



Oregon


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MEMORANDUM

DATE: June 30, 2010
TO: WAFWA Directors
FROM: Roy Elicker, Director 
RE: WAFWA Ad Hoc Lead Work Group Report

At the July 2009 meeting, WAFWA established an ad hoc work group to develop recommendations to WAFWA on the issue of lead and wildlife. The work group included the chairs of the Wildlife Health, Human Dimensions, and Resource Information and Education, Wildlife and Fish Chiefs committees, and the Director of the Washington Department of Fish and Wildlife. It was my privilege to chair the work group.

This is a very sensitive issue that could have significant impacts on hunters, anglers, industry, retailers and fish and wildlife management. The work group believes that fish and wildlife agencies, rather than the courts or legislatures, should help lead the efforts to address this issue. While we believe that fish and wildlife agencies should be out in front on this, agencies cannot go it alone. Collaboration with hunters, anglers, and our many partners is absolutely essential for success.

I appreciate the efforts of the work group in tackling this controversial issue. Although a wide range of options were on the table, from recommending no action to encouraging an immediate ban on lead, the work group focused on developing practical, realistic and science-based recommendations for your consideration.

I look forward to discussing the report and proposed resolution with you at the Director's Forum on Saturday, July 17th, in Anchorage, Alaska.

If you have questions or wish to discuss this with me, please contact me at 503.947-6044, or email me at: roy.ellicker@state.or.us.

Western Association of Fish and Wildlife Agencies

Report from WAFWA Lead & Wildlife Ad Hoc Work Group

July 17, 2010

INTRODUCTION

Fish and wildlife agencies are facing the challenge of balancing the known and potential impacts to wildlife from lead in spent ammunition and sport fishing tackle with the public perception of the lead issue. Reports about the effect of lead on wildlife, the environment, and/or human health – whether real or perceived – create social, political and legal pressure to act. Fish and wildlife agencies are often caught between those who think an immediate ban on all lead is necessary and those who believe no problem exists.

In recognition of the sensitive and often controversial nature of this issue, the Western Association of Fish and Wildlife Agencies (WAFWA) formed an ad hoc lead and wildlife work group to develop recommendations to WAFWA. Because of the complexity of this issue and the involvement of multiple disciplines, the chairs of the Wildlife Health, Human Dimensions, Resource Information and Education, Wildlife and Fish Chiefs committees, and the Director of the Washington Department of Fish and Wildlife were appointed to the working group. Oregon Fish and Wildlife Director Roy Elicker was named chair of the work group.

The work group identified a number of factors that should be considered when addressing the issue of lead and wildlife. The group relied upon an extensive and growing body of work documenting the impact of lead on wildlife, human health and the environment. For convenience, this information is paraphrased and a bibliography is attached (Attachment 1).

BACKGROUND

Lead ore has been mined, smelted and used for a wide variety of purposes since the Bronze Age of human civilization, including for fishing sinkers. Lead shot and bullets have been used since the development of gunpowder and firearms in the 14th century. Lead is highly valued for this purpose because of its low cost and desirable physical characteristics. While suitable alternative materials to lead may exist, the costs for raw material and manufacturing are often significantly higher.

Although lead is a naturally occurring metal in the environment, it serves no essential or beneficial cellular or molecular function in biological organisms. Lead is one of the toxic metals and has been documented for centuries as the cause of various ailments. This has resulted in various restrictions on its use and handling, including regulations and prohibitions on leaded gasoline, lead based paints and pesticides, and lead solder use in food containers. Because the potential impacts to human health from lead are well known, some members of the public believe that banning lead in ammunition and sport fishing tackle is a logical and viable course of action to protect human health or to avoid adverse impact on wildlife.

CURRENT STATUS

WAFWA members are currently using a variety of methods to address the lead and wildlife issue, including regulations, legislation, voluntary programs or outreach and education programs. As part of this project, the work group surveyed WAFWA members about this issue.

About half of the 21 WAFWA members responding to a recent survey report they are taking no action on this issue, even though nearly all respondents believe this is a “significant issue.” Of the 21 members responding, 12 agree and 6 strongly agree with the statement that “lead from ammunition and fishing tackle is a significant issue to wildlife management worthy of further study, consideration, or action by WAFWA.” Two members strongly disagree with the statement, while one was neutral. Arizona and California both report involvement in legal action regarding the use of lead in ammunition or fishing tackle. The survey instrument and a summary of the results are attached to this report. (Attachment 2 & 3)

IMPACT OF LEAD ON FISH AND WILDLIFE

Lead poisoning caused by shot, bullets and fishing tackle made of lead is well documented in scientific literature. More than 100 species of wildlife worldwide have been documented to be adversely effected by lead. This includes at least 33 species of raptors and 30 species of Gruiformes and Galliformes. It also includes ten species considered threatened or endangered. The risk to fish populations due to exposure from lead is currently considered minimal. It is not clear if lead contamination of soils results in lead accumulation in invertebrates. No studies were found to suggest ingestion of lead from ammunition or fishing tackle is a severe or widespread problem for amphibians and reptiles, although individual or site specific events with alligators, crocodiles and turtles have been reported.

Few examples of lead poisoning are documented in mammals other than of humans and their pets. There are examples of mammals (bears and wolves) with elevated blood lead level associated with scavenging carcasses that were shot with lead ammunition. Concerns have been raised about possible effects on black-footed ferrets and other small and medium sized mammalian predators and scavengers, however, specific study histories were not reviewed where lead from ammunition or fishing tackle had a population level consequence on mammals.

Lead poisoning is well documented in waterfowl and birds using wetland habitats, especially where high and long-term shooting activities have resulted in high levels of spent shot in the area. Raptors and long-lived vultures and condors appear to be highly susceptible to poisoning from lead obtained while scavenging hunter-killed game. Loons, cormorants, pelicans, penguins and swans, as well as ducks and geese are known to pick up lead from fishing tackle.

Lead toxicity affects multiple organ systems. Clinical findings of lead intoxication in birds include anemia, weight loss, drooping wings, weakness, inability to fly, and a green watery diarrhea. Exposure to high levels can result in death within days. Chronic low-level exposure can lead to immunosuppression, behavioral changes, poor condition, and reproductive impairment.

There is little doubt that the ingestion of relatively small amounts of lead for most wildlife species can have devastating or lethal effects to individual animals. The impacts from spent lead ammunition or sport fishing tackle to certain wildlife species, such as waterfowl or condors, is well studied and understood. However, this provides little insight on whether there is a real impact to other wildlife species at a population level.

NORTH AMERICAN WILDLIFE CONSERVATION MODEL

Individual fish and wildlife agencies are vested with the authority and responsibility to manage their state's fish and wildlife in public trust. The cornerstone of state efforts has been the North

American Wildlife Conservation Model which relies on sound science in an attempt to manage fish and wildlife resources so that their populations are sustained at optimal level in perpetuity. Some members of public understand and support the premise of the North American Model, while others take a view that values fish and wildlife at the individual, rather than the population, level. The death of individual animals due to lead ingestion may prompt some members of the public to view all sources of lead as harmful to wildlife and may result in legislative or legal efforts to ban lead ammunition or fishing tackle or restrict its use in some areas. In order to maintain maximum ability to effectively manage fish and wildlife, state agencies should be proactive in addressing this issue.

PUBLIC HEALTH

While fish and wildlife agencies do not have authority over human health issues, they often must react to public health concerns. Chronic Wasting Disease, toxic algae blooms, and mercury contamination are examples of the intersection of human health and fish and wildlife management. Public concerns about the potential impact on human health of lead ammunition fragments in game meat will require agencies to provide consistent and credible information about this issue. This will be especially important for states that allow hunter harvested game to enter the human food supply (via food bank donations). This will require close coordination with the health community to provide consistent information, to ensure public safety and to minimize the impact on legal hunting. The involvement of a credible public health agency with broad jurisdiction may provide consistency in messaging between states and increase the effectiveness of this effort. As an example, a statement by the World Health Organization regarding Chronic Wasting Disease put the risk to human health into perspective and helped reduce public concern about CWD.

IMPACT ON HUNTERS AND ANGLERS

Legal hunting, fishing and trapping are critical to the success of North American wildlife management. Hunters and anglers continue to be the primary source of funding for conservation efforts through the purchase of licenses and tags and through an excise tax on hunting, angling, and shooting sports equipment. Though past conservation efforts have focused on game species, other species have benefited as well.

Lead has been widely used in the manufacture of ammunition and fishing tackle for many years because it is readily available, malleable, and inexpensive. Manufacturers state that while alternatives to lead exist, they may be more expensive, may be impractical to use, and could require retooling of manufacturing processes. An abrupt transition to a requirement for non-lead ammunition or tackle could result in reduced availability and higher costs for ammunition and tackle.

It is unknown how hunters and anglers would respond to such a situation. However, it is generally accepted that approximately one-fourth of the nation's waterfowl hunters left the sport either temporarily or permanently when the national ban on using lead shot was enacted for waterfowl hunting. If a national ban on lead resulted in similar loss of hunters and anglers, it could jeopardize state and national efforts to recruit and retain hunters and anglers and to preserve the nation's hunting, fishing and wildlife heritage.

Additionally, little is known about the attitude of hunters and anglers towards regulations of lead ammunition and fishing tackle. An internet review by the WAFWA Human Dimensions

Committee found few previous human dimension and/or public surveys regarding lead and wildlife (Attachment 4). WAFWA members could benefit from additional information on public attitudes and understanding of this issue.

Further, there appears to be little information on lead and wildlife provided to the public by fish and wildlife agencies. Of the 21 WAFWA members responding to a survey, 13 reported providing some information about lead and wildlife. In two cases, only information about federal regulations is provided. A cursory review of the available information identified inconsistencies. Some information stressed the effect of lead on wildlife while other information highlighted the potential effect on human health. And, in those cases, the message and tone varied – from “lead is toxic to both children and adults” (OR) to “Pregnant women and children younger than 6 should not eat any venison harvested with lead bullets” (ND, CA). This lack of consistent and accurate information may create confusion among hunters and anglers and could diminish the effectiveness of any efforts to reduce the use of lead ammunition and fishing tackle.

IMPACT ON INDUSTRY

Ammunition and sport fish tackle manufacturers and retailers are vital supporters of state conservation programs through the Wildlife and Sportfish Restoration Program funding derived from federal excise taxes on sporting goods. Manufacturers and retailers have pointed out that a conversion to non-lead alternative materials for the production of ammunition and sport fishing tackle will have real costs in terms of raw materials, production and distribution. In addition, manufacturers and retailers have expressed concerns that, if not properly written, any proposed regulatory changes could be overly broad and have unintended consequences. If a conversion to non-lead alternatives is contemplated, agencies must fully recognize and consider the impacts to these important partners in wildlife conservation, and allow for full collaboration with industry. Any proposed changes should allow sufficient time for manufacturers, retailers, hunters and anglers to smoothly transition to the use of non-lead alternatives and should, to the extent possible, minimize the impact on legal hunting and fishing.

ROLE OF STATES

Individual fish and wildlife agencies are charged with managing their state’s fish and wildlife in the public trust. Agencies are also bound by legal and societal constraints that are unique to the individual state. While consistent messaging about the impact of lead ammunition and fishing tackle should help reduce public confusion about lead and wildlife, individual states will need the flexibility to develop their own policies regarding this issue. Some states may opt to take a regulatory approach while others may rely on voluntary measures.

Voluntary measures may include incentives to switch to non-lead ammunition and fishing tackle. Successful programs have allowed hunters and anglers to exchange lead ammunition and fishing tackle for non-lead alternatives. Identifying funding for these voluntary programs can be difficult. Initial guidance from the US Fish and Wildlife Service to some states has been that Pittman-Roberts funds cannot be used to fund a volunteer program that includes the purchase of non-lead ammunition for hunters for use in Condor areas. WAFWA should work with the Association of Fish and Wildlife Agencies (AFWA) and the USFWS to provide states greater flexibility to use Federal Aid funds for voluntary programs to reduce the use of lead ammunition and fishing tackle.

Actions by federal agencies can also affect fish and wildlife management by the states. In the case of lead ammunition and fishing tackle, different policies and approaches by federal

agencies and public land managers may increase public confusion about the issue. WAFWA should work with the Association of Fish and Wildlife Agencies (AFWA) to encourage federal agencies to develop consistent policies regarding lead ammunition and fishing tackle.

FOUNDATIONAL STATEMENTS

In managing the impacts to fish and wildlife resources from ingested lead, WAFWA recognizes the following:

1. Ingested lead from spent ammunition or sport fishing tackle is currently known to have detrimental effects on some species of wildlife at the individual or population level. While the impact of ingested lead on waterfowl and condors is generally accepted, the population level impact on many wildlife species is not currently well studied or understood. Sound science is one of the cornerstones of the North American Model of Wildlife Conservation and is the proper tool for the development of fish and wildlife policy in North America. Because the effects of lead from spent ammunition and sport fishing tackle on wildlife populations are not currently well understood, WAFWA encourages additional research and studies on the effects of lead on fish and wildlife.
2. Hunters and anglers are some of the original and most active conservationists and can be very helpful in reducing the amount of lead dispersed from spent ammunition and sport fishing tackle. Therefore, it is important that WAFWA members maintain the continued support of hunters and anglers when considering available management options and alternatives.
3. Wildlife resources, distribution and abundance, hunting and fishing practices and other social and political factors associated with use of lead varies greatly from state to state, and therefore, states need to develop their own approaches (voluntary/regulatory) to managing lead from spent ammunition and sport fishing tackle.
4. Public awareness and understanding of the potential effects of using lead ammunition and sport fishing tackle and the benefits of using non-lead alternatives is critical to successful efforts to manage this issue. Therefore, WAFWA members should work to develop consistent messaging regarding the effect of lead from spent ammunition and fishing tackle.
5. Manufacturers and retailers of sporting goods and ammunition have played a crucial role in the support of state Sportfish and Wildlife Restoration Programs through the Pittman-Robertson and Wallop-Breaux federal excise taxes. Continued collaboration and cooperation with ammunition and sporting fishing tackle manufacturers and retailers is critical to developing affordable and effective alternatives.
6. The consumption of game meat containing fragments of spent lead ammunition may have human health effects for some segments of the population, such as small children and pregnant or nursing women. WAFWA members should cooperate with state and local public health agencies that regulate and manage human health in future studies of these potential effects. WAFWA members and public health agencies should work to develop consistent and appropriate messaging regarding the consumption of game meat containing lead fragments from spent ammunition. The involvement of a credible public health agency with broad jurisdiction may help increase the effectiveness of this messaging.

7. Decisions regarding fish and wildlife management are best made by state fish and wildlife agencies. Proactive steps by state fish and wildlife agencies will ensure greater latitude and flexibility to deal with the issue at a state level. Therefore, it is important for member states to proactively address this issue as necessary and appropriate rather than having action directed by legislative, court, or federal administrative actions.
8. There are many different opinions and concerns to consider when dealing with this issue. It is important that states listen to all stakeholders and utilize appropriate human dimensions tools when developing effective management strategies, conservation programs, and informational material.
9. Changes for constituents and industry can be difficult and confusing, and may affect hunter and angler recruitment and retention programs if not properly addressed. It is important that efforts to address this issue are collaborative in nature and include constituents, industry, retailers, and other interested parties along with state fish and wildlife agencies.
10. A consistent approach by federal land management agencies, including the U.S. Forest Service, U.S. Bureau of Land Management, U.S. Fish and Wildlife Service and National Park Service, is critical to minimizing public confusion and animosity on this issue. WAFWA members will work to maintain an active and open dialogue with federal land managers in an effort to promote and develop consistent management programs across the landscape.

WORK GROUP RECOMMENDATIONS TO WAFWA

1. Continue the WAFWA Lead and Wildlife Ad Hoc Work Group for an additional year. The ad hoc work group will coordinate with the Resource, Information and Education, Human Dimensions, Wildlife Health, Hunter, Angler and Shooting Sports, and State-Federal-Tribal Communications Committees and the Wildlife and Fish Chiefs to address the lead and wildlife issue.
2. Direct the Resource Information and Education (RIE) Committee to develop strategic messages that could be used consistently across member agencies to better inform and educate the public on issues related to lead and wildlife including:
 - Impacts to populations vs. individual animals
 - Positive role of hunters and anglers and sportsmen ethics
 - Positive role and importance of industry involvement
 - Accurate information on public health agency concerns about game meat consumption and current scienceThe RIE Committee should update directors on its progress at the January 2011 business meeting.
3. Direct the Human Dimensions Committee to work with the RIE Committee to develop effective strategic messages using human dimensions studies and to identify the need for future human dimensions research on this issue.
4. Direct the Wildlife Health Committee to continue to collect and analyze current scientific literature regarding lead and wildlife and keep WAFWA Directors apprised of research developments. The Wildlife Health Committee should provide an update to directors at the January 2011 business meeting.

5. Direct the Hunter, Angler and Shooting Sports Participation Committee to work with industry to maintain an open and collaborative approach on addressing this issue. The Hunter, Angler and Shooting Sports Participation Committee should update directors on its progress at the January 2011 business meeting.
6. Direct the State-Federal-Tribal Communications Committee to work with the Association of Fish and Wildlife Agencies (AFWA) to seek a consistent federal policy statement by federal agencies regarding the use of lead ammunition and tackle on federal lands. The State-Federal-Tribal Communications Committee should provide an update to directors at the January 2011 business meeting.
7. Direct the Wildlife and Fish Chiefs committees to collect ongoing information on each state's efforts related to this issue over time and include a summary of this information in the report to the directors. A summary of this information should be provided to directors at the January 2011 business meeting.
8. WAFWA will work with AFWA, US Fish and Wildlife Service, industry, retailers and others to encourage efforts to provide incentives to manufacturers and others to adopt/develop non-lead products. Directors should be updated on these efforts at the January 2011 business meeting.
9. WAFWA will work with AFWA and the USFWS to provide states greater flexibility to use Federal Aid funds for voluntary programs to reduce the use of lead ammunition and fishing tackle. An update on this effort will be provided to directors at the January 2011 business meeting.
10. WAFWA will work with AFWA, US Fish and Wildlife Service, industry, retailers and other interested parties to identify needs for additional research and studies on the effects of lead on fish and wildlife. Directors should be updated on these efforts at the January 2011 business meeting.
11. WAFWA members adopt the proposed resolution regarding lead and wildlife. (Attachment 5)

WAFWA Lead and Wildlife Ad Hoc Work Group

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Exit Survey »

6%

Lead and Wildlife in the West

You are invited to participate in our efforts to learn more regarding lead and wildlife. For the purposes of this survey, the term "lead" refers to lead from ammunition or from fishing tackle.

In this survey, each WAFWA Director or appropriate delegate will be asked about how lead affects wildlife management in his or her state. Although the survey will take 15-20 minutes to complete, your efforts will be well worth it. You will have approximately three weeks to respond by the deadline of April 5, 2010.

Thank you very much for your time and support. Please start with the survey now by clicking on the Continue button below.

Back (Optional: return to Lead)

Continue

Please contact ichase@wafwa.gov if you have any questions regarding this survey.

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[http://wildfiread.questionpro.com/sk/sr/TakeSurvey?sessionId=hbco359cs1F9thbHRAUDe\[3/17/2010 2:42:58 PM\]](http://wildfiread.questionpro.com/sk/sr/TakeSurvey?sessionId=hbco359cs1F9thbHRAUDe[3/17/2010 2:42:58 PM])

QuestionPro Survey - Lead

« Back

Exit Survey »

43%

Lead and Wildlife in the West

4.) Please summarize any current restrictions, voluntary measures, or other efforts to reduce the use of lead in ammunition or lead fishing gear in your state/province. (other than the federal lead ban associated with hunting waterfowl)

	Regulations	Legislation	Voluntary Programs	Working Groups	Scientific Studies	Outreach/Education	Human Dimensions Studies	NA
Predators/Furbearers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Upland Game	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Big Game	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Small Game	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Wildlife Areas OR other land owned/managed directly by your agency	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Fishing Tackle	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other Please explain below	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

5.) If you marked "Other", or would like to provide additional information regarding any of the above categories please explain here.

Back (Optional: return to Lead)

Continue

Please contact ichase@wafwa.gov if you have any questions regarding this survey.

[http://wildfiread.questionpro.com/sk/sr/TakeSurvey?sessionId=hbco359cs1F9thbHRAUDe\[3/17/2010 2:46:51 PM\]](http://wildfiread.questionpro.com/sk/sr/TakeSurvey?sessionId=hbco359cs1F9thbHRAUDe[3/17/2010 2:46:51 PM])

QuestionPro Survey - Lead

« Back

Exit Survey »

31%

Lead and Wildlife in the West

1.) What State or Province do you represent?

Back (Optional: return to Lead)

Continue

2.) Do you agree or disagree with the following statement?

Lead from ammunition and fishing tackle is a significant issue to wildlife management worthy of further study, consideration, or action by WAFWA.

☐ Strongly Agree
☐ Somewhat Agree
☐ Neutral
☐ Somewhat Disagree
☐ Strongly Disagree
☐ Don't know

3.) Does your state/province agency currently have an official policy and/or position paper on the use of lead ammunition or lead fishing gear?

☐ Yes
☐ No
☐ Don't know

Please click [here](#) to email us a copy of your state/province agency's official policy or position paper on the use of lead ammunition or lead fishing gear.

Back (Optional: return to Lead)

Continue

Please contact ichase@wafwa.gov if you have any questions regarding this survey.

[http://wildfiread.questionpro.com/sk/sr/TakeSurvey?sessionId=hbco359cs1F9thbHRAUDe\[3/17/2010 2:46:16 PM\]](http://wildfiread.questionpro.com/sk/sr/TakeSurvey?sessionId=hbco359cs1F9thbHRAUDe[3/17/2010 2:46:16 PM])

QuestionPro Survey - Lead

« Back

Exit Survey »

68%

Lead and Wildlife in the West

6.) Briefly summarize any actions relating to lead that your state/province is considering in the next two years. This may include but is not limited to regulations, legislation, voluntary programs, working groups, scientific studies, Human Dimensions studies, outreach, education, etc.

Back (Optional: return to Lead)

Continue

7.) Briefly summarize any proposals for restrictions or regulations considered by your agency within last two years. Please describe the outcome and summarize public response for and against the proposals. Please provide contact information of key persons involved in the proposal.

Back (Optional: return to Lead)

Continue

Please click [here](#) to email us a copy of your state/province agency's current regulations associated with the use of lead ammunition or lead fishing gear.

8.) What information are you currently providing the public, hunters, and anglers regarding use of lead in ammunition and lead fishing gear? Please click [here](#) to email us a copy of the actual messages that your state/s/province's agency uses to communicate with the public about the use of lead ammunition or lead fishing gear.

Back (Optional: return to Lead)

Continue

Please contact ichase@wafwa.gov if you have any questions regarding this survey.

[http://wildfiread.questionpro.com/sk/sr/TakeSurvey?sessionId=hbco359cs1F9thbHRAUDe\[3/17/2010 2:48:00 PM\]](http://wildfiread.questionpro.com/sk/sr/TakeSurvey?sessionId=hbco359cs1F9thbHRAUDe[3/17/2010 2:48:00 PM])

QuestionPro Survey - Lead

81%

Lead and Wildlife in the West

9.) Has the public in your state/province raised any concerns about human health issues associated with lead in hunter-harvested meat or lead originating from fishing tackle?

☐ Yes
☐ No
☐ Don't know

10.) How has your agency addressed this?

[Skip to next question](#) | [Continue](#)

Please contact chase@azgfd.gov if you have any questions regarding this survey.

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QuestionPro Survey - Lead

100%

Lead and Wildlife in the West

11.) Is your state's/province's wildlife agency currently involved in any legal action regarding the use of lead ammunition or lead from fishing tackle?

☐ Yes
☐ No
☐ Don't know

12.) If you have a lead webpage on your website, please paste the link here.

13.) Please provide contact information for key persons involved with lead issues.

[Skip to next question](#) | [Continue](#)

Please contact chase@azgfd.gov if you have any questions regarding this survey.

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[http://wildlifelead.questionpro.com/akia/TakeSurvey.jsessionid=hbo0359cs1F9thbHReUDg\[3/17/2010 2:50:23 PM\]](http://wildlifelead.questionpro.com/akia/TakeSurvey.jsessionid=hbo0359cs1F9thbHReUDg[3/17/2010 2:50:23 PM])

QuestionPro Survey - Lead

Your response has been recorded, thank you for your participation!

[Visit Arizona Game and Fish](#)

ONLINE SURVEYS POWERED BY

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1.) What State or Province do you represent?	2.) Do you agree or disagree with the following statement? <i>Lead from ammunition and fishing tackle is a significant issue to wildlife management worthy of further study, consideration, or action by WAFWA .</i>	3.) Does your state/province agency currently have an official policy and/or position paper on the use of lead ammunition or lead fishing gear?	Predators/Furbearers 4.) Please summarize any current restrictions, voluntary measures, or other efforts to reduce the use of lead in ammunition or lead fishing gear in your state/province. (other than the federal lead ban associated with hunting waterfo	Upland Game 4.) Please summarize any current restrictions, voluntary measures, or other efforts to reduce the use of lead in ammunition or lead fishing gear in your state/province. (other than the federal lead ban associated with hunting waterfowl)	Big Game 4.) Please summarize any current restrictions, voluntary measures, or other efforts to reduce the use of lead in ammunition or lead fishing gear in your state/province. (other than the federal lead ban associated with hunting waterfowl)	Small Game 4.) Please summarize any current restrictions, voluntary measures, or other efforts to reduce the use of lead in ammunition or lead fishing gear in your state/province. (other than the federal lead ban associated with hunting waterfowl)	Wildlife Areas OR other land owned/managed directly by your agency 4.) Please summarize any current restrictions, voluntary measures, or other efforts to reduce the use of lead in ammunition or lead fishing gear in your state/province. (other than the fed	Fishing Tackle 4.) Please summarize any current restrictions, voluntary measures, or other efforts to reduce the use of lead in ammunition or lead fishing gear in your state/province. (other than the federal lead ban associated with hunting waterfowl)	Other Please explain below 4.) Please summarize any current restrictions, voluntary measures, or other efforts to reduce the use of lead in ammunition or lead fishing gear in your state/province. (other than the federal lead ban associated with hunting
			Regulations Legislation Voluntary Programs Working Groups Scientific Studies Outreach/ Education Human Dimensions Stt NA	Regulations Legislation Voluntary Programs Working Groups Scientific Studies Outreach/ Education Human Dimensions Stt NA	Regulations Legislation Voluntary Programs Working Groups Scientific Studies Outreach/ Education Human Dimensions Stt NA	Regulations Legislation Voluntary Programs Working Groups Scientific Studies Outreach/ Education Human Dimensions Stt NA	Regulations Legislation Voluntary Programs Working Groups Scientific Studies Outreach/ Education Human Dimensions Stt NA	Regulations Legislation Voluntary Programs Working Groups Scientific Studies Outreach/ Education Human Dimensions Stt NA	Regulations Legislation Voluntary Programs Working Groups Scientific Studies Outreach/ Education Human Dimensions Stt NA
Alberta	Strongly Disagree	No							
Arizona	Strongly Agree	No							
California	Strongly Agree	Yes	X	X					X
Colorado	Strongly Agree	No							
Hawaii	Somewhat Agree	No							
Idaho	Somewhat Agree	No							
Kansas	Somewhat Agree	No							
Montana	Somewhat Agree	No							
North Dakotal	Neutral	No							
nebraska	Somewhat Agree	No							
New Mexico	Somewhat Agree	No							
Nevada	Somewhat Agree	No							
Oklahoma	Somewhat Agree	No							
Oregon Dept of Fish and Wildlife	Strongly Agree	No							
South Dakota	Somewhat Agree	No							
Texas Parks and Wildlife (Wildlife Division)	Somewhat Agree	No							
Utah	Strongly Agree	No							
Washington	Strongly Agree	Yes							
Wyoming	Strongly Disagree	No							
Yukon Territory, Canada	Somewhat Agree	No							
British Columbia	Somewhat Agree	No							

Attachment 3

1.) What State or Province do you represent?	5.) If you marked 'Other', or would like to provide additional information regarding any of the above categories please explain here.	6.) Briefly summarize any actions relating to lead that your state/province is considering <i>in the next two years</i> . This may include but is not limited to regulations, legislation, voluntary programs, working groups, scientific studies, Human Dimensions studies, outreach, education, etc.	7.) Briefly summarize any proposals for restrictions or regulations considered by your agency <i>within last two years</i> . Please describe the outcome and summarize public response for and against the proposals. Please provide contact information of key persons involved in the proposal.	8.) What information are you currently providing the public, hunters, and anglers regarding use of lead in ammunition and lead fishing gear? Please email us a copy of the actual messages that your state's/province's agency uses to communicate with the public about the use of lead ammunition or lead fishing gear.	9.) Has the public in your state/province raised any concerns about human health issues associated with lead in hunter-harvested meat or lead originating from fishing tackle?	10.) How has your agency addressed this?	11.) Is your state's/province's wildlife agency currently involved in any legal action regarding the use of lead ammunition or lead from fishing tackle?	12.) If you have a lead webpage on your website, please paste the link here.	13.) Please provide contact information for key persons involved with lead issues.
Alberta		N/A	N/A	Federal material on lead ban on fishing gear for National Parks. Waterfowl hunting ban on the use of lead is also distributed from federal sources	No		No		Ron Borge; Terry Kosinski
Arizona	Arizona Game and Fish Department has convened a 'working group' of agency employees to expand public dialogue on ingested lead and wildlife. That group covers all categories above and we are just beginning an outreach and education component with that effort. In addition, we have an ongoing program to encourage voluntary reduction of lead available to California Condors in northern Arizona only.	1)The Arizona Game and Fish Department Commission directed the Department to begin a dialogue with the public on ingested lead and wildlife in 2009. The ingested lead and wildlife issue is one of the Director's goal and objectives in 2010 as well. 2)In response to the Commission direction above, the Department initiated a voluntary team of Department employees with interest in this issue to become our subject matter experts to assist with the management, development and internal and external outreach of this issue. Current state of the issue and science was discussed, and team members received many sources of existing scientific literature on the issue. The Team has completed a Department "in reach" plan to begin educating Department employees about this issue 3)Conducted 5 public focus groups in February, 2010 on the lead-wildlife issue using an outside consultant (DJ Case and Associates). A draft report of this effort is in review. 4)Presented information on the Department's voluntary non-lead	No restrictions or regulations have been proposed within the last 2 years.	Arizona has conducted a voluntary program to reduce lead exposure to condors within Northern Arizona with the following efforts: 2003 •Hunter awareness surveys and focus groups •Condor-lead page in hunting regulations •Letters to big game hunters in condor range asking them to take lead reduction actions •Outreach message focused on hunters' proud tradition of wildlife conservation 2004 •Condor-lead page in hunting regulations and letters to hunters •Hunter survey at Kaibab check station 2005 •Condor-lead page in hunting regulations and letters to hunters •Lead reduction message added to all condor presentations •Condor coalition of local sportsmen's groups created •Condor-lead webpage created •Outreach message more focused and direct and included results from condor-lead research: lead exposure data; exposure seasonality/location data; lead bullet fragmentation data; lead isotope data •Free non-lead ammunition program – two free boxes to fall big game hunters •Post hunt surveys – 2005 only 2	No	Despite the NO answer above, the human health issue has not been directly addressed, but the issue of lead bullet fragmentation in game meat is well documented and displayed in information regarding California Condor voluntary lead restriction literature and letters sent to hunters who draw big game tags in that area. Radiographs of lead fragmentation in meat are found in our condor information page within our hunt regulation booklet	Yes		Mike Rabe mrabe@azgfd.gov 623-236-7353 Mike Senn msenn@azgfd.gov 623-236-7301
California	Proposed legislation to ban lead on state wildlife areas for all hunting	Considering regulations to ban lead in condor range for hunting upland game and small game mammals.	Commission banned use of lead ammunition for big game, nongame (coyotes). This includes centerfire as well as rimfire for which there has not been a lead-free replacement in .22 caliber	Information leaflets, mailers, and ads in our annual regulation booklet describing the ban on use of lead and the affected area. this website: http://www.dfg.ca.gov/wildlife/hunting/condor/	Yes	We haven't directly, other than some contact with the Department of Public Health who would make such determinations.	Yes	http://www.dfg.ca.gov/wildlife/hunting/condor/	Eric Loft, 916-445-3555, eloft@dfg.ca.gov
Colorado		None planned at present, but we are watching the issue closely.	Some environmental groups have urged the Wildlife Commission to prohibit the use of lead ammunition for shooting prairie dogs.	We provide information about the potential hazards of consuming lead in our big game and small game hunting brochures. We did so at the request of the state health department.	No	See previous comment about information in the big game and small game hunting brochures (available on-line).	No	None	Jeffrey M. Ver Steeg, Assistant Director Wildlife Programs Colorado Division of Wildlife 6060 Broadway, Denver C) 80216 ph. 303.291.7204 jeff.ver_steeg@state.co.us
Hawaii		research has shown that lead is about twice as likely to be found in commercially processed game (15%) than privately butchered game (8%). it might be beneficial to contact meat processors for voluntary outreach on this issue			No		No		Ed Johnson, Hunting Coordinator Edwin.D.Johnson@hawaii.gov 808-587-4185
Idaho		We are considering proposing rules to limit use of lead shot ammunition for upland game hunting on some of our state-owned Wildlife Areas that have waterfowl habitat.			No		No		Jeff Knetter, State Upland Game and Waterfowl Staff Biologist jeff.knetter@idfg.idaho.gov 208-287-2747
Kansas	Non toxic shot for upland game and waterfowl on select state owned/managed lands. This does not apply to centerfire or rimfire ammunition, only shot.	None	None	None	Yes	Recent inquiry to our Commission. Information will be presented to Commission at our April meeting. This was first inquiry from public to our Commission.	No		Mike Mitchener, 512 SE 25th Ave, Pratt, KS 67124, 620-672-5911, mike.mitchener@ksoutdoors.com , Keith Sexson, Director keith.sexson@ksoutdoors.com
Montana		Proposal to ban lead for upland birds on agency areas with heavy waterfowl use and hunting	Proposed the above and the public went ballistic and failed to gain commission approval	N/A	No		No		Kit Hams, Big Game Program Manager kit.hams@nebraska.gov Scott Taylor, Wildlife Division Assistant Administrator, scott.taylor@nebraska.gov
North Dakotal		Nothing considered at this time. Working with WAFWA primarily.	Only work was/is with NPS on elk reduction in Theodore Roosevelt National Park.	Providing a cautionary statement in all hunting guides on the potential danger of ingesting lead. But this is primarily targeting human consumption rather than effects on fish/wildlife.	Yes	Worked with State Health agency and provide information in hunting publications. A rather huge 'kickback' from the public on this issue.	No		Terry Steinwand (tsteinwa@nd.gov) Craig Bihrie (cbihrie@nd.gov)
nebraska		education through news releases	none	occasional news articles on the subject	Don't know		No		Kit Hams, Big Game Program Manager kit.hams@nebraska.gov

Attachment 3

1.) What State or Province do you represent?	5.) If you marked 'Other', or would like to provide additional information regarding any of the above categories please explain here.	6.) Briefly summarize any actions relating to lead that your state/province is considering <i>in the next two years</i> . This may include but is not limited to regulations, legislation, voluntary programs, working groups, scientific studies, Human Dimensions studies, outreach, education, etc.	7.) Briefly summarize any proposals for restrictions or regulations considered by your agency <i>within last two years</i> . Please describe the outcome and summarize public response for and against the proposals. Please provide contact information of key persons involved in the proposal.	8.) What information are you currently providing the public, hunters, and anglers regarding use of lead in ammunition and lead fishing gear? Please email us a copy of the actual messages that your state's/province's agency uses to communicate with the public about the use of lead ammunition or lead fishing gear.	9.) Has the public in your state/province raised any concerns about human health issues associated with lead in hunter-harvested meat or lead originating from fishing tackle?	10.) How has your agency addressed this?	11.) Is your state's/province's wildlife agency currently involved in any legal action regarding the use of lead ammunition or lead from fishing tackle?	12.) If you have a lead webpage on your website, please paste the link here.	13.) Please provide contact information for key persons involved with lead issues.
New Mexico		Not aware of any plans at this time.	None considered during that time frame.	None to hunters; fishing clinics stress use of non-toxic sinkers.	No	NA	No		Tim Mitchusson (575) 835-0900 Mike Sloane (505) 476-8055
Nevada		Nothing at this time	None	Nothing more that what is required for waterfowl	No	No	No	NA	Rich Haskins 1100 Valley Rd
Oklahoma		NA	NA	NA	No	NO	No	NA	
Oregon Dept of Fish and Wildlife		No specific actions are being considered at this time other than working with other Western States on this issue. We do have the ODFW working group that is ongoing which will provide the leadership and technical expertise on this issue but so far no legislation or regulations are being considered for regulation of lead fishing tackle. We do have the PSA in our angling regulations.	We have considered public proposals that would have restricted types of lead fishing weights during the development of the 2009 Oregon Sport Fishing Regulations, and also a public proposal submitted as part of the 2005 fishing regulation development. Summaries of the two proposals follow. Neither were recommended by staff to be adopted and were rejected by the Fish and Wildlife Commission. In summary, these proposals include: Proposed 2009 Rule: Statewide ban on lead fishing weights smaller than 1 oz. and a more comprehensive program to educate the fishing public of the environmental dangers of lead in association with the sport fishing industry including heightened awareness of lead exposure to wildlife and children. Rationale: 1. Works toward the elimination of the toxic heavy metal lead in the Sport fishing industry. Seeks to preserve waterfowl, eagles, osprey, loons and other bird species by reducing lead intake through discarded fishing gear. 2. Prevent children from excessive lead exposure	We are providing angles with the PSA in our Oregon Sport Fishing Regulations (page 14 of the 2010 regulations) and a link to the Department of Human Services website on heath risks from lead exposure. (http://www.oregon.gov/DHS/ph/lead/leadsafefam.shtml) Information also provided on pg. 24 of 2009/2010 Game Bird Regulations and pg. 61 of 2010 Big Game Regulations. Additionally, information is provided through individual contact and correspondence with members of the public.	Yes	The public has raised concerns about lead fishing tackle. This was the basis for the two angling regulation proposals listed above. There have also been statements from members of the public regarding lost lead weights in rivers and streams; especially in popular sturgeon, salmon and steelhead fishing areas. We have addressed concerns through public meetings where we talked about voluntary approaches to phase out lead fishing sinkers or seeking alternative types of fishing weights. Also, anglers have taken it upon themselves to salvage lead weights from popular fishing locations and reselling these weights to anglers. We also have our PSA in the angling regulations.	No	N/A -- literature references Department of Human Services website at http://www.oregon.gov/DHS/ph/lead/leadsafefam.shtml	Recreational Fishing: Rhine Messmer Recreational Fisheries Program Manager Recreational Fisheries Program; Fish Division Oregon Department of Fish and Wildlife 3406 Cherry Avenue NE Salem, OR 97303 503-947-6214 Wildlife: Brandon Reishus Asst. Staff Biologist Wildlife Division Oregon Department of Fish and Wildlife 3406 Cherry Avenue NE Salem, OR 97303 503-947-6324 Brandon.S.Reishus@state.or.us Information & Education: Roger Fuhrman Administrator Information and Education Division Oregon Department of Fish and Wildlife 3406 Cherry Avenue NE Salem, OR 97303 (503) 947-6010 Roger.W.Fuhrman@state.or.us Wildlife Health: Colin Gillin State Veterinarian Oregon Department of Fish and Wildlife 7118 NE Vandenberg Ave Corvallis, OR 97330 541-757-4186 Ext 232 Colin.M.Gillin@state.or.us
South Dakota					Yes	Advising of appropriate butchering techniques to avoid consuming lead	No		Tom Kirschenmann ☐ 605-773-4192 ☐ tom.kirschenmann@state.sd.us
Texas Parks and Wildlife (Wildlife Division)		TPWD has completed HD work on Texas dove hunter attitudes towards non toxic shot for dove. A final report has been prepared. Also TPWD has been conducting lethality research on dove comparing different toxic and non toxic loads. Field collections are complete, lab analysis are ongoing and completion is expected in the fall of 2011.	Select WMAs require non toxic shot for certain species (i.e. snipe) in areas where waterfowl hunting is allowed.	General information regading our dove lethality has been provided to the general public and news media.	No		No		
Utah	None	Voluntary Program for big game hunters in Zion unit where condors concentrate.	We did replace lead shot with nontoxic shot for hazing big game several years ago.	Advisory in our big game hunting guide and information on website.	No		No		Alan Clark, Assistant Director, alangclark@utah.gov ☐ Eric Larson, Wildlife Section Chief, ☐ ericlarsen@utah.gov
Washington			WDFW participates on the AFWA Lead working group (and the WAFWA ad hoc group). A volunteer group provides educational outreach to limit use of lead sinkers at a few lakes where loons are known to breed. Use of non-toxic shot will be required on all pheasant release areas beginning in 2011 for hunting of upland birds (statewide requirement).	During WDFW's 2010-12 fishing season a proposal came forward to ban the use of lead weights weighing less than 1/2 oz and lead jigs for fishing on 14 lakes in the state where loons were know to breed. This proposal went through several months of review, but ultimately was not developed into a regulation for consideration by the F/W Commission. Staff were directed to develop additional information before any reconsideration of a proposal of this type would be reconsidered. There is not any work currently underway on this topic. The proposal and the public testimony it received can be found by downloading the '2010-12 sportfishing rule proposals public testimony' which can be found at: http://wdfw.wa.gov/fish/regs/rule_proposals/index.htm Look for proposal #31 beginning on page 131.		Other than what is found in our regulation pamphlet, we do not have any other messages.			
Wyoming		None	None	None	No		No	None	Steve Ferrell John Kennedy

Attachment 3

1.) What State or Province do you represent?	5.) If you marked 'Other', or would like to provide additional information regarding any of the above categories please explain here.	6.) Briefly summarize any actions relating to lead that your state/province is considering <i>in the next two years</i> . This may include but is not limited to regulations, legislation, voluntary programs, working groups, scientific studies, Human Dimensions studies, outreach, education, etc.	7.) Briefly summarize any proposals for restrictions or regulations considered by your agency <i>within last two years</i> . Please describe the outcome and summarize public response for and against the proposals. Please provide contact information of key persons involved in the proposal.	8.) What information are you currently providing the public, hunters, and anglers regarding use of lead in ammunition and lead fishing gear? Please email us a copy of the actual messages that your state's/province's agency uses to communicate with the public about the use of lead ammunition or lead fishing gear.	9.) Has the public in your state/province raised any concerns about human health issues associated with lead in hunter-harvested meat or lead originating from fishing tackle?	10.) How has your agency addressed this?	11.) Is your state's/province's wildlife agency currently involved in any legal action regarding the use of lead ammunition or lead from fishing tackle?	12.) If you have a lead webpage on your website, please paste the link here.	13.) Please provide contact information for key persons involved with lead issues.
Yukon Territory, Canada	Hunter education programs are beginning to identify the need for reduction of lead fragmentation in big game through the use of premium ammunition or the use of bonded or full copper bullets.	We anticipate increased information on lead in the environment in hunting and fishing synopses and our outreach and public education programs.	None known.	Verbal reminders of the movement of lead in big game from bullet fragmentation in hunter workshops. Outreach in the area of fishing and increasing awareness of lead weights as a source of environmental contamination.	No	Nothing current.	No		Philip Merchant Animal health coordinator Department of Environment Box 2703 Whitehorse Yukon, Y1A 2C6 867-667-5285
British Columbia	Waterfowl	Considering introducing bans on lead shot for all hunting. Cost issues raised by stakeholders.	Discussed the issue with stakeholders as a result of conversations with TWS. Cost raised as primary objection.		No		Don't know		Helen.Schwantje@gov.bc.ca, Stephen.Maciver@gov.bc.ca, Christopher.Addison@gov.bc.ca

HUMAN DIMENSION COMMITTEE REPORT HUMAN DIMENSION REVIEW WORK REGARDING LEAD AND WILDLIFE ISSUES AND TEXAS AND FEDERAL CURRENT LEAD SURVEYS

May 6, 2010

Background

A lead task force was designated by the WAFWA Directors in July 2009. In response to this request the task force met and set a course of action that included the Human Dimensions Committee reviewing Human Dimensions work that had been previously completed relating to public views about lead and wildlife issues. Additionally the committee was requested to obtain an update on the ongoing public dove survey related to use of lead shot. In review of this information and at the Association of Fish and Wildlife Agencies Lead committee meeting information became available regarding a United States Fish and Wildlife Service and AFWA national Dove hunter survey regarding use of lead shot.

Human Dimension Survey Review

An internet review of previous human dimension and/or public surveys of public attitude regarding lead and wildlife resulted in fairly limited results. It appears that several states including Washington, California, Alaska, Arizona and a few other states have conducted limited public input surveys associated with rule making input processes regarding limiting lead shot, bullets or sinkers. Various other states have promulgated rules on use of lead shot on portions of their states and likely had public processes for input on the subject as well.

The following are a summary of the major public surveys completed regarding lead effects on wildlife:

ATTITUDES OF MISSOURI SMALL GAME HUNTERS TOWARD NONTOXIC-SHOT REGULATIONS

Auteur(s) / Author(s)

SCHULZ John H. ; REITZ Ronald A. ; SHERIFF Steven L. ; MILLSPAUGH Joshua J. ;

Résumé / Abstract

Wildlife managers are becoming more concerned about the exposure of birds, in addition to waterfowl, to spent lead shot. Knowledge of hunter attitudes and their acceptance of nontoxic-shot regulations will be important in establishing new regulations. Our objective was to assess the attitudes of small game hunters in Missouri, USA, toward a nontoxic-shot regulation for small game hunting, specifically for mourning doves (*Zenaidura macroura*). Most hunters (71.7-84.8%) opposed additional nontoxic-shot regulations. Hunters from rural areas, hunters with a rural background, hunters who hunt doves, hunters who currently hunt waterfowl, hunters who primarily use private lands, and current upland game hunters were more likely to oppose new regulations. For mourning dove hunting, most small game hunters (81.1%) opposed further restrictions; however, many non-dove hunters (57.1%) expressed no opinion. Because our results demonstrate that most small game hunters and dove hunters in Missouri are decidedly

against further nontoxic-shot regulations, any informational and educational programs developed to accompany future policy changes must address their concerns.

SUPPORT FOR, ATTITUDES TOWARD, AND BELIEFS ABOUT A BAN ON LEAD SHOT IN THE FARMLAND ZONE OF MINNESOTA

David C. Fulton¹, Susan A. Schroeder¹, William Penning, and Kathy DonCarlos

SUMMARY OF FINDINGS

The purpose of this study was to determine level of support or opposition to a ban on lead shot in the farmland zone of Minnesota and the attitudes and beliefs about such a ban. In addition we collected information about small game hunting participation and involvement. Data were collected from 2 study strata: the 7-county Twin Cities metropolitan area and the non-metropolitan areas of the state. Respondents were about equally divided in their support for a ban of using lead shot in the farmland zone within the next 5 years with 42% indicating they are likely to support a ban and 44% reporting they are unlikely to support a ban. Support for a ban was strongly correlated with attitudes toward a ban, and respondents with different attitudes toward a ban differed on their beliefs about the outcomes of such a ban.

Texas Study Examining Lead Issues in Dove Hunting

Texas has taken the lead in trying to answer vexing questions with which wildlife managers have wrestled for more than three decades: how prevalent is ingestion of spent lead shot by doves, what health-related problems are associated with the hugely popular birds swallowing the toxic pellets and are there viable non-toxic alternatives to lead shot in dove-hunting situations?

More than two decades after biologists and wildlife managers began a phase-out of lead shot for waterfowl hunting after intense research showed ingestion of spent lead shot was annually killing millions of ducks and geese, wildlife professionals still have relatively little information on lead shot's effects on the nation's dove population.

A package of multiyear research projects being conducted by Texas Parks and Wildlife Department hope to produce some of the first large-scale data quantifying the issue of how lead impacts on doves. It's also to providing hard science on the effectiveness of options should evidence suggest lead shot be banned for dove hunting.

TPWD currently is involved in research to gauge hunter awareness of the issues surrounding lead shot and doves, and their attitudes toward the possibility of banning lead shot for dove hunting.

In a report provided by the Texas Parks and Wildlife Division at the North American Texas discussed the basics of this survey which is ongoing and involves a significant number of Texas's 250,000-300,000 dove hunters. This study is currently being analyzed and information is likely going to be available in September or October 2010. One of Texas representative's comments were that the survey has yielded some unexpected results.

**Proposed Information Collection; National Mourning Dove Hunter
Attitude Survey on Nontoxic Shot**

The mourning dove is the most-hunted migratory game bird species. The following is from an update provided at the North American meeting in March 2010:

We plan to ask OMB for approval to sponsor a National Mourning Dove Hunter Attitude Survey on Nontoxic Shot. The Missouri Department of Conservation will conduct the survey under the auspices of the Association of Fish and Wildlife Agencies and the Service. Information from this survey will help us make nontoxic shot policy decisions and develop appropriate informational and educational programs if new regulations are necessary.

Under the Migratory Bird Harvest Information Program (HIP) (50 CFR 20.20), each State annually provides a list of all migratory bird hunters licensed by the State (OMB Control Number 1018-0023). We will use these lists to randomly select mourning dove hunters to participate in the proposed survey. We plan to collect:

- (1) Demographic information (e.g., respondent age, gender, income, education, and occupation).
- (2) Information on hunting experiences (e.g, hunter type, distance traveled to hunt, type of ammunition, frequency of hunting, and positive and negative aspects).
- (3) Perceptions of the benefits and concerns about the use of nontoxic shot.
- (4) Perceptions of the benefits and concerns about nontoxic shot regulations.

**DRAFT WAFWA Resolution Regarding Lead and Wildlife
Proposed by Lead and Wildlife Ad Hoc Work Group
July 17, 2010**

Whereas, fish and wildlife agencies are facing the challenge of balancing the known and potential impacts to wildlife from lead in spent ammunition and sport fishing tackle with public perception of this issue; and

Whereas, ingested lead from spent ammunition or sport fishing tackle is currently known to have detrimental effects on some species of wildlife, both at the individual and population level; and

Whereas, public concerns about the potential impact of lead ammunition and sport fishing tackle on wildlife, the environment and public health have resulted in legislative, legal, regulatory and political actions to restrict or eliminate the use of lead in ammunition and fishing tackle in some states; and

Whereas, fish and wildlife management decisions are best made by individual state fish and wildlife agencies relying on sound science; and

Whereas, hunters and anglers are some of the original and most active conservationists and can help reduce the amount of lead that is currently used in ammunition and sport fishing tackle; and

Whereas, public awareness and understanding of the potential effects of using lead ammunition and sport fishing tackle and the benefits of using non-lead alternatives is critical to successful efforts to manage this issue; and

Whereas, manufacturers and retailers of sporting goods and ammunition play a crucial role in the support of state Sportfish and Wildlife Restoration Programs through the Pittman-Robertson and Wallop-Breaux federal excise taxes; and

Whereas, any proposed transition to non-lead ammunition or fishing tackle is likely to be difficult, costly and confusing for hunters, anglers, retailers and manufacturers; and

Whereas, the success of any proposed transition to non-lead ammunition or fishing tackle depends upon effective collaboration with industry, retailers, hunters, anglers, shooting sports interests and conservation organizations; and

Whereas, proactive steps by state fish and wildlife agencies will ensure greater latitude and flexibility to deal with the issue at a state level; and

Whereas, in recognition of the sensitive and often controversial nature of this issue, the Western Association of Fish and Wildlife Agencies (WAFWA) formed an ad hoc lead and wildlife work group to develop recommendations to WAFWA,

Now, therefore, be it resolved that the Western Association of Fish and Wildlife Agencies (WAFWA) take the following actions to minimize the impact on hunters, anglers, retailers and manufacturers and to provide appropriate tools for WAFWA members to use in addressing with this issue:

1. Continue the WAFWA Lead and Wildlife Ad Hoc Work Group for an additional year to coordinate with the Resource, Information and Education, Human Dimensions, Wildlife Health, Hunter, Angler and Shooting Sports, and State-Federal-Tribal Communications Committees and the Wildlife and Fish Chiefs on specific actions to address the lead and wildlife issue.
2. Direct the Resource Information and Education (RIE) Committee to develop strategic messages that could be used consistently across member agencies to better inform and educate the public on issues related to ingested lead and wildlife including Impacts to populations vs. individual animals, positive role of hunters, anglers and industry, sportsmen ethics, and public health agency concerns about game meat consumption. The committee shall update directors on its progress at the January 2011 business meeting.
3. Direct the Human Dimensions Committee to work with the RIE Committee to develop effective strategic messages using human dimensions studies and to identify the need for future human dimensions research on this issue.
4. Direct the Wildlife Health Committee to continue to collect and analyze current scientific literature regarding lead and wildlife and to keep WAFWA Directors informed of research developments. The committee shall provide an update to directors at the January 2011 business meeting.
5. Direct the Hunter, Angler & Shooting Sports Participation Committee to work with industry and retailers to maintain an open and collaborative approach to addressing the lead and wildlife issue. The committee shall update directors on its efforts at the January 2011 business meeting.
6. Direct the State-Federal-Tribal Communications Committee to work with the Association of Fish and Wildlife Agencies (AFWA) to seek a consistent policy statement by federal agencies regarding the use of lead ammunition and tackle on federal lands. The committee shall provide an update to directors at the January 2011 business meeting.

7. Direct the Wildlife and Fish Chiefs committees to collect ongoing information on each state's efforts related to this issue over time and include a summary of this information in a report to the directors. A summary of this information shall be provided to directors at the January 2011 business meeting.
8. Direct WAFWA to work with AFWA, US Fish and Wildlife Service, industry, retailers and others to encourage efforts to provide incentives to manufacturers and others to adopt/develop non-lead products. An update on these efforts shall be provided to directors at the January 2011 business meeting.
9. Direct WAFWA to work with AFWA and the USFWS to provide states greater flexibility to use Federal Aid funds for voluntary programs to reduce the use of lead ammunition and fishing tackle. Directors shall be updated on these efforts at the January 2011 business meeting.
10. Direct WAFWA to work with AFWA, US Fish and Wildlife Service, industry, retailers and other interested parties to identify needs for additional research and studies on the effects of lead on fish and wildlife. Directors shall be updated on these efforts at the January 2011 business meeting.