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Tom Killeen retires after 34 years of service to the state

Friday, June 3, will mark Tom Killeen's last day with DEQ. Killeen, administrator of DEQ's Inspection Division, has been with the state since 1982, when he was hired -- after a series of interviews starting in late 1981 -- by the Louisiana Department of Natural Resources.

Killeen was hired as an inspector in the Compliance Assurance Unit, Surveillance Section under the Water Pollution Control Division of the Office of Environmental Affairs. There, he conducted surveillance and compliance inspections at both permitted and unpermitted facilities, investigated fish kills, incidents and complaints, and collected ambient water quality samples. When DEQ separated from DNR as a distinct agency in 1984 during the administration of Gov. David Treen, Killeen was one of the original DEQ employees who participated in that transition.

Moving up to supervisor in 1986, then program manager in 1989, Killeen worked his way up the ranks in water quality management and waste water permit capacities until his most recent promotion in October 2012 to administrator of the Inspection Division. As administrator, Killeen oversaw all statewide inspection activities assigned to the division within DEQ's regional offices. This included compliance inspections and investigations of regulated and unregulated facilities and pollution sources, compliance sampling, statewide response to citizen complaints of releases and chemical spills, watershed investigations and ambient water quality monitoring.

Killeen was also tasked with coordination and implementation of technical standards and grant commitments with EPA, maintaining operating procedures, resource allocations and other endeavors necessary to assure compliance with state and federal regulations.

A New Orleans native, Killeen graduated with a Bachelor of Science in wildlife biology from Northwestern State University in Natchitoches in 1979. During that time, he worked as a deckhand and Coast Guard-certified tankerman during the summers, before gaining experience with the U.S. Forest Service and as a research assistant. He then earned a Master of Science in zoology with thesis research in ambient water quality and aquatic invertebrate taxonomy from NSU in 1981.

But it was his experience on tugboats that stood out and probably got his foot in the door with the state.

"The Water Pollution Control Division administrator at the time, Dale Givens, was particularly interested in that part of my resume as the agency had just received funding approval to purchase two 50-foot long crew boats to conduct surveillance activities along the industrial corridor along the Mississippi River," Killeen said.

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Killeen's strong science-based education and hands-on experience on boats provided the background and insight that was needed in a water quality inspector – particularly as a team member in a fairly new environmental regulatory agency.

"As a young inspector, I always conducted thorough investigations. I took great pride in aggressively pursuing water pollution violators," Killeen said.

He enjoyed the enforcement side of the mission, defending the Clean Water Act and representing the agency in court when called upon. With those tools at his disposal, Killeen maintained his stern defense of environmental law when he was promoted to manager of the Water Pollution Control Division Enforcement Program in February 1989. "Upon becoming manager, I instituted a three-strike rule. You had two chances to clean up your mess before we came down hard. If after two warnings a company failed to fix their problems, they were receiving a monetary civil penalty, period."

Tom Killeen holds a plaque featuring a 1980s-era logo from the Louisiana Department of Natural Resources -- his first employer with the state of Louisiana.

Seeing his fair share of positives and negatives over the years, Killeen is particularly proud of his role in helping to calculate, issue and defend civil penalties against violators of the Clean Water Act. His work in putting together a $2.8-million civil penalty against a business in St. Mary Parish in the early 1990s, assuring that the penalty was issued, defended and upheld in an Administrative proceeding was validation that thorough inspections and aggressive enforcement play a pivotal role in bringing violators to justice.

Forgoing terminal leave, Killeen plans to work through his last day – Friday, June 3 – followed by a several month decompression phase as he settles into retirement. This will be marked, however, by an early Monday morning fishing trip in Grand Isle to quietly take in his first official non-work day.

His future plans are to continue backpacking deep into national parks and wilderness areas with his wife, Aimee´, and any friends they can convince to come along and "rough it," hone his woodworking skills and tackle some house projects that have been on the "to do" list.

And with that, Killeen reflects back on time well spent:

"So much has changed over the years, primarily with technology and our ability to do so much more with less. We were lucky to have leaders, such as Dale Givens, with the foresight to pursue program delegation from EPA and to invest in technology -- GIS, TEMPO and EDMS.

"The ability of the agency to fulfill our mission has and will always depend on the hard work and professionalism of staff at all levels. A passionate staff, well versed in statutes, regulations and operational procedures and being led by experienced, dedicated executives was the agency I broke in with 34 years ago and is the agency I leave today. I have been very fortunate and extremely blessed to have had the opportunity to serve the state that I love so dearly and intend to recreate in for many years to come."

Killeen's career spanned the life of the agency, and he touched the lives of coworkers, stakeholders and members of the regulated community during his tenure here. He will be missed. All of Killeen's many friends at LDEQ are invited to come to the Oliver Pollock Room at 2 p.m. Thursday, June 2, for a party to wish him good luck and happy retirement.

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Message from the Secretary

Chuck Carr Brown, Ph.D.

Employees waiting in line for ice cream and popcorn visit with Dr. Brown.

On May 4, LDEQ observed Employee Recognition Day. The executive staff and I provided popcorn and ice cream --Louisiana ice cream from the LSU Dairy-- for all the employees at the Galvez Building. Additionally the executive staff made a YouTube video and sent it out to the employees at the regional offices (https://youtu.be/vquTgZZo7Gw). Employees in the regional offices also received a special treat provided by the regional managers.

All these efforts were expended for one purpose: to let the employees at LDEQ know how much we appreciate them and the good work they do. We have a professional, well-trained and highly educated staff that works diligently to preserve the state's environment on a daily basis. Each and every person at LDEQ is vested in our mission to protect the environment and human health. One of our agency's core values is to take pride in your work. I have observed a commitment to this value since I became Secretary in January.

It's been a busy month at LDEQ. The Legislature is in session, and the executive staff and I have been spending a lot of time at the Capitol. Several bills that impact the agency are in progress. The session closes June 6, and next month I will fill you all in on how the recently passed legislation impacts us.

Funds have been approved for the purchase of the new MAML, and I am excited to be able to expand our mobile air monitoring capability. With the addition of the brand-new mobile lab, the agency will have two fully equipped, state-of-the-art vehicles to respond to action sites and carry out our mission. We hope to take delivery of the new MAML by early fall.

The communications section will be working with a consulting firm to redesign the agency website. The goal is to make the site more user-friendly, easy to navigate and logical. There is no completion date on the project yet, but it will begin soon.

I will begin a series of visits to the regional offices on June 23. I will be at the Lake Charles and Lafayette offices that day. I am looking forward to meeting as many employees as I can.

Finally, I want to commend and thank the volunteers who help with recycling in the Galvez Building each week: Ellen Peneguy, Evan Bordes, Minta Canelas, Liz Hill, Michael Defley, Ereene Barry, Sunshine McManus, Tanya Byers, Curt Auzenne, Dana Cefalu, Bridget Rogers, Judy Schuerman, Chris Ratcliff, Kyle Poulicek, Ashley Broom and Greg Waldron. Good job!

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Linda Brown Hardy receives STEM Award at the STEM Expo in Baton Rouge

"I never expected this award. I thought I was picking up an award for DEQ," Linda Brown Hardy said. "I was totally surprised and pleased." Hardy, DEQ Environmental Scientist Senior, was talking about an STEM Education Champion Award she received at the recent Kenilworth STEM (Science, Technology, Engineering and Math) Expo held at the Baton Rouge River Center.

Linda Hardy with her STEM Education Champion Award

The STEM Expo is a venue for middle school students to present projects for judging. This year more than 20 schools attended, in addition to some home school and charter school students. Hardy had a booth there and has been involved with the Expo for several years.

Hardy has been in charge of outreach, education and the Environmental Leadership Awards (ELP) for eight years. She, with the help of other employees, sets up classes, subjects and venues for DEQ's Enviroschool – outreach and education program. She works with schools, municipalities, local governments, nonprofits and individuals to become members and submit projects to the ELP Award Program. She procures and staffs booths for Earth Day, the STEM Expo, conferences, ChemFriends and more. Hardy conducts demonstrations at schools upon request and spearheads many other events and activities. The outreach and education activities encourage environmental stewardship among students and the public, while promoting DEQ's mission to educate the public and protect human health and the environment.

Hardy, who has been with DEQ more than 25 years, has worked in many areas of the department including solid and hazardous waste and air assessment. She has a Bachelor of Science in microbiology from Southern University and a master's degree in immunology from Louisiana State University.

DEQ volunteers mix and stir paint collected at the Ascension Household Hazardous Material Collection Day.

Ascension Parish collects Household Hazardous Material from residents

Ascension Parish held their Household Hazardous Materials Collection Day on Saturday, May 14 and it was a huge success. The volunteers served and collected from 407 cars – nearly doubling last year's participation.

DEQ volunteers manned the paint swap in which used cans of latex paint are combined in five-gallon buckets making many interesting colors for reuse. This year they mixed 108 five-gallon buckets paint. Twenty-four members of the DEQ staff showed up to help sort, open and mix the paint. Ascension Parish uses the paint for various projects.

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Air monitoring stations throughout state undergo weekly checks by DEQ

DEQ maintains 37 air monitoring stations across the state, and environmental scientists from the Airfield Services Division inspect those monitors on a weekly basis. Real time air monitoring data is extracted from the stations and fed into a database that is available on DEQ's website for public view, and all of the stations undergo physical inspections by DEQ staff to ensure the equipment is running properly.

Mary Arnold, environmental scientist based in the Southwest Regional Office in Lake Charles, is one of several technicians involved in those hands-on inspections. Arnold, a 16-year veteran with DEQ, is assigned to cover four air monitoring stations located in and around the Lake Charles metro area: Westlake, Vinton, Carlyss and Lighthouse Lane.

Environmental Scientist Mary Arnold reviews and records data at DEQ's air monitoring station in Westlake.

Stations are visited about twice a week to ensure the air sampling machines are properly calibrated, ambient air readings are accurate and equipment is in working order. The environmental scientist visiting the station records calibration and monitoring data on both the logbook and control sheets. Summa canisters, silver cans that grab and store air samples, are swapped out during the visits, with filled canisters going to a lab in Houston for analysis. It typically takes about four weeks for results to come back.

Every six days, an air sample is pulled and stored in the summa canisters, with the process running continuously for a 24-hour period.

Each station across the state gathers a unique set of data based on that station's physical location, proximity to industry and any frequent weather conditions that may be present. "Vinton's site gathers ozone and particulate matter, known as PM 2.5," Arnold said. "The PM 2.5 sampler pulls a sample on a 24-hour cycle every three days." During site visits at stations that gather PM 2.5 data, the technician will remove the filter for off-site analysis. New filters are programmed into the monitor, with the process repeating each week.

Any exceedance in ozone, NOx (mono-nitrogen oxides such as nitric oxide and nitrogen dioxide) or elevated readings for sulfur dioxide (SO2) are reported, and any trends or spikes in the readings are used to determine corrective action. That could mean an adjustment to an air emissions permit at a nearby facility, a potential alteration in industry work practices, or both.

While many stations monitor for ozone (such as the site in Carlyss), some gather only specific data based on where the station is located. For example, the Westlake site monitors for SO2, NOx, PM 2.5 and Volatile Organic Compounds (VOCs), as it's located in a high-traffic zone across the street from industrial plants.

Equipment in the stations typically includes a group of summa canisters which collect the air samples, an ESC 8832 data logger, meteorological towers, and associated equipment specific to what the station monitors for. A methane/non-methane analyzer (which measures volatile organic compounds in the air) will trigger a sample to be gathered and stored.

A Tapered Element Oscillating Microbalance (TEOM) is a monitor that measures PM 2.5 on a continuous cycle. Other monitors in the station may gather data on ozone, SO2 and NOx.

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The summa canisters are designed for handheld use in the field as well and are handy for grabbing air samples in certain locations. While they are generally housed in the air stations to collect air samples through the various machines, they have been used outdoors a great deal. Once samples are gathered, the canisters are sent to a lab where the contents are analyzed before they are readied for re-use and returned to DEQ. Approximately 50 canisters a week typically are processed, but the number can be much higher during hot summer months when VOCs are higher, causing ozone concentrations to be higher.

Arnold removes a filter from a monitor that gathers particulate matter (known as PM 2.5) before inserting a fresh filter at the air monitoring station in Vinton.

When a specific area needs attention from an air quality standpoint, such as an ongoing release or a public concern regarding odors, the Airfield Services Division will deploy the Mobile Air Monitoring Laboratory (MAML) in order to conduct an air assessment. The MAML is a high-tech Winnebago outfitted with state-of-the-art air monitoring equipment that gathers data on the spot for analysis. Should the need arise, the MAML can be sent nearly anywhere statewide to address air releases. The MAML is outfitted with a gas chromatograph mass spectrometer, which is used for the analysis of volatile organic compounds (VOCs) and for the identification and quantification of dozens of other compounds. “The MAML’s capability allows us to analyze air samples for many potentially hazardous organic compounds, which are collected by our environmental scientists in the field by using summa canisters,” said David Wagenecht, DEQ Environmental Scientist. “Air samples are collected in the canisters and delivered to the MAML for analysis. Within an hour, results from those samples can be seen and after a thorough evaluation process, we can fairly quickly determine what constituents and quantities are present in the air. This capability has expanded our air analysis mission and streamlined the collection and evaluation time.”

For more information about the MAML and air monitoring, visit: http://www.deq.louisiana.gov/portal/PROGRAMS/Air.aspx.

DEQ staff participate in oil spill drill in Lafourche Parish

On May 3, personnel from the Louisiana Department of Environmental Quality, along with representatives from various environmental response organizations, as well as local, state and federal agencies, gathered at the Larose Civic Center in Lafourche Parish for participation in an oil spill drill conducted by Louisiana Offshore Oil Port, LLC (LOOP).

Cindy Gardner-LeBlanc, liaison officer with LOOP LLC, provided updates during the exercise.

LOOP is a Louisiana-based company whose role is to ensure safe offloading of crude oil from tankers, proper storage of that oil and its transportation through pipelines to refineries throughout the Gulf Coast and Midwest. Each year, LOOP holds an oil spill drill to bring stakeholders together and test the facility’s responsiveness in the event of a release.

Cindy Gardner-LeBlanc, liaison officer with LOOP, provided introductions, stating that participants who diligently pursued the execution of their responsibilities cannot fail. She then gave the go-ahead to unseal and review the oil spill scenario from the participant guidebook, and the drill was officially underway.

The scenario involved a crude oil leak that was discovered under a pumping platform. The cause was unknown and one minor injury to a worker was reported.

After reviewing the incident details, the Unified Command System was quickly initiated and staffed to coordinate the response effort. This included organizing personnel, managing the logistics and identifying resources all the way down to administrative functions such as public information and the financial/billing questions that pertain to incident assessment, cleanup and post-cleanup operations.

DEQ Environmental Scientists Jeff Dauzat (left) and Victor Hernandez review response plans during the drill.

All of the participating organizations worked throughout the day to address the event as they marshaled resources and personnel to stop the leak. The focus of the exercise was for the participants to communicate with each other and make sound decisions on short notice in order to develop an incident action plan to ensure for the safety of human health and the environment. Response teams were formed and each was tasked to a specific role, such as command, operations, logistics, planning, public information, finance and various support functions.

In addition to DEQ public information and emergency response personnel, participants included representatives from the U.S. Coast Guard, the Louisiana Oil Spill Coordinator's Office, the Louisiana State Police, Lafourche Parish, the Louisiana Department of Wildlife and Fisheries, the South Lafourche Levee District, the Louisiana Offshore Terminal Authority, Port Fourchon Harbor Police, the Greater Lafourche Port Commission and several contractors, consultants and guest organizations.

"Training is vital to the overall learning process, and drills such as these are critical in bringing various agencies and organizations under one roof to facilitate the sharing of expertise, ideas and resources under the Unified Command concept," DEQ Environmental Scientist Staff Jeff Dauzat said. "Pooling these capabilities together allows for a smarter, quicker and safer approach."

Throughout the drill, DEQ (serving as lead scientific advisor to the Louisiana Oil Spill Coordinator's Office – the state on-scene coordinator) participated in briefings related to response strategies and media inquiries.

In a mock press conference at the end of the day, Unified Command spokespersons fielded questions from media role-players in the audience, and the drill concluded with comments from LOOP staff along with video messages from each of the multi-agency response teams.

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Southeastern Louisiana University Promotes Sustainability Practices

At Southeastern Louisiana University in Hammond, the use of sustainability, conservation and recycling practices was grown in prominence over the last few years. During the campus' Earth/Sustainability Awareness Week last month, tours of the Sustainability Center were held.

"WHY" displays, featuring recyclable materials, are designed to engage students in the importance of recycling and sustainability.

The Sustainability Center includes a complex of greenhouses and buildings on the northeastern side of the campus. This includes the outreach classroom, which was designed as a collaborative effort between the physical plant and several academic departments. It is a new educational facility where students of all ages can learn about water conservation and energy reduction practices. The building was designed with pro-environmental construction and energy savings in mind. As an energy efficient alternative to conventional climate control, the classroom features a pond-loop geothermal system that includes a water-based condenser that cools and heats the room.

"The geothermal system is part of the rainwater retention pond near the classroom," said Carlos Doolittle, manager of Southeastern's Landscape, Grounds, and Recycling Department. "Another retention pond at the center collects rainwater for use in plant and tree irrigation and recaptures the irrigation runoff."

Southeastern University's Environmental Education Development Outreach classroom serves as a training and educational center.

Doolittle explained how the classroom is also equipped with a water collection cistern, wind turbine and solar panels. "The cistern water is used for flushing the toilet and for irrigation of the landscape of native plants outside the classroom. The wind turbine and solar photo-voltaic panels generate electricity, while solar thermal panels demonstrate how to capture heat from the sun to save energy used for processes requiring heat."

Under the U.S. Green Building Council's LEED (Leadership in Energy and Environmental Design) certification program, buildings such as the classroom are evaluated for meeting nationally accepted criteria for design, construction and operation under a high performance green standard. Points are awarded as a project meets a ranking, such as certified, silver, gold or platinum.

"We are in the process of applying for LEED certification for the classroom, striving to achieve the gold standard as we aim for platinum," Doolittle said.

Solar thermal panels, ubiquitous on campus, are also playing a big role in energy savings. Panels atop the kinesiology building provide heated water for the building, including the nursing building and the campus pool. Panels are also on the biology building, and more are being installed at a residential hall with the plan to install even more in the future.

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Bill McIntire, with Southeastern's Landscaping, Grounds and Recycling Department, places recyclables into a container in front of the Environmental Education Outreach classroom.

Upgrades in the campus' energy management system leading up to 2010, coupled with a shortened work week, enabled savings of $1.2 million in that year alone. System improvements included temperature control refinements and the implementation of an approval process to regulate requests for heating and cooling of buildings during off-hours.

To reduce litter, the university has an extensive single-stream recycling program where paper, plastic, aluminum, tin and steel are collected. A Keep Louisiana Beautiful grant provided 22 blue recycling cans that accept plastic bottles and aluminum. The cans have been distributed along the campus' busier pedestrian areas.

Desk-side recycling containers are located in many campus offices, and cans are collected weekly by Southeastern's Landscape, Grounds and Recycling department. Cardboard is recycled through collection locations near campus buildings.

The program continues to see positive results. Since the first compactor was installed on campus in July 2012, more than 133 tons of recycling material has been collected.

"We are also collecting used appliances and building up a program that will offer students the opportunity to purchase those at a discount," Doolittle said. "Reusing those appliances also keeps them out of landfills, reducing our waste stream."

Recycling printer cartridges is another endeavor. The campus can receive up to $180 per pallet of used cartridges through PCR America. That money goes into an expense account that helps to support the university's ongoing sustainability operations and other campus projects.

The goal is to reduce campus waste going to landfills by 80 percent – a goal which was recently lauded by the West St. Tammany Chamber of Commerce. In 2013, the Chamber awarded Southeastern an Environmental Steward Award in recognition of the university's multi-faceted sustainability program.

Keeping the momentum going through campus-wide participation in recycling and sustainability will continue to be the goal as each semester brings new students to the campus. For more information, call the Southeastern Louisiana University's Physical Plant at 985-549-3333 or email Carlos Doolittle at Carlos.Doolittle@southeastern.edu.

Blue recycling cans are positioned next to trash cans across campus as a way to promote recycling by giving people an immediate choice in where to place their discarded items.

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Volunteers from DEQ participate in canoe trip for McMains Children's Developmental Center

Volunteers from DEQ observed a yearly tradition on April 30. The group marked the 17th Annual McMains Children's Developmental Center canoe trip, which took place at Tickfaw State Park in Livingston Parish.

McMains is a agency in Baton Rouge that provides a variety of therapies to physically disabled and developmentally delayed children, promoting independence and therapeutic treatments designed to improve their lives.

The canoe trip provides the children and their families an opportunity to explore a Louisiana waterway from inside a canoe. Many have cerebral palsy, developmental delays or other physical disabilities that make the prospect of riding in a canoe a rarity. Volunteers at this event turn that rarity into reality. "Because many of the children attending the event use walkers and wheelchairs, this event is an opportunity for them and their families to enjoy a part of Louisiana's outdoor life they might not otherwise have access to," said Al Hindrichs, DEQ senior environmental scientist and event co-organizer.

Al Hindrichs gives a safety and logistics brief to the volunteers before the 11 a.m. start.

Hindrichs and his wife, Anne, have been actively involved in organizing the event since its inception in 2000. Anne is a social worker as well as McMains' Director of Programs and Services. Staff from McMains assist the children into the canoes, often using the specially configured canvas chairs designed by LSU engineering students. Fixed into the center of the canoe, the chairs allow children to sit comfortably and securely. As the child is seated, two canoers hop aboard and the canoe is launched by DEQ employees Thomas Payne, Al Hindrichs and their helpers.

Purple and gold chairs created by LSU engineering students are designed to fit securely into the middle of a canoe.

Canoes were sent out for a 20- to 30-minute round-trip paddle along Gum Bayou, a scenic extension of the Tickfaw River inside the park. Positioned at different points along the route were teams of volunteer lifeguards, who guided everyone along the route and pointed out obstructions.

At least 20 canoes were sent out before noon, when the event was unfortunately cut short for safety reasons due to the threat of thunder, lightning and approaching rain.

Inclement weather aside, more than 70 children, siblings, parents and caregivers were able to go out on the water and experience a dose of springtime fun, under low humidity and cool conditions.

At least 57 volunteers were on hand, including five current and five retired DEQ employees and their family members, serving in a variety of roles. Aside from paddling and lifeguard duty, tasks included

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DEQ employees Thomas Payne (left) and Al Hindrichs (right) help to launch a canoe into Tickfaw's Gum Bayou.

clearing the route of obstructions, off-loading/loading canoes, helping McMains' staff seat the children, tracking the canoes and manning the registration table. Former DEQ employee and longtime supporter Mel Landry provided cases of water for the canoers.

Cody Westmoreland and his staff at Tickfaw State Park have hosted the event since 2005, providing canoes, paddles, life jackets and free admission to the park. Atmos Energy, a new corporate sponsor, provided jambalaya, hamburgers, drinks and snacks. BASF, a sponsor since 2001, continued to support the event with volunteers.

Students from St. Joseph's Academy, Catholic High School, East Ascension High School and Louisiana State University lent a hand, as did representatives from Baton Rouge Kiwanis, the Capital Area United Way and the National Oceanographic and Atmospheric Association.

"This year's event and all previous events could not have happened without the strong support of our volunteers," Hindrichs said. "I can't thank them enough, especially our volunteers that return year after year, for their service to the children and families of the McMains Children's Developmental Center."

The event is held annually, usually on a Saturday in late April or early May. New volunteers are always needed and welcome, so to learn more, contact Al Hindrichs at Al.Hindrichs@la.gov.

For more information on McMains Children's Developmental Center, visit their website at: http://www.mcmainscdc.org/index.php.

Ripple Effect hosts the Bayou Day Celebration

If you want to teach children about the environment, there can be no better classroom than the great outdoors. The people at Ripple Effect in New Orleans know that, and so they hold their annual Bayou Day Celebration along Bayou St. John at Orleans Avenue in New Orleans.

"We don't ever want to get so deep into it that we forget that the reason we do what we do is because of places like Bayou St. John and places like Lake Pontchartrain," architect Aron Chang said. "We want to protect those and protect the community. So we want to periodically get out of the standard testing, the nitty gritty of clay and sand that those things are and take a moment just to see outside and enjoy. "

A banner explains why water is the defining element of New Orleans.

The event is the crowning achievement of the program that aims to increase water literacy in children in kindergarten through fourth grade. Program sponsors gather on the greenspace along the bayou

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Children gather to see what things naturalists' dip nets have captured from the bayou.

Sarah Michaels dips "mosquito fish" into a tank for her Bayou Day display.

bayou in May and present displays. For a group of children gathered around Sarah Michaels' display, the draw was simple: turtles – little red-eared sliders in a clear plastic tank. Michaels, an entomologist with Mosquito, Termite & Rodent Control for the City of New Orleans, explained that the turtles help with mosquito control. So do the little minnows called "mosquito fish," which she had on display in another tank. A third tank held mosquito larvae. Children lined up to suck up the larvae with a turkey baster and squirt them into the tanks with the turtles or the fish where the bad bugs were promptly eaten.

Other displays included hurricane evacuation tips from a non-profit agency, Evacuteer, that is working to make sure the mistakes of Hurricane Katrina are never repeated. A group of naturalists armed with dip nets and water scopes also drew curious youngsters. The naturalists pulled samples from the bayou, showing the children minnows and small organisms. The occasional aluminum can also found its way into a net, reminding all present that much work needs to be done to inform people about keeping the waterways clean and healthy.

Cans or no, the sparkling water under a blue sky with just a scattered meringue of clouds was inviting to many attendees. They wound up on paddleboards or in kayaks floating from bridge to bridge. It's the water that defines Bayou Day and it's the reason for Ripple Effect.

Ripple Effect began as an experiment in Claire Anderson's fourth grade classroom at KIPP Central City Primary in New Orleans. Anderson met Chang through friends and got to know about some of the water issues in New Orleans. She invited Chang and a couple of other designers from Waggoner & Ball Architects to join her in the classroom to figure out ways to teach water environmental issues to her students.

"The main issues that we are concerned with – pollution is definitely one of them –flooding, subsidence," Chang said. "What happens when it rains, where does the water go? Out of that we developed an idea that this is something – water literacy – that everyone here needs to know. We developed the idea that everyone growing up here in New Orleans needs to understand the basics of where the water comes from, where it goes and how it relates to the land."

That led to an academic solution.

"The Sewage and Water Board was kind enough in 2014 to give us a grant to take that single test in one classroom and expand it to – we worked with five teachers – and started testing this on a larger scale, K through primary. Since then we've gotten additional funding from the EPA. Right now we are expanding to multiple schools," Chang said.

The EPA grant, $125,000 a year, is a recurring grant. About a quarter of it is "re-granted" to other groups doing similar things, Chang said.

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The Ripple Effect material is incorporated into the general curriculum, Chang said. “All of the curriculum is aligned to national science standards. The idea is to make sure it’s not just an after school thing or something that gets stripped away when teachers run out of time. It’s meant to be something that teachers can teach in their normal school year in replacement of units they already have.”

“For example, if in earth science units, you are learning about earth science generally, through Ripple Effect, you learn how to teach it based on local issues. Through engaging with local sites, the places kids see every day, they learn about the larger issues they have to learn in a science anyway.”

Students answer exam questions tailored to local sites that they see every day around New Orleans, Chang said, places like sunny Bayou St. John.

For more information, visit the website at www.rippleeffectnola.com or email hello@rippleeffectnola.com.

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DEQ On The Move

DEQ environmental scientists Linda Brown Hardy (left) and Marissa Jimenez demonstrate Enviroscape – an interactive model showing the sources of nonpoint source pollution. They helped 750 students learn what non-traditional sources of pollution are and what they can do to help prevent it.

Linda Hardy and Marissa Jimenez, DEQ environmental scientists, demonstrate kitchen chemistry for the Broadmoor United Methodist Girl Scout Troop.

DEQ environmental chemical specialist Vennetta Hayes (left) and Ann Shaneyfelt (middle), Executive Director of Louisiana Clean Fuels, appeared on the WBRZ 2une In program to discuss air quality, its causes and prevention with Kylie Dixon, WBRZ reporter. Their appearance was part of Air Quality Awareness Month in Louisiana.

DEQ Southeast Regional Office receptionist Samuel Rigby, singing center, performed at JazzFest on April 23. Rigby works through the Jefferson Parish Council of Aging and is an R&B artist. At JazzFest, he performed with the Bobby Cure Band, Clarence Henry, Al "Carnival Time" Johnson and Robert Parker.

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Employee Appreciation Day at DEQ

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Who's Who At DEQ?

Theresa Chatelain – Accountant Administrator - Office of Management and Finance

Chatelain graduated from Louisiana State University with a Bachelor of Science in accounting in 2006 and from LSU Paul M. Hebert Law Center in 2009 with a Juris Doctor. She is a licensed Louisiana attorney. After graduating college, she began her career as a performance auditor with the Louisiana Legislative Auditor. During her tenure there, she earned several certifications, including Certified Internal Auditor, Certified Government Auditing Professional and Certified Public Accountant. From September 2014 until beginning her position with DEQ, Chatelain served as the Director of the Budget and Financial Services Division at the Department of Revenue. She joined DEQ in February 2016. She is a lifelong resident of Baton Rouge.

Donald Trahan – Administrator - Air Permits – Office of Environmental Services

Trahan has Bachelor of Science in chemical engineering from Louisiana State University and graduated from LSU Law School in 1984. Trahan joined DEQ in 1991 as attorney supervisor for the Permit and Remediation Section. In the DEQ Legal Department, he has handled litigation and issues concerning areas regulated by the department. Trahan is originally from Chalmette.

Jonathan McFarland – Administrator – Business, Community Outreach and Incentives Division– Office of the Secretary

McFarland began his career with DEQ in 2001. He spent seven years in Waste Engineering before moving to the Clean Water State Revolving Fund (CWSRF). Since 2009, McFarland has been Engineer Manager of the Technical Assistance Group within the Business, Community Outreach and Incentive Division, overseeing the CWSRF Program and the Small Business and Community Assistance Program. McFarland graduated from LSU with a bachelor's degree in environmental engineering and became a licensed Professional Engineer in 2006.

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Louisiana Department Of Environmental Quality's First Quarter Summaries

First Quarter 2016 Enforcement Actions:
http://www.deq.louisiana.gov/portal/DIVISIONS/Enforcement/EnforcementActions.aspx

First Quarter 2016 Settlement Agreements:
http://www.deq.louisiana.gov/portal/DIVISIONS/Enforcement/SettlementAgreements.aspx

First Quarter 2016 Quarter 2014 Air Permits:
http://www.deq.louisiana.gov/portal/tabid/2922/Default.aspx

First Quarter 2016 Quarter 2014 Water Permits:
http://www.deq.louisiana.gov/portal/tabid/2899/Default.aspx

First Quarter 2016 Solid and Hazardous Waste Permits:
http://www.deq.louisiana.gov/portal/divisions/wastepermits.aspx