Texas Wildfire Protection Plan

A comprehensive plan to reduce wildfire occurrence and loss in Texas through integrated programs that improve preparedness and response capabilities statewide.

TEXAS A&M
FOREST SERVICE

2024-2025 Biennium

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Statement from the Associate Director and Fire Chief of Texas A&M Forest Service

Wes Moorehead, Associate Director and Fire Chief

Every year, communities across Texas are faced with the dangers of wildfire and other disasters. Wildfires are inevitable. But the loss of life, property and natural resources are not.

In a state with a growing population, changing landscape and more disaster-related challenges, the importance of preparing communities and coordinating response efforts is increasingly important.

2022 was one of the most impactful fire years the State of Texas experienced in more than a decade. Firefighters responded to 12,411 wildfires and more than 650,000 acres burned across the state. Due to firefighters' valiant efforts, an estimated $2.7 billion in values at risk that included 8,202 homes was saved. Unfortunately, these wildfires caused the destruction of resources and structures in many communities as well as the loss of four lives.

As the lead state agency for wildfire response, Texas A&M Forest Service prioritizes working with communities to educate, build capacity and ensure preparedness before the next wildfire occurs.

The agency's wildfire prevention, mitigation, preparedness and response programs are delivered through the Texas Wildfire Protection Plan. This plan is a proven emergency preparedness and response model that emphasizes analysis and collaboration for a holistic approach to reduce wildfire occurrence and loss in Texas.

Utilized for decades, the plan emphasizes the value of relationships with our partners and cooperating organizations across the state who also have the goal of protecting communities from wildfire and other disasters.

It is imperative that we continue to build relationships with the 1,842 local fire departments that serve as the first line of defense across the state during emergencies. The agency has a long history of providing support to, and enhancing the capabilities of, these local fire departments and their personnel. This plan outlines the commitment Texas A&M Forest Service has made to continue to support departments across the state through a variety of programs and funding opportunities.

Texas A&M Forest Service is proud to be an integral part of the state's response network. From wildfires to winter weather, flooding and tornadoes, our personnel selflessly aid Texans and are committed to protecting the communities and natural resources of this state.

Respectfully,

Wes Moorehead
Associate Director and Fire Chief

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Introduction

The Texas Wildfire Protection Plan (TWPP) describes how Texas A&M Forest Service will mitigate against, prepare for and respond to wildfires and other disasters across the state.

Initially drafted following the 1998 wildfire season, the TWPP defines Texas A&M Forest Service's emergency management organization. The plan also identifies responsibilities and expectations in the agency's efforts to prevent and mitigate wildfires, manage statewide wildfire operations and provide all-hazard emergency response support.

While comprehensive, the TWPP provides flexibility to facilitate and accomplish emergency management objectives.

In addition to the TWPP, Texas A&M Forest Service is guided by the Forest Action Plan. The plan includes both an assessment of forest conditions and a strategy for addressing the issues, threats and opportunities facing these forests, which includes wildfire and public safety.

The Wildfire Problem in Texas

Texas is a large, geographically diverse state and is the second largest in the nation by both area and population. It boasts three of the 10 largest cities in the country in addition to 25 metropolitan areas and 170 million acres of land.

Historically, wildfire has always played an important role in maintaining healthy ecosystems across the state. Decades of suppression policies and a general lack of fire on the landscape has created an imbalance in these ecosystems, leading to increased risk of destructive wildfires.

Since 1996, Texas has experienced significant fire seasons across all regions of the state. Once primarily a rural concern, wildfires are now a statewide threat that impact communities and have the potential to damage homes and other critical infrastructure.

Between 2017 and 2021, 40,466 wildfires burned 1,882,591 acres across the state. During this 5-year
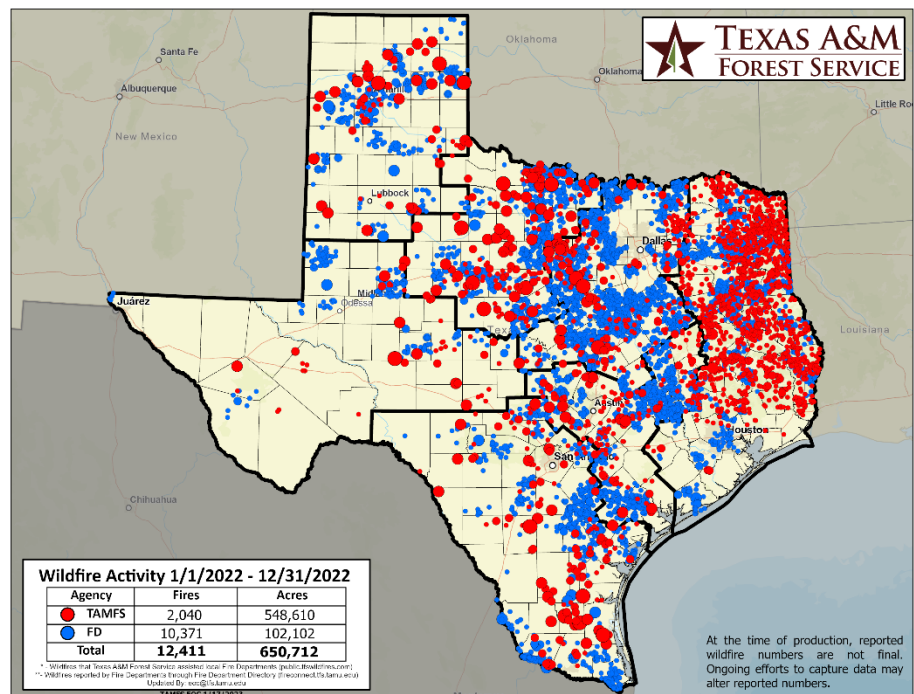
Map displaying the wildfire response in 2022 for Texas A&M Forest Service and local fire departments.

period, state and local firefighters responded to, on average, 8,093 wildfires for 376,518 acres burned each year.

Wildfire occurrence and acreage was well above normal during 2022. By the end of the year, Texas firefighters had responded to 12,411 wildfires for 650,712 acres burned. The year became one of the most notable fire years in over a decade for the state.

Contributing Factors

Three primary factors contribute to the increased wildfire risk faced by Texans — population growth, changes in land use and changing weather patterns.

Projections from the Texas Demographic Center indicate that the rapid population growth will likely continue. In 2022, the population of Texas surpassed 30 million people. By 2050, the state's population is expected to increase to more than 54.4 million people. Most of this growth will occur in urban centers and their suburban surroundings.

Many communities are expanding and developing into previously undeveloped areas, or the Wildland Urban Interface (WUI). The WUI is the area where humans and their structures meet or intermix with undeveloped wildland vegetation.

Texas communities in the WUI are at a substantially higher risk from wildfire, and the state is ranked third for having the highest number of single-family homes at risk of wildfire damage. Using spatial datasets of landscape-wide wildfire risk components from the USDA Forest Service Rocky Mountain Research Station, it was determined that 62% of the state's population and housing units are at risk of direct or indirect exposure to wildfire.

To add to the complexity of the wildfire issue, 95% of the land in Texas is privately owned and managed. With expansion and growth into wildland areas, changes in land use and barriers to mitigation tools and techniques, a buildup of hazardous vegetation is common in many regions of the state. Without treatment, this may result in negative impacts to communities during a wildfire incident.

A Tiered Approach to Response

Texas uses a tiered approach to wildfire response. Local fire departments and counties are the first responders, with state response activated as wildfires or conditions exceed local capabilities.

Across the state, there are more than 1,842 local fire departments — 1,307 volunteer departments, 337 combination departments, 194 paid departments and 4 industrial/private departments — ready to respond to wildfires or other emergencies.

The State of Texas invests significant authority for public safety and emergency response with counties and local government. Respecting this authority, Texas A&M Forest Service works with local response entities to establish unified command operations on all wildfires involving local and state resources.

Texas A&M Forest Service is the lead agency for wildfire response in the state and maintains a network of strategically placed personnel and equipment for an efficient and effective response statewide. The

agency is responsible for ensuring the safe and effective delivery of the mission to provide protection of the lives, property and resources of the citizens of Texas.

The expanding threat of wildfires has greatly increased requests for state assistance. Between 2017 and 2021, Texas A&M Forest Service responded to, on average, 9.2% of the wildfires that occurred in the state each year. These fires accounted for about 75% of the acres burned during those years. However, in 2022, the agency responded to 16% of the wildfires that accounted for 84% of the acres burned across the state.

Adding to the efforts of Texas A&M Forest Service, additional firefighters are mobilized through the Texas Intrastate Fire Mutual Aid System (TIFMAS) to help. TIFMAS resources are mobilized under jurisdiction of the state to respond to wildfire incidents across the state.

As the complexity of statewide wildfire response continues to increase, wildland firefighters from across the nation are brought in, under state jurisdiction, to meet essential needs. This is supported by a set of agreements that Texas A&M Forest Service maintains with federal wildland fire agencies. Costs associated with the mobilization and support of these external resources are funded through the supplemental appropriations process during the following legislative session.

Under the State Emergency Management Plan, the state maintains a broad capability for wildfire response and suppression. Other state agencies, including the Department of Public Safety (DPS), Texas Military Department (TMD) and the Texas Department of Transportation (TxDOT), provide resources to assist in suppressing wildfires. This activity is coordinated through the Texas Division of Emergency Management (TDEM) and the State Operations Center (SOC).

Legal Authority of Texas A&M Forest Service

The State of Texas assigns Texas A&M Forest Service the authority to take all actions deemed necessary for the prevention and suppression of wildland fires. The agency is responsible for ensuring the safe and effective delivery of its mission to provide protection of the lives, property and resources of the citizens of Texas.

Legislative adjustments in 1993 and 2011, as well as Annex F of the State Emergency Management Plan, established Texas A&M Forest Service's role in leading wildfire prevention and response efforts statewide. Since these adjustments, the agency has made a concerted effort to position personnel and resources across the state to establish a presence across all regions.

Texas A&M Forest Service receives its statutory authority from the Education Code, Section 88, Subchapters A and B.

All-Hazard Emergency Response

During disasters, TDEM, under authority of the Governor of Texas and the State Emergency Management Plan, is responsible for coordinating state response efforts.

Texas A&M Forest Service is frequently tasked by TDEM to provide incident management teams to support all-hazard incidents within the state. In addition to being listed as the primary agency for

firefighting, the agency is listed as a supporting entity on nine of 14 Emergency Support Functions in the State Emergency Management Plan.

Calls for assistance on all-hazard incidents have increased in recent years. Texas A&M Forest Service has been called on to provide incident management support, sawyers and heavy equipment for winter weather, tornadoes, hurricanes, flooding and COVID-19. Since 2017, the agency has provided 1,656 personnel, 21 dozers and 5 engines for all-hazard response efforts.

A Texas A&M Forest Service motor grader clears snow and ice from roadways in northwest Texas during Winter Storm Uri, Feb. 2021

Prescribed Fire

Prescribed fire is the planned application of low-intensity fire to the landscape by fire and fuel specialists. These burns are planned in accordance with applicable laws, policies and regulations to meet specific land management objectives.

Prescribed fire is one of the most efficient land management tools that is used as part of active forest and fire management. Fire has always been part of the environment and plays a vital role in maintaining certain ecosystems. Prescribed fire is also a valuable tool used to manage the intensity and spread of wildfires, which protects communities and provides firefighters a safer place to work while fighting a wildfire.

As the lead wildfire response state agency, Texas A&M Forest Service recognizes prescribed fire as an efficient and cost-effective land management tool. The agency is committed to educating internal and external audiences about its benefits. Personnel often conduct prescribed burns on state owned lands and engage in training exchanges to assist partner agencies, such as the USDA Forest Service and Texas Parks and Wildlife Department, in conducting these burns to meet land management objectives. The agency conducts most prescribed fires during the dormant season between November and April.

It is agreed nationwide that the need for prescribed burning, or other vegetation management treatments, far exceeds the amount being conducted. Texas is no exception.

Texas A&M Forest Service offers several grant opportunities to eligible private landowners to subsidize the costs of implementing prescribed fire treatments on

A Texas A&M Forest Service firefighter ignites vegetation with a drip torch during a prescribed fire conducted at the Waco Wetlands in Feb. 2020.

their property. The agency's Mitigation and Prevention Department administers $300,000 to $400,000 in federal pass-through grants annually for these programs.

These competitive grant programs accept applications for projects that will assist landowners in meeting their land management objectives. Agency personnel utilize a ranking system to prioritize projects that meet set criteria and will have the greatest benefit to communities around the state. The grant reimburses landowners for the costs of hiring a certified and insured prescribed burn manager to conduct the burn. Over the past five years, these grant programs have helped to treat more than 55,000 acres of privately owned lands across the state.

The State of Texas certifies and regulates private sector prescribed burn managers through Texas Department of Agriculture's (TDA) Prescribed Burning Board (PBB). The PBB ensures these burn managers receive proper training and have the experience and financial responsibility to protect themselves and those they serve.

Texas A&M Forest Service's Mitigation and Prevention Department staff supports the TDA program by providing an instructor and free tuition for the required certified and insured prescribed burn manager training course each year. The department also provides annual continuing education training.

Implementation of the Texas Wildfire Protection Plan

The TWPP has been used and refined over the past two decades as wildfires and wildfire-related issues continue to impact the state. The TWPP outlines a tested and proven emergency response model that emphasizes ongoing analysis, prevention and preparedness followed by a coordinated and rapid response.

Under the TWPP, Texas A&M Forest Service works to reduce wildfire occurrence and loss in Texas through integrated programs that improve preparedness and response capabilities statewide. The practices outlined in this plan are incorporated into the operational structure of the Forest Resource Protection Division. This is a coordinated effort between the seven departments within the division: Applied Technology, Capacity Building, Incident Response, Law Enforcement, Mitigation and Prevention, Planning and Preparedness and Predictive Services.

Forest Resource Protection Division

The Forest Resource Protection Division of Texas A&M Forest Service provides statewide leadership in the protection of the citizens, property and natural resources of Texas from wildfire and other disasters.

The State of Texas assigns the agency the authority to take all actions deemed necessary for the prevention and suppression of wildland fires. This authority is delegated within the agency to the Forest Resource Protection Division. The division is responsible for ensuring the safe and effective delivery of the agency's mission to provide protection of the lives, property and resources of Texas. To effectively carry out this responsibility, the division maintains strategic authority for all agency fire and emergency response activities.

Division Priorities for the 2024-2025 Biennium

Improve recruitment and hiring process	
Timeline	*Action*
6-8 months	Assess recruitment and hiring efforts across the division. This assessment should include an evaluation of the effectiveness of current practices as well as the timing of recruitment and hiring efforts.
9-12 months	Following the assessment, develop a plan to advance recruitment and hiring efforts to strengthen the workforce. The plan should provide recommendations for future programs (e.g., internship programs, firefighter bootcamps, etc.), a framework for effective pathways into the agency for high school and college students as well as recent graduates, guidance to improve the quality of job announcements, guidance on advertisement of agency positions and job opportunities and should encourage cross-training and mobility opportunities to encourage upward and lateral movement in the division.
Evaluate current programs	
Timeline	*Action*
12-18 months	Evaluate the merit, significance and cost-benefit of department programs across the division. Assess department programs as well as the funding and personnel required for maintenance, the benefit to both internal and external audiences and its effectiveness.
Health and well-being	
Timeline	*Action*
12-18 months	Establish a committee, or utilize existing capacity via various programs and teams, to assess and provide recommendations regarding the development and availability of health and well-being resources for agency wildland firefighters.
Improve internal communication and collaboration	
Timeline	*Action*
6-8 months	Develop strategies to improve collaboration among departments in the division to enhance response efforts and program delivery, increase productivity, align goals and encourage employee engagement and development.

Applied Technology

The rapid adoption and implementation of new technologies is critical to the success of Texas A&M Forest Service. The Applied Technology Department was established to concentrate on the timely and sustainable development, delivery and maintenance of technological systems, applications and tools that support mission critical business operations and workflows.

The department is responsible for the comprehensive evaluation and coordination of technological needs for the division, and actively collaborates with departments and programs to develop integrated, effective and efficient solutions. Department staff ensure the proper collection, storage and processing of data, while ensuring its timely availability to the appropriate personnel to enable informed, data-driven decisions.

The development, maintenance and advancement of the Texas Wildfire Risk Assessment and Southern Wildfire Risk Assessment — and their responding web-based portals — is also coordinated by the Applied Technology Department.

Additionally, the department is frequently requested to provide technical and project support to the Texas A&M University System, Texas A&M Agrilife, TDEM and other cooperating entities during all-hazard incidents.

Objectives and Strategies

1. Ensure that technological advancements are in sync with the agency's and division's strategic goals and objectives. Communicate with leadership to ensure that the appropriate data is gathered to facilitate informed strategic decisions.

2. Forge strategic partnerships with federal, state, higher education, and private sector partners, as well as with the wider wildland fire community, to offer exceptional products and services.

3. Evaluate and guide the implementation of new technologies and applications that are useful to the agency and cooperators. The department will work with Texas A&M Forest Service leadership and field personnel to evaluate new technology and its potential use to the agency. The department will develop and maintain the systems and applications needed to successfully implement new capabilities.

4. Provide development and support, as needed, for emergency response and recovery applications to the Texas A&M University System, Texas A&M AgriLife, TDEM and other cooperators. The department will ensure compliance with all Texas A&M University System and state practices.

5. Coordinate operation and improvement of databases and electronic equipment across the division's departments. Provide for the development of updates to equipment, databases, dashboards and custom applications to ensure efficient and coherent development and availability.

6. Maintain and expand existing real-time technology and Geographic Information Systems (GIS) efforts, particularly those that cross departmental boundaries. Work to further integrate systems and activities between departments.

Focus Areas

<u>Support Mission Critical Systems, Applications and Programs</u>

The Applied Technology Department assists in the coordination and development of numerous products and services for the division, its departments and partner organizations:

- Wildfire Incident Response System (WIRES)

- Texas Wildfire Risk Assessment Portal (TxWRAP)

- Southern Wildfire Risk Assessment Portal (SouthWRAP)

- Texas FireConnect Portal

- Incident Check-in/Demob Resource and Personnel Tracking and Dashboard

- Fire Effects Monitoring System

- National Fire Danger Rating System (NFDRS) Fire Danger Products

- Post Fire Damage Assessments

- Commodity Distribution Applications and Distribution Dashboards (for TDEM)

- Disaster Animal Supply Points (for Texas A&M AgriLife)

<u>Quantitative Wildfire Risk Assessment and Wildfire Analytics</u>

The department is accountable for creating, overseeing and maintaining the Texas Wildfire Risk Assessment and Southern Wildfire Risk Assessment, with funding support from USDA Forest Service. Key elements of the risk assessment include fuels mapping, hazard assessment, exposure analysis, treatment analysis and fire adapted communities and resilient landscapes.

<u>Research and Integrate Applicable Technologies</u>

Maximizing real-time data, custom applications and dashboards are essential for safe and effective emergency response and recovery. Subject matter experts in the department assess, develop and implement potential innovations in areas such as:

- Use of Unmanned Aircraft Systems (UAS)

- Geo-tracking and geo-fencing for response resources

- Maximization of smartphones and tablets in the field

- Real-time wildfire modeling and wildfires/disaster information

Applied Technology Department Priorities for the 2024-2025 Biennium

Assess structure, workload and efficiencies within the department	
Timeline	*Action*

0-3 months	Assess the current structure of the department. Evaluate the workload of each employee within the department and determine if there are needs or inefficiencies. Develop an assessment report of the department for division leadership.
0-6 months	Evaluate the cost-benefit of the Texas Wildfire Risk Assessment Portal (TxWRAP) and the agency's role in supporting the Southern Wildfire Risk Assessment Portal (SouthWRAP).
6-12 months	Provide cross-training opportunities for department personnel to broaden geospatial expertise and enhance familiarity with agency business practices via collaborative projects.
Ongoing	Increase collaboration and cohesion with geospatial analysts across the agency. Geospatial leads from each division will organize regular meetings and training sessions to share work and discuss ongoing projects.

Evaluate national models for use in Texas	
Timeline	*Action*
12-16 months	Assess all available national products and datasets to determine their usefulness for the needs of the agency.

Update risk assessment outputs	
Timeline	*Action*
0-6 months	Complete fuel mapping and hazard assessment updates to risk assessment project.
6-12 months	Complete exposure analysis portion of the project and incorporate results into the web-based portals to refresh available content.
6-24 months	Begin discovery and design of next product phases with personnel from Southern Region, Southern Research Station, Rocky Mountain Research Center, among other national and regional experts.
12-24 months	Perform a comparative analysis between the results of the TWRA/SWRA and the latest national assessment to evaluate any variances in quality and accuracy. Maintain an ongoing partnership and share any findings with the Landfire and national risk assessment team, to facilitate continuous enhancement of the national product.

Conduct a technology needs assessment	
Timeline	*Action*
6-12 months	Assess the needs of the division and its departments to enhance overall operational efficiency. Determine product ownership and involvement of the Applied Technology Department. Develop a technology profile for each department in the

	division, which includes a summary of roles and responsibilities, technology products, areas of need and new ideas. Review data management practices and identify gaps in data collection, storage and dissemination.
6-12 months	Evaluate appropriate timing and approach for the agency to undertake a comprehensive data inventory. Identify an individual to lead the initiative or assess the need for a new position to assume this responsibility.
6-18 months	Based on the results of the needs analysis and technology profiles, coordinate with division leadership to prioritize projects. Create a development and implementation strategy.

Capacity Building

Through a suite of programs, the Capacity Building Department is dedicated to training, equipping and assisting local fire departments. Many of the department's programs were initiated to increase fire protection capabilities at a local community level across the state with an emphasis on small, rural areas.

A duty to protect is included in the mission of Texas A&M Forest Service, and fire departments across the state are an essential partner in realizing that mission. The agency has a long history of supporting fire departments and is committed to helping enhance their emergency response capabilities by obtaining critically needed equipment, protective gear, emergency vehicles, training and other resources.

Objectives and Strategies

1. Enhance local fire department capabilities through the development and delivery of assistance programs to eligible fire departments.

2. Maximize the effectiveness of Texas A&M Forest Service Capacity Building Department programs through proper stewardship and minimal bureaucracy by focusing on critical priorities that increase firefighter safety and effective operations. The department should manage internal processes to ensure streamlined assistance across multiple programs.

3. Maintain public participation, transparency and accountability in all fire department assistance programs.

4. Work cooperatively with federal, state and local cooperators to facilitate efficient delivery of programs from all sources.

Focus Areas

Rural Volunteer Fire Department Assistance Programs (RVFDAP)

Launched in 2001 by House Bill 2604, RVFDAP provides grants to rural volunteer fire departments for firefighting vehicles, fire/rescue equipment, protective clothing, computer systems, dry hydrants and firefighter training. Reference: Section 614.002 of the Government Code.

Volunteer Fire Assistance (VFA)

Volunteer Fire Assistance is a portion of the Rural Volunteer Fire Department Assistance Program that utilizes federal funds. These funds provide grants to fire departments for personal protective equipment, training related items and volunteer recruitment resources.

Rural Volunteer Fire Department Insurance Program (RVFDIP)

Launched in 2001 by House Bill 3667, RVFDIP reimburses eligible volunteer fire departments for the purchase of insurance, including workers' compensation, death and disability and accident and sickness. Reference: Section 614.072 of the Government Code.

Helping Hands

Launched in 1997 by House Bill 680, the Helping Hands Program allows donations of used fire and rescue equipment, fire trucks and other items to be made available to volunteer fire departments while relieving donors of liability. Reference: Section 88.106 of the Education Code.

Federal Excess Personal Property (FEPP) and Firefighter Protection Program (FFP)

FEPP and FFP are federal-source surplus equipment programs that allow Texas A&M Forest Service to acquire excess military vehicles and equipment and assign the equipment to fire departments. Under FEPP, the federal government maintains the title to all assigned equipment. Under FFP, ownership of the equipment is passed to the fire department. Departments are responsible for the care and maintenance of all assigned property.

Volunteer Fire Department Vehicle Liability Insurance (Risk Pool)

Launched in 1995 by Senate Bill 1232, Risk Pool provides low-cost vehicle liability insurance to eligible volunteer fire departments. Reference: Section 2154 of the Insurance Code.

Texas Intrastate Fire Mutual Aid System (TIFMAS) Grants

Launched in 2009, the TIFMAS Grants Program provides grants to career and large combination fire departments for firefighting vehicles and training tuitions. The program was developed with support from the Texas Fire Chiefs Association, State Firefighters' & Fire Marshals' Association of Texas and the Texas Association of State Fire Fighters to assist municipal fire departments that agree to mobilize to support the state's response to wildfire and all-hazard incidents. Reference: Section 614.105 of the Government Code.

Capacity Building Department Priorities for the 2024-2025 Biennium

Integrate fire department assistance programs into the Texas FireConnect Portal to enhance customer experience and improve internal efficiency	
Timeline	*Action*
0-2 months	Integrate the RVFDAP equipment grants component into the Texas FireConnect Portal web application.
0-3 months	Integrate the meals and lodging component of training grants for Annual Fire Training School hosted by Texas A&M Engineering Extension Service (TEEX) into the Texas FireConnect Portal web application.
0-5 months	Integrate the RVFDIP into the Texas FireConnect Portal web application.
0-7 months	Integrate the emergency grant components (catastrophic loss and declared state of disaster) into the Texas FireConnect Portal web application.
Enhance the delivery of equipment and gear	
Timeline	*Action*
0-12 months	Assess and evaluate potential locations for warehouse facilities and sales locations that best serve the needs of the fire department customers. Develop a proposal for new locations that includes the needed support personnel and job functions.

Incident Response

The Incident Response Department ensures the rapid and effective response of appropriate resources to wildfires across the state, minimizing losses and reducing large, multi-period fires. Additionally, the department ensures a quick response of appropriate resources to support other emergencies as requested by the state.

The Incident Response Department is divided into geographic areas and managed by administrative branches that contain multiple regions. During wildfire and emergency response, personnel will work within assigned roles under the National Incident Management System (NIMS)/Incident Command System (ICS) structure. Department personnel serve as field representatives for the state relating to all wildfire matters and maintain relationships with local entities as well as state and federal partners.

The department supports state and federal disaster operations by providing incident management personnel and response teams and provides leadership in delivering wildland fire and incident management training.

Objectives and Strategies

1. Provide for the safety of emergency responders by ensuring a safety culture is institutionalized within the agency and personnel are appropriately trained, equipped and credentialed. This involves implementing the appropriate use of incident safety officers, briefings, materials and other measures to maintain situational awareness as well as a working knowledge of the vegetation, topography, weather and hazards of all regions. Additionally, fire managers should have knowledge of local fire departments' capabilities, training and equipment as they are the first response locally and the agency's partner on incidents.

2. The agency's response operations, led by the division, the Incident Response Department and a robust command structure, must be conducted in an efficient and cost-effective manner to minimize loss. Fire managers utilize operational plans for the development of daily operational strategies. The agency monitors the costs of operations and issues cost-saving recommendations as well as maintains a proactive role in the disaster declaration process at the state and federal level to maximize the availability and use of federal emergency funds.

3. Determine appropriate staffing by monitoring weather, fire occurrence and fire danger indices across the state and within identified regions. All emergency response equipment and personnel are always operationally ready. Ensure that appropriate staffing of personnel and equipment is based on current and expected fire danger. Agency firefighters and support personnel remain flexible and mobile to respond as needed. If necessary, utilize Texas Intrastate Fire Mutual Aid System personnel and equipment as appropriate and incorporate suppression personnel and equipment from forestry and land management agencies across the country.

4. Coordinate with the Planning and Preparedness Department to provide leadership and support in delivering wildland fire and incident management training. Personnel will continue to deliver National Wildfire Coordinating Group and all-hazard courses to internal and external customers while also managing local interagency wildfire and incident management academies. Department personnel will also support state interagency wildfire and incident management academies.

5. Provide for the safety of citizens by disseminating coordinated agency alerts and warnings through various communications outlets.

6. Support state and federal disaster operations by providing all-hazard incident management personnel and encourage participation in state and national response.

7. Coordinate with the Capacity Building Department to help enhance the capabilities of local fire departments across the state by fostering relationships and through the delivery of programs.

8. Coordinate with the Mitigation and Prevention Department to help deliver prevention and mitigation programs to communities as well as assist in completing fuels reduction project work aimed at reducing wildfire risk across the state.

Focus Areas

Cooperative Response and Resource Management

Wildfire suppression in Texas is a cooperative effort. Texas A&M Forest Service response personnel are expected to know, work alongside and support the fire departments within their assigned regions. This includes knowledge of each fire department's capabilities, training and equipment. Response staff also serve as the local point of contact for programs that will enhance local response capacity. Incident

response personnel are expected to know the vegetation, hazards and risks within their regions, including critical conditions and special tactics or resources that may be required. This knowledge and building these networks are essential for agency personnel to establish and lead response operations involving local, state and national resources.

Incorporating Local Priorities into Wildfire Response on Private Lands

During both initial response operations and extended project fires, a defined set of objectives and priorities should be used to guide all strategic and tactical decisions. Reflecting both jurisdictional responsibilities and land management goals, these objectives may vary considerably between landowners and authorities.

Private Cooperators

In some areas of the state, large-acreage landowners have access to, or own, wildfire suppression-capable equipment and use it for wildfire response on their land. However, many landowners are willing to work outside their ownership boundaries. Training standards, protective gear and equipment standards for these local resources vary, which can create operational, policy and liability issues when coordinating these elements with state and federal resources.

Radio Communications

Accurate and clear communication is an essential function during emergency response. This can be particularly problematic when utilizing a mix of response resources from multiple departments and agencies. Personnel within the Incident Response Department maintain the radio systems, towers and communications plans that are essential to response operations. Agency personnel are part of the State Communications Coordination Group and the Texas State Interoperability Executive Committee. Texas A&M Forest Service has also established three statewide fire mutual aid frequencies for use by local, state and national resources.

Incident Response Department Priorities for the 2024-2025 Biennium

Evaluate agency apparatus and emergency response vehicles	
Timeline	*Action*
6-9 months	Evaluate the service life expectancy of agency apparatus and emergency response vehicles. Utilize data and information from vehicle maintenance records, usage patterns and total cost of ownership in the evaluation.
12-15 months	Develop recommendations regarding agency equipment replacement schedules, which should include strategies and funding needs, for agency leadership to consider.

Ensure efficiency and timeliness of response efforts	
Timeline	**Action**
3-6 months	Assess the response organization and structure of the agency. Evaluate the response footprint across the state as well as the efficiency and timeliness of response efforts.
9-12 months	Develop strategies and recommendations for agency leadership regarding operations, infrastructure and funding needs to improve response efforts.
2 years	Implement the strategies and recommendations identified.

Assess and develop training strategies for new employees	
Timeline	**Action**
0-3 months	Evaluate internal training strategies that are focused on personnel that have been employed for no more than two years. Determine if basic training elements, including the development of a safe culture, have been successfully incorporated among these employees.
6-9 months	Develop recommendations and strategies for internal training that is supported by interagency instructors and subject matter experts.

Law Enforcement

Protecting Texas' natural resources through education and enforcement of state laws is one of the primary missions of Texas A&M Forest Service. The Law Enforcement Department was created to educate the public, investigate timber theft and arson and protect the state's natural resources.

One important role of the Law Enforcement Department is to investigate the origins of wildland fires. The department also handles security for the agency, conducts internal investigations and participates in and conducts programs and training for agency personnel, external partners and the public.

Department personnel are trained experts in investigating felony and misdemeanor timber theft cases, and staff often serve as subject matter experts regarding violations of the Natural Resources Code.

As stated in Section 88.103 Education Code, the agency director may appoint no more than 25 employees who are certified by the Texas Commission on Law Enforcement to serve as peace officers in executing the enforcement duties of the agency. Any officer commissioned under this section is vested with all the powers, privileges and immunities of peace officers in the performance of their duties.

Texas A&M Forest Service currently employs nine full-time law enforcement officers. Nine employees serve as additional duty law enforcement officers. Additional duty officers hold various positions within the agency but are also commissioned peace officers that are utilized by the department as needed.

Objectives and Strategies

1. Enforce the laws relating to wildland fires. Investigate escaped and suspected arson-caused wildfires while holding violators accountable via misdemeanor and felony court summons. The department will continue to educate and provide fire cause determination training to external cooperators.

2. Enforce the laws relating to timber theft and timber fraud by investigating suspected cases. Law Enforcement Department investigators and additional duty officers will serve as subject matter experts for local prosecutors and law enforcement agencies as requested.

3. Department personnel will support agency law enforcement needs in addition to also supporting incident response. Investigators and additional duty officers will continue to conduct internal investigations and will provide security for, and investigate activity on, state forests and agency property. Additionally, personnel will manage investigations for Capacity Building Department programs, including missing property investigations for federal excess property assigned to local fire departments in Texas.

Focus Areas

Timber Theft and Timber Fraud Investigations

Law Enforcement Department personnel are trained experts in investigating felony and misdemeanor timber theft cases, and they often serve as subject matter experts regarding violations of the Natural Resources Code. As experts, department personnel are often relied upon by local law enforcement agencies when conducting timber theft and fraud investigations.

The department conducts thorough and meticulous investigations to convict violators and assist landowners. Additionally, investigators within the department educate industry professionals and landowners who may be unfamiliar with selling timber in Texas. The department has a standing relationship with the Texas Forestry Association and Texas Logging Council to assist in this effort.

Wildland Fire Investigations

Investigators and additional duty officers within the department conduct wildland fire investigations across the state. Department personnel are qualified as Wildland Fire Investigators through the National Wildfire Coordinating Group and respond to wildfire incidents to determine cause and origin as well as any potential criminal elements.

The department helps to train agency response personnel and cooperators in basic wildfire origin and cause investigations. The training ensures agency firefighters recognize when there is a need for personnel to investigate a wildfire, how to preserve the point of origin and how to request an investigator to a wildfire incident.

Law Enforcement Department Priorities for the 2024-2025 Biennium

Develop a strategy for education and course administration to reduce the number of wildfire scenes destroyed by responders
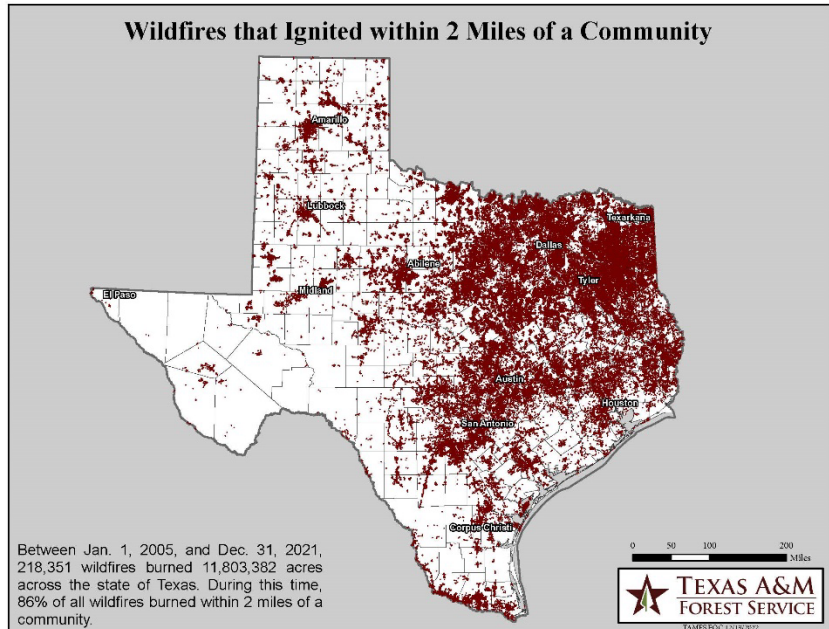
Timeline	Action
0-6 months	Develop a strategy to facilitate the administration of the updated *FI-110, Wildland Fire Observations and Origin Scene Protection for First Responders* course to all fireline qualified personnel within the agency. This strategy should include time frames for implementation and roll-out, identify personnel and groups as well as a maintenance plan for continued education, such as a module that is included in the annual refresher.
6-24 months	Implement the developed strategy to educate internal personnel.
2+ years	Develop a strategy for the administration of the *FI-110, Wildland Fire Observations and Origin Scene Protection for First Responders* course, or equivalent, to external cooperators, partners and local fire departments. The strategy should consider the agency's limited capacity in delivering the course frequently and include recommendations for creating a train-the-trainer course.

Evaluate the department's processes for building capacity, recruitment and fitness

Timeline	Action
0-6 months	Assess the current department, additional duty officer program and workload. Determine if investigators are strategically placed across the state to address the needs of the public as well as the needs of the agency. Identify gaps in coverage, inefficiencies and opportunities to enhance efficiencies.
12-14 months	Develop a strategy to increase investigator qualifications in personnel outside of the department to bolster capacity.
12-16 months	Develop a physical fitness standard and program for phased implementation to personnel in the department.

Develop risk reduction strategy for agency property that aims to reduce vandalism and theft

Timeline	Action
6-9 months	Develop an assessment strategy for all agency office locations and equipment.
2 years	Implement the assessment strategy across the state. Develop an assessment database, threat assessment form and educational material for personnel.

Increase awareness of timber theft and timber fraud consequences

Timeline	Action
6-10 months	Develop an educational strategy and implementation plan to increase awareness of timber theft and timber fraud consequences in Texas. Identify stakeholders and methods to increase visibility of the department's services to landowners and

industry professionals.

Mitigation and Prevention

Much of the state's new development is encroaching on undeveloped wildland areas. As cities, communities and suburbia expand into these rural areas, people and structures are now in proximity to large amounts of vegetation and have an increased wildfire risk.

Wildfire occurrence statistics in Texas show that over 90% of all wildfires are caused by human activity and that approximately 86% of all wildfires in Texas occur within two miles of an established community.

Wildfires that Ignited within 2 Miles of a Community

Between Jan. 1, 2005, and Dec. 31, 2021, 218,351 wildfires burned 11,803,382 acres across the state of Texas. During this time, 86% of all wildfires burned within 2 miles of a community.

TEXAS A&M FOREST SERVICE

The Mitigation and Prevention Department provides proven, proactive wildfire mitigation and prevention services to citizens and cooperators that reduce fire occurrence, hazardous conditions and the risk of loss from wildfires. The department's programs are guided by the National Cohesive Wildland Fire Management Strategy and the Texas Forest Action Plan.

The department serves Texans by providing leadership and proactive programs that cultivate fire adapted communities and create resilient and healthy landscapes. Texas A&M Forest Service employees work as subject matter experts and catalysts to bring residents and community leaders together to address identified issues and to provide mitigation and prevention solutions to communities at risk. Agency personnel also serve as subject matter experts for hazardous fuels reduction projects and prescribed fire to partner agencies, cooperators and landowners across the state through a wide range of educational programs and grant assistance.

Objectives and Strategies

1. Reduce the wildland fire threat to citizens, landowners, homes and communities, particularly in high-risk wildland urban interface areas. The department will develop cooperative relationships with local governments and other agencies to increase participation in the department's risk-reduction programs, empower communities and property owners to mitigate hazardous fuels and utilize technology, such as the Texas Wildfire Risk Assessment Portal, to identify risk areas and provide awareness to community leaders, cooperators and Texans.

2. Reduce hazardous vegetative fuels in high-risk areas through the utilization of accepted fuel-reduction practices. The department will develop and maintain memorandums of understanding with agencies, local government and non-governmental organizations to deliver hazardous fuel reduction programs. The department will continue to support landowners across the state by administering grant programs for the use of prescribed fire and mechanical equipment to reduce hazardous fuels.

3. Prevent wildfire occurrence and loss across Texas. The department will utilize data from several departments, including the Applied Technology Department and Planning and Preparedness Department, to identify areas of highest susceptibility. Across the state, but especially in the identified areas, staff will work to target prevention messaging based on trends and to involve cooperators in designing and delivering this messaging and department programs to their communities. The department will also initiate prevention efforts in anticipation of developing wildfire seasons.

Focus Areas

Fire Adapted Community (FAC)

FAC is a framework for community wildfire resilience. Fire adaptation means communities conduct mitigation actions so that they can live with wildfire. One key principle to FAC is that there is no one action that eliminates risk, but there are many tools that should be used as part of a strategic and holistic approach to reduce risk. All department programs and concepts contribute to growing fire adapted communities in Texas.

Community Wildfire Protection Plans (CWPP)

A CWPP is a collaborative approach to wildland mitigation and is developed at either the county or municipal level in an area at risk from wildfire. The CWPP identifies and assesses high-risk communities before developing a prioritized action plan to address hazardous fuel reduction, treatment of structural ignitability and effective education and outreach opportunities. There are currently 85 CWPPs in Texas that benefit more than 12 million people.

Firewise USA®

The Firewise USA® program is a joint effort between the National Fire Protection Association and Texas A&M Forest Service. The program is geared toward residents living in communities at risk from wildfire. Communities work directly with department staff to meet Firewise USA® program standards, including assessing risk and identifying and implementing solutions to address mitigating wildfire hazards. There are currently 101 active Firewise USA® Sites in Texas that benefit 166,696 residents.

Hazardous Fuels Reduction

The department's fuels program is comprised of grant administration, program coordination and the completion of mechanical and prescribed fire treatments to reduce hazardous vegetation and restore

healthy landscapes. Department staff coordinate, on average, 20 mechanical fuel projects and 20 prescribed fire projects annually that are completed by Texas A&M Forest Service personnel. The department also directly manages several mechanical and prescribed fire reimbursement grant programs for landowners. These programs fund competitive pass-through grants to reimburse eligible landowners with approximately $350,000 - $470,000 of federal funding each year.

Wildfire Prevention Programs

Campaign wildfire prevention programs use fire cause data to make science-based decisions and create messaging aimed to prevent ignitions in an area with emerging conditions that support wildfire activity. Texas A&M Forest Service's long-term solution towards preventing wildfires is centered on education and outreach with the goal of creating behavioral changes. The agency's prevention program shares education materials with agency employees and partner entities to use during outreach efforts. The department also leverages social media to provide timely messaging to a continually growing audience.

Post Fire Assessment Teams (PFAT)

Agency personnel with fireline qualifications form teams to conduct post-fire assessments when home destruction has occurred due to a wildfire. The information and data gathered by PFAT is shared with the impacted community and response agencies and is used to inform recovery needs. Lessons learned and new mitigation practices are refined or developed due to the findings of these assessments.

Mitigation and Prevention Department Priorities for the 2024-2025 Biennium

Grant funding	
Timeline	*Action*
0-4 months	Survey eligible organizations for Community Wildfire Defense Grant (CWDG) funding to receive technical assistance and education.
4-12 months	Provide education, training and technical assistance to selected organizations relating to CWDG funds.
12-16 months	Identify a receptive, underserved community to be incorporated into a pilot program for a federally funded grant proposal that is related to hazardous fuels mitigation and fire-adapted concepts.
12-16 months	Identify a high-risk Firewise USA® Site to be integrated into a grant proposal focused on community-level actions to reduce hazardous fuels within the home ignition zone.
Ongoing	Manage funding received from the USDA Forest Service, complete process reports and apply for federally funded mitigation and prevention grants that the agency is

eligible to receive.

Evaluate outreach materials	
Timeline	**Action**
0-8 months	Review existing outreach materials and develop strategies to condense, eliminate, revise and update these materials.

Smokey Bear costume assessment	
Timeline	**Action**
0-6 months	Assess every agency-owned Smokey Bear costume. Verify the location, office and point of contact for each costume. Check and note the condition of each costume and determine if repairs or a complete replacement is needed.

Planning and Preparedness

The Planning and Preparedness Department works interdepartmentally to enhance the effective implementation of the TWPP.

Working with the Predictive Services Department, the department determines preparedness levels and areas of risk. The department continuously evaluates the agency's response capabilities and needs with this information. While the Incident Response Department coordinates the placement and daily management of personnel and equipment, the Planning and Preparedness Department manages the availability, qualification determinations, ordering, tracking, mobilization and demobilization of these resources.

Although the department is focused on wildfire response, its function must also support the agency's roles in the State Emergency Management Plan for all-hazard emergencies. Current activities in these areas include:

- Working with agency administrators, department staff and personnel to identify critical information needs and ensure the timely availability of data, including the development and support of technological solutions as needed.

- Ensuring the collection, evaluation, dissemination and use of resource and incident information to support strategic decision making, including the repositioning and management of available resources based on current fire risk.

- Monitoring state and local wildfire occurrence and fire causes.

- Developing and maintaining information systems and databases for state, regional and local emergency response equipment and resources.

- Maintaining wildland firefighter training and qualification records for state and local personnel.

- Ordering, maintaining and staging essential equipment and supply caches across the state.

- Coordinating the mobilization and demobilization of agency and interagency resources and equipment at the regional, state and national level.

- Coordinating the regional mobilization and demobilization of local resources under specific mutual aid programs.

- Developing and maintaining agency and interagency mobilization procedures, response plans and interagency agreements.

- Serving as a primary point of contact for federal, state and local agencies and cooperators.

In all cases, the mobilization of fire and emergency response resources must be authorized by the appropriate authority at the state or national level before proceeding. Mobilization agreements and authorities include:

- Master Cooperative Wildland Fire Management and Stafford Act Response Agreement with USDA Forest Service, National Park Service, U.S. Fish & Wildlife Service, Bureau of Indian Affairs and Texas Parks and Wildlife Department

- USDA Forest Service Annual Operation Agreement

- USDA Forest Service Southwest/Southern Regions Memorandum of Understanding

- The State Emergency Management Plan

- South-Central Forest Fire Compact

- Adjutant General's Department of Texas Memorandum of Understanding with the Texas Army National Guard

- Texas Parks & Wildlife Department Memorandum of Understanding

State and federal resources are ordered and tracked through the Interagency Resource Ordering Capability (IROC). Mobilization Guides and Procedures utilized include:

- National Interagency Mobilization Guide

- National Incident Business Management Handbook

- Southern Area Mobilization Guide

- Texas A&M Forest Service State Fire Operations Plan

- Texas Fire Response Handbook

- Texas Intrastate Fire Mutual Aid System Mobilization Guide

- Texas Intrastate Fire Mutual Aid System Business Manual

Objectives and Strategies

1. The department will work across internal and external boundaries to enhance the effective implementation of the TWPP. Personnel will work collaboratively with other agencies, departments and personnel in planning, developing, implementing, supporting and evaluating Texas A&M Forest Service response capabilities and needs.

2. Planning and Preparedness Department staff will collaborate with division departments to determine the appropriate response to wildfire and all-hazard incidents. An indication of staffing levels is the preparedness level at both the regional and state level. The department will monitor local preparedness levels and, in consultation with division staff, determine state preparedness levels. Then, as directed by the Incident Response Department Head, department staff will mobilize the appropriate wildfire resources. Additionally, staff will monitor online wildfire reporting applications, such as the Texas FireConnect Portal, and incorporate data into this analysis.

3. The department will maintain the Texas A&M Forest Service Emergency Operations Center as the state fire coordination center in accordance with Section 88.118 Education Code. The department will also implement an expanded dispatch at the center as appropriate during emergency response activities.

4. To involve local, state, federal and private sector resources in the agency's response operations, the department will maintain memorandums of understanding with these cooperators. In coordination with TDEM, the department will maintain and mobilize Texas Intrastate Fire Mutual Aid System (TIFMAS) and Texas A&M All-Hazard Incident Management Team (AHIMT) members. The Texas Interagency Coordination Center (TICC) will coordinate the mobilization of federal resources located in the state.

5. Planning and Preparedness Department staff will assist the agency's Purchasing Department in the development of Texas A&M Forest Service emergency contracts for state, local and private sector resources and facilities.

6. The department plays a major role in maintaining the readiness of personnel and equipment across the state. Staff will coordinate with appropriate Texas A&M Forest Service personnel to maintain the State Fire Operations Plan, track the qualifications of agency and local government emergency responders as well as identify position shortages and training needs. The department also helps to maintain fixed and mobile supply caches throughout the state.

7. Provide intelligence to internal and external customers in an effort to promote safety and efficiency. The department develops and maintains technology and information resources, including the Texas Interagency Coordination Center website, the Texas Wildfire Incident Response System and the Texas FireConnect Portal, to support cooperators and customers. Department staff gather data from agency personnel to develop virtual operational briefings and materials for emergency responders and help to enhance public safety by collaborating with other agencies to communicate hazards and risks.

Focus Areas

Texas Interagency Coordination Center (TICC)

Texas A&M Forest Service maintains a joint coordination center with the USDA Forest Service and the U.S. Department of the Interior to coordinate the mobilization, demobilization and tracking of state and federal wildfire resources and personnel. The center receives and maintains personnel qualifications and training records for Texas-based firefighters and resources in the national dispatch system. Additionally, Texas A&M Forest Service personnel maintain the records system and order supplies and equipment for caches located across the state.

Emergency Operations Center (EOC)

Texas A&M Forest Service maintains an EOC at agency headquarters in College Station to provide statewide situational awareness, strategic oversight and management of all agency emergency response activities. The center continually monitors wildfire risk, state and local fire occurrences and the availability of firefighting equipment and personnel across the state.

Training

Texas A&M Forest Service provides nationally certified wildfire and emergency management training to fire departments and agencies across the state. The agency provides local classes and regional academies to promote firefighter and fire department development and safety. Wildfire and emergency management training is coordinated under the Planning and Preparedness Department to coordinate qualifications management, tracking and needs.

Aviation and Unmanned Aircraft Systems (UAS)

Aircraft and UAS equipment are essential components in wildfire detection, assessment and suppression. Aviation specialists and UAS use is developed, managed and coordinated by the Planning and Preparedness Department to ensure safe and effective operations. In addition to managing aircraft, support personnel staffing and use, the department maintains all tanker base facilities, equipment and agreements across the state.

Texas Intrastate Fire Mutual Aid System (TIFMAS)

In cooperation with the Texas Division of Emergency Management (TDEM) and the Texas Fire Chiefs Association, Texas A&M Forest Service has developed the capability to mobilize local fire suppression personnel and equipment to provide regional mutual aid during large-scale disasters.

Local suppression personnel and equipment are utilized, as part of the TIFMAS program, to meet emergency response needs in other areas of the state. The program includes training, qualification and mobilization systems to make statewide use of these local resources.

Texas A&M All-Hazard Incident Management Team (AHIMT)

Texas A&M All-Hazard Incident Management Teams are administered, developed and maintained through coordinated efforts of Texas A&M Forest Service and TDEM. In 2006, then-Texas Governor Rick Perry issued executive order RP57, which required the development of regionalized AHIMTs across the state.

Texas A&M Forest Service provides oversight and is the deciding figure for all facets of incident management team administration, including the selection of team leads and incident commanders, approval of team rosters, successional team planning and team availability.

The teams are comprised of a diverse group of local first responders representing fire, law enforcement, local government and emergency management. All members are dedicated to the goal of assisting local jurisdictions in managing potentially serious, complex and costly incidents. The development of six regional teams is ongoing. Texas A&M Forest Service also supports 16 Local AHIMTs with certification and training.

Products

The department maintains several products that are regularly utilized by the agency as well as cooperators at the state and local level.

The *Fire Department Directory* was created in response to House Bill 1915 in 2007. The database, now called the Texas FireConnect Portal, is an online application that is available to all Texas fire departments, agencies and associations. Currently, the directory lists information on all known local fire departments. The Texas FireConnect Portal also serves as the reporting and collection point for local wildfire occurrence and fire department response data. The system generates FEMA-based suppression costs to help meet the required state thresholds for federal assistance. This system has been utilized by FEMA as the standard reporting system for local reimbursements on federally declared fires.

Statewide operational briefings are coordinated by the EOC during periods of elevated fire activity. For state and interagency personnel, this is conducted as a statewide conference call with online graphics. A link to these graphics is distributed to interested fire departments and cooperators via an email listserv account.

Planning and Preparedness Department Priorities for the 2024-2025 Biennium

Training and qualifications	
Timeline	*Action*
9-12 months	Develop a Training & Qualifications Manual that encompasses all Texas A&M Forest Service, TIFMAS and AHIMT wildland fire and incident management positions to ensure consistency across all programs.
18-24 months	Complete the total integration of TIFMAS personnel into the Incident Qualifications System (IQS).
2+ years	Develop the CR337 Wildfire Staff Ride so the agency can host it regularly for interagency partners and cooperators.
Dispatch and intelligence	
Timeline	*Action*
18-24 months	Refine the Wildfire Incident Response System (WIRES) and the fiResponse dispatch program. Work toward developing a Computer Aided Dispatch (CAD) system.

2+ years	Develop personnel and equipment-tracking dashboards to provide real-time locations and assignments of all Texas A&M Forest Service, TIFMAS, AHIMT and interagency personnel. The dashboards will be utilized by agency personnel and the Emergency Operations Center as well as by TDEM and the State Operations Center.
Ongoing	Research and seek opportunities to integrate new intelligence gathering and sharing systems in the Emergency Operations Center.

Air operations

Timeline	Action
18-24 months	Standardize the locations and equipment for tanker bases in Texas. Develop a replacement plan, which includes a schedule, for tanker base equipment.
2+ years	Establish helicopter operations positions, including Helicopter Crewmembers (HECM) and Helicopter Manager, Single Resource (HMGB), and develop agency personnel to serve in these roles.
2+ years	Collaborate with state agency partners that have aviation capabilities. Develop a plan to utilize aircraft from partner agencies for wildfire response in Texas like the existing relationship that the agency has with the Texas Military Department.

Texas Intrastate Fire Mutual Aid System (TIFMAS)

Timeline	Action
9-12 months	Collaborate with the Capacity Building Department to extend the existing TIFMAS grant program to include coverage for additional equipment and apparatus.
18-24 months	Work with TIFMAS partners to standardize the fleet.

Incident Management Team Program

Timeline	Action
12-18 months	Establish, roster and maintain six Regional Type 3 Incident Management Teams.
2+ years	Rebuild the state's capacity to mobilize an incident management team for response. Working with partners in the Texas A&M University System, focus on the training and mobilization of personnel for team assignments.

Predictive Services

The Predictive Services Department is responsible for the scientific assessment of environmental conditions across the state as it relates to wildfire risk, wildfire danger and drought from data collected through live fuel moisture sampling and weather data collected from Remote Automatic Weather Stations.

Following the 1998 fire season, Texas A&M Forest Service established a Predictive Services Department to provide short- and long-term forecasts and analyses. This was based on increased need and reliance on these products by Texas A&M Forest Service and by other state and local entities. It also satisfies legislative requirements for the agency to provide drought-determination information for county government as part of fireworks restrictions and burn bans, which were in response to House Bill 2049 in 1997 and House Bill 2620 in 1999, respectively. Texas A&M Forest Service was the first land management agency in the nation to dedicate full-time personnel and resources to a Predictive Services unit.

Department staff develop daily, weekly and seasonal forecasts, as needed, to assist state and local government entities in preparing for and responding to periods of elevated fire danger. This information is made available to state and local cooperators as well as the public.

The Predictive Services Department also provides several decision support products to the Texas Division of Emergency Management for state and federal disaster declarations, activation of the state emergency response plan and the activation of other state and federal agency fire suppression and support resources. Fire behavior information is also provided to support federal Fire Management Assistance Grant (FMAG) requests seeking FEMA declarations on individual wildfires.

Texas A&M Forest Service Predictive Services is a member of a national community of state and federal predictive services units, and the department maintains a cooperative relationship with these agencies. Efforts include the exchange of information and alerts on existing and expected fire danger. The department is a founding member of the Southern Great Plains Wildfire Outbreak (SPWO) group, which is a collaborative effort between the National Weather Service, the agency's Predictive Services Department and Oklahoma Forestry Services. The group identifies and forecasts fire environments and triggers that support dangerous wildfire outbreaks.

Focus Areas

Fire Weather Stations

The Texas Fire Weather Station Network is composed of a variety of weather station platforms, including remote automated weather stations (RAWS), National Weather Service stations (ASOS) and West Texas Mesonet stations that are managed by Texas Tech University. Weather data collected from this network is used for fire danger modeling and web-based information products. These weather stations provide crucial information, both real-time and historical, to state and national datasets.

<u>Web-Based Information Products</u>

One of the primary roles of Predictive Services is the dissemination of information to citizens, local government, state agencies and other stakeholders and cooperators. Tremendous effort has gone into the development of web-based information products allowing local officials and firefighters access to all fire danger, drought, weather and fire behavior information. Wildfires pose a critical life-safety risk to firefighters and citizens, whether state resources are deployed on a fire or not. Web-based products are the primary conduit for making this information available to all. The continued development and advertisement of these products remains a priority for the agency.

Objectives and Strategies

1. The department maintains and gathers information from fire weather stations and via a state and national network of weather and assessment professional to integrate climate, weather and wildland fuel conditions into products that will accurately define wildfire danger and risk to enhance the ability of managers to make sound decisions at the state, regional and local level. This information helps to determine current and predicted weather conditions throughout the year.

2. Develop and maintain a system and methods to support wildland fuels analysis, fire weather station networks, historic data analysis, live fuel moisture sampling points, remote sensing fuels assessments and fire danger modeling capabilities.

3. Develop and maintain necessary personnel, software applications and historic datasets to support the continuous daily assessment of fire environment conditions.

4. Disseminate information to cooperators, elected officials and the public.

5. Collaborate with the Applied Technology Department to develop and maintain web-based products and information to provide for the dissemination of fire environment information to citizens, local government, state agencies and other stakeholders and cooperators.

6. Provide drought information to county and state officials as required in Sections 352.081 and 352.051 of the Local Government Code.

Predictive Service Department Priorities for the 2024-2025 Biennium

Work with National Weather Service to improve Red Flag Warning issuance so that it better reflects wildfire potential	
Timeline	***Action***
18-24 months	Host a statewide workshop with all 13 National Weather Service (NWS) offices that forecast in Texas. Develop a partnership and discuss recommendations for the NWS offices to update red flag warning criteria as well as the process for issuance of a warning so that it is consistent across the state and reflective of the current wildfire potential.

Ongoing	Partner with NWS offices in Texas to provide an agency Fire Analyst at any fire weather workshop or partner event.
Ongoing	Fire Analysts will continue to participate in the collaborative fire potential discussions with NWS.

Work with the Storm Prediction Center to improve Fire Weather Outlook issuance so that it better reflects wildfire potential

Timeline	*Action*
0-6 months	Meet with the Storm Prediction Center's Science and Operations Chiefs to determine what fire environment information Texas A&M Forest Service can provide to them to better inform the issuance of outlooks that highlight elevated or critical fire weather across the state.

Build and manage a Texas Fire Danger Rating System

Timeline	*Action*
1-2 years	Develop, build and manage a Texas Fire Danger Rating System. Obtain the source code for the Legacy Fire Danger Rating System to allow the agency's Applied Technology Department to create and manage a Texas version that better suits the needs of the state.

Develop internal collaborative learning environment

Timeline	*Action*
12-14 months	Develop a collaborative learning environment for all Fire Analysts and Resource Specialists where the department invests in course work to improve written and oral communications skills for staff. For Fire Analysts, there will be no assigned special responsibilities, but each analyst should be knowledgeable in all disciplines of Predictive Services to provide continuity of programs and services. All Fire Analyst I employees will be assigned a mentor and will be encouraged to go on assignments to develop fireline skills. Resource Specialists within the department will be provided opportunities and encouraged to learn and practice all aspects of Predictive Services disciplines.

Revenue and Expenditures

Implementation of the TWPP is included within the existing agency structure and budget strategies. Details of the agency budget and method of financing for the plan are reported in the agency's Legislative Appropriations Request.

Texas A&M Forest Service is regularly called upon to provide expertise, personnel and equipment on wildfire and all-hazard incidents across the state. Costs associated with response operations, which include overtime pay, travel, fuel and supplies, often exceed the agency's base budget.

Between 2017 and 2021, the agency's wildfire response expenses totaled $103 million more than the base budget. In 2022, Texas A&M Forest Service spent more than $147 million over the base budget on expenses relating to wildfire response.

Expected Savings

Between 2005 and 2021, Texas A&M Forest Service and local fire departments responded to 218,351 wildfires that burned more than 11.8 million acres. During this period, an estimated $17.2 billion in values at risk, including 131,799 homes, was saved due to firefighters' efforts.

On average, state and local firefighters save approximately $1 billion in values at risk, including about 7,753 homes, each year. Firefighters prioritize life safety but also make every attempt to protect structures, property and natural resources from the impacts of wildfire. With the implementation of this plan, it is anticipated that the average numbers of homes and values at risk saved will remain consistent with averages from past years.

Wildfire Prevention Programs

Wildfire prevention campaign efforts have proven to be successful as evident by data from the Wildfire Prevention Spatial Assessment and Planning Strategies (WPSAPS) application. WPSAPS showed that the 2021 wildfire prevention campaign prevented 954 potential wildfire starts and saved the state $5.7 million in suppression costs.

Smokey Bear License Plate Legacy Project

In 2019, after years of work by the agency's Mitigation and Prevention Department, Smokey Bear specialty license plates were made available for purchase by the public. Each specialty license plate sells for $30. From the sale of each plate, $22 is deposited into an agency account to fund fire prevention activities in Texas communities that are at risk of wildfire.

As of Feb. 2023, 1,216 license plates have been sold, generating $26,750 in funding for wildfire prevention efforts in Texas.

Current Staffing

In addition to the agency's costs, firefighters and support personnel from forestry and land management agencies across the country are, at times, mobilized to Texas to support the state's response efforts. These activities are generally funded through the supplemental appropriations process during the following legislative session.

Texas A&M Forest Service employs 544 full-time personnel at 58 office and workstation locations across the state. The agency's full-time wildland firefighting workforce is comprised of 307 firefighters and 95 additional wildfire management and support personnel. Texas A&M Forest Service's emergency response fleet of equipment consists of 104 dozers, nine motor graders, 21 wildland engines and two water tenders.

When firefighters and support personnel are not engaged in wildfire response, these employees are engaged in agency programs, such as fire department assistance, training and community risk reduction, that support the TWPP.
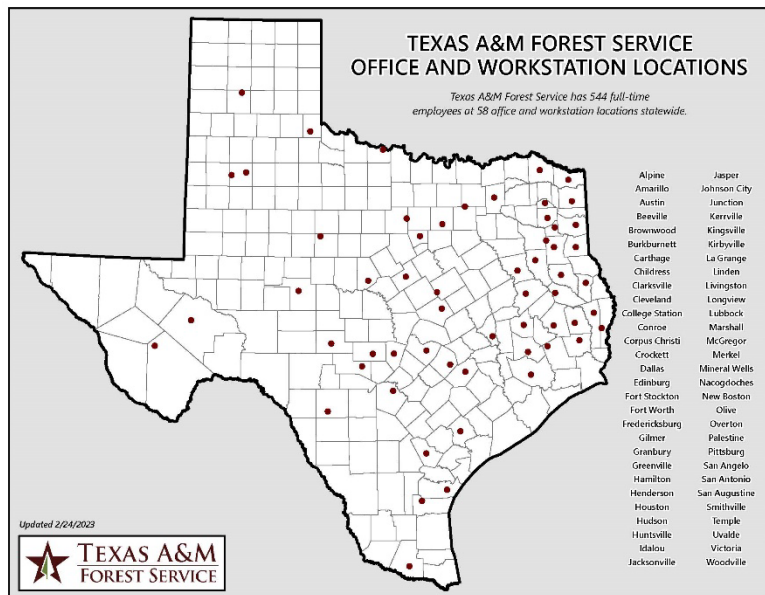
Map showing agency office and workstation locations around the state.

Future Funding and Needs to Implement TWPP

Included in the 2024-2025 Legislative Appropriations Request, Texas A&M Forest Service has requested the following exceptional items, one-time funding opportunities and supplemental appropriation.

Exceptional Item 1: Texas A&M Forest Service Emergency Response Capability

As a direct result of population increases, fluctuating weather patterns and changes in land use, the expanding threat of wildfires has greatly increased requests for state assistance. The agency is requesting $31.4 million for the Biennium to:

- **Add 100 fire and emergency response positions**—additional personnel are essential to keep pace with the growing demand for wildfire mitigation and suppression in Texas.

- **Improve current pay levels**—recruit and retain a qualified workforce to provide protection to Texas' residents and natural resources. The agency has exhausted internal options for cutting costs and has maximized the use of other funding sources.

- **Add/replace wildfire suppression equipment**—utilizing the latest in firefighting apparatus is crucial to enhancing response capabilities, allowing for faster response times and increasing life safety for both firefighters and the public.

- **Fund aviation support costs**—suppression aircraft are an invaluable tool in wildfire response and provide rapid response across the state. Funding will allow the agency to strengthen aviation support capacity.

Exceptional Item 2: Local Firefighting Capacity

A duty to protect is included in the mission of Texas A&M Forest Service, and fire departments across the state are an essential partner in realizing that mission. The agency has a long history of supporting fire departments and is committed to helping enhance their emergency response capabilities. The agency is requesting $17.9 million for the Biennium to assist:

- **Volunteer Fire Departments** — Volunteer fire departments provide essential front-line emergency services that directly protect Texans and the state's natural resources every day. Grant requests exceed current funding by $16.7 million each year, and it is imperative that the agency continue to invest in local fire departments to ensure they are well-equipped and trained for response.

- **Texas Intrastate Fire Mutual Aid System, TIFMAS** — The premiere mutual aid system in the nation, the TIFMAS program provides surge capacity at the request of the state to support catastrophic incidents. Continued investment will sustain and improve response capabilities to expand the state response to wildfires and all-hazard incidents.

The requested funding will allow Texas A&M Forest Service to provide additional apparatus to departments each year as well as more life-saving rescue equipment, gear and training.

One-Time Funding Opportunities

Texas A&M Forest Service invests in fire departments through a variety of successful grant programs for volunteer fire departments (VFDs), since 2002, and Texas Intrastate Fire Mutual Aid System (TIFMAS) departments, since 2009. Funding is needed to address the number of outstanding requests and meet the response needs of a rapidly growing state. The agency is requesting the following one-time funds:

$100 million for VFD Grants — The demand for immediate life-saving equipment continues to increase each year and unfunded requests now total more than $171.5 million. Due to insufficient funding, a department may wait several years before a request is funded.

$8 million for TIFMAS Grants — Requests for apparatus and training far exceed the current funding of $1 million each year and unfunded requests now total more than $23.4 million.

Supplemental Appropriation

Texas A&M Forest Service is requesting $100 million for costs associated with the 2022 wildfire season.

Agency Contact:
Information Officer
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