

# HCOGS

Hill Country Geospatial  
Solutions

“Worldwide solutions for Texas sized problems.”

Mark Parker – Manager  
Charles Good – Assistant Manager  
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Justin Holder – GIS Analyst

# **Market Analysis of the Austin Region for the Capital Area Council Boy Scouts of America**

Prepared by HCGS

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# Summary

- The Capitol Area Boy Scouts of America have a need to expand the areas of influence of their current units in fifteen counties, and target specific demographics to broaden the scope of Scouting available to a larger group of children.
- An increase in enrollment will in effect enrich the lives of a larger group of children and will provide them with experiences and skills that will help them grow in life

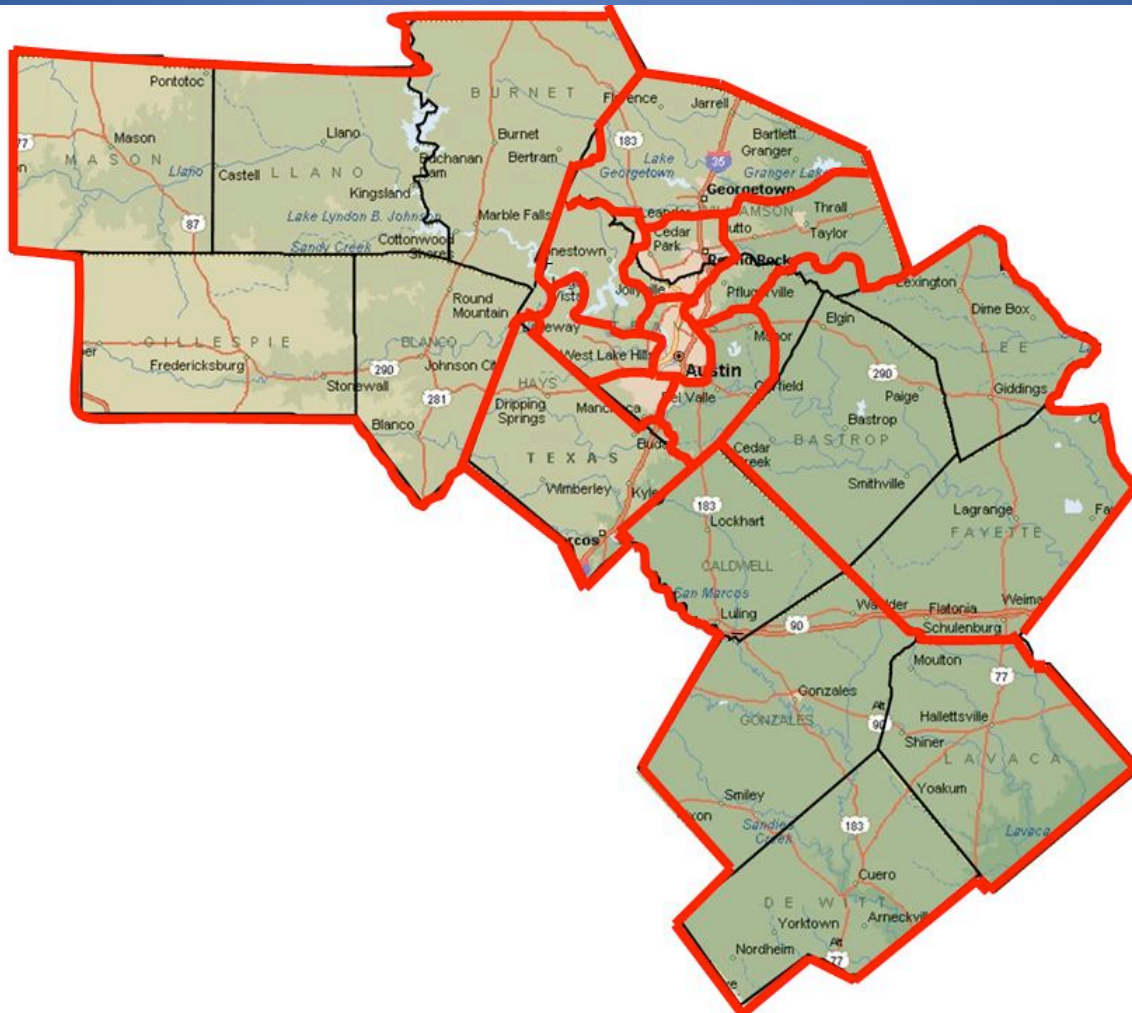
# Purpose

- Provide Capitol Area Council Boys Scouts with maps and data relevant to their desired needs of a GIS project.
- Maps and Data will consist of desired areas for marketing based on existing scouts locations and demographic data relevant to the Capitol Area Council Boy Scouts.
- The Boundaries of the project are the twelve district boundaries that make up Capitol Area Council Boy Scouts.



# Scope

- The geographic area covered by our study are 12 districts within the 15 counties of: Bastrop, Blanco, Burnet, Caldwell, DeWitt, Fayette, Gillespie, Gonzales, Hays, Lavaca, Lee, Llano, Mason, Travis, and Williamson.



# Data

- Capitol Area Council Boy Scouts has provided the basic data the project is to be built around.
- Texas Natural Resource Information System (TNRIS) will be used for the majority of vector data needed to represent roads, county boundaries, city points, and bodies of water.
- Data sources exist in the GIS department of Texas State University, provided through an ESRI contract, that have been made available to HCGS for collecting Demographic Data. This data was accumulated from the U.S Census Bureau.

# Software

- ESRI: (Environmental Systems Research Institute)
  - ARCMAP, ARCVIEW, ARCCATALOG
- Microsoft Office Suite:
  - Excel, Word, Power Point
- SPSS:
  - Statistical Analysis Software
- Adobe Illustrator:
  - Graphic Design Software



# Methodology

- **Gecoding:** Scout Locations and unit locations will be located using an existing address data base.
- **Hot Spot Analysis:** Hot spot analysis can be used to pin point dense areas of a certain attribute. HCGS will use this to locate dense areas of existing scouts.
- **Layer Building/Editing:** New layers can be built in arcmap to represent data not already drawn in map form. We will use this to build a layer of polygons representing the twelve diferent districts that make up capitol area council of boy scouts.
- **Location Analysis:** Location analysis is comprised of using a number of different variables to define an area based on the preferences defined by the combination of those variables. HCGS will use this to find the target areas for marketing campaigns for capitol Area Council of Boy Scouts.
- A statistical formula will be use to show population growth of the area relevant to Capitol Area Council boy Scouts.

# Time Table

2/18/2008

3/10/2008

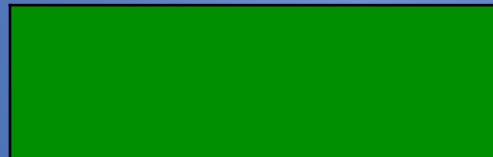
3/31/2008

4/28/2008

**Data Collection**



**Pre-Processing Data and Analysis**



**Data Integration/Final Deliverables**



**Website Development**



# Final Deliverables

- A detailed report of the processes of the project will be provided to Capitol Area Council Boy Scouts. Two bound copies will be provided.
- Maps and data will be accumulated and displayed in poster form. The central theme of the poster will be the marketing needs of Capitol Area Boy Scouts.
- HCGS plans to have a collection of at least 25 maps available to provide with the deliverables. An organized map book will be provided for delivery of these maps.
- Population projections will be shown in graph form. As stated earlier in the methodology portion of this proposal, population projections will be shown in map form if a method is found prior to delivery of project.
- A CD containing all data for the project will be provided to Capitol Area Boy Scouts. Instructions on how to use the information on the CD will be provided by HCGS.
- HCGS is developing a company web-site specifically for this project. Team member profiles, company information, and this project will be available on the website.  
[www.hillcountrysolutions.info](http://www.hillcountrysolutions.info)

# Budget

<b>Budget</b>		
<b>Data Collection</b>		
Manager:	(5 hours/week * 3 weeks)	15 hrs
Assistant Manager:	(7 hours/week * 3 weeks)	21 hrs
GIS Analysts:	(10 hours/week * 3 weeks) * 3 consultants)	90 hrs
Total Hours		<b>126 hrs</b>
Hourly Pay		\$30.00
Total		<b>\$3,780.00</b>
<b>Pre-Processing Data and Manipulation</b>		
Manager:	(5 hours/week * 3 weeks)	15 hrs
Assistant Manager:	(7 hours/week * 3 weeks)	21 hrs
GIS Analysts:	(10 hours/week * 3 weeks * 3 consultants)	90 hrs
Total Hours		<b>126 hrs</b>
Hourly Pay		\$30.00
Total		<b>\$3,780.00</b>
<b>Data Integration</b>		
Manager:	(5 hours/week * 4 weeks)	20 hrs
Assistant Manager:	(7 hours/week * 4 weeks)	28 hrs
GIS Analysts:	(10 hours/week * 4 weeks * 2 consultants)	80 hrs
Total Hours		<b>128 hrs</b>
Hourly Pay		\$30.00
Total		<b>\$3,840.00</b>
<b>Website Development</b>		
Webmaster:	(10 hours/week * 4 week)	40 hrs
Hourly Pay		\$25.00
Total		<b>\$1,000.00</b>
<b>System Management</b>		
Project Manager:	(5 hours/week * 10 weeks)	50 hrs
Assistant Manager:	(3 hours/week * 10 weeks)	30 hrs
Total Hours		<b>80 hrs</b>
Hourly Pay		\$35.00
Total		<b>\$2,800.00</b>
<b>Equipment Cost (for 10 weeks)</b>		
Supplies:	(\$150/workstation * 5 workstations)	\$750.00
Maintenance:	(130/workstation * 5 workstations)	\$650.00
Depreciation:	(\$20000 [Total value of equipment] / 36 [equipment life in months] * 2.5 [months equipment is used])	\$1,388.88
Total Equipment Costs		<b>\$2,788.88</b>
<b>Data</b>		
Purchased Data:		\$2,500
Software License for 10 Weeks:		\$5,000
Outside Statistical Analysis Fee:		\$550
Total Data Costs		<b>\$8,050.00</b>
<b>Travel Expense</b>		
100 miles @ \$0.85 cents/mile		\$85.00
<b>Total Cost of Project</b>		<b>\$26,123.88</b>

# Conclusion

- HCGS feels that this proposal clearly outlines our intention to provide Capitol Area Council of Boy Scouts with information pertaining to the best marketable areas for their districts in this region. Adjustments in methodology can be made in relation to the quality of data available. With more precise data, better accuracy can be generated using tools available in a GIS specific to the type of data. As mentioned in the time table portion of this proposal, HCGS feels the pre-project activities performed by our group will allow us to meet the schedule outlined in this document.

# Participation

## Mark Parker

- Introduction
- Summary
- Purpose
- Scope

## Beau Barela

- Data
- Analysis

## Charles Good

- Time Table
- Final Deliverables

## Justin Holder

- Budget

## Eric Brotherton

- Participation
- References
- Conclusion



# References

- <http://www.census.gov>
  - U.S. Census Bureau
- <http://www.tnris.state.tx.us>
  - Texas Natural Resources Information Systems
- <http://www.txdot.gov>
  - Texas Department of Transportation
- <http://www.bsacac.org>
  - Boy Scouts of America Capital Area Council
- <http://www.directionsmag.com>
  - The Worldwide Source for Geospatial Technology