Daniel Stine, Occupational Safety Specialist and Andrea McNair, Assistant Director observing aluminizing activities for the 82-inch Otto Struve telescope at McDonald Observatory.

Cover photo: Andrea McNair, Assistant Director and Anthony Estillore, Occupational Safety Specialist assessing fall protection needs for MAI re-roofing project.

Photo credits: Daniel Stine. Used with permission.
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OVERVIEW

ABOUT US

Environmental Health and Safety, EHS, is a campus department with a mission to promote healthy and safe operations on campus, to protect students, faculty, staff and visitors, and to ensure the protection of the environment. EHS works closely with campus departments such as Facilities Services, UT Police Department, Fire Prevention Services, and Emergency Preparedness to achieve our mission.

EHS has both primary program areas and support services, and each has several areas of emphasis. Our program areas include Campus and Occupational Safety, Environmental Programs, Biological and Laboratory Safety, and Radiation and Laser Safety. Our Support Services include Animal Make Safe, On-Call Response, Food and Drinking Water Safety, Indoor Air Quality, Unmanned Aerial Vehicles, Training and Outreach, and Project Planning and Design Review.

Much of our focus is mandated from city, state and federal regulations that are designed to protect human health and the environment. By focusing our attention on complying with these regulations, we ensure a safe learning, working and visiting environment for everyone at the University of Texas at Austin.
Welcome to the 2017 Annual Report for Environmental Health and Safety (EHS). Please understand that this is a condensed snapshot of the various programs within EHS. We have not attempted to describe everything we do because it would likely be rather long and boring. Instead, we provided facts and information that will provoke some thought about campus safety and hopefully reflect the contributions of the entire staff.

EHS has many programs to help provide a safe and environmentally responsible campus, but we cannot do it alone. We hope you find this information to be both interesting and useful.

We need your continuous involvement, addressing safety in your daily work, to provide a world-class environment for learning and research.
VISION
It is our vision to become a recognized national leader and innovator in campus environmental health and safety.

MISSION
The mission of Environmental Health and Safety is to promote healthy and safe operations on campus, to protect students, faculty, staff, and visitors and to ensure protection of the environment.

VALUES
- **Excellence**: We encourage excellence and strive to go beyond regulatory compliance, promoting the best EHS practices.
- **Customer Orientation**: We are committed to providing efficient and customer-friendly services to the university community.
- **Competency**: We work diligently to maintain and continue to improve our skills, abilities, and knowledge.
- **Collaboration**: We promote valued internal and external relationships with our community and encourage an open exchange of ideas and information.
- **Ethics**: We are committed to acting with integrity and honesty in all our endeavors.
- **Continuous Improvement**: We recognize that improvement is a continuous process, and we strive to be at the forefront of changes in our field.
Environmental Health and Safety is under the Campus Safety office within the Financial and Administrative Services portfolio. Units under this portfolio support and enhance the University’s core mission to be more effective, efficient, and achieve operational excellence.
MANAGEMENT

--- THE TEAM ---

SCOTT PENNINGTON
ASSOCIATE DIRECTOR, RSO, LSO

NENA ANDERSON
ASSISTANT DIRECTOR, ENVIRONMENTAL PROGRAMS

ANDREA MCNAIR
ASSISTANT DIRECTOR, CAMPUS AND OCCUPATIONAL SAFETY

DENNIS NOLAN
ASSISTANT DIRECTOR, BIOLOGICAL AND LABORATORY SAFETY, BSO
WHAT WE DO

OUR PROGRAMS AND SERVICES

PROGRAM AREAS

CAMPUS AND OCCUPATIONAL SAFETY

• Fall Protection
• Asbestos
• Hearing Conservation
• Aerial Lift and Crane Safety
• Machine Shop Safety
• Respiratory Protection

ENVIRONMENTAL PROGRAMS

• Regulatory Compliance and Support
• Hazardous Waste Management
• Water Quality (Stormwater and Wastewater)
• Pollution and Spill Prevention

BIOLOGICAL AND LABORATORY SAFETY

• Chemical Safety
• Biological Safety
• Laboratory Evaluations
• Hazardous Materials Shipping

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

ON-CALL RESPONSE

• On-Call Program
• 24/7 Emergency Response

FOOD AND DRINKING WATER SAFETY

• Food Safety Inspections
• Food Distribution Approval
• Drinking Water Testing

UNMANNED AERIAL VEHICLES

• UAV Request Approval

TRAINING AND OUTREACH

• Training Management
• Campus Outreach

PROJECT PLANNING AND DESIGN REVIEW

• New and Existing Construction Review
• Design and Construction Standards
HOW WE WORK

WORKING TOGETHER

EHS works closely with other campus departments such as Fire Prevention Services, Emergency Preparedness, Project Management and Construction Services, Facilities Services, Utilities and Energy Management, Campus Planning and Construction, and the University’s Colleges and Schools.

EHS serves as a liaison with regulatory and compliance agencies such as the Environmental Protection Agency, the Drug Enforcement Administration, the Department of Transportation, the City of Austin, the Texas Commission on Environmental Quality, and the Texas Department of State Health Services.

EHS is charged with certain health and safety inspections and compliance for all applicable federal, state, and local regulations and other EHS requirements intended to protect safety, health, and the environment.

WE ALL SHARE THE BENEFITS OF A HEALTHY AND SAFE WORKPLACE

RESPONSIBILITY

EHS serves as a liaison with regulatory and compliance agencies such as the Environmental Protection Agency, the Drug Enforcement Administration, the Department of Transportation, the City of Austin, the Texas Commission on Environmental Quality, and the Texas Department of State Health Services. EHS is charged with certain health and safety inspections and compliance for all applicable federal, state, and local regulations and other EHS requirements intended to protect safety, health, and the environment.

CUSTOMERS

EHS serves the campus community. Our customers include faculty, staff, students, campus visitors, and volunteers.

IN 2017 THE FACILITIES SERVICE CENTER ROUTED 193 CAMPUS TROUBLE CALLS TO EHS.
**YEAR IN REVIEW**

**HIGHLIGHTS**

**ENVIRONMENTAL PROGRAMS**
- **2** Water quality awards

**TRAINING AND OUTREACH**
- **UTLearn** All EHS classes moved to UTLearn

**RADIATION AND LASER SAFETY**
- **11** Approximate number of laser research PIs added

**BIOLOGICAL AND LABORATORY SAFETY**
- **433** IBC (Institutional Biosafety Committee) protocols reviewed
- **102** Labs cleared in WEL to prepare for renovation

**ORGANIZATION**
- **4** Hired two Hazmat Specialists, added a Food Safety Specialist, and a Radiation Safety Specialist
- **57** After-hours incidents

**CAMPUS AND OCCUPATIONAL SAFETY**
- **35** UAV requests reviewed
DISASTER RESPONSE

HURRICANE HARVEY

Hurricane Harvey, a Category 4 hurricane, made landfall on San Jose Island, just east of Rockport, Texas on August 25, 2017. Harvey was the first major hurricane to make landfall in the United States since 2005. After striking land, Harvey weakened to a tropical storm and stalled for days just inland, causing record-breaking rainfall and bringing catastrophic flooding to the Texas coastal region and Houston metropolitan area. A state of emergency was declared for 50 Texas counties, and the International Charter on Space and Major Disasters was activated by the US Geological Survey. Hurricane Harvey became one of the costliest natural disasters in United States history, with damages totaling at $125 billion.

Wind gusts of up to 132 mph were measured near Port Aransas, Texas. The University of Texas Marine Science Institute (MSI), a research, education, and outreach facility in Port Aransas, received extensive damage. All buildings on the MSI campus had some degree of roof and water penetration damage. The research pier was destroyed and campus operations were suspended indefinitely.

Staff from Environmental Health and Safety and UTPD were deployed to MSI as part of a response team that was organized to secure the campus and begin assessment for chemicals and other hazards. EHS remained on-site at MSI for five days and continued to assist and support MSI staff into 2018.

Irezama “Nena” Anderson, EHS Assistant Director, discusses EHS emergency response to Hurricane Harvey in a video released by Financial and Administrative Services:
https://newsletter.financials.utexas.edu/news/harvey-video/
EHS staff, along with other emergency responders, meet at MSI following Hurricane Harvey.

EHS emergency response staff on-site at MSI: (L-R) Anthony Estillore, Brent McGlothlin, Eric Wilson, Nena Anderson.

Pump building at FAML destroyed.

Dormitory building with significant structural damage.

Debris from the roof at FAML.

University of Texas Marine Science Institute
21 hrs ·

The destruction caused by Hurricane Harvey to our campus and community is heartbreaking. We are so fortunate to have a very dedicated and competent team working around the clock.

EHS staff, along with other emergency responders, meet at MSI following Hurricane Harvey.
PROGRAM AREAS

CAMPUS AND OCCUPATIONAL SAFETY

Campus and Occupational Safety (COS) focuses on preventing incidents to ensure the safety of students, faculty, staff and visitors. Initiatives include the Occupational Safety Committee, Respirator Protection, Fall Protection, Machine Guarding, Construction Design Review, Aerial Lifts and Cranes, Indoor Air Quality, Confined Space, Hearing Conservation and Industrial Hygiene.

Accomplishments
- Responded to MSI, Smithville, and Winedale Campuses for Harvey related issues including asbestos, lead, and mold.
- Provided unprecedented occupational safety support for McDonald Observatory, located 450 miles west of UT Austin Main Campus.
- Provided crucial design review and negotiations for existing (NOA), new (EER) and future (EEB) Cockrell School of Engineering facilities.
- Provided extensive oversight and active hazard mitigation during Welch renovation, Speedway Mall construction, EER substantial completion and occupancy, and emergency response to surrounding facilities due to construction activities.

Future
- Confined space campus inventory.
- Control of Hazardous Energy Program (lock-out tag-out).
Reviewing projects in the design stage creates a cost-effective method for COS to improve designs of facilities and equipment for compliance and protection of personnel. EHS contributions include pre-construction meetings, construction phase reviews, site visits, pre and post-construction inspections, and training.

As the campus expands in size, demands on COS will continue to grow. In 2017, support was expanded to include new buildings such as EER, RRH, and Dell Medical School. COS provided unprecedented support to MSI, McDonald Observatory, and other small remote locations such as Winedale.

Significant work in 2017 was driven by demolition projects such as WRW and CRH. Campus construction and academic partners continue to overlook pre-construction asbestos identification survey requirements.
Environment Programs is tasked with ensuring compliance with City, State, and Federal permits and regulations related to water quality (stormwater and sanitary sewer), water recycling, flood control, and erosion control. This program is also responsible for the proper disposal of chemical and biological waste for the University.

Accomplishments
- Received the City of Austin Excellence in Pretreatment Award for the second consecutive year for Main Campus and PRC.
- Completed successful Waller Creek Cleanups, summer and fall.
- Increased support to include waste management for the Dell Medical School.
- Responded to Hurricane Harvey at MSI in Port Aransas, Texas.
- Updated the Spill Prevention Control and Countermeasure Plan (SPCC) for Main Campus and PRC.

Future
- Updating Design and Construction Standards.
- Updating the University's procedure for inter-departmental cooperation in handling water quality-related emergencies.
- Finish conversion to new EMS web-based customer software for waste pickups.
Environmental Programs conducts a number of environmental initiatives every year, from responding to environmental incidents to construction site inspections.

2017 saw an increase in biological waste with an increase in cost of disposal.

The weight of chemical waste increased in 2017 while the cost of disposal went down. The increase in 2015 was due to the construction of EER. During this time, EHS managed waste from a temporary facility.
Lab Safety conducts laboratory evaluations of research and teaching laboratories at UT Austin and satellite facilities. This program also provides training and guidance on a number of laboratory topics including bloodborne pathogens, hazardous materials shipping, chemical safety, biological safety, select agents and toxins, and controlled substances. Lab Safety also investigates laboratory incidents including fires, spills, laboratory injuries, and any chemical or biological exposure.

**Accomplishments**
- Added many new labs and clinical areas in EER, HDB and HTB.
- Participated in the UT Health Austin safety committee and assisted in reviewing their policies and procedures.
- Expanded the autoclave testing program.
- Reviewed 102 IACUC and 433 IBC protocols.

**Future**
- Create Autoclave Safety training module.
- Implement the University Controlled Substance policy.
- Revise the Biosafety training module.
Principal Investigators (PIs) and their lab workers are required to take basic lab safety training courses; additional courses are required based on their specific work. PIs can view their lab’s training requirements and training needed in our online database, EHS Assistant.

Lab evaluations ensure compliance with applicable policies, regulations, and safe lab practices; all labs are evaluated at least annually. As total lab area increased, the number of lab evaluations per inspector climbed. To manage this growth, one new FTE inspector was added in 2017.

Every fume hood on campus is tested at least annually. The number of fume hoods increased 18% from 2013 to 2017; EER, HDB, and MSI contributed to a 12% rise in just the past year. There is only one fume hood inspector for the entire university.
Radiation and Laser Safety provides safety and compliance support and training for the use of radioactive materials, x-ray machines, and lasers. Training provided includes Basic Radiological Health, Laser Safety, and refresher training. EHS holds the registrations and license for University lasers and radioactive materials, and issues permits to users.

**Accomplishments**

- Registration of the imaging units at Dell Medical School.
- Licensed the use of 6 x-ray machines to facilitate the grand opening of the UT Health Austin clinic on campus.
- Laser Safety added a Sr. Safety Specialist to assist with the laser user database.
- EHS received its first request for medical laser use from UT Health.
- Laser use has grown by 64 Principal Investigators (PIs) over the last six years.
- Physical inventory of all lasers on Main Campus. The inventory was used to update the Laser Safety Program database.

**Future**

- Licensing of state-of-the-art 3D mammography and PET/CT scanners for UT Health Austin.
- Licensing the Dell Medical School for radioactive material use, including medical diagnosis and treatment.
- Development of a new Laser Safety training module in UTLearn.
- Implementation of a Safety Issue Escalation Policy for unresponsive laser lab PIs.
In 2017, there were three new Authorized Users (AUs) of radioactive materials, while four left the university.

The number of researchers using lasers in their research continues to increase as the potential uses of lasers are realized. 2016-2017 saw an 11% increase.
Corina Hernandez, Lab Safety Technician performing a fumehood inspection.
SUPPORT SERVICES

SUMMARY

ANIMAL MAKE SAFE
The Animal Make Safe (AMS) program works to minimize negative human/wildlife interactions by safely and humanely responding to live animal incidents on campus. Techniques include capture and removal, live trapping, and exclusion. AMS also reviews and approves requests to include animals as part of special events.

ON-CALL RESPONSE
Environmental Programs oversees the coordination and training for the EHS on-call program to ensure incident response 24 hours a day/7 days a week. Incidents that EHS responds to include hazardous material spills, fires, odors, animals, and lab incidents.

FOOD AND DRINKING WATER SAFETY
EHS staff are responsible for conducting food safety inspections of the permitted food vendors and kitchen facilities on campus, approving distribution of food on campus by staff, students, or vendors, and ensuring quality drinking water.

UNMANNED AERIAL VEHICLES (UAVS)
EHS is responsible for the coordination of UAV flight requests in accordance with HOP 8-1070 Unmanned Aerial Vehicles. This program responsibility is new to EHS and began in earnest in FY 2016. UT Austin requires that all UAV flight requests be submitted in advance for review and potential approval by the UAV Review Group.

TRAINING AND OUTREACH
EHS offers a variety of health and safety training opportunities to the campus community including classes in laboratory safety, laser and radiation safety, occupational safety and environmental concerns. EHS produces informational brochures, posters, signs, and other outreach materials to keep UT Austin students, faculty, staff, and visitors informed and safe. EHS also participates in campus events to raise awareness about our department and general safety.

PROJECT PLANNING AND DESIGN REVIEW
The primary function of Project Planning and Design Review is to ensure that facilities are designed and constructed to meet established safety and environmental regulations and best practices. EHS works closely with PMCS to coordinate projects needing EHS input.
SUPPORT SERVICES

ANIMAL MAKE SAFE

Accomplishments

- Answered 137 animal incident calls routed through the Facilities Service Center, UTPD, FCMS, and EHS front desk or direct calls to AMS during business hours.
- Processed 44 Live Animal Requests to bring animals onto campus.
- Hired and trained three new student workers.
- Investigated zero potential rabies exposures and five animal contact incidents.
- Submitted three requests for animal exclusion/building repairs (BEL, CBA, FSL).

Future

- Revise guidelines for animal response and exclusion decisions.
- Convert Live Animal Request form to online.
- Cross-train staff to answer AMS incident calls during the day.

Carin Peterson, Animal Make Safe Manager, rescues a kitten from inside a wall in SSW.

Animal Incidents in 2017

Requests to include live animals as part of events continue to increase.

Birds and bats make up the largest percentage of animal incidents.

<table>
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<tr>
<th>Animal</th>
<th>Requests</th>
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<tbody>
<tr>
<td>Bird</td>
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<tr>
<td>Bat</td>
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<tr>
<td>Opossum</td>
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<tr>
<td>Raccoon</td>
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<tr>
<td>Other</td>
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<tr>
<td>Squirrel</td>
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</tr>
<tr>
<td>Snake</td>
<td></td>
</tr>
<tr>
<td>Dog</td>
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<tr>
<td>Cat</td>
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Birds and bats make up the largest percentage of animal incidents.

Live Animal Requests

Requests to include live animals as part of events continue to increase.

<table>
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<tr>
<th>Year</th>
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<td>2017</td>
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Annual Report
SUPPORT SERVICES

ON-CALL RESPONSE

EHS responds to a variety of emergency situations and incidents. These can include anything from “near-miss” situations, where a major accident was avoided, to major fires and explosions. The picture at left shows the types of incidents EHS responded to in 2017.

Accomplishments

• Supported the university by responding to a number of incidents, during working hours, after hours, and on weekends and holidays.

Future

• Continue to improve the on-call program through procedure review, communication, and training.

EHS on-call staff responded to 12 after hours incidents in 2017.
SUPPORT SERVICES

FOOD AND DRINKING WATER SAFETY

Accomplishments
• Permitted three new campus restaurants and inspected 23 food trucks/carts.

Future
• Focus on student events serving food on campus.

A decrease in the number of food distribution forms reviewed can be attributed to clarifying when a food form is actually required on the form and on the EHS website.

Accomplishments
• Permitted three new campus restaurants and inspected 23 food trucks/carts.

Future
• Focus on student events serving food on campus.
SUPPORT SERVICES

UNMANNED AERIAL VEHICLES (UAVS)

Accomplishments

• Created process to approve UAV requests.
• Finalized online UAV Request Form and UAV EHS webpage.
• Approved 22 UAV requests and denied 12.

Future

• Hire FTE to handle UAV requests.
• Continue to improve the UAV request process.

As the use of UAVs for research becomes more popular, UAV requests are expected to increase yearly.
SUPPORT SERVICES

TRAINING AND OUTREACH

Accomplishments

- All TXClass training modules transitioned to UTLearn with Go Live in April.
- Republished all EHS modules in HTML5.
- Participated in the UTLearn User Group after Go Live.
- Conducted outreach activities and events including Waller Creek Cleanups, “Lavatory Safety” updates, and numerous EHS documents, posters, and signs.

Future

- Create social media accounts to promote EHS activities and accomplishments.
- Hire employee/student worker to assist with training, outreach, and social media.
- Continue to update existing classes and develop new online training.
- Greater participation in tabling events to promote EHS on campus.

7,594 people took over 25,000 EHS online classes in 2017.

Students attending the Fall 2017 Waller Creek Cleanup.
SUPPORT SERVICES

PROJECT PLANNING AND DESIGN REVIEW

Accomplishments
- Reviewed 281 projects including WEL, Graduate Student Housing, Creekside Dormitory, EER, and EEB.

Future
- Continue development and revisions of Design and Construction Standards.
- Continue project review for new construction and renovations.

Andrea McNair, Assistant Director, and Helene Richard, EHS Program Coordinator, attending a plan review meeting for the Aerospace Engineering move to NOA.