ECHA proposes a restriction on lead and its compounds in gunshot[1]

Summary

The European Chemicals Agency (ECHA) has, at the request of the European Commission, submitted a report proposing a restriction on gunshot for shooting with a shot gun within a wetland or where spent gunshot would land within a wetland.

Waterbirds, including waterfowl (e.g. ducks, geese and swans), ingest 'spent' lead gunshot that is dispersed into the environment through hunting and sports shooting. In addition, predatory and scavenging birds ingest lead gunshot that is present in their food. The ingestion of lead gunshot leads to a range of acute and chronic effects, including death. Birds affected by lead poisoning include both hunted (e.g. ducks, geese) and non-hunted species (e.g. swans, flamingos, wading birds and birds of prey).

Exposure to lead is associated with adverse effects on the development of children's nervous systems and kidney failure and high blood pressure in adults. Lead is considered as a 'non-threshold' substance for neurodevelopment effects in children or kidney effects in adults, meaning that it is not possible to set a 'safe' exposure level for these effects.

Modern 'lead-free' gunshot cartriges, such as steel cartridges, are suitable for all types of hunting in wetlands and are widely available.

The public consultation on this proposed restriction will start on 21 June 2017 and end on 21 December 2017. However, the rapporteurs of ECHA's Committees for Risk Assessment (RAC) and Socio-economic Analysis (SEAC) would welcome any early comments, by 21 August 2017, to assist them in the first discussion of the restriction proposal.

SUGGESTED RESTRICTION

Scope

The proposal is to restrict the use of lead and its compounds in shot (containing lead in concentrations greater than 1% by weight) for shooting with a shot gun within a wetland or where spent gunshot would land within a wetland, including shooting ranges or shooting grounds in wetlands. The proposed restriction shall apply 36 months from the entry into force of the restriction.

Wetlands are defined based on Article 1(1) of the Convention on Wetlands of International Importance especially as Waterfowl Habitat (Ramsar Convention) as: *"areas of marsh, fen, peatland or water, whether natural or artificial, permanent or temporary, with water that is static or flowing, fresh, brackish or salt, including areas of marine water the depth of which at low tide does not exceed six metres".*

The Ramsar definition of wetlands is a comprehensive and internationally recognised definition and it is deemed to be appropriate to cover the risks of lead poisoning to waterbirds living in different types of wetland habitats.[2]

[1] The information note has been prepared based on the Annex XV report prepared by ECHA.

[2] The Ramsar definition of a 'wetland' should not be confused with the designation of Ramsar 'sites'. The majority of habitats consistent with the Ramsar definition of a wetland are not designated as Ramsar sites: http://www.ramsar.org/country-profiles

Reasons for action

Hundreds of species of birds are dependent on wetlands for at least part of their annual cycle. Migratory waterbirds species cross international boundaries during their migrations and require good quality habitat for breeding and wintering as well as to support their journeys.

Waterbirds, including waterfowl (e.g. ducks, geese and swans), are known to ingest the 'spent' lead gunshot[3] that is dispersed into the environment through hunting and sports shooting. Further to direct ingestion, predatory or scavenging birds (as well as other wildlife) are at risk of secondary poisoning through eating contaminated waterbirds that have lead gunshot embedded in their tissues or digestive tract (or where dissolution of embedded or ingested gunshot results in elevated lead tissue concentrations). The ingestion of lead gunshot by waterbirds leads to a range of acute and chronic toxicological effects, including death. Birds affected by lead poisoning include both hunted (e.g. ducks and geese) and non-hunted species (e.g. swans, flamingos, birds of prey and wading birds).

The amount of lead released into EU wetlands due to hunting activities has been estimated to be between 1 400-7 800 tonnes of lead per year (including peatlands). An additional, unquantified, amount is released into EU wetlands by sports shooting (e.g. shooting ranges) annually.

An analysis of the existing legislation implemented at national or regional level within the EU identified that a 'patchwork' of regulations is in place with risks not addressed in large areas of wetland habitats. ECHA's assessment concludes that the risk from the use of lead in gunshot in or over wetlands in the EU is not adequately controlled, due to the lack of harmonised measures in different EU countries. Four Member States have not implemented any controls on the use of lead gunshot in wetlands.

Regulating the risk at Union level will ensure an appropriate level of protection of wetlands and wildlife throughout the EU, recognising that the flyways of migratory birds typically cross several Member States. An EU-wide measure will also avoid the potential for conservation efforts in one Member State to be undermined by less-optimal measures in another.

The proposed restriction would ensure an effective implementation of the AEWA[4] (Agreement on the Conservation of African-Eurasian Migratory Waterbirds), to which the EU is a Contracting Party since 2005.

In addition, wetlands are often important drinking water resource[5]. Wetland catchments (surface water or groundwater) have been reported to be contaminated with lead from the use of lead gunshot, particularly from shooting ranges.

[3] Birds mistake lead gunshot for food or 'grits' (normally ingested to facilitate the grinding of food items within the gizzard).

[4] http://www.unep-aewa.org/
Developed under the framework of the Convention on Migratory Species (CMS) and administered by the United Nations Environment Programme (UNEP), AEWA brings together countries and the wider international conservation community in an effort to establish coordinated conservation and management of migratory waterbirds throughout their entire migratory range.

[5] See sections B.4.3.3.3. and B.9.1.8.4 (Annex file).

Consequences of the action

Alternatives to lead gunshot exist and are technically and economically feasible. The prices of lead and steel shot are currently comparable, while bismuth and tungsten shot, which are produced, sold and used in far lower volumes, are likely to remain more expensive than lead shot.

The proposed restriction is estimated to result in an overall annual cost in the order of €80 million, accruing mostly to EU hunters (including costs for necessary testing, technical adaptations to shotguns, premature replacement of shotguns, and the incremental cost of more expensive alternative ammunition). A substantial share of this cost is distributional in nature (as it goes either as tax revenue to governments or as mark-ups to retailers and manufacturers of shotguns and ammunition). The social cost of the restriction is thus in the order of €30-60 million per year.

On an individual level, this cost translates into an additional cost of approximately €50-60 per year, which is marginal compared to an average hunter's overall budget for hunting activities. Therefore, the proposed restriction is considered to be affordable to the individual hunter. Although affordability considerations do not imply that a regulatory measure entails a net welfare gain, the analysis suggests that the proposed restriction would be unlikely to exert disproportionate costs to society as a whole.

ECHA's assessment is that 0.4-1.5 million waterbirds die per year in the EU from direct injestion of lead gunshot. The corresponding benefits of the proposed restriction, in relation to preventing these deaths, are estimated to be greater than €105m per year.

The estimated quantified benefits do not include the benefits associated with reducing the mortality of predatory or scavenging birds via secondary poisoning or reducing sub-lethal effects on reproduction, development or immune function from lead poisoning. Further additional co-benefits of the restriction are considered to be[6]:

- Increased (long-term) hunting opportunities for the hunting community, related to the reduced mortality of birds.
- Increased (long-term) opportunities for birdwatching.
- Avoiding impacts on human heath via the consumption of lead contaminated game meat or drinking water
- Protection of ecosystem amenities.

ECHA's assessment concludes that the proposed restriction is implementable (technical feasible alternatives exist), enforceable, manageable for the various actors involved and proportionate.

[6] E.6.2.2. Benefits of the proposed restriction, p. 228 (Annex file).

SPECIFIC INFORMATION

Stakeholders are invited to submit specific information, in addition to comments on the overall dossier:

1. Please tell us if the definition of a wetland proposed for the restriction (the Ramsar convention definition) is appropriate to describe the range of wetland habitats where the use of lead shot poses a risk, specifically the risk to waterbirds that ingest lead shot and the risk of predatory and scavenging birds that consume lead-contaminated prey/carrion. If you consider that this definition is not appropriate, please tell us which specific wetland habitats should be included or excluded from the proposed restriction and justify this based on the relevance of these habitats to the risks posed by the use of lead gunshot.

2. Please tell us about your experience with any existing legislation that prevents or reduces the use of lead gunshot in wetlands, in particular:
    - How effective is the legislation in terms of reducing the risk of poisoning to birds (waterbirds, predatory birds and scavengers – and to the environment as a whole)?
    - How have wetland definitions been implemented in practice (e.g. are maps published, is there guidance for hunters on where use of lead gunshot is prohibited, is there mandatory training for hunters, are 'buffer zones' around wetlands used)?
    - How does the enforcement strategy adopted by authorities affect compliance, e.g. the probability of inspections in the field, potential penalties for non-compliance?

3. Noting that several Member States have already implemented 'total bans' on the use of lead gunshot (e.g. The Netherlands, Denmark), please tell us about your experience with the use of lead-free gunshot cartridges in wetlands, in particular:
    - Do you know if lead-free gunshot cartridges are available in your Member State or region? If so, what are the most commonly used gunshot materials (e.g. steel, bismuth-tin, tungsten-based, copper-based)?
    - Do you know if there are any specific circumstances under which the use of lead-free shotgun cartridges are not feasible?
    - Under what circumstances is it necessary to obtain a new shotgun in order to use lead-free cartridges? How many shotguns will need to be prematurely replaced in the EU as a result of this restriction proposal?
    - How long does it take to adapt to the use of lead-free gunshot cartridges when either hunting or sports shooting? Are there any long-term consequences of the transition on hunting efficiency, hunter safety or animal welfare?
    - Have you ever been trained on the use of lead-free gunshot cartridges. Who was the organiser of the training? Did this affect the way you hunted?
    - Are lead-free cartridges more or less expensive to produce than lead gunshot cartridges? If so, by how much and why? For example, based on our current understanding, steel gunshot cartridges are slightly more expensive to purchase then lead gunshot cartridges, even though the raw material is cheaper.

4. Please tell us about shooting ranges (e.g. for clay pigeon shooting) that are located within wetlands or nearby to wetlands in your specific Member State or region. Is there currently any legislation preventing the use of lead gunshot at these sites? Do you know if there are any risk management measures applied at these sites to control the risks from the use of lead gunshot (e.g. to avoid contamination of groundwater or poisoning of birds) or has any remediation been undertaken?

5. Do you have specific information on how a restriction of lead gunshot in wetlands would affect EU industry (e.g. shotgun and shotgun cartridge manufacturers or retailers)? Is the currently proposed transitional period of 36 months appropriate for manufacturers and users of lead gunshot cartridges to transition to the use of lead-free alternatives? What would be the consequences of a shorter transitional period of 18 months?

Early Comments preferably by 21 August 2017

The opinion forming process of the ECHA Committees for Risk Assessment (RAC) and Socio-economic Analysis (SEAC) starts with a public consultation on 21 June 2017. Interested parties can comment on the proposed restriction report using the ECHA website. Although the public consultation concludes on 21 December 2017 the rapporteurs of RAC and SEAC would appreciate receiving early comments by **21 August 2017** and additional comments by **21 November 2017** to better assist them as they develop their opinions.

The final opinions of both Committees are scheduled to be available by June 2018. ECHA will send these two opinions to the European Commission, which will take the decision whether to include the proposed restriction in the Annex XVII of the REACH Regulation.

Further information on the purpose, objectives, and process of the public consultation on restriction proposals is available in the Public Consultation Guidance
https://echa.europa.eu/documents/10162/13641/public_consultation_guidance_en.pdf

Please note: Information arriving after the closing date of the PC (or via other channels e.g. emails) will not be taken into account by RAC/SEAC.