



17 June 2021

Karen Molchanow
Executive Director
State Board of Education
333 Market Street
Harrisburg, PA 17126

Dear M. Molchanow,

Thank you for the opportunity to comment on the proposed science academic standards. I did take the time to attend a stake holder meeting early in the process. I know many were in attendance who supported the current Environment and Ecology standards and asked that they be further strengthened. It is very disheartening to see the proposed standards that do not explicitly include Environment, Ecology and Agriculture as performance expectations. The notice states, "Academic standards define what students should know and be able to do at specific grade levels. They establish goals for student learning. Academic standards do not represent a particular curriculum or instructional methodology. Rather, they provide a foundation for the development of local curriculum and serve as guideposts to which local curriculum should be aligned." After review of the proposed standards, I have found that the following areas are weakly connected or NOT CONNECTED at all to the proposed standards, and are needed as the intended "guideposts":

Watersheds and Wetlands – Cycles, Role of Watersheds, Physical Factors, Characteristics and Functions of Wetlands, Impacts of Watersheds and Wetlands

Renewable and Nonrenewable Resources – Uses, Influential Factors

Environmental Health – Biological Diversity

Agriculture and Society – Society Needs, Agriculture Science, Agriculture Systems, Technology

Integrated Pest Management – Effects Benefits and Impacts, Health Risks, Management Practices

Ecosystems and their Interactions – Change Over Time

Threatened, Endangered, and Extinct Species – Management Strategies

Humans and the Environment – Society Needs, Sustainability, Supply and Demand

Environmental Laws and Regulations – Environmental Laws and their Impacts

These were previously independent state standards that teachers were required to cover. The proposed integrated standards for grades 6-12 must include Environment, Ecology, and Agriculture as a separate, fifth domain. Furthermore, the proposed standards DO NOT address NAAEE's Guidelines for Excellence in the following areas:

Human Systems – Individuals Groups and Societies, Culture, Political Systems, Economic Systems

Decision-Making and Action Skills – Forming and Evaluating Personal Views, Evaluating Need for Action, Planning and Taking Action, Evaluating Results of Action

Personal and Civic Responsibility – Recognizing Rights and Responsibilities, Recognizing Efficacy and Developing Agency, Accepting Personal Responsibility

These topics are critical to ensure that Pennsylvania students are informed citizens and are prepared for the challenges and opportunities of the 21st century economy. The new standards may be in place for several years, leaving these critical topics out of student's education will result in a deficit of valuable learning.

Please ensure Environment, Ecology, and Agriculture standards are not lost. I implore you to create a fifth, separate domain for these three content topics, ensuring these vital subject areas are not neglected and that Pennsylvania students are set up for success.

I would also like this statement from the Bulletin post to be addressed, "Interested persons and individuals affiliated with small businesses are invited to submit written comments, questions, suggestions, commendations, concerns or objections regarding this proposed rulemaking to ..." It has created confusion in the community where people think you are only seeking comments on the proposed standards from individuals associate with small businesses. I believe some people will not make public comment because they feel their voice will not be heard because they are not affiliated with a small business. Please remedy this error and allow for another 30-day public comment period so everyone's voice can be heard.

Thank you for supporting meaningful learning for students across the Commonwealth.

Sincerely,



Wendy Kedzierski
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