



HALIFAX WILDLIFE ASSOCIATION

P.O. Box 31055, Halifax, NS, B3K5T9

January 1, 2018

Reference: Final Report for year 2017 for the “exchange of toxic ammunition for non-toxic ammunition and education project”.

Acknowledgement:

The Halifax Wildlife Association recognizes the Nova Scotia Habitat Conservation Fund for their financial support of this project. It is through the Habitat Conservation Fund that Hunters and Trappers are able to direct financial support to specific conservation related projects such as the Lead Exchange and Education program.



Executive Summary

This year saw a continuation of previous year's activities and ongoing development of the network of relationships that drive this initiative forward. However, several issues arose that have direct impact, both positive and negative on the program:

- 1) Helene Van Doninck was again awarded a significant non-repayable grant to conduct work regarding toxic ammunition and toxic substances in fishing and costs associated with presentations and the creation of awareness. Helene informed the HWA that she wished to donate her total time, travel and other expenses associated with our program and apply those costs to her own funding. This saved the program several thousand dollars. This money was spent on the purchase of ammunition and education.
- 2) The increase in the American dollar compared to the Canadian was immediately felt in the cost of our ammunition and therefore workers from HWA made recommendation that we direct all of the funds normally spent on travel and

mileage toward ammunition and education. The HWA also spent over 2,500 on extra ammo out of HWA funds. Our suppliers gave us significant discounts and the combined impact resulted in over \$7,000 extra funds being directed to these activities.

- 3) To date Dr. Van Doninck and our organization have conducted over 150 individual presentations. Every presentation has resulted in increased awareness, acceptance and requirement for ammunition.
- 4) Direct input to the program from the public, agencies and groups have resulted in a slight change in positioning and wording and has resulted in the program moving away from references to "lead" to a more all-encompassing reference to toxic and to address the educational aspect of this project and not just an exchange of ammo. Many people associated directly with the environment find the reference to toxic ammunition more descriptive and embracing of this program in context with overall environmental issues et al.

Our activities to date have resulted in increased awareness, inquiry, presentation and acceptance of the program. Continued requests for presentations keep our workers busy and helped spread the word regarding the program. Take-up of the ammunition exchange exceeded expectations and demand exceeded supply near end of year even with the additional ammunition provided by the extra money from HWA, discounts from our vendors, Helene's contribution and buy-back of lead ammo by our vendors. One of our vendors, Green Diamond who donated (again this year) non-lead product at no charge to the program. Further, we received support and even donation from many of the clubs that make up the NSFAH and other organizations such as the Aboriginal community.

The most notable single demographic participating in the program last year came from the Indigenous community. Although this community continued to engage us in the exchange and use of non-toxic ammunition they have now been superseded by the mainstream community of hunters on an aggregate basis if not from a per capita perspective. However, several individuals from the Indigenous community have taken it upon themselves to collect lead ammunition within their communities and act as the collecting agent for us. This reduces our time and effort but still allows us to do presentations within those participating communities.

Advertising and promotion and further presentations greatly assisted in moving the program ahead and have potential participants get involved even without an exchange. Again this year produced a significant number of hunters purchasing their own non-lead ammunition and several distributors carrying additional quantities of product. The addition of Bass Pro and Cabelas in our region have added additional suppliers with an increased variety of product. To that end, Cabelas have been contacted and arrangements put in place for HWA and NSFAH to make presentations on non-lead use in hunting and fishing when their new store opens in Dartmouth. This venue should develop into a major educational opportunity in our area.

Further discussions with people from all walks of life confirm that a volunteer program seems the best way to proceed and to have hunters embrace the program. A major organization in New Brunswick have contacted us and over several meetings have developed an application to address the lead issue in New Brunswick.

Additional suppliers and distributors were willing to actively participate in the program with Green Diamond holding a non-toxic client day at their facility in Halifax. Further, Bass Pro and Cabelas are both very interested in moving forward with active participation that will

include allowing the HWA to make presentations and hold exchanges on an ongoing basis in both facilities.

Present events outside the control of the program give strong evidence that non-toxic ammunition will be the choice of the majority much quicker than expected. We are at the forefront of a North American shift from toxic to toxic-free alternatives.

Availability of non-toxic alternatives is expected to quickly expand and drop in price within the USA. However, the impact of the falling Canadian dollar may result in a temporary increase in product price.

There is still much to do. However, we have established a strong foothold and can leverage the situation to significantly move the program forward.

Recognition for leading edge thinking and initiative could be capitalized on if positioned and promoted appropriately. The Nova Scotia Habitat Conservation Fund through DNR could leverage this recognition to enhance and expand its image. Most notable in this regard is the number of references to the program from different DNR offices. We hope that the move to DOE from DNR of some key people will assist to get DOE also onboard with our program.

Incorporating parts of this program into the Hunter Safety program, the hunting report card and the Firearm certification course could enhance acceptance and public awareness.

We were quite pleased to hear from Clifford Paul that non-lead was used to harvest the moose in the Cape Breton Highlands national Park. This came from a joint venture between Parks Canada and the Indigenous Community of Nova Scotia. After several meetings regarding the moose extermination within a twenty square kilometer area of the National Park near North Mountain, we got confirmation that the hunters would be instructed to utilize non-toxic ammunition for this concentrated effort. As this program of moose extraction is expected to continue beyond 2017, we will continue to participate in meetings and push to continue to get non-toxic ammunition utilized as raptors and other predators will congregate to exploit the glut of available food from such a concentrated program.

Project Goals and Objectives:

- 1) Immediate further reduction by hunters of introducing toxic substances into animals and environment.
- 2) Continue to inform, educate and migrate a significant number of hunters from using toxic-based ammunition.
- 3) Leverage relationships to assist in above Goals and Objectives.

Work Completed: (continuation of last year.)

- The introduction of muzzle loaders into the Nova Scotia hunting community has resulted in the continuance of significant buy-up of such rifles. Further, this has resulted directly in requests for non-toxic ammunition for these new rifles. Most of these are in fifty caliber and a good supply of non-toxic product is available through our existing suppliers. However, it continues to add a new additional requirement for a significant amount of fairly expensive product. If we act promptly on these requests we may be able to have non-toxic ammunition be the standard for a significant number of new hunters.
- Obtained permission to utilize the NSFAH newsletter to position and explain the project, prepared article and placed in newsletter.

- Obtained permission from NSFAH to place information on web site. Placed information on NSFAH and HWA web sites.
- Obtained commitment from Dr Helene Van Doninck, Dr Edward Kirk, John Fraser, Ann Pollard, Michael Pollard, Frank and Marie Oram, David Buell, Aaron Pollard, Ronnie Pollard, Eddie MacKenzie, David Taylor, Ivan Budd, Chris Walford, Jamie Fraser, and Devon Buell to conduct field work and major presentations.
- Dr. Helene Van Doninck conducted presentations around the province, in New Brunswick and the US.
- Mike Pollard, Ann Pollard and Helene Van Doninck made presentation to Bushcraft, a non-hunting organization who showed interest in our program and felt the information would benefit their members in eliminating lead from all their activities.
- Obtained a new supply of CDs on non-lead hunting and a supply of CDs from Barnes manufacturing regarding the performance of their non-lead products and printed material and articles. Continued internet searches and obtained numerous articles on subject matter and distributed.
- Set up booth at Sport and RV show to promote awareness of program. Emphasis was placed on the funding received from the Habitat Conservation Fund, which in turn gets its funding from Nova Scotia hunters.
- Worked the booth at the Guy Show in Halifax in cooperation with Crossman, providing pellet gun shooting opportunities while delivering information on the non-lead program with emphasis on the funding received from the Habitat Conservation Fund.
- Met with several distributors of ammunition and obtained their cooperation in the program. **Explained the role of the Habitat Conservation Fund in the program.** Have distributor's on-side in Halifax, Dartmouth, Truro, Lantz, Bridgewater, Antigonish and Annapolis. Further, five new suppliers (Bass Pro and Cabelas) who are located in Moncton and suppliers in Canning, Antigonish, and Truro N.S. have adopted the program and were able to supply so specific product. Further, the supplier network is also an excellent source for presentation requests and demand for non-toxic product.
- Discussed with contacts at Cabelas regarding the opening of a new store in Dartmouth Crossing scheduled for 2016/2017.
- Continued the contact center with telephone line and email address. Manned center.
- Continued to research the caliber of ammunition in common use, determined quantities needed to conduct the program and obtained a supply of nontoxic ammunition for exchange.
- Exchanged almost 5,000 rounds of ammunition in the Cape Breton Highlands during the moose hunt, at our ammunition center on a weekly basis, at the event booths and in many towns around Nova Scotia. In total by this date we had exchanged in excess of 55,000 actual rounds of ammunition. We addressed requests for in excess of 4,000 rounds of ammunition that we could not supply last year. We are keeping a list of emails and telephone numbers to contact as soon as we are able to fulfill a few final requests.

- Presented updates at NSFAH Board of Directors Meetings to keep all the clubs informed and HWA (to BOD once a month except July and August and to members on the third Wednesday of Feb, April and Oct) and HWA members.
- Again, HWA as made a request to the Canadian Wildlife Association through their biologist Mr Brilliant to host a presentation by Helene Van Doninck on the non-toxic program. Also, HWA has made a formal request of the NSGFAH to send a letter to ask CWF for a presentation by Dr. van Doninck.

Results:

- The activities conducted in 2017 are continuing to work, based on the results and reaction to date. Even after the deer and moose seasons, we are getting calls every week regarding presentations and exchange.
- Excellent quality referrals from DNR offices resulting in requests for both presentations and non-toxic ammunition. Again in 2017, several people have contacted us and made mention that DNR supplied such good information that the person just went out and purchased their own non-toxic product.
- The hunting community of Nova Scotia is continuing to react well to the program, to the extent that we exchanged all non-toxic ammunition in stock. Due to the limited amount of funding relative to the originally-conceived scope of the program and the addition of muzzle loaders we did not have enough quantity to supply everyone who wanted to participate. However, again this year many hunters who approached us to exchange ammunition told us to save the non-toxic for others who needed it and they would purchase some for themselves. Any inquiries looking for non-lead are being directed to the nearest distributor and given guidance on the grain weight to ask for when converting to non-lead.
- Our assumption from the last three years of program proved correct in that it soon became evident that if the program were to succeed we needed to get first-hand information regarding the non-toxic ammunition. We continue to receive extensive enquiries regarding where to obtain non-toxic ammunition of specific calibers and requests to obtain information regarding ballistics associated with specific calibers and how to properly hand-load non-lead projectiles. Our ability to answer such questions and provide insightful information directed many callers to obtain their own non-lead products.
- We gained more first-hand information again this year by making arrangements to actually fire several of the main calibers ourselves. Again this year we arranged field days and fired 257, 25-06, 6.5X55, 270, 7mm Mag, 308, 30-06 and 300 Mag and the 270 WSM and 300 WSM at ranges from 100 to 900 yards and recorded all results. Hunters were most appreciative to know that we did our homework and had actual experience with the ammunition. This year we also utilized some new calibers such as 270 WSM, 300 WSM and 338. All toxic ammunition used was obtained from exchange stores and non-toxic was supplied by individuals associated with the program and did not deplete existing supplies associated with the program.
- Throughout the year we continued to collect actual hunting and harvesting results from hunters using non-toxic ammunition in the field. We incorporated this information into part of specific presentations and exchange meetings. Data to date has become fairly extensive and includes accounts of successful hunts

in the Cape Breton moose seasons, moose hunts in Newfoundland, moose and elk and bear in Alberta and BC, and many white tail hunts in Nova Scotia, New Brunswick, Alberta and BC. Hunters have expressed their delight in the results and exceptional harvest results due to the quality of non-toxic ammunition. Once again, the results recorded by specific Indigenous hunters were many and of exceptional quality.

- In 2017 we gained information regarding the energy and impact results of the non-lead ammo which provides an additional benefit to harvesters. The use of non-lead results in a much more uniform wound channel with significantly less blood and contusion damage to the animal. This results in much less meat loss overall and easier cleaning and cutting up of the carcass.
- The Indigenous community continued to extoll the quality of the non-toxic ammo. Exceptional response was received from the Aboriginal community to the extent that an increased number of hunters purchased non-toxic ammunition on their own. When approached regarding the program they knew about it, supported its objectives and were already adopting non-toxic product.
- Again this year, individuals who identified themselves as non-hunters showed keen interest in the program as they linked it to saving wildlife, specifically eagles. Many non-hunters who do not have an FAC or Wildlife card wanted to know how to purchase a Habitat Stamp in order to assist with the program. Discussion with DNR is to follow as a number of barriers to gaining funding for the Wildlife Habitat Fund through this mechanism were identified.
- All distributors approached regarding cooperating with the program were willing to do so. The program expanded this year and we are hopeful that new distributors of significant reputation that will be opening in the region in 2017 will also become part of the program. We have been able to obtain commitment from Cabalas regarding their new store in Dartmouth which is scheduled to open early in 2018.
- This year four main distributors offered to bring in non-toxic ammunition in such quantities to support the program even before we could pay them. We therefore had access to all the ammunition we could purchase. These same players have already arranged for ammunition for 2018 based on the knowledge that hunters will be looking for non-lead even though the program is ending this year.
- There are several old ammunition calibers that a small numbers of hunters want that just were not available, such as 35 Caliber, 32 Special and 303 British. This is still the case to date. However, this did not cause any significant issue as most of those hunters were willing to utilize a different caliber in order to hunt using non-toxic product or in several cases to hand-load using non-lead projectiles.
- Again, exceptionally positive reaction to presentations was experienced. The vast majority accepted the concept and felt the voluntary aspect that enables them to make a choice is a major positive component of the program.
- Both hunters and non-hunters gained an appreciation of the work being done by the NS Habitat Conservation Fund and also the role in conservation being delivered through hunter donations of time, money and energy.
- Public recognition has been received through social networks that Nova Scotia is a place where leading edge activities in conservation are taking place and that we can be proud of our role.

- DNR publically announced a move to non-toxic in December of 2013.
- The State of California passed a law in 2013 mandating the use of non-lead by hunters in that state. This law is to be effective by 2015 and has actually been implemented. While this move by California further confirms the basis for undertaking this initiative, it stands in stark contrast to the public acceptance achieved here through a voluntary program.
- The United States military announced the move to “green” ammunition (meaning non-lead) by the year 2018.
- It seems evident from issues arising in the US that our program using education, understanding, acceptance and adoption is far superior to a program of mandatory introduction. Although our program may not get everyone converted immediately it also does not get subversive activities.
- Due to announcements by the state of California and the US military and through discussions with some of the major ammunition manufacturers, it is evident that non-toxic ammunition will become more available, less expensive and actually replace toxic product much sooner than we had predicted when we first suggested this program.
- In 2015, the Government of Nova Scotia conducted research and conducted stakeholder input sessions regarding the introduction of Sunday hunting. Hunting on Sunday was implemented for the first two Sundays of the regular big game rifle season and has been in place now for two years. We feel strongly that it has contributed significantly to increased hunting, hunting success in a very poor year and to additional new hunters. This may provide an opportunity to address this expanding market and move an increased community to non-toxic use. Further, allowing a second deer to be taken using a muzzle loader rifle has produced additional demand for non-lead. Results of this are evident from the increased number of inquiries and the request for muzzle loader non-toxic ammo.

Lessons Learned:

- Support from areas such as DNR, our retail distribution network, clubs associated with the NSFAH and other has contributed greatly to the success and buy-up of the program.
- The volunteer nature of moving to non-toxic is extremely important to most people to the extent that we have observed greater numbers of hunters obtaining their own non-toxic product. However, there seems to be a small portion of the target group that will not adopt the change to non-toxic on a voluntary basis and some of those who might even attempt to subvert a mandatory program.
- People continue to be very interested in the relationship of our project and the NS Habitat Conservation Fund and that hunters were the direct contributors to the fund. Further, many people asked how they could contribute to the fund without being a hunter, not holding an FAC or Wildlife card. We now tell people to make a direct donation to the NS Habitat Conservation Fund if they wish. This information was provided directly to DNR at the NSFAH BOD.
- It has been confirmed that all workers conducting presentations and non-toxic exchange need to fully understand the issues associated with the program. Anyone involved in direct contact with the hunting community regarding this

program must have first-hand information on the reasons for the program and the actual usage of the ammunition. You need to be able to talk hunting with hunters and talk all the aspects of shooting, including trajectories, accuracy, energy, penetration, expansion and harvesting results.

- Fishermen who shoot seals with toxic ammunition and leave them in the water to be scavenged when they wash ashore were among our new target groups. Eagles are among the wildlife that scavenges the dead seals. Therefore, we discussed this issue with the Indigenous community and discovered we needed to address calibers not normally used for regular hunting such as 223 and 22-250 if we were to get the toxic product replaced in the environment. Therefore, in 2017 we distributed a significant amount of 223 to the Indigenous community.
- The Indigenous hunting community showed previously they are more willing, on a per capita basis, to move toward non-toxic on their own than we had expected. The Indigenous hunting community has a greater affinity with the animals (eagles) at risk through the use of non-toxic than do mainstream hunters. However, the mass of mainstream hunters has finally swayed the totals toward the mainstream hunters even though per capita results still belong to the Indigenous community.
- Non-hunters could be a significant support group to this and other programs if an easy way to purchase a Habitat Stamp were made available and the public were made aware. Today individuals of the public are not able to contribute to the Fund by purchasing a Habitat Stamp unless that person is in possession of an NS Wildlife Resources card. However, at every opportunity we provide information that individuals can make a direct contribution to the Habitat Fund.
- A network of exchange locations having a supply of ammunition would be more efficient than a single location. Investigation into how to utilize the ammunition distributors in this regard is still being explored.
- Shotgun slugs need to be included in the program. We missed the importance of this in the original design of the program and therefore included them to a limited availability last year. In 2017 we required a more robust move into this market and we carried a good amount of slugs. However, shotgun slugs for deer are being greatly replaced by the continued introduction and expansion of muzzle loaders into the hunting community.
- We could be a significant catalyst for conversion to non-toxic on a National level if we wished to seize the opportunity. To that end we continue to have discussions with representatives in New Brunswick and Ontario and are addressing a requirement to make presentation at the CWF in order to get attention by hunters across Canada.
- There is a requirement for a significant increase in marketing and promotion than in just non-toxic exchange. Positioned properly the promotion aspects may be able to convert a significant portion of the hunting community to adopt non-toxic without any exchange. Therefore, if the program continues to be funded it is important that such a shift is part of the program. To this end, Dr. Helene Van Doninck has committed to utilize a large portion of her new Fund to support our program and continue to make presentations without impacting the cost of our program.

- There is a significant risk within the Indigenous community that if lead prevails as the standard choice for hunting then Indigenous people will be subjected to a higher level of lead exposure than necessary.

Recommendations, for Government to consider:

- Although we have run the program for five years, there are still new requests for ammo conversion and it seems like there will be on an ongoing basis. Therefore, continue to run the program and engage as many people as possible.
- Have DNR offices aware of the distributors who have non-lead ammo available.
- Leverage the Fund of Dr. Helene Van Doninck to assist to get more presentations to a greater audience.
- Leverage this program's success to address the opportunity to have non-hunters purchase Habitat Stamps.
- Utilize Government resources to support the program through a cooperative promotional program.
- Position the program with other provinces. There is a cross interest with Environment and interest by them in promoting the move to non-lead ammunition has been identified.
- Include aspects of the program into the hunter safety course.
- **As the Indigenous people of Nova Scotia utilize wild game on a regular basis and young people have access to a significant amount of prepared wild game product and be exposed to higher levels of lead than mainstream populations, develop an education program aimed specifically at Indigenous people.**

Total Value of program:

- The monetary value associated with saving specific wildlife cannot be calculated but its impact on hunters and non-hunters was significant as measured by the expanded positive reaction to the program.
- In 2017 the original financials associated with the program were estimated at \$76,880 including \$25,000 from the Habitat Conservation Fund. However, with Dr Van Doninck paying for her own travel and HWA covering the over-run of \$2,245.05 the final result was \$79,125.05. From the results associated with last year's program HWA felt that the total program would again come in over budget. Our assumption was correct. We found the in-kind activities took up more time, effort and expense than expected and therefore the total expenditures were in excess of \$2,245.05 over budget and have been absorbed by the program. Final financials have been prepared and sent to DNR for review. In 2017 HWA spent more than the grant amount by an additional \$2,245.05. Our suppliers provided discounts of several thousand dollars and a purchase back program that provided approximately \$2,000. Therefore, in 2017 the program actual expended approximately \$7,000 additional expense on the program.

Confirmation of Habitat Conservation Fund contribution:

- At all exchanges of ammunition and all interactions with hunters and the public, at all Board meeting and presentations it was acknowledged that financial support was obtained from the Nova Scotia Habitat Conservation Fund. We also discussed with many people how the fund was funded, the Fund website were more information could be obtained, how individuals could contribute and how the Fund leveraged it money through the application process.
- On the NSFAH and the HWA web sites it is also acknowledged.
- In our presentations it was acknowledged.

Appendix A

Presentations by Dr. Helene Van Doninck

Date	Group	Attendees
19-Jan-17	Membertou First Nations, NS	4
26-Jan-17	Nova Scotia Bird Society, NS	43
06-Feb-17	Maritime College of Forest Technology	60
Mar 10-12, 2017	Sport and RV Show, Halifax	200
Mar 24-26	NL Sportsman Outdoor Expo	
28-Mar-17	Lead Talk Yarmouth	19
Mar 31-Apr2, 2017	NB Sportsman Show	150
03-Apr-17	Maritime Aboriginal People's Council	2
04-Apr-17	Kings Co Wildlife Asso Tackle Exchange/Talk	32
22-Apr-17	Women That Hunt Expo, Truro	
27-Apr-17	Atlantic Society of Fish and Wildlife Biologists, Sackville NB	43

27-Apr-17	South Shore Watershed Assoc, Crapaud PEI	25
06-Jun-17	Albert County Hunters Assoc	30
13-Jun-17	Athol Forestry Coop - Springhill NS	145
11-Aug-17	NS Bushcraft, Smiley's Provincial Park, NS	40
16-Oct-17	Glooscap First Nation, NS	14
01-Nov- 17	Miramichi Environmental Assessment Committee	23

Presentations/demonstrations by others:

HWA Board of Directors meeting	11
HWA member's night	30
Mi'kmaw Moose Feast, cape Breton Highlands	200
HWA AGM	23
Bushcraft	40
New Brunswick Sportmens Show	150
Sport and RV show, Halifax	200
Cape Breton moose hunt (Cape Breton, Neils Harbour, Big Intervale, Wreck Cove, Hunter's Mountain)	80
Women That Hunt	46
LaQuille Store	40
Green Diamond Day	90
Woodwise, Bridgewater	45

Attendance at Distributers

D&S Firearms Limited (1 Visit)

Cabelas (4 Visits)

Bass Pro (2Visits)

LeQuille Country Store, Annapolis Royal (2 visits)

Kennecook Home Hardware (1 visits)

Hunts Sportings Goods, Truro (2 visits)

Hnatiuk's, Lantz (4 visits)

Wood Wise Outfitters, Bridgewater (6 visits)

Green Diamond Equipment, Halifax (8 visits)

Green Diamond Equipment, Moncton (2 Visits)

Antigonish Sporting Goods (1 Visits)

NSFAH Bridgewater

NSFAH BOD (Shubie 2 Times)

HWA (three BOD and three members nights, Feb, April, Oct)