

## An Interview with Sharon Levy

By Sue Leskiw, May 2018, Published in the Eureka Times-Standard

“When my daughter was a baby, I’d carry her around the Marsh in a backpack and point out birds to her. Her first word was “duck,” spoken during a Marsh walk!” recounts local science writer Sharon Levy. She has turned her love of Arcata’s world-renowned gem into a new book, “The Marsh Builders,” just published by Oxford University Press. And Friends of the Arcata Marsh (FOAM) and the City of Arcata are celebrating by cosponsoring a book launch extravaganza on Friday, June 8.

As long-time editor of FOAM’s newsletter, UPWIND, I have known about Sharon’s book for a few years and contacted her sporadically to discover its progress. Now that the book is a reality, I asked Sharon a few questions about the process:

Sue: Why did you decide to write a book about the Arcata Marsh and marsh treatment systems in general?

Sharon: When I moved to Arcata in 1994, I fell in love with the Marsh right away. I was working as a field biologist, tracking down elusive species like spotted owls and marbled murrelets, which hide away in dense forest. Birds at the Marsh were abundant and flying and swimming in plain view. It was so relaxing! And it helped me learn my shorebirds and ducks.

I also loved that the Marsh was part of a sewage treatment system, that it was a place where poop got recycled into habitat. The more I learned about the Marsh’s origins, the more intrigued I got. I found the story of a bunch of local citizens resisting the state bureaucracy--and winning out after years of struggle--irresistible.

Sue: When did you start the Marsh book project?

Sharon: In the late 90s, I did freelance science writing during fall and winter, when I was laid off from biology work. I wrote several magazine articles about the Arcata Marsh and interviewed most of the major players in the Humboldt County wastewater wars of the 1970s. When I tried to pitch the book idea back then, publishers basically responded “Ick. Nobody wants to read about sewage.” However, I always viewed it as a book about activism, invention, and the weird history of humanity’s impact on the planet—but I wasn’t able to sell that at the time.

So, I put that idea aside and kept freelancing. In 2011 I published a book with Oxford University Press about something completely different [Ice Age extinctions]. In 2014 I put a new marsh book proposal together. Enough time had passed that there was a lot more to say about treatment wetlands and how important they are in coping with sea level rise and the nutrient pollution that creates dead zones in lakes and estuaries. Oxford offered me a contract. So I’ve been working on this project off and on for many years, most intensely from 2015-17.

Sue: How much traveling did you do to write the non-local sections?

Sharon: I traveled to Chesapeake Bay to explore water pollution issues and found a paleoecologist who uses fossils to reconstruct impacts of water pollution caused by human land use. I went to south Florida to visit stormwater treatment areas, which together comprise the largest constructed wetlands on the planet. They were built to filter excessive

phosphorus out of farm runoff that was polluting Everglades National Park. These treatment areas are spectacular: imagine Arcata's marsh increased by a couple orders of magnitude, dense with lovely subtropical birds like roseate spoonbills, wood storks, and ibises—along with alligators, coyotes, and feral hogs. I also spent time in Florida with the author of a classic wetlands textbook. He experimented with treating sewage by running it through a cypress swamp as part of his graduate work in the 70s and is still exploring ways wetlands can be recreated to clean polluted farm runoff and store carbon to reduce greenhouse gas pollution.

I spent time in northwest Ohio and on Lake Erie. Nutrient-heavy runoff from Ohio farms causes annual blooms of harmful algae in western Lake Erie. One summer, algal toxins forced Toledo's water supply system to shut down for a few days. Wetland restoration is a promising strategy to reduce pollution but the local culture is intensely anti-wetland. Ironically, the whole region is reclaimed swamp! I made a couple trips to the San Francisco Bay area, where I visited some major wetland restoration projects. One of the most interesting will use treated sewage to water a wetland designed to protect the urban shoreline from impacts of rising bay waters.

Sue: How did you determine the balance between the Arcata chapters and the other sections?

Sharon: My idea was to have the book about half local and half global. The more global sections are expeditions I made to answer the big questions that came up in telling the Arcata story: what drove the invention of sewage treatment, how does it work, and why are wetlands good at it? What motivated the drafting of the Clean Water Act? Why and how did we lose most of the native wetlands in North America? How has the issue of water pollution evolved since the Arcata Marsh started operating? How do constructed wetlands work as wildlife habitat? My editor asked me to add a final chapter exploring the impact of Trumpism on clean water.

Sue: Please share some of the technological hurdles you overcame to hear deliberations of the 1970s Regional Water Quality Control Board. A couple years ago, I unsuccessfully tried to find you a foot pedal-operated reel-to-reel tape recorder!

Sharon: Two water board meetings were crucial to the fight against HBWA, the state-mandated regional sewage project that was opposed by many locals in the 1970s. One took place at the Eureka Elks Lodge in 1979 and I'd managed to get hold of a partial transcript years ago. The other happened in 1977 in Ukiah and the only record was an old-fashioned reel-to-reel audio tape. I traveled to Santa Rosa to water board's office to listen to it, but the agency no longer owned a 70s-era reel-to-reel player. I then found a great guy in Santa Rosa who took the reels and transferred the audio to CDs. The sound quality was very distorted and sometimes impossible to make out what people were saying. But it turned

out to be an important resource for me. It was impressive to hear the level of passion people were expressing in this long, sweaty bureaucratic hearing on sewage treatment—and on what then seemed like Arcata's impossible dream of using wetlands to treat sewage.

Sue: Could you relay some anecdotes about your interactions with the Marsh? You've been

a Marsh docent since 1994!

Sharon: This is a bit hard to answer--like thinking of anecdotes about what has happened in my backyard or my living room. I remember the first time I saw a peregrine hunting over the crowds of shorebirds gathered on the islands in Klopp Lake. Watching a family of otters at play in Gearheart Marsh. The time my dog pointed out a baby harbor seal resting on the Klopp Lake dike. Seeing the pickleweed start to grow in the restored saltmarsh on the bay side of the brackish marsh. There have been wonderful moments when I've been leading Marsh tours and showed people birds through my spotting scope. Many have never seen birds in that intimate way before and they loved it. One of them started quietly crying—because the beauty of what she saw hit her that way.

Sue: How do you see the future of the Marsh?

Sharon: It's hard to predict. The Marsh and the entire sewage treatment plant is likely to be drowned by rising sea levels, though it's impossible to know exactly when. I don't know how long the Arcata Marsh as we now know it will endure. But it has contributed to a major movement toward recreating the wetlands we humans spent so much energy destroying over the past 200-300 years.