

October 31, 2014

# To Whom It May Concern:

The California Department of Fish and Wildlife (CDFW) is preparing a draft environmental document to address potential impacts resulting from the implementation of the state-wide ban on lead ammunition for hunting purposes. CDFW has prepared the attached Initial Study (IS), detailed project description, and a preliminary analysis of the impacts identified in the IS. The comment period resulting from this Notice of Preparation (NOP) is from October 31 through December 1, 2014. Comments may be provided by email to Craig Stowers (craig.stowers@wildlife.ca.gov) or by letter to the following address:

Attn: Craig Stowers
California Department of Fish and Wildlife
1812 9th Street
Sacramento, CA 95811

A public scoping meeting will also be held to solicit comments regarding what the document should address. This meeting is scheduled for November 14, 2014 from 1:00 - 3:00 pm at 1812 9th Street, Sacramento, CA.

# Notice of Preparation

то: All State Agencies	From: Eric Loft, Branch Chief		
	CDFW - Wildlife Branch		
(Address)	1812 9th St., Sacramento, CA 95811		
Subject: Notice of Preparation	of a Draft Environmental Impact Report		
impact report for the project identified below. We content of the environmental information which	will be the Lead Agency and will prepare an environmental need to know the views of your agency as to the scope and is germane to your agency's statutory responsibilities in cy will need to use the EIR prepared by our agency when e project.		
The project description, location, and the poten materials. A copy of the Initial Study ( ■ is □	tial environmental effects are contained in the attached is not ) attached.		
Due to the time limits mandated by State law, you later than 30 days after receipt of this notice.	r response must be sent at the earliest possible date but not		
Please send your response to Mr. Craig St shown above. We will need the name for a conta	at the address act person in your agency.		
Project Title: Prohibition on the Use of Ammunition	Containing Lead for the Take of Wildlife with a Firearm		
Project Applicant, if any:			
Date October 28, 2014	Signature Chief		
	Title Branch Chief		
	Telephone 916-445-3555		

Reference: California Code of Regulations, Title 14, (CEQA Guidelines) Sections 15082(a), 15103, 15375.

## **Environmental Checklist Form**

NOTE: The following is a sample form and may be tailored to satisfy individual agencies' needs and project circumstances. It may be used to meet the requirements for an initial study when the criteria set forth in CEQA Guidelines have been met. Substantial evidence of potential impacts that are not listed on this form must also be considered. The sample questions in this form are intended to encourage thoughtful assessment of impacts, and do not necessarily represent thresholds of significance.

Contact	person and phone number: Eric Loft, Chief, Wildlife Branch (916) 445-3555
	ocation: Statewide
riojeci i	ocation. Ocatomac
	sponsor's name and address:
	a Department of Fish and Wildlife
Sacram	n Street, Room 1208 ento, CA 95814
- Cuoran	
General	plan designation: NA 7. Zoning: NA
AB 711 regulation with a fi	entation. Attach additional sheets if necessary.) (Chap. 742, Statutes of 2013) requires the Fish and Game Commission to prome one by July 1, 2015 that phase in the use of nonlead ammunition for the take of we rearm in California. The statute requires nonlead ammunition to be used for the feeling the state by July 1, 2019. See attached sheet for project description.
	ding land uses and setting: Briefly describe the project's surroundings: lect occurs on wildlands in California that are open for hunting and the take of wil rearm.

# ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

is a "Po	otentially Significant Impact	' as inc	licated by the checklist on the	follow	ing pages.	
	Aesthetics		Agriculture and Forestry Resources		Air Quality	
$\boxtimes$	Biological Resources		Cultural Resources		Geology /Soils	
	Greenhouse Gas Emissions	$\times$	Hazards & Hazardous Materials		Hydrology / Water Quality	
	Land Use / Planning		Mineral Resources		Noise	
	Population / Housing		Public Services	$\times$	Recreation	
	Transportation/Traffic		Utilities / Service Systems		Mandatory Findings of Significance	
DETE:	RMINATION: (To be compl	eted by	y the Lead Agency)			
On the	basis of this initial evaluation	n:			9	
	I find that the proposed page a NEGATIVE DECLARA		COULD NOT have a significate will be prepared.	nt effe	ct on the environment, and	
	there will not be a signific	cant eff he proj	project could have a significated in this case because revising ect proponent. A MITIGATE ed.	ons in	the project have been	
X	I find that the proposed pr ENVIRONMENTAL IM		MAY have a significant effect REPORT is required.	on the	environment, and an	
	significant unless mitigate adequately analyzed in an been addressed by mitigate	ed" imp earlied tion m ENTAL	MAY have a "potentially significated on the environment, but as a document pursuant to applicate easures based on the earlier as LIMPACT REPORT is required.	t least able le nalysis	one effect 1) has been gal standards, and 2) has as described on attached	
	because all potentially sig or NEGATIVE DECLAR or mitigated pursuant to t	mificar ATIO hat ear	I project could have a significant effects (a) have been analyzed pursuant to applicable standier EIR or NEGATIVE DECOMPOSSED upon the proposed proposed propossed propossed propossed propossed propossed propossed propossed proposed propo	ed ade lards, a LARA	quately in an earlier EIR nd (b) have been avoided ΓΙΟΝ, including revisions	
		. 6	REP		10/31/14	
	Signature	F:=	<u> </u>		Date	
	Signature				Date	
	JIEHALUIU				Dutt	

The environmental factors checked below would be potentially affected by this project, involving at least one impact that

#### **EVALUATION OF ENVIRONMENTAL IMPACTS:**

- 1) A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).
- 2) All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.
- 3) Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.
- 4) "Negative Declaration: Less Than Significant With Mitigation Incorporated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less Than Significant Impact." The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level (mitigation measures from "Earlier Analyses," as described in (5) below, may be cross-referenced).
- 5) Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration. Section 15063(c)(3)(D). In this case, a brief discussion should identify the following:
  - a) Earlier Analysis Used. Identify and state where they are available for review.
  - b) Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.
  - c) Mitigation Measures. For effects that are "Less than Significant with Mitigation Measures Incorporated," describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.
- 6) Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.
- 7) Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.
- 8) This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project's environmental effects in whatever format is selected.
- 9) The explanation of each issue should identify:
  - a) the significance criteria or threshold, if any, used to evaluate each question; and
  - b) the mitigation measure identified, if any, to reduce the impact to less than significance.

# SAMPLE QUESTION Issues:

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
I. AESTHETICS Would the project:			<u></u>	
a) Have a substantial adverse effect on a scenic vista?				$\boxtimes$
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?				
c) Substantially degrade the existing visual character or quality of the site and its surroundings?		-		$\boxtimes$
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?				
II. AGRICULTURE AND FOREST RESOURCES: In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. — Would the project:				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non- agricultural use?				
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?				
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526) or timberland zoned Timberland				

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Production (as defined by Government Code section 51104(g))?		· ·		
d) Result in the loss of forest land or conversion of forest land to non-forest use?				X
de) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?				
III. AIR QUALITY — Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?				$\boxtimes$
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?				$\boxtimes$
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?				$\boxtimes$
d) Expose sensitive receptors to substantial pollutant concentrations?				$\boxtimes$
e) Create objectionable odors affecting a substantial number of people?				$\boxtimes$
IV. BIOLOGICAL RESOURCES Would the project:				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?			$\boxtimes$	
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or US Fish and				
Wildlife Service?  c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of				$\boxtimes$

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		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact		
	the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?						
·	d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?				$\boxtimes$		
	e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?				$\boxtimes$		
	f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?						
	V. CULTURAL RESOURCES Would the project:						
	<ul> <li>a) Cause a substantial adverse change in the significance of a historical resource as defined in § 15064.5?</li> </ul>				$\boxtimes$	•	
·	b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5?				$\boxtimes$		
	c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?				$\boxtimes$		
	d) Disturb any human remains, including those interred outside of formal cemeteries?				X		
	VI. GEOLOGY AND SOILS Would the project:			·			
	a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				$\boxtimes$		
	i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.						
	ii) Strong seismic ground shaking?						
	iii) Seismic-related ground failure, including liquefaction?				$\boxtimes$		
	iv) Landslides?				$\boxtimes$		

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
b) Result in substantial soil erosion or the loss of topsoil?				$\boxtimes$
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in onor off-site landslide, lateral spreading, subsidence, liquefaction or collapse?				$\boxtimes$
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?				
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?				
VII. GREENHOUSE GAS EMISSIONS Would the project:				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?				
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?				
VIII. HAZARDS AND HAZARDOUS MATERIALS - Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?				
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?				
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?				
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?				$\boxtimes$
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard				

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
for people residing or working in the project area?				
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?				
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?				$\boxtimes$
h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?				
IX. HYDROLOGY AND WATER QUALITY Would the project:	,		<b></b>	E
a) Violate any water quality standards or waste discharge requirements?				
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?			,	
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?				$\boxtimes$
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?				
e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?				
f) Otherwise substantially degrade water quality?				$\boxtimes$
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?				$\boxtimes$

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?				$\boxtimes$
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?				$\boxtimes$
j) Inundation by seiche, tsunami, or mudflow?				$\boxtimes$
X. LAND USE AND PLANNING - Would the project:				
a) Physically divide an established community?				$\boxtimes$
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?				
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?				$\boxtimes$
XI. MINERAL RESOURCES – Would the project:				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?				$\boxtimes$
b) Result in the loss of availability of a locally- important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?				$\boxtimes$
XII. NOISE Would the project result in:	<del></del>			
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?				
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?				$\boxtimes$
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?				
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?				$\boxtimes$

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact	\$.	·
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?						
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?						
XIII. POPULATION AND HOUSING Would the project:						÷
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?					, 	
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?				$\boxtimes$		
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?				$\boxtimes$		
XIV. PUBLIC SERVICES						
a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				· · · · · · · · · · · · · · · · · · ·	·	
Fire protection?						
Police protection?						
Schools?						
Parks?				$\mathbf{X}$		
Other public facilities?	<del></del>		. —			
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?						

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	$\boxtimes$			
XVI. TRANSPORTATION/TRAFFIC Would the project:			•.	
a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?				
b) Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?				
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?				$\boxtimes$
d) Substantially increase bazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?				
e) Result in inadequate emergency access?				$\boxtimes$
f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?				
XVII. UTILITIES AND SERVICE SYSTEMS Would the project:				
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?				$\boxtimes$
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?				
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which				$\boxtimes$

	Maria La Maria Maria	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
could cause significant environ	mental effects?		<u> </u>		
d) Have sufficient water supplie serve the project from existing resources, or are new or expand needed?	entitlements and				
e) Result in a determination by treatment provider which serve project that it has adequate capa project's projected demand in a provider's existing commitmen	s or may serve the acity to serve the ddition to the				
f) Be served by a landfill with a permitted capacity to accommosolid waste disposal needs?					$\boxtimes$
g) Comply with federal, state, a and regulations related to solid					$\boxtimes$
XVIII. MANDATORY FINDE SIGNIFICANCE	NGS OF				
a) Does the project have the pothe quality of the environment, reduce the habitat of a fish or we cause a fish or wildlife popular self-sustaining levels, threaten plant or animal community, recrestrict the range of a rare or enanimal or eliminate important of	substantially vildlife species, ion to drop below to eliminate a luce the number or dangered plant or				$\boxtimes$
b) Does the project have impact individually limited, but cumul considerable? ("Cumulatively considerable" means that the into a project are considerable where with the effects of peffects of other current projects.	tory or prehistory?  ts that are atively  cremental effects hen viewed in bast projects, the				
of probable future projects)?  c) Does the project have envirous which will cause substantial adhuman beings, either directly of	verse effects on				$\boxtimes$

Note: Authority cited: Sections 21083, 21083.05, Public Resources Code. Reference: Section 65088.4, Gov. Code; Sections 21080, 21083.05, 21095, Pub. Resources Code; Eureka Citizens for Responsible Govt. v. City of Eureka (2007) 147 Cal.App.4th 357; Protect the Historic Amador Waterways v. Amador Water Agency (2004) 116 Cal.App.4th at 1109; San Franciscans Upholding the Downtown Plan v. City and County of San Francisco (2002) 102 Cal.App.4th 656.

#### **Project Description**

Assembly Bill 711 (Chapter 742, Statutes of 2013) was signed by the Governor on October 11, 2013 and became effective January 1, 2014. As enacted, Fish and Game Code section 3004.5 requires full implementation of the statute's ban on the use of nonlead ammunition by July 1, 2019; after this date, nonlead ammunition will be required when taking any wildlife with a firearm statewide. In addition, section 3004.5 requires that by July 1, 2015, the Fish and Game Commission (Commission) must promulgate regulations that phase in the statute's requirements, and that, if any of the statute's requirements can be implemented practicably, in whole or in part, in advance of July 1, 2019, the Commission shall implement those requirements.

Beginning in January 2014, the California Department of Fish and Wildlife (Department) initiated an intensive public outreach effort designed to solicit ideas from both hunters and nonhunters on the least disruptive way to phase in the transition from traditional lead to nonlead ammunition consistent with section 3004.5. The Department shared a "starting point" proposal with the public at a total of 16 outreach meetings throughout the state, from Susanville to San Diego. This starting point proposal, as modified by public input received at these meetings, formed the basis for the proposed regulatory language adding a new Section 250.1 to Title 14, California Code of Regulations. The draft regulations constitute the proposed project for the purposes of this environmental document. See Appendix A for the draft regulatory text.

By way of background, ammunition falls into several broad categories including centerfire, rimfire, shotshells, and balls or sabots used in muzzleloading weapons. Centerfire ammunition is available in a variety of sizes (calibers) for both rifles and pistols and is most commonly used for the take of big game animals. Rimfire ammunition is available in smaller sizes, primarily .22 and .17 caliber, and is used most commonly for the take of small game mammals and the control of nongame "varmint" species such as ground squirrels. Shotgun ammunition comes in a variety of gauges and a range of shot or pellet sizes. Shotshells are most commonly used for waterfowl and upland game birds, although larger shot sizes (size 0 or 00 buckshot) and shotgun "slugs" may be used for the take of big game species. Balls and sabots are typically used for the take of big game species using muzzleloading rifles.

The proposed regulations' phasing reflects the relative availability (by both type and volume) of nonlead rifle and shotgun ammunition. Nonlead shotgun ammunition has been required for the take of ducks and geese nationwide since 1991 and nonlead shotshells in waterfowl sizes are widely available. These shells are suitable for the take of larger upland game birds such as pheasants, grouse, band-tailed pigeons and wild

turkeys. They may also be effective for the take of small game mammals, furbearing mammals, and nongame species. Nonlead shotgun shells in smaller shot sizes for dove, quail, and snipe are produced, but are currently not available in the volume necessary to supply the more than 170,000 quail and dove hunters in the state. Nonlead centerfire rifle ammunition is available in the more commonly used big game calibers such as .270, .30-06, and .308. Nonlead ammunition has been required for the take of big game mammals in the condor range since 2008 and the volume of nonlead ammunition has been sufficient to supply the 48,000 deer hunters within the condor range.

#### Phase 1

Effective July 1, 2015, nonlead ammunition will be required when taking all wildlife on state Wildlife Areas and Ecological Reserves. These Department lands constitute approximately 925,000 acres in California, with high ecological values and some of these areas are popular with hunters. In addition, nonlead ammunition will be required for hunters taking Nelson bighorn sheep in California's desert areas. This requirement will affect a small number of hunters; in 2014 only 14 tags were issued for bighorn sheep statewide. A similar number is anticipated for the 2015 season.

#### Phase 2

Effective July 1, 2016, nonlead ammunition will be required when taking upland game birds with a shotgun, except for dove, quail, and snipe, and any game birds taken under the authority of a licensed game bird club as provided in sections 600 and 600.4, Title 14, California Code of Regulations. In addition, nonlead ammunition will be required for the take of resident small game mammals, furbearing mammals, nongame mammals, nongame birds, and any wildlife for depredation purposes, with a shotgun statewide. However, in light of the uncertainty regarding the retail availability of nonlead centerfire and rimfire ammunition in smaller calibers, it will still be legal to take small game, furbearing, and nongame mammals, as well as nongame birds and wildlife for depredation purposes with traditional lead rimfire and centerfire ammunition during phase 2.

#### Phase 3

Pursuant to Fish and Game Code section 3004.5, effective July 1, 2019, only nonlead ammunition may be used when taking any wildlife with a firearm for any purpose in California.

# Nonlead Implementation - Initial Study

## Impact Significance Analysis

# A. Less Than Significant Impact

- 1. IV(a) Biological Resources. Beneficial and less than significant impacts may occur to species identified as a candidate, sensitive, or otherwise special status as a result of the proposed action. Whereas hunting activity is regulated generally by regulations for specific hunt programs, the proposed action is limited to the phasing in of a ban on lead ammunition that will become effective, regardless, as of July 1, 2019. Thus, the proposed action may benefit listed and special status species such as bald and golden eagles by reducing the potential ingestion of lead from carcasses and gut piles from animals killed with lead ammunition.
- 2. VIII(h) Hazards and Hazardous Materials. Less than significant impacts may occur regarding the exposure of people or structures to significant risk of loss, injury, or death from wildfire as a result of the proposed action. A study completed by the US Forest Service in August, 2013 (Research Paper RMRS-RP-104; A Study of Ignition by Rifle Bullets) concludes that steel jacketed and solid copper bullets could reliably cause ignition possibly due to their larger fragment size and the overall "hardness" of the materials when compared to lead. However, most of the ignitions were the result of test firing bullets directly into a steel target, which caused the bullet to fragment and the fragments to then fall into a deep bed of peat (a very fine and dry organic material). These conditions are not often encountered in actual hunting situations; the targets are soft-bodied and tend to dampen fragmenting and heating of bullets as they travel to the target, and the substrates into which those fragments may fall are also not typical of conditions found while hunting.

In addition, it should be noted the study referenced above pertained only to rifle bullets and not nonlead loads fired from shotguns. The smaller size of the projectile (shotgun pellets) and the low muzzle velocities associated with this weapon type may mitigate against the heating identified with nonlead rifle bullets. Moreover, the target zone (mainly slightly to severely above a perpendicular plane) would serve to slow down projectile speeds and allow more time for cooling before hitting any ground based ignition sources.

#### B. Potentially Significant Impact

**XV(b) - Recreation.** Although not specifically suggested by the Appendix G Initial Study Checklist, the Department notes that in the event that retail availability of nonlead ammunition fails to meet the demand of California hunters, a potentially significant impact on hunting based recreation in California may occur as a result of the proposed action. Conflicting information regarding market availability and overall cost has been presented by proponents and opponents of the law and has informed the Department's

development of the proposed action. For example, one study, sponsored by the National Shooting Sports Foundation (Southwick Associates 2014), predicts that hunting participation in California may drop by as much as 36% as a result of the proposed regulations. However, a second study sponsored by Audubon California, Defenders of Wildlife, and the Humane Society of the United States (Thomas, 2014) concluded that nonlead ammunition was already commercially available and a two year transition period was adequate to allow manufacturers to adjust for the anticipated increase in demand.

Research by the California Department of Fish and Wildlife indicates that while many different nonlead bullets and cartridges have been certified by the Fish and Game Commission and are advertised for sale by different manufacturers, very few of them are actually available for purchase either in sporting goods stores that typically sell ammunition or from on-line vendors. Furthermore, bullets and cartridges for calibers considered to be "uncommon" are essentially unavailable for purchase by California hunters. Additionally, costs are often substantially higher for nonlead ammunition of all calibers. All indications from ammunition manufacturers suggest they will not be increasing production of nonlead ammunition and most likely will not be able to meet the demand the legislation will create in California.

For these reasons, potentially significant impacts to recreation may occur as a result of:

1) requiring hunters to use nonlead ammunition that may not be available for purchase, which, in turn, may reduce hunting activity in the State; 2) hunters choosing not to participate in their chosen recreational activity due to the substantially higher costs – either through purchasing more expensive nonlead ammunition or purchasing new weapons, barrels or chokes – to comply with the new regulatory requirements.