COMMONLY USED NONLETHAL MEASURES AND THEIR IMPLEMENTATION ON MOUNTAIN LIONS

I. Capturing

A. Baited Cage
A large baited cage trap can be placed overnight at a location where a lion (or signs of a lion's presence: scat, tracks, killed prey) have been spotted over several days. Bear culvert cage traps can also be used and double as transport carriers.

B. Catch Pole
Sometimes also called an animal control pole, this is a wire noose on a long pole. This capture method is best suited for smaller lions and those that may already be mildly sedated or in a confined space.

C. Net
Throw nets and net guns will cover a lion on the ground with a large (usually nylon) mesh net to restrict its movements. A net pole, which looks like an oversized butterfly net or fishing net, can be used to capture mountain lion kittens.

D. Hand Grab
Wearing thick gloves, mountain lion kittens a couple months old may be capturable by hand. Handling kittens after eight weeks is more difficult than it may seem and requires experience and skill.

E. Tranquilize
Chemically calm or immobilize the mountain lion. This may also be called anesthetize or sedate. See Part III for more information.

II. Pursuing

A. Chase
On foot, in vehicles, horseback, etc., track and follow a mountain lion.

B. Tree
When frightened or seeking refuge, mountain lions will climb trees. A treed lion can be monitored and/or tranquilized. While not always the case, a lion tranquilized in a tree can fall and preparations should be made to break the lion's falls with a large catch net below.

C. Corner/Surround
Mountain lions have been cornered or surrounded in fenced yards, garages, sheds, courtyards, large bushes, ravines, under porches, etc. Although a lion could escape if it really wanted to, in these situations where a lion is somewhat confined it is often easier to capture the cat.

D. Cameras
Motion-activated cameras help monitor a location and let wardens know if a lion is still in the area. Because lions are most active at night and reported sightings from residents are a case of mistaken identity more than 80% of the time, trail cameras are a great monitoring device. Current technology allows some cameras to record short videos and take color photos.

III. Anesthetizing (tranquilize/sedate)

Drugs used to calm and immobilize wild animals are similar to those employed in human medicine. These drugs act at various sites within the central nervous system to produce a calming effect (tranquilizer), depression (sedative), loss of pain (analgesic), a trance-like or psychotic state (dissociative), and/or complete loss of consciousness (anesthesia).

A. Tranquilizer Gun/Rifle
Various makes and models (pistols and CO2 rifles) that shoot a tranquilizer injection dart.

B. Blow Pipe
A tranquilizer dart loaded into a hollow tube. Blowing into the tube "shoots" the dart.

C. Poke/Jab Stick
A tranquilizer injection syringe is attached to the end of long pole to allow space between the person and lion. At close range (usually when a lion is already in a cage) the lion is quickly poked with the syringe via the stick.

D. Ingestion
Though rarely used, some tranquilizers are available in tablets and could be planted in bait. These are typically not recommended because it is hard to ensure the proper dosage, the location of the sedated animal, and that the tablet was ingested by the targeted lion (versus another scavenging animal that might come along).

IV. Marking & Monitoring Devices

A. Telemetry Collar
A collar with some type of VHF/GPS device and a battery unit that is placed around the lion's neck to monitor its location and movements. Some models (VHF) use radio frequencies and a researcher must use an antenna device within a close proximity to locate the cat's signal and download position data. Certain models have a longer battery life and can use satellites to automatically transfer data to any digital device at regular intervals. Many collars are made of material that eventually degrades or have programmed releases so they fall off after a period of time.

B. Mark
A cat can be visually marked to temporarily or permanently help identify it. Forms of marking include a tattoo, ear tag, or shot with a paintball.

C. Surgical Implant
Just like a house pet, a microchip can be inserted into a lion to help identify it in the future should it ever be re-captured or found dead. Kittens too small for traditional collars can be fitted with an ultra light expandable VHF collar or surgically implanted with tiny VHF transmitters to help monitor movements such as confirming they stay with their mother and survive.

V. Haze

An animal may be hazed (scared or inflicted with temporary pain or irritation) from a particular area or hazed as part of a hard release. Some locations have sufficient direct access to corridors to the wild that lions can be frightened out of human territory and back where they belong. "Hard release" is the use of hazing methods when an animal is released from a cage to condition it to avoid people and urban areas.

A. Loud Noises
Mountain lions can sometimes be deterred from an area with loud noises such as sirens, air horns, or shotgun cracker shells.

B. Less-than-lethal Ammo
A mountain lion can be deterred by being shot (usually in the rump) with painful but nonlethal ammunition such as rubber slugs, bean bag rounds, or even a paintball gun.

C. Pepper Spray/Balls
Bear spray or other pepper sprays are available in small hand-held containers with spray distances of up to 30 feet. Pepper balls (often used in police riot gear) shoot small ammunition that bursts on impact releasing a pepper spray-like irritant.

D. Wildlife Service Dogs
Specially bred and trained Karelian Bear Dogs are used by wildlife professionals in Montana, Washington, Nevada and Canada to locate, tree, haze, and hard release bears and lions. Hound dogs are commonly used in the field to locate and tree mountain lions as well.

Legal References

Proposed Bill, Section 4801.5 (b) For purposes of this section, "nonlethal procedures" means procedures that may include, but are not limited to capturing, pursuing, anesthetizing, temporarily possessing, temporarily injuring, marking, attaching to or surgically implanting monitoring or recognition devices, providing veterinary care, transporting, hazing, relocating, rehabilitating, releasing, or taking no action.

Existing Law, Section 4809. [...] no mountain lion shall be taken by means of poison, leg-hold or metal-jawed traps, and snares.