

PERSpectives

Newsletter of the Pacific Estuarine Research Society

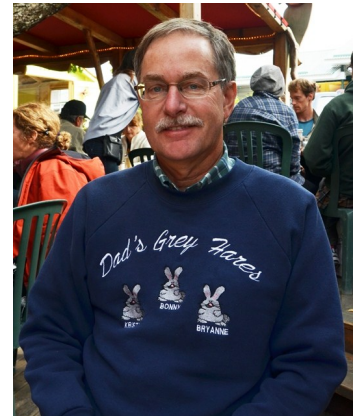
Summer 2012

PRESIDENT'S REPORT

Steve Rumrill officially passed on the Presidential jacket at the Annual Business Meeting in Anacortes. It is an honour to be serving PERS and represent such a wonderful society specializing in estuaries and comprised of many exceptional research scientists, policy implementers and private professionals that are passionate about the land-water edge of the Pacific Northwest. My association with PERS began in 1986, and as a practicing wetlands habitat ecologist, it has been my chosen professional society that has been a source of personal enjoyment and professional enlightenment.

Representing PERS on the CERF Governing Board:

I have actually been quite busy as PERS President for the CERF Governing Board following the Conference in Daytona Beach in November 2011. At my inaugural CERF Governing Board meeting on November 11, 2011, Walter Boynton became President, replacing Susan Williams, and Mark Wolf-Armstrong became the new Executive Director, replacing Joy Bartholomew. Introductions for both Walter and Mark are included in the CERF Corner, section of this PERS newsletter.



Since then I have represented PERS at the spring CERF Governing Board meeting at the Arlie Center in Warrenton, Virginia, and been appointed to the Membership and Communications Committee (MCC) chaired by Ken Heck (also CERF President-Elect), and prepared the PERS News articles for the Winter 2011 and Spring 2012 CERF newsletter. With a new President and Executive Director, CERF has set an ambitious work plan that includes implementation of Visions III, the revised Strategic Plan, special CERF international conference in Plata del Mar in Argentina November 11-14, 2012, planning for the CERF 2013 biennial conference in San Diego November 3-7, 2013, as well as strengthening the Federation and interactions with the Affiliate Societies.

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JUNE 2012

Special article of interest:

- * President's Report
- * Changing of the Board
- * Blue Forest Restoration
- * Become a member of CERF

PERS 2012 MEETING AWARD WINNERS



Congratulations to the Student Award winners: at PERS 2012 Rea Pineda, Gabrille Lopez, Pascale Goertler, David Stormer, Eva Dusek-Jennings, and Michael Hannam. (see photo).



Introducing the Boynton Administration

By Gary Williams

Following the CERF 2011 Conference in Daytona Beach, Florida, Walter Boynton became President and the transition from the Susan Williams Administration to the Boynton administration was complete. The Daytona Beach meeting also marked the beginning of our new Executive Director, Mark Wolf-Armstrong. In efforts to update PERS members on CERF activities, both Walter and Mark have provided some biographical information to provide an overview to my question "Who are you?"



**Walter R Boynton,
CERF President**

University of Maryland Center for Environmental Science
Chesapeake Biological Laboratory
P.O. Box 38, Solomons, MD 20688, USA
Phone: 410-326-7275
Fax: 410-326-7302
E-mail: Boynton@cbl.umces.edu

Walt Boynton is a Professor at the Chesapeake Biological Laboratory (CBL), University of Maryland Center for Environmental Science and has been a faculty member at CBL since 1975. Boynton's research expertise is estuarine ecology, particularly issues related to eutrophication and estuarine restoration. He has published over 100 scientific papers and many technical reports related to estuarine water quality, habitat and restoration issues.

Walt serves on boards for the Patuxent Riverkeeper, the Maryland Chapter of the Nature Conservancy and the Patuxent River Commission. He recently served on several EPA Science Advisory Board panels reviewing the state of the hypoxic zone in the Gulf of Mexico, Florida nutrient criteria and on an EPA workgroup developing national water quality standards for estuarine systems. He served on Maryland Governor O'Malley's transition team for environmental issues and is currently a member of the science advisory panel for the Chesapeake Bay Trust Fund. Walt and Mike Kemp were recently awarded the Odum award for lifetime achievement from the CERF, and Walter currently serves as its President. More locally, he has served

as the vice-chair of the Calvert County Zoning Appeals Board for more than a decade and in this position has been involved in many Maryland Critical Area decisions. He teaches a course in general ecology that ties together the ecosystems of Maryland from the western mountains to the coastal ocean.

"Gary Williams, the new PERS president asked me... the new CERF President... to add a few words to the newsletter concerning CERF and affiliate societies such as PERS. So, here goes.

"It might go without saying...but I will say it anyway and loudly and clearly...that I have been and will continue to be an enthusiastic member of my local affiliate society (AERS) and CERF. My own point of view is that everyone involved in coastal and estuarine research, education/outreach, restoration and policy development should be a member. If you are not a member of both an Affiliate and CERF I encourage you to think about becoming a member and getting involved with these organization beyond membership. My reasons are many but a few of the important ones include the following. When I was a young member of these societies I learned how to give a decent talk, I gained some confidence in what I was trying to do and I started to develop a network of colleagues (and friends) that has endured and grown to this day. These skills and relationships have served me well and I very much doubt if I could have learned these by myself. Second, I have always found both Affiliate societies and CERF to be both "user-friendly" and diverse. These are places where I feel comfortable asking questions about what they are doing, how they do it and what they think about what I'm thinking about. In addition, in CERF and the Affiliates we are not just talking to our own tribe (ecologists for me) but have the opportunity to talk with folks from a wide range of fields. I have had important help from estuarine physical oceanographers. Finally, membership helps us maintain our important communication tools, especially the journal Estuaries and Coasts, the CERF Newsletter and Coastal and Estuarine Science News. I could go on but I guess some of my motivations for membership are clear. If you have questions I'd be glad to talk about this...give a call or send an e-mail message. Hope to see you on affiliate and CERF membership rolls."

As a personal note, I may add that following two CERF Governing Board Meetings and numerous email communications in my role as PERS President, PERS can feel very fortunate is having Walter as our parent society President. He brings a distinguished record of professional accomplishment, and equally important, has a warm and personal approach to dealing with people.

(Continued on page 4 second column)

(President's report, continued from page 1)

With Mark residing in Twisp, WA, and his long history of promoting estuaries, PERS has an excellent opportunity to further Pacific estuarine issues. I think that PERS is fortunate to have both Walter and Mark in the senior leadership roles of CERF, both being very capable professionally and very approachable at a personal level.

A major issue with CERF is to reverse the trend towards declining domestic membership. At the Airlie Center, Mark gave an excellent presentation to the Governing Board examining the generational aspects of society membership and Leanna Heffner, a Ph.D. candidate from University of Rhode Island, was invited to present her thoughts on making CERF more pertinent to the post-boomer generations. CERF is investigating making better use of social media and becoming more compelling to students.

One of the first duties for AS Presidents was to contact PERS members to renew their CERF memberships, which resulted in many renewing. For the MCC, Ken Heck, Dauphin Island Sea Lab, University of South Alabama, conducted a survey of his graduate students, the committee had an inaugural conference call, and CERF education committed is assembling a listing of estuarine research facilities to develop a contact database to facilitate further targeted communications. PERS has had a long tradition of actively encouraging student participation in our Annual Meetings and donations to the Quammon Fund help perpetuate PERS's ability to award the Heinle Award and pay travel expenses for students traveling to PERS.

Of particular relevance to PERS, is Goal #7 of the CERF Strategic Plan, to strengthen liaison with Affiliate Societies. Mark attended our Annual Meeting at Anacortes and there are special CERF opportunities to assist PERS (i.e. financial assistance for guest speakers, administrative support, specialist scientific expertise, etc.).

For several years PERS has discussed improving interactions with the California Estuarine Research Society (CAERS) and possibly having a joint meeting. At Daytona Beach, I met with Sharon Herzka, President of CAERS, and we agreed to improve communications and work towards having PERS join CAERS 10th year celebrations in Long Beach this September. It is still early in the meeting planning but anyone interested in joining the meeting should contact either Sharon or myself.

CERF has embarked on reaching out internationally with a special meeting in Argentina. PERSians who may be interested can find the session themes on the CERF website. I am presenting on BC's efforts to manage *Spartina densiflora* to promote exchange of information on this a relatively new marsh emergent invasive. The species is known to have invaded CA,

WA, and BC, so this might be a good opportunity to learn more from Argentina scientists about its growth habitats and ecology that can be used to implement more effective control measures in the PNW. In BC, *densiflora* has invaded Barclay Sound on Vancouver Island and could impact mariculture operations. I have been involved with the BC *Spartina* Working Group for the last several years, so it of personal interest as well.

An interesting aspect of working on the Governing Board is learning about the differences between PERS and other CERF Affiliate Societies. For example, while South America is a prime international focus of CERF, the Pacific Rim is of more strategic importance to PERS; much of the PNW port development has been and continues to be undertaken to capture trade with China and other countries around the Pacific Rim. Another distinction is the partnerships with First Nations that occurs throughout PERS estuaries. Founded on rights to self-government and use of natural resources, the Tribes of the PNW have been intimately involved in the management of the fisheries and resource harvesting and can be major players in estuarine restoration. There are important opportunities for PERS to build on these relationships through training, joint ventures, and exchange of the knowledge from their long standing oral history with our more "modern" scientific body of knowledge and practice. I think this is something that PERS can build on and may serve as a focus for future PERS activities.

I am working with CERF 2013 program Chairs John Largier in investigating sessions on the Fraser estuary and/or port development, and biofilm ecology. It would also be a lost opportunity, for PERS, not to have a session related to First Nations and estuaries, and Jan Newton, CERF 2013 Co-Chair is supportive.

The fall CERF Governing Board meeting is scheduled for October 2012 in Baltimore, so if any of the above mentioned or other issues are of interest to PERS I would be interested in your input.

PERS Business:

On the PERS front, a major focus has been on our 35th Annual Meeting that was successfully completed in Anacortes. As in past years, Jeannie Gilbert, our Secretary/Treasurer was the main driving force to make it happen, arranging with Steve Sulkin, Director, Shannon Point Marine Center to host the Thursday night social mixer, securing the Anacortes Historic Art Depot for our meeting, and lining up all the other necessities that make for a successful meeting. I served as Program Chair and want to thank all the volunteers

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President's Report, continued from page 3

who served as session chairs and student judges. As well as being a student judge, Jude Apple, took over student awards and Michele Jones hand-scripted the certificates. We also acknowledge the student volunteers, and we were most impressed with the overwhelming response to our web call for Annual Meeting volunteers.

The meeting program included 21 oral presentation and 22 posters, as well as the opening address by Steve Rumrill and a CERF presentation by Mark Wolfe-Armstrong. Our student auction, lead by Jim Brennan, raised \$186.00 for student travel. The meeting was successful with 90 PERSians attending, despite some agency travel restrictions, and turned a small profit. It is B.C.'s turn and the 2013 PERS annual meeting will be held in the metro Vancouver area, with leading dates being April 7-10 or March 12-15, 2013. Preference appears to be not to hold it in Vancouver, so I will investigate hotels and venues close to the US-Canadian border.

Congratulations to the Student Award winners: Rea Pineda, Gabrille Lopez, Pascale Goertler, David Stormer, Eva Dusek-Jennings, and Michael Hannam. (see photo on page 1).

To facilitate PERS management, I have been meeting Jeannie in Bellingham at approximately monthly intervals to discuss annual meeting preparations and other pressing business such as reviving the PERS Newsletter. These face-to-face meetings are proving very productive and provide a more personal touch to the traditional email communications. PERS is very fortunate to have had such a long-standing and committed Secretary-Treasurer, a point reinforced by several of the Presidents who have preceded me. During a recent CERF conference call, several of the new affiliate society Presidents asked for federation assistance in operating their societies because with the election of a new board every two years, it was difficult to keep their societies running efficiently. Happily I was able to say that PERS, with our long-standing competent Secretary Treasurer, was functioning well.

Jeannie also upgraded the PERS website, making it aesthetically appealing and it will evolve further with future improvements. We welcome any suggestions from PERS members.

In closing, PERS is in good shape and I look forward to participating in future endeavours as we move forward. It goes without saying that it is your society, with the executive board as your representatives, and we welcome any construction suggestions to make it even better.

Gary Williams, President (2012-2014)

CERF Corner continued from page 2

**Mark Wolf-Armstrong,
CERF
Executive
Director**



Coastal and Estuarine Research Federation (CERF)

CERF West
PO Box 937, Twisp, WA 98856 USA
Phone: 509-997-0888
Email: mark@erf.org

CERF East
PO Box 510, Port Republic, MD 20676 USA
Phone: 410-326-7470

Mark Wolf-Armstrong has been a leader in the movement to elevate coastal and estuarine restoration to a national priority. As President and CEO of Restore America's Estuaries (RAE), he engaged representatives from government, tribes, business, nonprofit and scientific communities in strategies to increase our knowledge, scale, pace and success of restoration. He led the team that championed the *Estuary Restoration Act*, a federal statute that set a national goal of restoring one million acres of estuarine habitat.

Mark established RAE as a major national partner of NOAA Restoration Center which resulted in millions of dollars invested in hundreds of local habitat restoration projects engaging tens of thousands of volunteers around the U.S. He worked closely with CERF and/or its members on many initiatives, including the publication, co-authored with CERF, entitled "*Principles of Estuarine Habitat Restoration*", and the first "*National Strategy for Restoring our Coasts and Estuaries*" which was broadly adopted and referenced by the Federal Estuary Restoration Council in their work under the Estuary Restoration Act.

Under his leadership, RAE launched a series of national conferences and trade shows, entitled "*National Conference on Coastal and Estuarine Habitat Restoration*", which brought together the scientists, agencies, businesses and organizations involved in coastal restoration

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into one assembly. The conferences broadened the coalition invested in the future of our coasts. CERF, NOAA, EPA, US FWS, The Nature Conservancy and many other national NGOs, businesses and government agencies were among co-sponsors of the conferences.

Mr. Wolf-Armstrong has more than 30 years of executive experience leading nonprofit, governmental and business organizations. Selected highlights of his professional experience include:

President and CEO of *Restore America's Estuaries*, a national coastal and estuarine coalition.

Executive Vice President of RAILS-to-TRAILS Conservancy, a national trails organization.

Executive Director of The Nature Conservancy of Ohio, a nonprofit dedicated to biodiversity.

Deputy Director of Ohio Department of Aging, a State of Ohio department for senior services.

He holds a Masters Degree in Anthropology from Kent State University with emphasis in Cultural and Biological Anthropology, followed by Doctoral-level studies at Ohio State University. Mark has served on numerous local and national boards, including Alaska Wilderness League and Earth Share.

Mark provided the following message in his New Year's address to CERF Members...

"I am very excited about a new year for CERF, and am grateful to the Board for giving me the opportunity to serve the Federation. I am also grateful to all of you for your gracious welcome into the CERF family.

CERF has great heritage and accomplishment, and this will provide the foundation for future success. We have a new team in leadership with Walter Boynton and new Board members, a new strategic plan, a new CERF office in Washington State and many opportunities to make a difference in the world.

Against this backdrop is our awareness of the many challenges we face on our planet. CERF embraces the real need to advance our knowledge and inject it into public discourse and decision making, and to educate our colleagues, our students, our leaders and the public about the exquisite realms of estuaries and coasts. We are, after all, an estuarine species, and what we do in these essential and rich ecosystems will foretell the future of the many other habitats of the world. It will affect our food, our water, our air, our security, our well-being.

Our new strategic plan (2012-2016) gives us

clear guidance based on collective visions for going forward. The seven goal areas of Research, Publications, International activities, Policy, Education, Communications and Membership and Affiliate Societies provide a comprehensive road map for focusing our efforts and resources. Of course, none of these stand alone like silos. They are more of Venn diagram with many parts entwined.

In the coming months, I will look carefully at this strategic consensus and determine points of high leverage where we get multiple returns across various goals. For example, if we succeed in engaging and serving more students in CERF, it will have a multiplier effect on all the other goals. This is not a one way street of course, it is interactive and synergistic.

At the start of the year, we also have exciting and immediate projects on our radar for 2012. We will:

- inaugurate our first international conference in November 2012 in Mar del Plata, Argentina,
- launch a robust effort to make CERF 2012 in San Diego a stellar success,
- renew and enhance our partnership with Springer, our publisher for *Estuaries and Coasts*,
- energize our communications and membership efforts with vigorous new approaches to social media and other dynamic tools for interlacing CERF society,
- initiate and renew external partnerships that will advance our strategic plan, and select a great city and site for CERF 2015.

I hope each of you enters this New Year healthy and reinvigorated, and ready to lead and help.

There is an old Japanese proverb that says "one arrow is easily broken, but not ten in a bundle." CERF's quiver contains the talents and aspirations of all of you, and your investment in our future success is the single most important ingredient in our success!"

One of my first duties as PERS President was to attend the CERF Governing Board meeting at the Airlie Center in Virginia and I had the good fortune of flying out with Mark and discuss several issues facing CERF and PERS. I think Mark's related experience bodes well for providing exemplary service to both the Federation and Affiliate Societies, including PERS.

NOTE: CERF information including mission statement, board

Initiatives from British Columbia Related to Sea Level Rise: Provincial Ministry of Environment (MOE) Climate Change Adaptation Guidelines for Sea Dikes and Coastal Flood Hazard and University of British Columbia Collaborative for Advanced Landscape Planning CALP) Visualization for Developing Sustainable Solutions

By Gary Williams

The British Columbia Ministry of Environment, Water Stewardship Division issued guidelines to “bridge the gap between the science and practical application of measures to address climate change factors in B.C. coastal areas.” The Climate Change Adaptation Guidelines for Sea Dikes and Coastal Flood Hazard prepared by Ausenco Sandwell (http://www.env.gov.bc.ca/wsd/public_safety/flood/structural.html):

- Draft Policy Discussion Paper
- Sea Dike Guidelines
- Guidelines for the Management of Coastal Flood Hazard Land Use.

SLR is expected to be faster and higher than originally predicted by the IPCC (2007) based on an assessment of factors specific to B.C.

(Thompson et. al 2008; <http://www.dfo-mpo.gc.ca/Library/335209.pdf>; Bornhold (2008) http://www.env.gov.bc.ca/wsd/public_safety/flood/structural.html. Allison et al. (2009) use satellite and ice measurements to show that Greenland and Antarctic ice sheets are losing mass at an increasing rate and predict by 2100 global sea level is likely to rise at least twice as much as predicted by IPCC and may well exceed 1 m by 2100.

Along coastal areas, upgrading sea dikes to meet the guidelines will require increased crest elevation and result in substantial infilling of foreshore, brackish marsh outside the dikes, as well as backshore areas behind the dikes. A preliminary conceptual sea dike cross section illustrates the potential for impacts on foreshore habitat and existing land uses (Figure 1).

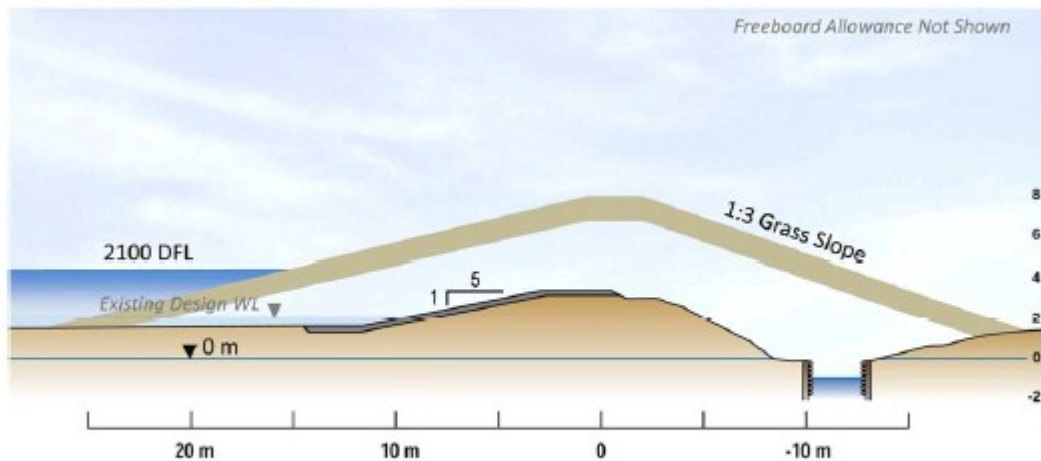


Figure 1-13 Example Sea Dike for 2100 – West Richmond elevations: CGD

Figure 1. Conceptual sea dike cross section showing to upgrade conditions for discussion purposes (Source: Appendix C, page 11, of the MOE Sea Dike Guidelines (Ausenco Sandwell Jan. 2011).

For the Fraser River estuary, the guidelines require increasing the crest of existing dikes by 1 m to meet the anticipated SLR. In urbanized areas such as the City of Vancouver, where development is essentially right up to the bank of the river, raising the dike crest elevation by 1 m, will cause substantial impacts on riparian and intertidal fish and wildlife habitat, since the existing habitat largely consists of tree and shrub banks above narrow intertidal fringe marshes. In one project located in Vancouver along the Fraser North Arm, the guidelines will result in a dike elevation increase from 3.4 m (geodetic) to 4.4 m and will impact mature cottonwood and red alder trees and fringing sedge marshes that provide important fish and wildlife habitat (Photo 1). Since the Fraser River is one of the world’s most important salmon rivers and over 70 % of the historic wetland habitat in the estuary has been lost due to diking and urbanization, the conservation of these remaining habitats is critical.

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Discussions are continuing between the developer and the City of Vancouver engineering and parks staff to maintain the shoreline habitats. One option is to preserve the riparian and marsh fringe at the current elevations and incorporate into park space, allowing it to flood at extreme water levels. Ground elevations for commercial and residential built-out areas would be set at appropriate levels to accommodate SLR. An example of another approach is to create set back dikes to allow fluvial processes to occur but still protect upland development (Photo 2).

Maintaining flood protection in the context of SLR, pits human safety against fish and wildlife habitat protection, a conflict regulatory agencies will have difficulty



Photo 1. High productivity shoreline habitat in the Fraser estuary consisting of black cottonwood and red alder treed riparian, Lyngbye's sedge intertidal marsh and mudflat could be at risk if existing dikes are upgraded in situ using standard engineering approaches to meet new provincial SLR guidelines (photo credit G. Williams).

ensuring preservation of habitat. As well, in some situations, municipalities and developers may welcome the new design guidelines to improve views for residential development and waterfront parks, thus increasing property values. However, in other areas, the costs for constructing upgraded dikes are substantial and probably will be the responsibility of municipalities.

The Draft Policy Discussion Paper identifies four main land use strategies for adaptation to SLR:

- **Avoidance** by not developing in moderate to high risk, which is largely restricted to future developments or redevelopment;



Photo 2. An example of setback dikes to contain a river channel constructed in Japan. This approach preserves fluvial processes and shoreline habitats while protecting upland agricultural and urban development (Photo credit Gary Williams).

- **Protection** through construction of hard (i.e. dikes) and soft (i.e. bioengineering or incorporating existing habitat and nearshore processes);
- **Accommodation** by adapting land-based structures and activities to tolerate flooding and inundation;
- **Managed Retreat**, defined as any strategic decision to withdraw, relocate, or abandon private or public assets.

These strategies are discussed in more detail in the Guidelines for Management of Coastal Flood Hazard Land Use.

Since the release of the guidelines, MOE has retained a consultant team led by Delcan to prepare a primer on SLR to increase public awareness of the issues and the complexities involved in implementing solutions. They are also looking at dike design options in Richmond, which will involve consideration of seismic issues.

On another front, some interesting academic work related to climate change and SLR is being conducted at the University of British Columbia, Faculty of Forestry, Collaborative for Advanced Landscape Planning (CALP), a partnership between the Centre for Interactive Research on sustainability (CIRS), Geomatics for Informed Decisions (GEOIDE), Natural Sciences and Engineering Research Council of Canada (NSERC), Pacific Institute of Climate Solutions (PICS) and the School of Architecture and Landscape Architecture (SALA). CALP focuses on accessible solutions that bridge research and practice by bringing rigorous science and modeling, visualizations, innovative environmental design and participatory processes to community and landscape planning, including some interesting work related to SLR in the

Corporation of Delta, a municipality in the Fraser River delta.

Stephen Sheppard, a Professor in Landscape Architecture and Forest Resources Management at the University of British Columbia, Vancouver, and Director of CALP, conducts research on visualizing climate change and has developed a guide to visual communication of climate change and development of local solutions.

As SLR is of concern to many estuarine and coastal areas of the Pacific Northwest, it would be interesting to learn of management strategies being used to address the issue. Of particular interest, is the innovative approaches that federal, state and municipal management agencies within the PERS region are using to balance habitat and public safety. It would seem that the most effective solutions may indeed require the wisdom of the engineer, Tinkerbell and



Figure 2. Example of UBC CALP visualization of SLR adaptation for Delta, BC (Source: http://www.calp.forestry.ubc.ca/gallery/gallery_images/Delta/?lg_show=true).

dukwiβēš, as suggested by Si Simenstad, during his Keynote Address at our PERS 35th Annual Meeting banquet.

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Changing of the PERS Board

Thank You and Farewell (well...)

As many of you know, the recent PERS meeting in Anacortes was my last as a PERS Board member, having served six years (two years as President Elect, two as President, and two as Past President), and I'd like to take this opportunity to thank the PERS members for your support and for giving me the opportunity to serve you. I'd also like to thank the other Board members for making my time a wonderful, collaborative experience. A very special thanks goes to Jeannie Gilbert, our Secretary/Treasurer. Whether you know it or not, Jeannie is the heart and soul of PERS, always working behind the scenes to make every meeting run smoothly, keeping the "business" of PERS running, making sure that the members are kept informed about PERS activities, training the respective Presidents, and keeping us in line. PERS is in good hands with the current Board, being comprised of dedicated, fun-loving, and intelligent officers. I encourage you to get to know them and become active in the development of a professional organization that has a long-standing reputation for its great science, people, and interest in improving our understanding and management of our estuaries and coasts.



As I think back over the past six years, I realize how much I have gained from my experience as a PERS Board member. I had little idea what would be required to serve, and had thoughts about what could be done to help the society grow and flourish. Much guidance was needed from past presidents, and Jeannie was always there to help. There is a lot going on behind the scenes, keeping the business running and making sure that our annual meeting happens. There was always a dedicated group to help coordinate and run the meetings, and to ensure that we all had a great learning experience and a good time. As president, I also served for two years on the CERF (Coastal and Estuarine Research Federation) Board (it was called ERF at that time). Working with this organization was an unexpected pleasure and a great learning experience. Both the PERS and CERF Board experiences offered welcomed opportunities for networking and getting to know scien-

tists, personally and professionally, from all over the world. These experiences have helped me in my work, and have enriched my life.

I am proud to come from a long line of PERSians, who do great science, and are dedicated to making a difference in the world. So, I bid you farewell, as Past President anyway. I'll not be going far, since the current Board decided to add a few Members-at-Large to the Board, and have appointed me as one. So, I'll continue to dedicate some time and attention to PERS matters, and, regardless of this appointment, will always be thankful for the gift you have given me in serving such a wonderful group of dedicated scientists.

MUCHAS GRACIAS
JIM BRENNAN

Introducing our New President-Elect, Tony D'Andrea:

Tony is an estuarine ecologist at the Oregon Department of Fish and Wildlife (ODFW), where he runs the Shellfish and Estuarine Assessment of Coastal Oregon (SEACOR) project. This project focuses on mapping and quantifying estuarine habitat and biological resources in Oregon estuaries, particularly the four bay clams commonly targeted by recreational and commercial clambers: gaper, butter, cockle, and native littleneck clams. Prior to joining ODFW in 2010, he worked at both Oregon State University and the University of the Virgin Islands, where he taught oceanography and marine biology, and headed a research program investigating the population and community ecology of intertidal invertebrate communities in Oregon estuaries.

After receiving his Ph.D. from the State University of New York at Stony Brook, Tony moved to the West Coast in 1999 to work as a National Research Council fellow at the U.S. EPA Pacific Coastal Ecology



Branch in Newport with Ted DeWitt, a former PERS president. He has a long association with CERF being a member of Southeastern Estuarine Research Society

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(SEERS) since 1990 up to his relocation to the OR, and subsequent membership with PERS. Tony appreciates the blend of regional science, collegiality, and student support that the CERF Affiliate societies provide. Tony notes that one of the things about PERS that made an impression on him was how diverse the membership is relative to many of the other affiliate societies. It is a rare and valuable opportunity to have academic, government, and private sector researchers all sharing their knowledge of estuaries and PERSians do this wonderfully every year. *“My experiences with SEERS and PERS have been formative in the development of my career and I feel a strong call to give back to the society through service and leadership. As president, I would continue to promote the exchange of ideas that is central to the society’s purpose by actively engaging our professional and academic members, recruiting and supporting student members, and encouraging member involvement in our activities. Together, we can ensure that PERS continues to stand out as one of the leading CERF affiliate societies.”*

I think that PERS will be well served by having Tony as our new President-elect and future President.

Pascale Goertler, PERS Student Representative

Pascale is a graduate student studying under Si Simenstad at the University of Washington, School of Aquatic and Fisheries Sciences. She describes her research interests as:

“using the single species focus of salmon management to promote estuary restoration at the ecosystem level. More specifically within the Columbia River, I would like to demonstrate the importance of a matrix of estuarine habitats for juvenile salmon productivity and therefore adult returns (hopefully promoting the restoration and conservation of many habitat types within estuaries) and explore the relationship between habitat diversity and salmon population diversity (as an insight for species stability).”

Pascale comes from the East Bay of San Francisco. She completed her BS in environmental studies at University of California Santa Barbara, concentrating in aquatic biology and minor in global studies. She is

fortunate to have also studied abroad at the University of Queensland, Brisbane, in Australia. Between UCSB and UW she lived in Guam and traveled around Asia visiting the Philippines, Thailand, Cambodia, Laos, South Korea, and Japan, and then Germany, Austria, Italy in Europe.



Her professional interest in salmon started with a job at National Marine Fisheries Service in Santa Cruz, as a fisheries technician. She also had experience in Santa Barbara and Guam as an aquarist and from Pacific States Marine Fisheries Commission in Santa Cruz conducting redd surveys. At UCSB she was employed as a technician working on biodiversity in streams for Brad Cardinale.

“I joined PERS because I study salmon estuarine utilization, and coastal work is my main career ambition, Pascale said. I believe interagency collaboration will be even more important in the future. PERS provides a great group of mentors in many areas of estuarine and coastal science and management.”

Pascale will provide some valuable insight as PERS and CERF try to become more relevant to the post-boomer generations. She suggests that PERS could do a better job of advertising for students. For example, it would be useful to have a list of schools from which PERS could solicit student participation by sending notices about socials, meetings, and symposia. Interestingly, this is a topic discussed at the last CERF Governing Board Meeting. She recommends continuing PERS and CERF financial support for students, whether it is scholarships, providing research grants, or other means to reduce costs for attending meetings and conferences. She also likes the idea of advertising defenses as a good way to reach out to students. PERS has acted quickly on the last item, by listing the upcoming PhD defense of her colleague from UW, Eva Dusek-Jennings, on our website.

We welcome Pascale to the PERS Executive Board and look forward to her input.



Opportunities for Blue Forest Restorations in Coastal Communities

Paul A. Horgen, Comox Valley Project Watershed Society

Professor Emeritus, University of Toronto

A major question facing residents of communities like the Comox Valley on Vancouver Island, as we entered the 21st century was how we can reduce our dependence on fossil fuels. One approach is to establish strategies of conservation or use of renewable energy (solar, wind, etc.). Another is to eliminate CO₂ in the atmosphere through Living Carbon storage. Living Carbon is more commonly thought of as the long-term storage of carbon in the tissues of trees and plants in forests (green carbon). Blue Carbon is a form of Living Carbon that occurs in aquatic environments where aquatic plants such as eelgrass and sedges act to store carbon in the soils and sediments below the plants or in sediments in the deep ocean.

In 2007, the province of British Columbia established a Climate Action Charter and requested that local governments volunteer to sign on to this charter. The four local governments in the Comox Valley have done so, and this means in 2012 they have committed to get their carbon footprint down to zero. One way to do this is purchase carbon offsets on the Green Carbon markets

In the United States in April of 2012, a landmark study was released by Restore America's Estuaries (RAE) which for the first time links ecologically important coastal habitat restoration with adaptation and mitigation strategies as a way to reduce the impacts of ongoing global climate change. The report, "Restore-Adapt-Mitigate: Responding to Climate Change through Coastal Habitat Restoration," [http://r20.rs6.net/tn.jsp?e=001H6RP9-DTDX3XCxffAtF0TxRtd-siJ4DEvnn_NkyXb8dP9md0YV5pGQoqK9RNEUQR7tPw8qXxk3-2CH_5JZw7ikGLJPgJIAuOEK1I-Eq8fq-criaUrUpmTS63ErAilTS]

demonstrates that large-scale coastal wetland restoration-everything from restoring salt marshes, to protecting mangroves, and creating new coastal wetland habitats-can be an integral part of public and private initiatives to combat climate change.

The Comox Valley Project Watershed Society has been in operation for nearly 20 years. We have a Board of Directors of

highly qualified individuals, an excellent reputation in our community and a good relationship with a few local politicians. In general discussion with these local leaders, I presented the idea of “Blue Carbon: and suggested that we had the expertise in our community to manage a pilot project. The methodology for assessing Blue carbon offset credits is still in the development stages.. We established a Blue Carbon team and worked on a pilot project proposal. Collaborations were established with scientists at Universities and our local North Island College. A poster describing our approach was presented at the April 2012 PERS meeting in Washington

In October of 2011, P. Horgen, made a presentation to political leaders from the 4 communities. He presented an overview of Climate Change, carbon sequestration, carbon offsets and described how estuarine plant communities could remove carbon dioxide from the atmosphere much more efficiently than land plants. He suggested that the funds committed to purchase carbon offsets would serve our community better if we worked through Project Watershed’s Estuary Working Group and that we could keep the money locally, hire local qualified individuals, restore habitat that had been lost during the last 75 years, which would facilitate bringing our estuary back towards its historical level of abundance and still contribute towards mitigating climate change...

The politicians liked the concept and unanimously passed a resolution. (They proposed the province be asked if they will allow local governments to invest their carbon off-set payments in blue carbon projects, such as the Courtenay River Estuary pilot project, rather than just sending the money to Victoria for undetermined use. They will also suggest the Union of British Columbia Municipalities take up the issue, as it could be relevant to many other coastal areas.)

“Although we are still negotiating with the province, says Horgen, we have the support of our local MLA who is Agriculture Minister. We feel that with community financial support, we will be in a good position to leverage the local funds to get external support

This concept has a win/win scenario and potentially could provide adequate funding for community stewardship groups with the capacity to carry forward with such projects. We would do essential habitat restorations, make necessary measurements related to the offset market, and this will contribute to climate action in a positive way.”

PERSpectives is back with a new editor

It’s been a while since members have seen *PERSpectives*. The last edition came out following the 2008 annual meeting in Newport, Oregon. This edition marks the resumption of quarterly newsletters, with a new editor — John Bragg.

John is the Coastal Training Program Coordinator for the South Slough National Estuarine Research Reserve in Charleston, OR. The Coastal Training Program was initiated by the National Oceanic



and Atmospheric Administration’s National Estuarine Research Reserve System to meet the needs of coastal managers for scientific knowledge and training related to estuaries. Coastal training plays an important role in resolving coastal management issues. Training staff work collaboratively with stakeholders, governments and scientists to meet decision makers’ needs.

John analyses coastal managers’ need for training and technology to identify important issues and information gaps. He then develops training or technical assistance, such as training workshops, science conferences, field trips and other events, to connect these decision makers with the scientists who study estuaries. Training strategies identify issue-specific information products (fact sheets, briefing documents, brochures, analyses, etc.) for publications, presentations and the Internet. John’s photographs are featured in South Slough reserve’s publications and exhibits.

John is a professional photographer and science communication specialist. His experience includes news photography and reporting, freelance writing and photography, market research, environmental policy and news analysis. For a while he worked at a Willamette Valley vineyard cultivating pinot noir, pinot gris,

CERF Strategic Plan

One of the objectives of the CERF Governing Board is to implement the revised strategic plan, Visions III for the period 2012 - 2016. The long and short versions of Vision III are provided on the CERF website (<http://www.erf.org/visions-iii-strategic-plan-coastal-and-estuarine-research-federation-cerf>). Of specific interest to PERS is Goal 7 entitled Development and Strengthening of the Affiliate Societies:

Vision: CERF began with the recognition by several regional societies that a broader, national and international organization was needed. Since then, there has been a mutually beneficial relationship between CERF and the Affiliate Societies, with growth by both. CERF resources in communications and organization services need to continue and expand to serve the Affiliate Societies and the Affiliates need to continue acting as catalysts for regional estuarine science and communication activities while serving to strengthen affiliate memberships ties with CERF.

Objectives:

1. Providing CERF administrative and logistic support to the regional Affiliate Societies.
2. Engaging Affiliate Societies to serve as catalysts for regional collaboration in coastal and estuarine science.

Current and Future Actions:

Continue to explore potential CERF administrative and logistical support to the regional Affiliate Societies, such as potential collaborations to unify website, membership, and meeting registration services.

- Provide access to meeting insurance through CERF's meeting insurance policy.
- Provide access to funding in support of speaker travel for special sessions and workshops at Affiliate Society meetings.
- Continue to have Affiliate Society Presidents serve as active members on CERF Board of Directors.
- Continue to accept membership dues for Affiliate Societies.
- Expand membership through collaborations with CERF and Affiliate Societies.

Metrics of Progress:

- ◆ Track the percentage of Affiliate members who are CERF members.
- ◆ Institute continuing insurance availability for Affiliate's meetings.
- ◆ A CERF officer or Executive Director attends each Affiliate meeting.
- ◆ Track number of speakers/travel awards from CERF to Affiliates each year.
- ◆ Track the number of Affiliate members attending biennial conference.

Future CERF Conferences

Two important CERF conferences that may be of interest to PERS members are CERF 2012, the first special conference in South America, and CERF 2013, the 22nd Biennial Conference in San Diego, CA. Check out CERF's website for details. (www.erf.org)



CERF 2012, the first special conference in South America "*The Changing Coastal and Estuarine Environment: A Comparative Approach*", Mar Del Plata, Argentina, November 11-14, 2012. Call for abstracts ends May 24 and early registration ends October 11;

CERF 2013, CERF's 22nd Biennial Conference "*Toward Resilient Coasts and Estuaries, Science for Sustainable Solutions*", San Diego, CA, November 3-7, 2013.

Urging you to Renew Your CERF Membership Now

Steve Rumrill drafted a promotional poster during his term on the CERF Governing Board and it has been edited and revised to focus on the “people” component by Ruth Carmichael, President of GERS. Just to provide a reminder to renew, or further reasons on why you should become a member, the poster is shown below. Thanks in advance for supporting CERF and PERS.



COASTAL & ESTUARINE RESEARCH FEDERATION®

MISSION & BENEFITS TO MEMBERS













Mission:
The Coastal & Estuarine Research Federation (CERF) advances understanding & wise stewardship of estuarine & coastal ecosystems worldwide.

Our mission is to:

- Promote research in estuarine & coastal ecosystems
- Support education of scientists, decision-makers, & the public
- Facilitate communication among user-groups

Benefits to Members:

- Network with scientific experts from around the world
- Professional career development & mentorship
- Job Announcements & funding opportunities
- Application of science to timely coastal issues
- Reduced registration fee to the biennial conference
- Journal & newsletter access
- Eligibility for scientific awards & student travel support

Affiliate Societies:
The 7 CERF regional affiliate societies serve roughly 1,000 members. Affiliate societies hold conferences & workshops on topics, issues & problems of regional concern. Each affiliate society represents a distinct biogeographic region of coastal North America. Find your regional affiliate below.



Find affiliate society contact information in the latest CERF newsletter.

Members:
CERF Membership is highly diverse & open to all interested parties.

- Faculty at academic institutions
- Students
- Agency scientists
- Coastal resource managers
- Private industry scientists
- Representatives from non-governmental organizations
- Elected officials & decision-makers
- Public at large



CERF Conference:
The biennial CERF Conference provides a unique opportunity to present findings of scientific research, share field & laboratory techniques, discuss current management & conservation issues, learn new skills, network with mentors & colleagues, develop collaborations, explore career possibilities, & experience diverse coastal habitats as conference venues change.



CERF's Up in San Diego!
CERF's 2013 Conference will be 3 – 7 November in San Diego, CA
Town & Country Resort & Convention Center
For details visit www.erf.org

Member Communications:

- CERF Newsletter
- Journal - *Estuaries and Coasts*
- Online Article Summary - *Coastal and Estuarine Science News (CESN)*



Join CERF:
Become a member of the Coastal & Estuarine Research Federation!

To Join, log on to CERF Member Services at www.erf.org



(CERF Corner, continued from page 14)

CERF Boynton Administration Governing Board

The CERF Governing Board consists of the following representatives. I urge PERS members to peruse the CERF website (www@erf.org) to learn more about the federation and the planned initiatives and programs being implemented.

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University of Maryland,
Center for Environmental Science -
Chesapeake Biological Laboratory
boynton@cbl.umces.edu

President-Elect

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Daupin Island Sea Lab
Dauphin Island, AL
kheck@disl.org

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Bodega Bay, CA
slwilliams@ucdavis.edu

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Research Ecologist
Gulf Breeze, FL

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Xalapa, Ver., Mexico

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College of William and Mary
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Janet Nestlerode
Research Ecologist
Gulf Breeze, FL

Affiliate Society Presidents:

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Fisheries and Oceans Canada
Dartmouth NS, Canada

AERS (Atlantic Estuarine Research Society)

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College of William and Mary
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CAERS (California Estuarine Society)

Sharon Herzka
Centro de Investigacion Cientifica y de Educacion
Superior de Ensenada (CICESE)
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GERS Gulf Estuarine Research Society)

Ruth H. Carmichael
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Dauphin Island, AL

NEERS (New England Estuarine Research Society)

John Brawley
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PERS (Pacific Estuarine Research Society)

Gary L. Williams
G.L. Williams and Associates, Ltd.
Coquitlam, BC, Canada

SEERS (Southeastern Estuarine Research Society)

Robert W. Virnstein
East Palatka, FL

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SOCIETY**

c/o Jeannie Gilbert
Western Washington University
516 High St.
Bellingham, WA 98225

Contact by phone:
Gary Williams-604-941-7541
Jeannie Gilbert- 360-303-2807



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We're on the Web
www.pers-erf.org

CERF Governing Board



Bottom row: Sharon Herzka (CAERS), Melisa Wong (ACCESS), Gary Williams (PERS), Ruth Carmichael (GERS), Linda Blum (Secretary), Ken Heck (President Elect), Alex Yanez-Arancibia (International Member at Large) **Second row:** Jim Hagy (Member-at-Large), Leanna Heffner (Student Representative), Mark Brush (AERS), Mark Wolf-Armstrong (CERF ED), Susan Williams (Past President), Janet Nestlerode (Member at Large) **Top row:** Bob Virnstein (SEERS), Chris Tanner (Treasurer), John Brawley (NEERS), Walter Boynton (President) Not pictured: Bob Diaz (Member-at-Large)

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