

Casco Bay Bulletin

Autumn 2009

A Hole in the Bottom of the Bay?

Thanks to Casco BAYKEEPER® Joe Payne, “CAD cell” is the buzzword at the Portland Waterfront Alliance Dredge Committee. A little over a year ago, Joe proposed that the committee look into the feasibility of CAD, short for Confined Aquatic Disposal. This storage method essentially consists of digging a deep, rectangular hole beneath the Bay and isolating contaminated dredge sediments in it.

Sediments flow off the city streets into the Bay, settling in the ship channel and around the twenty or so piers that dot the waterfront. Water around many of the piers is now too shallow for vessels to tie up at low tide. While the sediments in the ship channel are fairly clean, those along the shoreline have accumulated decades of “legacy contaminants” from old factories and shipyards and from modern-day urban runoff.

The Dredge Committee commissioned a study to explore if a CAD cell might work for disposing of contaminated dredge spoils from around the privately-owned wharves. The waterfront business owners would have to pay to excavate the sediments around their piers, but outside funding would be sought to dig the CAD cell.

At first glance, wouldn't Friends of Casco Bay be against a solution that leaves contaminated sediments in the ocean? Joe explains that moving mud and contaminants away from the shoreline and sequestering them would improve the health of the harbor. “Tests have found that the mud in CAD cells stays where it is put. Our first priority is always going to be protecting the water quality of Casco Bay. When a solution is good for the environment and good for the economy, that's a win-win.”



Sediments are filling in berthing space around Portland's piers, as well as the federal ship channel that conveys large ships into the harbor. Casco Baykeeper Joe Payne is working with business owners and state and federal authorities to ensure that dredging does not harm the water quality of Casco Bay.

Record Rain Wreaks Havoc on the Bay



Forty days of rain this summer caused environmental and economic damage. Stormwater has washed oil and gas from cars, sewage, and other pollutants into the Bay. High bacteria counts have closed swimming beaches and clam flats up and down the coast, resulting in millions of dollars in economic losses.

The National Weather Service reports that Portland has received over twenty inches of rain since June 1st. That's more than ten inches above normal. The soggy summer surely dampened vacation plans, but what has it done to Casco Bay? Said Joe Payne, “The heavy rains scoured bacteria, nitrogen, and toxins from streets, lawns, and parking lots and washed them into Casco Bay.”

More than 40 days of measurable rainfall this summer meant that underground pipes that normally carry stormwater and household waste to sewage treatment plants instead diverted the overflow into an almost continuous stream of sewage and street runoff flowing into the Bay. The resulting high bacteria count closed swimming beaches and clam flats. An influx of nitrogen from sewage and lawn fertilizers encouraged phytoplankton growth and exacerbated red tide outbreaks.

Researcher Kevin Athearn at the University of Maine Machias calculates the economic costs of red tide and flood closures. In 2005, another year with above-average rainfall, the lost income to Maine shellfish harvesters was nearly \$6 million. Friends of Casco Bay Research Associate Mike Doan believes the heavy rains also affected the juvenile lobsters that find shelter in coastal tidepools. At our monitoring site in Cape Elizabeth, he found a dead lobster whose intertidal hiding place had been flooded by a torrent of stormwater. “This was likely a casualty of the unusual amount of fresh water from the record rains,” Mike reasoned.



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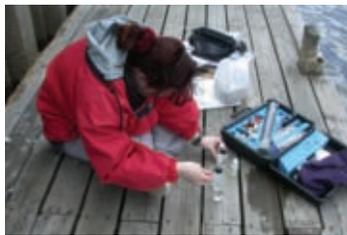
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Do You Remember 1989?

1989 was a tumultuous year whose memorable political and environmental events continue to resonate today:

- The **fall of the Berlin Wall** in Germany and the **Velvet Revolution** in Czechoslovakia were the crests of a revolutionary wave that toppled communist governments across Central and Eastern Europe.
- U.S. President George H.W. Bush and U.S.S.R. leader Mikhail Gorbachev declared an **end to the Cold War**.
- The **Exxon Valdez** spilled 11 million gallons of oil into Alaska’s Prince William Sound, leading to changes in oil spill preparedness around the country.
- The **“World Series” earthquake** measured 7.1 on the Richter scale, making it the largest earthquake in the San Francisco Bay area since the 1906 earthquake.

and ■ **Friends of Casco Bay was legally incorporated as a not-for-profit organization on December 18th, 1989**, launching **20 years**—and counting—of improving and protecting the environmental health of Casco Bay. It was started by a group of concerned citizens after a report entitled *Troubled Waters* asserted that Casco Bay was one of the most polluted estuaries in the nation. What a difference we’ve made since then.



20 years ago, there was no reliable data on the water quality of Casco Bay.

Today, Friends of Casco Bay’s water quality monitoring program gathers the only volunteer-generated data included in Maine’s biennial water quality report to Congress. It was among the first marine programs in the nation to earn EPA approval for its exacting standards of data collection by staff scientists and volunteer Citizen Stewards.



20 years ago, nearly half the 11,582 acres of tidal flats in Casco Bay were closed to clam harvesting, in part because the State did not have enough staff to monitor the water quality of clam flats.

Today, more than 85% of Casco Bay’s harvestable mudflats are open to clambers. Friends of Casco Bay convinced the Maine Department of Marine Resources to allow volunteers to do bacteria sampling of clam flats, thus providing the data to demonstrate which areas were clean and which were impacted by pollution.



20 years ago, billions of gallons of combined raw sewage and rainwater runoff emptied into Casco Bay annually. The largest single source in Portland, at Fall Brook, swept an average of 140 million gallons of wastewater into Casco Bay every year.

Today, continuing pressure from Friends of Casco Bay is helping to speed up the removal of pipes that flush untreated sewage directly into Casco Bay. We helped persuade the Portland City Council to commit \$61 million to removing Combined Sewer Overflows.



20 years ago, there was no low-cost, environmentally-sound alternative for recreational boaters to dispose of the contents of their sewage holding tanks.

Today, there are 21 pumpout facilities throughout Casco Bay, including our own pumpout boat, *Baykeeper II*, which has kept over 108,500 gallons of raw sewage out of Casco Bay.



20 years ago, the Presumpscot River was the single largest source of pollution to Casco Bay.

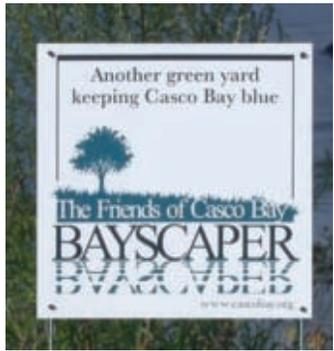
Today, wading birds, frogs, and sea-run fishes are returning to a river once starved for oxygen. Advocacy by the Casco **BAYKEEPER**[®] and Presumpscot River environmental groups convinced the Maine Department of Environmental Protection to require the South Africa-based Sappi to upgrade pollution controls. Instead, Sappi closed the pulp mill, resulting in immediate improvements in air and water quality.

Photo: Greg Williams, Casco Bay Estuary Partnership



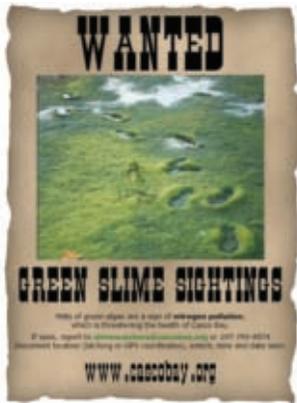
20 years ago, cruise ships could legally dump their wastewater anywhere in Casco Bay.

Today, Casco Bay has the most stringent limits on ship discharges of any water body in the United States, thanks in large part to actions we instigated: a state law preventing large passenger vessels from dumping sink and galley water and the designation of Casco Bay as the first No Discharge Area (for sewage) in Maine by the U.S. Environmental Protection Agency.



20 years ago, it's *Them*. People blamed factories, municipalities, and waterfront businesses for water pollution. Indeed, point sources were the largest source of pollution in our waters.

Today, it's *All of us*. Now, non-point source pollution and stormwater runoff are the largest sources of pollution into the Bay. Residents now recognize that they too have a role to play in maintaining a clean Casco Bay after our water testing detected toxic lawn chemicals flowing into Casco Bay from every coastal community.



20 years ago, few people recognized that excess nitrogen, a nutrient needed by all living things, could pollute coastal waters.

Today, testing by Friends of Casco Bay has shown that nitrogen pollution is a serious concern here. Our data has helped persuade the State Legislature to limit nitrogen discharges before Maine bays suffer from "dead zones" like those that plague Chesapeake Bay and the Gulf of Mexico. Become a Slime Watcher! Report any large mats of bright green algae you see on Maine tidal flats and rocky shores at slimewatchers@cascobay.org.



20 years ago, there were only a handful of water bodies where full-time environmental advocates fought to defend their bays and rivers from polluters.

Today, nearly 200 Waterkeepers around the globe work to resolve pollution problems that threaten their water bodies as members of **WATERKEEPER**[®] ALLIANCE, founded by the seven original Waterkeepers, including Casco **BAYKEEPER**[®] Joe Payne, and environmental attorney Robert F. Kennedy, Jr.

Our Founding Philosophy

Our organization was founded in 1989 as a grassroots, citizen watchdog group. Within a year, the all-volunteer organization recognized it needed a full-time steward to "obtain adequate information to take intelligent positions on related issues . . . to seek solutions that only occur through cooperation among many interested parties."

Founding President Don Perkins helped define the science-based approach of the organization "with a mandate to identify and solve problems, to work with instead of against."

In our twentieth year, we extend our deep appreciation to Don Perkins, now President of the Gulf of Maine Research Institute, and the other visionaries who co-founded Friends of Casco Bay: David Perkins, Nini McNamery, Terry Crawford, and Jeff Clements.



Casco **BAYKEEPER**[®] Joe Payne and President Bill Clinton shared a laugh at this year's Waterkeeper Alliance Conference in New York City.

Photo: John Waltham

**Save the Date:
Annual Meeting &
Volunteer Appreciation
Wednesday,
November 4th, 2009
5:30 - 8:00 p.m.
Cole Haan Headquarters
Cole Haan Drive,
Yarmouth**

2nd Annual Wild & Scenic Film Festival

Saturday, October 3rd, 5-9 p.m. (doors open at 4)

Abromson Auditorium, USM, 88 Bedford Street, Portland

\$15 in advance - \$20 at the door

Purchase tickets at www.cascobay.org or in person at Whole Foods Market

Where can you get a whole evening of movies and great food and help a worthy cause, all for just \$15? Join Friends of Casco Bay for our Second Annual **Wild & Scenic Environmental Film Festival** on Saturday, October 3rd. This nationally-touring event is the biggest environmental film festival in the U.S. The evening will feature award-winning films, food catered by Whole Foods Market, and a cash bar.

Friends of Casco Bay's Executive Director Cathy Ramsdell discussed this educational and entertaining event, "Our inaugural film festival was so successful that other organizations used our event as model. Last year our filmgoers gave us rave reviews, saying, *Great event*, *Loved it*, and *Good opportunity for mingling*. This year we're planning another great event with more films, more food, and more fun."

This year, we chose films to appeal to beach lovers, bicycle lovers, Beatles lovers, and much more. We are also featuring a film about *us*. USM Media Studies students Shane Roma, Christine Wilson, and John Spires spent hundreds of hours creating a six-minute film that captures the essence of our organization, from training volunteers in water quality testing to patrolling Casco Bay on our Baykeeper boat. Go to www.cascobay.org to view descriptions and trailers of this year's selections.



Last year's film festival sold out! We recommend buying your tickets early. You can purchase tickets online at www.cascobay.org or in person at Whole Foods Market in Portland.

Sponsors include:



For full list of sponsors, go to www.cascobay.org

Campaigning to Revive New Meadows Lake

Recently, Friends of Casco Bay Citizen Stewards Coordinator Peter Milholland and summer intern Nathaniel Rindlaub went door-to-door in West Bath and Brunswick. They weren't running for office; they were conducting a survey to learn how the general public views the New Meadows "Lake," a salt pond created 70 years ago when the New Meadows River was dammed by the State Road causeway. Peter, Nathaniel, and other members of the New Meadows Watershed Partnership asked area residents, clambers, and business owners about their understanding of the health of the impounded embayment and

how removing or altering the causeway might affect them. Peter said, "This was primarily an educational effort—both for area residents and for those of us in the New Meadows Watershed Partnership. Studies have shown that removing the barrier would improve water circulation, which we are confident will lead to higher oxygen levels and better water quality in the upper New Meadows estuary. But it's important that we also understand how changes could impact the quality of life for the people who live and work around the New Meadows."



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