

To: Department of Fish and Wildlife Staff

Subject: Human/Wildlife Interactions in California: Mountain Lion Depredation, Public Safety, and Animal Welfare – Amendment to Department Bulletin 2013-02

Overview and Background

More than half of California is mountain lion habitat. Mountain lions are solitary and elusive, and their nature is to avoid people. These majestic animals, however, may prey on pets or livestock, creating depredation concerns. In some situations, mountain lions present threats to public safety.

In the spring of 2013, the Department revisited and updated the 2007 policy regarding mountain lion depredation, public safety, and animal welfare. Among other reasons, the Department reviewed the policy because human/wildlife interactions had substantially increased during that period, requiring greater staff time in the areas of research and response in the field when interactions occur. The 2013 Departmental Bulletin (Bulletin 2013-02) primarily focused on human/wildlife interactions to ensure public safety, provided stepwise guidance for incidents to field staff, and created non-lethal management options for incidents not involving public safety. Since 2013, the Department has implemented this approach, monitored results, and invested in staff training consistent with the Bulletin. Bulletin 2013-02 did not focus on the issues related to loss of property or property damage (“depredation”) from mountain lion incidents.

Landowners and property owners have legitimate concerns regarding mountain lion depredation. The Department not only understands these concerns, but is required by law to be responsive to depredation permit requests. Population growth in California’s urban/wildland interface is often manifested in 1–40 acre parcels, many of which contain livestock that may be for commercial, recreational, or aesthetic purposes. This is especially prevalent in the Santa Monica and Santa Ana mountains leading to increased conflict with wildlife in these areas as well as other rural areas of California.

Similar to the Department’s efforts to improve management of human/wildlife conflicts, in December 2015, the California Fish and Game Commission’s (Commission) Wildlife Resource Committee established its Predator Policy Working Group (PPWG). The PPWG’s role is to provide the Commission recommendations on policy and regulatory options for managing predators in California. Among the PPWG’s membership are stakeholders interested in mountain lion depredation, and the PPWG’s efforts involve many of the same challenges the Department is addressing herein.

Fundamental to the Department's conservation, education, and outreach regarding mountain lions, the Department works to (a) maintain genetically diverse and demographically viable populations, (b) minimize conflicts between mountain lions and humans, (c) identify and protect important habitats, (d) improve public awareness, and (e) identify and research emerging management and scientific issues.

This 2017 amendment is the result of consideration of recent biological and scientific information as well as human population growth; the amendment will guide depredation incident response in a defined and limited geographic area of Southern California. Bulletin 2013-02 and the emphasis on public safety is not superseded. This document is subject to further deliberation and possible amendment as new information and implementation results dictate.

Issue Statement

The purpose of this Bulletin Amendment is to establish policy for issuance of permits related to mountain lion depredation within specific Southern California mountain lion populations. Recent research indicates a lack of genetic diversity in specific areas of Southern California (Ernest et al. 2014¹) and concomitant human population growth along with anthropogenic barriers that restrict connectivity with other populations, justifying a tailored approach to depredation response in this limited area. In addition to specific policy measures, the Department is pursuing many actions toward managing mountain lions, including coordination with federal, state, and non-governmental organization partners on projects to improve habitat connectivity, and to increase public outreach and education.

This Bulletin Amendment seeks to improve training, communication, transparency, and decision making as they relate to managing human/wildlife conflicts involving mountain lions, within a defined and limited geographic area of Southern California (i.e. the implementation area). The Department also seeks to avoid, where possible, mountain lion mortality resulting from the issuance of depredation permits in these areas. Department staff recognize that each depredation incident may be unique. Therefore, in addition to the geographically specific process defined in this policy amendment, staff responding to depredation reports should consider all factors relevant to the incident and respond appropriately given the circumstances. This amendment supplements and, where relevant, replaces Bulletin 2013-02.

Implementation Area Defined

The geographic area for purposes of implementing the policy in this Bulletin is defined in the attached Figures 1 and 2 and below in Section 6 of *Stepwise Process for Mountain Lion Incidents*. Generally, it includes parts of the Santa Monica Mountains south of Interstate 101 from Newberry Park to Burbank; west of Interstate 5 to Malibu;

¹ Ernest, Holly B., T.W. Vickers, S.A. Morrison, M.R. Buchalski, W.M. Boyce. 2014. Fractured Genetic Connectivity Threatens a Southern California Puma (*Puma concolor*) Population. PLoS ONE 9(10): e107985. doi:10.1371/journal.pone.0107985.

north of Interstate 10 near Santa Monica; and the Santa Ana Mountains south of the Anaheim/Pomona area to south of Escondido; and an eastern boundary into western Riverside County.

HUMAN/WILDLIFE INTERACTIONS POLICY AND PROCEDURES: MOUNTAIN LIONS

Mountain lions in California are a “specially protected” species (Fish and Game Code Section 4800) and may not be taken,² injured, possessed, transported, or imported except under specific circumstances related to depredation, public health and safety, to protect sensitive bighorn sheep populations, and other purposes as described in Division 4, Part 3, Chapter 10 of the Fish and Game Code. As the human population increases in California and communities expand into wildland areas, there has been a commensurate increase in direct and indirect interaction between mountain lions and people and an increase in calls for assistance to the Department from the public. Refer to Bulletin 2013-02 for complete policy language relative to human/wildlife interactions involving mountain lions.

Definitions

The working definitions below are additional to those in Bulletin 2013-02. All definitions apply to this policy document, and are included to assist Department employees who respond to reports and to improve the communication of the Department’s response to mountain lion situations.

Reporting Party (RP) – The individual who contacts the Department about a mountain lion sighting or incident. This is most commonly a member of the public, frequently a property owner in the case of a report of depredation, or local government official.

Responder³: A Department employee or Department-authorized animal damage control officer who is first on the scene or otherwise designated as the responder for a particular incident. A Department-authorized responder may only serve this function if the other officer’s agency or governmental entity and the Department have previously entered into a written agreement specifying protocols and clear delegation of authority. The Department retains the authority to make the final determination of qualification and authority of a responder. For an event requiring the Incident Command System, ultimately, the Incident Commander or their designee becomes the official representative of the Department.

Sensitive Population: A population that is constrained geographically and for which scientific studies suggest significant lack of genetic diversity, and/or a regional population that has low viability due to human or environmental stressors.

² “Take” is defined in Fish and Game Code section 86 as to “hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill.”

³ This definition is updated from Bulletin 2013-02 to include the range of potential responding parties.

Training

Training is a necessary part of a professional and reasoned response to mountain lion conflict incidents. The Department has provided and will continue to provide training for staff who respond to wildlife conflict incidents. Refer to Department Bulletin 2013-02 for specific training categories relative to mountain lion incident responses.

Communications

History shows that internal and external communication is important to enhancing the public's understanding of mountain lion and human conflicts. The Office of Communications, Education, and Outreach (OCEO) is part of the Response Guidance Team (RGT) and will designate a single point-of-contact for media calls who will be responsible for information dissemination to media and public if necessary. Responders should contact their immediate supervisor and the RGT by any means available including phone, email, or dispatch. The Department will develop an internal automated email notification system for the RGT and Responders. Such development will look to our Office of Oil Spill Prevention and Response and Data Technology Division for advice on creating the system, which shall be operational in 2018.

GUIDANCE FOR MOUNTAIN LION INCIDENTS

Receiving reports of Mountain Lion Sightings, Depredation, Potential Human Conflict, or Public Safety Situations (for non-sensitive populations refer to Department Bulletin 2013-02)

STEPWISE PROCESS FOR MOUNTAIN LION INCIDENTS IN THE IMPLEMENTATION AREAS

1) First Depredation Event

- a. **Confirmation of depredation.** Per Fish and Game Code section 4803, a mountain lion depredation must be verified by a responder.
- b. **Oral authorization.** Per Fish and Game Code Section 4805, oral authorization to pursue (haze) the depredating mountain lion may be granted if the immediate pursuit will assist in the non-lethal removal of the mountain lion from the property. A depredation permit shall be issued as soon as practical.
- c. **Education.** The responder should discuss site-specific options for managing mountain lion depredation with the RP and educate the RP regarding mountain lion behavior. Additionally, the responder should communicate that as a condition of any depredation permit, the property owner should institute logistically and economically feasible measures designed to reduce the potential for attracting mountain lions. Potential

measures include, but are not limited to: 1) removing the carcass and carcass parts of depredated animals; 2) install/repair/replace fencing or other shelter designed to exclude mountain lions from the attractant; 3) removing potential suitable habitat (e.g., cover) from the immediate vicinity by clearing brush or removing lower limbs from shrubbery.

- d. **RP requests a permit.** If the RP requests a depredation permit, the Department shall issue a permit. The Department should issue a 'non-lethal' depredation permit to pursue/haze the mountain lion. Measures that could be part of a permit include, but are not limited to: 1) deploying temporary deterrent systems (e.g., motion-sensitive lighting, loud music), and 2) the use of livestock protection dogs, etc. Such permits shall explicitly indicate that no mountain lion shall be intentionally killed during this phase of the permitting process. Unique characteristics or specific collar/tag information on suspected lions shall be noted and monitored by the Department when possible.
- 2) **Second depredation event.** If a mountain lion depredation is reported at the same physical location (e.g. reported on animals owned by the same RP within the same geographic ownership or area) within a time period strongly suggesting a lion's affinity for the site, the Department will confirm the reported mountain lion depredation, and issue, if necessary, oral authorization in accordance with Sections 1(a) and (b) above.
 - a. **RP requests a permit.** If damage is confirmed, and the property owner has demonstrated that all reasonable preventative measures recommended by the Department were implemented, the responder should modify the existing permit or issue a new non-lethal depredation permit specifying additional measures not included in the previous permit (e.g., use of bean-bag shots). Such permits shall explicitly indicate that no mountain lion shall be intentionally killed during pursuit.
 - 3) **Third depredation event.** If a mountain lion depredation is reported a third time at the same physical location (e.g. reported on animals owned by the same RP within the same geographic ownership or area) within a time period strongly suggesting a lion's affinity for the site, the responder will first verify the reported mountain lion depredation in accordance with Section 1(a) above.
 - a. **RP requests a permit.** If damage is confirmed by the Department, the RP has demonstrated that all reasonable preventative measures required in the existing permits were implemented, and the RP requests a lethal depredation permit, the Department shall issue a depredation permit to lethally remove the mountain lion. This permit could be via oral authorization per Fish and Game Code Section 4805.
 - 4) **Terms and conditions of mountain lion depredation permits.** Only one mountain lion may be killed under a depredation permit. In order to ensure that

only the depredating lion will be taken, the permit shall: (1) expire 10 days after issuance; (2) authorize the permittee to begin pursuit of the depredating mountain lion not more than one mile from the depredation site; and, (3) limit the pursuit of the depredating mountain lion to within a 10-mile radius from the location of the reported damage or destruction. If damage continues to occur following the killing of a mountain lion under a permit, the Department may issue an additional depredation permit, or Fish and Game Code Section 4807 may allow for immediate additional take.

- 5) **Tracking of permits.** Upon concluding the incident, the responder shall ensure completion of the reporting requirement and close the incident. All reporting shall be complete not more than three business days after the incident is concluded. If a mountain lion is lethally taken under authority of a depredation permit, the carcass shall be collected by the Department and a necropsy performed.
- 6) **Implementation area defined.** For the purposes of this amendment the implementation area shall be defined as the following:

Santa Monica Mountains (see Figure 1)

Those portions of the state east of the junction of SR-1 and Las Posas Road; continuing north to Portero Road and the intersection of Lynn Road; the area south of Lynn Road to its intersection with US-101; the area south of US-101 continuing to CA-134; the area south of CA-134 to its intersection with I-5; the area west of I-5 to SR-2; the area west of I-405 to its intersection with I-10; the area north of I-10 to its intersection with SR-1; the area north of SR-1 to its intersection with Las Posas Road.

Santa Ana Mountains (see Figure 2)

Those portions of the state east of the junction of SR-72 and I-605; the area south of SR-60 to its junction with SR-71; the area west of SR-71 to its intersection with SR-91; the area south of SR-91 to its intersection with I-215; the area west of I-215, continuing to I-15 and its intersection with SR-79; the area south of SR-79 to its junction with SR-78; the area north of SR-78 to its intersection with I-5; the area east of I-5 to its intersection with SR-1; the area north of SR-1 to its intersection with SR-55; the area east of SR-55 to its intersection with Newport Avenue; the area east of Newport Avenue to its intersection with Cannon Street; the area east of Cannon Street and its intersection with CA-90; the area north of CA-90 to its intersection with N Puente Street; the area east of N Puente Street to SR-72; the area north of SR-72 to its junction with I-605.

- 7) **Implementation monitoring.** The Department will monitor the effects of mountain lion depredation in the implementation area to assess the efficacy of the actions described in this amendment. Subjects to be monitored include, but are not limited to, the following: social acceptance (community, agency,

stakeholder), operational feasibility (e.g., workload), and benefits to the mountain lion population within the implementation area.

Signed original on file

Charlton H. Bonham
Director

Attachments: A. Figure 1
B. Figure 2
C. Wildlife Conflict Evaluation Form

Supporting Literature

Benson, John F., P.J. Mahoney, J.A. Sikich, L.E.K. Serieys, J.P. Pollinger, H.B. Ernest and S.P.D. Riley. 2016. Interactions between demography, genetics, and landscape connectivity increase extinction probability for a small population of large carnivores in a major metropolitan area. *Proc. R. Soc. B* Vol. 283, Issue 1837.

Ernest, Holly B., W.M. Boyce, V.C. Bleich, B. May, S.J. Stiver and S.G. Torres. 2003. Genetic structure of mountain lion (*Puma concolor*) populations in California. *Conservation Genetics* Vol. 4, pp. 353–366.

Ernest Holly B., T.W. Vickers, S.A. Morrison, M.R. Buchalski, W.M. Boyce. 2014. Fractured Genetic Connectivity Threatens a Southern California Puma (*Puma concolor*) Population. *PLoS ONE* 9(10): e107985. doi:10.1371/journal.pone.0107985.
Gustafson K.D., T.W. Vickers, W.M. Boyce, and H.B. Ernest. 2017. A single migrant enhances the genetic diversity of an inbred puma population. *R.Soc.opensci.* 4: 170115. <http://dx.doi.org/10.1098/rsos.170115>

Morrison, Scott A. and Boyce, W.M. 2009. Conserving Connectivity: Some Lessons from Mountain Lions in Southern California. *Conservation Biology*, Vol. 23, No. 2, pp. 275-285.

Riley, Seth P.D., J.P. Pollinger, R.M. Sauvajot, E.C. York, C. Bromley, T.K. Fuller, R.K. Wayne. 2006. A Southern California freeway is a physical and social barrier to gene flow in carnivores. *Molecular Ecology* Vol. 15, pp. 1733–1741.

Riley, Seth P.D., L.E.K Serieys, J.P. Pollinger, J.A. Sikich, L. Dalbeck, R.K. Wayne, and H.B. Ernest. 2014. Individual Behaviors Dominate the Dynamics of an Urban Mountain Lion Population Isolated by Roads. *Current Biology* Vol. 24 No. 17, pp. 1989-1994.

Torres, S.G., T.M. Mansfield, J. Foley, T. Lupo, and A. Brinkhaus. 1996. Mountain lion and human activity in California: testing speculations. *The Wildlife Society Bulletin* 24(3):451-460.

Figure 1. Area of Sensitive Mountain Lion Population – Santa Monica Mountains (See Section 6 of Stepwise Process for Mountain Lion Incidents for detailed description).

Santa Monica Mountain Range

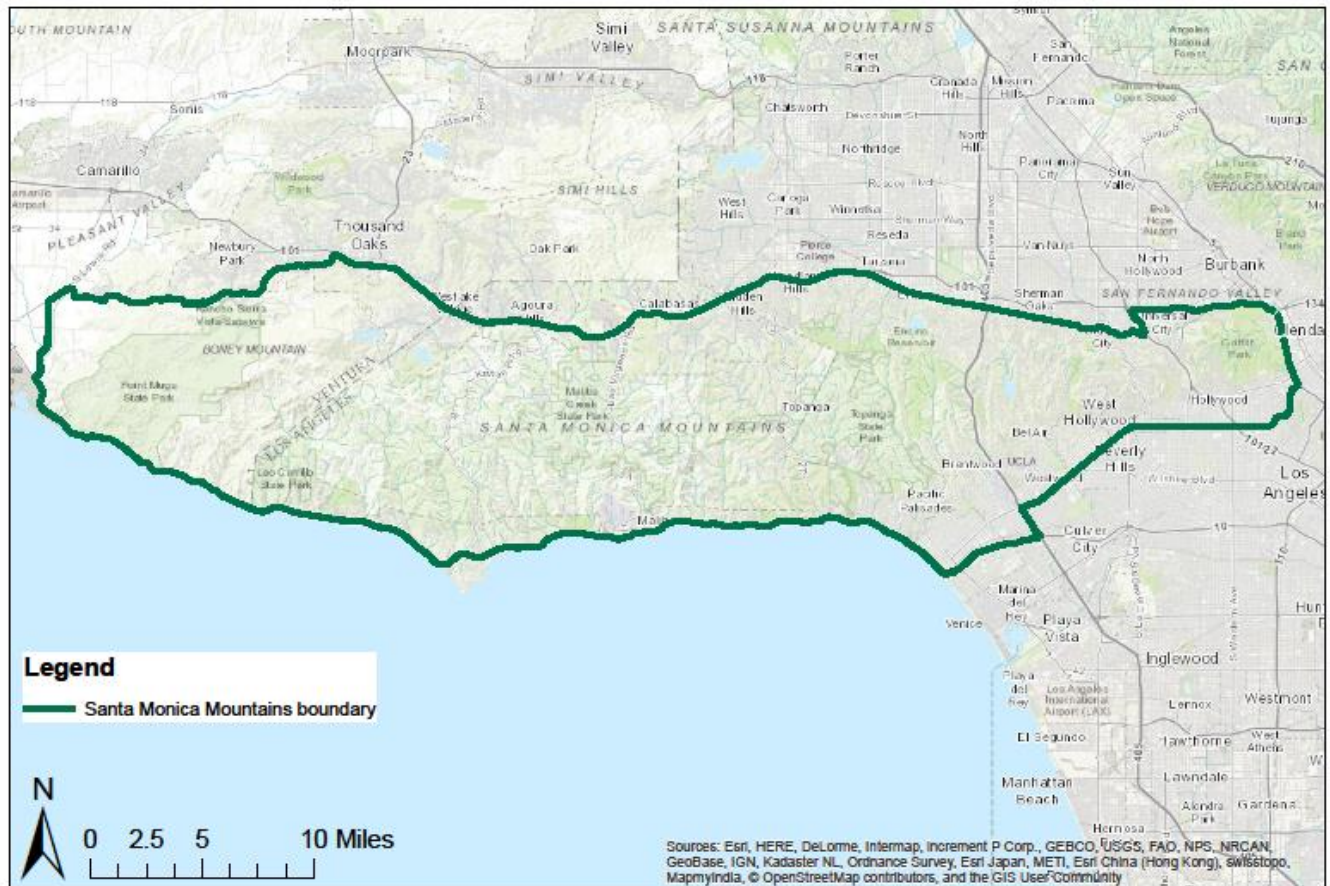


Figure 2. Area of Sensitive Mountain Lion Population – Santa Ana Mountains (See Section 6 of Stepwise Process for Mountain Lion Incidents for detailed description).



Wildlife Conflict Evaluation Form

Date: _____ Time: _____

Employee Evaluator: _____

Species: _____

Descriptors (Age, sex, size, weight etc.):

Animal Behavior:

Animal Location:

Environmental Conditions:

Extenuating Circumstances: