

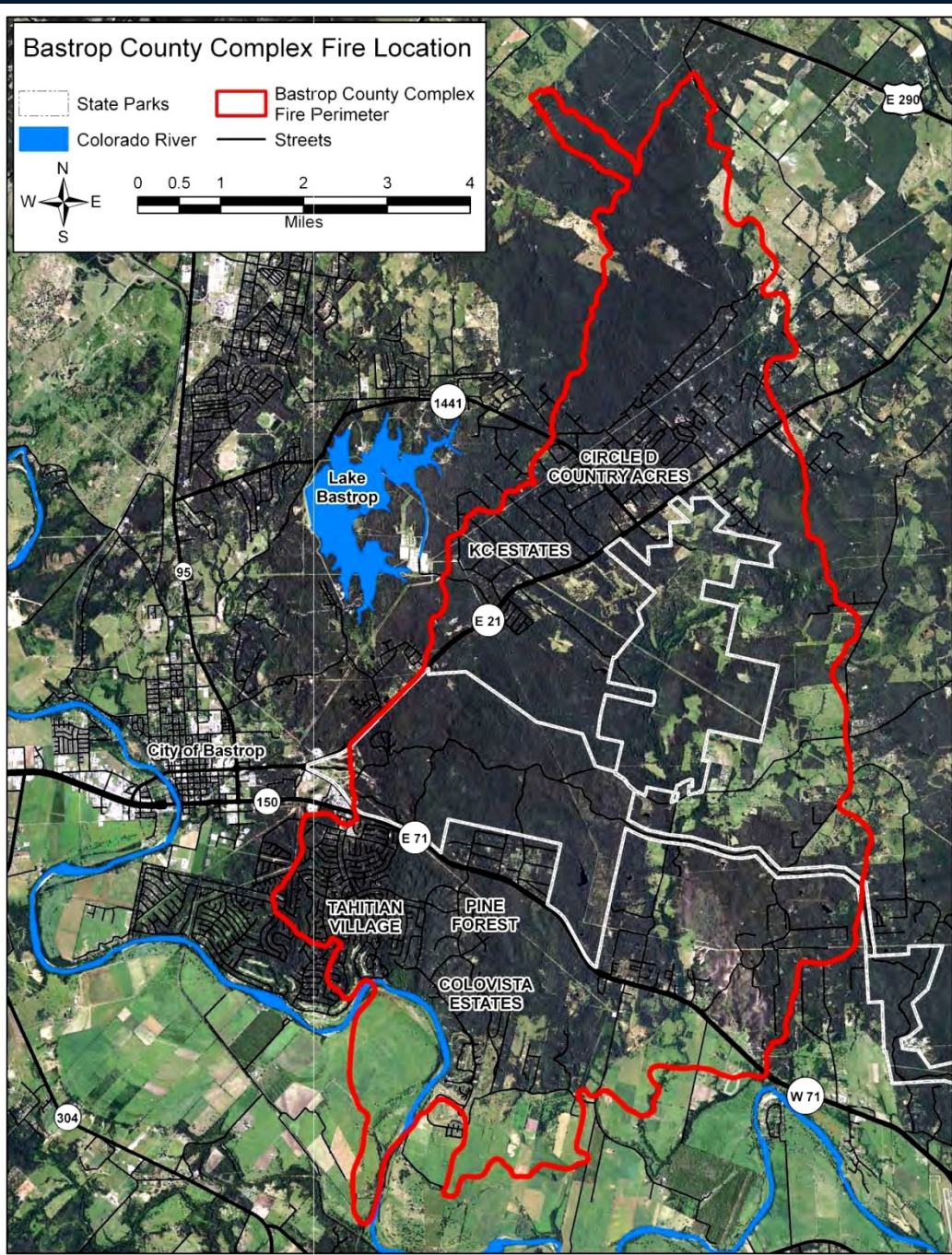
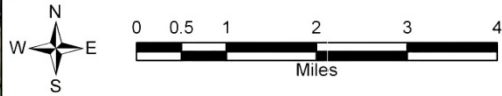


Regeneration and Restoration of the Landscape

After the Bastrop County Complex Fire

Bastrop County Complex Fire Location

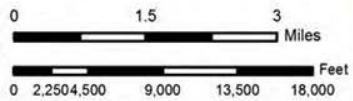
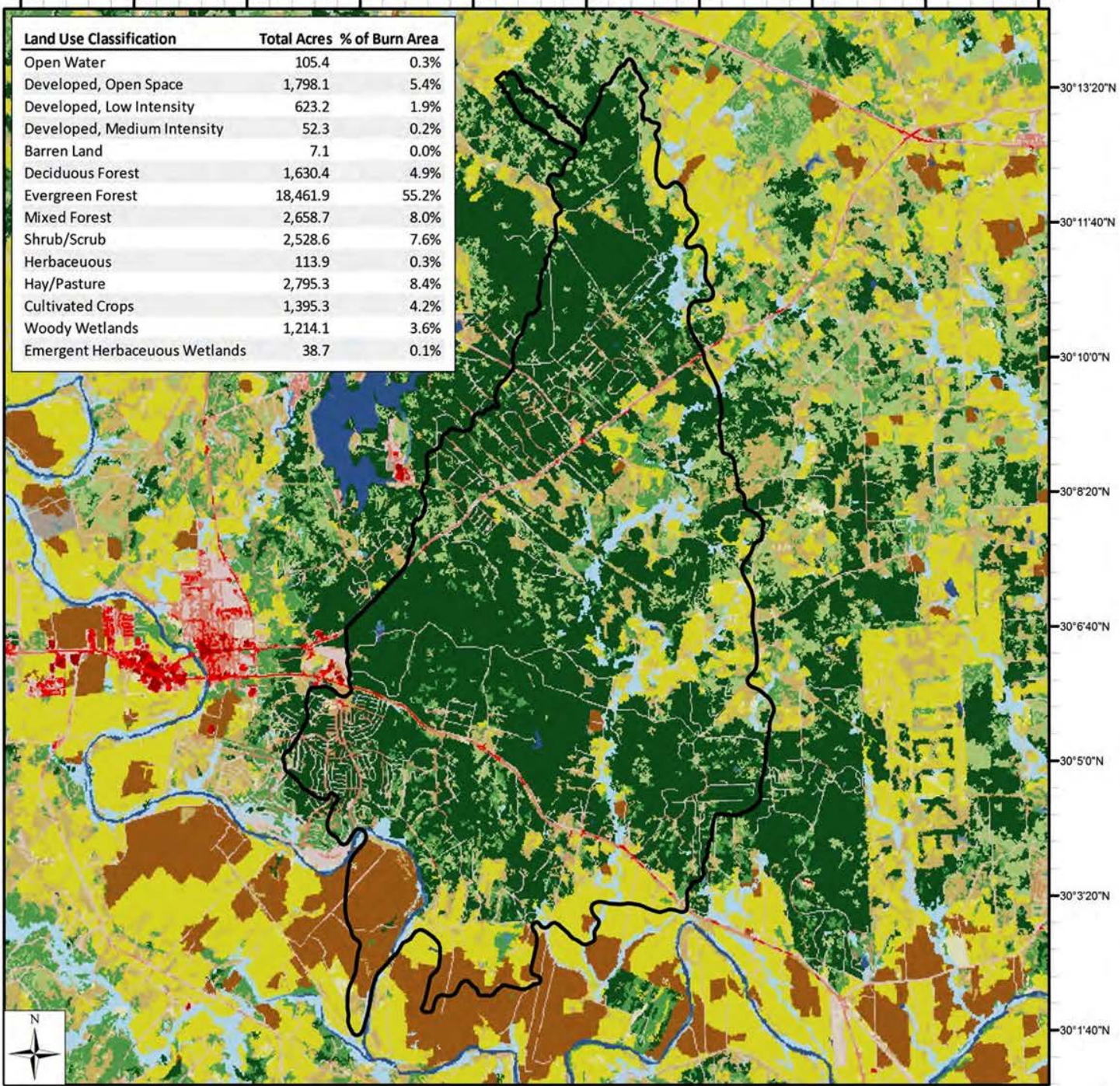
- State Parks
- Bastrop County Complex Fire Perimeter
- Colorado River
- Streets



Legend

- Unclassified
- Open Water
- Developed, Open Space
- Developed, Low Intensity
- Developed, Medium Intensity
- Developed, High Intensity
- Barren Land
- Deciduous Forest
- Evergreen Forest
- Mixed Forest
- Shrub/Scrub
- Herbaceous
- Hay/Pasture
- Cultivated Crops
- Woody Wetlands
- Emergent Herbaceous Wetlands

Land Use Classification	Total Acres	% of Burn Area
Open Water	105.4	0.3%
Developed, Open Space	1,798.1	5.4%
Developed, Low Intensity	623.2	1.9%
Developed, Medium Intensity	52.3	0.2%
Barren Land	7.1	0.0%
Deciduous Forest	1,630.4	4.9%
Evergreen Forest	18,461.9	55.2%
Mixed Forest	2,658.7	8.0%
Shrub/Scrub	2,528.6	7.6%
Herbaceous	113.9	0.3%
Hay/Pasture	2,795.3	8.4%
Cultivated Crops	1,395.3	4.2%
Woody Wetlands	1,214.1	3.6%
Emergent Herbaceous Wetlands	38.7	0.1%



- **Fire-adapted Ecosystem**
- **Fires Occurred Every 2 – 5 years**
- **Fire Required for Pine Regeneration**
- **Fire Required for Oak Suppression**

- **Accumulation of Woodland “Fuels”**
- **Dense Forests**
- **Historically Dry Vegetation**
- **Extreme Weather Conditions**

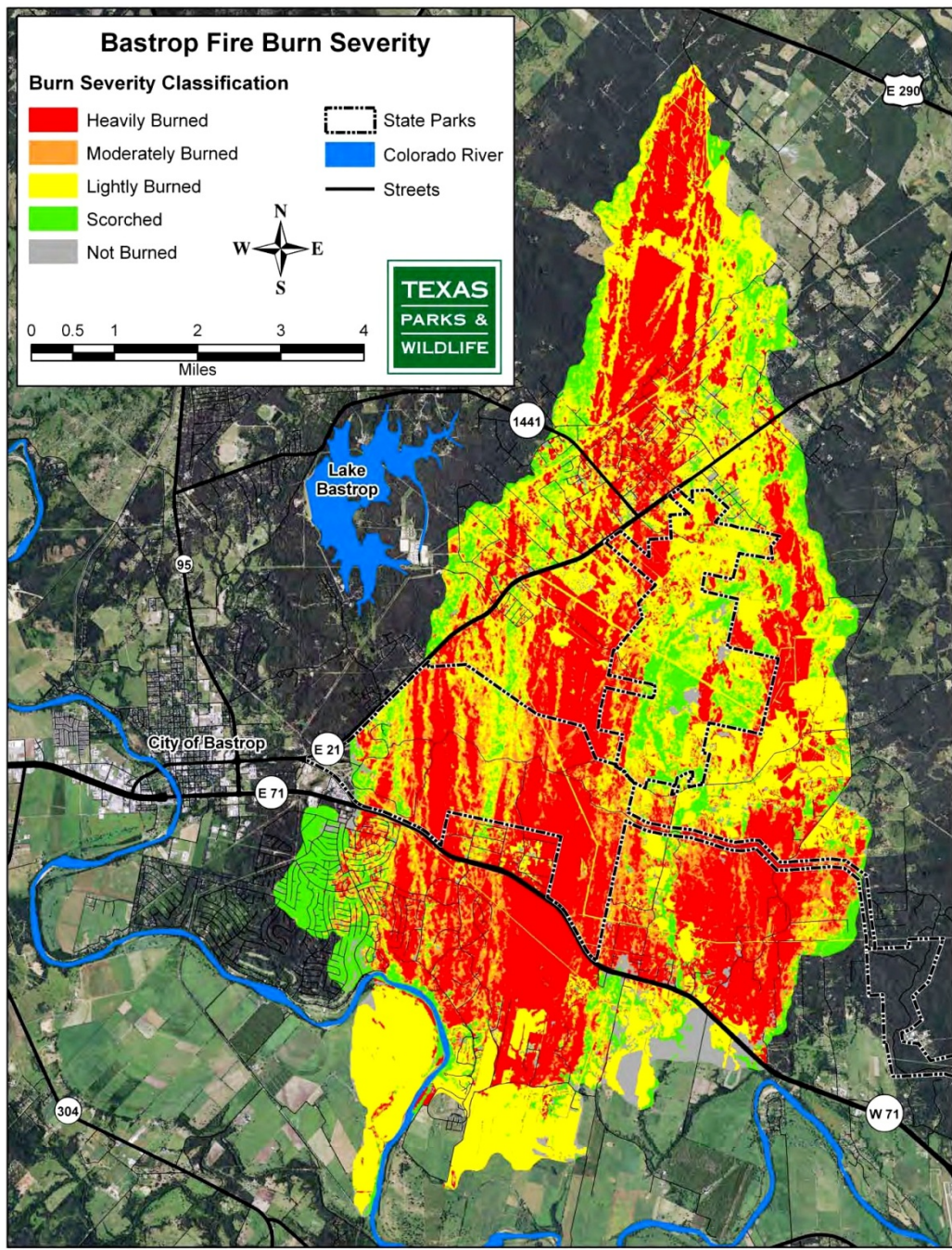


Figure D-1

Heavily Burned

11,527 acres, 35% of area



Pre Fire

Post Fire

- 100% Tree Mortality
- 100% Shrub Mortality
- Consumed All Organic Matter

Moderately Burned

4,913 acres, 15% of area



Pre Fire

Post Fire

- 80 -100% Tree Mortality
- 100% Shrub Mortality
- Consumed All Litter/Debris

Lightly Burned

10,852 acres, 33% of area



Pre Fire

Post Fire

- 60 - 80% Tree Mortality
- 75% Shrub Mortality
- Consumed Most Litter/Debris

Scorched

4,323 acres, 13% of area

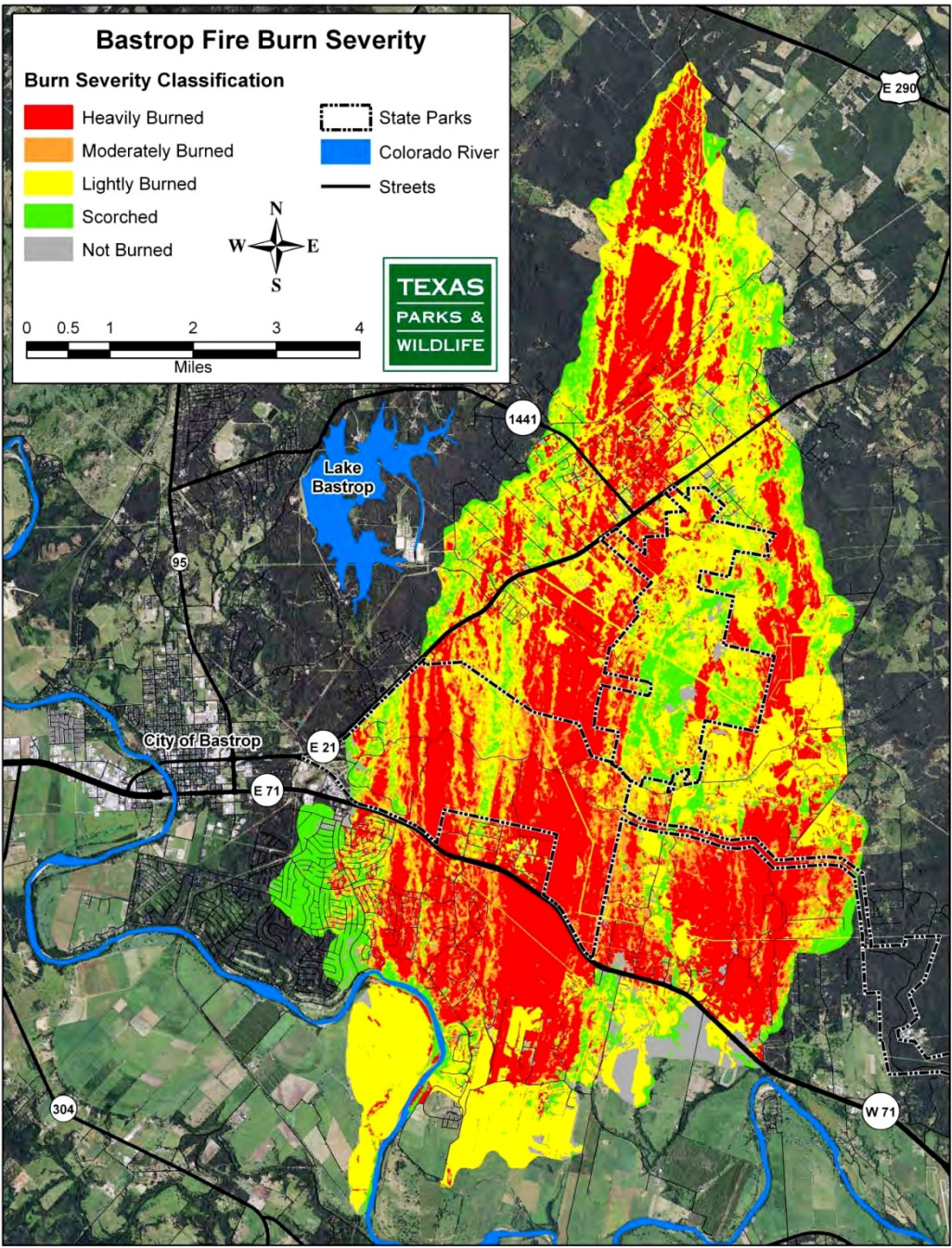


Pre Fire

Post Fire

- <10% Tree Mortality
- 10% Shrub Mortality
- Partially Consumed Litter/Debris






- **50% of area experienced stand-replacing fire**
- **Killed 70% of trees**
- **Pine burned most intensely**
- **Pastures burned lightly**
- **Streamsides less affected**

Figure D-1

Moving Forward...

- **Loss of Pine/Oak Forest is Greatest Natural Resource Risk (Already Losing 9%, Annually, Before Fire)**
- **Erosion**
- **Exotics**

- 
- **Lack of Natural Regeneration within “Heavily Burned”**
 - **Drought Conditions**
 - **Fire Intensity**
 - **Distance to Nearest Seed Tree**
 - **Planting Will Be Necessary**



- 
- A photograph of a forest after a fire. The ground is covered in ash and charred wood. Several green, leafy shrubs are growing from the ground, indicating resprouting of hardwoods. The background shows many black, charred tree trunks.
- **Resprouting Hardwoods May Outcompete Pines**
 - **Mechanical or Chemical Control May Be Necessary**






























A photograph of a forest landscape after a fire. The ground is covered in ash and charred debris. Many trees are dead and skeletal, with some showing signs of regrowth. The sky is blue with scattered white clouds.

**Resist the Urge to
“Clean-Up” or Remove
All Dead Vegetation**



Selected Wildlife Species That Utilize Tree Cavities (Live and/or Dead Trees)

Opossum

Fox Squirrel

Flying Squirrel

White-footed Mouse

Raccoon

Gray Fox

Evening Bat

Mexican Free-tailed Bat

Wood Duck

American Kestrel

Barn Owl

Screech-Owl

Red-bellied Woodpecker

Pileated Woodpecker

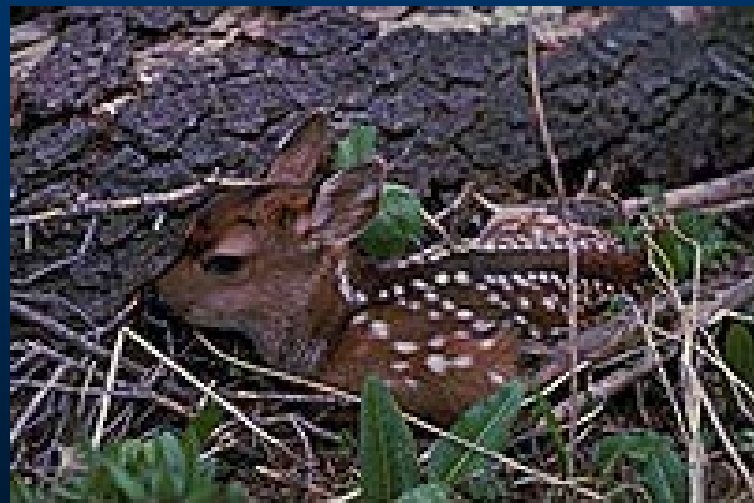
Carolina Chickadee

Tufted Titmouse

Carolina Wren

Eastern Bluebird

Prothonotary Warbler



Invasive Exotics



- **Johnsongrass**
- **Bahiagrass**
- **KR bluestem**
- **Giant reed**
- **Japanese honeysuckle**
- **Privet**
- **Chinaberry**
- **Chinese tallow**



Summary



- There Are Many Unknowns
- Monitoring is Essential
- Some Level of Active Management Will Be Required
- At Minimum, Do No Harm

TEXAS

PARKS &

WILDLIFE