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State Superintendent of Schools

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TO: Members of the State Board of Education
FROM: Nancy S. Grasmick *Nancy*
DATE: May 25-26, 2010
SUBJECT: COMAR 13A.04.17 (Repeal and New) Environmental Education
Permission to Publish

PURPOSE:

The purpose of this action is to request that the State Board grant permission to publish new regulations for environmental education in conjunction with the recommendations coming from the Maryland Partnership for Children in Nature and the revised Maryland Environmental Literacy Curriculum.

HISTORICAL BACKGROUND/EXECUTIVE SUMMARY:

In January 2008, Governor O'Malley issued an Executive Order 01.01.2008.06 establishing the Maryland Partnership for Children in Nature. Co-chaired by the Maryland Department of Natural Resources Secretary and State School Superintendent, the Partnership developed a plan to ensure that all Maryland youth have access to recreational and educational outdoor experiences and graduate environmentally literate. Environmentally literate students understand environmental and physical processes and systems, including human systems. They are able to analyze global, social, cultural, political, physical, economic and environmental relationships, and weigh various sides of environmental issues to make responsible decisions as individuals and as members of their community and citizens of the world.

In April 2009, the 21 member Partnership and its 100 workgroup members completed their work and provided the final report and recommendations to Governor O'Malley. The report stated emphatically that, "Implementation of the recommendations, therefore, must consider both the formal education and the natural outdoor experiences of the whole child to achieve success in developing a citizenry that is schooled in environmental science, acts responsibly and in accord with a committed stewardship ethic to protect our environment and natural resources, and maintains a connection with and enthusiasm for enjoying our natural world."

The Partnership's recommendations to the Governor included the following statements:

- Adopt the Maryland State Environmental Literacy Curriculum.
- Require for graduation that every high school student take and pass a designated course of study in environmental literacy as defined in this document.
- Amend COMAR as necessary to reflect these changes.

Maryland has a long history of environment education in formal education occurring in public schools. In addition, Maryland is the only state in the nation to require service learning as a graduation requirement and many of our students choose environmental action as the focus of their service learning.

The first Code of Maryland Education Regulation that required a comprehensive, multidisciplinary program of environmental education was effective June 12, 1989. The language in the current Environmental Education regulation was approved by the State Board of education in 1999. Since that time, national standards in environmental education, science, social studies, health, mathematics and other related content areas have been developed. The proposed amendment incorporates the concepts contained in these national documents and builds upon recent research into the effects on student achievement and school climate of using the environment as an integrating context for teaching and learning.

ACTION:

Permission to publish amendments to COMAR 13A.14.17. Tentative timeline as follows:

Maryland Register Issue Date: July 16, 2010
30 day open comment period ends: August 16, 2010
Adoption: September 21-22, 2010

NSG: dls

Attachment – Draft COMAR language for 13A.04.17

Title 13A STATE BOARD OF EDUCATION

Subtitle 04 SPECIFIC SUBJECTS

Chapter 17 Environmental Education

Authority: Education Article, §§2-205(h), Annotated Code of Maryland

.01 Environmental Education Instructional Programs for Grades Prekindergarten-12

A. Each local school system shall provide in public schools a comprehensive, multi-disciplinary environmental education program infused within current curricular offerings and aligned with the Maryland Environmental Literacy Curriculum.

B. Maryland Environmental Education Program shall:

- (1) Provide a developmentally appropriate instructional program;
- (2) Advance students' knowledge, confidence, skills and motivation to make decisions and take actions that create and maintain an optimal relationship between themselves and the environment, and preserves and protects the unique natural resources of Maryland, particularly those of the Chesapeake Bay and its watershed.
- (3) This comprehensive instructional program shall provide for the diversity of student needs, abilities and interests at the early, middle and high school learning years, and shall include all of the standards from the Maryland Environmental Literacy Curriculum as set forth in § C of this regulation.

C. Maryland Environmental Literacy Curriculum

(1) Environmental Issues. The student will:

- (a) Investigate and analyze environmental issues ranging from local to global perspectives and;
- (b) Develop and implement a local action project that protects, sustains, or enhances the natural environment.

(2) Interactions of Earth's Systems. The student will analyze and apply the properties of systems thinking and modeling to the study of earth's systems.

(3) Flow of Matter and Energy. The student will analyze and explain the movement of matter and energy through interactions of earth's systems: *biosphere, geosphere, hydrosphere, atmosphere, and cryosphere* and the influence of this movement on weather patterns, climatic zones, and the distribution of life.

(4) Populations, Communities and Ecosystems. The student will use physical, chemical, biological, and ecological concepts to analyze and explain the interdependence of humans and organisms in populations, communities and ecosystems.

(5) Humans and Natural Resources. The student will use concepts from chemistry, physics, biology, and ecology to analyze and interpret both positive and negative impacts of human activities on earth's natural systems and resources.

(6) Environment and Health. The student will use concepts from science, social studies and health to analyze and interpret both positive and negative impacts of natural events and human activities on human health.

(7) Environment & Society. The student will analyze how the interactions of heredity, experience, learning and culture influence social decisions and social change.

(8) Sustainability. The student will:

- a. Make decisions that demonstrate understanding of natural communities and the ecological, economic, political, and social systems of human communities; and
- b. Examine how their personal and collective actions affect the sustainability of these interrelated systems.

D. Each local school system shall establish a support system to enable teachers and administrators to engage in high quality professional development in content knowledge, instructional materials and methodology related to environmental education.

E. Student Participation. Each student shall have the opportunity to participate in the comprehensive environmental education program required by this regulation to meet their graduation requirement in environmental literacy.

.02 Certification Procedures.

By September 1, 2015 and each five years after, each local school superintendent of schools shall certify to the State Superintendent of Schools that the instructional program in environmental education meets, at a minimum, the requirements set forth in regulation .01 of this chapter.

IMPACT STATEMENTS

Part A
(check one option)

Estimate of Economic Impact

X The proposed action has no economic impact.

or

The proposed action has an economic impact. Complete the following form in its entirety.

I. Summary of Economic Impact.

II. Types of Economic Impacts.

Revenue (R+/R-)
Expenditure (E+/E-) Magnitude

A. On issuing agency:

B. On other State agencies:

C. On local governments:

Benefit (+)
Cost (-) Magnitude

D. On regulated industries or trade groups:

E. On other industries or trade groups:

F. Direct and indirect effects on public:

III. Assumptions. (Identified by Impact Letter and Number from Section II.)

Part B
(check one option)

Economic Impact on Small Businesses

X The proposed action has minimal or no economic impact on small businesses.

or

The proposed action has a meaningful economic impact on small businesses. An analysis of this economic impact follows.

Impact on Individuals with Disabilities

(Check one option)

X The proposed action has no impact on individuals with disabilities.

or

The proposed action has an impact on individuals with disabilities as follows:

Part C

(For legislative use only; not for publication.)

- A. Fiscal Year in which regulations will become effective: **FY 11**
- B. Does the budget for fiscal year in which regulations become effective contain funds to implement the regulations?
- Yes No
- C. If "yes," state whether general, special (exact name), or federal funds will be used:
- D. If " no," identify the source(s) of funds necessary for implementation of these regulations:
Local funds will be used to ensure inclusion of the Environmental Education Standards within current course offerings
- E. If these regulations have no economic impact under Part A, indicate reason briefly:
No new courses are required
- F. If these regulations have minimal or no economic impact on small businesses under Part B, indicate the reason and attach small business worksheet. *Under existing COMAR local systems must have included environmental education into existing courses.*
- G.

Comparison to Federal Standards

(Check one option)

There is no corresponding federal standard to this proposed regulation.

or

There is a corresponding federal standard to this proposed regulation. Please give corresponding federal standard and if the regulation is not more restrictive or stringent give justification.

or

In compliance with Executive Order 01.01.1996.03, this proposed regulation is more restrictive or stringent than corresponding federal standards as follows:

- (1) Regulation citation and manner in which it is more restrictive than the applicable federal standard:
- (2) Benefit to the public health, safety or welfare, or the environment:
- (3) Analysis of additional burden or cost on the regulated person:
- (4) Justification for the need for more restrictive standards: