

County Council of Howard County, Maryland

2018 Legislative Session

Legislative day # 1

RESOLUTION NO. 3 - 2018

Introduced by: Chairperson at the request of the County Executive

A RESOLUTION confirming the reappointment of Christine E. Conn to the Environmental Sustainability Board.

Introduced and read first time on January 2, 2018.

By order Jessica Feldmark
Jessica Feldmark, Administrator to the County Council

Read for a second time and a public hearing held on January 16, 2018.

By order Jessica Feldmark
Jessica Feldmark, Administrator to the County Council

This Resolution was read the third time and was Adopted , Adopted with amendments ____, Failed ____, Withdrawn ____ by the County Council on February 5, 2018.

Certified by Jessica Feldmark
Jessica Feldmark, Administrator to the County Council

NOTE: [[text in brackets]] indicates deletions from existing language; TEXT IN SMALL CAPITALS indicates additions to existing language. ~~Strike-out~~ indicates material deleted by amendment; Underlining indicates material added by amendment.

Christine E. Conn, Ph.D.

EDUCATION

- 1994 **Ph.D., Ecological Sciences**, Old Dominion University, Norfolk, VA
Dissertation: Influence of hydroperiod and nitrogen on root decomposition dynamics along a barrier island chronosequence.
- 1992 **M.S., Biological Sciences**, Old Dominion University, Norfolk, VA
- 1989 **B.S., Biological Sciences**, Towson State University, Towson, MD
- 1985 **B.S., Business Administration**, Towson State University, Towson, MD

EXPERIENCE

- 2016 **Director**, Office of Science and Stewardship, Chesapeake and Coastal Services, Department of Natural Resources

Provides direction for developing and communicating the science-based decision tools necessary for valuing the economic and social benefits of planning for climate change resiliency, conserving high value green infrastructure lands and improving Chesapeake Bay water quality through targeted restoration projects. Communication strategies include delivery through environmental education programs and mapping and assessment applications tailored to local and state government users.

- 2012 **Director**, Integrated Policy and Review Unit, Department of Natural Resources

Provides unit direction to lead the Department in the development and implementation of systemic, sustainable and consistent environmental policies and project reviews resulting in better protection of the State's natural resources. Focus areas in cross departmental collaboration include Marcellus shale hydraulic fracturing, GreenPrint targeted land conservation, regional and local government green infrastructure/land use planning and ecosystem service valuation applications.

- 2007 **Director**, Strategic Land Planning, Office for a Sustainable Future, Maryland Department of Natural Resources

Develops long range strategic resource planning initiatives to integrate ecosystem services valuation, green infrastructure assessment and landscape sustainability priorities with agency conservation and restoration programs.

2004 **Division Director**, Landscape and Watershed Analysis Division, Watershed Services Unit, Maryland Department of Natural Resources

Coordinates development of landscape assessment models and targeting tools in support of conservation, restoration and stewardship strategies. Science-based decision tools address environmental benefits related to water quality, biodiversity, habitat, carbon sequestration and promote the long-term ecological and economic sustainability of Maryland's forests.

2003 **Energy Resources Administrator**, Power Plant Research Program, Resource Assessment Service, Maryland Department of Natural Resources

Project manager for technical studies evaluating the environmental and economic impacts of power generation in Maryland. Focus areas include impact assessment and mitigation strategies related to climate change, greenhouse gas emissions, carbon sequestration, carbon markets, nitrogen deposition and stream restoration.

2001 **Natural Resources Planner IV**, Watershed Management and Analysis Division, Chesapeake and Coastal Watershed Services, Maryland Department of Natural Resources

Lead scientist for economic modeling component of Maryland's Strategic Forest Lands Assessment.

2000 **Natural Resources Planner III**, Watershed Management and Analysis Division, Chesapeake and Coastal Watershed Services, Maryland Department of Natural Resources

Project manager for studies related to natural-resource based economies and habitat goal policy development.

1996 **Adjunct Faculty**, New Jersey, Pennsylvania and Maryland Colleges and Universities

Instructor for numerous undergraduate and graduate level courses including Biology, Ecology and Evolution, Environmental Sciences, Physics, General Chemistry and Soil Sciences.

1995 **Postdoctoral Research Associate**, Rutgers University, New Brunswick, New Jersey

Lead scientist for field investigations evaluating soil fungal influences on carbon and nitrogen cycling in the New Jersey Pinelands.

PROFESSIONAL SERVICE

Maryland Commission on Climate Change Mitigation Working Group Steering Committee Agency representative (July 2016-current)

US Environmental Protection Agency Chesapeake Bay Program Habitat Goal Implementation Team Co-Chair (February 2016-current)

US Fish and Wildlife Service Patuxent Waters Landscape Conservation Design Core Team representative (January 2016-current)

Greater Baltimore Wilderness Coalition: Steering Committee Agency representative (2014-current)

Maryland's Interagency Wetland Program Plan Agency Representative (2014-current)

Federal/State Watershed Resources Registry Technical Advisory Committee Agency representative (2010-current)

Baltimore Washington Partnership for Forest Stewardship (BWPFs) Co-Chair (2009-current): A local, state and federal partnership for collaborative forest ecosystem cooperation in the Baltimore Washington region. Duties include coordination of annual workshops:

- 2009 Climate in the Corridor
- 2010 Threats to Urban Forest Ecosystems
- 2011 Forest Ecosystem Services: Valuing Nature's Benefits to People and our Local Communities
- 2012 Sustaining Nature in an Urbanizing Landscape
- 2013 BWPFs Green Infrastructure Mapping Workshop
- 2013 Forest Management Decision Support. A US Forest Service NED Workshop for Natural Resource Managers.
- 2015 Urban Wilderness in the Greater Baltimore Region. From Seed Corn to Harvest: Introducing the Greater Baltimore Wilderness Coalition
- 2016 Projecting and Protecting Quality of Life in the Baltimore Washington Corridor

Annual Sustainable Growth Challenge Panel Judge for student competition, sponsored by the Sustainable Growth Commission (2014-2016)

Marcellus Shale Safe Drilling Advisory Commission: Agency representative (2013-2015)

Deep Creek Lake Watershed Management Plan Steering Committee representative (2013-2014)

Maryland Water Monitoring Council. 2013. Organizer and Facilitator for Panel Solution Session: Outlining a Path to Better Integrate Water Data and Local Planning

NASA Carbon Monitoring Systems 2014 and 2015 Workshops to identify the economic value and state/local uses for high resolution LiDAR collections. Co-Host/Coordinator.

CBP Healthy Watersheds Goal Implementation Team Agency Representative: 2012-2013

Invited Guest Lecturer on an annual to biannual basis at University of Maryland, College Park by Drs, Bob Tjaden and David Myers.

Co-PI: US Department Of Energy Midwest Regional Carbon Sequestration Partnership (2003)

Co-PI: NASA funded grant: Remote Sensing Applications for Forest Carbon Management (2002) - 600K funded research program with University of Maryland to develop new remote sensing tools for resource land management. Resulted in new innovative data coverages and SLEUTH land use development model.

Program development and management for Maryland's Tributary Strategies Habitat Goals Program (2002)

PUBLICATIONS (Direct authorship, contributions, agency reports)

Marcellus Shale Safe Drilling Initiative Advisory Commission: MDE and DNR Agency reports

- Marcellus Shale Safe Drilling Initiative Study Final Report. 2015.
- Marcellus Shale Draft Risk Assessment. 2015.
- Marcellus Shale Safe Drilling Initiative Study Part II: Interim Final Best Practices. 2014.

Deep Creek Lake Watershed Management Plan. 2014.

Ecosystems Services Working Group Final Report. 2011.

Maryland Commission on Climate Change. 2010. Preparing for Maryland's Future: Comprehensive Strategy for Reducing State Vulnerability to Climate Change, Phase II: Beyond our coasts. (C. Conn, Lead Author, Forests and Terrestrial Ecosystems sector).

Conn, C (Special Content Ed.). April 2010. Municipal Maryland: Governing Green. Celebrating the 40th Anniversary of Earth Day. Maryland Municipal League. Pp. 26.

Conn, C. 2009. Green Infrastructure and GreenPrint: Defining and Preserving our Natural Legacy. Maryland Department of Natural Resources Magazine Winter 2009: 4-5. <http://www.dnr.state.md.us/naturalresource/winter2009/green.pdf>

Maryland Commission on Climate Change. 2008. Maryland Climate Action Plan, Chapter 5: Comprehensive Strategy for Reducing Maryland's Vulnerability to Climate Change, Phase 1: Sea-level rise and coastal storms. (C. Conn, Staff writer, technical

advisor and natural resource protection workgroup facilitator).
<http://www.mde.state.md.us/programs/Air/ClimateChange/Documents/www.mde.state.md.us/assets/document/Air/ClimateChange/Chapter5.pdf>

E. Sprague, D.G. Burke, S. Claggett and A. Todd (Eds.). 2006. The State of the Chesapeake Forests. The Conservation Fund and U.S. Forest Service, Arlington, VA. Pp. 144. (C. Conn, Technical Advisor/Review, Chapter 6: The Economics of Chesapeake Forests). <http://www.na.fs.fed.us/watershed/pdf/socf/Full%20Report.pdf>

Conn, C. 2006. Green Infrastructure; The Land Plan Science. *Sustain* 14: 45-49.
<http://louisville.edu/kiesd/sustain-magazine/Sustain14.pdf>

Chesapeake Bay Program Scientific and Technical Advisory Committee. 2004. Chesapeake 2000 Stream Corridor Restoration Goal Workshop. Proceedings from a workshop held on May 7, 2003. STAC Publication 04-001.

MDNR. 2004. Electricity in Maryland Fact Book.

MDNR. 2003. Maryland's Strategic Forest Lands Assessment.

MDNR. 2002. Upper Patuxent River Watershed Characterization.

Day, F.P., C. Conn, E. Crawford and M. Stevenson. 2004. Long-term effects of nitrogen fertilization on plant community structure on a coastal barrier island dune chronosequence. *The Journal of Coastal Research*.

Conn, C. and Dighton, J. 2000. Litter quality influences on decomposition, ectomycorrhizal community structure and mycorrhizal root surface acid phosphatase activity. *Soil Biol. Biochem.* 32(4): 489-496.

Conn, C. E. and F. P. Day. 1997. Root decomposition across a barrier island chronosequence: litter quality and environmental controls. *Plant and Soil* 195: 351-364.

Conn, C. E. and F. P. Day. 1995. Response of root and cotton strip decay to nitrogen amendment along a barrier island dune chronosequence. *Canadian Journal of Botany* 74: 276-284.

Conn, C. E. and F. P. Day. 1993. Belowground biomass patterns on a coastal barrier island in Virginia. *Bulletin of the Torrey Botanical Club* 120: 121-127.

PRESENTATIONS

Numerous presentations at Local, Regional and National Scientific, Governance and Planning Conferences and Workshops. A sampling of recent presentations are provided:

Conn, C. et al. 2015. Greater Baltimore Wilderness: Green Infrastructure for Regional Resilience and Equity. New Partners for Smart Growth National Conference.

Conn, C. 2014. Conserving Indigenous Landscapes. Maryland Environmental Trust Annual Land Conservation Conference

Conn, C. 2014. Maryland's GreenPrint: Conserving Healthy Watersheds. Maryland Environmental Trust Annual Land Conservation Conference.

Conn, C. and B. Kenney. 2013. Maryland's Proposed Comprehensive Gas Development Plan. Workshop on Governance of Risks of Unconventional Shale Gas Development. National Research Council.

Conn, C. and S. Stranko. 2012. Maryland's GreenPrint: A model for targeting and protecting the State's most ecologically valuable lands and watersheds. 8th National Water Quality Monitoring Council.

Conn, C. 2012. The Science Drive Tool; Using GreenPrint to Identify Conservation Priorities. Alliance for the Chesapeake Bay Watershed Forum.

Conn, C. 2012. Session A: GreenPrint and Large Landscape Planning for Land Trusts, and Session B: Maryland's GreenPrint and Mapping Applications: Tools for Stewardship. Maryland Environmental Trust Annual Land Conservation Conference.

Conn, C. 2009. Maryland's GreenPrint: A Tool for Protecting Maryland's Most Ecologically Valuable Lands. Maryland Land Trust Alliance.

Conn, C. and P. Bush. 2006. Maryland's Green Infrastructure: Conservation based approaches for Chesapeake Bay water quality restoration. American Water Resources Association Annual Conference.

Conn, C. and H. Stewart. 2006. Predicting and Managing Water Quality and Stream Biodiversity with GISHydro2000. American Water Resources Association Annual Conference.