CLEARING THE WATERS:

A NEW DEFINITION OF STREAMS IN TENNESSEE

The Wet Weather Conveyance and Stream Determination Protocol Act of 2009[1]

On June 23, 2009 Tennessee Governor Phil Bredesen approved the passage of Public Chapter No. 464, Acts of 2009 (the "Act"), and in doing so, ushered in one of the most significant changes to the Water Quality Control Act in decades. The legislation provides clarification on the definition of streams and also mandates the Water Quality Control Board (the "Board") to develop guidance and minimal qualifications for making hydrologic determinations for wet weather conveyances ("WWC") and streams. In addition, the Act sets out a process for the regulated public to obtain a prompt stream determination from the Division of Water Pollution Control (the "Division"). The legislation stands to benefit all stakeholders by providing clarification, guidance and minimum qualifications for persons conducting and relying on hydrologic determinations.

The Act is a culmination of efforts by the Tennessee Responsible Water Coalition, a group made up of a number of trade groups including the Home Builders Association of Tennessee, the Tennessee Road Builders Association, the Farm Bureau and Tennessee Mining Association and the Tennessee Chamber of Commerce and Industry. The Coalition worked with the Tennessee Department of Environment and Conservation ("TDEC") after the original bill was filed and ultimately both the Coalition and TDEC agreed on compromise language that became the Act.[2] TDEC did not oppose the passage of the bill as amended.

Current rules of the Board provide that a stream is a surface water which is not a WWC.[3] The Act dove-tails on that process by tweaking the existing regulatory definition of WWC and placing it into statute.[4] The Act expands the definition of WWC by clarifying that a WWC does not have sufficient hydrology to support and the channel does not support "multiple populations of fish or obligate lotic aquatic species.[5] Thus, the mere presence of a small number of aquatic insects alone can no longer be used to make a stream determination.

In order to understand why these changes are significant, this paper will provide a brief practical background on the Division's stream determination process. It will also highlight some of the concerns that arose creating conflict between the regulatory community and the Division.

[1] The caption is not in the Act itself, but is a descriptive title.

[2] Bill Penny and Christina Davidow assisted in drafting the wet weather conveyance legislation.

[3] Tenn. Admin. Comp. ch. 1200-4-7-.03 (34)

[4] The Board defines WWC at Tenn. Admin. Comp. ch. 1200-4-7-.03 (40)

[5] Pub. Ch. 464, Acts 2009, Sec. 1.

Setting the Stage

Whether or not a water of the state is a stream or not has been a contentious issue between the development industry on the one hand and the Division and some citizen groups on the other. The argument was not over intermittent and perennial streams that receive flow from the groundwater table, but primarily over very tiny non navigable channels that were dry most of the year.

The Board's rules define stream by reference to a regulatory definition of wet weather conveyance. If the water is *not* a wet weather conveyance, it is a stream. Thus, a thorough understanding of the term is essential to providing clear and consistent definition. The difference from a regulatory standpoint is significant. A stream is classified for and must be protective of at least four uses.[6] Impacts to a stream are required to be addressed through a permit issued by the Division and can require substantial time and mitigation expenses. On the other hand a WWC is not classified to support any use and can be impacted without substantial regulatory requirements. Submitting to the permit process for impacting a stream can create serious delays in a project and could stop the project all together. While the permitting process is important for streams, those watercourses misidentified as streams provide unnecessary increased costs to contractors, developers and industry.

In years past, developers could rely substantially on USGS 7.5 minute Quadrangles that are 1:24,000 topographic maps in making stream determinations. A blue line on the Quad sheet was pretty good evidence (though not conclusive) that the conveyance was a stream. Thus, the standard term "blue line stream" became extremely important as synonymous with jurisdictional streams.[7] Nearly all of the disagreements between the regulated community and the Division have been with streams that were *not* blue line streams.

Moving Toward Clarification: Cases Before the Water Quality Control Board

With all due respect to some very qualified Division personnel, the Division simply did not have consistent and clear guidance in interpreting the WWC definition. The Division made determinations in good faith applying what they understood the definitions to be. However, with little written guidance and only on the job training for most personnel who were expected to make stream determinations, substantial conflict occurred.

In one particularly egregious case, *In re: Babelay Farm*, a neighboring landowner challenged TDEC's WWC determination before the Water Quality Control Board.[8] TDEC made a determination that a grassy swale in the middle of a residential development project was a WWC. This was good news to the developer; however, when a private citizen challenged that the determination, the Board disagreed with the Division, and ruled that the grassy swale was a stream. The Board then revoked the developer's aquatic resource alteration permit (ARAP), effectively killing the project. During Board deliberation on the case, it was clear that the Board

[6] Tenn. Admin. Comp. ch. 1200-4-4

[7] See, http://edc2.usgs.gov/pubslists/booklets/symbols/index.php

[8] Babelay Farm v. Tennessee Water Quality Control Board and James McMillan, Chancery Ct. 20th Judicial District, No. 06-2360-III (Aug. 15, 2007).

was confused as to how the Division interpreted the wet weather conveyance rule. The Davidson County Chancery Court reversed the Board because it did make findings of fact relative to the stream determination, and the Court found that the Board had no authority to revoke a permit on its own.[9] The case pointed out that the Division and the Board needed to develop clear and consistent guidance on stream determinations.[10]

The *Babelay Farm* case only publicized what a number of home builders, contractors, developers, and other concerns had been experiencing. Watercourses that clearly looked like ditches and not streams were being called streams by TDEC or by citizen groups. TDEC's determinations sometimes were perceived to be mercurial and offered little comfort or shield in the event of a challenge. Many developers and contractors decided to go ahead and obtain an ARAP, pay the mitigation fee and associated costs, rather than run the risk of substantial delay and risk losing the project altogether.

In a more recent case, Wright Brothers Construction Company, Inc. petitioned the Board for a declaratory order pursuant to Tenn. Code Ann. §4-5-223 to change the status of five watercourses the Division called streams that transected a road project in Fentress County.[11] These five streams were not originally identified as streams when Wright Brothers was awarded the contract. One of the reasons given by the Petitioner for filing the Declaratory Order was that the Department of Transportation received a notice of violation from TDEC alleging the contractor's bulldozer operator pushed dirt across a flat and dry floor of an old rock quarry. Unbeknownst to the operator, TDEC had determined that this dry, flat-as-a-floor quarry was a stream that cost TDOT some $88,000 to mitigate.

Through much discovery and an extensive public records request, the Petitioner learned that the Division had very little guidance to use in making stream determinations, and that TDEC had no formal training for personnel who were expected to make the determination. Indeed, one of the Division employees made two stream determinations on the Fentress County project by seeing a trickle of water coming out of a culvert and then looking through binoculars several hundred yards up from the culvert. In essence, stream determination was largely a matter of learning from someone else on the job. If an employee learned to make determinations incorrectly, then they taught the next person only what they had learned.

The Board narrowly upheld the Division's stream call (the board initially voted in favor of Petitioner 3-4) but in an unprecedented move, ordered the Division to develop guidance for stream determinations and for adequately training Division staff. Yet, despite the fact that *Wright Brothers* was not successful in reversing the decision on the streams, the action succeeded in shining a light on some of the key concerns voiced by many with respect to the Division's stream determination policy.

[9] *Id.* at pp. 9 and 10.

[10] Bill Penny represented Babelay Farms.

[11] Bill Penny and Christina Davidow represented Wright Brothers Construction Company, Inc.

The Underlying Problem: Application of the Wet Weather Conveyance Rule

As noted previously rules of the Water Quality Control Board define a "stream" as a surface water that is not a wet weather conveyance. Thus, when making a stream determination one would first need to evaluate whether or not the watercourse was a WWC.

Rules of the Board defined WWC, but the application was subject to broad and varied interpretations. The following is a summary of some of the key points of concern relative to the prior definition of WWC.

1. *A wet weather conveyance flows only in response to precipitation runoff in the immediate area*.

The presence of flow in a watercourse within a prescribed number of hours or days after a rainfall event could mean that the watercourse is not a wet weather conveyance, and therefore, a stream. Some Division staff believed that if flow were observed 48 hours after a precipitation event, then it was a stream. However, other staff and a division worksheet used 5 days for the target, and still other staff might use 14 days. In addition, some employees labeled water coming out of the ground as "groundwater" when in fact it is often precipitation runoff in the form of interstitial flow (water running through the soil overburden from a rainfall event). TDEC simply had no guidance or training to assist staff in this area. In reality, the rainfall factor was largely ignored in favor of biological life.

2. *A wet weather conveyance is always above the groundwater table*.

The groundwater table is a geologic term and is also defined by the rules of the Board. In summary, the groundwater table is water in the zone of saturation. Typically water wells may be in the zone of saturation, but a WWC is always *above* the groundwater table. After some rainfall events runoff could go through fractures in the bedrock and could surface downstream. This runoff is not from the groundwater table. On the other hand, intermittent and perennial streams receive flow from the groundwater table. TDEC frequently intermingled the terms groundwater table with visually observing water coming out of the ground from precipitation runoff or even perched water. Despite the nature of the geological and hydrological term, other than on the job training the Division did not have guidance as to how to interpret the groundwater table.

3. *A wet weather conveyance does not support fish or aquatic life*.

The term "support" when applied to streams and terms "fish or aquatic life" typically means support of the classified uses established by the Board for fish and aquatic life. Streams that cannot comply with fish and aquatic life uses may be considered impaired. This is the heart of the Division's regulatory scheme. The Board's rules expressly state that wet weather conveyances do not support fish and aquatic life uses. Thus, a watercourse that cannot meet the criteria for flow, biocriteria and other indicators does not support fish or aquatic life. Not so, according to the Division. At least prior to the recent change in the law, the Division's position was that the mere presence of an aquatic organism was all that it took to "support" fish or aquatic life. The Board agreed with the Division's interpretation in the *Wright Brothers* case which was decided prior to the change in the law.

Note that the term "aquatic life" is not restricted to obligate organisms (bugs that have a significant if not all of their life cycle in water), but could apply to mosquitoes, isopods, tadpoles, you name it. Roof gutters could potentially become streams taken to the logical extreme.

4. *Application of Existing WWC Guidance.*

TDEC developed WWC guidance at the time the original WWC rule was promulgated to clarify how wet weather conveyances would be determined, but this guidance faded into obscurity. The guidance made it clear that the actual scientific evaluation was intended to be a geologic *and* hydrogeologic determination--not just a biological determination. Indeed, the guidance stated that a stream determination should not be based solely on the presence of biological life. In other words if the geology could not possibly support fish or aquatic life, the mere presence of an aquatic insect could not physically convert the watercourse into something it was incapable of supporting. However actual practice by the Division tended to default to the presence of an aquatic organism to establish that a watercourse was a stream without reference to hydrology.

In the *Wright Brothers* case, the testimony was unrebutted that the watercourses were above the groundwater table and each of the watercourses drained very small watersheds (from about 5 acres to 20 acres). They were also at the top of the watershed and the geology was such that not much storage was possible. TDEC's proof was that a small number (sometimes one or two) "obligate" organisms, were present and determined them to be streams. There was no requirement to evaluate the significance of number of these organisms or populations.

The Legislative Solution: Definition of Wet Weather Conveyance and Hydrologic Professionals

The Act substantially addressed the concerns raised in the *Wright Brothers* case and in the *Babelay Farm* case. While the Board in *Wright Brothers* ordered TDEC to develop guidance, training and minimum qualifications, the Act also provides similar direction. The following is a detailed discussion of the Act.

1. *Change in Definitions*

The legislation was designed to address the most significant complaints of the regulated industry (and for that matter many environmental groups): Lack of clear, consistent stream determinations. The new legislation uses the same approach to stream determination as the existing rules by defining "wet weather conveyance," but it provides significant clarification. The Act defines a WWC as:

> . . . man-made or natural watercourses, including natural watercourses that have been modified by channelization: (1) That flow only in direct response to precipitation runoff in their immediate locality; (2) Whose channels are at all times above the groundwater table; (3) That are not suitable for drinking water supplies; and (4) In which *hydrological* and biological analyses indicate that, under normal weather conditions, due to naturally occurring ephemeral or low flow there is not sufficient water to support fish, or *multiple populations of obligate lotic aquatic organisms* whose life cycle includes an aquatic phase of at least two (2) months (emphasis supplied).[12]

The most significant change to the definition of WWC was the fourth requirement for WWC. It introduces to the definition of WWC the term "hydrological analyses." As discussed in the *Wright Brothers* case, TDEC required only a showing of the presence of fish or aquatic life to make a stream determination regardless of the hydrology. The Act changes that position and now a stream can no longer be declared a stream based on the presence of an aquatic insect alone. Instead the hydrology must be evaluated to determine whether the watercourse is capable of supporting biologic life. Another important change is a new requirement that specifies the type and amount of aquatic life required to meet the biological test. Of course if the stream contains fish, it will almost always be a stream. However, the Act requires there be "… multiple populations of obligate lotic aquatic organisms whose life cycle includes an aquatic phase of at least two (2) months." The term obligate lotic was defined in the Act, as an organism whose entire life cycle must be in flowing water. Thus, a single desiccated catisfly case in a dry channel cannot be used as a basis to make a stream determination; rather, one must make sure the hydrology is supportive and if it is, then the stream must be able to support the presence of multiple populations the obligate lotic organisms.

2. *Recognition That Only The WWC General Permit is Necessary for Impacting WWC.*[13]

In order to avoid overregulating wet weather conveyances with the new definition, the new Act sets out verbatim the terms of the existing TDEC general permit for modification of wet weather conveyances. The Act also states that neither TDEC nor the Board can adopt any other conditions. In essence, the Act provides that a person wanting to impact a WWC may do so without any notice to the Division as long as a few minimum common sense conditions are met. Harmful substances cannot be placed in a WWC, the WWC cannot be filled to impair water flowing into or out of a wetlands, and sediment must be prevented from entering streams using what would typically be required in any storm water pollution prevention plan.

Thus, when planning a development, a WWC can be impacted without going to the unnecessary trouble and expense of an individual permit from TDEC.

[12] Pub. Ch. 464, Acts 2009, Sec. 1

[13] Pub. Ch. 464, Acts 2009, Sec. 2.

3. *Minimum Qualifications and Guidance for Staff and Others*

The Act piggy backs on the Board Order in *Wright Brothers.* The Act requires the Board to adopt rules to provide guidance and qualifications for Division staff as well as others making hydrologic determinations.[14] In the *Wright Brothers* case the Board was clearly concerned about the lack of adequate formal staff training. In addition, while TDEC had general qualifications for the employee positions, TDEC did not require any specific minimum qualifications. Finally, the Board believed that the Division should develop clear and consistent stream determination guidance as soon as possible.

The Act requires the Board to adopt proposed guidance within 90 days of the effective date of the Act that provides instructions, examples and definitions based upon scientifically based principles for consistently and accurately making hydrologic determinations; and proposed guidance that provides minimum qualifications for staff who are responsible for making or reviewing wet weather conveyance determinations.[15] The Act also requires the Board to promulgate regulations within 90 days of the effective date standard procedures for making stream and wet weather conveyance determinations that take into consideration biology, geology, geomorphology, precipitation, hydrology, and other scientifically-based principles.[16]

4. *Stream Determinations by Hydrologic Professionals.*

One of the concerns the Act addresses is the need for finality and reliability on qualified experts to make determinations. In the *Wright Brothers* case, for example, TDEC second-guessed the Tennessee Department of Transportation and a well established and qualified environmental specialists and overturned the determination. To address that concern and others, the Act requires the Board to develop rules and regulations to certify hydrologic professionals who will be permitted to submit stream determinations to the TDEC.[17] A hydrologic professional is a person holding a bachelor's degree in biology, geology, ecology, engineering or related sciences, having at least five (5) years of relevant experience in making hydrologic determinations, and who has been certified as a hydrologic professional pursuant to rules promulgated by the board.

The Act permits a person to request a hydrologic determination by submitting a report from a hydrologic professional. The process is structured to allow a prompt resolution and will proceed substantially as follows:

a. The person requesting determination submits a report from a hydrologic professional to the Division for a hydrologic determination.

b. TDEC has 30 days to make a written determination that there are significant concerns about whether or not the water is a wet weather conveyance or stream;

[14] Pub. Ch. 464, Acts of 2009, Sec. 3 and 4.

[15] Pub. Ch. 464, Acts of 2009, Sec. 4

[16] Pub. Ch. 464, Acts of 2009, Sec. 3

[17] Pub. Ch. 464, Acts of 2009, Sec. 5.

c. If TDEC has not responded within 30 days, the information submitted is presumed correct.

d. If TDEC has made a written determination of concern, it has 30 days from the date of the determination to make a final written determination.

e. The person who requested the determination can appeal TDEC's final determination within 30 days of receipt of the decision.

Thus, the Act sets out a streamlined approach to make prompt determinations and a means to challenge the determination.

Some opponents of the legislation complained about this determination process as being biased toward business; however, the process simply provides fair processing requirements and allows certainty for development projects. In addition, the determination process will not be triggered until the Board has promulgated the rules. Thus, hydrologic professionals will be making stream determinations on the same forms using the same guidance as Division staff.

Conclusion

The wet weather conveyance legislation and the decision in the *Wright Brothers* case will benefit all stakeholders by providing clarification, guidance and minimum qualifications for persons conducting hydrologic determinations. Clear definition, guidance and training will provide more reliable and consistent determinations which in turn will allow the regulated public to adequately plan and implement a project. The ability to have prompt determinations by hydrologic professionals will reduce the uncertainty that often accompanies many projects. The rulemaking process will be critical in further defining how streams will be determined, how staff will be trained and how decisions will be made. Thus, while the Act does clear the water, the development community should pay close attention to the development of the rules which will ultimately be the real outcome of the hard fought new legislation.