

Litter Impacting Waterfowl - Research

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Fishing Line

Solution: Fishing Line Collection Containers

Units made of PVC pipes that collect:

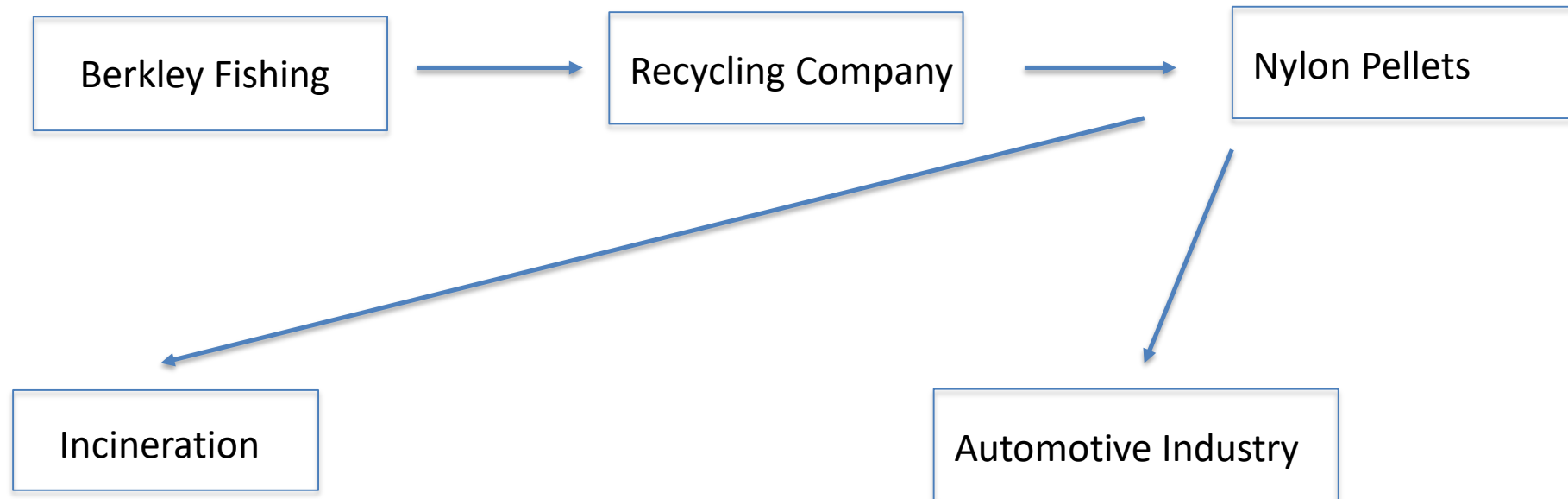
- Monofilament lines
- Fluorocarbon lines

Collection Containers Located At:

- Lakefront Promenade
- Marina Park
- Lake Aquitaine
- JC Saddington



Berkley Fishing Line Recycling Program



Lead Sinkers

Risk Management Practices

“In Canada, lead sinkers weighing less than 50 grams or less than 2 centimeters in length are banned in national parks, and in wildlife refuge areas”
(Source: Canada.ca)



Common Myths

Myth	Reality
Painted lead tackle is better	All lead tackle is toxic
Zinc tackle is more environmentally friendly	Zinc is also toxic
Alternatives are expensive	It depends on the material
Alternatives don't perform as well	Many actually perform better than lead
Alternatives damage lines and are hard	It depends on the material

Lead Sinkers vs Lead-Free Sinkers

Material	Density (kg/m ³)	Hardness (HV)	Price (CAD/kg)	Pros	Cons
Pure Lead	1.13e4-1.14e4	4-7	2.52-3.57	<ul style="list-style-type: none"> - Cheap - Versatile 	<ul style="list-style-type: none"> - Bad “feel” - Does not transmit sound well - Toxic
Tungsten	1.69e4-1.86e4	268-419	80.1-85.7	<ul style="list-style-type: none"> - Good “feel” - Sinker holes won’t be prone to closing up when in a tackle box - Heavy <ul style="list-style-type: none"> - Smaller size (due to higher density) = less snagging 	<ul style="list-style-type: none"> - Expensive
Steel (Low-Medium Carbon)	7.8e3	113-415	1-1.04	<ul style="list-style-type: none"> - Good “feel” - Transmits sound well - Cheap - Holds paint well 	<ul style="list-style-type: none"> - Cannot crimp - Light
Tin	7.26e3-7.27e3	3-5	24.1-25	<ul style="list-style-type: none"> - Good feel - Malleable (good for split shots) 	<ul style="list-style-type: none"> - Shiny - Light - Expensive
Bismuth	9.74e3-9.8e3	5-11.8	13.5-29.1	<ul style="list-style-type: none"> - Popular for fly fishing 	<ul style="list-style-type: none"> - Expensive - Light
Brass	8.07e3-8.48e3	60-150	7.01-7.89	<ul style="list-style-type: none"> - Transmits sound well 	<ul style="list-style-type: none"> - Expensive - Cannot crimp - Light
Granite	2.63e3-3.2e3	27-45	1.39-8.31	<ul style="list-style-type: none"> - Larger = less snagging - Cheap 	<ul style="list-style-type: none"> - Light

Lead-Free Sinkers Local Purchase Options

13 local businesses around Mississauga surveyed to determine if they sell lead-free tackle:

- 5 carry only tungsten and lead
- 3 carry only tin and lead
- 5 carry only lead

Overall feedback was that there was no demand for lead-free options

Lead-Free Benchmarking

- Limited information in Canada
- Cleanup event in Ohio
- Social media photo contest in Maine
- Lead sinker collection
- Tackle exchange
- Lead-free tackle kits
- Tackle buy back program



Other Litter

Seabin Collection

- Fishing tackle, nurdles, balloons, and other plastic found in Seabin

Next Steps

1. Connect with marketing as part of a larger Litter Campaign and review messaging based on general litter impacts to waterfowl
2. Connect with sponsorship and review new grants to determine whether support is available to help pay for future initiatives
3. Monitor and measure
 - Completing waste audit of waste containers located near the fishing line collection units
 - Gather weights to include in Corporate diversion amounts (provided by service provider)
 - Waste audit of Seabin materials