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**PA. STATE BOARD
OF EDUCATION**



June 21, 2021

Karen Molchanow
State Board of Education
333 Market Street, 1st Floor
Harrisburg, PA 17126.

Dear Members of the State Board of Education,

Allow me to introduce myself to help explain why environmental education is very important to me, as an educator. My name is Donnan Stoicovy and I have been closely connected with environmental education in the state of Pennsylvania to assist with our state becoming a leader in Environmental Education. I am also an educator who has worked as a teacher, principal in public schools in PENNCREST, General McLane and State College Area School Districts and as the Head of School at State College Friends School over these past 45.5 years..

As I am sure you are aware that in 1970, our legislature enacted the Pennsylvania Bill of Rights guaranteeing a quality environment to each citizen of Pennsylvania. The Bill of Rights, as part of the state's constitution states:

"The people have a right to clean air, pure water and to the preservation of the natural, scenic, historic and aesthetic values of the environment. Pennsylvania's public natural resources are the common property of all people, including generations yet to come. As trustees of these resources, the Commonwealth shall conserve and maintain them for them for the benefit of all people."

In 1984, the Secretary of Department of Environmental Resources, Nicholas DeBenedictis and the Secretary of the Department of Education, Robert Wilburn appointed Lou Ritrovato, Chief of Environmental Education for PA State Parks, and Dick Touvell, Director of the McKeever Center, as co-chairs of the Pennsylvania Environmental Education Master Plan. I was proud to be a part of that Master Plan process that brought together a broad group of 43 citizens from across the state to ponder environmental education in PA. Among our recommendations was the establishment of the Office of Environmental Education housed in the Department of Education working collaboratively with the Department of Environmental Resources with mutual funding sources to support the office. The Master Plan encouraged the legislature to support "cradle to grave" learning process for PA citizens through

legislation that supports environmental education. The plan had broad ideas providing all constituencies opportunities to support environmental education in their own way.

In the meantime, PA Department of Education organized educators and support organizations to create solid standards for environment and ecology followed by creating a means for assessing those standards at designated grade levels through various types of questions. I participated in both of those processes to support the teachers and students in our state as well as representing the standards to other organizations that I encountered.

In June 1993, the PA Legislature passed the Environmental Education Act establishing an Advisory Council for Environmental Education, which I was privileged to be selected to participate and continue to remain on that Advisory Council now. In 2008 there was an amendment to the 1993 Act adding funding from environmental fines through the Department of Environmental Protection to be awarded annually on Earth Day. I have been privileged to receive grants and in a way of giving back, I read applications on years when I did not have a grant submission.

Within that time, the Department of Environmental Resources was divided into two different Departments - Environmental Protection and Conservation and Natural Resources that would better support the broad range of environment in the state. One department would be focused on the development of resources such as forests, parks and recreation and the other on protecting and preserving our precious resources.

Nationally, the US Department of Education has worked with various states to encourage schools to become recognized as Green Ribbon Schools. I am proud to have shepherded two schools to receiving that recognition. I am working with the Advisory Council for Environmental Education to support more schools in Pennsylvania being recognized as they work towards becoming Green Ribbon Schools and working through the three pathways of 1. reducing environmental impact and costs; 2. improving the health and wellness of schools, students, and staff; and 3. providing effective environmental and sustainability education

As you may recognize, I have a strong commitment to environmental education. Although I did not participate in this revision of the standards mostly due to time commitment required especially when working through a global pandemic. My commitment for this past year was to support our school's community so that we were able to be open the entire year. I have, however, kept aware of the process and am sending this letter to share my concerns about the Pennsylvania Science Standards that are currently under review. It was appropriate that the Science and Technology Standards and the Environment and Ecology Standards be reviewed and updated as the current ones were approved in 2002. What has been disconcerting to me is that the current proposed standards, which should have integrated the standards together, has largely omitted environment, ecology, integrated pest management and agriculture at the secondary level. This is most concerning to me because, as a state, we have

always been a leader in environmental education and agriculture and have had a long history of conservation of our state's natural resources.

In the early 2000s, Pennsylvania made the decision to have two distinct sets of standards addressing Science, Engineering and Technology and Environment and Ecology. Both sets of standards had clear and distinct means of establishing the essence of learning outcomes for various grade levels. This was a deliberate and appropriate move on the part of the two different committees. At the time, both committees met together as they worked on their standards and later on the assessment of those respective standards. Multiple conversations occurred between groups to make sure that each was addressing all aspects of both sets of standards.

In the Science standards, it was clear that the various aspects of science, engineering and technology were focused on in respective grade levels. Likewise this occurred in the Environment and Ecology standards. The beauty of the Environment and Ecology Standards was that they allowed space to connect with the other standards aside from Science. The interdisciplinary nature of the Environment and Ecology standards allowed them to connect with all that teachers were already teaching and it became the integrating means to achieving the various standards. Much work was done in the 1990s to look at environment as an integrating concept and content. Longitudinal research was done by Gerry Lieberman showing the power of that integration. Incidentally, my elementary school was one of the contexts that was researched in his report.

Pennsylvania needs a citizenry that continues to be environmentally concerned about our state's precious resources, our impacts on those resources through actions, and actively engaged in the protection, restoration, connections and stewardship. The standards are an important aspect of developing that commitment to being stewards of the environment and ensuring that students across the commonwealth are encountering the essentials of environment, ecology, agriculture and integrated pest management.

The 2002 Environment and Ecology Standards included the following and in my read there is only one reference to these important areas. It especially leaves out the agriculture and IPM standards and most of the other environmental education standards:

1. Watersheds and Wetlands – Cycles, Role of Watersheds, Physical Factors, Characteristics and Functions of Wetlands, Impacts of Watersheds and Wetlands
2. Renewable and Nonrenewable Resources – Uses, Influential Factors
3. Environmental Health – Biological Diversity
4. Agriculture and Society – Society Needs, Agriculture Science, Agriculture Systems, Technology
5. Integrated Pest Management – Effects Benefits and Impacts, Health Risks, Management Practices
6. Ecosystems and their Interactions – Change Over Time

7. Threatened, Endangered, and Extinct Species – Management Strategies
8. Humans and the Environment – Society Needs, Sustainability, Supply and Demand
9. Environmental Laws and Regulations – Environmental Laws and their Impacts

I implore you to reconsider this serious omission of these important standards.

Please feel free to reach out to me should you have any questions.

Thank you for having a process to respond to this important educational decision.

In Gratitude,

A handwritten signature in cursive script, reading "Donnan Stoicovy".

Donnan Stoicovy
Head of School
State College Friends School

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