



# Texas A&M Forest Service

## Geospatial Wildfire Risk Applications

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Director & State Forester

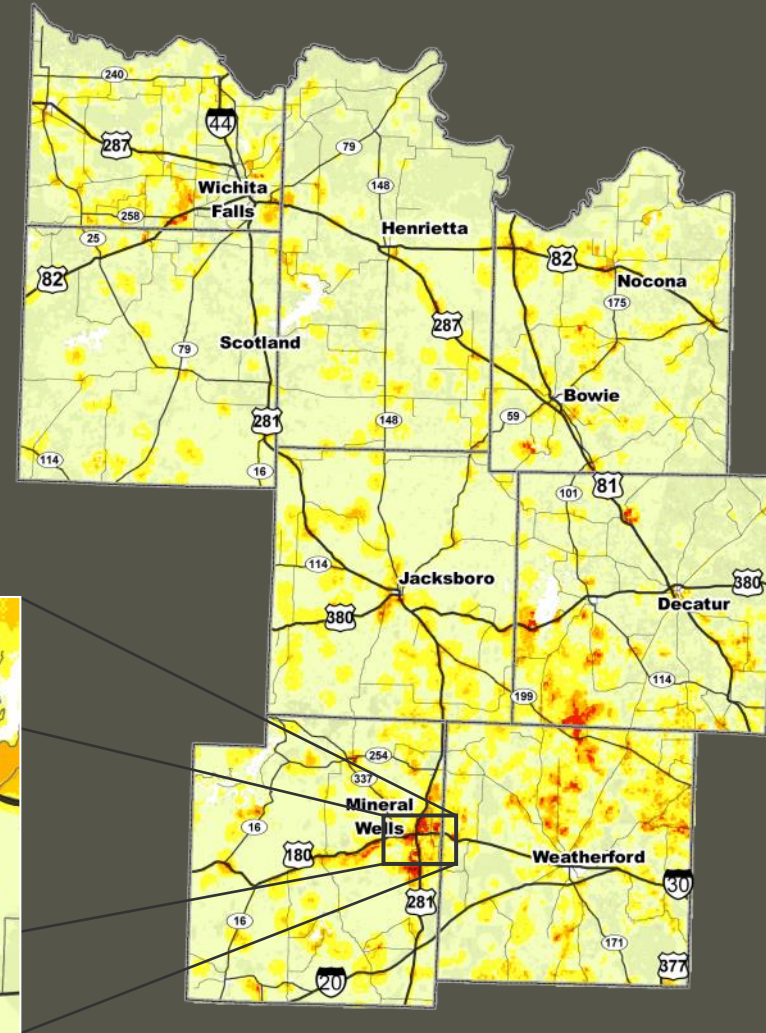
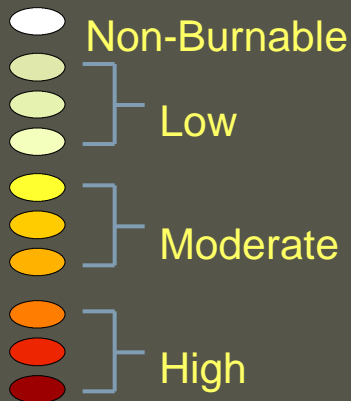


# Southern Wildfire Risk Assessment

## SFRA project:

- Includes 13 Southern State
- Led by TFS
- GIS Application/ESRI Platform
- Identify High Risk Areas, Causal Factors
- Guide Risk Reduction/Mitigation

## Level of Concern

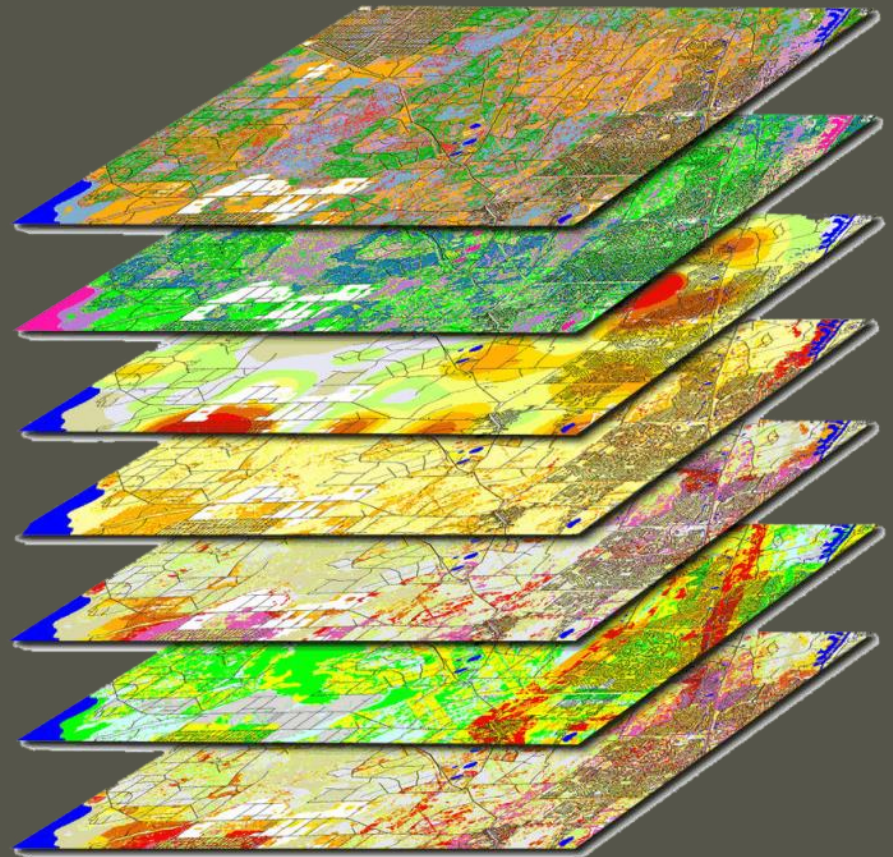




# Southern Wildfire Risk Assessment

## SFRA model integrates:

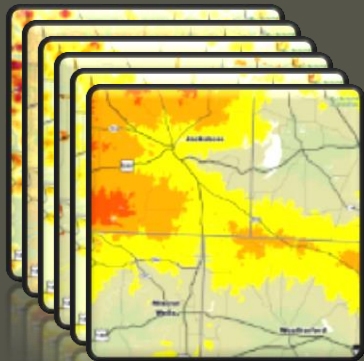
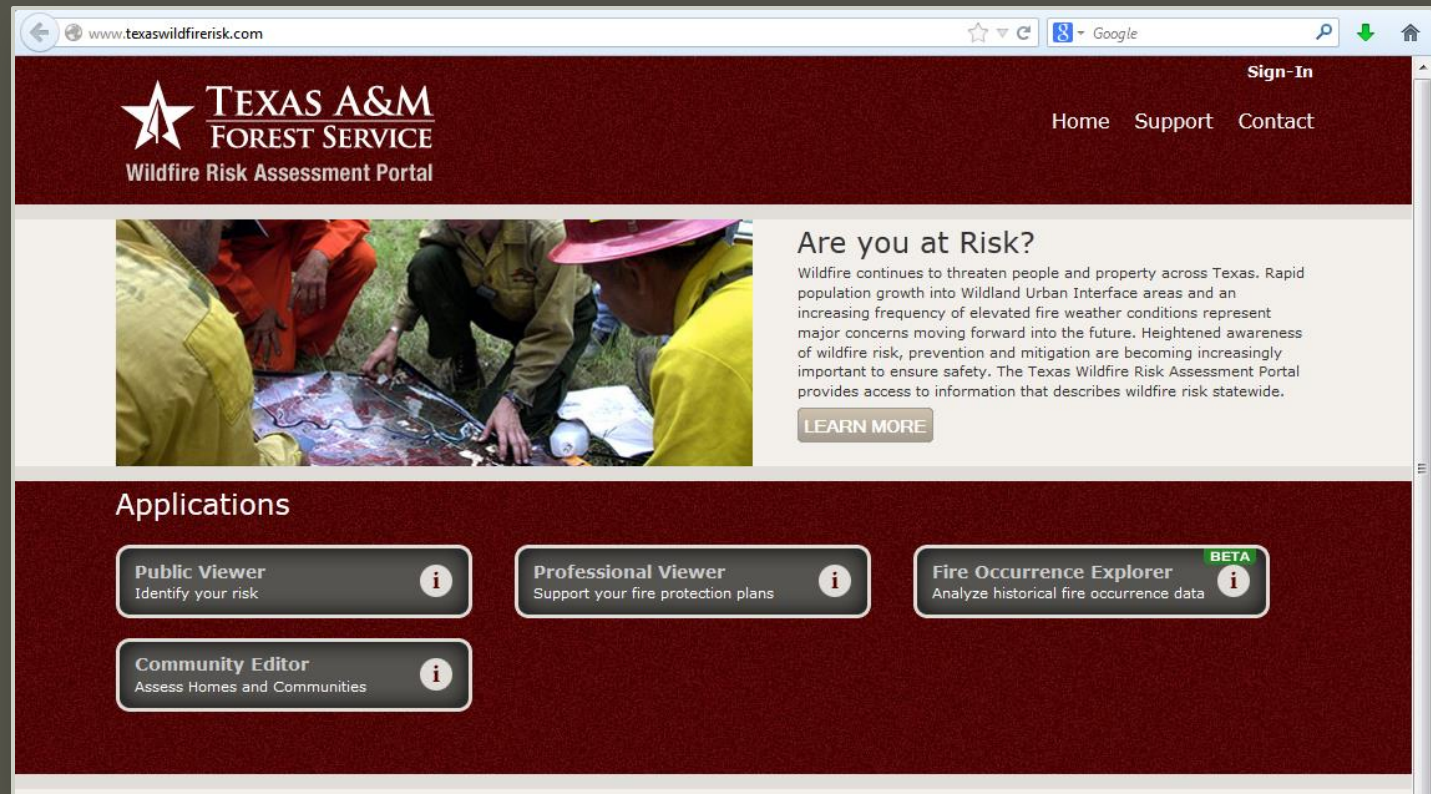
- Historical weather
- Fire history (ignitions)
- Surface fuels
- Roads
- WUI
- Fire behavior analysis
- Fire effects and suppression effectiveness



# Texas Wildfire Risk Assessment Portal (TxWRAP)

TxWRAP is the primary mechanism for the Texas A&M Forest Service to deploy risk information and create awareness about wildfire issues across the state.

[www.TexasWildfireRisk.com](http://www.TexasWildfireRisk.com)



Features 4 geospatial web applications and a mobile browser

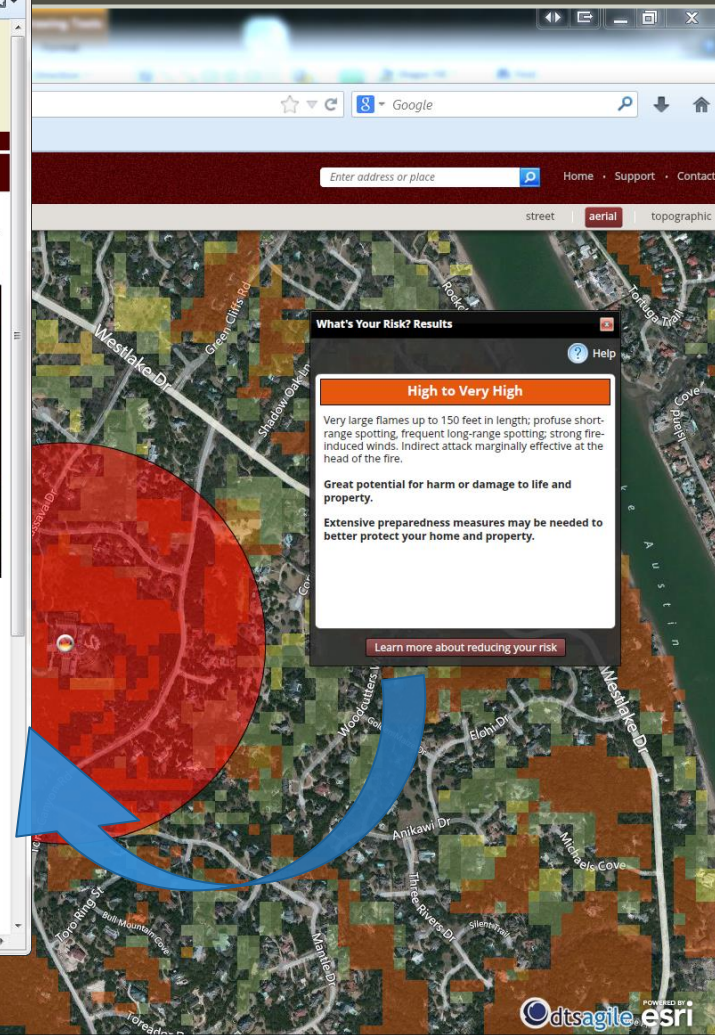
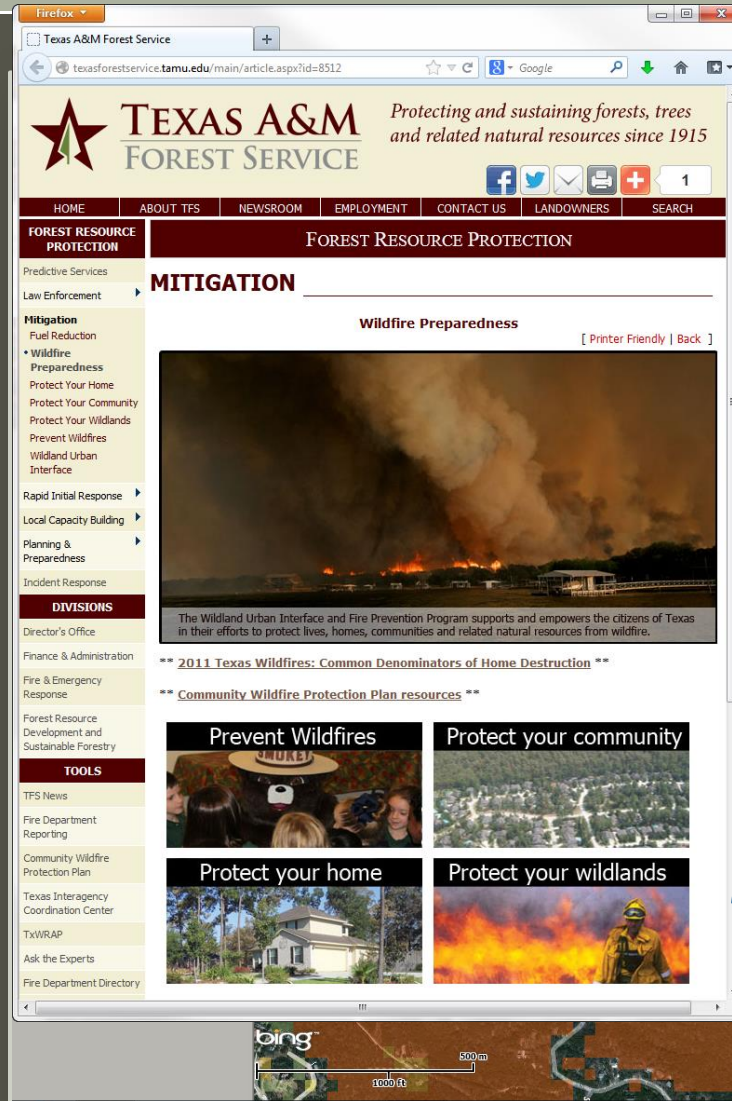


# Public Viewer

Features a tool called *“What’s Your Risk?”*

It allows users to zoom to a place of interest, explore map themes and identify risk.

User are directed to additional resources to help them mitigate their risk.

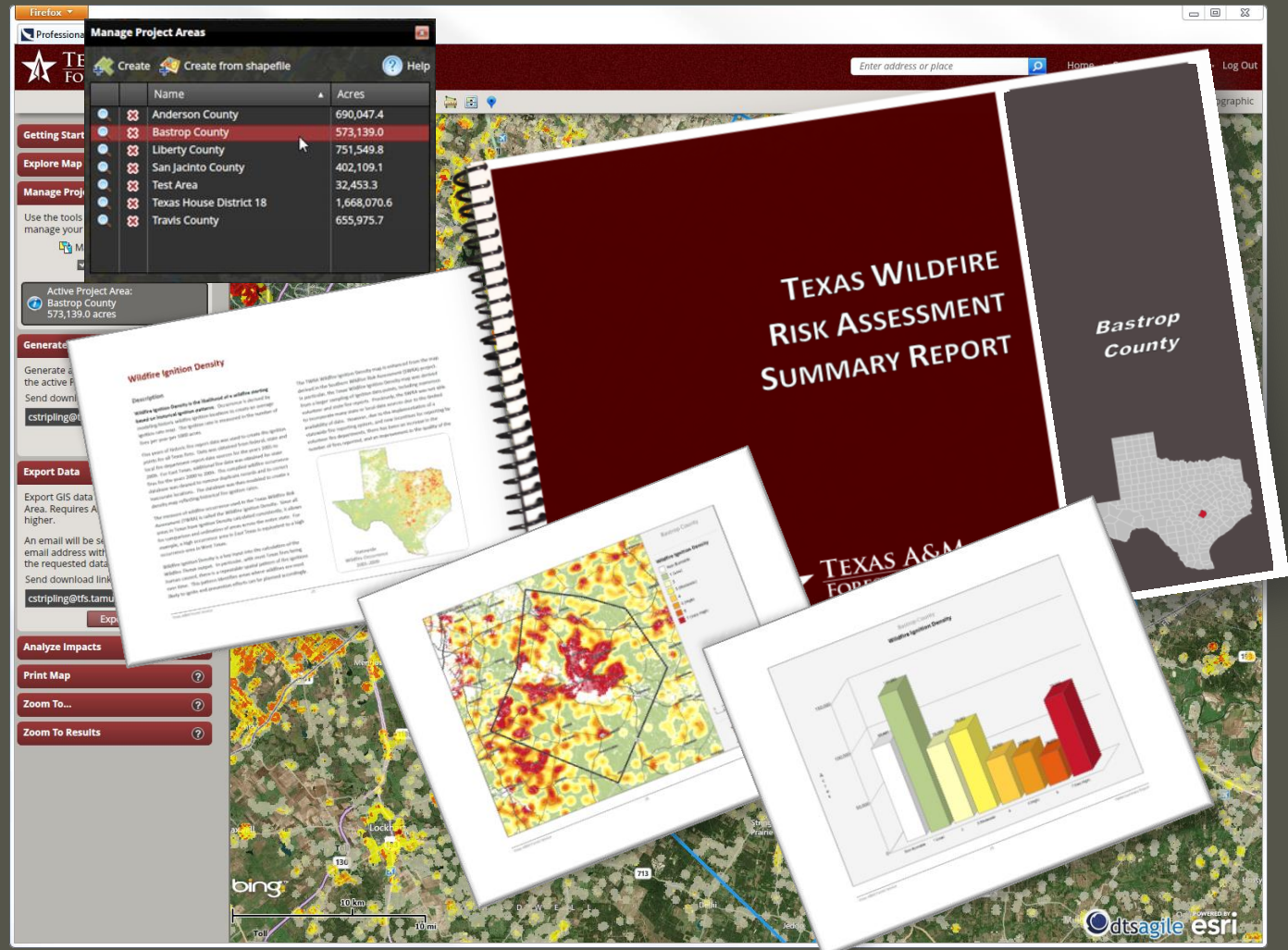


# Professional Viewer

The Professional Viewer supports the community wildfire protection planning needs of:

- government officials
- mitigation planners
- wildland fire professionals

Custom reports can be easily generated for counties, cities, or user-defined areas.

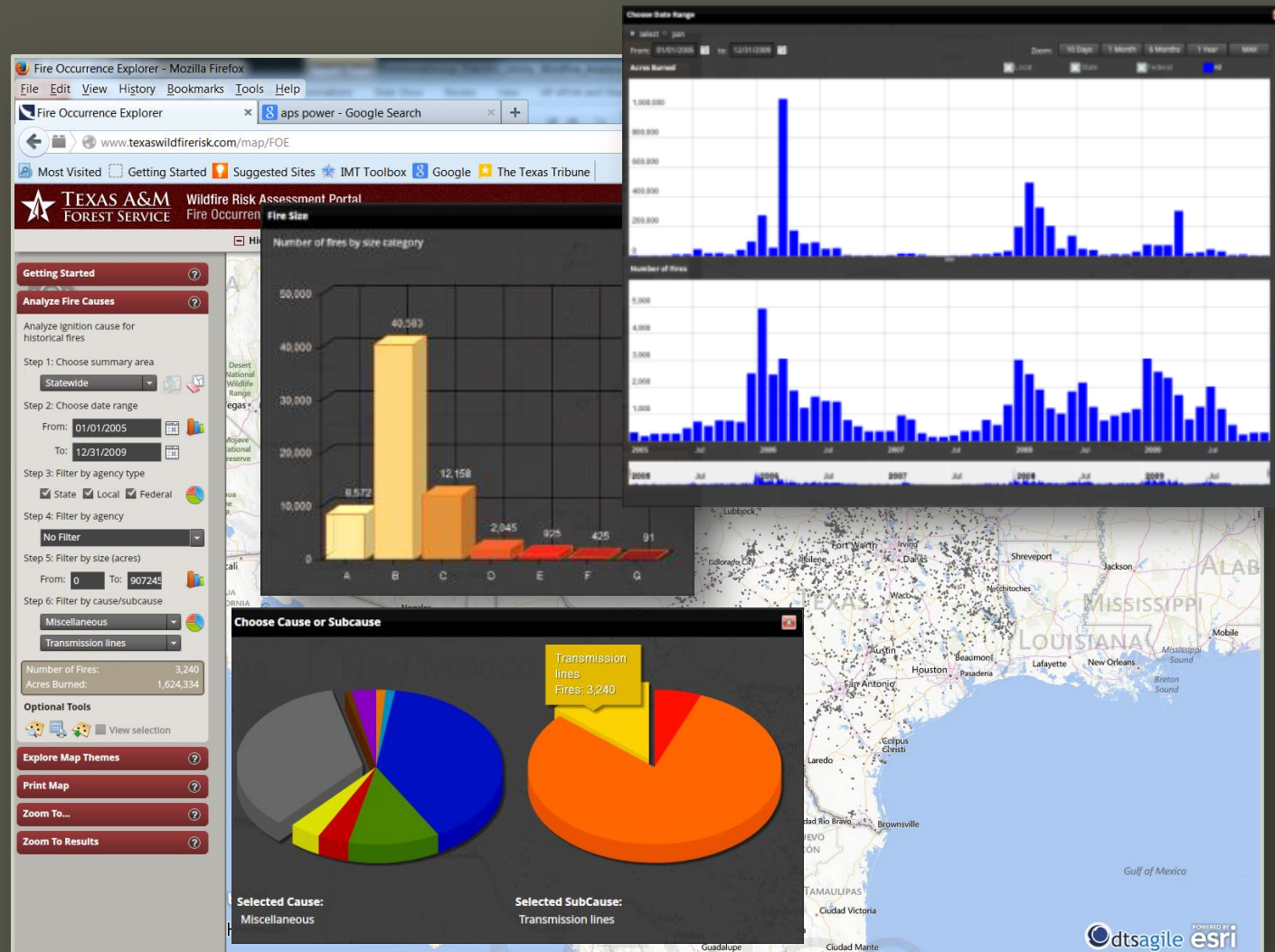




# Fire Occurrence Explorer

The Fire Occurrence Explorer features a tool called the “*Fire Cause Analyzer*”.

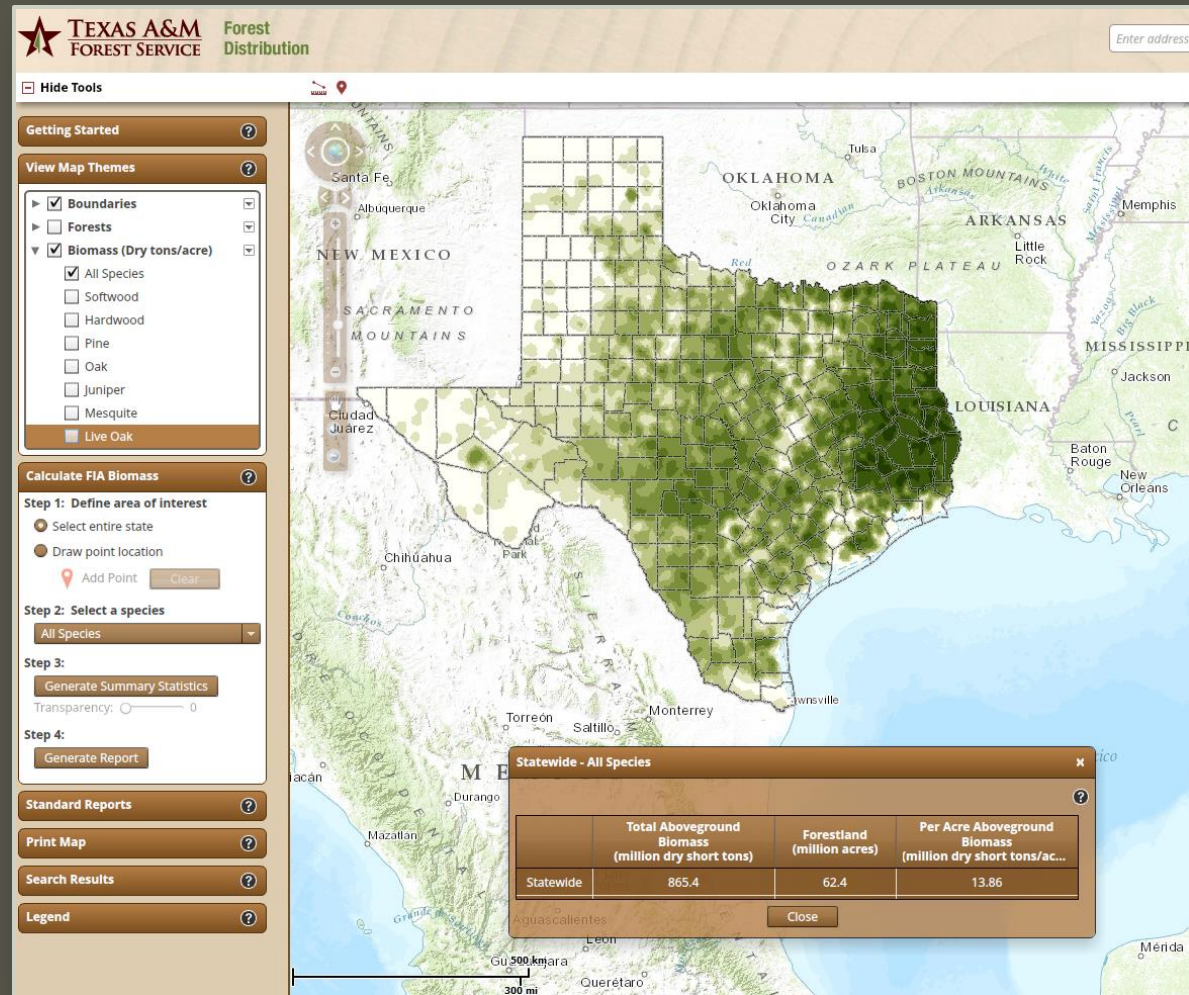
It allows users to interactively explore fire statistics using dynamic charting and mapping capabilities in order to derive patterns related to fire cause.



# TexasForestInfo.com

## Web-accessible/GIS-based

- Timber Supply Analysis
- Forest Distribution
- Forest Ecosystem
- Economic Impact
- Timber Decision Simulator
- Forest Products Directory

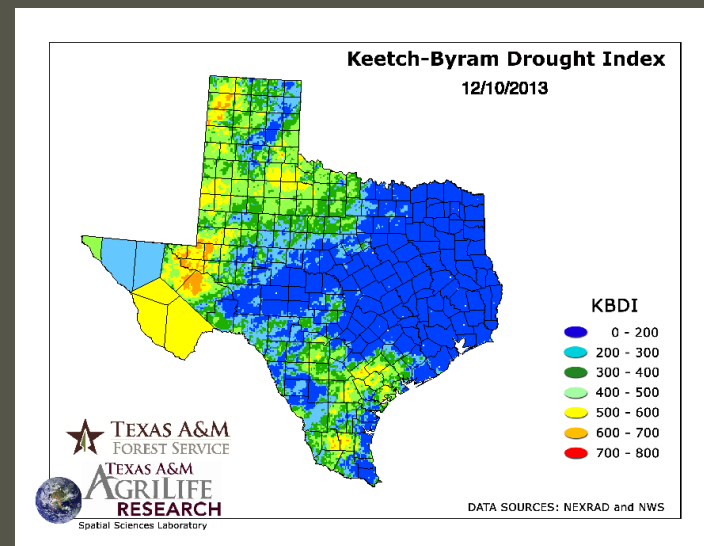
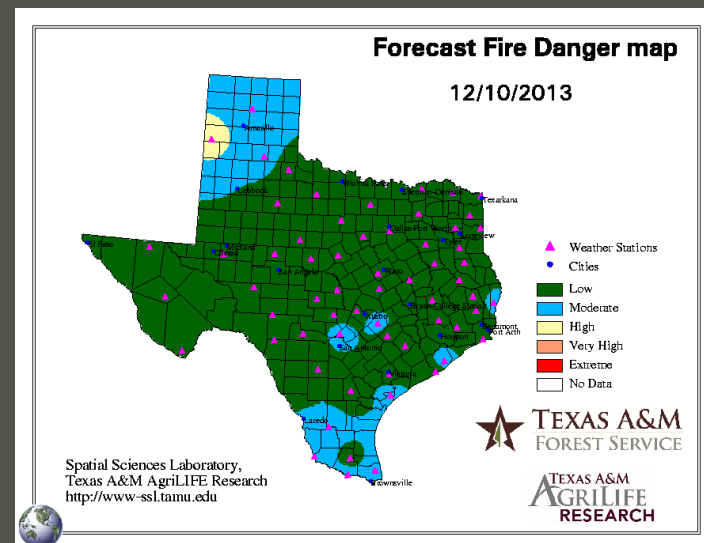
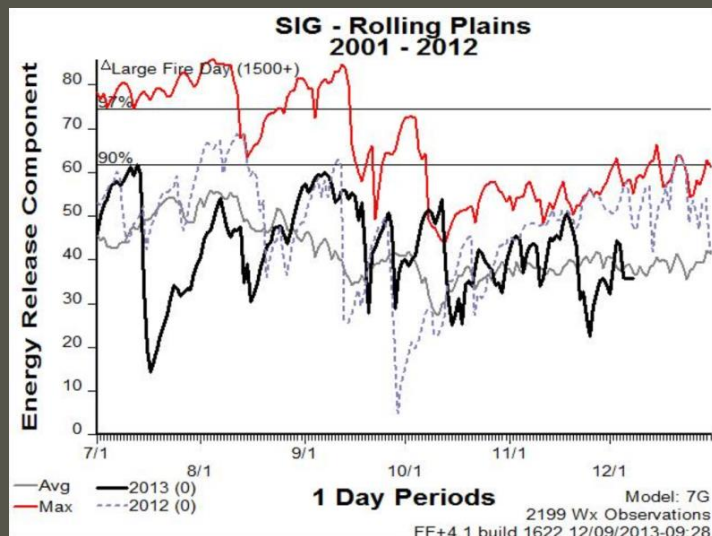




# Short Term/Daily Fire Danger Products

TFS Predictive Service Department:

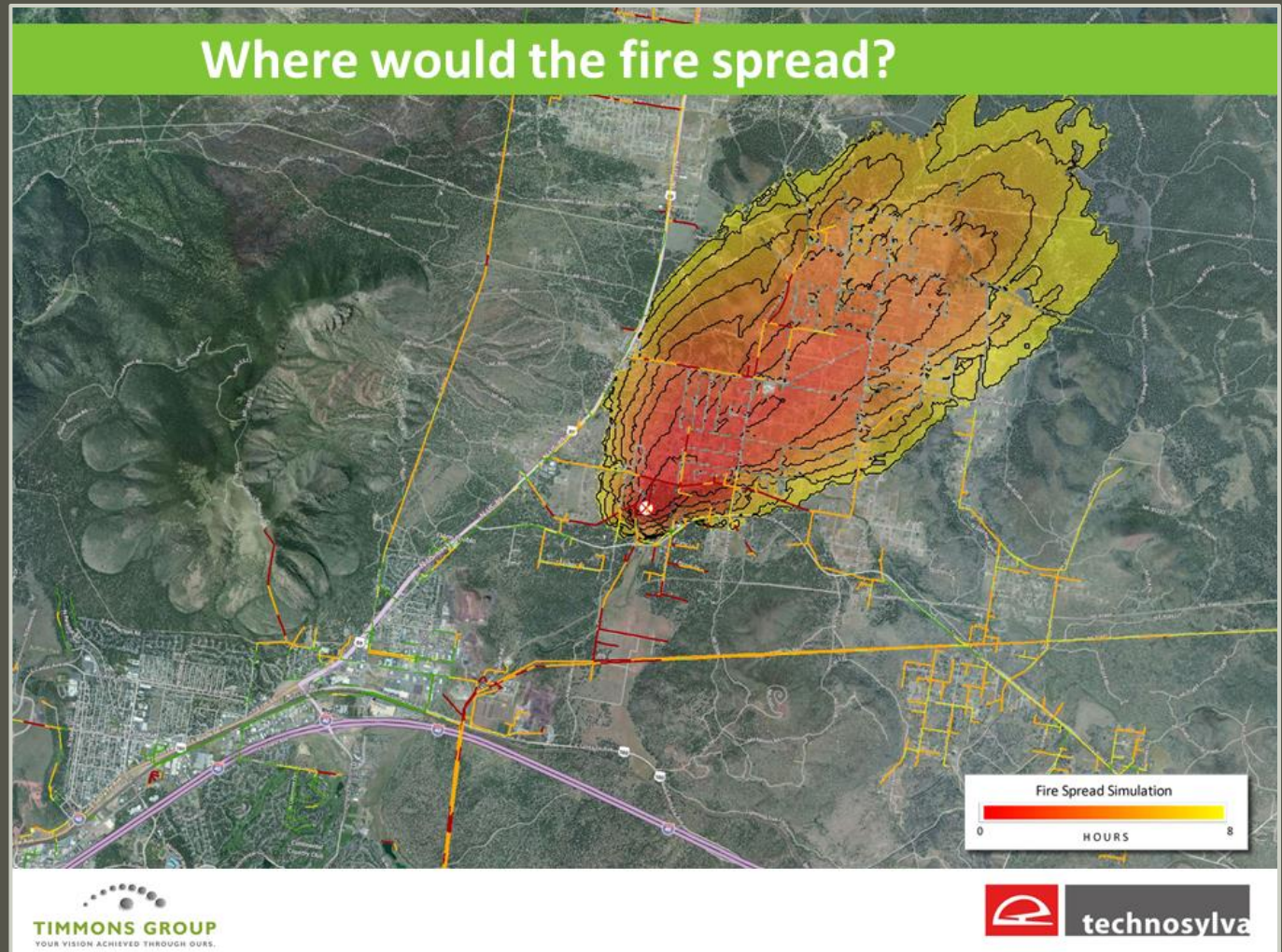
- Daily Fire Danger
- Drought Indices
- Fuel Dryness
- Online and Automated
- Remote Automated Weather Stations



# Other Wildfire Risk Tools

Generate fire spread simulate in less than a minute.

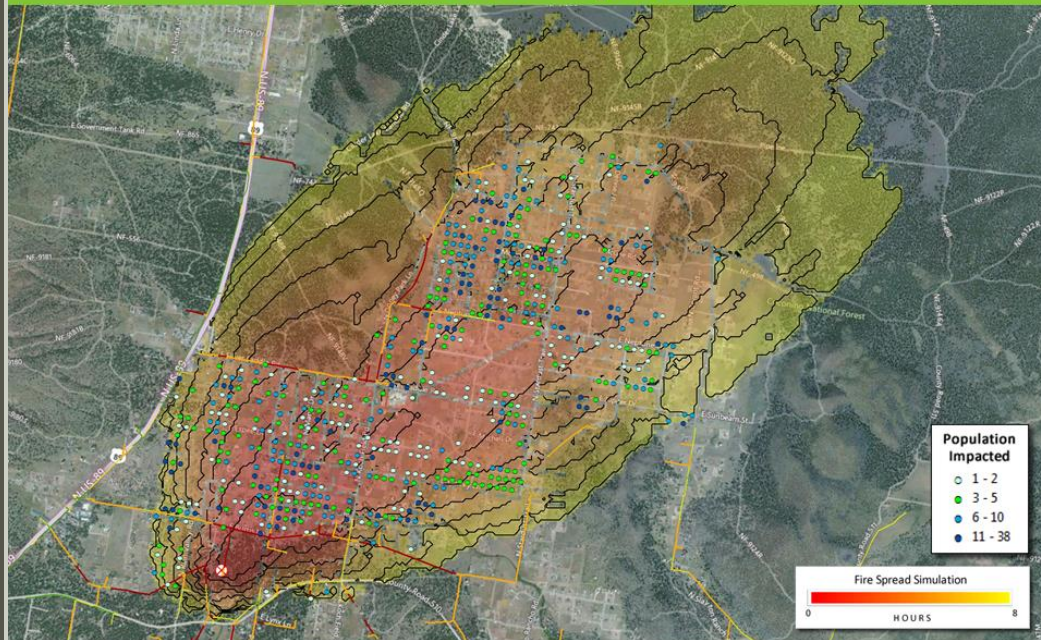
Incorporates latest fire behavior data including terrain, vegetation and fuels (TxWRAP) as well as current weather





# Other Wildfire Risk Tools

## What would be the impacts?



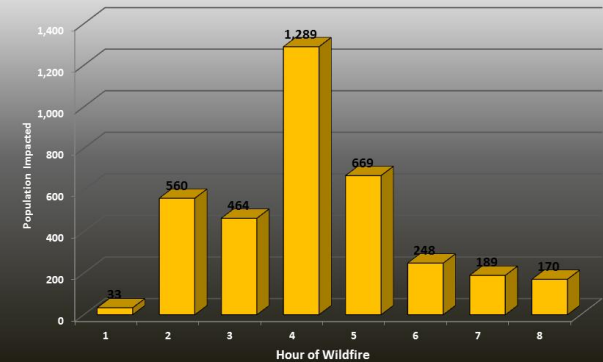
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Can also provide analysis of wildfire impacts (population, homes, values at risk, etc.)

## What would be the impacts?

Total Population Impacted  
By Hour of Progression 3,622



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## Impact & Liability Analysis

Accumulative Potential \$ Losses - Buildings  
By Hour Progression of Wildfire



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# TEXAS A&M FOREST SERVICE

## Potential Assistance includes:

- Availability/sharing of data
- Access to existing applications
  - May require some customized data exports
- Fire behavior analysts, mitigation (risk reduction) specialists and other subject matter experts

