

**IN THE SUPREME COURT OF APPEALS OF WEST VIRGINIA**

**No. 33710**

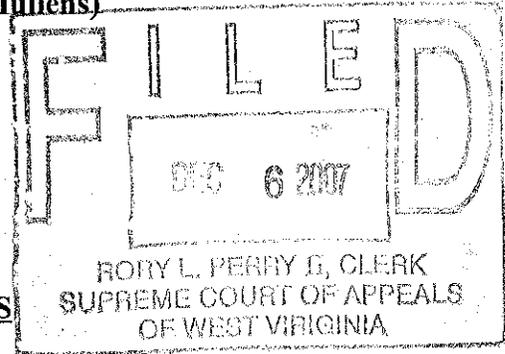
**IN RE: FLOOD LITIGATION**

**Raleigh County Civil Action No: 02-C-797**

**Honorable John A. Hutchison, Mass Litigation Panel**

**(Upper Guyandotte River Watershed Subwatershed 2a - Mullens)**

**BRIEF OF APPELLANTS**



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## I. INTRODUCTION

A jury in Raleigh County, West Virginia, properly instructed on the reasonable use rule regarding surface water, considered a vigorous debate presented in the courtroom where they worked during the months of March, April and May, 2006. The debate raged over whether it is reasonable for a landowner to fail to consider potential surface water runoff consequences resulting from the land disturbing activity of timbering in a steep, mountainous subwatershed with streams and tributaries situated such that the entirety of the subwatershed drains directly to the populated town and community of Mullens, West Virginia, where some 2,000 people live, work, play, worship and go to school.

Specifically, the jury considered the Slab Fork subwatershed of the Mullens watershed. The jury heard evidence that in 1999 there were 7,315,000 board feet of timber harvested; in the year 2000 some 6 million board feet of timber harvested; and from January 1 through July 30, 2001, some 2.9 million board feet harvested. The jury considered that such harvested board feet did not account for all the harvested timber, as it did not include less valuable pulpwood harvested for items such as pressboard and cardboard.

Furthermore, the jury considered that in the Slab Fork subwatershed, consisting of some 22,650 acres, about forty percent of the land had been disturbed by timbering managed by the Appellees, and another 5% disturbed by others. The jury considered that timbering activities require haul roads, skid roads and log landings. The jury heard that at least 250 miles of roads were cut through the steep mountainous terrain in the subwatershed that drained to the community of Mullens.

The jury considered that a healthy forest floor can absorb nineteen inches of water an hour by infiltration. The jury heard that there was a heavy rain event on July 8, 2001, that ranged in intensity through the watershed from three-and-a-half to six inches of rain in an eight to twelve hour

period. The jury heard that the Appellees followed West Virginia forestry "Best Management Practices" (hereinafter "BMP's") implemented for sediment control.

The jury considered basic, universally accepted engineering principles regarding the rate, speed and flow of water over land surfaces from the testimony of Plaintiff/Appellant's experts who are not foresters, but rather, are engineers who regularly use and apply engineering principles to determine how land disturbances cause changes in water movement.

The jury considered the testimony of Defendant/Appellees' expert foresters. They heard the criticism of the engineering applications and heard the argument that the engineers are wrong because forests are different from other land surfaces. The defense was that forests are so unique that the universally accepted engineering principles simply do not apply to forest land disturbances as they affect the rate and speed of water flow.

The jury considered what it did not hear from Defendant/Appellees. The jury did not hear anything about what is done in timbering and harvesting to consider and adjust for water movement changes resulting from land disturbances in the forest. Instead, the jury was required to consider that nothing applied. The defense position presented to the jury was that in timbering, due to the purported characteristics of eastern hardwood forests, one who conducts timbering simply does not need to consider the land disturbing impacts of water runoff. One does not need to think about how the watershed drains into a community. One does not need to consider how the downhill community at the end of the drain may be affected by the disturbance of some 40 percent of the land surface. The defense was that one engaged in timbering does not need to consider or address how changes to the land affect the neighbors down the hill.

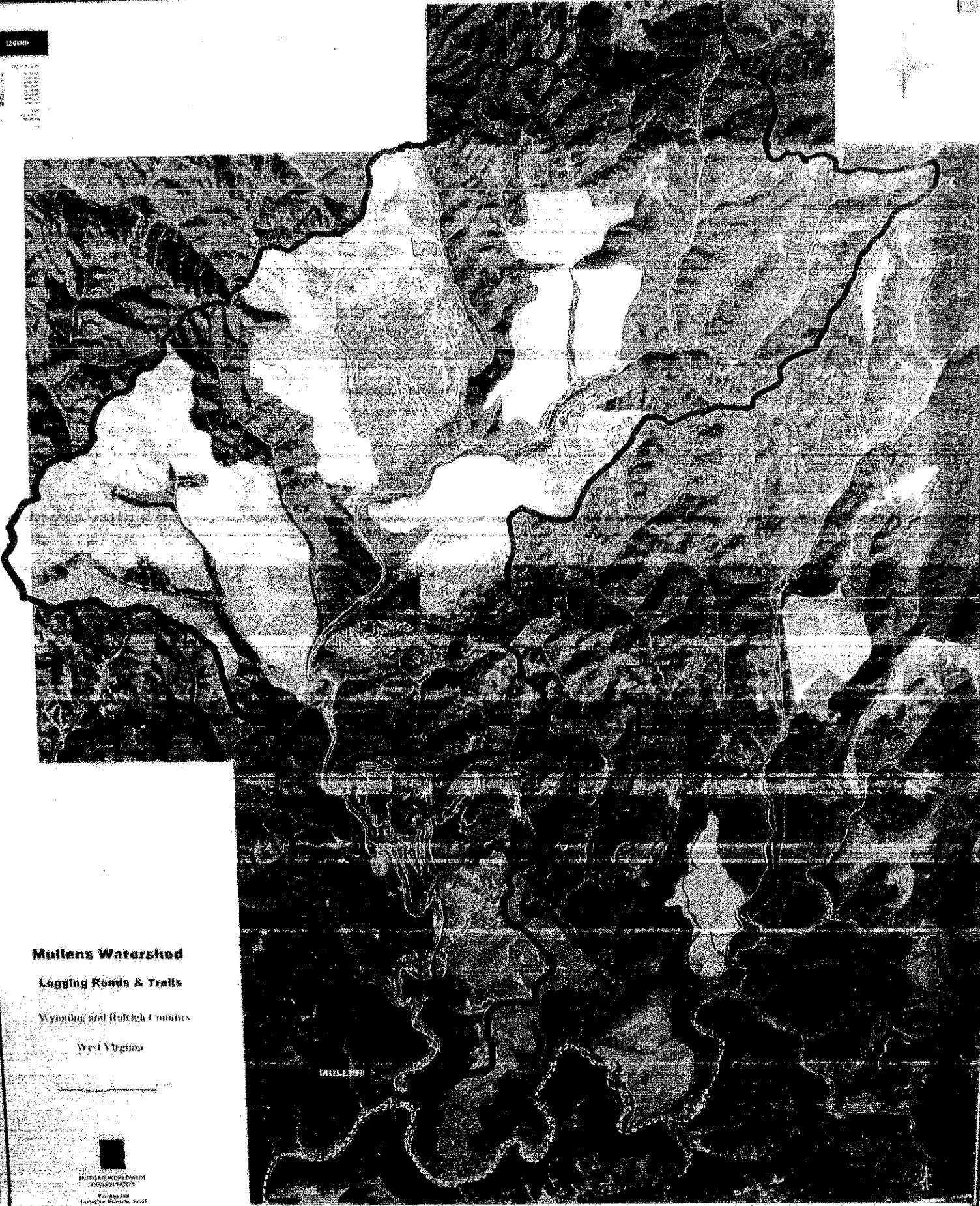
At the end of the day, the jury rejected the “head-in-the-sand” approach of the timbering defendants. The Defendants/Appellees did absolutely nothing to contemplate or determine whether the people in the downstream community would be affected by changes in the rate and speed of water flow if one cuts roads, takes timber, and disturbs some 40 percent of the mountainside terrain within a subwatershed. It must be noted that this case is not about whether timbering and its attendant land disturbances is reasonable per se. Rather, it raises the question of the reasonableness of the amount of timbering and disturbance under specific circumstances consisting in part of a steep subwatershed that drains directly to a downhill populated community.

Approximately one year after the trial of this matter the trial court judge determined that he made trial “management mistakes” because he did not understand the “complexities” involved in the litigation. In so determining, he entered an Order depriving the Plaintiff/Appellants of their verdict. He discounted and rejected the work of the people who made up the jury.

In order to appreciate the facts, law and argument that follow, one must have a visual overview of the land and community at issue . What follows is a graphic depiction admitted at trial as Plaintiffs’ Exhibit Number 54. The graphic is imposed on photographs of the watershed taken in the Spring of 2003. The town of Mullens is depicted at the bottom of the Mullens watershed and the Slab Fork subwatershed. For purposes of this Brief, we have drawn a bold outline of the SlabFork subwatershed as it was the only area ultimately at issue before the jury. All the areas in color indicate timbering activities on property owned, managed and operated by the Defendant/Appellees. The yellow lines represent connected haul roads cut in the forest floor. These “road” lines are not to scale. The following legend taken from Exhibit 54 indicates the harvested areas by color and corresponding year.

LEGEND

- 1. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12. 13. 14. 15. 16. 17. 18. 19. 20. 21. 22. 23. 24. 25. 26. 27. 28. 29. 30. 31. 32. 33. 34. 35. 36. 37. 38. 39. 40. 41. 42. 43. 44. 45. 46. 47. 48. 49. 50. 51. 52. 53. 54. 55. 56. 57. 58. 59. 60. 61. 62. 63. 64. 65. 66. 67. 68. 69. 70. 71. 72. 73. 74. 75. 76. 77. 78. 79. 80. 81. 82. 83. 84. 85. 86. 87. 88. 89. 90. 91. 92. 93. 94. 95. 96. 97. 98. 99. 100.



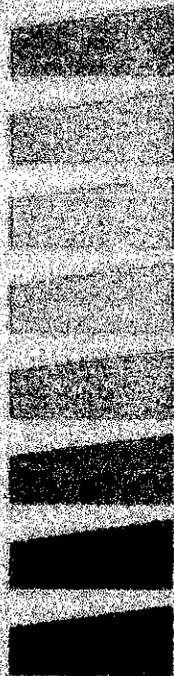
**Mullens Watershed**  
**Logging Roads & Trails**  
Wyoming and Raleigh Counties  
West Virginia

Scale: 1 inch = 1 mile

WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL AFFAIRS  
2000-01-15  
Map No. 300  
Scale: 1 inch = 1 mile

# LEGEND

## Logging Roads & Trails



Harvest-1994

Harvest-1995

Harvest-1996

Harvest-1997

Harvest-1998

Harvest-1999

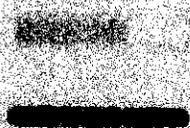
Harvest-2000

Harvest-2001

Stream

Guyandotte River

Subwatershed



Town



## **II. THE KIND OF PROCEEDING AND NATURE OF THE RULING IN THE CIRCUIT COURT OF RALEIGH COUNTY, WEST VIRGINIA**

Appellants here consist of individual landowners represented by The Segal Law Firm, who reside in Mullens, Wyoming County, West Virginia. Unlike thousands of other Plaintiffs, the Appellants brought an action solely against Western Pocahontas Corporation and Western Pocahontas Properties, LLP, for damages sustained in the flooding that followed a heavy rainstorm event on July 8, 2001<sup>1</sup>. These Appellants filed their Complaint in Wyoming County, West Virginia on June 10, 2003 alleging claims of negligence, intentional and unintentional private nuisance, public nuisance, prospective nuisance, trespass, recklessness or gross negligence, intentional infliction of emotional distress, negligent infliction of emotional distress and punitive damages<sup>2</sup>.

After various proceedings and over strenuous objection, the Appellants were lumped into a watershed group consisting of thousands of other Plaintiffs who sued large numbers of landowners, coal operators, timber companies, and oil and gas companies alleging that land-disturbing activities caused and/or contributed to the extent of flooding and resulting widespread damage across southern West Virginia. These Appellants were then forced to trial, over objection, as part of a larger watershed group, not in their home county where the land-disturbing acts and resulting damage complained of occurred, or where they resided and where the damage was done, but rather, in Raleigh County.

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<sup>1</sup>Other Plaintiffs filed a Petition for Appeal which was granted and assigned docket number 33711. The Appellants herein adopted and incorporated the issues raised and arguments set forth by those Plaintiffs in their Petition for Appeal.

<sup>2</sup>On July 1, 2003, an Amended Complaint was filed adding additional named plaintiffs and a defendant related to the other defendants, which defendant was subsequently dismissed.

The trial was bifurcated with Phase I occurring in March, April and May of 2006, with the Honorable John A. Hutchison presiding. The trial plan was adopted on January 26, 2006, over the objections of all parties. At the start of the trial, there were two watersheds involved, 28 defendants and four groups of plaintiffs consisting of those represented by (1) The Segal Law Firm, (2) The Calwell Practice, (3) James F. Humphreys and Associates, and (4) Warren R. McGraw, II. By the conclusion of the trial, due to confidential settlements and dismissals, the only remaining defendants were Western Pocahontas Properties, LLP and Western Pocahontas Corporation which, though separately sued, are related corporations, and the Appellees herein and who will be referred to hereafter as "Western Pocahontas."

As the trial court framed the action, the jury was required to answer three questions:

1. Whether, as to each Defendant's individual operation or operations, the Defendant's use of its property materially increased the peak rate of surface water runoff leaving that operation as a result of the storm events on or about July 8, 2001, compared to the rate of peak surface water runoff that would have left the operation but for the Defendants' use of that property, and if so;
2. Whether the water from the individual Defendant's operations materially caused or contributed to, the stream or streams into which they discharged to overflow their banks, and;
3. Regardless of the findings made in 1 and 2 above, whether the Defendant's use of the property in question was unreasonable under the circumstances set forth by the Supreme Court of Appeals in the case of In Re: Flood Litigation, 216 W.Va. 534, 607 S.E.2d 863 (2004).

On May 2, 2006, the jury returned their verdict and found that Western Pocahontas had materially increased the peak flow from its operations, that the peak flow materially caused the streams into which the discharge ran to overflow their banks, and that the use of their land was unreasonable.

Western Pocahontas sought relief by way of a Motion for Judgment as a Matter of Law or For a New Trial. Without hearing, on March 15, 2007, the trial court entered an Order striking the testimony of Appellants' expert witnesses and granting Western Pocahontas's Motion for Judgment as a Matter of Law.

The trial court also proceeded to award a conditional grant of Western Pocahontas's Motion For a New Trial under Rule 59 of the West Virginia Rules of Civil Procedure on six grounds. First, the trial court judge adopted his rulings regarding the experts and found that the Appellants' experts were not qualified to testify under Rule 702 of the West Virginia Rules of Evidence and Wilt v. Buracker, 191 W.Va. 39, 443 S.E.2d 196 (1993). Second, the trial court found that the jury was "very likely overwhelmed by devastatingly prejudiced evidence" which was rendered irrelevant by the settlements and dismissals of other defendants. Third, the trial court found that its exclusion of proffered evidence of flooding of the Twin Falls State Park golf course tending to show that areas purportedly not timbered also experienced flooding, when viewed in conjunction with the trial court's other "management errors" had a "cumulative effect" that "expanded exponentially" to significantly deny Western Pocahontas a fair trial.

Fourth, the trial court found that anecdotal comments and references to deaths resulting from the flood when tied with the "other errors" denied Western Pocahontas a fair trial and encouraged the jury to resort to passion and sympathy. Fifth, the trial court found that it erroneously admitted

what is known as the "FATT report" into evidence. This report was prepared by the Flood Advisory Technical Task Force, which consisted of a group of experts appointed after the July 8, 2001 flood by then-Governor Wise to study the effects of timbering and mining on flood events in southern West Virginia.

Sixth, the trial court found that the verdict was against the clear weight of the evidence. Specifically, the trial court usurped the jury and found that "the Defendants' evidence in opposition to the Plaintiffs' position should have carried greater weight and should have created in the minds of fair and reasonable jurors a belief that the position proffered by the Defendants was in fact the better evidence presented with regard to what happened on July the 8th, 2001." Order at 44.

Accordingly, the trial court found that should this Honorable Court reverse the Order as to the granting of the Western Pocahontas Motion for Judgment as a Matter of Law, that Western Pocahontas, nevertheless, shall be entitled to a new trial on all issues.

Appellants are appealing the March 15, 2007 Order Granting, In Part, and Denying, In Part, Defendants' Motion For Judgment as a Matter of Law or a New Trial in all respects. The Appellants seek to have the Order reversed and vacated in its entirety and seek reinstatement of the jury verdict so that the matter can proceed to the next trial phase, which Appellants submit must be conducted in Wyoming County, West Virginia.

### **III. STATEMENT OF FACTS**

#### **A. The Flood Advisory Technical Task Force Report**

By Executive Order, then Governor Bob Wise created a Flood Investigation Advisory Committee and a Flood Analysis Technical Team (FATT) to study the impacts of the mining and timbering industry on the exacerbation of flooding events on the July 8, 2001 flood.

The FATT team was made up of professionals within the Department of Environmental Protection (DEP), Division of Mining and Reclamation. A study was conducted concentrating on peak water discharge runoff using comparative analysis. Watersheds were selected for study based upon acreage, occurrence of flooding impacts, logging disturbances and mining disturbances. Seng Creek in Boone County and Scrabble Creek in Fayette County were analyzed using runoff comparison methods. Sycamore Creek in Raleigh County served as a control watershed<sup>3</sup>.

The FATT study concluded, based on the use of engineering and hydrology models, addressed by Appellants' experts Dr. Bell and Mr. Morgan, that mining and logging did influence the degree of runoff in the subject watersheds by increasing surface water runoff and the resulting stream flows. The FATT report concluded that the results are applicable to most steep slope topographic regions associated with southern West Virginia.

Recommendations were proposed in the FATT report with respect to the extent and type of logging activity and the degree of post-timbering regrowth for the purpose of minimizing and limiting runoff peaks from logging operations. The FATT report indicated that "substantial

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The FATT report was marked as a Defense exhibit. It was discussed extensively by Appellant's expert Dr. Bell in both direct and cross-examination. Upon questioning from the trial judge, Western Pocahontas indicated it had not decided whether to move its admission as there would be more questioning based on it. Thereupon, Mr. Calwell, representing a Plaintiff's group, moved its admission which was granted subject to agreed upon redactions. (Tr. Vol. VIII at 1782-83). The FATT report was also discussed thereafter in the direct examination of Appellant's expert, Mr. John Morgan. Western Pocahontas made a Motion to re-mark the exhibit as a Plaintiff's exhibit. The Motion was granted and the FATT report was received into evidence as Plaintiffs' Exhibit No. 71. (Tr. Vol. IX at 1936-39). Mr. Morgan was then extensively cross-examined regarding the FATT report. Subsequently, the FATT report was used with Western Pocahontas witnesses. The lengthy report is a critical piece of evidence considered by the jury although the report itself was not given to the jury.

movement of logging debris and sediment from logging operations into streams during the flood event. Transport of this material was caused in part by concentration of flow by logging and skid roads.”

FATT recommended revisions to the West Virginia Best Management Practices (BMP's) to enhance runoff control. It was specifically recommended that BMP's be revised to limit logging within the total area of a watershed so as to minimize runoff velocities and channelization of flows due to land disturbance. It was recommended that the BMP's be revised as to seeding requirements of skid roads, slash disposal, and accounting for history of burning in the watershed in designing timbering operations. Further, it was recommended that the Division of Forestry needed additional staff and should conduct pre-operational site inspections, routine inspection and monitoring, post-operational site inspection, and should provide increased assistance to timber operators with regard to road and log landing construction.

FATT used a unit hydrograph method of modeling the watersheds. It noted that the unit hydrograph is the classic engineering approach to evaluating runoff. It is based on the relationship between precipitation intensity and infiltration during a storm. It was introduced in 1932 based upon field observations of watersheds throughout the United States. Empirical equations were developed relative to soil types, hydrological soil conditions, land use and land cover. That led to the development by the United States Soil Conservation Service of equations to determine curve numbers for soil types and other characteristics. FATT used the unit hydrograph method in its hydrologic analysis and modeling of sub-basins and watersheds in order to predict peak flows of the storm event of July 8, 2001 and synthetic storm events based on a 25 year/24 hour and 100 year/24

hour storm. The FATT study used several parameters including watershed size, elevation and slope, aspect and orientation, shape, drainage network and geology.

FATT investigated the various hydrologic modeling techniques and tools and, after consulting with various federal and state agencies, determined that it would use the HEC-1, which is the U.S. Army Corps of Engineers program. The HEC hydrology program is used internationally to address water runoff. FATT also chose to use a BOSS watershed modeling system, which is a comprehensive software environment for hydrologic analysis and modeling developed cooperatively by the U.S. Army Corp of Engineers and Brigham Young University.

FATT selected curve numbers for calculating the runoff from the published United States Department of Agriculture, Natural Resources Conservation Service (NRCS) data. Thus, the FATT team selected the unit hydrograph method and NRCS runoff curves as defined by soil hydrologic groups, land uses, and cover types to calculate peak flow rates for the ungaged study watersheds.

FATT considered the actual forest conditions. It noted that in southern West Virginia an NRCS runoff curve number of 70-77 reflects the determination of surface runoff and represents standard engineering practice.

#### **B. The Qualifications and Testimony of Bruce A. Bell, Ph.D.**

Bruce A. Bell, Ph.D., is an environmental engineer. He received his Ph.D. from New York University in 1974. Dr. Bell is a registered professional engineer in New York and New Jersey. He is a diplomat in the American Academy of Environmental Engineers. (Tr. Vol. V at 1044-45). The Appellants herein will address only a small portion of Dr. Bell's testimony as he was primarily the other Plaintiffs' groups expert witness. His testimony covered three days. Among other things, he

discussed and explained the general engineering principles and models used by the FATT team and by Mr. Morgan, whose testimony is covered in more detail below.

As an environmental engineer, Dr. Bell designs and analyzes stormwater management systems. The purpose of stormwater management is to make sure that when a change is made to land, the amount of stormwater coming off the land is similar to, the same or less than what came off prior to disturbing the land. It also deals with the quality of the stormwater runoff. (Id.,1047-48).

Dr. Bell co-founded Carpenter Environmental Associates in 1978. The firm, of which he has been President since 1991, is engaged in environmental engineering primarily with water-related issues. Their clients include the federal government, cities, industry, developers and environmental groups. His stormwater work ranges from parking lots, small office sites, housing developments, NASCAR speedways, and ski resorts. (Id., 1048-51, 1063). The work includes describing rain events, understanding them and determining their impact on water runoff. (Id., 1054). Dr. Bell has been qualified as an expert witness in federal court in New Jersey and Texas. (Id., 1053-54).

Dr. Bell did not claim to be a forest hydrologist, ecologist or timberer. (Id., 1057). Dr. Bell's specialty certification by the American Academy of Environmental Engineers includes hydrology and stormwater. "Hydrology related to design of stormwater systems, hydrology related to calculation of runoff, and hydrology, obviously, related to the water resources aspects of water supply." (Id., 1059). Even that portion of Dr. Bell's work, which is water quality-related, has hydrologic and hydraulic components to it. (Id.,1067).

Dr. Bell defined stormwater modeling as a tool for determining what happens with water rate and flow if one changes things. Modeling uses a set of mathematical equations to predict rate and speed of water runoff. (Id., 1070-73). The accepted engineering models have been developed for

over 50 years and are standard practice of engineering in stormwater analysis and management. (Id., 1074).

With respect to the July 8, 2001 flood, Dr. Bell initially considered United States Geological Survey summaries, Weather Bureau summaries, Doppler radar tapes of the flood, the FATT report, performed some modeling, examined modeling conducted by the U.S. Corp of Engineers, and conducted a literature review of forest responses to storms. (Id., 1092).

Dr. Bell described the HEC-1 model used by the FATT report team. HEC means Hydraulic Engineering Center. It is a model developed by the Corps of Engineers many years ago, with subsequent modification. It allows one to look at soil types, ground cover, base, slope and rainstorm. HEC-1 is a model that allows understanding of how much runoff is created. HEC-1 is a tool to address the speed of water and the rate of water runoff. The HEC-1 is one of the very common models accepted by every regulatory agency and commonly used. (Id., 1106-09).

It is standard and routine engineering practice to use the models. Indeed, that is what the various regulators require to be used to determine peak flow and runoff consequences from land disturbances. Modeling is approved by every state as the method by which to assess changes and design stormwater management systems. (Id., 1197-98).

The stormwater management, peak flow management principles are the same no matter where it is one attempts to manage stormwater. There is nothing unique about a forested, mountainous hillside in West Virginia that requires the development of different or new principles of stormwater management. (Tr. Vol. VI at 1230-31).

Dr. Bell has taught engineers how to use the models in hydrology courses. He has taught the models as part of stormwater design courses. He believes it is important to understand the hydrology

of a forest, and states that the models are built on the understanding of how all kinds of different hydrological situations behave. There is no need to talk with a forest hydrologist to develop a new model. As Dr. Bell stated, engineers know that by disturbing the land, there will be an increase in runoff. The point of using the models is to quantify the increase. (Id., 1384-85, 1409).

Curve numbers in the modeling take into account the type of ground cover, the soil involved and with other considerations is used to calculate runoff. The higher the curve number, the greater the runoff. (Id., 1406-07).

Dr. Bell considered the work of the FATT team and explained it to the jury. (Tr. Vol. V at 1103-05). He explained that the analysis was directed at determining how much water would run off at different points in the watersheds with no timbering disturbances and with timbering disturbances. (Id., 1105). Dr. Bell explained that by using the HEC-1 considering soil type, ground cover, base, slope and rainstorm one can determine the rate or speed of water runoff. (Id., 1108).

Dr. Bell also considered actual data from the Coweeta Experimental Forest in North Carolina, which has steep-sloped forested terrain with hardwood. It is a gaged area so that actual data is available to compare different types of logging practices on the forest hydrology. (Id., 1150-53).

Dr. Bell used the Coweeta data to look at peak stormwater runoff rates. (Id., 1153-54). His observational analysis resulted in the conclusion that the extent of the roads cut is the primary factor in driving up the peak flow rate. (Id., 1157). He explained that the data from the measured Coweeta watersheds showed that the rates were increased during timbering operations and for four years subsequent to such operations. (Id., 1155). Disturbance by way of road creation has a major impact on increasing peak stormwater flow rates. (Id., 1158).

According to Dr. Bell, the actual data measurements in Coweeta were consistent with the runoff models performed using the HEC-1 and the TR-55 (another common engineering model). In considering all the modeling, Dr. Bell testified that there is an increase in peak flow runoff when the watershed is disturbed. (Id., 1165). The more disturbance there is in the watershed, the more the peak runoff rate is increased. (Id., 1166-67).

Dr. Bell drew a conclusion that most of the modeling that had been done by the State actually understated the peak runoff. Timbering disturbances increased the peak runoff. Moreover, when one measures the runoff effects, the percentage of runoff increased. This relates to intensity of localized flash flooding. (Id., 1179, 80, 82, 84).

Dr. Bell testified with reasonable certainty that the disturbances to the land on Western Pocahontas's properties caused an increase in the peak rate of discharge over the natural peak rate. (Tr. Vol. VI at 1244). He based that on measured changes in forested woodlands, modeled changes from the Army Corps of Engineers, modeled changes performed by FATT, and his own modeled changes. (Id., 1245). In brief, Dr. Bell testified that in considering all available information, his experience in stormwater runoff management and calculating stormwater runoff, when one creates disturbances to land, creates roads, creates pathways for water, and changes soil compaction, it increases the rate of peak runoff during any storm. (Id., 1280). The types of disturbances associated with timbering, including roads, increase the peak rate of runoff. (Id., 1285). Further, the volumes of water were increased in the natural creeks and streams. (Id., 1286).

### **C. John Morgan and the Application of Hydrology, Cumulative Hydrological Impact and Surface Water Runoff**

Mr. John Morgan was qualified at trial as an expert regarding the application of hydrology, cumulative hydrological impact, and storm water surface runoff. (Tr. Vol. XIII at 1869). The expert qualification followed extensive voir dire and argument.

The record reflects that Mr. Morgan is educated, highly qualified and experienced. Mr. Morgan's engineering work involves addressing hydrology, cumulative hydrological impact and storm water surface runoff on a regular basis with respect to mining and energy projects world-wide. Mr. Morgan's education, training and his regular work experience involves assessing the impact of land disturbances on water flow and runoff and designing applications to address the impact of these disturbances.

Mr. Morgan was born in England and graduated from the University of London, Royal School of Mines in 1977. (Id., 1804-05). His degree is in mining engineering. Mr. Morgan explained the meaning of "hydrology" and the application of hydrology with analogy to his mining experience. He explained that hydrology is the study of water. (Id., 1806-07).

Mr. Morgan explained "cumulative hydrological impact" as follows:

...every disturbance you make, wherever it be, cutting down a tree, clearing a lot for a house or building a Wal-Mart, is all going to have some effect.

If you have one housing lot in the middle of 100 acres, its probably not going to have much effect. If you have 100 houses on 100 acres, its probably going to have a lot more effect. So the cumulative hydrologic impact is looking at the effect of all these little pieces together and saying "when's too much too much" or "what do I need to do to avoid having a significant impact?"

(Id., 1808).

Mr. Morgan explained storm flow runoff in the following fashion:

...[mining program has] a SWROA, which is Stormwater Runoff Analysis, and that means that any mining activity, disturbances associated with that mining activity, you need to look at those effects before you get a permit.

So it's saying, "How much runoff were you going to be getting for this area prior to any mining." Then you've got to show how much runoff you're going to get during mining, and then how much after mining. And you can't get a permit unless you can show that the pre-, during and post flows are not increasing.

(Id., 1810-11).

Mr. Morgan owns a consulting firm called Morgan Worldwide Consultants. (Id., 1803).

Mr. Morgan has conducted international work for the World Bank, projects funded in Russia, and the governments of Indonesia, Poland, Romania, the Ukraine and Venezuela. (Id.)

Much of Mr. Morgan's work has been focused on addressing how adding disturbances cumulatively affects the surrounding communities. In West Virginia, he has served on the Quality Assurance/Quality Control panel for the State Department of Environmental Protection for the purpose of evaluating cumulative hydrologic impacts. (Id., 1809).

Mr. Morgan has reviewed storm water runoff analysis for both the state and federal governments. (Id., 1811). He wrote the drainage handbook for the State of Maryland which requires that peak flows during storm water could not be increased by mining operations. Significantly, Mr. Morgan was appointed by the Governor of West Virginia to the Special Reclamation Fund Advisory Council to manage post-1977 disturbances to the land which have not been reclaimed and address how to pay for reclamation. (Tr. Vol. X at 2226).

Mr. Morgan was explicit that he is not a logger; is not a forester and is not a forest ecologist. (Tr. Vol. VIII at 1812-13). That does not impair his ability to address the disturbances to the land, including timbering, that affect surface runoff in the Slab Fork subwatershed.

When asked whether, as an engineer, in applying the principles of hydrology, cumulative hydrological impact and storm water runoff, it matters whether the site involves a mine, timber, Wal-Mart or parking lot, Mr. Morgan explained:

. . . a land disturbance, wherever it be, by mining or timbering or development, is going to have an effect. The techniques to evaluate that effect are the same in all these processes.  
(Id., 1814).

Mr. Morgan noted that due to the amount of mining activity in West Virginia, the processes required and techniques developed to evaluate water flow, drainage control, and storm water runoff are more developed in mining than in timbering disturbances. Mr. Morgan explicitly testified that the engineering techniques that are applicable to evaluating disturbances to the land, changes to the configuration of the land and putting in roads are similar. He further explained that his experience in evaluating drainage and storm water is directly applicable to timber-related disturbances. (Id., 1818).

Indeed, Mr. Morgan has supervised logging of property as part of major surface mine and valley fill operations. (Id., 1816). He has also been responsible for clearcut timbering in connection with expanding a quarry. (Id.). In so doing, he has had to evaluate and report to state governments the hydrologic impact of the timbering. (Id., 1817).

The techniques applied for the surface disturbance in terms of hydrology, hydrologic impact, and runoff potential is the same engineering whether it is in mining or timbering. (Id., 1818-19). Mr. Morgan explained why he is an expert in the effects of hydrology as it relates to surface effects like surface disturbances. (Id., 1826). Mining, like timbering, constitutes a surface disturbance. (Id., 1828).

Mr. Morgan has been qualified to testify regarding storm water runoff in federal court by the Honorable Charles H. Haden and the Honorable Joseph Goodwin, Judges of the United States District Court for the Southern District of West Virginia.

Mr. Morgan set forth four opinions. First, he opined that Western Pocahontas' use of its property in the Mullens watershed materially contributed to the flooding in Mullens on July 8, 2001. (Tr. Vol. VIII, 1879). Second, it was his opinion that the use of the property in the Slab Fork subwatershed of the Mullens watershed materially contributed to the flow and the flooding events in the Slab Fork subwatershed on July 8, 2001. (Id., 1878). Third, the use of the property in the Mullens watershed was not reasonable. (Id.) Fourth, the resulting and foreseeable consequences of increasing both peak flow and total flow is to increase the amount of water going through a stream, overwhelm the capacity of the receiving streams, exceed the capacity of structures in the stream such as culverts and bridge abutments causing back-up and impairing the flow further resulting in flooding and out-of-bank flow. (Id., 1953-1958). The second and fourth opinion goes squarely to trial issue two which required the jury to answer whether the water from Western Pocahontas's operations caused streams to overflow their banks. The trial judge was plainly mistaken when he wrote that Mr. Morgan offered no opinion regarding findings relating to trial issue two. The trial court also contradicted itself in the Order. (Order, 10, 17-18, 34, 19, 30, 33).

Mr. Morgan explained that the usage of the property was not reasonable because the cumulative area disturbed by timbering in the Slab Fork subwatershed was significant to the extent that it caused additional runoff and therefore contributed to the flooding. (Id.). Further, the number, density and location of the logging roads within the subwatershed added to the increased runoff. (Id., 1879). Moreover, Mr. Morgan testified that he had been provided no reports, documentation or

analysis showing that Western Pocahontas at any time conducted a hydrological or storm flood runoff evaluation of their property and the effects of logging and road building. (Id.). Given the amount of timbering as a percentage of the watershed compared to the amount of roads, failing to conduct an analysis is not a reasonable use of land. (Id., 1879; Tr. Vol. IX at 1947-48).

Specifically, Mr. Morgan testified that there are three reasons that led to his opinion that there were material increases in peak flow runoffs in the Slab Fork subwatershed of the Mullens watershed. First, is the very significant 45 percent of the subwatershed that was timbered. Second, is the number of roads that have not been reclaimed and are still prevalent. Third, is the change in the forest floor in changing the infiltration capacity and therefore the runoff. (Id., 1928).

Mr. Morgan explained that there was absolutely no effort to study, report, document, analyze, or review the water runoff, storm water runoff or hydrologic conditions of the Slab Fork watershed before timbering, during timbering or after timbering. (Id.) According to Mr. Morgan, given the amount of timbering as a percentage of the watershed and the amount of disturbance due to the density and location of the roads, it was unreasonable not to undertake any analysis of the effects of disturbance on runoff. (Id., 1879-80).

When Mr. Morgan first undertook to review the effects of the timbering disturbance, he determined the contributing area – where the water came from. He used United States Geological survey maps showing the overall area for the entire Mullens watershed. The maps demonstrate that any drop of water landing in the Mullens watershed ends up coming through the discharge point which is the town of Mullens. (Tr. Vol. VIII at 1881).

The next step was to determine surface ownership by use of State of West Virginia tax maps. (Id., 1882, Pl. X-50). The majority ownership for the Slab Fork watershed is Western Pocahontas.

The analysis proceeded in a progressive fashion to address roads, harvest, humus layer and infiltration and make comparisons to the United States Government's experimental forest in Parsons, West Virginia.

Mr. Morgan plainly testified that his engineering work with Morgan Worldwide Consulting is such that he regularly analyzes cumulative hydrological impacts of land disturbances. (Tr. Vol. IX at 1946-47). If he were approached and told: "I am going to timber trees of particular circumference and build logging roads in this area of a watershed in three years;" Mr. Morgan would be able to provide an assessment of the expected cumulative hydrologic impact of the disturbance. (Id., 1946).

In providing such an assessment, there are two approaches available. First, is an exact actual model. In that approach, one would begin obtaining calibration of the watershed and using gaging stations so as to conduct long-term monitoring prior to disturbing with timbering and road building. (Id.). Second, is an indicative approach to show the changes in disturbance and the resulting effects. It is done so that a determination can be made as to when to say "enough is enough." (Id., 1947).

Significantly, one cannot "calibrate after the fact." (Id.) If a land disturber chooses to add disturbance upon disturbance without ever considering impact, without ever conducting analysis, one cannot go back and do an actual model showing absolute levels of flow increases because the input data simply has not been maintained. There is simply nothing to calibrate. That is the situation here.

Nevertheless, Mr. Morgan and Morgan Worldwide, like other engineers around the world, using the indicative model, engineering background, training, education and experience could assist the land disturber or timberer design engineering changes to minimize the storm surface cumulative runoff effects of a timbering operation. (Id.)

Mr. Morgan analyzed the logging road disturbances over time and between the period 1994 to 2001. (Tr. Vol. XIII at 1909-1911; Pl. X 55). The total logging road mileage in the watershed was 245 miles. (Id., 1910).

The significance of the logging roads is that they totally change the characteristics of the water flow. "As you cut through the forest and you have this flow coming down underneath the humus and leaf layer and you suddenly have a road, any of the flow which was subsurface as a short flow suddenly then comes out on to the ground, is intercepted by that road and then becomes a channelized flow." (Id.)

Of further significance is the fact that the logging roads have not been reclaimed. They are still prevalent and visible. They still effect change on the forest floor, change the infiltration capacity and change the runoff. (Id., 1927-28).

Mr. Morgan also analyzed the harvest. That analysis is set forth on Plaintiffs' Exhibit 56. The year 2000 was the largest area harvested in the time period for which records were available from 1994 to 2000. In that year, some 3,200 acres were harvested. (Id., 1911). The total harvest from 1994 until July 2001 was some 10,000 acres. (Id., 1912).

However, acreage harvested does not "tell the whole story." (Id., 1913). The board feet per acre harvested in the year 2000 was 6.1 million board feet. (Id., 1916). 1999 saw a high yield of board feet per acre meaning more trees were cut in 1999 per acre, but more acreage was disturbed in 2000. (Id.).

It must be noted that Mr. Morgan then used for comparison purposes long-range data collection from the Fernow experimental forest run near Parsons, West Virginia, by the United States government for the purpose of studying forestry impact issues such as clear cutting, diameter limited

cutting, runoff effects and peak flow changes. (Id., 1917). Fernow has maintained stream gages, monitoring stations and rain measuring devices and collected data over long periods of time. (Id., 1920). As early as 1963, Fernow was able to show with data that even in a well-monitored, well-analyzed forest with diameter-limited timber activity, there was an increase in peak flow in the watersheds after timbering. (Id., 1921). A significant difference between Fernow and Slab Fork timbering is that in Fernow no roads show up within five years of logging activity. In Slab Fork, some seven years later, the logging roads were still there and were not reclaimed. (Id., 1927).

As Mr. Morgan explained, the process of analysis was progressive and refined as data became available through discovery. Initially, a general picture of disturbances in the watershed was obtained by using State Timber Notification forms. That was refined with data from Western Pocahontas which provided accurate harvest reports. It was further refined with aerial photography. (Tr. Vol. IX at 2013-2015). The first phase is to determine what the disturbances impacted. The second phase is addressing sensitivity to land use change in terms of addressing humus depth, infiltration, runoff changes and percentage of disturbance. The third phase is to identify major landowners. (Tr. Vol. X at 2136).

With respect to humus, Mr. Morgan explained that the humus layer is what characterizes the flow from a forest land. "It's the material which you walk through the woods, you'll see the leaf litter, the decomposed material, the soil, more organic material above the soil, and it varies in thickness. That is what allows the rain to fall on a forest and to be absorbed. The absorption level of the forest floor is very high. So as you reduce the amount of humus and material on the forest floor, you decrease the absorption, and that's why you change the characteristics of it." (Tr. Vol. IX at 2018). "We know that the range of forest layers in eastern hardwood forests is from zero to six

inches, so if you change it, that's when you get a change in the runoff." Changes in the humus layer, the level of compaction of the humus, the construction of the roads and the amount of area being disturbed in the watershed all increased the peak flow. (Id., 2095).

Mr. Morgan explained that forest land is very absorbent due to the humus and decomposed leaf layer of the forest floor. Rainfall in a forest is generally absorbed and water flow is not on top of the leaf and humus layer, but below it in the soil. Humus provides significant protection from surface flow coming across the forest floor. (Tr. Vol. VIII at 1889-90).

Humus is disturbed by cutting trees, using skid roads and haul roads. Using a standard engineering handbook, Soil Conservation Service Engineering Handbook – Guidelines For Eastern Hardwood Forests, an analysis was performed showing that as one changes humus depth, runoff increases. His analysis was to the effect that the more disturbance there is in terms of harvest, the greater the increase in the amount of water runoff. The forest is changed so that its absorbency is diminished. It also results in a flashier watershed. Mr. Morgan's findings were wholly consistent with the FATT reported findings. (Id., 1889-1895). Specifically, by the time there is a land disturbance in the 20 to 30 percent range, there will be sudden increases in peak flow. (Id., 1896). Here, the disturbance was over 45 percent of the subwatershed.

Mr. Morgan also testified regarding how access roads, skid roads, and log landings change the traditional flow and water infiltration of a forest. (Id., 1904). The road totals were 245 miles. (Id., 1910). The roads completely disrupt the normal forest flow and totally changes water flow characteristics. (Id.).

Based on the standard engineering analysis, Mr. Morgan concluded that the Slab Fork watershed had between 30 to 50 percent increase in peak flow overall. (Tr. Vol. IX at 1949, 2097).

His analysis was based in part on harvest drawings provided by Western Pocahontas that showed Western Pocahontas harvested about 41 percent of the Slab Fork watershed. Other timbering conducted by others contributed another 4 percent meaning that some 45% of the Slab Fork watershed was disturbed by timbering. (Id.) The area of disturbance in the Slab Fork watershed was significantly greater than any other in the Mullens watershed. (Tr. Vol. X at 2162).

Mr. Morgan agreed with Appellees' expert that between 3 and 6 1/2 inches of rain fell in the Mullens watershed over an 8 to 9 hour period. (Tr. Vol. IX at 1949). Mr. Morgan also reviewed the topographical and aerial maps which are an integral part of the engineering work he performs. (Id., 1951, 1953).

In Slab Fork, both peak flow and total flow was increased due to the extent of disturbance. Therefore, the capacity of the receiving streams was overwhelmed. Further, the capacity of structure in the streams, such as culverts, bridge abutments, was exceeded and flow was further impaired. The foreseeable consequence is flooding. (Id., 1953-55). This testimony went squarely to issue two that the water from the Western Pocahontas operations caused streams to overflow their banks.

Finally, with photographs stipulated by Western Pocahontas as being photos from Mullens, Mr. Morgan was shown photos depicting a log showing the downhill flow of debris, out-of-bank flow of water flooding the area, flooded streets of Mullens, and a building damaged by flood water. Mr. Morgan testified that each depicted a foreseeable result of the disturbance of the Slab Fork watershed. Increases in peak and total flow cause flooding and out-of-bank flow. Debris can be transported by increased flows. (Id., 1956-1958 and Pl. Exhibits 65, 66, 67, 68, 69, 70). Thus, Mr. Morgan offered opinions regarding issue two which required the jury to answer whether the water

from Western Pocahontas's operations caused streams to overflow their banks and the trial court is clearly wrong in stating that Mr. Morgan offered no opinions with respect to the issue.

Throughout direct and repeatedly through cross-examination, Mr. Morgan explained that his approach was to analyze the changes in the Slab Fork watershed to actual land use meaning harvesting, roads and compaction changes of the humus layer. That approach results in a range of increases in peak flow. Based on the known data a 150 to 160 percent increase in peak flow could be justified. But, Mr. Morgan used a very conservative approach resulting in a 30 to 50 percent increase in the peak flow on the Slab Fork watershed. (Id., 2097-2100).

Mr. Morgan was equally clear that what he had not done and could not do was give an exact watershed model of the Slab Fork watershed to say precisely what the peak runoff was before and after certain timbering. (Id., 2099). Nobody can do that. It cannot be done because the forestry industry does not want it done. Therefore, forestry developers such as Western Pocahontas put no tools in place to collect the data to make site-specific analysis.

Plainly, Mr. Morgan did not model the entire Mullens subwatershed. (Tr. Vol. X at 2133). Neither did the land owners/disturbers, Western Pocahontas. Mr. Morgan did not model the Slab Fork subwatershed. (Id.). Neither did the land owners/disturbers, Western Pocahontas. He did not do that modeling because there was and is no data! There is no calibrated model because there is no pre-disturbance specific data to calibrate from. "To do it after the fact serves no purpose." Thus, one must do a standard sensitivity analysis. (Id., 2134).

The Slab Fork subwatershed has no gaged information and no pre-timber condition information. (Id., 2138). Thus, absolutes cannot be determined. In such a situation, it is absolutely standard and appropriate engineering application to determine the sensitivity of runoff to the changes

in various parameters. (Id., 2140). The objective “was to look at changing certain fixed parameters to look at the sensitivity of runoff to those parameters, not to give you an absolute number as to what the discharge from the watershed would have been to an event.” (Id., 2144)

Mr. Morgan did not interview residents to determine highwater marks. He did not survey stream channel cross-sections. He did not locate bridges and culverts in the watershed. He did not look at items such as subsurface runoff, vegetation, season, time between storms, lag time or time of concentration. (Id., 2144, 2155-56). In a standard engineering sensitivity analysis these items are not relevant. Of course, Western Pocahontas did not make any effort to study these matters pre-timbering, at any point as timbering progressed, or after the July 8, 2001 event.

Mr. Morgan explained repeatedly that the selection of engineering curve numbers was to show the effect of changes on the curve number and on the runoff. The curve numbers were changed based on humus depth, compaction level and the percentage disturbance. Thereby, an accepted engineering sensitivity analysis of runoff is provided. Mr. Morgan did not simply pull curve analysis numbers from thin air. The standard accepted engineering handbook was used to identify curve numbers for different conditions. (Id., 2154).

A major attack by Western Pocahontas and the focus of the trial judge was the so-called lack of calibration. The logic is Orwellian. Mr. Morgan adamantly agreed with counsel for Western Pocahontas that one of the most important steps in any hydrologic modeling problem is calibration. (Id., 2157, 2185). Mr. Morgan agrees that he did no calibration. (Id.) However, he did not do an analysis requiring calibration. Nor could he. Nor could anyone else. Instead, he performed a standard sensitivity analysis. No calibrated watershed model could be done because there is no gaging data in the Slab Fork or Mullens watershed. (Id.). The actual increase in peak flow is not

known due to Western Pocahontas's lack of pre-disturbance measuring. (Id., 2186). The sensitivity analysis conducted by Mr. Morgan provides a range of the percentage increase in peak flow and shows that as one changes the percentage of area being logged, the runoff increases. (Id., 2158, 2186). Simply stated, Mr. Morgan analyzed the sensitivity in change in flow from changing compaction, humus layers and percentage disturbance. (Id., 2160). He consistently stated that the sensitivity analysis was done to consider cumulative effects. (Id., 2209).

When asked on cross-examination about the role of a prudent landowner, Mr. Morgan explicitly set forth the necessary engineering practices. First, "a prudent operator should evaluate the effect of their operations off-site." Second, if it is determined that operations will increase peak flow, then ways to change operational configuration or storm water retention should be considered. Significantly, there must be modeling evaluation to determine effects and actions to implement prudent engineering practices to control flow changes. (Id., 2160-69). There are a range of techniques. "But you need to at least evaluate it and come up with solutions which can stop off-site impacts." (Id.). This is what Western Pocahontas and now the trial court rejects. The basic premise of Western Pocahontas is that there is no reason to ever evaluate off-site impacts. This is so even when the forty percent of subwatershed land being disturbed is steep mountainous terrain that drains directly to a populated community.

#### **D. The Opinions and Testimony of Appellees' Expert Witnesses**

1. **Dr. Wade Nutter (1) agreed that the analysis of Mr. Morgan and Dr. Bell represent standard practice in the engineering and hydrologic communities; (2) testified that a healthy forest floor should be able to infiltrate at least an inch of rainfall an hour; (3) agreed that skid and haul roads remove the forest floor and reduce infiltration rates, and (4) agreed that timbering results in water yield increases.**

Dr. Wade Nutter testified as a forestry expert for Western Pocahontas. Dr. Nutter received a bachelor of science in forest science in 1960 from Penn State University and a Master's degree in forest hydrology in 1964. His Ph.D. in hydrology and soils was obtained from Michigan State University in 1968. (Tr. XVII at 3600-3602). Dr. Nutter taught forest hydrology and soils at the University of Georgia approximately thirty years. He also did research during that time. (Id., 3603-05).

Dr. Nutter was first contacted about the July 2001 floods in late summer of that year. (Id., 3622). However, he did not begin actual work for any of the defendants until the fall of 2005 when he gave a short "off-the-cuff" discussion of forestry and flooding to some lawyers and others. (Id., 3623).

Although described as their "most important witness," Dr. Nutter did not become involved in an examination of Western Pocahontas' properties until after his first client, Georgia Pacific, was no longer involved in the litigation. (Id., 3594, 3640). Dr. Nutter was asked to look at the Western Pocahontas properties in the middle of March 2006 during the course of the trial. He did so 8 or 10 days later. He testified for Western Pocahontas on April 5, 2006<sup>4</sup>. (Id., 3640).

In order to render his opinions, Dr. Nutter "observed" the forest practices of Western Pocahontas almost five years after the event. Dr. Nutter spent a day in the Slab Fork watershed area visiting some ten or so sites, sometimes driving to the site, sometimes walking around. (Id., 3641).

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The testimony of Dr. Nutter should never have been allowed. It was done over the preserved objection of the Appellants. He was a witness for a defendant who Appellants believe settled and had disclosed opinions as to specific worksites relating solely to that defendant. He did not become a witness for Western Pocahontas until the middle of trial. The day before his testimony, Appellants had still received no report relating to his work for Western Pocahontas. (Tr. Vol. XVII at 3588-3598).

Dr. Nutter observed a summer 2005 harvest and some eight years earlier. (Id., 3642). He took “relatively cryptic notes.” (Id.)

Dr. Nutter, a non-engineer, testified that the primary difference in a forest as compared to other land surfaces in terms of hydrology is the rate of infiltration. (Id., 3648). As detailed above, Mr. Morgan addressed infiltration rates. According to Dr. Nutter, except in extremely rare storm events, all the water in a forest infiltrates; goes in and under the surface rather than over the surface. (Id.). Dr. Nutter proceeded to testify, wrongly, that the problem with Dr. Bell’s and Mr. Morgan’s testimony was that it was an overland flow model which doesn’t occur in the forest because of the leaves and organic matter. (Id., 3650). In so testifying, Dr. Nutter ignored Mr. Morgan’s testimony regarding humus, infiltration and compaction and how the sensitivity analysis considered that very issue. He also ignored the discussion of Dr. Bell regarding differences in land type and composition. Likewise, he ignored how the FATT team allowed for such differences in its work.

Dr. Nutter is familiar with BMP’s in West Virginia. He did not see any log landings within the 100 foot streamside zone management limit. (Id., 3652-53). He observed sediment delivery in the streams with his “hydrologist’s eye” to determine that the stream channel (some five years later) was stabilized. (Id., 3658). Dr. Nutter, five years after the event, saw good skid trail conditions. (Id., 3660-61). He also testified to observing skid trails put in a zig-zagged fashion as a good practice; again five years after the event. (Id., 3665-66). Dr. Nutter testified similarly as to log landings, slash and reproduction or silvicultural issues all to the effect of opining that what he saw was well-managed timbering. (Id. 3676; *See also* testimony at Tr. Vol. XVIII, 3736-3745).

Significantly, the same sorts of analysis and modeling discussed by Dr. Bell and Mr. Morgan has been used by Dr. Nutter. Dr. Nutter testified regarding the concerns of the federal government

with the use of pesticides and herbicides in forests and whether residue is exported to stream flow. All the analysis to measure these issues uses modeling approaches with curve numbers such as applied by Mr. Morgan and discussed by Dr. Bell! The Pesticide Root Zone Model (PRZM) and the Chemicals Erosion Runoff from Agricultural Managed Systems use the very curve numbers from the same texts and engineering handbooks for volume flow just as considered and applied by Dr. Bell and Mr. Morgan! (Tr. Vol. XVII at 3684-85).

Dr. Nutter uses the very engineering principles and very models including the HEC-1 and the TR-5 that was used by Petitioner's experts. (Id., 3684-87). Dr. Nutter has used both to generate hydrographs. (Id.) Dr. Nutter's discussion of the modeling of water flow did not differ analytically from Dr. Bell or Mr. Morgan.

The difference is that Dr. Nutter does not think that the models are appropriate for a forest because of the rate of water infiltration in a forest. The bottom line for Dr. Nutter is that "water – rainfall in a forest infiltrates." (Id., 3692). Accordingly, Dr. Nutter does not agree that a curve number modeling method is appropriate to measure peak flow as a result of disturbance in a forest. (Id., 3693). He offers no alternative.

This is so because Dr. Nutter does not believe to a reasonable degree of scientific certainty that it is necessary to do any modeling in order to form a valid opinion as to whether or not timbering contributed to the July 8, 2001 flood. (Id., 3698). He believes that he can reach an opinion by looking at the forest, the practices, the BMP's, and the stream conditions by applying his "hydrologist's eye" of experience by spending a day driving around and walking over a small portion of the site of disturbance some five years after the event.

Most significantly, Dr. Nutter agreed with Mr. Morgan's conservative approach regarding modeling and his reasons for not doing actual modeling. Instead, Mr. Morgan used the standard model and engineering technologies while explaining their limitations for purposes of the sensitivity analysis. In direct examination by counsel, Dr. Nutter testified in accord with Mr. Morgan as follows:

Q. Finally he states, "The models should simply be described as representation of standard practice in the engineering and hydrologic communities, and that experience has shown these models represent the relative effects of land use change reasonably accurately.

Do you agree with that?"

A. I agree.  
(Id., 3756).

Mr. Morgan showed the relative effects of land use changes using the standard engineering and hydrology models. He showed ranges of results.

Dr. Nutter did no studies concerning the Western Pocahontas property and the July 8, 2001 flood event to determine whether there was or was not an effect from timbering on downstream flow. (Tr. Vol. XVIII at 3831). He did concede that there could be a "minimal" effect. (Id.). He was just unwilling to quantify it. The jury was left to wonder what "minimal" equates with. The trial court ignored this testimony when it stripped the Appellants of their experts and their verdict.

Importantly, Dr. Nutter testified that a healthy forest should be able to infiltrate at least an inch of rainfall an hour and there will be no oversurface flow. (Id., 3837). The infiltration rate can go higher depending on slopes and soils. Indeed, accepting Appellees' meteorology expert, Doctor Sobel's estimates that it rained upwards of six inches in the twelve hours between midnight and 11 a.m., Dr. Nutter testified that a healthy forest floor in Wyoming County, West Virginia should be

able to handle that and far more before overland flow starts. (Id., 3839). Yet, we know that there was overland flow and flooding. The trial court chose to avoid any analysis as to why the forest in the Slab Fork watershed could not handle the rain event.

Dr. Nutter conceded that when a skid road or haul road is cut, the forest floor is removed and the ability for infiltration has been "greatly reduced." (Id., 3840). Dr. Nutter agreed that the forest floor's ability to infiltrate water is reduced in areas where the floor is disturbed by being cut with a bulldozer or otherwise. (Id., 3844). Dr. Nutter stated that in such a situation, the forest floor is not merely disturbed but is removed. (Id.)

Significantly, Dr. Nutter fully agreed that where the haul roads and skid trails are as indicated in yellow on exhibit number 54, prepared by Mr. Morgan, that the forest floor is removed. (Id.). He agreed that the skid and haul roads are slanted and sloped in a mountainous area and that water which does not infiltrate will become surface flow. (Id.). While asserting that it is a "small degree," Dr. Nutter nevertheless agrees that roads intercept subsurface flow and convert it to surface flow. (Id., 3847). Further, Dr. Nutter admits that when forests are cut, water yield is increased. The amount of water discharged until the forest regrows and begins to use water is increased. (Id., 3848). Again, he simply does not quantify the increase. Shown a photo he took of a skid road surface recovering that had been used twelve years earlier in 1994, Dr. Nutter candidly testified that it had "a ways to go" to get back to healthy well-maintained forest floor. (Id., 3857-58). This testimony as to a fact "on the ground" is ignored by the trial court which has adopted a five-year regeneration approach. Haul roads are not forest floors.

Dr. Nutter agreed that there was no pre-existing data to conduct a calibrated hydrologic model. (Id., 3852). According to Dr. Nutter, any water coming off of timbered property after

timbering is going to have a “minimal” impact on neighbors down stream. (Id., 3863). It is his opinion that a reasonably prudent company in making reasonable use of their land, does not need to do any type of pre-timbering survey or study to determine what storm flow will come off of their property after the timbering is started. (Id., 3862).

By spending a few hours on the property he was able to see back in time not only five years to the rain event, but some 10 to 12 years and state that Western Pocahontas was BMP-compliant pre-July 8, 2001. (Id., 3868). With the day of his observation a few days before his testimony, he was able to say, simply by looking long after the event, that there was no material increase in the peak flows off the property. (Id., 3870). By simply driving along and looking from the car window and getting out and looking at some trails for a day and a half some five years after the event, Dr. Nutter testified that Western Pocahontas timber activities did not contribute to the flooding. (Id., 3872). His explanation for the flooding of July 8, 2001, is simply that there was a large, high intensity short-term rainfall and forest harvesting activities would not have caused a material increase in run-off or out-of-bank flow. (Id., 3940). Appellants respectfully suggest that the jury heard all this and correctly found Dr. Nutter’s opinion unreliable, inadequate and amounting to “nothing more than subjective belief and unsupported speculation.” (Order at 28). The trial court improperly relies on this testimony to declare Mr. Morgan, Dr. Bell and the engineers and others associated with the FATT analysis and report unreliable, thereby gutting Appellants’ case.

2. **Dr. Ray Hicks is a forester who operates from the basic premise that a reasonably prudent landowner does not need to know how much water he/she/it will discharge onto a neighbor’s property.**

Dr. Ray Hicks, a professor of forestry with West Virginia University, testified for Western Pocahontas. Dr. Hicks received his Ph.D. in forestry in 1970 from State University of New York

at Syracuse. He has been a professor of forest ecology at West Virginia University since 1978. (Tr. Vol. XVI at 3246-47). Forest ecology is the interrelationship of organisms and their forest environment. (Id.). Dr. Hicks was qualified as an expert in forest management practices.

Dr. Hicks did no hydrological studies with respect to his expert work for Western Pocahontas. He did no hydrological modeling for the properties at issue. He did no analysis of peak flow rates. He did no analysis of any storm flow rates or storm flow volume. (Id., 3271). Indeed, he has never done or completed an analysis of storm flow. (Id., 3272-73). Dr. Hicks did no hydrologic analysis on Slab Fork, performed no analysis of the July 8, 2001 storm, and did no audit or analysis of the Western Pocahontas properties prior to July 8, 2001. (Id., 3442-43). Dr. Hicks does not know what the sites looked like on July 7, 2001, has no knowledge of the amount of slash and debris on the sites on July 7, 2001 and does not know how much debris was moved from the sites on July 8, 2001. (Id., 3442-44).

Upon being hired, Dr. Hicks familiarized himself with Western Pocahontas by reviewing records including timber sale contracts and inspection forms. He then met with Western Pocahontas forester, Mr. Newlon. Mr. Newlon and Dr. Hicks then did a "day trip" and drove around the Mullens watershed tracts that had been harvested. Next, Dr. Hicks selected a sample of ten stands that had been harvested to revisit and inventory. The sample criteria was to be geographically separated, to have different logging dates and to have different companies performing the logging. (Id., 3279-81). He then proceeded to do a field inventory. As to all ten tracts inspected, Dr. Hicks testified that they were BMP-compliant and that the timbering operations were meeting industry standards for sustainability. (Id., 3306-3369 generally). To which Appellants say "so what." As addressed below, the BMP's relate to sediment regulation for water quality, not water flow and absorption.

Dr. Hicks confirmed that there were approximately 83,990 acres in the Mullens watershed and about 22,650 acres or about 25% in the Slab Fork subwatersheds. Western Pocahontas owns about 76% of it and the harvested acreage is some 8,887 acres or almost 40 percent. (Id., 3390-91). Dr. Hicks testified that was a reasonable and prudent harvested rate. (Id., 3391). He supports this opinion by observing that the standing volume of timber on Western Pocahontas property for all of the Welch and Wyoming land base is increasing. (Id., 3392).

Dr. Hicks testified that it was his opinion that Western Pocahontas engaged in sustainable forest management practices in the ten years prior to July 8, 2001. Dr. Hicks testified that based on his inspections, the forest operations were BMP-complaint, reasonable, prudent and in compliance with industry standards. (Id., 3394-96).

Part of the problem with Dr. Hicks' testimony is that it simply had no relevance to the issues of surface flow in this case. No witness of the Appellants ever suggested that Western Pocahontas was not doing a good job with silvaculture and selective cutting so that it could go in and cut/harvest again. Similarly is the issue of BMP's. Appellants' witnesses have not suggested (other than with respect to streamside issues) that BMP's or failures to follow BMP's - which are intended to deal with erosion, sediment and pollutants ending up in the streams - had anything to do with the flooding event of July 8, 2001.

As to inspected areas, one of the ten selected was last logged over ten years before Dr. Hicks looked at it. He agreed that in five years a forest, if there is no continuous logging or skidding, will regenerate itself. (Id., 3418). The reality is that every photograph of every site that Dr. Hicks chose to visit had plenty of time under his opinion to regenerate itself since the date it had been logged.

(Id., 3427). Apparently, he did not visit the site of roads that Dr. Nutter testified had “a ways to go” before regenerating.

Dr. Hicks testified that the leaves or canopy of the trees are important in breaking the fall of water and intercepting it. Some water then evaporates. The canopy acts like a “little factory.” (Id., 3428). He agreed that when it is “chopped off” the canopy changes, the factory changes. (Id., 3429).

Dr. Hicks was presented with an article of Don Gasper who was with the State Department of Natural Resources. The article was called, “Forest Canopy Greatly Reduces Flooding.” Dr. Hicks disagreed with Gasper, who wrote that the recent studies show that canopy reductions of 30 percent result in noticeably higher peak flows. (Id., 3425-36). Dr. Hicks disagreed that the forest canopy greatly reduces flooding in summer, when most storm events occur. (Id., 3437). Dr. Hicks disagreed that canopy reduction beyond 30 percent, increasing peak flow, has results suffered far below, off-site generally on the downstream neighbor. (Id., 3438).

Dr. Hicks’ testimony is easily characterized by the following exchange:

Q. So you don’t believe a reasonably prudent landowner ought to know how much water they’re going to discharge onto their neighbor’s property?

A. I do not believe that.

(Id., 3578).

**3. William Gillespie’s opinions are based on a visual examination of about 4 percent of the Slab Fork subwatershed, some 5 years after the event.**

William Gillespie is a forester and a geologist. He is on the faculty at West Virginia University and teaches classes such as botany, forestry, history of botany and plant paleontology. (Tr. Vol. XXIV at 4931-32). He has worked as a research geologist for the U.S. Geological Service, is cooperating geologist with the W.Va. Geologic and Economic Survey, is a forester for the State

Department of Agriculture, and assisted in the drafting of the original West Virginia BMP's. (Id., 4937). He was qualified to testify as a forester, geologist, expert in BMP's, industry standards and water standards.

Mr. Gillespie testified that "decent" forests have no overland flow. Rather, the flow is always underground, two or three feet down, going through the piping system left from the tunnels of rotted roots. (Id., 4960).

Mr. Gillespie's "investigation" was limited to the White Oak Lumber harvesting in the Mullens watershed and Slab Fork subwatershed. That amount was only 4.06 percent of the Slab Fork subwatershed and 2.52% of the Mullens watershed. All of his opinions were limited to that meager portion of the watershed.

Mr. Gillespie testified that White Oak met professional forestry standards, state law, BMP's and other regulations. (Id., 5023). He further opined that the harvestry operations did not add to the amount of water in the stream – the peak flow. (Id., 5027). According to Mr. Gillespie, the use of the property was reasonable. (Id., 5028).

Significantly for the Appellants, Dr. Gillespie testified that the infiltration rate number was 19 inches an hour on the forest properties he visited. The White Oak properties visited by Dr. Gillespie in Wyoming County were said to be "healthy" forests with the expected humus layer. It is his estimate that "at least 19 inches" of water an hour can infiltrate the healthy forest floor. (Tr. Vol. XXV at 5097). Indeed, in West Virginia, he has seen an undisturbed healthy forest floor infiltrate some 400 inches of water an hour. (Id., 5104-05). The 19 inches of water an hour of infiltration then processes to subsurface flow in the middle of the soil. From the top of the mountain, that water flows downhill underground. (Id., 5098).

Dr. Gillespie agreed that when a bulldozer cuts a road it “surely does” interrupt subsurface flow which can pipe out into the road becoming overland flow. (Id., 5099). He agreed that in timbering, the forest floor is impacted by cutting and removal with road cuts and skid trails. (Id., 5103-04).

Dr. Gillespie understands that the rainstorm at issue was in the range of 6 inches in 12 hours. He agreed that a healthy forest floor should be able to infiltrate six inches of rain in twelve hours. (Id., 5105). Certainly, six inches in 12 hours is substantially less than 400 inches an hour or even 19 inches an hour infiltration rate. Dr. Gillespie opined that he found no evidence of overland flow from July 8, 2001. Of course, his opinion is based on an examination of about 4 percent of the Slab Fork subwatershed and 2.5% of the Mullens watershed conducted some 5 years after the event.

Frankly, the jury is entitled to consider the credibility and disregard all the testimony in this scenario when the opinion is premised on the belief that he thinks he would have found “leaf piles” five years later if there was overland water flow. (Id., 5106). This is the same expert who “tested” water infiltration and had to concede that the water gage he filled and placed on the haul road or skid trail still had a substantial amount of water in it five hours later! On the healthy forest floor, the same amount of water in his “test” gauge infiltrated in less than twenty seconds! (Id., 5102). Appellants respectfully submit that the jury well understood what this meant regarding water flow in a watershed with at least a forty percent land disturbance rate. Again, the trial court chose to ignore the evidence before it.

4. **Western Pocahontas's manager, Joseph Newlon, does nothing to consider the effect of timbering and land disturbance on water runoff and impact to downhill neighbors**

Mr. Joseph Newlon was called as a witness by both Appellants and Appellees. (Tr. Vol. XIII at 2383-2573; Tr. Vol. XXI and XXII at 4414-4554). Mr. Newlon works for Western Pocahontas. He is the manager of forestry resources. He works in six southern West Virginia counties, eastern Kentucky, Alabama and Indiana. Approximately 85% of his time is spent in West Virginia. (Tr. Vol. XII at 2384, 86).

Mr. Newlon's responsibilities include forestry and overseeing other uses of the property including recreation, hunting, timber production, water quality, air quality and wildlife. (Id., 2386). He has worked on the property some 33 years. Among other things, Mr. Newlon designs forest management and operating plans, sets yearly cutting units, negotiates timber harvest agreements and inspects operations. (Id., 2392).

Mr. Newlon does absolutely nothing in terms of considering the effects of timbering on his neighbors. He does not consider water flow issues. Mr. Newlon simply does not "consider forestry operations as increasing water flow from anything." (Id., 2573).

Mr. Newlon appears to believe that abiding by BMP's takes care of all issues. Accordingly, with respect to managing the property he has never had a rain gage placed. He has never had a runoff gage placed. He has never had a storm water runoff analysis conducted prior to timbering. He has never done anything to measure the impact of water runoff on the property. (Id., 2565-66).

Of course, one does not need gages in a subwatershed or information and data obtained from them if one simply refuses to even consider the possibility that forestry operations increase water runoff and flow. (Id., 2572-73).

5. **Joseph Sobel's manipulated and inflated meteorological calculations cast doubt on the reliability of his methodology and opinions.**

Joseph Sobel, PhD, testified for the Appellees as an expert in meteorology and forensic meteorology. Dr. Sobel works for AccuWeather, Inc. (Tr. Vol. XV at 3116-17). Dr. Sobel testified that the rain event at the western edge of the Mullens sub-basin was a greater than 1,000 year return period storm. He stated that it was "an extremely rare event" with an "exceptionally small probability of occurring at any one particular spot." (Id., 3141-42; 45). The opinion reportedly was based on Doppler radar, recorded rainfall historical data and "ground truth - rain gage data." Across the watershed, Dr. Sobel testified that the range of total rainfall was between 3 1/2 to 4 inches in some areas, 4 1/2 to 5 inches in some areas and in some smaller pockets was up to 6 1/2 to 7 inches. (Id., 3134-35).

The data and the calibration supporting the opinion that the rain was an extremely rare 1,000 year return period storm event fell apart on cross-examination. While there was Doppler radar available in Charleston, West Virginia located within 50 miles of Mullens and Oceana, Dr. Sobel did not use that "preferred" information because of a "shadow" in the loop. Instead, for his calculations and opinions Dr. Sobel used only Blacksburg, Virginia radar some 70 miles away. No exhibit used by Dr. Sobel relied on the Charleston Doppler although his direct examination testimony was to the effect that they did. (Id., 3146-48).

Next, Dr. Sobel "determined" that the Blacksburg Doppler was "under-representative" of the rainfall in Mullens by 25 percent. Every number, every chart and every calculation made by Dr. Sobel was thereby increased by 25 percent. (Id., 3148-49). Dr. Sobel's estimates of rainfall amounts in the Mullens watershed were augmented 25 percent to get to his range of numbers. He prefers the

term “calibrated” to augmented. (Id., 3160). One is left to question whether this is the type of calibration that the trial court finds reliable.

To get to this 25 percent increase, Dr. Sobel used eight sites to obtain rain gauge computations. None of these eight rain gage stations came from the Mullens watershed! (Id., 3150). He chose not to use available mine drain collection data required to be kept by mining companies in the Mullens watershed. (Id., 3149-50). Instead, Dr. Sobel picked eight locations outside the watershed for his rainfall data . (Id., 3150-51). This “data” which came from Beckley, Bluefield, Oceana, Dry Creek, Flat Top, Pineville and Bluestone Lake constitutes Dr. Sobel’s so-called “ground truth.”

The historical research data is just as ludicrous. Dr. Sobel looked at a rainfall of 4.85 and 3.65 inches in 8 hours in July, 1954 in Pineville. However, he did not determine whether the storm traveled from Pineville before timbering in Mullens, how much rain fell in Mullens, or whether or not Mullens flooded before timbering. The same is true for the other significant storms referenced, including several in 1964 and 1980 with heavy rainfall. (Id., 3152-54). Dr. Sobel conveniently avoided, despite the significant rain events, looking at whether or not the town of Mullens itself was flooded on prior occasions, despite significant historical rain events. (Id., 3155).

The simple truth is that if Dr. Sobel had not manipulated the data or inflated the Doppler by 25 percent, he could not have reached the opinion of a 1,000 year storm event! Instead, there would be ranges of storm events across the watershed from 50 to 200 and 200 to 500 year events.

It also brings us directly to the bias subjectively revealed by the trial court in its Order. The trial court used the term “diluvian” in its findings of fact for describing what all parties agreed was a significant rain event. (Order at 8). Diluvian means flood. Thus, the trial court engaged in its

entire analysis with the starting point that the heavy rain event in and of itself constituted a flood! Thus, Appellants' were at a disadvantage because of a prejudicial mind set that evidences the trial court's adoption of the "Act of God," "rain of biblical proportions" defense. Thus, the trial judge ignored the teaching of In re: Flood Litigation that "[f]or an act of God to constitute a valid defense and exonerate one from a claim for damages, it must have been the sole cause, and not just a contributing cause of the injuries or damages sustained." 216 W.Va. 534 at 549, 607 S.E.2d 863 at 878, citing, Syl. Pt. 3, Adkins v. City of Hinton, 149 W.Va. 613, 142 S.E.2d 889 (1965).

#### **IV. ASSIGNMENTS OF ERROR**

**THE TRIAL COURT ERRED IN GRANTING THE MOTION OF APPELLEES/DEFENDANTS FOR JUDGMENT AS A MATTER OF LAW AND CONDITIONALLY GRANTING THE MOTION FOR A NEW TRIAL**

#### **V. POINTS AND AUTHORITIES RELIED UPON AND DISCUSSION OF THE LAW**

##### **A. Standard of Review.**

The appellate standard of review for the granting of a motion for judgment as a matter of law pursuant to Rule 50 of the West Virginia Rules of Civil Procedure is de novo and will be sustained when only one reasonable conclusion as to the verdict can be reached. If reasonable minds could differ as to the importance and sufficiency of the evidence, a circuit court's ruling granting a judgment as a matter of law will be reversed. *See, e.g., Arbogast v. Mid-Ohio Valley Medical Corp.*, 214 W.Va. 356, 589 S.E.2d 498 (2003); Syl. Pt. 3, Alkire v. First National Bank, 197 W.Va. 122, 475 S.E.2d 122 (1996). In fact, this Court must (1) assume all conflicts in the evidence were resolved by the jury in favor of the prevailing party; (2) assume as proved all facts which the prevailing party's evidence tends to prove; and (3) give to the prevailing party the benefit of all favorable inferences which reasonably may be drawn from the facts proved. *See, Syl. Pt. 5 Orr v.*

Crowder, 173 W.Va. 335, 315 S.E.2d 593 (1983). This is the same standard the trial court was required to apply which was not applied. This high standard of review is particularly appropriate here given that the ruling of the trial court is grounded in a finding that the Appellants' experts consisted of scientific rather than engineering evidence. This Court has long held that the trial court's determination regarding whether the evidence is scientific, technical or other specialized knowledge is a question of law which is reviewed de novo. See, e.g., Gentry v. Mangum, 195 W.Va. 512, 466 S.E.2d 171 (1995).

In the usual situation regarding the trial court's grant of a new trial under Rule 59 of the West Virginia Rules of Civil Procedure, the appellate standard of review is abuse of discretion but this Court has made it clear that the power to grant a new trial should be used sparingly. Gonzales v. Conley, 199 W.Va. 288, 484 S.E.2d 171 (1997); Tennant v. Marion Health Care Fdn., Inc., 194 W.Va. 97, 459 S.E.2d 374 (1995). Here, however, the standard of review for the conditional grant of a new trial should be de novo inasmuch as the trial judge's reasoning and analysis is wholly rooted in his determinations regarding the Appellants' expert witnesses and thus flows from questions of law.

**B. West Virginia applies the reasonable use rule with respect to surface water.**

In Morris Associates, Inc., v. Priddy, 181 W.Va. 588, 383 S.E.2d 770 (1989), the Court formally adopted the reasonable use rule with respect to surface water. The Court held that:

“[g]enerally, under the rule of reasonable use, the landowner, in dealing with surface water, is entitled to take only such steps as are reasonable, in light of all the circumstances of relative advantage to the actor and disadvantage to the adjoining landowners, as well as social utility. Ordinarily, the determination of such reasonableness is regarded as involving factual issues to be determined by the trier of fact.”

Id., Syl. Pt. 2.

Surface water was long ago defined as follows:

Surface water is water of casual, vagrant character, oozing through the soil, or diffusing and squandering over or under the surface, which though usually and naturally flowing in known direction, has no banks or channel cut in the soil: coming from rain and snow, and occasional outbursts in time of freshet, descending from mountains or hills, and inundating the country; and the moisture of wet, spongy, springy, or boggy land.

Syl. Pt. 2, Neal v. Ohio R.R. Co., 47 W.Va. 316, 34 S.E. 914 (1899).

More recently, the Court had noted that surface water either “falls from the sky, comes up from a spring, or flows from a higher grade to a lower one.” Whorton v. Malone, 209 W.Va. 384, 389, 549 S.E.2d 57, 62 (2001).

Whorton involved a case where defendants were developing their properties. Land was cleared, roads built and ditches and culverts were constructed. Thereafter, the neighboring plaintiffs experienced flooding claimed to be exacerbated by the development activities. Significantly, the Court made a point of recognizing that such activities can “significantly change the amount of water the land can absorb during a storm, and the water that will run off.” It is noteworthy that this Honorable Court can appreciate what Western Pocahontas, its forestry experts, and the trial court refuse to acknowledge – that haul roads, skid roads, log landings and tree cutting in mountainous topography can change the amount of water absorption and runoff.

In In re: Flood Litigation, 216 W.Va. 534, 607 S.E. 2d 863 (2004), the Court answered certified questions from the flood litigation panel. In so doing, the Court rejected strict liability as a viable cause of action but provided a roadmap for the application of negligence, nuisance and riparian rights theories in actions asserting damages caused by alterations in the land resulting in water flow and absorption changes. In this matter, the jury was fully instructed in accordance with the Flood Litigation opinion.

**C. Appellants' Expert, John Morgan, did not rely on the opinions of a nontestifying expert and the trial court fundamentally erred in finding that he did and compounded its error by relying on it in striking the testimony of Mr. Morgan.**

The trial court's Order repeatedly and erroneously states that Mr. Morgan relied upon the opinions of Dr. William Martin, a forest ecologist originally identified as an expert witness by the Appellants, but who was not called to testify. (Order at 19-23). The trial court's flawed reasoning in striking Mr. Morgan was that there was no indication of the intellectual rigor, standards of science and standards of technical validity of Dr. Martin's work and that there was no opportunity for cross-examination of him.

The flaw with the trial court's analysis is that a reading of the entirety of John Morgan's testimony, both direct and cross-examination, plainly shows no reliance on Dr. Martin whatsoever. Yet, the trial court erroneously references Dr. Martin some eight times in the Order! It should also be noted that in his deposition, Mr. Morgan stated that he did not rely on the report of Dr. Martin. (Morgan Depo. 1-20-06 at 55). The trial court is factually wrong with respect to its foundational component of reasoning used to deprive Appellants of their jury verdict. Thus, the Order should be reversed and vacated on this basis alone<sup>5</sup>.

**D. The trial court erroneously found that compliance with sediment-related best management practices vitiated Appellants' cause of action.**

The trial court has erroneously converted its finding that Western Pocahontas had a timber management plan and followed the BMP's into a tool for discrediting the analysis of surface water flow changes as a result of land disturbances from timbering. The trial court ignored the fact that

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<sup>5</sup>It should be noted that Appellees took an extensive deposition of Dr. Martin such that had there been any reliance on Dr. Martin by Mr. Morgan, there would have been an ability to cross-examine Mr. Morgan.

the BMP's do not set forth regulations intended to prevent flooding. Rather, the BMP's deal with sediment.

The trial court used adherence to BMP's as a hammer to destroy the Appellants' case even though the BMP's have no relevance to the issues of rate and manner of water flow. The trial court concluded that following irrelevant sediment-related BMP's equates to a defense verdict. (Order at 10, 11, 35 and 36). This conclusion contravenes the holding of In re: Flood Litigation.

In re: Flood Litigation made it abundantly clear that a landowner's conformity with state and/or federal law and/or regulations does not "vitiating" any cause of action for negligence, nuisance or unreasonableness. The trial court judge, together with the other members of the flood panel, had found that compliance "vitiating" the cause of action. This Court determined that the trial judge and the panel were wrong. Yet, here the trial judge resurrected his erroneous and rejected reasoning.

Rejecting the question and answer of the flood panel, this Court explicitly held in Syllabus Point 9 as follows:

Compliance of a landowner in the extraction and removal of natural resources on his or her property with the appropriate state and federal regulations may be evidence in any cause of action against the landowner for negligence or unreasonable use of the landowner's land if the injury complained of is the sort the regulations were intended to prevent. Such compliance, however, does not give rise to a presumption that the landowner acted reasonably or without negligence or liability to others in his or her extractions and removal activities.

Id., 216 W.Va. 534, 607 S.E.2d at 876-877. (Emphasis added).

The trial court's post-trial Order depriving the Appellants of their jury verdict ignores the holding of this Court in In Re: Flood Litigation. The trial court's Order demonstrates both a disregard of the holding and a fundamentally malignant application of adherence to BMP's which are regulations intending to prevent sediment build-up and control water quality. The BMP's have

nothing to do with regulating surface water for the prevention of water absorption and increases in peak flow. A simple review of the BMP's makes it abundantly clear that they address soil runoff and sediment, meaning solid particulate matter.

West Virginia began developing practices to protect water quality on forest lands some time ago. A booklet titled "West Virginia Forest Practice Standards" was published in 1972 prior to the implementation of the Federal Water Pollution Control Act. The booklet set forth guidelines to protect soil and water quality. Subsequently, the West Virginia Department of Forestry has been publishing the manual titled "Best Management Practices For Controlling Soil Erosion and Sedimentation From Logging Operations in West Virginia." These are designed to minimize non-point source water pollution. The practices were developed in large part by researchers at the Fernow Experimental Forest in Parsons, West Virginia. The BMP's are reviewed every three years. The BMP's include topics related to streamside management zones, logging debris, road/log landing construction and pipe installation.

West Virginia moved from a voluntary program to a regulatory one in 1992 with the passage of the Logging Sediment Control Act, which provides that logging operations must reduce sediment. Failure to use BMP's causing soil erosion or water pollution is a violation of the Act. W.Va. Code §19-1B-1-14.

In making the review of BMP requirements, this Court need go no further than the jury instructions of the trial court which recited from the legislative findings and purposes of the Division of Forestry Legislation, W.Va. Code §19-1A-1-5, the Logging Sediment Control Act and the BMP's as follows:

The West Virginia legislature has declared that as a matter of public policy, and in accordance with state law, West Virginia has extensive forest resources, and their

continued development and expansion is vital to the economic well-being of the State and its people.

The production potential of the State's forest resources remains far greater than its present demand.

The promotion of existing forest product industries and the promotion of new forest product industries would benefit the State in terms of employment and additional revenue to the State.

To increase employment and boost the State's economy, the limits of the development of the potential of West Virginia forest resources must be reduced through an intensive campaign at making new contracts, developing new and existing markets, and increasing public awareness of the advantages of the forest resources in West Virginia.

The legislature has further found, however, that some activities associated with commercial harvesting of timber result in the exposure of soil and that, if uncontrolled, such exposed soil can erode, resulting in gullying, soil slippage and sediment deposition in streams.

It is the policy of the State to strengthen and extend the present sediment control activities of this state by implementing operator licensing, logger certification and logging operations notification programs through the Division of Forestry.

Best practice management – "Best Management Practices" means sediment control measures, structural or nonstructural, used singly or in combination, to reduce soil runoff from land disturbances associated with commercial timber – timber harvesting.

The "Chief" means the Chief of the Office of Water Resources, the Division of Environmental Protection, or his or her designee.

The "Director" means the Director of the Division of Forestry of the Department of Commerce, Labor and Environmental Resources, or his or her designee.

An "Operator" means any person who conducts timbering operations.

"Timbering operations" means activities directly relating to the severing or removal of standing trees from the forest as a raw material for commercial processes or purposes.

For the purpose of this article, timbering operations do not include the severing of evergreens grown for and severed for the traditional Christmas holiday season or the

severing of trees incidental to ground disturbing construction sites, access roads and gathering lines for oil and natural gas operations, or the severing of trees for maintaining existing or, during construction of, right-of-way for public highways or public utilities or any company – or any company subject to the jurisdiction of the Federal Energy Regulation Commission, unless the trees so severed are being sold or provided as raw material for commercial wood product purposes or the severing of trees by individual – by an individual on an individual’s own property for his or her individual use, provided that the individual does not have the severing done by a person whose business is the severing or removal of trees.

And “Sediment” means solid particulate matter, usually soil or minute rock fragments, moved by wind, rainfall or snow melt into the streams of the State.

Compliance or noncompliance with Best Management Practices by a defendant to whom they apply may be considered by you as one of the factors in determining whether the defendant’s use of the particular property involved was reasonable at the time.

However, it is not determinative of that question. Compliance of a defendant in the extraction and removal of natural resources on his or her property with the appropriate state and federal regulations may be considered by you as evidence that the landowner’s use of the land was reasonable.

It is not conclusive evidence that the land use was reasonable, but is a factor that should be considered by you, along with all of the circumstances and evidence presented.

(Tr. Vol. XXVII at 5321-5326). (emphasis added).

Thus, the trial court instructed the jury as to BMP’s. The trial court, in accord with In re: Flood Litigation, correctly instructed that compliance with BMP’s is a factor to consider, but is not determinative. The jury followed the instructions. The trial court subsequently disregarded the instructions and the explicit holding of this Court in In re: Flood Litigation<sup>6</sup>.

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<sup>6</sup>It should be noted that Mr. Morgan testified accurately that the BMP program with respect to water related to water quality as opposed to water quantity. The BMP’s “say nothing” about peak water flows and water volumes. (Id., 1908-09). Likewise, Western Pocahontas’s expert, Dr. Hicks, testified that the stated intent of the BMP’s is to deal with erosion, sediment and pollution going into streams. He further agreed that no witness for the Appellants suggested to anyone that the purpose for which the BMP’s were created had anything to do with the events of July 8, 2001. (Tr. Vol. XVI at 3414-15).

The trial court in its Order ignored the plain fact that the BMP's address sediment control and do not address peak water flows and water volumes. The trial court failed in acknowledging that the BMP's were not intended to prevent increases in peak rate flows, water volume and flooding.

Further, the trial court erroneously made compliance with sediment-related BMP's determinative of reasonability. This determination is squarely at odds with In re: Flood Litigation.

**E. Appellants' Experts, Dr. Bell and Mr. Morgan, were qualified to offer expert testimony regarding water flow on the surface of land and the effects of land disturbance, and the testimony which went to all three trial issues is in the nature of universally-accepted technical engineering principles such that a Daubert/Gentry/Wilt analysis does not apply.**

The trial court has misarticulated the West Virginia law regarding the admission of expert evidence. The resulting error has been compounded by misapplication to the evidence. The trial court wrongly grafted a rigid and restrictive analysis of Kumho Tire Co., v. Carmichael, 526 U.S. 137 (1999) onto its expert analysis. The West Virginia Supreme Court has explicitly rejected such approach in Watson v. Inco Alloys Int'l, Inc., 209 W.Va. 234, 545 S.E.2d 294 (2001).

This misarticulation and misapplication by the trial court results in a wholesale rejection of the methods and principles used in the United States and throughout the world to evaluate the rate and flow of water off the surface of land. One trial court judge in southern West Virginia has now

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Further, the trial court erroneously found that Mr. Morgan offered no direct testimony regarding material violations of BMP's by Western Pocahontas. (Order at 11). The Judge completely usurped the jury by ignoring the testimony regarding timbering roads. Not only was the total number of logging roads created in the Slab Fork watershed significant, but BMP's were violated due to the proximity of the logging roads to the streams which was an important part of Mr. Morgan's analysis. (Id., 1906). The BMP's require, in part, that there cannot be any disturbance within 100 feet of a stream. Mr. Morgan's analysis with respect to only perennial (year round flowing) streams was that 5 percent of the roads identified were within the 100 foot stream management zone. (Id.) That analysis did not even factor in the ephemeral (responding to rainfall) streams which are also to be protected. (Id.) Thus, the 5 percent is conservative.

rejected an entire field of engineering used regularly and routinely to predict and analyze surface water flow whether for land disturbance resulting from the building of a box store site, erecting sports arenas, or engaging in mountaintop removal mining across thousands of acres! The rejection of the basic engineering principles of calculating runoff occurred due to an elaborate form of bootstrap logic. The trial court relied on the Western Pocahontas' forestry experts to discount the water runoff analysis of Appellants' engineers. The falacy is that the Western Pocahontas forestry experts did absolutely nothing to gage, consider or analyze water runoff. Their approach is to simply assert that the universal water runoff measurement approaches are unnecessary and do not apply to a forest. The jury was entitled to unveil these two approaches and make its own considered decisions.

Rule 702 of the West Virginia Rules of Evidence governing testimony by experts provides as follows:

If scientific, technical, or other specialized knowledge will assist the trier of fact to understand the evidence or to determine a fact in issue, a witness qualified as an expert by knowledge, skill, experience, training, or education, may testify thereto in the form of an opinion or otherwise.

From 1923 until 1993, courts across the country applied what was referred to as the "general acceptance" or "Frye" test in determining admissibility of expert witness testimony. Frye v. United States, 293 F.1013 (D.C. Cir. 1923), involved a proffered novel opinion of an expert to testify to the result of a "deception test," which was measured by changes in blood pressure readings. The appellate court affirmed the exclusion of the testimony finding that the technique lacked recognition among psychologists. The Court stated: "just when a scientific principle or discovery crosses the line between the experimental and demonstrative stages is difficult to define. Somewhere in the

twilight zone the evidential force of the principle must be recognized, and while courts will go a long way in admitting expert testimony deduced from a well-recognized scientific principle or discovery, the thing from which the deduction is made must be sufficiently established to have gained general acceptance in the particular field in which it belongs." *Id.*, 1014.

Following the enunciation of the general acceptance test, courts struggled to select both the relevant scientific community and the level of agreement required for "general acceptance." The issues presented difficulties in cases involving chemical and pharmaceutical agents and toxicological and epidemiological expert evidence. Many courts stringently applied Frye and evidence was excluded. Over time, a body of commentary critical of the Frye "general acceptance" test developed. The criticism generally was that it was being applied in a fashion that caused it to be an unnecessary impediment as technology and science advanced.

It was in that environment of criticism that the United States Supreme Court stepped in and rejected the Frye "general acceptance" test. Daubert v. Merrell Dow Pharmaceuticals, Inc., 509 U.S. 579 (1993) involved allegations of serious birth defects as a result of the mothers' taking of an anti-nausea drug during pregnancy. The plaintiffs sought to defeat a summary judgment motion with the affidavits of epidemiological experts who sought to testify on the basis of in vitro, animal and epidemiological studies that the drug caused the birth defects. The district court granted summary judgment finding that the expert evidence was not "generally accepted." The appeals court affirmed. The United States Supreme Court reversed.

The Daubert opinion provided that the trial judge must determine at the onset whether the expert is proposing to testify to "scientific" knowledge that will assist the trier of fact. The Daubert

opinion outlined four nonexclusive factors that a court may consider in making the preliminary assessment as to whether the proposed testimony is valid and applies to the facts.

First, is “testing” based on the notion that science is an empirical endeavor distinguished by whether the theory or technique can, and has been, tested. Second is peer review and publication which suggests reliability because it increases the chances that flaws will be pointed out. However, peer review and publication are not dispositive because some techniques are “too particular,” “too new,” or of “too limited” interest to be published. Third, is error/rate/standards which is important in cases involving a particular scientific technique. Fourth, is “general acceptance.”

In Kumho Tire Co., v. Carmichael, 526 U.S. 137 (1999), the Court extended the Daubert scientific knowledge analysis to “technical analyses.” Kumho involved plaintiffs who were severely injured after a tire blew out on a minivan killing one person and injuring others. The plaintiffs claimed that the tire was defective and had an expert in tire-failure analysis prepared to testify based on visual inspection methodology that the blowout was caused by a defect in the tire design or manufacture.

The trial court excluded the testimony and granted summary judgment for the defendant. The appellate court reversed finding that Daubert applied only to scientific theories or principles and to a situation where the expert’s testimony is based on skill or experience-oriented observation.

The Supreme Court held that the trial judge’s gatekeeping function in the federal system extended to all expert testimony. The distinction between scientific knowledge and technical or specialized knowledge was rejected. The result is that there is a great degree of unpredictability in the federal courts in analyzing 702 issues.

Significantly, the West Virginia Supreme Court has not adopted the Kumho approach. Thus, our jurisprudence is much more predictable. Even if this Court would adopt it, this Court would recognize, unlike the trial court here, that Kumho must be applied in a flexible manner. Indeed, Kumho stressed the importance of identifying “particular circumstances” of the “particular case.” The Kumho opinion quite plainly provided that the Daubert factors “may or may not be pertinent” in assessing expert testimony – a direction ignored by the trial judge here.

As the Kumho opinion noted, some cases will turn on scientific foundations while others focus on personal knowledge or experience. There are no absolutes for particular categories of expert testimony.

In West Virginia, the Daubert analysis was adopted based in part on an assessment that the Frye “general acceptance” test was too rigid, too stringent, and too preclusive of opinion testimony. In other words, Daubert was adopted in West Virginia with a recognition that the thrust of the West Virginia Rules of Evidence is liberal rather than austere preclusive. Rule 702 was to have a liberal thrust with the general approach of relaxing traditional barriers to opinion testimony. Wilt v. Buracker, 191 W.Va. 39, 443 S.E.2d 196, (1994). The trial court here has completely abandoned the principles that the rule on experts is permissive.

In Gentry v. Mangum, 195 W.Va. 512, 466 S.E.2d 121 (1995), the Court provided considerable guidance as to how to conduct an appropriate Daubert/Wilt analysis. The Court held that a police officer was qualified to give expert testimony regarding the failure to train deputies on retrieval and use of shotguns in an action involving a deputy sheriff who was injured allegedly due to a policy requiring that shotguns be kept in the trunk. Significantly, our Court held that the issue of admissibility under Daubert/Wilt arises only if the testimony deals with scientific knowledge.

“Scientific” applies to a grounding in the methods and procedures of science while “knowledge” is more than subjective belief or unsupported speculation.

The approach of the West Virginia Supreme Court continued in Watson v. Inco Alloys Int’l., Inc., 209 W.Va. 234, 545 S.E.2d 294 (2001). Watson involved a wrongful death action asserting a products liability claim against the manufacturer of a stand-up lift truck. The trial court excluded plaintiffs’ expert witness, a professional engineer, based on a purported Gentry analysis with respect to the issues of design defect and lack of warnings. The engineer’s testimony was also offered in the areas of causation of injuries and enhancement of injuries. This Court reversed.

Once again, this Court addressed the distinctions between “technical,” “specialized” and “scientific” knowledge. Technical knowledge is that pertaining to mechanical or industrial arts and the applied sciences. Specialized knowledge refers to knowledge focused on a particular area of study, profession or experience. Scientific knowledge involves validation; formulating a hypothesis and engaging in experimentation or observation to test the hypothesis.

Of great importance to the instant matter, this Court specifically held in Syllabus Point 3 of Watson that an engineer’s testimony is generally considered technical in nature and not scientific. Thus, the gatekeeping analysis of Daubert/Wilt simply does not apply. Likewise, Dr. Bell and Mr. Morgan have specialized or technical knowledge, education and experience applied around the globe with respect to the precise issue involved here. Specifically, how does water move, how do changes in land affect water movement, and at what point does one have to address the changes so as not to cause off site impact to ones’ neighbors. This is engineering and not science of the sort requiring a Daubert analysis. This Court has repeatedly rejected the argument that Daubert/Gentry factors and

analysis should apply in an engineering setting. The trial court disregarded the explicit teachings of this Court.

The trial court has refused to accept the teachings of this Honorable Court. The trial court acknowledged that in this State Kumho has not been adopted, but then dismissed it with the invocation of a cavalier “nevertheless.” The trial court then veered off on an analysis that is not supported by the law as developed in West Virginia.

The experts for the Appellants are of the sort whose testimony is considered technical such that the Daubert/Wilt analysis does not apply. The experts are engineers who applied standard and universally accepted engineering principles in consideration of the facts in issue.

The framing of the case by the trial court required a consideration of how water moves across undisturbed and disturbed land. That is precisely what the experts for the Appellants do using accepted, regular and commonly used engineering principles and models. They applied these principles and models to land that happens to be forested. Forest land is not somehow special such that it must be exempted from applying basic engineering principles to show the rate and flow of water.

On the other hand, there are foresters with years of specialized knowledge in forestry who function and operate from the base position that nothing done in terms of harvesting timber, including cutting haul roads, skid roads and log landings, affects water flow on the surface of the land. These experts offered by Western Pocahontas simply reject the premise that timbering operations will ever effect surface water flow. Thus, under this reasoning, there is no reason for the forest industry to consider surface water, study it, or collect data by using rain gages and flow gages. It simply is not done. It is in this context that the trial court engaged in a wholesale adoption of the

Appellees' expert witnesses' views as a vehicle to discredit the engineering discipline and expert testimony of Petitioner's experts. The reasoning is circuitous.

The trial court was misguided by *Western Pocahontas* and rejected the use of the FATT report by applying a purported Daubert style analysis to conclude that its use as evidence in the case was improper because it was "untested," "uncalibrated," without "error rates" and had no "significant peer review." This is not a situation with a free-for-all of a befuddled jury confounded by bizarre, absurd, irrational pseudoscientific assertions. *See, Wilt*, 191 W.Va. At 45, 443 S.E.2d at 202.

The trial court has engaged in a wholesale rejection of the only principles – engineering principles – used around the globe to evaluate water runoff resulting from land disturbances. Indeed, Appellants respectfully suggest that under the principles enunciated in Wilt, the trial court could easily have taken judicial notice of the general use, acceptance and reliability of the engineering principles to evaluate water runoff. Instead, the trial court has decided that forests are unique and one never need consider the consequences of widespread disturbance in a watershed to ones neighbors. The rejection of engineering prediction measures of water runoff was based on the adoption of the view that in forests one can disturb as much as one wants because forests infiltrate water differently such that disturbance need never be considered insofar as water runoff is concerned.

Such an approach grants one type of economic development a blank check to disturb at will and pleasure so long as sediment regulations are followed. It is an approach that thumbs its nose at a century of developed law regarding reasonable use with respect to surface water. It rejects common sense. It rejects what this Court has explicitly acknowledged that development and change in the land can "significantly change the amount of water the land can absorb during a storm, and the amount of water that will run off." Morris, *Supra* at 549 S.E.2d at 62.

The approach has also led to a confusing post-trial Order regarding trial issue two as to whether the banks overflowed as a result of increases in peak flow. On the one hand, the trial court correctly found in the facts, conclusions of law and issues tried sections, that the opinions of Mr. Morgan addressed all three trial issues in that there was (1) a material increase in peak flow caused by the operation of Western Pocahontas; (2) the increase materially contributed to the overflow of Slab Fork Creek and its sub-tributaries and; (3) the cumulative effect of timbering operations was unreasonable, caused excessive peak flow and materially contributed to the overflow of the creek and tributaries. (Order at 10, 17-18, 34). On the other hand, in the conclusions of law/expert opinions and issues tried sections of the Order, the trial court wrongly stated that there was no expert testimony about trial issue two regarding overflowing of the stream banks. (Id., 19, 30, 33). It appears that the trial court's confusion is a by-product of the flawed expert analysis and the wholesale rejection of the engineering application to address water flow in forest land.

The fact is, as discussed above, Appellants presented evidence and Mr. Morgan explicitly testified that the use of the property materially contributed to the flow and flood events of July 8, 2001. (Tr. Vol. VIII, 1878-79, 1953-58).

**F. The post-verdict reconsideration of the trial court designed and imposed management methods now determined by the trial court to be mismanagement including, but not limited to, the revisiting of expert witness qualifications and testimony and the use of an improper Daubert/Kumho analysis to strike the Appellants' experts, thereby gutting Appellants' case with the grant of judgment as a matter of law constitutes an unconstitutional deprivation of Appellants' right of trial by jury.**

The West Virginia Constitution provides as an enumerated fundamental right that "[i]n suits at common law, where the value in controversy exceeds twenty dollars exclusive of interest and

costs, the right of trial by jury, if required, by either party, shall be preserved.” Art. III, §13 Constitution of West Virginia.

The manner in which the trial judge has used “management” practices and rules that were intended to allow expert testimony to assist the jury violates the core principles of the common law and deprives civil litigants of their right to a jury trial. The trial court misapprehended its role by removing power from the jury and replacing it with judicial power seized by virtue of contorting management principles and rules meant to be liberally applied. It is time for this Honorable Court to direct trial judges that our Constitution and our jurisprudence commands respect for the role of the jury in our system. The constitutional right to trial by jury is not replaced by narrow, rigid and prohibitive application of management tools and rules. The modern rules are not meant to be applied in a fashion that sacrifices the fundamental right of trial by a jury on the altar of judicial power and expediency. The intersection here between management techniques and the flawed Rule 702 analysis has grave constitutional implications.

The approach of the trial judge has improperly encroached on the traditional function of the jury as fact finder. This Honorable Court should discourage the development of a trial culture that promotes the use of managerial and procedural tools as a vehicle to curtail litigation, close the courthouse doors and deprive litigants of the right to a trial by jury. For a more scholarly discussion of these and analogous issues of summary judgment *See*, Sandra F. Gavin, “Managerial Justice in a Post-Daubert World: A Reliability Paradigm.” 234 F.R.D. 196 (2006); Suja A. Thomas, “Why Summary Judgment is Unconstitutional,” 93 Va. L. Rev. 139 (2007).

Here, if the trial judge was going to act in the role of “gatekeeper” regarding expert opinions, he should have so acted prior to trial. He had a duty to make such rulings earlier so as to not

promote the enormous waste of time of potential jurors, jurors, witnesses, and counsel, as well as the tremendous monetary costs that have been incurred. Significantly, had the trial judge exercised his duty timely, Appellants would have been able to avail themselves of this Honorable Court and explain why, as a matter of law and fact, he was wrong. Instead, we are left with an inexplicable post-trial ruling.

The trial judge's approach of allowing the debate to be presented to the jury was actually correct, in accord with the liberal thrust of the rules aimed at allowing more rather than less opinion testimony and in line with this Court's case law. The trial judge's post-trial revisiting of the matter can only be explained by the suggestion that he improperly took on the function of determining how he would have ruled had he been a juror rather than determining whether the evidence was such that a reasonable jury might have reached the decision it did.

This case was tried by skilled advocates. The jury was able to hear direct examinations of the experts and very vigorous cross-examinations. The advocacy allowed the jury to hear opinion testimony that was challenged and tested. The jury was given much to consider through the directs and crosses regarding the approach and reliability of all the experts on both sides. The jury heard the debate and concluded that it was not reasonable, under all the circumstances, for Western Pocahontas to conduct its activities, to the extent it did, in a steep mountainous subwatershed which drained directly to a populated community while claiming it had no reason or duty whatsoever to consider how its land disturbing activities might affect the downhill downstream neighbor<sup>7</sup>.

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<sup>7</sup>This Court will recall that the trial judge engaged in similar reasoning which if uncorrected would have resulted in an unconstitutional deprivation of the right to trial by jury when, using the mechanism of a class certification hearing, went so far as to "make legal findings that, in effect, found that the plaintiffs could not prevail on the merits of their case. The circuit court even went so far as to conclude that 'the evidence shows that Rezulin was not a defective product.'" The trial judge then, like here, improperly adopted the testimony of an expert retained

**G. The trial court erred in granting a conditional new trial pursuant to Rule 59 of the West Virginia Rules of Civil Procedure.**

Western Pocahontas filed a Motion For a New Trial pursuant to Rule 59 of the West Virginia Rules of Civil Procedure. Western Pocahontas asserted and briefed some eleven claims of error allegedly supporting the Motion. The trial court limited its consideration to six issues and found that the verdict was against the clear weight of the evidence. The trial court conditionally granted the Motion For a New Trial indicating that Western Pocahontas would be entitled to a new trial on all issues, should this Court reverse the trial court in the granting of the Motion for Judgment as a Matter of Law. As will be shown, the reasoning of the trial court is circuitous and relies on the erroneous analysis made in granting the Motion for Judgment as a Matter of Law.

**1. Appellants' experts were properly qualified to testify under Rule 702 and West Virginia Jurisprudence.**

In conditionally granting the Motion For a New Trial, the trial court adopted and reasserted its reasoning regarding Dr. Bell and Mr. Morgan. The trial court improperly found that they were not qualified to render their opinions, that the support for their opinions was untested, unreliable and amounted to "junk science" and that the engineering hydrology models were unreliable.

The Appellants respectfully adopt and incorporate their previous statements and arguments regarding Rule 702. The notion that the trial court has chosen to discredit as "junk science" the engineering principles used throughout the world to account for surface water runoff and provide solutions so as not to detrimentally affect ones' off-site neighbors is simply not understandable.

**2. The jury's "mental database" was not confused by evidence regarding parties who settled during the course of the trial.**

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by defendants to fashion his criteria for consideration. *See, In re: West Virginia Rezulin Litigation*, 214 W.Va. 52, 60, 585 S.E.2d 52, 60, and footnote 6. (2003).

The trial court has unfairly analyzed the ability of the jury to understand that as the case was sent to them to deliberate it involved only the Slab Fork subwatershed of the Mullens watershed and involved only land disturbance from harvesting timber as to one defendant - Western Pocahontas. The trial court's reasoning that the jurors were carrying in their "mental databases" significant evidence regarding other settled/dismissed defendants and locations such that the jury was overwhelmed by devastatingly prejudicial evidence is simply nonsensical. The trial court does not set forth any basis whatsoever for this determination in its mere two paragraph findings. Granting a new trial requires the trial court to set forth its reasoning with particularity.

The trial judge seems concerned that the trial started with two watersheds – Oceana and Mullens and with subwatersheds in each and against multiple defendants of different types some of which operated only in one and some which operated in more than one watershed. It is worthy of note that the trial judge created this very trial plan over the objections of all parties. The Appellants here, all of whom lived in Mullens, Wyoming County, sued only Western Pocahontas and had in issue only the Mullens watershed, vigorously advocated to proceed alone in Wyoming County, West Virginia. In the face of adverse rulings from the trial court, Appellants proceeded as required under highly onerous conditions and to victory only to have the trial court in a remarkable about-face, yank the rug out from under them.

In this instance, it was very clear from the testimony, exhibits, instructions and argument that there was one defendant in one subwatershed and that the case as submitted to the jury involved only timber management and harvesting in that subwatershed. The jury could easily understand this. If this decision is permitted to stand, then in all instances where there are partial settlements during

trial, the trial judge will be compelled to declare a mistrial and start all over because jurors cannot be trusted to clear their "mental databases."

3. **The Twin Falls State Park golf course photos were properly excluded and even if they should have been admitted their exclusion does not constitute error of the sort supporting a new trial.**

Western Pocahontas sought the admission of photographs purporting to show flooding of the Twin Falls State Park golf course which is located in Wyoming County, but is outside the Mullens and Slab Fork subwatersheds. Apparently, Western Pocahontas wanted to introduce and authenticate the photographs with the testimony of Scott Durham, who is said to have taken the photographs. Importantly, upon the exclusion of the photographs as anecdotal, Western Pocahontas did not vouch the record concerning Mr. Durham's anticipated testimony. *See*, Syl. Pt. 1, Horton v. Horton, 164 W.Va. 358, 264 S.E.2d 160 (1980). (If a party offers evidence to which an objection is sustained, that party, in order to preserve the rejection of the evidence as error on appeal, must place the rejected evidence on the record or disclose what the evidence would have shown, and its failure to do so prevents an appellate court from reviewing the matter on appeal.)

Appellants respectfully suggest that the reason that the record was not vouched is that the testimony would be to the effect that the golf course was a flat, cleared area where the trees had been removed and that the photos were in areas of drainage ponds. Thus, there would be no similarity to the steeply mountainous forested Slab Fork watershed. These photos were irrelevant.

Now, the trial court has done another "flip flop," noting that the "importance" of the photographs "was not clear" at the time they were excluded. The trial court recognized that the photographs were minor pieces of evidence, the exclusion of which was harmless. But, the trial court proceeded to piggy-back onto its other purported errors which "it committed in the

management of this trial” in order to find that the “cumulative effect” of the failure to admit the photographs “expanded exponentially” to deprive Western Pocahontas of a fair trial.

4. **Anecdotal evidence did not taint the trial such that the jury was prejudiced into resorting to passion and sympathy.**

As part of the trial court’s trial management plan anecdotal testimony regarding peak flow, out-of-bank water discharge and reasonable use was embargoed. Western Pocahontas sought a new trial based on the admission of purportedly embargoed tainted anecdotal evidence. The litany of complaints ranged from co-plaintiff’s counsel “flirting” and/or nonverbally communicating with the jury to the use during cross-examinations of passages from the FATT report prior to an objection being sustained.

At every purported instance where there was a proper objection, the trial court sustained it. Western Pocahontas did not request a curative instruction with respect to this so-called prejudicial error. *See, e.g., Rowe v. Sisters of Pallotine Missionary Society*, 211 W.Va. 16, 26, 560 S.E.2d 491, 501 (2001).

The trial court in a single paragraph, without identifying any instance either individually or cumulatively, wrongfully determined that this too is a basis for a new trial. The failure to particularize the purportedly cumulatively offending anecdotal evidence is a clear abuse of discretion.

5. **The admission of the FATT report was proper.**

As discussed in the statement of facts and in argument above, the trial court admitted the FATT report. The FATT report, as redacted, was used extensively by all parties in direct and cross-examinations of all witnesses. The FATT report applied the world-wide accepted engineering

modeling approaches to address water runoff issues resulting from development and land disturbances. These were the same approaches used by Appellants' experts.

Because the trial court wrongly found the internationally recognized, used and even mandated tools for addressing water runoff to be scientifically unreliable, the trial court likewise has now wrongly found that the admission of the FATT report was error.

Appellants adopt the previously made argument regarding Rule 702. It is an utter abuse of discretion to award a conditional new trial on the basis of the admission of the FATT report. Moreover, while the FATT report was discussed by all experts and admitted, it was not provided to the jury.

6. **The trial court is clearly wrong and clearly abused its discretion in awarding a conditional grant of a new trial.**

Certainly a trial judge has the authority to award a new trial under Rule 59 of the West Virginia Rules of Civil Procedure. The trial judge has the obligation to weigh the evidence and consider the credibility of the witnesses and if he or she finds that the verdict is against the weight of the evidence, he or she may set it aside. *See, e.g., Tennant v. Marion Health Care Fdn.*, 194 W.Va. 97, 459 S.E.2d 374 (1995), *Morrison v. Sharma*, 200 W.Va. 192, 488 S.E.2d 467 (1997); *Brooks v. Harris*, 201 W.Va. 184, 495 S.E.2d 555 (1997); *Witt v. Sleeth*, 198 W.Va. 398, 481 S.E.2d 189 (1996).

Although a trial judge's ruling in granting a new trial is entitled to great respect and weight, it must be reversed on appeal when it is clear that the trial court has acted under some misapprehension of the law or the evidence. *Adams v. Conrail*, 214 W.Va. 711, 591 S.E.2d 269 (2003). Here, all of the considerations and ruling of the trial judge, in the grant of the conditional

new trial are grounded in the error made with respect to the fundamentally flawed analysis resulting in judgment as a matter of law arising from the Rule 702 issues addressed.

The trial court did not provide much in the way of reasoning on this issue. Indeed, the entire substantive portion of the Order in this regard consists of less than two pages, much of which is an “apology” of sorts to the jury who sat for nearly three months. The trial court provides little for this Honorable Court to consider.

The trial court noted that it ruled that the testimony of Dr. Bell and Mr. Morgan was not reliable. The trial court indicated that even if this Honorable Court disagreed with him on that issue, he still finds that the “method and mode” of presentation of evidence by the Appellants was inadequate to meet their burden of proof. This is explained by the trial court only by bootstrapping to its ruling on the so-called unreliable scientific evidence. The purported inappropriate cumulative objectionable evidence, anecdotal evidence, improper admission of evidence and improper exclusion of evidence all dovetail to the Rule 702 issues.

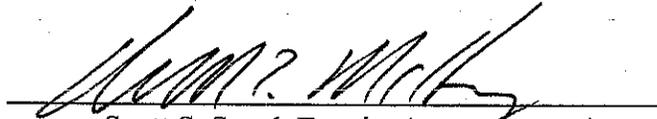
The evidence the jury considered with respect to both the Appellants and Appellees has been outlined for this Court. A review of it plainly demonstrates that the issues before the jury were not particularly complex or technical – certainly not in the way epidemiological and long-term studies often tend to be. This Court will be able to “separate the wheat from the chaff.” More importantly, this Court will be able to conclude that the jury was able to “separate the wheat from the chaff” and did not resort to improper speculation as suggested by the trial judge’s “belief.”

## **VI. CONCLUSION AND PRAYER FOR RELIEF**

Appellants respectfully request, based upon the record and the foregoing, that this Honorable Court reverse and vacate the “Order Granting in Part and Denying in Part Defendant’s Motion For

Judgment as a Matter of Law or For a New Trial” in all respects; order the jury verdict reinstated and direct that this matter proceed to Phase II of trial in Wyoming County, West Virginia.

Respectfully submitted,  
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Brief of Appellants

In re: Flood Litigation (Upper Guyundotte River Watershed Subwatershed 2a)

IN THE SUPREME COURT OF APPEALS OF WEST VIRGINIA

No. 33710

**IN RE: FLOOD LITIGATION**

**Raleigh County Civil Action No: 02-C-797**

**Honorable John A. Hutchison, Mass Litigation Panel**

**(Upper Guyandotte River Watershed Subwatershed 2a - Mullens)**

**CERTIFICATE OF SERVICE**

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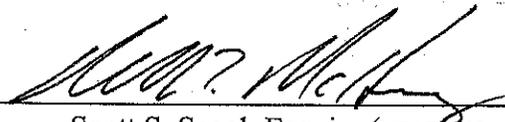
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