



Environment & Public Works Committee Information Gathering Testimony

April 22, 2020

American Shore and Beach Preservation Association, Anthony Pratt, President

The American Shore and Beach Preservation Association (ASBPA) is honored to have been invited to participate in this unique key stakeholder input opportunity entitled, "An Information-Gathering Process on Draft Legislation entitled, America's Water Infrastructure Act of 2020 and The Drinking Water Infrastructure Act of 2020: Stakeholder Comments". ASBPA, for which I serve as President, was founded in 1926, is a 501(c)3 nonprofit organization that advocates for healthy coastlines by promoting the integration of science, policies and actions that maintain, protect and enhance the coasts of America. Our members are geologists, engineers, town managers, elected officials, professors, students and coastal advocates.

From its formation, ASBPA has worked with Congress and the Administration to help pass significant legislation to define and refine the strong, necessary role the federal government plays in the management and preservation of our nation's shorelines. I want to thank Chairman Barrasso and Ranking Member Carper of the Environment and Public Works (EPW) Committee for their strong leadership in bringing "America's Water Infrastructure Act (AWIA) of 2020" forward. It is encouraging to see Congress working so well across the aisle to address the Nation's water resources infrastructure challenges. We applaud the EPW for its accomplishment of maintaining the biennial schedule for a Water Resources Development Act (WRDA) and for the vision and foresight contained in the bill. ASBPA is very much in support of the draft legislation and we look forward to helping advance it in any way that we can.

America's Coastlines

Let me start by making a few observations about America's beaches and coastlines. The residential community coasts of America are, by and large, engineered shorelines, augmented, and sustained through design, engineering and construction of stabilizing and sustaining measures. The most iconic beaches in the country have all been restored, renourished, and re-engineered to mimic natural systems. The beaches of the Jersey Shore, Delaware, Ocean City, MD, the Hamptons, Gulf Shores, Galveston, Malibu, Santa Monica, and Waikiki are part of our national coastal infrastructure that has been engineered with nature as a guide. Coney Island was the first significantly engineered beach, renourished back in 1923. Today, nearly every beach on the East and Gulf Coast, and many on the West and Great Lakes coasts, have been engineered. Increasingly, even our estuarine and back-bay shorelines are engineered, either by "armoring" with bulkheads and riprap, or with more natural solutions such as restoration and living shorelines.

As seas rise and coastal storms gain in intensity, together with ongoing erosion and the lack of sediment reaching the coast due to navigation and flood risk management projects, America's beaches and coastlines are facing unprecedented threats. No longer can we rely on hardening our shorelines to protect coastal communities – coastal projects need to be multi-dimensional, systems-based efforts that integrate natural and nature based features with engineered standards of risk reduction. Fortunately, the U.S. Army Corps of Engineers (USACE), authorized by and acting under policy established in WRDAs, has been building natural infrastructure and engineering with nature for a long time. We believe Congress needs to set policies for USACE that direct them to implement projects that maximize the use of available sediment, provide and accounts for multiple benefits and brings together diverse stakeholders

ASBPA believes a healthy coastline provides **four interconnected values** to coastal communities specifically and to the nation more broadly:

- a) **Protection** from coastal storms, hazards and sea level rise, and as buffer to sensitive estuarine ecosystems¹²;
- b) **Ecologically valuable habitat** for birds, turtles, fish and other coastal plants and wildlife;
- c) **Economic vitality** through tourism, shipping, fishing and other industries;
- d) **Recreation** for tens (if not hundreds) of millions of Americans who visit the beach in greater numbers than all our national parks combined.

ASBPA would like to see these values maximized in USACE's management of our nation's shoreline. We believe America's Water Infrastructure Act of 2020 takes steps to do so.

America's Water Infrastructure Act of 2020

The draft of AWIA includes several policy provisions that will improve system-wide management of America's coastline and foster projects that provide multiple societal benefits. Below we have identified nine sections that support better decision-making for coastlines threatened by increasing storm intensity, sea level rise and on-going coastal erosion, exacerbated by lack of sediment.

ASBPA strongly supports the following sections of AWIA because they improve coastal management in three ways:

- 1) Advance **Regional Sediment Management (RSM)** and the **Beneficial Use of Dredged Material (BUDM)** (sections: 1019, 1080, 1095, 1017, 1012);
- 2) Clarify and support **local responsibility** for coastal projects (sections: 1016, 1018, 1028, 1017, and 1095);
- 3) Advance **Natural Infrastructure** as a multi-benefit tool to reduce flood-risk and provide ecological value, while underpinning regional recreation and the economy (section: 1098).

¹ USACE has documented that coastal storm damage risk reduction projects reduced damages from Hurricane Sandy by \$1.9 billion, however this comprehensive regional analysis has not been publicly produced for subsequent hurricanes.

USACE – NAD, "MEMORANDUM FOR RECORD - SUBJECT: Damages Prevented by Corps Projects, Hurricane Sandy", Nov. 19, 2012.

<https://www.nad.usace.army.mil/Portals/40/docs/ComprehensiveStudy/Estimate%20of%20Sandy%20damages%20avoided.pdf> [Submitted for the record.]

² Narayan, S. "The Value of Coastal Wetlands for Flood Damage Reduction in the Northeastern USA", *Scientific Reports*, Vol. 7, Article number: 9463 (2017). <https://www.nature.com/articles/s41598-017-09269-z>

Regional Sediment Management and the Beneficial Use of Dredged Material

Regional Sediment Management (RSM) is a comprehensive approach to planning and integrating riverine and coastal projects with the core principle that sediment is a finite resource not to be wasted. RSM seeks to *move* sediment from where it is not wanted to where it is wanted, rather than simply *removing* sediment from the littoral system. RSM can reduce overall costs through cross-business line planning and budgeting. As dredging needs increase in the future to keep waterways accessible for low-cost, low-carbon shipping, RSM can allow more dredging at lower costs. Additionally, with more dredging comes more sediment and using RSM allows USACE districts to better plan for sediment to be used where it is needed and kept out of dwindling containment facilities.

The “Beneficial Use of Dredged Material” (BUDM) is one aspect of RSM, in which sediment dredged for navigation purposes is used to benefit a restoration and/or flood risk reduction project. Ultimately, ASBPA believes that USACE needs to evolve its budgeting and planning operations to reflect RSM principles so that **100% of uncontaminated dredged sediment is used beneficially.**

Section 1019 requires each USACE district to produce an annual five-year sediment management plan that forecasts expected sediment removal (i.e., dredging) and placement needs, and includes public input.

While many USACE districts are already employing regional sediment management (RSM) concepts and planning, RSM is not consistently practiced throughout all USACE districts and not all districts provide public plans for how they manage sediment. Requiring a five-year sediment management plan from each district will help a) ensure districts are all operating using the budgetary cost-saving principles of RSM; b) ensure transparency in project planning and budget development, thereby allowing local communities to have a better understanding of when they will need to provide their local cost share; and c) ensure states and all sediment-user stakeholders are at the table as USACE districts plan where and how to remove and use sediment within their watersheds and littoral systems.

Section 1080 requires USACE to consider “the suitability... of beneficial uses” and “the economic and environmental benefits... of... those beneficial uses” when evaluating the placement of dredged material.

Section 1095 explicitly allows non-federal interests to request that dredged material be used beneficially at federal expense if “the incremental costs of the disposal method are reasonable in relation to the environmental benefits, including the benefits to the aquatic environment to be derived from the creation of wetlands and control of shoreline erosion; or hurricane and storm or flood risk reduction benefits, including shoreline protection, protection against loss of life, and damage to improved property.”

Current implementation of the “Federal Standard” is based on the misunderstanding that dredged material is a “spoil” that needs to be disposed of, rather than a resource that should be used to benefit a coastal land feature. As seas rise and offshore sediment sources become scarce, we now understand

that sand is the second most used natural resource in the world behind water.³ By requiring USACE to calculate the value of dredged sediment and allowing local sponsors to request that dredge sediment is used beneficially, USACE will be more likely to beneficially use more dredged sediment.

Section 1017 increases authorization for Continuing Authorities Programs (CAPs) (including RSM) and allows “Small or Disadvantaged Communities” to benefit from CAPs at a lower non-federal cost-share.

The Continuing Authorities Programs fund individual projects that are small compared to the federally authorized projects with their own budget line-item. Nevertheless, coastal communities rely on these projects to support their flood risk management and ecological restoration efforts, making them incredibly valuable at the community level. Increasing authorizations and reducing local cost-share make these programs more equitable and can be used where they are most needed, not just where the community has the means to support the federal match requirement.

Section 1012 doubles the number authorized pilot projects under the WRDA 2016 Sec. 1122 BUDM pilot program and additionally requires that ten of the projects are thin layer placement.

Of the initial ten pilot projects selected, one project, Deer Island Lagoon in MS, has been completed, and USACE has estimated the remaining nine will be in construction by FY2022, assuming current dredge timelines hold and construction funding is available.^{4,5} While more systemic BUDM is needed, providing USACE with greater authority to replicate successful pilot projects will help local stakeholders work with USACE to identify and implement important BUDM projects. Additionally, identifying projects that use thin layer placement techniques will help coastal communities who are seeing eroding wetlands and challenges from sea level rise, even though their projects can be more complicated and costly than traditional BUDM projects.

Local Responsibility

USACE hurricane and coastal storm damage risk reduction projects are developed in coordination with local sponsors and (ideally) with input from other federal agencies. While USACE often provides most of the funding, as well as engineering and construction expertise, the local sponsors are the immediate beneficiaries of the project and need to be included throughout project development and implementation. Additionally, without the resources of the federal government, local sponsors need flexibility in providing their local cost-share.

Section 1016 ensures that overpayment by local sponsors of their cost-share will either be returned or carried forward toward the next payment due from that local sponsor.

³ <https://www.imf.org/external/pubs/ft/fandd/2015/12/edwards.htm>

⁴ FY19 appropriations included an \$8.5 million increase to CAP204 (BUDM) to \$10 million with report language, “the Corps is directed to fund these pilots, if otherwise competitive, under the CAP Section 204 line item and the applicable additional funding line items in this account.” FY20 Energy & Water appropriations includes \$7.5 million for “BUDM Pilot Program” as well as \$15 million for CAP204 (BUDM).

⁵ See also: “Increasing Beneficial Use of Dredged Material” ASBPA Factsheet [*Submitted for the record.*]

Section 1018 allows US Fish & Wildlife Service funds to be included as local cost-share for certain projects.

Section 1028 requires USACE to consider any “negative impacts to the local economy due to the timing” of coastal project construction.

These small policy changes address challenges that a few individual local sponsors have had in working with USACE districts. They also establish protocols that could potentially prevent problems on other projects. While not transformational policy, they help coastal communities.

Sections 1095 and 1017 are explained above, under the RSM & BUDM heading, but both provide local sponsors more flexibility in working with USACE on projects.

Natural Infrastructure

Wide beaches, high dunes, and verdant wetlands, reefs, mangroves and seagrass beds are essential to the 40% of Americans who live along the coast. Properly maintained, this natural infrastructure can improve communities’ resilience and is itself resilient. Dunes and marshes can adapt to rising seas, and reefs and coastal forests regenerate after storm damage. The same can’t be said for “grey” (concrete and steel based) infrastructure. USACE has been building beaches and dunes for flood risk reduction for nearly a century and restoring aquatic ecosystems for more than half a century. It should be looking at how to fully integrate these missions in combination with its mandate to maintain coastal navigation. By doing so, USACE can more effectively restore and rebuild our nation’s natural infrastructure, in collaboration with other federal, state and tribal agencies.

Section 1098 modifies the small flood control projects continuing authorities program to make natural infrastructure an eligible project type

Thanks to congressional action in 2016 and 2018, the Corps has a clear obligation to consider natural infrastructure during project design. However, Congress still needs to take steps to promote greater use of natural infrastructure. While this can be done by making minor adjustments to all USACE policies that address flood risk reduction to ensure natural infrastructure is considered and/or eligible, a better way to support natural infrastructure is to fully account for all benefits and costs when determining projects.

Congress should modernize the criteria used to assess costs and benefits during project planning by accounting for increased ecosystem services and recreation-driven economic stimulus as project benefits.

ASBPA was pleased to see a recent memo⁶ from Assistant Secretary of the Army (ASA) for Civil Works, RD James, directing the USACE to calculate a broader range of benefits in determining feasibility of all USACE projects. For all projects, he specifically directs USACE “to identify, analyze and maximize all benefits” for “Regional Economic Development (RED) and Other Social Effects (OSE)” whereas previously

⁶ MEMORANDUM FOR THE COMMANDING GENERAL, U.S. ARMY CORPS OF ENGINEERS; SUBJECT: Comprehensive Documentation of Benefits in Feasibility Studies; April 3, 2020.

only the National Economic Develop (NED) impacts were fully calculated. We will closely monitor how this gets implemented and we encourage Congress, and the EPW committee specifically, to provide oversight to ensure this directive is fully carried out.

Conclusion

ASBPA is pleased to see America's Water Infrastructure Act of 2020 take significant steps to direct USACE to better manage sediment, help local communities afford and engage in the development of their coastal projects, and advance natural infrastructure. We commend the committee for its bipartisan work in writing this bill, which also serves to authorize numerous studies and construction projects to restore coastlines and reduce communities' risk from coastal hazards.

The threats facing our nation's coastlines have never been greater, but they cannot be solved with policy changes and authorized projects in WRDA alone. The policy solutions included in the current legislation are critical, but not sufficient. **Ultimately our country must make a major investment in infrastructure for coastal adaptation and resilience that includes long-term planning and funding for coastlines and waterways.** From sediment management to preparing for storms and rising seas, the challenges of our coastlines and our waterways are linked and must be solved together. This will need to be a primary focus of the EPW committee in the coming years.

ASBPA looks forward to working with the EPW Committee to advance the 2020 WRDA and address these profound challenges in future WRDAs and in infrastructure and/or adaptation legislation. Thank you for considering our testimony, and we are happy to answer any questions.

Anthony Pratt

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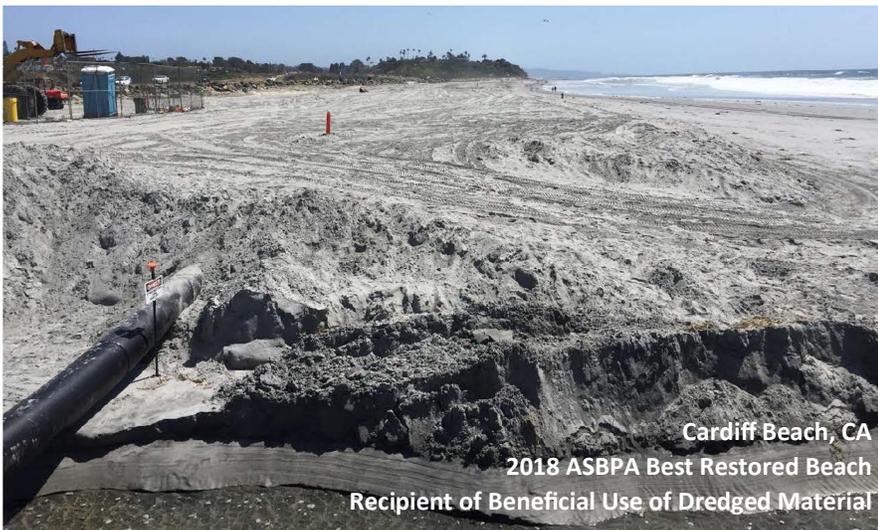
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Increasing Beneficial Use of Dredged Material

WRDA 2016 Section 1122 authorized 10 pilot projects to use dredged material from Federal navigation projects by covering 100% of the additional costs related to transportation and placement in excess of the Federal Standard.

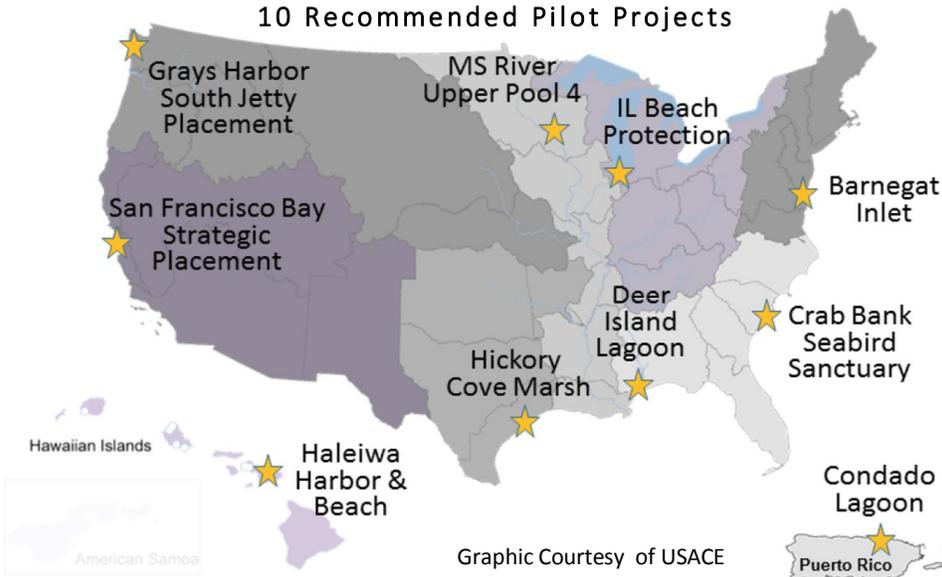
These 10 projects exhibit multi-beneficial qualities and an opportunity to explore regional sediment management solutions.



EXPAND the Beneficial Use of Dredged Material by:

- ◆ Appropriating \$15 million for Regional Sediment Management and Beneficial Use of Dredged Material in FY20 & FY21
- ◆ Choosing an additional 10 projects as authorized in Sec. 1130 of WRDA 2018
- ◆ Streamline the process for non-federal interest to implement BUDM projects that mimic federally authorized projects.

Beneficial Use of Dredged Material Pilot Program 10 Recommended Pilot Projects



Why support Beneficial Use of Dredged Materials?

- ◆ Reduce storm damage to property and infrastructure
- ◆ Promote public safety
- ◆ Protect, restore, and create aquatic ecosystem habitats
- ◆ Promote recreation
- ◆ Stabilize stream systems and enhance shorelines
- ◆ Support risk management adaptation strategies; and
- ◆ Reduce the costs of dredging and dredged sediment placement



Understanding Regional Sediment Management

Sediment can be adaptively managed as a **RESOURCE** through a **WIN-WIN** collaboration

- ◆ Regional Sediment Management (RSM) is a systems approach using best management practices for more efficient and effective use of sediments in coastal, estuarine and inland environments.
- ◆ Through an improved understanding of operational efficiencies and natural exchange of sediments, projects can be linked and leveraged across authorities and business lines.
- ◆ Managing sediment as a resource to benefit a region potentially lowers costs, allows use of natural processes to solve engineering problems and improves the quality of the environment.
- ◆ RSM has been shown to lead to significant cost savings, value, and benefits. All U.S. Army Corps of Engineers Districts should adopt RSM practices and budgeting.
- ◆ Breaking barriers in bureaucratic policies to allow for the beneficial use of dredged material can be integral to economic and environmental vitality.

(Learn more at: <http://rsm.usace.army.mil/>)



Often, the most cost-effective way to restore a beach or coastal system is to use the dredged sediment from a navigation project



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For more information please visit www.asbpa.org,
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Advocating for healthy coastlines