

## NYSED Ready to Move Science Education Reform Forward

Ken Wagner, NYSED Deputy Commissioner for Curriculum, Assessment, and Educational Technology recently told members of the NYS Science Education Consortium, “I agree with you. I think we can make this happen.” Wagner, along with his colleagues Mary Cahill and Zachary Warner, had just listened to a PowerPoint presentation developed by the Consortium at the Thirteenth State Science Education Summit, held at Union Graduate College on July 23-24, 2014. This presentation reviewed the need for PK-16 science education reform, referred to the Consortium’s 2013 Position Paper on the Next Generation Science Standards (NGSS), and recommended several steps to move the reform process forward.

The Consortium, along with other science education stakeholders, has been working with NYSED Science Associates Ann Crotty and Will Jaacks for two years on the development of a Statewide Strategic Plan for Science Education. The plan provides objectives and activities for reform in state standards, curriculum, assessment, professional development, materials support, and administrative and community support. Informed by the work of the National Science Resources Center, the plan asserts that attention must be paid to all six domains in order for science education reform to be effective and lasting. The plan is also flexible enough to accommodate a decision of the NYS Board of Regents to adopt NGSS, adapt NGSS, or revise the state’s current science standards. The Consortium, through its Position Paper, has recommended that the Regents adopt a New York State version of NGSS.

At Summit XIII, the Consortium recommended that in early 2015 the Regents adopt the Strategic Plan and authorize the development of a New York State Version of the NGSS which could be considered for adoption by the Regents in early 2016. Such a timeline would enable NYSED, the science education community, and other stakeholders to begin the activities contained within the Strategic Plan, including the development of the state version of NGSS.

In his response to the presentation, Ken Wagner agreed with the proposed actions and timeline, noting that, although wholesale adoption of the NGSS may not be possible, a state version of NGSS, modified to meet the needs of all of our students, seems viable. He added that the Regents should be presented with the Strategic Plan this fall and asked to release the plan for public review and response. This action could set the stage for the plan’s adoption in early 2015 and the authorization of the development of the state version of NGSS at the same time.

Wagner’s affirmation and support were not without cautions. As in the recent adoption of the state’s social studies standards, the Board of Regents will need widespread support and testimonials from the field and involving many stakeholders before it considers adoption of the Strategic Plan and authorization of the development of a NYS version of NGSS. Wagner noted that NYSED will proceed forward “with sincerity and integrity” but resources are limited and diminishing and the Regents will want assurances from science educator professional associations, science teachers and supervisors, science teacher educators, scientists, parents, and

other stakeholders that adopting the Strategic Plan and developing new state science education standards are both necessary and broadly supported.

For the members of the Consortium (STANYS, NYSSELA, SCONYC, LISELA, CASSA, and the Biology-Chemistry Professional Development Network), the challenge is clear. Leaders of these organizations will help build awareness of the Strategic Plan and what a NYS version of NGSS might look like with their members this fall and ascertain levels of consensus that can be shared with the Regents in early 2015, if not sooner. The Consortium will continue to help coordinate such efforts and advise state policy makers and other stakeholders on the need for science education reform, presenting a viable roadmap to achieve that reform.

It has been said many times that patience is a virtue. Science educators in our state have been patient as NYSED, BOCES, and schools have funded and implemented the Common Core Standards in English Language Arts and Mathematics and now the revised Social Studies Standards. We have seen the time for and approach to elementary science education erode owing to other curricular needs considered more pressing. We have watched the participation rates in high school science stall with less than half of our students successfully completing Regents Chemistry and less than one-quarter doing the same in Regents Physics. While we produce many well-prepared and talented science students, as large a number are not fully engaged in learning science or prepared for college or careers in a society so dependent on advances in science and technology. New York State can and must do better by our students. The task will not be easy but the science educators in this state have always met the challenge when their talent, creativity, and experience were valued and utilized. To quote Ken Wagner, “We will need help.” Let’s provide it!