

Legal Principle: The public has certain rights in the beds of navigable waters below the high-water mark. The states have the power to exercise these rights on their behalf.

The U.S. Supreme Court has held that rivers have been public since ancient times, dating back as early as Classical Roman Law and the laws of Greece. Ancient societies considered rivers “Laws of Nature” and they held that “running water” is “common to mankind. Furthermore, these laws held that “all rivers and ports are public”, and recognized public rights to use the banks as well as the surface of the water, on both navigable and non-navigable rivers, and held that these laws would remain “forever fixed and immutable.” These principles continued into the law of European nations where even under the English common law, the British Crown held title to all submerged lands.

This ancient concept was finally adopted by the U.S. Supreme Court and was incorporated into the Northwest Ordinance of 1787. The ordinance stated that “navigable waters leading into the Mississippi and St. Lawrence, and the carrying places between the same, shall be common highways and forever free, without tax, impost, or duty therefor.” Provisions to the ordinance eventually led to what we know now as public trust doctrine.

In recent light, the public trust doctrine is a body of common and statutory law that provides that the state holds title to lands under navigable waters in trust for public purposes. Some of these public rights include recreation, navigation, fisheries, and environmental appreciation and enhancement.

In order to understand title rights of the states, one must first define what constitutes a “navigable water”? In a legal sense, navigability determines title to the beds underlying streams and lakes. The accepted federal definition generally states that navigable waters of the U.S. are those waters that are subject to the ebb and flow of the tide and/or are presently used, or have been used in the past, or may be susceptible for use to transport interstate or foreign commerce. The Federal navigability law is used to designate federal waters as navigable. If a body of water does not meet the federal test of navigability, it can still be declared

navigable under state law through a state test. If a body of water was deemed navigable under the federal test at the time of statehood, title to the bed of the stream or lake passed to the state upon its admission to the Union.

Because the Virginia courts are in a state of uncertainty as to inconsistent results of testing navigability, and because the state test of navigability is very similar to the federal commerce test, the Commonwealth of Virginia typically applies the federal test of navigability in their courts. Historically, many state courts used the “saw-log” test as defining a water as navigable (i.e., if a stream is capable of floating a log to market, then it was deemed navigable) however, the Virginia courts as well as federal courts hold that the mere presence of floating logs will not of itself make a river “navigable”; the logs must have been related



to a commercial venture. Although, navigability for title purposes is a matter of federal law, it is important to understand because it determines state ownership.

To this day, State constitutions affirm public ownership of all navigable waters. The Commonwealth of Virginia, adopted the English common law, where the British Crown held title to the bed of all tidal waters, while the beds of all non-tidal waters were owned by adjoining landowners.

The boundary of ownership for tracts of land lying on the bays, rivers, creeks, and shores within jurisdiction of the Commonwealth of Virginia and the rights and privileges of the owners of such land, shall extend to the mean low-water mark but no farther. In Virginia the mean low-water mark is considered the riparian boundary and is defined as the average of all the lowest daily tides over an 18.6 year tidal epoch. Private ownership of navigable waters varies from state to state and in most cases the riparian boundary that signifies title between state or “public land” and private land is the ordinary high water mark. The ordinary high water mark is a line on the shore established by the fluctuations of water and can be indicated by physical characteristics such as a clear, natural line impressed on the bank, shelving; changes in the character of the soil; destruction of terrestrial vegetation; or the presence of litter and debris of the surrounding areas.

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In Virginia, an exception to the mean-low water mark boundary occurs where a creek or river, is comprised within the limits of a lawful survey held under special grant or compact. All ungranted beds of bays, rivers creeks, and shores of the sea within the Commonwealth of Virginia, not conveyed by special grant or compact according to law, shall remain the property of the Commonwealth and may be used by all the people of the Commonwealth for the purpose of fishing, fowling, hunting, and taking and catching oysters and shellfish. A lawful survey means the boundaries of any land, including submerged lands, and such boundaries having been determined by generally accepted surveying methods and evidenced by a plat or map and being recorded in the circuit court clerk's office of the county or city in which the land lies.

It is the surveyor that ultimately defines the location of the riparian boundaries (locating both the high and low-water marks) in order to establish the limits and rights of the public interest. In Virginia, the ownership of the beds of navigable streams that are non-tidal has become an important issue regarding public recreation rights. In navigable streams, the public has at least the right of navigation, which includes the right to use the surface. Where the beds of the streams are privately owned, the public does not have the right to touch the banks or the bottom, and may not even have the right to fish in such portions of the river. However, fishing is permissible in any stream subject to the federal navigational servitude, even if the bottom of the river is privately owned, because federal law would defeat state law.

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Instrument Auction

This is to remind everyone that we will be auctioning a 5 Second Robotic Total Station system at the 2009 Annual Convention to be held at the Hotel Roanoke, January 13-17. Go to VAS website (www.vasurveyors.org) soon for more details. The net proceeds from the auction will go to the Education Trust Fund.

Memoriam for Charles S. Corell

Charles S. Corell passed away on April 13, 2008. He was a land surveyor and a member of VAS. His son, Carl Corell, is currently the Secretary/Treasurer of the Western Chapter.

Our deepest sympathy goes out to Carl and his family.

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had been misread and changed to "line" thus changing the meaning completely. A 2 can be read as 7 as well as a 6 as 8, etc.

The main strength of compass survey descriptions is in identifying property corners. One should locate all evidence that can be found to establish the old property corner location. It may be a tree, fence corner, or even a "stake in a wet place". We all have fun citing interesting calls we have found over the years. How about "A Pine Stump" circa 1925; "South End of a Large Boulder" on a rocky hillside, or "The Third Post from the Gate" now a stone fence.

The importance and danger of a compass survey was shown to me recently by a request for help on an area shortage. The client thought he had acquired twelve acres. His surveyor found only about eight. The attorney asked me to investigate why the difference. The surveyor was correct, but this event started me thinking about how the compass surveyors computed their areas.

Mr. Gummere talked about scaling or computing using various geometrical shapes. The method that seemed to be the most interesting was what he calls "Double Departure". My experience was using the "Double Meriden". I assumed that I could compute the area of the twelve-acre tract without any difficulty since I had computed many hundreds this way in the past. I confess I am still at it.

Calculating areas now, as all know, is a matter of a few clicks on the computer. Using the Monroe calculator in the early 60s involved dividing an angle reading into minutes and at least every ten seconds. The sines and cosines were seven places beyond the decimal. Of course, the distances would be to the nearest hundredth of a foot. Compass surveying drastically reduces the number of digits. One has only to look up a degree and the nearest quarter of a degree. Gummere has "Traverse Tables" which are distance multiplied by the sines or cosines.

Whereas compass surveying is not applicable for today's work. I have had fun examining many of those old surveys, locating the errors most of the time, and finding how well they fit Fauquier County's GIS map program. However, seeing how much computing compass surveys reduced the amount of digits, etc. makes me wish I had lived in those old days—almost that it.