

NATIONAL PARKS GUIDE TO THINKING OUTSIDE THE BOTTLE



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Today, more than 75 parks have eliminated the sale and distribution of bottled water as a key step in addressing the climate change and other environmental problems affecting our parks and our planet. Bottled-water-free parks are reducing their solid waste and carbon footprint, as well as teaching hundreds of millions of park visitors about the importance of opting for tap over bottled water. And a groundswell of cities, states, and educational institutions are supporting this growing movement and implementing similar policies. Bringing forward the best practices of bottled-water-free parks across the country, this guide will walk you through the process of ensuring access to public water sources in your park and phasing out the sale and distribution of bottled water.

CORPORATE ACCOUNTABILITY INTERNATIONAL is a member-powered organization that protects human rights, public health, and the environment by holding corporations accountable.

THINK OUTSIDE THE BOTTLE is Corporate Accountability International's program to educate the public about the environmental and social impacts of bottled water while galvanizing support for public water. The initiative has partnered with states, city governments, and parks to phase out bottled water consumption and invest in tap water infrastructure. Visit ThinkOutsideTheBottle.org for more information.

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WHY NATIONAL PARKS SHOULD THINK OUTSIDE THE BOTTLE

From the breathtaking sea coasts of Acadia to the redwood forests of Golden Gate, and from the sweeping vistas of the Grand Canyon to the distinguished history of the Washington Monument, our national parks inspire millions of people who visit each year. But much of this public land is threatened by climate change, from rapidly disappearing glaciers to rising sea levels that could overtake unique park environments.

To protect the environment within and outside of the boundaries of national parks, national parks have launched a number of initiatives toward sustainability.¹ These plans and programs not only position the parks as the country's standard-bearers for environmental stewardship, they also have the potential to educate hundreds of millions of park visitors every year. Key among these are initiatives to reduce the solid waste stream—and eliminating the sale and distribution of bottled water is one of the most straightforward ways to do so. As you'll see in this guide, many parks are already stepping up as bottled-water-free leaders.

This guide aims to provide you with information to help your park take this critical step forward for sustainability. It contains lessons learned from current bottled-water-free parks, purchasing guidance for reusable bottles and water bottle refill stations, how-tos on the feasibility study process, tips for working with concessioners and communities and leaders, and much more.

By ending the sale of bottled water, your park can further its leadership in environmental stewardship, reduce its carbon footprint, raise park visitor awareness of sustainability initiatives, and realize economic benefits.

Consider what your park spends on collecting and trucking out solid waste and recycling, for example. These represent two of the most significant costs for many parks, and reducing bottled water waste can lead to significant cost savings. Many parks find this especially valuable as budget cuts put an even greater strain on park resources.

There are benefits for your park's overall waste stream too. Because disposable plastic bottles—especially bottled water—can account for 10 to 30 percent of parks' overall waste streams, ending the sale of bottled water and replacing it with access to public water is one of the single most effective ways to reduce overall waste streams.

Finally, in a larger context, bottled-water-free parks also protect another national treasure: our public water. When parks have phased out bottled water in favor of increasing visitors' access to tap and park spring water, they have sent two powerful messages: Bottled water isn't green, and public water infrastructure needs our long-term investment.

“When parks phase out the sale of bottled water, they take a giant step toward reducing pollution from plastics and lead efforts to reduce waste, limit our carbon footprint, and protect our land and watersheds.”

DAN CHU | SENIOR CAMPAIGN DIRECTOR, OUR WILD AMERICA, SIERRA CLUB

WHY NOT JUST RECYCLE OR SWITCH TO CANNED OR BOXED WATER?

While recycling may seem like a viable alternative to tackle parks' waste reduction goals, it's still the most resource-intensive of the 3R triangle (reduce, reuse, recycle) and may not result in waste reduction.

Similarly, switching to alternative forms of packaged water (such as canned or boxed water) serves to perpetuate, not reduce, the solid waste stream. Indeed, sustainability studies show that other forms of packaged water may cause comparable levels of environmental damage.² Moreover, any form of packaged water simply creates waste (whether cardboard, aluminum, or plastic) that is entirely unnecessary, as well as unlikely to be recycled—and represents the sale of water that has been extracted from local environments, packaged, and transported thousands of miles. In many cases, bottled water extraction has damaged local environments. For instance, in spite of a historic drought, Nestlé continues to bottle water from California, including from the San Bernardino National Forest.³



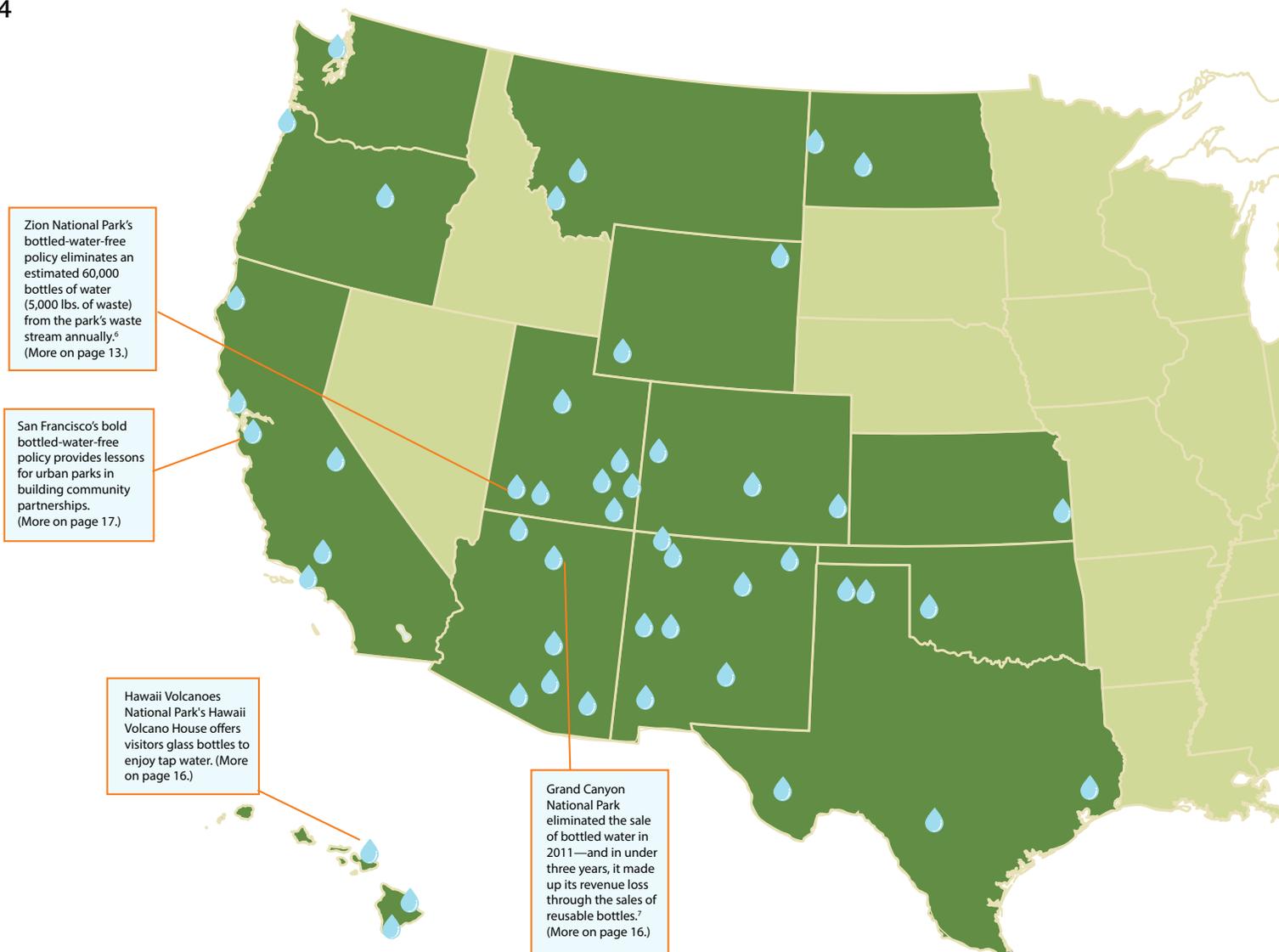
(Above photo): Boxed water is an option some parks have begun using, but this option still generates unnecessary waste. (Below photo): Even when recycling programs are put in place, many bottles will still end up in the trash or littering the trails of our public lands.

“Americans discard approximately 50 billion plastic water bottles each year. Producing that number of water bottles consumes approximately 20 billion barrels of oil and generates more than 25 million tons of greenhouse gases.”⁴

SHAWN NORTON | NATIONAL PARK SERVICE BRANCH CHIEF OF SUSTAINABLE OPERATIONS AND CLIMATE CHANGE

BOTTLED-WATER-FREE NATIONAL PARKS ACROSS THE COUNTRY

As of June 2015, more than 75 national parks are bottled water free.⁵ The map below highlights a sampling of these parks. As a result of these policies, parks have already made considerable progress toward meeting their waste reduction goals and recouping the costs associated with the sales of bottled water.





Park-goers from Alaska to Colorado to Pennsylvania enthusiastically support national parks going bottled water free. (More on page 18.)

Relying on in-house expertise can make going bottled water free seamless, fast, and cost-effective, as the experience of the Outer Banks Group shows. (More on page 6.)

Intermountain Region

1. Grand Canyon National Park
2. Arches National Park
3. Canyonlands National Park
4. Saguaro National Park
5. Colorado National Monument
6. San Antonio Missions National Historical Park
7. Pecos National Historical Park
8. Natural Bridges National Monument
9. Hovenweep National Monument
10. Fossil Butte National Monument
11. Capulin Volcano National Monument
12. Devils Tower National Monument
13. Lake Meredith National Recreation Area
14. Alibates Flint Quarries National Monument
15. Big Hole National Battlefield
16. Zion National Park
17. Timpanogos Cave National Monument
18. Grant-Kohrs Ranch National Historic Site
19. El Morro National Monument
20. El Malpais National Monument
21. Big Thicket National Preserve
22. Aztec Ruins National Monument
23. Florissant Fossil Beds National Monument
24. Fort Davis National Historic Site
25. Lyndon B. Johnson National Historical Park
26. Organ Pipe Cactus National Monument
27. Pipe Spring National Monument
28. Sand Creek Massacre National Historic Site
29. Tonto National Forest
30. Washita Battlefield National Historic Site
31. Bryce Canyon National Park
32. Casa Grande Ruins National Monument
33. Chaco Culture National Historical Park
34. Gila Cliff Dwellings National Monument

National Capital Region

35. Greenbelt Park

Northeast Region

36. Marsh-Billings-Rockefeller National Historic Park
37. Saint-Gaudens National Historic Site
38. Salem Maritime National Historic Site
39. Saugus Ironworks National Historic Site

Midwest Region

40. Knife River Indian Villages National Historic Site
41. Fort Union Trading Post National Historic Site
42. Fort Scott National Historic Site

Southeast Region

43. Cape Hatteras National Seashore
44. Wright Brothers National Memorial
45. Fort Raleigh National Historic Site

Pacific West Region

46. Point Reyes National Seashore
47. Hawaii Volcanoes National Park
48. Devils Postpile National Monument
49. Kalaupapa National Historical Park
50. San Francisco Maritime National Historical Park
51. San Juan Island National Historical Park
52. Cesar E. Chavez National Monument
53. Channel Islands National Park
54. Lewis and Clark National Historical Park
55. John Day Fossil Beds National Monument
56. Redwood National Park
57. Haleakala National Park

“I applaud Grand Canyon National Park for its efforts to reduce waste and the environmental impacts created by individually packaged water. This is another example of the National Park Service’s commitment to being an exemplar of the ways we can all reduce our impact on the land as we embrace sustainable practices that will protect the parks for generations to come.”⁸

JON JARVIS | NATIONAL PARK SERVICE

MOVING FORWARD WITH A BOTTLED-WATER-FREE POLICY

In 2011 the National Park Service (NPS) designed a simple approval process for parks ready to go bottled water free. The process entails several steps, including a feasibility study. However, none need to be time-consuming or costly. This section explains the steps parks need to take to go bottled water free.

Many park officials have described the feasibility study (see page 7) as a simple checklist of basic considerations to implement in order to formally end the sale of bottled water. Superintendents will likely have already thought through, and perhaps started

implementing, many of these items before making the decision to go bottled water free.

In short, there is no need to wait for the feasibility study to be completed and approved before taking many of the initial and intermediate steps to phase out the sale of bottled water. By following the outline on page 7, parks can quickly and easily create and begin implementing plans to go bottled water free, while simultaneously completing the feasibility study.

By the time park staff have completed each step—checking items off the list of the feasibility study as they go—they will be almost ready to operate a bottled-water-free park. And, based on the past experience of parks that have already phased out bottled water, the implementation of the bottled-water-free policy can take effect about 30 days from approval of the study.

THE OUTER BANKS: A SIMPLE PROCESS WITH MINIMAL COST

The bottled-water-free transition process at the Outer Banks Group (Cape Hatteras National Seashore, Wright Brothers National Memorial, and Fort Raleigh National Historic Site) highlights how simple and cost-effective the process can be. Former Superintendent Barclay Trimble sought to implement a bottled-water-free policy with minimal cost. After consulting his staff, Trimble determined they could keep costs down by using standard stand-alone and wall-unit water bottle refill stations. Additionally, they could install the equipment with on-site expertise, instead of contractors. This led to significant cost savings. Park staff then culled from their own expertise to create educational materials explaining the bottled-water-free policy to visitors.⁹



Photo credit: John Buie, Flickr, Creative Commons

SEVEN STEPS TO END THE SALE OF BOTTLED WATER

- 1. Alert current and potential concessioners** as soon as possible that the park is prioritizing a bottled-water-free policy—especially before a contract is up for renewal. Concessioners are important partners in the process, and in fact, in some cases concessioners have prompted the process to begin. Work together to complete the rest of the steps. (For more on working with concessioners, see page 15.)
- 2. Develop plans, with input from concessioners,** to phase out bottled water in concession operations.
- 3. Decide on the range and price points** of the reusable bottle options the park will sell.¹⁰
- 4. Install water bottle refill stations,**¹¹ if necessary, and begin selling low-priced reusable water bottle options.
- 5. Create educational materials** for the visitor center and website to teach park visitors about the benefits of choosing tap water. Be sure to include information about the reusable bottle and refill options available.¹² Some parks also choose to create educational materials for their staff to help them answer questions from park visitors and the media.
- 6. Publicize your leadership** in reducing bottled water waste and connect with other parks, inspiring them to similarly step up as leaders in environmental stewardship.
- 7. Track your progress** and the impact of your policy.

TIPS

Educational materials help build excitement: Make an announcement on the park website and social media pages. Distribute educational materials within the park to get a head start on educating the public about the intent to go bottled water free.

Knowledge-sharing smoothes the way: For best results, use the case studies and examples outlined in this guide. Reach out to parks that have completed the process for suggestions on timelines, resources, and public education materials. For example, staff at Zion, Grand Canyon, and Saguaro have all shared their expertise with other parks looking to take this next step in sustainability.

Complete the analysis checklist in Director Jarvis' policy memorandum:

The checklist can be found at [NationalParksTraveler.com/files/Policy on Disposable Plastic Water Bottles.pdf](https://NationalParksTraveler.com/files/Policy%20on%20Disposable%20Plastic%20Water%20Bottles.pdf).

Review park analyses submitted to secure approval: Analyses by the Pecos National Historic Park and the Outer Banks group are available at Peer.org/assets/docs/nps/3_25_14_PECOS_bottle_ban.pdf and at [Peer.org/assets/docs/nps/3_25_14_Outer_Banks_bottle_ban \(2\).pdf](https://Peer.org/assets/docs/nps/3_25_14_Outer_Banks_bottle_ban_(2).pdf).

SELECTING WATER BOTTLE REFILL STATION TECHNOLOGIES FOR PARK FACILITIES

If a park has adequate existing water fountain infrastructure, water bottle refill stations are not required for the park to go bottled water free. However, some parks may need to provide additional access to public water sources in order to ensure visitors stay hydrated. A key aspect of this process is installing water bottle refill stations at visitor centers and in strategic locations throughout the park.

Costs

As park officials search for refill station models and determine the resources they can devote to funding these projects, they should be aware that purchasing and installing the refill stations account for the majority of the cost over the product's expected life. While maintenance and operational costs vary park to park and depend on usage, at Mount Rushmore National Park, the concessioner estimated operational costs to be "negligible."¹³

Purchasing

Park staff can take a closer look at the water bottle refill station options—and prices—available by visiting the websites of major manufacturers such as Elkay, Halsey Taylor, Haws/Brita, and Oasis.¹⁴ Staff can then note the manufacturer's model numbers of products they are interested in purchasing, in order to search on GSA Advantage! or other cooperative purchasing agreement sites. The cooperative purchasing process is described in detail below, with specific examples of models and cooperative purchasing discounts listed in Appendix 1.

Installation

Two important factors impact the cost of installation: how close the refill station is to the necessary water and power infrastructure, and whether NPS personnel can complete the equipment assembly and installation processes without having to pay for outside technical support.

Maintenance

Maintenance costs (which may include changing the hydration station's water filter) are usually minimal, but parks should consider their capacity to address the anticipated cleaning and maintenance needs associated with the water-bottle-refill stations or retrofit kits they select. After refill stations are installed, parks generally spend up to \$85 per year on the in-house maintenance of these stations.

Attributes

Park staff can use the table on the next page to determine the key attributes of water-bottle-refill stations and/or retrofit kits for standard water fountains they will want to purchase for a facility. Retrofit kits can be used to adapt existing water fountain infrastructure into a refill station for cost savings.



This water refill station at Golden Gate National Recreation Area is one of many infrastructure options for parks to consider.

Water bottle refill station selection considerations

<p>SHOULD THE PARK LOCATE THE REFILL STATION INDOORS OR OUTDOORS?</p>	<p>Refill stations should be located in areas with high foot traffic.</p> <p>All locations need access to potable water and drainage; most need access to electrical power.</p> <p>For outdoor locations where there is a need to manage extreme temperatures, parks should seek out temperature-resistant models, or move the refill stations indoors.</p>
<p>DOES IT NEED TO BE VANDAL RESISTANT?</p>	<p>For outdoor locations where there is a threat of vandalism, parks should seek out vandal-resistant models, or move the refill stations indoors.</p> <p>Outdoor, vandal-resistant models are often made of powder-coated steel and are, therefore, heavier and more expensive.</p>
<p>HOW MANY BASINS DOES THE LOCATION NEED?</p>	<p>For low-volume locations without significant daily/seasonal peaks, single-basin refill stations with water fountain and water bottle refill capacities may be sufficient.</p> <p>For locations with high volumes or significant daily/seasonal peaks, two-basin stations with separate basins for the water fountain function and the water bottle refill function will better meet needs.</p>
<p>CAN A RETROFIT KIT BE USED?</p>	<p>Pros: Using a retrofit kit is significantly less expensive than purchasing a new refill station. It also may be much easier and less costly to install.</p> <p>Cons: Retrofit kits are only available for one-basin water fountains. Water can be chilled and/or filtered only by the existing water fountain equipment. In some cases, retrofits only function with water fountains made by the same manufacturer.</p>
<p>WHAT ARE THE OTHER DESIRED AVAILABLE ATTRIBUTES?</p>	<p>Other available attributes include a counter that tracks the number of water bottles saved, an electronic sensor or push bar to activate the water, an automatic purge system to clear out water that is sitting in the equipment for a significant amount of time, an indicator light to notify staff when the filter needs to be changed, and water-chilling and water-filtering capabilities.</p>

SELECTING REUSABLE WATER BOTTLES FOR PARK FACILITIES

Parks going bottled water free will also likely need to expand their reusable water bottle offerings.

Fortunately, reusable water bottle manufacturers sell a wide range of options for different environments and at a range of price points. The prices of these options range from being comparable to bottled water—from under a dollar for flexible plastic and just over a dollar for rigid plastic—to nearing \$20 for souvenir stainless steel bottles.¹⁵

To make sure visitors have the supplies they need to stay hydrated during their visit, parks should at least sell an inexpensive refillable plastic bottle at a price point close to that of bottled water. Many parks also sell stainless steel bottles to help increase revenue streams. Superintendents and concessioners in many parks have worked together to select several types of bottles to meet visitor and park needs. (See Zion case study, page 13.)

Below is an overview of reusable bottle options; a more complete snapshot of offerings appears in Appendix 2.

BOTTLE TYPE	PROS	CONS
METAL	<ul style="list-style-type: none"> Durable Recyclable Easy to use Avoids environmental impacts of plastic manufacturing Can be printed/etched/coated to increase aesthetic appeal 	<ul style="list-style-type: none"> Can be bulky or heavy High price point for end-user May get very hot or cold when used in extreme temperatures
RIGID PLASTIC	<ul style="list-style-type: none"> Affordable—purchasing price as low as \$1.22 Easy to use Often lightweight and easy to carry Can be colored and/or printed on to increase aesthetic appeal 	<ul style="list-style-type: none"> Can crack or break during use, due to temperature sensitivity Can be bulky and hard to carry, depending on design Concern over chemicals in some bottles (BPA) Product can be hard to recycle at end of life
FLEXIBLE PLASTIC	<ul style="list-style-type: none"> Affordable—purchasing price comparable to bottled water, as low as \$0.86 Lightweight and easy to carry Easy to use Can be colored and/or printed on to increase aesthetic appeal 	<ul style="list-style-type: none"> Can deform, rip, or break during use Concern over chemicals in some bottles (BPA, phthalates)

COOPERATIVE PURCHASING OPPORTUNITIES

Purchasing refill stations and reusable water bottles can be a simple and straightforward process.

The federal government's e-procurement system allows park officials to receive discounts and makes it easier and faster to purchase products. Two cooperative purchasing platforms are available for sustainable purchasing activities: GSA Advantage! and DOD EMALL.¹⁶

GSA Advantage!

GSA Advantage! is the central procurement portal for the federal government. It provides an online ordering system (www.gsadvantage.gov) that employees can use to search for and purchase an array of goods and services with discounted pricing. Purchases can be made using a government-wide commercial purchase card (GSA SmartPay®), or a GSA Activity Address Code (AAC).

National park staff can purchase the full range of refill stations and reusable water bottles through the GSA Advantage! online purchasing portal.

A variety of vendors offer water bottle refill stations and retrofit kits on GSA Advantage! Most models are manufactured by Elkay or Halsey Taylor (see Appendix 1 for specific examples). Water bottle refill stations can be found primarily in the Facilities & Supplies or Disaster Relief Products categories under "water fountains and bubblers."

GSA Advantage! offers refillable water bottles manufactured by several companies. Most of the products are made by Garyline. Other brands offered include Thermos, Filtrete, Brita, and Clorox Sales Brita Division (see Appendix 2 for specific examples). Refillable water bottles can be found in several GSA Advantage! product categories: Facilities & Supplies, Office Supplies, Environmental Products, and Disaster Relief Products. Therefore, the easiest way to find them is to type "refillable water bottles" in the search box under the general "products" category and then narrow the search to a specific brand; a list of manufacturers can be found on the left side of the webpage.

To purchase water bottle refill stations, retrofit kits and/or refillable water bottles through GSA Advantage!, NPS staff should follow these steps:

- 1) Search for product using manufacturer's model number to see which GSA Advantage! approved vendors offer the model.
- 2) Review information about the vendors offering the product, such as the price (including opportunities for additional discounts for bulk orders), delivery terms, and other vendor benefits (e.g., whether they are a small business or a woman-, minority-, or veteran-owned enterprise, etc.).
- 3) Review the desired contract, and see all of the vendors and price terms for that contract.
- 4) If cost is a concern, find the vendor selling the product at the lowest price by searching for the product model number.
- 5) Select a vendor selling the product on the particular contract.
- 6) Order refill stations directly from the GSA Advantage! site.

DOD EMALL

Another option available to federal employees is to purchase goods and services through the U.S. Department of Defense's Electronic Mall (DOD EMALL) online procurement system. To access DOD EMALL, users must have a Common Access Card (CAC) or a Medium Assurance Hard Token. Users can get one from the purchasing department of their agency or procure one from IdenTrust, Operational Research Consultants (ORC), or Verisign. In order to place an order on the DOD EMALL system, users must register on the site with a government-issued credit card, contractor credit card, or MILSTRIP as a payment method.

Other purchasing collaborations

Parks can collaborate with their concessioners, parks associations, funding partners, or even outside groups like reusable water bottle manufacturers to fund refill stations and refillable water bottles. Pages 15 – 17 provide more information about these partnerships.

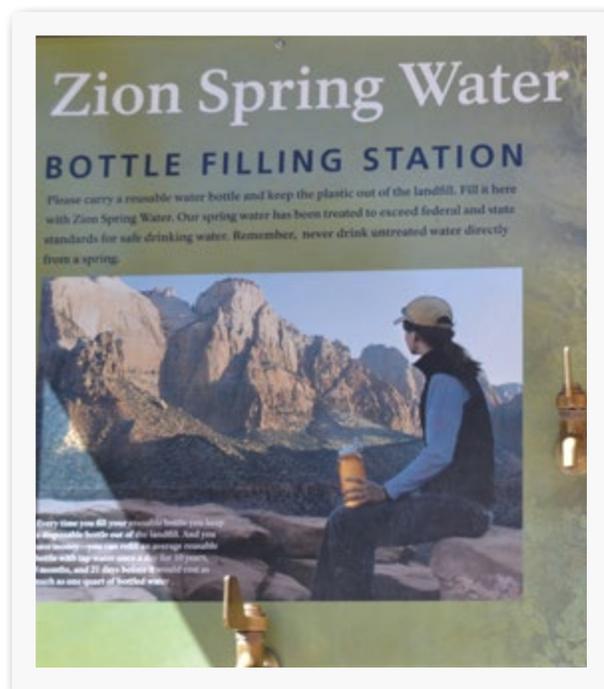
PUBLIC EDUCATION IN BOTTLED-WATER-FREE PARKS

Educating families, millennials, and future generations about the importance of protecting water resources and reducing waste is key to ensuring the greatest possible impact of the park policy both within and beyond the park.

When more people understand the “why” behind the absence of bottled water in the park, they will be less likely to bring in their own bottled water, ensuring that parks are further able to reduce their solid waste. These hundreds of millions of park visitors

will also likely follow the park’s lead in reducing their bottled water consumption as they return to their home communities, carrying the positive environmental impact far beyond the boundaries of national parks. Bottled-water-free parks across the country are engaging millions of park-goers about the environmental benefits of choosing the tap.

The Grand Canyon National Park, for instance, has seen particular success in engaging park visitors on the issue of bottled water. According to the superintendent, park staff have seen parents using these signs to educate their children about the importance of sustainability and drinking from the tap. And staff report that all park-goers appear drawn in by the educational and visual information communicated in these signs.¹⁷



These eye-catching signs explain the environmental benefits of drinking tap water and are highly visible, as they are often placed next to water bottle refill stations or concession stands that sell reusable water bottles.

💧 CASE STUDY: ZION NATIONAL PARK

After Zion National Park became the first national park to go bottled water free in 2008, its reusable bottle sales quickly made up for lost revenue from bottled water.¹⁸ At the same time, the iconic park educated over two million visitors¹⁹ each year on the importance of choosing the tap and protecting the environment.

Recovering lost revenue

In 2007, bottled water sales amounted to more than \$30,000 for the Zion Natural History Association (ZNHA), the nonprofit partner of Zion National Park and operator of its bookstore. Naturally, they were concerned about the loss of bottled water revenue.

However, by 2009, ZNHA saw more than \$44,000 in sales from reusable bottles, up from just \$6,942 in 2007. And in 2010, that figure increased to \$65,186.

How did this happen so quickly? Zion and ZNHA worked together to develop reusable bottle options at a variety of price points and designs. These range from a souvenir steel bottle that sells for \$19.99 to a \$3.29 green plastic bottle, with several other options in between. These bottles allow park visitors who came unprepared to buy a simple reusable bottle and stay hydrated using the park's five refilling stations—a huge success for a particularly hot and arid region.

In fact, the park gave ZNHA the option to phase out bottled water sales over three years, but the reusable bottles proved so popular and their sales so successful that ZNHA chose to discontinue all bottled water sales in the fall of 2008.

Visitor education

A key component of Zion's success came not only from simply offering the reusable bottles, but also from educating park visitors.

Each of the park's five water bottle refill stations features a display encouraging visitors to carry reusable water bottles, with information about the environmental impacts of bottled water. The primary reusable bottle display in the visitor center is visible from the refill station outside, making it easy for park visitors to quickly find and purchase a bottle. Rangers and bookstore staff inside the visitor center see hikers filling their bottles all day long—and report visitors who use the refill stations are applauding the park's efforts to reduce waste.

“At Zion National Park, our decision to go bottled water free was a win-win. It was the right step for the environment, eliminating up to 60,000 disposable plastic bottles per year formerly sold in Zion from the waste stream and sending a clear message that water, like our parks, is an essential public resource to protect for today and future generations.”²⁰

JOCK WHITWORTH | FORMER SUPERINTENDENT, ZION NATIONAL PARK

HOW TO ENSURE VISITORS STAY HYDRATED

Well-placed water bottle refill stations in tandem with low-cost reusable bottles provide numerous (and budget-friendly) ways for visitors to access water.

Indeed, in many cases, water is actually more accessible to visitors in bottled-water-free parks that have refill stations throughout, than it is at those parks that rely on concessions selling packaged water.

The National Park Service Public Health Office has never

raised safety concerns about any park's elimination of bottled water:²⁰ a true testament to the diligence of park officials in providing abundant drinking water options. Many parks in regions that are very hot and dry, including Zion National Park (see case study on page 13) and the Grand Canyon, eliminated bottled water sales without any safety issues. In fact, more than 15 bottled-water-free parks are located in desert regions.

Saguaro National Park is one such park where water is a scarce and very precious resource. The park carefully considered the importance of water stewardship, while also making a concerted effort to educate its visitors about the dangers of hiking in the desert without sufficient water.

“Eliminating the sale of disposable water bottles and asking our visitors to instead use reusable bottles and water stations in the park has helped the park reduce its environmental footprint, while still providing our visitors with access to water. National parks should lead the way and serve as a role model for environmental sustainability. We are proud to be bottled-water-free, and to set a good example for other national parks and businesses.”²²

DARLA SIDLES | SUPERINTENDENT, SAGUARO NATIONAL PARK



A park visitor refills her reusable water bottle at the Grand Canyon.

BUILDING THE RELATIONSHIPS YOU NEED: CONCESSIONERS

When making plans to implement a bottled-water-free policy, it is very important for parks to work closely with concessioners.

Bottled water is often a source of revenue for concession operators, so they may need to find alternative ways to make up for the loss of bottled water sales. With careful planning, this is possible, especially through the sale of reusable bottles (see Zion case study on page 13). At the same time, given the volume of people who visit park concessions, concessioners can play a valuable role in educating park-goers about the importance of sustainable drinking water systems.

Although a concessioner may be reluctant at first to phase out sales of bottled water, ultimately, the decision to implement a bottled-water-free policy is one that a park makes to achieve its environmental stewardship mission. Fortunately, many concessioners understand the importance of sustainability—some even consider it a core part of their brand—and are eager to support parks in going bottled water free.

How to work with a concessioner to go bottled water free:

Before initiating a feasibility study, engage the concessioner in dialogue about the potential bottled-water-free policy to assess their level of interest. If the concessioner is interested in helping facilitate the transition, work closely with them throughout the process to develop a transition plan.

When beginning the feasibility study, let the concessioner know that the park is initiating a shift to a bottled-water-free policy.

If a concessions contract is up for review or renewal, this is an opportunity to include language that makes a bottled-water-free policy explicit.

Note, however, that even parks in the middle of a contract term have been able to work with concessioners to quickly eliminate the sale of packaged water.

Work together to address a set of key questions such as the following:

- How much revenue does the concession derive from disposable single-use packaged water? From sales of reusable water bottles?
- What combination of reusable bottle sales could help make up for potential revenue loss? (See reusable bottle options on page 10 and in Appendix 2.)
- Is there a need for water bottle refill stations? If so, are there locations at or near current concessions where refill stations could be installed? (Note that this may help drive traffic to concessions—see Zion case study on page 13.)
- What role can the concessioner play in funding these refill stations?

Determine a timeline for phasing out the sale of bottled water and phasing in sales of reusable bottles, as well as refill station installation if relevant.

Determine any educational materials or signage needs for each facility, and the process and timeline for their creation and installation.

Work together to ensure that by the time bottled water sales are phased out, park educational materials, refill station infrastructure, and reusable bottle options will be ready to ensure the success of the park's policy.

ACCOLADES FOR PARKS AND CONCESSIONERS ALIKE

In 2009, Zion National Park won an Environmental Achievement Award from the Department of the Interior for its water bottle refill stations.²³ And concessioner Xanterra's support for the Grand Canyon's bottled-water-free policy earned it favorable publicity in *The New York Times*.²⁴

Supportive concessioners

Many concessioners are eager to work with parks to promote sustainability throughout their operations, and prove to be valuable partners in going bottled water free. There are a handful of concessioners that operate bottled-water-free park concessions, including Xanterra Parks & Resorts, Inc. and Delaware North Companies Parks & Resorts.

Franchise fees

Many parks rely on franchise fees for operation, so a loss of revenue from bottled water may be a concern not only for the concessioner, but for the park as well. In these cases, it's especially important that parks work closely with the concessioner to identify ways to make up the gap, particularly through reusable bottle sales, as Grand Canyon and Zion have so successfully done. Indeed, some parks have seen reusable water bottle sales increasing even before phasing out bottled water, which can help increase vendor revenue streams throughout the transition phase.²⁵

A note on the contracting process

If a park is undertaking a new round of contract negotiations or preparing to contract with a new concessioner, there is an opportunity to build a phase-out of bottled water explicitly into the contract. All NPS concession contract decisions take into consideration environmental sustainability practices, and parks may explicitly define those practices in their contracts as well. In fact, the NPS has found that this contracting process has resulted in a variety of innovative practices that go above and beyond basic sustainability requirements.²⁶

Top three reasons for concessioners to go bottled water free:

- **Sustainability:** Concessioners play a critical role in realizing the environmental stewardship mission of national parks. As such, they can be leaders in “greening” park operations.
- **Competitive advantage:** When developing concessions contracts, parks may prefer concessioners with a track record of sustainability and/or concrete plans for sustainable operations.
- **Brand image:** Going bottled water free enhances a concessioner’s image of sustainability, positioning it favorably among parks and park-goers alike.



The Hawaii Volcano House, at the bottled-water-free Hawaii Volcanoes National Park, offers these glass bottles for visitors to enjoy tap water.

“Bottled water is not only wasteful, it’s unnecessary. That’s why it’s critical we transition from selling eco-unfriendly bottled water to more sustainable alternatives.”

GINA MACILWRAITH | SUSTAINABILITY DIRECTOR AT ORTEGA NATIONAL PARKS, LLC

BUILDING THE RELATIONSHIPS YOU NEED: COMMUNITY MEMBERS

Many national parks are inextricably linked to the local community, including hosting schoolchildren on park field trips, engaging adult volunteer programs, or collaborating with formal “friends of the park” organizations. For people in these communities, their park is a treasure and a source of pride. That’s why local community support can play a critical role for a park in going bottled water free.

Tips for working with the community

- **The earlier, the better:** Solicit support and ideas on the bottled-water-free process from community members early—as soon as conversations with concessioners begin.
- **Build support with public education initiatives:** Something as simple as a public announcement early on in the process can not only generate positive media attention for a park, but also begin the education process in the local community.
- **Tap into community organizations’ resources:** Some organizations, such as “friends of the park” or conservation groups, can support the initiative financially. Environmental and conservation groups understand the importance of reducing waste in national parks, and may be able to partner with parks on a joint bottled-water-free project. These organizations can also help spread the word about the plans and build support in the local community.

“San Francisco has implemented bottled-water-free policies in our urban parks and taken a leadership role to keep San Franciscans healthy with clean, refreshing tap water. We are protecting the environment and the sustainability of our public water system for years to come.”

ED LEE | SAN FRANCISCO MAYOR

CASE STUDY: SAN FRANCISCO URBAN PARKS

In March 2014 the San Francisco city government voted to largely eliminate the sale and distribution of bottled water on city property—including in all city parks.²⁷ Naturally, this precedent-setting move didn’t happen overnight. Rather, it was built on sustained relationship-building in the local community, as more and more local elected officials and local businesses—and hundreds of citizens—took steps to choose tap water over bottled water.²⁸

In the end, the ordinance passed the Board of Supervisors with a unanimous vote—a clear indication of widespread community support.²⁹ City officials’ partnerships with everyone from the public utility commission to the parks and recreation department proved critical in ensuring their vision became a reality. Now in its implementation phase, this ordinance provides a unique opportunity for federal parks to align themselves with the movement already afoot in the local community.

PARK VISITOR SUPPORT FOR BOTTLED-WATER-FREE PARKS

As people who love the outdoors and treasure our nation's most beautiful natural sanctuaries, national park visitors have shown overwhelming support for parks to take this important step forward for sustainability.

More than 60,000 park-goers as well as nearly 200 businesses and organizations around the country have called on the National Park Service to commit to

phasing out bottled water at a national scale. People all across the country have visited their favorite national parks to support park leadership in going bottled water free. What's more, major national newspapers like the Philadelphia Inquirer³⁰ have raised their editorial voices in support of the national movement for bottled-water-free parks.

And this development isn't limited to national park boundaries. Across the United States and beyond, hundreds of small businesses, and dozens of universities have stepped up as sustainability leaders by eliminating bottled water sales and spending, along with promoting access to safe, clean tap water. Over 140 cities have also taken steps to promote public water and reduce bottled water consumption.³¹



Heather Hanson and her friends at Sitka National Historical Park in Alaska.

"I treasure our national parks—just like I treasure our precious natural resource: water. That's why I applaud the national parks that are heeding the environmental threat posed by bottled water and taking action to create a greener, more sustainable park system."

HEATHER HANSON | SITKA, AK

BOTTLED-WATER-FREE PARKS: SUSTAINABILITY LEADERS

Park visitors look to national parks as the gold standard for environmental stewardship.

With close to 300 million visitors each year, national parks have a tremendous opportunity not only to protect our natural resources, but also to raise the visibility of the positive environmental impacts of bottled-water-free spaces and institutions.

As you have seen through the case studies and best practices compiled throughout this guide, national parks across the country are already playing a lead role in the bottled-water-free movement. We hope that this guide has pulled forth some of the key lessons that parks pioneering these policies have learned.

For questions, comments, or further support, please contact our organizers at:

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APPENDIX 1

Water bottle refill station market scan—GSA Advantage! portal February 10, 2015

MANUFACTURER	LOCATION (INDOOR/OUTDOOR)	VANDAL RESISTANT?	USE	NUMBER OF BASINS NEEDED	WATER BOTTLES SAVED COUNTER?	CHILLS WATER?	FILTERS WATER?
ELKAY	Indoor	No	Low with peaks or high use	2	Yes	Yes	Yes
ELKAY	Indoor	No	Low/no peaks	1	Yes	Yes	Yes
ELKAY	Indoor	No	Low/no peaks	1	Yes	Yes	No
ELKAY	Indoor	Yes	Low/no peaks	1	Yes	Yes	Yes
ELKAY	Indoor	Yes	Low/no peaks	1	Yes	Yes	No
ELKAY	Indoor	No	Low with peaks or high use	2	Yes	Yes	Yes
ELKAY	Indoor	No	Low/no peaks	1	Yes	Yes	Yes
ELKAY	Indoor	No	Low/no peaks	1	Yes	No	No
ELKAY	Indoor	No	Low/no peaks	1	Yes	No	Yes
ELKAY THROUGH HD SUPPLY	Indoor	No	Low/no peaks	1	Yes	Yes	No
ELKAY THROUGH HD SUPPLY	Indoor	No	Low with peaks or high use	2	Yes	Yes	No
HALSEY TAYLOR	Indoor	No	Low/no peaks	1	Yes	Yes	Yes
HALSEY TAYLOR	Indoor	No	Low/no peaks	1	Yes	Yes	Yes
HALSEY TAYLOR	Indoor	No	Low/no peaks	1	Yes	Yes	Yes
HALSEY TAYLOR	Indoor	No	Low/no peaks	1	Yes	Yes	Yes
HALSEY TAYLOR	Indoor	No	Low with peaks or high use	2	Yes	Yes	No
HALSEY TAYLOR	Indoor	No	Low with peaks or high use	2	Yes	Yes	No
HALSEY TAYLOR	Indoor	No	Low with peaks or high use	2	Yes	Yes	Yes
HALSEY TAYLOR	Indoor	No	Low with peaks or high use	2	Yes	Yes	Yes
HALSEY TAYLOR	Indoor	No	Low/no peaks	1	Yes	No	No
ELKAY	Outdoor	Yes	Low/no peaks	1	No	No	No
HALSEY TAYLOR	Outdoor	Yes	Low/no peaks	1	No	No	No

RETROFIT OR NEW?	MANUFACTURER MODEL NUMBER	NUMBER OF CONTRACTS ON GSA ADVANTAGE!	NUMBER OF VENDORS ON LOWEST PRICED CONTRACT	GSA ADVANTAGE! CONTRACT PRICE FOR LOWEST PRICE CONTRACT	PRICE RANGE FOR PRODUCT FROM OTHER DISTRIBUTORS
New	LZSTL8WSLK	4	12	GS-21F-0089V (ends: Jun 7, 2019)	\$1622.44 - \$2093.83
New	LZS8WSSK	4	16	GS-21F-0083Y (ends: Mar 31, 2017)	\$1099.69 - \$1571.74
New	EZS8WSLK	2	5	GS-06F-0046N (ends: Apr 30, 2018)	\$1178.45 - \$1355.09
New	LZS8WSVRLK	1	2	GS-21F-0051Y (ends: Jan 25, 2017)	\$1208.42- \$1248.77
New	VRCGRN8WSK	2	6	GS-06F-0032K (ends: Jun 30, 2015)	\$1287.87 - \$1531.57
New	LZSTL8WSSK	4	10	GS-06F-0032K (ends: Jun 30, 2015)	\$1581.74 - \$2178.84
New	LZS8WSLK	4	21	GS-21F-0083Y (ends: Mar 31, 2017)	\$921.69 - \$1534.87
Retrofit	EZWSRK	2	6	GS-21F-0083Y (ends: Mar 31, 2017)	\$424.99 - \$818.23
Retrofit	LZWSRK	4	21	GS-21F-0083Y (ends: Mar 31, 2017)	\$432.99 - \$791.56
New	EZS8WSSK	2	1	GS-21F-0154W (ends: May 2, 2015)	\$1,623.75
New	EZSTL8WSSK	1	2	GS-21F-0154W (ends: May 2, 2015)	\$1998.75
New	8640080741HTHB	3	9	GS-06F-0032K (ends: Jun 30, 2015)	\$1178.52 - \$1460.37
New	8640080783HTHB	2	9	GS-06F-0032K (ends: Jun 30, 2015)	\$1224.98 - \$1517.64
New	HTHB-HAC8WF PV	1	2	GS-21F-0035T (ends: Aug 21, 2017)	\$1333.78 - \$1333.79
New	HTHB-HAC8WF SS	1	2	GS-21F-0035T (ends: Aug 21, 2017)	\$1386.37 - \$1386.38
New	8640082041HTHB	3	9	GS-06F-0032K (ends: Jun 30, 2015)	\$1647.40 - \$2040.97
New	8640082083-HTHB	3	9	GS-06F-0032K (ends: Jun 30, 2015)	\$1731.88 - \$2145.63
New	HTHB-HAC8BLWF PV	1	2	GS-21F-0035T (ends: Aug 21, 2017)	\$1864.33 - \$1864.44
New	HTHB-HAC8BLWF SS	1	2	GS-21F-0035T (ends: Aug 21, 2017)	\$1960.04 - \$1960.05
Retrofit	HTHBHACRF	3	13	GS-06F-0007J (ends: Feb 1, 2019)	\$625.32 - \$742.81
New	LK4400BF	0	0	Not on GSA Advantage! currently	N/A
New	4420BFIUDBA	0	0	Not on GSA Advantage! currently	N/A

APPENDIX 2

RPN water bottle market scan—GSA Advantage, February 2015

MANUFACTURER	PRODUCT NAME	MODEL#/ MNFTR. PART# / SKU	DISTRIBUTOR	CAPACITY (SIZE)	MATERIALS
GRN	R3 STAINLESS STEEL WATER BOTTLE, 17-OZ.	172479-SEV12	Seva Technical Services, Inc.	17 oz.	Metal—less than \$25
GRAYLINE	28OZ TRANSPARENT BOTTLE WITH PUSH PULL L	TB28	Charles G. Brown	28 oz.	Flexible plastic—less than \$5
GRAYLINE	24OZ TRITAN BOTTLE WCRESTLID DIGITALIMPR	DPXB24L	Justmar	24 oz.	Rigid plastic—less than \$5
THERMOS	HYDRATION BOTTLE 22 OZ TEAL	NP4000TL6	SPS Industrial Inc.	22 oz.	Rigid plastic—near \$10
BLACKHAWK TACTICAL	BLACKHAWK TACTICAL NALGENE BOTTLE BH HY	BH 67NB-32GR	Blue Water Sales, LLC	32 oz.	Rigid plastic—less than \$25
GRAYLINE	32 OZ. SPORTS BOTTLE WITH PUSH PULL CAP.	WB32	Charles G. Brown, Inc.	32 oz.	Flexible plastic—less than \$1
GRAYLINE	27 OZ. TRANSPARENT SPORTS BOTTLE HAS A C	TB27	Charles G. Brown	27 oz.	Flexible plastic—less than \$5
BELL SPORTS	PHTHALATE AND BPA FREE. LARGE 25 OZ. CAP	INC821338	VETERAN LOGISTICS INC. (SDVOSB)	25 oz.	Flexible plastic—less than \$10

GSA ADVANTAGE! WEB LINK	PURCHASING PLATFORM	GSA ADVANTAGE! PRICE	VOLUME DISCOUNTS	BPA FREE	RECYCLABLE
https://www.gsaadvantage.gov/advantage/catalog/product_detail.do?gsin=11000026862358	GSA Advantage!	\$18.90	Yes	Yes	Yes
https://www.gsaadvantage.gov/advantage/catalog/product_detail.do?gsin=11000005022489	GSA Advantage!	\$1.22	Yes from other distributors	Yes: PETE	
https://www.gsaadvantage.gov/advantage/catalog/product_detail.do?oid=748523579&itemIndex=-1	GSA Advantage!	\$3.81	No	Yes: Triton	
https://www.gsaadvantage.gov/advantage/catalog/product_detail.do?oid=737432800&itemIndex=-1	GSA Advantage!	\$10.31	Yes	Yes: Triton	
https://www.gsaadvantage.gov/advantage/catalog/product_detail.do?gsin=11000019684251	GSA Advantage!	\$11.29	No	DNK	
https://www.gsaadvantage.gov/advantage/catalog/product_detail.do?gsin=11000005022536	GSA Advantage!	\$0.86	No	Yes: HDPE	
https://www.gsaadvantage.gov/advantage/catalog/product_detail.do?oid=808297754&itemIndex=-1	GSA Advantage!	\$1.10	No	Yes: PETE	
https://www.gsaadvantage.gov/advantage/catalog/product_detail.do?gsin=11000014737187	GSA Advantage!	\$7.49	No	Yes and phthalate Free	

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