

Austin Water Utility: A Steward of Our Community's Watersheds

NACWA's 2010 Winter Conference

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Austin Water Utility

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Austin Water Utility

Mission: To provide safe, reliable and high quality water services to our customers

- 220,000 customers
- 137 MGD drinking water treated (228 peak)
- 90 MGD wastewater treated



Austin Water Utility

Sources

- Colorado River
 - Lake Austin
 - Lady Bird Lake*
 - Lake Travis (2014)



Protecting Water Quality and Quantity

- Watersheds
 - Urbanizing landscape
 - Uplands and streams
 - Karst



Watersheds

Urbanizing Landscape



Watersheds

Urbanizing Landscape

- Changing runoff characteristics
 - Increasing runoff volumes
 - Channel capacity and geometry
 - Velocities vs. channel stability
- Changing water quality
 - Loss of natural processes
 - Non-point sources in urbanized areas
 - Non-point sources in affected channels
 - Exceeding flood plain functional capacity



Watersheds

Uplands and Streams

- Fragmentation
- Changes in natural processes
- Changing land uses



Uplands Karst

- Recharge features
- Up to 85% of precip recharges
- Typical aquifer water quality processes ineffective
- Rely on overland flow in internal drainage basins



Protecting Source Water in an Urban Setting

Traditional Approach

- Stormwater management
 - NPDES/TPDES
 - Structural controls
- Development ordinances
 - Impervious cover limits
 - Density limits
 - Open space dedication



Protecting Source Water in an Urban Setting

Austin's New Approach

- Protect watersheds
- Acquire fee title
- Acquire conservation easements
- Prevent development
- Manage for watershed function
- 37,234 protected acres and growing





City of Austin

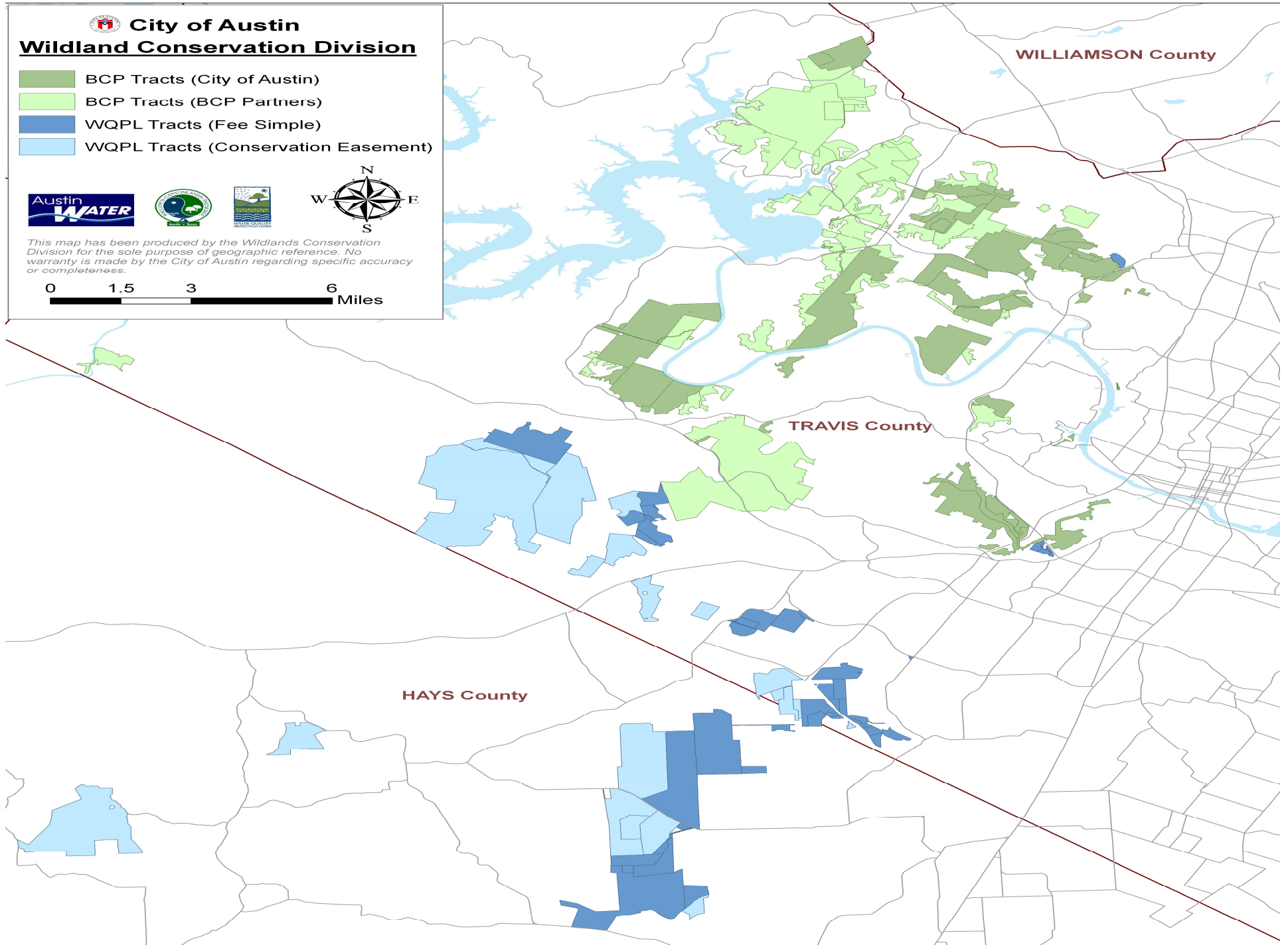
Wildland Conservation Division

- BCP Tracts (City of Austin)
- BCP Tracts (BCP Partners)
- WQPL Tracts (Fee Simple)
- WQPL Tracts (Conservation Easement)



This map has been produced by the Wildlands Conservation Division for the sole purpose of geographic reference. No warranty is made by the City of Austin regarding specific accuracy or completeness.

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Water Quality Protection Lands (WQPL)

Since 1998

- 23,665 acres
- \$1.2 Million for operations and management
- Up to 5% of water supply
- Also serves 100,000 non-AWU customers



Water Quality Protection Lands (WQPL)

Management

- Uplands
 - Veg management to limit woody cover
 - Enhance herbaceous cover
- Riparian Areas
 - Properly functioning flood plains
 - Riparian gallery forest



Balcones Canyonlands Preserve (BCP)

Established in 1996

- 13,579 acres
- AWU designated as manager in 2002
- Lake Austin and Lake Travis watersheds
- Provides ESA mitigation and compliance for AWU and other City infrastructure projects
- \$ 1.14 million operations and maintenance budget



Balcones Canyonlands Preserve (BCP)

Manage habitat for 2
songbirds and eight
karst invertebrates

- golden-cheeked warbler
 - Large blocks
 - Oak-juniper woodland
- black-capped vireo
 - Mid-seral shrublands



Karst Management



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