

IN THE COURT OF APPEALS OF OHIO
TENTH APPELLATE DISTRICT

Citizens Against American Landfill Expansion (C.A.A.L.E.),	:	Nos. 12AP-741
	:	(ERAC No. 765939)
Appellant-Appellant,	:	12AP-742
	:	(ERAC No. 765943)
v.	:	12AP-743
	:	(ERAC No. 766079)
Joseph P. Koncelik, Director of Environmental Protection Agency et al.,	:	12AP-744
	:	(ERAC No. 766192)
Appellees-Appellees.	:	(REGULAR CALENDAR)

D E C I S I O N

Rendered on January 16, 2014

D. David Altman Co., L.P.A., D. David Altman, Justin D. Newman, and Nicholas W. Schwandner, for appellant.

Michael DeWine, Attorney General, and Nicholas J. Bryan, for appellee Ohio Environmental Protection Agency; Thompson Hine, LLP, and Terrence M. Fay, for appellee American Landfill, Inc.

APPEALS from the Environmental Review Appeals Commission.

VOKOVICH, J.

{¶ 1} Appellant Citizens Against American Landfill Expansion ("CAALE") appeals from an order of the Environmental Review Appeals Commission ("ERAC"). ERAC's order upholds the decision of appellee Joseph P. Koncelik, Director of the Ohio Environmental Protection Agency ("EPA"), granting appellee American Landfill, Inc., a permit to undertake vertical and horizontal expansion of an existing landfill site.

{¶ 2} We begin with the uncontroverted facts. The site currently known as American Landfill is located in Stark County north of Waynesburg, Ohio, on a 1,072 acre parcel owned by the current landfill operator. Landfill operations at the site date back at least to the early 1970s, and through much of its history the landfill has been known as Breitenstine, after the name of the initial operator. The Ohio EPA granted Breitenstine Landfill, Inc., the first solid waste disposal permit for the site in 1975. American Landfill purchased the facility from Breitenstine in 1989. American Landfill is a subsidiary of Waste Management, Inc., a large environmental services company operating across much of North America and headquartered in Houston, Texas. Although Waste Management was named as an appellee in the initial appeal to ERAC, it is no longer a party to the proceedings.

{¶ 3} Regulatory requirements and industry methods have evolved over the long history of operation at the site, so that construction techniques and environmental safeguards for the older portions of the landfill are not executed to the same standards as those installed under newer permits. In particular, prior to 1993, neither Ohio nor federal law required the installation of artificial liners on the bottom and sides of landfill sites in the form of a plastic impermeable membrane. Thus, the older sections of the landfill are built with only a compacted clay liner to prevent leakage into the surrounding earth of liquid that has come into contact with waste ("leachate"). Newer sections incorporate composite liners comprised of an impermeable membrane, compacted clay, permeable drainage layers, and leachate collection pipes and sumps. The current proposed expansion specifies such current "best available technology" ("BAT") liners. These are specified both under the new horizontal expansion as well as to separate the existing waste from new materials added above in the proposed vertical expansion.

{¶ 4} The need for effective leachate control is accentuated because much of the site is a former strip mine. As a result, some parts of the landfill lie over mine spoil consisting of broken-up rocks formed from the overburden removed to access underlying coal. The physical properties of this mine spoil make it particularly problematic for the control of escaped leachate. The site also contains old oil and gas wells that generated and may continue to generate brine as part of the oil and gas extraction process.

{¶ 5} The EPA has granted at least three prior Permits to Install ("PTIs") allowing improvement or expansion of the landfill. Breitenstine sought and received a permit in 1985 to expand horizontally over a clay liner. American Landfill obtained a permit in 1995 allowing installation of a gas extraction system to collect and process for sale the gas generated by landfill contents. This system incorporates lined wells drilled into the waste mass and feeding into collection pipes. Also in 1995, the EPA granted a permit allowing a further increase in the landfill footprint, this time using a synthetic impermeable liner to inhibit release of leachate from the new landfill contents.

{¶ 6} In 1999, American Landfill initiated a new round of permit applications for further expansion; these are the permits that underlie the present appeal. Opponents of the proposed expansion formed CAALE, a citizen's group composed of neighboring residents or property owners concerned about the potential impact upon their property and quality of life. CAALE raised funds, hired experts, and coordinated efforts in opposition to the latest expansion.

{¶ 7} The director issued deficiency notices in response to the initial 1999 applications. After a lengthy process of modification and resubmission, in 2006 the director issued solid waste and air permits covering a lateral and vertical expansion of the landfill facility. CAALE and some of its members in their individual capacities timely filed appeals from the director's decision to issue the permits. The actions appealed from included the air permit, solid waste permit, and two "alternate source demonstrations" ("ASDs") submitted by American Landfill and approved by the director in connection with the permit applications. Simply put, the ASDs are submitted by the permit applicant as explanations or justifications for presence of certain contaminants in nearby groundwater, suggesting that the contaminant source is not the landfill contents.

{¶ 8} The Stark-Tuscarawas-Wayne Joint Solid Waste Management District, a three-county authority formed pursuant to R.C. 3734.52 and 343.01 et seq., participated in proceedings before the director and was named an appellant before ERAC. The solid waste district, however, has not filed a notice of appeal to this court or briefed the matter before us. Likewise, while some individual members of CAALE were named as parties in past proceedings, the notices of appeal to this court name only CAALE as an appellant and we accordingly deem CAALE to be the sole party prosecuting this appeal.

{¶ 9} Before ERAC the appellants raised 131 enumerated assignments of error covering, in ERAC's summarized view, 17 identifiable issues raised by the expansion. Collectively, however, all these issues challenge, first, the director's acceptance of American Landfill's characterization of the geology and hydrology underlining the landfill and surrounding area, and second, the engineering design of the proposed expansion, particularly the vertical expansion over existing waste. The ultimate result, appellants argued, would inevitably lead to a failure to protect air and water quality in the surrounding community.

{¶ 10} In the de novo review before ERAC, the parties presented extensive direct testimony and documentary evidence. Most significantly, American Landfill and the permit opponents presented expert testimony regarding the impact of the proposed horizontal and vertical expansion. ERAC then rendered an order finding that the director had acted lawfully and reasonably in issuing the air and solid waste permits and associated ASDs.

{¶ 11} Because the ERAC order appears under several different ERAC case numbers due to the lengthy procedural history and multiple actions by the director considered by ERAC, appellant CAALE has filed four separate notices of appeal in this case and we have consolidated the matter for briefing and argument. CAALE brings the following sole assignment of error:

The Ohio Environmental Review Appeals Commission (ERAC) erred in affirming the landfill expansion permit because the Director, in contravention of his regulatory duties, approved the permit without requiring American Landfill, Inc. (ALI) to account for the decades of leachate generated in the existing, unlined portions of the American Landfill.

{¶ 12} R.C. 3745.05(F) defines the standard under which ERAC reviews a final action of the director: "If, upon completion of the hearing, the commission finds that the action appealed from was lawful and reasonable, it shall make a written order affirming the action, or if the commission finds that the action was unreasonable or unlawful, it shall make a written order vacating or modifying the action appealed from." Under this standard, the term "unlawful" means "that which is not in accordance with law," and the

term "unreasonable" means that which does not have a valid factual foundation. *Citizens Committee to Preserve Lake Logan v. Williams*, 56 Ohio App.2d 61, 70 (10th Dist.1977). During the de novo hearing before ERAC, the burden remained upon American Landfill to show compliance with applicable regulation so that it was entitled to the expansion permits.

{¶ 13} On appeal, this court must affirm ERAC's order if it finds that "the order is supported by reliable, probative, and substantial evidence and is in accordance with law." R.C. 3745.06. "In the absence of such a finding," we must "reverse, vacate, or modify the order or make such other ruling as is supported by reliable, probative, and substantial evidence and is in accordance with law." R.C. 3745.06.

{¶ 14} Reliable evidence is that which can be trusted. *Gen. Elec. Lighting v. Koncelik*, 10th Dist. No. 05AP-310, 2006-Ohio-1655, ¶ 10, citing *Our Place, Inc. v. Ohio Liquor Control Comm.*, 63 Ohio St.3d 570, 571 (1992). For evidence to be reliable, there must be a reasonable probability that it is true. *Id.* Probative evidence tends to prove the issue in question, while substantial evidence carries weight or has importance in value. *Id.* "ERAC may not abuse its discretion in admitting evidence, weighing it, and granting credibility to testimony." *Tube City Olympic of Ohio, Inc. v. Jones*, 10th Dist. No. 03AP-295, 2004-Ohio-1464, ¶ 26.

{¶ 15} In this appeal, CAALE has refined its arguments to address groundwater contamination concerns presented by the vertical expansion aspect of the 2006 permit. CAALE argues that ERAC accepted the stability and settlement determinations offered in the permit applications without requiring American Landfill to account for leachate generated in the older, underlying portions of the landfill. Specifically, CAALE asserts that the technical analyses addressing different aspects of the proposed expansion used mutually irreconcilable assumptions when addressing the leachate problem: where convenient, American Landfill and the director assume that no leachate has ever escaped from the landfill, but elsewhere they assume the opposite, postulating that no significant amount of liquid remains in the landfill, despite the inevitable collection and retention of surface water over time, and the generation of liquid by the landfill contents.

{¶ 16} Either of these assumptions, CAALE argues, disregards much of the evidence presented before the commission regarding leachate generation by the landfill,

ingress of precipitation into the waste, and fluctuations of leachate levels identified throughout the existing landfill area. Specifically, CAAL points to testimony establishing that many of the gas-collection wells reveal depths of fluid present up to 40 feet in the existing landfill waste, which required specialized pumping and fluid handling procedures to facilitate gas collection. As a result, CAAL argues, the commission incorrectly entertained irreconcilable conclusions regarding the effect of fluid in the form of leachate, finding on the one hand that there was no leachate present and that the low saturation levels supported American Landfill's stability and settlement calculations, despite the fact that this would require a finding that any groundwater or rainwater that would enter the landfill must have escaped through the bottom and caused groundwater contamination.

{¶ 17} We first address ERAC's assessment of the engineering aspect of the proposed expansion. Applicable Ohio environmental laws and regulations require that a landfill permit application provide a narrative description of the rationale used to establish the proposed engineering cross section to cope with parameters such as hydrostatic uplift and slope stability. Ohio Adm.Code 3745-27-06(C)(4)(a)(v). An application for a new PTI must provide stability calculations demonstrating that slopes and other features of the facility will remain stable. Ohio Adm. Code 3745-27-06(C)(4) and 3745-27-08(C)(7).

{¶ 18} An engineer for the Ohio EPA, Virginia Wilson, reviewed the engineering portions of American Landfill's permit application. At the time, she was a member of the EPA's geotechnical resource group and had specialized training in slope stability, synthetic liner construction and testing, and permeable testing. (Tr. 4940-43.)

{¶ 19} Wilson testified that her duties with the EPA first made her familiar with the then-Breitenstine site in 1989. She was later reassigned to solid waste facilities in Mahoning County, then returned to the unit covering Stark County in 2000. Initially she oversaw the American Landfill site only with respect to operation under prior PTIs, but by 2003 she began review of the resubmitted 1999 permit applications.

{¶ 20} Wilson reviewed all aspects of the 2003 resubmission including "engineering design, the engineering construction requirements, siting requirements, * * * slope stability, settlement, hydrostatic uplift, * * * all the leachate collection design requirements, and calculations associated with those." (Tr. 4949.) She generated various

deficiency notices through this and subsequent reviews, causing multiple revisions and improvements to the project. Wilson testified that, ultimately, American Landfill's permit application contained more engineering protection than the EPA typically sees in such applications, including additional refinements to the leachate collection system. (Tr. 4998-5000.) American Landfill's 2003 application proposed placement of a separatory impermeable membrane, bedded on impermeable clay, over the old landfill waste and below the new waste in the proposed vertical expansion. This impermeable separatory liner would act as a barrier to prevent introduction of new fluid into the underlying, existing landfill waste. (Tr. 4964-65.)

{¶ 21} Wilson also testified regarding slope stability calculations for the expansion and concluded that the landfill slopes would be stable. (Tr. 4951-53.) She reviewed the underlying assumptions regarding material cohesion and concluded that American Landfill had used a "material cohesion factor" (the quantified measure of soil strength as a factor in slope stability) that was within the relevant EPA guidelines. She further testified that, even if no cohesion factor were attributed to the landfill waste at all, simulations run through two different computer programs had predicted that the landfill slopes would remain stable. (Tr. 4957.)

{¶ 22} When asked about landfill saturation levels in the existing waste, Wilson stated that many of the gas extraction wells consistently showed no liquid at all, and that if the entire waste mass were as saturated with water as CAAL's expert postulated, the wells would show consistent levels across the entire landfill as the liquid percolated to find its level. (Tr. 5060-65.)

{¶ 23} American Landfill also presented testimony from two experts, Peter Carey and James Walker. ERAC accepted both as experts in the field of landfill engineering, design, and construction. Each worked for American Landfill contractors on different aspects of the proposed design in preparation for the PTI applications.

{¶ 24} Walker testified that over the prior 23 years he had worked on 15 major landfill expansion projects. Half of these were in Ohio, and involved compliance with Ohio's solid waste regulatory scheme. Walker stated that he participated in Ohio's rule-promulgation process by participating in EPA notice and comment meetings. In addition to major landfill expansions, Walker stated that he oversaw cap and closure projects, gas

monitoring systems, leachate collection systems, and storm water control systems, as well as every other aspect of landfill construction improvement.

{¶ 25} Walker became involved with the American Landfill PTI re-application in 2001, after the initial 1999 application had generated numerous deficiency notices. By 2003, American Landfill was ready to resubmit the revised application. The most significant modifications from the original application included the inclusion of a separatory liner under the vertical expansion, and an associated leachate collection system. Another significant alteration was to change the proposed horizontal expansion footprint to accommodate wetlands concerns.

{¶ 26} Walker admitted that there were no leachate collection systems under the non-BAT sections of the landfill, including the area to be covered by the separatory liner and the vertical expansion. (Tr. 4925.) The non-BAT areas under the separatory liner contained existing gas collection wells, and the heads of these wells would be covered by the separatory line and become inaccessible. (Tr. 4917.) After expansion, it would become impossible to lower a pump into the gas collection wells to clear them of leachate. (Tr. 4917.)

{¶ 27} Carey testified that he prepared settlement calculations for the impermeable liners under the new landfill sections, did slurry wall designs, made hydrostatic uplift calculations for the vertical expansion, and undertook slope stability analysis. He analyzed the anticipated settlement rates for landfill contents and calculated strain rates upon the separatory liner that would lie between the old and new parts of the vertical expansion. His hydrostatic uplift calculations applied both to fluid pressures generated under the separatory liner by old waste under the vertical expansion, and groundwater pressures exerted on the underside of the liner beneath the horizontal expansion.

{¶ 28} Carey explained the assumptions regarding the cohesive strength of the old waste to establish that it would not shift or slide when additional weight was applied over top of it. The number proposed was a typically accepted number for such old waste cohesion based on extensive experimentation with landfill waste "shear strength." (Tr. 5159.) Based upon this number and computations for the new waste, models calculated by Carey for American Landfill demonstrated that the slopes would remain stable.

{¶ 29} Carey testified regarding the liquid levels in existing waste. His initial research compiled reports from former landfill operations, including the complete excavation of an older section of the American Landfill area—the "valley dissection site"—undertaken for reasons unrelated to the present expansion. Carey found that crews performing this excavation reported no significant leachate seeps, and remarked that the excavated material was "so dry." (Tr. 5149.) Carey testified regarding the liquid levels in gas extraction wells, some of which showed considerable depths of liquid and had to be pumped to maintain operation. Much of this liquid, however, he attributed to condensation from cooling gas as it was extracted from high temperature zones deep in the decaying waste and drawn to cooler zones near the surface. Because this liquid from condensation was not particularly probative of the presence of deep levels of leachate in the waste, Carey relied on the initial drilling reports from the extraction well installations. Carey testified that overall these gas well installation logs "overwhelmingly characterized" the drilling zones as "dry" or "damp," with very few bores reported as "wet." (Tr. 5142-45.) Carey stated that in his experience the level of leachate in the landfill mass is typically uneven because of great differences in permeability across the depth of the waste material, and the presence of "perched" liquids sitting on zones of denser waste or old dump roads built across the waste pile as part of the waste deposition process. (Tr. 5150.) Thus, leachate present at certain heights above the landfill bottom would not indicate that fluids were present continuously below this level. (Tr. 5150.)

{¶ 30} Douglas Dobransky, an EPA geologist, testified primarily regarding his review of groundwater hydrology and monitoring well reports, and his testimony in this respect will be further reviewed below. He also addressed and explained certain restrictions on surface hydrology conditions presented in prior PTIs for the American Landfill site. These required strict control over surface water flow from precipitation or other sources to prevent it reaching the "active working area" of the landfill. (Tr. 4462.) The active working area comprises that part of the landfill in which new waste is currently deposited over uncovered landfill contents. All other areas are required to be sealed with a permanent or temporary clay cover graded on a slope calculated to allow runoff to escape before it percolates through the cover material. This water runoff is directed

through a system of permanent or temporary berms and ditches away from the active working area to avoid saturating the landfill contents with surface water. (Tr. 4462-64.)

{¶ 31} Based upon this testimony from multiple credible and credentialed witnesses, we find that ERAC heard reliable, probative, and substantial evidence to support the conclusion that the 2006 PTIs granted by the director should be upheld. The evidence, if believed, established that the proposed engineering models for landfill expansion would be stable and compatible with Ohio law and EPA regulations. In particular, there was extensive evidence from which ERAC could conclude that the quantities of leachate present in existing waste did not undermine the engineering models. The concerns regarding the lack of a leachate collection system in the older section that will underlie the new vertical expansion are credibly addressed by the evidence tending to establish that there is insufficient fluid present in this material to compromise the integrity of either the underlying clay liner or the new overlying separatory liner. Under the standard of review to which we are constrained, ERAC's order is in accordance with law in this respect.

{¶ 32} We next address CAALE's alternative argument regarding leachate control at the site. If the waste is not presently saturated with leachate, CAALE suggests, then fluids must have found a way out of the bottom or sides of the landfill. CAALE asserts that the older portions of the landfill are not lined according to modern technology, and in some places are completely unlined, resting directly over permeable strip mining waste. CAALE asserts that because of this the landfill expansion will inevitably aggravate groundwater pollution in violation of R.C. 6111.04(A), which prohibits contamination of the surface or subterranean waters of Ohio.

{¶ 33} American Landfill stresses evidence to the contrary, which tends to show that existing waste is nowhere deposited directly over completely unsuitable soils, and at worst is underlain by natural impermeable clay layers or recompacted clay added as a liner pursuant to earlier PTIs. Moreover, American Landfill points out that the bulk of the testimony summarized above established that little water entered the landfill from surface runoff or precipitation, and that landfill contents tend to dry out over time, rather than accumulate permanent pooling of fluids. Finally, American Landfill argues that R.C. Chapter 6111 is completely inapplicable to solid waste disposal facilities.

{¶ 34} First we address the question of the applicable law governing the required objectives of the PTI process. CAALE argues that in addition to the extensive regulatory scheme governing solid waste disposal, ERAC must consider and apply certain sections of R.C. Chapter 6111 ("Water Pollution Control") to deny the requested PTIs.

{¶ 35} The director and American Landfill initially argue that R.C. Chapter 6111 does not apply because it only regulates, as an extension of the Federal Clean Water Act, discharges into *surface* water, not subterranean aquifers. For this they cite *Kelley v. United States*, 618 F.Supp. 1103 (W.D.Mich.1985), which is utterly inapposite. That case was decided under federal law rather than the more comprehensive language of the pertinent sections of R.C. Chapter 6111. Moreover, even *Kelley's* limitation of the reach of the federal statute to exclude groundwater has been questioned or rejected outright. *See, e.g., Williams Pipe Line Co. v. Bayer Corp.*, 964 F.Supp. 1300 (S.D.Iowa 1997); *Friends of Santa Fe Cty. v. LAC Minerals, Inc.*, 892 F.Supp 1333 (D.N.M.1995).

{¶ 36} Examining the language of the Ohio clean water statute, we do not agree with appellees' proposition that R.C. Chapter 6111 could never apply to pollution discharged into subsurface waters by landfill waste. R.C. 6111.04(A)(1) provides that "[n]o person shall cause pollution or place or cause to be placed any sewage, sludge, sludge materials, industrial waste, or other wastes in a location where they cause pollution of any waters of the state." R.C. 6111.04(A)(2) provides a permit exception to this prohibition, and R.C. 6111.03(J) grants the director the power to issue, revoke, modify or deny such permits. R.C. 6111.01(H) defines "waters of the state" to include "bodies or accumulations of water, surface and underground, natural or artificial, regardless of the depth of the strata in which underground water is located." R.C. 6111.01(D) defines "other waste" to include "garbage" or "refuse." On its face, the statute plainly supports a general prohibition against leachate discharges from landfills into the subterranean waters of the state. The question remains, however, whether this prohibition may be separately asserted in opposition to a landfill PTI application. Applying general rules of statutory construction and synthesis, we find that it does not.

{¶ 37} R.C. Chapter 6111 imposes a broad and comprehensive prohibition against water pollution in Ohio. R.C. Chapter 3734 specifically addresses the design, construction, and operation of solid waste facilities in the state. R.C. 3734.02(A)

authorizes the director of EPA to promulgate comprehensive body of regulation to this end. This section provides that the rules may address "requirements for taking corrective action in the event of the surface or subsurface discharge or migration * * * or leachate from a solid waste facility, or of groundwater contamination resulting from the transfer or disposal of solid wastes at a facility." R.C. 3734.02(A).

{¶ 38} In keeping with this legislative mandate, the director has adopted a variety of sections in the Ohio Administrative Code, including Ohio Adm.Code 3745-27-08(B), requiring composite liner systems under landfills to prevent leachate from escaping. Ohio Adm.Code 3745-27-08(B)(1)(d) mandates installation of leachate collection and management systems. Ohio Adm.Code 3745-27-10 requires installation of groundwater monitoring wells around areas of waste placement. Other sections address final cover structure and composite cap systems preventing rainwater from flowing into waste.

{¶ 39} As a rule, specific statutory provisions prevail over general ones. R.C. 1.51; *State v. Volpe*, 38 Ohio St.3d 191, 193 (1988) ("Well-established principles of statutory construction require that specific statutory provisions prevail over conflicting general statutes"). While the two chapters here are complementary, rather than conflicting, the same principle applies to harmonize their application. R.C. Chapter 3734 is specific to solid waste facilities, and the associated regulations are specific to leachate control. Indisputably, the legislation incorporates the same effective goals as R.C. Chapter 6111 with respect to water pollution, and may be viewed as an extension of the general policy expressed therein.

{¶ 40} We conclude that the legislature intended to primarily regulate (and prohibit) possible subsurface leachate releases from landfills under Ohio's solid waste laws codified at R.C. Chapter 3734. Solid waste facility PTIs must be assessed under that body of specific law rather than R.C. Chapter 6111. We do not decide the question of whether the enforcement provisions of R.C. Chapter 6111 would apply in the case of *actual* leachate discharge from the landfill in the future, but when assessing the *potential* risks to groundwater posed by the proposed expansion, ERAC properly looked first to the EPA's own regulations governing solid waste disposal.

{¶ 41} Our assessment of the primacy of applicable law appears consistent with EPA's practice. EPA's Dobransky testified before ERAC that in his work with EPA's

Division of Groundwater, he did not independently apply R.C. Chapter 6111, which "was something the Division of Surface Water applied." (Tr. 357.) Instead, the EPA reviewed solid waste permits under the specific regulations addressing these, which incorporated the relevant aspects of R.C. Chapter 6111's water protection goals. (Tr. 353-55.) Dobransky stated that the Ohio EPA does not issue leachate to groundwater discharge permits under R.C. Chapter 6111. (Tr. 358.)

{¶ 42} Reviewing the evidence on the issue of previous leachate, American Landfill and the director concede that the extensive groundwater testing conducted in preparation of the permit applications reveal impurities. They conclude, however, that these impurities are not the result of improper landfill operation. CAALE's expert to the contrary interpreted the data to support the proposition that some of these impurities had migrated from landfill contents.

{¶ 43} Experts for American Landfill presented evidence concerning the presence of impurities in nearby aquifers. Mohammed Ali, the engineering manager for American Landfill, testified that the site had undergone strip mining and oil and gas operation over the years before being used as a landfill and that these had impacted groundwater in the vicinity, particularly with naturally occurring brine brought to the surface by oil and gas extraction. (Tr. 3064-65.)

{¶ 44} Allan Razem testified as an expert in geology and hydrogeology. His credentials included broad experience with monitoring wells for landfills. This generally involved chemical testing of well water samples from monitoring wells surrounding the landfill sites. If necessary, the contaminants, if any, might then be tested against samples from the landfill proper, such as gas extraction wells, to establish a correlation between the identified contaminants and determine if those in the well samples were the result of subterranean migration of leachate and landfill gases.

{¶ 45} Razem described the results of his work as a contractor for American Landfill. The 2003 PTI application provided for 50 monitoring wells distributed around the site. Most of these are "downgradient," that is, in the direction of probable downhill flow of subterranean waters through pervious strata comprising likely sources of potable water. (Tr. 3701-13, 3760, 3784.) He rebutted certain data presented by CAALE setting forth bromide and chloride concentrations distributed across various wells. Razem

testified that alkalinity increases with well depth because water acquires minerals from surrounding soil and rock as it moves downward. He opined that neutralizing factors in the mine spoil would be relatively small compared to increases in mineral concentration caused by leachate contamination, and, therefore, leachate contamination would not be masked by other factors. Based upon his analysis of "gradients" (groundwater levels and directions of flow), Razem testified that the bromide, chloride, and other ion concentrations were the result of existing site conditions stemming from past oil, gas, and coal extraction and did not support CAALE's theory that landfill leachate was contaminating local groundwater. (Tr. 3798-99, 3943.) The presence of old brine-injection wells, which for years had taken the brine produced by oil and gas wells and re-injected it into deep strata, accounted for much of the contaminants. (Tr. 3645.)

{¶ 46} Dobransky, EPA's geologist, testified that his review of the 2003 American Landfill PTI included the groundwater monitoring and control plans. This comprised part of the "hydrological site investigation report" prepared for the PTI application. (Tr. 4515.) Based on site surveys, he identified the various aquifer layers and their exposure to escaped leachate, and thus the monitoring patterns needed to detect contamination. (Tr. 4545-51.) When asked to give his ultimate conclusions regarding the monitoring wells and testing plan, Dobransky opined that the wells were in the proper location, in sufficient numbers, and bored to draw from the appropriate geological strata. (Tr. 4591-92.) As did Razem, Dobransky concluded that all of the testing evidence and water sampling demonstrated that any observed statistically significant increases in contaminants were caused by existing oil field brine and coal mining activity, rather than by landfill leachate. (Tr. 4600.)

{¶ 47} Again, this question resolves itself as a battle of experts in which we are not privileged to substitute our judgment for that of the expertise embodied in ERAC. While CAALE specifically attacks the placement of monitoring wells on the basis that their "downgradient" positions do not protect against "upgradient" flow generated by high hydrostatic pressures in the supposedly fluid filled old waste, this assertion relies on an assumption of fluid levels that ERAC could properly reject based on the evidence. We find that there was evidence before ERAC that supports the commission's conclusion regarding the risk presented by existing leachate in the landfill.

{¶ 48} Finally, we address CAALE's conclusion that the permit applications provide inadequate financial assurances regarding future environmental problems at the American Landfill site. In connection with the permits, American Landfill was required to perform calculations anticipating the cost of final closure of the expanded landfill site. Ohio Adm.Code 3745-27-06. These computations must be made based upon site specific information, Ohio Adm.Code 3745-27-06(C)(5)(i), and contain provisions for future leachate problems among other hazards, Ohio Adm.Code 3745-27-11(B)(10). CAALE argues that, because other aspects of permits do not account correctly for leachate in the landfill, the post-closure financial provisions are invalid. CAALE makes no other argument regarding these post-closure financial provisions. Because we have concluded that ERAC's order upholding the director's decision to grant permits is supported by reliable, probative, and substantial evidence and is in accordance with law with respect to the leachate and other permit requirements, the financial provisions are also in compliance with applicable regulations.

{¶ 49} In summary, we find that ERAC's order is supported by reliable, probative, and substantial evidence and is in accordance with law, and we affirm.

Order affirmed.

SADLER, P.J., and KLATT, J., concur.

VUKOVICH, J., of the Seventh Appellate District, sitting by
assignment in the Tenth Appellate District.
