

GIS Checklist

A guide to reducing shelter intake in your community

For Use with
Geographic Information Systems (GIS)



ASPCA

Shelter Research & Development

ASPCA X Maps Spot project, funded by PetSmart Charities ©

www.aspcapro.org

The Steps to Using GIS to Save Lives

GIS technology lets you target areas of highest risk in your community, helping you focus your resources and save more lives. Whether your trouble spots are intake, euthanasia, or low adoptions, GIS can help. This guide, focused on intake, will walk you step by step from data preparation to mapping and beyond.



Overview

Step 1: *Identify 85% of intake and spay/neuter operations in your community*

Step 2: *Compile summary data*

Step 3: *Streamline your data collection process*

Step 4: *Determine your clean data percentage*

Step 5: *Collect one year's worth of data for the subset you choose to map*

Step 6: *Reach out to the GIS community for assistance*

Step 7: *Analyze your data subset*

Step 8: *Delve into the hot spots*

Step 9: *Plan interventions*

Step 10: *Execute intervention plans*

Step 11: *Repeat the process*

Checklist: *Track your progress through these 11 steps*

Step 1: Identify 85% of intake and spay/neuter operations in your community

This might include organizations outside your own, so start a conversation with them about the goals of using GIS.

- Determine your organization’s intake and spay/neuter for the past two years.
- Reach out to other organizations and municipal shelters in your area. Determine their intake and spay/neuter for the same period of time.
- Combine these numbers to determine community intake.
- Determine which organizations need to be involved in the project to have 85% of intake and spay/neuter in the community.



Photos this page: Walter A. Chacon, Miami-Dade Animal Services

Step 2: Compile summary data

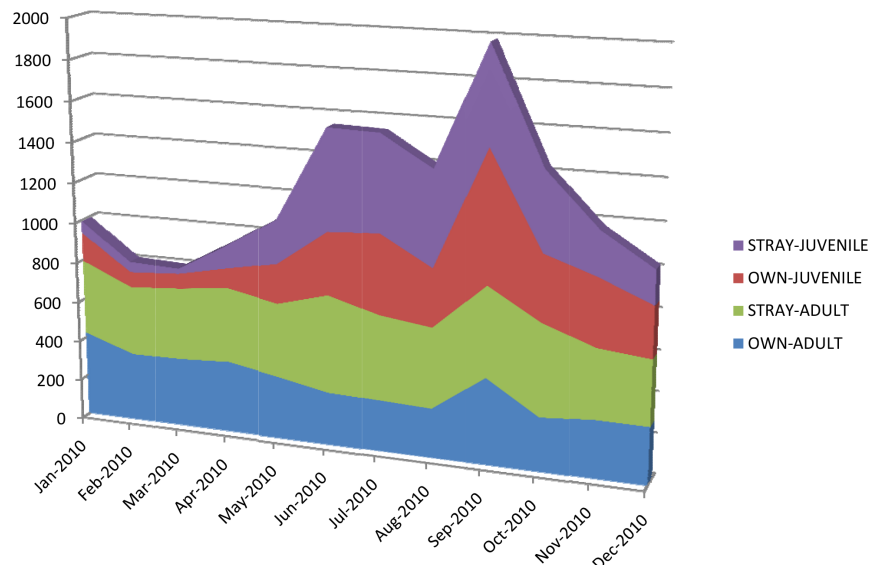
Summary data will give you the big-picture view of your community without assumptions or opinions. This data will help you focus on the animals most at risk in your community.

- This data should be as detailed as your community will allow but at the very least it needs to be broken down dog vs. cat, juveniles vs. adults, stray vs. owner surrender, and month by month for at least one year.



Photo: Walter A. Chacon, Miami-Dade Animal Services

- » Seeing the data by month allows you to identify trends in intake and spay/neuter based on time of year, and can help you when identifying ways to implement interventions.
- » An example of summary data for a month would be the total number of juvenile cats who entered the shelter as strays, owner surrender, and transfers. That month would also include all outcome data such as how many juvenile cats (kittens) were adopted from the shelter, transferred from the shelter, and euthanized. This kind of data should be compiled for adult and juvenile dogs, cats, and other animals that enter your community's facilities.
- » Compile the data into a spreadsheet or database that will allow you to easily identify animals most at risk in your community. Many find visuals such as graphs and tables helpful when trying to determine which animals are most at risk. Most at risk could mean most likely chance for euthanasia or those that come into the shelter in the greatest number.



Step 3: Streamline your data collection process

Individual animal data is what makes up each data point when using GIS. It's important to make sure that individual animal data is being collected in an accurate and consistent manner.



- Data needs for GIS: age, sex, altered status at intake, breed, intake type, intake subtype, date, animal address, animal city, zip code, state and ID.
 - » Sit down with all staff who collect data on animals and identify how it is being collected and entered into your software. It's important to also include your community partners in this process so that everyone is collecting the same data.
 - Are all staff considering juveniles the same age?
 - How is altered status at intake being collected and documented?
 - How are staff determining breed?
 - Are Pit Bull type dogs being called Pit Bulls or are different names being used throughout the community?
- Identify areas of data collection that need to be buffed so as to collect cleaner data. Are all departments collecting data in the same manner? How are animal addresses being collected?



Photo: Walter A. Chacon, Miami-Dade Animal Services

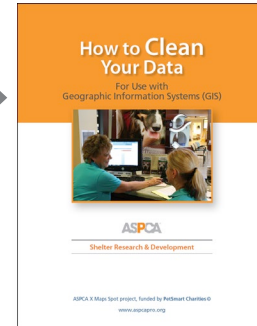
- » It's important to remember that animal addresses can be in two forms: cross streets and exact addresses. Both of these need zip codes and cities attached to them to be found using GIS.
 - Are you getting the animal's location found for TNR or are you only collecting the trapper's address?
 - Is your staff getting zip codes for strays brought into the shelter?

50%
60%
70%
**80%
CLEAN**

Step 4: Determine your clean data percentage

Based on your summary data identify a subset of data to determine what percent clean data you have currently. You need at least 80% clean to be able to proceed with GIS.

- Pull two months of your data subset.
- Clean it according to our **Cleaning Guide**
- Determine you clean data percent for cats and dogs in both owner surrender and stray categories.
 - » Divide the number of clean records over the total number of records.
 - » Make sure to do this separate for each species and each intake type.



You must reach 80 percent clean data for each subset before proceeding with GIS for that particular subset of data.

- If your clean data is below 80% go back to step 3 and repeat until you reach 80%.

Step 5: Collect one year's worth of data for the subset you choose to map

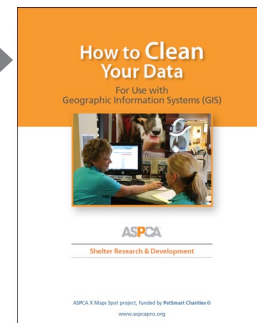


At least one year's worth of data is needed to create a map using GIS for your community. This subset must be at least 80% clean and should be as recent as possible.

- Most organizations need some time to be able to perfect their data collection systems before starting GIS. Don't be discouraged if it takes some time before you have one year's worth of clean data.

Clean the data to confirm that at least 80% of it is clean.

- Use the **Cleaning Guide**



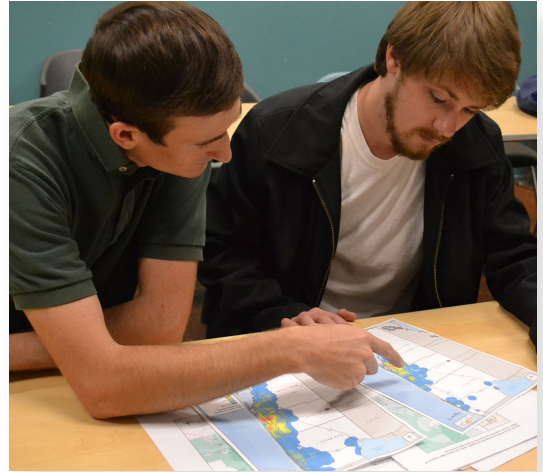
Step 6: Reach out to the GIS community for assistance

Reach out:

- ✓ Universities
- ✓ Local Government
- ✓ Consulting Firms
- ✓ Volunteers

You will need trained assistance to create the best and most accurate visuals of your community using GIS.

- Reach out to universities with geography or GIS programs.
- Local government agencies can be helpful and a great resource.
- Consulting firms work with organizations and businesses in your community. Let them know about your project and see if they'd like to help.
- Some of your volunteers might already have the training needed to analyze your data. Reach out to this potential source for assistance in this new and exciting program.



Step 7: Analyze your data subset

Upload your clean subset of data into GIS software with the help of a professional or trained individual. Based on your summary data, produce maps that focus on animals most at risk in your community.

- See the [Core Statistics and Maps](#) document for ideas of where to start and what to map.



- Identify hot spots within your community based on highest concentration of a certain type of at-risk animal.
 - » One hot spot could be selected because of its large number of owner-surrendered adult cats, while another in a different part of the community could be selected because it was the highest concentration of stray juvenile Pit Bull-type dogs.

Step 8: Delve into the hot spots



Learn about the areas selected as this will allow you to be better equipped to do an intervention.

- Visit the hot spots multiple times at different times of day and record your observations to share with your organization and partner organizations.
- Compile a map of businesses and organizations within the area such as churches, schools, and community centers.

Share this information with your coalition partners and determine which hot spots you should focus on immediately.

Step 9: Plan Interventions

Intervene:

- ✓ Spay/Neuter
- ✓ Behavior Training
- ✓ Wellness Visits
- ✓ Find a Coordinator
- ✓ Collect Information

Identify and create programs to saturate the hot spots based on the type of community and the type of animal you want to help.

- Spay/neuter interventions will help curb intake of juveniles but it might not be the one and only program to help curb adult intake.
- Safety net programs should be directed at hot spots of owner surrender intake. These programs can include behavior training/classes, wellness visits, and free pet supplies.
- Find a coordinator for the project and key volunteers.
- Develop the manner in which you will collect data for intervention. During an intervention it is important to collect data that will allow you to prove whether or not you are reaching your goal.



Photo: Walter A. Chacon, Miami-Dade Animal Services



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Step 10: *Execute intervention plans*

Collect data throughout the process and readjust the plan as needed based on data.



Step 11: *Repeat the process*



The greatest attribute of GIS is that you can continue to use the technology to help your community.

- Identify a different subset of data to look at or simply identify more hot spots in the same subset you looked at previously.

For a complete overview of GIS mapping and how it can help identify at-risk pet populations in your area, go to ASPCapro.org.

✓ On the next page you'll find the Checklist to help track your progress through these 11 steps.

Checklist

Where are you in the process of using GIS to reduce intake in your community? Use this checklist to track your progress and work through the steps.

- | | | | |
|-----------------|---|---------------------------------|--------------------------------|
| Step 1: | Have you identified the organizations that make up at least 85% of intake and spay/neuter within your community? Can you collect this data? | <input type="checkbox"/>
YES | <input type="checkbox"/>
NO |
| Step 2: | Have you compiled summary data and examined it for patterns of at-risk animals in your community? | <input type="checkbox"/>
YES | <input type="checkbox"/>
NO |
| Step 3: | Is all individual animal data being collected accurately and consistently? | <input type="checkbox"/>
YES | <input type="checkbox"/>
NO |
| Step 4: | Did you identify a subset of data for animals at risk in your community that was 80% clean? | <input type="checkbox"/>
YES | <input type="checkbox"/>
NO |
| Step 5: | Did you collect one year's worth of subset data and confirm it is at least 80% clean? | <input type="checkbox"/>
YES | <input type="checkbox"/>
NO |
| Step 6: | Did you identify a GIS professional to assist in your analysis? | <input type="checkbox"/>
YES | <input type="checkbox"/>
NO |
| Step 7: | Did you create and review your core set of maps and statistics with your community partners? | <input type="checkbox"/>
YES | <input type="checkbox"/>
NO |
| Step 8: | Have you gathered information about the areas you will be working in? | <input type="checkbox"/>
YES | <input type="checkbox"/>
NO |
| Step 9: | Having identified the animals at risk, have you created high-intensity, hands-on intervention programs to help them? | <input type="checkbox"/>
YES | <input type="checkbox"/>
NO |
| Step 10: | Did you collect and analyze data throughout the intervention to see what was working to decrease intake? | <input type="checkbox"/>
YES | <input type="checkbox"/>
NO |
| Step 11: | Have you looked at a new subset of clean data using GIS to expand your successful interventions? | <input type="checkbox"/>
YES | <input type="checkbox"/>
NO |