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LEGISLATIVE EDUCATION STUDY COMMITTEE
BILL ANALYSIS
54th Legislature, 1st Session, 2019

Bill Number	<u>SB33/aSEC</u>	Sponsor	<u>Padilla</u>
Tracking Number	<u>.211156.1</u>	Committee Referrals	<u>SEC/SFC</u>
Short Title	<u>High School Water Management Project</u>		
Analyst	<u>Force</u>	Original Date	<u>1/22/19</u>
		Last Updated	<u>2/5/19</u>

BILL SUMMARY

Synopsis of SEC Amendment

The Senate Education Committee Amendment to SB33 (SB33/aSEC) makes a small change to clarify the Public Education Department would be providing the funding for curriculum development and implementation of the high school water management program.

Synopsis of Original Bill

Senate Bill 33 (SB33) establishes the “high school water management and conservation program” as a two-year pilot that would create a one-credit, elective high school class, to provide students with an understanding of water management and conservation. The program would also help prepare students for workforce entry or academic or vocational programs in water management. The Public Education Department (PED) is to administer the pilot program and provide funding for curricula and implementation in at least one high school for FY20 and FY21.

PED is to create and administer an application process for implementation of the pilot in public schools. Applicants must demonstrate their proposed programs will meet all PED requirements and standards and only employ qualified teachers. PED is also to establish evaluation and reporting requirements for the programs, including student assessments. Finally, PED must provide the Legislature and the governor with interim and final reports on the efficacy of the water management and conservation program.

FISCAL IMPACT

SB33/aSEC appropriates \$400 thousand from the general fund to PED for expenditure in FY20 and FY21.

The bill appears to direct PED to provide funding for curricula and implementation of the program. PED may retain as much as four percent of any appropriation to the water management and conservation program for administrative costs and professional development for participating teachers.

SUBSTANTIVE ISSUES

Water Management and Conservation Programs. A landlocked, desert state, New Mexico averages only ten inches of precipitation annually, according to the New Mexico Environment Department. Surface water in the state originates as rain or snowmelt, but more than 95 percent of that evaporates or is transpired by plants. Most of New Mexico's fresh water is stored as groundwater in aquifers or smaller underground pockets. The state engineer is responsible for water quality, appropriation, and distribution of surface and ground waters.

New Mexico State University conducted a 2016 study that projected six different climate change scenarios regarding water across two time periods, one relatively near, from 2020-2039, and the further off, from 2070 to 2089. The study found that ecosystems are at greatest risk in New Mexico, followed by agricultural water users. Total annual economic losses, without additional conflicts over water rights, are projected to be approximately \$300 million. Clearly management and conservation of water resources are critical to the state's future. Investment in a school-level water management project will, at least, teach students about the issues and the importance of conservation, and may help inspire and train cadres of potential workers in the area of resource management and conservation.

A 2015 study on the effectiveness of water-related leadership development programs published in the *Journal of Leadership Education* indicated most water professionals and others seeking to develop 21st Century leadership skills for water management are not getting the developmental experiences they need. Water-related leadership programs should be grounded in evidence-based theory and the opportunity to learn from experience, again suggesting innovative programs and curricula are best suited to delivering effective programs with lasting results.

The Youth Conservation Corps notes two years may be insufficient to establish a water management and conservation program that provide significant student outcomes. Establishing an effective evaluation of the program may also take more than two years. It suggests the program be extended beyond two years, with appropriate increases in funding.

Applied and Project-Based Learning. The National Conference of State Legislatures' report, *No Time to Lose*, identifies Career Technical Education (CTE) as one of the four foundational elements common to the educational systems of high-performing countries. One of the purposes of the proposed water management conservation program is to better prepare students for entry into the workforce or vocational programs, as well as academic pathways. A project-based or other innovative learning approach to the program may be an efficacious way to impart both water-resource-related skills, academic content, and general employability and soft skills.

ALTERNATIVES

The Youth Conservation Corps notes that postsecondary institutions often offer water conservation courses, and suggest high schools consider executing memoranda of agreement with local postsecondary institutions to allow high school students to take those courses. Water management and conservation may be an appropriate course to be offered through dual credit programs, as well.

RELATED BILLS

HB175, Regional Water Utility Authority Act, which provides for the creation of regional water utility authorities.

HB186, Regional Water Planning Act, which reforms the general powers of the Interstate Stream Commission to include water planning

HB91, Career Technical Education (CTE) Pilot Project, which establishes a seven-year pilot project to fund high-quality CTE programs and monitor effects on student outcomes.

HB183, Apprenticeship Program for Graduation, which allows participation in a registered apprenticeship program to count toward graduation.

HB299, which appropriates \$650 thousand to support middle school, high school, and postsecondary students in six state-chartered intra- or co-curricular CTE student organizations.

SOURCES OF INFORMATION

- LESC Files
- Youth Conservation Corps

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