

Science & Technology Committee 2018

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1. **An ASBPA Science Director:** 2018 was a groundbreaking year for the organization as we embarked on a brand-new staff position expanding our science advocacy and coordination with federal agencies and the academic community. “Staffing” the S&T committee meant working with the committee, the Technical Advisory Committee (TAC), and the board of directors to develop and implement yearly plans, coordinating ASBPA’s science work, serving in USCRP’s program office, and representing ASBPA with scientific organizations and at conferences. The Science Director proposed additional funding to advance ASBPA’s scientific goals and objectives. In addition, Dawn York was brought on as a new co-chair.
2. **The Nation’s Top 5 Coastal Management Challenges:** At the 2018 Coastal Conference, ASBPA S&T kicked off an effort to engage ASBPA members to identify the most critical management challenges. The goal of this effort is to socialize these challenges to inform applied coastal research investments and to publish white papers and easy-to-understand products describing each by 2022.

Next step includes: 1) S&T will distribute a survey to ASBPA’s practitioner members to prioritize challenges, and 2) the list of the top five (current) challenges will be published.

3. Information and Guidance on Specific Coastal Management Challenges:

a. ASBPA’s National Beach Nourishment Database: 452 projects have placed



>1.5 billion cubic yards of sand on US beaches since the 1920’s. The geodatabase, developed in partnership with the USACE Regional Sediment Management (RSM) Program and APTIM, includes federal projects, beneficial placement of navigation sediment, and state/local/private beach nourishment projects. It

maps the volume of sand, cost, and length of shoreline restored.

Next step includes: Begin an annual outreach effort to agencies and stakeholders (communities, academics, industry) to verify existing data, identify missing projects, and promote use of database to and include new and missing projects.

- b. **White Papers for Public Outreach:** ASBPA has published at least one White Paper per year for the past 5 years. The intended audience for these paper are non-technical coastal professionals and stakeholders. 2018 efforts focused on “Training the next generation of U.S. coastal scientists and engineers”

Next steps include: 1) White paper on Regional Sediment Management; and 2) Impacts of beach nourishment on biogeochemical processes and conditions.

4. U.S. Coastal Research Program

(USCRP): ASBPA's Science

Director serves as a member of the

USCRP Virtual Program Office

(VPO) coordinating a community of

researchers from federal agencies,

academia, and industry who have

developed a sustained, coordinated

national research program. Goals

are to identify research needs,

better coordinate federal research

activities, more efficiently utilize

funding, strengthen academic

programs, and build a skilled

workforce. The ASBPA Science

Director has organized workshops

and co-authored reports for this effort, which include the Future of Nearshore

Processes Research (2014); a federal workshop (March 2016) to produce the "U.S.

Coastal Research Implementation Plan" (pictured; the first National Nearshore

Collaboration workshop (December 2016), and the 2018 storms workshop (below).



2018 Accomplishments: 1) Student funding via the USCRP Storm Processes Workshop (below); 2) Organization of a large-scale multi-agency field experiment during 2019-2021 in the Outer Banks of N.C. (DUNEX); and 3) \$5M in academic funding for 2019.

- 5. Storm Processes and Impacts Workshop:** Based on a successful 2015 workshop format on Dune Management Challenges on Developed Coasts, the Science Director assisted the USCRP to convene coastal stakeholders across all sectors - academics, government, industry, NGOs - to understand our present capabilities for modeling storm processes, forecasting impacts, and determine/prioritize where advancements are needed. The topic for this workshop, which was held in St. Petersburg, FL in Spring 2018, was motivated by ASBPA members concerned about recent hurricane storm surge forecasts. A subsequent call for proposals, resulted in the award of eight grants totaling \$550,000 from the participating federal agencies to support graduate student research projects that focus on addressing challenges and topics identified in the meeting.



Next steps include: 1) Publishing a workshop report co-authored by participating academics in *Shore and Beach* in 2019; 2) Hosting a dedicated session of funded graduate student research during the ASBPA Fall Conference in 2020; and 3) Publishing a dedicated issue of *Shore and Beach* highlighting research findings in Spring of 2021