

AGU FALL MEETING

New Orleans 11-15 Dec. 2017 What will *you* discover?

PA51B-01: Planning for Sea Level Rise: An AGU Talk in the Form of a Co-Production Experiment Exploring Recent Science (Invited)

Friday, 15 December 2017

08:00 - 08:20

 *New Orleans Ernest N. Morial Convention Center - 255-257*

Global sea level rise (SLR) may present the most urgent climate change adaptation challenge facing coastal communities today. The direction is clear, impacts are manifesting now, and the pace of rise is likely to accelerate. As a result, many coastal communities have begun planning their adaptation response and some are quite far along in the process.

At the same time, evolving science provides new observations, models, and understanding of land-ocean dynamics that can increase clarity while also in many ways increase uncertainty about the scope, timing, and regional nature of SLR. The planning, design, and construction of water infrastructure has a relatively long timeline (up to 30 years), and thus the evolution of scientific knowledge presents challenges for communities already planning for SLR based on previous information. When does science become actionable for decision-makers? Are there characteristics or thresholds that could cause communities decide to move from one set of scenarios to another, or change approaches altogether?

This talk focuses on two important studies different in kind but dominating the conversation about SLR adaptation planning today. First, DeConto and Pollard (2016) have suggested significantly higher upper end projections for Antarctic ice sheet melt, which increase both global and regional SLR above most previously assumed upper limits. Second, probabilistic projections using model output and expert elicitation as presented in Kopp et al (2014) are increasingly appearing in federal reports and planning-related documents. These two papers are pushing the boundaries of the science-to-planning interface, while the application of this work as actionable science is far from settled.

This talk will present the outcome of recent conversations among our diverse author team. The authors are engaged in SLR planning related contexts from many angles and perspectives and include the aforementioned Kopp and DeConto as well as representatives of the City of San Francisco, Army Corps of Engineers, Environmental Protection Agency, and engineering consultant community. Attendees of this session will hear a presentation demonstrating co-production in process, including topics about which the authors have and have not agreed upon to date, with some attention to next steps in the process.

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