

Bear-Resistant Trash Cans in Teton County, Wyoming

August 2018

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Report Overview

Teton County, Wyoming is known for its abundance of wildlife, including grizzly bears, black bears, moose, elk, bison, cougars, and many others. The residents of Teton County have the responsibility to coexist with wildlife. While this is not an easy task, it is crucial for protecting the ecosystem and community character of Jackson Hole.

There are many strategies to mitigate conflicts between wildlife and humans. One of the most straightforward and effective tactics is the use of bear-resistant trash cans. Outdoor trash storage is an attractant for bears, who can easily tip and open standard trash cans. Bears can become habituated to accessing food in neighborhoods and these visits lead to inevitable conflicts between bears and humans, which often results in monitoring, relocation, and/or euthanization of bears. Bear-resistant trash cans prevent bears from accessing trashed food, eliminating that incentive to frequent residential areas. This will reduce human-bear conflicts, which protects both humans and bears.

This report seeks to analyze the current state of bear-resistant trash cans in Teton County, providing comprehensive information and recommendations that advance towards a target of countywide bear-resistant trash cans.

Wild Neighborhoods

This report is a project of Wild Neighborhoods, a collaborative program headed by the Jackson Hole Conservation Alliance. Wild Neighborhoods provides residents with information and resources to reduce conflicts with wildlife and prepare for wildfire. Bear-resistant trash cans are one of Wild Neighborhoods' many recommendations for homeowners. As a program committed to helping people and wildlife coexist, Wild Neighborhoods produced this report to move towards a future with reduced human-bear conflicts.

Current State of Bear-Resistant Trash Cans and Bear Conflicts

Inevitably, Teton County experiences human-bear conflicts due to the attractant of trash cans. Figure 1 shows the number of bear conflicts due to trash from 1998-2017.

In 2008, Teton County officially mapped bear conflict areas, which “were identified as those areas that overlap with, lay adjacent to, or are in close proximity to known bear-use areas.”¹ Homes in the bear conflict area are required to store their waste in bear-resistant containers at all times. The bear conflict area includes most areas outside of the town of Jackson. Looking at

¹ “Bear Resistant Trash Containers”, Teton County Wyoming, August 9, 2018, <https://www.tetoncountywy.gov/Faq.aspx?QID=159>.

Figure 1, it is clear that a number of trash-related bear conflicts still occur in areas not included in the bear conflict area, especially in East and South Jackson.

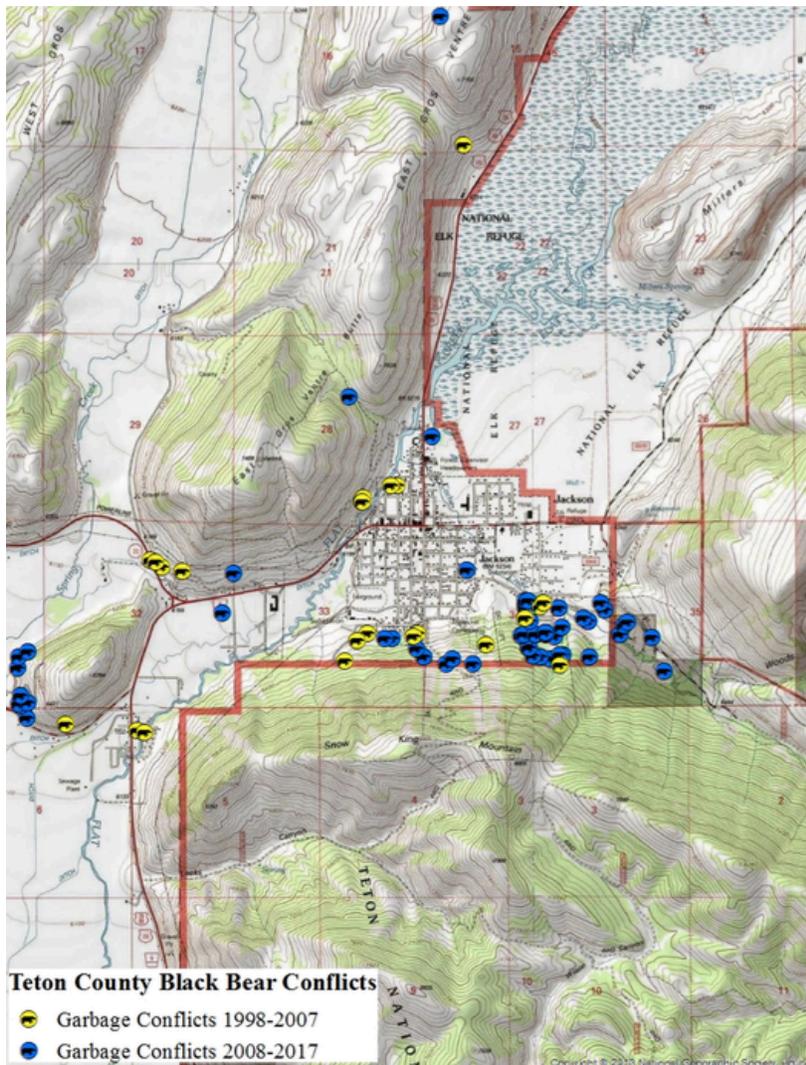


Figure 1

A Larger Bear Conflict Area

The 2008 bear conflict area zone was a step in the right direction, but bears still have access to large amounts of trash in Teton County. Many areas not currently included in the bear conflict area still have bear conflicts related to trash, as shown in Figure 1. While Teton County could pinpoint areas with a higher frequency of conflicts, this process would be time-consuming and make a policy of bear-resistant cans difficult to enforce. Additionally, bears may travel to another area without bear-resistant cans in order to find a food source.

Enacting countywide bear-resistant trash cans would eliminate any possibility of bear conflicts related to trash and would be significantly easier for Teton County to enforce. There are roughly 104 self-hauling households in Teton County, which means that these households transport their

own waste to the transfer station instead of relying on a waste hauler to do so.² The remaining 8,472 households in Teton County rely on one of the three waste hauling companies (Teton Trash, West Bank Sanitation, and Yellow Iron) to haul their waste to a transfer station for them.³ While the haulers offer customers the opportunity to purchase their own trash can, most customers either rent or buy a can directly from the waste hauler.

Since waste haulers provide the majority of Teton County with their waste containers, a countywide requirement of bear-resistant trash cans would make enforcement of this policy much more seamless. Currently, the three haulers offer both bear-resistant and standard cans. Some haulers refuse to provide standard trash cans to customers in the bear conflict zone; however, other haulers disregard the bear conflict area and provide standard cans to residents living in the bear conflict area upon request. By mandating bear-resistant cans in all of Teton County, the haulers could only provide bear-resistant cans.

Enforcement

Currently, enforcement is one of the most difficult aspects of the bear conflict area. Teton County can fine residents living in the conflict area who fail to use a bear-resistant can up to \$750 per day, per offense.⁴ However, in 2016 the Jackson Police Department “indicated they rarely issue more than one citation a year.”⁵ This signals that enforcement of the bear conflict area is not a priority for the Police Department, which could be due to a number of factors. Unless a bear conflict repeatedly occurs at a particular residence, it is unlikely that the police will issue citations randomly. Additionally, since only some parts of the county are included in the conflict area, it isn’t possible to uniformly enforce this policy across the county.

By expanding the bear conflict area to include the entire county, Teton County will not have to expand as many resources into improving the enforcement of this policy. Self-haulers in Teton County may still need enforcement, as they do not purchase their cans from waste haulers.⁶

Evaluating Costs and Benefits

The cost of providing all households in Teton County with bear-resistant trash cans would be significant; however, the benefits for bears and humans would also be significant. It is difficult to compile the exact cost of the cans, but it can be estimated.

Total Cost

The total cost of this project could include:

- The cost of the cans themselves
- Any increases to operational costs of waste haulers
- Any increases in enforcement costs

² Heather Overholser (Teton County Solid Waste and Recycling Superintendent), email to author, July 31, 2018.

³ “Teton County, Wyoming”, United States Census Bureau, accessed August 6, 2018, <https://www.census.gov/quickfacts/fact/table/tetoncountywyoming/PST045217>.

⁴ “Bear Resistant Trash Containers.”

⁵ Morgan Graham (Teton Conservation District GIS/Wildlife Specialist), email to author, July 17, 2018.

⁶ Most bear-resistant trash can policies mandate that self-haulers need to store waste in a bear-resistant container if they are storing waste outdoors. Some self-haulers store waste in a garage or an enclosure, in which case they would not need to purchase a bear-resistant can.

The total cost of the cans themselves can be calculated with the number of households that do not already have a bear-resistant can and the cost of each can.

Number of Households in Teton County	8,576 ⁷
Number of households that currently have a bear-resistant can	2,000+ ⁸
Number of households that will require a bear-resistant can	6,576 ⁹
Price of bear-resistant can	\$200-\$400

Some portion of the 8,576 households in Teton County own a bear-resistant trash can, but the remaining households will each need a bear-resistant can-- barring those living in apartment buildings and multi-household units that may share a trash can with other households. Additionally, some HOAs provide large communal cans as opposed to individual cans, so in this instance, large bear-resistant trash containers will be required.

Specific Bear-Resistant Trash Cans

The cost of the cans will depend on what cans the trash haulers choose to offer. Models vary in price, size, effectiveness, and longevity. They typically cost anywhere from \$200-\$400.

After discussions with Chris Colligan (GYC), Mac Dukart (GYC), and Dan Webb (West Bank), the Rehrig Pacific 95 gallon bear-resistant cans have been suggested as the best option currently on the market. Unlike typical bear-resistant cans, Rehrig Pacific bear-resistant cans are made with aluminum, as opposed to steel, and therefore do not easily dent, rust, retain odor, and they are quieter when haulers pick them up.¹⁰ These cans are fully operated, meaning that the standard garbage truck will be able to pick up the can without any additional manual labor. Additionally, they have more than twice the lifespan of traditional steel bear-resistant cans.¹¹ The 95 gallon cans range cost about \$220 each.¹² Currently, the Rehrig Pacific cans only come in a 95 gallon size, but a 65 gallon can will be retailed in the spring or summer of 2019.¹³

If Teton County were to mandate bear-resistant trash cans countywide, the Rehrig Pacific bear-resistant cans are by no means the only option available. However, after consulting with multiple sources in Teton County, the Rehrig Pacific cans have been the most-recommended option.

⁷ "Teton County, Wyoming."

⁸ West Bank Sanitation has reported that they provide 1500 bear-resistant cans in Teton County, Teton Trash has reported 200-250, and Yellow Iron has reported 300. This number does not include bear-resistant cans that residents may have purchased on their own (not through one of these three haulers).

⁹ This number is an overestimate, as it does not include residents who already have bear-resistant cans that they purchased on their own. This number also does not include self-hauling residents who many choose not to purchase a bear-resistant can.

¹⁰ Dan Webb (West Bank Sanitation Operations Manager) in discussion with author, July 16, 2018.

¹¹ Dan Webb in discussion with author, July 16, 2018.

¹² Mike Felling (Rehrig Pacific Environmental Sales Representative) in discussion with author, August 7, 2018.

¹³ Mike Felling in discussion with author, August 7, 2018.

The Interagency Grizzly Bear Committee (IGBC) is a recognized group that approves bear-resistant containers. They test products with live grizzly bear testing. If the bear is unable to open and damage the container in 60 minutes, then the container is deemed bear-resistant. Every year, the IGBC certifies containers. The most updated list of products can be found here: <http://igbconline.org/bear-resistant-products/>.

Total Cost Estimates

In the case that Teton County mandated bear-resistant trash cans countywide and the cans provided were Rehrig Pacific's model of bear-resistant cans, the total cost would be \$220 times the number of cans purchased.

There would not be any increased labor cost to waste haulers, as these cans are fully automated and would not take any additional time or labor to haul. However, the waste haulers may have to pay for the initial costs of the cans. This depends on the method Teton County chooses for residents to pay for the bear-resistant cans. Residents can either pay an up-front cost, which is quite high for some people, or their weekly/monthly trash hauling rate will increase and the trash haulers will slowly be repaid.

The cost of enforcement is not possible to estimate. Teton County could choose to operate at the current level of enforcement. Teton County could also choose to enforce this policy more strictly and devote more time and resources to the project.

Evaluating Benefits

It is not possible to quantify the exact benefits bears bring to Teton County, but there are many factors to consider. Bears are unique to Jackson Hole, as most places in the world do not have roaming bears. While bears bring tourists to Jackson Hole, it is also important to recognize the costs they impose on society when they get into garbage.

In the event of a reported bear trash conflict, WY Game & Fish responds. Each instance is unique, but they typically begin by monitoring and/or trapping and relocating the bear, before resorting to euthanization. Handling these bear conflicts is a significant financial cost. In the case of euthanization, the restitution values for bears need to be considered. The most recent restitution values calculated by WY Game & Fish are \$5,000 for a black bear and \$25,000 for a grizzly bear.¹⁴

WY Game and Fish reported that they spend an average of \$80,000 annually on bear and trash conflicts in Teton County and euthanize an average of 4 bears.¹⁵ Typically, these are all black bears; however, they anticipate that the number of grizzly bears in these conflicts will increase, as the grizzly bear population continues to expand.¹⁶

While mitigating bear and trash conflicts can bring potential savings for Game & Fish, it also represents future monetary benefits in terms of wildlife tourism. Pat Stephens Williams et. al

¹⁴ Wyoming Game and Fish Department, "2014 Annual Report," 2014.

¹⁵ Mike Boyce (WY Game and Fish Large Carnivore Biologist), email to author, August 16, 2018.

¹⁶ Mike Boyce, in discussion with author, August 13, 2018.

found that observing wildlife in Grand Teton National Park is the number one ranking recreational activity for visitors.¹⁷ In 2017, more than 4.9 million visitors came to Grand Teton National Park.¹⁸ Travel to Teton County generates \$1 billion of travel-related spending for the local economy, 8,250 local jobs, and a revenue of \$54.8 million from travel-generated taxes.¹⁹ In 2016, Jackson Hole Chamber of Commerce President Jeff Golightly stated that the “number one activity [in the national parks] is wildlife watching and the number one animal they want to see is a grizzly bear.”²⁰

More detailed research into the value of bears for park visitors has been done in Yellowstone National Park. A 2014 U.S. Geological Survey surveying 663 individuals found that visitors would be willing to pay more than double the entrance fee to Yellowstone if it maximized their chance of seeing a bear.²¹ Additionally, the survey found that tourist spending in the Yellowstone area could decrease by \$10.1 million if Yellowstone bears were hazed away like they are in Glacier National Park.²² Glacier National Park uses negative reinforcement tools, such as cracker shells, to decrease the likelihood that bears will become habituated to people.²³

The presence of wild bears in Teton County represents a unique tourist draw. The research conducted in Yellowstone shows that supporting a healthy bear population in turn supports tourism and increased tourist spending. Mitigating bear conflicts reduces the number of relocated and euthanized bears, guaranteeing that Teton County’s bear population will continue to attract tourists for years to come.

Additionally, bears constitute a piece of Jackson Hole’s community character that cannot be quantified. Teton County residents value living in an ecosystem that still supports wild bears. The intrinsic value of these wild creatures is something worth protecting.

Cost-Benefit Analysis

A cost-benefit analysis of countywide bear-resistant trash cans is only capable of comparing the quantifiable costs and benefits. While the cost of these cans is straightforward, the benefits are more difficult to quantify.

Total Cost	\$880,000 - \$1,446,720 ²⁴
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¹⁷ Pat Stephens Williams, Ray Darville, and Michael Legg, “Grand Teton National Park Focused Visitor Survey,” University of Wyoming National Park Service Research Center Annual Report: Vol. 35, Article 8, 2012.

¹⁸ Visitation Sets Record for Fourth Consecutive Year,” National Park Service, January 16, 2018, accessed August 10, 2018, <https://www.nps.gov/grte/learn/news/visitation-sets-record-for-fourth-consecutive-year.htm>.

¹⁹ “Travel is an Economic Engine: Why Travel Matters to Teton County,” Wyoming Office of Tourism, 2016.

²⁰ Koshmrl, Mike, “Chamber: Griz Hunt may be a Tourism Killer,” *Jackson Hole News and Guide*, June 8, 2016, accessed July 18, 2018, https://www.jhnewsandguide.com/news/environmental/article_9aa9e601-0a15-57a3-b068-6535c61f9c09.html.

²¹ “Chamber: Griz Hunt may be a Tourism Killer.”

²² “Chamber: Griz Hunt may be a Tourism Killer.”

²³ “Black Bear Dies After Hazing Effort,” National Park Service, May 28, 2009 and accessed August 9, 2018, <https://www.nps.gov/glac/learn/news/news09-21.htm>.

²⁴ This cost is calculated using \$220 as the price of bear-resistant cans and by estimating the number of cans that will be purchased to be between 4,000 and 6,576.

Total Benefits (based on WY Game and Fish costs and restitution values)	\$800,000 - \$1,200,000 ²⁵
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This report suggests that the costs and benefits of countywide bear-resistant trash cans have similar ranges. Depending on the number of bear-resistant cans that need to be purchased and the longevity of the bear-resistant cans, the costs could outweigh the benefits, the benefits could outweigh the costs, or the costs and benefits could be equal.

Ultimately, looking at the monetary costs and benefits is a useful perspective, but Teton County is not pursuing bear-resistant trash cans to save money, but rather, to save bears. The intangible value of bears in Teton County is worth more than a dollar amount.

Pay-as-you-throw in Teton County

Increasing the number of bear-resistant trash cans in Teton County would constitute a large swapping of residential garbage cans and a large financial investment. Meanwhile, Teton County is planning to institute a Pay-As-You-Throw (PAYT) trash system in the next 5-10 years.²⁶

Designed to reduce waste and offer a more equitable system, PAYT systems offer residents the option of different sized garbage cans. The smaller the can, the less a customer pays. Currently, Teton County is planning to offer a 32, 64, and 95 gallon can, with the price of waste hauling increasing as the size of the can increases.²⁷ Currently, all waste haulers in Teton County only offer a 95 gallon can.

The introduction of a PAYT system creates both an opportunity and a challenge for increasing the number of bear-resistant trash cans in Teton County. The PAYT system would mean that many of Teton County’s residents are replacing their 95 gallon trash cans with smaller cans. Since they would already be investing in a new can, it would be easiest to transition to a bear-resistant can at the same time.

64 gallon bear-resistant cans exist, but there are not as many options on the market. Rehrig Pacific is currently in the design phase of a 64 gallon bear-resistant can which is expected to be retailed by the spring or summer of 2019.²⁸ The price of these 64 gallon cans is estimated to be \$175.²⁹

²⁵ This range is calculated by considering the \$80,000 that WY Game and Fish spends on bear/trash conflicts and the \$20,000 of restitution values for the four black bears that are euthanized annually. The average bear-resistant can lasts 8-12 years. The annual cost of bear/trash conflicts (\$100,000) is multiplied by the number of years the bear-resistant can is expected to last. This value is an underestimate, as it does not include the tourism value that bears bring to Jackson Hole, nor does it include the possible increase in bear/trash conflicts and restitution values as the grizzly bear population expands further into Jackson Hole.

²⁶ Heather Overholser in discussion with author, July 30, 2018.

²⁷ Heather Overholser in discussion with author, July 30, 2018.

²⁸ Mike Felling in discussion with author, August 7, 2018.

²⁹ Mike Felling in discussion with author, August 7, 2018.

32 gallon bear-resistant cans are even more rare; however, there are some options. It is also important to consider the practicality of these cans. Dan Webb, of West Bank Sanitation, has decades of experience working with bear-resistant cans and has found that bears are capable of picking up 32-gallon cans and carrying them away. However, these cans are still more effective than standard 32-gallon cans, as they prevent bears from obtaining food and becoming habituated to it.

Incorporating Bear-Resistant Cans into a PAYT system

There are many possible ways to combine countywide bear-resistant cans and the PAYT program. The town of Jackson has a franchise agreement with waste haulers, meaning that the town can control parts of their hauling service. In order to institute a PAYT program, a town ordinance will require haulers to provide three different sized options and prices for trash cans.³⁰ While the PAYT Town ordinance will have no impact on haulers throughout the county, County residents living outside of Jackson's limits will likely request the service to save money on waste removal and PAYT will soon exist throughout Teton County.³¹ It is also worth noting that the estimated cost of countywide bear-resistant trash cans may decrease if it works in conjunction with PAYT, as people may purchase a smaller sized bear-resistant can, which cost less.

Policy Options Moving Forward

The following policy options could be used to mandate countywide bear-resistant trash cans in conjunction with a PAYT system:

- The PAYT town ordinance could also mandate that all trash cans would need to be bear-resistant.
- The revised Land Development Regulations could require that all trash cans in the county be bear resistant by 2024, 2025, 2026, or at a reasonable time that provides a 5+ year buffer for the PAYT program to be rolled out.
- The county could adjust its agreement with the trash haulers using the waste transfer station and require that waste haulers only provide bear-resistant cans to customers in Teton County.

Conclusion

Teton County's situation in a rich ecosystem with unique wildlife means that Teton County residents have a responsibility to coexist with wildlife. Bear conflicts are a frequent occurrence in the county and are often a result of improperly stored trash. By requiring bear-resistant trash cans throughout the county, Teton County can become a safer place for humans and bears, and protect the wild character of Jackson Hole.

To achieve this outcome, stakeholders across Teton County need to collaborate. Writing this report has required outreach to many different organizations and individuals involved in protecting bears in Teton County. An effective policy mandating countywide bear-resistant trash cans necessitates the input and insight from all of these stakeholders.

³⁰ Heather Overholser in discussion with author, July 30, 2018.

³¹ Heather Overholser in discussion with author, July 30, 2018.

Acknowledgements

Many organizations individuals provided input to inform and advise this report. I would like to thank the Jackson Hole Conservation Alliance (Skye Schell, Molly Watters, Marisa Wilson, and Leah Zamesnik), the Greater Yellowstone Coalition (Chris Colligan, Mac Dukart, and Siva Sundaresan), Teton County (Roby Hurley and Heather Overholser), the Teton Conservation District (Morgan Graham and Robb Sgroi), West Bank Sanitation (Dan Webb), Wyoming Game and Fish (Mike Boyce), and Rehrig Pacific (Mike Felling).

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