

Coastal Voice

THE NEWSLETTER OF THE AMERICAN SHORE & BEACH PRESERVATION ASSOCIATION

— April 2017 —

INSIDE:

PAGE 2: Prepare an abstract for the 2017 ASBPA National Coastal Conference

PAGE 2: ASBPA's response to the budget blueprint

PAGE 3: It's imperative to make your voice heard on coastal issues

PAGE 3: New chair named for Government Affairs Committee

PAGE 4: ASBPA board member addresses House subcommittee on flood insurance

PAGE 5: Welcome to two new chapter presidents

PAGE 6: A Swedish perspective on the ASBPA Coastal Summit

PAGE 7: Managing the Swedish coast

PAGE 9: Bush headlines Texas Chapter meeting

PAGE 11-15: Beach News Service articles for March

PAGE 14: Conferences

Your restored beach deserves a nomination... deadline is April 8

By **KATE & KEN GOODERHAM**,
ASBPA Managing Directors

Over the past 100 years, 374 projects (2,321 nourishment events) protecting 750 miles of coastline costing \$5.5 billion have been constructed. Is one of them “your” beach? Regardless if it is a favorite beach because you were part of the project team that restored it or just because you love the beach, don't be shy! Nominate it to be a 2017 Best Restored Beach. Let us all know how wonderful it is. For those who like to wait until the end — the end is nigh. The deadline for nominations is April 8.

It can be a brand new project with or without federal funding, on the Pacific, Gulf, Atlantic or Great Lakes Coasts. It can be a small pocket beach or a 21-mile-long beach. We just want you to share with us how pretty it is and how people love it. Sure, we appreciate it being well-designed. But this award is to show off the final product — the beautiful beach that protects our communities.

Our favorite beach has al-

ready won, but we still marvel at it each time we see it. After nearly 30 years, we are still amazed that the seaward side of the road, which used to be endangered from even minor storms, now has a wide beach with happy beachcombers and great protection for the island's only hurricane evacuation route.

The television trucks that used to show up after every storm no longer come — because a wide beach does not make news. That's a good thing and a bad

thing. Continued public support for restoration is crucial and often difficult to maintain when restoration projects become successful and routine.

ASBPA encour-

ages nominations from established, as well as new, projects for the 2017 Best Restored Beaches Award. So show your beach a little love.

All the information you need is online at <http://asbpa.org/2017/02/23/call-for-nominations-the-american-shore-and-beach-preservation-associations-best-restored-beaches-awards-due-april-8/> ❖



Save the date!

■ **Oct. 24-27: ASBPA's National Coastal Conference, Fort Lauderdale, FL**

Prepare an abstract for the ASBPA National Coastal Conference

ASBPA and the Coastal Zone Foundation announce the Call for Abstracts for its 2017 National Coastal Conference, Oct. 24-27 at the Greater Fort Lauderdale/Broward County Convention Center, Ft. Lauderdale, FL.

The theme of the 2017 conference, “Beaches, Bays and Beyond,” continues to broaden ASBPA’s focus across the entire coastal and estuarine system. The Coastal Conference provides an opportunity for all coastal stakeholders to learn together and develop collaborative networks and resources to promote best management practices to maintain and improve the health of our coastal and estuarine shorelines and ecosystems.

Technical and policy-oriented presentations or posters are invited for a broad range of coastal & estuarine ecology, science, engineering, economics, and policy. Specific topics include, but are not limited to:

- Design Concepts and Projects
- Green/Grey Infrastructure and Living Shorelines
- Regional Comprehensive Coastal Studies
- Lessons Learned from tropical storms/hurricanes (Matthew, Sandy, Katrina, Ike, etc.)
- Coastal & Estuarine Landscape Architecture
- Coastal & Estuarine Modeling
- Coastal Hazard Mapping & Analysis Tools
- Coastal & Estuarine Resiliency
- Sea Level Guidance, Planning and Adaptive Management
- Beach Restoration and



Coastal Structures

- Lagoon, Wetland, Marsh, and Estuary Restoration and Enhancement
- Regional Sediment Management
- Economics of Coastal Resources

- Federal, State, and Local Coastal Policy, Regulatory and Legal Issues
- Sand Source/Beach Access Rights
- Community Outreach and Education

Presentations may be Power-Point or poster format. Abstracts (up to 500 words) are due by **May 8, 2017**. Submit abstracts via the online form at <http://asbpa.org/2017/02/23/abstracts-are-now-being-solicited-for-the-asbpa-2017-national-coastal-conference/>.

Presenters are responsible for all of their expenses including travel, lodging, and registration fees.

Notification of presentation status will occur by June 20, 2017. Additional information can be found at www.asbpa.org. ❖

ASBPA responds to the budget blueprint

By **DEREK BROCKBANK**,
ASBPA Executive Director

ASBPA has been working with partners to respond to the Budget Blueprint that proposed drastic cuts and elimination of many coastal programs and research efforts. ASBPA joined with 350+ coastal, conservation, academic and marine resource organizations on a broad letter opposing cuts to National Oceanic and Atmospheric Agency (NOAA).

That letter is online at: <http://asbpa.org/wpv2/wp-content/uploads/2017/03/NOAA-budget-letter-ocean-community-CJS-final.pdf>

We also joined with Coastal States Organization and dozens

WASHINGTON REPORT



BROCKBANK

of other coastal groups specifically calling out the need for Coastal Zone Management Program grants to help fund state coastal programs, and opposing the elimination of

this essential federal revenue.

That letter is online at: <http://asbpa.org/wpv2/wp-content/uploads/2017/03/CZM-Friends-Letter-FINAL-1.pdf> ❖

Make your voice heard

By TONY PRATT, ASBPA president

As I write this, the House is about to vote on health care legislation, FBI Director James Comey has just testified before Congress, the President has released his FY2018 budget which greatly reduces funding in practically everything except defense spending, and polarization in Washington appears to have reached a new high (read: low). Is there room for optimism that the nation's coastal resources will be cared for by federal interests?

I hold on to optimism that the Members of Congress who represent coastal districts and states will attend to the needs of their coastal economic engine. From fisheries production to vast employment opportunities and on to infrastructure protection, our country's ocean, gulf and Great Lakes edge is exceptionally vital to the nation.

Similarly, along with the nation's current government investment priority's challenges my state, Delaware, is having severe budgetary hardships. While we further reduce spending and therefore reduce services, we have been successful in telling our story that investing in coastal green infrastructure actually provides needed tax revenue that goes toward spending areas that do not generate revenue. That is a key area for ASBPA to keep telling our national story; the investment in coastal resources produces tax revenues that are needed elsewhere,

PRESIDENT'S REPORT

and that investing in reducing storm damages before they occur is far cheaper than cleaning up and rebuilding after the storm.

The Members of Congress I talk to understand this quite clearly. But, say it again and again we must. Don't give up your optimism. I see the current state of affairs in DC as something like a market



PRATT

adjustment. The political divides and dysfunction that are reported on every day cause each of us to reflect on how we want our central government to do the work of the people. We need to speak out, to let our

Members know what is important to us, and to change the way they are currently doing business.

I am asking every one of you (in the U.S.) who reads this piece in "Coastal Voice" to take a half-hour and write a note (or email) to your two senators* and representative* in Congress to remind them that the coast provides. It provides economic vitality, it provides economic opportunity, it provides life, it provides recreation, and it provides soul cleansing nurturing to countless American citizens. It is our life, heart and soul; let's fight for it a little harder. Thank you.

* You can find contact information for your senators at www.senate.gov and your representative at www.house.gov. ❖

New chair named for Government Affairs Committee

ASBPA advocates for healthy coastlines by supporting national and regional policies that will improve the United States ability to protect, restore and maintain coastal systems. The Government Affairs Committee leads that effort by:



WALTHER

- Developing a legislative agenda
- Developing a government affairs work plan
- Providing oversight for staff
- Providing input for the Coastal Summit
- Meeting regularly via telecon-

ference

Michael Walther, our recently appointed Government Committee chair, said: "Now, more than ever, our collective voice is needed to assure that our beaches, bays, and coastal communities are restored and maintained as part of our national infrastructure. ASBPA is instrumental to our voice and interests being heard in Washington and throughout the nation. As chair of ASBPA's Government Affairs Committee, I welcome the challenge and invite others to join our mission to benefit our common interests."

If you wish to be a part of this committee, contact Derek Brockbank at Derek.Brockbank@asbpa.org. ❖

ASBPA board member addresses House subcommittee

Editor's Note: Congress is gearing up to reauthorize the National Flood Insurance Program (NFIP), which will expire at the end of September without an extension. On March 17, ASBPA Board Member Aram Terchunian was a witness before the U.S. House of Representatives' Committee on Financial Services, Subcommittee on Housing and Insurance. Below is his testimony.

The NFIP have helped save lives, property and resources through a classic carrot and stick program of incentives and regulations. However, changing technology, science, and policy have created new opportunities to improve the program.

In a nutshell, newer buildings that are constructed and maintained to the NFIP standards and ICC building codes are experiencing far less flooding damage than older, *legacy* homes that do not meet present standards. Moreover, those areas protected by well designed, built, and maintained flood risk reduction projects, such as beach and dune nourishment, experience significantly less damage during extreme events.

The goal in my opinion is to decrease the number of pre-FIRM substandard structures and increase flood protection and resiliency projects.

Examples of integrated coastal risk mitigation

West Hampton Dunes is a small two-mile village on the barrier island of Long Island. In 1992, a coastal storm pierced the island, creating a one-mile inlet and de-



ASBPA board member Aram Terchunian (center) during his testimony before the House Subcommittee on Housing and Insurance.

stroying almost 300 homes. At the time, it was used as the poster child of how to mismanage a beach. Today, this humble community is the blueprint for coastal management and flood insurance modernization. It is a net economic generator to the local, regional, and national economy as well as the NFIP premium pool.

The barrier island was rebuilt through a beach and dune project engineered and supervised by the U.S. Army Corps of Engineers. The village then embarked upon an aggressive program of sand fencing and beach grass planting that increased the dune. The village also implemented zoning measures that allowed property owners to build as much as 4 feet above the NFIP 100-year (0.1%) flood Level without a zoning variance.

In the 22 years since the project was constructed, there have been zero houses lost and only minimal flood damage claims, even

after Superstorm Sandy. This is an example of how integrating flood protection projects, with locally implemented NFIP and zoning regulations, and locally driven beach and dune enhancements have resulted in a resilient community that is a net benefit to the NFIP.

Conversely, surrounding communities that did not have an engineered flood protection project and were populated by a substantial number of pre-FIRM buildings suffered terribly during Sandy. The human anguish in these areas exceeded even the substantial flood insurance, infrastructure, and natural resource losses.

How to incentivize local communities through NFIP

Local communities are incentivized if they can provide increased flood and erosion protection to their community at minimal cost. However, many communities

■ Continued on next page

Meet two new chapter presidents!

The Great Lakes and the Hawaii chapters of the ASBPA recently had elections. Welcome our two new chapter presidents, and contact them if you wish to be involved in one of these local chapters.

Dolan Eversole is the president of the Hawai'i Shore and



EVERSOLE

Beach Preservation Association, having served the past three years as vice president. Eversole serves as the Waikiki Beach Management Coordinator through the University of Hawai'i Sea Grant Program. Eversole

has served as the NOAA Coastal Storms Program, Pacific Islands Regional Coordinator from 2010 to 2015 and from 2003 to 2010 as a technical and coastal policy advisor to the Hawaii Department of Land and Natural Resources. Contact

him at eversole@hawaii.edu.



LIEGEL

Ed Liegel, P.E.: is the new president of the Great Lakes Chapter of ASBPA. He is a Senior Marine Engineer with W.F. Baird & Associates Ltd., and has spent

his entire career managing studies

House

■ Continued from page 4

do not have the technical staff to prepare and review the Community Rating System (CRS) application. Aid to communities and simplifying the application process would benefit many policyholders at a small cost.

Rewarding communities that streamline permitting under the local zoning code when complying with NFIP flood mapping removes a tremendous cost and time impediment for homeowners. Pre-disaster mitigation planning is not being transformed into projects due to a lack of funds.

Impact of current flood insurance rates

The effect of recent premium increases is disproportionately impacting middle and lower income families. The payback period to raise an existing pre-FIRM home into compliance is too long. As a result, homeowners do not elevate their homes before experiencing flood damage.

Post-disaster programs such as the Increased Cost of Compliance Coverage (ICC) is insufficient to elevate a typical home on Long Island, where costs run up to \$200,000 and the program maximum is \$30,000.

related to the planning, design, and operation of marine infrastructure, such as beaches, boardwalks, shore protection, ports and navigation structures. Liegel has had the good fortune to be part of a variety of

Simply stated, we must convert more pre-FIRM homes to NFIP compliant homes faster. Policy holders are the key to the process. Homeowners will elevate and flood proof their homes before the flood if it is in their immediate financial interest.

The financial stick of increased premiums without a commensurate financial carrot will not work. It is not reasonable to expect a consumer to invest up to \$200,000 for an annual payback of \$4,000 or \$5,000.

The NFIP plays a critical role in protecting the citizens of our nation. Making the NFIP more resilient means moving more pre-FIRM homes into NFIP compliant homes faster. The goal of elevating homes can be accomplished if commensurate financial incentives are balanced with reasonably priced insurance.

Integrating flood risk mitigation projects such as beach and dune nourishment with NFIP standards and locally streamlined zoning will protect lives, property and resources.

Testimony is also online at <https://zeldin.house.gov/media-center/press-releases/two-long-islanders-participate-house-subcommittee-hearing-flood> ❖

multi-disciplinary marine projects in the Great Lakes, Gulf of Mexico, Caribbean, Australia and Africa and has spent considerable time abroad related to these projects. Contact him at eliegel@baird.com. ❖



A Swedish perspective on the ASBPA Coastal Summit

By **CAROLINE FREDRIKSSON**,
Ph.D. student, Lund University

The 2017 ASBPA Coastal Summit in Washington, DC, was in several ways a very rewarding experience for me. After learning to separate people from hurricanes and paradoxically long abbreviations from actual words, there was plenty to learn for a visiting Swedish Ph. D. student. My name is Caroline Fredriksson and I am currently on my third year of a Ph.D. within coastal engineering at Lund University in Sweden. My background is in environmental engineering, holding a Master's degree in water resources engineering. I came over to the ASBPA Coastal Summit to learn more about coastal management in the US and to find inspiration for how we can arrange similar advocacy meetings within the coastal section of the Swedish Association for Water (SAW), which I am chairing.

Students & new professionals

asbpa

American Shore & Beach Preservation Association

Advocating for healthy coastlines

It was truly inspiring to follow the well-organized meeting and the participants work towards a more sustainable coastal management. It was also encouraging to see the commitment from senators, representatives, and leaders within the organizations involved. I was

The Student/New Professional Committee submits a monthly column that either highlights research or experience of ASPBA's students and new professionals. If you are a student or new professional and would like to contribute to the monthly student/new professional column, please contact Tiffany Roberts Briggs: briggst@fau.edu. If you are a seasoned professional and would like to connect with any of the monthly writers, please also contact Tiffany Roberts Briggs.

amazed over the amount of direct meetings with senators and representatives taking place during the days of the Coastal Summit.

I have to admit that, for a fan of the TV series "House of Cards," it was a surreal (and super-cool) feeling to walk around in the Senate Office Buildings and to attend the Coastal Celebration reception with prominent U.S. politicians which, thanks to ASBPA's efforts, showed both knowledge and engagement in coastal issues. I hope that we will be able to create a similar, though much smaller, structure for advocacy and information with respect to the Swedish decision makers.

Finally, I would like to thank the organizing committee and the student volunteers for an excellent, inspiring meeting and a friendly and thoughtful welcome to the association. I hope to see you all again in Fort Lauderdale in October. ❖



Managing the Swedish coast



By **CAROLINE FREDRIKSSON**,
Ph.D. student, Lund University

The Swedish coastline is 2,400 km long with its main part within the Baltic Sea, and parts of the west coast facing the North Sea. The coastline is very diverse, covering most beach types from rocky coastline, to gravel beaches and fine sandy beaches

with vast dune landscapes. Still, coastal engineering is a rather small field of work and there are only a handful of coastal engineers. For example, there has only been one nourishment project in the entire country carried out with sand from an offshore source.

Before I started my Ph.D. I was working for four years within consultancy, primarily with river

and coastal engineering. In Sweden coastal erosion and flooding is mainly an issue in the very south, where most of our sandy coasts are found and the post-glacial uplift does not compensate for sea level rise. From an international perspective, the problems are small and manageable. Unfortunately, our coast is poorly managed due to lack of policies and funding on a national level. We still see valuable sandy beaches being converted into continuous stretches of seawalls and revetments. Like in most places, our beaches have high nature and recreation values which create jobs and revenues from tourism.

To raise awareness of flood and erosion risks, increase the knowledge in coastal processes, and improve cooperation between engineers, planners, biologists, etc., we recently started up the coastal section within the Swedish Association for Water (SAW). This spring our second technical conference will be held, where we invite

■ **Continued on next page**

Managing

■ Continued from page 7

international speakers to learn how other countries are dealing with their coastal problems and organize coastal management.

The next step, as I see it, is to create a platform for advocacy and interaction with politicians on a national and regional level. It was through my supervisors, Professor Hans Hanson and Professor Magnus Larson, who have worked a lot in the U.S. mainly with USACE, I heard about ASBPA and the Coastal Summit in Washington, DC, described elsewhere in this issue.

Hopefully, I will also have the possibility to attend ASBPA's technical conference in October and share some of my research results



FREDRIKSSON

so far. My thesis work concerns long-term evolution of beach and dune systems under influence of sea level rise. I develop a numerical model which simulates cross-shore sediment transport and beach profile evolution. The model is based on a simple schematization of the beach profile where the beach, bar and dune are modelled as separate volume entities. Included processes are dune erosion and overwash, beach-bar exchange, dune recovery from aeolian transport, nourishments, and sea level rise.

So far I have mainly focused on the aeolian transport scheme and the morphological evolution of dunes. In the next step, I will couple the cross-shore model with



a longshore sediment transport model of one-line type. The aim is to develop a fast, simple, and robust model that can be used for simulation of multiple future scenarios to provide a better estimation of shoreline position, including seasonal variations and storm effects, and the long-term dune evolution.

Dunes are in many places important parts of the coastal protection against flooding and erosion. Hopefully my work can contribute to a better understanding of their future evolution in a changing climate. My study site is Ängelholm beach, located in south Sweden, and the last years I have carried out some fieldwork including topographic surveys and sediment analysis.

To validate the model I am now looking for a longer dataset, preferably spanning over decades, including observations of both storm erosion and dune recovery due to aeolian transport. If anyone is willing to share data or cooperate in this matter, you are welcome

to contact me at caroline.fredriksson@tvrl.lth.se.

Besides my thesis work, I still do some consulting, mainly within flood protection design and shoreline evolution modelling. I also teach and supervise master students. Last year, I initiated a study on nearshore currents, a new research field in Sweden, with the aim to improve swimmer safety after a tragic drowning accident on the east coast. We built and deployed drifters, and carried out the first rip current observation ever in Sweden.

Another major interest of mine is extreme value analysis and how statistical models can be complemented with studies of historical storm events. I am currently supervising a master project on multivariate extreme value analysis of waves and water levels in South Sweden. There is lots of work that needs to be done in Sweden, both research- and policy-wise. As a step in improving communication and cooperation between different

■ Continued on next page



Bush headlines Texas Chapter meeting

By DAN HEILMAN,
Texas Chapter Secretary

On March 8, the Texas Chapter met in Austin, Texas. George P. Bush, Land Commissioner of the Texas General Land Office (GLO), provided a presentation where he emphasized the importance of the Texas coast for national security and the national economy, and that issues along the coast are relevant to all Texans and U.S. citizens. The GLO continues to work towards increasing awareness about the significance of Texas coastal issues to citizens who don't live in coastal regions.

Commissioner Bush highlighted the efforts that are being taken to improve coastal resiliency in Texas, including the Coastal Master Plan

being led by GLO and the Coastal Texas Study being led by the U.S. Army Corps of Engineers with GLO as a local sponsor.

Babe Schwartz was a former

■ Continued on next page



Managing

■ Continued from page 8

professions in Sweden, my supervisors and I published an English-Swedish dictionary for coastal engineers and planners last year.

Although I am dedicated to coastal research in Sweden and work for improvement of our national coastal management, I strive to follow in the footsteps of my supervisor and establish strong international cooperation. I have so far during my Ph.D. studies visited the coastal research groups at TU Delft

in the Netherlands and University of Queensland in Australia. From these experiences I have learned how enriching and eye-opening international exchanges are.

When I finish my thesis about two years from now, I hope to find a post-doc position at a university or research center abroad. In the future I wish for an academic career, ideally combined with some consultancy, as I like to keep one leg in the real world (or at least on the beach). ❖

Texas

■ Continued from page 9

member of the Texas Legislature who served in the Texas House of Representatives from 1955 to 1959 and the Texas Senate from 1960 to 1981, representing Galveston. The recently completed beach nourishment project to the west of 61st Street along the Galveston seawall was named “Babe’s Beach” in his honor.

State Representative Wayne Faircloth, who serves the Texas House of Representatives District 23 (composed of Chambers and Galveston counties), provided background on the House Select Committee on Texas Ports, Innovation & Infrastructure, as well as the important role the GLO provides in advocating the Texas coast.

Cris Weber solicited articles for the TX ASBPA newsletter and abstracts for the upcoming symposium. The symposium will be held in Port Aransas at UT-MSI on April 25, with a field trip being led by Skip Davis on April 24. Abstracts are due March 31.

Weber also described ongoing collaboration between Texas ASBPA and the Houston Chapter of COPRI, and explained that COPRI membership is not exclusive to engineers.

John Lee provided an update on the TX ASBPA 2017 state legislative agenda:

- RESTORE money should be spent for coastal issues as intended.
- Dedicated funding source for CEPRA.
- Support coordination between TDEM and FEMA to ensure public assistance funding eligibility for BUDM projects.
- Affordable windstorm insur-



Left: State Rep. Wayne Faircloth.
Below: Texas Land Commissioner George P. Bush.



ance.

- Support for surge protection/suppression project along upper Texas coast.
- Support for state and federal coastal studies (Coastal Master Plan and Coastal Texas Study).
- Support for coastal projects and programs to protect and enhance the Texas coast.
- Support ASBPA national efforts at state level. ❖

WWW.ASBPA.ORG

There are still a few days left to submit a nomination for this year’s Best Restored Beaches awards — the deadline is April 8! Consider nominating your local community if you haven’t already.

Also check the home page for the link to submit your abstract for the 2017 National Coastal Conference “Beaches, Bays and Beyond.” The deadline for those is May 8. We look forward to our best conference yet — plan to join us in Fort Lauderdale this fall!

As always, all the latest Beach News and updates on legislative action items are linked to our home page. Follow us on Twitter and “like” us on Facebook to stay up to date with all of the latest news and happenings. — *Beth Sciaudone, Ph.D., ASBPA Webmaster*

American Beach News Service:

New national beach restoration database now online

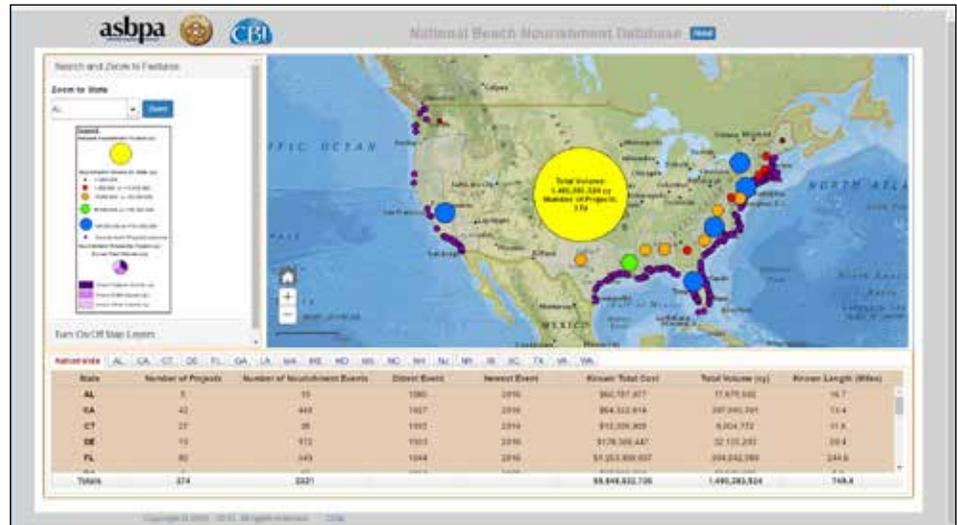
- *How many beach restoration projects have there been throughout the United States?*
- *What's the biggest project by volume? By distance?*
- *What's the oldest project? The newest?*
- *Which state has done the most projects? The fewest?*

Communities searching for information to make coastal management decisions often want to know the answers to these and more questions. Coastal scientists looking for good data also want to know, as does the media when they're researching stories.

Until now, there wasn't a source of easily-accessible national statistics online. But, on Feb. 28, the American Shore & Beach Preservation Association (ASBPA) rolled out a new online National Beach Nourishment Database – featuring data on projects comprised of nearly 1.5 billion cubic yards of sand placed in nearly 400 projects covering the continental U.S. coastline.

The new database is online at www.asbpa.org.

In addition to the total volume and the number of projects, the database includes the number of nourishment events, the oldest project, the newest project, the known total cost, the total volume and the known length. The information is broken into both state statistics and those of local or regional projects. Every coastal continental state is included (so Alaska and Hawaii are still being compiled), and projects along the Great Lakes are similarly



waiting to be added.

It can also be updated as appropriate, both as new projects get under way and as more information on existing projects is unearthed. In fact, coastal professionals are encouraged to submit any data they have access to that would expand the database's scope and accuracy.

Under the leadership of Nicole Elko, Ph.D., ASBPA's Science and Technology Committee — a group of more than 25 coastal professionals from across the country and spanning a range of disciplines — spearheaded the collection and verification of data. ASBPA collaborated with the U.S. Army Corps of Engineers' Regional Sediment Management Program and CB&I to develop this resource, which draws on nearly 70 data sources as diverse as Western Carolina's Program for the Study of Developed Shorelines to the U.S. Army Corps of Engineers Dredging Information System.

"ASBPA is an appropriate multidisciplinary organiza-

tion – comprised of state beach managers, industry professionals, universities and communities – to work with the U.S. Army Corps of Engineers to provide us with a broadly sourced resource," said Elko, ASBPA Vice President for Science & Technology. The projects included those with "captured" sand (e.g. inlet, offshore or upland) which was placed on the beach. Three different kinds of projects were considered:

- Restorations undertaken as authorized federal beach nourishment projects;
- Those from navigation channel dredging (also known as beneficial use or sand bypassing); and
- Projects sponsored by the private sector or local or state governments.

"This inventory is critical for a small beach community that feels like it is dealing with a complicated issue all alone." Elko added. "Those communities can now

American Beach News Service

Congress, fund coastal infrastructure despite Trump's budget blueprint

Natural protective coastal infrastructure, such as beaches, dunes and wetlands, create and sustain U.S. jobs, protect public resources and private property, and drive the U.S. economy. Congress would be wise to invest in these resources (and the science that supports them) despite the administration's budget blueprint that leaves U.S. coasts vulnerable by cutting vital programs and underfunding the science that protects lives, property and ecological resources.

Countless examples such as Superstorm Sandy and Hurricane Matthew make a convincing case that by investing millions of dollars now in coastal protection and resilience, the federal government will save billions of dollars in storm and flood damage later. Similarly, maintaining a reasonable federal investment in coastal science and technology offers a great return on investment through better coastal management and more effective response to natural disasters and manmade environmental emergencies.

Restoring and maintain our nation's first line of defense against coastal storms and flooding is a job bonanza. The National Oceanic and Atmospheric Agency (NOAA) estimates that coastal restoration creates or maintains 17 to 33 jobs for every million dollars spent. These are jobs at all levels of the economy: commercial fishermen and charter boat captains, lifeguards and hotel workers, dredging crews and coastal small business

employees, construction workers and engineers.

Furthermore, healthy coasts drive the coastal economy — beaches alone generate \$225 billion to the national economy — and with 50% of Americans living near a coast, the coastal economy is America's economy. The protection that beaches, dunes, and wetlands provide, together with the understanding of how these systems work, ensures that critical public infrastructure and private property are protected and people are kept out of harm's way during hurricanes and other coastal disasters.

Sustaining these resources and supporting the economy and jobs they maintain takes a national investment, but a far cheaper one than paying to rebuild communities or restore natural habitat after a disaster. Some of the investments necessary to keep our coasts healthy and communities resilient include:

- The U.S. Army Corps of Engineers (USACE) shore protection program, which goes a long toward restoring beaches and rebuilding dunes before and after coastal storms strike;
- Comprehensive regional restoration programs and studies by USACE, NOAA and Environmental Protection Agency (EPA), work that is guided by natural systems rather than political boundaries and by science rather than partisanship;
- Coastal research programs at NOAA, U.S. Geologic Survey (USGS), BOEM and USACE, building a national base of coastal

American Beach News Service

The articles were sent the second and fourth Tuesday of the month to more than 400 media outlets. We encourage members to utilize information in these communications with their clients, constituents and others. A full list of all the ABNS articles can be located at http://www.asbpa.org/news/newsroom_beachnews.htm

knowledge and institutional insights that can be an invaluable resource to academia along with the public and private sectors;

- Science and community education programs, such as NOAA's Sea Grant and Community Resilience grant programs, the U.S. Dept. of Housing and Urban Development's (HUD) resilience centers, and the EPA's Beach Water Quality Testing program, low-cost efforts that have a huge impact on bringing science to coastal communities via better water, health fisheries and more resilient economies;
- Academic research granting programs at all of the agencies listed here as well as the Office of Naval Research, the Naval Research Lab, and the National Science Foundation;
- Coastal management, such as NOAA's Coastal Zone Management and USACE's Regional Sediment Management programs, looking at the coast as a vital and interconnected system rather than a series of disparate pieces.

These programs work together to collect and analyze coastal data, inform state and local decision-makers, reduce potential risks to public and private property, and provide federal support to buttress local and state efforts to restore eroded and degraded coastlines.

Unfortunately, the adminis-

■ Continued on page 14

American Beach News Service

How will you know there's a sea level change problem?

Communities with coastal management programs in place may feel they are ready for whatever sea level change may throw at them (within reason). Should the level rise, they can adapt by increasing the height of the beach and dunes to compensate for both higher tides and stronger storms.

But for those communities who are on islands or on barrier beaches, what about the non-beach side? Is it ready for any rise in tides? What other vulnerable areas need to be looked at? It does you no good to have a high-and-dry beachfront if your mainland access is under water.

Communities around the country are facing the very real sea level change impacts already, as flooding that once was rare now becomes far too common. Often, these calamities make themselves felt on the non-beachfront side first, in a variety of subtle ways that can easily sneak up on you due to their slow progression.

How will you know there's a problem — and what (if anything) can be done?

Flooding: First and foremost, increased flooding (in both depth and frequency) is a dead giveaway that sea level is on the rise. Often the first indication there is a problem is that streets inundated more frequently, by waterfront properties complaining that their lawns are being attacked by seawater, and by seeing flood levels creeping higher and higher are clear warning signs. *What can you do?* Elevate, of course, buildings, roadways,

you name it; improve drainage in low-lying areas (assuming your drainage is not being similarly affected); even consider ways to create either barriers or distance on the non-beach side between high water lines and upland structures or infrastructure using wetlands, vegetation or other soft or hard structures.

Septic systems: If your community still relies on these systems for wastewater treatment, changes in sea level that push the groundwater levels higher will soon have an impact on their effectiveness. Most septic systems rely on drainfields to treat waste and must have significant separation (24 inches, as a rule) from the underlying groundwater. If those drainfields are inundated or holding tanks are sitting in ground water, you have a problem. *What can you do?* Nothing cheaply... moving to so-called performance systems (which clean wastewater above ground before releasing it into the ground) are pricey and take a lot of work to keep them running effectively. The alternative may be a move to sanitary sewer, which is a major public works effort requiring both time and money aplenty.

Potable or irrigation water: Wells also feel an impact from rising ground water, either through salt water intrusion or increased pressure on the freshwater "lens" or aquifer your wells are accessing. *What can you do?* Move away from relying on wells or expect to install desalination devices on them. If you're not on a central water system now, you will be soon... and

either looking for a purer source or figuring out your options to remove the salt. That may also push your community toward a re-use or "gray water" system, to avoid having to use increasingly expensive potable water for irrigation.

Stormwater management and drainage: If levels are higher and storms are stronger, your community will need to be able to hold back higher levels or water... or retain more stormwater before needing to drain it immediately away. And if some of your current drainage outfalls are starting to go under water, their ability to work when needed will be increasingly compromised. *What can you do?* Higher berms for retention or to forestall flooding, move outfalls higher and install one-way gates so water goes out but will not be drawn back in.

Non-beachfront barriers: Holding back any rising tides on the bay side will take either barriers or buffers (as noted above). But you'll also need to look at what's already in place to see if they'll be able to stand up to higher water levels. *What can you do?* If you're using seawalls, they may need to be modified to both go higher and to avoid failure through overtopping or undercutting. And hard structures may need to be replaced with "living" shorelines, which create both a better buffer and give you the ability to move them further inland as waters push them there.

Natural vs. human resources: An island is finite and, as waters around it rise, there's less

■ Continued on page 15

Database

■ Continued from page 11

see that there have been projects constructed since the early 20th century in every coastal state in the continental U.S.

“These projects are coastal infrastructure that protect people, communities, other infrastructure, and jobs and are nesting, resting and feeding places for wildlife,” said Elko.

The database was compiled from many sources nationwide and then reviewed for duplication and error (an ongoing process, but one which is being addressed here by cross-referencing and review by an array of coastal professionals).

Work on assembling this database began in 2004.

So, to answer those coastal questions at the beginning:

- **How many nationally:** 374 projects comprising 2,321 nourishment events (since a single project or location can undergo a number of nourishments or restorations during its lifetime). That has restored over 750 miles at a known cost of \$5.5 billion.

- **Most volume in a single event:** Panama City Beach, Initial Nourishment 1998-99, 9.1M cy

- **Most sand placed by a coastal state:** California at nearly 400 million cubic yards of sand.

- **Longest project:** Sea Bright to Manasquan, NJ at 21 miles long

- **The oldest:** Coney Island, NY, with the first project in 1923. Rockaway and Jones Beaches are close behind with 1926 and 1927 respectively.

- **The newest:** Since projects are being started every month, that will be an ever-changing question.

- **State with the most:** Florida leads in both projects (80) and nourishment events (549).

- **State with the least:** Oregon, so far... but the results may change as more data is confirmed soon. ❖

Fund

■ Continued from page 12

tration’s “Budget Blueprint” cuts or eliminates all of the programs mentioned here. The blueprint lacks both details and forethought, seeking short-term budget cuts while leaving the U.S. coast with long-term vulnerability. Reducing funding to these programs not only leaves our coast behind, but the effects will trickle down to diminish the science and technology capability of our nation as fewer research grants lead to fewer bright, young U.S. scientists and engineers.

Fortunately, Congress is ultimately responsible for developing the federal budget and should give greater consideration to how that budget will impact their constituents today and into the future than was shown in the administration’s

blueprint.

In particular, coastal Members of Congress need to take strong stand for investing in coastal infrastructure and research. They will be the ones meeting with constituents whose homes have washed away, or worse, because cuts to coastal data, shoreline restoration and monitoring programs made storm predictions worse, allowed unacceptable coastal ecological degradation and left coastal communities, their residents, and their economic futures more vulnerable.

An investment in coastal science and infrastructure is an investment in America’s future. Congress must take the lead and develop a budget that builds up our coast, and not follow a blueprint that tears it down. ❖

CONFERENCES

- **April 25:** Texas Chapter 2017 Symposium, “Comprehensive Texas Shorelines,” Port Aransas, Texas. Online at www.texasasbpa.org/site/asbpa-2017-symposium/

- **May 23-24:** Headwaters to Ocean Conference, University of California, Irvine. Details at <http://oceans.uci.edu/headwaters-ocean-h2o-conference/>

- **Sept. 27-29:** FSBPA Annual Conference, Westin Fort Lauderdale Beach Resort, Fort Lauderdale, FL; www.fsbpa.com.

- **Oct. 24-27:** ASBPA National Coastal Conference, Fort Lauderdale-Broward County Convention Center and Hilton Fort Lauderdale Marina Hotel. Abstract are due May 8. Details at <http://asbpa.org/2017/02/23/abstracts-are-now-being-solicited-for-the-asbpa-2017-national-coastal-conference/>

- **Nov. 13-14:** North Carolina Beach, Inlet & Waterway Association’s 2017 Annual Conference. Details at www.ncbiwa.org. ❖



Sea level

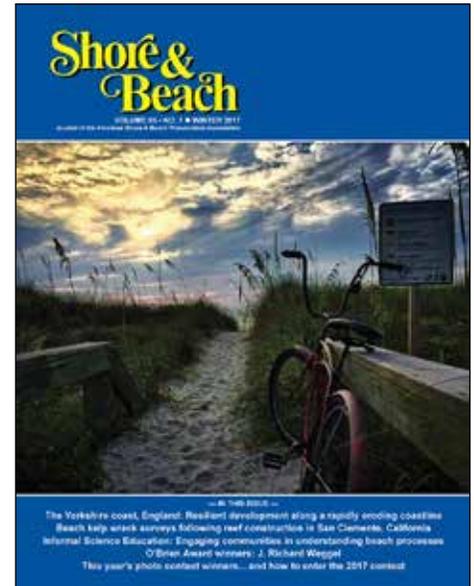
■ Continued from page 13

land to go around. Prized coastal ecosystems that rely on a delicate mix of conditions — especially between fresh and salt water — will be squeezed... hard. *What can you do?* It will be necessary for your community to eventually make some tough choices to balance natural and human needs... and these will not be just environmental choices but economic ones, should rising water levels start pushing costs equally higher. It's better to start that conversation sooner, before options are limited and change is imminent.

Some coastal experts may quibble about how much sea level is likely to change, but no one ever says there won't be change. So

coastal professionals charged with keeping their communities safe and prepared for any pending sea level change must look at all the potential vulnerabilities in order to be effective at their jobs. In many communities, the most vulnerable points may be far away from the sandy beach — and the solutions may be both complicated and costly to implement. This makes it even more imperative that your community begin the planning process now. Developing a management plan will be even more critical in years to come.

That's why understanding these pressure points for sea level change is crucial, and having a clear-eyed assessment of vulnerability and timeframe is essential. ❖



**Simplify your life...
have all your S&Bs
close at hand!**

Instead of searching for your past issues of “Shore & Beach,” purchase a copy of “90 Years of ASBPA,” the digital collection of all the past Shore & Beach journals (including a searchable index) from 1933 to 2016 and conference proceedings from 1927 through 1929. They are all on a convenient DVD or flash drive at a cost of \$100 for members (or 5 for \$350), \$200 for non-members, and \$250 for libraries and other institutions. Fill out the order form and enclose a check or credit card information and send to ASBPA, 5460 Beaujolais Lane, Fort Myers, Florida 33919. If using a credit card, you can email or fax the information. The fillable order form is available at <http://asbpa.org/wpv2/wp-content/uploads/2016/11/DVDOOrderformASBPAfillable.pdf> ❖