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SUPERIOR COURT OF NEW JERSEY
APPELLATE DIVISION
DOCKET NO. A-0367-10T4

NEW JERSEY DEPARTMENT OF
ENVIRONMENTAL PROTECTION,
THE COMMISSIONER OF THE
NEW JERSEY DEPARTMENT OF
ENVIRONMENTAL PROTECTION,
and THE ADMINISTRATOR OF
THE NEW JERSEY SPILL
COMPENSATION FUND,

Plaintiffs-Appellants,

v.

ESSEX CHEMICAL CORPORATION,

Defendant-Respondent.

Argued January 10, 2012 – Decided March 20, 2012

Before Judges Messano, Yannotti and Espinosa.

On appeal from Superior Court of New Jersey, Law Division, Middlesex County, Docket No. L-5685-07.

A. Paul Stofa, Deputy Attorney General, argued the cause for appellants (Jeffrey S. Chiesa, Attorney General, attorney; Lewis A. Scheindlin, Assistant Attorney General, of counsel; Mr. Stofa, on the brief).

Alan E. Kraus argued the cause for respondent (Latham & Watkins, L.L.P., attorneys; Mr. Kraus, Kira S. Dabby, Kegan

A. Brown, and Shawn M. LaTourette, on the brief).

PER CURIAM

Plaintiffs, the New Jersey Department of Environmental Protection (DEP), the DEP Commissioner and the Administrator of the New Jersey Spill Compensation Fund, appeal from a judgment entered by the trial court on August 6, 2010, dismissing plaintiffs' complaint against defendant Essex Chemical Corporation (Essex). We affirm.

I.

In June 2007, plaintiffs commenced this action seeking, among other things, natural resource damages pursuant to the Spill Compensation and Control Act (Spill Act or the Act), N.J.S.A. 58:10-23.11 to -23.24. Plaintiffs sought primary restoration and compensatory restoration damages as a result of the discharge of hazardous substances on property that Essex previously owned in the Township of South Brunswick (Township). In addition, plaintiffs asserted claims based on nuisance and trespass. The court conducted a trial in the matter, sitting without a jury.

At the trial, evidence was presented which established that, from 1976 through 1984, Essex owned and operated a paper products preparation facility on an 11.4 acre site, which is designated as Block 91, Lot 14.03 on the Township's tax map. In

1985, Essex sold the property. However, before the sale, Essex identified various locations on the property where discharged hazardous, non-chlorinated and chlorinated chemicals had leaked into the soil and groundwater. Essex negotiated with the DEP's Site Remediation Program (SRP) to develop and implement a remediation plan for the contamination.

On the western side of the property, Essex had discovered that underground storage tanks had leaked non-chlorinated volatile organic compounds of benzene and toluene. From 1985 to 1992, with the SRP's approval and oversight, Essex removed the tanks, excavated the contaminated soil, and installed a pump-and-treat system to address the groundwater contamination.

Essex's efforts did not completely remediate the groundwater contamination because in 2001, the pump-and-treat system reached an "asymptotic mean," that is, the system stopped removing the contaminants when the levels of contaminants dropped to very low amounts. According to Joel S. Fradel (Fradel), the SRP's geologist who worked with Essex on the remediation of the site for about twenty years, pump-and-treat systems commonly reach an asymptotic mean.

Essex therefore proposed, and the SRP approved, the implementation of a new remediation plan involving in-situ chemical oxidation, which involves the injection of a reactive

solution into the groundwater to change the contamination into non-hazardous chemical by-products. Essex began to apply this technology in 2001. By May 2003, the SRP informed Essex that it was "very pleased" and "satisfied" with the results. Fradel testified that the in-situ chemical oxidation was totally effective, and the western side of the site had been cleaned up.

On the northern and eastern sides of the site, Essex had discovered chlorinated volatile compounds of tetrachloroethylene (PCE) and trichloroethylene (TCE) in the soil and groundwater. In 1992, with the SRP's approval, Essex implemented a soil vapor extraction system, thereby "vacuuming" the soil above the water table to remove contaminated vapors. This substantially reduced but did not completely eliminate the levels of contamination. In 1994, Essex proposed, and the SRP approved, changing the remediation plan to add a pump-and-treat system to clean the groundwater.

This dual phase system reached an asymptotic mean in December 2000, and Essex discontinued it. However, in February 2002, the contamination levels rebounded and Essex restarted the system, which reached another asymptotic mean in 2004. In May 2005, Essex proposed, and the SRP approved, the addition of in-situ bioremediation, which involves the injection of a slow-release substrate, similar to vegetable oil, into the subsurface

to encourage the growth of naturally occurring organisms to break down the contaminants over time.

Essex implemented this plan and the contamination in the soil and groundwater was reduced to "near or below" the pre-discharge restoration levels. Fradel testified that, although there was still minimal contamination in the bedrock, the SRP believed Essex had done what it needed to do with regard to on-site remediation. Essex had spent approximately $5 million on its remediation efforts. Fradel testified that he did not consider the length of time Essex took for remediation to be unreasonable.

Essex and the SRP thereafter focused on the PCE and TCE contamination that had migrated under the railroad tracks to Lot 14.07, an adjacent property that Essex never owned but agreed to remediate. In January 2008, Essex proposed implementing in-situ bioremediation to address any remaining contamination on its property and the contamination on Lot 14.07. Fradel testified that this system was faster, more cost effective and more reasonable at lowering and eliminating any contamination than a pump-and-treat system.

John Sacco (Sacco) is the administrator of the DEP's Office of Natural Resource Restoration (ONRR). Sacco testified that the ONRR had been established in the early 1990s. Its goals are to

restore the State's contaminated natural resources to the pre-discharge conditions in "a timely fashion" and ensure that the public "is made whole" for all injuries to these resources, their services and their uses. Sacco said that the ONRR works with the SRP to develop technical requirements for remediation and restoration.

Sacco explained, however, that the SRP's goal is to address human health concerns, while the ONRR independently seeks: (1) primary restoration damages to guarantee that the injured natural resource, including any lost or impaired uses or services, will be returned to its pre-discharge condition; and (2) compensatory resource damages to compensate the public for "the amount of time that its resource was contaminated" before it was returned to its pre-discharge condition.

To prove their claims for primary restoration damages, plaintiffs presented testimony from Dr. Charles Andrews, Ph.D. (Andrews) and Michael Rafferty (Rafferty). Andrews testified that Essex's remediation technologies had not succeeded in restoring the groundwater to its pre-discharge conditions, because low levels of contamination remained on the site and on Lot 14.07. He said that pump-and-treat systems were "one of the most commonly used remediation techniques," but both he and Rafferty opined that pump-and-treat was ineffective and never

completely removed all of the contamination even after decades of use.

Andrews and Rafferty developed a plan to restore shallow groundwater on the site to pre-discharge conditions within ten years. They proposed physically removing the contaminated groundwater and associated soils by excavation within a thirteen-acre contamination plume footprint, and then flushing the remaining areas of contamination with clean groundwater by using a groundwater extraction trench and perforated pipes running parallel to the plume for about 700 feet.

Gary Elmer Hokkanen (Hokkanen) determined the footprint for the contamination plume. Hokkanen testified that in his model, he gave Essex no credit for the volume of contamination that Essex had remediated. Hokkanen also explained that his model assumed that the only discharge of hazardous substances had occurred in 1977, although he later learned that the first discharge occurred in the 1980s.

Rafferty testified that it would cost $5.7 million to implement plaintiffs' proposed primary restoration plan. Andrews admitted that soil excavation was more expensive than other remediation technologies, such as bioremediation, but he said that "it works because the groundwater contamination is physically removed."

On their claim for compensatory restoration damages, plaintiffs presented testimony from David Chapman (Chapman), plaintiffs' expert in the field of natural resource economics and natural resource damages assessments. Chapman testified that there were two approaches that could be used to measure compensatory restoration damages. One is a valuation approach, which seeks to directly value the resource. The other is a resource compensation or resource-to-resource approach, which seeks to determine how much restoration would be needed to offset the natural resource injuries.

Chapman opined that the better approach is the resource compensation approach, called a "Resource Equivalency Analysis" (REA). Using that methodology, Chapman calculated that there are 8,798,072 gallons of injured and contaminated groundwater on the site. Chapman proposed that the DEP purchase 15.4 acres of land at a cost of $2,269,318. He projected that 570,798 gallons of groundwater would be protected from potential contamination for every acre of land the DEP was able to purchase with the damage award.

Chapman based his projected cost for the land purchase on a market analysis prepared by Joseph Baldoni (Baldoni), an appraiser and licensed real estate broker. Baldoni compiled market sales prices on undeveloped residential, commercial and

industrial properties of between five and fifty acres, within a twenty mile radius of the Township. Baldoni found eighty-one sales within those parameters. The median sale price was $157,626 an acre.

Scott Macdonald (MacDonald) testified for Essex as an expert in hydrogeology, groundwater investigations, and selection of remediation methodologies. MacDonald stated that plaintiffs' calculation of the contamination plume was overstated by four hundred percent. He said that additional soil extraction was unnecessary and would be ineffective. He also said that plaintiffs' proposed dewatering plan would become ineffective when it reached its asymptotic mean and another remediation technique would be required.

MacDonald further testified that Essex's in-situ bioremediation plan was a more effective treatment technology, because the slow release substrate can penetrate underground porous spaces and stimulate microorganisms that treat the contamination. MacDonald pointed out that this technology had already worked well on the site. He said that this was the most cost-effective plan and it could be re-applied as needed until the natural resources reached their pre-discharge conditions.

Essex also called William Desvousges, Ph.D. (Desvousges) as an expert in natural resource economics and damage assessments.

Desvousges opined that a natural resource's lost services and uses "play a critical role in damage assessment" and are a commonly accepted component of natural resources economics. He stated that compensable damages cannot be calculated unless the lost services and uses resulting from contamination are identified and quantified.

Desvousges said that, since the DEP had not identified any lost services or uses from the groundwater contamination on the site, the natural resource damages are "zero." He disagreed with Chapman's use of REA because it failed to identify or quantify the lost services and uses resulting from the contamination. Desvousges stated that REA is most commonly used for contamination that affects bird or fish populations.

Desvousges further testified that plaintiffs' proposed purchase of 15.4 acres to preserve groundwater was not a fair and appropriate measure of natural resource damages resulting from the injury to the subject property. He explained that plaintiffs had not proven that the use of the groundwater at the site actually had been lost. He stated that the acquisition of undeveloped land in other areas would provide natural resource uses and services beyond groundwater preservation and result in a windfall to plaintiffs.

II.

On July 23, 2010, the trial court filed a written opinion finding that plaintiffs had not met the burden of proof on their claims. With regard to the claim for primary restoration damages, the court stated that plaintiffs had failed to show why there is a need to remediate the site within ten years or why Essex's proposed bioremediation plan would not work within that timeframe. The court wrote:

> Although there has been an injury to the groundwater itself, the contamination has not affected any flora or fauna nor has it affected the health and/or safety of the people of this State. Primary restoration efforts made by Essex have been approved by SRP and have been shown to be effective. There is no compelling reason as to why remediation of this particular site should be expedited.

The court additionally found that plaintiffs had not carried their burden of proof on the claim for compensatory restoration damages. The court found Chapman's analysis to be unconvincing, noting that the figures he used to estimate the cost of the land were not justified.

The court wrote that Chapman's "computation was based on asking prices for residential, commercial, and industrial real estate between five and [fifty] acres in size within a [twenty]-mile radius of South Brunswick Township." The court found that this data was "inaccurate and insufficient."

The court said that if the damages were to compensate the public for its loss of the resources, "the damages should reflect or be equivalent to the loss. The court stated:

> The cost of residential and commercial real estate should not be part of a computation for an industrial site. Values for residential and commercial land are presumably going to be vastly different and more expensive than industrial land. A purchase for land cannot be based upon such untailored and broad hypothetical calculations. Many other factors should have been taken into account including, but not limited to, zoning, utilities, location, [and] tax rate. While the compensation need not necessarily be the cheapest land available, it should at least be comparable to the land that is injured. To adopt [Chapman's calculations] as to the land acquisition plan would be to risk granting a windfall to the State.

The court also stated that Chapman's testimony "was not particularly enlightening" as to why REA would be appropriate in this case. The court noted that Chapman had not identified any comparable cases in which REA had been applied.

The court wrote that the public should be compensated for losses that are not use-related when the area affected holds some "inherent value." Thus, REA could be applied where there are concerns pertaining to wildlife and human health. The court said that wildlife does not have an assessable monetary value but are "important to the ecological health of the State." This would be a "true harm or loss" for which the public should be

compensated. The court found, however, that in this case, "no such harm or loss can be identified."

The court entered an order of judgment dated August 6, 2010, finding that plaintiffs had not met their burden of establishing that they are entitled to primary or compensatory restoration damages. This appeal followed.

III.

Plaintiffs argue that the trial court erred in rejecting their claims. We do not agree.

The Spill Act was enacted as "'a pioneering effort by government to provide monies for a swift and sure response to environmental contamination.'" N.J. Dep't. of Envtl. Prot. v. Exxon Mobil Corp., 393 N.J. Super. 388, 398 (App. Div. 2007) (quoting Marsh v. N.J. Dep't of Envtl. Prot., 152 N.J. 137, 144 (1997)). The Act declares that the State is "the trustee, for the benefit of its citizens, of all natural resources within its jurisdiction." N.J.S.A. 58:10-23.11a.

The Act provides that persons who are responsible for the discharge of hazardous substances are strictly liable, without regard to fault, for all cleanup and removal costs. N.J.S.A. 58:10-23.11g(c)(1). The term "cleanup and removal costs" is defined in the Act as "all direct costs associated" with the

discharge of a hazardous substance, as well as those "indirect costs" incurred in the

> (1) removal or attempted removal of hazardous substances, or (2) taking of reasonable measures to prevent or mitigate damage to the public health, safety, or welfare, including, but not limited to, public and private property, shorelines, beaches, surface waters, water columns and bottom sediments, soils and other affected property, including wildlife and other natural resources . . . .
>
> [N.J.S.A. 58:23.11b.]

The Act therefore allows the State to seek damages for the cost of "remediation." Exxon Mobil, supra, 393 N.J. Super. at 406. The Act also allows the State to seek damages for primary restoration damages, which is the cost to restore natural resources to their pre-discharge conditions. Ibid. In addition, the Act permits the State to recover compensatory restoration damages for the ecological services and values lost as a result of the discharge. Ibid. Compensatory restoration damages include damages for the loss of use of a natural resource. Id. at 410.

Here, it is undisputed that, during the time it owned the subject property, hazardous substances were discharged on Essex's property. Essex does not dispute its responsibility for remediation of the hazardous substances that contaminated the property it owned and those that migrated to the adjacent property. Indeed, the record shows that during the past twenty-

six years, with the oversight and approval of the SRP, Essex spent $5 million to investigate and remediate the contamination.

Moreover, Essex was committed to spending about $500,000 for additional on-site bio-remediation, as well as about $180,000 to $190,000 for off-site bio-remediation. Plaintiffs nevertheless sought in this case to require Essex to pay $8 million in natural resource damages, specifically, $5.7 million in primary restoration damages and $2.3 million in compensatory restoration damages. The trial court found that plaintiffs failed to carry their burdens of proof on these claims.

It is well established that findings of fact of a trial judge sitting without a jury are binding on appeal when supported by "adequate, substantial and credible evidence." Rova Farms Resort, Inc. v. Investors Ins. Co. of Am., 65 N.J. 474, 484 (1974). We will not disturb the trial court's findings unless we are convinced "'that they are so manifestly unsupported by or inconsistent with the competent, relevant and reasonably credible evidence as to offend the interests of justice[.]'" Ibid. (quoting Fagliarone v. Twp. of N. Bergen, 78 N.J. Super. 154, 155 (App. Div.), certif. denied, 40 N.J. 221 (1963)).

Furthermore, an appellate court will not "'engage in an independent assessment of the evidence as if it were the court

of first instance.'" In re Taylor, 158 N.J. 644, 656 (1999) (quoting State v. Locurto, 157 N.J. 463, 471 (1999)). We will defer to the trial court's findings so long as "'there is sufficient credible evidence in the record to support the findings.'" Brunson v. Affinity Fed. Credit Union, 199 N.J. 381, 397 (2009) (quoting State v. Adams, 194 N.J. 186, 203 (2008)). However, we need not defer to the trial court's interpretation of the law or its assessment of the legal consequences that flow from established findings of fact. Manalapan Realty, L.P. v. Twp. Comm. of Manalapan, 140 N.J. 366, 378 (1995).

A. Primary Restoration Damages.

Plaintiffs argue that the trial court erred by rejecting their claim for primary restoration damages. They argue that they presented sufficient evidence to support an award of damages required to return the subject properties to their pre-discharge conditions in a more timely manner than the bioremediation plan proposed by Essex. Plaintiffs therefore contend that the court should have awarded them $5.7 million to implement their plan.

We are satisfied, however, that the trial court did not err by refusing to award plaintiffs the primary restoration damages they sought in this case. Here, the record shows that plaintiffs had proposed a plan to restore the groundwater on the site to

pre-discharge conditions within ten years. On the other hand, Essex proposed to employ the bioremediation technology that the SRP had previously approved and which had been successfully used to reduce the levels of contamination on the property that Essex formerly owned. Essex was not, however, certain as to the time that it would take for its plan to work.

The trial court found that the plaintiffs failed to establish that they were entitled to damages to restore the property to pre-discharge conditions in the expedited ten-year timeframe. The court found that plaintiffs had not shown that their proposed plan would justify the cost, or that the public would be harmed if Essex proceeded with its bioremediation plan. We are satisfied that there is sufficient credible evidence in the record to support the court's findings.

Plaintiffs nevertheless argue that the trial court failed to give them the deference that is owed to them as trustees of the State's natural resources and as the parties responsible for interpreting and implementing the Spill Act. The trial court recognized the State's unique role under the Spill Act and plaintiffs' right to seek natural resource damages for contamination resulting from the discharge of hazardous substances. The trial court correctly determined, however, that plaintiffs' role as trustees of the State's resources and their

responsibilities under the Spill Act did not relieve them of their burden of proof on the issue of damages. Caldwell v. Haynes, 136 N.J. 422, 436 (1994).

Thus, plaintiffs were required to establish by a preponderance of the credible evidence that their expedited remediation plan should be implemented rather than Essex's plan. As the trial court found, plaintiffs failed to do so. Plaintiffs did not show that there was a need to restore the properties to pre-discharge conditions within ten years, particularly when there was no evidence showing that the hazardous substances remaining on the properties were causing harm to any of the flora and fauna or posed any threat to the public health, safety or welfare.

The trial court also correctly noted that Essex had been working with the SRP for more than two decades to remediate the contamination and had implemented its remediation technologies with SRP's oversight and approval at a cost of about $5 million. SRP had not expressed any concern as to the pace of Essex's remediation efforts, nor had it required Essex to remediate the site in an expedited timeframe. Moreover, plaintiffs failed to establish that Essex's proposed bioremediation plan would not work.

Plaintiffs further argue that the trial court's ruling gives defendant no incentive to achieve pre-discharge levels within any particular timeframe. Plaintiffs contend that Essex's plan might take as long as twenty-five years to reach pre-discharge conditions. They assert that New Jersey's citizens should not face the prospect of having "injured groundwater" on the site for such a long period of time.

The trial court found, however, that plaintiffs had not shown that the contamination had affected any flora or fauna or adversely affected the public health, safety or welfare. The court additionally found that plaintiffs had not shown how the benefits of their remediation plan would justify its cost or that it would be harmful to permit Essex to implement its bioremediation plan.

We are convinced that the record fully supports the trial court's findings and the conclusion that plaintiffs had not carried their burden of proof on primary restoration damages.

B. Compensatory Resource Damages.

Plaintiffs further argue that the trial court erred by failing to award them compensatory restoration damages. They maintain they are entitled to recover $2.3 million in damages to compensate the public for the amount of time that the soil and groundwater on the subject properties here had been

contaminated, without regard to whether the public has lost any quantifiable services or benefits as a result of the contamination.

We are satisfied that the trial court did not err by refusing to award plaintiffs compensatory restoration damages. Notwithstanding plaintiffs' arguments to the contrary, the court was not required to accord their experts any special deference particularly where, as here, their opinions were based on economic rather than environmental factors.

Furthermore, the trial court did not require plaintiffs to identify or quantify lost services or uses resulting from the contamination, as plaintiffs suggest. In fact, the trial court agreed with plaintiffs' contention that the Exxon Mobil "decision does not state that compensatory restoration claims are limited solely to loss of use damages."

The trial court also did not find "that there is no inherent value in the groundwater," as plaintiffs maintain. Instead, the court found that an award of compensatory restoration damages was not warranted based on the expert testimony that plaintiffs presented at trial. The record supports that determination.

As we have explained, Chapman used REA to determine the amount of property that should be acquired to offset the

injuries to the resources at issue here. The court found that Chapman's REA analysis was flawed and unconvincing. The court noted that REA is ordinarily used in the context of injury to wildlife, where it is almost impossible to quantify lost services or use. Plaintiffs failed to establish a basis for using that analysis in this case.

The court also noted that, in his analysis, Chapman had relied on Hokkanen's calculations of the total volume of contaminated groundwater on the site. The court pointed out that MacDonald testified that Hokkanen's groundwater volumes were "vastly overstated" for many reasons, the most significant of which was a mistake regarding the porosity of the bedrock on the site. This reduced Hokkanen's calculation of 1.9 billion gallons of contaminated groundwater to less than 20 million gallons.

The court additionally found that, if accepted, Chapman's analysis would potentially have provided plaintiffs with a windfall because he did not make any adjustment for the different types and quality of services provided by the undeveloped land that would be acquired. The court pointed out that, in addition to groundwater protection, open space provides recreation areas for the public as well as habitats for wildlife. Thus, Chapman's analysis would impose upon Essex costs

that were not reasonably related to the injuries resulting from the contamination.

Furthermore, Chapman had estimated the cost to implement his proposed land acquisitions based upon Baldoni's statistical analysis of the prices of recent sales of undeveloped properties zoned for commercial, residential, and industrial use within a twenty-mile radius of the Township. Baldoni testified, however, that his analysis did not provide a sufficient basis to put a value on a hypothetical piece of property. Baldoni additionally testified that zoning, location, utilities, tax rates and aesthetics all affect the price of land. These factors had not been considered.

The trial court therefore found that Chapman's analysis was "inaccurate and insufficient." The court observed that the damages should "reflect or be equivalent to the loss." Chapman's analysis did not meet this goal. The court stated that the cost of residential and commercial real estate should not be part of the analysis here because this was an industrial site.

The court also stated that the proposed purchase of land "cannot be based on such untailored and broad hypothetical calculations." The court noted that other factors, such as zoning, utilities, and location, should have been taken into account. The court stated that, while the compensation need not

be based on the cheapest land available, there must be some comparability to the injured land. The court concluded that the State would potentially receive a windfall if Chapman's flawed analysis was adopted.

It is well settled that when a trial judge is sitting without a jury, the judge is free to accept or reject, in whole or in part, the testimony and opinions of one qualified expert over that of another. Maudsley v. State, 357 N.J. Super. 560, 586 (App. Div. 2003); Brown v. Brown, 348 N.J. Super. 466, 478 (App. Div.), certif. denied, 174 N.J. 193 (2002). "[T]he weight to be given to the evidence of the experts is within the competence of the fact-finder." LaBracio Family P'ship v. 1239 Roosevelt Ave., Inc., 340 N.J. Super. 155, 165 (App. Div. 2001).

We are satisfied that there is sufficient credible evidence in the record to support the court's findings. The court reasonably determined that Chapman's expert analysis was not credible. We accordingly conclude that the record supports the trial court's determination that plaintiffs failed to carry their burden of proof on compensatory restoration damages.

Affirmed.