



STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

15 W Yakima Ave, Ste 200 • Yakima, WA 98902-3452 • (509) 575-2490

December 16, 2011

RECEIVED
DEC 19 2011
HABITAT PROGRAM

Bob Zeigler, SEPA Coordinator
Department of Fish & Wildlife
600 Capital Way North
Olympia, WA 98501-1091

Re: Hughes Shooting Preserve

Dear Mr. Zeigler:

Thank you for the opportunity to comment on the determination of nonsignificance for the establishment of a 282.33 acre shooting preserve, proposed by Grant Hughes. We have reviewed the documents and have the following comments.

Hazardous Waste & Toxic Reduction

Ecology's Hazardous Waste & Toxics Reduction Program (HWTR) asks the Washington State Department of Fish and Wildlife to consider making the proposed shooting preserve a Nontoxic Shot Zone or ask the applicant to promote the use of non-toxic shot by their guides and clients. Ecology implements the Persistent Bioaccumulative Toxin (PBT) Rule, Chapter 173-333 WAC . The goal of the PBT Rule is to reduce and phase-out the use, release, and exposure to PBTS in Washington to reduce and eliminate threats to human health and the environment. Lead is one of the PBT metals of interest. In 2009, Ecology published the Lead Chemical Action Plan (CAP). The CAP is a comprehensive plan to identify, characterize and evaluate all uses and releases of Lead. The CAP is a plan, not legislation or a rule. It recommends actions to protect human health and the environment. Because of the toxic effects and widespread use, lead ammunition is among the items listed in the CAP. For more information on lead ammunition please refer to the publication titled "Focus on Lead Ammunition ":
<http://www.ecy.wa.gov/biblio/0807025.html> . Included with this request are pages 22



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through 23 from the 2011-2012 Migratory Waterfowl & Upland Game Hunting Guide. These pages identify current Nontoxic Shot Zones and information about nontoxic shot requirements.

If you have questions about this request for consideration, please contact Holly Cushman, HWTR Toxics Reduction Specialist, Ecology Central Region Office, Yakima. Her contact information is 509-575-2724 or email to holly.cushman@ecy.wa.gov.

Toxics Clean-up

Based upon the historical agricultural use of this land, there is a possibility the soil contains residual concentrations of pesticides. Ecology recommends that the soils be sampled and analyzed for lead and arsenic and for organochlorine pesticides. If these contaminants are found at concentrations above the MTCA clean-up levels Ecology recommends that potential buyers be notified of their occurrence.

If you have any questions or would like to respond to these Toxics Clean-up comments, please contact [Valerie Bound](#) at (509) 454-7886.

Sincerely,



Gwen Clear
Environmental Review Coordinator
Central Regional Office
(509) 575-2012

Enclosure
1235

Nontoxic Shot Requirements

RCW 77.15.400: There is a mandatory \$1,000 fine and loss of small game hunting privileges for 2 years if you are convicted of violating the following requirements:

Nontoxic Shot Zones

It is unlawful to possess shot (either in shotshells or as loose shot for muzzleloading) other than nontoxic shot for any purpose in the following areas:

- Wells Wildlife Area (Bridgeport Bar unit)
- Cowlitz Wildlife Area (all units)
- Olympic Wildlife Area (Chinook and Chehalis units)
- Shillapoo Wildlife Area (all units)
- Sinlahekin Wildlife Area (Driscoll Island, Hegdahl, and Kline Parcel units)
- Skagit Wildlife Area (all units)
- Snoqualmie Wildlife Area (all units)
- South Puget Sound Wildlife Area (Davis Creek Koopman unit)
- Sunnyside Wildlife Area (Headquarters, Byron, Windmill Ranch units)
- Whatcom Wildlife Area (including Lake Terrell, Tennant Lake, and other units)

It is unlawful to possess shot (either in shotshells or as loose shot for muzzleloading) other than nontoxic shot when hunting for game birds or game animals in the following areas:

- Chehalis River pheasant release site
- Dungeness Recreation Area
- Hunter Farms pheasant release site
- Raymond Airport pheasant release site
- All Whidbey Island pheasant release sites

Many U.S. Fish and Wildlife refuges require the use of non-toxic shot (refer to specific refuge rules).

Approved Nontoxic Shot Types

It is unlawful to possess shot (either in shotshells or as loose shot for muzzleloading) other than nontoxic shot when hunting for waterfowl, coot, or snipe.

Approved Nontoxic Shot Type* - Percent Composition by Weight

- **bismuth-tin:** 97 bismuth, 3 tin
- **iron (steel):** iron and carbon
- **iron-tungsten:** any proportion of tungsten, ≥ 1 iron
- **iron-tungsten-nickel:** ≥ 1 iron, any proportion of tungsten, up to 40 nickel
- **tungsten-bronze:** 51.1 tungsten, 44.4 copper, 3.9 tin, 0.6 iron; & 60 tungsten, 35.1 copper, 3.9 tin, 1 iron
- **tungsten-iron-copper-nickel:** 40-76 tungsten, 10-37 iron, 9-16 copper, 5-7 nickel
- **tungsten-matrix:** 95.9 tungsten, 4.1 polymer
- **tungsten-polymer:** 95.5 tungsten, 4.5 Nylon 6 or 11
- **tungsten-tin-iron:** any proportions of tungsten and tin, ≥ 1 iron
- **tungsten-tin-bismuth:** any proportions of tungsten, tin, & bismuth
- **tungsten-tin-iron-nickel:** 65 tungsten, 21.8 tin, 10.4 iron, 2.8 nickel
- **tungsten-iron-polymer:** 41.5-95.2 tungsten, 1.5-52.0 iron, and 3.5-8.0 flouropolymer

*Coatings of copper, nickel, tin, zinc, zinc chloride, & zinc chrome on approved nontoxic shot types are also approved.

NEW 2011-2012 Hunting Season Nontoxic Shot Rules

It is now unlawful to possess shot (either in shotshells or as loose shot for muzzleloading), other than nontoxic shot, when hunting for upland game birds (pheasant, quail, chukar, and gray partridge), mourning dove, band-tailed pigeon, on areas where pheasants are released by WDFW, to include:

- Asotin Wildlife Area (Hartssock Unit)
- Chelan Wildlife Area (Chelan Butte and Swakane units)
- Columbia Basin Wildlife Area (Banks Lake, Gloyd Seeps, Lower Crab Creek, Quincy Lakes, Warden units)
- Sinlahekin Wildlife Area (Chiliwist Unit)
- Colockum Wildlife Area (Headquarters Unit)
- Wenas Wildlife Area (Wenas Unit)
- Klickitat Wildlife Area (Hill Road Unit)
- Scatter Creek Wildlife Area
- Sherman Creek Wildlife Area
- Skookumchuck Wildlife Area
- Steamboat Rock, Fishtrap, John Henley, Willow Bar, Rice Bar, Hartssock, Mill Creek, Wallula, Peninsula, Hollebeke/Lost Island, Buckshot, Big Flat, and Ringold Pheasant Release sites
- Fort Lewis, Belfair, Woodland, and Lincoln Creek Pheasant Release sites

**SHOOT CLEAN
GET THE LEAD OUT**

- Lead shot can kill wildlife that ingests it.
- It only takes a few lead pellets to be toxic to wildlife.
- Lead shot has resulted in extensive swan mortality in northwestern Washington.
- Target shooting can be a significant source of lead shot in the environment.
- Consider switching to nontoxic shot for all shotgun ammunition.

Nontoxic Shot Requirements

TOM ROSTER'S 2006 NONTOXIC SHOT LETHALITY TABLE[®]

Proven Nontoxic Shot Loads For Waterfowl & Upland Game Birds¹
 Load Velocity: 1,225 - 1,450 FPS

ACTIVITY

| ACTIVITY | Typical Shooting Range of Activity (Yards) | Most Effective Nontoxic Shot Sizes(s) for Activity | Minimum Load Weight (Ounces) | Minimum Pellet Hits Needed on Lethal Areas for Clean Kills | Minimum Pattern Count Needed at Any Distance for Clean Kills (# of Pellets in 30" Circle) | Choke Starting Points (Given in Lead Shot) |
|--|--|--|------------------------------|--|---|--|
| Large Geese At Long Range ² | 50-65 | Steel BBB to T | 1-1/4 | 1-2 | 50-55 | Improved Modified |
| Giant, Western, Atlantic and Interior Canebrakes | 50-70 | HEVI-Shot 2 to BB | 1-1/4 | 1-2 | 50-55 | Full, Improved Modified |
| Large Geese Over Decoys ² | 40-50 | Steel BB to BBB | 1-1/8 | 1-2 | 50-55 | Modified (Mod. or M.) |
| Medium/Small Geese Long Range ² | 40-50 | HEVI-Shot 4 to 2 | 1-1/4 | 1-2 | 50-55 | I.C., Modified |
| Snow, White-fronted, Lesser Canebrakes | 50-65 | Steel BB to BBB | 1-1/4 | 1-2 | 60-65 | Improved Modified |
| Medium/Small Geese Over Decoys ² | 40-50 | Steel 2 to BB | 1-1/8 | 1-2 | 60-65 | Modified (Mod. or M.) |
| Large Ducks At Long Range | 45-65 | Steel 2 to 1 | 1-1/8 | 1-2 | 85-90 | Full |
| Mallard, Black Pintail, Goldeneye, Gadwall | 20-45 | Steel 6 to 2 | 3/4 - 1 | 1-2 | 85-90 | I.C. (20-35 Yds), M. (35-45 Yds) |
| Large Ducks Over Decoys ^{3,4} | 30-45 | Steel 6 to 3 | 1 | 1-2 | 115-120 | I.C. (20-35 Yards), Modified (35-45 Yards) |
| Medium Ducks Over Decoys ^{3,4} | 30-45 | Steel 6 to 4 | 1 | 1-2 | 135-145 | Modified (20-35 Yards), Full (35-45 Yards) |
| Wigeon, Scaup, Shoveler | 20-50 | Steel 3 to 2 | 1 | 2-3 | 90-95 | I.C. (20-30 Yds), M. (30-50 Yds) |
| Small Ducks Over Decoys ^{3,4} | 20-40 | Steel 4 | 1-1/4 | 3-4 | 210-230 | Full or Extra Full |
| Teal, Ruddy, Buffhead | 20-35 | Steel 7 to 5 | 1 | 1 | 175 | Mod. or Full (7 or 6), Full (5's) |

This table summarizes Tom Roster's analyses to date of the waterfowl and upland game bird lethality data bases for 15 published U.S. steel versus lead shooting tests and birds taken under scientific collecting permits for published ballistics reports Roster authored for ammunition companies and/or the CONSEP organization. Pellet sizes listed are for steel shot unless otherwise noted. As additional pellet types and shot sizes are tested and data bases completed, findings will be periodically updated and may change.

Note: To date, steel #BBB (.190") and HEVI-Shot #2 (.150") have exhibited the best overall performance for taking large geese; steel #3 (.140") the best overall performance for taking ducks; steel #2 (.150") the best all-around performance for taking ring-necked pheasants.

- 1 Values in this table are derived from testing 2 1/2" (70 mm) & 3" (76 mm) 20-ga., 2 3/4" (70 mm), 3" (76 mm) and 3 1/2" (89 mm) 12-ga. steel loads, & 3" 12 ga. HEVI-Shot loads.
- 2 Steel #F (.220") in all 12-gauge load configurations has exhibited the highest crippling rate on geese of all steel pellet sizes tested. Due to inadequate pattern density, Steel #F has not proven lethal on geese beyond 55 yards.
- 3 Steel #4 (.130") has exhibited good all-around performance for taking small and medium-sized ducks, but has not proven lethal on large ducks beyond 40 yards.
- 4 Steel #6 (.110") has proven lethal out to 35 yards on pheasants and all duck body sizes tested.
- 5 Steel #2 (.150") has exhibited the best all-around performance for taking ring-necked pheasants.

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