Headline: Community members share how they help the reservoir 11/10/2022

By: Alexa Leon, Karina Kumar, Jessica Garcia, Alyssa King

Annie Palmer took her dog, Arnold, for a walk every morning. The last time Palmer and her chihuahua visited Red Bud Isle, an off-leash dog park on the water, was June 28. After Arnold splashed in the lake and jumped in the back of Palmer's car, she noticed something was wrong.

"He wasn't able to hold himself up and his eyes just looked tired," Palmer said. "Later that day I took him to the vet and they said it was from the water."

Arnold did not come home that day.

The vet told Palmer that her dog had gone brain dead, due to the toxic blue-green algae present in Lady Bird Lake. Arnold was one of eight cases of blue-green algae killing dogs in Austin this past summer.

"I had him in my lap for an hour crying after they euthanized him," Palmer said.

Red Bud Isle is an extension of Lady Bird Lake, a gem of downtown Austin. Although the lake, actually isn't a lake at all. It's a reservoir built on the Colorado River. Despite a 1964 ordinance that banned swimming in the water, it's still an iconic spot for Austinites and out-of-towners.

In recent years, there has been an increase of pollution in the reservoir. Chemical runoff from improper disposal of animal feces and fertilizers has caused blue-green algae to bloom. Overgrown cabomba – a plant that produces oxygen and food for aquatic life – traps trash in its stems. Lady Bird Lake is also now at "high risk for bacteria contamination" because of the nearby septic systems and groundwater chemistry.

These pollutants have increased the number of parasites and bacteria in the water, killing eight dogs and creating the infamous "swimmer's itch."

Communities and individuals created a number of small, but potent, solutions to fight back against pollution.

The Rowing Dock

One person's trash is another person's free hour in a kayak at the Kayak Cleanup Crew program.

Kate Aoueille, director of marketing and communications at the Rowing Dock on Lady Bird Lake, created the program, which encourages volunteers to pick up trash in exchange for a free hour of recreational boat use.

"I think combining something that has always been recreational with something that's doing good and volunteerism has been like a really sweet spot for us," Aoueille said.

When attending the weekly, or biweekly, depending on the season, Kayak Cleanup Crew volunteers get a kayak, gloves and trash bags. For their two-hour shift, they are asked to pick up "as much trash as humanly possible," Aoueille said.

For every full bag of trash a volunteer brings back, they get an additional free hour of kayaking, paddleboarding or canoeing.

Aoueille said she was prompted after seeing a trash buildup during the peak of the pandemic, likely caused by people spending more time outside.

"It kind of got our wheels turning about how we could engage and get involved in this," Aoueille said.

It started on Earth Day in 2021. During the event, volunteers could choose between a land cleanup or a water cleanup. At the end of the day, the Rowing Dock measured 6,000 pounds of trash picked up, Aoueille said.

"We had just so much participation from every different type of person from young kids to college students to corporate employees," Aoueille said.

Aoueille said she thinks the program has been a success. The Rowing Dock has clocked in 2,866 volunteers and 14,450 pounds of trash since the Earth Day launch.

"It's honestly been an incredible initiative, and something that we feel super passionately about as an organization," Aoueille said.

Buffalo Bayou

David Rivers trolls the Houston Buffalo Bayou looking for trash every day. He never fails to find it.

The 53-mile long body of water flows through the city and out to the Gulf of Mexico, carrying the pollution with it.

Known as Bayou Dave, Rivers sets out on a small, rusty barge blotched picking up trash. He is on a mission to bring the bayou back to its original beauty.

"This is my office," said Rivers as he pointed to the landscape. "It almost has a calming effect on me, but that's until I see the trash."

For the past 12 years, Rivers has been a Buffalo Bayou Partnership employee and pilots a trash-sucking barge.

The debris is collected in booms — floating barriers that are set up by Rivers and his team. The specially invented "bio-vac" has a large vacuum that collects and compresses the trash from the bayou in the center of the barge. According to Rivers, the barge can pick up the equivalent of 12 full-sized pickup in a day.

"The bio-vac is super effective," Rivers said. "What used to take three days to clean out a floating boom now only takes about 45 minutes."

Although the bio-vac speeds up the process, Rivers said he and his team can't keep up with the trash in the water. Over 200 square miles of Houston's streets drain into Buffalo Bayou, and with the city's population of over 2.2 million, Rivers said the debris has only increased.

"Whenever I see people littering, I do get mad, but at the same time they don't think about where it'll end up," Rivers said. "Unlike them, I get to see it in its totality. That's why I do the videos, so people can see where their 7-Eleven cups end up."

Rivers records a video series where he shows piles of debris along the bayou and ship port. He uploads the videos to the Buffalo Bayou Partnership YouTube channel, where Rivers hopes they will make people think before littering.

"I think anyone can be an environmentalist, and all it takes is recognizing there's a problem," Rivers said. "My goal is not just picking up trash but making sure other people are aware of their actions"

Save our Springs Alliance

Unlike those out on the water, Bill Bunch protects the rivers, springs and creeks from a seat in a courtroom.

Bunch grew interested in environmental law while clerking at a law firm during his summers before taking the bar exam. At the Austin firm, he admired lawyers working for the green of the environment rather than the green money of "industry or development interests," he said.

He became an environmental attorney and helped spearhead the Save our Springs Alliance, an Austin nonprofit organization that has fought the city and developers for the past 30 years.

"We have a long legacy of protecting the lake shore and ordinances on the books," Bunch said.

A community uprising against a huge plan for the Barton Creek watershed triggered the Save our Springs movement, Bunch said.

Decades later, the alliance is still fighting against developments. This time, a proposed expansion of the city's downtown area that could harm wildlife habitat, water filtering and public park space around the lake, Bunch said.

Bunch said he recently attended city council meetings to oppose the plan.

"Quite often, we think about losing the rainforest and environmental changes far away," Bunch said. "But it's right here at home."

The coalition cites recent victories such as preventing cities from dumping their wastewater in nearby waterways and working with developers to ensure land and water quality standards.

Now on the group's to-do list is enlisting more people and making water pollution a bigger concern in local politics, Bunch said.

"They don't understand how it works," Bunch said. People need to know "what the threats to the springs are and what we need to be doing as a community to protect them."

Keep Austin Beautiful

Kiana Pastrana, an environmental educator, spends her days fighting algae.

She teaches Austin's youth about immediate environmental issues that plague the community, and especially the blue-green algae in Lady Bird Lake.

"It is important to understand environmental issues within your community and immediate surroundings. These educational programs are a great resource and opportunity for Austin's youth," Pastrana said.

Pastrana works for Keep Austin Beautiful, an organization funded by the city that conducts weekly community cleanups. Within the organization, she serves as the program coordinator for the third through eighth grade educational program, called Clean Creek Campus.

An Austin native, she grew up with an appreciation for the city's greenery and unique landscape. Pastrana received her degree in environmental studies from Southwestern University in 2020 and now teaches up to five classes per day through Clean Creek Campus.

The program offers educators an in-class lesson about watersheds, litter lifelines and a field trip restoration project at a local creek.

"At our projects we do litter cleanups and make and throw seedballs," Pastrana said. By checking for tiny, spineless bugs in the water, also known as macro-invertebrates, the health of a creek can be indicated.

Pastrana said that programs like Clean Creek Campus were formed to encourage the youth to do restoration work in their communities, and feel accountability and pride for their local environment

Pastrana said that Clean Creek Campus is not only a resource, but an opportunity for the new generation's future.

"In this day and age of social media and an oversaturation of daunting climate news, we do our best to narrow students' scope to a local level," Pastrana said. "It allows students to feel less overwhelmed about environmental issues."

Pastrana said that she hopes Clean Creek Campus will prepare future generations to avoid the environmental issues that Lady Bird Lake currently faces.