine. Without complete and accurate information as to the TR-1 area and the projected impacts thereto, and without detailed plans regarding the monitoring of these impacts, it is impossible for Brook Mine, DEQ, Big Horn, or the public to adequately assess Brook Mine's proposed mining operations or the resulting impacts.

The Council cannot fairly or reasonably characterize the flaws in Brook Mine's surface coal mine permit application as minor omissions that can be cured by stipulation or minor permit revisions. *See* Wyo. Stat. Ann. §§ 35-11-103(e)(xxiv); -406(h). The inaccurate, incomplete and missing geologic and hydrologic TR-1 area information constitute legal deficiencies in Brook Mine's permit application. The EQA does not tolerate such deficiencies. The permit application itself must include complete and accurate information, the DEQ must analyze complete and accurate information, and the

public must have the opportunity to review and comment on complete and accurate information *prior to* permit approval. Wyo. Stat. Ann. § 35-11-406(h) – (k).[3]

Accordingly, the Council must order Brook Mine to cure the deficiencies in its mine permit application by preparing, resubmitting to DEQ, and eventually republishing a legally sufficient surface mine permit application. At the very least, all deficiencies must be cured to the DEQ's and EQC's satisfaction prior to Brook Mine conducting any mining operations.[4]

IV. Relevant Legal Requirements

The following list sets forth the EQA and DEQ Land Quality – Coal Rules and Regulations permit application requirements specifically related to Big Horn's objections.[5]

i. *Hydrology and Geology*

- **Wyo. Stat. Ann. § 35-11-406(a)(vii)** - A general description of the land which shall include as nearly as possible … if known, the nature and depth of the overburden, topsoil, subsoil, mineral seams or other deposits and any subsurface waters known to exist above the deepest projected depth of the mining operation.
- **Wyo. Stat. Ann. § 35-11-406(b)(v), (xvi), (xviii)** - A mine and reclamation plan dealing with the extent to which the mining operation will disturb or change the lands

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[3] Because Brook Mine intends to begin its mining operations in the TR-1 area, *see* DEQ Exh. 12, p. 12-134, any suggestion that Brook should be allowed to gather TR-1 area information and cure the TR-1 related permit application deficiencies following permit approval and/or the initiation of mining operations would risk unforeseen and permanent environmental damage and violate the EQA and DEQ Land Quality Division rules and regulations.

[4] In its proposed *Conclusions of Law* below, Big Horn provides the Council alternative conclusions in the form of conditions intended to address the deficiencies in Brook Mine's permit application prior to the initiation of mining operations.

To be clear, Big Horn asserts that Brook Mine's permit application is deficient and not eligible for approval under the express provisions of the EQA. Big Horn only offers the proposed conditions as minimal, necessary steps that must be taken in the event the Council orders the DEQ to make its remaining findings and issue the permit.

[5] All rules and regulations cited herein represent DEQ's, Land Quality – Coal Rules and Regulations. For brevity, the rules and regulations will be referred to herein by Chapter and Section number only.

to be affected and the plan whereby the operator will reclaim the affected lands, to include:

- A map setting forth the drainage plan on, below, above and away from the affected land including subsurface water above the mineral seam to be removed; and further showing the location of all waste water impoundments, any settling ponds, and other water treatment facilities, constructed drainways and natural drainways, and the surface bodies of water receiving this discharge.

- A statement of the source, quality and quantity of water, if any, to be used in the mining and reclamation operations.

- A plan to minimize the disturbances to the prevailing hydrologic balance at the minesite and in associated offsite areas and to the quality and quantity of water in surface and ground water systems both during and after mining operations and during reclamation.

➢ **ENV LQC Ch. 2 § 4(a)(vii), (viii), (x)(A), (xii), (xiv)** - A description of the lands to be affected within the permit area and how these lands will be affected, to include:

- A detailed description of the geology within the proposed permit area down to and including any aquifer[6] to be adversely affected by mining below the lowest coal seam to be mined, to include structural geology that may influence the required reclamation, and the occurrence, availability, movement, quantity, and quality of potentially affected surface and groundwaters.

- For the permit area, and adjacent areas, a characterization of the geologic strata down to and including the deeper of either the stratum immediately below the lowest coal seam to be mined, or any aquifer below the lowest coal seam to be mined that may be adversely impacted by mining, to include a statement of the results of test boring holes or core samples collected to show:

  - The location of any groundwater; and

  - Lithologic characteristics and thickness of each stratum and coal seam.

- A description of the overburden, including the thickness, geological nature or any other factor that will influence the mining or reclamation activities.

- Complete information on groundwater that may be affected in the permit area or adjacent areas, to include:

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[6] ENV LQC Ch. 1 § 2(j), defines "aquifer" as "a zone, stratum or group of strata that stores and transmits water in sufficient quantities for a specific use." Nothing in this definition requires that water in a particular zone or stratum be currently used in order to qualify as an aquifer.

- An estimate of the depth and quantity of any groundwater existing in the proposed permit area down to and including the strata immediately below the lowest mineral seam to be mined, for which the operator may be required to conduct testing in order to determine the exact depth, quantity and quality of groundwater in geological formations affected by the mining operations;

- The lithology and thickness of all known aquifers; and

- The recharge, storage, and discharge characteristics of the groundwater, all according to the parameters and detail required by the Administrator of the Land Quality Division.

- A description of the surface water and groundwater and related geology in the permit area and general area sufficient to assess the probable hydrologic consequences (PHC). And if the determination of the PHC required by Chapter 19, Section 2(a)(i) indicates that adverse impacts on or off the proposed permit area may occur to the hydrologic balance, then information supplemental to that required under (a)(xi) and (a)(xii) of this Section (requiring complete surface and groundwater information) must be provided to evaluate such PHC and to plan remedial and reclamation activities.

- **ENV LQC Ch. 2 § 5(a)(x)** - A determination of the PHC of the proposed operation on the hydrologic regime and the quantity and quality of surface water and groundwater systems within the permit area and the general area consistent with the information required in Chapter 19, Section 2. The PHC determination shall be based on baseline hydrologic, geologic and other information collected for the permit application and may include data statistically representative of the site. This determination shall specifically address potential adverse hydrologic consequences and describe preventive and remedial measures.

- **ENV LQC Ch. 2 § 5(a)(ix)(C), (D)** - A plan to ensure the protection of the quantity and quality of, and rights to, surface water and groundwater both within and adjacent to the permit area, to include:

  - A plan to restore the approximate recharge capacity of the permit area in accordance with Chapter 4, Section 2(h), which requires the groundwater recharge capacity of reclaimed lands to be restored to a condition that provides a recharge rate approximating the pre-mining recharge rate; and

  - A Surface Water Monitoring Plan based on the PHC determination and the analysis of all baseline hydrologic, geologic, and other information in the permit application.

    - The plan must provide for the monitoring of parameters that relate to the suitability of the surface water for current and approved postmining

land uses and to the objectives for protection of the hydrologic balance as set forth in subsection 5(a)(ix) of Chapter 2.

- The plan must identify the surface water quantity and quality parameters to be monitored, sampling frequency, and site locations, and describe how the data may be used to determine the impacts of the operation upon the hydrologic balance.

- A Ground Water Monitoring Plan based on the PHC determination and the analysis of all baseline hydrologic, geologic, and other information in the permit application.

  - The plan must provide for the monitoring of parameters that relate to the suitability of the groundwater for current and approved postmining land uses and to the objectives for protection of the hydrologic balance set forth in subsection 5(a)(ix) of Chapter 2.

  - The plan must identify the quantity and quality parameters to be monitored, sampling frequency, and site locations, and describe how the data may be used to determine the impacts of the operation upon the hydrologic balance.

- **ENV LQC Ch. 2 § 6(b)** - A reclamation plan that describes how the operator will reclaim the affected lands to the proposed postmining land use in accordance with Chapter 4, Section 2(a), which requires restoration of the land to a condition equal to or greater than the highest previous use.

- **ENV LQC Ch. 19 § 2(a)(i)** - A determination of the projected result of proposed surface coal mining and reclamation operations, both on and off the mine site, which may reasonably be expected to change the quantity or quality of the surface and groundwater; the surface and groundwater flow, timing and availability, the surface and groundwater quality under seasonal flow conditions, including dissolved and suspended solids; and the stream channel conditions. This information shall be in sufficient detail to enable the Administrator of the Land Quality Division to determine the probable cumulative hydrologic impacts on surface and groundwater systems including the impacts resulting from the proposed operation and their interaction with the impacts of all anticipated mining upon all affected hydrologic systems.

ii. *Underground Coal Fires*

- **Wyo. Stat. Ann. § 35-11-406(b)(ix), (xiii)** – A plan for insuring that materials constituting a fire, health or safety hazard uncovered during or created by the mining process are promptly treated or disposed of during the mining process in a manner designed to prevent threats to human or animal health and safety, as well as procedures

proposed to avoid constituting a public nuisance, endangering the public safety, human or animal life.

- **ENV LQC Ch. 2 § 5(a)(iv)** – Contingency plans which have been developed to preclude sustained combustion of any materials constituting a fire hazard.

iii. *Blasting Operations*

- **Wyo. Stat. Ann. § 35-11-415(b)(xii)(E)** – surface coal mining operators **must**, upon request of a resident or owner, conduct a pre-blasting survey of any man-made dwelling or structure within one-half (1/2) mile of any portion of the permitted area.

iv. *Overlapping Permits and Related Agreements*

- **ENV LQC CH. 2 § 5(a)(xviii)** – Plans of mine facilities (including overstrip areas) that are to be shared by two or more separately permitted mining operations may be included in one permit application and referenced in the other application(s). Each permittee shall bond the mine facilities unless the permittees sharing it agree to another arrangement for assuming their respective responsibilities. If such agreement is reached, the application shall include a copy of the agreement between or among the parties setting forth the respective bonding responsibilities of each party for the mine facilities.

v. *Surface Owner Protection Bond*

- **Wyo. Stat. Ann. § 35-11-416(a)** - Where the surface owner is not the owner of the mineral estate proposed to be mined by mining operations, a permit shall not be issued without the execution of a bond or undertaking to the state for the use and benefit of the surface owner or owners of the land, in an amount sufficient to secure the payment for any damages to the surface estate, to the crops and forage, or to the tangible improvements of the surface owner. The amount of the bond shall be determined by the administrator and shall be commensurate with the reasonable value of the surrounding land, and the effect of the overall operation of the landowner. Financial loss resulting from disruption of the surface owner's operation shall be considered as part of the damage.

vi. *Wyo. Stat. Ann. § 35-11-406(n) Requirements*

- **Wyo. Stat. Ann. § 35-11-406(n)** – The permit applicant must establish that its permit application is in compliance with the EQA and all applicable state laws. No surface coal mining permit shall be approved unless the applicant affirmatively demonstrates and the administrator finds in writing:

  - The application is accurate and complete;

- The reclamation plan can accomplish reclamation as required by the EQA;
- The proposed operation has been designed to prevent material damage to the hydrologic balance outside the permit area.

PROPOSED FINDINGS OF FACT

1. This matter arises from the application of Brook Mining Company, LLC ("Brook Mine") to the Department of Environmental Quality ("DEQ"), Land Quality Division ("LQD"), for a permit to conduct surface coal mining activities.

2. DEQ/LQD determined Brook Mine's permit application, TFN 6 2-025, complete and suitable for publication pursuant to Wyo. Stat. Ann. § 35-11-406(h). In accordance with Wyo. Stat. Ann. § 35-11-406(j) and (k), the permit was published to the public and interested parties were required to submit written objections to the application by January 27, 2017. *See Big Horn's Response to Brook Mine's Motion to Dismiss Big Horn Coal Company's Petition for a Contested Case Hearing*, Exhibit D.

3. Objectors in this case, Big Horn Coal Company ("Big Horn"), Powder River Basin Resource Council ("PRBRC"), and Mary Brezik-Fisher and David Fisher, submitted timely objections to the application. *See* BHC Exh. 3; Fisher Exh. 26; PRBRC Exh. 1.

4. Objectors requested an informal conference. DEQ denied these requests, leading to this contested case proceeding. *See Big Horn's Response to Brook Mine's Motion to Dismiss Big Horn Coal Company's Petition for a Contested Case Hearing*, Exhibit A.

5. The Environmental Quality Council ("EQC" or "Council") conducted a seven (7) day contested case hearing in this matter, receiving evidence regarding the permit

application contents, proposed operations, characteristics of the proposed permit lands, and possible impacts from the proposed operations.

6. Big Horn owns lands and facilities within and immediately adjacent to Brook Mine's proposed permit boundary, particularly the TR-1 mining area and the southeastern portion of the proposed mining area. BHC Exh. 2; Tr. Vol. IV, p. 840, ln. 7-25, p. 840, ln. 1-18. Big Horn owns and operates an industrial shop, rail loadout facility, bridge, access road, and railroad spur on the referenced lands. Big Horn also holds a state coal lease on S½ Section 23 and the N½ Section 26, Township 57 North, Range 84 West, 6th P.M. BHC Exh. 2; *see generally* Tr. Vol. IV, pp. 839-841.

7. Big Horn currently leases its shop to multiple tenants for industrial use and storage. Tr. Vol IV, p. 861, ln. 3-5.

8. Big Horn also holds an existing mining permit, No. 213-T8, that overlaps lands included in Brook Mine's proposed permit boundary. BHC Exh. 2; Tr. Vol. I, p. 78, ln. 7-10. Big Horn maintains a reclamation performance bond with DEQ/LQD on approximately 25 acres of land within Brook Mine's proposed permit boundary. BHC Exh. 5; Tr. Vol. IV, p. 863, ln. 18-22.

9. In its objection letter and at hearing, Big Horn, along with other Objectors, asserted that Brook Mine's permit application fails to meet applicable legal requirements found in the Environmental Quality Act ("EQA"), Wyo. Stat. Ann. §§ 35-11-101 *et seq.*, and DEQ/LQD—Coal Rules and Regulations. BHC Exh. 3. Big Horn primarily focused its objections on the area of the proposed mine overlapping and adjacent to its current

property and facilities, particularly the TR-1 mining area. *See* BHC Exh. 2; Tr. Vol. IV, pp. 841-843; *see generally* Tr. Vol. I-VII.

TR-1 Mining Area and Related Geology and Hydrology

10. Brook Mine proposes to begin mining operations in the TR-1 mining area. *See* DEQ Exh. 12, p. 12-134.

11. The TR-1 mining area is located entirely in the SE¼ of Section 15 and the NE¼ of Section 22, Township 57 North, Range 84 West, 6th P.M., where Brook Mine proposes to cut a highwall trench through the overburden above the targeted coal seams. *See* DEQ Exh. 12, p. 12-134; Tr. Vol. II, p. 204, ln. 10-20.

12. The overburden in the TR-1 mining area is geologically and hydrologically unique and can be distinguished from the overburden in the proposed permit area outside the TR-1 mining area. The TR-1 area overburden is composed of previously mined backfill material and is saturated with groundwater. DEQ Exh. 5, p. 5-014; Tr. Vol. II, p. 205, ln. 8-21, p. 211, ln. 24-25, p. 212, ln. 1-8, p. 214, ln. 7-24.

13. In order to gather data as to the geology in the proposed permit area, including overburden geology, Brook Mine conducted a drilling program consisting of a series of drill holes across the proposed permit area. *See* DEQ Exh. 5 at pp. 5-015, 5-054 through 5-164; Tr. Vol I, p. 87, ln. 6-17, p. 91, ln. 6-10. The drill hole data is found in the permit application at Addendum D5-2. DEQ Exh. 5 at pp. 5-015, 5-054 through 5-164.

14. Brook Mine conducted drill hole testing on a tighter configuration than DEQ's typical 160-acre spacing requirement. Tr. Vol. I, p. 48, ln. 9-10; p. 91, ln. 18-25; p. 92, ln. 1.

15. Brook Mine did not conduct drill hole testing in the TR-1 mining area, nor did it conduct drill hole testing in any part of the approximately 360 acres comprising the SE¼ of Section 15 and the NE¼ of Section 22, Township 57 North, Range 84 West. The permit application contains no geologic data from the distinct overburden within these lands. *See* DEQ Exh. 5, p. 5-054 through 5-164; Tr. Vol. II, p. 210, ln. 5-25, p. 211, ln. 1-23.

16. Brook Mine's permit application does not distinguish the TR-1 area overburden, and does not include specific geological characterization or identification of the TR-1 area overburden, including its geologic strata, nature, structural geology, lithology, thickness, or other factors that may influence mining or reclamation activities. *See* Tr. Vol. II, p. 209 – 211.

17. DEQ/LQD indicated that it intends to impose a permit condition requiring Brook Mine to gather overburden data from the TR-1 area prior to conducting any mining activity or creating any disturbance. Tr. Vol. I, p. 92, ln. 16-23. No such condition is referenced in the permit application or has otherwise been memorialized. *See* Tr. Vol. I, p. 65 ln. 18-25 (stating that DEQ Exh. 1, p. 1-053 contains the location of permit conditions); DEQ Exh. 1, p. 1-053 (showing no current permit conditions placed upon the permit application).

18. Appendix D6 of the permit application (DEQ Exh. 6) contains hydrologic information, including groundwater information. Tr. Vol. I, p. 93, ln. 17-23. Additional groundwater information is located in the Mine Plan, and its groundwater model. *See* DEQ Exh. 12.

19. Appendix D6 of the permit application characterizes the overburden as a whole, repeatedly describing the overburden within the entirety of the proposed permit area as "dry." *See* DEQ Exh. 6, p. 23-27.

20. The permit application does not characterize any part of the overburden within the proposed permit area as a "potential hydrogeologic unit," and concedes that Brook Mine installed no groundwater monitor wells and conducted no aquifer tests in any part of the overburden. *Id.*

21. In characterizing all overburden within the proposed permit area as "dry," the permit application specifically relies on the drill hole logs and data found in Addendum D5-2, which is devoid of data from the TR-1 mining area. *Id.*; DEQ Exh. 5, p. 5-054 through 5-164; Tr. Vol. II, p. 210, ln. 5-25, p. 211, ln. 1-23.

22. DEQ witnesses Kristiansen and Kuchanur, and Big Horn witness Gerlach, all testified that unlike the overburden in the rest of the proposed permit area, the TR-1 area overburden consists of previously mined backfill material, and that this material is saturated with groundwater. *See* Tr. Vol. II, p. 211, ln. 24-25, p. 212, ln. 1-8, p. 214, ln. 7-24; Tr. Vol. III, p. 507, ln. 3-9; Tr. Vol. IV, p. 927-934; *see also* BHC Exh. 8, 9.

23. Nowhere does the permit application differentiate between the previously mined TR-1 area overburden and the overburden in other proposed mining areas which consist of native strata. Tr. Vol. II, p. 205, ln. 8-21, p. 212, ln. 6-19.

24. Brook Mine witness Barron testified that he does not know whether there is groundwater in the TR-1 overburden, Tr. Vol. IV, p. 720, ln. 11-23, and admitted that no

part of Brook Mine's permit application specifically addresses the TR-1 overburden or its groundwater saturation. Tr. Vol. IV, p. 717, ln. 1-4.

25. DEQ witness Kristiansen conceded that the permit application lacks required information as to the TR-1 overburden and its groundwater saturation, and that that the permit application inaccurately characterizes all overburden within the proposed permit area as dry. Tr. Vol. II, p. 214, ln 12-24, p. 216, ln 12-25, p. 217, ln 1-17.

26. Brook Mine's permit application fails to describe groundwater in the TR-1 area overburden. The permit application contains no site-specific data regarding groundwater location, quantity, quality, lithology, or thickness; or its recharge, storage, or discharge characteristics within the TR-1 area overburden. *See* Tr. Vol. II, p. 212, ln. 6-19; Tr. Vol. IV, p. 717, ln. 1-4, p. 720, ln. 19-23.

27. The permit application addresses "Probable Hydrologic Impacts" in section MP.6; groundwater impacts are specifically addressed in section MP.6.2. DEQ Exh. 5, p. 12-055, -059.

28. Section MP.6.2 of the permit application states that mining impacts to the groundwater found in the coal seams, including drawdown and pit inflows, are predicted and discussed in the groundwater model utilized by Brook Mine. *Id.* at 12-060.

29. As to the overburden, section MP 6.2 assumes that the overburden is dry and states that drawdown of groundwater in the overburden was not modeled. *Id.*

30. Brook Mine's "Operation Monitoring Program" is found in the permit application in section MP.7, with groundwater monitoring described in section MP.7.2. *Id.* at 12-062, -064 through -065.

31. Section MP 7.2 of the permit application states, "[g]roundwater monitoring during mining operations will be a continuation of the monitoring program" discussed in Appendix D6. *Id.* at 12-064. Appendix D6 states that no monitor wells exist to monitor the overburden. DEQ Exh. 6, p. 6-023 through -027.

32. The permit application contains no description or assessment of the hydrologic impacts of the proposed mining operations to the groundwater in the TR-1 overburden, and provides no plan whereby Brook Mine will monitor the hydrologic impacts of the proposed mining operations on groundwater in the TR-1 area overburden. *See generally* DEQ Exh. 5 and 12; *see also* Tr. Vol. IV, p. 717, ln. 1-4.

33. The groundwater model utilized by Brook Mine to support its permit application is discussed in Addendum MP-3 of the Mine Plan. DEQ Exh. 12, p. 12-183 through -294.

34. The groundwater model was designed to analyze the potential cumulative hydrological effects of the project and simulate the regional groundwater impacts from the proposed mining operations. DEQ Exh. 12, p. 12-184, -192.

35. The hydrogeologic data used in the groundwater model was limited to observation points, monitor wells and pumping tests, and private well information obtained from the State Engineers Office database. *Id.* at pp. 12-192, -194, -264. None of these data sources provide information as to the unique textural and hydraulic characteristics of the saturated backfill in the TR-1 area overburden. *See generally* DEQ Exh. 12, p. 12-183 through -294; *see also* Tr. Vol. III, p. 513, ln. 11-19; BHC Exh. 9, p. 6.

36. The groundwater model primarily focuses on the Carney and Masters coal seams; treats all overburden within the proposed permit area as dry, native strata; does not utilize any site-specific hydraulic conductivity information from the TR-1 area overburden; and does not model any drawdowns in the TR-1 overburden resulting from mining operations. DEQ Exh. 12, pp. 12-060, -197, -205, -206; BHC Exh. 9, p. 6.

37. The TR-1 area is spatially contained within the geographic area examined by the groundwater model; however, by assuming all overburden in the proposed permit area is dry, impacts to the groundwater in the TR-1 area overburden were not accurately modeled. *See generally* DEQ Exh. 12, p. 12-183 through -294.

38. Brook Mine's permit application states that mining operations will use and rely on pit inflows as a source of water. DEQ Exh. 12, p. 12-066. The application estimates that the proposed mining operations will use approximately 53,000 gallons of water per day (approximately 37 gallons per minute) from pit inflows and states that the estimated inflow amounts are demonstrated in the groundwater model in Addendum MP-3. DEQ Exh. 12, p. 12-116. The groundwater model estimates pit inflows at anywhere between 100 gallons per minute to 0.03 gallons per minute for the life of the mine. *Id.* at 12-254.

39. To facilitate its use of pit inflow water, Brook Mine proposed to place a pump in the TR-1 trench cut to pump out water for operations use for the life of the mine. DEQ Exh. 12, p. 12-052; Tr. Vol. III, p. 556, ln. 1-15.

40. DEQ witness Kuchanur testified that once Brook Mine excavates the trench cut in the TR-1 mining area, groundwater from the TR-1 overburden will flow into the trench cut and mine panels. Tr. Vol. III, p. 556, ln. 1-15.

41. The groundwater model does not accurately reflect or identify the groundwater in the TR-1 overburden, and does not accurately simulate the pit inflows from the TR-1 overburden. *See generally* DEQ Exh. 12, p. 12-183 through -294; *see also* Tr. Vol. IV, p. 717, ln. 1-4.

42. Brook Mine's permit application contemplates the use of groundwater found in the coal seams as a source of water to be used from pit inflows. *See* DEQ Exh. 12, p. 12-254. The permit application never acknowledges any use of the groundwater in the TR-1 overburden, does not identify this groundwater as a source of water for mine operations, and the quality and quantity of water to be used form this source is a complete unknown. *See generally* DEQ Exh. 12.

43. Appendix D6, section D6.2.2.5, of the permit application addresses recharge areas. The permit application does not specifically describe any recharge characteristics of the overburden generally, nor the TR-1 area specifically. DEQ Exh. 6, p. 6-029 through -031. Appendix D.6 of the permit application characterizes all overburden as dry, and relies on the groundwater model found at Addendum MP-3 for any detail concerning groundwater recharge. *Id.*

44. The groundwater model is devoid of any TR-1 overburden data and characterizes recharge in the overburden, generally, as having a uniform recharge rate of between 0.00000012 ft/day/ft^2 and 0.00008 ft/day/ft^2 and 0.0005 and 0.35 inches per year. DEQ Exh. 12, p. 12-221.

45. Upon review of materials not in or referenced by the permit application, DEQ witness Kuchanur estimated the TR-1 overburden recharge rate at 0.06 CFS. *See* Tr. Vol VII, p. 1470, ln. 1-16; p. 1471, ln. 14-15.

46. The groundwater in the TR-1 overburden is currently held in place by a low permeability, shale aquitard, or barrier, which physically separates the groundwater located in the overburden from the groundwater located in the coal seams. Tr. Vol. III, p. 508, ln. 2-25, p. 509, ln. 1.

47. In order to access the targeted coal seams, the proposed mining operations in the TR-1 area will excavate and cut though the shale barrier and allow the TR-1 overburden groundwater to flow directly into the trench and mining panels. *Id.*; *see also id* at p. 556, ln. 1-15.

48. Neither the permit application nor the groundwater model contains any data or analysis regarding whether and how Brook Mine will be able to restore the recharge rate of the groundwater in the TR-1 overburden after mining operations cease. *See generally* DEQ Exh. 6, 12 and 13.

Surface Water Monitoring

49. DEQ witness Kunze conceded that Brook Mine needs to revise the number and location of surface water monitor wells proposed in the permit application for the Tongue River. Tr. Vol. II, p. 411, ln. 18-25, p. 412, ln. 1-12.

50. In order to adequately monitor mining impacts on the Tongue River, one monitor well needs to be placed further upstream on the Tongue River, near the furthest upstream point within the proposed permit area; an additional monitor well should be

placed near the proposed permit boundary on the Tongue River a short distance downstream from the confluence of the Tongue River and Goose Creek; and another additional monitor well should be placed on Goose Creek. *Id.*

51. DEQ policy requires permit applications to contain pre-mining monitoring and studies of both surface and groundwater to include monitoring data for a one year period, at minimum. *See* DEQ Exh. 22, pp. 3, 5, 15, 16; *see also* Tr. Vol. II, p. 395, ln. 9-17.

52. The TR-1 mining area is located immediately adjacent to both the Tongue River and Goose Creek, and the confluence of the two surface water bodies. DEQ Ex. 12, p. 12-134; Tr. Vol. II, p. 204, ln. 25, p. 205, ln. 1-7.

53. The permit application does not discuss or analyze whether or to what extent the groundwater in the TR-1 overburden is hydrologically connected to the Tongue River or Goose Creek. *See generally* DEQ Exh. 5 and 12.

54. The evidence suggests a direct hydrological connection exists between the groundwater in the TR-1 overburden and the Tongue River. Tr. Vol. III, p. 498, ln. 19-25, p. 499, ln. 1-19; Tr. Vol. IV, p. 936, ln. 5-11; BHC Exh. 9.

55. Absent information in the permit application regarding the nature and extent of the hydrologic connection between the TR-1 overburden and the Tongue River, it is impossible for Brook Mine or DEQ to determine if or to what extent mining through the saturated TR-1 overburden will adversely impact the Tongue River. *See* Tr. Vol. II, p. 420, ln. 7-19.

56. Neither the monitor wells identified in Brook Mine's permit application nor the additional monitor wells DEQ proposed at hearing will adequately monitor impacts to the Tongue River from mining through the saturated overburden in the TR-1 area. *See* DEQ Exh. 12, p. 12-062 through -064, -112; *see also* Tr. Vol. II, p. 411, ln. 18-25, p. 412, ln. 1-15; DEQ Exh. 6 and 12 *generally*. An additional monitor well on the Tongue River, just north of the TR-1 mining area, is necessary to adequately monitor impacts to the Tongue River from mining in the TR-1 area. *See* DEQ Exh. 12, p. 12-062 through -064, -0112; Tr. Vol. II, p. 420, ln. 7-19.

Access to the TR-1 Area for Testing

57. Brook Mine had legal authority to enter Big Horn property, including the TR-1 area, to conduct exploration and data recovery operations from July 2012 through July 2014, pursuant to an exploration agreement with Big Horn. Tr. Vol. IV, p. 847, ln. 9-16.

58. Brook Mine was gathering information for its permit application, including gathering geology information, and placing monitor and observation wells outside the TR-1 area, during this same period. *See* Tr. Vol. I, p. 51, ln. 18-25.

59. Brook Mine apparently chose not to gather information from the TR-1 mining area during the term of its agreement with Big Horn. *See generally* DEQ Exh. 1-13.

60. Brook Mine allowed its exploration agreement with Big Horn to expire, and never subsequently sought permission to enter Big Horn's property to conduct testing or gather information. Tr. Vol. IV, p. 848, ln. 1-9, p. 855, ln. 17-20.

61. After the expiration of the exploration agreement, and without notice to or permission from Big Horn, Brook Mine sent drilling rigs to Big Horn property. Big Horn discovered unauthorized drilling rigs on its property and contacted law enforcement, which instructed the drilling rig operator to leave Big Horn property. *Id.* at p. 848, ln. 10-25, p. 849, ln. 1-25, p. 850, ln. 1-4.

62. There is no evidence in the record that it was not possible for Brook Mine to acquire geologic or hydrologic information from the TR-1 area.

Underground Coal Fires

63. There is a history of underground coal fires in the proposed permit area. *See* Tr. Vol. II, p. 334, ln. 2-5.

64. Brook Mine acknowledged at hearing that coal fires may exist within the proposed permit boundary. Tr. Vol. IV, p. 722, ln. 16-21.

65. Brook Mine has not conducted any survey or examination of coal fires in the proposed permit area; and the permit application contains no information to support Brook Mine's testimony at hearing that although coal fires may exist, it believes no underground coal fires exist in the proposed permit area. *Id.* at p. 716, ln. 4-17.

Blasting Protections Afforded to Surface Owners

66. At hearing, Big Horn witness Sweeney requested a pre-blasting survey pursuant to Wyo. Stat. Ann. § 35-11-415(b)(xi)(E), and seismic monitoring for Big Horn's shop and other infrastructure located within the proposed permit area. Tr. Vol. IV, p. 860, ln. 17-25, p. 861, ln. 1-16.

67. DEQ and Brook Mine representatives testified that on request from a resident within one half-mile of the proposed permit boundary, seismic monitors could be placed near structures to measure the ongoing impacts from blasting. Tr. Vol. III, p. 618, ln. 12-25, p. 619, ln. 1-2.; Tr. Vol. IV, p. 770, ln. 20-25, p. 771, ln. 1-5, p. 783, ln. 5-19.

Overlapping Permit Boundaries and Related Agreements

68. Brook Mine's permit application states that Big Horn's "permit boundary [is] within Brook Mine's permit boundary," that "all mining operations are covered under individual Permits to Mine," and "[a]greements between the permittees are located in the Adjudication File." DEQ Exh. 12, p. 12-088. In its Reclamation Plan, the permit application states that "the last party to disturb an area will have final reclamation responsibility on the disturbed dual permitted lands." DEQ Exh. 13, p. 13-075.

69. Big Horn requires access to the overlapping property as a landowner with tenants and as a permit holder with outstanding reclamation responsibilities. *See* Tr. Vol. IV, p. 870, ln. 14-21.

70. When two or more parties have overlapping surface coal mine permits, the permit documents may specifically reference any agreements between the parties and expressly provide that each party is only responsible for reclamation resulting from its own disturbance. BHC Exh. 5 and 6.

71. There are no operational, surface use, or overlapping permit boundary agreements between Brook Mine and Big Horn Coal. Tr. Vol. IV, p. 865, ln. 9-15. Brook Mine's permit application incorrectly implies there is an agreement between Brook Mine and Big Horn in the adjudication file. *See* DEQ Exh. 12, p. 12-088.

72. Brook Mine's permit application states that "the last party to disturb an area will have final reclamation responsibility on the disturbed dual permitted lands" rather than stating as DEQ witness Kristiansen conceded, that each party will be responsible for reclamation and maintaining a reclamation bond only as to that party's facilities, operations, and disturbances. *See* DEQ Exh. 13, p. 13-075; Tr. Vol. II, p. 188, ln. 20-25, p. 189, ln. 1-25, p. 190, ln. 1-16.

Surface Owner Protection Bond

73. Brook Mine has not yet submitted a surface owner protection bond to DEQ, as required by Wyo. Stat. Ann. § 35-11-416(a), for the use and benefit of Big Horn as a surface owner within the proposed permit area. *See* Tr. Vol. II, p. 200, ln. 9-25, p. 201, ln. 1.

74. DEQ assured Big Horn that it will determine the amount of the surface owner protection bond prior to permit issuance and only after participation and input from Big Horn. Tr. Vol. II, p. 201, ln. 8-25, p. 202, ln. 1-4.

PROPOSED CONCLUSIONS OF LAW

1. The Council has jurisdiction over this matter pursuant to Wyo. Stat. Ann. §§ 35-11-406(k) and -112(a).

2. EQC conducted the contested case hearing pursuant to DEQ, Practice and Procedure Rules, Chapter 2.

3. Pursuant to the Environmental Quality Act, Wyo. Stat. Ann. §§ 35-11-101 *et seq.,* and applicable Department of Environmental Quality, Land Quality Division, Coal Rules and Regulations, Brook Mine's permit application must contain specific information,

data and other substantive content and analysis regarding the proposed surface coal mining operations, the land and water to be affected, foreseeable impacts from the proposed mining operations, and how the foreseeable impacts will be monitored, minimized and reclaimed.

4. The Council must determine whether Brook Mine has affirmatively established that its permit application contains all legal requirement imposed by the Environmental Quality Act, Wyo. Stat. Ann. §§ 35-11-101 *et seq.,* and applicable Department of Environmental Quality, Land Quality Division, Coal Rules and Regulations.

5. The Council also must determine whether Brook Mine has met its specific burden under Wyo. Stat. Ann. § 35-11-406(n) necessary for approval of its permit application, and, based on that determination, direct DEQ to either issue or deny Brook Mine a permit after making the requisite written findings.

6. **Wyo. Stat. Ann. § 35-11-406(a)(vii) and DEQ, Land Quality Coal Rules, Ch. 2, Section 4(a)(vii), (viii), (x)** require a surface coal mining permit application to provide a general description of the land, including the nature of the overburden, a detailed description of the geology down to the lowest coal seam to be mined, a characterization of the geologic strata down to the lowest coal seam to be mined, the lithological characteristics of each stratum, and a description of any factor in the overburden that will influence mining or reclamation activities.

7. Brook Mine's permit application fails to provide complete and accurate information required by Wyo. Stat. Ann. § 35-11-406(a)(vii) and DEQ, Land Quality Coal Rules, Ch. 2, Section 4(a)(vii), (viii), (x) as to the overburden in the TR-1 mining area.

Descriptions and characterizations in the form of assumptions or based on an extrapolation of data from geographically and geologically distinct areas fail to satisfy these statutory and regulatory requirements.

8. DEQ must either deny the permit application, or require Brook Mine to include the complete and accurate TR-1 specific geologic data and analysis in its permit application, resubmit its application to DEQ and, after approval, re-publish notice of its complete application allowing interested persons to file written objections, pursuant to Wyo. Stat. Ann. § 35-11-406(h)-(k).

—In the alternative, and without waiving BHC's stated position that the application must be denied and resubmitted, if the EQC elects to direct DEQ to impose permit conditions:[7]

DEQ shall issue the permit with an express written condition that, prior to conducting any mining operations, Brook Mine must obtain and analyze TR-1 overburden samples and provide all such data and analysis to DEQ for review and approval in accordance with the applicable statutes and DEQ-Land Quality Coal Rules and Regulations.

9. **Wyo. Stat. Ann. § 35-11-406(a)(vii) and DEQ, Land Quality Coal Rules, Ch. 2, Section 4(a)(vii), (viii), (xii)** require a surface coal mining permit application to provide a description of any subsurface waters known to exist above the deepest projected

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[7] *See supra* Note 4. All alternative Conclusions of Law proposing permit conditions are provided by Big Horn with this same caveat that Big Horn first and foremost asserts that the permit application submitted by Brook Mine is deficient and must be either denied or sent back to Brook Mine to remedy these deficiencies, resubmit the application to DEQ for approval, and re-publish for public review pursuant to Wyo. Stat. Ann. § 35-11-406(h)-(k).

depth of the mining operation; the occurrence, availability, quality and quantity of potentially affected groundwaters; the location of any groundwater; and complete information of groundwater that may be affected in the permit area, including the lithology and thickness of known aquifers and the recharge, storage and discharge characteristics of the groundwater.

10. Brook Mine's permit application fails to provide complete and accurate information required by Wyo. Stat. Ann. § 35-11-406(a)(vii) and DEQ, Land Quality Coal Rules, Ch. 2, Section 4(a)(vii), (viii), (xii), as it fails to identify or describe any groundwater in the TR-1 mining area overburden.

11. DEQ must either deny the permit application, or require Brook Mine to include the complete and accurate TR-1 specific groundwater information and analysis in its permit application, resubmit its application to DEQ and, after approval, re-publish notice of its complete application allowing interested persons to file written objections, pursuant to Wyo. Stat. Ann. § 35-11-406(h)-(k).

—***In the Alternative***—

DEQ shall issue the permit with an express written condition that, prior to conducting any mining operations, Brook Mine must obtain and analyze additional groundwater information from the TR-1 area overburden and provide all such data and analysis to DEQ for review and approval in accordance with the applicable statutes and DEQ-Land Quality Coal Rules and Regulations.

12. **Wyo. Stat. Ann. § 35-11-406(b)(xvi)** requires a surface coal mining permit application to contain a statement of the source, quality, and quantity of any water to be used in mining or reclamation operations.

13. Brook Mine's permit application fails to provide complete and accurate information required by Wyo. Stat. Ann. § 35-11-406(b)(xvi), as it fails to identify the groundwater in the TR-1 overburden as a source of water for its proposed operations and similarly fails to identify the quality of that water or the quantity to be used in its mining or reclamation operations.

14. DEQ must either deny the permit application, or require Brook Mine to include the complete and accurate information and analysis regarding the TR-1 as a specific water source in its permit application, resubmit its application to DEQ and, after approval, re-publish notice of its complete application allowing interested persons to file written objections, pursuant to Wyo. Stat. Ann. § 35-11-406(h)-(k).

—***In the Alternative***—

DEQ shall issue the permit with the express written conditions that:

(1) prior to conducting any mining operations, Brook Mine must identify all water sources to be used in its proposed mining and reclamation operations, including groundwater from the TR-1 overburden, by geologic source, including quality and quantity characteristics, and submit this data and analysis to DEQ for review and approval in accordance with applicable statutes and DEQ-Land Quality Coal Rules and Regulations; and

(2) after the conclusion of mining operations in the TR-1 area, the TR-1 trench must be reclaimed without delay, in accordance with applicable law, and may not remain open for use as a source of water for subsequent mining operations on adjacent lands.

15. **Wyo. Stat. Ann. § 35-11-406(b)(xviii) and DEQ, Land Quality Coal Rules, Ch. 2, Section 4(a)(xiv), Section 5(a)(x), Chapter 19 Section 2(a)** require a surface coal mining permit application to contain a plan to minimize disturbances to the prevailing hydrologic balance at the minesite and associated offsite areas and to the quality and quantity of surface and groundwater systems both during and after mining operations; a description of the groundwater and related geology in the permit area sufficient to assess the probable hydrologic consequences; a determination of the probable hydrologic consequences of the proposed operation on the hydrologic regime and the quantity and quality of surface and groundwater systems within the permit area; and a determination of the projected result of the proposed surface coal mining and reclamation operations, which may be expected to change the quality or quantity of the surface and groundwater, its flow, timing and availability, all in sufficient detail to enable the Administrator of the Land Quality Division to determine the probable cumulative hydrologic impacts on surface and groundwater systems.

16. Brook Mine's permit application fails to meet the requirements of Wyo. Stat. Ann. § 35-11-406(b)(xviii) and DEQ, Land Quality Coal Rules, Ch. 2, Section 4(a)(xiv), Section 5(a)(x), Chapter 19 Section 2(a), specifically, as to the lack of any plan or assessment related to probable impacts from mining through the TR-1 overburden, and

any probable change in the quality or quantity of the surface or groundwater in that area, its flow, timing or availability.

17. DEQ must either deny the permit application, or require Brook Mine to include sufficiently detailed, site-specific groundwater data for the TR-1 overburden in its permit application, including the anticipated impacts from mining the TR-1 area on ground and surface waters, resubmit its application to DEQ and, after approval, re-publish notice of its complete application allowing interested persons to file written objections, pursuant to Wyo. Stat. Ann. § 35-11-406(h)-(k).

—In the Alternative—

DEQ shall issue the permit with an express written condition that, prior to conducting any mining operations, Brook Mine must provide a surface and groundwater impact analysis (during-mining and post-mining) that incorporates site-specific textural and hydrological data in the TR-1 mining area, to DEQ for review and approval in accordance with applicable statutes and DEQ-Land Quality Coal Rules and Regulations.

18. **DEQ, Land Quality Coal Rules, Ch. 2, Section 5(a)(ix)** requires a surface coal mining permit application to contain both a groundwater and surface water monitoring plan, based on hydrologic, geologic and other information in the permit application, which identifies the quality and quantity parameters to be monitored, sampling frequency and site locations, and describes how the data will be used to determine the impacts of the mining operations on the hydrologic balance.

19. Brook Mine's permit application fails to meet the requirements of DEQ, Land Quality Coal Rules, Ch. 2, Section 5(a)(ix), as it fails to contain sufficient monitoring locations to determine the impacts of the proposed mining operations in the TR-1 area on surface water within and adjacent to the permit area. The permit application further fails to meet the requirements of DEQ, Land Quality Coal Rules, Ch. 2, Section 5(a)(ix), as it fails to contain sufficient monitoring locations to determine the impacts of mining the TR-1 area on the groundwater located in the TR-1 overburden.

20. DEQ must either deny the permit application, or require Brook Mine to identify and commit to installing additional monitoring locations within its permit application necessary to determine the impacts of mining the TR-1 area on the Tongue River and Goose Creek and the groundwater located in the TR-1 overburden, resubmit its application to DEQ and, after approval, re-publish notice of its complete application allowing interested persons to file written objections, pursuant to Wyo. Stat. Ann. § 35-11-406(h)-(k).

—In the Alternative—

DEQ shall issue the permit with an express written condition that, prior to conducting any mining operations, Brook Mine must submit to DEQ for review and approval in accordance with applicable statutes and DEQ-Land Quality Coal Rules and Regulations, alterations to its water monitoring locations as follows:

First, as recommended by DEQ, move one monitor well farther upstream on the Tongue River near the boundary of the proposed permit area, and add additional monitoring cites on the Tongue River just downstream of the

confluence with Goose Creek and an additional monitoring location on Goose Creek; and

Second, add groundwater monitoring locations in the TR-1 overburden and add an additional surface water monitoring location in the Tongue River just north of the TR-1 mining area.

21. **DEQ, Land Quality Coal Rules, Ch. 2, Section 5(a)(ix)** and its incorporation of Ch. 4, Section 2(h) requires a surface coal mining permit application to include a plan to restore the approximate recharge capacity of groundwater within the permit area to a condition that approximates the pre-mining recharge rate.

22. Brook Mine's permit application fails to provide the information required by DEQ, Land Quality Coal Rules, Ch. 2, Section 5(a)(ix) as to the groundwater in the TR-1 overburden, as there is no a plan to restore the recharge capacity and no accurate information as to the pre-mining recharge capacity of that groundwater.

23. DEQ must either deny the permit application, or require Brook Mine to provide and analyze data concerning the recharge capacity of the TR-1 overburden groundwater and include a plan in the permit application to restore the recharge capacity of the TR-1 overburden groundwater to pre-mining conditions, resubmit its application to DEQ and, after approval, re-publish notice of its complete application allowing interested persons to file written objections, pursuant to Wyo. Stat. Ann. § 35-11-406(h)-(k).

—***In the Alternative***—

DEQ shall issue the permit with an express written condition that, prior to conducting any mining operations, Brook Mine must determine the recharge

capacity of the TR-1 overburden groundwater and provide a plan to restore the TR-1 overburden groundwater to pre-mining conditions to DEQ for review and approval in accordance with applicable statutes and DEQ-Land Quality Coal Rules and Regulations.

24. **Wyo. Stat. Ann. § 35-11-406(b)(ix), (xiii) and DEQ, Land Quality Coal Rules, Ch. 2, Section 5(a)(iv)** require a surface coal mining permit application to include a plan for insuring that "materials constituting a fire, health or safety hazard uncovered during or created by the mining process are promptly treated or disposed of during the mining process in a manner designed to prevent . . . threats to human or animal health and safety," contain "procedures proposed to avoid constituting a public nuisance, endangering the public safety, human or animal life," and include "plans which have been developed to preclude sustained combustion of any materials constituting a fire hazard."

25. Due to the prevalence and history of coal fires in the area, the lack of any information as to current coal fire activity within the permit area renders Brook Mine's permit application deficient with regard to the required fire safety planning.

26. DEQ shall issue the permit with an express written condition that, prior to conducting any mining operations, Brook Mine must submit and DEQ must approve a report providing maps, descriptions, photographs, and any existing evidence of underground coal fires within 500 feet of any proposed mining locations and a plan that identifies the specific safety measures Brook Mine will take where underground coal fires exist within 500 feet of any proposed mining location.

27. **Wyo. Stat. Ann. § 35-11-415(b)(xi)(E)** requires surface coal mining operators to provide a pre-blasting survey "of a man-made dwelling or structure within one-half (1/2) mile of any portion of the permitted area," on request of a resident or owner.

28. Finding Big Horn's request for a pre-blast survey to be mandated by law, and Big Horn's request for seismic monitors to be reasonable and available, DEQ shall issue the permit with an express written condition that, prior to conducting any mining operations, Brook Mine, under DEQ direction, will conduct a pre-blast survey of all man-made structures and dwellings belonging to Big Horn within one-half mile of the permit area, and install seismic monitoring devices at each of Big Horn's facilities sufficient to ensure the protection of Big Horn infrastructure, improvements and tenants.

29. Based on the testimony and evidence of record, Brook Mine's permit application fails to accurately state there are no operational, surface use, or overlapping permit boundary agreements between Brook Mine and Big Horn. The permit application also fails to accurately and sufficiently set forth the reclamation responsibilities of each party as to disturbance within the overlapping permit boundaries.

30. DEQ shall issue the permit with an express written condition that section MP.22 and section RP.12 of Brook Mine's mine and reclamation plans must be amended to accurately reflect the following:

- There are no operational, surface use, or overlapping permit boundary agreements between Brook Mine and Big Horn Coal.
- Big Horn maintains a reclamation performance bond adequate to reclaim Big Horn facilities and all disturbances associated within Big Horn operations within Big Horn's permit area.

- Brook Mine shall maintain a reclamation performance bond sufficient to reclaim all disturbance associated with Brook Mine operations within its permit area.

- Big Horn shall not be responsible for reclamation of any disturbance unrelated to Big Horn operations or facilities, including, but not limited to, Brook Mine disturbance within the remaining lands subject to Big Horn's reclamation performance bond.

31. **Wyo. Stat. Ann. § 35-11-416(a)** requires that when the surface owner is not the mineral owner of the estate proposed to be mined, prior to permit issuance, the operator must execute a bond "for the use and benefit of the surface owner or owners of the land, in an amount sufficient to secure the payment for any damages to the surface estate . . . or to the tangible improvements of the surface owner."

32. In accordance with DEQ's stated assurance at hearing, no permit shall be issued to Brook Mine unless and until a surface owner protection bond is issued for the benefit of Big Horn and after good faith consultation with Big Horn as to the appropriate bond amount.

PROPOSED CONCLUSIONS OF LAW AS TO WYO. STAT. ANN. § 35-11-406(n)

33. **Wyo. Stat. Ann. § 35-11-406(n)** requires Book Mine, as a surface coal mining permit applicant, to meet its burden of "establishing that his application is in compliance with [the Environmental Quality Act] and all applicable state laws" and provides that "[n]o surface coal mining permit shall be approved unless the applicant affirmatively demonstrates" the following:

(i) That the application is accurate and complete;

(ii) That the reclamation plan can accomplish reclamation as required by [the Environmental Quality Act]; and

(iii) That the proposed operation has been designed to prevent material damage to the hydrologic balance outside the permit area.

34. Based on the forgoing findings of fact and conclusions of law:

- Brook Mine has failed to affirmatively establish that its permit application is in compliance with the requirements of the Environmental Quality Act and all applicable rules and regulations.
- Brook Mine's permit application lacks required information, mischaracterizes, and contains inaccurate information as to the TR-1 mining area and its related overburden geology and hydrology, as well as lacks the additional legal requirements stated above. Therefore, Brook Mine has failed to affirmatively demonstrate that its permit application is accurate and complete.
- Brook Mine has failed to affirmatively demonstrate that the reclamation plan can accomplish reclamation as required by the Environmental Quality Act, which emphasizes a standard for restoration to pre-mining conditions[8], because the permit application fails to sufficiently identify pre-mining conditions in the TR-1 area.
- Brook Mine has failed to affirmatively demonstrate that its proposed operation has been designed to prevent material damage to the hydrologic balance outside the permit area, because it fails to account for or consider critical and unique hydrological conditions in the TR-1

[8] *See* DEQ, Land Quality Coal Rules, Ch. 4, Section 2.

area and fails to identify how it will monitor the impacts of the proposed TR-1 area mining operations on the hydrological balance within, let alone outside the proposed permit area.

35. DEQ must either:

- Deny the permit application; or
- Require Brook Mine to complete its permit application in light of the above identified deficiencies, resubmit its application to DEQ and, after approval, re-publish notice of its complete application allowing interested persons to file written objections, pursuant to Wyo. Stat. Ann. § 35-11-406(h)-(k).

—In the Alternative—

DEQ shall issue the permit with all of the express written conditions listed above.

DATED: July 24, 2017.

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CERTIFICATE OF SERVICE

I hereby certify that on July 24, 2017 a true and correct copy of the foregoing was served by email to the following:

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