

OAKLAND BEACH

Building a New Reputation



by **Jerry O'Brien**

Photographs by **Michael Cevoli**

HILDA AND NORMAN POPPE HAVE A ROUTINE FOR lunch on Tuesdays. They head to Oakland Beach, order chowder and clam cakes from a favorite take-out window, and sit at a picnic table facing Greenwich Bay. Longtime Warwick residents, the couple delights in the relaxing ambiance of the peninsula and its lovely, expansive view to the south, which takes in the widening embrace of Narragansett Bay.

“We love it here, what a wonderful place,” Hilda said on a warm and sunny mid-autumn afternoon. “The city has done a marvelous job in making the area attractive and welcoming.”

A look around showed that the Poppes aren’t alone in their fondness for Oakland Beach. Parents played with their children, dog owners walked their pets, and others simply sat in the front seats of their cars in the parking lot and savored the sight. The nearby restaurants were doing booming business, too.

And, of course, a large flock of vigilant seagulls scanned every available inch of space—and every human hand—for any possible remnant of food.

Oakland Beach has had a long, colorful history—home of coastal bootleggers and neighborhood speak-easies during Prohibition, as a popular and affordable resort destination in the early 20th century, and suffering a slow decline after the brutal triple punches of the Great Depression, the Hurricane of 1938, and Hurricane Carol, in 1954.

**Oakland Beach days before it was struck
by Hurricane Carol in 1954**

Photo courtesy the Rhode Island State Archives



AT OAKLAND BEACH, STORMWATER RUNOFF COLLIDES WITH COASTAL FLOODING

Despite a significant physical and commercial transformation in the past 20 years—with restaurants reclaiming year-round patrons, significant road and bridge repair, and regular beach maintenance—the neighborhood retains an ungrounded reputation in other corners of Rhode Island as a problem spot, a battered former beach community where low-income renters come and go, a place whose best years are well behind it.

Augmenting that persistent view of Oakland Beach are the days its waters are closed to swimmers each summer, a fact of public safety routinely reported in local and statewide media from Memorial Day to Labor Day. Since 2005, the state Department of Health has prohibited swimming due to bacterial pollution at Oakland Beach for a total of 120 days. This past summer, the state prohibited swimming for nine days, second only to Newport's Easton's Beach and the contiguous Atlantic Beach Club, in Middletown, which were closed to swimmers for 11 days.

The problem of bacterial pollution at Oakland Beach took on greater environmental and political significance in the summer of 2013, when the state prohibited swimming there for a record-breaking 27 days, including a two-week stretch from June 25 to July 9. The beach became the stage that year for media appearances by elected city officials and statewide environmental activists, who targeted an outdated neighborhood infrastructure—including the continued use of cesspools—as a significant factor in the water's repeated pollution.

How can a statewide summer destination serve both residents and visitors, and finally shed a troubled reputation, when children and their parents are prohibited from splashing in the calm, refreshing waters of Oakland Beach?

How can any of Rhode Island's—indeed, the nation's—coastal recreational communities approach the problems of local pollution and aging infrastructure in

an era when the rise of sea levels due to global warming and climate change redefine the very notion of a future?

“Things are changing so rapidly,” said Pam Rubinoff, senior coastal manager at the Coastal Resources Center (CRC) and extension specialist for Rhode Island Sea Grant, both located at the University of Rhode Island Graduate School of Oceanography. “The point is that we need to treat the water at Oakland Beach while considering public safety and the quality of life.”

Rubinoff and her colleague at CRC and Sea Grant, Teresa Crean, community planner and extension specialist, are working with a consortium of state and city officials, nonprofit environmental groups, community volunteers, and environmental professionals across New England to develop and implement a simple yet ingenious plan to control and treat the stormwater runoff at Oakland Beach, a major contributor to the bacterial pollution in that portion of Greenwich Bay.

The challenge to Oakland Beach is unique in Rhode Island because it is the only municipal beach on Narragansett Bay whose pollution problem results when stormwater runoff caused by heavy rains collides with the coastal flooding that accompanies storm-related and seasonal high tides.

The result at Oakland Beach is surface rainwater that sweeps down toward the beach, picking up everything molecular in its path—fecal matter from seagulls, dogs, and rodents; gasoline and oil drippings from vehicular traffic; fertilizers from lawns and gardens; and food remnants and other litter.

In even a modest rain at a high tide, the parking lot that runs parallel to the beach floods with stormwater runoff and rising seawater. The flooding is significantly worse when storms occur during “super moon” events—a period when a full moon or a new moon coincides with the moon's closest orbital position around the Earth. This happened in October, and water easily covered half of the parking lot. The flooding will only get worse as sea levels rise and a warming atmosphere puts more water vapor into storm cells, Rubinoff and Crean said.

That collision of factors at Oakland Beach requires a novel solution. Fortunately, all of the parties say they are in sync with a common goal. And they are excited about creating a template—an effective set of steps—for how residents, municipalities, and state boards can work together on thorny environmental problems. Proving that this method works will make it more likely that other communities will approach their own environmental problems in the same way—and the collaborating parties at URI and at the state level will be primed to assist them.

Pam Rubinoff is part of a team addressing pollution and climate change impacts at Oakland Beach.





“There’s a lot of room to work with at Oakland Beach, so there are a lot of opportunities,” said Janet Freedman, coastal geologist with the state Coastal Resources Management Council. “And everyone from the mayor on down is committed to making changes there. It’s a nice beach, but if it’s closed it’s not an amenity.”

From the start, Rubinoff and Crean wanted to target problem sites in Rhode Island communities that municipal officials had already identified and monitored over a period of time. Warwick’s Oakland Beach was a natural. Aware of the runoff problem, city officials had recently engaged a construction company to work on drainage issues on Suburban Parkway, a wide and nearly half-mile-long road with a spacious grassy median between the two travel lanes.

A lot of water passes over Suburban Parkway’s acreage during a rainstorm, and a lot collects at the west end and at adjacent Strand Avenue. Finding a way to reduce that large amount of water and get more of it into the ground, where it can naturally filter as it percolates into the groundwater, everyone agrees, is crucial.

The approach is called bio-retention, said Eric

Earls, Warwick’s city engineer. The idea is to pull up unnecessary asphalt, which is impermeable, and replace it with plantings that will slow down the movement of surface water so it can be soaked up by roots or allowed to permeate the soil. Improvements at each end of the road would have a similar effect. The strategy will also be used on a portion of the parking lot, which will be redesigned using such “green” methods—without changing visitors’ desire to sit in the car and stare at the water.

Rubinoff and Crean had applied for a grant through the U.S. Department of the Interior—made available in the destructive wake of Superstorm Sandy—to study and solve the problem of colliding stormwater runoff and tidal floods, using green infrastructure techniques that had previously been used primarily only for stormwater collection and treatment. They pored over maps, databases, and aerial photographs, and reached out to municipal officials and nongovernmental organizations, including Save The Bay, that had been tracking this and related problems for years. “These issues get big very quickly,” said Rubinoff. By her hand

was a laptop computer open to an image on ArcGIS, a mapping tool that collates data from multiple sources. Visible was a crystal-clear satellite photograph of the entire Oakland Beach neighborhood and shoreline, overlaid with elevation contour lines set at two-foot intervals.

Rubinoff and Crean started work in January and put together pilot projects in Warwick, Newport, and North Kingstown. Mastering local, state, and federal regulations for coastal improvements was essential. Finding experienced professionals who know those guidelines and who have experience with green solutions to runoff was essential, too.

In addition to Warwick Mayor Scott Avedisian and the city's engineering team, the pair reached out to the state Department of Environmental Management, the faculty and graduate students at URI's Department of Landscape Architecture, members of the Rhode Island Nursery and Landscape Association, and the staff at the University of New Hampshire's Stormwater Center, whose program manager, James Houle, is a national expert on green infrastructure and other innovative approaches to stormwater management.

"The project at Oakland Beach is a demonstration of better and more effective approaches to a serious problem, approaches that we hope will be sustained over time," Houle said.

"Yes, this is one project today. But this type of collaborative effort produces not only designs for Oakland Beach but generates a lot of involvement. And we know that leads to more successes down the road. Over time, this method ingrains itself in the municipal culture of doing things.

"That's why this collaboration is so important. We need this throughout the country. Through this kind of engagement and applied science we are building a culture of stewardship."

Wenley Ferguson, Save The Bay's director of habitat restoration, agrees.

"I was excited that the city highlighted this area as a priority," said Ferguson, whose work on stormwater runoff and pollution in Narragansett Bay goes back many years.

"It's important that there is so much room to work with there and that there's a lot of community interest. It's more than a beach—Oakland Beach is a destination. It's a place Rhode Islanders can bus to to escape the city in summer. There are benches and good food. Improving on the site will have a lot of benefits and will increase the public's enjoyment of the bay."

The public has a role in Oakland Beach, as well, all parties agree.

According to Crean, Save The Bay has identified the fecal matter of seagulls as a major source of the bacterial pollution at the beach. The birds have come to expect that they will be fed—fed by people who find

it cute to show their children how to toss an oyster cracker or a bit of clam cake into the gaping beak of a quickly diving gull. Open and overflowing trash receptacles also attract gulls and land-based rodents, which contribute to the bacterial soup.

"We need to work with vendors to use covered trash receptacles," Crean said. "We need to consider solar-powered trash compactors, which have been very effective in Newport."

In time, it is hoped, that culture of stewardship will spread to residents and visitors, who would clean up their own litter and clean up after their dogs, she said. A partnership among the recreational, municipal, and scientific communities will make a major difference for the future health of the beach—especially given the rising waters of climate change and stronger storms.

"We can't say it's no use to do anything because the beach won't be here someday," Crean said. "The approaches we are developing now give us more time. We can demonstrate potential solutions for the future. It could be inundated later, but we are making the transition now."

Earls, the city engineer, is looking long term, too. He's working on a grant proposal for the New England Interstate Water Pollution Control Commission that would cover nearly a quarter-million dollars of the Suburban Parkway project. And he'll have another proposal in the pipeline, an urban-waters grant through the U.S. Environmental Protection Agency.

"So much water discharges directly out to Greenwich Bay," Earls said. "What can we do to make the runoff cleaner?" This project, Earls hopes, will answer that question.

His boss agrees.

"I'm excited about the efforts to bring green infrastructure to Oakland Beach" for improving water quality and aesthetics, as well as addressing flooding, said Avedisian, who had just returned from a national "Rising Tides" summit in New Hampshire for mayors and municipal officials on coastal flooding and rising sea levels.

Donna M. Travis is one of those residents. She's lived in Oakland Beach for 59 years and has served 11 terms on the City Council, now as president. She has lived through the hard years in Oakland Beach and has since seen her neighborhood make a significant rebound. She strongly supports the collaborative work to improve Oakland Beach, and is delighted that the volunteer Oakland Beach Association is on board.

"I have seen the ups and downs," Travis said. "This project is so important to the community and all who visit Oakland Beach. This group is wonderful, and they are so excited. Something will come out of it for our children and our grandchildren.

"Whatever it takes to make this work, we will do it."