



SB 523 as Amended

Department of Natural Resources – Jack Cover Identification of Vernal Pools

TESTIMONY OF DR. MARK SOUTHERLAND -- **Favorable**

I received a Ph.D. and Smithsonian Fellowship in freshwater ecology and have consulted for federal, state, and local agencies on water resource issues for 35 years. I am the founder of Vernal Pool Partners and have served with the Maryland Academy of Sciences' Science Council, Maryland Water Monitoring Council, Howard County Environmental Sustainability Board, Howard County Conservancy, Patapsco Heritage Greenway, and Safe Skies Maryland.

Vernal pools are a type of freshwater wetland that are typically water-filled from early winter through mid-summer; have no fish populations; and provide habitat for species that cannot reproduce anywhere else, including fairy shrimp, wood frogs, and mole salamanders, such as the endangered eastern tiger salamander. **Vernal pools provide disproportionately large amounts of ecosystem services, owing to their widespread occurrence throughout the landscape and ability to replenish groundwater and filter stormwater flows. They even occur in underserved communities, where these "backyard ecosystems" offer convenient connections to nature.**

Two events brought me to conceiving and advocating for this bill:

1. Our Natural Waters are in Crisis. The wetlands and other waters of Maryland and the nation continue to be lost through development, pollution, and modification, and are consistently listed as the most endangered ecosystems in the U.S. and worldwide. The 2023 Sackett vs EPA Supreme Court decision removed federal protections from approximately 50% of U.S. waters, including all vernal pools. At the same time, **under Maryland wetland regulations, many vernal pools are not protected because they do not possess the hydric soils or hydrophytic vegetation of other wetlands (and even those thus protected are at risk owing to the federal assault on wetlands definitions)**. The science is clear that all waters are connected hydrologically and that ephemeral wetlands, such as vernal pools, are critical to the health and utility of permanent waters. Therefore, it is incumbent on Maryland to take this simple step of protecting vernal pools so that we are good stewards of all our waters.
2. Vernal Pools are Little Understood in Maryland. In Maryland, as elsewhere, there is little understanding of what vernal pools are and how they contribute to biodiversity and quality of life. However, the nearby states of **Pennsylvania, New Jersey, New York, Connecticut, Rhode Island, Massachusetts, Vermont, and Maine have already enacted protection or certification programs**, while others have conducted inventories to better understand the abundance and distribution of vernal pools. In Maryland and elsewhere, vernal pools are being lost at a rapid rate because of the limited knowledge of their presence (they hold water only part of the year) and the gap in wetlands protections. The **draft Maryland State Wildlife Action Plan lists protection of vernal pools as a high priority**. Therefore, Maryland should take this cost-effective step of developing a list of vernal pools (using the MDE definition) to provide the basis for their protection in the future.

The Time is Now. Vernal Pool Partners has worked closely with MDE and DNR for the past two years to create **bill language that embraces a practical, first-step approach of identifying vernal pools** adopted by nearby states. New York projects no significant fiscal impact from their vernal pool protections.

Jack Cover Identification of Vernal Pools as Amended



HB 701 Delegate Terri Hill
SB 523 Senator Mary Washington



The Problem

- Vernal pools are unique, small ecosystems that support biodiversity including state-endangered tiger salamander
- Vernal pools provide vital ecosystem services such as replenishing groundwater and filtering stormwater
- Vernal pools are seasonal wetlands that are often overlooked and filled or poorly managed, so their protection is a high priority in the draft Maryland State Wildlife Action plan
- Vernal pools are being lost at a rapid rate because they often do not meet current MDE wetlands regulations or qualify for federal protections under the interpreted Clean Water Act

These organizations say Maryland needs to protect vernal pools

The Solution

- Act would have DNR create a list of vernal pools not currently protected as nontidal wetlands in the State
- Act would use the definition of vernal pools developed by MDE and DNR in coordination with stakeholders
- Act would position future protection of vernal pools and their buffers by leveraging existing nontidal wetlands permitting and mitigation programs for cost-effective implementation

Pass this bill to protect vernal pools within Maryland

For more information, please visit vernalpoolpartners.org or contact mark.t.southerland@gmail.com

and visit [USEPA: An Introduction to Mid-Atlantic Seasonal Pools](#)

