University of Louisiana at Lafayette NOI Information, Section VI Phase II Storm Water Management Plan Best Management Practices and Measurable Goals

General Permit Number:	LAR041025
Agency Interest Number:	108516 (Lafayette Consolidated Government)
	23790 (UL Lafayette)

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Introduction and General

On April 30, 2003, the University of Louisiana at Lafayette ("UL Lafayette" or "University") was declared a co-permittee to discharge storm water under a general permit issued to the Lafayette Consolidated Government ("LCG") by Louisiana Department of Environmental Quality ("DEQ"). As a co-permittee, UL Lafayette is designated as a Municipal Separate Storm Sewer System ("MS4"). The terms of that co-permit require Best Management Practices ("BMP") that address the six Minimum Control Measures ("MCM") as described in the Phase II NPDES EPA initiative. Additionally, each of UL Lafayette's BMP must have a Measurable Goal ("MG") which documents its anticipated date of implementation. The University President shall be responsible for the overall management of all MCMs, BMPs, and MGs as it is related to this Phase II NPDES EPA initiative.

Areas of UL Lafayette are located in Lafayette, St. Martin, Acadia, and Iberia Parishes. However, only University property within Lafayette Parish is included in the urbanized areas identified as a MS4 by DEQ. Therefore, this University Storm Water Management Plan ("SWMP") only applies to the UL Lafayette campus located within Lafayette Parish, which includes all main campus academic buildings, the Ecology Center, all athletic complexes, Blackham Coliseum, and the IRA Nelson Horticulture Center.

Storm water infrastructure within University property is owned and maintained by the University. As indicated on its drainage plans (see MCM 3: Illicit Discharge Detection and Elimination on p. 16 herein) all storm water from these University properties in Lafayette Parish discharges to the Vermilion River.

MCM, BMP, and MG

MCM 1: Public Education and Outreach

• BMP 1.1: Expansion of a University Zero Waste Program

In conjunction with its Sustainability Zero Waste program, the University will make every effort to recycle all materials on campus that are able to be recycled, to reduce landfill waste. This will also reduce litter on the campus, including litter that could infiltrate the MS4 and the Vermilion River. The University utilizes a single-stream recycling program for paper, aluminum, cardboard, and plastics 1-5 and 7. Additionally, the University offers recycling for plastic bags/film and ink/toner. Singlestream standard recycling containers are co-located with trash cans in all faculty and staff offices, in approximately eighty-two percent (82%) of main campus building lobbies, and along many major pedestrian paths. Recycling bins are also co-located with trash cans in every trash room of the residential halls.

Beginning in fall 2018, the University launched the first athletic stadium "zero waste" management system in Louisiana. Utilizing the Louisiana Department of Agriculture and Forestry's BMP program for composting, the University started a composting facility on its Cade Experimental Farm for food waste and certified compostable paper products. In addition, University student and staff volunteers partnered with Second Harvest and our food service provider, Sodexo, to recover edible healthy food from the concession's operations. Finally, the University collected ice bags and other plastic films, and sent it for recycling through a local grocery store. Through these efforts, combined with recycling and other waste reduction strategies, the University achieved a season high sixty eight percent (68%) diversion rate for the October 27, 2018 Ragin' Cajun Homecoming football game. During the COVID-19 pandemic, no games were held so composting efforts halted. As of 2022 Cajun Field scaled back composting efforts and more emphasis was placed on food recovery, clean recycling, and plastic film recycling. Compostable containers and products are still sold in the stadium. Composting efforts will be scaled down to dining and back of house operations and expired produce from the Campus Cupboard for a less contaminated and higher quality final product.

Accurately measuring the weight and/or volume of recycled materials from the University operations on a daily basis is currently not feasible with our waste management system. In lieu of measuring material weight and/or volume, the University measures its progress in terms of access to recycling and capacity volumes of both the solid waste and recycling operations system.

MG 1.1.1: Expand access to recycling in one hundred percent (100%) of main campus building lobbies.

2022 Results: This MG has been partially accomplished. Three main campus buildings received lobby recycling bins purchased with grant funding in 2022. Eighty two percent (82%) of main campus buildings now have recycling in lobbies.



Photo: Lobby recycling bin map of main campus and research park in 2022.

• **2023 Goals**: Expand access to recycling to ninety percent (90%) of main campus building lobbies. This goal may be difficult to achieve due to the rising costs of approved containers. However, the University will continue to seek funding to achieve this goal on time. Continue to purchase a minimum of 1 set of bins per year until one hundred percent (100%) of main campus has lobby recycling.

MG 1.1.2: Expand access to recycling by twenty percent (20%) along outdoor pedestrian paths.

2022 Results: This MG was not accomplished. The University applied for a grant specific to outdoor bins but did not receive funding. A second grant was pursued and awarded to the University. However, due to the increased cost per unit item for the outdoor bins, the University opted instead to invest in expanding access to recycling bins in building lobbies which are a lower cost per unit.



Photo: Existing outdoor recycling bin map of main campus as of 2022.

 2023 Goals: Pursue external funding for outdoor bins. Request internal funding for two sets of outdoor bins annually to reach twenty percent (20%) of outdoor pedestrian paths with recycling access.

MG 1.1.3: Reduce solid waste capacity in materials management system dumpsters by fifteen percent (15%) by December 31, 2023.

- 2022 Results: This MG was partially accomplished. The waste vs. recycling audit was completed in the spring of 2022. Due to ongoing operations adjustments post-COVID-19, the decision was made not to scale back waste services.
- **2023 Goals:** Complete waste vs. recycling audit by May 1, 2023, and scale back solid waste service by fifteen percent (15%), if possible.

MG 1.1.4: Achieve a fifty percent (50%) season average for waste diversion during the 2023 football season

- **2022 Results:** This MG was partially accomplished. Cajun Field operations diverted more than fifty percent (50%) of materials from the landfill during gameday operations through recycling, food recovery, and plastic bag recovery.
- 2023 Goals: Continue one hundred percent (100%) food recovery and plastic film recovery for all homes games and achieve fifty percent (50%) for total waste diversion. Continue recycling efforts and increase efforts to reduce contamination for all home games.

MG 1.1.5: Reduce single-use disposables utilized by University Dining Services.

 2022 Results: This MG has been accomplished. The "Good to Geaux" reusable togo container program was fully launched by March 1, 2021, and continued throughout 2022, eliminating single use disposable "clamshells" from University Dining Services. Dining Services in Cypress Lake Dining Hall have returned post-COVID-19 and utilize either China plates or Good to Geaux containers. Plastic bags have also been eliminated from University Dining Services.





The University of Louisiana at Lafayette and UL Dining Services are committed to sustainability. The Good to Geaux system reduces single-use plastic waste associated with to-go food containers.

HOW?

Pick up or purchase your initial OZZI token from your residence hall or at the Cypress Lake Dining Hall front desk Jan. 11 – Jan. 15.

desk Jan. 11 – Jan. 15. Instead of disposing containers into landfill bins, you will return empty Good to Geaux containers to one of five OZZI machines stationed at dining locations across campus. The containers will be washed and sanitized WHEN? Begins Jan. 25

of **WHERE?** Diss Lagniappe Café

Café Fleur de Lis Cypress Lake Dining Hall

LOUISIANA.EDU/GOODTOGEAUX

• **2023 Goal:** Continue "Good to Geaux" program. Measure meals served to report avoided single-use containers.

then used again for future meal service.

• BMP 1.2: Utilizing Green Infrastructure Projects to promote and implement Low Impact Development

Staff and students working in the University's Office of Facilities Management and Office of Sustainability have been working together for several years to make small green infrastructure improvements on campus. The recent launch of the Sustainability Strategic Plan and Living Lab provided the perfect opportunity to expand the scope of projects on campus, create more awareness around the University community of the benefits of green infrastructure, and help the University community implement LID strategies through service learning and community service.

Architecture graduate students working in the Office of Sustainability and Office of Community Service proposed the EPA Rainworks Challenge as an opportunity to formalize the University's efforts and bring additional staff, faculty, and students into the process. While forming the University's team and defining its work, DEQ notified the University and all institutions that maintain MS4 permits that new SWMP were required to continue the MS4 permits.

A primary objective of the University's Green Infrastructure Master Plan is to engage both students and the community with the outlined strategies and projects. The goal is to not only better manage storm water on University property and surrounding areas, but to also educate and influence the way that community members, developers, and government officials in Lafayette and throughout Acadiana look at and handle storm water and runoff moving forward achieve this goal.

Our plan utilizes service-learning and community-based social marketing techniques to achieve this goal. The projects the University has identified to take place on campus will serve to model responsible storm water management behavior. The University will use signage, public communications via press releases and social media, and direct contact with key community leaders to demonstrate the effectiveness of and provide community education on green infrastructure.

The University's interdisciplinary team of students, faculty, and staff will then garner commitment from local businesses to install rain gardens in visible, but needed, areas of the local businesses' property. The first of these community rain gardens will be installed by student volunteers during the University's flagship service event, "The Big Event", and will serve to start the ripple effect outward from campus.

MG 1.2.1: Provide signage for all three (3) existing bioswales on campus by December 31, 2022.

• **2022 Results :** This MG has been partially accomplished. The University has signage for one (1) sign to an existing bioswale near Madison Hall. The University secured grant funding to purchase 4-5 new educational signs for green infrastructure sites, pollinator gardens, and urban prairies. The design is in process.



Photo:

First Draft of the Pollinator Habitat informational sign.

• **2023 Goals:** Install signage by June 30, 2023. Signage will include information regarding benefits of LID (Low Impact Development), green infrastructure with native plants, and pollinator-friendly habitats.

MG 1.2.2: Install one (1) community rain garden annually with the help of student volunteers.

 2022 Result: This MG has been partially accomplished. A student service-learning rain garden project was planted for a second year in a row for The Big Event in March 2022. The native pollinator friendly habitat was planted at Cajun Village, our housing for married students and students with families. This past year the garden received more plants in lieu of planting the Judice Rickles Hall Rain Garden due to site grating delays. The University was awarded the Bee Campus USA affiliation, developed the site plan for Judice Rickles Hall, and are moving forward with development of the site with Facilities and planting the Rain Garden/ Pollinator Habitat for Fete de la Terre, the University's Earth Week celebration.



Photo: A pollinator friendly rain garden was planted by residents, the Dean of Graduate School and graduate students for The Big Event. The garden catches runoff from the asphalt shingle roof of the adjacent residential hall.

• **2023 Goals**: None. There are two MGs that specify installing one rain garden annually. We will omit this MG 1.2.2 and move forward with MG 5.2.5.

MG 1.2.3: Increase information about our green infrastructure and provide helpful resources on UL Lafayette's **sustainability.louisiana.edu** website.

2022 Results: This MG 3 has been partially accomplished. The creation of the ArcGIS map has begun. The ArcGIS map will feature all green infrastructure projects, including, pervious parking installations on campus, large retention area at Heritage Park and Research Park, urban forestry efforts, and urban prairie developments. The website has been updated with green infrastructure information and resources. (See https://sustainability.louisiana.edu/living-lab/green-infrastructure/.

What is Green Infrastructure?

Green infrastructure is a cost-effective, resilient approach to managing wet weather impacts that provides many community benefits. Green infrastructure reduces and treats stormwater at its source while delivering environmental, social, and economic benefits.



Goals for green infrastructure is to implement and utilize low impact design where possible:

- Install new rain gardens and bioswales on campus with the help of student volunteers and AmeriCorps Students.
- Increase tree canopy in areas along drainage coulees and storm drains.
- Analyze potential for a green roof installation on either an existing or new building.
- Utilize impermeable pavement options for selected applications
- Plant native pollinator habitats in areas where stormwater builds up.

For more information on Green Infrastructure visit the EPA's Green Infrastructure website here.

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Photo: Green Infrastructure page on the Office of Sustainability's website.

• **2023 Goals:** Continue the development of the ArgGIS map with green infrastructure projects and keep updating the website with green infrastructure information and resources annually.

• BMP 1.3: Develop Public Service Announcements

The University will produce a Public Service Announcement ("PSA") that promotes environmentally friendly practices, including those that specifically address clean storm water management. By doing so, the University will be able to reach its campus community (i.e., employees, students, and visitors), as well as the listening public for the purpose of promoting clean storm water.

MG 1.3.1: The University will air its PSA on KRVS, the University's National Public Radio affiliate, at least once per week during 2022.

- 2022 Results: This MG has been accomplished.
- **2023 Goals:** Continue to broadcast the PSA within the KRVS regular programming at least once per week during 2023.

• BMP 1.4: Education on Energy Conservation for Student Campus Residents

The University's Office of Sustainability and Office of University Housing have developed partnerships that aim to increase awareness among University student residents about their environmental impacts and inform them of meaningful of ways in which they can reduce their impacts. Energy conservation is a primary objective of the Sustainability Strategic Plan, and residential hall is a primary focus.

Measuring energy use at a building level is not yet feasible on campus. Few buildings have sub-meters and HVAC is handled through shared chilled-water loops. Therefore, the University must rely on guides and the number of events it hosts as a unit of measurement.

MG 1.4.1: Partner with Resident Life staff and Residential Assistants to host a weeklong Energy Conservation Campaign targeting student residents. Aim to host, at minimum, two "tabling" events, and one meeting with Sustainability Residential Assistant's.

2022 Results: This goal was accomplished. The Office of Sustainability, College of Engineering, and Louisiana Clean Fuels, co-hosted Energy Day with an EV meet up and a guided tour of the Solar PART Lab on April 13, 2022. Additionally, the Office of Sustainability partnered with Residential Life staff to host Energy Week during November 7-11, 2022.



Photo: (Left) Tour of the Solar PART Lab. (Right) EV meet up at UL's EV charging station with Louisiana Clean Fuels.

• **2023 Goals:** None. While this project will continue, the University is replacing this MG with BMP 2.2 to create opportunities for students to conduct peer to peer education on stormwater management as it is more relevant to stormwater management in urban areas.

MG 1.4.2: Promote energy conservation "shutdown" measures the week before spring break with emails, social media, and posters.

- **2022 Results:** This MG was accomplished for the winter break in 2022.
- **2023 Goals:** None. While this project will continue and contributes to the University's overall sustainability goals, the University is replacing this MG with BMP 2.2 to continue its Educational Display of Coulee on-point source pollution annual event as it is more relevant to stormwater management in urban areas.

Building	Were the lights shutoff in shutdown? Reminded people to shut down?	Lights left on? Floor 1	Lights left on? Floor 2	Lights left on? Floor 3	Notes - everyone still in buildings were reminded to shutdown when they leave
Angelle Hall	Yes				
Billeaud	Yes				
Fletcher Hall	No	Yes - Halls and studios	Yes - Halls and studios	Yes - Halls and studios	Few people still in the building working
Griffin	Yes				
Hamilton	Yes				
Madison	Yes	Yes a few occupied labs			Few people still in the building working
Martin	Yes				
Maxium Doucet	Yes				
Mouton	Yes				
Union	Yes	Yes			
Bourgeois Hall	Yes				Few people still in the building
Dupre Library	Yes	Yes	Yes	Yes	A few things were left on but turned off the 3 floors main switchboard behind desk
Mongomery Hall	No				Locked out building - but lights were mostly off
Rougeou Hall	Yes	Yes	Yes		The mezzanine level lights were on- people working
Oliver Hall	Yes	Yes	Yes	Yes	Few people working in the labs
Wharton Hall	Yes				
Agnes Edwards/ Con	Yes	Yes			Residnents still there
Stephens Hall	Yes				
Foster Hall	Yes	Yes	Yes		Few people working in the offices late
F.G. Mouton	Yes				
Girard Hall	Yes				
Lee Hall	Yes				
Broussard Hall	Yes				
O.K. Allen	Yes				
Bittle Hall	Yes				
Declouet Hall	Yes				
Burke- Hawthorne Hall	Yes				
McLaurin Hall	Yes				
Earl K long gym	Yes	Yes - gym and Lockeroom's	Yes		Gym lights and Lockeroom's all left on

Photo: Log of buildings shutdown for 2022 Winter Energy Shutdown.

MCM 2: Public Involvement and Participation

• BMP 2.1: University Trash Bash

The University will conduct several "Trash Bashes", which are organized campus clean up events that engage students and employees. These will include student organizations such as UL AmeriCorps, fraternities and sororities, Black Male Leadership Association, and Biology Society. One of these events will be part of The Big Event.

MG 2.1.1: The University will track and document Trash Bash events, The Big Event, and related events to include the amount of litter picked up and its location.

2022 Results: This MG has been accomplished. On March 26, 2022, 500 student volunteers removed 400 pounds of litter from a 3 square mile urban area surrounding UL Lafayette campus. The bagged litter was disposed of in a 20-yard roll-off dumpster and weighed by the solid waste disposal company. The students

tested the EPA ArcGIS Litter Survey Tool developed by UL Lafayette and provided feedback to the principal investigator ("PI"), Co-PI, and app developer.

On August 4, 2022, 35 SOUL Camp Mentors participated in a "train the trainer" service day. They used the EPA ArcGIS Litter Survey Tool developed by UL Lafayette to develop baselines for the level of litter present on 5 University sites and 5 off-campus sites and picked up 20 13-gallon bags of litter from the 10 sites.

On August 11, 2022, 48 incoming freshmen students, guided by 12 of the peer mentors removed 10 13-gallon bags of litter from the same areas and rated their sites through the EPA Litter Survey Tool.



Photo: Litter being collected by a student volunteer in one of the Big Event litter team's.

2023 Goals: Engage student, faculty, and staff volunteers through the new Keep UL Lafayette Beautiful program and the EPA grant efforts and integrate into SWMP to track, document, and analyze the litter pickup events, and use this data to further reduce the amount of litter on campus by December 31, 2023.

• BMP 2.2: Library Display and Message Board

As a joint effort with LCG, Environmental Quality Division, and Bayou Vermilion District ("BVD"), a public informational display will be created and installed on the

University's campus. This display will include information that promotes best storm water management practices.

MG 2.2.1: The public information display will be created and installed at the Dupre' Library. Library staff will monitor its status and loosely keep track of the number of students that visit the display.

• **2022 Results:** This MG has been accomplished. The display is proudly placed within Dupre' Library. The University estimates that approximately 500 students walk by the display every day, and many read and learn from the display. The University partnered with AmeriCorps to table in the Library for a week to talk about Bee campus, Tree Campus, and Keep UL Lafayette Beautiful initiatives and how they all aid in capturing excess rainwater, filter, control erosion, and keep litter out of our waterways. Students conducted peer to peer education and talked to 50 people during that week of tabling.



Photo: Two AmeriCorps students tabling in the library for peer-to-peer education.

• **2023 Goals:** Continue to maintain the informational display at the Dupre' Library. Update the informational display with the new Keep UL Lafayette Beautiful information.

NEW MG 2.2.2: Create opportunities for students to conduct peer to peer education on best stormwater management practices and green infrastructure in Dupre Library annually.

NEW MG 2.2.3: Continue annual partnership with BVD for an educational display of label non-point source pollution captured in BVD coulee litter trap during Earth Week.

• BMP 2.3: Post Parade Cleanup Projects

The University will conduct organized events for the purpose of cleaning up the campus after a parade event (e.g., Homecoming Parade). This will contribute to the overall campus recycling effort and reduce the amount of litter that could infiltrate the MS4 and the adjacent waterways.

MG 2.3.1: The University will conduct post parade cleanup events in an organized manner. This will include tracking the number of students that participate, and the amount of materials that are picked up.

2022 Results: This MG has been accomplished. AmeriCorp students partnered with Keep UL Lafayette Beautiful to conduct litter pick up and data collection surveys post parades (Homecoming and Mardi Gras parades) on campus and non-University parades that pass along campus streets. 106 students participated and fourty eight pounds of litter was collected before it could make its way into adjacent waterways.



Photo: (*Left*) *AmeriCorps student after data collection / litter pick up along campus streets.* (*Right*) *Litter Survey instructions for data collection.*

2023 Goals: The Keep UL Lafayette Beautiful Committee shall continue to conduct litter pick-ups and litter data collection surveys for University parades and non-University parades whose routes includes the University campus (e.g., Mardi Gras) seasonally as appropriate. Hold a post Mardi Gras clean up (Krewe de Coulee Clean Up) on the University route.

• BMP 2.4: Education of the SWMP and Best Practices to UL Lafayette Maintenance Workers

Staff from LCG will come to the University to make informative presentations and train UL Lafayette facilities staff and contracted grounds crews. This will educate University employees on the concept of clean storm water, best practices, proper procedures for capturing leaves and vegetative debris before it enters the MS4, etc.

MG 2.4.1: At least once per year, with cooperation from LCG, the University will provide this training to applicable employees. The University will document this training by retaining the training sign-in sheet, presentation materials, etc.

- **2022 Results:** This MG has not been accomplished. Due to COVID-19 spikes in early 2022, this training was initially delayed. Rescheduling has not yet occurred.
- **2023 Goals**: The University will resume this annual training for 2023 by June 30, 2023.

• BMP 2.5: Active Engagement with Community Partners Dedicated to Environmental Quality and Non-Point Source Pollution

The University will provide representation at the Bayou Vermillion Preservation Association's ("BVPA") Vermillion River Alliance, River Symposium, and/or State of the River events. The University will also provide representation on litter abatement boards, including Keep Louisiana Beautiful and Parish Proud.

The University was invited to serve on the Bayou Vermillion Preservation Association board and currently holds 2 seats with representatives from the Office of Sustainability and AmeriCorps. The University was also invited to participate in the Vermillion River Alliance ("VRA"), an organization formed within the BVPA. The VRA meets quarterly to share information about water quality initiatives, cleanup projects, and other matters as they relate to preserving the quality of the Bayou Vermillion. (See https://www.bayouvermilionpreservation.org/vermilion-river-alliance-vra.html#/).

MG 2.5.1: Participate in annual Bayou Vermilion Preservation Association Events annually.

2022 Results: This MG has been accomplished. Due to COVID-19 spikes in early 2022, the meetings were initially delayed and only 1 out of the 4 quarterly meetings occurred in 2022. The University had a representative proxy attend the November 17, 2022 VRA meeting and all the information and pictures from the meeting were shared with BVPA's University representative. University representatives were involved with both the River Symposium, and the State of the River events in 2022.



Jump on board with BVPA!

Vermilion River Alliance Meeting Thursday, November 17, 2022– 9:00 AM – 1:30PM

Agenda

- Welcome and Call to Order
- St. Landry Parish Welcome
- Tour of TVFWD Facility
- Water Quality Sampling Update
- Louisiana Watershed Initiative
- Soil & Water Conservation District UpdateBVPA Quarterly Update/Events
- St. Landry Parish President Office
- Louisiana Department of Environmental Quality
- Partners in Preservation Updates
- Closing Remarks, Next Meeting
- Lunch (Sponsored by TVFWD)

Amber Robinson (9:00AM – 9:05AM) President Bellard (9:05AM – 9:10AM) Donald Sagrera (9:10AM -10:15AM) Dr. Whitney Broussard (10:15AM -10:30AM) Kelia Bingham (10:35AM – 10:45AM) SWCD Representatives (10:50AM – 111AM) BVPA Board Member (11:05AM – 11:15AM) Representative (11:20AM – 11:30AM) Shane Miller (11:35AM – 11:45AM) Open to Attendees (11:50AM – 12:10PM) BVPA President (12:10PM – 12:15PM) 12:15PM – 1:30PM

The mission of the **Bayou Vermilion Preservation Association (BVPA)** Inc. is to create awareness of our natural environment by providing education and outreach to the general community about ways to conserve, protect and enjoy the Bayou Vermilion Watershed.

The Vermilion River Alliance (VRA) was founded by BVPA in July 2014 and is managed by the BVPA President. The VRA is comprised of multiple agencies across St. Landry, St. Martin, Lafayette, and Vermilion Parishes. Parish Presidents, Mayors, Police Juries, LDEQ, Soil and Water Conservation Districts and other stakeholders are generally represented at the meetings. Prior to the recent pandemic, the VRA would meet on a quarterly basis to share information about water quality, watershed improvement initiatives, river/bayou cleanups and related public events in an effort to increase efficient use of resources and knowledge needed to achieve progress. These meetings are an opportunity for networking and education that includes agency presentations and site visits to places of interest in the Teche-Vermilion Watershed.

Photo: VRA Meeting Agenda of Nov. 17th meeting and visit of the Teche-Vermilion Pumping Station

2023 Goals: Continue to participate in the VRA, River Symposium, and/or State of the River events annually and continue to network ideas for best practices in water quality initiatives. Continue to represent the University and larger campus community in the Keep Louisiana Beautiful Board of Directors and Parish Proud Board of Directors.

NEW MG 2.5.2: Participate and provide University representation for organizations dedicated to improving waterways and reducing non-point source pollution, such as Keep Louisiana Beautiful and Parish Proud.

• BMP 2.6: Conduct Stakeholder Meetings

A working group of key University stakeholders will be formed and will meet regularly to discuss successes and challenges, track objectives and goals, and planning for future projects as they relate to the components of the SWMP and the overall health of the MS4. This group includes representatives from the University's Office of Sustainability, Facility Management, Risk Management, Renewable Resources, and tenants along the Coulee Mine, including Student Housing and University fraternity organizations.

MG 2.6.1: The working group will meet at least twice per year. Minutes will be taken to document the proceedings of the meetings.

- 2022 Results: This MG has been partially accomplished through different methods. Due to the COVID-19 pandemic and in order to remain in compliance with Public Health Guidance, the working group did not meet in early 2022, as planned. The University does participate in the co-permittee quarterly meetings, conducted by LCG, and has joined the VRA, which meets virtually quarterly. Key staff members also participated in fall semester meetings for Tree Campus USA, Bee Campus USA, and Keep UL Lafayette Beautiful. Issues related to the SWMP were discussed in all three (3) meetings.
- 2023 Goals: Generate a bi-annual calendar scheduled meeting for the University working group and conduct at least two (2) meetings by December 31, 2023. The University shall also continue to participate in LCG's co-permittee quarterly meetings and integrate SWMP BMPs into Tree Campus USA, Bee Campus USA, and Keep UL Lafayette Beautiful meetings and goals.

MCM 3: Illicit Discharge Detection and Elimination

• BMP 3.1: Create a University Storm Water Management Plan Map

The University will identify its entire storm water MS4 infrastructure including discharge points and transpose this information as a separate layer for its CAD-based drawings. Exact discharge tributaries and waterways will be identified in the University's SWMP map. This map will be updated regularly and maintained within the Facility Management department for use in association with all campus construction projects, maintenance programs, etc.

MG: 3.1.1 The University will review and update its SWMP map perpetually to reflect any changes, modifications, additions, or deletions to the MS4.

- 2022 Results: This MG has been accomplished. The campus SWMP map has been reviewed. No major construction projects occurred during 2022, including no changes to the MS4. Therefore, no changes were updated to the SWMP map for the campus.
- **2023 Goals:** Continue to update the University's SWMP map to reflect any campus additions, deletions, or changes as necessary.

UL MAIN CAMPUS

STORM DRAINAGE - OUTFALL COORDINATES



Image: Current stormwater drainage outfall coordinates

• BMP 3.2: Conduct Regular Storm Water Drainage MS4 Inspections

The University will physically inspect the campus MS4 including storm water inlets, outfalls, discharge points, and adjourning open channel drainage structures and waterways. A specific checklist will be created to be used in the field for these inspections. A regularly scheduled preventative maintenance work order ("P/M") will be generated using the Facilities Management software for the purpose of documenting these inspections and making corrective actions where needed.

MG 3.2.1: The University MS4 will be broken down into campus block sized components illustrated by the campus SWMP maps. Using the P/M, University staff will inspect the MS4 once per year, looking for conditions that are fit for duty, any sign of illicit discharge or excessive organic debris, etc. The inspections will be documented, and records kept in accordance with the University's records retention policies. Any concerns or problems will be addressed through University Facility Management.

- **2022 Results**: This MG was accomplished. MS4 inspections were completed in 2022. Addendum A an example of one campus block inspection, including some deficiencies noted and corrective action. (See Addendum A).
- **2023 Goals**: The University will continue to perform annual MS4 inspections and address campus storm water drainage repair issues promptly.

• BMP 3.3: Maintain Sanitary Sewer System and Drainage Components

The University recognizes that a closed sanitary sewer system is necessary to prevent storm water and ground water intrusion thereby placing an unnecessary toll on the Lafayette sanitary sewer facilities. The University shall maintain its sanitary sewer system and its MS4, and if identified, any failing components will be repaired promptly and properly.

MG 3.3.1: The University will document all repairs to its MS4. When concerns arise regarding components of the sanitary sewer, the MS4, or other systems that are owned and/or operated by LCG or Lafayette Utilities System ("LUS"), the University will attempt to meet with LCG to propose corrective action within ten business days of identifying the issue.

- **2022 Results:** This MG was accomplished. Preventative maintenance was performed and recorded throughout the year and is up to date. (See Addendum B).
- **2023 Goals**: Continue to address any repairs needed to the University's MS4 and document these repairs accordingly. Continue to perform preventative maintenance.

• BMP 3.4: Respond to Student, Employee, Public, or LCG Complaints

The University will maintain and offer its campus community and the public opportunities to report concerns regarding illicit discharge or any issue related to the campus MS4. Concerns regarding MS4 issues can be reported as follows:

- 1. Online: https://safety.louisiana.edu/report-issue/illegal-dumping
- 2. Telephone: 337-482-6447
- 3. Email: workorder@louisiana.edu
- 4. In person: University Police, Randolph Hall, 111 Hebrard Blvd. Facility Management, Parker Hall, 310 E. Lewis St

Criminal activity will be investigated by University Police and prosecuted accordingly. Non-criminal matters will be directed to the University Risk Manager and Facility Management. Appropriate personnel will respond to those complaints and take necessary corrective action promptly.

MG 3.4.1: Any formal complaints or concerns brought forth to the University shall be documented. Concerns of a criminal nature will be documented using standard police reporting practices. Those reports will be made available in the annual SWMP report, subject to the limits of the public records laws. Non-criminal complaints will be documented using Facility Management standard operating procedures.

- **2022 Results:** This MG has been accomplished. The University is managing its complaints as outlined in this MG. During 2022, no formal complaints regarding MS4 concerns were submitted to the University.
- **2023 Goals:** Continue to formally address and document concerns and complaints related to the University's MS4.

MCM 4: Construction Site Storm Water Runoff Control

• BMP 4.1: Construction Standards and Specifications

University Facility Management administers all University construction work, including contracted work. For any contracted work, the construction standards and specification documents will include language that requires awarded bidders to follow accepted site runoff control practices. For applicable smaller jobs performed by University employees, those same practices will be incorporated under the supervision of Facility Management managers.

MG 4.1.1: The University will review and elaborate on the section of its standard design and construction specifications as it pertains to storm water management. The University will include more specifics aligning with the LPDES best practices in an effort to hold awarded designers and contractors more accountable for their work. For applicable awarded projects, the University will review contractor SWMP documents, and ask that storm water management issues be included as a regular agenda item for construction meetings.

 2022 Results: This MG has been accomplished. Standard University construction specifications that were included with every University construction site include the following:

"WATER RUN OFF PROTECTION

Contractor shall protect the entire construction site from erosion due to storm water runoff. A visqueen barrier shall be constructed around the entire construction site perimeter to prevent erosion from infiltrating the storm water drainage system."

Larger projects include more elaborate standards and specifications with respect to stormwater management, and these are written to specifically address the applicable job site.

• **2023 Goals:** Continue to require all construction projects to prepare for and manage the campus job site utilizing runoff control best practices.

• BMP 4.2: Conduct Regular Inspections of Construction Site Runoff Prevention Measures

The University will conduct regular physical inspections of all construction site(s) to ensure that runoff control measures are taken and adequate. Silt fences, hay bale and other storm drain filters, and other devices as appropriate will be inspected for applicability. Deficiencies will be addressed with the contractor for prompt corrective action.

MG 4.2.1: As part of its MS4 construction site inspection standard procedure, the University will request SWMP logs and other documents from the contractors for review. Any discussion of SWMP related issues at project meetings shall be documented within the meeting minutes. Follow-up on these issues shall be documented as applicable. Relevant information regarding this will be discussed at regular University SWMP working group stakeholder meetings.

- **2022 Results:** This MG was accomplished. Contractors for construction projects in 2022 implemented their own SWMP, and documented it accordingly.
- **2023 Goals:** The University shall continue to ensure that all campus contractors utilize a SWMP in accordance with its contract with the University and the University will review all documentation associated with contractor plans.

MCM 5: Post Construction Site Runoff Control

• BMP 5.1: Maintain Industry Accepted Practices for Post-Construction Site Management

UL Lafayette will require contractors that disturb University property to employ industry accepted practices (i.e., hydro-seed, grounds landscaping, etc.) as a condition of the project.

MG 5.1.1: Perform site visits with contractors at the start of the project and after required practices are finished. Document each site visit with date, time, present staff and contractors, pictures, and summary of discussions. If necessary, document requested additional actions and proposed action plan.

- **2022 Results:** This MG has been accomplished.
- **2023 Goals:** Continue BMP through 2023 and continue annually with all construction projects.

MG 5.1.2: Review current University design codes and post-construction standards for areas that could be enhanced with green infrastructure practices, such as pervious parking areas, prairie grass plantings, stormwater catchment, and rain gardens, by April 1, 2021. Update building standards, if deemed necessary.

- 2022 Results: This MG has been partially accomplished. The Green Building Design and Construction Standards, which includes design and post-construction standards related to stormwater management has been developed and is under review by Facilities Management.
- **2023 Goals:** Fully integrate Green Building Design and Construction standards into existing University Design Codes by July 1, 2023.

MG 5.1.3: Develop standard operating procedures, inspection forms, and closeout forms for site visits by May 1, 2021.

- 2022 Results: This MG has been partially accomplished. The University Design Codes were reviewed and found to be lacking sufficient detail regarding on-site stormwater management during construction. The Green Building Design and Construction Standards, which describes design and post-construction standards, SOPs, inspection forms, and closeout forms related to stormwater management have been developed and is under review by Facilities Management.
- 2023 Goals: Fully integrate Green Operations and Management and Green Building Design and Construction standards into existing University Design Standards, including the use of on-site stormwater management inspection forms and closeout forms by June 30, 2023.

MG 5.1.4: Develop standard operating procedures for turning over new development to Grounds Maintenance by June 1, 2021.

• **2022 Results:** This MG has been partially accomplished. Standard operating procedures and best practices were described in the Green Building Design and Construction Standards and Green Building Operations and Maintenance Standards, but not fully integrated into existing SOP. The University is transitioning from internal to externally contracted grounds management, which has slowed this process.

 2023 Goals: Fully develop and integrate standard operating procedures and best practices guidelines for internal and externally contracted Grounds Maintenance by July 1, 2023.

• BMP 5.2: Use of Best Practices for the Maintenance and Development of Campus Infrastructure

As noted in MCM 1: Public Education and Outreach, an interdisciplinary team of students, faculty, and staff developed a Green Infrastructure Master Plan for the EPA Rainworks Challenge that simultaneously strengthened the University's SWMP for DEQ. The strategies for green infrastructure align with the University's Master Plan and Sustainability Strategic Plan, which both have dedicated funding sources.

The University's Green Infrastructure Plan has a tiered approach to defining the feasibility for green infrastructure implementation on campus, giving consideration to costs, plan alignment, efficacy, and potential barriers. The plan aims to first focus on projects that are in the process of implementation or can be implemented within one (1) year, then medium-term to long-term projects.

Tier 1 of the proposed design strategies includes increasing the University's urban forest tree canopy and coulee prairie planting. The coulee prairie planting project utilizes native prairie grass, grown by the University's Ecology Center, as buffer strips along the edge of the coulee that runs through campus. The Coulee Mine is a concrete storm water collection system that runs through the city and empties the water it collects into the Vermilion River. The prairie grass planting will help strengthen the soil along the coulee, the grass would increase the amount of infiltration to the Chicot Aquifer and filter the water runoff before draining into the storm water system thereby improving the water quality of the Vermilion River.

Tier 1 also includes increasing our rainwater harvesting and retention projects. This includes installing rain barrels and/or cisterns, additional rain gardens, and bioswales, at multiple scales, that would be located along the exterior and interior of campus, especially focusing on areas developed prior to the introduction of onsite storm water management codes. The rain gardens have been designed to accommodate the first inch of rainfall to prevent the storm water from flooding onto adjacent streets, buildings, and sidewalks.

MG 5.2.1: Supervise the removal of the cistern prior to the demolition of the BeauSoleil Louisiana Solar Home and return to operation in another location and begin utilizing harvested rainwater by December 31, 2023.

- **2022 Results:** This MG partially accomplished. The cistern was removed from the BeauSoleil Home and stored for use. Various proposed sites and buildings are still under consideration.
- **2023 Goals:** Install cistern on campus building near site agreed upon by all stakeholders.

MG 5.2.2: Install, at minimum, one (1) additional rain barrel or cistern on campus by December 31, 2020.

- **2022 Results:** This MG was partially achieved. The Office of Sustainability has purchased a rain barrel for use at one of the campus gardens.
- **2023 Goals:** Install rain barrels at agreed upon locations by June 30, 2023.

MG 5.2.3: Increase existing prairie grass planting area around Coulee Mine by ten percent (10%) by December 31, 2023.

- 2022 Results: This MG has been accomplished. The UL Ecology Center planted 700 seedling plugs of Bushy Blue Stem grass and various other natives along the Coulee Mine in Bourgeois Park and increased prairie grass planting area from 0% to 100%.
- **2023 Goals:** The UL Ecology Center shall continue expansion and planting of the seedling plugs for the urban prairie along the coulee by June 30, 2023 and has already seeded the new plants for the next planting cycle.



Photo: (Left) Planting of the 700 seedlings at the urban prairie at the coulee. (Right) Established urban praire after the planting a few months later.

MG 5.2.4: Increase urban forest canopy by planting, at minimum, thirty (30) trees on campus annually.

• **2022 Results:** This MG was surpassed. In 2022, the University planted one hundred fourteen (114) trees throughout campus. One hundred eleven (111) trees were planted on campus for the big event and three (3) trees were planted as part of a class project. A tree care plan and tree inventory of all campus trees for management purposes was created.



Photo: (Left) Three (3) Brandywine Maples trees were planted outside of the Child Development Center by Karen McKinney's Class. (Right) Student Volunteers planting trees along the Coulee for the Big Event.

Trees plan	ted on campus			
Year	Total Trees Planted	Trees Species Planted	Quantity	Trees Locations
2022	114	Nuttall Oak	5	Intramural field
		Willow Oak	12	Intramural field
		Red Maple	8	Intramural field
		Various	86	Big Event planting - Along main campus Coulee / various locations
		Brandywine Maple	3	Behind Child Development Center

 2023 Goals: Create priority areas for new tree plantings on campus, and plant at least thirty (30) new trees. AmeriCorps Students and the Office of Sustainability will work with the Facility Management staff to create an inventory of all campus trees for management purposes and will be continuously updated.

MG 5.2.5: Install one new rain garden or bioswale on campus annually.

 2022 Results: This MG was partially accomplished. The Hebrard Boulevard rain garden has been designed and a landscaping class has been brought in to advance the design as a hands-on learning project. Funds for implementation are being sought after. A new rain garden/pollinator garden location has been determined and has been designed behind Judice Rickles Hall.



Photo: Judice Rickles Pollinator/ Rain Garden site plan

• **2023 Goals:** Construction and implementation of the Hebrard Boulevard rain garden and the Judice Rickles Hall rain garden/pollinator garden will continue to be perused plus one (1) additional rain garden at a location to be determined by December 31, 2023.

MCM 6: Pollution Prevention and Good Housekeeping Measures

• BMP 6.1: HAZMAT Disposal and Spill Control Procedures

The University allocates resources each year to provide contracted disposal of its hazardous wastes (e.g., chemical waste, paint, etc). The University is a Small Quantity Generator of hazardous waste. The University will maintain all documentation associated with that waste and follow the Resource Conservation Recovery Act ("RCRA") procedures with respect to disposal methods, training, etc.

MG: 6.1.1 The University will track and maintain all documentation for the disposal of all hazardous materials. Stakeholders will review the University's disposal proceedings for the purpose of identifying all waste streams, and where possible, attempt to reduce the size and quantity of those waste streams.

• **2022 Results:** This MG has been accomplished. The University had four (4) HAZMAT waste pickups during 2022. Prior to the pickup, all waste was accumulated, stored, labeled, and contained in accordance with RCRA and applicable DEQ regulation. There were no hazardous waste spills. All waste was manifested and transported to the applicable Treatment, Disposal, and Storage Facility ("TDSF"), in accordance with the University's disposal contract.

• **2023 Goals:** Continue to generate, store, and dispose of the University's hazardous waste in accordance with applicable regulations and University policy.

• BMP 6.2: Recycle Used Motor Oil

All used motor oils generated by the University will be disposed of using a licensed recycler. The University will maintain all documentation associated with this recycling.

MG 6.2.1: The University will utilize the services of a licensed oil recycler to dispose of all used oils. The University will track and document the quantity of used motor oil that it recycles. Stakeholders will review the University's used oil recycling proceedings for the purpose of identifying all sources of this waste stream, and where possible, attempt to reduce the size and quantity of those sources.

- **2022 Results:** This MG has been accomplished. In 2022, the University recycled four hundred twenty (420) gallons of used oils. Records of this recycling are kept within the Motor Pool office on campus. The University inspects the used motor oil tank monthly to ensure it is fully contained and has a secondary containment pan installed. (See Addendum C).
- 2023 Goals: Continue to recycle all used motor oil generated by the University.

• BMP 6.3: Regular Cleaning and Maintenance of Storm Water Catch Basins

University maintenance personnel will regularly inspect and (where necessary) clean all storm water catch basins, including screens that are installed at the basin inlet to keep street debris from entering the MS4. Maintenance personnel will do this during their normal work schedule for any area, as well as when a specific concern is raised from an inspection or a report.

MG 6.3.1: Perform quarterly inspections of storm water catch basins on campus. Maintain log on inspections that include date, time, and conditions of each catch basin. If necessary, action is required, notify appropriate Facilities Management staff, and record when the service is performed by the staff.

- **2022 Results:** This MG was accomplished. Catch basins for Hazmat are inspected as applicable and stored in TMA (i.e., the University's digital work order system). These include secondary oil containment, Grease Traps, etc.
- **2023 Goals:** The University will perform MS4 inspections as outlined in this MG before December 31, 2023.

MG 6.3.2: Discuss quarterly inspections, action requests, and service records at each stakeholder meeting.

 2022 Results: This MG has been partially accomplished through different methods. Due to the COVID-19 pandemic and in order to remain in compliance with Public Health Guidance, the working group did not meet in early 2022, as planned. The University does participate in the co-permittee quarterly meetings, conducted by LCG, and has joined the VRA, which meets virtually quarterly. Key staff members also participated in fall semester meetings for Tree Campus USA, Bee Campus USA, and Keep UL Lafayette Beautiful. Issues related to the SWMP were discussed in all three meetings.

• **2023 Goals:** The University will organize the stakeholder committee specific to this program, begin meetings, and perform MS4 inspections before June 30, 2023.

• BMP 6.4: University Parking Lot and Garage Cleanings

The University will regularly clean its campus parking lots and garages in an effort to reduce the amount of litter and organic debris from depositing into the MS4.

MG 6.4.1: The schedule for this work will be irregular to accommodate for changes in the need for this type of service. For example, live oak trees shed their leaves in the Spring, which will necessitate the need for more street cleaning. The University will track and document these services accordingly.

• **2022 Results:** This MG was accomplished. The University runs a litter crew perpetually throughout the campus. Parking lots and garages are an area of the campus known to accumulate a large amount of litter. The University estimates that it removes litter from all parking lots and garages at least once per week. Where possible, the litter removed was recycled.

Regarding vegetative debris, the University averages a leaf pickup or street cleaning approximately once per month. Leaf pickup and street cleaning is performed more often in the spring and less often in the summer, when vegetative debris is kept to a minimum. Street storm drains throughout the campus include screens on their inlets to catch leaves and litter before it is introduced into the MS4.

• **2023 Goals:** The University will continue to be aggressive in litter and vegetative debris removal on campus to prevent these contaminants from getting into the University's MS4.