

# **Fishing Lead Free:**

## **A Regulatory Proposal**

Environment Canada

# Fishing Lead Free: A Regulatory Proposal

## Introduction

On February 17, 2004, the Minister of the Environment announced his intention to develop regulations to prohibit the import, manufacture, and sale of lead sinkers and jigs used in fishing. This was done as follow-up to commitments made in the House of Commons in 2002 during debates on Votable Motion-414 to ban the use of lead sinkers and jigs, and as follow-up to the 2003 release of the Canadian Wildlife Service Occasional Paper 108\* entitled *Lead fishing sinkers and jigs in Canada: Review of their use patterns and toxic impacts on wildlife*. Occasional Paper 108 reviews the issue of lead sinker toxicity for loons and other wildlife and provides a scientific basis for the proposed regulation. The purpose of this discussion paper, *Fishing Lead Free: A Regulatory Proposal*, is to provide a reference point for the consultations during the development of the regulations. It is recommended that Occasional Paper 108 be reviewed by those desiring a more thorough technical understanding of the issue.

## Background

Lead is recognized globally as a toxic substance for both humans and animals. The Government of Canada recognizes the risks posed by lead exposure, and has a number of regulations and initiatives designed to protect humans and the environment against the adverse effects of lead.

Ongoing research and assessment have revealed that lead poisoning from sinker or jig ingestion is an issue of serious concern with regard to the protection of certain wildlife. Many water birds, in particular loons, can suffer from lead poisoning and death by ingesting a single small lead sinker or jig. Loons ingest lost sinkers mixed with gravel when they consume grit to aid digestion, or when they consume lost bait fish with hook, line, and sinker still attached. Other than recent outbreaks of disease (botulism) during their migration on the Great Lakes, ingestion of lead sinkers or jigs is often the leading cause of mortality for loons in eastern North America.

Lead poisoning typically accounts for 20-30% of adult loon mortality in habitats where recreational angling is prevalent. The actual numbers of dead animals found represents only a small percentage of the total number of lead sinker poisoning cases suspected to be occurring. This is because dead loons turned in to wildlife authorities are most often those found by

chance, rather than through any systematic search-and-recovery process. Therefore, the total number of loons killed by lead fishing gear cannot be accurately estimated. However, the high proportion of total loon mortality that is due to lead sinker poisoning is an important indicator of the seriousness of the negative impacts lead fishing gear is having on loon populations.

It is estimated that approximately 500 tonnes of lead is deposited in freshwater lakes and rivers every year when anglers lose their small lead sinkers and jigs. Although to most people this amount appears large at the outset, with about 5 million recreational anglers in Canada, this translates into only 4-5 average sized sinkers lost per angler per year.

Since the early 1970s, sources of lead exposure in Canada have decreased substantially, mainly because the use of leaded gasoline and lead-based paint were phased out and the use of lead solder in food cans was virtually eliminated. As a result of reduced releases from these and other industrial sources, and because of continued use in fishing, lead in the form of sinkers and jigs now accounts for approximately 18% of unrecoverable lead deposited into our Canadian environment.

Therefore, a prohibition on the manufacture, import, and sale of lead sinkers and jigs would lead to the reduction and eventual elimination of readily preventable killing of wildlife, particularly loons and other waterbirds, and reduce one of the major sources of lead loading on our environment.

### **International Actions**

Other jurisdictions have already enacted prohibitions on the use of lead fishing sinkers and jigs. In 1987, Britain banned the use of lead fishing sinkers weighing less than 28.3 grams because of widespread mortality of swans. The United States federal government has banned the use of lead sinkers and jigs in three National Wildlife Refuges and one National Park. In addition, the states of New Hampshire and Maine have banned the use of small lead sinkers and jigs as of 2000 and 2002 respectively, and New York prohibited the sale and use of lead fishing sinkers weighing less than 14.2 grams in 2004.

### **Canadian Action to Date**

In response to this problem, in Canada, the *Wildlife Area Regulations* were

amended in 1997 to prohibit possession of any lead sinker or jig<sup>1</sup> weighing less than 50 grams while fishing in any National Wildlife Area (NWA) where sport fishing is allowed. In a parallel initiative in 1997, the *National Parks Fishing Regulations* were amended to prohibit the possession and use of lead sinkers or jigs while fishing in national parks.

### **Alternatives to Lead Sinkers and Jigs**

Some stakeholders raised concerns during consultations for the NWA and National Parks regulations in 1997 regarding the extent to which lead fishing sinker and jig alternatives were then available. Since then, a wider variety of nontoxic fishing gear has been developed, and there has been a steady increase in the production of such products in the past few years, predominantly by smaller manufacturers. For a detailed listing, please refer to our "Fish Lead Free" website at :  
[http://www.cws-scf.ec.gc.ca/fishing/index\\_e.cfm](http://www.cws-scf.ec.gc.ca/fishing/index_e.cfm).

While some of these alternatives are more expensive than lead products, anglers will not face significant or prohibitive increases in the cost of recreational angling activities by switching to non-lead fishing gear. The average angler's total seasonal expenditure is about \$500. The annual budgetary increase for the average angler as a result of switching to non-lead fishing gear is estimated to be less than 1 percent of their annual costs.

Based on available direct retail price comparisons of common types of fishing weights, it is estimated that the average angler spends up to an additional \$2 annually to buy non-lead sinkers and jigs. If current prices of these non-lead sinkers seem high, consider that it is expected that their costs will drop once supply is greater and there is increased competition among manufacturers of non-toxic products. Increased demand for these alternative products should also provide new market opportunities for industry. It is expected that the development of the regulation, including the period of consultation, will provide ample opportunity to facilitate the increased production of non-lead fishing gear.

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<sup>1</sup> In the NWA and National Parks regulations, "lead sinker" is defined as an object containing more than 1 percent by weight of lead used to sink a fishing line. "Lead jig" is defined as a weighted hook containing more than 1 percent by weight of lead used for fishing. These regulations will continue to be in force, prohibiting use and possession.

## The Proposed Regulatory Approach

The government is proposing to prohibit the import, manufacture, and sale of lead sinkers and jigs used for recreational angling. It is not proposing to prohibit the use or possession of lead fishing gear. With a prohibition on the import, manufacture, and sale of the specified lead products, it is expected that the availability of these products will rapidly decrease, and that additional lead deposition into lakes and rivers from fishing gear that is harmful to waterbirds should effectively cease.

It should be noted that this approach is consistent with Canada's 1995 Toxic Substances Management Policy and with commitments called for under the Organization for Economic Cooperation and Development's Lead Risk Reduction program to promote the use of nontoxic alternatives to lead sinkers and jigs. This action also supports the objectives of the *Migratory Birds Convention Act*.

A federal government committee has examined the use of various legal instruments to control the introduction of lead sinkers and jigs into the environment. It was determined that the *Canadian Environmental Protection Act, 1999* has the most appropriate legal authority for any proposed regulatory action. Lead is listed as Item 7 on the List of Toxic Substances in Schedule 1 of the Act.

Based on information collected to date, removal of leaded fishing gear less than 2 cm in length in any direction, and less than 50 grams in weight would essentially eliminate the threat of lead poisoning from fishing gear to waterbirds in Canada. Therefore, consistent with existing regulations on fishing gear in Canada and elsewhere, **the Government is proposing a prohibition on the import, manufacture, and sale of fishing sinkers and jigs which are less than 2 cm in length in any direction, weigh less than 50 grams, and contain more than 1% lead by weight. The proposed lead content limit of 1% would also apply to other tackle, such as spinners, lures, spoons, etc., that attach to fishing line and that because of their small size could be swallowed by waterbirds.** This is consistent with the definitions of lead sinker and jig<sup>2</sup> under the NWA and National Parks regulations.

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There is always the potential that replacements for lead fishing weights could themselves be toxic. **To ensure that safe alternatives are used, Environment Canada is proposing to work with stakeholders to develop guidelines under the Canadian Environmental Protection Act for determining alternative materials.**

A similar approach was used when lead shot for most migratory game bird hunting was prohibited nationally in Canada in 1999. *Toxicity Test Guidelines for Non-Toxic Shot for Hunting Migratory Birds* were established to evaluate alternatives to lead shot for their toxicity. So far under this process, the following materials have been determined to be non-toxic: various combinations of iron, bismuth, nickel, tin, and tungsten. Rubber and ceramic have also been allowed. Zinc has been rejected as a non-toxic alternative to lead shot.

As indicated, it is anticipated that possession and use of existing fishing gear will not be included in the prohibition. However, the government will be encouraging the safe disposal of leaded gear by recommending that anglers bring lead fishing gear to their appropriate community hazardous-waste disposal sites.

### **Education and Information Programs**

The federal government's regulatory action will be supplemented by continued education of anglers, manufacturers, and the general public, as well as discussions with other levels of government on the problem posed by lead fishing products, in order to encourage quicker uptake of the use of non-lead products. Fishing gear exchanges will not be a part of an education program as it has been pointed out by some manufacturers that these programs hinder retail sales by reducing free market interactions, as well as being expensive to the government.

Information on the problem posed by lead fishing sinkers and jigs has been and will continue to be made available to anglers in cooperation with the provinces and the territories, and by other special means in cooperation with angler and conservation groups. The Canadian Wildlife Service, in cooperation with Parks Canada, created an information brochure (*Fish Lead Free*) aimed at increasing awareness and educating anglers about the hazards presented by lead sinkers and jigs, and about alternatives available to lead tackle. Distribution of this pamphlet began in May 1996, and over 30,000 pamphlets have been distributed. Environment Canada has also developed a

“Fish Lead Free” website and has supported several lead sinker exchange programs. Despite this, voluntary measures to reduce the use of lead fishing gear have had a limited impact, and the majority of anglers continue to buy and use lead fishing gear.

### **Consultations and Timing of the Regulation**

The public can take part in the development of this regulatory proposal by providing comments on the proposal, as outlined in this discussion paper. Comments can be sent to the addresses listed below. **The final date for those comments is March 18, 2005.**

After the comment period, the Regulations will be developed according to the federal regulatory development process, and there will be further opportunity for comment when they are pre-published in the *Canada Gazette* Part I.

Please send comments to:

Lead Free Fishing Consultations  
351 St. Joseph Blvd. 3<sup>rd</sup> Floor  
Gatineau, Quebec  
K1A 0H3

Or by email to:

LeadFreeFishingConsultations@ec.gc.ca

\* Occasional Paper 108 can be found at : <http://www.cws-scf.ec.gc.ca/publications/AbstractTemplate.cfm?lang=e&id=1031>