

## Why Don't All National Parks Recycle Propane Canisters?

Thanks to a couple inventors, a handful of national parks might be the best places to take your propane canisters to keep them out of landfills. But why hasn't the process taken off across the country?



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**E**very fall, Danny Basch's team hooks a squat 14-foot trailer up to a white National Park Service truck and wheels it out of storage. A generator mounted atop the trailer burps to life, and Basch's employee picks up six green one-pound propane canisters (<https://www.outsideonline.com/2116806/what-do-i-need-know-about-camp-stove-fuel>) from a pile collected throughout the year from park visitors. The canisters are slid individually into metal braces, and a series of buttons and levers are pressed to suck out any excess propane. Then the bottles are dropped into a hopper, where they're

crushed flat and punched full of holes, falling into the bottom of the trailer to join what will eventually be 3,000 similar steel hockey pucks.

It takes Basch's Rocky Mountain National Park facilities team about a week to process the few thousand bottles thrown away in the park over the prior year. Anyone who has spent any time [camping or barbecuing](https://www.outsideonline.com/2314236/our-favorite-portable-camp-grills) (<https://www.outsideonline.com/2314236/our-favorite-portable-camp-grills>) is familiar with the one-pound cylinders that the Propane Bottle Recycler (PBR) processes: universal, disposable, and cheap, they're used for everything from [lanterns](https://www.outsideonline.com/2337171/cheap-camping-lanterns) (<https://www.outsideonline.com/2337171/cheap-camping-lanterns>) to camp stoves to the torches wielded by pipe fitters to mini flamethrowers that give your steak the perfect sous vide searing. But unlike the larger 20-pound tanks hooked up to your backyard grill, the smaller canisters aren't refillable. Instead, unless they're left at one of a half dozen national parks, like Rocky Mountain, they end up in the landfill, or worse, a recycling area.

"They're basically little bombs," says Brad Fimrite, president of [Mountain States Environmental Services](http://www.mountainstatesenvironmental.com/) (<http://www.mountainstatesenvironmental.com/>), a private company that handles toxic waste in the northern Rockies. If the bottles are caught in machinery or crushed, any remaining flammable gas inside could explode. And for recyclers, venting and opening the canisters is generally too labor-intensive to make scrapping the one pound of steel in the bottles cost-effective. The result is that most recyclers turn away the bottles entirely. While some communities feature hazardous-waste facilities that might process them, they are rare and are almost never include curbside pickup, which means very few avoid the landfill.

In 2012, after an analysis of the park's solid waste, Basch's team was just beginning to realize the problem the canisters were causing. "One of the big things that we identified was how many of these we had," he says. Putting out milk crates in the park's campgrounds to separate the propane bottles from the rest of the waste backfired when they realized they couldn't recycle them normally. "We hit a brick wall," says Basch. "But at the same time, we heard about this Bottle Recycler trailer."

For Fimrite, whose company handled the hazardous waste of [Yellowstone](https://www.outsideonline.com/2388681/these-national-parks-are-even-better-winter) (<https://www.outsideonline.com/2388681/these-national-parks-are-even-better-winter>) in 2005, finding a solution to that park's growing propane-canister problem seemed relatively simple for him and his friend, mechanic Wayne Wildon, to solve. While Fimrite worked with the Park Service to figure out exactly what it needed, Wilson cobbled the first PBR machine together in his shed. "We built the first one, and it worked like a charm," says Fimrite. It was seven years before Basch heard about the machine at Yellowstone's from his colleagues, and he reached out to Fimrite and put in his order.

Today there are only eight iterations of the PBR in operation: alongside Yellowstone and Rocky Mountain National Parks, [Yosemite](https://www.outsideonline.com/2399809/yosemite-national-park-names) (<https://www.outsideonline.com/2399809/yosemite-national-park-names>), Bryce Canyon, [Joshua Tree](https://www.outsideonline.com/2382021/government-shutdown-national-parks-vandalism) (<https://www.outsideonline.com/2382021/government-shutdown-national-parks-vandalism>), and Shenandoah have units (some of which are loaned out to nearby parks), as does an EPA facility in Florida and Canada's Ministry of Natural Resources in [Thunder Bay, Ontario](https://www.outsideonline.com/2183826/superiority-complex) (<https://www.outsideonline.com/2183826/superiority-complex>).

Typically built to order in Wilson's shed in six to eight weeks at a cost of upward of \$62,000, Fimrite and Wilson have tweaked the design slightly unit by unit based on each customer's needs. But the premise remains the same: suck the propane out of the bottle, crush it, and punch two holes in the side in an effort to make it amply clear to recyclers and scrap dealers that the canisters are empty and safe. Any excess propane removed from the bottle goes into storage tanks mounted on the trailer, which not only run the generator to operate the compressor and crusher but can also be carried away and

added to the park's propane stores for use in rangers' stoves and other fuel-dependent equipment. At Rocky Mountain National Park, the load of crushed bottles is then shuttled down to a recycler in the Front Range of Colorado.

The PBR isn't the first attempt at solving the issue of propane-bottle recycling. In the past, Coleman, one of the largest manufacturers of one-pound propane cylinders, developed a tool that would open the bottles and vent out any remaining propane, but the idea of simply releasing flammable gas never caught. Plus, it still wasn't obvious enough to recyclers that the bottles were empty, so the program was discontinued. More recently, the brand Flame King has developed [a one-pound bottle \(http://www.avantlink.com/click.php?tt=cl&merchant\\_id=e295c418-295a-447c-b265-734e25f82503&website\\_id=86caeb9f-bc52-4578-8aeb-23090b441f98&url=https%3A%2F%2Fwww.rei.com%2Fproduct%2F113609%2Fflame-king-refillable-propane-cylinder-1-lb\)](http://www.avantlink.com/click.php?tt=cl&merchant_id=e295c418-295a-447c-b265-734e25f82503&website_id=86caeb9f-bc52-4578-8aeb-23090b441f98&url=https%3A%2F%2Fwww.rei.com%2Fproduct%2F113609%2Fflame-king-refillable-propane-cylinder-1-lb) that can be refilled from a larger tank, and Ignik just released the five-pound refillable Gas Growler, which can be refilled at a station like you would with a 20-pound tank. Fimrite thinks reusable bottles could help but probably won't solve the issue as a whole. "Most people like the ease of throw-away stuff, unfortunately," he says.

At the same time, expanding the PBR's use is low on Fimrite's priority list—his real job is running his hazardous-waste company. Rather than marketing and pitching the machines, he relies on Google searches and word of mouth to advertise them. It's his side business, so he only builds units when he's approached by individuals at other parks. And because there hasn't ever been a top-down push for these from the Park Service, it's been handled almost exclusively by various employees, who are mostly acting out of concern for their own parks.

As a result, it's been six years since the last one was purchased. According to the Park Service, many parks aren't aware the recyclers exist. "It hasn't taken off super well," says Fimrite, who guesses that the parks' already-strapped budgets have contributed to the slow takeoff, too.

Now, with Fimrite and Wilson nearing retirement, Fimrite is waiting for someone else to step up. "Hopefully someone takes it to the next level, because the world needs it," he says, leaving the door open for a brand like Coleman, Flame King, or Ignik to pick up where they leave off.

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