



CITIZENS COMMITTEE TO COMPLETE THE REFUGE

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Via e-mail

Bill Shoe
Principal Planner
Dept. of Planning and Development
County of Santa Clara, California
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RE: Draft Health Element of the Santa Clara County General Plan

Dear Mr. Shoe:

The Citizens Committee to Complete the Refuge (CCCR) appreciates this opportunity to comment on the Draft Health Element (DHE, Element) of the Santa Clara County General Plan (General Plan). *In addition to comments provided here, we thoroughly agree with and refer you to the comment letter of the Santa Clara Valley Audubon Society¹ (Audubon letter).*

CCCR is an organization that works on behalf of wetlands, wildlife and the Don Edwards San Francisco Bay National Wildlife Refuge (Refuge). You may be aware that Arthur Ogilvie, at the time a Santa Clara County Planner, was the lead organizer of the citizen effort that led to Congress's creation of the Refuge in 1972. The effort established a place that has vast benefit to wildlife and special destinations where people enjoy wildlands and both year-round and migratory wildlife, exposure known to provide great benefits of spirit and health to people of all ages and consistent with the healthy living goals of the DHE.

Purpose for these comments: We will explain why and recommend that the DHE be improved to include one or more policies that would provide a safer and healthier environment by reducing the conditions for and frequency of transfer of zoonotic disease to humans due to free-roaming cats. Such policies would simultaneously reduce the predatory and infective impacts of these cats on wildlife.

In CCCR's focus on wildlife and habitats we are persistently concerned about threats to native species' health and survival. One significant and persistent threat is free-roaming cats, known as feral if unowned and unsocialized or outdoor cats if owned and socialized. Owned or not, a cat's instinct is to hunt. As the Audubon letter details, roaming cats kill an extraordinary numbers of birds and mammals, fulfilling natural hunting instincts and, for feral cats, finding the next meal. In our Bay's wetlands there are no trees and all wildlife live, nest, forage and move between habitats on ground level. Included among them are the federally-endangered California clapper rail, salt marsh harvest mouse and salt marsh wandering shrew. Along the Bay's edges, cats are indeed a major predator of concern.

¹ Slocumb/Kleinhaus, Santa Clara Valley Audubon Society, Letter to B.Shoe, Santa Clara County, 9/24/14

That concern led us to review and research the civic and social circumstances that sustain cats as threats to wildlife. As our comments will discuss, it is a study that is equally revealing of very substantial risks to public health. We note a corresponding observation in the DHE (Intro-2):

The conditions within our built and natural environments that are most conducive to improvements in public health are also intrinsically related to the sustainability of our environment and society.

Considering the possibility of a new policy, we were encouraged to see the principle of “Health in All Policies” (HiAP) (Intro-3), describing the role of the Health Element in the General Plan:

HiAP stresses the importance of infusing awareness and purpose in all governmental programs, functions, and responsibilities to address and promote community and personal health, not as an afterthought.

Finally, the DHE raises the bar high, to set a new level of standards (Intro-4):

The Health Element is intended to serve as a model element for other jurisdictions and agencies in Santa Clara County and the region.

We applaud the County leadership for setting such goals and note that, relevant to concerns we raise here, a roaming cat knows no boundary nor jurisdiction.

Public Health Threats Arising from Social and Civic Practices involving Free-Roaming Cats

The cat, *Felis catus*, has been a companion of mankind for millennia. Not native to the Americas, it arrived with the early explorers, traders and settlers, possibly as shipboard mousers, but also as creatures much loved by people then as today. Our comments here would do nothing to change that relationship as indeed many among us, our families and friends cherish their feline companions. In terms of human health, a purring or entertaining cat provides exceptional benefits. We have learned that the best way to get those benefits is to keep a cat indoors, a practice that helps pet cats live 2-4 times longer than cats living outdoors².

Disease threats: There is quite a long list of zoonotic diseases, diseases that can be transferred between cats and people inclusive of bacterial, viral, fungal and parasitic infections. Certain of those diseases are endemic in wildlife either as vectors or infected/carrier reservoirs. Generally, the only way a cat can acquire and transmit wildlife-endemic diseases is through time spent outdoors or with cats or other animals that spend time outdoors. Major diseases of concern to public health in this category are rabies and Toxoplasmosis.

Rabies: Next to the plague (another zoonotic disease of concern), there is no more storied disease in human health annals than rabies. This viral disease, an encephalitis, persists, endemic world-wide in wildlife. In the past, dogs were commonly the primary human link to rabies, although the disease could also be transferred by cats, bats, skunks, foxes and raccoons, or any infected mammal.

Thanks to the development of rabies vaccination, licensure and leash requirements for dogs, in the United States and California it is cats that are more often diagnosed with rabies than dogs. The Audubon

² WebMD, [Understanding Your Old or Aging Cat](http://pets.webmd.com/cats/understanding-your-old-aging-cat), <http://pets.webmd.com/cats/understanding-your-old-aging-cat>

letter provides revealing statistics. In its annual report on rabies for 2012, the California Department of Public Health (CDPH)³ states:

Although some local ordinances require cats to be licensed and/or vaccinated, the absence of a statewide requirement leaves the majority of pet cats unprotected against rabies. Furthermore, unlike most dogs, many cats are not confined to their properties of residence and their expanded ranges increase opportunities for contact with wildlife. The natural predatory demeanor and curiosity of cats makes them more inclined to engage in close, repeated contact with potentially rabid wildlife, such as a downed bat. For these reasons, the American Association of Feline Practitioners Vaccination Advisory Panel recommends vaccination against rabies for all cats that live in rabies-endemic areas [Scherk et al 2013], which encompasses all of California.



Feral cat and native grey fox near cat feeding location, Santa Clara County

Photo by Johanna van de Woestijne 2014

The vaccination schedule recommended in California⁴ for cats is:

The first rabies vaccine should be given at three months of age, with a second vaccination 12 months later. Cats should receive a booster vaccine every year or every three years thereafter, depending on the type of vaccine used.

With licensure rates persistently low among cat owners, there is little to enforce the State vaccination standard for owned cats. Among unowned, free-roaming cats there is no chance of enforcement but a greater chance that its hunting instincts would attract it to a sick, infected bat or other prey. But does the public think that a cat might be rabid?

Toxoplasmosis: Among public health practitioners and particularly obstetrics practitioners, pregnant women have long been advised to avoid exposure to cat feces. The reason was that cat feces were the known source of the oocytes of the parasitic protozoan *Toxoplasma gondii* which, once the mother was

³ California Department of Public Health, Rabies Surveillance in California, Annual Report, 2012; <http://www.cdph.ca.gov/HealthInfo/discond/Documents/RabiesSurveillanceinCA2012.pdf>

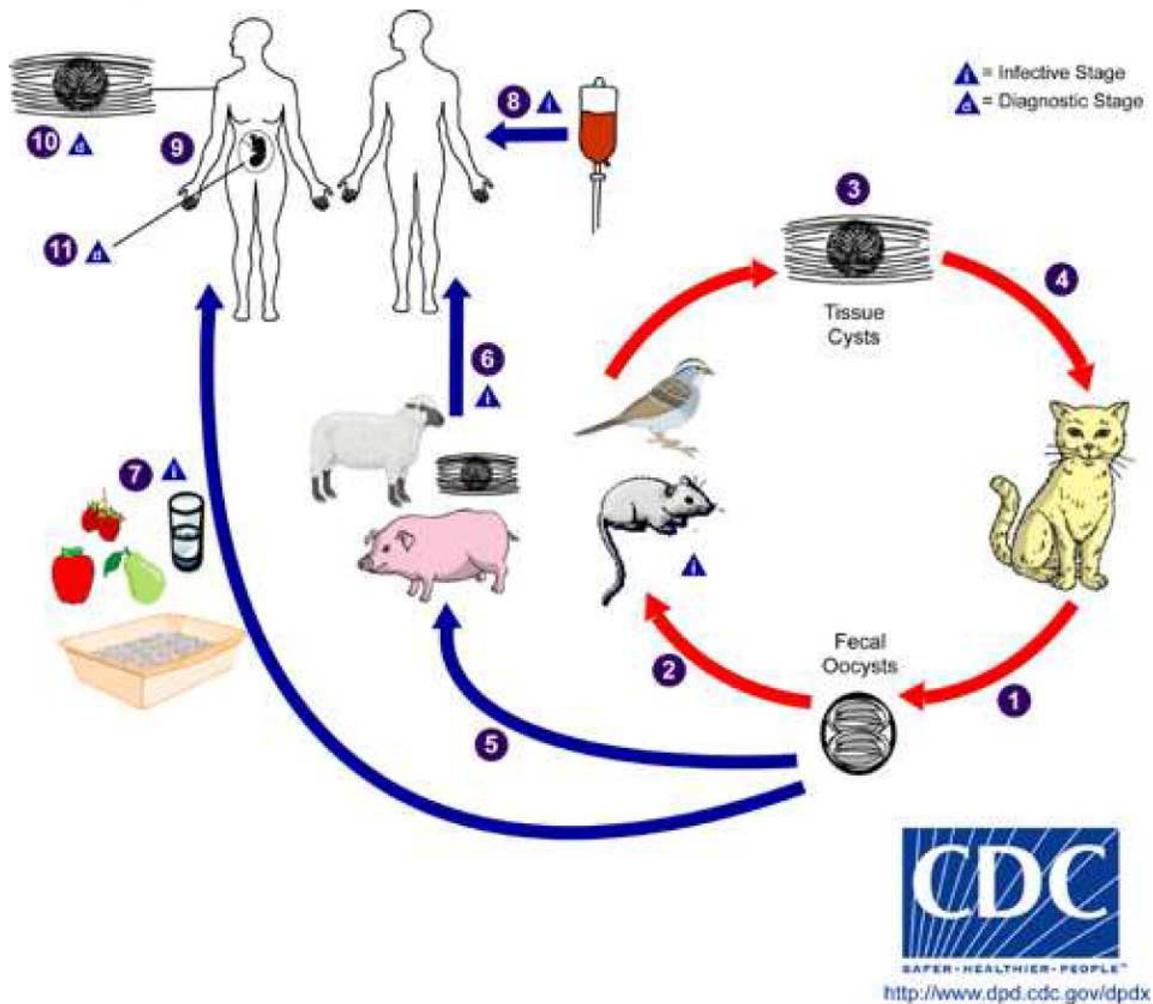
⁴ CDPH, Facts about Rabies Vaccination for Companion Animals, July 2014; <http://www.cdph.ca.gov/HealthInfo/discond/Documents/FactsAboutRabiesVaccinationForCompanionAnimals.pdf>

infected, could infect her fetus. The mother may experience limited symptoms while her child may be stillborn or later have mental disability, seizures or vision loss.⁵

The Centers for Disease Control (CDC) includes Toxoplasmosis on its US list of five Neglected Parasitic Infections⁶ that it is targeting for public health action due to the number of people infected, the severity of the illnesses and the ability to prevent and treat them. The planned actions include increasing awareness among physicians and the public, synthesizing data to better understand the infections and by improving diagnostic testing.

Exposure to Toxoplasmosis infection centers on cats as reproductive hosts but the sphere of exposure is much broader. The life cycle chart⁷ produced by the CDC helps explain the range of the threats.

Life Cycle:



⁵ CDC Fact Sheet Disease, Parasites-Toxoplasmosis, July 10,2014; <http://www.cdc.gov/parasites/toxoplasmosis/disease.html>

⁶ CDC, Neglected Parasitic Infections in the United States; July 10,2014; <http://www.cdc.gov/parasites/npi/>

⁷ CDC, Biology, Parasites-Toxoplasmosis, July 10,2014; <http://www.cdc.gov/parasites/toxoplasmosis/biology.html>

As the reproductive host, a cat is at the core of distribution of the disease. While each cat can usually only be infected once, that infection may produce, over a median duration of eight days, from 3 to 810 million oocytes, each viable to infect in five days and able to remain viable over a broad range of dry, wet, warm and cold conditions for years.⁸ As the life cycle depicts, there are many more ways for humans to become infected than by direct exposure to cat feces, whether in soil, litter box or sand box. Oocytes can be transported by flies from feces to food on a plate. Roaming cats on ranches and farms can lead to market animal ingestion or deposition on fruits and vegetables, potentially producing an infection if food is not washed or cooked thoroughly or frozen.⁹ Oocytes can also be washed by rain into streams or irrigation canals introducing the potential of infection to animals, vegetation and humans downstream. In a recent study of mothers of children with congenital toxoplasmosis, 78% of the mothers had been infected by consumption of an oocyte but had not had any significant association with a cat or its feces.¹⁰

Per the CDC¹¹, more than 60 million Americans are chronically infected with Toxoplasmosis and 1 million more are infected every year. After the initial infection for which symptoms may be mild, healthy individuals have no symptoms of infection although the protozoan is present, encysted in soft tissue. In immunocompromised individuals, symptoms can be far more severe and in a subsequent immune-suppressed episode, there could be a relapse.

Particularly disturbing are studies that have been finding strong association of a variety of psychotic or personality disorders and certain types of dementia among individuals testing positive for the disease.¹²

Overview of societal contributions to the frequency of cat-human zoonotic transmission

While there have always been individuals who have put out food for local cats, in recent years there have been increasingly better organized projects to feed and manage “colony” cats. Those efforts are occurring in Santa Clara County, essentially unpermitted, and create situations of public health concern.

Feeding stations: A cat feeding station can be anything from food spread on the ground periodically to a structure enclosing a large food dispenser, sheltered from the weather. It may be on public land without permission or private land with permission. Sometimes food is set out by the side of a trail or in a niche near a building. Sometimes the location is hidden, perhaps behind shrubs. Undoubtedly, feral and outdoor pet cats will be attracted. So will any mammal close enough to smell it. Even if a feeder is off the ground, if a cat can get there, so can a fox and other wildlife.

The feeding sites create unregulated gathering points of mammals, wild, feral and roaming pets, a situation for cross-infection among individuals and a localized concentration of urine and excrement. Who is responsible for clean-up? If feces are removed from the feeding location, is the person involved disposing of it responsibly and/or safely from the public health perspective?

⁸ Torrey and Yolken, Stanford Medical Research Institute, Toxoplasma oocysts as a Public Health Problem, 2013.

⁹ CDC, Prevention & Control, Parasites-Toxoplasmosis, Jan. 10, 2013; <http://www.cdc.gov/parasites/toxoplasmosis/prevent.html>

¹⁰ Boyer et al, Unrecognized Ingestion of Toxoplasma gondii Oocysts Leads to Congenital Toxoplasmosis and Cause Epidemics in North America, October 2011; <http://cid.oxfordjournals.org/>

¹¹ Ibid., CDC, Neglected Parasitic Infections

¹² Ibid., CDC, Fact Sheet Disease



Feces-contaminated feeding station (left) and an animal latrine (right).

Photos by Johanna van de Woestijne 2014

Trap, Neuter and Release (TNR): TNR is a program promoted as a means of controlling feral cat populations by trapping cats, neutering or spaying the animal and then releasing it to the location where it was trapped. As discussed in the Audubon letter, this practice has not been shown to be effective in reducing the number of feral cats and, therefore, does not decrease the density of cats nor the spread of zoonotic disease. The field operations are generally handled by volunteers, functioning as individuals or informal groups. It is not known if or how many of these individuals are trained about the zoonotic diseases to which they are exposed and that their actions may promote.

Animal Control Participation in TNR: In Santa Clara County, the various Animal Control Operations are generally, or strongly, supportive of TNR, with or without specific authority by ordinance. Such facilities will, at no charge, neuter or spay a feral cat trapped for that purpose and, if in apparent good health, return it for release where trapped. The purpose of release is to avoid euthanasia. Unfortunately, while in the facility and perhaps due to costs, the cats are not tested or treated for zoonotic diseases nor are they vaccinated before release. There are other questions that should be raised from a public health perspective. Are there infectious-disease isolation practices that will prevent a feral cat from contaminating a facility with oocytes of Toxoplasmosis or from exposing socialized, adoptable cats onsite to potential infection? If a private property owner brings in a feral cat to remove it from the property, why should that property owner be instructed that, once neutered/spayed the cat must be returned to the trapped location i.e. forcing the owner to deal with any zoonotic disease issues?¹³

There are facilities that work to find other options after neuter/spay. One of them is the Peninsula Humane Society & SPCA in San Mateo County. Instead of release, the program there works with cat organizations to find sanctuaries in which the unsocialized, feral cats can live out their lives. Funding can be an obstacle for such sanctuaries and may need to depend on the private sector. Notably, Larry Ellison of Oracle funds a sanctuary for 400 feral cats in Hawaii, a state where native species have been depleted drastically and too often to extinction, in good part due to the introduction of free-roaming cats.

In closing, we would like to bring the discussion back to making changes to the Health Element that will incorporate public health objectives to prevent and reduce zoonotic diseases. In our review of the document, we find no one place that appears precisely appropriate but will suggest several here.

¹³ Author's personal communication, various dates, multiple property owners, San Jose, CA

A. Health Conditions, Equity and Access

Strategy #4: Educate and empower individuals, employees and communities to improve population health and advocate for positive change. (A-12)

The paragraph expanding on this strategy includes a sentence that could be modified as follows: Whether the need is tobacco free environments, access to care and screenings, personal nutritional education, *best health practices involving animals* or improving park safety, collaboration and education are keys to success. (text addition shown in italics). We suggest this change be separate from the listing of park safety, as a specific reference to infectious disease prevention.

In the policies that fulfill this strategy, HE-A.29, Health Education programs and HE-A.30, Community engagement can both apply to prevention and infection reduction programs for zoonotic diseases.

E. Recreation and Physical Activity

Strategy #2: Improve the usability/connectivity, aesthetics, and safety of existing parks, trails and open space.

The paragraph expanding on this Strategy, begins with a sound statement of responsibility: Public agencies can increase the use and desirability of existing parks and recreational facilities by upgrading infrastructure, providing additional amenities such as water stations, and *increasing the health and safety for park users*. (Italics added) Subsequent text and policies appear to emphasize health and safety in terms of accident and harm by individuals but not actions that can be used to prevent exposure to infections such as zoonotic disease. Parks and trails are places where people gather and are often locations where cat feeding stations may exist or be nearby such that there is an increased presence of roaming cats, possibly a colony, cats that will use sand volleyball courts or other soft earth locations as latrines. Such places are often also used as sand boxes by children, possibly tended by pregnant mothers. Feeding stations attract wildlife as well, increasing the possibilities of zoonotic spread of disease among the animals and to humans. Just a few years ago, a squirrel bit a young boy at a picnic table in a Mountain View city park. Thankfully, the squirrel was not rabid. It could have been.

We urge the County to add another policy to Recreation and Physical Activity, Strategy #2 specific to health, incorporating actions such as park/trail user education, deterrents to cat feeding or release and/or evaluation of an ordinance, all as means for prevention of zoonotic and possibly other communicable diseases.

We have appreciated having this opportunity to present significant information and to recommend improvements to the Health Element. If needed, we welcome any follow-up contact. Contact the author at 408-257-7599 or wildlifestewards@aol.com.

CCCR is a fully volunteer-run, 501(c)(3) nonprofit organization that has its beginnings in the citizen committee that worked with Congressman Don Edwards to establish the Refuge in 1972. Since that time we have worked to expand the Refuge, as authorized by Congress and to act on behalf of wildlife protection and habitat preservation/restoration along the Bay's shoreline.

Sincerely,



Eileen P. McLaughlin
Board Member, CCCR

CC: Florence LaRiviere, Chair, CCCR
Carin High, Vice Chair, CCCR