

17425 BALLINGER WAY NE LAKE FOREST PARK, WA 98155 206-368-5440 www.cityoflfp.com

# **Table of Contents**

Introduction	4
Purpose and Background	4
Guiding Principles	4
Coyotes and Raccoons	5
Coyotes	5
Raccoons	5
Killing or relocation of coyotes is not ecologically sound	6
Public Education and Outreach	7
Hazing Program - Behavioral Modification of Coyotes and Raccoons (see Appendix B)	8
Enforcement of Local Regulations – Protecting Residents and Wildlife	9
Response Plan for Wildlife Interactions	10
Attack	10
Incident	10
Conflict	10
Appendix A: Coyote behavior, behavior classification and recommended response	12
Appendix B: Hazing Program and Training Plan	13
Appendix C: Poisons	17
	17
Compound 1080 - Fluoroacetate	
Compound 1080 - Fluoroacetate Sodium Cyanide	17
Compound 1080 - Fluoroacetate Sodium Cyanide Appendix D: Traps	17 18
Compound 1080 - Fluoroacetate Sodium Cyanide Appendix D: Traps Steel Jawed Leghold Traps, Padded-Jaw Leghold Traps	17 18 18
Compound 1080 - Fluoroacetate Sodium Cyanide Appendix D: Traps Steel Jawed Leghold Traps, Padded-Jaw Leghold Traps Conibear Traps	

## **Definitions**

- 1. Active coexistence: Humans and wildlife exist together. Humans take an active role in keeping wild animals in their community wild by learning about wildlife ecology and behavior, removing attractants, taking responsibility for pet safety, and hazing wild animals in neighborhood or community spaces.
- 2. Attack: An aggressive action by a wild animal that involves physical contact with a human.
  - a. **Provoked**: An incident in which the human interacts with the animal or encourages the animal to engage. Examples include a dog off-leash in an on-leash area or an incident in which a human intentionally approaches or feeds wild animals.
  - b. **Unprovoked**: An incident which occurs when the human involved does not encourage the wild animal to engage.
- 3. Attended animal loss or injury: Injury or death caused by a coyote or raccoon to a domestic animal that is leashed.
- 4. **Unattended animal loss or injury:** Injury or death caused by a coyote or raccoon to a domestic animal who is unattended by a person. Also includes "depredation," which is predation on domestic pets or livestock. Depredation of unattended animals is normal behavior for a coyote.
- 5. Encounter: An unexpected, direct meeting between a human and a wild animal, without incident.
- 6. **Habituation:** A simple form of learning that results from a repeated activity for example, when wild animals learn to associate humans with sources of food.
- 7. **Hazing:** A training method that employs immediate use of deterrents to move an animal out of an area or discourage an undesirable behavior or activity. Hazing can help maintain a wild animal's fear of humans and deter them from urban spaces. Hazing does not harm animals, humans or property.
- 8. **Human-wildlife conflict:** Interaction between wild animals and people that negatively impacts people or their resources, or wild animals or their habitat.
- 9. **Incident:** A conflict between a human and a raccoon or coyote where the animal approaches a human and growls, bares teeth, or lunges; or injures or kills an attended/on-leash pet, but no human injury occurs.
- 10. Observation: The act of noticing or taking note of wildlife tracks, scat, or vocalizations.
- 11. Sighting: A visual observation of a wild animal or animals; may occur at any time, day or night.
- 12. **Unsecured Trash:** Trash that is accessible to wildlife. This includes individual garbage cans, bags, food compost receptacles or dumpsters.
- 13. Wildlife: Includes all non-domesticated animals.
- 14. Wildlife feeding:
  - **a.** Intentional: Providing food and/or water with the express intention of attracting and feeding wild animals.
  - b. **Unintentional**: Providing food and/or water sources to some animals (ie: pets or wild birds) that serves as an attractant for wild animal species other than birds. Such attractants include any substance which could reasonably be expected to attract or does attract coyotes or other wild animals including, but not limited to, pet food, seed, grain, garbage, compost, and fruit trees.
- 15. Wildlife Panel: A panel consisting of citizen volunteers.

# **Introduction**

## Purpose and Background

The purpose of this wildlife management plan is to support human coexistence with urban wildlife using education, behavior modification, and the development of a policy to address human-wildlife conflicts. This program will require the participation of City personnel and residents.

This management plan was developed at the direction of the City Council and the Mayor, who directed the formation of a Wildlife Taskforce in August 2011. The taskforce composed of interested commissioners currently serving on the Environmental Quality, Community Services, and Library commissions studied the issue and developed this plan. It was presented to the Council and Mayor in December 2011.

## **Guiding Principles**

- 1) Urban wildlife is valued for biological diversity and as members of a natural ecosystem.
- 2) Urban wildlife and wildlife habitats are important to Lake Forest Park residents.
- 3) Lake Forest Park residents and wildlife can coexist safely and humanely.
- 4) Human safety is a priority in managing human-wildlife conflicts.
- 5) Preventive practices, such as reduction and removal of wildlife attractants, and responding appropriately during human-wildlife conflicts, are necessary to minimize potential conflicts.
- 6) Education and communication are essential in supporting a coexistence which supports both human and animal needs.
- 7) Preventive measures and non-lethal controls are a strong preference for dealing with human-wildlife conflicts, with lethal measures taken only as a last resort. When lethal measures are employed, the use of body-gripping traps (appendix D), snares, or poisons (appendix C) is not an option and general culling will not occur.

## How do humans affect wildlife behavior?

Urban areas may support wildlife populations in close proximity to people for the following reasons:

- Increased access to food: People often provide wildlife with easy access to food supplies such as pet food, bird seed, unsecured compost or trash, fallen fruit in yards, and outdoor barbeques and smokers.
  Unintentional and intentional feeding of wildlife can lead wild animals to consider people as a source of food and may encourage bold behavior in wild animals, including aggression towards people and pets.
- Increased access to water: Year round water supplies in cities from man-made ponds, lakes, irrigation, pet water dishes, etc. increase the availability of water, which is essential to prey animals and coyotes.

When humans feed wildlife such as coyotes and raccoons, it does not help the animals; it is potentially killing them.

- Increased potential shelter: Parks, open spaces, golf course buildings, vehicles, sheds, decks, and crawl spaces, among other areas, increase the amount and variability of available shelters for wild animals, allowing them to safely and easily remain close to people, pets, homes and businesses without detect
- allowing them to safely and easily remain close to people, pets, homes and businesses without detection. Increased exposure to pets: Pets are a normal part of an urban landscape and wild animals may consider
- Increased exposure to pets: Pets are a normal part of an urban landscape and wild animals may consider pets as potential prey or potential competitors in their territory.

• Increased exposure to people: Regular interaction between wildlife and people without negative consequences (hazing) encourages the habituation of wildlife, and humans may be disregarded as a potential source of danger.

## **Coyotes and Raccoons**

Although Lake Forest Park places a high value on its natural environment and the wildlife it attracts, some species have the potential for conflicts with humans in specific situations. Respondents to a public survey conducted by the City identified coyotes and raccoons as such species. Since it is widely recognized that removing these animals from the urban ecosystem is impossible and not necessarily desirable, this document can be used to prevent and address conflicts with coyotes and raccoons as well as other wildlife species.

## Coyotes

Coyotes play an important role in the urban ecosystem. They are predators of rats, mice, gophers, squirrels, geese, rabbits, and other small mammals. Rodents make up a majority of their diet.

**Appearance:** On the upper parts of their body, coyote pelts vary from gray-brown to yellow-gray. Their backs have tawny-colored under fur and long overcoats with black-tipped guard- hairs. The latter forms a dorsal stripe and dark band over their shoulders. Throat and bellies tend to be buff or white. Forelegs, sides of the head, muzzle, and feet are reddish brown. Coyotes have long legs, small paws, large pointed ears, and a pointed snout. Weighing between 15 to 40 lbs, their long legs and thick fur make them appear larger.

**Behavior:** Coyotes may live alone, in pairs, or in family groups, with one breeding pair generally mating once a year, usually January through February. The rest of the group is comprised of multiple generations of offspring. Social organization and group size are highly correlated with food availability. Because coyotes are socially organized, the group raises the young and defends their territory from other coyotes. Territories do not overlap. Although they generally live in groups, coyotes often travel alone or in pairs.

**Breeding:** Pups are born March through May. Litter size varies from two to 12 pups, with an average of six or seven, and depends on available resources and the number of coyotes in the area. Pup mortality averages between 50% and 70% in the first year. Pups remain in the den for the first six weeks and then travel with the adults. By the end of summer, they are more independent, yet may still travel with parents and siblings.

**Habitat:** In urban areas, most coyotes live in large parks, golf courses, greenways, and natural open spaces, where they find food and cover. Thus, their territory may follow park or open space boundaries. They are extremely adaptable at creating territories under a wide range of urban conditions. Evidence of coyotes may include paw prints, scat (feces), or their distinct howls, barks, and whines as they communicate with each other. Their prints are similar to dogs' and difficult to tell apart. However, unlike dogs, their scat is rope-like and typically filled with hair, seeds and bones. Coyotes use scat to communicate and often deposit it in the middle of a trail or edge of their territory where it is easily seen.

# Raccoons

**Appearance:** The raccoon is a native mammal, measuring about 3 feet long, including its 12-inch, bushy, ringed tail. Because their hind legs are longer than their front legs, raccoons have a hunched appearance when they

walk or run. Each of their front feet has five dexterous toes, allowing raccoons to grasp and easily manipulate food and other items. Adult raccoons typically weigh from 15 to 40 pounds.

**Behavior:** Raccoons will eat almost anything, but are particularly fond of creatures found in water—clams, crayfish, frogs, fish, and snails. Raccoons also eat insects, slugs, dead animals, birds, and bird eggs, as well as



Figure 1: Raccoons are very intelligent, with their learning speed often being compared to that of a monkey. (Photo by Ginger Holser, Washington Department of Fish and Wildlife)

fruits, vegetables, nuts, and seeds. Around humans, raccoons often eat garbage and pet food. Although not great hunters, raccoons can catch young gophers, squirrels, mice, and rats.

**Breeding:** Raccoons typically give birth anytime from March through mid-August and litter size ranges from one to seven, with three to five the usual. Young are weaned at approximately two months of age and may remain with the mother through the first winter before moving out of the birth area in search of new homes.

Habitat: Dens are used for shelter and raising young. They include abandoned burrows dug by other

mammals, areas in or under large rock piles and brush piles, hollow logs, and holes in trees. Raccoons also take advantage of available attics, crawl spaces, chimneys, and abandoned vehicles for use as den sites. In urban

areas, raccoons normally use den sites as daytime rest sites. In wooded areas, they often rest in trees. Raccoons generally move to a different den or daytime rest site every few days and do not follow a predictable pattern. Only a female with young or an animal "holed up" during a cold spell will use the same den for any length of time. Several raccoons may den together during winter storms.

### Wildlife and Human Behavior Modification

Coexistence with wildlife is a core value of Lake Forest Park and is recognized in the comprehensive plan and the sensitive areas ordinance. Specifically, Lake Forest Park recognizes the value of wildlife habitat in its suburban environment and requires provisions for wildlife, such as sensitive area buffers and native plantings, when development occurs. This Wildlife Management Plan was developed in keeping with this core value and therefore emphasizes wildlife and human behavior modification rather than elimination of individual animals or animal populations.

## Killing or relocation of coyotes is not ecologically sound

The plan was also crafted with the understanding that in many cases, particular or traditional wildlife management tools are ineffective. For example, relocation of coyotes is not



Figure 2: Coyotes can thrive in urban environments and play an important ecological role. (Photo from City of Los Alamitos)

ecologically sound since many relocated animals do not survive the transfer and if they do, they may go to great lengths to return to known territory or may adversely affect resident coyotes. Removal of animals – whether by killing or relocation - simply opens up habitat that will be quickly filled by other animals, leading to the potential for periods of overpopulation. In fact, it has been demonstrated that coyotes may become more prolific and abundant when members of the group are removed or killed. Killing either the alpha male or alpha female in a pack may result in ovulation in other breeding-age females in the pack and an increase in the number of litters as well as the number of pups per litter. Also, it is extremely difficult to ensure that the problem-causing coyote(s) will be the one(s) located and killed

The strategies for managing wildlife in Lake Forest Park are based on balancing respect and protection for wildlife and their habitats with public safety and include:

- Public Education and Outreach
- Human Behavioral Modification
- Behavioral Modification in Coyotes and Raccoons The Hazing Program
- Enforcement of Local Regulations Protecting Residents and Wildlife
- Response Plan for Wildlife Incidents

## Public Education and Outreach

Education is the key to residents making appropriate decisions in maintaining their own safety, managing their

property, and safeguarding their children and pets. This involves decreasing wildlife attractants, increasing responsible pet guardianship, and creating reasonable expectations of normal wildlife behavior.

Learning how to respond to a wildlife encounter empowers residents and supports reshaping undesired wildlife behavior. It is important for people to understand normal wildlife behavior while recognizing abnormal behavior. For example, coyote vocalization is normal acceptable behavior and does not indicate aggression, while a coyote stalking a person is not acceptable.



Figure 3: Feeding coyotes or other wildlife increases the likelihood of negative interactions with people and/or pets.

Below is a list of normal and inappropriate coyote behaviors, and Appendix A provides a more comprehensive list with recommended response:

Normal Behavior	Inappropriate Behavior
Coyote heard howling, yipping, or barking	Coyote actively approaches a person, with no
	attractants as incentive
Coyote seen at a distance, resting or moving	Coyote stalks a person or attended pet
Coyote acting as a predator of small mammals such as	Coyote is aggressive toward a person, showing teeth,
rats, mice, domestic cats, etc.	back fur raised, lunging, or nipping
Coyote enters a yard that is open, unfenced, abuts to	Coyote enters an area where humans and/or pets are
open space, and/or has attractants	present and does not leave when aggressively hazed
Coyote crosses a street or walkway	
Coyote enters a yard with pets but no people;	Coyote bites a person or a pet on a leash
potentially acting as a predator of pets	

Public education and outreach will primarily include dissemination of information by volunteers and/or City staff through the following:

- Interpretive signs in parks and other public spaces (City staff)
- Periodic newspaper articles (City staff and volunteers)
- Information bulletins at City Hall (City staff)
- Presence at the Lake Forest Park Green Fair and Farmer's Market (volunteers)
- Distribution of information (in particular "door hanger" leaflets) in neighborhoods where human-wildlife conflicts have been identified (City staff and volunteers)
- Public presentations as necessary
- Hazing training and written materials (City staff and volunteers)

# Hazing Program - Behavioral Modification of Coyotes and Raccoons (see Appendix B)

When urban wildlife becomes comfortable in the close proximity of humans, it may be necessary to modify their behavior to avoid conflict with humans and pets. Hazing is the process that facilitates this change and is by necessity a community response to encounters with wildlife. The more often an individual animal is hazed, the more effective hazing is in changing the animal's behavior.

Hazing employs immediate use of deterrents to move an animal out of an area or discourage undesirable behavior or activity. Deterrents include loud noises such as whistles and horns, spraying water, bright lights, throwing objects, and shouting. Hazing can help maintain an animal's fear of humans and discourage them from neighborhoods and public areas. Hazing does not harm animals, humans, or property.

Use of proper hazing techniques should never injure an animal

Hazing should never injure the animal. An animal injured by hazing becomes less predictable and may respond aggressively. Hazing is not necessary when an animal is already trying to avoid the encounter by leaving the area or taking a concealed position at a distance, especially in a wildlife habitat area such as forest or other large open spaces.

## Enforcement of Local Regulations – Protecting Residents and Wildlife

Lake Forest Park has a number of existing regulations that should be strictly enforced to minimize the potential for human-wildlife conflict, specifically:

- LFPMC 6.04.020: No owner or custodian of animals or fowl shall permit them to go at large.
- LFPMC 6.12.010: It is unlawful for owners or keepers to allow their dogs to be at large or without restraint.

Since the above regulations alone do not sufficiently address the issue of urban wildlife conflicts, the following language should be considered for adoption to ensure the regulatory component of this program is effective:

## 6.04.200 Feeding Wildlife

It is unlawful in any manner to directly or indirectly feed any wild animal, excluding the use of hanging bird feeders that provide seed, suet or nectar for a variety of common birds.

## 6.04.210 Wildlife

It is unlawful in any manner to tease, annoy, disturb, molest, catch, injure or kill or to throw any stone or missile of any kind at or strike with any stick or weapon any animal, bird, fowl or fish, subject to the limitations and conditions established under RCW 77.36.030(1), which establishes limitations and conditions for trapping or killing wildlife threatening human safety or causing property damage, and/or the City's accepted wildlife management plan.

## 6.04.220 Traps

It is unlawful to use steel-jawed leghold traps, padded-jaw leghold traps, Conibear traps, neck snares, and non-strangling foot snares to capture or attempt to capture any animal.

## 6.04.230 Poison

It is unlawful to poison or attempt to poison any animal using sodium fluoroacetate, also known as compound 1080, or sodium cyanide.

## 6.04.240 Animal Housing

Any animal, other than domestic dogs, cats and other small animals or fowl normally housed in a residence, must be sheltered, stabled or penned within an enclosed structure.

The following regulations must be amended:

## 6.04.030 Minimum Lot Area

The minimum <del>lot</del> area <u>of any lot</u> on which any animal <u>is kept</u>, other than domestic dogs, cats and other small animals or fowl normally housed in a residence<del>, may be sheltered, stabled or penned, including the area used for residential purposes,</del> shall be 20,000 square feet for the first such animal <u>plus</u> and 5,000 square feet for each additional animal. <u>The minimum lot area includes the area used for residential purposes</u>. A variance to lot size may be requested from the city council for special cases. Any

variance granted by the city council would be subject to written approval of all adjoining property owners.

# 12.08.060 Wildlife

It is unlawful in any manner to tease, annoy, disturb, molest, catch, injure or kill or to throw any stone or missile of any kind at or strike with any stick or weapon any animal, bird, fowl or fish, in any park, or to feed any fowl except at areas designated by the city council with the advice of the commission in any park, excluding the actions associated with the City's accepted wildlife management plan.

# Response Plan for Wildlife Interactions

# Attack

An aggressive action by a wild animal that involves physical contact with a human.

• The Washington Department of Fish and Wildlife will investigate all attacks and respond as it deems appropriate.

**Note:** If lethal control is to be implemented, only specific animals may be targeted and general culling may not occur since removing a group of territorial coyotes will create an undefended area into which transient coyotes will flow. At all times of year, transients are immediately available to fill any voids created by killing resident coyotes. Further, killing either the alpha male or alpha female in a pack may result in ovulation in other breeding-age females in the pack and an increase in the number of litters as well as the number of pups per litter.

- The City will investigate the circumstances of the attack, determine possible causes, and enforce applicable regulations accordingly.
- The City will do a mailing to all residences within 500' of the attack to provide information about the attack and information about interaction with wildlife.
- The City and/or volunteers will conduct hazing training for residents in the area of the attack.

# Incident

A conflict between a human and a raccoon or coyote where the animal approaches a human and growls, bares teeth, or lunges; or injures or kills an attended/on-leash pet, but no human injury occurs.

Circumstances of an incident are critical in determining a response. The Wildlife Panel will review materials and information associated with an incident and determine the appropriate response which may include:

- A mailing and/or door-hanger leaflet to all residences within 500' of the incident to provide information about the incident and information about interaction with wildlife.
- A public meeting to provide information about the incident and information about proper interaction with wildlife to avoid additional incidents.
- Hazing training for residents in the area of the incident.

# Conflict

Interaction between wild animals and people that negatively impacts people or their resources, or wild animals

or their habitat.

- Citizen volunteers will assess the situation and provide appropriate information concerning interaction with wildlife.
- Citizen volunteers will provide hazing training if necessary.

# Appendix A: Coyote behavior, behavior classification and recommended response

Coyote Action	Classification	Response
Coyote heard	Observation	Distribute educational materials and info on normal coyote behavior
Coyote seen moving in area	Sighting	Distribute education materials and info on normal coyote behavior
Coyote seen resting in area	Sighting	If area frequented, educate people on normal behavior, haze to encourage animal to leave
Coyote following or approaching a person and pet	Sighting Encounter	Educate on potential hazing techniques, what to do tips and pet management
Coyote following or approaching a person without pet	Encounter	Educate on potential hazing techniques, what to do tips and pet management
Coyote entering a yard without pets	Sighting	Educate on coyote attractants, yard assessment, hazing information
Coyote entering a yard with pets	Encounter	Educate on coyote attractants, yard assessment, hazing information, pet management
Coyote entering yard and injuring or killing pet (witnessed)	Incident	Develop hazing team in area, gather info on incident, neighborhood notification, educate on coyote attractants, yard/neighborhood assessments, pet management
Coyote entering yard with people & pets, no injury occurring	Encounter	Gather info on incident, educate on coyote attractants, yard/neighborhood assessments, hazing, pet management
Coyote biting or injuring pet on leash	Incident	Gather info on incident, educate on coyote attractants yard/neighborhood assessments, hazing, pet management
Coyote aggressive, showing teeth, back fur raised, lunging, nipping w/o contact	Incident	Gather info on incident, educate on coyote attractants, yard/neighborhood assessments, hazing, pet management
Coyote biting or injuring person	Attack	Contact the Washington Department of Fish and Wildlife for investigation and response. Also, gather info on incident, educate on coyote attractants, yard/neighborhood assess ments, hazing, and pet management.

## Appendix B: Hazing Program and Training Plan

### Hazing and behavioral change

Some urban coyotes have become comfortable in close proximity to people. To safely coexist, it's important to modify this behavior and attitude in resident coyote populations. Urban coyote behavior needs to be reshaped to encourage coyotes to avoid contact with humans and pets.

Hazing is the process that facilitates this change and is by necessity a community response to encounters with coyotes. The more often an individual animal is hazed, the more effective hazing is in changing coyote behavior.

Hazing employs immediate use of deterrents to move an animal out of an area or discourage undesirable behavior or activity. Deterrents include loud noises, spraying water, bright lights, throwing objects, and shouting. Hazing can help maintain coyotes' fear of humans and discourage them from neighborhoods such as backyards and play areas. Hazing does not harm or damage animals, humans or property. Behavioral change also involves human activities such as how to identify and remove attractants and how to responsibly protect pets.

### **Foundation of hazing**

a) It is not economically, ecologically or in other ways efficient to try and remove coyotes from the urban ecosystem.

b) Hazing is one piece of a long-term plan in creating safe and acceptable living situations, increasing understanding, and reducing conflict between coyotes and people.

#### **Goals of hazing**

- 1) To reshape coyote behavior to avoid human contact in an urban setting. Human behavior can shape animal behavior, in either a negative or positive manner. People living in close proximity to coyotes can remove coyote attractants, identify potentially dangerous situations for their pets and themselves, and respond in a manner designed to change coyote behavior.
- 2) To provide residents information and tools to actively engage in reshaping coyote behavior and to support feeling safe in their parks and neighborhoods. This can be accomplished by teaching residents hazing techniques. The latter will be initiated by community volunteers.
- 3) To model hazing behavior and share accurate information about coyotes among other residents, friends and family.
- 4) Monitor hazing by volunteers to assess its effectiveness and determine if further action or more aggressive hazing is needed.
- 5) Develop long-term community based hazing programs by volunteers.

### **General Considerations**

1. Levels of hazing need to be appropriately relevant to coyote activity.

a. Coyotes live in open spaces and the best practice is to leave them alone and educate the public on personal safety.

- b. Coyotes are often out late at night when few people are present. This is normal acceptable behavior. Hazing may not be necessary.
- c. Coyotes that associate danger in the presence of people under all circumstances will be reinforced to avoid contact.

2. Hazing must be more exaggerated, aggressive and consistent when first beginning a program of hazing. As coyotes "learn" appropriate responses to hazing, it will take less effort from hazers. Early in the process, it is extremely common for coyotes not to respond to hazing techniques. Without a history of hazing, they do not have the relevant context to respond in the desired outcome (i.e.: to leave the area).

3. Techniques and tools can be used in the same manner for one or multiple animals. Usually there is a dominant animal in a group who will respond --- others will follow its lead. DO NOT ignore, turn your back or avoid hazing because there are multiple animals instead of a single individual.

4. The more often an individual coyote is hazed by a variety of tools and techniques and a variety of people, the more effective hazing will be in changing that animal's future behavior.

5. Hazing must be directly associated with the person involved in the hazing actions. The coyote must be aware of where the potential threat is coming from and identify the person.

6. Coyotes can and do recognize individual people and animals in their territories. They can learn to avoid or harass specific individuals in response to behavior of the person and/or pet.

7. Coyotes can be routine in habit. Identifying their normal habits can help target which habits to change. For example, if a coyote patrols the same bike path at the same time of the morning three to five days a week, hazers should concentrate on that time and place to encourage the animal to change its routine to decrease contact with people.

8. Certain levels of hazing must always be maintained so that future generations of coyotes do not learn or return to unacceptable habits related to habituation to people.

9. Human behavior must change to support hazing, continued identification of possible conflicts and, if necessary, remove possible attractants.

10. Education about exclusion techniques including how to identify and remove attractants, personal responsibility in pet safety and having reasonable expectations are critical parts of a coyote hazing plan.

11. Coyotes are skittish by nature. Habituated behavior is learned and reinforced by human behavior. Coyotes as a rule DO NOT act aggressively towards aggressive people. The one exception is a sick or injured animal. Engaging a sick or injured animal can result in unpredictable behavior. If this is suspected, people should not engage and remove themselves from the situation, then inform appropriate agencies (i.e. Washington State Department of Fish and Wildlife).

12. Individuals involved in hazing need to be trained in explaining hazing to residents who witness the process. They also need to explain the difference between hazing and harassment of wildlife and goals of appropriate behavior for coexistence.

## The Training Program

Because coexisting with wildlife involves the community, initiating the hazing training programs and hazing activities by volunteers must be supervised by experts. Without this support, the programs ultimately fail. Information should include basic training on background, coyote ecology information, an overview of hazing and examples of techniques. Materials should be provided such as handouts, contact information and resources when questions, comments and concerns come up relating to coyotes.

### **Coyote Management Plan**

Volunteers need to learn about coyote behavior and be aware of realistic expectations, understanding normal versus abnormal coyote behavior, and having a consistent response to residents' concerns and comments.

## **Public Hazing Training**

Hazing requires community involvement, understanding, and support. Residents are best equipped to respond consistently and at the most opportune times in their own neighborhoods, parks and open spaces.

1. Locations of trainings shall be based on data accumulated regarding coyote activity in specific neighborhoods, parks or open space.

- 2. Trainings shall be free to the public.
- 3. Topics that need to be covered include, but are not limited to:
  - a) Coyote behavior and ecology
  - b) Why coyotes are in the city
  - c) Normal and abnormal coyote behavior
  - d) Seasonal behavior changes---breeding season, pups, denning behavior
  - e) Reality of dangers towards people vs. danger towards pets
  - f) Children and coyotes
  - g) How human behavior influences coyote behavior
  - h) Attractants
  - i) Tips on deterring animals from entering private property
  - j) Appropriate response when encountering a coyote
  - k) What is hazing, goals, how to engage
  - I) Appropriate hazing techniques and tools
  - m) Pet safety tips

4. Interested individuals and participants shall be placed on a confidential email list. Updates, additional coyote information, electronic flyers and handouts sent out. All information can be and is encouraged to be passed on to others.

5. Participants shall be notified of "hot spots" and asked to haze in the area.

6. Ask for feedback on hazing training and use of hazing techniques.

- 7. Participants shall email detailed accounts of encounters and hazing to volunteer hazers for evaluation of program, progress, successful tools and techniques being used, techniques and tools needed.
  - a. Date, location, time of day, number of animals
  - b. Initial coyote behavior, hazing behavior, coyote response

### **Summary of Hazing**

Hazing is a process whereby individuals and volunteers respond in like manner to make a coyote uncomfortable and choose to leave a situation where their presence is unwanted.

Basic hazing consists of standing your ground, never ignoring or turning your back to a coyote(s), yelling and making unpleasant and frightening noises until the animal(s) choose to leave.

More aggressive hazing consists of approaching an animal quickly and aggressively, throwing projectiles, spraying with a hose or water gun, or creating fear of contact so the animal leaves the situation. Note: Many projectiles are not legal including but not limited to slingshots, paintballs, guns and pepper balls.

Once it begins, hazing must continue until the animal leaves, otherwise the coyote will learn to "wait" until the person gives up and will be more resistant to additional hazing.

Hazing should never injure the animal. An injured animal becomes less predictable versus a normal, healthy one who responds in a consistent and predictable manner to hazing.

Hazing should be conducted in a manner that allows the coyote to return to its normal habitat in a direction that would minimize harm to the animal. Hazing the animal in the direction of other houses and busy streets should be avoided.

Hazing uses a variety of different hazing tools. This is critical as coyotes get used to Individual items and sounds.

- Noisemaker: Voice, whistles, air horns, bells, "shaker" cans, pots, pie pans
- Projectiles: sticks, small rocks, cans, tennis balls, rubber balls.
- Deterrents: hoses, spray bottles with vinegar, pepper spray, bear repellant, walking sticks, pop-up umbrellas

### **Appendix C: Poisons**

### Compound 1080 - Fluoroacetate

Fluoroacetate(Compound 1080) disrupts the citric acid cycle(also known as the Krebs cycle) by combining with coenzyme A to form fluoroacetyl CoA, which reacts with citrate synthase to produce fluorocitrate. A metabolite of fluorocitrate binds very tightly to aconitase, thereby halting the citric acid cycle. This inhibition results in an accumulation of citrate in the blood which deprives cells of energy. Symptoms in domestic animals vary: dogs tend to show nervous system signs such as convulsions and uncontrollable running, whilst large herbivores such as cattle and sheep more predominantly show cardiac signs. Death can take up to five hours.

## Example of Compound 1080 Use – Livestock Protection Collar

Compound 1080 pouches are placed into collars worn by sheep. When a predator attacks a sheep—usually around the neck—its teeth may puncture the pouch, releasing a lethal dose of the poison into the predator's mouth.

## Compound 1080 Use – Concerns

Death of animals that are exposed to Compound 1080 can take up to five hours while the animal suffers convulsions and muscle spasms. When Compound 1080 is used in the Livestock Protection Collar it can leak after the animal is attacked rendering the carcass poisonous to scavengers resulting in poisoning and death of non-target species, including endangered species.

## Sodium Cyanide

Cyanide salts are among the most rapidly acting of all known poisons. Cyanide is a potent inhibitor of respiration, acting on mitochondrial cytochrome oxidase and hence blocking electron transport. This results in decreased oxidative metabolism and oxygen utilization. Lactic acidosis then occurs as a consequence of anaerobic metabolism.

## Example of Sodium Cyanide Use – M44 Cyanide Device

The M44 cyanide device (also called a 'cyanide gun' or a 'cyanide trap') is used for the elimination of suspected livestock predators, such as coyotes. It lures predators with an attractive smell, often from a small piece of bait, and then uses a spring to propel a dosage of sodium cyanide into the predator's mouth. The sodium cyanide combines with water in the mouth to produce poisonous cyanide gas.

### Sodium Cyanide Use – Concerns

Sodium Cyanide renders the cells unable to use oxygen. Exposure results in seizures, apnea (suspension of external breathing), cardiac arrest and coma, with death occurring in a matter of minutes. When sodium cyanide is used in a M44 Cyanide Device it can result in the death or poisoning of non-target wildlife, including endangered species, as well as pets, livestock, humans, birds, etc.

### Appendix D: Traps

### Steel Jawed Leghold Traps, Padded-Jaw Leghold Traps

These traps are made up of two jaws, up to two springs, and a trigger in the middle between the jaws. When an animal steps on the trigger the trap closes around the appendage and prevents the animal from escaping. These traps can be modified with padding to decrease pressure and associated injuries on the appendage. The problem with this type of trap, and many others, is it can capture non-target wildlife, including endangered species, domestic pets, and humans. The traps also cause tissue damage and can break bones of the captured animal causing the animal to suffer until it is released or killed.

#### **Conibear Traps**

Also known as "body gripping" traps, these traps are designed to kill the trapped animal quickly. The animal is typically lured to the trap with bait, the animal touches a wire and triggers the mechanism that springs the trap, closing it around the neck and torso of the animal, closing its trachea and often fracturing its spinal column. This type of trap does not include common rat and mouse traps. The problem with this type of trap, and many others, is it can capture non-target wildlife, including endangered species, and domestic pets and causes immense suffering if the captured animal is not instantly killed.

### Neck Snare, Non-Strangling Foot Snares

Snares are anchored cable or wire nooses set to catch animals. Neck snares tighten around the neck as an animal passes through the noose and continue to tighten as the animal struggles to get free, eventually causing suffocation. Foot snares are typically spring loaded and intended to snare the feet of wildlife in a similar way to leghold traps. The problem with this type of trap, and many others, is it can capture non-target wildlife, including endangered species, as well as domestic pets and can cause the captured animal to suffer.