

Considerations:
Protected species *and*
Protected property (habitats)



Presented *at*
City of Austin's *grow green:*
Landscape Professional training
FIREWISE Landscaping Symposium
February 13, 2013

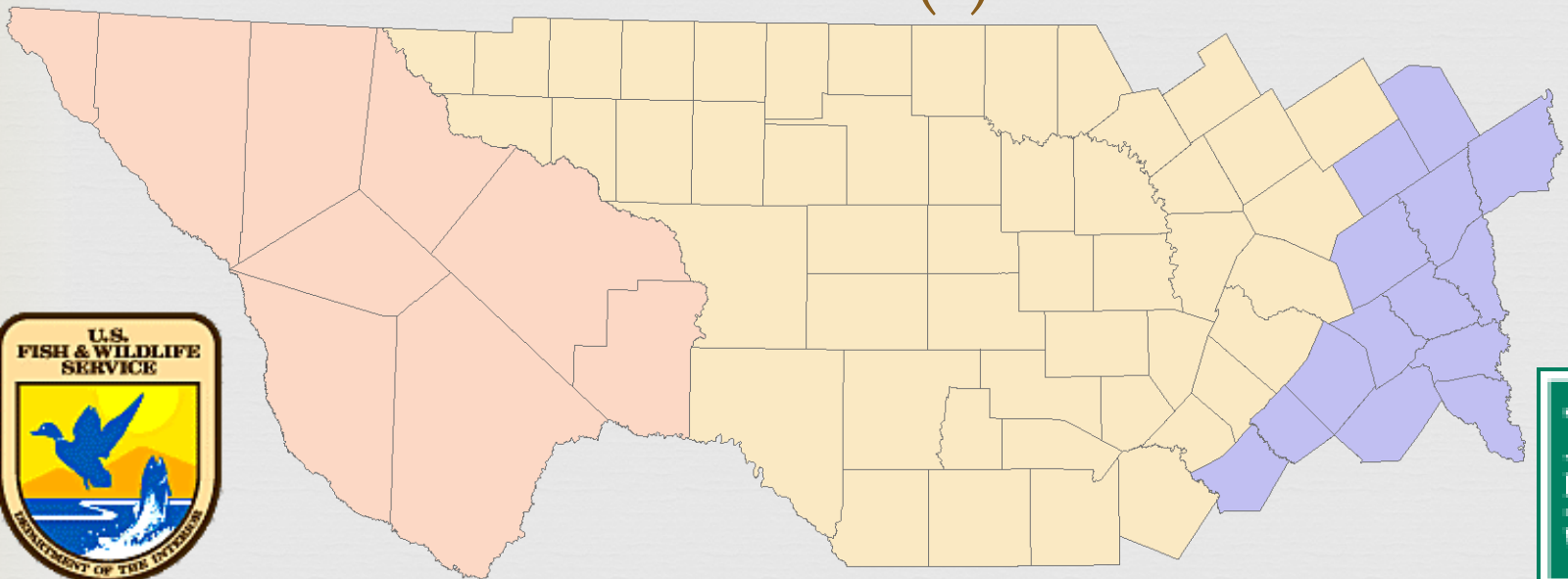


*U.S. Fish & Wildlife Service:
Voluntary Wildlife Habitat
Restoration on Private Lands.*



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fws.gov/partners

tpwd.state.tx.us/landwater/land/private/lip/



West Texas/Chihuahuan Desert Ecoregion

Enhancement of desert grasslands to enhance habitat for wintering migratory birds.

Brewster County, Texas



Hill Country/Edwards Plateau Ecoregion

Prescribed fire to enhance grasslands and shrub/tree-savanna habitats for migratory birds, etc. and to promote watershed health (water quality/quantity) for the benefit of several aquatic species.

Kerr County, Texas



Central Texas/Post Oak Savanna Ecoregion

Enhancement of mixed-hardwood/pine woodlands to provide habitat for the endangered Houston toad.

Austin County, Texas

U.S. Fish & Wildlife Service



- ❧ *The Mission:*
working with others to conserve, protect and enhance **fish, wildlife, and plants and their habitats** for the continuing benefit of the American people
- ❧ Refuges (>540; 150M-ac)
- ❧ Fisheries (70 NFH, 7 FTC, 9 FHC)
- ❧ Migratory Bird Program
- ❧ Law Enforcement – Special Agents, Inspectors
- ❧ Wildlife & Sport Fish Restoration Program (WSFR)
- ❧ Ecological Services
- ❧ Partners for Fish and Wildlife

Laws/Treaties/Regulations



- ❧ **Lacey Act, 1900** – injurious wildlife
- ❧ **Migratory Bird Treaty Act, 1918**
 - ❧ Unless permitted by regulation, it is unlawful to pursue, hunt, take, kill, possess, sell, barter, purchase, ship, export, or import any migratory bird, or any part, nests, eggs, or product thereof
- ❧ **Bald and Golden Eagle Protection Act, 1940,1962**
- ❧ **Marine Mammal Protection Act, 1972**
- ❧ **CITES, 1975** – Convention on International Trade in Endangered Species of Wild Fauna and Flora – regulates global trade of many species



Endangered Species Act of 1973



- ☞ Provides for the conservation of ecosystems upon which threatened and endangered species of fish, wildlife and plants depend



Endangered Species Act of 1973



- ⌘ Authorizes the determination and listing of species as endangered and threatened
- ⌘ **Prohibits unauthorized taking, possession, sale, and transport of endangered species**
- ⌘ Provides authority to acquire land for the conservation of listed species, using land and water conservation funds
- ⌘ Authorizes establishment of cooperative agreements and grants-in-aid to States that establish and maintain active and adequate programs for endangered and threatened wildlife and plants
- ⌘ **Authorizes the assessment of civil and criminal penalties for violating the Act or regulations**
- ⌘ Authorizes the payment of rewards to anyone furnishing information leading to arrest and conviction for any violation of the Act or any regulation issued thereunder

50 CFR Part 222

National Marine Fisheries Service (NMFS), National Oceanic and Atmospheric Administration (NOAA) 1999



☞ This final rule defines the term “harm”, which is contained in the definition of “take” in the ESA. This final rule defines the term “harm” to include any act which actually kills or injures fish or wildlife, and **emphasizes that such acts may include significant habitat modification or degradation that significantly impairs essential behavioral patterns of fish or wildlife.**

50 CFR Part 222

National Marine Fisheries Service (NMFS), National Oceanic and Atmospheric Administration (NOAA) 1999



- ☞ *Take* means to harass, **harm**, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect.
- ☞ *Harm* is the definition of “take” in the Act means an act which actually kills or injures fish or wildlife. Such an act may include significant habitat modification or degradation which actually kills or injures fish or wildlife by **significantly impairing essential behavioral patterns, including, breeding, spawning, rearing, migrating, feeding or sheltering.**

Two Endangered Songbirds



Golden-cheeked warbler, GCWA

http://www.manybirds.com/TexasRare_1/htms/ManyBirds_20050421PM014025.htm



Black-capped vireo, BCVI

http://www.manybirds.com/TexasRare_1/htms/ManyBirds_20050529PM011922.htm



Balcones Canyonlands Preserve

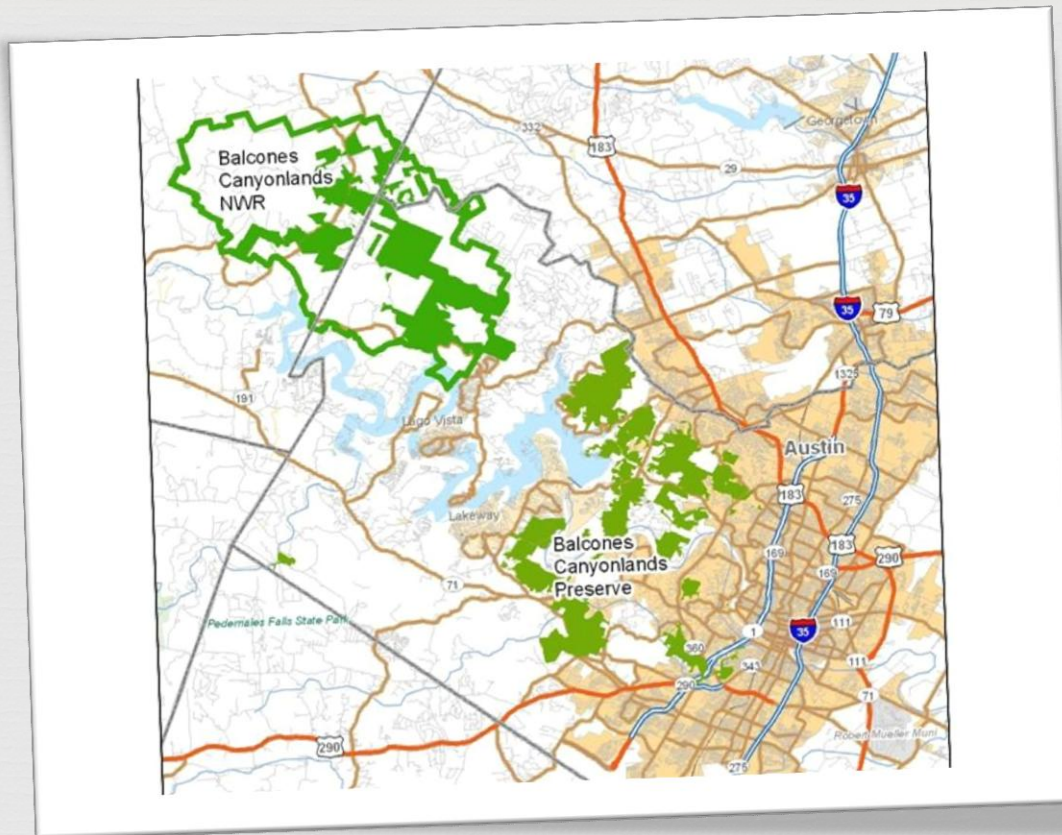


- ❧ On **May 2, 1996**, Travis County and the City of Austin were jointly issued a regional permit [*i.e.*, HCP] from the U.S. Fish and Wildlife Service that allows incidental “take” of eight locally occurring federally-listed endangered species under Section 10(a)(1)(B) of the Endangered Species Act
- ❧ 30-year permit covers **take incidental to otherwise lawful activities** on all lands in the permit area, outside of the proposed preserves– allowing alteration of 26,753-acres of GCWA habitat

Balcones Canyonlands Preserve



- ❧ Permit Holders (Travis County and City of Austin) agreed to minimize/mitigate impacts of take by:
 - ❧ Assemble a minimum of 30,428-acres of protected ES habitat in western Travis County known as the “BCP”
 - ❧ Provide for ongoing maintenance, patrolling, and biological management of the preserved habitat
 - ❧ Conduct biological monitoring and research activities supporting the BCCP permit terms and conditions
- ❧ Management and acquisition funded through purchased Participation Certificates and public funding



Balcones Canyonlands Preserve

Travis County, co.travis.tx.us/tnr/bccp/bc_preserve

City of Austin, austintexas.gov/departments/balcones-canyonland-preserve

<http://www.austintexas.gov/page/balcones-canyonlands-preserve-history>



“On the other side of the fence”

Bexar County, Texas



black-capped vireo, BCVI

Federally listed, endangered, 1987



Tree/shrub-savanna

Managed with fire to provide habitat for BCVI



Val Verde County, Texas

Prescribed fire to enhance BCVI habitat.



Oak/juniper woodland

Bandera County, Texas

Open areas in foreground treated with prescribed fire, managed for BCVI.

Background, managed for GCWA habitat.



golden-cheeked warbler, GCWA

Federally listed, endangered, 1990



GCWA migrates via the Sierra Madre Oriental

Winters in montane pine/oak highlands of Central America - southern Mexico (Chiapas), Guatemala, Honduras, Nicaragua.



Golden-cheeked Warblers in Nicaragua – King *et al.*,
Partners in Flight, 2009

Golden-cheeked warbler foraging in encino oaks in the Dipilto-Jalapa Reserve,
Nicaragua, 2006. Photo by S. Hernandez.

golden-cheeked warbler



- ☞ Eats only insects – caterpillars, spiders, beetles typically found on foliage – and take advantage of different insects on different trees during different times of the breeding season.
- ☞ Arrive at breeding grounds by mid-March
- ☞ Song activity peaks in April, ceases by end of June
- ☞ Young “chip” in May and June
- ☞ Fall migration begins in early July and most birds have left by August

golden-cheeked warbler



- ❧ Prefer diverse woodlands and mesic canyonlands
- ❧ High quality breeding habitat is characterized by diverse mature mixed-hardwood/juniper woodlands with a **closed canopy** (cover 70-100%)
- ❧ May also use more open woodlands (as low as 35% canopy cover) adjacent to high quality habitat
- ❧ Generally do not use open areas <35% canopy cover
- ❧ http://www.fws.gov/southwest/es/AustinTexas/ESA_Sci_permits.html



Mixed-hardwood(oak)/juniper woodlands

Edwards Plateau, Texas



Hill Country State Natural Area

Bandera County, Texas



Oak/juniper woodland

Hamilton County, Texas

Background = mature oak/juniper woodland preserved for GCWA habitat

Foreground = juniper invaded grassland treated with hydraulic shears, to benefit grassland/savanna species.



Oak/juniper woodland

Bexar County, Texas



Oak/juniper woodland

Bexar County, Texas



Juniper scrub

Bexar County, Texas



Texas red oak = Spanish oak = Buckley oak



golden-cheeked warbler

Strips shedding-bark of mature Ashe juniper (cedar) to build its nest in juniper, oaks, ash, cedar elm, and other hardwood trees. The nest made of fine bark strips woven together with spider webs and lined with feathers, fine grass, or hair.

Fuel Treatments in Oak-Juniper Woodlands throughout the Range of the Golden-cheeked Warbler (GCWA)



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Best Management Practices (BMPs)



- ❧ Have a **wildland fire risk assessment** of your property
- ❧ If your home is at risk, begin with improvements to your home and in the landscaped area in the immediate vicinity of your home (*i.e.*, **Home Ignition Zone**)
- ❧ If vegetation located outside of the landscaped area but within 150-feet of your home requires treatment, **determine suitability for GCWA habitat**
- ❧ If this vegetation is suitable for GCWA, then refer to the BMPs. If this vegetation is not suitable for GCWA, then these BMPs do not apply. Consult with your local fire control authority for further assistance.
- ❧ If vegetation within 30-feet of a road ROW has been identified as requiring treatment and if it is suitable habitat for GCWA, then follow BMPs for **Edge Zone Treatment**.

BMP Caveats



- ⌘ Any treatment shall only be done during the non-breeding season (September-February)
- ⌘ The BMPs (*i.e.*, incidental take coverage) do not apply to lands that have been identified and protected as mitigation for the take of GCWA or GCWA habitat (*i.e.*, BCP lands).
- ⌘ http://www.fws.gov/southwest/es/austintexas/ESA_Our_species.html



So...who owns the other side of the fence?

Travis Central Appraisal District

<http://www.traviscad.org/>

Best Management Practices (BMPs)



☞ General Strategy

- ☞ Shaded-fuel break, reduce ladder fuels loading to reduce P(canopy fire)
- ☞ Maintain closed canopy woodlands ($\geq 70\%$)
- ☞ Retain all desirable hardwoods (esp. red oak, walnut, cherry, etc.)

☞ Edge Zone Treatment, 0-30 feet

- ☞ Remove all dead wood and dead limbs (snags and slash)
- ☞ Prune juniper and live oak (0-6 ft). [oak wilt]
- ☞ Remove shrubs and small trees (with $d < 4$ in AND $h < 10$ ft)

☞ Interior Zone Treatment, 30-150 feet

- ☞ Remove standing dead wood (0-4 ft)
- ☞ Prune juniper and live oak (0-4 ft)
- ☞ Thin juniper and live oak (with $d < 4$ in) in understory
- ☞ Maintain canopy cover and spacing between canopy trees (≤ 16 ft)

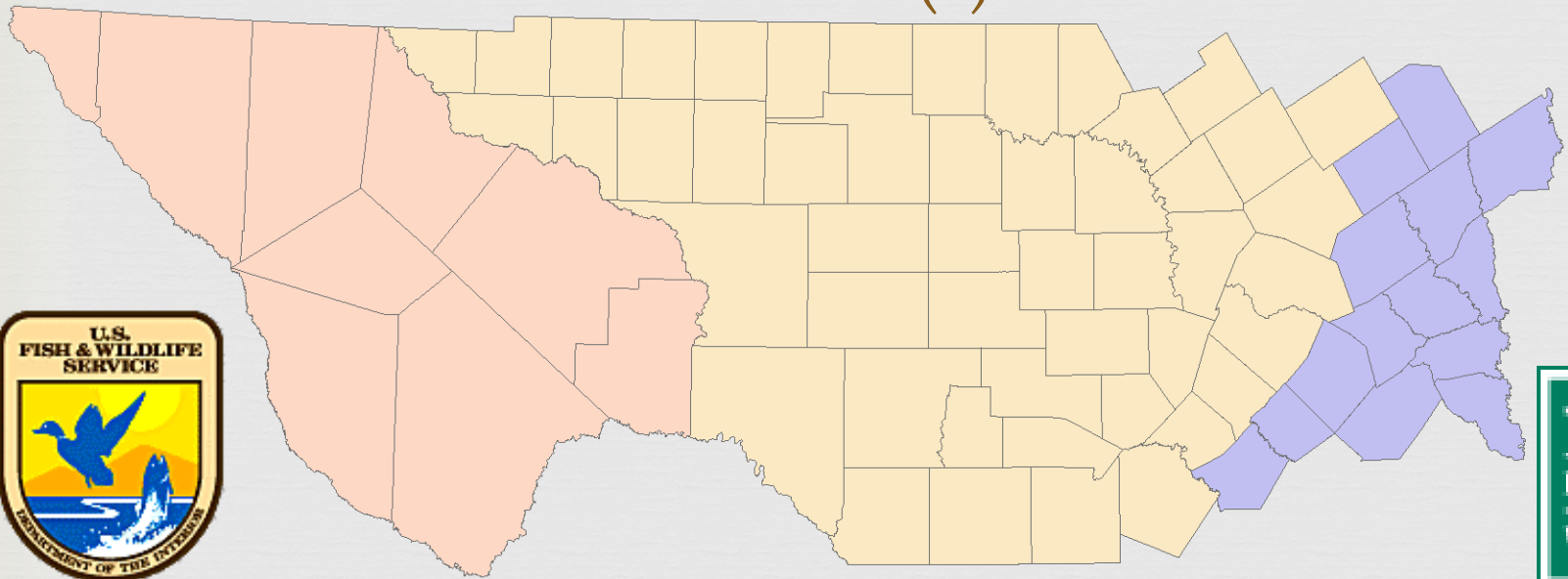


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