

Southern Edwards Plateau Regional HCP



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Recommendations to the BAT

Golden-cheeked warbler

take and mitigation
strategies



juvenile golden-cheeked warbler
photo by Carlo Abbruzzese



What are the issues?

- How to assess take
- How to determine mitigation
- Pressure points
- Recent findings
- Acquisition strategies



Assessing Take

- Direct vs. Indirect
 - Direct – generally, loss within breeding season
 - Exceptions if loss outside is significant
 - Higher mitigation ratio, as appropriate
 - Includes 300 foot zone around impact area, as appropriate
 - Indirect – generally, adverse effect likely to occur later in time
 - Increased predation, fragmentation, growth inducement, etc.

Determining Mitigation

- Mitigation ratios
 - Must be commensurate with impact
 - Requires analysis county-by-county or focal area-by-focal area, as determined by the BAT
 - Ratio will be determined by rate and severity of loss in a particular area (Bexar County vs. Kerr County)
 - Impact vs. availability of sufficient areas to mitigate influence ratio
 - Recovery Team – considering 1 population / RU = 3,000 breeding pairs

Recent findings

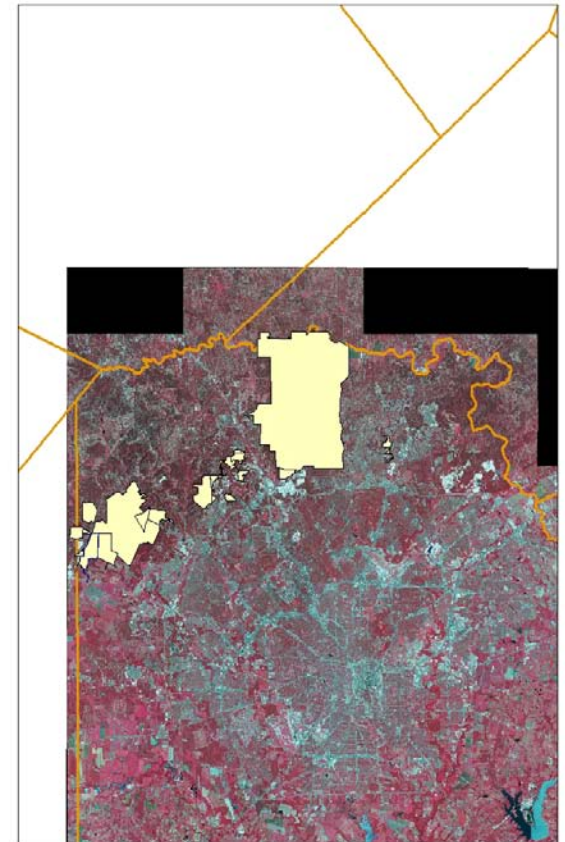
- Consider . . .

Similarities in data presented thus far:

- Rapid loss of habitat over permit life
- Varying levels of habitat suitability still left
- Bexar County is the most susceptible to complete loss
- Do the math and consider what ***counts*** for recovery and what ***counts*** toward the RHCP

Pressure Points

- Focal Areas
 - Good idea
 - Impact and Mitigation
 - May have different ratios
 - Other activity i.e. Camp Bullis



Acquisition Strategies

- Conservation Banking
 - ≥ 500 acres of habitat minimum, less if adjacent to already protected lands
 - Must be known occupied
 - Requires maintenance of the conservation value
 - Requires conservation easement or similar legal documentation
 - No public access – except on a case-by-case basis where the conservation value is maintained or exceeded

Acquisition Strategies

- Fee simple
- Fee-in-lieu, as appropriate as long as mitigation precedes disturbance
- Leverage partnerships to maximize benefits
- Section 6 program
- Be creative . . .

Needed

- Average territory size per pair in the Plan Area
- Amount of habitat needed to support a breeding population in the Plan Area (3,000 pairs)
- What's still available that meets sustained occupancy standards? By County or Focal Area.
- Use current data i.e. aerials
- Use multiple models

QUESTIONS



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DEMOGRAPHICS & LAND USE PROJECTIONS

Southern Edwards Plateau Habitat Conservation Plan

September 10, 2010

Sources of Demographic Data

- US Bureau of the Census, Census of Population and Housing 2000
- Texas State Data Center (TSDC) Projections of Total Population; Population by Age & Ethnicity to year 2040 by County
- Woods & Poole Economics Projections of Total Population; Population by Age & Ethnicity to year 2040 by County
- Environmental Systems Research Institute Business Information Solutions (ESRI BIS) Projections of Total Population; Estimates and Projections of Population by Age & Ethnicity for 2009 and 2014 by County and small areas (Census Tracts/Sectors)

Sources of Housing Data

- US Bureau of the Census, Census of Population and Housing 2000
- Environmental Systems Research Institute Business Information Solutions (ESRI BIS)
Projections of Total Population; Estimates and Projections of Population by Age & Ethnicity for 2009 and 2014 by County and small areas (Census Tracts/Sectors)
- County Appraisal Districts
- Surveys by SA Research Corporation

Sources of Land Use Data

- Bandera County Appraisal District
- Bexar Appraisal District
- Blanco County Appraisal District
- Comal County Appraisal District
- Comal County Engineer (Subdivisions)
- Kendall County Appraisal District
- Kerr County Appraisal District
- Medina County Appraisal District

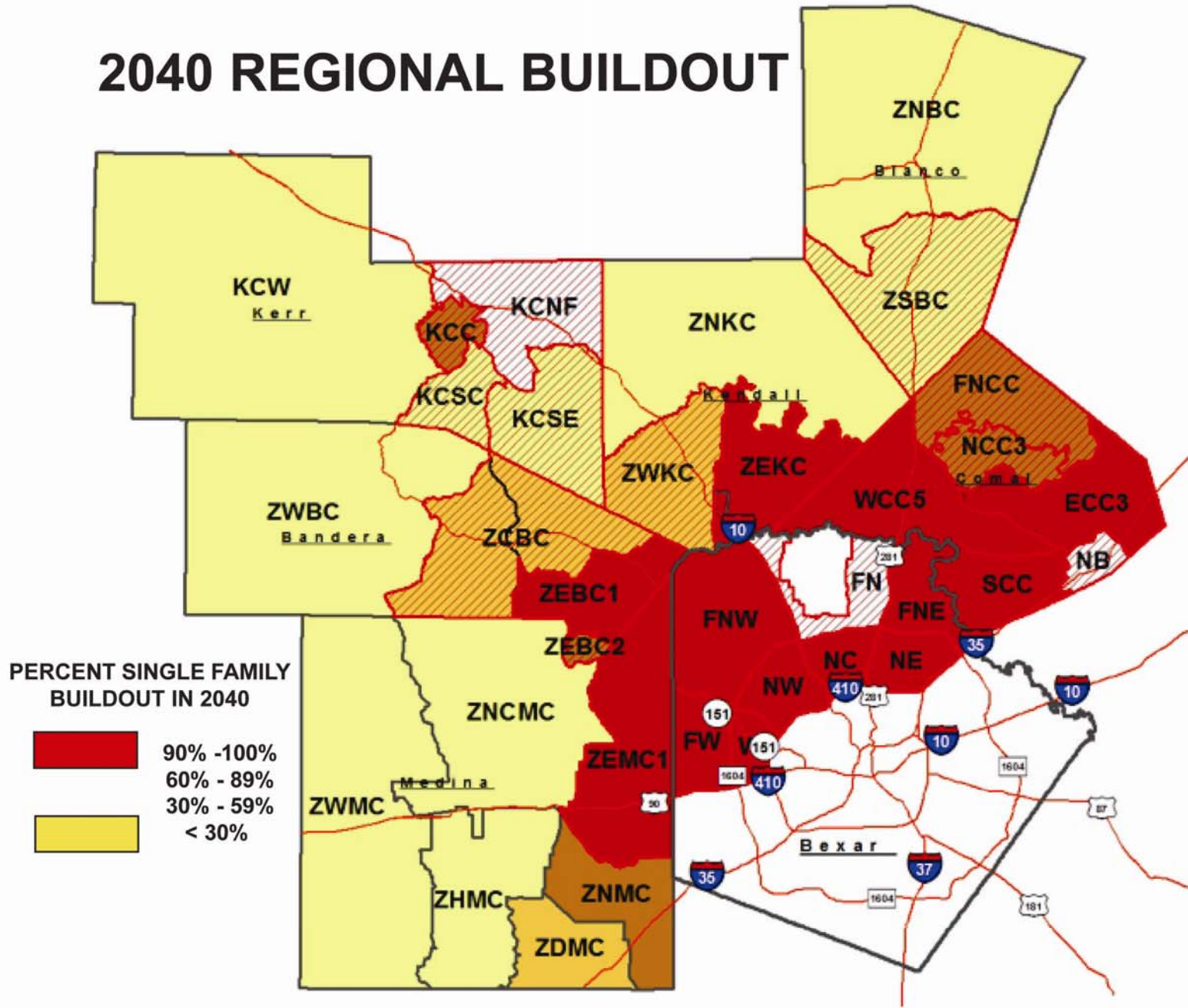
Other Sources of Data

- Federal Emergency Management Agency (FEMA)
- United States Geological Survey (USGS)
- Bulverde Water Master Plan (Pate Engineers)
- Loomis Partners

Factors Considered

- **Population** (Total, Group Quarters, Pop/HH, Households, Occupancy Rate)
- **Housing** (Total Housing Units, Single Family (SF) Housing Units, Percent SF, SF Units/Acre; Non-Single Family Housing Units, Non-SF Units/Acre)
- **Major Land Uses** (Single Family, Non-Single Family, Commercial, Exempt, Other, Rights-of-Way, Vacant Platted, Vacant Unplatted, Floodplain, Steep Slopes)

2040 REGIONAL BUILDOUT



Major Assumptions

- Single Family land use, as the dominant land use representing almost 52% of developed land in 2009, is the driver of land absorption over time.
- Generally, growth in non-residential land uses are a function of single family housing absorption.
- In the population, housing and land use model some factor relationships (e.g. Pop/HH, Occ Rates, Pct SF) are held constant over the planning period.
- Optimum densities (residential units/acre, non-residential acres added per 100 single family units added) are assumed for growth in each type of land use.
- Rights-of-Way can be estimated as a percent of developed land in each Sector (10% in rural sectors to 20% in urban sectors)

Major Assumptions, cont'd

- As future land is absorbed, vacant platted land will be the first to be absorbed, followed by vacant unplatted.
- In very low density development, defined “undevelopable” land is not necessarily a deterrent.
- The percentage of developed land is the total of identified developed land divided by total developed plus total vacant available land.
- Development Capacity of single family housing units of a given sector is assumed to be a product of optimum single family density and total vacant available land as of 2009, plus the number of existing single family housing units in 2009.

Major Assumptions, Cont'd

- Projections of population for a given small area (sector) is made by ESRI BIS without regard to the actual capacity of the sector to accommodate the population growth.
- When population growth is related to single family absorption, the small area becomes finite and demand for single family units that exceeds the sector's capacity will continue in the direction of growth and demand will "shift" to other sectors in the path of growth.

FINDINGS

Demographic Profile of the Region: 2009

- *Total Population in full 7 counties = 1,918,757*
- Total Population in Study Area 1,001,966
- Population w/Hispanic Origin 43.4%
- Black Population 4.2%
- Population Age 18 and over 74.8%
- Population Age 65 and over 11.0%
- Mean (Not Median) Household Income \$69,179
- Per Capita Income \$28,681

FINDINGS

Demographic Profile of the Region: 2040

- *Total Population in full 7 counties* 3,040,161
- Total Population in Study Area 2,068,006
- Population w/Hispanic Origin 72.6%
- Black Population 4.6%
- Median Age (estimated) 50.1 yrs
- Mean (Not Median) Household Income \$92,842
- Per Capita Income \$32,270

REGIONAL DEMOGRAPHICS: 2009

| | Region | Bandera | Bexar* | Blanco | Comal | Kendall | Kerr | Medina |
|-----------------------------------------------|-----------------|----------|----------|----------|----------|----------|----------|----------|
| Population 7 Counties | 1918757 | 21221 | 1645301 | 9504 | 115226 | 34292 | 48053 | 45160 |
| Population Study Area | 1001966 | 21221 | 728510 | 9504 | 115226 | 34292 | 48053 | 45160 |
| Hispanic Origin | 43.4% | 18.3% | 48.3% | 20.6% | 29.5% | 0.2% | 25.4% | 54.4% |
| Black | 4.2% | 0.3% | 5.3% | 0.8% | 1.0% | 0.4% | 1.9% | 2.1% |
| Age 18 + | 74.8% | 78.1% | 74.0% | 77.7% | 76.7% | 75.8% | 80.0% | 73.2% |
| Age 65 + | 11.0% | 17.1% | 8.8% | 16.9% | 15.3% | 15.0% | 24.8% | 12.7% |
| Pop/HH | 2.67 | 2.52 | 2.68 | 2.52 | 2.67 | 2.73 | 2.35 | 2.92 |
| Households | 371982 | 8359 | 270508 | 3696 | 42623 | 12368 | 19590 | 14838 |
| Mean HH Income | \$69,179 | \$56,771 | \$70,086 | \$56,827 | \$71,682 | \$79,898 | \$56,508 | \$52,750 |
| Per Capita Income | \$28,681 | \$22,489 | \$30,247 | \$22,358 | \$22,669 | \$29,023 | \$23,630 | \$17,916 |
| * SEP HCP Study includes part of Bexar County | | | | | | | | |

REGIONAL HOUSING

- The Region currently has 439,565 Total Housing Units
- Since 2000 the Region has experienced an average increase of 14,558 total housing units annually (2.7%)
- Single Family Absorption averaged 10,876 new units annually from 2000-2009 (2.8%)
- Owner-Occupied housing has increased from 51% in 2000 to 57% in 2009
- The estimated median value of Owner-Occupied housing in 2009 is \$130,843 compared to \$91,783 in 2000.

REGIONAL POPULATION AND HOUSING PROJECTIONS: 2010-2040

| | 2000 | 2009 | 2010 | 2020 | 2030 | 2040 | Annl Pct Change 2010-2040 |
|-----------------------------|--------|---------|---------|---------|---------|---------|---------------------------------|
| SEP Region Population | 746350 | 1001933 | 1084632 | 1602818 | 1831617 | 2068006 | 2.9% |
| | | | | | | | |
| Households | 284370 | 371982 | 393267 | 564968 | 645073 | 728344 | 2.7% |
| | | | | | | | |
| Total Housing Units | 308547 | 439565 | 449160 | 617062 | 703592 | 800174 | 2.5% |
| | | | | | | | |
| Single Family Housing Units | 198479 | 296361 | 310095 | 437184 | 508250 | 583459 | 2.8% |
| | | | | | | | |
| | | | | | | | |
| Source: PHLUM | | | | | | | |

REGIONAL LAND USE AND ABSORPTION

Land Uses 2009

- Single Family land use currently represents 51.6% of total developed land, including estimated rights-of-way
- An estimated 156,386 acres were absorbed between 2000 and 2009, an average of 17,376 acres annually.

Land Use Characteristics

- The Region covers 3,638,726 acres, or 5,685.5 square miles of which almost 87% is estimated to be undeveloped.
- An estimated 11.4% are considered to be undevelopable in the 100-year floodplain.
- In addition, an estimated 15.8% are steep slopes of greater than 15%, which is typically considered to be undevelopable

INCOME AND ECONOMIC GROWTH

- Total employment in the 7-county Region is estimated to be 795,743 in 2010, an increase of less than 1% since 2000.
- Currently, Median Household Income is estimated to be \$50,556 compared to Mean HH Income of \$69,179.
- Total 2010 earnings within the Region, according to Woods & Poole Economics is \$50,311,530, *down* from \$35,698,000 in 2000
- Retail sales are estimated to be \$33,878,000 in 2010 and \$28,763,000 in 2000.
- The Gross Regional Product in the Region is \$76,233,560 in 2010 and \$56,664,330 in 2000

REGIONAL GROWTH SUMMARY

- Population increase in the Study Area of more than 1,066,000 over the planning period an average of 2.9%.
- Almost 79,000 new housing units will be added.
- Developed Land will increase by a total of 339625 acres to a total of 827,177 acres by 2040.
- By 2040 2,813,423 acres will remain undeveloped in the Study Area, representing 77.5% of total land.
- Total earnings are projected to increase by an average of 3.6% over the next 30 years.
- Total employment is projected to increase by an average of 1.9% annually from 2010 to 2040

2040 REGIONAL BUILDOUT

