Beaches Conference 2017 Plenary I
Notes by Caitlin Peterson, NH Sea Grant/UNH Cooperative Extension

Welcome and Introductions

Welcome by Christine Feurt
- First beaches conference was in 2000; this is the first year to include NH
- Thank you to beach profiling volunteers and Maine Healthy Beaches program volunteers
- Thank you to sponsors

Paul Dest, director of Wells NERR
- Discussion of federal budgeting process
    - October 1 is start of fiscal year; President and Congress are intended to agree upon a budget by this time; this process is often not completed on time
    - Sea Grant, NERR, Coastal Program, National Estuarine Partnerships zeroed out and grant funding limited in current president's budget; Congress is showing initial signs of greater support for coastal science, having just restored FY 2017 funding for SG and NERR
    - Appreciation of support from legislators in Maine

Plenary Panel, moderated by Nathan Robbins, Maine DEP

Introduction to volunteer beach profiling in Maine and New Hampshire
Peter Slovinsky, Maine Geological Survey, Department of Agriculture, Conservation and Forestry
Larry Ward, UNH Center for Coastal and Ocean Mapping
- Introduction to method; combination with longshore data (Maine Beach Mapping program MBMAP) taken by ME Geological Survey; example of data from Goose Rocks Beach, Kennebunkport, ME; beach scoring system (Peter Slovinsky)
- Since 2015, background information on 29 NH beach transects began to be collected in preparation for designing volunteer monitoring network; volunteer monitoring will be initiated and expanded on a five-year plan, beginning in 2016; preliminary results (Larry Ward)

Lost to the sea: Maine's ancient cultural and environmental history
Alice Kelley, School of Earth and Climate Sciences, University of Maine
- ME has about 2000 shell middens – human-deposited shells; mostly clam shells, in some regions oyster shells; signs of human habitation on/near the beach
- Middens are eroding – sea level rise, development, "recreational archaeology"
- Nuanced information can be gained from these middens – sequence of historical events, habitation; other artifacts like pottery, stone tools; shell middens buffer the soil, allowing preservation of more artifacts than in other soil types more common in Maine; same buffering processes allow preservation of animal bones and other organic materials; including extinct animals like sea mink (jaws found in midden in Downeast ME)
- Archive extends back 5000 years
- Ground-penetrating radar; rapid analysis of stratigraphy of shell middens without destroying the site; ground-truthing by matching with sites that have been excavated

Key considerations in determining the beach action value (bacteria count) for water quality monitoring
Keri Kaczor, UMaine Extension/Sea Grant and Maine Healthy Beaches
- Funding from EPA, MDEP manages, Maine Extension implements much of programming
- Current fecal indicator safety limit is 104; EPA proposed that states adopt either 60 or 70 as upper limit – ME sought seeking stakeholder feedback, convened advisory committee, conducted further analysis
- Submitted justification to keep 104, EPA approved, implementation by 2017
- Six beaches would be most impacted by the policy change; all are considered high risk beaches already (due to known point/nonpoint pollution); these beaches tend to fall between levels of 70 and 104. The majority of beaches are more polarized – either they tend to be safe, or they exceed substantially above 104
- Uncertainty – high rate of false positives (84.5% retests of positive tests are clean); 70% of the time, if a beach is over 70 it is also over 104
- Decision to use 70 as a "warning limit" triggering a retest but not considered an exceedance

Resources for climate change adaptation planning
William DeLong, US Department of Homeland Security Office for Infrastructure Protection
- Dtorm surge modeling, downscaled climate modeling, brownout modeling, radar-based rainfall modeling, storm surge infrastructure risk analysis
- Partnering with scientists to respond to needs for technical assistance from local communities

Old laws and new realities: the balance of interests along Maine and New Hampshire coastlines
John Duff, University of Massachusetts Boston
- Public trust – in ME, fishing, fowling, navigation
- Prescriptive easement – certain aspects of the coast need to be maintained to the population (generally fishing, commerce, navigation) – generally has to do with an owner forfeiting rights over a long time of disuse while a different user is actively using property/rights
- ME, MA – private property can be to low water line – "low water state" – public still has public trust rights
- NH is a "high water state" – use of intertidal does not require invoking public trust rights - intertidal is designated as state land and private property does not start until high water mark

Flood zone mapping: roles and resources for stakeholders
Jim Nadeau, Nadeau Land Surveys
- Lots of uncertainty in mapping – changes in data used for modeling, actual vs perceived risk, misconceptions of terms like "100 year flood" (1% risk per year vs actually occurring every 100 years)
- Flood mapping can be disputed by property owners
- 26% of floods occur outside of the special flood hazard zone