

# Special Review of The Animal Services Intake Process

## **Division of Inspector General** **Neil Kelly, Clerk of the Circuit and County Courts** **Audit Report**

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**Report No. BCC-118**  
**June 23, 2014**

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June 23, 2014

Board of County Commissioners

We have conducted a special review of the Animal Services Intake Process, as requested by the County Manager. Our review includes a review of specific issues and of the intake process in general.

We appreciate the cooperation and assistance provided by the Animal Services Division and also other local county and governmental entities contacted during the course of our review.

Respectfully Submitted,

*Bob Melton*

Bob Melton  
Inspector General

cc: Honorable Neil Kelly, Clerk of Circuit & County Courts  
David Heath, County Manager  
Brian Sheahan, Community Safety & Compliance Director

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# INTRODUCTION

## Scope and Methodology

We conducted a special review of the Animal Services Division's Intake Process. Our objectives were:

1. To investigate the circumstances surrounding two specific incidents.
2. To assess the adequacy of the current vaccination and deworming process.

To accomplish the objectives of our review, we conducted interviews of staff and a representative of a rescue organization, reviewed various records, and performed audit tests and other procedures. Our audit included such tests of records and other auditing procedures, as we considered necessary in the circumstances.

## Overall Conclusion

We conclude that the current process relating to vaccination and deworming animals is adequate. Our conclusions relating to our investigative portion of our review are included in the "Investigative Findings" section of this report. Opportunities for Improvement are also included in this report.

## Background

The Lake County Animal Services Division provides for public safety and animal welfare and enforces state statutes and local ordinances regarding animals. The Division promotes responsible pet ownership, reunites lost pets with their families, and helps people select a new furry friend through the Adopt-a-Pet program. Animal Services is the Countywide receiving facility responsible for housing strays and quarantined animals, animals that are "live evidence" in court cases, and unwanted domestic animals.

Lake County Animal Services provides both shelter care and field services. Shelter care involves housing and feeding animals, provision of minor medical services, cleaning and care of animals, and facilitation of animal adoptions, rescues, owner reclaims and other outcomes. Field services include capture of loose or stray animals, response to citizen complaints such as aggressive animals, animal bites, tethering, barking, or other animal related violations, neighborhood patrol in higher risk areas, and enforcement of the Lake County Code as it relates to animals. Shelter services are provided to all 14 municipalities in Lake County (including Mount Dora and Lady Lake) while full service is provided to the unincorporated area and twelve municipalities within Lake County.

The following table represents the animals taken in by the shelter in 2014. This table does not include other animals such as wildlife and livestock that enter the facility.

Month	Dogs	Cats
January	344	182
February	286	250
March	324	244
April	306	312

The previous Manager of the Animal Services division resigned in April, 2013. The Director of the Conservation and Compliance department, in which the division resided, also resigned. The division then was temporarily placed under the direction of the Public Works Department Director. An interim manager was then provided internally over Animal Services. A new Manager was hired in May, 2013, who later resigned effective May 2, 2014. Since then the prior interim manager has returned temporarily to Animal Services. The Lake County Board of County Commissioners asked the Lake County Sheriff's Office to submit a proposal for running the Animal Services operations. At this time, the Sheriff's Office is finalizing an agreement to take over the operations.

# INVESTIGATIVE SECTION

We performed an investigative review of the intake processes at the Lake County Animal Shelter which included a review of two incidents related to the intake process as follows:

1. Parvovirus outbreak resulting in 16 euthanized animals.
2. Fatal hookworm infestation in eight puppies.

## **1. The Incident of the Parvovirus Outbreak.**

On May 1, 2014, the Lake County Animal Shelter was closed down because of an outbreak of canine parvovirus (parvo) at the shelter. We noted that 16 dogs were euthanized from April 24, 2014 to April 30, 2014 in relation to the parvo incident. Eleven of these dogs were tested positive for parvo, one tested negative but was symptomatic, and the remaining four were not tested but were in the parvo zone and were symptomatic. Another dog was tested positive for parvo on April 13. Though it may not be directly related to the parvo incident, we included this animal in the list as parvo can live on surfaces for several months after contact. We were unable to determine if this animal caused the parvo outbreak. Note that the 17 dogs represented in following table differ slightly from those identified by management which includes animals that were euthanized during the outbreak period, but were not symptomatic. The list provided by management does not include Animal IDs 145645, 145825, and 145272 as they were euthanized 3-5 days or more before the recognition of the outbreak. The incubation period for parvo is generally recognized as three to six days.

Animal ID	Date In	Date Out	Bordatella	DH2PP	Parvo Test	Parvo Result	Notes
145079	2/6/14	4/30/14	2/13/14	2/13/14	4/30/14	Positive	Came in sick
145307	4/4/14	4/29/14	4/4/14	4/4/14	4/29/14	Positive	Came in injured
145413	4/7/14	4/29/14	4/7/14	4/7/14	4/29/14	Positive	Very aggressive
145645	4/14/14	4/24/14	4/14/14	4/14/14	4/24/14	Positive	Bloody stool, drooling, vomit
145369	4/15/15	4/29/14	4/5/15	4/5/15	N/A	None	Sick, depressed, vomiting
145825	4/18/14	4/26/14	4/18/14	4/18/14	4/26/14	Positive	Vomiting
145832	4/18/14	4/29/14	4/18/14	4/18/14	4/29/14	Positive	Aggressive animal
145859	4/21/14	4/30/14	4/21/14	4/21/14	4/30/14	Positive	Bad teeth, fleas, skin issues
145909	4/22/14	4/29/14	4/22/14	4/22/14	N/A	None	In parvo zone, vomiting, bad stools, animal aggressive
145912	4/22/14	4/29/14	4/22/14	4/22/14	N/A	None	In parvo zone, sick, vomiting, depressed, loose stool
145911	4/22/14	4/29/14	4/22/14	4/22/14	4/29/14	Positive	In parvo zone, vomiting, sick, depressed
145931	4/22/14	4/30/14	4/22/14	4/22/14	4/30/14	Positive	In parvo zone, not eating
145950	4/23/14	4/27/14	4/23/14	4/23/14	4/26/14	Negative	In parvo zone, sick, vomiting, diarrhea
145945	4/23/14	4/29/14	4/23/14	4/23/14	N/A	None	In parvo zone, vomiting, loose stool, skin issues, depressed
146022	4/24/14	4/29/14	4/24/14	4/24/14	4/29/14	Positive	No notes
146025	4/24/14	4/30/14	4/24/14	4/24/14	4/30/14	Positive	Came in with a parvo + dog, biter
145272	4/3/14	4/13/14	N/A	N/A	4/13/14	Positive	Came in as a Quarantine

All of the dogs, except two, were administered the DH2PP and Bordatella vaccinations on the same day they entered the shelter. The dog that was not vaccinated on the date of intake, Animal ID 145079, came in sick. It was vaccinated 7 days after intake. Animal ID 145272 was not vaccinated at intake because it was a quarantined animal. Policy has since been revised to vaccinate all animals at intake including sick animals and those on quarantine. When vaccinations are administered, the vial sticker is placed on the animal ID card as further verification that vaccinations were administered. The stickers were present for all but two of the animals (Animal ID 145369 and 145645).

The “Guidelines for Standards of Care,” published by the Association of Shelter Veterinarians, includes recommended outbreak response to disease or illness, these include:

- a. Physical separation between exposed, at-risk, and unexposed animals
- b. It “may be necessary to stop intake or adoptions in order to prevent disease spread.”
- c. “Animal handling and foot traffic should be limited.”
- d. “Protocols (vaccination, sanitation, movement, etc.) should be reviewed”
- e. “Animals should be monitored for signs of disease during an outbreak at least twice daily
- f. Animals should not be returned to general population if there is risk they will transmit the disease to other animals
- g. “Full disclosure should be made to the receiving person or organization receiving the animal” if it is transferred out.

- h. “Depopulation is one means of response to a disease outbreak.” Many factors should be taken into consideration before this is done.

Based on the information gathered in our review, shelter staff acted in accordance with intake protocols by vaccinating the dogs at intake. Through a review of animal ID cards, system notes, interviews with staff including the lead veterinarian, and review of other documentation provided, we were able to determine that animals were separated to the degree possible, intake was stopped temporarily, protocols were reviewed by the lead veterinarian, animals were monitored daily for signs of disease, sick animals were removed from general population through depopulation methods, and disclosure was made through the media. Management also indicated that those who adopted or rescued animals from the shelter during the outbreak period were contacted and advised of the situation.

Additionally, the lead veterinarian for the Lake County Animal Shelter was in communication with veterinarians at the University of Florida Maddie’s Shelter Medicine Program and Merck Animal Health who confirmed that protocols in place at the shelter were in line with standard procedures for disease prevention and management. These protocols include cleaning and sanitation, vaccinations, daily monitoring of animals, and shelter response to outbreak situations.

The veterinarian at the UF Maddie’s Shelter Medicine Program also reiterated that “it is impossible to completely prevent occurrence of parvovirus in the shelter, because animals can still enter the facility already incubating the virus.” She further stated that she “would not consider parvovirus to be a rare occurrence in an open admission shelter in the Southeast.” Based on information provided, she also stated that it was likely that some of the dogs related to the parvo incident entered the shelter already incubating the virus.

The “Guidelines for Standards of Care” advises that “allowing animals with severe infectious disease to remain in the general population is unacceptable.” In response to disease or illness, if isolation is impossible or inadequate for controlling transmission of the disease, shelter staff must “weigh the consequences of exposure of the general population against euthanasia.” During the time of the outbreak, the lead veterinarian indicated the shelter was overloaded. Records indicate that the shelter held between 96 – 100 dogs per day from April 28-April 30. The shelter contains a total of 150 dog kennels, 100 are in the original structure and 50 are in the new facility built in the past year.

## **Conclusion**

We conclude the Shelter acted reasonably regarding the animals involved in the situation as well as the actions taken after the discovery of parvo. The shelter has acted in accordance with standard recommended guidelines in response to the parvovirus incident in April 2014. The decision to euthanize infected animals and close the facility to incoming animals reduced exposure risk to other animals at the shelter and to the staff and public. Shelter protocols have been reviewed and deemed acceptable by external experts at the University of Florida Maddie’s Shelter Medicine Program and Merck Animal Health and are in line with the “Guidelines for Standards of Care.”



**Management Response:**

Management concurs with the investigation and conclusion of this incident.

**2. The Incident of Fatal Hookworm Infestation in Puppies.**

On Sunday, March 30, eight puppies were retrieved from the night drop area at the shelter. The puppies were apparently dropped off sometime on Sunday afternoon, without the knowledge of staff on duty. After the staff had quit working for the day, they discovered the puppies. The puppies were not dewormed or vaccinated on Sunday. The staff did bring them into the shelter so they would not have to stay outside. On Monday, the puppies were also not dewormed or vaccinated.

The puppies were six weeks of age and without their mother so they were slated to be turned over to a rescue organization as soon as possible. On Tuesday, April 1, the puppies were rescued by Plenty of Pit Bulls Rescue. At the time of rescue, Shelter staff did not discuss with the rescue representative the status of any deworming or vaccinations. By Friday, the health of the puppies began seriously declining. Eventually, six of the puppies died. The others were treated for hookworm and survived.

Through a review of system notes and animal ID cards, we confirmed that the puppies were not vaccinated or dewormed upon entry into the facility or at any time by the shelter prior to them being released to the rescue organization.

On April 1, a representative from the rescue organization came to the shelter to rescue a mother dog with her three puppies. When she arrived, she was asked if she would take the eight puppies as well. Once she received confirmation from her rescue, she agreed to take the puppies. She was provided paperwork for each of the animals. This paperwork included a medical history. The medical history indicated that no services, including vaccinations and de-worming, were provided to the animals. Through interviews, we determined that the practice at that time was to provide de-worming medication upon entry to the facility.

Through interviews, we determined that after reviewing the paperwork provided, the rescue organization contacted the shelter on Thursday, April 3 to confirm that the puppies were not treated. The rescue then immediately dewormed the puppies. The next day, the health of the puppies declined and a veterinarian was contacted. The veterinarian was initially unable to determine the cause of the illness. A necropsy was later performed on one of the puppies and it was determined the puppy had hookworms. The two puppies that survived were treated appropriately and have since been rescued.

Since this incident, practices have been modified to require any animals that have not been vaccinated and dewormed at entry to be housed in an isolated area of the shelter. A sign is placed on the cage notifying staff that the animal has not been vaccinated and dewormed. They are vaccinated and dewormed prior to being brought into the general population.

**Conclusion**

According to the Guidelines, current protocol related to parasite control is in line with recommended standards. We conclude that in regards to the eight puppies infested with hookworms, Animal Services violated their protocols of deworming on intake. As they were not vaccinated or dewormed at intake, the staff that arrived on Monday should have vaccinated and dewormed them. However, no de-worming was noted on the paperwork given to the rescue organization. It would be reasonable for rescue organizations to review medical history and have their own protocols at intake.

**Management Response:**

Management concurs with the investigation and conclusion of this incident. The vacant Animal Services Supervisor position has been filled since this incident to provide oversight of the intake processes.

# OPPORTUNITIES FOR IMPROVEMENT

Our review disclosed certain policies, procedures and practices that could be improved. Our review was neither designed nor intended to be a detailed study of every relevant system, procedure or transaction. Accordingly, the Opportunities for Improvement presented in this report may not be all-inclusive of areas where improvement may be needed.

## 1. The Intake Processes Have Been Inconsistent.

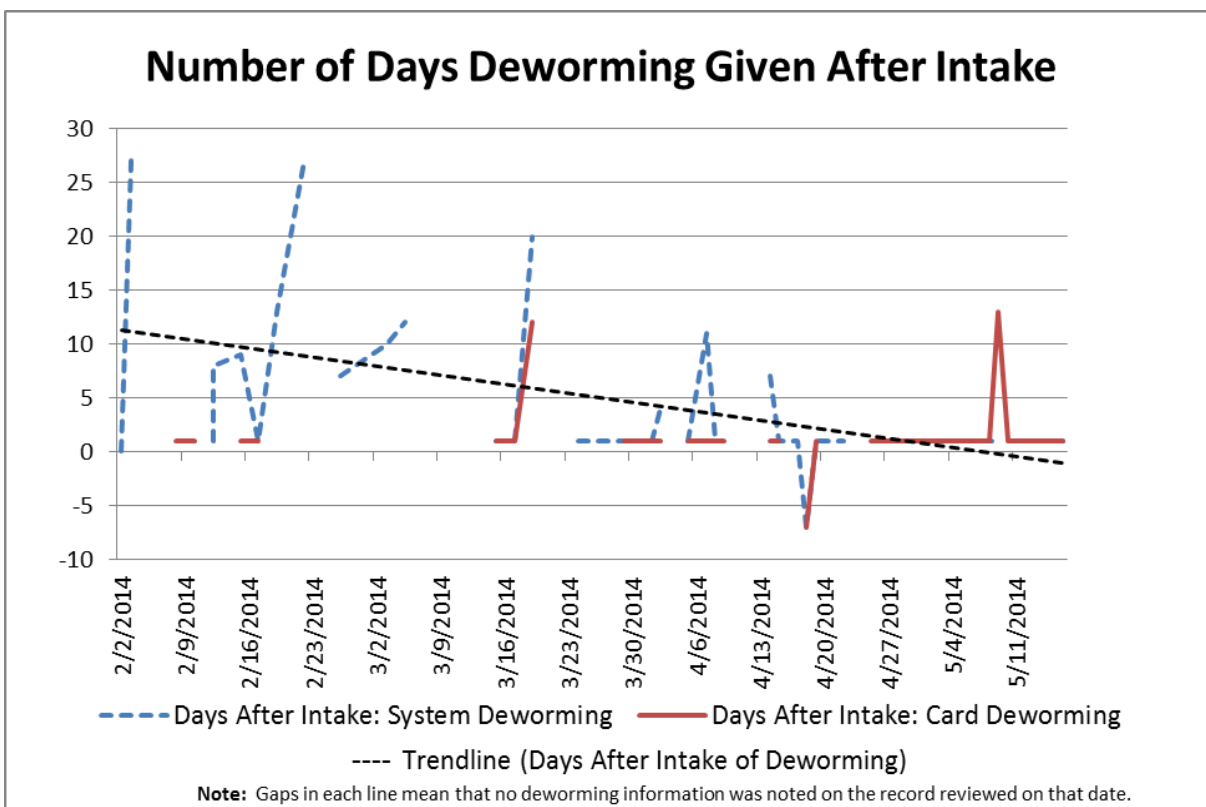
The “Guidelines for Standards of Care” (Guidelines) published by the Association of Shelter Veterinarians indicates that shelter animals should be administered core vaccinations prior to or at intake. These vaccinations include a DA2PP vaccine (which protects against Distemper, Hepatitis type 2, Parainfluenza, and Parvo viruses) and a Bordatella vaccine. The guidelines also state that “ideally, animals should receive parasite prevention [de-worming] on entry and regularly throughout their shelter stay.” At a minimum, “all dogs and cats must be de-wormed for roundworms and hookworms before leaving the shelter.”

The current intake procedures at the Lake County Animal Shelter, dated April 2014, require that all incoming dogs over the age of 4 weeks receive a DA2PP vaccine, a bordatella vaccine, and a deworming. Additionally, animals with no medical history get a second DA2PP and deworming after two weeks, and deworming every two weeks until 16 weeks.

According to management, these intake procedures were put in place in January 2014, however a bound book of Standard Operating Procedures (SOPs) for Animal Services, containing SOPs dated as recent as March, 2014, does not include intake procedures. We determined that prior to the current written procedures, animals were not vaccinated until they left the facility. Deworming was not performed at all unless necessary.

There was a period of time during which the new intake protocols were established by the lead veterinarian, but they were not being followed through by staff nor were they being enforced by management. As management changes occurred, the protocols were written into SOPs and staff was further instructed to adhere to them. The SOP became official in April, 2014.

We reviewed the current protocols in place; however we determined some inconsistencies in protocols. The chart below shows the number of days after intake that an animal received deworming, if at all, as recorded in the system and on the Animal ID card. The gaps in each line show that no information related to deworming was noted for the record reviewed on that date. The negative amount on the chart at April 18, 2014 represents a date of intake seven days later than the date of deworming shown in the system and on the card. In this specific instance, the animal was adopted from Animal Services on April 11 and then returned on April 18. The date of deworming is carried over from the prior stay. Overall, the chart shows the trend is progressively better.



As shown later in the chart in Opportunity for Improvement No. 4, 20 of the 56 records reviewed did not have a date of deworming in the system and 23 did not have a date of deworming on the ID card. Of these records, eleven did not have any notation of deworming in either the system or on the card. Based on this, it appears likely that 19.6% (11 out of 56) of the animals in the sample did not receive deworming while at Animal Services (80.4% were dewormed).

**We Recommend** management ensure that the current intake process is consistently followed through implementation of a training program of employees and periodic checks of animals by supervisors.

#### Management Response:

Management concurs with this suggestion, with the following comments:

- The Special Review found a compliance ratio of 80.4% for deworming. The hiring of the new Shelter Supervisor, which was vacant during this event, is expected to provide significantly higher compliance.
- LCAS has implemented protocols to ensure compliance through procedures, staff training and spot checks by the supervisor and manager. Spot checks are performed by the Shelter Supervisor on a regular basis to ensure adherence to this protocol.

## **2. Information Should Agree Between Records And Each Record Should Capture All The Data.**

We selected a sample of days in the months of February, March and April of the current year. We reviewed the system information and Animal ID card for each dog taken into the shelter on those days. The information was reviewed for whether the appropriate medications (i.e., vaccinations and deworming) were administered and the timeliness of those. The percentage of appropriate medications being administered ranged from 0% from a one-day's sample in March to 93% from a one-day's sample at the end of April. This improvement in administration of vaccinations possibly reflects the new intake procedure which was implemented during April. In addition to this observation during our review, we also noted the following concerns:

- A. Based on the records, vaccinations were more likely to be given than deworming. This may have been a factor in the issue discussed in Investigative Section No. 2. However, disagreement existed between the system information and the Animal ID card for some animals, for example, as to:
  - 1. The date a vaccination or deworming (initial or follow-up) was given, if at all,
  - 2. The date the animal left the shelter, and
  - 3. The disposition (e.g., adoption, rescue, or euthanasia) of the animal.

Additionally, some Animal ID cards could not be located. As the initial information is recorded on the card, it is critical to keep the information current on, and to keep track of, the Animal ID card.

- B. A notation on one Animal ID card indicated that Animal Services was out of DH2PP vaccines. As the number of animals entering the shelter can vary greatly from one day to the next, Animal Services should have an inventory on hand at a level sufficient to handle the greatest potential influx of animals. In addition to having an adequate supply on hand, Animal Services could also network with local veterinarians to procure an additional supply should an immediate need arise and then replenish the veterinarians once an order is received by Animal Services.
- C. Several dogs in our sample arrived at the shelter as owner give-ups, or an instance where a pet that is no longer wanted is turned in. To the shelter, these animals have an unknown medical history except for those rare instances where the owner does provide information of the pet's medical history. When the owner provides the paperwork, the animal does not have to undergo unnecessary medical treatment. The public should be encouraged to provide paperwork without fear of retribution so an animal will not have to undergo unnecessary medical treatment.

### **We Recommend management:**

- A. Ensure that the Animal ID cards and the system are used properly to track important information by training employees, providing adequate access, and standardization of filing practices.
- B. Ensure that an adequate supply of medications is on hand and establish a network with local veterinarians to procure an additional supply should the need arise.
- C. Determine ways to reach out to pet owners to encourage them to provide medical information when they have to give up a pet.

**Management Response:**

Management concurs with this suggestion, with the following comments:

- The Shelter Supervisor position has been filled to adequately oversee all shelter functions, including vaccination on intake.
- Additional training and oversight have been instituted after the event in April to ensure protocols are being adequately followed.

Recommendation A

- Additional training has been completed and is ongoing.
- Intake cards have been revised to allow all information to be entered and are centrally located with controlled access.

Recommendation B

- The inventory and ordering systems were revised to ensure adequate supply of vaccines.
- Formal agreements were not favored by veterinarians contacted. Relationships exist with area veterinarians and have been used to obtain supplies.

Recommendation C

- Medical and background information are taken when animals are turned in by owners. Methods to improve will continue to be explored in order to gather additional information.

**3. Staff Is Not Consistently Trained on Use of Shelter Software to Maximize Reporting Functionality.**

The animals that come into Animal Services are tracked through the shelter software. During our review, we noted the following concerns with the use of the shelter software:

- A. In several instances, similar information for one record was not entered in the same location in the shelter software as that for another record. For example, in some cases, medical testing information was entered in the medical screen, while in other cases, similar information was entered in the notes section of the record. The disparity in the records such as these would not result in consistent, comparable reports across all the records. As a result, reports would not provide meaningful value to management.

In our review of the parvo related incident, three animals did not have the parvo test entered into the system. Of the 13 animals that were tested for parvo, 1) four of them had no indication in the system of the testing for parvo, and 2) the testing information for three of the remaining nine animals was not entered in the medical section but instead in the notes section which would not appear in any reporting. Vaccinations administered for seven out of the 20 animals were also not updated in the system.

- B. The intake procedure revised in April, 2014, says to “enter deworming and vaccinations in record” but does not define “record.” As both manual (i.e., Animal ID cards) and electronic records are maintained for each animal, it is unclear as to where and how the information should be recorded. In our review, we noted vaccination information for an animal entered on both records, however,

the information in several instances was not the same. Additionally, no procedures exist for how to use the shelter software.

**We Recommend** management create procedures for proper use of the shelter software system and train all employees on those procedures.

**Management Response:**

Management concurs with this suggestion, with the following comments:

- The software used by the shelter was implemented in January/February 2014.
- Training with the new software is ongoing.

#### **4. Entry of Information Related to Deworming And Actual Deworming Are Inconsistent.**

A review of the information related to the same 56 animals in both the shelter software system and their Animal ID cards showed that the information related to deworming is inconsistent. In some instances, neither the system nor the card showed that the animal had been dewormed. In other instances, the deworming information in the system and the card were in conflict, as one listed a date that the animal had been dewormed while the other did not. Based on the differences between the electronic and manual systems, we could not determine if the deworming had not been performed or was simply not recorded. However, in several instances the system and the card were in agreement. The information can be grouped as follows:

Description	Shelter Software System	Animal ID Card
No difference between intake date and deworming date	23	30
No deworming date noted	20	23
Deworming dated later than date of intake	12 (range: 3 to 30 calendar days)	2 (range: 13 to 14 calendar days)
Deworming dated prior to date of intake	1	1
Total	56	56

This review of 56 animals was of those entering the shelter during the time period from February 2 through May 16, 2014. The written intake procedure was revised in April, 2014, to provide for deworming upon intake. Based on our review, the frequency of animals being dewormed upon intake has increased as a result of the written procedure.

**We Recommend** management ensure the new written intake procedure continues to be followed and that all new employees are trained on it.

**Management Response:**

Management concurs with this suggestion, with the following comments:

- The Animal Services Supervisor vacancy has been filled to oversee intake procedures and proper documentation.
- Interim procedures for software input will be distributed once completed.

**5. Rescue Organizations Should be Screened Prior to Release.**

Lake County Animal Services is not screening rescue organizations prior to releasing animals to them. Often susceptible animals such as puppies, injured or sick animals, older animals, or animals that require special care are sent to rescue organizations before they can be adopted out to private citizens. As these animals require special care, Animal Services should at a minimum develop standard requirements for rescue organizations. These requirements should include maintaining an up to date nonprofit status, maintenance of rescue facilities in line with local and state regulations, and standard protocols for intake and care of animals that meet or exceed minimum standards.

**We Recommend** management develop screening guidelines for rescue organizations including proof of nonprofit status, representation that facilities are in accordance with local and state regulations, and representation that protocols are in place that meet or exceed minimum standards.

**Management Response:**

Management concurs with this suggestion, with the following comments:

- Screening protocols and written agreements are currently under development and consideration to ensure rescues have the necessary expertise/training for all types of animals being adopted by them.

**6. A Perpetual Inventory System is Needed to Track Vaccinations and Microchips.**

Animal Services has no formal process for tracking inventory of vaccinations and microchips. During our review of intake procedures, we noted the animal ID card for one animal that entered the facility on Saturday, March 22, 2014 which stated that the shelter was out of the DH2PP vaccination so it was not administered to the animal. According to records, only three of the eight incoming dogs that day received the DH2PP vaccinations. Additional DH2PP vaccinations were ordered the following Monday, March 24. This resulted in several days in which the required DH2PP vaccinations were not administered to dogs at intake, as depicted below.



Date	# Dogs In*	DH2PP Vaccines Administered at Intake
3/22/2014	8	3
3/23/2014	4	1
3/24/2014	16	0
3/25/2014	6	0
3/26/2014	9	2
3/27/2014	4	4

\*The number of dogs in excludes dogs that were dead on arrival, were euthanized or quarantined at intake, and those for which medical history was obtained from the animal's veterinarian.

The ShelterPro system includes reporting capabilities which indicate the number of each type of vaccination provided during a specified period of time if entered correctly. With proper use and training of the Shelter Pro software, a perpetual inventory system could be maintained using system reporting functions. (See Opportunity for Improvement No. 3.) An accurate, up to date inventory allows management to more efficiently maintain adequate levels of medications and microchips avoiding situations as noted above. A perpetual inventory system would also assist in detecting and deterring possible misuse or theft of medications and microchips.

**We Recommend** management develop a process for maintaining an up to date inventory of vaccinations and microchips.

**Management Response:**

Management concurs with this suggestion, with the following comments:

- An inventory/ordering system has been developed and implemented. Additional improvements are being evaluated.