

A **Report on Failure** to Follow Procedures in the National Park Service's Flawed Campaign Against Bottled Water

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For parks without access to running water, filling stations for reusable bottles are impractical. A ban could affect visitor safety; proper hydration is key to planning a safe two-hour hike or a multi-day backcountry excursion. Even reasonably priced reusable water bottles may be out of reach for some visitors, especially those with large families."

—National Park Service Director Jonathan Jarvis

National Park Service, Policy Memorandum 11-03, December 14, 2011

Issue

In 2011, the National Park Service (NPS) issued Policy Memorandum 11-03, which allows individual national park superintendents to ban the sale of bottled water in plastic containers.¹ This discriminatory policy specifically targets only water sold in plastic containers. It does not allow the parks to ban the sale of any other food, beverage, or consumer product sold in plastic containers—only water.

Despite the policy's specific requirements mandating annual evaluations of the bans, and monitoring and periodic reviews of the bans, it appears that neither the NPS nor the Department of the Interior (DOI) (which is the agency that oversees NPS) has done any analysis of whether the policy has had a proven environmental, health, or safety benefit, or whether it has resulted in risks to public health. The policy was not considered by Congress, nor was it subject to public notice and comment rulemaking procedures.

In 2015, in response to concerns regarding the discriminatory nature and possible health and safety impacts of the bottled water sales ban policy, Congress included the following policy language in the committee report for *The Consolidated Appropriations Act of 2016*, H.R. 2029, directing the NPS to submit a report on the data it used to justify the sales bans in individual parks.

"Sales of Bottled Water at Park Units.—The Committees are aware of concerns raised about Director's Policy Memorandum 11-03 relating to disposable plastic water bottle recycling and reduction, which provided park units the option to eliminate the sale of bottled

water on a park-by-park basis. The Committees understand that 19 parks have eliminated the sale of disposable water bottles as a result of this policy and direct the Service to provide, not later than 60 days after enactment of this Act, a report that details the data the Service reviewed and the justification for making

the determination to ban bottled water at each affected park unit." ²

Based on the enactment date of the omnibus appropriations bill, the report by the NPS must be submitted to the U.S. House of Representatives and U.S. Senate Interior Appropriations Subcommittees by February 16, 2016.



¹ US Department of the Interior, National Park Service, *Recycling and Reduction of Disposable Plastic Bottles in Parks*, Policy Memorandum 11-03, December 14, 2011, at: <http://www.nps.gov/policy/plastic.pdf>.

² US House of Representatives, Committee on Appropriations, *Consolidated Appropriations Act, 2016*. "Explanatory Statement Division G—Department of the Interior, Environment, and Related Agencies Appropriations Act, 2016." Dec. 14, 2015. 114th Congress 1st Session.

Executive Summary

A Freedom of Information Act (FOIA) request was submitted on behalf of the International Bottled Water Association (IBWA)³ in an effort to obtain all available information relating to both the justifications for banning bottled water sales in specific national parks and the impacts of those bans. This report reviews and analyzes documents released by the NPS and claims made by NPS park units and supporters of the sales ban policy, and concludes that the policy arbitrarily singles out bottled water and cannot be justified for the following reasons:

- It is inconsistent with other Administration priorities to promote water consumption and encourage healthy hydration and enjoyment of the National Park System.
- No analysis was conducted by the individual parks (as required by the policy) to show that the bottled water sales ban would reduce waste disposal costs or increase recycling.
- There is no evidence that the NPS is tracking the policy's impacts on waste reduction, recycling, or the public's health and safety.
- The NPS and policy supporters are using incorrect data or, in some instances, no data to support implementation of the policy.

This is why health, nutrition, and consumer interest groups, along with Congressional leaders, have expressed

grave concerns about the bottled water sales ban policy.

Based on these findings, this report recommends:

- Congressional or Administration action to overturn Policy Memorandum 11-03 as discriminatory and ineffective;
- A thorough examination and re-assessment of any health, public safety, economic, and waste management impacts of the policy should be conducted by the DOI's Office of Inspector General;
- Congress should direct the NPS to develop an effective and fair recycling program that uniformly, consistently, and comprehensively addresses the issues of waste disposal and/or littering of all products sold or brought into all the parks.

Background on NPS Bottled Water Sales Ban Policy

The National Park Service serves more than 23.5 million customers each year at over 250 food and beverage operations operated by concessioners in 75 parks.⁴ In December 2011, NPS Director Jonathan Jarvis issued Policy Memorandum 11-03, Disposable Plastic Water Bottle Recycling and Reduction, to specifically allow individual national parks to ban the sale of bottled water in plastic containers.⁵ Since then, according to the NPS website, 18 or 19 of the 409 units of

the National Park System have implemented sales bans on bottled water.⁶

Although the bottled water sales ban policy was ostensibly established to reduce plastic waste left behind by park visitors, people visiting the parks are still allowed to buy other consumer goods that are packaged in plastic. That includes foods and beverages such as sodas, sports drinks, teas, milk, beer, and wine. All of those products can still be purchased in plastic, glass, cans, and cardboard containers—but bottled water in plastic containers is not available, under the bottled water sales ban policy.⁷

To date, the five-year-old policy that permits parks to ban the sale of bottled water has neither gone through a cost-benefit analysis by the Office of Management and Budget (OMB) nor been reviewed by the NPS or the DOI as to whether there has been a proven waste management, health, or safety benefit, or whether it has actually jeopardized the health and safety of park visitors. The policy was not considered by Congress nor was it subject to normal public rulemaking procedures under which a proposed rule is published in the *Federal Register* and is open to comment by the general public under the Administrative Procedures Act.

Without such review and oversight, and after analyzing the NPS-released documents, it appears that individual park administrators have been banning bottled water sales without complying with the detailed procedures outlined in the governing Policy Memorandum.

³ IBWA is the authoritative source of information about all types of bottled waters. Founded in 1958, IBWA's member companies include U.S. and international bottlers, distributors, and suppliers. IBWA unifies the bottled water industry and represents uncompromising commitment to the safety and availability of bottled water worldwide. While IBWA represents companies of all sizes, the vast majority of our 640 members are small, locally owned companies, with 60% reporting \$2 million in annual gross sales and 90% reporting less than \$10 million in annual gross sales.

⁴ http://www.nps.gov/public_health/hp/hphp/work.htm

⁵ Op. Cit., National Park Service, Policy Memorandum 11-03, December 14, 2011.

⁶ *The Plastic Water Bottle Reduction in National Parks*, National Park Service, at: http://www.concessions.nps.gov/greenline_water_bottle.htm. Activist groups claim that as many as 75 national parks have eliminated the sale of bottled water. See for example, John Stewart, "Growing the Bottled-Water-Free Movement in National Parks," *Corporate Accountability International*, July 17, 2015, <https://www.stopcorporateabuse.org/blog/growing-bottled-water-free-movement-national-parks>.

⁷ The Policy Memorandum states: *In light of recent interest in one element of the GPP [Green Parks Plan]: we are issuing the attached specific policy on the reduction/recycling of disposable plastic water bottles.*

According to that policy, the following procedures must be undertaken before individual parks can receive approval to ban the sale of bottled water:

“Superintendents may request approval from their regional director to eliminate the sale of water in disposable plastic bottles by analyzing and addressing the following factors—in writing:

- *Amount of waste eliminated and pros/cons to overall park operations*
- *Infrastructure costs and funding source(s) for filling stations*
- *Contractual implications on concessioners, including considerations of new leaseholder surrender interest or possessory interest*
- *Operational costs of filling stations including utilities and regular public health testing*
- *Cost and availability of BPA-free reusable containers*
- *Effect on concessioner and cooperating association sales revenue*
- *Availability of water within concession food service operations*
- *Visitor education in the park and online so that visitors may come prepared with their own water bottles*
- *Results of consultation with NPS Public Health Office*
- *A sign plan so that visitors can easily find filling stations*
- *Safety considerations for visitors who may resort to not carrying enough water or drinking from surface water sources with potential exposure to disease*
- *A system for annual evaluation of the program, including public response, visitor satisfaction, buying behavior, public safety, and plastic collection rates*
- *Results of consultation with concessioners and cooperating associations*
- *Timeline of phase in period.”*⁸

In other words, officials in individual parks are not authorized to ban the sale of bottled water simply because they want to, or because they have a personal view on what consumer products park visitors should or should not buy. The NPS policy requires a rigorous, multi-step procedure to document a particular benefit prior to any action being taken.

NPS Parks No Longer Allowing Visitors to Choose Bottled Water

The following 18 parks have banned or intend to ban the sale of bottled water, as reported to the NPS Sustainable Operations and Climate Change Branch:

- | | |
|--|---|
| 1. Arches National Park | 10. Mount Rushmore National Park |
| 2. Biscayne National Park | 11. Pecos National Historical Park |
| 3. Bryce Canyon National Park | 12. Petrified Forest National Park |
| 4. Canyonlands National Park | 13. San Antonio Missions National Historical Park |
| 5. Cape Hatteras National Seashore | 14. Saguaro National Historical Park |
| 6. Colorado National Monument | 15. Timpanogos Cave National Monument |
| 7. Fort Raleigh National Historic Site | 16. Wind Cave National Park |
| 8. Grand Canyon National Park | 17. Wright Brothers National Memorial |
| 9. Lake Mead National Recreation Area | 18. Zion National Park |

⁸ Op. Cit., National Park Service, Policy Memorandum 11-03, December 14, 2011.

"Banning the sale of water bottles in national parks has great symbolism, but runs counter to our healthy food initiative as it eliminates the healthiest choice for bottled drinks, leaving sugary drinks as a primary alternative."

– NPS Director Jonathan Jarvis

In issuing the policy, Director Jarvis acknowledged the "symbolism" of banning bottled water sales in national parks, and noted the potential consequences of such a move. He stated,

"Banning the sale of water bottles in national parks has great symbolism, **but runs counter to our healthy food initiative as it eliminates the healthiest choice for bottled drinks, leaving sugary drinks as a primary alternative.** A ban could pose

challenges for diabetics and others with health issues who come to a park expecting bottled water to be readily available.

For parks without access to running water, filling stations for reusable bottles are impractical. A ban could affect visitor safety; proper hydration is key to planning a safe two-hour hike or a multi-day backcountry excursion. Even reasonably priced reusable water bottles may be out of reach for some visitors, especially those with large families. For these reasons, the National Park Service will implement a disposable plastic water bottle recycling and reduction policy, with an option to eliminate sales on a park-by-park basis following an extensive review and with the prior approval of the regional director."⁹

(Emphasis added.)

This report will demonstrate that the individual parks' justifications for approval of bottled water sales bans have failed to include the detailed analyses that the policy requires. Additionally, individual parks and the NPS also have failed to monitor and evaluate the impacts of sales bans once they have been implemented. The policy specifically requires parks that have implemented bans to undertake annual evaluations; provides that the policy will be monitored to determine "its park and Service wide environmental impact, visitor welfare, acceptance, and support, and effects on concessioners and cooperating associations"; and states that the strategy "will be revisited periodically based on these data to determine if a change in the strategy is desirable or necessary." None of those provisions for evaluation, monitoring and continuous improvement have been implemented in the manner required by the policy. This report will also show many of the health and

Annotated Timeline of the National Park Service Bottled Water Sales Ban Policy

May 2010: Grand Canyon National Park (NP) announces ban on bottled water sales effective January 1, 2011

November 2010: National Park Service (NPS) identifies elimination of disposable water bottles as a goal in its draft Green Parks Plan

December 2010: NPS internal meeting to discuss pros and cons of banning bottled water sales and concludes that the agency needs to gather more facts and engage the concessioners and distributors for input

December 2010: After internal discussion, NPS directs no new bottled water sales ban initiatives until NPS-wide position is developed; implementation of Grand Canyon NP ban delayed

January 2011: NPS meeting with bottled water and concessions industry representatives

April 2011: NPS announces NPS Healthy Foods Strategy

December 2011: NPS Director Jonathan Jarvis issues "Disposable Plastic Water Bottle Recycling and Reduction" policy, recognizing inconsistency with NPS healthy food initiative

February 2012: Grand Canyon NP sales ban approved

April 2012: Final Green Parks Plan issued without draft recommendation to eliminate disposable water bottles

April 2013: Zion NP reports that, even with the sales ban in place since 2009, the park still sees "a large amount of single-use plastic bottles in the waste stream"

June 2013: NPS Director Jarvis launches healthy food choice standards and guidelines, calling for at least 30 percent of beverages offered in front country areas of the parks to have no added sugar.

November 2013: IBWA FOIA request to NPS requesting records relating to bottled water ban efforts; NPS responds to FOIA request within an hour, but is not fully responsive

December 2013: Administrative appeal of FOIA request filed; Department of Interior (DOI) response due January 2014

⁹IBID.

safety concerns expressed by Director Jarvis remain a serious problem and appear to have been ignored.

Examination of the Procedures Used to Implement Bottled Water Sales Bans at Individual Park Units

Congressional leaders, health advocates, government watchdog groups, and the bottled water industry have numerous questions about the validity and justifications behind the sales bans that have been implemented by individual park units. In an attempt to learn more about how the NPS has been implementing the policy, IBWA initiated a FOIA request. On November 5, 2013, National Corporate Research, Ltd. (NCR), on behalf of IBWA, submitted by email to the NPS a FOIA request for records relating to the ban on the sale

of bottled water in the national parks that IBWA believed should exist based on the requirements outlined in NPS Policy Memorandum 11-03.

The request sought all documents relating to the consideration of any ban on the sale of water in disposable plastic bottles in any unit of the National Park System, or to any decision to ban or not to ban the sale of water in disposable plastic bottles in any unit of the National Park System. The request also asked for all documents relating to the effects of any bottled water ban in any unit of the National Park System, including any documents relating to the annual evaluations that parks with bans are supposed to undertake pursuant to the NPS policy (including evaluations related to public response, visitor satisfaction, buying behavior, public safety, and plastic collection rates).

This inquiry requested documentation that the NPS would have also relied on to produce the report requested by Congress.

Within an hour of the FOIA request submission, NCR received an email purporting to respond in full to the request, stating that NPS “had previously received several FOIA requests related to this issue” and that “the information you have requested is already available on” <http://www.nps.gov/aboutus/foia/foia-frd.htm>.¹⁰ Although certain documents available at that website were within the scope of the request, the NPS’s response appeared to reflect no effort to identify and provide all response documents, including any documents that might have been developed since that information was posted to the website.

NCR filed a timely appeal of NPS’s response on IBWA’s behalf on December 12, 2013. Ten months later, on October 14, 2014, DOI formally acknowledged the appeal, notifying NCR that the appeal finally had been assigned an Appeal Number, and stating that the Department would

October 2014: DOI acknowledges that its response to the FOIA request is delayed due to a change and shortage in staff, and states that it “will make every effort to reach a decision on [the] appeal within the next three weeks”

January 2015: IBWA sends letter to DOI Secretary Sally Jewell requesting a response to FOIA appeal

March 2015: Leaders of the House Interior Appropriations Subcommittee and the House Natural Resources Subcommittee on Federal Lands question NPS Director Jarvis and the Policy and the reasons for the delay in response to the pending FOIA appeal

March 2015: In response to the FOIA appeal, DOI Office of the Solicitor acknowledges that the NPS response to the FOIA request was not complete and directs the NPS to provide IBWA with the documents requested within 20 business days

April 2015: NPS FOIA Officer sends email stating that NPS effort to comply with request is ongoing, and provides copies of two additional ban requests approved after FOIA request was submitted, for Salinas Pueblo Missions NM and Bryce Canyon NP, bringing total to at least 18; email also states that parks that have sales bans in place do not report separately on their recycling quantities based on type of material, and therefore “do not have the data available to conduct any post-ban analysis”

July 2015: The U.S. House of Representatives passes, by voice vote, an amendment to the FY 2016 Interior Appropriations bill to prohibit the use of funds by the Director of the National Park Service to implement, administer, or enforce the NPS policy that allows parks to ban the sale of bottled water or to approve a request by a park superintendent to eliminate the sale in National Parks of water in disposable plastic bottles

December 2015: The FY 2016 omnibus appropriations bill is signed into law. While the final bill did not include the House-passed language, the accompanying committee report included language directing NPS to produce a report on the justifications for the sales bans

¹⁰ Email from C. Wilson, NPS FOIA Officer, to J. McCall, NCR (Nov. 5, 2013).

"A search of the Sustainable Practices Report database has found that those parks that have discontinued plastic water bottle sales do not separately report their recycling quantities based on type (plastic, glass, aluminum, paper, etc.)."

– NPS's FOIA Officer

"make every effort to reach a decision on your appeal within the next three weeks."¹¹

On March 16, 2015, nearly five months later, the DOI finally granted the appeal, finding that the NPS's assertion that the documents IBWA requested "were already available" on its website was inaccurate and that "even a cursory reading" of the FOIA request showed that the request sought much more than what was already available on the NPS website. To resolve NPS's "deficient response" to the FOIA request and "processing error" in not actually conducting a search for responsive documents, the DOI ordered NPS to conduct an appropriate search and to provide any responsive documents found within 20 workdays.¹²

One month and three days later, on April 13, 2015, the NPS provided a partial response, consisting of two additional sales ban requests that were approved after the filing of the FOIA request, one for Bryce Canyon National Park and the other for Salinas Pueblo Missions National Monument. NPS provided its final response to the FOIA request on April 29, 2015, producing five PDF files totaling

367 pages of documents.¹³ Notably, with regard to the specific request for records relating to the effects of any bottled water sales ban in any unit of the National Park System, including all records relating to any annual evaluations undertaken pursuant to Policy Memorandum 11-03, the NPS's FOIA Officer stated:

"We have confirmed that we have no responsive records. **A search of the Sustainable Practices Report database has found that those parks that have discontinued plastic water bottle sales do not separately report their recycling quantities based on type (plastic, glass, aluminum, paper, etc.).** As a result they do not have data available to conduct a post-ban analysis."¹⁴ (Emphasis added.)

This is despite the fact that the NPS bottled water policy specifically requires parks seeking sales ban approval to undertake an annual evaluation of the program, including the following:

- public response,
- visitor satisfaction,
- buying behavior,

- public safety, and
- plastic collection rates, and
- that parks that have obtained approvals of bans have represented in their requests that they will monitor and collect specific data in response to this requirement.¹⁵

A list of the documents that NPS did provide is included in the Appendix of this report.

Documents that would have been helpful in understanding the justifications behind the bans were not included in the FOIA response. These would have been:

- records of beverage sales at various park concessions,
- records of volumes of plastic bottles being recycled or going to landfills,
- records on the amount and type of litter collected, and
- records on the cost of purchasing and maintaining water filling stations.

The table on page 7 shows the relevant information for each park that was obtained from the FOIA response.

As the table shows, while there have been some limited reports issued by individual parks documenting some of the costs and perceived benefits of their sales bans (specifically Zion National Park and the Grand Canyon National Park), based upon the response to the FOIA request, it appears that none of the individual parks banning the sale of bottled water performed the detailed analysis required by Policy Memorandum 11-03.

¹¹ Letter from D. Strayhorn, DOI FOIA Appeals Officer, to J. McCall, NCR (Oct. 14, 2014).

¹² Letter from D. Strayhorn, DOI FOIA Appeals Officer, to J. McCall, NCR (Mar. 16, 2015).

¹³ Email from C. Wilson, NPS FOIA Officer, to J. McCall, NCR (Apr. 13, 2015).

¹⁴ Letter from C. Wilson, NPS FOIA Officer, to J. McCall, NCR (Apr. 29, 2015).

¹⁵ Op. Cit., National Park Service, Policy Memorandum 11-03, December 14, 2011.

Congressional Concern About the Policy

Due to the conflicting and incomplete information about the bottled water sales ban policy being made available by the NPS to the American public, and complaints by constituents, Congress began to look to the NPS for answers.

NPS Director Jarvis was questioned about the sales ban policy when he testified before the Interior, Environment, and Related Agencies Subcommittee of

the House Appropriations Committee on March 17, 2015. The NPS, in its responses to questions for the record, stated that 19 parks have eliminated the sale of disposable water bottles. However, the FOIA response included requests to institute a ban, analyses, and/or approvals pursuant to the policy for only 12 of these parks.¹⁶ In addition, four other units of the National Park System (Hawaii Volcanoes National Park, Natural Bridges and Hovenweep National Monuments, and Washita Battlefield National Historic

Site) are reported to have eliminated bottled water sales.¹⁷ Documentation relating to these units was not included in the FOIA response.

Director Jarvis was questioned at the U.S. House of Representative's Interior Appropriations Subcommittee and the Natural Resources Federal Lands Subcommittee, both of which have jurisdiction over the NPS. At the Natural Resources Federal Land Subcommittee hearing, concerns over the bottled water sales ban

Table 1. Usable Data Obtained From FOIA Request Including Installation And Maintenance Costs For Filling Stations

N/A = No Information Provided

Parks	Installation Cost	Maintenance Cost	Benefits	Net Cost
Arches National Park	N/A	N/A	N/A	N/A
Aztec Ruins National Monument	N/A	N/A	N/A	N/A
Big Thicket National Preserve	N/A	N/A	N/A	N/A
Canyonlands National Park	N/A	N/A	N/A	N/A
Colorado National Monument	\$10,000	\$255/yr	Could eliminate up to 10% of what is currently recycled.	\$10,000
Dinosaur National Monument	N/A	N/A	N/A	N/A
El Malpais National Monument	N/A	N/A	N/A	N/A
El Morro National Monument	N/A	N/A	N/A	N/A
Grand Canyon National Park	\$288,900	\$850/yr	Could eliminate up to 30% of what is currently recycled.	\$288,900
Grant-Kohrs Ranch National Historic Site	N/A	N/A	N/A	N/A
Hawaii Volcanoes National Park	N/A	N/A	N/A	N/A
Little Bighorn National Monument	N/A	N/A	N/A	N/A
Mount Rushmore	N/A	N/A	N/A	N/A
Natural Bridges and Hovenweep National Monuments	N/A	N/A	N/A	N/A
Outer Banks Group	N/A	N/A	N/A	N/A
Pecos National Historic Park	\$2,000	\$70/yr	Could eliminate up to 15% of what is currently recycled.	\$2,000
Petrified Forest National Park	N/A	N/A	Remove approx. 9000 bottles from waste stream.	N/A
Saguaro National Park	N/A	N/A	N/A	N/A
Salinas Pueblo Missions National Monument	\$45,000	\$1500/yr	N/A	\$45,000
Timpanogos Cave National Monument	\$10,000	N/A	N/A	\$10,000
Zion National Park	\$447,200	N/A	5,000 lbs less trash annually	\$447,200

¹⁶ Documents pertaining to the following parks were not included in the FOIA response: Arches National Park, Biscayne National Park, Canyonlands National Park, Lake Mead National Recreation Area, Saguaro National Park, San Antonio Missions National Historical Park, and Wind Cave National Park.

¹⁷ http://www.peer.org/assets/docs/nps/3_25_14_List_Bottle_Free_Parks.pdf.

"In blocking the sale of bottled water at our parks, we are depriving millions of Americans access to a healthy and necessary beverage that park visitors rely on."

– Rep. Keith Rothfus

were highlighted by Subcommittee Chairman Tom McClintock (R-CA) and raised in a question by Rep. Glenn Thompson (R-PA). In his opening remarks, Chairman McClintock expressed his concern that the NPS was limiting public access and amenities at the parks. Among his list of examples were the bottled water sales bans. Rep. Thompson also raised the NPS bottled water sales ban policy in a question to Director Jarvis and stated he was aware of a number of complaints against the policy and that it seemed like there may be a public health issue.

Rep. Thompson asked Director Jarvis for an update and status report. In his response, Director Jarvis explained that there is a process and policy for parks to follow when they seek to impose a ban on bottled water sales, and that decisions are made at the regional director level. He mentioned the use of filling stations and that the reusable bottles that are sold are "good souvenirs." Director Jarvis also said that he believed that there are 19 parks with bottled water sales bans and that the bans have been "relatively successful." In his closing comments, Rep. Thompson reiterated that he had heard complaints from constituents about the ban.

Later in the day, at the Interior Appropriations Subcommittee, Chairman Ken Calvert (R-CA) spoke with concern about the 2011 NPS policy memoran-

dum authorizing bottled water sales bans and noted that very little information has been made public on the ban. Chairman Calvert pointed out the inconsistency of banning the sale of bottled water while allowing sales of sodas.

On July 7, 2015, the U.S. House of Representatives took the first step toward halting the misguided NPS policy that allows parks to ban the sale of bottled water. The House passed an amendment by Rep. Keith Rothfus (R-PA) to the FY 2016 Interior Appropriations bill, H.R. 2822, to prohibit the NPS from using any funds to implement or maintain bans on the sale of bottled water at any national park. In his remarks, Rep. Rothfus noted:

"In blocking the sale of bottled water at our parks, we are depriving millions of Americans access to a healthy and necessary beverage that park visitors rely on. This is especially true in the hot summer months. Families who don't own expensive camping equipment and aren't experienced hikers and climbers will be surprised to find out that they can't buy their child a bottle of water at one of our national parks. Nineteen national parks have adopted or plan to adopt a bottled water ban. This includes the Grand Canyon National Park. Temperatures at the Grand Canyon just this week will top 100 degrees. Visitors who may have forgotten or have run out of water could be put at risk of dehydration. Banning bottled water defies common sense. Even the Park Service admits that the ban 'could affect visitor safety' and 'eliminates the healthiest choice

for bottled drinks, leaving sugary drinks as a primary alternative.' The policy runs counter to the Park Service's own Healthy Parks Healthy People initiative, which urges visitors to make healthy food choices because, remember, bottled water, and only bottled water, is banned from being sold at concessions. Some argue that the ban is necessary to reduce waste. But the National Park Service has confirmed that participating parks haven't been able to determine if the policy works. To start, we know parks don't separately analyze recycled waste visitors leave behind. Parks simply can't say whether the ban has worked."¹⁸

"As a nurse, I know the key component of staying healthy is being hydrated and drinking plenty of water."

– Rep. Renee Ellmers

In supporting the amendment, Rep. Renee Ellmers (R-NC) of North Carolina said:

"Mr. Chairman, I rise today in support of my colleague from Pennsylvania's amendment. As a nurse, I know the key component of staying healthy is being hydrated and drinking plenty of water. However, if you were to be in one of our Nation's parks, you might find this difficult. Why? Because the National Park Service allows individual parks to ban bottled water from their premises. Yet, in those same parks, someone can still purchase soda and other bottled beverages. Mr. Chairman, this

¹⁸ Congressional Record Vol. 161, No. 104 p. H4838 (July 7, 2015).

¹⁹ Congressional Record Vol. 161, No. 104 p. H4839 (July 7, 2015).

ban is misguided. While it was created in an attempt to reduce litter in the parks, it has, instead, served as a primary example of intrusive government overreach—something this country certainly needs less of...."¹⁹

On December 2, 2015, during a hearing of the House Natural Resources Subcommittee on Federal Lands on the “National Park Service Centennial Act,” Subcommittee Chairman Tom McClintock and full Committee Chairman Rob Bishop (R-UT) both voiced frustration with—and condemnation of—the sales ban policy. During the hearing, Rep. McClintock interrupted NPS Director Jarvis, who was speaking on the future of the Park Service, to say the following:

“I have to cut you off because I want to get one more question in. It’s a complaint we’re receiving a lot of and that is the policy of individual parks to ban bottled water. As you can imagine a lot of complaints on that. What is the justification for that, particularly when you can buy soda in a can but you just can’t buy bottled water.”²⁰

Later in the hearing, Full Committee Chairman Bishop said to Director Jarvis:

“The Subcommittee Chair mentioned the issue of bottled water. Please don’t overlook that. The ability of banning bottled water by allowing Gatorade and Coke cans, and all the other stuff in there, does not make a whole lot of sense, and it does not deem well for

what we are looking at in the future. That’s an issue you gotta look at. I’m sorry, this is silly.”²¹

With concern mounting, the 2016 omnibus legislation called on the NPS to justify the bottled water sales bans in a report to Congress.

Analysis of Effects of the Sales Bans on Visitor Health And Safety

Even though individual parks were required to complete “a rigorous impact analysis that includes an assessment of the effects on visitor health and safety,” there is no evidence in the documents disclosed in response to the FOIA request, or in any public forum, that these



analyses have been done in any of the parks that have implemented a ban.

In fact, there is evidence that these bans don’t reduce plastic waste and put at risk the nutritional health of those affected.

University of Vermont (UVM) Professor of Nutrition Rachel K. Johnson, PhD, MPH, RD, and her co-author conducted research on the bottled water sales ban adopted by UVM. The results showed that the ban resulted in a 33 percent increase in the number of unhealthy sugary drinks shipped to the campus. In addition, the campus used more single-use bottles after the bottled water sales ban was in effect—and less healthy beverages were being consumed out of those bottles. In an article in

²⁰ US House of Representatives, Committee on Natural Resources, Hearing on National Park Service Centennial Act. Dec. 2, 2015. 114th Congress 1st session.

²¹ Ibid

"From a public health perspective, a National Park Service policy giving unhealthy sugary drinks preferred treatment over water is nothing short of ludicrous."

– Dr. Harold Goldstein

The Hill newspaper about her research, Professor Johnson concluded that:

"Our study shows that these sorts of policies, regardless of the motivation behind their adoption, may result in the consumption of more calories and more added sugars, a perpetuation of unhealthy dietary choices, and—ironically—an increase in plastic waste. Our study clearly suggests that the NPS bottled water sales ban has the potential to undermine efforts to encourage healthy food and beverage choices and may be environmentally counterproductive."²²

Leading nutrition experts and others have expressed concern that the lack of ability to purchase bottled water in national parks could have a profound negative impact on visitor health and safety.

The executive director of the California Center for Public Health Advocacy (CCPHA), Harold Goldstein, DrPH, has questioned the health implications of the NPS policy.²³ He wrote:

"In the end, if we want to protect both the environment and the health of park visitors—which I absolutely do!—let's

not set things up so that people who want bottled water are encouraged to buy the leading contributors to diabetes. From a public health perspective, a National Park Service policy giving unhealthy sugary drinks preferred treatment over water is nothing short of ludicrous."²⁴

And when asked to comment on the sales ban, one of the nation's leading health advocates, Margo Wootan, DSc, said:

"I have worked tirelessly to ensure schools limit vending machine options to healthy beverages like bottled water, encouraged restaurants to serve healthy beverages like water as a part of children's meals, and ensure access to water and other healthy beverages at hospitals, parks, and other public places. A policy that allows bottled sugar water (soda), but not healthy bottled water, to be sold at our National Parks doesn't make sense."

"A policy that allows bottled sugar water (soda), but not healthy bottled water, to be sold at our National Parks doesn't make sense."

– Dr. Margo Wootan

Dr. Wootan is director of nutrition policy at the Center for Science in the Public Interest (CSPI), one of the country's leading consumer rights organizations and specializes in food, nutrition, and public health issues.

The Policy Directly Contradicts Other Administration Priorities

The NPS policy is contrary to everything that the Obama Administration has been working on to promote healthy families and good nutrition. A policy permitting bottled water sales bans also runs counter to the NPS's own *Healthy Parks Healthy People* initiative, which urges visitors to make healthy food choices. According to the policy, "Good nutrition is vital to good health. The National Park Service understands the importance of providing healthy, sustainable and affordable food and beverage options for park visitors."²⁵ However, compared to other beverage options in a package, there isn't a healthier, more sustainable packaged beverage option a consumer can choose than bottled water. According to the Academy of Nutrition and Dietetics, "Water is one of the body's most essential nutrients. People may survive six weeks without any food, but they couldn't live more than a week or so without water...And, water is truly a liquid asset for a healthy weight—it's sugar free, caffeine free, and—most importantly—calorie free."²⁶ And as IBWA has noted many times, "From an environmental standpoint, when people choose bottled water instead of any other canned or bottled beverage, they are choosing less packaging, less energy consumption, and less use of natural resources."²⁷

The policy also directly contradicts the NPS's *Healthy Food Choice Standards and Sustainable Food Choice Guidelines for Front Country Operations*, which re-

²² R. Johnson, *Bottled water sales ban in America's national parks makes no sense*, *The Hill* (July 15, 2015).

²³ CCPHA is a nationally recognized leader in advocating for public policies to address the social, economic, and community conditions that perpetuate the obesity epidemic.

²⁴ H. Goldstein, *National Parks' Bottled Water Sales Ban Is Bad Policy, Damages Public Health*, *The Huffington Post* (Dec. 21, 2015).

²⁵ http://www.nps.gov/public_health/hp/hphp/work.htm

²⁶ <http://www.eatright.org/resource/fitness/sports-and-performance/hydrate-right/water-go-with-the-flow>

²⁷ <http://www.bottledwater.org/bottled-water-industry-supports-earth-day-2015>

quire at least 30 percent of concessioners' beverage selection to have no added sugar. It is difficult to understand how the Administration reaches this goal without acknowledging the role bottled water plays in helping consumers drink beverages with no added sugar. It is important to acknowledge that convenience and availability are key in getting people to change habits, like drinking more water. Consumers should be encouraged to reach for bottled water instead of less-healthy packaged beverages. This is why bottled water should always be available where other convenience drinks are sold.²⁸ When visitors take to a National Park they are on-the-go and depend on convenience when making food and beverage choices. Ideally, water should be accessible to people everywhere, and the bottled water industry supports a reliable drinking water infrastructure in the parks. However, much of what people drink comes in a package and as a result, today, almost half of the water people drink comes in a bottle.

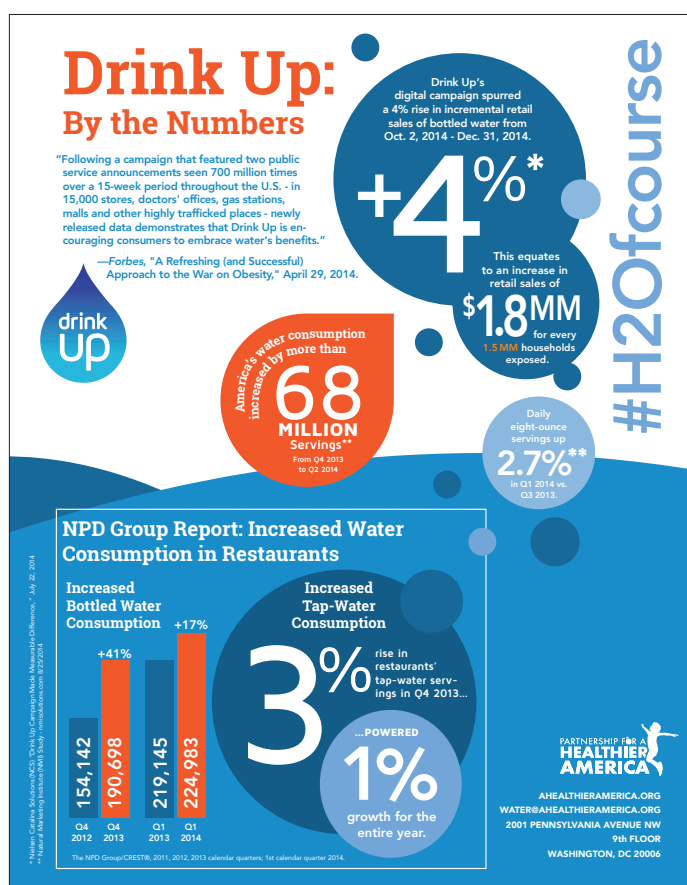
It appears to defy logic that the same Administration that wants park visitors to be healthy and drink less sugary beverages is allowing the healthiest, most sustainably packaged beverage—water—to be banned from sale in the federal parks.

Director Jarvis himself stated the following in 2011, at the Healthy Parks Healthy People US conference:

"The food we eat plays a critical role in our health, and providing healthy food choices is one way the NPS is working to promote healthy lifestyles." He continued, "The Healthy Foods Strategy will help ensure that our 281 million annual visitors have access to healthy, sustainable, and

high-quality food at reasonable prices, while reducing our overall impact on the environment."²⁹

The NPS policy also runs contrary to First Lady Michelle Obama's *Let's Move!* Initiative and the Partnership for Healthier America's Drink Up Initiative, which promotes consumption of all water and looks to bottled water companies for partnership and support. When Drink Up was established, the Executive Director Larry Soler made it clear the initiative was not about promoting one type of water—tap, filtered, or bottled—over another. "Every particular company has agreed to only encourage people to drink more water, not focus on what people shouldn't drink, not even talk about why they may feel their type of water is better than another...It's just drink more water."³⁰



Drink Up reports its digital campaign spurred a 4% rise in incremental retail sales of bottled water from October 2, 2014 – December 31, 2014.

It is difficult to encourage consumers to drink more water unless you are providing them with an environment that allows them to buy it as easily as they would a soda or other beverage. Parks banning the sale of bottled water are instructed to provide water filling stations, but there is no evidence that they are all doing so, and no evidence yet provided by the NPS about whether those filling stations are being used or whether park visitors are simply buying other less healthy beverages.

²⁸ <http://www.bottledwater.org/ibwa-applauds-2015-dietary-guidelines-americans-recognizing-water-essential-part-healthy-diet> NOTE: This link does not work.

²⁹ Healthy Parks Health People Press Release, National Park Service (Apr. 14, 2011).

³⁰ <http://news.yahoo.com/first-lady-wants-people-drink-more-plain-water-100616713--politics.html>

It appears from the NPS's FOIA request response that none of the parks that decided to ban bottled water sales have put in place and followed any system for meaningful evaluation.

It is baffling how one policy of an Administration can so directly contradict another. In 2015, the Administration's Drink Up Initiative reported that its marketing campaigns lead to increased consumption and sales of bottled water. "Drink Up's digital campaign spurred a 4% rise in incremental retail sales of bottled water from October 2, 2014 – December 31, 2014."³¹ The Obama Administration's recently released *2015–2020 Dietary Guidelines for Americans* encourages Americans to drink water instead of sugar-sweetened beverages.³² The Guidelines didn't state drink "tap water," just water.

No Evidence of Plastic Waste Reduction Found in This Expensive Experiment

Balancing waste reduction goals and providing a hospitable, safe and healthy environment for park visitors is critical. So too, is balancing the cost of a policy with its benefits. The procedures that individual parks were required to follow if they chose to ban sales of bottled water included "[a] system for annual evaluation of the program, including public response,

visitor satisfaction, buying behavior, public safety, and plastic collection rates."³³ It appears from the NPS's FOIA request response that none of the parks that decided to ban bottled water sales have put in place and followed any system for meaningful evaluation. In fact, in its response to the FOIA request, the responding NPS FOIA officer stated that "[a] search of our Sustainable Practices Report database has found that those parks that have discontinued plastic water bottle sales do not separately report their recycling quantities based on type (plastic, glass, aluminum, paper, etc). As a result they do not have data available to conduct a post-ban analysis."³⁴

Not only is this in violation of NPS procedures, but it ensures that no interested parties—either at NPS or in Congress or watchdog groups—can determine the level of waste in the parks represented by disposable water bottles or detect how bans have changed those amounts in the past five years.

Since the NPS has not made certain data available—and parks have done little if any work to justify their decisions to ban bottled water sales—those in favor of bans have simply doubled down on rhetoric, going to great lengths to obfuscate the facts.

But some facts are available. Thus, it is possible (even with this limited information) to calculate some of the costs and perceived benefits of the bans and to evaluate some of the claims of NPS and ban supporters.

Some Congressional advocates of the NPS policy have claimed that bottled water represents nearly 30 percent of solid waste in the parks; however, this does not appear to be supported by NPS documents.³⁵ These same advocates have also claimed that bottled water represents the single largest source of trash that parks must pay to haul away, with no supporting data for that statement. Neither of those claims can be proven by reviewing the information that the parks provided in response to a public inquiry. Table 2 (on page 13) outlines the type of minimal information that park administrators have been using as a means to justify these bans.

Example: Zion National Park

Zion National Park has taken the use of questionable statistics to the extreme, claiming that it reduced sales of bottled water by 60,000 units per year, and inferring that they were replaced by an increase in sales of 2,100 refillable plastic water bottles.³⁶ This implies that each refillable bottle sold theoretically replaced about 29 bottles of water. According to a study conducted by the park, about 72 percent of visitors in summer months, and over 80 percent of visitors in winter months, stay in the park for only a few hours,³⁷ meaning that about 76 percent of all visitors are day trippers.³⁸ Assuming that visitors' purchases of refillable bottles were indifferent to length of stay, the small number of refillable bottles purchased would suggest that each visitor coming to the park for only a few hours was

³¹ <http://youarewhatyoudrink.org/pdf/drinkup-flyer-2015.pdf>

³² 2015–2020 Dietary Guidelines for Americans, U.S. Department of Agriculture and U.S. Department of Health and Human Services, Jan. 17, 2016. ³³ Op. Cit., National Park Service, Policy Memorandum 11-03, December 14, 2011.

³⁴ Letter from C. Wilson, NPS FOIA Officer, to J. McCall, NCR (Apr. 29, 2015)

³⁵ Public Employees for Environmental Responsibility. Press Release (March 25, 2014)

³⁶ <http://www.nps.gov/sustainability/pollution/2009/zion.html>.

³⁷ Le, Lena, Evans, Jessica, and Steven Hollenhorst, *Zion National Park Visitor Study Summer and Fall 2006*, University of Idaho, http://www.nps.gov/zion/learn/management/upload/ZION_Visitor%20Study_final%20report_2006-2.pdf

³⁸ This represents about 2.1 million of the average 2.8 million visitors who come to the park each year. *Zion National Park*

Visitation: 2005 – 2015, US Department of Interior, National Park Service, at: <http://www.nps.gov/zion/learn/management/upload/ZION-VISITATION-2005-2015-4-2.pdf>

Table 2. Limited Data Made Available By Parks As Part Of Requests To Ban Bottled Water Sales Including Almost No Data On Actual Water Sales

National Park	Plastic Bottles as Percent of Recycling	Recycling as Percent of Waste
Grand Canyon	30	20
Outer Banks Group		30
Colorado National Monument	10	
Pecon National Historical Park	25	
Pueblo Missions National Park	15	

replacing nearly a case of bottled water with a purchase of a refillable bottle.³⁹ This simply does not seem possible.

Due to the overall predominance of day visitors, it is likely that prior to the ban, most bottled water was sold to day trippers, with one bottle being sold for about every 35 visitors. Following the sales ban, the park has been selling about one refillable bottle for every 1,010 day visitors.⁴⁰

The simple fact is that most park visitors did not substitute refillable bottles for bottled water. Rather, they very likely either brought bottled water into the park (as suggested by the Zion analysis) or simply purchased other beverages like soft drinks, teas, or even seltzer. Market research shows that if bottled water isn't available, 63 percent

of consumers will choose soda or another sugar-sweetened beverage—not tap water.⁴¹ In addition, Zion has spent a huge amount of taxpayer money to implement this sales ban. In a report released two years after its sales ban was implemented, Zion claimed that it cost the park over \$149,000 to construct a single water filling station (\$447,200 for three).⁴²

A communications piece from Zion National Park claimed that the sales ban has prevented 5,000 pounds of plastic from entering the waste stream; however, that number is grossly inflated.⁴³ This piece claims that Zion's ban has eliminated about 60,000 bottles of water. For this to correspond to 5,000 pounds of plastic, each empty bottle water container would have to weigh nearly 37.80 grams.

A more realistic weight for bottled water containers for the period (2010 to 2014) would be approximately 9.25 grams.⁴⁴ At this weight, the highest potential reduction in waste that might have resulted from the ban would be much closer to 1,225 pounds. This is equal to just 0.2 percent of the total solid waste generated in the park in a given year.⁴⁵

But even this estimate is grossly over-inflated as it assumes that the 60,000 bottle reduction is a decrease in the number of bottles of water *sold*, not the number of bottles removed from the waste stream. In other words, the figure assumes that no visitors to the park have reacted to the sales ban by bringing their own bottled water with them or by purchasing other bottled beverage products at the parks, like soft drinks or juice. No data have been presented by officials at Zion National Park to account for how consumers have reacted to the ban.

This observation is confirmed by the UVM study conducted by two public health professors cited earlier.⁴⁶ While this study may not be particularly representative of Zion visitors, as they tend to skew toward older age groups, it does show that bottled water sales bans in communities that are at least as “invested in environmental and physical well-being” as the National Park System did not experience an overall reduction in the sale of all bottled beverages when a bottled water sales ban was implemented.⁴⁷

³⁹ Based on bottled water sales per visitor versus refillable bottle sales per visitor.

⁴⁰ Based on reported sales of 2,100 bottles. 2,100 divided by 2,121 million visitors equates to one bottle sold for every 1,010 visitors. Even if say a family of four shared the bottle, the figure would be one refillable bottle for every 253 day visitors.

⁴¹ http://www.nestle-watersna.com/content/documents/pdfs/healthy_hydration_toolkit_march_2015.pdf

⁴² *Analysis of Impacts/effects of the Elimination of Bottled Water Sales in Zion Canyon in Compliance with Directors Order A5623 (0130)*, April 16, 2013, at: <http://www.nps.gov/features/foia/Zion-April-2013-analysis.pdf>. The report does mention that the concessionaire sells a significant number of refillable bottles, but does not provide any information on how these sales might have changed following the implementation of the ban.

⁴³ National Park Service, *Sustainability Success Story: Water-filling Stations at Zion National Park*, April 2012, at: <http://www.nps.gov/sustainability/parks/>.

⁴⁴ *Weight of water bottles decreases, while recycled content increases*, Recycling Today, October 20, 2015, at: <https://www.recyclingtoday.com/article/water-bottle-weight-decreases-recycled-content-increases>.

⁴⁵ *Analysis of Impacts/effects of the Elimination of Bottled Water Sales in Zion Canyon in Compliance with Directors Order A5623 (0130)*, April 16, 2013, at: <http://www.nps.gov/features/foia/Zion-April-2013-analysis.pdf>.

⁴⁶ Berman, Elizabeth and Rachel Johnson, *the Unintended Consequences of Changes in Beverage Options and the Removal of Bottled Water on a University Campus*, *American Journal of Public Health*, July 2015.

⁴⁷ Ibid.

In the UVM case, a ban on the sale of bottled water was associated with an overall increase (Spring Semester over Spring Semester of the prior year) of about 2 disposable bottles per capita. Prior to the sales ban being put in place, about 17.6 percent of beverages sold on campus (or about 4.25 bottles per person) were bottled waters, with the remaining 20 beverages comprised of juices, soft drinks, and milk-based beverages. Before the sales ban, bottled water was the second largest category of beverages sold. Following the ban, bottled water fell to zero units per capita, while seltzer and flavored

waters, for example, rose from 0.18 units per capita to 1.04 units. In other words, about a quarter of the decrease in bottled water sales was made up for by substitution to seltzers or flavored waters.⁴⁸ If this holds for Zion, it would mean that of the 60,000 fewer bottles of water sold, about 15,000 were replaced by sales of seltzer or flavored waters. Again, based on the substitution effects seen in Vermont, most of the remainder (about 31,370 bottles) would be expected to be replaced by purchases of other beverages including soft drinks, teas, juices, and energy drinks.

In fact, as Table 3 (on page 15) shows, it is likely that the reduction in containers is closer to 13,600 bottles overall, through a combination of 5,226 less in sales and the replacement of about 8,400 bottles with reusable bottles.

The NPS did not provide any actual data on this matter in response to IBWA's FOIA request. However, diving down in the numbers, as the review above shows, in the case of Zion, the park most cited by advocates of the ban as a success, based on a reduction of 13,600 bottled water containers, at most only about 278 pounds of plastic was likely removed from the actual waste stream

Zion National Park's math doesn't add up

Math Problem

① Zion says its ban on the sale of bottled water eliminated 60,000 bottles of water, preventing 5,000 lbs of plastic from entering its waste stream.

$$5,000 \text{ lbs} \div 60,000 = 0.08 \text{ lbs/bottle}$$

$$0.08 \text{ lbs} = \underline{36.29\text{g/bottle}}$$

But:

Bottled water containers weigh just 9.25g each* (FACT)

& even soda containers weigh only 23.9g each*

So where did Zion get its 36.29g per bottle figure?

② Beverage Marketing Corp. says:

$$1 \text{ bottle water} = 9.25\text{g}$$

$$60,000 \text{ containers} = 555,000\text{g}$$

$$555,000\text{g} = \underline{1,223 \text{ lbs}} \checkmark$$

NOT the 5,000 lbs Zion claims X

5,000 lbs instead of 1,223 lbs = a 409% exaggeration! *

③ 1,223 lbs = 0.2% of Zion's waste. And since Zion doesn't account for waste due to people choosing other packaged drinks instead of water, the real waste saved is 0!

④ Zion's math → FAIL

* on average
Sources: Beverage Marketing Corporation and National Parks Service
"Sustainability Success Story Water-filling Stations at Zion National Park".

⁴⁸Ibid.

Table 3. Calculated Change In Sales Following Bottled Water Ban In Zion National Park

	Reduction	Gain	Change
Lost Water Sales	60,000		(60,000)
Substitution from Seltzer		15,000	15,000
Substitution from Reusables		8,400	8,400
Substitution from Other Beverages		31,374	31,374
Total	60,000	54,774	(5,226)

(less than 0.05 percent of Zion's waste stream) and equal to about \$80.50 in capital costs per pound of waste diverted.⁴⁹ So even without any actual data available, it is easy to see that, at best, the ban on bottled water in Zion National Park is an expensive experiment.

The construction costs were much lower for drinking fountains in Grand Canyon National Park rather than "filling stations" at Zion, with 10 constructed at a cost of \$288,900, or \$28,890 each.⁵⁰ Again, assuming a 20-year life span for these facilities, the cost per year would be \$14,445 (undiscounted).

Example: Grand Canyon National Park

Grand Canyon was one of the first parks to ban the sale of bottled water for waste management reasons. However, a ban on the sale of bottled water is particularly concerning presently at the Grand Canyon, because according to a statement on the NPS website, (www.nps.gov/grca/planyourvisit/safe-water.htm), there is a drinking

water alert in effect at the park due to the safety of the Colorado River that some visitors might drink from. The website warning states, "While traveling in the backcountry, river running, or hiking, you may need to use water from the Colorado River, side streams, pools, springs, or other sources. There may have been a time when it was safe to use such sources, but no longer. Any untreated water has the potential to cause illness if it is not properly and carefully disinfected."

In fact, instead of being able to buy bottled water at the park, visitors are instructed that:

"Silt particles inhibit disinfection. If the water is muddy or cloudy, allow the particles to settle undisturbed for several hours. Alternatively, add a small amount of a clearing agent such as alum (aluminum sulfate). The suggested dosage for alum is 1/5 teaspoon per gallon. Mix vigorously and allow to sit for five minutes, stirring twice. Once the silt has

settled, either pour the cleared water into another container or draw directly from the top.

Filter the clear water through a minimum of an absolute 1-micron filter or one labeled as meeting American National Standards Institute (ansi/nsf) International Standard #53 for 'Cyst Removal.'

Filtration alone is not sufficient to guarantee safe water. Disinfect the filtered water by adding two drops of household bleach or five drops of tincture of iodine per gallon of water. After addition, allow the water to sit for 30 minutes to give the chemical time to kill any organisms. Very cold water should rest even longer. Another option is to follow the manufacturer's instructions for commercially prepared products.

OR

Bring the cleared water to a rolling boil for one full minute. At elevations above 6500 feet (2000 meters), such as on the canyon rims, increase the boiling time to three minutes.

Treated water must be stored in clean and sanitized containers."

The Grand Canyon Colorado River water alert concludes with the following statement: "While some water-borne illnesses may be mild, individual reactions and responses to disease agents vary. All disease agents can cause severe or life-threatening illness in some people."

⁴⁹ Based on Analysis of Impacts/effects of the Elimination of Bottled Water Sales in Zion Canyon in Compliance with Directors Order A5623 (0130), April 16, 2013, at: <http://www.nps.gov/features/foia/Zion-April-2013-analysis.pdf>

⁵⁰ Grand Canyon National Park Analysis of potential impacts/effects of bottle ban, at: www.nps.gov/grca/learn/management/upload/2012-01analysis-bottle-ban-redacted.pdf

Understanding the origins behind the sales ban support, it is important to note that the Grand Canyon National Park produces much more waste than most comparable parks, like Zion. According to park officials, 900 tons of waste was recycled in the Grand Canyon, of which about 30 percent consists of plastic bottles of all types.⁵¹ Recycled materials account for just 35 percent of all of the park's waste stream, suggesting that 1,671 tons goes to the landfill. The park estimates that half of that should be diverted to the recycling stream, and, if the same 30 percent of that consists of plastic bottles, the total annual bottles disposed of in the park would be about 520.7 tons or 1.041 million pounds. Based on the reduction in plastic at Zion when compared to the total waste stream at the Grand Canyon, a complete ban on the sale of bottled water at the Grand Canyon would reduce plastic waste from bottled water by 2,556 pounds, and cost the park about \$5.65 per pound annually in capital costs alone.⁵²

Data provided from other parks suggest that the annualized costs for water filling stations include the following: Colorado National Monument (\$500), \$100 a year for Pecos National Historic Park, \$2,250 for Salinas Pueblo Missions National Monument, and \$500 for Timpanogos Cave National Monument. None of these parks provided any data that can be used to determine the cost per pound of constructing or operating these facilities.

This is probably the main reason why officials in those parks that have decided to ban the sale of bottled water have not done much work to justify



Example of Drinks Offered at Grand Canyon National Park. Although single-serve bottled water is not offered for sale to visitors at the Grand Canyon National Park, visitors can still purchase these sugar-sweetened beverages, which are also packaged in plastic.

their decision. The numbers made public are confusing and contradictory. Rather than conducting the analysis required, those operating the parks have simply failed to provide information and supporters have relied on rhetoric and have gone to great lengths of obfuscate the facts.

Recycling Efforts Should Be the Focus

Those ideologically opposed to bottled water and other advocates of the sales ban efforts unfortunately have misrepresented the position of industry and others who have raised concerns about the NPS policy, suggesting that they aim to prevent the NPS from enacting robust recycling programs. In fact, no one has suggested that the NPS be prevented from improving recycling programs or even from installing water filling stations. To the contrary, there

should be widespread agreement that improving recycling efforts—for all food and beverage waste, regardless of whether purchased inside or outside the parks—makes sense. In fact, the NPS appears not to want to discuss how to improve overall recycling efforts with the industry. IBWA requested a meeting with the NPS to discuss this matter on April 23, 2015, and is still awaiting a response.

All bottled water containers are 100-percent recyclable. According to the National Association for PET Container Resources (NAPCOR), the recycling rate for single-serve polyethylene terephthalate or PET plastic bottled water containers has more than doubled in the last nine years.⁵³ The industry uses less plastic in its bottled water containers than any other plastic beverage packaging, and plastic bottled water containers are the most frequently

⁵¹ Ibid.

⁵² Based on the discounted annual capital cost of \$14,445 divided by 2,556 pounds of plastic waste.

⁵³ <http://www.bottledwater.org/education/recycling/pet-facts>

recycled PET plastic beverage container in curbside recycling programs. Additionally, bottled water containers, measured in tons of landfill space, make up just 3.3 percent of all beverage containers that end up in landfills. The waste percentage numbers are much higher for the glass (66.7 percent), aluminum (7.9 percent), and soda bottles (13.3 percent) that end up in landfills.⁵⁴

Overall in the United States, 1.28 billion pounds of plastic were recycled in 2014, 27 percent more than in the previous year.⁵⁵ This is the kind of behavior that should be supported by the NPS if it wishes to encourage visitors to take care of the parks for the future.

The NPS should be focused on promoting responsible environmental stewardship and encouraging visitors to carry out what they carry in no matter what they may purchase in the parks.

NPS policy initiatives functioning in a federal system should be applied in a uniform and consistent fashion. They should be focused on promoting responsible environmental stewardship and encouraging visitors to carry out what they carry in no matter what they may purchase in the parks. The NPS should actively promote recycling in the parks for the purpose of protecting the environment and ensuring the best visitor experience.

Wasting resources and time singling out one product for discriminatory treatment and arbitrary sales bans is simply not productive.

There Is No Good Government Reason for NPS Policy to Discriminate Against Bottled Water

When critics decry the use of bottled water on the basis of how much of the packaging ends up in landfills, or worse, as litter, the false inference is that there is no acceptable solution other than a ban on the sale of bottled water. While it's true that bottled water is packaged in plastic, it's just as true that other consumer products in the NPS waste stream are also made of plastic. Bottled water bottles are not the largest percentage of plastic products in U.S. landfills. And bottled water uses less plastic than other packaged beverages.

Federal park policy should not be dictated by the whims of a few individual administrators or from activist groups publishing propaganda in a few articles in daily newspapers. The mission of the NPS as set forth in the Organic Act of 1916 provides not just for the conservation of the parks' environment but also for public visitation and enjoyment—"to conserve the scenery and the natural and historic objects and the wild life therein and to provide for the enjoyment of the same in such manner and by such means as will leave them unimpaired for the enjoyment of future generations."⁵⁶

If the NPS was instituting rational government policies, it would not be basing its sustainability actions on symbolism and indiscriminately declaring one consumer product the villain in its war on litter. The NPS would be focusing on promoting recycling, teaching visitors to bring out what they bring into the parks, and developing a comprehensive policy of preservation and park enjoyment for visitors. Ending this illogical bottled water sales ban policy is particularly important as the NPS celebrates its centennial and looks to encourage more visitors to come and treasure its natural wonders for another one hundred years.

Those who have studied and thoughtfully considered this issue from the standpoint of promoting good government policy have concluded that the NPS policy and bans on bottled water sales are ill-advised. As an example, the well-respected government watchdog group Citizens Against Government Waste (CAGW) published an article criticizing the sales ban policy in *WasteWatcher*, the organization's monthly dispatch to CAGW members and the news media.⁵⁷ As part of its own examination of the policy, CAGW requested from the NPS any analysis on how the parks' policy of banning the sale of bottled water has worked since its implementation in 2011. While an NPS spokesperson said that the agency undertakes a yearly analysis on waste disposal and recycling, CAGW could not find any analyses from the years since the policy was implemented nor were any offered by the NPS spokesperson.⁵⁸

⁵⁴ Bottled Up (2000-2010): Beverage Container Recycling Stagnates, Container Recycling Institute (2013).

⁵⁵ 2014 National Postconsumer Plastic Bag & Film Recycling Report, American Chemistry Council (January 2016).

⁵⁶ 16 U.S.C. § 1.

⁵⁷ Citizens Against Government Waste *WasteWatcher* (Nov. 2015).

⁵⁸ *Ibid.*

"Instead of banning the sale of bottled water, [NPS] should help lead efforts to educate their community to recycle all their plastics, as well as glass and aluminum."

– Citizens Against Government Waste

In its critique, CAGW noted:

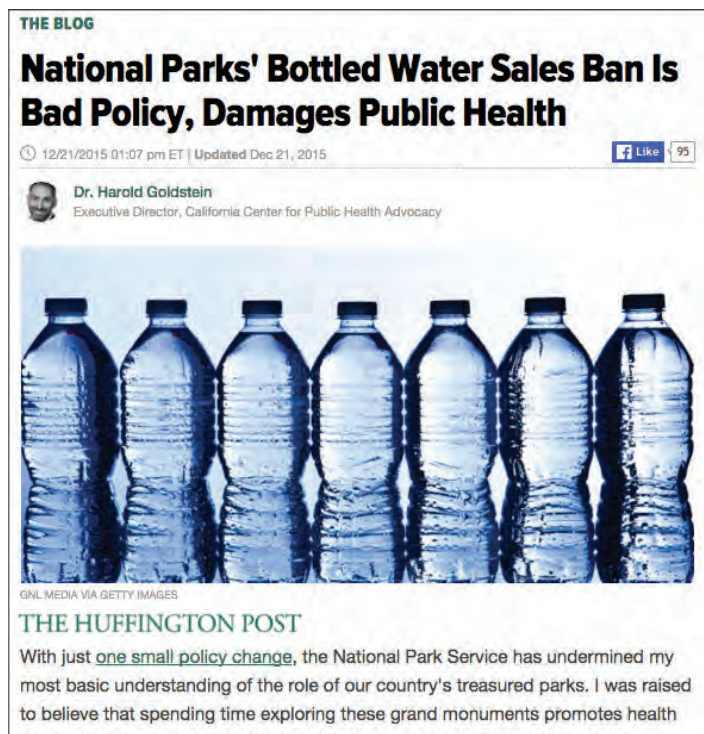
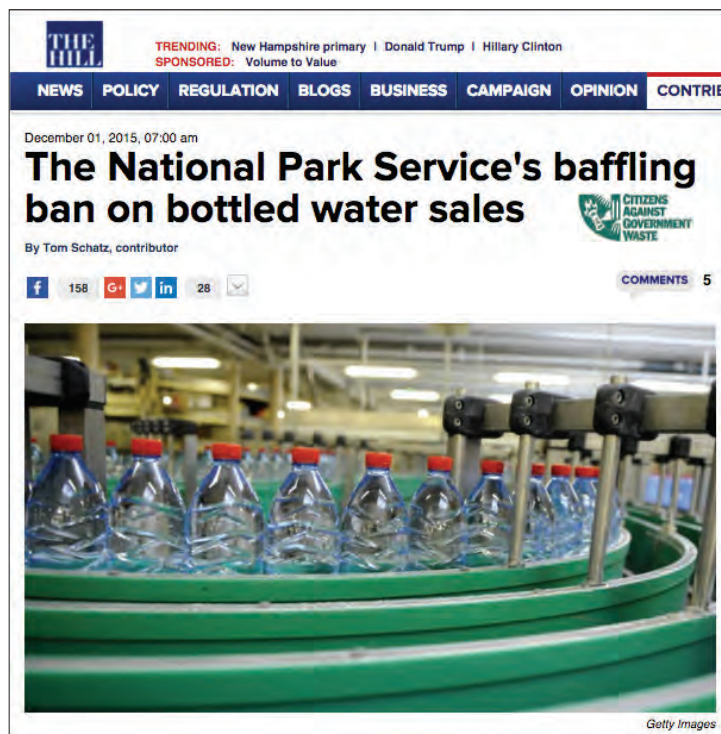
"So why is the NPS promoting a policy that allows bans on the sale of bottled water but not other beverages sold in plastic bottles? The most likely reason is that buying bottled water is considered

by some to not be 'politically correct.' Many proponents of a ban may believe bottled water is a waste of money, and wish to force their values on everyone else. Perhaps as Director Jarvis noted it is for 'symbolism'. They exclaim that tap water is free. Of course, anyone who pays water bills (including the taxpayers who fund the public water filling stations in national parks), know that is not true. Others are rightfully concerned about waste disposal. But, instead of banning the sale of bottled water, they should help lead efforts to educate their community to recycle all their plastics, as well as glass and aluminum

containers, no matter what food product it once held."⁵⁹

Reviewing all available evidence and rhetoric, if you measure the NPS justifications for singling out bottled water for a sales ban against the reasoning laid out in the NPS Policy Memorandum restated below and examined in this report, the results just don't measure up.

"Such a policy will allow the NPS and park partners to reduce their environmental footprint, introduce visitors to green products and the concept of environmentally responsible purchasing, and give them the opportunity to take that environmental ethic home and apply it in their daily lives."



Support Increases for End to NPS Bottled Water Sales Ban Policy. Tom Schatz, president of Citizens Against Government Waste (CAGW), expressed his concern with the ban in an article published in *The Hill*. In addition, the *Huffington Post* published an article by Dr. Harold Goldstein, executive director of the California Center for Public Health Advocacy (CCPHA), in which he criticized the ban stating, "Apparently the Park Service sees plastic as a menace only when it carries healthy hydrating water."

⁵⁹ <http://cagw.org/media/wastewatcher/baffling-ban-selling-bottled-water>

Conclusion and Recommendations

Although advocates of the NPS bottled water sales ban policy continue to claim that such bans have led to dramatic reductions in the waste stream, that just isn't true. To date, the park units and the NPS have failed to provide information to the public on the waste situation in parks that have banned the sale of bottled water and other impacts of the bans. Congressional or Administration action should overturn Policy Memorandum 11-03 as discriminatory and ineffective.

In fact, in response to a FOIA request, the NPS acknowledged that parks that have discontinued the sale of plastic water bottles do not have the

Congress should direct the NPS to develop an effective and fair recycling program that is uniform, consistent, and comprehensive.

data available to conduct any post-ban analysis because they do not report separately on their recycling quantities based on the type of material. This is despite the fact that the NPS policy requires that parks that ban bottled water sales prepare an annual evaluation, "including public response, visitor satisfaction, buying behavior, public safety, and plastic collection rates," and that the agency monitor and periodically revisit the policy to determine whether a change in the policy is desirable or necessary.

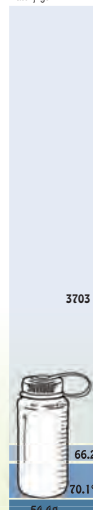
- As a result, it is not clear whether or to what extent the sales bans may be reducing waste or, for that matter, having adverse impacts on public health and safety. Health, nutrition and consumer watchdog groups, along with Congressional leaders, have expressed serious concerns about the bottled water sales ban policy. A thorough examination and re-assessment of health, public safety, economic and waste management impacts of the policy to date should be conducted by the DOI's Office of Inspector General.
- Congress should direct the NPS to develop an effective and fair recycling program that uniformly, consistently, and comprehensively addresses the issues of waste disposal and/or littering of all products sold or brought into all the parks.

Re-think Your Drink Packaging & ALWAYS Recycle!

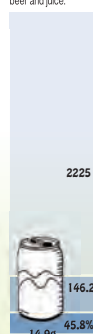
Did you know almost 70% of what people drink these days comes in a package?

Nearly all drink containers are easily recyclable, yet 10 million tons were not recycled last year. And despite what some people hear about bottled water containers filling up landfills, PET bottled water containers make up only a small percent of all drink packaging that isn't recycled. Here's a look at the environmental impact of the eight most common drink packages.

HDPE
Common containers: Nalgene, juice, milk & water jugs.



Aluminum Can
Common drinks: soda, beer and juice.



The 8 most common DRINK packages
(in order of overall environmental impact, from most to least*)

Glass
Drink containers: soda, beer & wine bottles.



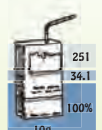
PET Plastic (carbonated drinks)
Same as bottled water but weighs more due to strength demands of carbonation.



Cable Top Carton
A layer of cardboard sandwiched between two very thin layers of plastic.



Aseptic Box
Made from multiple laminated layers: plastic, paper & foil.



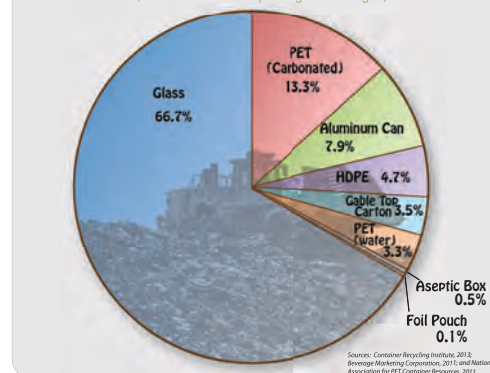
Foil Pouch
Multiple layers of different types of plastics and aluminum all laminated together.



PET Plastic (bottled water)
Stands for "polyethylene terephthalate" - a form of polyester.



Drink Packaging in U.S. Landfills (in tons as a % of all packaged beverages)



Sources: Container Recycling Institute, 2013; Beverage Marketing Corporation, 2011; and National Association for PET Container Resources, 2011

Legend

- BTUs / container - BTUs are British Thermal Units, a unit for measuring energy use. Figures show how many BTUs are used to make one container - averaged from all sizes within container type.
- Metric Tons of CO₂ equivalent / 1,000,000 containers - The amount of greenhouse gases emitted by producing 1,000,000 containers.
- Percentage of packaging "landfilled" instead of recycled. Not all beverage packaging is recyclable.
- Packaging weight in grams (average weight for a single serve container)

BOTTLEDWATERMATTERS
www.bottledwatermatters.com

Sources: U.S. Department of Agriculture (Food Surveys Research Group), Container Recycling Institute, PET Bottle Association, Beverage Marketing Corporation, National Association for PET Container Resources, International Bottled Water Association, Plaster AK, waste360.com, Recycle USA Inc., and the Glass Packaging Institute
* Using 2010 data

Appendix: Policy Memorandum 11-03



United States Department of the Interior

NATIONAL PARK SERVICE

1849 C Street, N.W.
Washington, D.C. 20240

IN REPLY REFER TO:

A5623 (0130)

DEC 14 2011

To: Regional Directors

From: Director *Janet L. Janus*

Subject: Recycling and Reduction of Disposable Plastic Bottles in Parks

The National Park Service has set very high standards to:

- reduce our carbon footprint and increase the sustainability of all parks
- look holistically at alternative fuels, vehicle fleet size and type
- convert lighting to reduce energy use and preserve the night sky
- recycle, compost, and use renewable energy sources (where appropriate)
- set LEED silver as the minimum standard for new construction

More than 100 parks have conducted climate friendly parks assessments. Most recently, we have begun efforts to increase choices for healthy and sustainable foods in our concessions facilities. A key element of *A Call to Action* is to “Go Green.” You can see some of these actions online at <http://www.nps.gov/sustainability/>.

Sustainability is a signature effort for the National Park Service. We must be a visible exemplar of sustainability, so it is important that we move our sustainability program forward as an *organization*. While superintendents need some discretion to tailor implementation to local situations, it is not the purview of any one park to set policy.

The heart of our sustainability program is our comprehensive Green Parks Plan (GPP). The GPP will address water and energy use, green house gas emissions, reduction of waste streams, construction practices, as well as other issues, and sets goals that we will reach by 2016. The GPP is undergoing final review and will be released early next year.

In light of recent interest in one element of the GPP, we are issuing the attached specific policy on the reduction/recycling of disposable plastic water bottles. It allows superintendents to halt the sale of these bottles if they (1) complete a rigorous impact analysis including an assessment of the effects on visitor health and safety, (2) submit a request in writing to their regional director, and (3) receive the approval of their regional director.



United States Department of the Interior

NATIONAL PARK SERVICE

1849 C Street, N.W.

Washington, D.C. 20240

IN REPLY REFER TO:

A5623 (0130)

DEC 14 2011

Policy Memorandum 11-03

To: Regional Directors

From: Director *Jonathan B. Jarvis*

Subject: Disposable Plastic Water Bottle Recycling and Reduction

A. Background

When considered on a life-cycle basis, the use of disposable plastic water bottles has significant environmental impact compared to the use of local tap water and refillable bottles. These impacts may be magnified in remote national parks because of the additional transportation, waste disposal, energy use, and litter removal factors inherent in these locations.

The issues surrounding plastic water bottles are complex. Banning the sale of water bottles in national parks has great symbolism, but runs counter to our healthy food initiative as it eliminates the healthiest choice for bottled drinks, leaving sugary drinks as a primary alternative. A ban could pose challenges for diabetics and others with health issues who come to a park expecting bottled water to be readily available. For parks without access to running water, filling stations for reusable bottles are impractical. A ban could affect visitor safety; proper hydration is key to planning a safe two-hour hike or a multi-day backcountry excursion. Even reasonably priced reusable water bottles may be out of reach for some visitors, especially those with large families.

For these reasons, the National Park Service will implement a disposable plastic water bottle recycling and reduction policy, with an option to eliminate sales on a park-by-park basis following an extensive review and with the prior approval of the regional director.

Such a policy will allow the NPS and park partners to reduce their environmental footprint, introduce visitors to green products and the concept of environmentally responsible purchasing, and give them the opportunity to take that environmental ethic home and apply it in their daily lives. It will also be a significant step in reducing our carbon footprint and meeting *A Call to Action* Goal #23, Go Green.

B. Policy and Requirements

Recycling: Parks are strongly encouraged to have a robust recycling program. The plastics found in disposable water bottles are fully recyclable, and parks should have ample and well designed, distributed, and marked collection facilities. The work of collecting, sorting, and

transporting recyclables from parks to regional recycling centers may not always “pay for itself,” but it is still the right thing to do.

Reduction: Parks are strongly encouraged to reduce the sale of disposable plastic water bottles through visitor education on the environmental impact of purchasing decisions and the availability of reasonably priced reusable bottles which can be filled at water fountains or bottle refill stations.

Elimination: Where appropriate, superintendents may request approval from their regional director to eliminate the sale of water in disposable plastic bottles by analyzing and addressing the following factors—in writing:

- Amount of waste eliminated and pros/cons to overall park operations
- Infrastructure costs and funding source(s) for filling stations
- Contractual implications on concessioners, including considerations of new leaseholder surrender interest or possessory interest
- Operational costs of filling stations including utilities and regular public health testing
- Cost and availability of BPA-free reusable containers
- Effect on concessioner and cooperating association sales revenue
- Availability of water within concession food service operations
- Visitor education in the park and online so that visitors may come prepared with their own water bottles
- Results of consultation with NPS Public Health Office
- A sign plan so that visitors can easily find filling stations
- Safety considerations for visitors who may resort to not carrying enough water or drinking from surface water sources with potential exposure to disease
- A system for annual evaluation of the program, including public response, visitor satisfaction, buying behavior, public safety, and plastic collection rates
- Results of consultation with concessioners and cooperating associations
- Timeline of phase in period

Education: Parks must develop a proactive visitor education strategy that addresses visitor expectations and explains the rationale for whatever plastic bottle reduction, recycling, or elimination effort is implemented.

Disposable plastic bottle recycling, reduction, or elimination decisions should be implemented at all applicable operations so there is consistency throughout the park and parity from one operation to the next. These procedures should be incorporated into the concessioner operating plan, cooperating association scope of sales, and other organizations operating within the park.

C. Existing Activities

Parks that have already successfully implemented programs to install refill stations and eliminate the sale of disposable plastic beverage containers may continue, but must address the above factors—in writing—to their regional director, including a system for annual evaluation.

D. New Concession Contracts

With the approval of the regional director and after conducting the analysis described above, parks may prohibit the sale of disposable water bottles as a term of a new concession contract.

E. Monitoring and Continuous Improvement

This policy will be monitored to determine its park and Servicewide environmental impact, visitor welfare, acceptance, and support, and effects on concessioners and cooperating associations. The NPS will also continue to reach out to producers and suppliers and the scientific community to gather information on environmental impacts, new technologies and industry best practices and may pilot new ideas where appropriate. The disposable water bottle alternatives strategy will be revisited periodically based on these data to determine if a change in the strategy is desirable or necessary.

F. Limitation

This policy is intended only to improve the internal management of the NPS, and is not intended to, and does not, create any right or benefit, substantive or procedural, enforceable at law or equity by a party against the United States, its departments, agencies, instrumentalities or entities, its officers or employees, or any other person.

G. Related Policies

This policy supplements other policies relating to environmental leadership, waste reduction, and recycling, particularly those found in sections 1.8, 9.1.6, and 10.2.4.5 of *Management Policies 2006*.

H. Further Information

For information on this policy or other tools and resources, please contact Kurt Rausch, Commercial Services Program at 202-513-7202 or Shawn Norton, Park Facility Management Division at 202-354-1835.

-----End of Policy Memorandum-----

Appendix: Listing of Documents Provided In Response to FOIA Request

Memoranda, emails, and other documents relating to the implementation of the ban at Grand Canyon National Park and the development of a Service-wide policy on bottled water sales from 2010 and 2011. These other documents include, among other things, a four page survey of Park units in the Intermountain Region on their disposable water bottle sales policies, titled “IMR summary of YIP Sustainability Internship findings – *disposable water bottles*,” as well as a January 2010 memorandum on plastic water bottles in National Parks and the Green Parks Plan.

Copies of requests for approval to eliminate the sale of water in disposable plastic bottles, with concurrences from the relevant regional directors, and supporting documents on “Analysis of Potential Impacts/Effects of Bottle Ban,” for the following park units: Grand Canyon National Park; Timpanogos Cave National Monument; Mount Rushmore National Memorial; Petrified Forest National Park; Outer Banks Group; Pecos National Historical Park; Colorado National Monument; Salinas Pueblo Missions National Monument; and Bryce Canyon National Park.⁶⁰

A 2013 Memorandum from the Superintendent, Zion National Park to the Regional Director, Intermountain Region, on “Analysis of the Elimination of Sales of Water in Individual Disposable Containers.” Bottled water sales were eliminated at Zion National Park prior to the NPS policy. This memo was submitted in response to the policy’s requirement that “Parks that have already successfully implemented programs to install refill stations and eliminate the sale of disposable plastic beverage containers may continue, but must address the above factors – in writing – to their regional director, including a system for annual evaluation.” The memo explained that, “Even with the elimination of the sale of water in individual disposable containers, Zion National Park still sees a large amount of single-use plastic bottles in the waste stream. Over 60% of the plastic recycled in Zion by weight is plastic bottles, as well as 3% of landfilled waste.” This documents similar procedures as did Grand Canyon with regard to a system for annual evaluation.

Copies of the documents that already had been provided in the partial response for Bryce Canyon National Park and Salinas Pueblo Missions National Monument.

⁶⁰ For example, Grand Canyon’s Analysis document states, with respect to a system for annual evaluation:

On an annual basis the park would monitor and collect the following data:

- Visitor satisfaction/public response by using the visitor comment forms – log in complaints/compliments (Public Response and Visitor Satisfaction).
- PSAR/Canyon District - staff will continue to track incidents/contacts related to water availability and dehydration (Public Safety).
- Safety Officer/NPS Public Health Representative will keep a log of any safety issue related to water availability. (Public Safety).
- Concessions will track sales with Xanterra, DNC and Forever (Buying Behavior).
- Interpretation will track sales with GCA (Buying Behavior).
- Maintenance will track collection rates with input from our contracted carrier (Collection Rates).

A position in the park will be designated as the “project manager” to collect all of the data and evaluate the data on an annual basis.

"A policy that allows bottled sugar water (soda), but not healthy bottled water, to be sold at our National Parks doesn't make sense."

— Margo Wootan, DSc,
Director of Nutrition Policy,
Center for Science in the
Public Interest (CSPI)

"It does not make sense to ban the sale of bottled water while allowing other packaged beverages to be sold. It would be better for the NPS to provide plenty of waste receptacles large enough to collect all bottles and educate park visitors on the need to properly recycle. . . ."

— Tom Schatz,
President of Citizens Against
Government Waste

"The ability of banning bottled water by allowing Gatorade and Coke cans, and all the other stuff in [National Parks], does not make a whole lot of sense, and it does not deem well for what we are looking at in the future. That's an issue you gotta look at. I'm sorry, this is silly."

— Committee Chairman Rob Bishop (R-UT),
House Committee on Natural Resources

Stated during December 2, 2015, hearing of the House Natural Resources Subcommittee on Federal Lands on the "National Park Service Centennial Act"

Strap on your hiking boots and bring a thirst for soda!

Some National Parks won't let you buy bottled water
if you didn't bring your own.



A National Park Service policy allowing parks to ban the sale of bottled water in an effort to reduce plastic waste may seem like it has good intentions; however, research shows that banning the sale of bottled water **actually increases the number of plastic bottles entering the waste stream** and increases consumer consumption of less-healthy bottled beverages.*

* "The Unintended Consequences of Changes in Beverage Options and the Removal of Bottled Water on a University Campus," *American Journal of Public Health*, May 2015.

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ASSOCIATION