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Village of Pleasant City, Appellee, v. Division of Reclamation, Ohio Department of Natural Resources et al., Appellants.

[Cite as Pleasant City v. Ohio Dept. of Natl. Resources, Div. of Reclamation (1993), ___ Ohio St.3d ___.]

Mining — Requirements of R.C. 1513.073(A)(2)(c) in determining unsuitability of lands for coal mining.

In determining the unsuitability of lands for coal mining, R.C. 1513.073(A)(2)(c) requires consideration of the impact that mining and reclamation could have on the long-range productivity of aquifers and aquifer recharge areas, not

solely the impact on their current use as a water supply.

(No. 92-1102 — Submitted June 1, 1993 — Decided September 15, 1993.) Appeal from the Court of Appeals for Guernsey County, No. 91-CA-09. On September 21, 1988, pursuant to Revised Code Section 1513.073, appellee, the village of Pleasant City ("Pleasant City"), filed a "Lands Unsuitable Petition" with the Division of Reclamation ("Division"), Ohio Department of Natural Resources. In its petition, Pleasant City requested that approximately eight hundred thirty-three acres of land surrounding Pleasant City be designated unsuitable for coal mining.

The underlying science involved in this case is very complicated. However, a general understanding of only a few terms and principles is necessary for the court to resolve this appeal. On the whole, these terms and principles relate to how water gets into the ground and what happens to the water when it is pumped out of the ground.

Groundwater does not occur as underground rivers and lakes. Instead, water from rain and snow infiltrates the soil and percolates down, filling pores and cracks in rocks and other material beneath the surface of the earth. Depending on the hydraulic gradient and the rock material's permeability, the groundwater moves more or less slowly through these underground materials toward points of discharge, such as lakes or pumping wells. The permeable rock materials that the groundwater travels through are known as aquifers.

Generally, an "aquifer" is defined as an underground section of material capable of storing and transmitting water in

useable quantities. Typically, an aquifer is composed of sand and gravel deposits (unconsolidated), or a layer of sandstone or fractured limestone (consolidated). Usually, unconsolidated acquifers provide much greater yields than consolidated aquifers.

In the present case, unconsolidated alluvial deposits filled an ancient preglacial stream bed underlying a portion of the floodplain in which Pleasant City's water well field is located. These deposits act as an aquifer. The aquifer is a mixture of sand and gravel located below clay and above bedrock. Because it consists of a series of intertwining channels of permeable material that weave throughout the valley, the aquifer is oddly shaped and its precise outline is unknown. This aquifer system is unique, being the only groundwater system in Noble or Guernsey Counties capable of producing any significant quantity of groundwater.

In September 1987, the United States Environmental Protection Agency designated approximately one thousand acres, which includes most of the petition area, as a sole-source aquifer. 52 F.R. 32342 et seq. This is a protective designation which restricts federal funding for projects that might adversely affect the aquifer.

Since 1914, Pleasant City has been obtaining its water from the aquifer that is the subject of the petition. Currently, it utilizes two wells, CW-1 and CW-2, which are the sole source of public water for the village. The wells are alternately pumped, at approximately ninety-five gallons per minute, for a total of eight to ten hours per day. The system serves nine hundred ninety residents and has operated in essentially the same manner

at the same pumping rates, for the past decade.

As water is pumped from an aquifer, the groundwater level is lowered. The distance that the level is lowered is referred to as the "drawdown." The drawdown does not occur as a straight line, but rather as a curve. Creating a phenomenon resembling an inverted cone, with the peak pointing down toward the aquifer and the base expanding around the wellhead, this underground surface of the groundwater level is called a cone of depression. Whenever groundwater deposits are depleted by pumping, a cone of depression is created.

The outer boundary of the cone defines the area of influence of the well that creates the cone. The cone of depression forms within the aquifer, and both are dependent on the recharge area for replenishment. Consequently, a recharge area, which is simply an area that contributes water to the groundwater system, is larger than the cone of depression. In the present case, although the exact boundaries of the village aquifer and recharge area are not known, it appears that the entire floodplain (land below the eight hundred twenty foot contour) of Buffalo Fork, Buffalo Creek and Wills Creek is part of the recharge area. Certain activities, such as mining, can adversely affect the long-range productivity of the well, the aquifer and the recharge area. For example, excavated mine pits are dewatered, creating a cone of depression which may intersect the cone of depression of an adjacent well. This dewatering may also reduce groundwater levels, at least temporarily. During reclamation the original stratified deposits removed during excavation are replaced with "mine spoil." Mine spoil is a mixture of the excavated material

and is less permeable than the original stratified material. This can affect the water storage capacity and water transmission ability of the aquifer and recharge area.

Appellant R.T.G., Inc. ("RTG") has mined, pursuant to permits issued by the division, one hundred acres within the petition area. Mining of this one hundred acres would not affected by designation of the lands as unsuitable for mining. RTG also owns the coal-mining rights to additional land located in the petition area. RTG's mining permits were issued over the opposition of the village. After issuance of the mining permit, four monitoring wells were installed to determine whether RTG's mining operations were affecting the village wells. These wells are referred to as MW-1, MW-2, MW-3 and MW-4. RTG opposed the village's petition for a lands-unsuitable designation before the division and the board.

On October 6, 1989, the chief of the division issued his decision on the village's petition. He designated the area below the eight hundred twenty foot contour within a two thousand foot radius around Pleasant City's wells not suitable for coal mining. Finding that the two thousand foot radius described the approximate limits of the cone of depression from which the village draws its water, the chief precluded mining in that area approximately two hundred seventy-five acres, to protect the village's current water supply.

On appeal, by Pleasant City and RTG, the Reclamation Board of Review ("board") held an eleven-day evidentiary hearing. The board subsequently issued findings of fact and conclusions of law, essentially affirming the chief's order, but enlarging the area designated unsuitable. Noting that mining in the areas

immediately adjacent to Pleasant City's cone of depression could negatively affect the aquifier within the cone, the board extended the western portion of the two thousand foot radius to three thousand two hundred feet. The board reasoned that future surface mining operations that might occur within the petition area would likely require dewatering of mine excavated pits and altering of the ground material. The dewatering of mine pits would create a cone of depression that could temporarily intersect with Pleasant City's cone of depression, reducing its water supply. Moreover, the board found that replacing ground material with mine spoil, which is less permeable, could interrupt or alter the recharge to the village aquifer.

Pleasant City appealed to the Fifth District Court of Appeals. The court reversed and remanded to the Reclamation Board of Review. Although adopting the board's findings of fact, the court of appeals held that the board's order was contrary to law because it "merely protected the area of perceived present usage of the aquifer and the aquifer recharge areas." The court interpreted R.C. 1513.073 to require protection of the aquifer and recharge area for future uses. Following its interpretation of R.C. 1513.073, the court of appeals granted Pleasant City's request in full and instructed the board to enter an order directing that all eight hundred thirty-three acres surrounding the well field be designated unsuitable for mining.

This cause is now before this court pursuant to the allowance of a motion to certify the record.

Samuels & Northrop Co., L.P.A., Stephen P. Samuels; Warhola,

Heine & Ferguson and Andrew J. Warhola, for appellee.

Porter, Wright, Morris & Arthur and Mark S. Stemm, for appellant R.T.G., Inc.

Lee Fisher, Attorney General, Mark G. Bonaventura and Robert J. Karl, Assistant Attorneys General, for appellant Division of Reclamation.

Thomas P. Michael, urging reversal for amicus curiae, the Ohio Mining and Reclamation Association.

Richard C. Sahli, urging affirmance for amici curiae, Sierra Club, Friends of the Earth, Environmental Defense Fund, National Environmental Law Center, Ohio Environmental Council and Ohio Citizen Action.

Wright, J. This case presents two issues: First, whether R.C. 1513.073(A)(2) requires the Chief of the Division of Reclamation and Reclamation Board of Review to consider the effect that mining could have on the water supply, aquifer and the aquifer recharge area not based solely on the level of current usage and, second, whether the court of appeals used the proper standard of review in reversing the finding of the Reclamation Board of Review and ordering that Pleasant City's entire petition area be designated unsuitable for mining. For the reasons stated below, we hold that the Reclamation Board of Review was required to consider the effect that mining could have on the water resource not measured solely by current usage and that the court of appeals improperly ordered that Pleasant City's entire petition area be designated unsuitable for mining.

In 1977 Congress enacted the Surface Mining Control and Reclamation Act ("SMCRA"),1 which had three primary goals:

"(1) to protect the environment from the adverse impacts of past, present, and future surface coal mining; (2) to encourage those states where there is or may be surface coal mning [sic] to establish their own regulatory authority that conforms with the requirements of the Act; and (3) to provide for research and development of economically viable coal extracting techniques that are less environmentally destructive than present methods." Note, Designating Areas Unsuitable for Surface Coal Mining (1978), 22 Utah L.Rev. 321. In response to the passage of SMCRA, the General Assembly enacted parallel legislation consistent with the requirements and goals of SMCRA. To meet the goal of protecting the environment from the adverse impacts of coal mining, reclamation of mined land is required when mining is permitted. Both federal and state law also provide, as a preventive measure, that certain lands be designated "unsuitable" for mining because of their significant environmental and social value. R.C. 1513.073(A)(2) provides as follows:

"(2) Upon petition pursuant to division (B) of this section, a surface area may be designated unsuitable for all or certain types of coal mining operations if the operations will:

"* * *

"(c) Affect renewable resource lands in which the operations could result in a substantial loss or reduction of long-range productivity of water supply or of food or fiber products, or aquifers and aquifer recharge areas[.]" (Emphasis added.)

The standard of review of an appeal from an order of the board is a limited one. R.C. 1513.14 provides: "The court shall

affirm the decision of the board unless the court determines that it is arbitrary, capricious, or otherwise inconsistent with law, in which case the court shall vacate the decision and remand to the board for such further proceedings as it may direct."

The court of appeals concluded that the board's decision was not in accordance with law because it failed to consider the future impact, not based solely on current usage, that mining and reclamation could have on the aquifer and aquifer recharge area in making its determination concerning the area to be designated as unsuitable for mining. The court reasoned:

"The Board's expansion of the western half of the 2,000 foot radius designated by the Chief merely protected the area of perceived present usage of the aquifer and the aquifer recharge areas. This is not according to law. The statute mandates that the Board consider the effect that mining could have on the aquifer, the aquifer recharge areas and its availability not only now but also in the future as a source of water. Our review indicates that the Board did not construe the legislation faithfully so as to give full effect to the spirit behind its enactment. Accordingly, we find that the Board's order is contrary to law and the specific language of R.C. 1513.073(A)(2)(c), in that the Board's order does not protect future uses.

"In so deciding, we adopt Board's fact findings. However, we conclude that the order of the Board upon those fact findings is contrary to law." (Emphasis sic.)

It is apparent from the board's findings that the court of appeals is correct that the board limited its analysis of "long-range productivity" to the maintenance of the village's water

supply at current rates of usage. The board adopted the chief's cone-of-depression analysis, which "was projected under current pumping conditions."

The division and RTG claim that the board was correct in limiting its analysis to the long-range effect on Pleasant City's water supply based on the level of current usage. Their argument is premised on a definition of an aquifer as being of known location and area defined by its proven water-production capability for a specific use. Given such a definition, the effects on the aquifer and aquifer recharge area should be evaluated in terms of whether the mining could result in a substantial loss or reduction of long-range productivity of an established water supply.

Pleasant City and its amici argue that focusing solely on the effect on an established water supply ignores the specific inclusion of the words "aquifers and aquifer recharge areas" in R.C. 1513.073. The court of appeals read these terms back into the statute, whereas the board had effectively eliminated them. They also argue that R.C. 1513.073 is intended to be a preventive measure to protect the future use of a natural resource. Adoption of the division's and RTG's position means that the value of a natural resource is measured only by the current level of its use. As an example, Pleasant City and its amici point out that because R.C. 1513.073 also permits protection of historic lands, under the division's theory such lands could not be protected unless they were currently being "used" by visitors or through archaeological excavation.

We find Pleasant City's argument more persuasive. R.C.

1513.073 clearly states that the long-range productivity of both the aquifer and aquifer recharge area, not just the water supply, are included for protection by a designation of unsuitability. It is a basic rule of statutory construction that "words in statutes should not be construed to be redundant, nor should any words be ignored." E. Ohio Gas Co. v. Pub. Util. Comm. (1988), 39 Ohio St.3d 295, 299, 530 N.E.2d 875, 879. If we construe R.C. 1513.073 to require protection only of the village's water supply, the words "aquifers" and "aquifer recharge areas" would be completely superfluous. This we cannot do. Nor can we accept the division's and RTG's definition of an aquifer as being measured solely by its current productivity. Instead we agree with the board's definition that "[a]n aquifer is an underground section of saturated material which is capable of storing and transmitting water in usable quantities."2

Webster's Third New International Dictionary (1986) defines "long-range" as "involving or taking into account a long period of time" and "productivity" as "the ability or capacity to produce." Therefore, the board must consider the effect of mining on the ability or capacity of the aquifer and the aquifer recharge area to store and transmit water in the future. This effect would not be measured simply by assessing the effects of mining on the aquifer and aquifer recharge area solely as it relates to producing water to supply Pleasant City's current usage. If the long-range productivity of the aquifer and aquifer recharge area as a natural resource will be substantially reduced by mining, additional acres should be designated as unsuitable for mining.

The board already has made several findings which indicate

that mining and reclamation could affect the long-range productivity of the aquifer. These findings include:

"During the mining [within the petition area], the stratified materials overlying the coal seam were removed, stockpiled and later returned to the pits as mine spoil.

"* * *

"14. Surface coal mining changes the bedding scheme within an affected area, via replacing stratified deposits with mine spoil. Such a change could alter the aquifer's capacity to transmit or store groundwater. While the transmissivity and storativity of the aquifer may be altered, it will not be eliminated. The mine spoil will not be impermeable. The effect is not permanent, but could have a substantial long-range impact upon the aquifer or its recharge zone." (Emphasis added.)

Thus, the replacement of the naturally occurring strata, which allow water to infiltrate, be stored in and be transmitted through the aquifer, with the less permeable mine spoil "could result in a substantial loss or reduction of long-range productivity of * * * aquifers and aquifer recharge areas." Indeed, it is also apparent from the board's findings that the mining which has already occurred within the petition area has already affected the aquifer, although the precise cause and duration are unknown. This was the basis for the board's decision to enlarge the radius west of the village well field from two thousand to three thousand two hundred feet. The board noted:

"What is disturbing to this Board is the fact that the water level in MW-4 (located about 2000 feet from both the Village well

field and the mine site) has experienced a declining trend during mining on permits D-578-1 and D-578-2. The Division did not deny this trend. Nor was the Division able to attribute the decline to either the Village's pumping at the well field, RTG's pumping at the mine site, the removal of acquifer material, or the interruption of one or more sources of recharge to the aquifer.

"The Board believes that the declining water level in MW-4 is significant. If an impact to this well occurs when mining is taking place approximately 1600-2000 feet from MW-4, a similar impact on the Village wells could result if mining is allowed as close as 2000 feet from the Village well field.

"* * *

"It is unclear at this time whether the impacts recorded at MW-4 resulted from the temporary dewatering at RTG's mine site or from the more long-term effects of alterations in lithology. In expanding the protected areas to the west of the well field, this Board intends to ensure the utmost protection to the Village water supply. If the impacts of the mining evidenced in the monitoring well network prove to be temporary, the law allows for petition to terminate the unsuitability designation."

It is apparent that the board's findings support the conclusion that the aquifer and aquifer recharge area could be affected. Indeed, they already may have been affected.3 However the board focused solely on protecting the aquifer and aquifer recharge area only to the extent necessary to maintain the village's water supply at current levels. We must repeat that R.C. 1513.073 also requires consideration of the potential effect on the aquifer and aquifer recharge area themselves, not just maintenance of the village's current water supply.

Therefore we hold that in determining the unsuitability of lands for coal mining, R.C. 1513.073(A)(2)(c) requires that consideration be given to the impact that mining and reclamation could have on the long-range productivity of an aquifer and aquifer recharge area, not solely the impact on their current use as a water supply.

The court of appeals, having correctly determined that the board's decision was not in accordance with law, also decided that all of the petition area should be designated as unsuitable for mining and reclamation. We disagree. Deference must be given to the expertise of the board in determining what additional area may be designated as unsuitable for mining. The court of appeals may in fact be correct that all of the petition area needs to be designated unsuitable to protect the future productivity of the aquifer and aquifer recharge area. There is some evidence in the record to support such a view. For example, the board found that "the floodplain of Buffalo Fork, Buffalo Creek and Wills Creek is part of the recharge area for the aquifer." This includes the petition area. Also, the United States Environmental Protection Agency designated the entire petition area as a sole-source aquifer, a protective designation. On the other hand, there is other evidence found in the record and noted by the board which indicates that "[t]he groundwater in this area has been shown to flow from west to east. Therefore, it is likely that most of the recharge to the aquifer is generated west of the Village." The board has available to it stratigraphic maps, boring logs, monitoring well data, mining records and expert testimony from which to decide the appropriate

designated area. Therefore we remand this matter to the board for reconsideration in accordance with this opinion.

Judgment affirmed in part,

reversed in part

and cause remanded.

Moyer, C.J., A.W. Sweeney, F.E. Sweeney and Pfeifer, JJ., concur.

Douglas, J., concurs in judgment only.

Resnick, J., concurs in part and dissents in part.

FOOTNOTES:

1. Sections 1201-1328, Title 30, U.S.Code.

2. Ohio Adm.Code 1501:13-1-02(I) defines an "aquifer" as a "zone, stratum, or group of strata that can store and transmit water in sufficient quantities for a specific use." Clearly the board interprets "sufficient quantities for a specific use" to mean "usable quantities." On appeal, the division argues that "specific use" means a known use, therefore a current use. The board implicitly rejected the division's argument. We reject it also. To accept the division's interpretation means that an aquifer does not exist, despite hydrogeologic proof of its existence, unless the aquifer is actually being used as a water supply. The definition of "aquifer" in Ohio Adm.Code 1501:13-1-02(I) does not require such an absurd conclusion.

3. The board's findings are corroborated by the expert testimony of Rebecca Petty, a hydrogeologist employed by the Division of Water of the Ohio Department of Natural Resources as the Administrator of the Groundwater Resources Section. The Division of Water monitored the water level of the four monitoring wells in the petition area. Petty testified:

"* * * at that point in time the water levels were declining significantly, and this was during a period of time where we had 12-plus inches of precipitation. And so we knew that this abnormal decline couldn't be due to precipitation, because precipitation was very high. We also knew that pumping from the W dewatering from the mine site is relatively constant, you know, it fluctuates seasonably, but they hadn't had any dramatic increases in pumping, so we were very concerned that the mining activities were having a significant impact on the availability of groundwater. Not only water levels, but having an impact on the volume of aquifer material or the volume of unconsolidated materials in the valley, that were serving to recharge the aquifer, that this could be having an impact on the long-term sustainable yield of the aquifer."

Alice Robie Resnick, J., concurring in part and dissenting in part. I would affirm the judgment of the court of appeals in its entirety, allowing the entire petition area to be designated as unsuitable for mining.