



FY 2019 Unrestrained Dog Population Study



CITY OF SAN ANTONIO
ANIMAL CARE SERVICES
DEPARTMENT

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Executive Summary

Background

Animal Care Services (ACS) is the City of San Antonio's municipal animal shelter entrusted with maintaining and enforcing animal ordinances within the City of San Antonio. In 2004, a local newspaper published an article titled "Death by the Pound" which highlighted the shelter's 90% euthanasia rate and made a compelling case for change. In 2006 the first formal strategic plan was created increasing the Live Release rate to 26% in Fiscal Year (FY) 2010. During FY 2011, a second strategic plan was created and since then ACS has improved the organization's Live Release Rate from 32% to 91%. This success is attributed to its management, and the many partners created as a result of the effectiveness of the revised Department Strategic Plan, initially established in FY 2011. This plan included an equitable dispersion of resources, increased partner support, diversified pet outcome options, and innovation within new and existing ACS Programs. Despite these improvements many challenges remain, including the number of reports concerning loose (unrestrained) dogs in the community.

The Problem

ACS and its partners have performed tens of thousands of spay and neuter surgeries since FY 2013 (over 150,000 total surgeries) and have witnessed a steady decline in total city-wide dead animal pickup. This decline suggests a decrease in the total unrestrained dog population. However, ACS continues to impound a similar number of animals annually and continuing to receive roughly 70,000 resident calls for service for the last three years. To better understand the population and composition of unrestrained dogs in the community, ACS conducted a study in FY 2019 with the following objectives:

1. Gain an understanding of the total number of unrestrained dogs in San Antonio.
2. Determine the total number of unrestrained dogs that are owned "roaming" dogs and unowned "stray" dogs as defined in the study.
3. Identify measurable metrics that can be used to help estimate unrestrained dog population changes in the future.



The surveys ACS conducted utilized the assistance of volunteers to complete physical counts of dogs. After receiving training, volunteers identified the number of unrestrained dogs within pre-defined geographic areas, and classified each unrestrained dog as "stray" or "roaming." For the purpose of this study, ACS has defined and identified "stray" dogs to be unowned dogs, and "roaming" dogs as likely to be owned dogs.



[Stray Dog Example Photo](#)



[Roaming Dog Example Photo](#)

Results

Based on the data collected from the surveys, ACS estimates the total unrestrained dog population is approximately 34,636 at any given time. ACS estimates, at a 95% confidence level, that between 87.2% and 96.5% of all unrestrained dogs are likely owned "roaming" dogs.

Analysis of the study data also identified the strongest relationship between the shelter metrics and the study data was identified between the observed unrestrained dogs and dead dogs picked up during FY 2018, but at a P-value of 0.4 the relationship does not hold any statistical significance. All other variables that were compared did not present any statistically significant relationships, but the comparison between census tract populations and the observed unrestrained dogs confirmed that population size is not a predictor of a census tracts' unrestrained dog population. However, dead animal pickups will continue to be monitored and additional analysis from future unrestrained dog studies could provide the information needed to identify alternative metrics to serve as the primary data source for predicting the unrestrained dog population in San Antonio.

Included in this report are the strategies and methods ACS developed to implement the FY 2019 Unrestrained Dog Population Study. A full-detailed analysis of the findings and implications of the results are available in this report along with corresponding appendices.



Table of Contents

Executive Summary	3
Background	3
The Problem	3
Survey Description	3
Results	4
Table of Contents	5
Background	6
Unrestrained Dog Study	7
Study Methodology	8
Classifying the Dogs	8
Implementation of the Study	9
Unobserved Dog Survey	10
Results	11
Understanding the Unrestrained Dog Population	11
Stray Dog and Roaming Dog Populations	11
Analysis of Survey Results and Shelter Metrics	12
Conclusion	12
Impact of Stray vs Roaming Findings	12
Impact of the Population Estimate	13
Future Studies	14
Appendices	15
Appendix A: Detailed Survey Methodology	16
Appendix B: Statistical Analysis	17
Appendix C: Survey Results by Census Tract	18
Appendix D: Survey Areas Selected for the Study	19
Appendix E: Stray Dog Characteristics	20
Appendix F: Roaming Dog Characteristics	21
Appendix G: Survey Tract Maps and Photos	23
Appendix H: Volunteer Training Presentation	63
Appendix I: Volunteer Recruiting Flyer	68
Appendix J: Volunteer Participation Waiver	69



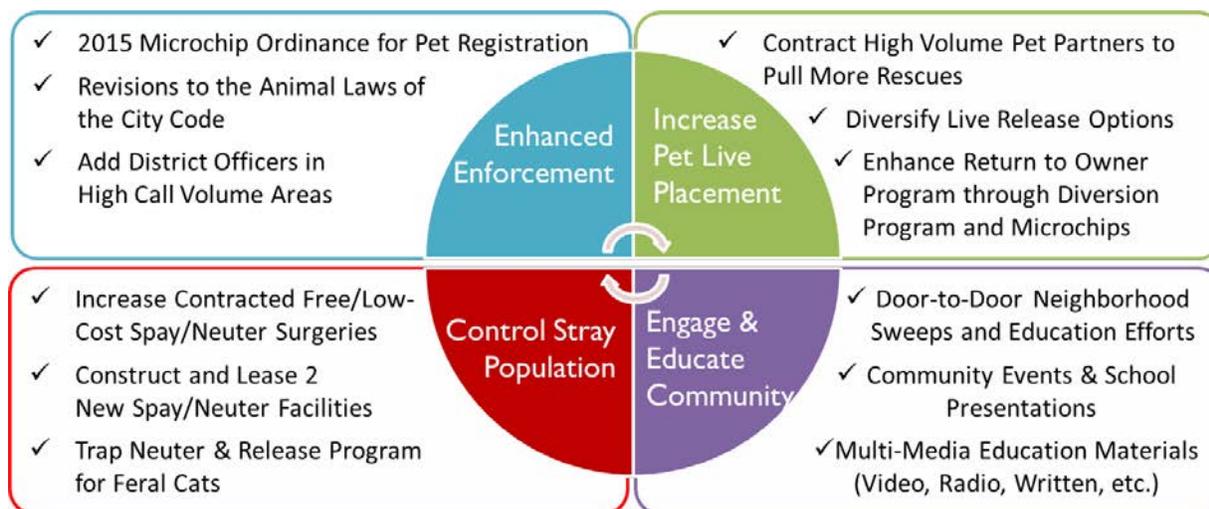
Background

The City of San Antonio Animal Care Services (ACS) is the largest, open admission, municipal shelter in South Texas. ACS has become an industry leader by adopting best practices that encourage responsible pet ownership, establishing strong community partnerships, and innovating within programs that protect the health, safety, and welfare of residents and their pets. ACS has prioritized proactive solutions, which include a strengthened spay and neuter program, and has set ambitious goals to reduce euthanasia rates.

In 2004, ACS was a different organization. At that time, San Antonio euthanized more pets per capita than any other major city within the United States. A local newspaper published an article titled "Death by the Pound" which highlighted the shelter's 90% euthanasia rate and made a compelling case for change. In 2006, ACS created its first strategic plan which established the singular goal of reaching a 70% Live Release rate by the year 2012.

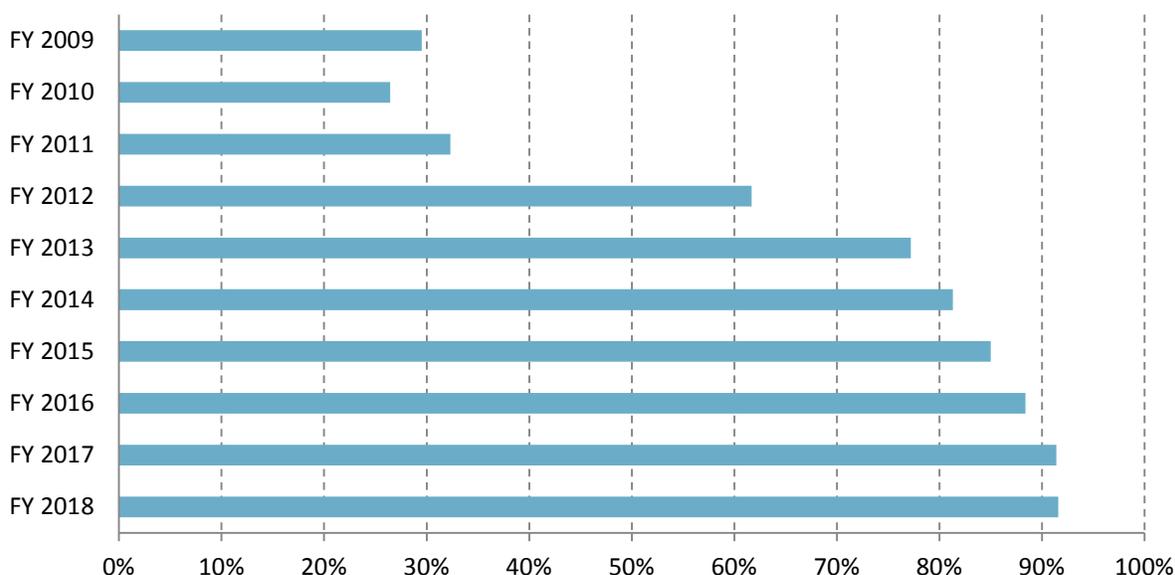
In Fiscal Year (FY) 2011, ACS increased its live release rate to 32%, but realized that there were not enough proactive measures being taken to facilitate growth. Additionally, the community demanded more enforcement to alleviate issues caused by unrestrained dogs. With the assistance of the City's Office of Innovation and support from City leadership and City Council, ACS re-evaluated the department's processes and programs and revised its strategic plan to incorporate a more balanced approach between public safety and finding live placement for shelter pets. The 2011 Strategic Plan focused on three primary strategic priorities: 1) Increase the live release rate; 2) enhance enforcement; and 3) control the stray pet population. In FY 2015, ACS added the fourth strategic priority: to engage and educate the community. The image below shows the four strategic priorities with details of what ACS has done to fulfill each priority.

ACS Strategic Priorities



Since FY 2017, ACS has consistently maintained an annual Live Release rate higher than 90%, and has implemented initiatives aligned with the organization’s four strategic priorities. A 90% Live Release rate is the animal-wellness standard for qualifying as a no-kill shelter. ACS is an open admissions shelter and does not claim to be a no-kill shelter, but has achieved the nationally recognized standard that would qualify for the title. Despite this progress, improving ACS services remains a top priority of residents. The City’s 2017 “Resident Feedback Survey” listed all four ACS strategic priorities among the top concerns of San Antonio’s communities. Moving forward, ACS will continue to innovate and revise shelter programs and practices to support the four strategic priorities.

ACS Live Release Rate by Fiscal Year



Unrestrained Dog Study

ACS is committed to utilizing departmental resources to their fullest by distributing services in an equitable manner across the city. Resources are distributed based on each neighborhood’s need for services, which has been measured historically by the total number of bites, calls for service, and impounded animals originating from each area. In order to deliver on the community’s priority of better controlling the unrestrained dog population, a more proactive and predictive approach is required. ACS will continue to improve the equitable distribution of resources by utilizing the analysis conducted in this study.

Prior to this study, San Antonio had never conducted a formal study of the unrestrained dog population. Older reports predicted unrestrained dog populations with rough estimates and delivered unreliable results. Previous estimations did not incorporate any observational data beyond historical metric data, and have referenced an estimated unrestrained dog population of 150,000 dogs since 2012.



To address the need for an updated unrestrained dog population estimation, a study methodology was created to produce a more accurate estimate of the unrestrained dog populations in San Antonio. The process for gathering empirical data was designed to be consistent, so that multiple survey areas could be executed by different teams without compromising the integrity of the data. The study was designed to achieve the following three goals:

1. Gain an understanding of the total number of unrestrained dogs in San Antonio.
2. Determine the total number of unrestrained dogs that are owned “roaming” dogs and unowned “stray” dogs as defined in the study.
3. Identify measurable metrics that can be used to help estimate unrestrained dog population changes in the future.

Study Methodology

Given the costs of having a third party conduct a survey, the study and its methodology was completed with the assistance of ACS Advisory Board Members, residents, and ACS staff. Additionally, Dr. Travis Block, a former ACS Advisory Board Member and current Senior Scientist at StemBioSys, participated as a consultant on study design and statistics to ensure that the study methodology was scientifically valid. In consultation with Dr. Block, ACS determined that the best way to conduct the survey would be to take a physical count of unrestrained dogs within a set number of areas to serve as a representative sample of San Antonio (see [Appendix G](#) to view individual Survey Tract Maps and Photos).



Travis Block, Ph.D.

Data was collected with an understanding of the limitations and unpredictability that comes with unrestrained dogs. To avoid weather extremes that would lead to dogs being inactive or hiding, every survey route was completed between the hours of 9:00AM and 1:00PM of the spring and summer. Additionally, surveys were scheduled to avoid storms or shortly after rainfall, when it was assumed there would be low to no activity (see [Appendix C](#) for Survey Results by Census Tract).

Classifying the Dogs

Each recorded dog was unrestrained at the time of observation. A dog is unrestrained if they wander freely in open areas without attachment to any type of harness, tether or leash. This includes any dogs in a yard with an open gate that allows free access to the neighborhood, even if the dog is on their own property at the time of observation.



Also, each observed dog was classified as either a “stray” likely unowned dog or a “roaming” likely owned dog based on their observed interactions and visible physical attributes. A stray dog is typically malnourished, has unkempt fur, wears no visible objects of ownership (such as a collar), and is often afraid of human interaction. Stray dogs presumably do not have owners.



Free of Restraint Dog: On property with open front gate.

Conversely, roaming dogs presumably have an owner, and are typically well-nourished, have clean fur, and often welcome human interaction.

Implementation of the Study

ACS sought the assistance of volunteers to reduce expenses and cover more survey routes than ACS staff could perform on their own (see [Appendix A](#) for the Detailed Survey Methodology). ACS solicited the aid of volunteers through advertising in City Council District Offices, ACS social media, and at community meetings (see [Appendix I](#) to view the Volunteer Recruiting Flyer). Volunteers completed a questionnaire and were assigned a region-specific headquarters based on their availability. All volunteers signed a participation waiver and were shown a project overview and safety presentation during the morning orientation of their survey (see [Appendix J](#) to view the Volunteer Participation Waiver and [Appendix H](#) to view the Volunteer Training Presentation). The presentation highlighted the differences between a stray dog and a roaming dog, and volunteers were given a reference photo with characteristics of each type. Volunteers were instructed to record every unrestrained dog they observed and take a photo if possible. The photos are not required for the validity of the survey, but were requested to help maintain the transparency of the collected data. Following the surveys, photos reviewed by ACS staff to confirm the classifications of stray vs. roaming dogs and removed any photos of properly tethered dogs (see [Appendix E](#) for Stray Dog Characteristics and [Appendix F](#) for Roaming Dog characteristics).



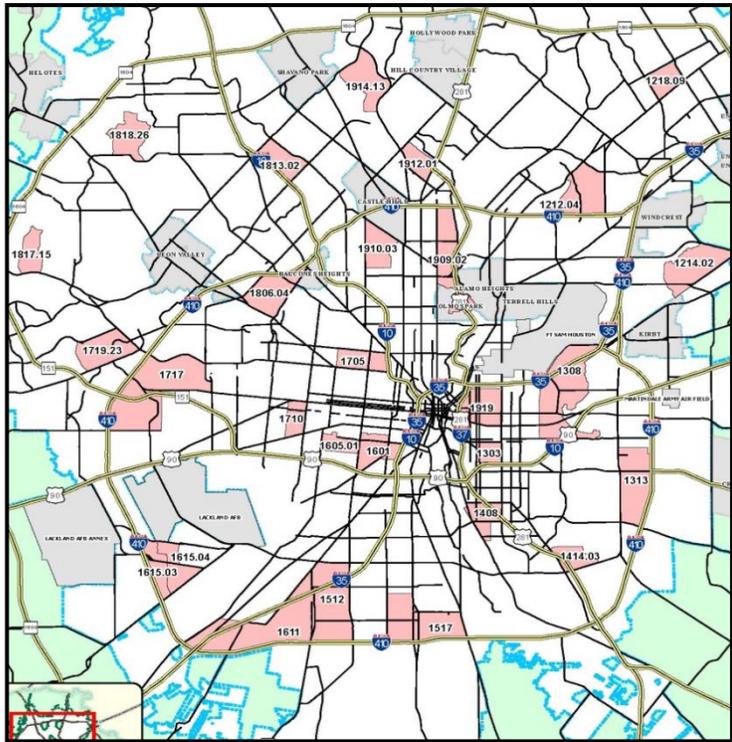
[Stray Dog Example Photo](#)



[Roaming Dog Example Photo](#)



Each survey team was comprised of at least two people, with one serving as the driver and the other(s) serving as navigator(s) and dog observer(s). During the surveys, each team was given a random driving route with directions to keep volunteers within a selected project survey area. As a safety precaution, survey area routes were designed to avoid major street intersections, assuming dogs would generally avoid high traffic areas, and were designed to avoid left turns if possible (see Appendix D for a full image the selected survey areas).



[Appendix D: Survey Areas Selected for the Study](#)

Two preliminary survey routes were completed by ACS staff members in the spring of 2018 to test the methodology and refine the

volunteer instructions before the larger-scale volunteer-led efforts took place. Those larger surveys were conducted in the summer of 2018. All routes were identified in advance by ACS staff and were selected to ensure proportionate geographic distribution across the city. Routes were randomly assigned to each group of volunteers.

Survey	Number of Routes	Date(s)
Preliminary Routes	2	March 22, 2018 & April 2, 2018
Large-scale Survey #1	13	June 15, 2018
Large-scale Survey #2	7	July 27, 2018
Follow-up Surveys	6	August 4-11, 2018
"Unobserved Dog" Survey	3(x2)	January 24, 2019

Unobserved Dog Survey

After reviewing the data from the initial 28 survey areas, and the original methodology, it was determined that surveys conducted in the same areas on the same day would count for the unobservable dog population. ACS conducted three additional survey routes where the highest numbers of unrestrained dogs had been observed during previous surveys. The purpose of this final set of routes was to understand the mobility of unrestrained dogs, which would help estimate the number of "unobserved dogs" in an area. This final set of surveys was conducted on January 24, 2019, and consisted of ACS staff members conducting a count and characterization of all dogs within a given area in the morning, and then returning for a second count and characterization a few hours later. By comparing the photos taken during the two



observations, ACS staff could determine whether the same dogs appeared during both observations, or if some dogs were no longer present while new dogs had appeared. Methods developed by the World Health Organization and published in *Guidelines for dog population management* (Bogel et al., 1990) were used to determine the likelihood of a given dog being observed during the survey, and then adapted to determine the total population of unrestrained dogs in the city (see [Appendix B](#)).

Results

Understanding the Unrestrained Dog Population

The first objective of the survey data was to gain an understanding of the total number of unrestrained dogs in San Antonio. Based on the data collected, the citywide population of unrestrained dogs is estimated to be approximately 34,363, at any given time. A limitation of this data is that the survey methodology used by this study is only able to estimate the unrestrained dog population at a single point in time. Many more dogs than 34,363 likely roam, but are not always unrestrained. For example, if the average roaming dog, is restrained 1/3 of time, the study likely underestimated the total number of dogs that contribute to the unrestrained dog problem by 1/3. This is important, because even temporarily unrestrained animals can reproduce and ultimately increase the total unrestrained dog population.

Stray Dog and Roaming Dog Populations

The second objective of the survey was to identify the makeup of the unrestrained dog population (stray dogs vs. roaming). The initial 28 surveys observed a total of 139 dogs, 129 of which were classified by the study's definition as roaming (93%). At a 95% confidence level, this indicates that between 87.2% and 96.5% of unrestrained dogs in San Antonio are roaming.



Additionally, data from the “unobserved dog” survey indicates significant turnover within the unrestrained dog population. When survey participants returned to their assigned area a few hours after completing an initial observation, the observed dogs were almost completely different from the dogs observed initially. In Census Tract 1710.00 the first survey reported 26 dogs and the second survey reported 35 dogs with only 4 matching dogs between the two observations. Possible explanations for this observation include different dogs being allowed to roam at different times of the day, and/or stable populations of dogs that roam across broader geographic areas. Based on results from this survey, ACS estimates that for every 1 observed unrestrained dog in the community, there are 8.5 unseen dogs (in a backyard, hiding, etc. see [Appendix B](#)).



It is important to note that many photos taken during the surveys show dogs relaxing in the front yard of various properties (presumably their owner's). Based on these observations, ACS speculates some dog owners are intentionally allowing their pets to roam, or are at least aware that their pet roams off of their property. Several dogs observed during the study followed the volunteers' vehicles for a short distance before returning to the yard that it was resting in.

Analysis of Survey Results and Shelter Metrics

The third objective of the survey was to identify alternative metrics that can be used to estimate unrestrained dog population changes in the future. Linear regressions were created to compare the study results with various shelter metrics and census data including, calls for service, dead animal pickup, median household income, and total population. The strongest relationship between the shelter metrics and the study data was identified between the observed unrestrained dogs and dead dogs picked up during FY 2018, but at a P-value of 0.4 the relationship does not hold any statistical significance. All other variables that were compared did not present any statistically significant relationships, but the comparison between census tract populations and the observed unrestrained dogs confirmed that population size is not a predictor of a census tracts' unrestrained dog population. ACS will continue to research performance metrics and operational methods that will improve the equitable distribution of resources. Dead animal pickups will continue to be monitored and additional analysis from future unrestrained dog studies could provide the information needed to identify alternative metrics to serve as the primary data source for predicting the unrestrained dog population in San Antonio.

Conclusion

The population estimates produced by the surveys allow ACS to estimate the total number of stray and roaming dogs at any given time, but it is more difficult to estimate the total number of dogs that may be stray or roaming at any point during a year. As identified in this study, stray dogs always contribute towards the city-wide unrestrained dog population, but the likely owned roaming dogs are only part of the unobserved population when they roam. The majority of the observed unrestrained dogs appeared to be roaming rather than stray. It is more difficult to know how often these dogs are free-of-restraint or whether there are substantially more dogs that may be allowed to roam at other times. However, the findings from this study have several practical uses to the shelter that will be discussed in following segments.

Impact of Stray vs Roaming Findings

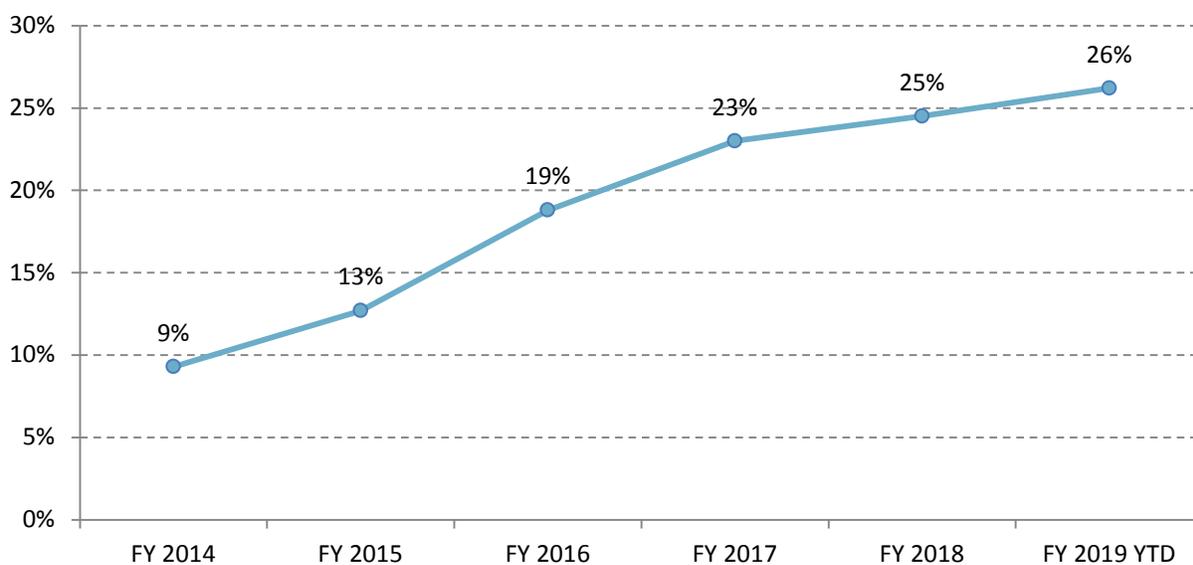
The finding that approximately 93% of unrestrained dogs in San Antonio are roaming instead of strays indicates that San Antonio's free-of-restraint dog problem is primarily attributable to pet owners that allow their dogs to roam. To address this issue, ACS must continue educational



efforts that encourage responsible pet ownership, and incorporate the scientifically valid results of this study to detail the importance of owner responsibility. The department has already created a foundation for such a campaign through the “responsible pet ownership pledge” initiative, for which pet owners are asked to pledge to get their pets fixed, vaccinated, and microchipped, keep pets in an enclosed yard, and obey all San Antonio pet laws.

ACS can also help address this issue by continuing to encourage owners to microchip their pets, which helps to ensure lost or roaming pets are reunited with their owners. In fact, ACS has reported steadily increasing numbers on the percentage of impounded animals returned to their owner, due mostly in part to the city’s pet microchip ordinance that has been in place since the summer of 2015. When a field officer impounds a dog with a microchip they are usually able to return the dog to its owner without the dog being driven to ACS. This practice is cost effective and less time consuming. Additionally ACS can continue to promote spay and neuter programs, which will help prevent roaming dogs from adding to the stray population.

Returns to Owner



Impact of the Population Estimate

As noted earlier, the stray and roaming dog population in San Antonio is estimated to be approximately 34,636 at any given time. This number highlights the importance of spay and neuter programs, which will prevent unwanted litters that would likely add to the stray population or end up impounded by ACS. Additionally, since this large population is made up primarily of what appear to be roaming dogs, the survey’s findings highlight the importance of education and enforcement efforts targeting responsible pet ownership. While 40,000+ spay and neuter surgeries annually is an important tool in controlling and reducing the unrestrained animal population in San Antonio, getting owners to simply keep their dogs within their own



property will immediately reduce the unrestrained population as well as reduce opportunities for unplanned breeding.

Future Studies

Longitudinal studies will be necessary to determine whether any of the data being passively collected by ACS (impoundments, stray dog call-for-service, dead animal pick-up, etc.) may be used to estimate the total unrestrained dog population in the future. While the findings the surveys did produce were valuable, ACS will need to conduct additional surveys in the future in order to achieve this study's third objective. The data collected from this study is only one point on a graph, and as more surveys are completed ACS will be able to determine if there are any correlations between survey observations and historical shelter metric data.

Future studies should focus on the same areas each during each study to identify the strongest possible correlations between the passively collected data and survey results. It is possible that once ACS obtains additional data, the department may be able to replace surveys with an algorithm to predict the untethered dog population using the passively collected data. As few as 4 or 5 additional smaller surveys may be able to accomplish this. However, it may still be necessary to continue to conduct surveys on a less frequent basis in order to maintain an understanding of the ratio of stray to roaming dogs, and ensure the continued validity of this study's statistical models.



Appendices

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Appendix A: Detailed Survey Methodology

There are 300 census tracts in San Antonio, and Dr. Block determined that ACS staff and volunteers would need to survey a minimum of 5% of the total census tracts (17 areas) and 100 dogs in order to collect an appropriate amount of data for the study's goals. By observing at least 100 dogs across all surveys would allow for an accurate stray to roaming dog ratio. In support of the third goal for this survey, and to identify other metrics that can be more easily used to estimate stray and roaming dog populations, each survey area was constrained to a single census tract. ACS historical data metrics including calls for service, dog bite cases, dead animal pickups, and several others were aggregated to display census tract totals for easy comparisons. Additionally, ACS assembled additional census data for the purpose of correlation analyses, including household and population demographics.

Two preliminary survey routes were completed by ACS staff members in the spring of 2018 to test the methodology and refine the volunteer instructions before the larger-scale volunteer-led efforts took place. Those larger surveys were conducted in the summer of 2018. All routes were identified in advance by ACS staff and were selected to ensure proportionate geographic distribution across the city. Routes were randomly assigned to each group of volunteers.

Survey	Number of Routes	Date(s)
Preliminary Routes	2	March 22, 2018 & April 2, 2018
Large-scale Survey #1	13	June 15, 2018
Large-scale Survey #2	7	July 27, 2018
Follow-up Surveys	6	August 4-11, 2018
Unobserved Dog Survey	3(x2)	January 24, 2019

After reviewing the data from the initial 28 survey areas, ACS was not able to accurately estimate stray and roaming dog population size, because there was not a measure in place to calculate the unobserved dogs. However, a dog population model was created by combining ACS data from three additional surveys and census tract data. ACS conducted additional surveys within three areas with the highest observations from previous surveys on January 24, 2019. The number of unique unrestrained dogs observed during the three additional surveys was used to identify the ratio of unobserved dogs within the survey areas. During these surveys each area was counted twice with a few hours apart from each survey. By counting each area twice and reviewing the mobility of unrestrained dogs, the "unobserved dog ratio" of 8.5 was calculated. The unobserved dog ratio was applied to the number of observed dogs in each survey area to produce an estimated stray and roaming dog population for those areas. Lastly, the results from each survey area were expanded to create a population model that represents all of San Antonio.



Appendix B: Statistical Analysis

The World Health Organization (WHO) guidelines for dog population management use the following equation to estimate untethered dog population.

$$N = \frac{m * n}{M + 1} * \frac{\text{total miles}}{\text{observed miles}}$$

Where,

m = dogs observed the first time

n = dogs observed the second time

M = dogs re-observed

N= estimate of total number of untethered dogs

The first part of the equation is intended to correct for the odds of observing a given dog in a given area. Because dogs are frequently out-of-sight (in a backyard, behind a bush, etc.), a given survey is considered to be a sampling of the actual total dog population. By sampling the same area twice in the same day, ACS was able to create a correction factor to adjust for the likelihood of observing an individual animal. In the study a correction factor of 8.5 was calculated, indicating that on a given survey, it is likely that only about 12% of animals in the area surveyed are likely to be observed.

139 unrestrained dogs were observed during the initial set of surveys. Adjusting for the likelihood of observing an individual dog, ACS determined that the 139 dogs observed represent an estimated population of 1,182 in the area observed.

$$139 * 8.5 = 1,181.5$$

Next, ACS used the second half of the WHO equation to extrapolate to the total number of dogs in the census tracts surveyed.

$$1181.5 * \frac{\text{total miles}}{\text{observed miles}} = 1181.5 * \frac{717.97}{256.39} = 3308.54$$

This gave an estimate of the total number of animals within the census tracts observed. If it is assumed that the areas selected for this study are perfectly representative of the entire city, ACS could have used total roadway miles in the city to extrapolate in the previous step. Instead, ACS adjusted for any sampling bias by determining what fraction of the total calls for service in 2018 were in the areas surveyed and extrapolated based on that.

$$3308.54 \text{ dogs in area surveyed} * \frac{111470 \text{ total calls for service}}{10648 \text{ calls for service in survey area}} = 34,636 \text{ total dogs}$$



Appendix C: Survey Results by Census Tract

Census Tract	Date Completed	Total Dogs	Stray	Roaming	Miles Driven	Total Roadway Miles
1719.23	3/22/2018	1	0	1	12.78	23.17
1710	4/2/2018	19	0	19	12.2	16.87
1218.09	6/15/2018	2	0	2	7.84	15.43
1308	6/15/2018	11	0	11	6.3	35.27
1408	6/15/2018	5	2	3	9.5	20.76
1601	6/15/2018	6	4	2	7.01	31.16
1605.01	6/15/2018	15	0	15	8.03	9.68
1615.03	6/15/2018	2	0	2	9.28	28.40
1615.04	6/15/2018	5	0	5	7.55	10.77
1705	6/15/2018	3	1	2	8.83	19.64
1717	6/15/2018	2	0	2	7.1	43.96
1806.04	6/15/2018	6	0	6	11.55	27.62
1817.15	6/15/2018	0	0	0	7.22	14.03
1818.26	6/15/2018	0	0	0	8.33	19.02
1912.01	6/15/2018	4	0	4	10.45	12.43
1214.02	7/27/2018	1	0	1	7.89	24.49
1303	7/27/2018	10	1	9	7	12.58
1313	7/27/2018	2	0	2	8.79	31.69
1414.03	7/27/2018	6	2	4	10.34	13.24
1512	7/27/2018	8	0	8	8.51	91.67
1517	7/27/2018	12	0	12	8.34	28.76
1909.02	7/27/2018	7	0	7	11.6	27.38
1611	8/4/2018	10	0	10	11.7	53.54
1910.03	8/4/2018	0	0	0	10.26	16.06
1919	8/4/2018	0	0	0	9.23	33.70
1813.02	8/8/2018	1	0	1	9.36	16.68
1914.13	8/8/2018	0	0	0	11.1	22.81
1212.04	8/11/2018	1	0	1	8.3	17.15
Total		139	10	129	256.39	717.97



STRAY DOG



CHARACTERISTICS

- No Collar
- Malnourished
- Poor Skin Condition
- Unwashed Fur
- Untrimmed Nails
- Scared/Skittish Behavior



ROAMING DOG



CHARACTERISTICS

- Collar
- Well Fed
- Good Skin Condition
- Well Kept Fur
- Trimmed Nails
- Potentially Friendly Behavior



Appendix G: Survey Tract Maps and Photos

[Survey Tract Maps and Photos Begin on Next Page]



Census Tract 1212.04



District: 10

Distance: 8.3 Miles

Starting Location: 4155 Longvale Dr, San Antonio, TX 78217

Date of Project: 8/11/18

Start Time: 9:27AM

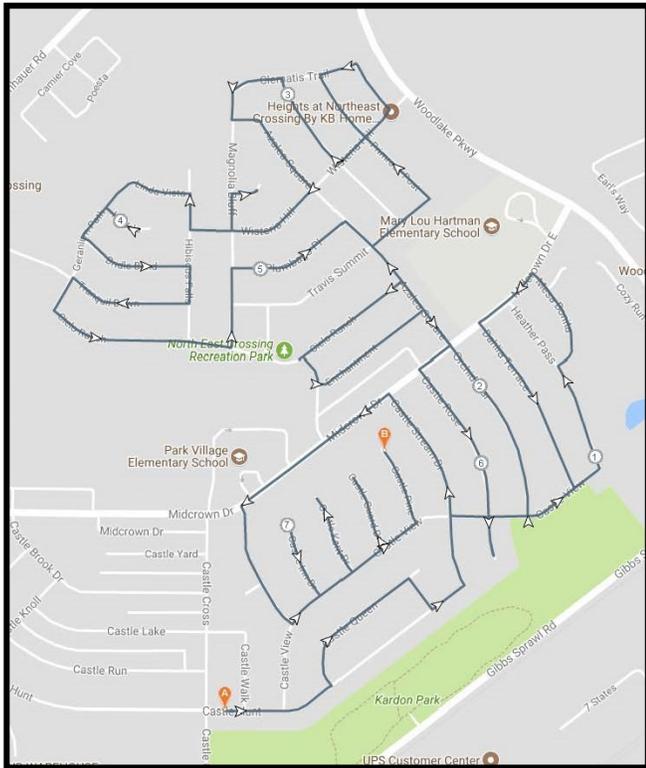
End Time: 10:55AM

Dogs Observed: 1

Photos of Dogs (S)tray or (R)oaming:



Census Tract 1214.02



District: 2

Distance: 7.9 Miles

Starting Location: 5918 Castle Hunt, San Antonio, TX 78218

Date of Project: 7/27/18

Start Time: 9:15AM

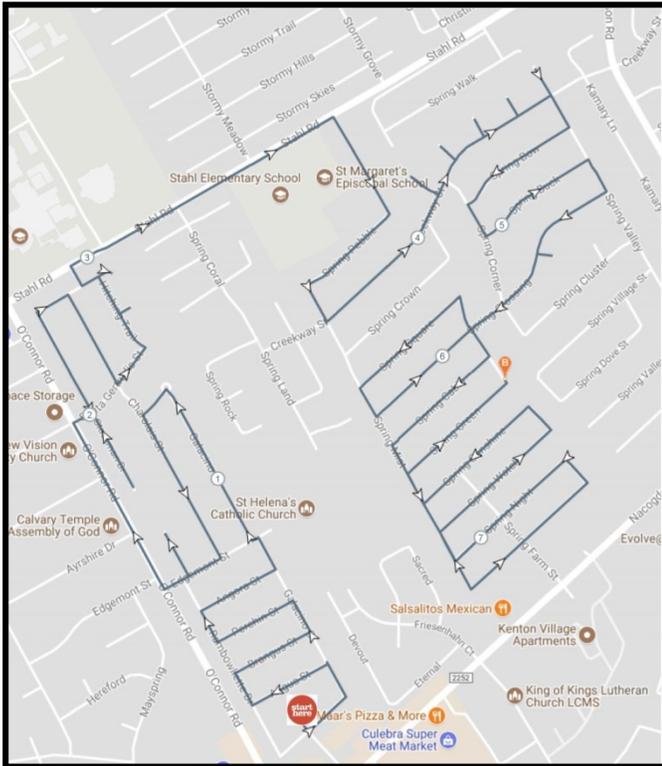
End Time: 10:15AM

Dogs Observed: 1

Photos of Dogs (S)tray or (R)oaming:



Census Tract 1218.09



District: 10

Distance: 7.8 Miles

Starting Location: 5200 Cattleman
San Antonio, TX 78247

Date of Project: 6/15/18

Start Time: 9:05AM

End Time: 11:37AM

Dogs Observed: 2

Photos of Dogs (S)tray or (R)oaming:

R

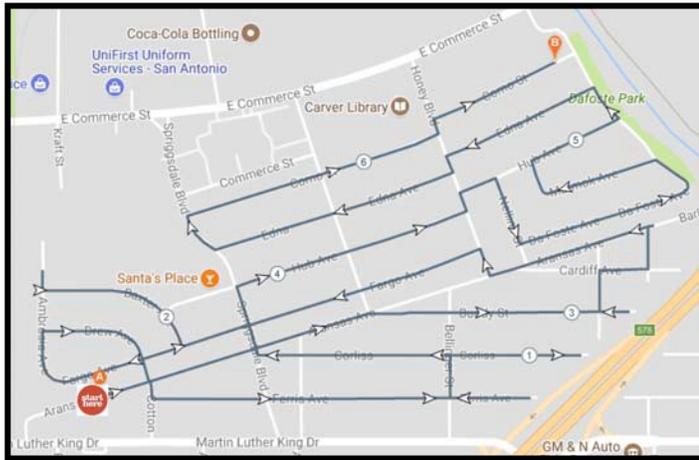
No Photo Available

R

No Photo Available



Census Tract 1308.00



District: 2

Distance: 6.3 Miles

Starting Location: 2138 Aransas Ave. San Antonio, TX 78220

Date of Project: 6/15/18

Start Time: 9:15AM

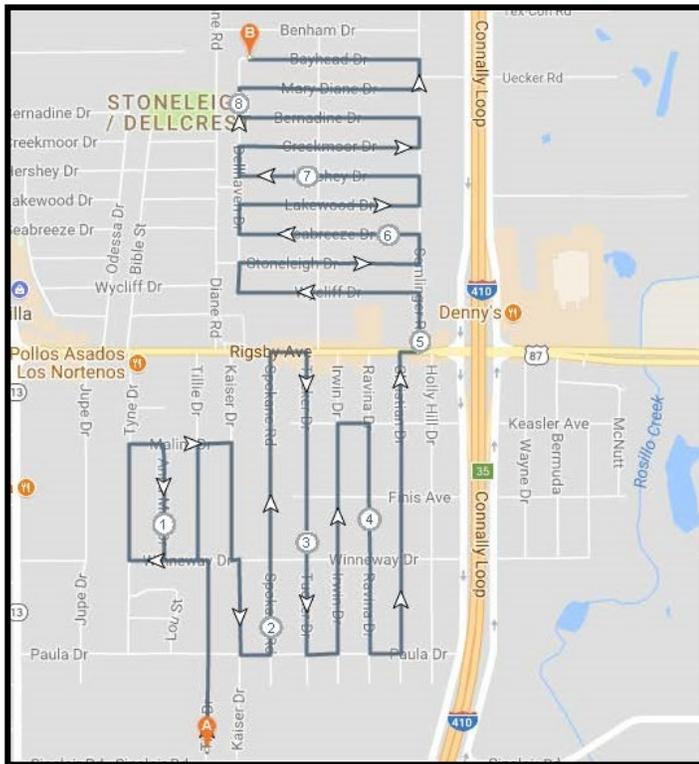
End Time: 10:22AM

Dogs Observed: 11

Photos of Dogs (S)tray or (R)oaming:



Census Tract 1313.00



District: 2

Distance: 8.79 Miles

Starting Location: 3315 Tille Dr.

San Antonio, TX 78222

Date of Project: 7/27/18

Start Time: 9:10AM

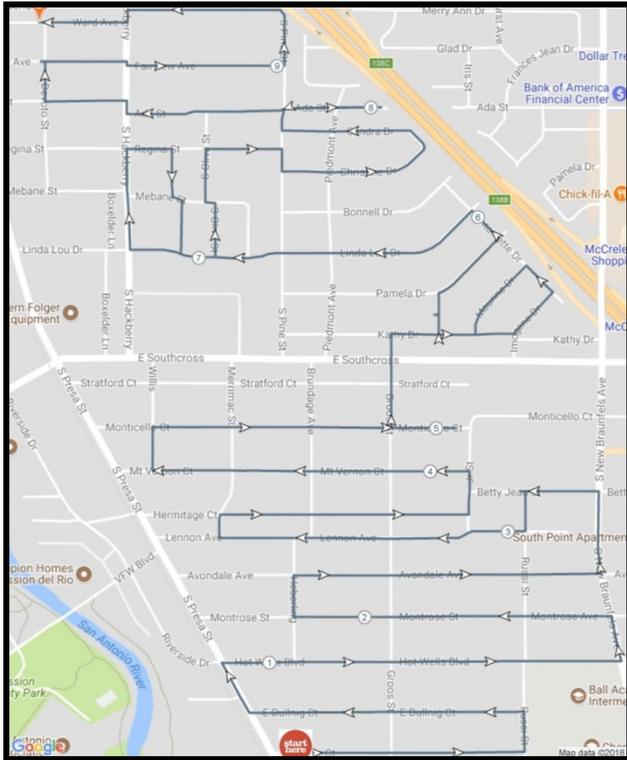
End Time: 10:24AM

Dogs Observed: 2

Photos of Dogs (S)tray or (R)oaming:



Census Tract 1408.00



District: 3

Distance: 9.5 Miles

Starting Location: 119 Koehler Ct.

San Antonio, TX 78223

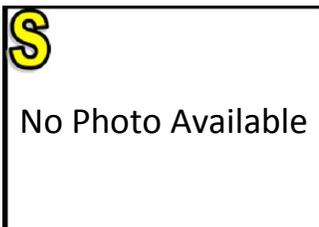
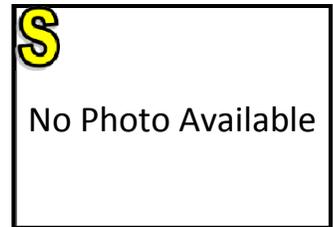
Date of Project: 6/15/18

Start Time: 9:07AM

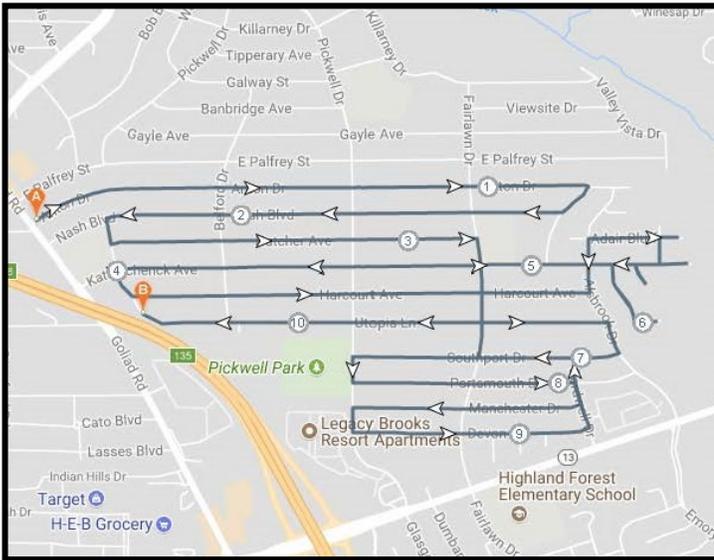
End Time: 10:25AM

Dogs Observed: 5

Photos of Dogs (S)tray or (R)oaming:



Census Tract 1414.03



District: 3

Distance: 10.34 Miles

Starting Location: 102 Anton
San Antonio, TX 78223

Date of Project: 7/27/18

Start Time: 9:20AM

End Time: 11:05AM

Dogs Observed: 6

Photos of Dogs (S)tray or (R)oaming:

R

No Photo Available

R

No Photo Available

R

No Photo Available

R

No Photo Available

S

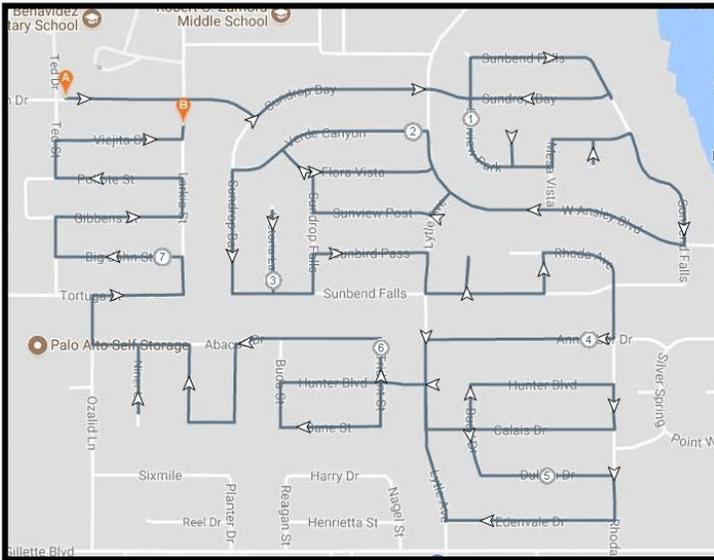
No Photo Available

S

No Photo Available



Census Tract 1512.00



District: 4

Distance: 8.51 Miles

Starting Location: 2626 Patron

San Antonio, TX 782234

Date of Project: 7/27/18

Start Time: 9:25AM

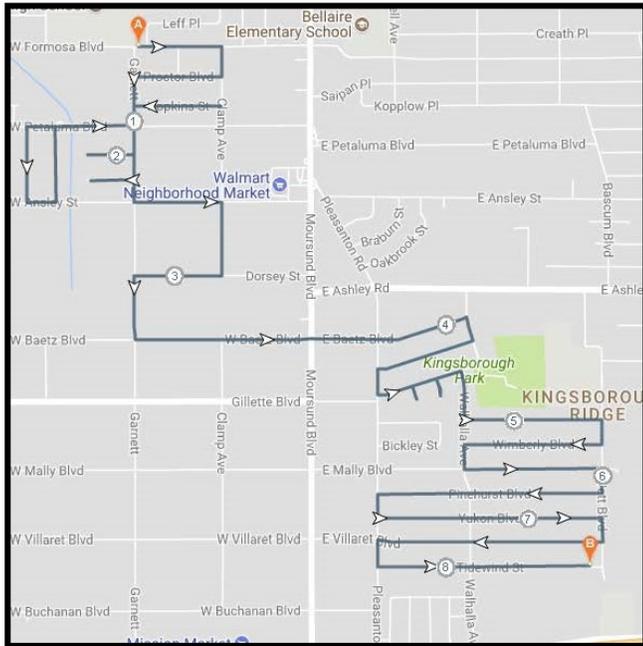
End Time: 10:32AM

Dogs Observed: 8

Photos of Dogs (S)tray or (R)oaming:



Census Tract 1517.00



District: 3

Distance: 8.34 Miles

Starting Location: 438 W. Formosa Blvd., San Antonio, TX 78221

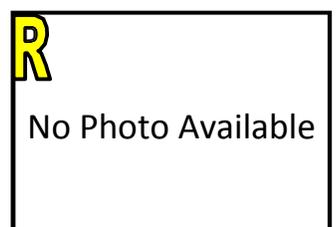
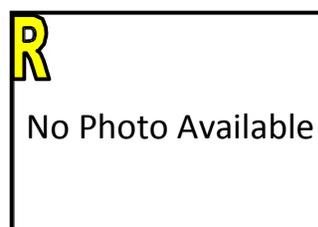
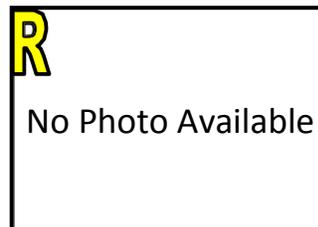
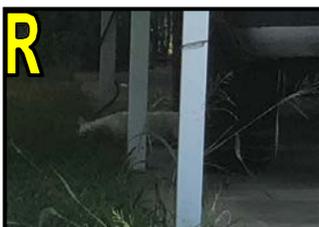
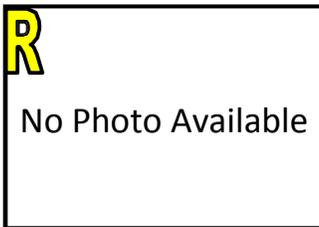
Date of Project: 7/27/18

Start Time: 9:00AM

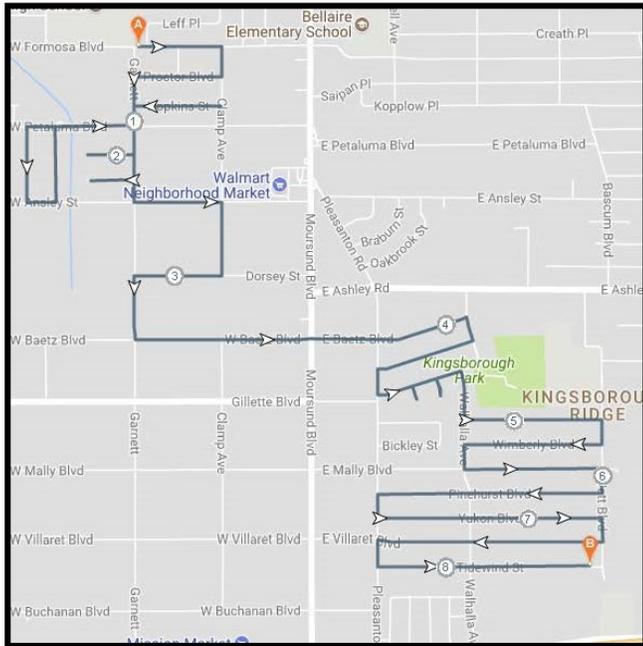
End Time: 11:45AM

Dogs Observed: 12

Photos of Dogs (S)tray or (R)oaming:



Census Tract 1517.00



District: 3

Distance: 8.34 Miles

Starting Location: 438 W. Formosa Blvd., San Antonio, TX 78221

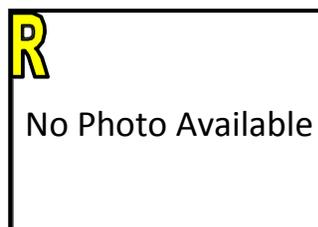
Date of Project: 1/24/19

Start Time: 8:00AM

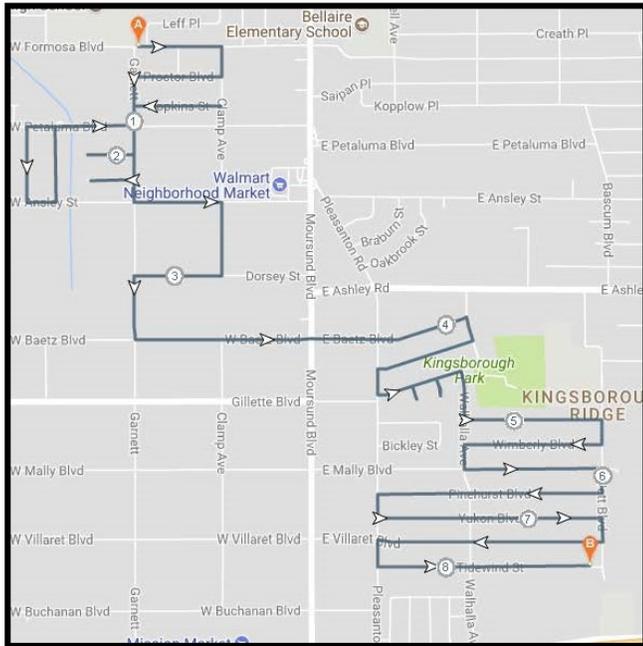
End Time: 9:00AM

Dogs Observed: 7

Photos of Dogs (S)tray or (R)oaming:



Census Tract 1517.00



District: 3

Distance: 8.34 Miles

Starting Location: 438 W. Formosa Blvd., San Antonio, TX 78221

Date of Project: 1/24/19

Start Time: 10:25AM

End Time: 11:15AM

Dogs Observed: 15

Photos of Dogs (S)tray or (R)oaming:

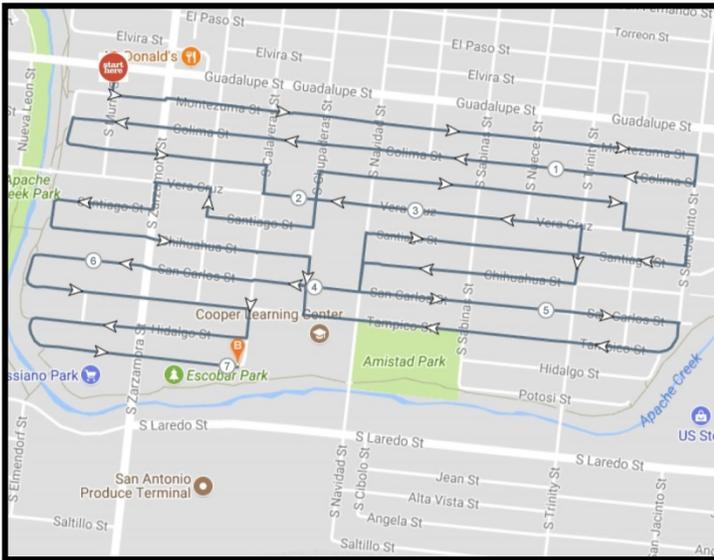


Census Tract 1517.00

Photos of Dogs (S)tray or (R)oaming:



Census Tract 1601.00



District: 5

Distance: 7.0 Miles

**Starting Location: 911 S Murry St.
San Antonio, TX 78207**

Date of Project: 6/15/18

Start Time: 9:13AM

End Time: 10:39AM

Dogs Observed: 6

Photos of Dogs (S)tray or (R)oaming:

R

No Photo Available

S

No Photo Available

S

No Photo Available

S

No Photo Available

S

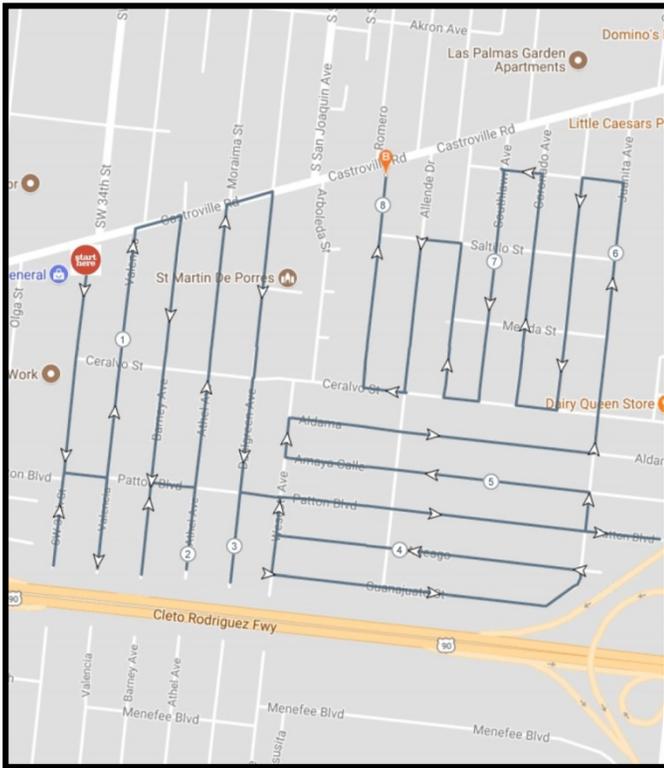
No Photo Available

R

No Photo Available



Census Tract 1605.01



District: 5

Distance: 8.0 Miles

Starting Location: 1814 SW 34th St., San Antonio, TX 78237

Date of Project: 6/15/18

Start Time: 9:00AM

End Time: 11:00AM

Dogs Observed: 15

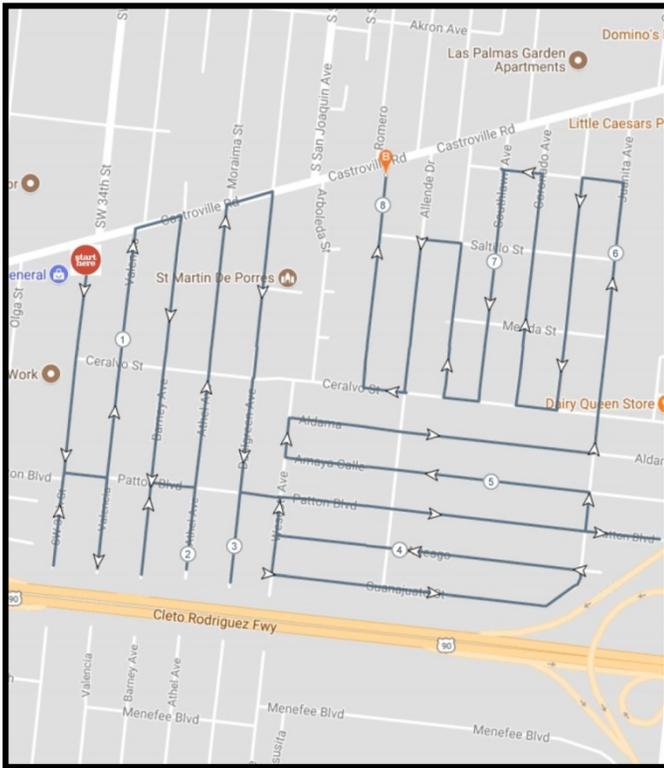
Photos of Dogs (S)tray or (R)oaming:



Census Tract 1605.01



Census Tract 1605.01



District: 5

Distance: 8.0 Miles

Starting Location: 1814 SW 34th St., San Antonio, TX 78237

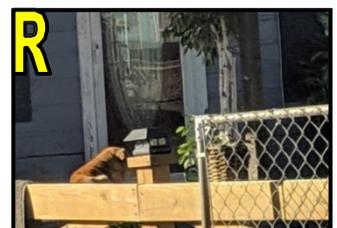
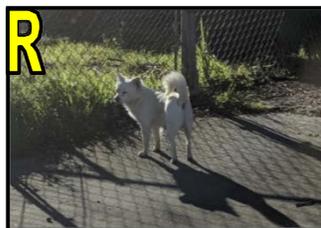
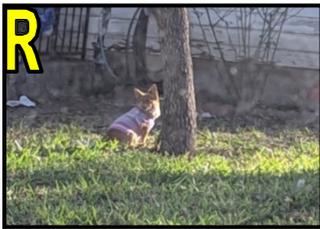
Date of Project: 1/24/19

Start Time: 9:00AM

End Time: 9:59AM

Dogs Observed: 20

Photos of Dogs (S)tray or (R)oaming:



Census Tract 1605.01



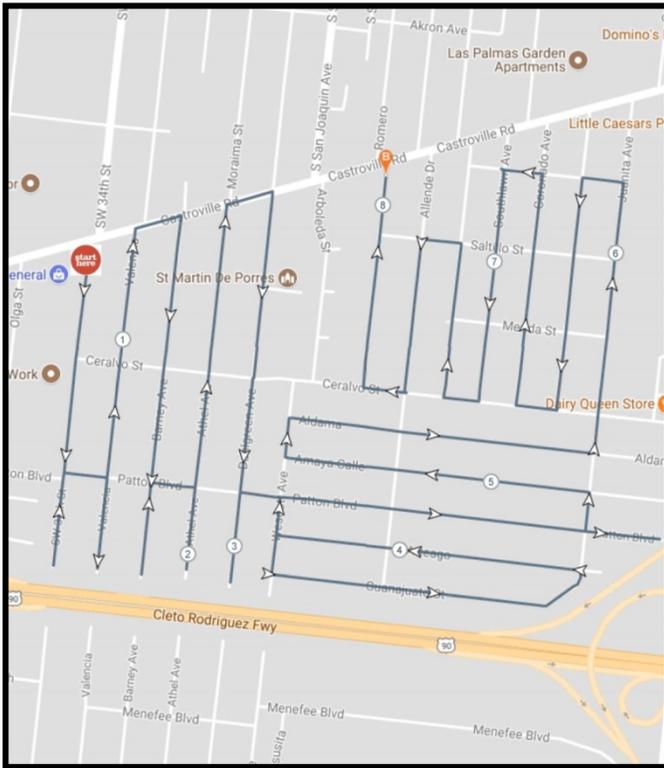
R
No Photo Available

R
No Photo Available

R
No Photo Available



Census Tract 1605.01



District: 5

Distance: 8.0 Miles

Starting Location: 1814 SW 34th St., San Antonio, TX 78237

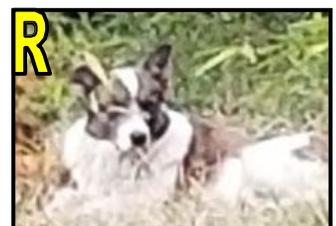
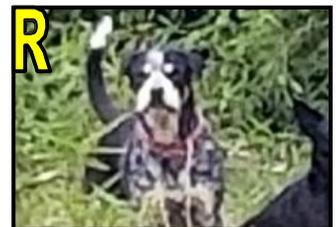
Date of Project: 1/24/19

Start Time: 10:30AM

End Time: 11:30AM

Dogs Observed: 12

Photos of Dogs (S)tray or (R)oaming:



Census Tract 1611.00



District: 4

Distance: 11.7 Miles

Starting Location: 9518 Wikieup

Dr. San Antonio, TX 78211

Date of Project: 8/4/18

Start Time: 9:37AM

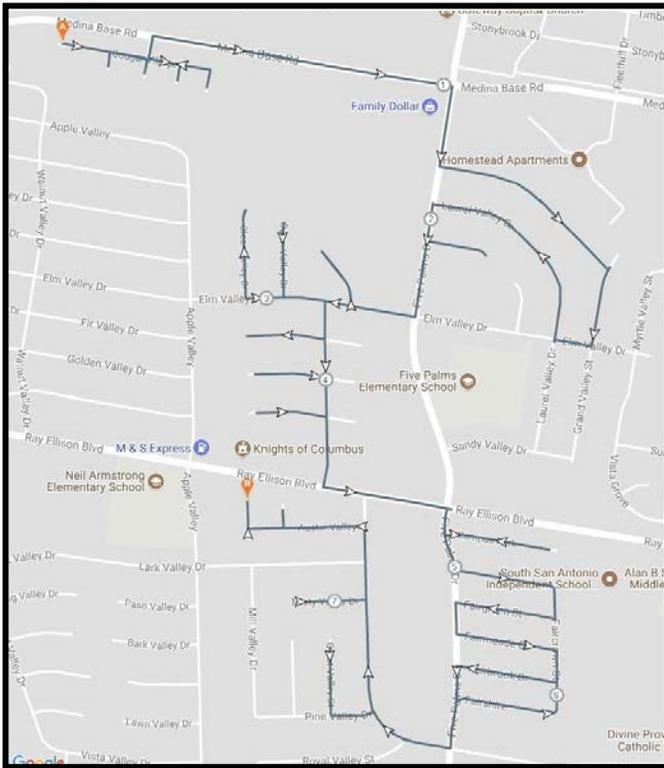
End Time: 10:24AM

Dogs Observed: 10

Photos of Dogs (S)tray or (R)oaming:



Census Tract 1615.04



District: 4

Distance: 7.6 Miles

Starting Location: 6727 Cougar Village, San Antonio, TX 78242

Date of Project: 6/15/18

Start Time: 9:24AM

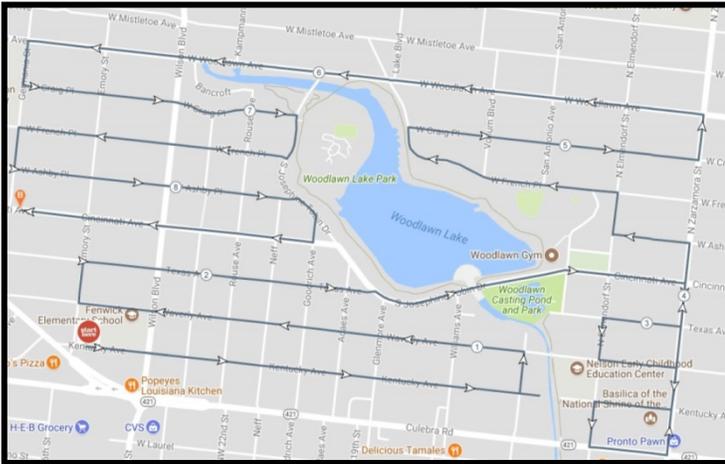
End Time: 10:39AM

Dogs Observed: 5

Photos of Dogs (S)tray or (R)oaming:



Census Tract 1705.00



District: 7

Distance: 8.8 Miles

Starting Location: 1944 Kentucky Ave, San Antonio, TX 78228

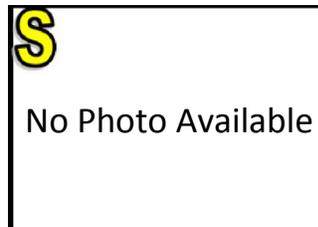
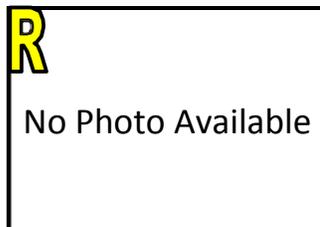
Date of Project: 6/15/18

Start Time: 9:16AM

End Time: 10:23AM

Dogs Observed: 3

Photos of Dogs (S)tray or (R)oaming:



Census Tract 1710.00



District: 5

Distance: 12.2 Miles

Starting Location: 201 Enrique Barrera, San Antonio, TX 78237

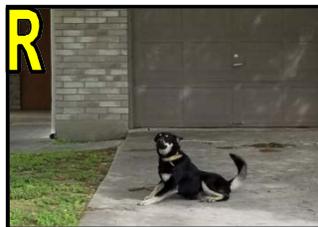
Date of Project: 6/15/18

Start Time: 10:34AM

End Time: 11:48AM

Dogs Observed: 19

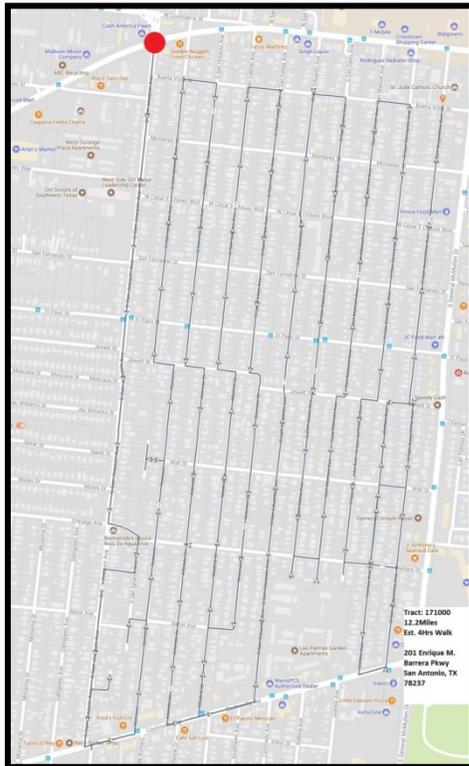
Photos of Dogs (S)tray or (R)oaming:



Census Tract 1710.00



Census Tract 1710.00



District: 5

Distance: 12.2 Miles

Starting Location: 201 Enrique Barrera, San Antonio, TX 78237

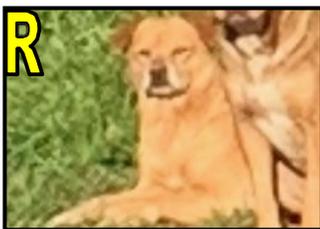
Date of Project: 1/24/19

Start Time: 8:40AM

End Time: 10:00AM

Dogs Observed: 26

Photos of Dogs (S)tray or (R)oaming:



Census Tract 1710.00



Census Tract 1710.00



District: 5

Distance: 12.2 Miles

Starting Location: 201 Enrique Barrera, San Antonio, TX 78237

Date of Project: 1/24/19

Start Time: 10:16AM

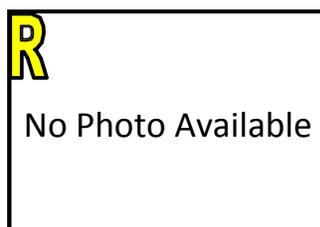
End Time: 11:41AM

Dogs Observed: 35

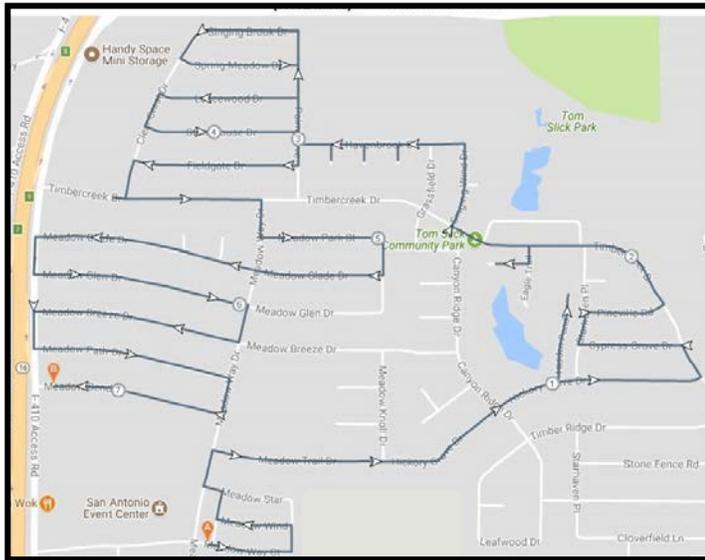
Photos of Dogs (S)tray or (R)oaming:



Census Tract 1710.00



Census Tract 1717.00



District: 6

Distance: 7.1 Miles

Starting Location: 7962 Meadow Way Ct. San Antonio, TX 78227

Date of Project: 6/15/18

Start Time: 10:14AM

End Time: 11:08AM

Dogs Observed: 2

Photos of Dogs (S)tray or (R)oaming:

R

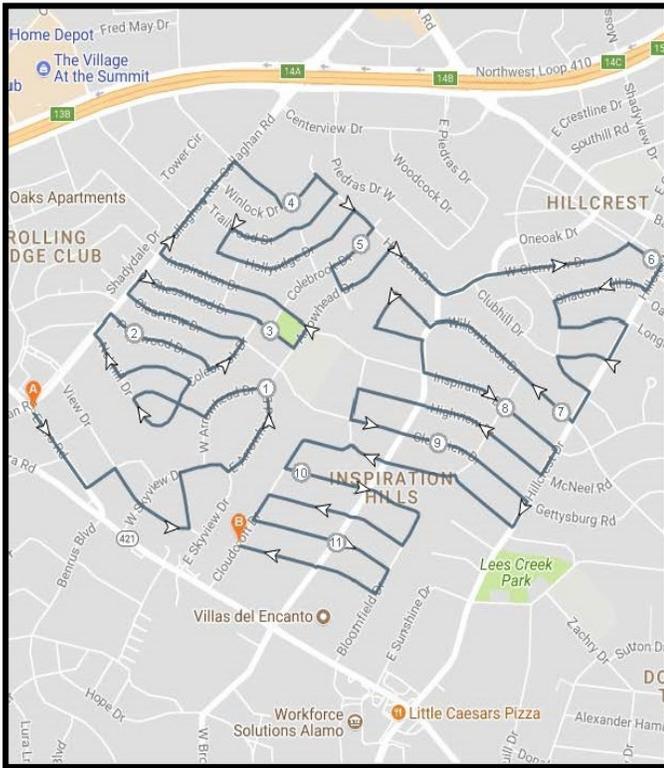
No Photo Available

R

No Photo Available



Census Tract 1806.04



District: 7

Distance: 11.6 Miles

Starting Location: 4947 Evers Rd.

San Antonio, TX 78228

Date of Project: 6/15/18

Start Time: 9:10AM

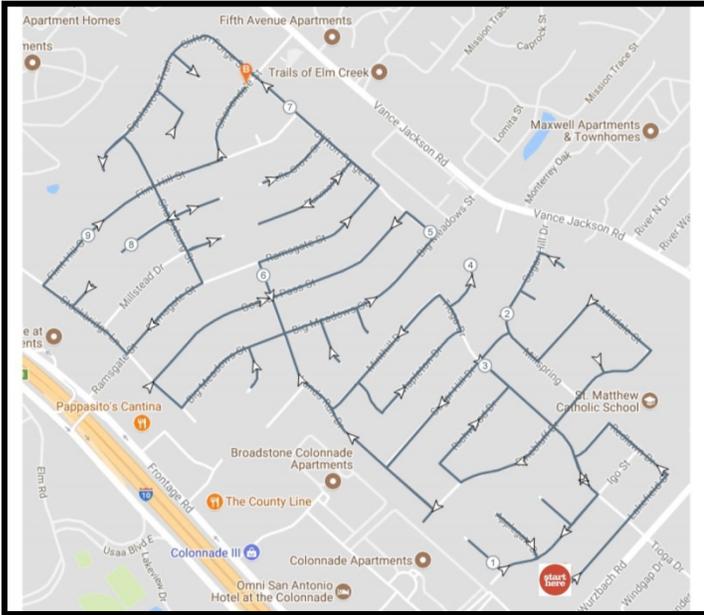
End Time: 10:15AM

Dogs Observed: 6

Photos of Dogs (S)tray or (R)oaming:



Census Tract 1813.02



District: 8

Distance: 9.4 Miles

**Starting Location: 3643 Lakefield
San Antonio, TX 78230**

Date of Project: 8/8/18

Start Time: 8:40AM

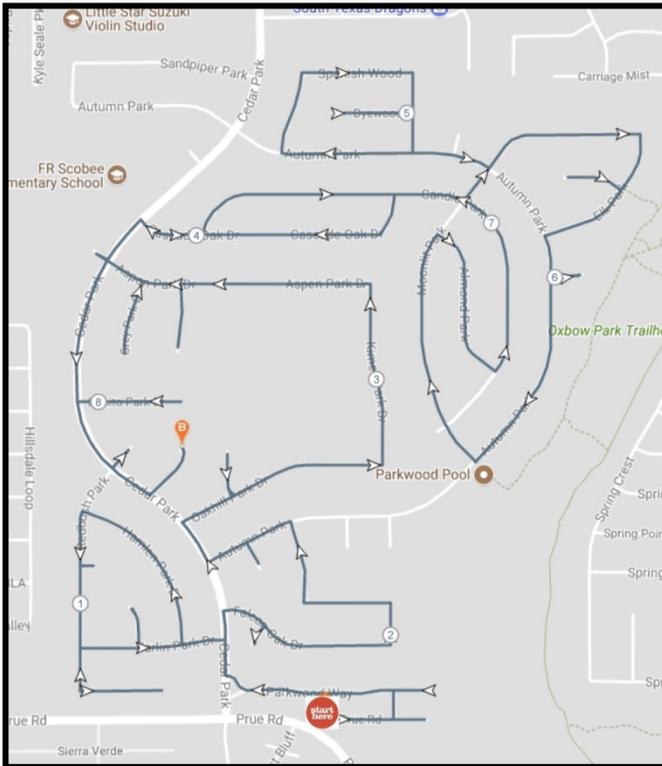
End Time: 10:15AM

Dogs Observed: 1

Photos of Dogs (S)tray or (R)oaming:



Census Tract 1818.26



District: 8

Distance: 8.3 Miles

Starting Location: 7522 Parkwood Way, San Antonio, TX 78249

Date of Project: 6/15/18

Start Time: 9:20AM

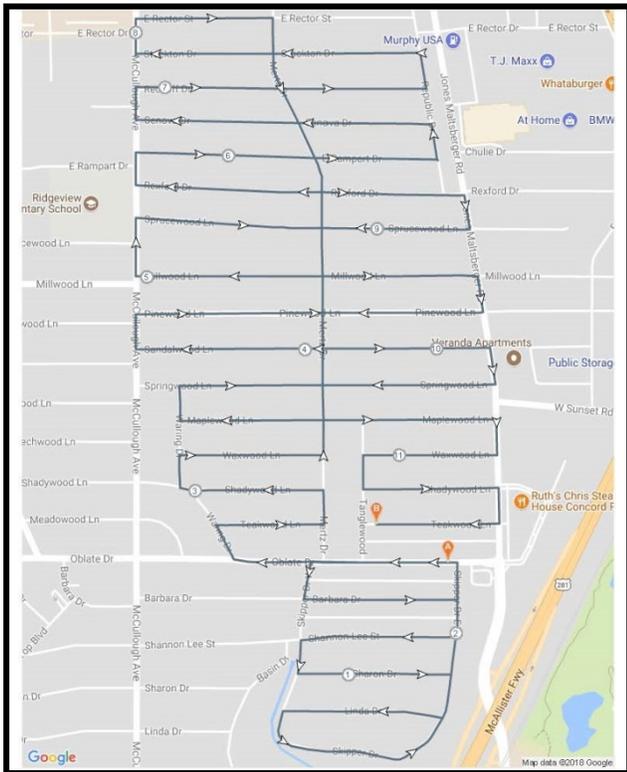
End Time: 11:00AM

Dogs Observed: 0

Photos of Dogs (S)tray or (R)oaming:



Census Tract 1909.02



District: 1

Distance: 11.6 Miles

**Starting Location: 1363 Oblate Dr.
San Antonio, TX 78216**

Date of Project: 7/27/18

Start Time: 9:06AM

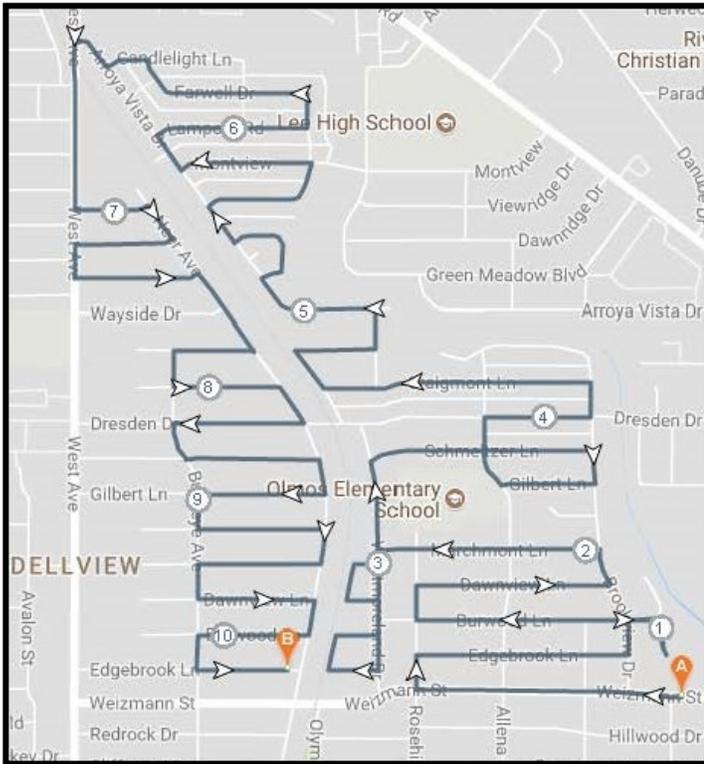
End Time: 10:30AM

Dogs Observed: 7

Photos of Dogs (S)tray or (R)oaming:



Census Tract 1910.03



District: 1

Distance: 10.3 Miles

Starting Location: 223 Weizmann
San Antonio, TX 78213

Date of Project: 8/4/18

Start Time: 11:30AM

End Time: 12:47AM

Dogs Observed: 0

Photos of Dogs (S)tray or (R)oaming:



Census Tract 1912.01



District: 9

Distance: 10.4 Miles

Starting Location: 11647 Persuasion Dr. San Antonio, TX 78216

Date of Project: 6/15/18

Start Time: 9:11AM

End Time: 10:55AM

Dogs Observed: 4

Photos of Dogs (S)tray or (R)oaming:

R

No Photo Available

R

No Photo Available

R

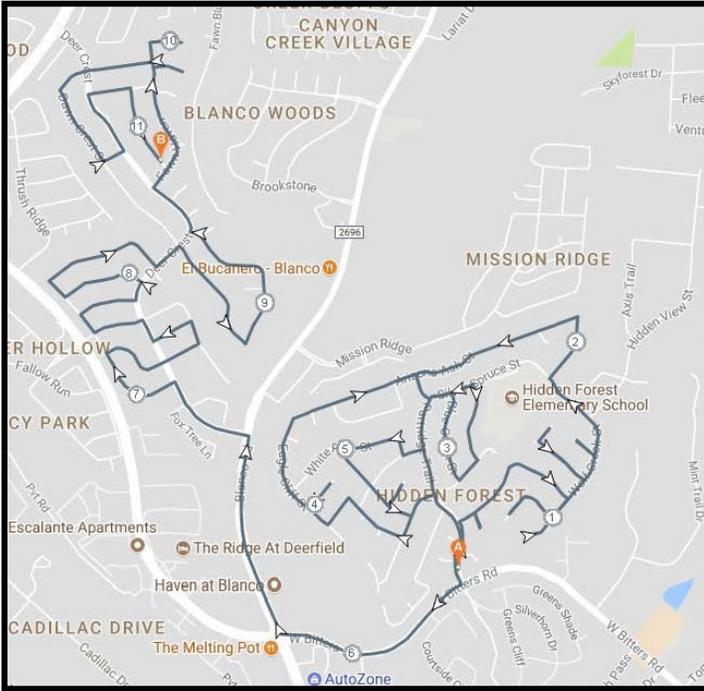
No Photo Available

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No Photo Available



Census Tract 1914.13



District: 8

Distance: 9.4 Miles

Starting Location: 1005 W Bitters Rd, San Antonio, TX 78216

Date of Project: 8/8/18

Start Time: 10:40AM

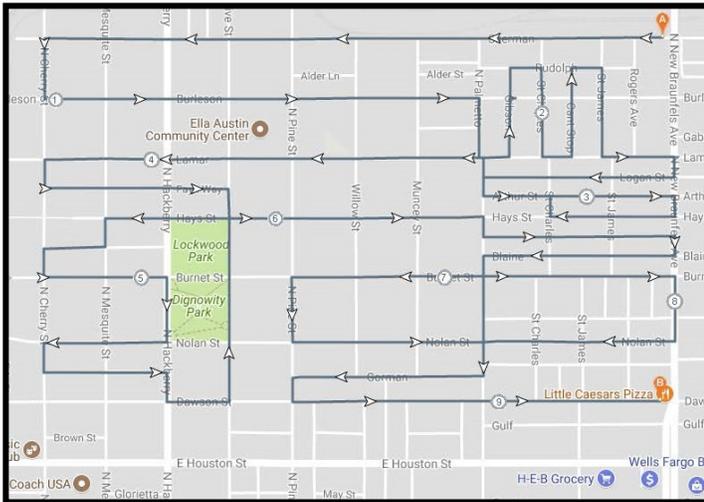
End Time: 12:30PM

Dogs Observed: 0

Photos of Dogs (S)tray or (R)oaming:



Census Tract 1919.00



District: 2

Distance: 9.2 Miles

**Starting Location: 1126 Sherman
San Antonio, TX 78202**

Date of Project: 8/4/18

Start Time: 10:45AM

End Time: 11:25AM

Dogs Observed: 0

Photos of Dogs (S)tray or (R)oaming:



Appendix H: Volunteer Training Presentation



ANIMAL CARE SERVICES

STRAY DOG SURVEY

June 15, 2018

Presented by: Animal Care Services

Agenda

- Background
- Project Overview
- Methodology
- Test Survey Results
- Identifying a Stray/Roaming Dog
- Safety Tips



Background

- ❑ Stray Dog Survey is the **First** in ACS History
- ❑ Part of the FY 2018 Action Plan to Identify Estimated Number of Stray/Roaming Dogs in San Antonio
- ❑ Establishes a Benchmarking Process to Identify and Improve Current Methods of Impoundment



Project Overview and Methodology

- ❑ Coordinate with Volunteers to Perform 20 Surveys (2 Surveys per Council District)
 - ❑ Requires identifying 400 Dogs to gain a 90% accuracy confidence interval.
 - ❑ May require additional surveys in areas with fewer stray/roaming dogs.
- ❑ Utilize Census Tracts as Survey Size and Location
- ❑ Record Time of Dogs Observed (Stray or Roaming)



Test Survey Results- 1st Survey



- Census Tract: 1719.23
- Council District: 6
- Distance: 12.78 Miles
- Drive Time: 90 Minutes
- Total Dogs Observed (1)
 - Roaming: 1



Test Survey Results- 2nd Survey



- Census Tract: 1710.00
- Council District: 5
- Distance: 12.2 Miles
- Drive Time: 75 Minutes
- Total Dogs Observed (19)
 - Roaming: 18
 - Stray: 1



Identifying a Stray/Roaming Dog

- ❑ **Stray** – Free roaming dog with **no owner**.
- ❑ **Roaming** – Free roaming **owned** dog not under direct control or restriction at a particular time.



Safety Tips

- ❑ Remain in your vehicle at all times
- ❑ Keep responsibilities separate
 - Drivers focus on driving only
 - Spotters record the information
- ❑ Drive slowly and stay alert of your surroundings
- ❑ Do not engage in conversation with residents





ANIMAL CARE SERVICES

STRAY DOG SURVEY

June 15, 2018

Presented by: Animal Care Services



Appendix I: Volunteer Recruiting Flyer



CALL FOR VOLUNTEERS

Help count stray dogs on Friday June 15, 2018

Please complete the registration survey by June 8, 2018

Visit www.saacs.net or scan the QR code

For questions or more information call Daniel Gonzalez (210) 207-6676



Appendix J: Volunteer Participation Waiver

VOLUNTEER AGREEMENT

I, _____, hereby understand, agree and consent to serve as a volunteer for the City of San Antonio Animal Care Services (ACS), located at 4710 State Highway 151, San Antonio, TX 78827, under the following terms and conditions:

1. I am medically, physically, and psychologically fit to work safely with animals and the public.
2. I will perform my volunteer duties with honesty, self-discipline, and professionalism. I will maintain high standards of humane, ethical treatment towards all animals at ACS.
3. I will donate my services to ACS without contemplation of compensation or future employment.
4. I will adhere to sign-in and scheduling procedures set forth by ACS, and agree to notify a Project Liaison or an ACS staff member should I be unable to perform or complete my duties.
5. I have a valid Texas Driver's License. I own my personal vehicle and I possess current auto-insurance for my personal vehicle with limits that are in accordance to the requirements of the State of Texas.
6. I acknowledge that driving my personal vehicle as part of my volunteer service with ACS is my choice.
7. I agree to report all accidents and injuries immediately to an ACS staff member.
8. I have current medical insurance coverage and agree to be responsible for any medical care that I must seek as a result of my volunteer service with ACS.
9. In the event ACS is not able to timely reach my Emergency Contact, I authorize ACS to seek emergency medical treatment for me in the event of an accident, injury, or illness.
10. I agree to be responsible for any medical/vehicle care or expense(s) that may result from my volunteer services with ACS.
11. I acknowledge that during my volunteer services, I may become privy to private or confidential information regarding, but not limited to, ACS, its employees, impounded animals and customers/clients. I hereby agree to hold all such information in the strictest confidence and shall not disclose or discuss such private or confidential information with any third party.
12. I have read and understand the ACS Patron Conduct Policy (located on the department's website) and understand that my conduct in regards to positive communication with the department begins at time of submittal of volunteer application.



13. I understand the behavior of animals is sometimes unpredictable and some animals are capable of inflicting disease, serious personal injury, death or extensive property damage. I understand that my volunteer activities on behalf of ACS may place me in a hazardous situation and could result in injury to me or my personal property. I agree to indemnify, defend and hold ACS, and its agents, officers, directors, and employees free and harmless from all liability arising out of any and all claims, demands, losses, damages, action, judgments of every kind and description that may occur to or be suffered by me by reason of activities arising out of this agreement.

14. I further agree to indemnify, defend, and hold the City, ACS, its agents, officers, directors, and employees harmless from and against any claim, demand, liability, cause of action, damage, costs (including reasonable attorneys' fees and disbursements) and judgments made or incurred by or found against them, resulting from or arising out of: (i) any breach or default by me of any term or provision in this Agreement; or (ii) any negligent or willful act or omission by me with respect to my services pursuant to this Volunteer Agreement.

I affirm and that the statements set forth above are true and complete. I understand that any false statements, omissions, or other misrepresentations made by me on this form may result in my immediate dismissal.

Volunteer Name

Volunteer Signature

Date

Contact in Case of an Emergency

Name: _____

Address: _____

Telephone Number: _____

Relationship: _____



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