OVERVIEW

ABOUT US

The Office of Campus Safety fosters a secure environment for the university’s academic and research enterprise. In our area of the Financial and Administrative Services (FAS) portfolio we focus on emergency planning, disaster mitigation, and environmental impacts as the foundation of our organization. The Campus Safety mission analyzes, prepares for, protects from, and responds to potential hazards and safety risks in order to promote the safety and continuity of the university environment and operations.

Our team consists of three departments working hand-in-hand supporting the essential functions of the university. Environmental Health & Safety, Fire Prevention Services, and Emergency Management each provide core services that support our vision of providing a resilient framework and environment that enriches the university academic and research mission by establishing an innovative and adaptable safety culture.

Core values that are rooted in the framework of our organization are: Service, Stewardship, Integrity, Innovation, Diversity, and Teamwork. We strive to display our core values within our organizational goals that are designed to:

• Develop, gain approval, and implement safety and security programs that ensure the welfare of our campus community;
• Develop, implement, and sustain effective campus safety and security communications;
• Promote best management practices in campus safety operations;
• Foster high quality services, campus diversity, and leadership that supports Campus Safety operations; and
• Promote safety and security educational programs throughout the campus community.
LEADERSHIP

FROM THE ASSISTANT VICE PRESIDENT

Welcome to the 2021 Office of Campus Safety Annual Report. The information featured in this report signifies a holistic approach of what our departments accomplish on an annual basis. The campus safety mission is an ever-evolving process designed to support student life, academic, research, athletics, and operational endeavors of the university’s main and satellite campuses. Throughout this year, our organization focuses with the UT community to be resilient through challenges such as severe weather, the ongoing coronavirus pandemic, and a significant winter storm. We are proud and excited to serve the UT community once again as we safely transition back to in-person and on campus work. In alignment with both the university mission and our organizational values, the data provided in this publication represents our foundational strategy of targeting identified opportunities, in order to enhance our campus environment and provide stakeholders with the means necessary to effectively manage safety.

Be secure in knowing your safety is our priority one.

JIMMY JOHNSON
ASSISTANT VICE PRESIDENT
OFFICE OF CAMPUS SAFETY
ANNUAL REPORT 2021

Addressing Emergency Management needs of The University of Texas at Austin Campus Community

304 E. 24th St.
Suite 202
Austin, TX 78712

emergencymanagement.utexas.edu
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OVERVIEW

ABOUT US

The Office of Emergency Management (OEM) implements programs and projects for emergency and disaster planning, training, mitigation, response, and recovery. We are tasked with creating a comprehensive emergency management program for the university to save lives, protect property, promote continuity of operations, and reduce the overall effects of large-scale disasters. In addition to planning for the entire campus, OEM assists departments with developing their emergency plans and acts as the primary liaison between the university and outside government emergency management agencies. OEM is part of the Office of Campus Safety and works closely with the other campus safety departments - Environmental Health & Safety and Fire Prevention Services. OEM also works closely with other campus partners including The University of Texas Police Department, Facilities Services, Athletics, Parking & Transportation Services, and the Dean of Students in order to build a disaster resilient university. Although OEM is a small department, our team is passionate about and dedicated to ensuring The University of Texas is ready for whatever comes its way. With the help of our partners, we are building a disaster resilient university that can bounce back from anything so that our community can quickly get back to changing the world.

The picture above is the chairman of the Board of Regent’s telegraphed response to a suggestion that UT Medical Branch close after the 1900 hurricane that hit Galveston Island. (See utsystem.edu/office/chancellor/blog/teans-stop-no-storm.) Today, this sentiment reflects the philosophy of the Office of Emergency Management and the whole of the university to keep our mission no matter what.
Welcome to the 2021 Office of Emergency Management Annual Report. I am excited to provide this year’s report because it discusses the rebranding of our office from the Office of Emergency Preparedness to the Office of Emergency Management. This exciting strategic enhancement will help align our brand with our mission and goals for the office. This year was a year of challenges and growth that have helped to shape the office. I invite you to learn more about this change in the report; along with the accomplishments and activities, my office has performed over the previous year.

Jonathan Robb
JONATHAN ROBB
DIRECTOR, CEM, MPS
OFFICE OF EMERGENCY MANAGEMENT
ORGANIZATION

WHO WE ARE
REBRANDING

As this Annual Report will discuss, 2021 included response to major emergencies such as a winter freeze and the continued response to the COVID-19 Pandemic. These incidents brought to light the need for enhancements to the Office of Emergency Preparedness. One of those enhancements included the rebranding of our office.

Preparedness is one aspect of emergency management. The office is responsible for overseeing the university’s emergency management program. This includes prevention, protection, mitigation, response, and recovery. To better align with these responsibilities, the decision was made to rebrand to the Office of Emergency Management (OEM).

This name change provides a clear direction and focus for our office and displays our commitment to the university community in all aspects of emergency management.
EMERGENCY RESPONSE

On Thursday, February 11, 2021, The University of Texas at Austin Office of Emergency Preparedness started monitoring events related to a severe winter storm. On Sunday, February 14, the University announces campus will be closed until at least Wednesday February 17. The incident continued through Tuesday February 23, 2021. The Office of Emergency Management and Emergency Support Function Partners (ESFs) responded to this incident from February 14 – February 24, 2021.

OVERALL SUCCESSES:
• Electrical infrastructure was maintained on campus during entire weather incident
• Two warming shelters were activated and provided necessities to off-campus students
• Campus was reopened within two days of water boil notice ending and following building damage inspections

OEM identified areas for improvement and enhancements to the university’s emergency response capabilities. These areas for improvement were captured in the After Action Report (AAR) for this Incident.

Photo displaying snowfall on the Forty Acres with the UT Tower in the distance.
OEM develops and implements Building Emergency Plans (BEPs) for all buildings on campus. These all-hazard based plans provide instruction on actions for building occupants to take during different types of emergencies.

OEM recognized the need to improve this process to better serve the building managers required to assist in updating these plans and use innovated technology in the process.

OEM worked with Technology Resources to develop an electronic process for maintenance and revision of the plans. This new process has streamlined the revision period and allowed for building managers to update the BEP effectively.

Tabling events are best used to interact with the UT student population and help us get our important life saving information into the hands of students.
TEAMWORK

We work with the entire university community to prepare for and respond to any emergency we might face. It is critical that we work effectively as a team with everyone from Facilities Services to the Austin Police Department during an emergency. We value the input and opinions of the entire university community as well as our regional partners. In 2021, we continued to work with our partners to plan and coordinate COVID-19 operational procedures and vaccine preparations, as the pandemic moved forward.

We collaborated among many departments during the winter freeze incident to ensure all needs were met from our campus community. 2021 also saw the return of special events such as football games and commencement. These special events required the Emergency Operations Center to return with in-person operations and teamwork across campus.

The Office of Emergency Management partners with other organizations throughout The University of Texas community.
FUTURE OUTLOOK

Disasters can occur at any time and cause a wide range of damage. Many times, the damage could be limited or prevented through comprehensive pre-disaster planning and mitigation. Resiliency is the ability to minimize the potential impact hazards have to a particular area. The Office of Emergency Management strives to develop and implement resiliency efforts across campus to make The University of Texas at Austin a disaster resilient university.

A disaster resilient university recognizes the threats that are posed to its particular campuses, and develops, and implements actions that will minimize or mitigate these threats. The commitment to become a disaster resilient university cannot be completed without an extensive partnership and collaboration with many on-and off-campus stakeholders. The programs, plans, and actions that our office develops and implements are designed to withstand the effects of the possible hazards by limiting the losses and interruptions to the university, thus leading to a disaster resilient university.

PROGRAMS AND INITIATIVES

The Office of Emergency Management is responsible for the university’s emergency management program. This includes emergency plans, business continuity, training and exercises, outreach, emergency response, and mitigation.

ORGANIZATION

OEM currently includes one director and three emergency management coordinators. Strategic enhancements include the addition of a business continuity coordinator in 2022.
SERVICES
The Office of Emergency Management provides: emergency plan development, staff training, emergency response exercises, activation and operation of the university’s Emergency Operations Center (EOC), Threat and Hazard Identification and Risk Assessment (THIRA), hazard mitigation, outreach activities, and emergency notification to the university.

OPERATIONS
OEM activates and coordinates the university's Emergency Operations Center (EOC). The EOC brings together university departments to provide coordination of Emergency Support Functions during planned events and unplanned incidents. The EOC works closely with the Core Crisis Management Team (CCMT) of Executive Leaders and the Joint Information Center (JIC) for a complete emergency response on campus.
Addressing Environmental Health and Safety Needs of The University of Texas at Austin and Satellite Campus Communities

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The University of Texas at Austin was a recipient of Austin Water’s Excellence in Pretreatment Award for the J.J. Pickle Research Campus (PRC) due to hard work from the Microelectronics and Engineering Research Center (MER) facilities staff and Environmental Health and Safety, Environmental Programs staff. Award winners go beyond meeting effluent quality requirements by devoting significant time and attention to self-monitoring and reporting requirements, carefully designing a pollution prevention strategy, training staff, and encouraging compliance throughout the facility. 2021 was the 6th year in a row that the team has won this award due to our outstanding compliance with regulations. L-R: Environmental Programs Manager Tejashri Kyle, Sr. Environmental Specialist Becca Oliver, Environmental Specialist II Claire LeGrow, EHS Director John Salsman, Associate Director of Environmental Programs Izama (Nena) Anderson.
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OVERVIEW

ABOUT US

Environmental Health and Safety (EHS) is a campus department with a mission to protect students, faculty, staff, and visitors; to promote healthy and safe operations on campus; and to ensure the protection of the environment. EHS works closely with campus colleges and departments such as Facilities Services (FS), The University of Texas at Austin Police Department (UTPD), Fire Prevention Services (FPS), Emergency Preparedness (EP), Project Management and Construction Services (PMCS), Utilities and Energy Management (UEM), Capital Planning and Construction (CPC), College of Natural Sciences (CNS), Cockrell School of Engineering (CSE), Jackson School of Geosciences (JSG), College of Pharmacy, and Dell Medical School (DMS) to achieve our mission.

Much of our focus is mandated by city, state, and federal regulations that are designed to protect human health and the environment. By focusing our attention on regulatory compliance and the application of best practices we ensure a safe learning, working, and visiting environment for everyone at The University of Texas at Austin.

Hazardous Waste Manager, Eric Wilson and Hazardous Waste Specialist Joseph Bussey getting ready to disassemble a gas manifold that may not have been purged correctly and was submitted to EHS as a waste item.
### PROGRAMS AND SERVICES

#### PROGRAM AREAS

**CAMPUS, OCCUPATIONAL, AND LABORATORY SAFETY**
- Chemical Safety
- Biological Safety
- Laboratory Evaluations
- Hazardous Materials Shipping
- Fall Protection
- Asbestos Service Center
- Hearing Conservation
- Aerial Lift and Crane Safety
- Machine Shop Safety
- Respiratory Protection
- Confined Space
- Indoor Air Quality
- Electrical Safety
- Industrial Hygiene
- Equipment Safety
- Control of Hazardous Energy
- Hazard Communication

**ENVIRONMENTAL PROGRAMS**
- Regulatory Compliance and Support
- Hazardous Waste Management
- Food and Water Safety
- Stormwater Management
- Wastewater Management
- Pollution and Spill Prevention
- Equipment Safety
- Emergency Response
- Green Labs
- Chemical Fume Hoods and Autoclaves

**RADIATION AND LASER SAFETY**
- Radioactive Materials Permitting and Licensing
- X-ray and Laser Registration
- Laboratory Evaluations

#### SERVICES

**ANIMAL MAKE SAFE**
- Wildlife Incidents
- Animals on Campus

**EMERGENCY RESPONSE**
- On-Call Program
- 24/7 Emergency Response

**FOOD AND DRINKING WATER SAFETY**
- Food Safety Inspections
- Food Distribution Approval
- Drinking Water Testing

**PROJECT PLANNING AND DESIGN REVIEW**
- Asbestos and Lead Survey
- New and Existing Construction Review
- Design and Construction Standards
- Drain Destination Testing

**TRAINING AND OUTREACH**
- Training Management
- Campus Outreach

**UNMANNED AERIAL VEHICLES**
- UAV Request Approval

**WORKING SAFELY**
- Exposure Risk Assessment
- PPE Selection
- Incident Investigation
Welcome to the 2021 Annual Report for Environmental Health and Safety. This report is not a description of everything we do but instead a snapshot of our year through facts and information that will provoke some thought about campus safety and hopefully reflect the contributions of the entire staff.

Again in 2021, COVID-19 health and safety guidance and implementation were part of our role in addition to business as usual. EHS continued to apply best practices in biological health and safety while following federal guidelines. All this occurred while EHS continued to perform our everyday jobs such as waste management, laser inspections, laboratory safety reviews, and construction site reviews for storm water compliance.

“Safety has to be everyone’s responsibility... everyone needs to know that they are empowered to speak up if there’s an issue.”

– Captain Scott Kelly
ORGANIZATION

NENA ANDERSON
ASSOCIATE DIRECTOR
ENVIRONMENTAL PROGRAMS
• Environmental Programs
• Food and Drinking Water Safety
• Emergency Response

ANDREA MCNAIR
ASSOCIATE DIRECTOR
CAMPUS, OCCUPATIONAL, AND LABORATORY SAFETY
• Biological and Laboratory Safety
• Occupational Safety

DEWAYNE HOLCOMB
ASSOCIATE DIRECTOR
RADIATION AND LASER SAFETY
• Radiation Safety
• Laser Safety
COVID - YEAR 2

In late 2020, the first Covid vaccine became available and in 2021 the focus was on ending the pandemic through vaccine distribution. Life began to return to some semblance of normalcy and Covid restrictions were eased.

However, the new normal of additional Covid duties for EHS staff continued throughout 2021. Workload increases, providing services with a reduced workforce on campus, loss of workplace connectivity, maintaining a healthy and safe workplace, fostering organizational culture, and personal and mental health continued to be workplace challenges. EHS continued to work with OHP and building managers to identify Covid cases and close or disinfect spaces as needed. EHS also continued to research the latest information from health authorities and utilize information from other colleges and universities.

EHS Director John Salsman led updates to the COVID-19 guidelines for Financial and Administrative Services (FAS) staff in February when double masking was recommended due to the increased transmission from new variants and again in summer, providing guidelines for vehicle usage.

In November of 2021 a new variant of Covid-19 was reported in Botswana: B.1.1.529 Omicron. The first U.S. case of Omicron was identified less than a month later on December 1, 2021. Omicron spread at lightning speed across the U.S. and the university began to once again see an increase in positive cases during winter break, right before the end of the year.
WINTER STORM URI

Catastrophic and unprecedented, Winter Storm Uri held campus captive from February 13-17, 2021. Austin officially received 6.4 inches of snow and the city remained at or below freezing temperatures for 144 hours. The results were disastrous. Campus sustained damage to infrastructure, burst water pipes and flooding, and major damage to landscaping.

During the storm, the majority of the Austin metropolitan area lost electricity and potable water at some point. Campus was impacted by the loss of water but the majority of campus is served by UT Austin’s power plant which remained operational for the entire storm. UT Austin employees were significantly impacted at home. To compound the situation, there were dangerous road conditions for those seeking warmth, food and water.

Even with difficult situations at home and on the road, and campus officially closed, EHS staff responded within the first 24 hours to assess and mitigate damage from the storm. The first staff on campus remained at the AT&T Hotel and Conference Center for a few days. Initial response included on-campus staff communicating with EHS remote staff to track and coordinate the large-scale response needed to mitigate and remediate the situation created by flood waters. The resulting tracking spreadsheet became the backbone for campus’ insurance claim tracking. During and after the storm, EHS worked tirelessly with other departments and the City of Austin to provide safe drinking water for campus.

EHS coordinated a boots-on-the-ground lessons learned group following the response to Uri. Participation in the working group consisted of representation from UEM, PMCS, FS, University Housing and Dining (UHD), and EHS. This team met bi-weekly to identify the core issues noticed by each group during response. Over 100 issues were identified and grouped to create 21 action items for streamlining preparedness, communication, and response efforts for future events.

---

Burst water pipes led to flooding and damage of interior spaces in some campus buildings. EHS carts covered in snow and ice outside the SER building in the cart lot on E. 24th street.
DIVERSITY

Institutional knowledge is the collective information an organization and its people possess. It includes skills, personal anecdotes, intuition, documents, records, and reports that can be transferred person to person through mentorship or training and makes teams better informed and equipped to do their job.

Having a diverse multi-generational work force with a span of institutional knowledge adds value to our department. Experienced professionals with many years at UT Austin play an instrumental role in the career development of younger employees by sharing critical knowledge and experience that typically require years to acquire. The collaboration of fresh innovation from our younger or new to UT Austin employees with wisdom from those with greater institutional knowledge brings increased productivity and better decision making.

The more people interact with each other in the office, the more they can understand and learn from each other’s insights, perspectives and ideas. The structure of EHS presents opportunities for diverse groups to interact and discover each other’s value to the organization and strengths. Everybody wins when knowledge is shared. In 2021, EHS began scheduling recurring cross-training sessions for staff on topics such as ladders, Green Labs, and the new Environmental Management System (EMS).

EHS staff share their knowledge with our diverse university community through posters, outreach events, reports and technical documents, training, and social media.

![chart]

Total years of EHS experience for staff at The University of Texas at Austin and elsewhere ranges from less than one year to greater than 20 years.

*Data does not show experience for all EHS staff.
Environmental Specialist Corina Hernandez with over two decades of EHS experience demonstrates procedures for testing fume hoods to new-hire, Equipment Specialist Sierra Perez.

- **116** Cross-training participants in 2021
- **5** New articles about EHS in the FAS News and Daily Texan
- **88,000** Users reached through social media
- **10** Topics covered in cross-training sessions held in 2021
INNOVATION

We are creative and innovative in our service to the campus community.

We are always looking to turn challenges and ideas into opportunities and creative solutions to improve our processes, procedures, and service to the university.

In 2021, Environmental Programs dedicated extensive efforts to stormwater management infrastructure design and development. The goal was to improve stormwater management in a sustainable and environmentally conscious way. We pushed design teams to get creative and explore green infrastructure, both to fulfill our standards as an MS4 and as stewards of our local watershed. In 2021, the campus gained more than 5 rain gardens and 3 sections of pervious pavers.

In 2021, the 2020 goal to strengthen occupational safety programs was achieved and manifested itself in six additional written programs which is a 50% growth. Continuing on the current pace will allow us to complete all needed programs by 2025.

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**ENVIRONMENTAL PROGRAMS**

5+

Rain gardens installed on campus to improve water quality discharges off campus

**OCCUPATIONAL SAFETY**

6

New safety programs developed

---

Bioswale installed behind the Recreational Sports Center as part of the Red River realignment project

Occupational Safety program development over the last decade
In 2021, EHS introduced technological innovations to better assist our customers and to improve campus safety.

Over the course of the year, EHS Assistant transitioned to UT HERD (Hazard Evaluation and Risk Database), a new electronic information management database designed to streamline the laboratory safety evaluation process and provide better service to researchers and laboratory personnel. Processes made more efficient include scheduling and preassigning inspections, ensuring that shared spaces (multiple researchers) are only visited once, implementing mobile evaluations, increasing data accessibility, and allowing all EHS staff to be able to search and obtain needed information.

EHS provided an updated EMS (Environmental Management System) to allow campus staff, faculty, and students who generate chemical waste to directly submit their waste through EMS. The new system allows customers to track their chemical waste disposal requests and see which requests are not completed or scheduled. EMS also allows EHS to more reliably track waste disposal requests, reducing lost service requests and allowing for quicker service times.

The Incident Investigation Database was debuted to drive awareness and prioritize safety by allowing anonymous notification of hazards by anyone. Incidents are entered into a secure database via the Incident Notification Form. The incidents are tracked and investigated by safety professionals so that preventative measures can be implemented.

For more information about incident reporting please see our website: [https://ehs.utexas.edu/research-labs-clinical/incident-reporting](https://ehs.utexas.edu/research-labs-clinical/incident-reporting).

- **Years working with TReCs to develop the Incident Investigation Database:** 2
- **Staff hours saved annually by switching to the EMS system:** 500
INTEGRITY

We perform our work in a transparent, honest, and accountable manner. We also commit to meeting all compliance and reporting standards.

EHS strives to ensure that the work, research, and daily activities at the university do not put people’s health and safety at risk or cause undue environmental damage. EHS also ensures that the university complies with applicable legislation and follows best practices to meet operational goals around compliance, risk management, sustainability, and more.

Environmental Programs responded to many water quality complaints in 2021. Regardless of who is responsible, whether they be contractors, staff, or students, EHS always prioritizes the health of the creek over pointing fingers.

Likewise, Lab Safety uses incidents as teaching moments by discussing the incident in newsletters or flyers. The intention is not to shame but to provide information to others and prevent a similar situation from recurring.

Texas Department of State Health Services (DSHS) performed a program audit of UT Austin’s Radioactive Material Licenses. This three-day audit included the PRC and Main campuses, with no violations noted. Dell Medical School (DMS) was also inspected by the State of Texas for compliance with its Radioactive Materials License with no violations. The Mammography facility was also inspected by the state with one minor violation.

Hazardous Materials Specialist Merrit McKelvy attends to an oil spill on Speedway.

- Professional certifications awarded to EHS staff:
  - Medical Laser Safety Officer (LSO)
  - Certified Industrial Hygienist (CIH)
  - Associate Safety Professional (ASP)

3

EHS

20

ENVIRONMENTAL PROGRAMS

Water quality incidents responded to and mitigated by EHS staff
In 2021, 1 FTE inspector out of the total 5.17 FTEs was vacant due to attrition. To manage workload, duties were adjusted across the remaining inspectors to ensure our customers’ needs were still met. The above chart includes the lab space increase with the commissioning of the Gary L. Thomas Energy Engineering Building (GLT, 2022).

The secure and confidential Incident Investigation Database allows direct reporting of incidents to safety professionals in multiple departments. Tracking action items delegated directly to responsible individuals preserves integrity and accountability for employee safety.


---

**OCCUPATIONAL SAFETY**

**146**  
Incidents reported to the Incident Database since it went live in June 2021 to December 2021

**HAZARDOUS MATERIALS**

**5,753**  
Pounds of chemical waste removed during lab clean-outs
SERVICE

EHS is a service-oriented department committed to professionalism in support of ensuring healthy and safe operations on campus and protection of the environment.

In April 2021, a complete overhaul of the EHS website went live. In an effort to better serve our customers, the website was designed from the user’s perspective with extensive testing to ensure we would be meeting their needs.

With a focus on maintaining compliance, the Environmental Programs team provides a range of services for multiple sites, from responding to environmental incidents to construction site plan review and inspections, to full-fledged compliance support.

- **HAZARDOUS WASTE**
  - 18,087 Waste items collected

- **LAB SAFETY**
  - 24 New PIs on-boarded

- **RADIATION AND LASER SAFETY**
  - 13 New permits issued: RAM (4) X-ray (3) Laser (7)

- **LASER SAFETY**
  - 51 Laser procedures performed at the Dell Medical Center Ophthalmology Clinic
Lab Safety staff examine debris after a fire in a high-hazard lab.

In 2021, there was a 35% increase in asbestos requests and a 32% increase in the number of samples from the previous year.

Animal Make Safe staff respond to wildlife incidents such as this Texas rat snake found in a campus building.

Radiation and Laser Safety staff performed 216 audits in 2021.

4
Training modules developed (3 new, 1 updated)

28.7%
Reduction in turnaround time for the average chemical waste disposal request
STEWARDSHIP

We are exceptional caretakers of the resources entrusted to FAS.

In our service to the university, EHS strives to responsibly manage university assets, revenues, and resources in a manner that respects the environment, the people we serve, and the community in which we live.

In 2021, a radiation calibration source was acquired for only the cost of shipping to replace the older source currently used to perform detector calibrations. The transaction saved several thousand dollars in purchase price, with an ongoing annual savings of over $2,000 per year.

Radiation Safety also supported research efforts by offering to move radioactive samples and sources between campuses to facilitate fast and compliant transport of the materials. EHS also coordinated the shipment and the return of radioactive equipment to an out of state university for collaborative work.

Lab Hazard Levels (LHLs) were implemented for the 2018 CY to account for a reduction of inspectors and increase in number of labs. LHL1 are the lowest hazard level, evaluated once every two years. LHL2 labs are evaluated annually and LHL3 labs (also referred to as high hazard) are evaluated twice each year. As the number of labs increased from 2018 to 2021, the distribution of LHL1-3 labs remained the same.

$50,000
Perpetual annual cost savings from developing an incident database in-house

745
Protocol reviews:
IACUC (465)
IBC (222)
IRB (58)
Beginning in 2020 EHS Hazmat staff began to work directly with researchers to identify unknown waste streams prior to submitting to EHS for collection. In 2020, EHS Hazmat purchased basic testing materials to internally identify low-risk unknown materials. Risk was determined by laboratory hazard level. Through this process, in 2021, EHS was able to reduce the number of unknown waste items received by 46.7% from the previous year avoiding costs for identification and labor charges for a total savings of $7,290.

Associate Director Andrea McNair and Laboratory Safety Manager Rudy Guerrero inspect a ceiling space for water leaks after Winter Storm Uri.
TEAMWORK

Effective teams that are focused on the same mission can bring about a culture of engagement, environmental protection, and safety. To identify and remediate safety risks and issues, EHS works closely with the university’s colleges, schools, and other campus departments such as: FPS, EP, PMCS, FS, UEM, CPC, Athletics, and UTPD.

Permission to fly a UAV on campus is requested for many different reasons. The UAV committee is made up of members from different departments at the university. Each plays a vital role in determining requirements and needs for each request. The review process ensures all flights are in compliance with university and regulatory requirements as well as to ensure the safety of the university community.

Currently, individual safety department silos have independent Control of Hazardous Energy programs although employees from different departments interface on the same equipment. Occupational Safety leads the charge in creating a much-needed campus-wide Control of Hazardous Energy Program. Managers and departmental safety representatives participated in a review and comment period on the draft program. EHS meets weekly with departmental safety representative to coordinate the details of the program, its procedures, and required training.

In 2021, UAV requests were generated to support research, construction, media, and other activities on campus.

Sign warning of high voltage equipment in a campus building mechanical room.

UAV REQUEST REVIEW

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<td>-8 denied</td>
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Sections of EHS are part of the change management committee for the UT HERD database.
In an effort to improve the health of Waller Creek, Environmental Programs partnered with Landscape Services (LS) and PMCS to install 9 pet waste stations to help reduce bacteria levels in Waller Creek. Locations that were chosen represent historical problem areas, high traffic locations, and proximity to trash cans. Environmental Programs also works continuously in collaboration with staff across campus to sustain and improve UT’s stormwater program. Lastly, Environmental Programs provided exemplary construction project support. For example, the South End Zone Project had very tight deadlines and EHS ensured a timely opening of the building by providing countless hours of inspections and quality testing.

Of the 1,385 fume hood evaluations performed in 2021, 4% failed. As a result of these evaluations, EHS entered 83 work orders to restore fume hood functionality. Once fume hoods are repaired, EHS re-evaluates to ensure fume hoods are operating properly. In 2022, GLT will be adding 113 new fume hoods. One fume hood inspector completes fume hood evaluations and submits associated work orders for the entire university.

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FUTURE OUTLOOK

EHS will continue to evolve and change roles, responsibilities, and focus as we face any new challenges, disruptions, or uncertainty that may come. Compliance, sustainability, and technology will continue to play a major role in developing new programs and services. EHS will continue to provide expertise and essential services to support the mission of the FAS portfolio and university in 2022.

PROGRAMS AND INITIATIVES

New Waste Generator Rules adopted by the Texas Commission on Environmental Quality will require EHS to update how the university manages waste. Part of this change is adopting Subpart K which is specific waste management regulations for Academic Laboratories. This change allows for improved flexibility in management of waste generated by our research laboratories. EHS will be updating our Hazardous Waste Management training requirements to help educate our customers on the new changes.

Occupational Safety will continue to plan the development to strengthen existing and create new safety programs. This includes ramping up Industrial Hygiene efforts across campus. These efforts will be focused on preventing exposures to workplace hazards.

The next step and main goal for the Incident Database is to streamline injury reporting by integrating the first report of injury. This will simplify the injury reporting process for employees and supervisors, while giving all departments the information they need about injuries to keep their programs successful.

EHS has been chosen to be part of a collaboration between the operations and academic sides of UT Austin. Environmental Programs will serve as the client for the Environmental Communications class in the Moody College of Communication. Students in the class will create an advertising campaign to bring awareness to Waller Creek through a variety of mediums. EHS staff will meet regularly with the class and work with the students throughout the spring 2022 semester.
OPERATIONS

Plans continue to move forward for EHS’s relocation off-campus to the East Campus Garage, anticipated for summer 2022. The Radiation and Laser Safety group will continue to prepare for the move by working directly with the design group to discuss shielding requirements for the radiation calibration source room. Inventory of our offices and storage space will be performed to determine which equipment will move to the new storage space, the Materials Transfer Center (MTC), or go to surplus.

After reviewing the waste generation over the last three years for two of our regulated sites, EHS has determined that we can update their regulatory status to a Very Small Quantity Generator (VSQG). VSQGs have the fewest hazardous waste compliance regulations and will reduce the required annual reports, reduce the risk of regulatory inspections, and open up opportunities for cost savings.

ORGANIZATION

The University of Texas at Austin continues to grow. Four new positions will be filled to accommodate the needs of campus with Environmental Programs, Occupational Safety, and Radiation and Laser Safety. The need for other full-time positions will continue to be evaluated.

SERVICES

We hope to implement more aspects of the Green Labs program in the future as we currently have only been able to maintain Styrofoam and glove recycling due to funding.

EHS plans to continue to improve our waste management software, EMS. EHS will begin the effort to add biological waste management to EMS allowing researchers to manage all their chemical and biological waste through EMS. EHS will also review the potential for automating some parts of our internal processes used for generating reports within EMS.
### ACRONYMS

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Description</th>
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<tbody>
<tr>
<td>ASP</td>
<td>Associate Safety Professional</td>
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<tr>
<td>CIH</td>
<td>Certified Industrial Hygienist</td>
</tr>
<tr>
<td>CNS</td>
<td>College of Natural Sciences</td>
</tr>
<tr>
<td>CSE</td>
<td>Cockrell School of Engineering</td>
</tr>
<tr>
<td>CPC</td>
<td>Capital Planning and Construction</td>
</tr>
<tr>
<td>CY</td>
<td>Calendar Year</td>
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<tr>
<td>DMS</td>
<td>Dell Medical School</td>
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<tr>
<td>DSHS</td>
<td>Texas Department of State Health Services</td>
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<tr>
<td>EHS</td>
<td>Environmental Health and Safety</td>
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<td>EMS</td>
<td>Environmental Management System</td>
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<td>Office of Emergency Preparedness</td>
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<td>Financial and Administrative Services</td>
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<td>FPS</td>
<td>Fire Prevention Services</td>
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<tr>
<td>FS</td>
<td>Facilities Services</td>
</tr>
<tr>
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<td>Full Time Employee</td>
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<tr>
<td>GLT</td>
<td>Gary L. Thomas Energy Engineering Building</td>
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<tr>
<td>IACUC</td>
<td>Institutional Animal Care and Use Committee</td>
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<tr>
<td>IBC</td>
<td>Institutional Biosafety Committee</td>
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<tr>
<td>IRB</td>
<td>Institutional Review Board</td>
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<tr>
<td>JSG</td>
<td>Jackson School of Geosciences</td>
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<tr>
<td>LHL</td>
<td>Lab Hazard Level</td>
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<tr>
<td>LSO</td>
<td>Laser Safety Officer</td>
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<tr>
<td>MS4</td>
<td>Municipal Separate Storm Sewer System</td>
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<tr>
<td>MTC</td>
<td>Materials Transfer Center</td>
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<tr>
<td>MER</td>
<td>Microelectronics Research Center</td>
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<tr>
<td>PI</td>
<td>Principal Investigator</td>
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<tr>
<td>PMCS</td>
<td>Project Management and Construction Services</td>
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<td>PRC</td>
<td>J.J. Pickle Research Campus</td>
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<td>RAM</td>
<td>Radioactive Materials</td>
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<tr>
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<tr>
<td>SER</td>
<td>Service Building</td>
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<tr>
<td>UAV</td>
<td>Unmanned Aerial Vehicle</td>
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<td>UHD</td>
<td>University Housing and Dining</td>
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<td>UTHERD</td>
<td>UT Hazard Evaluation and Risk Database</td>
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<tr>
<td>UTPD</td>
<td>University of Texas at Austin Police Department</td>
</tr>
<tr>
<td>VSQG</td>
<td>Very Small Quantity Generator</td>
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Sparky the Fire Dog assisting with fire extinguisher training on Speedway Mall.
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OVERVIEW

ABOUT US

The University of Texas at Austin Fire Prevention Services (FPS) office ensures a safe environment for faculty, staff, students, and visitors by providing a comprehensive fire prevention program. Our fire safety professionals are charged with monitoring all university buildings for compliance with local and state requirements. They partner with our community stakeholders to perform the inspections and drills necessary for risk reduction and the potential negative impacts of fire on campus.

As part of our continual effort to improve campus safety and emergency preparedness, FPS serves as the university’s liaison with the Texas State Fire Marshal’s Office and local emergency responders. Our organization ensures that new construction projects comply with applicable codes, as well as develop compliance solutions for existing structures. We dedicate ourselves to the campus community through a comprehensive program of inspection, prevention, plan review, and public education efforts designed to minimize risk and maximize campus fire safety.

Fire Prevention Services vehicle at The University of Texas Elementary School for a fire drill.
PROGRAMS AND SERVICES

INSPECTIONS

• Fire Inspections
• Residence Hall Inspections
• Food Truck Inspections

PLAN REVIEW

• Design and Construction Drawings
• Alternate Means and Methods
• Fire Department Access
• Shop Drawings

FIRE EXTINGUISHER

• Annual Maintenance and Inspections
• Replacing Discharged Fire Extinguishers
• Servicing Fire Extinguishers
• Returning Fire Extinguishers Into Service

MCD FIRE MARSHAL

• Fire Inspections
• Fire Protection System Inspections, Testing, and Maintenance
• Wildfire Prevention and Response
• Safety Training

TRAINING

• Fire Extinguisher Training
• Crowd Manager Training

FIRE DRILLS

• Coordinating Fire Drills with Building Managers and Fire Safety Systems Shop
• Monitoring and Evaluating Drills

SPECIAL EVENTS

• Assisting with Event Safety Planning
• Pre-Event Inspections
• Event Monitoring / Fire Watch
• Permitting for Hazardous Activities and Installations

OUTREACH

• Community Engagement
• Social Media
• Live Demonstrations

LIFE SAFETY ENHANCEMENTS

• Fire Alarm Installations/Upgrades
• Fire Suppression Installations/Upgrades
• Emergency Lighting Installations/Upgrades
I am pleased to present our 2021 Annual Report and thank you for taking the time to review our ongoing activities and achievements in what has proven to be another challenging year.

The COVID-19 pandemic in 2021 continued to pose challenges for Fire Prevention Services (FPS); several members of the staff tested positive for COVID-19. The majority of the engineering staff worked remotely and the inspection staff, periodically, also worked remotely. Consequently, FPS has fallen behind on several inspections due to COVID-19 and being short one inspector following the retirement of lead inspector Easley. The engineering staff had to take on some assignments normally delegated to inspectors.

Some of the most formidable tasks the FPS engineering staff faced in 2021 were the commissioning the South End Zone project, Dobie Mall due diligence, completing the Austin Fire Department Building Information Cards, the February freeze of 2021, and the endless amount of plan reviews.

As a result of the effects of COVID-19 and being short staffed, the inspection staff struggled to keep up with fire extinguisher inspection; although they were able to keep up on fire drills and building inspections. The inspection staff was also burdened with learning and implementing a new records management software.

There were some bright spots to 2021. FPS was able to implement a permit program that includes outdoor cooking permits, indoor decorative lighting permits, food truck permits, hospitality tent permits, open flames permits, pyrotechnics permits, and hot work permits. Although the freeze of 2021 was very challenging, FPS, collaborating with Mechanical Distribution and Fire Safety Systems, was able to identify a leak in the fire water distribution system that impacted the fire sprinkler system in NHB. The group was able to secure a portable fire pump and supply the NHB sprinkler system from an alternative water source.

The year 2021 was again very stressful and extraordinary, but FPS staff rose to the occasion again and approached every dilemma in a logical and sensible way. I am very proud of their perseverance and determination to serve the university’s needs in these challenging times.
ORGANIZATION

JOSH LAMBERT
ASSISTANT DIRECTOR
ASSISTANT FIRE MARSHAL
• Engineering
• Technical Operations
• Special Projects

FRANCISCO GUTIERREZ
LEAD INSPECTOR
FIRE INSPECTIONS
• Fire Inspections
• Fire Drills
• Fire Extinguisher Maintenance

MANAGEMENT

INSPECTIONS

ENGINEERING

MCDONALD OBSERVATORY FIRE

Total: 10 employees
DIVERSITY

FPS embraces diversity in all things that we do. From our approach to fire prevention, to our team members, and to how we interact with the university community at large. FPS approaches the fire safety needs of The University of Texas at Austin community through three distinct practices: Enforcement, Engineering, and Education. This approach allows us to improve fire safety at the university by creating good habits, ensuring the construction of a safely built environment, and intervening when issues are discovered. The FPS team comes from a wide variety of backgrounds, bringing with them an array of experience that contributes to a well-rounded perspective on fire safety. Our team members have served in the fire service, multiple branches of the armed forces, municipal and state government, as fire protection contractors, and as consulting engineers in a variety of sectors. We strongly believe that fire safety is a community effort. FPS works closely with stakeholders from across the university community to achieve safety in all aspects of operations at The University of Texas at Austin. We also strive to improve the fire safety of students, faculty, staff, and visitors in their lives outside of the university through a wide array of outreach and educational activities including social media, community engagement, training, and large-scale fire demonstrations.

Team members from the Fire Safety Systems Shop, Mechanical Distribution, and the temporary fire pump suppliers connect to a fire hydrant for a temporary water supply for the Norman Hackerman Building after the Freeze ’21
As the Fire Safety Systems Shop (FSSS) began returning water-based fire suppression systems into service after Winter Storm Uri, a leak in the underground supply piping was discovered. In order to return the high pressure Fire Water Distribution System (FWDS), a loop that provides fire suppression water to buildings in central campus, the water supply for the fire pump at the Norman Hackerman Building (NHB) had to be cut off. Laboratories in NHB were performing essential research at the time and in order to safely maintain operations FPS and FSSS developed a plan to provide a temporary fire pump connection for the building.

Providing this temporary protection and repairing the leak in the FWDS was a monumental effort that required close coordination among several FAS teams. FPS worked closely with FSSS and Business and Financial Services to quickly find a supplier and issue a purchase order to rush this essential equipment to campus. FSSS and Mechanical Distribution worked closely together to provide a connection to a nearby fire hydrant to supply water to the temporary fire pump. Mechanical Distribution provided temporary fencing to protect the equipment and the Carpentry Shop built a temporary walkway over the hose connections so that building occupants could continue to use the stairs. Once the temporary pump was in place Mechanical Distribution, FSSS, FPS, and Capital Planning and Construction had to locate and repair the leak in the FDWS underneath speedway mall.
INNOVATION

Fire risks are constantly evolving as new technology emerges and the way we use and interact with our built environment changes. Research activities across the university force FPS to adopt a proactive approach to protect students, faculty, and staff from unconventional fire risks. To meet these challenges, FPS staff are continuously learning and developing new skills and actively participate in developing new national codes. FPS also dedicates time to stay up to date with cutting edge fire protection technologies and best practices. One way that FPS helps keep the university safe in this dynamic environment is by providing unique training experiences to empower the university community to be partners in our mission, protecting The University of Texas from fire.

Building on efforts to add new online services that began in 2020, FPS introduced a new online permitting portal to streamline how customers receive approvals from FPS for activities related to special events and hot work permits. For special events, FPS requires permits for temporary cooking equipment, certain tents, open flames, temporary decorative lighting, food trucks, pyrotechnics and flame effects. FPS worked with Technology Resources to develop a web app and database where clients can submit permit requests and track approvals from a central location. Previously, approvals for these activities took place over email exchanges that often involved back and forth communications in order to ensure that necessary information was provided to FPS for approval and to direct requestors to the appropriate FPS team members. The new system provides a single point of contact for clients and ensures that they provide all necessary information when submitting a request. Initial feedback from customers has been overwhelmingly positive. Additionally, the new system provides improved records management for FPS team members with streamlined capabilities for tracking open requests, approvals, active permits, and data analysis.

With the return to regular on-campus activities for the fall 2021 semester, large in-person events came back to campus as well. As a result, FPS began receiving requests for crowd management training, which previously had not been offered since early 2020. FPS has shifted to delivering this training over MS Teams and Zoom, which has offered greater flexibility to FPS staff and our customers in scheduling training sessions. In 2022 FPS plans to add this training to our offerings on UT Learn to allow customers greater flexibility and create efficiencies for FPS team members who currently deliver this training live.
A screenshot of the new FPS permitting portal.

7

ON-LINE PERMITTING

- Temporary Cooking
- Tents
- Open Flames
- Temporary Lighting
- Food Trucks
- Pyrotechnics
- Hot Work

2

ON-LINE TRAINING OFFERINGS

- Fire Extinguisher Training
- Crowd Management Training
INTEGRITY

The safety of students, faculty, staff, and visitors is the number one priority for FPS at The University of Texas at Austin. FPS works to keep the university in compliance with state and federal requirements for fire safety including conformance with fire and building codes and reporting requirements.

FPS engineers perform in-depth reviews to ensure that project plans and specifications conform to the applicable NFPA and ICC codes and standards, University Design and Construction Standards, and the Texas Accessibility Standard. FPS staff conduct periodic installation inspections and witness tests of fire protection systems to ensure that buildings are constructed in accordance with approved plans and reference standards.

FPS regularly inspects all university facilities to assess and mitigate potential fire and life safety hazards in university facilities. Fire inspections focus on identifying fire safety hazards and deficiencies in buildings to ensure that buildings are well maintained and safely operated. All FPS inspectors are certified by the National Fire Protection Association and many have received supplemental training and certifications in specialty areas such as pyrotechnic displays.

Fire extinguishers ready for maintenance.
In 2021 FPS participated in an audit of fire extinguisher maintenance on campus. The findings of this audit identified a need for improvements to three main areas: records management, service backlog, and monthly checks of fire extinguishers. It was found that there were issues with the quality of data in the records management system. Transitions between records management systems over the past few years had resulted in issues such as duplicate entries for equipment and misidentified locations. COVID-19, staffing shortages, and supply chain issues resulted in a backlog for annual maintenance inspections and internal servicing of fire extinguishers. Challenges in meeting requirements for monthly checks of fire extinguishers were also identified.

FPS has developed and implemented a plan to address these findings going forward. Efforts are currently underway to clean up issues in the record management system and catch up on the service backlog. FPS inspectors have been diligently working to complete these tasks in spring 2022. FPS will also include information on fire extinguishers that are maintained by auxiliary departments in our record management system to improve oversight of fire extinguisher maintenance in these facilities. FPS will be working with building managers and facility operators to educate and train them on the procedures and needs for monthly checks of fire extinguishers. In the long-term, FPS plans to implement electronic monitoring for fire extinguishers on campus to better ensure that these requirements are met and to substantially reduce workforce demands related to monthly checks.

![Fire Extinguisher Maintenance](image-url)
SERVICE

FPS serves the entire university community by working to create a safe environment for learning, research, cultural enrichment, and entertainment. Whether we are conducting inspections and plan reviews, consulting on fire protection issues, or assisting in the planning and operations of special events, FPS works diligently to help our customers achieve their goals while providing for the safety and well-being of the university’s students, faculty, staff, and visitors. FPS supports construction activities at the university from initial project programming through design and final construction. In addition to ensuring compliance with building and fire codes, FPS staff often provides supplemental advice and consultation for project teams to help ensure that their projects are successful and meet the needs of the university. For special events, FPS is often involved early, assisting with planning, reviewing floorplans and site plans, and evaluating potential hazardous activities. FPS strives to be responsive, collaborative, and thoughtful members of the teams that build and showcase The University of Texas at Austin.

FPS Lead Inspector, Francisco Gutierrez (right) witnesses a hydrostatic test of a fire sprinkler system at the Moody Center.
SPECIAL EVENT STAFFING / FIRE WATCH

FPS typically provides staffing for over 200 special events each year including athletic events, concerts, performing arts events, conferences, and other mass gatherings. The COVID-19 pandemic greatly reduced the number of events in 2020; however 2021 saw most of these events return to campus. A reduction in available employees led to challenges in staffing events in 2021. While FPS returns to normal staffing levels in 2022, FPS expects that in 2022 and beyond there will be a notable increase in the special event workload due to forecasted operations numbers from the Moody Center which opens in April 2022.

![Fire Watches / Events](image)

TESTING AND ACCEPTANCE ACTIVITIES

FPS inspectors witness acceptance testing of fire protection systems for newly constructed buildings and renovations of existing buildings. With several large projects under active construction, 2021 was a busy year for acceptance testing at FPS. It is expected that this pace will continue through mid-2022, when most of these projects will be complete.

![Acceptance Testing](image)
STEWARDSHIP

FPS strives to utilize resources in ways that maximize the impact to fire and life safety for the university community. FPS continuously monitors and assesses life safety systems and features in university buildings and reviews fire inspection reports generated by the State Fire Marshal’s Office, FPS fire inspectors, and the Fire Safety Systems Shop’s maintenance reports. This information, along with FPS’s database on building fire protection systems, is analyzed to conduct a risk assessment for the purposes of identifying and prioritizing projects for corrective actions and improvements. Using this system, FPS can ensure that the university’s limited funds are best used to positively impact the safety of students, faculty, and staff.

With the assistance of Project Management and Construction Services and other university stakeholders, FPS completed a number of projects in 2021 to rehabilitate and upgrade existing life safety systems, install new fire suppression and life safety systems, and enhance fire department access across the university:

- CAM - Emergency lighting upgrades in various buildings
- UA9 - Install fire alarm and mass notification system
- MCD - Wildland fuel mitigation
- MCD - Firewater distribution system
- ARL - Install sprinkler system
- EME - Install sprinkler system and connect toxic gas alarms to wampus wide monitoring system
- EER - Install gas detection system
- JHH - Upgrade fire alarm system to voice notification and install mass notification system
- MAIN - Install area of refuge communication system
- CPE - Install sprinkler system in penthouse
- SEA - Upgrades to the fire alarm panel

10 Projects completed in 2021

$4,000,000 Funding for fire and life safety projects in 2021
Texas Forest Service firefighter using a chainsaw to reduce wildfire fuel load at McDonald Observatory.

Area of Refuge communications system at the Main Building.
TEAMWORK

FPS follows a community-oriented approach to fire prevention. Through partnerships with departments and individuals across the entire university, we are able to facilitate the mission of The University of Texas at Austin and ensure the safety of its students, faculty, staff, and guests. Whether conducting inspections, reviewing construction documents, educating and preparing the university community, or working to solve unique challenges with our peers, teamwork is at the heart of how FPS approaches our mission. We strive to collaborate with our partners to find ways to achieve their goals in a safe manner that meets regulatory requirements and fire safety best practices. We all have a role to play in protecting the university from the threat of fire through creating a safer built environment, operating and using facilities in a safe manner, and even practicing fire safety in our homes. FPS is proud to work together to make The University of Texas a safe place to learn and grow.

Lead Fire Inspector Francisco Gutierrez and Fire Inspector Stacey Alley conduct a fire drill at Jester residence hall.
FIRE INSPECTIONS
FPS strives to inspect all university facilities at least annually. With over 200 facilities, over 25 million square feet on the main campus alone, and well over 100 additional buildings spread throughout the state, this is a daunting task. FPS inspections have been operating at a reduced staffing level through 2021. In 2022 FPS will return to a full-inspection staffing model.

PLAN REVIEW
The number of plan review requests continues to rise with 29 more requests for review in 2021 than the previous year. Accommodating this increasing workload continues to strain FPS’s ability to provide reviews that are both timely and thorough. A sharp increase in the number of review requests for PMCS projects was the primary driver for plan review activity in 2021. As construction activity continues to increase, FPS may need to make adjustments to how we offer our plan review services to PMCS and CPC in the future.
OUR MISSION

Campus Safety analyzes, prepares for, protects from, and responds to potential hazards and safety risks in order to promote the safety and continuity of the university environment and operations.

OUR VISION

Campus Safety provides a resilient framework and environment that enriches the university academic and research mission by establishing an innovative and adaptable safety culture.

OUR VALUES

Service, Stewardship, Integrity, Innovation, Diversity, Teamwork

The University of Texas at Austin
Campus Safety