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**PA. STATE BOARD
OF EDUCATION**



July 1, 2021

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

Dear Ms. Molchanow and Members of the State Board of Education:

As a supporter of Pennsylvania's Forest Products Industry, we are writing in regards to the proposed revision of Pennsylvania's Science, Technology, and Environment and Ecology standards. We are concerned that the omission of Environment, Ecology and Agriculture as performance expectations in the proposed Integrated Standards for Science, Environment and Ecology at the secondary level (grades 6-12) risks depriving students of valuable understanding of the world around them and will negatively impact our education system's alignment with our Commonwealth's workforce needs.

The new proposed standards do not explicitly include Environment, Ecology and Agriculture as performance expectations. The following items from the 2002 standards are weakly connected or not connected at all to the new proposed 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

Exposing students to the items listed above is important to the future of our forests, our environment and our economy. Educated workers will be empowered to find important and fulfilling careers and educated consumers will make better decisions related to renewable and sustainable products. As we consider the need to sustainably manage our forests, this curriculum will help inspire the people needed to fill many of these important careers for years to come.

The forest products industry currently employs approximately 64,000 people in Pennsylvania, providing family-sustaining jobs in all 67 counties while providing essential products used in everyone's daily lives. Many of our industry's employers face labor shortfalls and an aging workforce; a dynamic that provides plentiful career opportunities for students who will enter the workforce over the next several decades.

However, the importance of the forest products industry is not only measured by the commodities produced or its total economic output. The environmental importance of the industry cannot be overstated. Without the continued sustainable utilization of forest products, the health of our forests will decline along with the overall quality of our environment. Production and utilization of this renewable resource currently results in the regeneration of forest volume at twice the rate of harvest, while increasing our ecosystem's capacity for carbon storage and accelerating the rate of carbon capture.

While many students exposed to the curriculum connected with these standards will ultimately pursue career paths in other areas, they will greatly benefit from a knowledge of the importance of forests, the way forests are connected to our daily lives, and how individuals' decisions make a difference. The above items will ensure that students – as they develop into citizens and grow as consumers – will understand the importance of the ecosystem services our forests provide by cleaning our air and water, the recreational opportunities forests offer and the wildlife habitat and biodiversity our forests make possible.

Pennsylvania's Forest Products Industry, in partnership with the Pennsylvania Department of Agriculture, has created opportunities to educate students on many of these topics. The WoodMobile travels the state, often partnering with industry associations and volunteers in providing Project Learning Tree programming that assists teachers in meeting many of the requirements contained in the 2002 standards, while providing valuable hands-on learning to students. The industry has assisted in creating the "Sustaining Penn's Woods" curriculum, which has been offered in our middle and high schools. Without the inclusion of items from the above list, we risk losing these programs that enrich our students and expose them to career opportunities.

Thank you for your consideration of this feedback as you determine the future of our Commonwealth's Science Standards. We strongly request that you ensure Environment, Ecology, and Agriculture standards as enumerated above are not lost in the updated version of our Commonwealth's Science Standards.

Sincerely,



Edward S. Kocjancic
President
E.S. Kocjancic, Inc.