



Presentation to County of Los Angeles CITIZENS REDISTRICTING COMMISSION - Demographic and Mapping Consulting Services for Redistricting



ARCBridge Consulting & Training Inc.

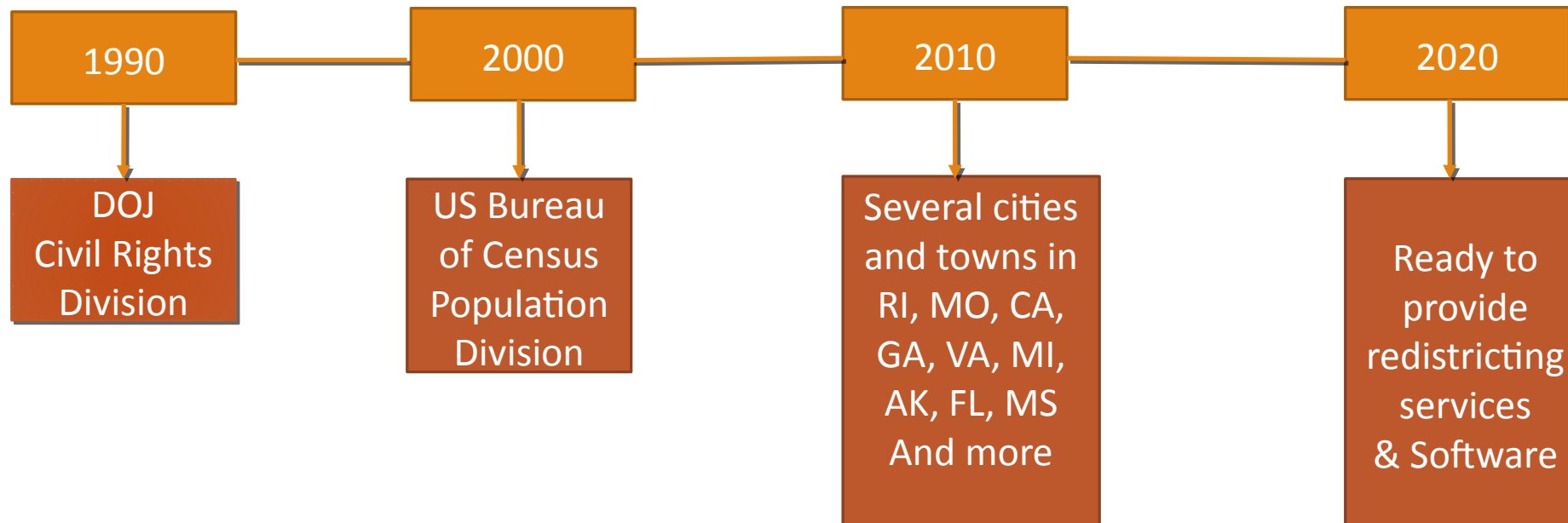
www.arcbridge.com

ARCBridge Consulting

Incorporated in 1994 and based in Sterling in Northern VA in the Washington DC Metro Area

Woman-owned small business

Now in the 4th cycle of redistricting



Why ARCBridge?

- Civil Rights Division, Voting Section
- We developed our own ArcGIS based Redistricting Software-DISTRICTSolv
- Worked with several cities and counties across the country
- Experience working with Los Angeles County CA Fire Department
- Santa Barbara County, San Diego County, Orange County FL and more

Experience with Esri Products

Used Esri products since 1997

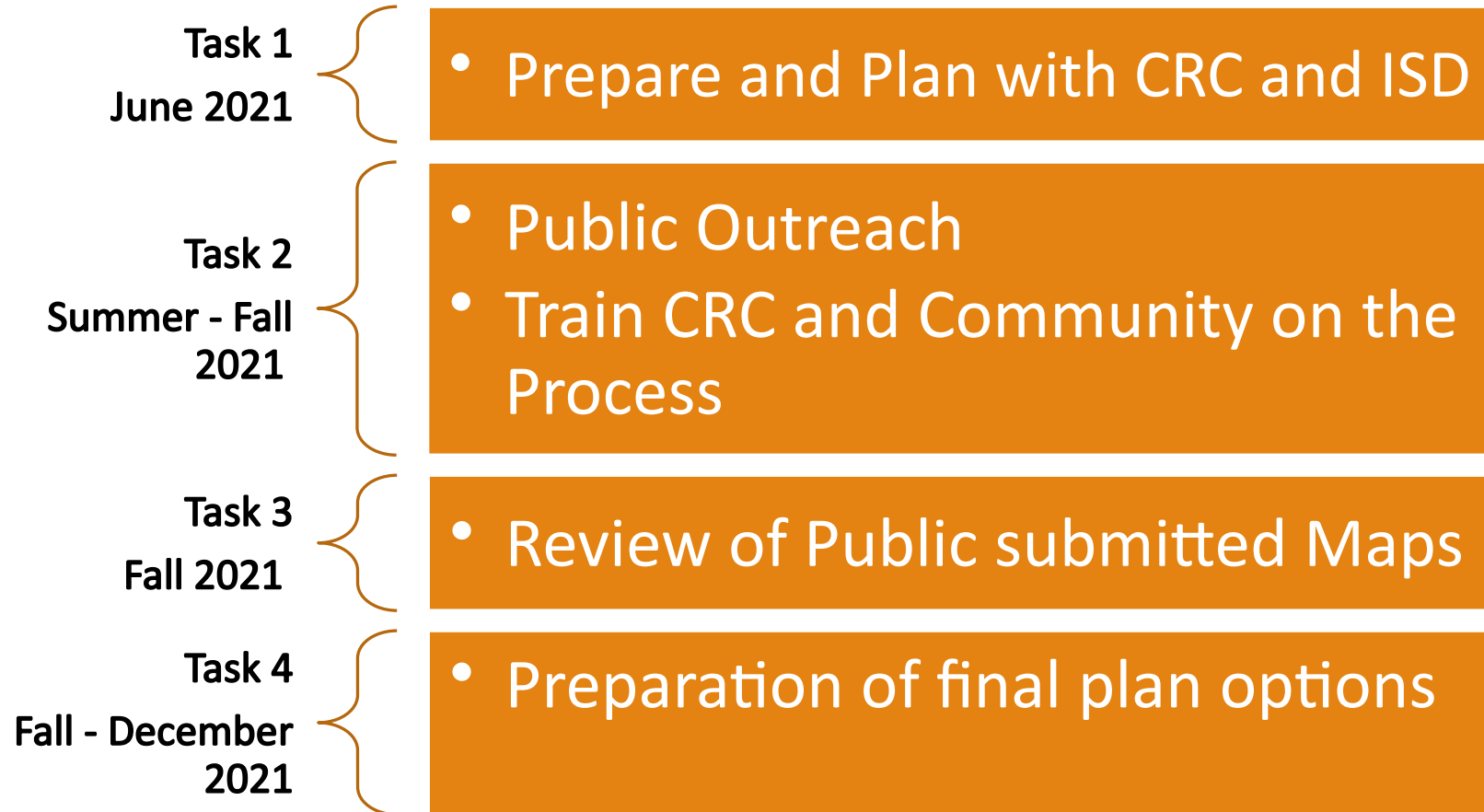
BUSINESS PARTNER Of The Year Award 2001

Developed Esri based products for Redistricting,
Crime Analysis, Fire Analysis

First Esri Product certified Trainer

Experienced with Esri latest technology

Understanding of the Statement of Work



Task 1 - June 2021

Prepare a timeline with CRC and ISD

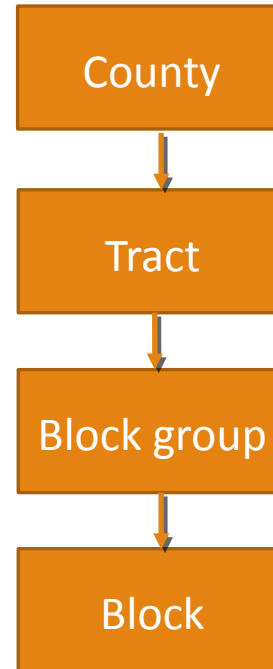
- Defining the redistricting criteria as per the federal Voting Rights Act, California Voting Rights Act and local county requirements
- Coordinating with Esri for Training the CRC on the Esri Redistricting platform using Census 2010 PL94-171 data
- Identifying any other data sources that might be helpful in the redistricting process
- Identifying training material to be posted on the CRC website
- Determining community feedback gathering process
- Developing processes for community to develop and submit plans for CRC to consider
- Work with the CRC, ISD and the community to identify communities of interest.
- Develop communities of interests (COI) layer and determine how we will work with the COI while creating new supervisory district boundaries.

Redistricting Demographic Data - Census PL94-171 Data & Census Geography Data

Data is delayed due
to the pandemic

- In 1975 PL94-171 was enacted to create the data required for Redistricting
- Bureau of Census Redistricting Office releases this demographic data
- 100% Count of Total Population and Voting Age Population by Race and Ethnicity (Hispanic)
- Data is summarized at various levels of geography
- This year this data release has been delayed due to the pandemic
- The data will be released on September 30th or in August 2021

Shapefiles/File Geodatabases

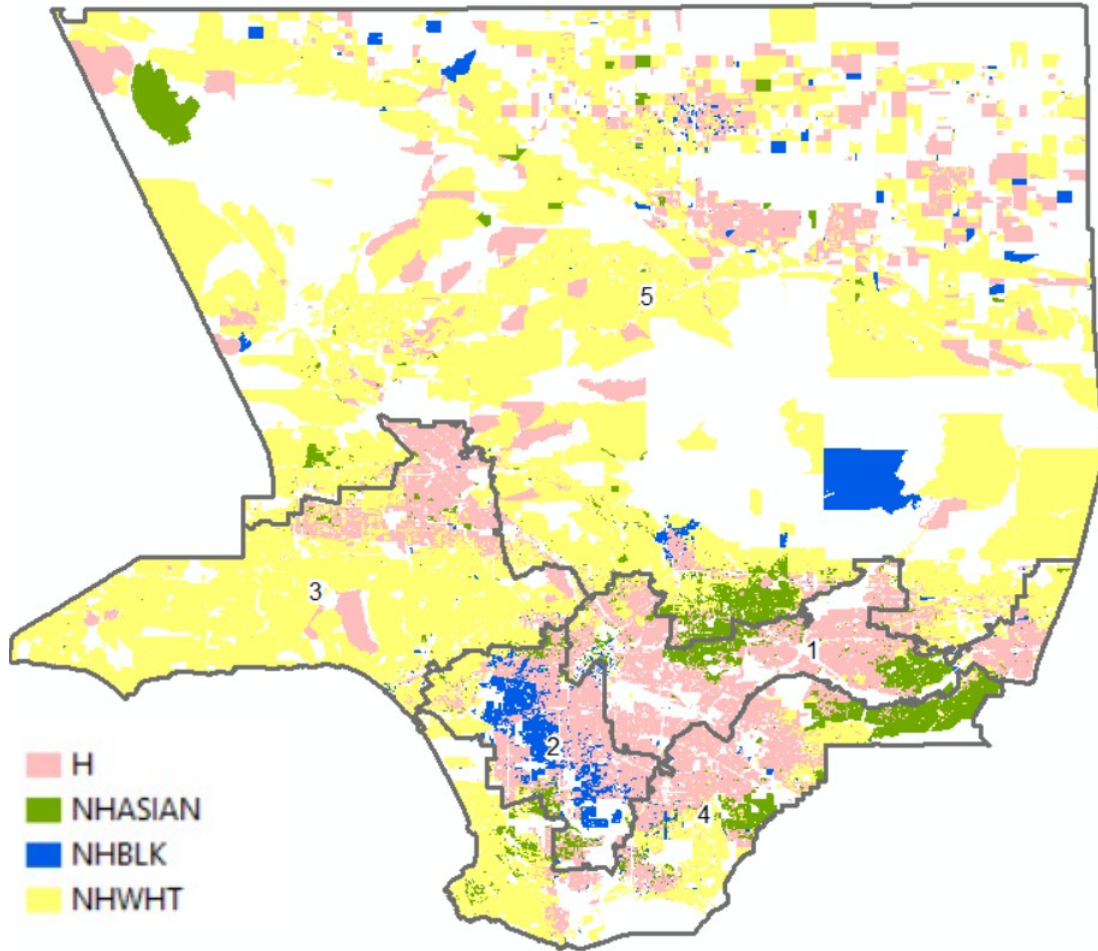


The Geography
Files are ready

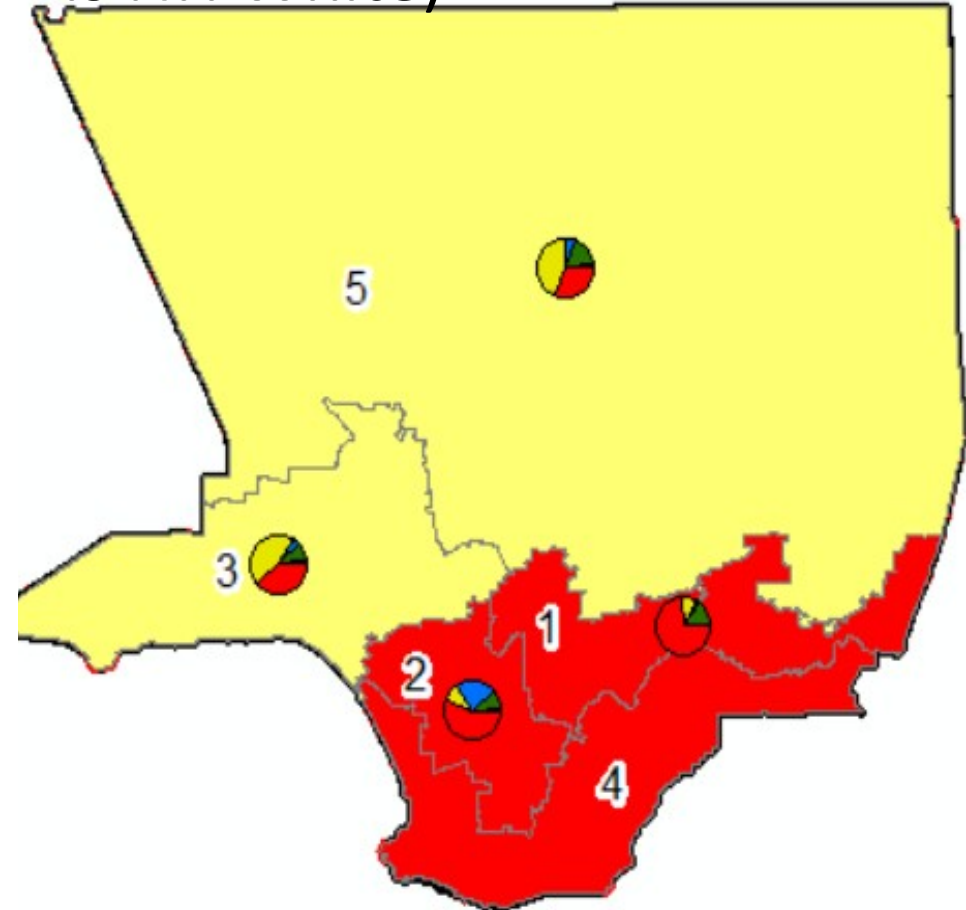
Redistricting Criteria

- Equal Population – as equal as possible
- create districts that have a total population deviation of no more than 10% between their most heavily populated district and the least populated district.
- Compact
- Contiguous
- Minorities are fairly represented
- Communities of Interest

Demographic Distribution of Population by Blocks



Majority Minority Districts (Red is Hispanic and Yellow is NH White)



Task 2 - Public Involvement in Redistricting Mapping - Summer and Fall 2021

- Prepare draft presentations in PowerPoint to define the mapping process.
- After receiving CRC comments, updating the presentations
- The presentations will include description of census geography and census hierarchies
- Our team will work in close association with Esri and obtain training materials, tutorials that will be provided to CRC for posting on the CRC website.
- Coordinate with Esri to provide training to the CRC and others on –
 - How to draw new plans
 - How to review and evaluate plans
- The training can be completed using 2010 PL94-171 data. The CRC staff will be notified when the 2020 PL94-171 data will be available.
- ARCBridge will work with the CRC Ad Hoc working group on scheduling community outreach meetings.
- ARCBridge will work with the Esri Redistricting application and Esri to resolve any technical problems the CRC or the Public may encounter.
- The Redistricting Application tool has online help, blogs and Esri support
- Our team will answer any questions about the redistricting mapping process.

Task 3 - Review of Public-Submitted Maps - Fall 2021

The Esri online redistricting application requires users to create a user name and password before drawing a plan. The plans can then be submitted to a curator. Before submitting a plan, the application runs integrity tests. The users can add their comments. Any plan submitted can be imported and overlaid with existing plan or other submitted plans.

We will check the public maps against the redistricting criteria

ARCBridge has its Esri-based desktop redistricting tool – DISTRICTSolv.

Santa Barbara County used our tool in 2011; We used in for the San Diego Unified School District Redistricting, Orange County FL and many more.

We will use this tool and Esri core functionality to evaluate the maps submitted by the public

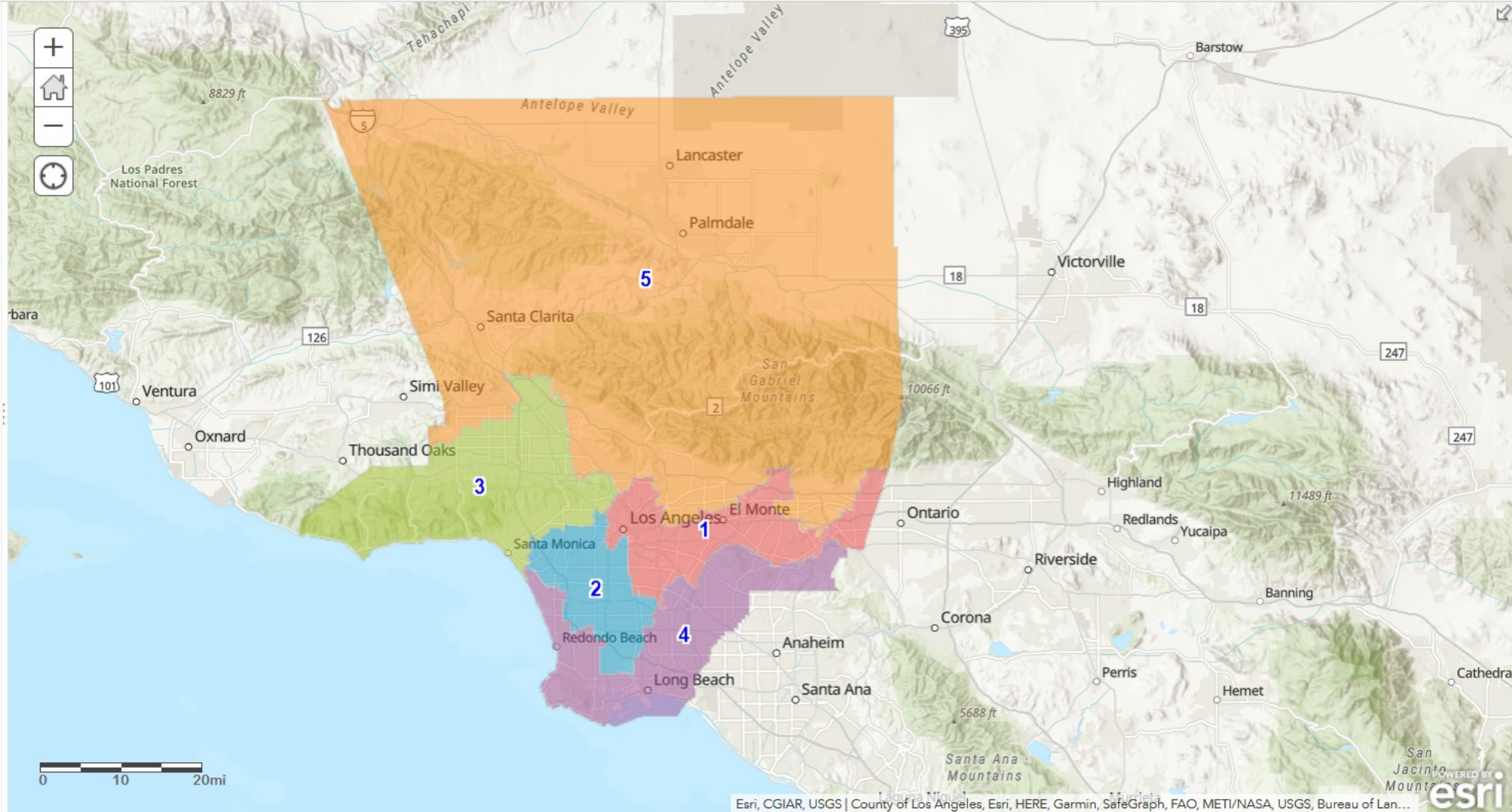
Post Options on the CRC Web Site

Details Add ▾ Edit Basemap Analysis Save ▾ Share Print ▾ Directions Measure Bookmarks Find address or place 🔍

About Content Legend

Contents

- Supervisorial Districts (2011)
- Topographic



Task 4 - Preparation of Line Drawings of LA County CRC Redistricting Map Options and Final Official Report with Redistricting Maps - Fall 2021 through December 2021

ARCBridge will use Esri desktop software to create maps and reports. Some sample maps and reports are shown below –

District Summary

1 of 1 100% Find | Next

District Summary

LA5

District Count:	5
Total Population:	9,817,368
Maximum Deviation:	30,628 1.56%
Average Deviation:	9,686 0.49%
Minimum Count:	1,946,745
Maximum Count:	1,977,373

District	Name	Count	Optimum	Deviation	Deviation %
3	1	1,965,991	1,963,474	2,517	0.13%
	2	1,977,373	1,963,474	13,899	0.71%
	3	1,955,987	1,963,474	-7,487	-0.38%
	4	1,971,272	1,963,474	7,798	0.40%
	5	1,946,745	1,963,474	-16,729	-0.85%

District Summary

LA5

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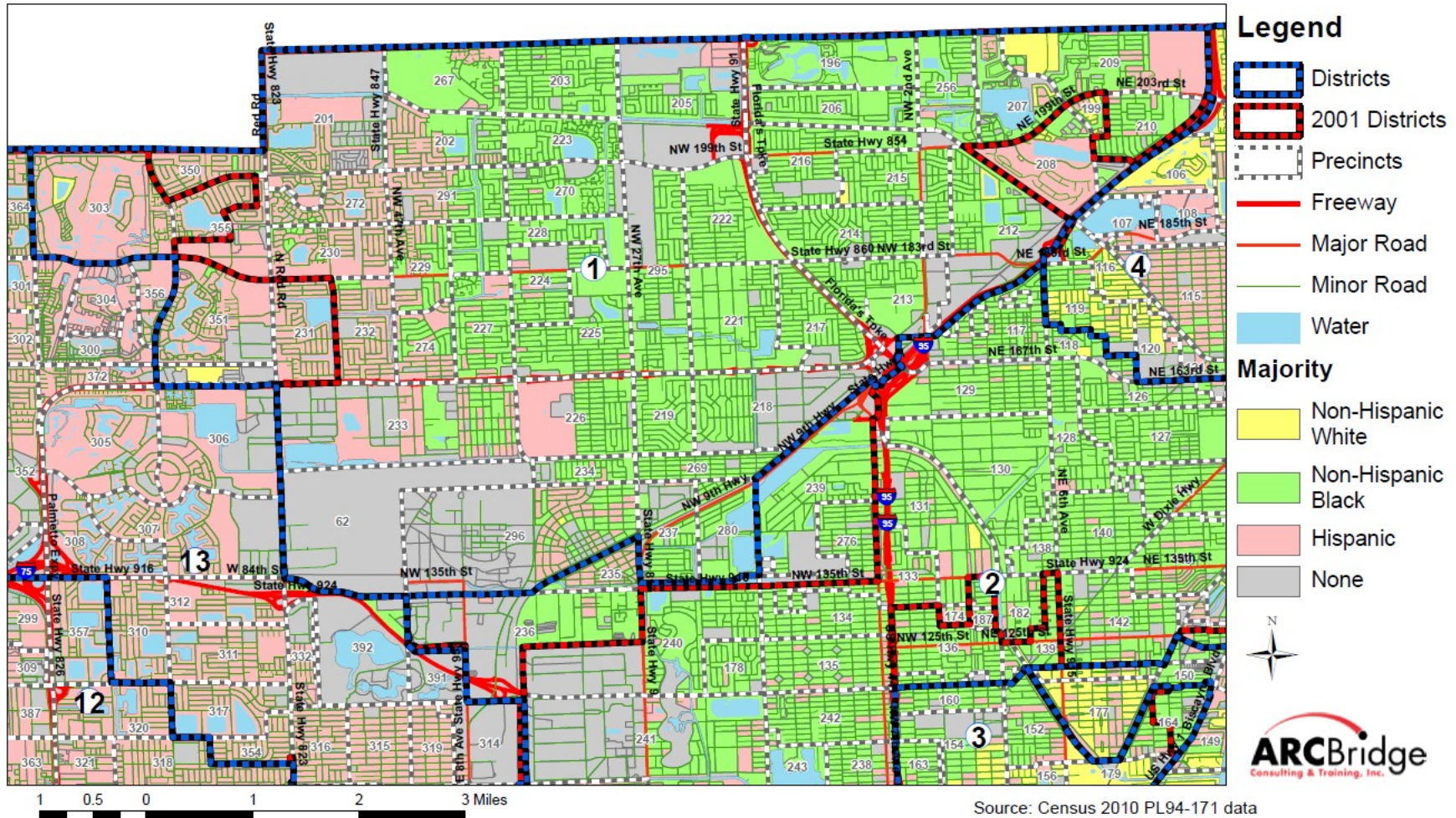
Demographic Totals

HISP:	4,687,810	47.75%
NHWHT:	2,727,444	27.78%
NHBLK:	815,054	8.30%
NHAIAN:	18,886	0.19%
NHASIAN:	1,325,447	13.50%
NHNHOPI:	22,464	0.23%
NHOTHER:	25,366	0.26%
NHP2MRCE:	194,897	1.99%

District	Name	Count	Optimum	Deviation	Deviation %
3	1	9,817,368	9,817,370	-2	0.13%
	HISP:	1,417,475	72.10%		
	NHWHT:	185,991	9.46%		
	NHBLK:	43,592	2.22%		
	NHAIAN:	3,311	0.17%		
	NHASIAN:	293,436	14.93%		
	NHNHOPI:	1,464	0.07%		
	NHOTHER:	3,232	0.16%		
	NHP2MRCE:	17,490	0.89%		

Sample District Maps

Commissioner: Oliver G. Gilbert



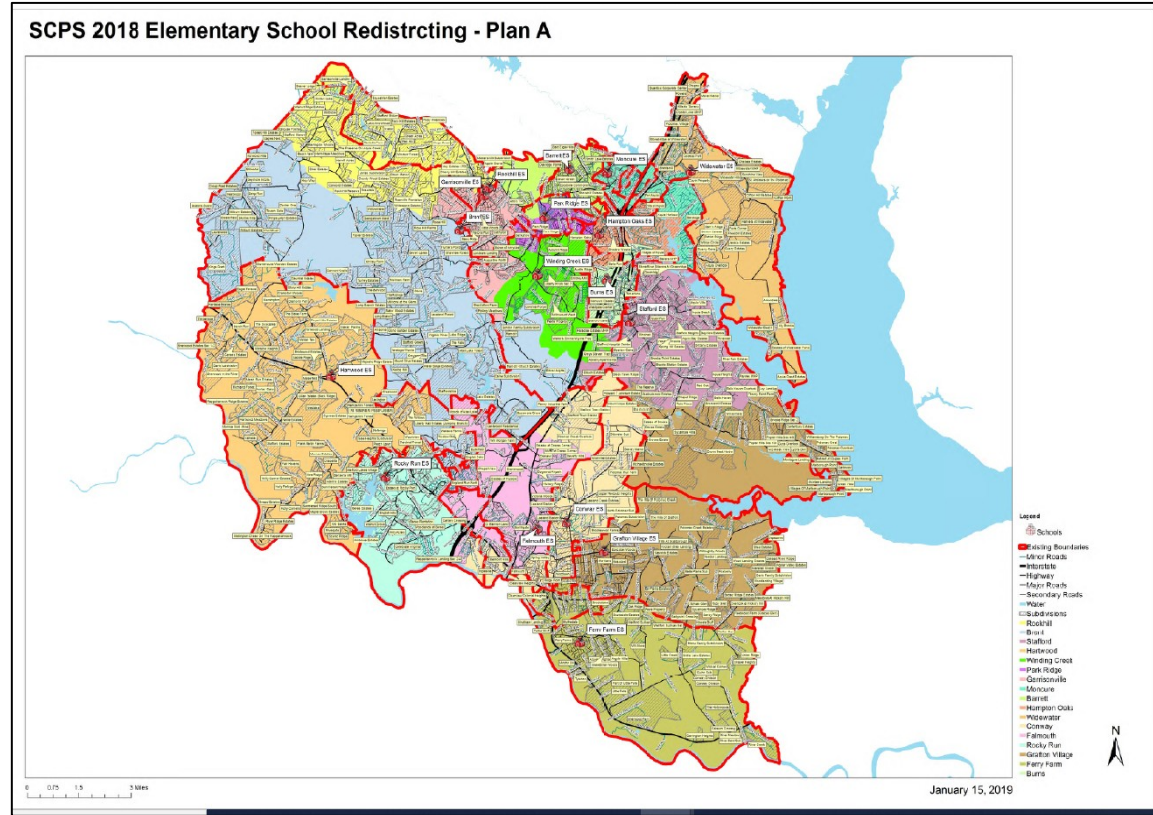
Sample District Maps

Compactness Report

1 of 1 100%

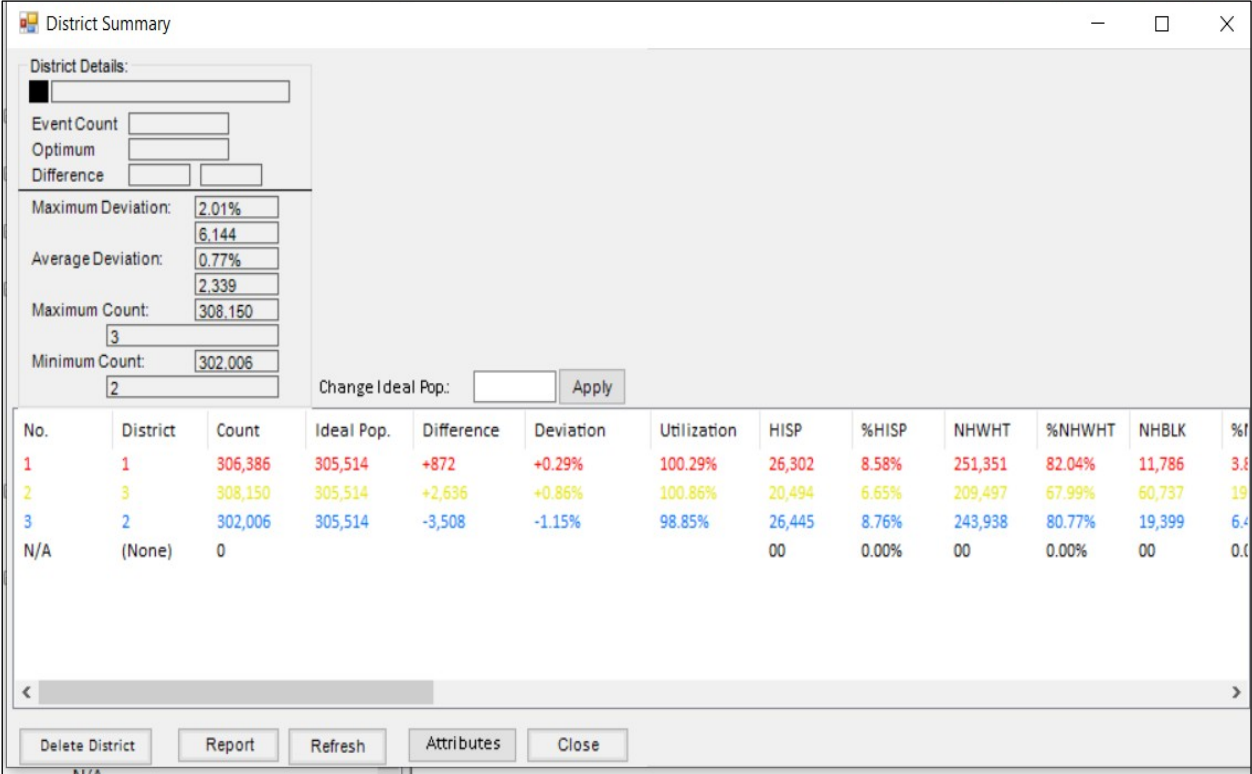
District Compactness

District	Name	
1	District 1	
Area:		1,621.08
Perimeter:		270.35
Width/Length Ratio:		0.921
Population Density:		324.62
Reock Test:		0.296
Polsby-Popper Test:		0.279
Convex Hull Ratio:		0.755
Schwarzberg Test:		1.894
Grofman Test:		6.715
2	District 2	
Area:		441.74



Tools for Redistricting DISTRICTSolv by ARCBridge

- DISTRICTSolv - ArcGIS Extension developed by ARCBridge
- Works with ArcGIS Desktop
- Works with Census PL94-171 Data
- Census Geography like Census blocks, tracts, county, precincts
- Creates maps and reports



District Summary

District Details:

Event Count:

Optimum:

Difference:

Maximum Deviation: 2.01%

Average Deviation: 0.77%

Maximum Count: 308,150

Minimum Count: 302,006

Change Ideal Pop.: Apply

No.	District	Count	Ideal Pop.	Difference	Deviation	Utilization	HISP	%HISP	NHWHT	%NHWHT	NHBLK	%NHBLK
1	1	306,386	305,514	+872	+0.29%	100.29%	26,302	8.58%	251,351	82.04%	11,786	3.8%
2	3	308,150	305,514	+2,636	+0.86%	100.86%	20,494	6.65%	209,497	67.99%	60,737	19.6%
3	2	302,006	305,514	-3,508	-1.15%	98.85%	26,445	8.76%	243,938	80.77%	19,399	6.4%
N/A	(None)	0					00	0.00%	00	0.00%	00	0.0%

Delete District Report Refresh Attributes Close

Reports

District Summary

1 of 1 | 100% | Find | Next

District Summary

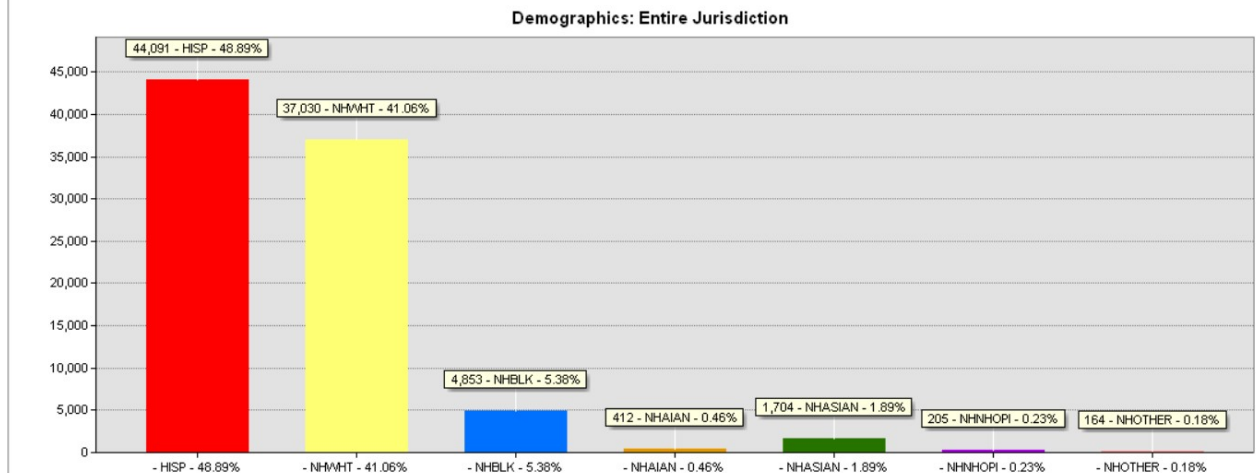
Hesperia5

District Count:	5
Total Population:	90,176
Maximum Deviation:	231
	1.28%
Average Deviation:	51
	0.28%
Minimum Count:	17,912
Maximum Count:	18,143

District	Name	Count	Optimum	Deviation	Deviation %
1	District 1	18,042	18,035	7	0.04%
	District 2	18,143	18,035	108	0.60%
	District 3	18,048	18,035	13	0.07%
	District 4	18,031	18,035	-4	-0.02%
	District 5	17,912	18,035	-123	-0.68%

District	Name	Count	Optimum	Deviation	Deviation %
1	District 1	90,176	90,175	1	0.04%
	HISP:	9,260	51.32%		
	NHWHT:	6,284	34.83%		
	NHBLK:	1,282	7.11%		
	NHAIAN:	76	0.42%		
	NHASIAN:	691	3.83%		
	NHNHOPI:	38	0.21%		
	NHOTHER:	42	0.23%		

Demographics Graph



Timeline

June	Planning	Work with CRC & ISD		
July	Public Outreach	Develop PowerPoints for CRC website	Virtual/in-person Community Sessions	Training on Esri Redistricting
August	Public Outreach	Work with CRC ad-hoc committee	Virtual/in-person Community Sessions	Training on Esri Redistricting
September	Community submits plans	Work with CRC ad-hoc committee	Evaluate Plans	Respond to Community Questions
October	Community submits plans	Evaluate Plans	Attend Public Hearing – 1st	Work with CRC
November	Prepare Maps and Reports		Attend Public Hearing- 2nd	
December	Work with CRC	Prepare Maps and Reports		

Summary

- Highly Experienced Team – Both in Redistricting & Esri products
- Legacy of successfully completed projects-Nationwide
- Strong Project plan and management
- Extensive experience in public outreach
- Extensive experience - directly with Department of Justice, Civil Rights Division
- Strong commitment towards project success
- We are ready to work with Los Angeles County!