

STATE OF NORTH DAKOTA

IN DISTRICT COURT

COUNTY OF BURLEIGH

SOUTH CENTRAL JUDICIAL DISTRICT

_____)	
)	
Casey Voigt)	
)	
Appellant,)	
)	CIVIL NO. 08-2015-CV-1056
vs.)	
)	
North Dakota Public Service Commission)	
and Coyote Creek Mining Company,)	
L.L.C.,)	
)	
Appellees)	
)	
_____)	
)	
PSC Case No. RC-13-850)	
)	
_____)	

BRIEF OF APPELLEE NORTH DAKOTA PUBLIC SERVICE COMMISSION

STATEMENT OF THE CASE

[1] This is an administrative appeal of a decision of the Public Service Commission affirming an earlier Public Service Commission decision to grant a coal mining permit to Coyote Creek Mining Company to operate the Coyote Creek Mine in Mercer County, ND. The administrative decision followed three days of hearing, requested by landowner and coal lessee, Appellant, Casey Voigt. Mr. Voigt requested the hearing under North Dakota Century Code section 38-14.1-30, after he received notice that the

Public Service Commission granted the mining company a permit to operate the Coyote Creek Mine.

[2] Several issues were raised by Mr. Voigt at the hearing and decided in the Public Service Commission's order. Only one of those issues is the subject of this appeal. The issue on appeal is whether the Public Service Commission is correct in concluding that the area in question is not an alluvial valley floor under federal and state mining regulations.

STANDARD OF REVIEW

[3] As this is an appeal of an administrative decision, the court is bound by the standards set out in the North Dakota Administrative Agencies Practice Act, North Dakota Century Code chapter 28-32. Under North Dakota Century Code section 28-32-46, the Public Service Commission's decision must be affirmed unless the appellate court finds:

1. The order is not in accordance with the law.
2. The order is in violation of the constitutional rights of the appellant.
3. The provisions of this chapter have not been complied with in the proceedings before the agency.
4. The rules or procedure of the agency have not afforded the appellant a fair hearing.
5. The findings of fact made by the agency are not supported by a preponderance of the evidence.
6. The conclusions of law and order of the agency are not supported by its findings of fact.
7. The findings of fact made by the agency do not sufficiently address the evidence presented to the agency by the appellant.
8. The conclusions of law and order of the agency do not sufficiently explain the agency's rationale for not adopting any contrary recommendations by a hearing officer or an administrative law judge.

[4] In the instant case, Appellants assert their appeal under subsections one, five, six and seven. The Public Service Commission will show that its decision meets each of the four standards.

[5] “Courts exercise limited review in appeals from administrative agency decisions under the Administrative Agencies Practice Act, N.D.C.C. ch. 28-32.” , *Dakota Res. Council v. N.D. PSC*, 2012 ND 72, ¶ 5, 815 N.W.2d 286 (*citations omitted*). An agency’s decision is accorded great deference. *Berger v. N.D. Dep’t of Transp.*, 2011 ND 55, ¶ 5, 795 N.W.2d 707. “On appeal from an administrative agency decision, we do not substitute our judgment for that of the agency or make independent findings, determining only if a reasoning mind reasonably could have concluded the findings were supported by the weight of the evidence in the entire record, and deferring to the hearing officer’s opportunity to judge the credibility of witnesses.” *Huff v. North Dakota State Bd. Of Medical Examiners*, 2004 ND 205, ¶ 8, 690 NW 2d 221 (*citations omitted*).

[6] In reviewing an agency’s findings of fact, an appellate court does not substitute its judgment for that of the agency or make independent findings. *Capital Elec. Coop. v. City of Bismarck*, 2007 ND 128, ¶ 31, 736 N.W.2d 788. Rather, in reviewing the Public Service Commission’s findings of fact, the appellate court determines “only whether a reasoning mind reasonably could have determined that the factual conclusions reached were proved by weight of the evidence from the entire record.” *Id.*, at ¶ 31 (see also, *Power Fuels, Inc. v Elkin*, 282 N.W.2d 214, 220 (N.D. 1979) and *North Central Electric Cooperative, Inc. v N.D. Public Service Commission, Otter Tail Power Company, and Turtle Mountain Band of Chippewa Indians*, 2013 ND 158, ¶ 6-7, 837 N.W. 138). The

appellate court does “not reweigh or reevaluate the evidence...[or] function as a super board and second guess the PSC’s findings.” *Capital Elec. Coop.*, ¶ 35 (2007).

[7] Additionally, since the subject matter of this case is of a “highly technical nature,” the Public Service Commission’s “expertise” is “entitled to appreciable deference.” *Montana-Dakota Utilities Co. v. Public Service Commission*, 413 N.W.2d 308, 312 (N.D. 1987).

[8] Except for two minor allegations that the Commission’s decision is not in accordance with law, which will be addressed below, the bulk of the appellant’s argument concerns the Public Service Commission’s factual alluvial valley floor determination, a decision requiring substantial geological, hydrological, soil science, land use, and vegetation expertise. As such, the heart of this appeal is a matter on which the appellate court should defer to the expertise of the Public Service Commission.

STATEMENT OF THE FACTS

[9] This is an appeal of a Public Service Commission (PSC) decision confirming the PSC’s earlier approval of a mining permit for Coyote Creek Mining Company (CCMC) to operate the Coyote Creek Mine in Mercer County, ND. The decision to confirm the earlier ruling was made by the PSC after three days of hearing, which included testimony from several expert witnesses on several permit and other mining issues, and substantial public testimony.

[10] The instant challenge to the PSC’s decision is focused on only one of those issues, the PSC’s determination that the mine permit and adjacent area is not an alluvial valley floor (AVF). In 2009, prior to the Coyote Creek Mine application, the PSC

determined a portion of this same area was not an AVF, when reviewing the matter in preparation for processing a different mining permit application for Dakota Westmoreland Corporation. The PSC reached the same decision in 2013 in the instant case, a decision that is now on appeal.

[11] Under law and rules, an AVF determination must be made prior to an applicant filing an application for a mining permit. (N.D. Admin. Code § 69-05.2-08-13.) As required, prior to filing its permit application for the Coyote Creek Mine, CCMC filed the required information regarding whether or not the area in question was an AVF. CCMC submitted its March, 2013 Alluvial Valley Floor Evaluation Report (2013 Report, Doc ID # 82.) well before it applied for a permit in November, 2013.

[12] CCMC then filed its permit application for the Coyote Creek Mine on 1 November 2013. Doc ID # 10 and # 78. (*Note: some documents are duplicated in the record as they were filings with the PSC and later made exhibits at the hearing. When cited as supporting evidence, reference will be to the hearing exhibit.*) Review by the PSC's Reclamation Division staff, and subsequent revisions by the company, took approximately a year, and on 22 October 2014, the PSC approved Permit No. NACC-1302, allowing CCMC to engage in surface coal mining operations at the Coyote Creek Mine. Doc ID # 40 and # 79. Notice of the permit approval was issued accordingly, subject to the right of any person with an interest that is or may be adversely affected to request a formal hearing within 30 days. Doc. ID # 42 and N.D.C.C. § 38-14.1-30.

[13] Casey Voigt, landowner and coal lessee, and appellant here, filed a request for hearing on 24 November 2014. Doc. ID # 43. The request was granted, and a Notice

of Hearing was issued on 25 November 2014, scheduling the hearing to begin 19 December 2014. Doc ID # 44 and Doc ID # 83.

[14] The PSC heard substantial testimony over three days of hearing. Much of it concerned general mining and reclamation practices not specifically at issue in the hearing, but potentially applicable to the ongoing permit conditions as the mining and reclamation operations move forward.

[15] The PSC's decision included several provisions that made minor changes or additions to the permit conditions to accommodate some of the concerns appellant brought out at the hearing. However, on the issue before this court, whether or not an AVF exists in the mine permit and adjacent area, the PSC confirmed its earlier determination that no AVF exists. Doc ID # 125.

[16] At the hearing, three expert witnesses testified on the AFV issue. Chuck Norris, who testified for the appellant, is a consulting geologist with some experience in hydrogeology. Doc ID # 95. He admitted that he had no experience preparing alluvial valley floor reports, he completed no studies, and he had not personally visited the site in question. Doc ID # 141, Tr. p. 195.

[17] Dr. David Bickel, a geologist and hydrogeologist who conducted the company's initial AVF review and analysis, testified for the company and explained the basis for his initial and continuing conclusion that no AVF exists in the area in question. Dr. Bickel was previously employed by the PSC's Reclamation Division as an environmental scientist specializing in hydrogeology. In this capacity, Dr. Bickel reviewed and analyzed numerous AVF reports for many mine permit applications. Doc ID # 135, Tr. pp 406-408.

[18] Bruce Beechie, a hydrogeologist with the PSC's Reclamation Division, testified for the PSC to explain the conclusions and recommendations reached by the Reclamation Division staff upon review of the CCMC's initial AVF filing. One of Mr. Beechie's primary duties with the agency is to review AVF reports and make recommendations regarding whether or not an AVF exists. In this capacity, Mr. Beechie has reviewed and analyzed numerous AVF reports for many mining permits. Doc ID # 60.

[19] To make a recommendation on CCMC's potential AVF, the Reclamation Division staff reviewed the information filed by the company, CCMC's 2013 AVF evaluation report (2013 Report, Doc ID # 82). The staff also made its own field review for the 2013 AVF determination, summarizing the findings of that review in a memorandum (2013 Field Review, Doc ID # 101), and reviewed other available information including the report's supporting documentation. Staff also reviewed the 2009 Dakota Westmoreland Corporation's AVF Evaluation Report (2009 Report, Doc ID # 48), the supporting documentation for that report, and information produced by the staff field review that followed the filing of the 2009 Report, summarized in a memorandum (2009 Field Review, Doc ID # 66). Doc ID # 137, Tr. pp. 595-636.

[20] North Dakota Administrative Code section 69-05.2-08-13(1) states that an AVF determination be "based on available data." Staff analysis and conclusions, and the PSC's decision, was based on available data, as noted above. In addition the federal Office of Surface Mining's *Alluvial Valley Floor Identification and Study Guidelines* (*Guidelines*, Doc ID # 130, p. II-2) state that "the applicant, or land management agency, uses readily obtainable data, including regional data collecting to make initial

identifications". As Dr. Bickel indicated in his testimony, adequate data was available to make the AVF determination. Doc ID # 135 Tr. pp.413-415.

[21] Finally, it is important to note that despite the misleading implications in the appellant's brief, Coyote Creek Mining Company's proposed coal mining operations will not occur on the appellant's hayfields that are located on the floodplain along Coyote Creek. Mining related disturbances along the creek are limited to two road crossings of Coyote Creek, and these will only impact a small part of the appellant's hayfields.

LAW AND ARGUMENT

[22] North Dakota's coal mining and reclamation law is found in North Dakota Century Code chapter 38-14.1. The Commission has adopted rules implementing that law, which can be found in North Dakota Administrative Code article 69-05.2. Both North Dakota law and rules for the state's coal regulatory program must meet federal approval. 30 C.F.R. Part 730.

[23] North Dakota Century Code section 38-14.1-21 contains the state's permit approval and denial standards. Subsection (3)(e) of that section provides:

No permit or revision application may be approved unless the applicant affirmatively demonstrates and the commission finds in writing on the basis of the information set forth in the application or from information otherwise available which will be documented in the approval and made available to the applicant, that all the following requirements are met:

e. The proposed surface coal mining operation, if located west of the one hundredth meridian west longitude, would:

(1) Not interrupt, discontinue, or preclude farming on alluvial valley floors that are irrigated or naturally subirrigated, but, excluding undeveloped rangelands which are not significant to farming on said alluvial valley floors and those lands as to which the commission finds that if the farming that will be interrupted, discontinued, or precluded is of such small acreage [hectarage] as to be of negligible impact on the farm's agricultural production; or

(2) Not materially damage the quantity or quality of water in surface or underground water systems that supply these alluvial valley floors. This subdivision does not affect those surface coal mining operations which on July 1, 1979, produce coal or commercial leonardite in commercial quantities and are located within or adjacent to alluvial valley floors or have obtained specific permit approval by the commission to conduct surface coal mining operations within said alluvial valley floors.

[24] North Dakota Century Code section 38-14.1-02(1) also defines "alluvial valley floor" as:

"Alluvial valley floors" means the unconsolidated stream-laid deposits holding streams where water availability is sufficient for subirrigation or flood irrigation agricultural activities but does not include upland areas which are generally overlain by a thin veneer of colluvial deposits composed chiefly of sediment from sheet erosion, deposits by unconcentrated runoff or slope wash, together with talus, other mass movement accumulation, and windblown deposits.

[25] The standards and procedure the PSC and applicants must use to address AVF issues are found in the PSC's rules.

69-05.2-08-13. Permit applications - Permit area - Alluvial valley floor determination.

1. Before applying for a permit to conduct operations within a valley holding a stream or in a location where the adjacent area includes any stream, the applicant shall either *affirmatively demonstrate, based on available data, the presence of an alluvial valley floor, or submit the results of a field investigation of the permit and adjacent areas. The investigations must include sufficiently detailed geologic, hydrologic, land use, soils, and vegetation studies* on areas required to be investigated by the commission, after consultation with the applicant, *to enable the commission to make an evaluation regarding the existence of the probable alluvial valley floor in the permit or adjacent area and to determine which areas, if any, require more detailed study in order to make a final determination regarding the existence of an alluvial valley floor.* Studies performed during the investigation by the applicant or subsequent studies

required of the applicant must include an appropriate combination, adapted to site-specific conditions, of:

a. Mapping of the probable alluvial valley floor including geologic maps of unconsolidated deposits, delineating the streamlaid deposits, maps of streams, delineation of surface watersheds and directions of shallow ground water flows through and into the unconsolidated deposits, topography showing local and regional terrace levels, and topography of terraces, floodplains, and channels showing surface drainage patterns.

b. Mapping of all lands included in the area used for agricultural activities, showing the different types of agricultural lands and accompanied by measurements of vegetation productivity and type.

c. Topographic maps of all lands that are or were historically flood-irrigated, showing the location of each diversion structure, ditch, dam, and related reservoir.

d. Documentation that areas identified in this section are, or are not, subirrigated, based on ground water monitoring data, representative water quality, soil moisture measurements, and measurements of rooting depth, soil mottling, and water requirements of vegetation.

e. Documentation, based on representative sampling, that areas identified under this subdivision are, or are not, flood irrigable, based on streamflow, water quality, water yield, soils measurements, and topographic characteristics.

f. Analysis of a series of aerial photographs, including color infrared imagery capable of showing any late summer and fall differences between upland and valley floor vegetative growth and of a scale adequate for reconnaissance identification of areas that may be alluvial valley floors.

2. Based on the investigations conducted under subsection 1, the commission will determine the extent of any alluvial valley floors within the

study area and whether any stream in the study area may be excluded from further consideration. *The commission will determine that an alluvial valley floor exists if:*

a. Unconsolidated streamlaid deposits holding streams are present; and

b. There is sufficient water to support agricultural activities as shown by:

(1) The existence of flood irrigation in the area or its historical use;

(2) The capability to be flood-irrigated, based on streamflow water yield, soils, water quality, and topography; or

(3) Subirrigation of the lands from the ground water system of the valley floor.

(emphasis supplied)

[26] Although the hearing and subsequent order covered substantially more, and more varied, information, the appellant focuses this appeal only on the PSC's determination that no alluvial valley floor (AVF) exists in the mine permit and adjacent area. Appellant argues that the PSC did not correctly apply the law, did not consider all the facts presented, and did not reach the correct conclusion regarding the facts presented at the hearing.

The Order is in Accordance with Law

[27] In asserting that the PSC did not comply with applicable law, the appellant would have the court believe that Coyote Creek Mining Company was required to, but did not, affirmatively demonstrate that the mining operations would not negatively impact farming on the alleged alluvial valley floor, and not negatively impact the water supply to that AVF. This assertion is misleading at best, and is based on an erroneous interpretation of the regulatory requirements.

[28] The rule says that before applying for a permit, the applicant shall affirmatively demonstrate that an AVF exists, OR provide the results of a sufficient field investigation to enable the PSC to reach a conclusion about the probable existence of an AVF, and which areas, if any, require further study or investigation. The purpose of the rule is to provide sufficient information before a permit is filed to determine what that permit must include. If the mine will impact an AVF, the permit would then include information and plans different from what would likely be included if no AVF exists.

[29] In the instant case, prior to submitting its permit application, the company provided the PSC with an AVF evaluation report 2013 Report, Doc ID # 82. prepared by Dr. David Bickel, one of the witnesses who later testified at the hearing.

[30] In addition, it is important to note that Coyote Creek Mining Company's proposed mining activities will not impact appellant's hayfields that are located on the floodplain along Coyote Creek. Mining related disturbances along the creek *are limited to two road crossings of Coyote Creek*. As Mr. Beechie explained during his testimony (Doc ID # 137, Tr. p. 91) and as the PSC discussed in Finding of Fact No. 78 (Doc ID # 125), the closest coal seam to be mined is at an elevation that averages 75 feet higher than the Coyote Creek valley floor.

[31] Appellant also argues that the decision does not comply with the law because insufficient data was provided to the PSC to support its decision. This is simply incorrect.

[32] North Dakota Administrative Code section 69-05.2-08-13(1) states that the AVF determination be "based on available data". In addition the *Guidelines* state that "the applicant, or land management agency, uses readily obtainable data, including regional

data collecting to make initial identifications". Doc ID # 130 p. II-2. As Dr. Bickel indicated in his testimony, adequate data was available to make the AVF determination. Doc ID # 135, Tr. pp. 413-415.

[33] Substantial and sufficient data was available to and used by the PSC and staff to reach the AVF determination. This included the 2009 Report (Doc ID # 48), the 2013 Report (Doc ID # 82), the 2009 Field Review (Doc ID # 66), the 2013 Field Review (Doc ID # 101) and supporting documents.

[34] The requirements of the law and rules were met in the instant case. Both Coyote Creek Mining Company and the PSC fully complied with applicable laws and rules. The PSC's decision is in accordance with the law.

Alluvial Valley Floor Factual Determination

[35] The appellant spends a considerable amount of time and argument attempting to dispute and discredit the factual determination made by the PSC that an AVF does not exist. The appellant wants the court to believe the record supports a positive AVF conclusion and asserts there was insufficient evidence to support the contrary conclusion. As part of this argument, appellant asserts the PSC ignored evidence supporting appellant's position that an AVF exists in this location.

[36] The appellant is just plain wrong. The evidence does not support the finding of an AVF for the Coyote Creek valley within the studied areas. The water supply in the creek does not support flood irrigation and does not have the potential to support flood irrigation on a substantial portion of the creek valley. The croplands have not been identified as subirrigated by soil mapping. The crop records do not support the notion that production is enhanced by subirrigation within the valley. The evidence of record

on these factors, reviewed and weighed by those with expertise in the subject matter, clearly supports the PSC's decision that no AVF exists.

[37] The Office of Surface Mining's *Alluvial Valley Floor Identification and Study Guidelines* (*Guidelines*: Part 1, Doc ID # 130; Part 2, Doc ID # 131, Part 3, Doc ID # 113) provide helpful perspective on the AFV issue, and passages from those guidelines help set the stage for both the PSC's and the court's review of this factual issue. On page II-7, the *Guidelines* state:

Of special importance in the arid and semiarid coal mining areas are alluvial valley floors which are the productive lands that form the backbone of the agricultural and cattle ranching economy of these areas. For instance, in the Powder River Basin of eastern Montana and Wyoming, agricultural and ranching operations which form the basis of the existing economic system of the regions could not survive without hay production from the naturally subirrigated and flood irrigated meadows located on the alluvial valley floors.

(Doc ID # 130.)

Subirrigation

[38] Page II-9 of the *Guidelines* continues with additional perspective on subirrigation by stating that

The term "subirrigation" is understood to mean the supply of water to plant roots from an underlying alluvial ground water system such that the vegetation is more productive than in other areas and that the vegetation continues to grow during the moist-stress portion of the growing season. *Some low-lying area have greater vegetation productivity than adjacent uplands merely because of better soils, snow drift accumulation, or occasional flood overflow. These areas are not considered to be subirrigated." Id. (emphasis supplied.)*

[39] Page II-10 of the *Guidelines* states that "The water availability criterion *excludes* areas that could be developed for subirrigation, e.g., by establishing deep rooting alfalfa to tap ground water not presently used by native vegetation." *Id.*

[40] Appellant asserts that the area in question is subirrigated. We strongly disagree. The evidence clearly supports a conclusion that the area is **not** subirrigated.

[41] First of all, on page 9 of his brief, appellant states that "Mr. Voigt contends that two of his alfalfa fields adjacent to Coyote Creek are subirrigated, and therefore this area is an AVF." This statement is directly contrary to evidence of record, specifically the 2009 Coyote Creek AVF Field Report (2009 Report, Doc ID # 48), which describes that when interviewed, Mr. Voigt reported to Mr. Smestad (consultant for Dakota Westmoreland Corporation) that Mr. Voigt felt crop production was generally better within the flood plain along Coyote Creek because of increased soil quality and landform run-on characteristics associated with the terrace topography, as opposed to upland areas, and not because of ground water availability through subirrigation. Mr. Voigt's statement at the time of the 2009 Field Review is directly contradictory to the assertion in the brief. Doc ID # 48, p. 29.

[42] As the Commission found and explained in its Finding of Fact No. 72:

OSM's AVF Study Guidelines contain Table B-4 on page B-19 that lists a water extraction depth for alfalfa of five feet (or 60 inches). Elsewhere in that guideline, statements are included that some alfalfa roots can go much deeper than five feet. However, page C-11 of that guideline includes a statement that "subirrigation may provide enough water to maintain alfalfa but not enough to enhance its production." None of the evidence presented at the hearing indicates that subirrigation significantly enhances hay production on Mr. Voigt's fields along Coyote Creek. The overall higher hay production from those fields compared to his upland hayfields is due to the inherent high productivity of the Straw soils, which the NRCS classified as not subirrigated.

Findings of Fact, Doc ID # 125, *Guidelines*, Doc ID # 131.

[43] Further, the Natural Resource Conservation Service (NRCS) does not consider the soils within the Coyote Creek valley floor "subirrigated soils" and there was no

evidence of soil mottling, an indicator of subirrigation, in several samples collected and analyzed by soil scientists for the Commission. 2009 Report, Doc ID # 48.

[44] The vegetation analysis along Coyote Creek by Reclamation Division staff, recorded in the 2009 Field Review, provided a complete listing of vegetation along the creek and the presence of hydrophytic or phreatophytic vegetation was minimal to non-existent. If the area was subirrigated, there should have been a larger presence of such vegetation. Doc ID # 66.

[45] Appellant asserts that the year 2012 was a year of "extreme drought" and that appellant's lowland field nonetheless produced two cutting of alfalfa relative to one cutting on his upland fields. However, no evidence was presented at the hearing showing that 2012 was a year of "extreme drought." On the other hand, Section 2.9.1 of the permit, Climatological Information, shows the average annual precipitation for the (permit) area is approximately 16.59 inches. Doc ID # 78.

[46] Appellant cites production data from the permit application, Section 2.4.7.3, as the soil productivity for the hay land fields, to support appellant's assertion that this productivity is evidence of subirrigation. However, the cited section and stated productivity pertain to native grassland productivity for the rangeland acres and do not include the cropland acres used for hay production. The productivity index for the soil map units occurring on the hay fields located in Section 30, T143N, R88W and Section 25, T143N, R89W is provided in Section 2.4.9.2 of the permit application, not in section 2.4.7.3. Consequently, appellant's cited productivity figures have no relationship to the question of subirrigation. Doc ID # 78.

[47] One can determine the estimated productivity for each of the hay fields by using the mapping unit acreage provided in Section 2.4.9.2 and the productivity index for the map units as provided in Section 2.4.6 of the permit application. The estimated productivity for the hay field tracts based on the appropriate soil information (calculated from data provided in the permit application) would be 4040 lbs/acre for the lowland fields in Section 30, T143N, R88W and 2300 lbs/acre for the upland fields in Section 25, T143N, R89W. Doc ID # 78, Sec. 2.4. It is clear that the hay land productivity for the lowland field is nearly twice the productivity of the upland field, This difference is not due to subirrigation but rather is due to the lowland soils being inherently more productive. Doc ID # 137, Tr. p. 638.

[48] Appellant also relies on the testimony of his witness, Mr. Norris, that the reddish areas in the infrared air photos implied areas of subirrigation. Doc ID # 117. However, the PSC addressed this assertion in its decision. In Finding of Fact No. 74 , the PSC stated:

While some reddish colors are evident immediately adjacent to Coyote Creek and in a few nearby areas, there is very little reddish colors in the larger fields along Coyote Creek currently being hayed by Mr. Voigt. However, reddish colors are also present in non-irrigated upland fields on the photo about one mile southeast of Mr. Voigt's farmstead. Since the reddish color is also found on upland areas, there is no certainty that reddish color in a few areas along Coyote Creek represents water that was supplied to plants by subirrigation. The reddish colors in the uplands areas about a mile away from Coyote Creek were likely due to moisture in plants that followed a late summer rain event. The moisture in plants along Coyote Creek may have also been the result of a late summer rain, not subirrigation as Mr. Norris asserted.

(Doc. ID # 125)

[49] Appellant overstates the relevance of the infrared air photos in the Office of Surface Mining's *Reconnaissance Maps to Assist in Identifying Alluvial Valley Floors*,

West-Central North Dakota (AVF Recon Maps, Part 1, Doc ID # 133; Part 2, Doc ID # 134). Many examples exist in North Dakota for “potential AVF” areas identified based on flyover infrared photos. These areas are, however, excluded from further AVF consideration due to provisions in the *Guidelines* and on-the-ground investigations. There is ample evidence in the record that the presence of some reddish areas on the infrared photos does not necessarily imply those areas are subirrigated.

[50] Further, the photos provide no evidence that the groundwater is the deepest adjacent to Coyote Creek and becomes shallower as one moves away from the stream channel, as asserted by Mr. Norris. The Sept. 8, 1978 color infrared photos only show active growth directly adjacent to the stream channel and low spots on the floodplain, presumably the only places where the vegetation is receiving the benefits of subirrigation. Doc ID # 99.

[51] There is evidence in the record that there is some subirrigation of limited areas, primarily adjacent to Coyote Creek. This is substantiated by Dr. Bickel’s testimony (Doc ID # 135, Tr. p. 420) and the color infrared photo of Coyote Creek (Doc ID # 99). The color infrared photo shows active growing vegetation directly adjacent to Coyote Creek channel and within low lying areas within the alfalfa fields in what appears to be former oxbows or stream channels. By and large, the majority of the Coyote Creek floodplain in Sections 30 and 31, does not show active growing vegetation on the color infrared photograph, certainly no more than the adjacent upland areas within the same photo.

[52] Appellant places considerable reliance on the theory that the existence of deep-rooted alfalfa indicates subirrigation. However, Dr. Bickel testified, when discussing the vegetation and wetland studies and soil mapping in the 2009 Report, that: “No

significant areas of potential subirrigation were identified in Mr. Krabbenhoff's vegetation and wetland studies. No areas of soils indicative of subirrigation were observed or mapped by Prairie Soils Consulting." Doc. ID # 135, Tr. p. 420. Dr. Bickel further testified: "now, small trivial bands of subirrigation a few feet wide can occur along banks of all bodies of standing water, and these are small. We're talking in scale of a few square feet These areas are insignificant in terms of agriculture." Doc. ID 135, Tr. p. 421.

[53] Under the rules and *Guidelines*, to support a finding of an AVF based on subirrigation, there must be sufficient evidence of adequate subirrigation to support agricultural activities. Nominal subirrigation is not enough to support a positive AVF determination. Doc ID # 131, p. C-10.

[54] Finding of Fact No. 72 of the Commission's order states that "subirrigation may provide enough water to maintain alfalfa but not enough to enhance its production." (Doc. ID # 125; also see *Guidelines*, Doc ID # 131, pp. C-11, C-12). While Coyote Creek may have a relatively shallow water table, data indicates that it is 15 to 20 feet deep and as such, is marginal for providing enhanced production of alfalfa. As noted in the *Guidelines*, subirrigation is not demonstrated "unless the species composition or annual productivity could be substantially differentiated from those in other areas." *Id.* C-11. And, further, even if minimal subirrigation exists and keeps vegetation from dying, the *Guidelines* state that in such cases, "subirrigation would not exist in a regulatory sense because no increased production would result from the available groundwater." *Id.*, C-12.

[55] Appellant also asserts the Reclamation Division staff field review was conducted at the worst time of the year to assess the impact of subirrigation. The *Guidelines* do not specify when the field inspection should be done or that one even needs to be done. Regardless of the time of year, there are indicator species that would indicate the presence of subirrigation, i.e., cottonwoods, wild rye, etc. if subirrigation existed. None of these species were found. 2009 Review, Doc ID # 66; 2013 Review, Doc ID # 101.

[56] Appellant asserts that the two groundwater monitoring wells discussed in testimony are within a couple hundred feet of the appellant's two lowland alfalfa fields. On the contrary, the actual location of these wells is "very, very close to the creek proper . . . it's on the scale of feet . . . from the channel of Coyote Creek" as Dr. Bickel testified. Doc. ID # 135, Tr. p. 439. These groundwater levels most likely reflect the level of water flowing in the creek channel and not necessarily groundwater levels in the hayfields several hundred feet from the creek channel.

[57] Appellant also states that groundwater depths of 8.68 feet to 10.84 feet (presumably depths from the two ground water monitoring wells located near Coyote Creek) would be expected to enhance alfalfa production. Again, these ground water elevations are for monitoring wells closest to Coyote Creek. Evidence in the record indicates that the depth to groundwater on the Voigt fields is greater than 10 feet. Doc ID # 48, pp. 28, 29; Doc ID # 137, p. 609.

[58] Appellant also erroneously asserts that groundwater monitoring data was not collected for the AVF analysis and only came to light during the hearing itself. This is not correct. The 2009 Report (Doc ID # 48, p. 28) discusses the water level in two wells at Casey Voigt's farmstead which is located on the Coyote Creek alluvium. One well

had a water level of 16 feet below ground surface and the other one had a water level of 18 feet below the surface. Further in that report, Mr. Voigt described the water level depths of his two wells at his home to be 15 feet to 20 feet below surface. Doc ID # 48.

Flood Irrigation

[59] Appellant now claims that Coyote Creek is potentially irrigable, although this point was only marginally addressed by appellant at the hearing, and then without any supporting data. The PSC correctly concluded that the area is not flood irrigable, or at least not sufficiently irrigable to support a positive AVF determination.

[60] Due to the incised nature of Coyote Creek and low flows during critical times of the growing season, flood irrigation would be impractical. Doc ID # 82, p 20. In addition, there are water quality concerns (see 2009 Report, Doc ID # 48), and NRCS has indicated that there is no flood irrigation taking place on Coyote Creek. Doc ID # 48, p. 25. The *AVF Recon Maps* indicate the first terrace of Coyote Creek floods but it is too small for any use other than pasture. Doc ID # 134, p. 20.

[61] Appellant asserts that the Commission's decision did not adequately address the flood irrigation potential along Coyote Creek based on the *AVF Recon Map* (Doc ID # 133 and # 134). However, Finding of Fact No. 54 of the PSC order discusses the more site specific review that was done as part of Dakota Westmoreland Corporation's AVF Report (2009 Report, Doc ID # 48, p. 26) that found flood irrigation was unlikely due to the lack of areas that would be needed for storing water, and the expense. Doc ID # 125 and # 48. In addition, water quality would be marginal for flood irrigation. Doc ID # 48, # 82, # 125.

[62] The appellant's projection of the number of acres that could be irrigated from Coyote Creek based on the flow records as presented in the 2009 Report (Doc. ID # 48) referenced in its brief is generous. Based on the average June flow rate recorded for Coyote Creek the study estimated that 102 acres may be irrigated. The appellant's brief goes on to state that an additional 70 acres could be irrigated based on the July average flow. However, the water available in June would not be available for irrigation in other months and the flow occurring in July would be needed to continue irrigation in July. A more conservative estimate of potential for flood irrigation would use the expected stream flow from July or August. The 2009 AVF Report proposed that the potential acreage available for irrigation to be 83 acres based on the average stream flow for both June and July. Doc ID # 48, p. 26.

[63] The evidence of record is clear that flood irrigation is not, and has not been a practice along Coyote Creek. Doc ID # 134, p. 20. The identified 11 spreader dike systems on small drainages in the North Dakota study area (including along the Knife River) but note the dike systems are not considered a regional practice and are not used as a criterion for designating flood irrigable valleys, for several reasons. These reasons are:

First, There are so few of them used that most farmers and ranchers obviously do not consider them a viable development strategy. Second, the small drainages where spreader dikes would be built are not as crucial to operations as perhaps similar drainages would be in more arid coal regions. Uplands in west-central North Dakota have good soils. Rainfall averages about 16 inches annually, falls mainly during the growing season, and is adequate for dryland crops. *AVF Recon Maps*, Doc ID #134, pp. 23-25.

Doc ID # 134.

[64] Page II-16 of the *Guidelines* states that a permit applicant, when determining whether an AVF exists, should try to answer the question, “Are the kinds of undeveloped stream valleys within the study area typically developed for irrigation elsewhere in the region? If the answer is no, then the valleys in question within the study area can be rejected as alluvial valley floors.” Doc ID # 130, p. II-16. (*emphasis supplied.*)

[65] As noted in the Commission Finding of Fact No. 54, the sample data acquired for the 2013 Report (Doc ID # 101, pp. 14,15) indicates that Coyote Creek typically has Specific Conductance also referred to as Electrical Conductivity, above 2400 umhos exceeding the 2000 umho level listed as permissible in the table provided in the 2009 Report (Doc ID 48, pp 27). This means that the water quality of the creek is only “marginally suitable for limited or restricted irrigation.” Doc ID # 82, p. 14.

[66] The 2009 Report (Doc ID # 48, p. 27) described the Coyote Creek water as having a conductivity (salinity) level that would be “permissible”, for irrigation use but leaching would be necessary. The water quality sample data presented in the 2013 Report is summarized as marginally suitable for limited irrigation. Doc ID # 82, pp 14, 15.

[67] Finally, appellant makes a statement on page 10 of its brief that “tributary water from Coyote Creek [being] used” to support “intensive[e] irrigation” along the Knife River “between Crooked Creek and Elm Creek.” However, this does not pertain to the Coyote Creek that is located in Mercer County, that is the subject of this whole appeal. Instead this discussion in appellant’s brief comes from page 12 of the Office of Surface Mining’s *AVF Recon Maps* that discuss **another stream named Coyote Creek located more**

than 20 miles further west in Dunn County near Marshall, ND. This south flowing stream into the Knife River is depicted near the middle of Plate 3 that is included in the reconnaissance report for West-Central North Dakota. Doc ID # 133, p.12.

[68] There is no evidence of record that the area in question is sufficiently flood irrigable to support a positive AVF determination.

Oral Argument Request

[69] The PSC does not request an oral argument and believes none is necessary. The PSC opposes the Appellant's request for oral argument.

CONCLUSION

[70] As noted early in the brief, the PSC rules clearly specify how and when the PSC will find an AVF exists. North Dakota Administrative Code section 69-05.2-08-13(2) provides, in part:

The commission will determine that an alluvial valley floor exists if:

- a. Unconsolidated streamlaid deposits holding streams are present;
and
- b. There is *sufficient water to support agricultural activities as shown by:*
 - (1) The *existence of flood irrigation* in the area or its historical use;
 - (2) The *capability to be flood-irrigated*, based on streamflow water yield, soils, water quality, and topography; or
 - (3) *Subirrigation* of the lands from the ground water system of the valley floor.

(emphasis supplied)

[71] The question on this appeal is predominately one of fact, and one involving a high degree of technical and scientific expertise. In such cases, precedent is clear that the court should defer the factual determination to the expertise of the agency.

[72] The factual record before the agency is substantial and the PSC considered all of it in reaching its decision. The order is thorough and clear, and fully explains the

agency's evidentiary review, analysis and rationale. The PSC's factual determination that no AVF exists must be affirmed.

[73] The two matters of law raised by the Appellant, the company's alleged obligation to make a certain showing and the amount of data filed to make the AVF determination, provide no basis to overturn the PSC's decision.

[74] The Public Service Commission respectfully requests that its decision be affirmed.

[75] Respectfully submitted this 30th day of September 2015



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