

CAC Presentation

**by Gene Dawson, Jr., P.E., President
Pape-Dawson Engineers, Inc.**

May 9, 2011

Purpose

Give development perspective on mitigation ratio and possible or probable effect on participation in plan

Current approach by Developers toward Endangered Species

- **Identify impacts before purchase**
- **Avoidance**
- **HCP or mitigation last resort**

Habitat Compliance Form



Habitat
CITY
PLANNING & DEVELOPMENT
1901 S. ALAMO

Figure 35-B133-1



Habitat Compliance
CITY OF SAN ANTONIO
PLANNING & DEVELOPMENT SERVICES DEPARTMENT
1901 S. Alamo, San Antonio, TX 78204



Habitat Compliance Form
CITY OF SAN ANTONIO
PLANNING & DEVELOPMENT SERVICES DEPARTMENT
1901 S. Alamo, San Antonio, TX 78204

1. Commentary:

For information on endangered species habitat with Recovery Plan for Bexar County Karst Invertebrates Management Guidelines for the Golden-cheeked Warbler Department available on their website.

2. Applicant Contact Information:

Project Name: _____
Property Owner: _____
Address: _____
Agent: _____
Address: _____
Contact Person Name: _____
Company: _____
Address: _____

3. Property Location:

Property address or nearest street intersection if address: _____
Acres: _____ Ferguson map grid: _____
In addition to this form, please submit an aerial map of the property with available imagery. Maps can be obtained from www.sanantonio.gov

4. Application Type (check one):

☐ Master Development Plan (MDP) ☐
☐ Major Plat ☐
☐ Development Plat ☐

5. Endangered Species Act Coverage (check one):

☐ The activity subject to the application to the City permit or a Section 7 Biological Opinion analyzing similar to the activity proposed in permit and located in the same area as the activity proposed in permit is required.
☐ The activity subject to the application to the City Regional Habitat Conservation Plan. *See to section 7*
☐ The activity subject to the application to the City permit or a Section 7 Biological Opinion nor part of a Regional Habitat Conservation Plan. *(Complete sections 6, 7 and 8 (if applicable) below)*

8. Affidavit of Compliance (required for properties in karst as potential habitat as set forth in Management Guidelines for 10(a) permit, Section 7 biological opinion, Regional Habitat species survey submitted to US Fish and Wildlife):

Affidavit of Compliance

Before me, the undersigned authority, on this day personally ("Affiant") who, being first duly sworn, upon his/her oath states that:

My name is _____ and I am _____

subject of this application to the City of San Antonio.

_____ A habitat assessment/survey was not conducted.
_____ A habitat assessment/survey was conducted by a _____ Wildlife Service, _____ (name of individual as _____) and concluded that no species will be impacted by the activity of San Antonio and I am relying on that assessment/survey.

Signed this _____ day of _____, _____.

Signature: _____

STATE OF TEXAS §
COUNTY OF BEXAR §

Sworn to and subscribed to before me on _____

6. Description for Activities Without Coverage (check one box for both sections A and B):

- A. Golden-cheeked Warbler Endangered Species**
- ☐ There is no requirement for coverage of this listed species because no part of the tract subject to the application to the City of San Antonio contains habitat types that may be used by Golden-cheeked Warblers as set forth in Management Guidelines for the Golden-cheeked Warbler in Rural Landscapes, Texas Parks and Wildlife Department, available on their website. While this requirement applies throughout the jurisdiction of the City of San Antonio, based on the U.S. Fish & Wildlife Service Recovery Plan maps for Golden-cheeked Warblers, there is a rebuttable presumption that areas located inside of Loop 1604 that are within the jurisdiction of the City of San Antonio, as well as areas located to the south of U.S. Highway 90 and east of Interstate Highway 35, do not contain habitat.
- ☐ The tract subject to the application to the City of San Antonio is within a presumptive habitat area and an Endangered Species Survey has been completed within the last 3 years by a Biologist permitted by U.S. Fish and Wildlife and copies sent to: U.S. Fish and Wildlife (USFWS) Ecological Services Field Office, 10711 Burnet Road, Suite 200, Austin, TX 78758.
- ☐ The tract subject to the application to the City of San Antonio is within a presumptive habitat area and no Endangered Species Survey has been submitted to U.S. Fish and Wildlife. (Selecting this box requires the applicant to complete the Habitat Compliance Affidavit in Section 8 below.)
- B. Karst Invertebrate Endangered Species**
- ☐ There is no requirement for coverage of these listed species because no part of this tract subject to the application to the City of San Antonio is located within karst zone 1 or 2 of the areas in Bexar County identified as karst zones in the USFWS 2008 Draft Bexar County Karst Invertebrates Recovery Plan.
- ☐ The tract or portions of the tract subject to the application to the City of San Antonio is located within Karst Zone 1 or 2 as identified in the U.S. Fish & Wildlife 2008 Draft Bexar County Karst Invertebrates Recovery Plan and an Endangered Species Survey has been completed by a Biologist permitted by U.S. Fish and Wildlife and copies sent to: U.S. Fish and Wildlife (USFWS) Ecological Services Field Office, 10711 Burnet Road, Suite 200, Austin, TX 78758.
- ☐ The tract or portions of the tract subject to the application to the City of San Antonio is located within Karst Zone 1 or 2 as identified in the U.S. Fish & Wildlife 2008 Draft Bexar County Karst Invertebrates Recovery Plan and no Endangered Species Survey has been submitted to U.S. Fish and Wildlife. (Selecting this box requires the applicant to complete the Habitat Compliance Affidavit in Section 8 below.)

7. Owner or Authorized Representative (form is considered incomplete without this section):

I certify that the information provided in this Habitat Compliance Form is true and accurate.

Print Name: _____ Signature: _____

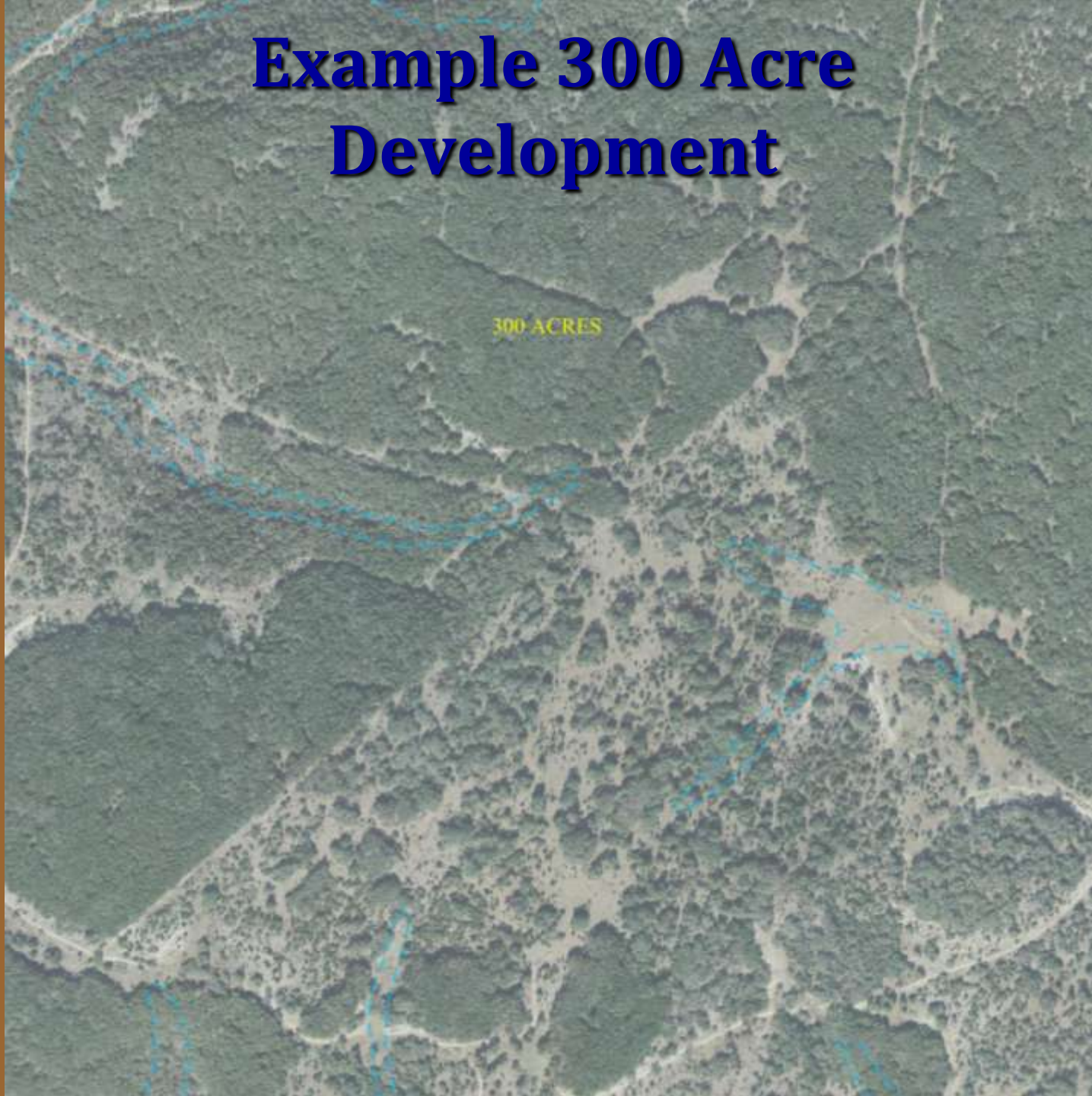
Address: _____ City: _____ State: _____ Zip Code: _____

E-mail: _____

Three types of properties impacted by Endangered Species

- **Property owned for a generation or more.**
- **Property owned by a developer without knowledge of endangered species at the time of purchase.**
- **Property purchased for development with knowledge of endangered species with the intent to mitigate.**

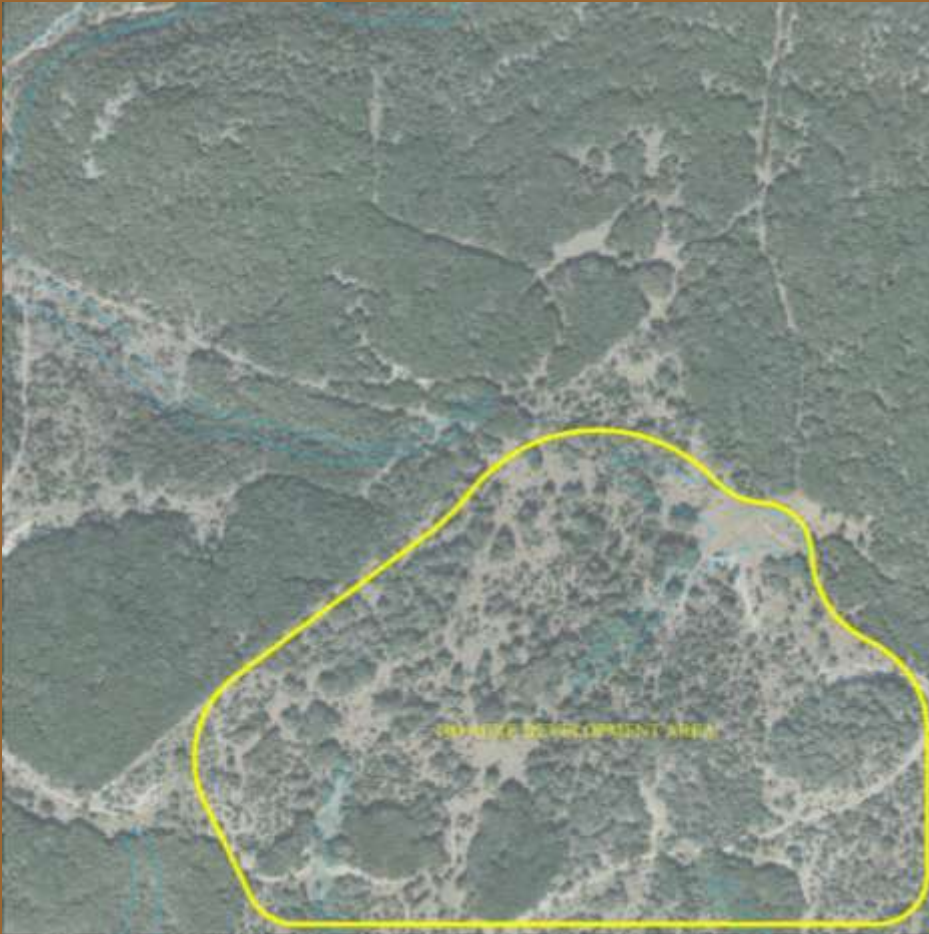
Example 300 Acre Development



Hypothetical Development Scenario

- Assumptions – Residential development with a targeted home price of \$225,000
- Maximum lot price - \$45,000

300 Acres



**300 acre area with 200 acre
habitat & buffer
100 acres developable**

100 acres @ 3 units/acre = 300 lots

**Purchase price - \$20,000/acre =
\$6,000,000**

Cost/lot = \$20,000

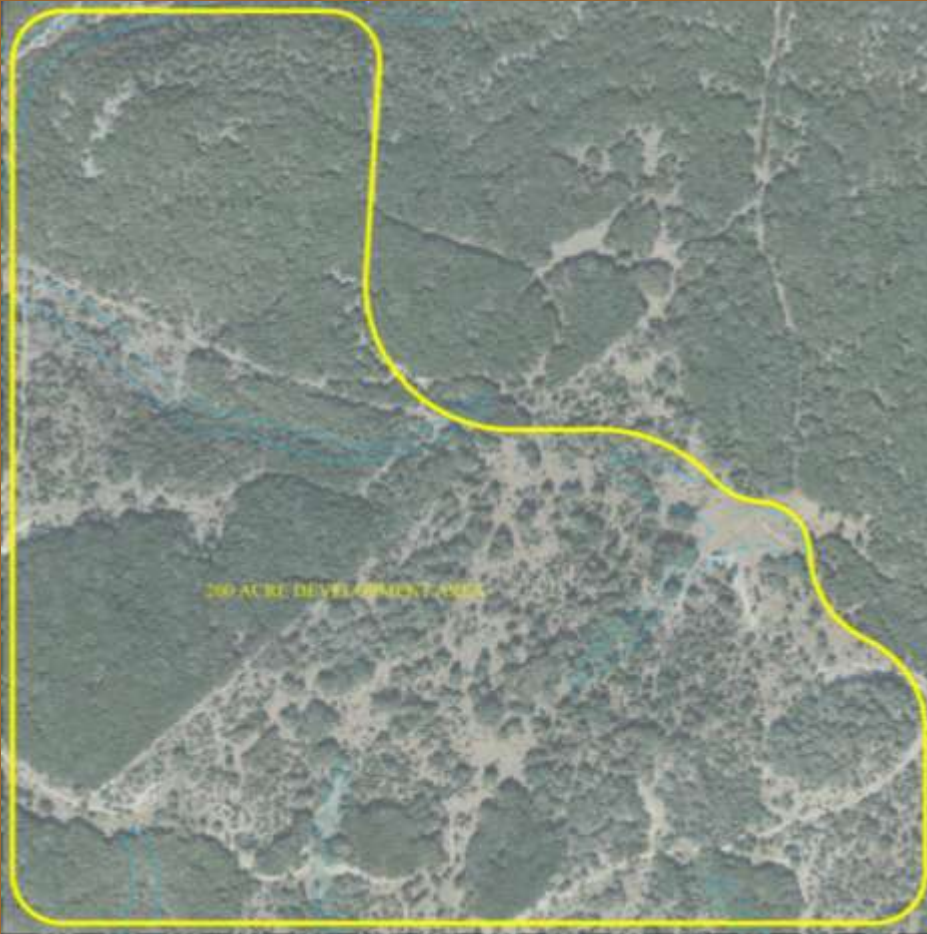
Offsite - \$750,000 cost/lot = \$2,500

Development cost per lot = \$25,000

Total development per lot = \$47,500

Total cost with profit = \$61,750

200 Acres



**200 acre area with 100 acre
habitat & buffer
100 acres developable**

200 acres @ 3 units/acre = 600 lots

**Purchase price - \$20,000/acre =
\$6,000,000**

Cost/lot = \$10,000

Offsite - \$750,000 cost/lot = \$1,250

Development cost per lot = \$25,000

Total development per lot = \$36,250

Total cost with profit = \$47,125

Mitigation Cost for 100 Acres at 2:1

Assuming 2:1 Mitigation Ratio and \$5,000/Acre

$100 \text{ acres} \times 2 \times \$5,000 = \$1,000,000$

Cost per lot = \$1,600

Total Cost per lot = \$49,300

Mitigation Cost for 100 Acres at 3:1

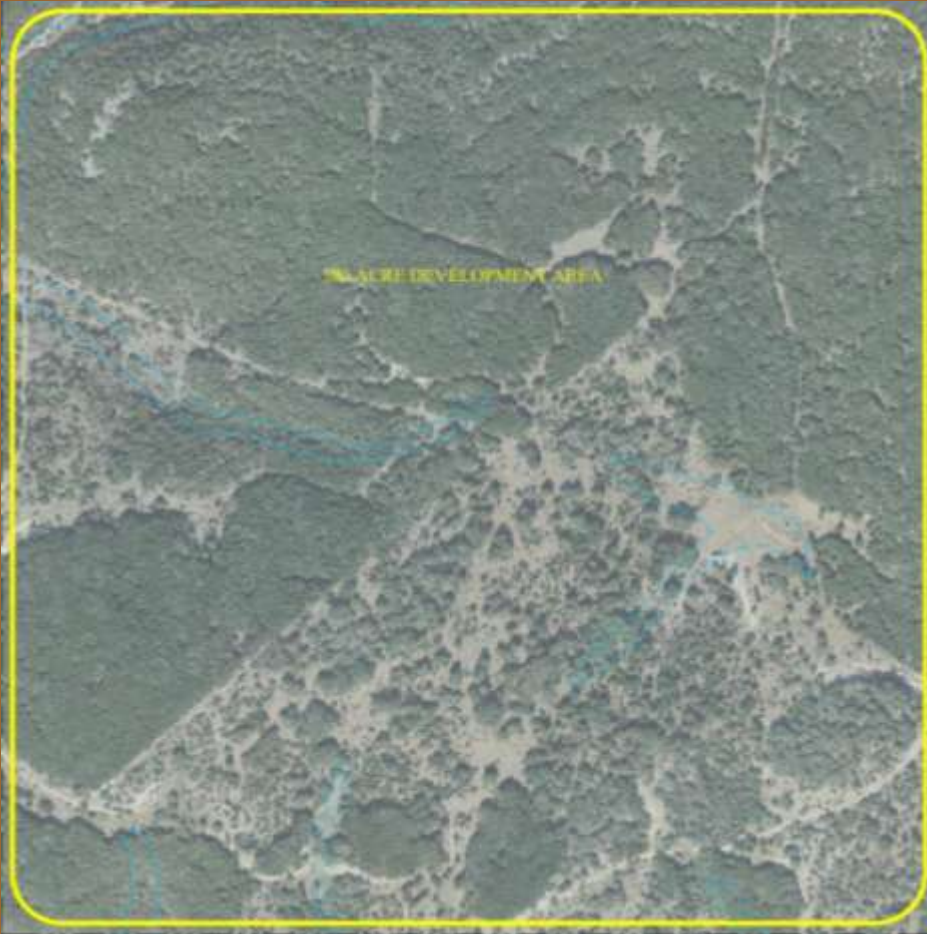
Assuming 3:1 Mitigation Ratio and \$5,000/Acre

$100 \text{ acres} \times 3 \times \$5,000 = \$1,500,000$

Cost per lot = \$2,500

Total Cost per lot = \$50,375

All Acreage Developed



**300 acre area with 200 acre
habitat & buffer
300 acres developable**

300 acres @ 3 units/acre = 900 lots
Purchase price - \$20,000/acre =
\$6,000,000

Cost/lot = \$6,666

Offsite - \$750,000 cost/lot = \$833

Development cost per lot = \$25,000

Total development per lot = \$32,499

Total cost with profit = \$42,248

Mitigation Cost for 200 Acres

Assuming 2:1 Mitigation Ratio and \$5,000/Acre

$200 \text{ acres} \times 2 \times \$5,000 = \$2,000,000$

Cost per lot = \$2,222

Total Cost per lot = \$45,137

Mitigation Cost for 200 Acres

Assuming 3:1 Mitigation Ratio and \$5,000/Acre

$200 \text{ acres} \times 3 \times \$5,000 = \$3,000,000$

Cost per lot = \$3,333

Total Cost per lot = \$46,581

60 Acre Tract



**60 acre area with 30 acre
habitat & buffer
30 acres developable**

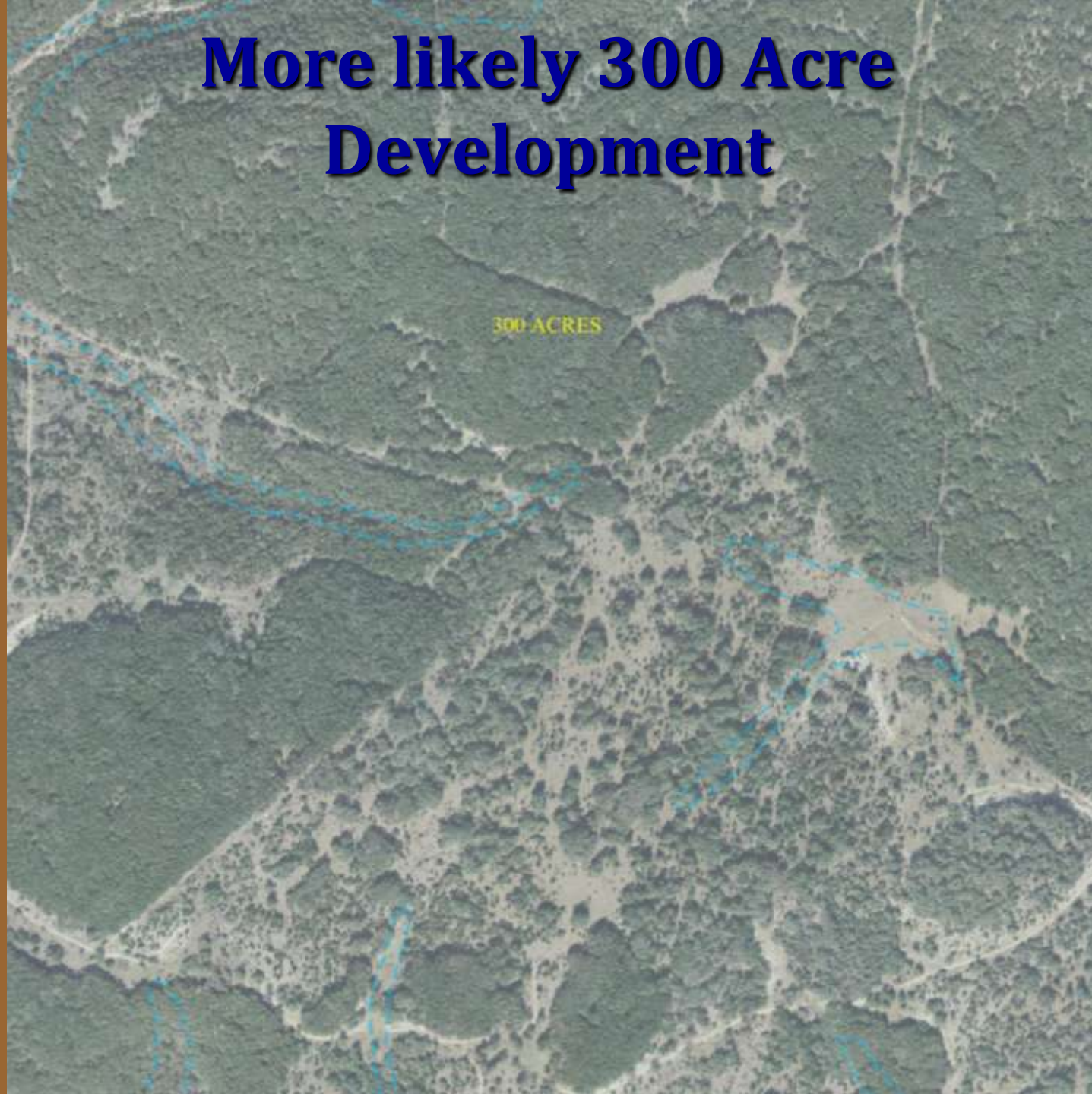
73 - ½ Acre Lots

**Assume 1 bird impacting 30 acres.
Development cost per lot:**

**Mitigation cost per lot @ 2:1 = \$4,109
(\$300,000)**

**Mitigation cost per lot @ 3:1 = \$6,164
(450,000)**

More likely 300 Acre Development

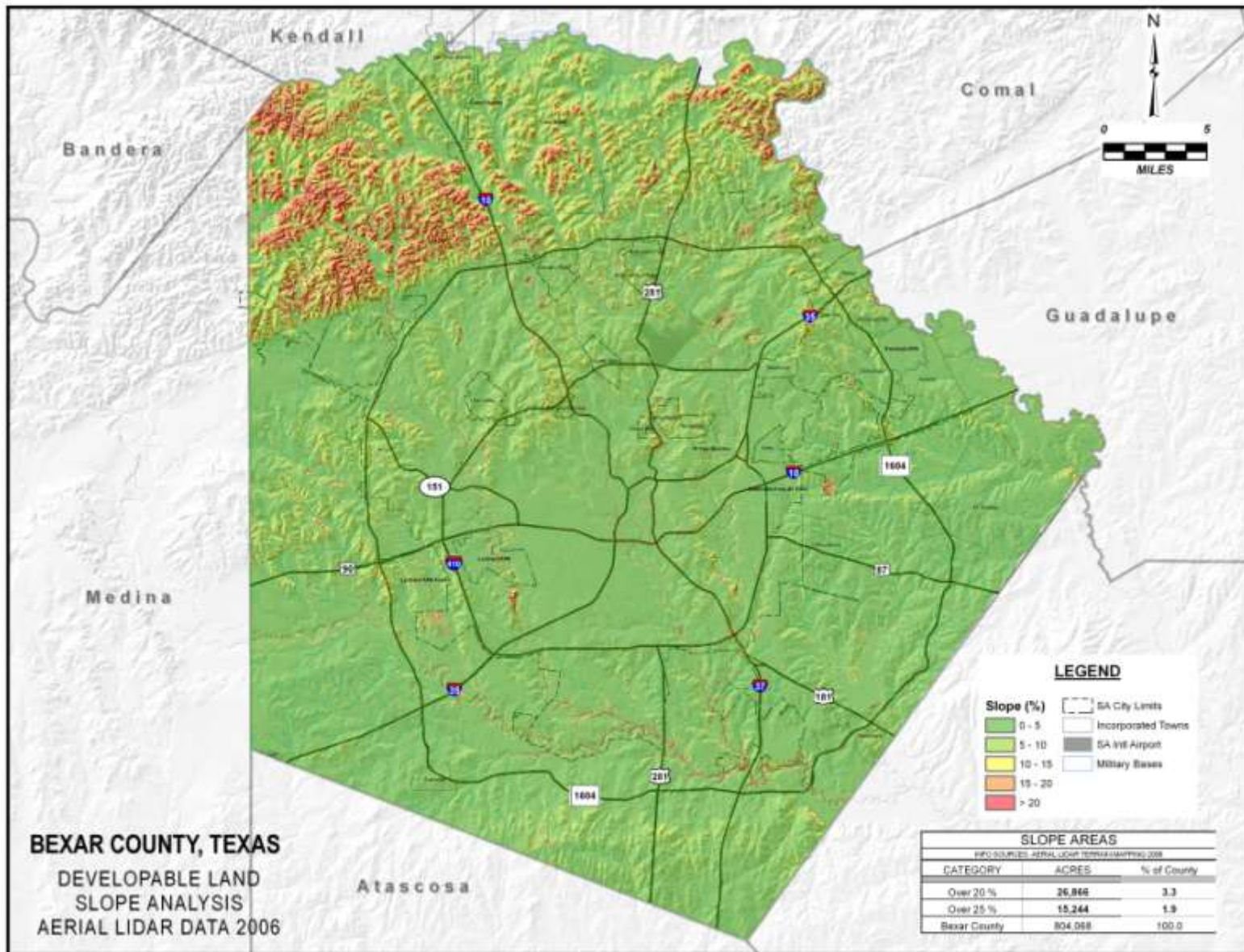


Tree Ordinance Mitigation Box

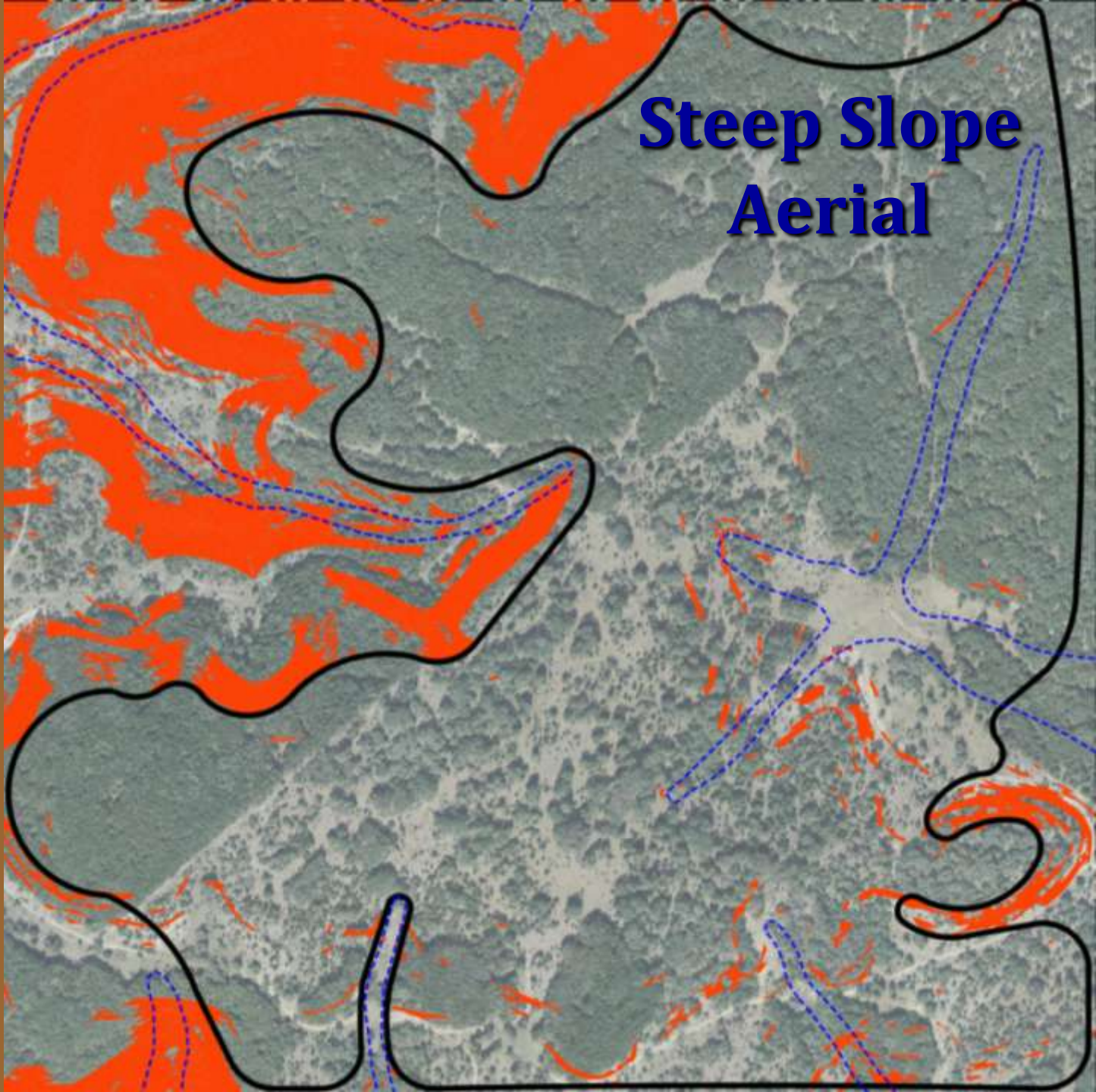
Table 523-1B

	<u>Minimum preservation requirements</u>	<u>Other requirements</u>
<u>Total tree canopy cover on site outside of the regulatory floodplain</u>	<u>35% of total non-heritage tree canopy with subdivision, building permit or other permit after the Master Development Plan stage or 30% of total non-heritage tree canopy with Master Development Plan.</u>	<u>Tree save areas must be designated as such when the area is platted. Tree canopy area(s) to be preserved as tree save area(s) must include tree canopy in environmentally sensitive areas if such are present on site.</u>
<u>Heritage trees</u>	<u>Heritage trees shall be preserved at 100% using the tree stand delineation method only.</u>	
<u>Environmentally sensitive areas within the project boundaries</u>	<u>80% of the total canopy area and 100% of the heritage trees.</u>	<u>Tree save areas in environmentally sensitive areas shall count toward preservation on the remainder of the site.</u>
<u>Regulatory floodplain</u>	<u>80% of the total canopy area and 100% of the heritage trees.</u>	<u>The trees or tree canopy in the floodplain may not be used to meet preservation requirements set forth above for the developable portion of the land.</u>
<u>Mitigation Maximum</u>	<u>Up to 80% of the total tree canopy area and up to 80% of the heritage trees may be mitigated rather than preserved.</u>	<u>A minimum of 20% of the existing pre-development tree canopy and 20% of the heritage trees shall be preserved and may not be mitigated</u>

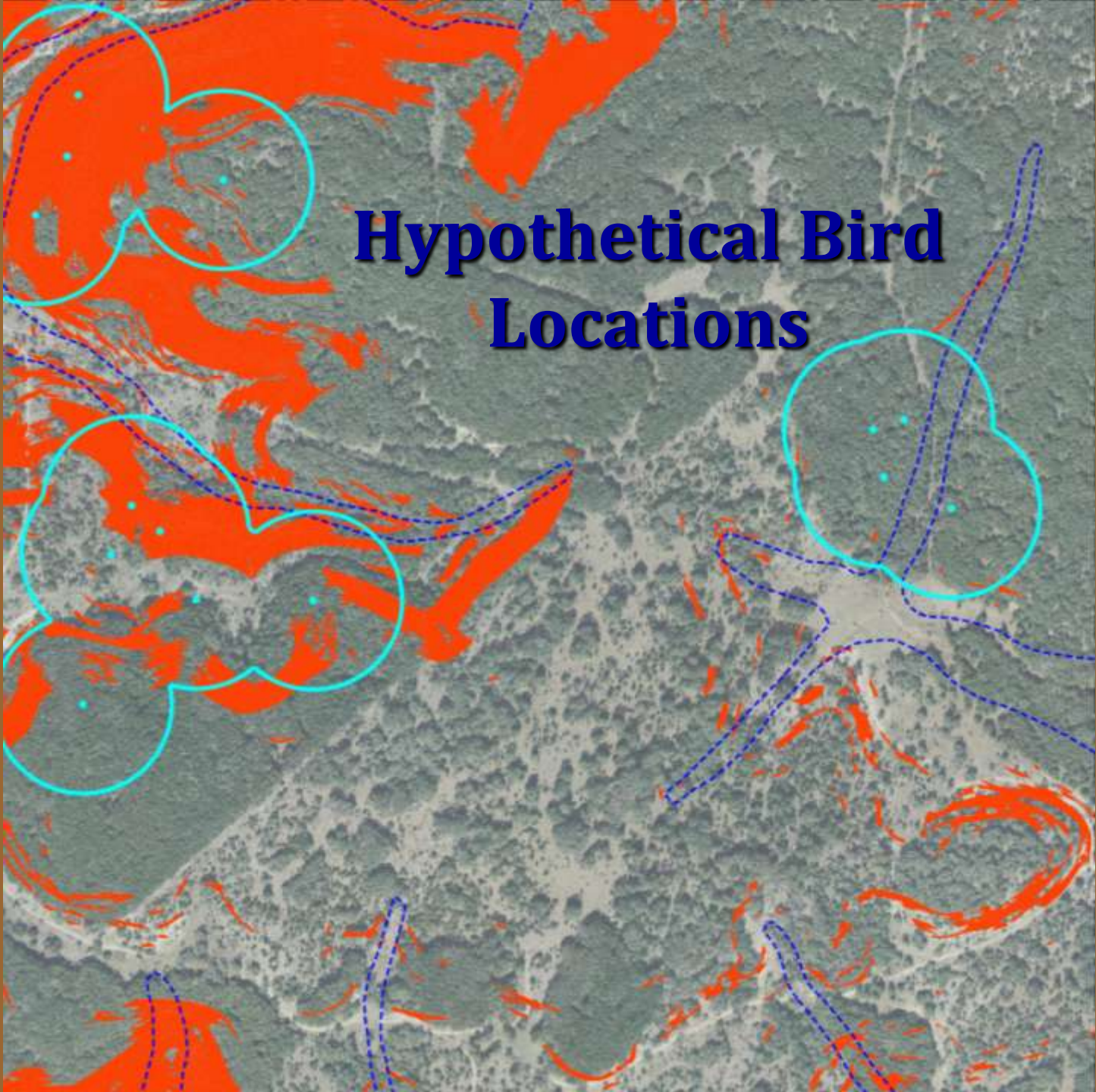
County Steep Slope Map



Steep Slope Aerial



Hypothetical Bird Locations



Resulting Land Plan



Land Plan Calculations

- 200 acres Developable Land = 600 lots
- Purchase price - \$20,000/acre = \$6,000,000
- Cost/lot = \$10,000
- Offsite - \$750,000 cost/lot = \$1,250
- Development cost per lot = \$25,000
- Total Development per lot = \$36,250
- Total cost with profit = \$47,125
- Mitigation cost @ 3:1 for 20 acres impacted = \$300,000
- Cost per lot = \$500

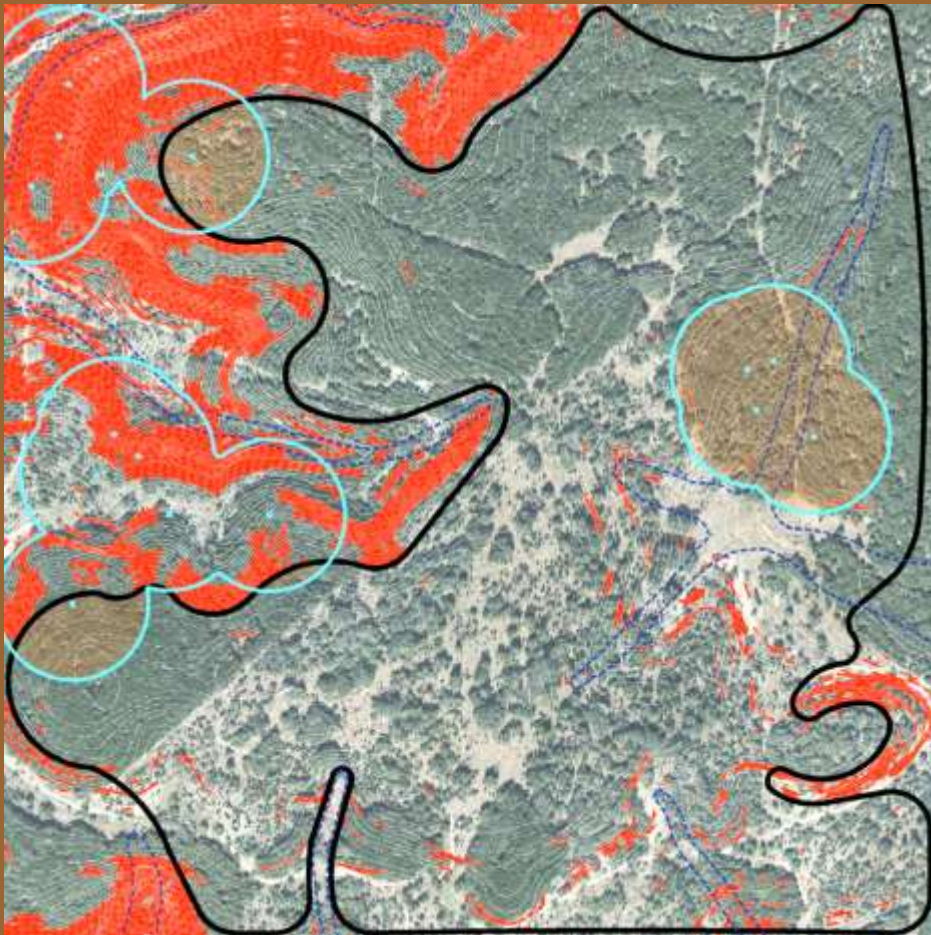
Developer Initiated HCP

- **Surveys**
- **Legal**
- **Mitigation Land**
- **HCP Preparation**
- **Time Delay**
- **Third Party Management**
- **Management Funding**
- **Certainty**

Developer Initiated HCP

- **Surveys - \$30,000**
- **Legal - \$225,000**
- **Mitigation Land - \$3,500 Acre/Outside Bexar County**
- **HCP Preparation - \$50,000 to \$100,000**
- **Time Delay – 2 to 3 Years**
- **Third Party Management – Find or Create**
- **Management Funding - \$40,000 - \$700,000**
- **Certainty - Priceless**

Cost Analysis of Developer Initiated HCP



Survey:	\$30,000
Legal:	\$100,000
Mitigation Land:	
20 Acres Mitigation @ 3:1 =	
60 Acres @ \$3,500/Acre =	\$210,000
HCP Preparation:	\$75,000
Management Funding:	<u>\$30,000</u>
TOTAL COST:	\$445,000

Proposed RHCP:	\$300,000
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Conclusion

- **Current regulatory environment has heightened awareness of bird habitat.**
- **Most developers perform bird surveys prior to purchase.**
- **Habitat impact calculated into value of underlying land.**
- **Potential mitigation participants did not discount land purchase for habitat and need to develop habitat to get a return on investment.**

Conclusion (cont.)

- **Actual land constraints and development code prevents the development of some habitat areas reducing potential for participation.**
- **Main impact of mitigation ratios is the upfront cost to participate, not the per lot cost. Therefore, developers will phase their participation.**
- **Mitigation ratios and mitigation cost in the proposed RHCP are consistent if not lower than individual HCP's and provide certainty to the process**