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ENVIRONMENTAL LAW

Environmental Hearing Board Protects Private and Public Rights

BY KENNETH J. WARREN
Special to the Legal

In Pennsylvania, the Environmental Hearing Board adjudicates challenges to final actions of the Pennsylvania Department of Environmental Protection. Hearings before the board are de novo, and are conducted much like a case in a trial court, albeit at times with relaxed evidentiary rules. Because its jurisdiction is limited to reviewing final actions of the department, the board has developed considerable expertise in adjudicating environmental disputes.

In two recent decisions, the board demonstrated its willingness to reverse decisions of the department where necessary to protect the rights of regulated entities or the quality of exceptional value waters. In the first case to be discussed, *Robinson Coal v. Pennsylvania Department of Environmental Protection*, the board responded to the difficulties that the regulated community at times faces in resolving disputes with the department before enforcement is initiated. In the second case, *Pine Creek Valley Watershed Association Inc. v. Pennsylvania Department of Environmental Protection*, the board showed its vigilance in protecting exceptional value waters from proposed wastewater discharges that may place these waters at risk.

ROBINSON COAL

Robinson Coal involved a challenge to a compliance order that the department issued to Robinson on Nov. 17, 2010. Robinson's alleged violations arose out of its obligations under an earlier consent order and agreement between Robinson and the department. The CO&A required Robinson to build, maintain and operate a passive treatment system at its mine and to monitor the groundwater and surface water. In paragraph one of the order, the department found that Robinson's discharge from its treatment system violated applicable effluent limits. The department required Robinson to submit a plan to correct the violation. Paragraph two of the order cited Robinson for failing to submit quarterly water quality monitoring reports and directed it to monitor and report in accordance with previously approved plans.

KENNETH J. WARREN *is a shareholder in the environmental practice group at Hangley Aronchick Segal Pudlin & Schiller. He is a former section chair of the American Bar Association's Section of Environment, Energy and Resources.*

Robinson challenged the order on the ground, among others, that operation of the treatment system was no longer necessary. Robinson emphasized that over a six-year period it had repeatedly requested approval from the department to terminate treatment and monitoring. Despite receiving several requests and supporting submissions from Robinson, the department did not either approve or deny the requests.

The department moved to dismiss the appeal of paragraph one of the order as moot because it had vacated that paragraph after recognizing that it had taken samples at an incorrect location at the site. The department further moved for summary judgment on paragraph two of the order based upon Robinson's acknowledgement that it did not submit the reports at issue.

Robinson opposed the motion primarily on the ground that the enforcement action placed before the board all issues involving the administration of the CO&A, including Robinson's contention that his obligation to operate the treatment system should be terminated. The department countered that once the enforcement action became moot, the board had no jurisdiction to review the department's action. The department also cited the provision of the CO&A precluding appeals until the department initiates an enforcement action. The department contended that an enforcement action for purposes of the CO&A means a petition before the Commonwealth Court, not an enforcement order.

The board sympathized with Robinson's predicament. Under the terms of the CO&A, Robinson could not pursue an appeal until the department initiated an enforcement action. The CO&A provided no means to compel the department to decide whether Robinson could lawfully cease operating the treatment system. The existence of an enforcement action, however, conferred jurisdiction on the board to address the need for continued treatment. If the board declined to resolve the issue now, Robinson might continue to be exposed to orders and penalties without having a mechanism to first establish the scope of any remaining obligation. Based on these factors, the board declined to dismiss the appeal of paragraph one of the order as moot or to preclude Robinson from defending the reporting violation in paragraph two on the ground that further monitoring and reporting was unnecessary.

The board also rejected as "wrong-headed" the department's contention that the only enforcement action that could trigger review of its decisions is a petition filed with the Commonwealth Court. The board noted that numerous enforcement tools are available to the department including an assessment of civil penalties and, as in this case, a compliance order. Allowing challenges to be

raised only when an enforcement action is brought in Commonwealth Court would have the effect of forever insulating from board review those decisions that are deferred until enforcement occurs. Carving out a segment of department decisions from board review would contravene the legislature's intent to provide appellants with due process through a de novo hearing before the board.

The board also noted that this appeal could potentially have been avoided had the parties included in the CO&A procedures for Robinson to demonstrate that its obligations are no longer necessary. But in the absence of such CO&A provisions or any substantive response from the department for a six-year period, this appeal provided the only meaningful mechanism for resolution of the issue. A regulated entity diligently submitting requests to the department supported by substantial documentation should not be ignored.

PINE CREEK

Pine Creek demonstrates the board's willingness and ability to evaluate complex scientific models and expert testimony to determine whether a discharge will impair an exceptional value stream.

In *Pine Creek*, a watershed association challenged PADEP's approval of a sewage facilities plan revision allowing construction of seven new homes to be serviced by on-lot septic systems. The watershed association contended that the septic systems would release nitrogen in quantities sufficient to degrade a neighboring wetland and stream, both of which were classified as exceptional value. The department responded that the septic discharge would not interfere with the functions and values of the wetland, and that the denitrification of the effluent through natural processes would decrease nitrate concentrations to a level meeting standards for the stream.

The parties agreed that when effluent from the septic systems entered the wetland a short distance from the stream, nitrate concentrations would be about 20 mg per liter. Because the nearby stream was classified as exceptional value, its water quality of .88 mg per liter total nitrogen must be maintained and protected. The board viewed these facts as sufficient to show a significant and credible threat to the water quality in the stream (but not the wetland) and to shift the burden on the department to demonstrate that the plumes would not likely degrade the water quality of the stream.

The case boiled down to a battle of the experts. The department first contended that the 50-foot riparian buffer required by the permit would help denitrify the plumes before they reached the wetland. The board noted, however, that the department's expert calculated that nitrate concentrations of up to 20 mg per liter would enter the wetland. Accordingly, the department's expert did not support its theory that sufficient denitrification would occur in the buffer zone.

The department next contended that, given the size of the wetland, sufficient denitrification would occur within the wetland before the plumes reached the stream. Once again, however, the board found that the department's expert testimony did not support its theory. The board found that only the portions of the wetland coming into contact with the effluent plumes would promote denitrification. Expert testimony showed that the majority of the wetland acreage would not come into contact with the plumes.

The department also relied upon modeling equations to prove that the wetland would denitrify the sewage plumes before they reached the stream. In determining whether to credit expert opinions supporting the validity of this scientific methodology or those critical of its use, the board first examined whether the model is generally accepted in the scientific community, a requirement for admissibility under the *Frye* test applicable in Pennsylvania courts. The board noted that its experience in dealing with scientific theories makes the board less impressionable than a jury. The board therefore need not be as rigid about admissibility. Nevertheless, the board noted that, even if it does not exclude an expert opinion entirely, the weight that the board may accord the opinion depends in part on the degree of acceptance of the underlying science.

The board credited a plaintiffs expert who testified that the department's model is not generally accepted in the scientific community to predict denitrification outcomes in a naturally forested wetland. Rather, it is only generally accepted as a tool to help design man-made herbaceous wetlands for use in treating discharges of pollutants. In a design situation, variables such as types of plants, flow, holding times or the number of cells can be adjusted, and holding ponds can be constructed to store effluent during cold winter months. In contrast, the contemplated discharge from septic systems to a natural forested wetland did not allow opportunities for adjustment. The model in question was a far cry from a calibrated watershed model with a track record of accurate predictions. Instead, the board criticized the department for improperly attempting to experiment with an untested wetlands denitrification process to protect water quality in an exceptional value stream.

The board further found that even if the model had been shown to accurately predict denitrification in a natural system, the department misapplied it. For example, the department assumed that the wetland had a background concentration of zero as may be expected in a fully functioning wetland. For this wetland, however, background data existed showing that the wetland had measurable nitrate concentrations. This suggested that the wetland may have reached its capacity to assimilate nitrogen because of stormwater runoff carrying fertilizers from surrounding farms or existing septic discharges. Likewise, seeps, springs and other channels allowing the plume to reach the surface existed. Because denitrification occurs only when the plumes are under the surface, the department overestimated the ability of the wetland to denitrify the plumes.

The board noted the importance of protecting exceptional value waters by employing conservative modeling techniques designed to compensate for the uncertainties with a model, particularly where it is experimental. The department's experts, however, did not in many instances use conservative assumptions. For example, the modelers used annual averages, thereby obscuring seasonal variability. The modelers also failed to apply a margin of safety after the modeling results were obtained.

Based upon its thorough evaluation of the expert testimony, the board concluded that the method of sewage treatment approved by the department had not been shown to be consistent with anti-degradation requirements. Therefore, the board ruled that the department's approval of the sewage facility plan revision was unlawful. •