



Starbuck Coffee Company Location Closure Assessment Riverside, CA

Objective: To determine the closure of one location that will have the least negative impact on market catchment and patron satisfaction.

Methodology:

To assist in achieving our objective, we explored socio-demographic data associated with the census blocks underlying the individual store location service areas.

First, we established a nodal network of the target market utilizing Open Street Map (OSM) data. This nodal network allowed GCG to develop isochrone overlays for a 3-minute drive-time service area for each location. With these isochrones, we were then able to identify areas of commonality, or intersection between the individual store locations. (See Exhibit 1)

Next, with our isochrone layers, GCG was able to look at socio-economic data underlying the service area isochrones created in step one. This allowed us to explore the socio-demographic data within each locations isochrone service layer and be able to render an estimated catchment population for each service area. (See Exhibit 2)

Third, we explored deeper the individual location isochrone catchments, paying close attention to the intersection (chord) of these service areas. GCG wanted to understand the impact of chords to the overall catchment population. Utilizing geometric analysis, we were able to roughly estimate the catchment population of the chord (Shared Market Population) and with statistical diagnostics, derive an 'Effective Population' for respective catchments. (See Exhibit 3 & 4).

Finally, GCG conducted an OD Cost Analysis to determine the patron impact of a location closure among a few select options. Prior catchment chord data was also brought in to provide a more comprehensive view. (Exhibit 5 & 6).

Recommendations:

In making our recommendation, GCG considered many data points, including:

- Catchment population
- Catchment market share
- Effective catchment population
- Shared catchment population
- Nearest neighbor drive time
- Location type (amenities offered)

Our short list of potential closures included:

- SB#5685
- SB#6616
- SB#5370
- SB#6864
- SB#10224

GCG quickly eliminated SB#5685 and SB#6616 as possible options for closure. While these two locations both hold a small catchment and catchment percentage versus other locations, their elimination would incur greater total loss of market catchment due to the fact that these outer stores, in terms of location, do not share as much catchment population. Their closures would negatively impact significantly more patrons.

With our potential closures list narrowed to 3 (SB#5370, SB#6864, SB#10224), GCG looked at the overall market loss and patron impact of these 3 locations. (See Exhibit 5 & 6).

Summary SB#5370:

SB#5370 shares the greatest population of catchment with other locations. It holds a catchment ratio of 1.85, far greater than any other location. It is located within 2 other location service areas, with drive times of 1.03 minutes and 2.33 minutes.

Summary SB#6864:

SB#6864 shares a large population of Catchment with other locations. It holds a catchment ratio of 0.79. It has a neighboring location (FMO #6514) that is 0.92 minutes away. However, consideration must also be taken regarding the location type. FMO#6514 is inside another retailer, thus it lacks café-seating and drive-thru services. Eliminating SB#6864 would have a greater impact to patrons due to the elimination of these amenities. Neighboring drive-times for stand-alone locations with amenities exceeds 3 mins. (3.37 min. and 3.22 min.)

Summary SB#10224:

SB#10224 shares a large catchment population with SB#7974, with a catchment ratio of 0.89. The drive time between the two locations is 2.94, one of the largest among the 3 closure options. Elimination of SB#10224 would also cause the greatest loss of catchment population.

Final Recommendation:

It is the recommendation of GCG that Starbucks consider closure of SB#5370. This course of action will result in:

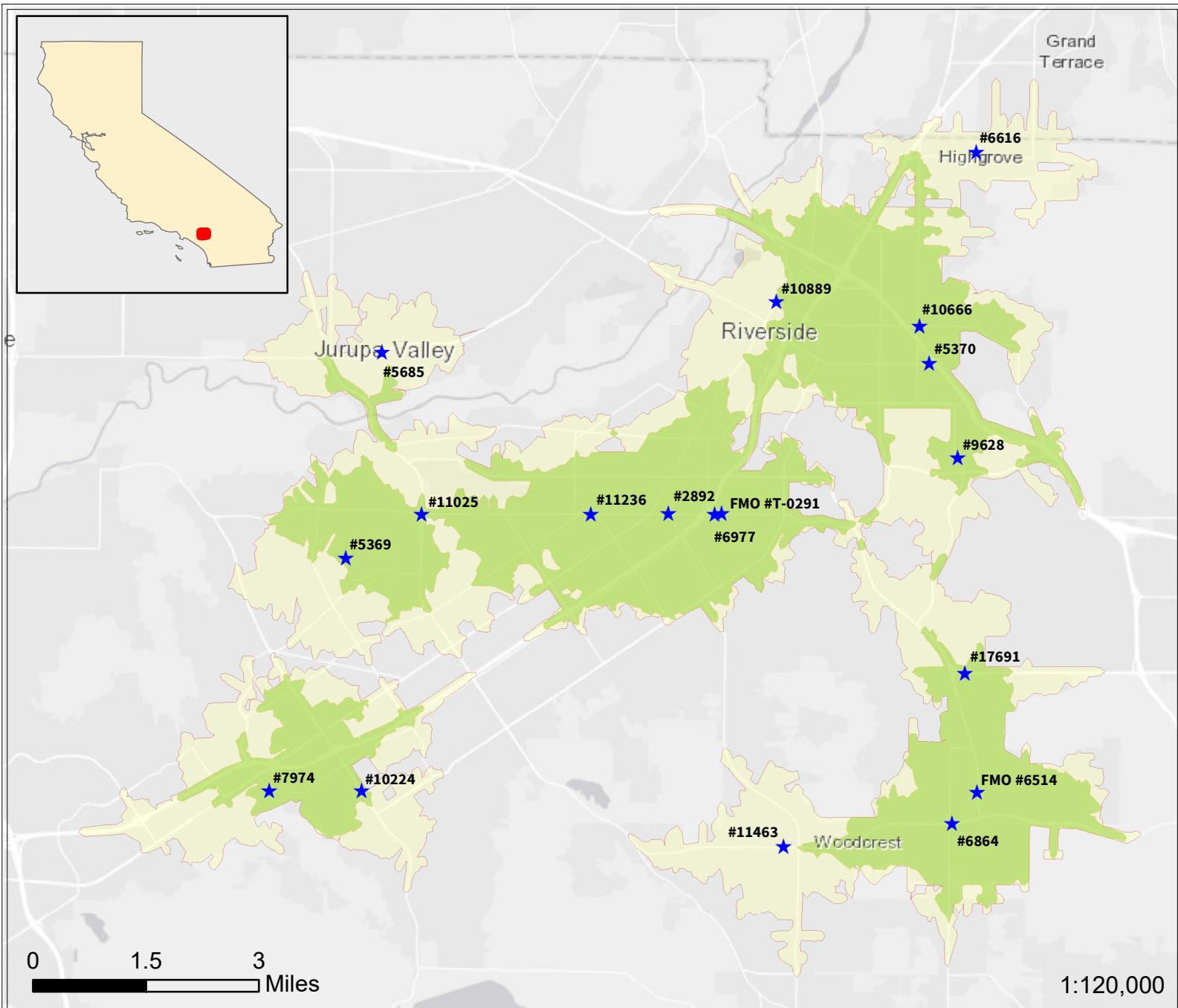
- the least loss of catchment population,
- less service area shrinkage,
- have the least negative impact on patron drive-times, and
- no negative impact on patron amenity access.

Market Network Analysis

Exhibit 1

Market Catchment

Client: Starbucks CC
Market: Riverside, CA
Locations: 18



Symbology

- ★ Store Location
- Multi-Location Service Area
- Single-Location Service Area

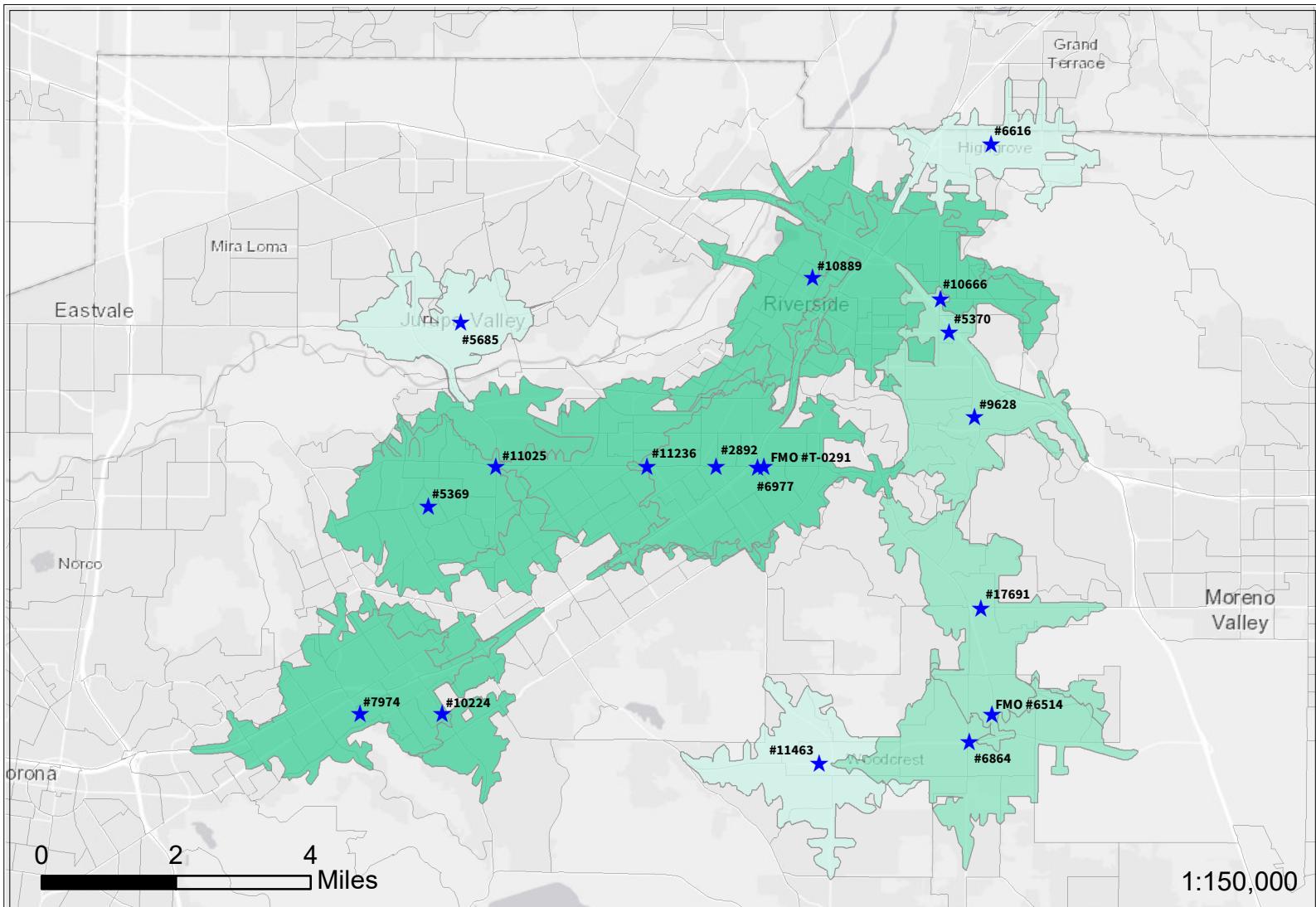
**Service Area: 3 minute vehicle drive to location
without traffic condition parameters.**

Core Demographics

Total Population within Census Blocks:	577,534
Service Area Population:	421,779
Service Area Coverage of Total Population:	73.0%
Median Household Income:	\$60,464
Source:	US Census Bureau, ACS 5Yr, 2014

Market Catchment Population

Client: Starbucks CC
Market: Riverside, CA
Locations: 18



Location ID	Catchment Population	Percent of Total Mkt
STARBUCKS #10666	78,485	7.4%
ALBERTSONS #6514 STARBUCKS	49,418	4.6%
STARBUCKS #10889	70,458	6.6%
STARBUCKS #11463	29,577	2.8%
STARBUCKS #11025	86,963	8.1%
STARBUCKS #2892	78,819	7.4%
STARBUCKS #5370	74,995	7.0%
STARBUCKS #5685	28,768	2.7%
STARBUCKS #5369	61,732	5.8%
STARBUCKS #6616	27,796	2.6%
STARBUCKS #6864	42,657	4.0%
STARBUCKS ARLINGTON & 91 #6977	74,841	7.0%
STARBUCKS COFFEE #10224	62,666	5.9%
STARBUCKS #7974	47,097	4.4%
STARBUCKS COFFEE #11236	69,539	6.5%
STARBUCKS #17691	72,386	6.8%
STARBUCKS COFFEE #17691	45,290	4.2%
TARGET ARLINGTON T-0291 STARBUCKS	66,271	6.2%
Total Market Catchment Population	1,067,758	100.0%

Symbology

Store Location

★ Store Location

Service Area Population

25,000 - 40,000
40,001 - 60,000
60,001 - 90,000

Catchment Population to Actual Population Ratio: 1.85

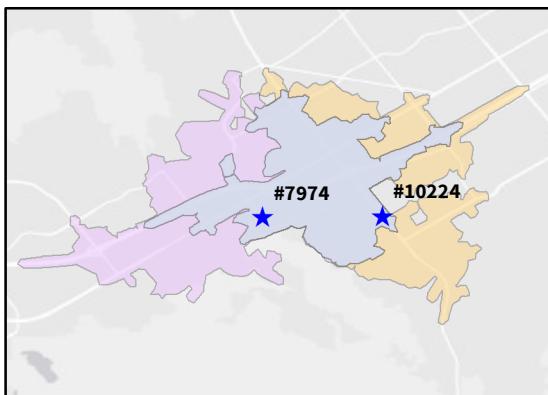
Catchment populations catch census populations from US Census blocks. As multiple location catchments may intersect a single census block, this overlap will inflate the total market catchment population.

Market Network Analysis

Exhibit 3

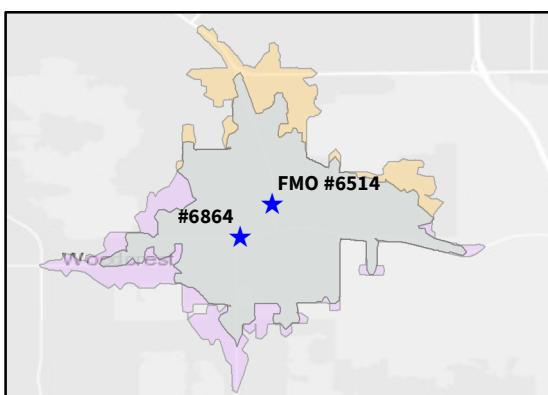
Store Catchment

Client: Starbucks CC
Market: Riverside, CA
Locations: 18



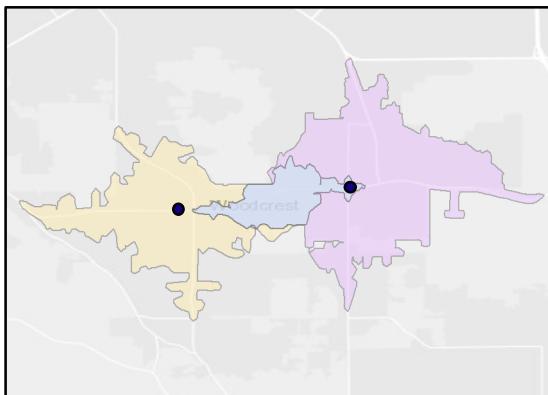
Store Catchment Analysis - Intersect #7974 | #10224

#7974:	Market Overlap Analysis
Service Area Population:	72,386
Population : Market:	6.8%
Area Matrix:	0.003894
#10224	
Service Area population:	62,666
Population : Market:	5.9%
Area Matrix:	0.0003401



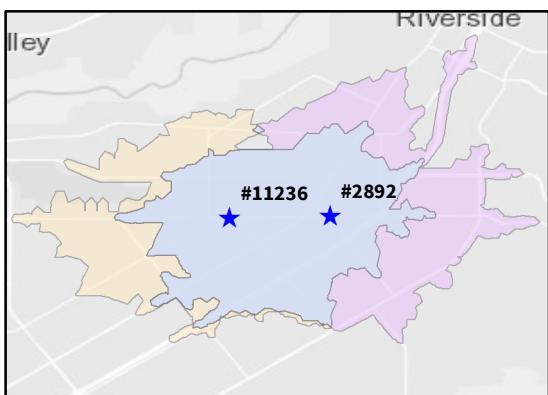
Store Catchment Analysis - Intersect FMO #6514 | #6864

FMO #6514:	Market Overlap Analysis
Service Area Population:	49,418
Population : Market:	4.6%
Area Matrix:	0.007679
#6864	
Service Area population:	42,657
Population : Market:	4.0%
Area Matrix:	0.0006754



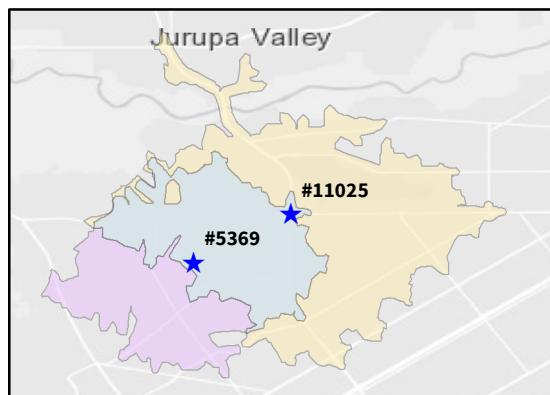
Store Catchment Analysis - Intersect #11463 | #6864

FMO #11463:	Market Overlap Analysis
Service Area Population:	29,577
Population : Market:	2.8%
Area Matrix:	0.007679
#6864	
Service Area population:	42,657
Population : Market:	4.0%
Area Matrix:	0.0006754



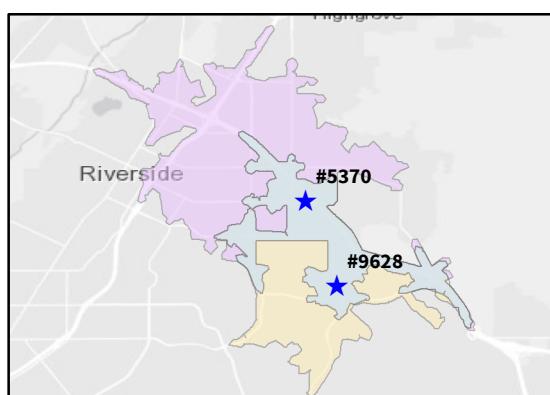
Store Catchment Analysis - Intersect #11236 | #2892

#11236:	Market Overlap Analysis
Service Area Population:	69,539
Population : Market:	6.5%
Area Matrix:	0.003507
#2892	
Service Area population:	78,819
Population : Market:	7.4%
Area Matrix:	0.0005899



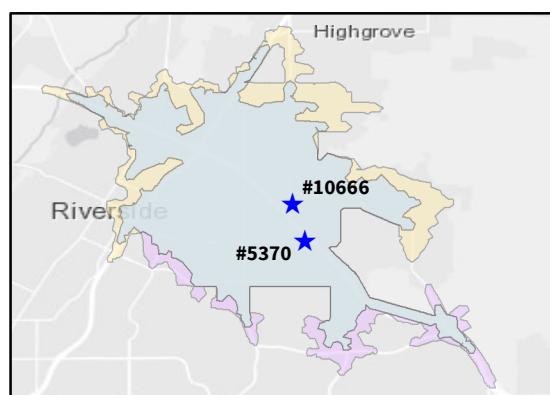
Store Catchment Analysis - Intersect #5369 | #11025

#5369:	Market Overlap Analysis
Service Area Population:	61,732
Population : Market:	5.8%
Area Matrix:	0.003492
#11025:	Drive-time(minutes): 2.74
Service Area population:	89,963
Population : Market:	8.1%
Area Matrix:	0.0004804
	#5369 Effective Population: 27,123
	#11025 Effective Population: 38,208
	Shared Market population: 58,987
	Distance:



Store Catchment Analysis - Intersect FMO #5370 | #9628

#5370:	Market Overlap Analysis
Service Area Population:	74,995
Population : Market:	7.0%
Area Matrix:	0.007040
#9628:	Drive-time(minutes): 2.39
Service Area population:	47,097
Population : Market:	4.4%
Area Matrix:	0.0005980
	#5370 Effective Population: 52,070
	#9628 Effective Population: 32,700
	Shared Market population: 30,123



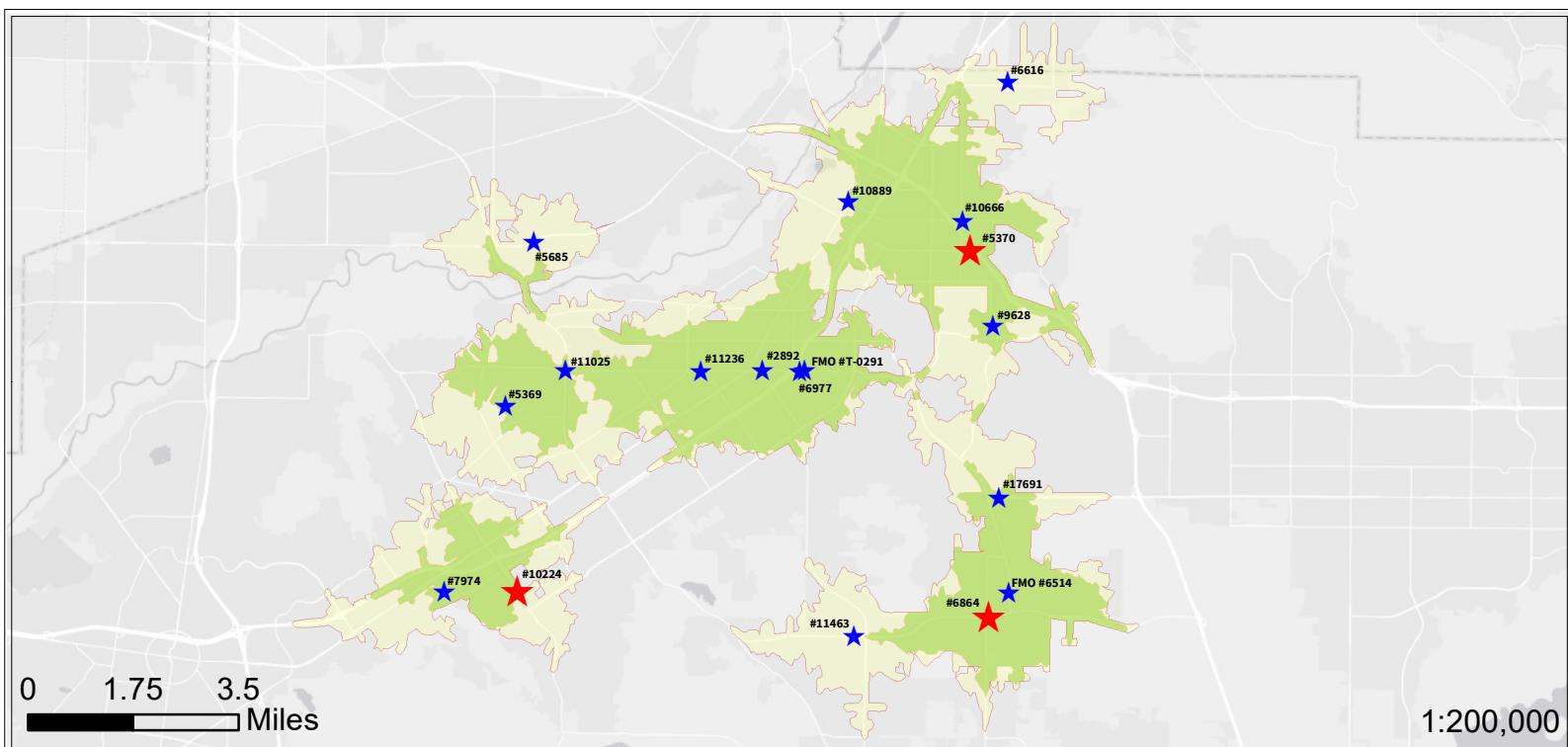
Store Catchment Analysis - Intersect #5370 | #10666

#5370:	Market Overlap Analysis
Service Area Population:	74,995
Population : Market:	7.0%
Area Matrix:	0.007040
#10666:	Drive-time(minutes): 1.03
Service Area population:	78,485
Population : Market:	7.4%
Area Matrix:	0.007947
	#5370 Effective Population: 27,064
	#10666 Effective Population: 28,323
	Shared Market population: 73,012

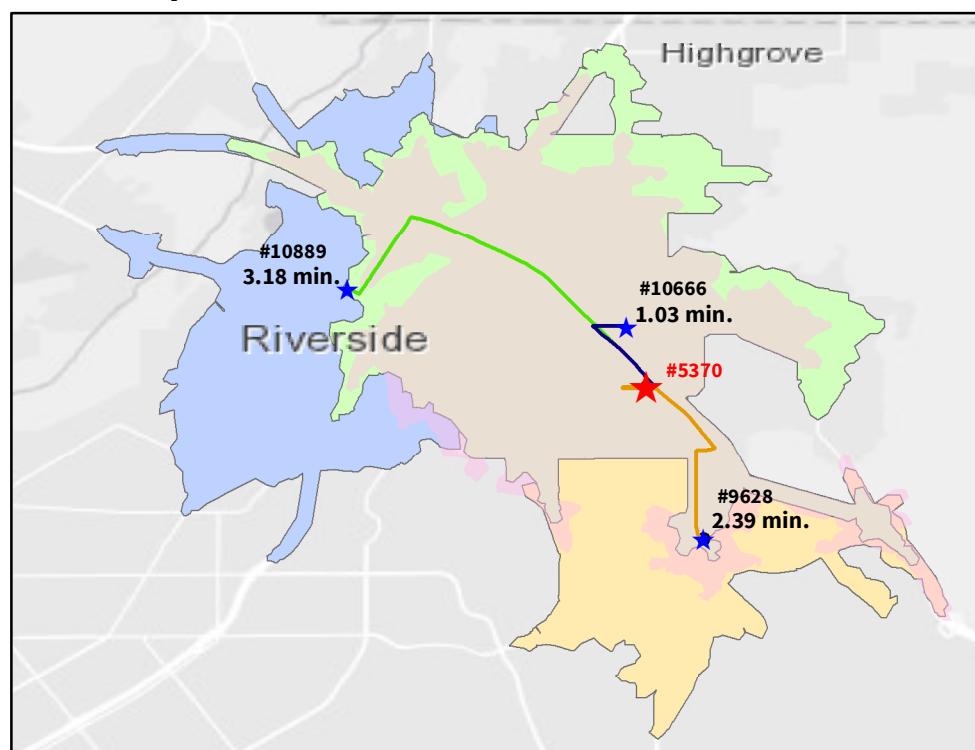
Symbology

Service Area Intersect
 Location A Exclusive Service Area
 Location B Exclusive Service Area

Overview



Closure Option 1: #5370

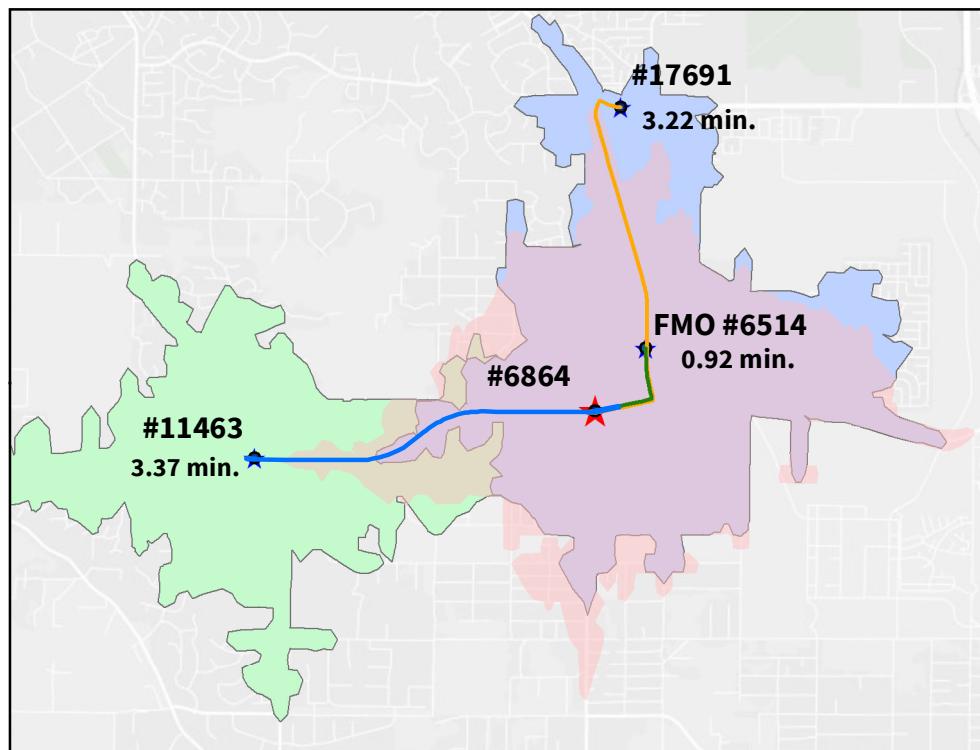


SB#5370

Catchment Population:	74,995
Shared Catchment Poulation:	103,135
Shared #9628:	30,123
Shared #10666:	73,012
Nearest Locations:	
#9628:	2.33 min.
#10666:	1.03 min.
#10889:	3.18 min.

The 'Closure Option 1' map depicts the extent of the overlap across 3 services areas. Prior overlap analysis (Exhibit 4, subset 2 & 3), clearly illustrated significant catchment population overlap, as summarized above. Additionally, patrons effected drive-times as a result of a closure would be minimized with #5370.

Closure Option 2: #6864

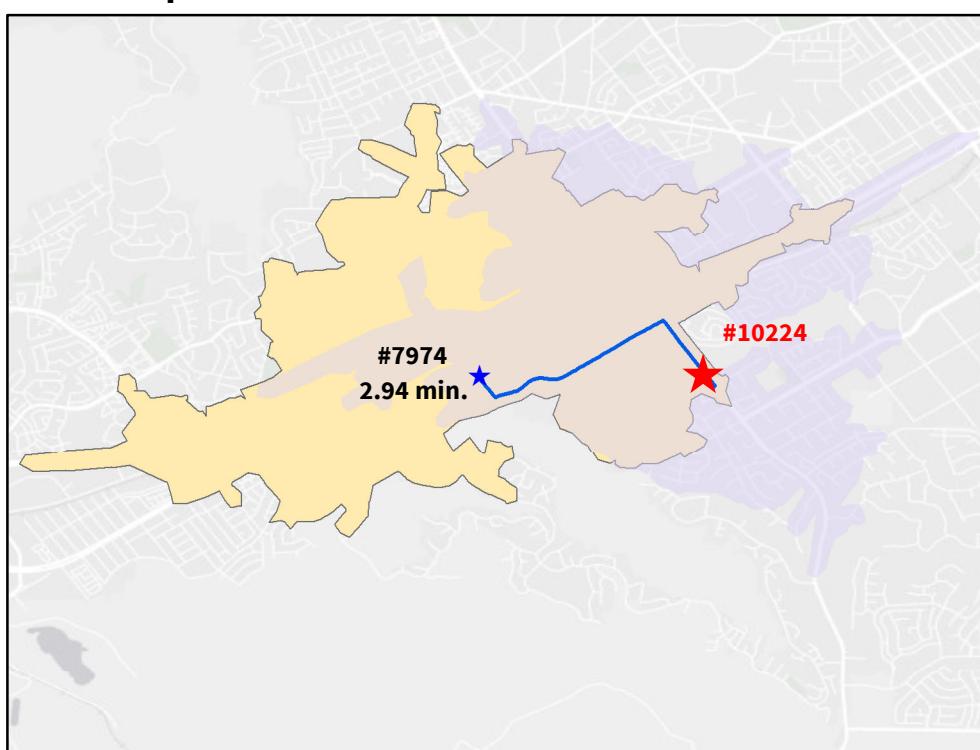


SB#6864

Catchment Population:	42,657
Shared Catchment Poulation:	33,106
Shared #6514:	33,106
Nearest Locations:	
#6514:	0.92 min.
#11463:	3.37 min.
#17691:	3.22 min.

The 'Closure Option 2' map depicts the extent of the overlap across 3 services areas. Prior overlap analysis (Exhibit 3, subset 2), clearly illustrated significant catchment population overlap, as summarized above. However, it must also be considered that a large portion of the overlap is with a FMO location versus a stand-alone location with a drive-thru and cafe-seating. Customer seeking either drive-thru or cafe-seating features would have to drive more than 3 minutes to another location offering these features.

Closure Option 1: #10224



SB#10224

Catchment Population:	62,666
Shared Catchment Poulation:	55,364
Shared #7974:	55,364
Nearest Locations:	
#7974:	2.94 min.

The 'Closure Option 3' map depicts the extent of the overlap across 2 services areas. Prior overlap analysis (Exhibit 3, subset 1), clearly illustrated significant catchment population overlap, as summarized above. However, this option shows that closure of this location would reduce market catchment. Patrons in the eastern sections of the service area would experience greater than 3 minute drive times to the remaining location.