

NO. COA98-562

NORTH CAROLINA COURT OF APPEALS

Filed: 2 March 1999

LARRY M. DAVIS and wife, SUE DAVIS; RANDY MANN, individually and d/b/a RANDY'S AUTO SALVAGE; JOSEPH WRENN and wife, ANNETTE WRENN; INTERSTATE NARROW FABRICS; LOGAN CRUTCHFIELD, individually and d/b/a CRUTCHFIELD'S MOBILE CRUSHER,
Plaintiffs,

v.

THE CITY OF MEBANE, NORTH CAROLINA; THE CITY OF GRAHAM, NORTH CAROLINA; and W.M. PIATT & COMPANY,
Defendants.

Appeal by plaintiffs from orders entered 23 February 1998 by Judge J. B. Allen, Jr. in Alamance County Superior Court. Heard in the Court of Appeals 4 January 1999.

Plaintiffs are property and business owners in Haw River, North Carolina whose homes and businesses are located downstream from Back Creek Dam ("the dam") and the Graham-Mebane Reservoir formed by the dam. The dam was designed by defendant W.M. Piatt & Company ("Piatt") and construction was completed in 1991. Plaintiffs assert that since the dam was completed, plaintiffs have suffered repeated flooding of their properties and businesses. The City of Mebane and The City of Graham ("municipal defendants") own and operate the dam.

Plaintiffs initiated this action 25 February 1997. Plaintiffs alleged that the flooding was proximately caused by the negligent design and location of the dam. Plaintiffs filed their amended complaint 15 October 1997 alleging causes of action for inverse condemnation, negligence against defendant Piatt and

against the municipal defendants as an alternative to the inverse condemnation claim, nuisance against the municipal defendants as an alternative to the inverse condemnation claim, and an action for injunctive relief seeking an order that municipal defendants operate the dam with an appropriate flood storage capacity.

On 30 October 1997 defendants jointly moved for summary judgment. In response, plaintiffs filed witness affidavits, floodplain maps, rainfall records, photographs and maps produced by defendants in discovery, and the deposition and affidavit testimony of plaintiffs' experts. On 30 January 1998 defendants jointly moved to strike "the opinions expressed in the 'Back Creek Flood Study' submitted by Barrett Kays & Associates, P.A." When defendants' motions were heard on 9 February 1998, defendants orally amended their Motion to Strike to strike also the opinions expressed in the Joint Affidavit of Barrett Kays and John Harris. Defendants argued that the opinions should be "either stricken or ignored because they are unreliable, conclusory, and not properly supported."

On 23 February 1998 the trial court determined that the opinions were not reliable, were conclusory, lacked factual support and were "shown by the record to be contrary to uncontradicted facts." The trial court found that the experts' conclusions were "dependent upon the appropriateness of comparing [to one another] the water flow numbers . . . derived in . . . two earlier studies." The trial court noted that the authors of the two earlier studies "used different methodologies" in calculating their water flow rate numbers. The trial court

concluded that the “[p]laintiffs have failed to show that there is any recognized scientific basis or logical rational [sic] for comparing [to one another] the water flow numbers derived in these two earlier studies.” Based on these findings the trial court granted defendants’ motion to strike. The trial court then determined that there were no material issues of fact and granted defendants’ motion for summary judgment. Plaintiffs appeal.

Womble Carlyle Sandridge & Rice, PLLC, by Allan R. Gitter and Jack M. Strauch, for plaintiff-appellants.

Poyner & Spruill, L.L.P., by Keith H. Johnson, for defendant-appellees The City of Mebane and The City of Graham.

Ragsdale, Liggett & Foley, by Peter M. Foley, for defendant-appellee W.M. Piatt & Company.

EAGLES, Chief Judge.

We first consider whether the trial court abused its discretion in granting defendants’ motion to strike Dr. Barrett Kays’ and John Harris’ expert testimony. Plaintiffs first argue that “both Kays and Harris are amply qualified to testify as to their opinions about whether the dam caused the flooding.” According to plaintiffs, Dr. Kays has a Ph.D. in soil science and has experience and training in soil science, ground absorption systems and hydrology. Harris is a licensed professional engineer who specializes in hydraulics and has experience designing dams and conducting flood studies. Plaintiffs next argue that the methodology underlying the experts’ opinion was sufficiently reliable. Plaintiffs contend that the experts used

"established techniques" and "conducted significant independent research into the cause of the flooding." Additionally, plaintiffs argue that the studies relied upon by plaintiffs' experts were subjected to substantial peer review. Plaintiffs contend that the study conducted by Kays and Harris has sufficient indicia of reliability and any "perceived flaws in the testimony . . . are matters properly to be tested in the crucible of adversarial proceeding; they are not the basis for truncating that process." *United States v. 14.38 Acres of Land*, 80 F.3d 1074, 1078 (5th Cir. 1996). Finally, plaintiffs argue that Kays' and Harris' opinions were relevant and would assist the trier of fact.

_____ Defendants argue that the trial court did not abuse its discretion in striking the plaintiffs' experts' opinion testimony. First, defendants assert that the experts' opinions were inconclusive, since they stated that there was a "possible relationship" between the flooding and the dam. Additionally, defendants contend that the experts' testimony was not reliable because their conclusion that the dam increased flooding was based upon the validity of comparing water flow rates generated by others using "dramatically different methodologies."

Defendants also argue that the trial court did not abuse its discretion in striking plaintiffs' experts' opinion that the reservoir lacked a normal flood storage capacity because there was no explanation for how the experts reached the opinion, and the "unexplained opinion was refuted by uncontradicted facts." Accordingly, defendants argue that the opinion was conclusory.

____After careful review of the record, briefs and contentions of all the parties, we affirm. The admissibility of scientific testimony or evidence is governed by Rules 702 and 703 of the North Carolina Rules of Evidence.

Implicit in these rules is the precondition that the matters or data upon which the expert bases his opinion be recognized in the scientific community as sufficiently reliable and relevant. "Whether scientific opinion evidence is sufficiently reliable and relevant is a matter entrusted to the sound discretion of the trial court.

State v. Spencer, 119 N.C. App. 662, 664, 459 S.E.2d 812, 814, *disc. review denied*, 341 N.C. 655, 462 S.E.2d 524 (1995) (citations omitted). The trial court determined that the experts' testimony was not reliable. There is evidence in the record to support the trial court's finding. First, defendants' experts, Benjamin Wilson and Everette Knight, testified that Harris' study utilized water flow rates which were based on dramatically different methodology, and that "it should have been immediately and readily apparent to any competent engineer that any comparison of the water flow rates . . . is invalid and fundamentally flawed, and thus, that any conclusions drawn from such a comparison would be erroneous, misleading and unreliable." Second, the trial court determined that plaintiffs' experts' opinion that the dam project proximately caused the flooding because the reservoir flood storage capacity was not normal was conclusory because plaintiffs' experts provided no explanation or support for their opinion. Additionally, defendants' experts gave uncontradicted testimony that the flood storage capacity was increased substantially by the dam and reservoir. Accordingly,

we find no abuse of discretion. The assignment of error is overruled.

We next consider whether the trial court erred in granting summary judgment for defendants. Plaintiffs assert that expert testimony is not necessary to prove causation in this case, and that lay testimony is competent to establish proximate cause. Plaintiffs argue that there was sufficient competent evidence of causation to create a genuine issue of fact as to whether the dam project caused the recurring floods. Plaintiffs cite lay testimony that the dam was the only significant change in the watershed; the absence of floods before the dam and the emergence of recurring floods after it was built; that rainfalls both before and after the dam have been the same; and that rainfalls less than half the 100-year rain resulted in floods well beyond the 100-year floodplain as it existed before the dam was built. Plaintiffs also cite testimony of an admission by an employee of municipal defendants that the municipal defendants had the power to prevent the flooding by diverting the water, but did not do so because they wanted to keep the reservoir full to accommodate recreation.

Defendants argue that expert testimony is necessary to establish causation here because "a layman could have no well-founded knowledge on that issue and would be required to speculate." Defendants assert that lay testimony that there was no flooding before the dam was built and significant flooding after the dam was built is not sufficient to survive a motion for summary judgment. Defendants contend that they have shown by

"uncontroverted expert testimony . . . that the Dam decreased waterflow upstream from the Plaintiffs" and "[a]t most, plaintiffs have shown that, if they suffered any abnormal flooding, it was created by a condition downstream from [plaintiffs'] residences and places of businesses which caused water to back-up onto their properties." Accordingly, defendants argue that summary judgment was properly granted.

____We find defendants' arguments persuasive and hold that expert testimony is necessary to prove causation in this case.

There are many instances in in [sic] which the facts in evidence are such that any layman of average intelligence and experience would know what caused the injuries complained of . . . Where, however, the subject matter . . . is 'so far removed from the usual and ordinary experience of the average man that expert knowledge is essential to the formation of an intelligent opinion, only an expert can competently give opinion evidence as to the cause of . . . [the] condition.'

Gillikin v. Burbage, 263 N.C. 317, 325, 139 S.E.2d 753, 760 (1964) (citations omitted). Here, lay testimony would not be sufficient to explain changes in the watershed or in the downstream water flow. Accordingly, we find that "[c]ausation of flooding is a complex issue which must be addressed by experts." *Hendricks v. United States*, 14 Cl.Ct. 143, 149 (1987) (citing *Herriman v. United States*, 8 Cl.Ct. 411, 420 (1985)). Because plaintiffs failed to present sufficient expert evidence regarding the element of causation, we affirm the order of summary judgment.

Because of our determination of the above issue, we need not address the remaining issue on appeal.

Affirmed.

Judges MARTIN and McGEE concur.