

FAIRMOUNT WATER WORKS



Karen Young and Ellen Schultz are writing to you today on behalf of the Fairmount Water Works' Interpretive Center (the Center) regarding the process of revising the Pennsylvania Science, Technology, and Environment and Ecology standards. Karen Young is the Executive Director and Ellen Schultz is Director of Education Partnerships and Curriculum Lead. The Center is a leader in environmental education, source water and watershed awareness and understanding. Based on the public information shared on the PA Department of Education website, we would like to express our concern about the proposed Integrated Standards for Science, Environment and Ecology at the secondary level (grades 6-12), and how it will impact current and future students in our state. Connecting standards driven classroom instruction to field experiences and stewardship actions gives students the knowledge and skills required to advocate for water that is drinkable, fishable and swimmable.

The Fairmount Water Works has been delivering exemplary watershed education programs for nearly two decades. Our landmark Interpretive Center is located in the heart of Philadelphia, along the Schuylkill River, and we provide award-winning environmental education for students in Philadelphia as well as the Region. Regarding formal education, we partner with the School District of Philadelphia to integrate our "Understanding the Urban Watershed" Curriculum in grades 6-8 and are expanding this reach to include grades 4 and 5 and 9 in the next school year. One of the most significant values of environmental education in general, and our Curriculum in particular, is that it is interdisciplinary, place-based and depends on a local context for learning. Students gain the knowledge and skills required to move them towards a sustainable future.

Additionally, The Fairmount Water Works is developing a Floating Water Workshop, a classroom on the water, which promises to be an innovative and immersive experience for students, which we plan to connect directly to our classroom Curriculum and, as such, will be aligned to Science, Common Core, Environment and Ecology, and Education for Sustainability Standards.

The new proposed standards do not explicitly include Environment, Ecology and Agriculture as performance expectations. After review of the proposed standards, we have found that the following areas are weakly connected or NOT CONNECTED at all to the proposed standards:

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. We 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.

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

Sincerely,

A handwritten signature in blue ink, appearing to read 'Karen Young', with a long horizontal flourish extending to the right.

Karen Young, Executive Director
Fairmount Water Works- IC

A handwritten signature in blue ink, appearing to read 'Ellen Freedman Schultz', with a long horizontal flourish extending to the right.

Ellen Freedman Schultz, Director of Education Partnerships and Curriculum Lead
Fairmount Water Works - IC