

REPORT / RECOMMENDATION



To: Park Board

Agenda Item #: VI.D

From: Ellen Jones, Park Board Member

Action

Date: Tuesday, Sept. 8, 2015

Discussion

Subject: Bottled Water

Information

Action Requested:

Park Board is asked to act on a motion to have the city no longer provide water bottles at Park Board meetings and workshops. The Park Board is also asked to consider whether it should suggest to the Energy and Environment Commission to consider adding the creation of a bottled water policy for Edina's municipal buildings and city sponsored functions to their work plan. This could be a collaboration with the Park Board.

Information / Background:

One of the Park Board's six Guiding Principles is:

"Advance environmental stewardship and conservation to preserve and protect natural resources and build excellence through sustainability."

Currently, the City of Edina provides bottled water for the Park Board at the four meetings that are televised each year and at some workshops. While not providing water bottles at Park Board meetings and workshops will not have a significant impact on the environment, or the park budget, it will reduce waste and cost. The approval of these motions should raise awareness and inspire further environmental stewardship through potential further action. Park Board approval of these motions will also enable Park Board members and staff to model economic and environmentally sustainable behavior. It will also show that Edina's tap water is perfectly fine.

This proposal is not aimed at preventing people from bringing their own bottled water to meetings. However, Park Board members are encouraged to bring their own refillable water bottles to meetings if water is desired. If feasible, a pitcher of water and glasses could be made available.

Many governing bodies have already concluded that the negative environmental and economic effects of bottled water warrant a ban. Large municipalities such as San Francisco, Toronto, and Vancouver, as well as smaller cities such as New Haven, Conn., Brookline and Concord, Mass. have passed bottled water bans. Over 60 schools have taken action, large college campuses such as the University of Wisconsin - Madison, as well as smaller campuses such as Harvard, Princeton, Northwestern, and Macalester have passed bottled water bans. About two dozen National Parks have banned sales of bottled water, including the Grand Canyon, Zion, Cape Hatteras in North Carolina and Mount Rushmore. It is reported that Zion

has made more money from selling refillable bottles than it lost in bottled water sales. The Park Service states that initial feedback indicates that there is less plastic litter in the parks since the ban was instated.

"Why is bottled water a concern? Here are just a few reasons....

- Making bottles to meet America's demand for bottled water uses more than 17 million barrels of oil annually, enough to fuel 1.3 million cars for a year. And that's not even including the oil used for transportation.
- The energy we waste using bottled water would be enough to power 190,000 homes.
- Last year, the average American used 167 disposable water bottles, but only recycled 38.
- Americans used about 50 billion plastic water bottles last year. However, the U.S.'s recycling rate for plastic is only 23 percent, which means 38 billion water bottles -- more than \$1 billion worth of plastic -- are wasted each year.
- The recommended eight glasses of water a day, at U.S. tap rates equals about \$.49 per year; that same amount of bottled water is about \$1,400.
- Antimony, which is found in PET plastic bottles, in small doses can cause dizziness and depression; in larger doses it can cause nausea, vomiting and death.

Many people drink bottled water because they believe it to be of a higher quality, cleaner and better-tasting, but that's not necessarily true.

- In the U.S. 24 percent of bottled water sold is either Pepsi's Aquafina (13 percent of the market) or Coke's Dasani (11 percent of the market). Both brands are bottled, purified municipal water.
- In the U.S. public water is regulated by the Environmental Protection Agency (EPA), which requires multiple daily tests for bacteria and makes results available to the public. The Food and Drug Administration, which regulates bottled water, only requires weekly testing and does not share its findings with the EPA or the public." (from the Ban the Bottle website).

Also:

- Bottled water is expensive: a gallon of water sold in bottles can cost more than a gallon of gas; refilling a 16-ounce reusable water bottle from the tap costs less than one penny. 1,2
- Bottled water is not safer than tap: municipal tap water undergoes much more rigorous and frequent testing than bottled water. 2,3
- Bottled water wastes water: it takes three liters of water to make approximately one liter of bottled water. 4
- Disposable water bottles are wasteful: a half-billion water bottles are consumed each week in the U.S. - that's enough to circle the globe five times; 80% of those empty plastic water bottles end up in landfills and water sources.

[1] http://www.earth-policy.org/index.php/?plan_b_updates/2006/update51 [2] http://www.a2gov.org/government/publicservices/water_treatment/Pages/A2H2OTapWater.aspx [3] http://www.epa.gov/safewater/wot/pdfs/book_waterontap_full.pdf [4] http://www.pacinst.org/topics/water_and_sustainability/bottled_water/bottled_water_and_energy.html [5] http://water.columbia.edu/?id=learn_more&navid=bottled_water

The National Parks Service has this on their website:

Did you know that disposable plastic bottles comprise an estimated **20%** of Grand Canyon's waste stream and **30%** of the park's recyclables? (*Deirdre Hanners, Grand Canyon National Park's Environmental Specialist*)

As a Climate Friendly Park, Grand Canyon National Park's staff, partners and stakeholders have made a commitment to take a leadership role in reducing greenhouse gas emissions and educating the public about what they can do to reduce their impacts on the park. In order to reduce plastics in the park's waste stream, litter along trails and walkways and green house gas emissions, Grand Canyon National Park will soon be eliminating the sale of water packaged in individual disposable containers and encourages everyone to **reduce, reuse, refill!**

Grand Canyon National Park has eliminated the sale of water packaged in individual disposable containers including plastic bottles.

Attachments:

Letter from United States Department of the Interior

Grand Canyon National Park Analysis of potential impacts/effects of bottle ban

Request for approval to eliminate the Sale of Water in Individual Disposable Containers



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 *Janatha S. 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-----

Grand Canyon National Park

Analysis of potential impacts/effects of bottle ban

1. Amount of waste eliminated and pros/cons to overall park operations

By volume, Grand Canyon National Park (GRCA) could eliminate up to 30% of what is currently recycled and up to 20% of the park's overall waste stream. GRCA custodial staff and Norton Environmental (the park's recycling contractor) agree that disposable plastic bottles (all bottles, not just water) comprise about 30% of the park's recyclables, **by volume**. In fiscal year 2010, the park recycled more than 900 tons.

Pros:

- Decreases in plastics going to the landfill (although about 35% of the park's waste stream is currently diverted to be recycled, it is estimated by the waste management staff that about 50% of what is taken to the landfill could also be recycled).
- Decreases in monetary costs to any visitor who would have purchased more than one bottle of water within the park; and if our education efforts are successful, visitors may save additional money as they continue to refill their reusable bottles after they leave the park.
- Savings of resources used and Green House Gases (GHCs) released during the transportation of waste and recyclables and during the recycling process.
- Decreases in litter associated with disposable bottles along both inner canyon and rim trails as well as below the rim. (Per NPS custodial/waste management staff, plastic bottles (and associated litter) are one of the top two sources of litter along rim trails).
- Decreases in risk to park staff and volunteers as below the rim litter removal can require technical skills and increased risk.
- Reduces risk of plastic bottle ingestion. Birds, rodents, and larger mammals are known to be attracted to plastic bottles. Thinking there is food/water inside, animals chew and inadvertently swallow plastic pieces. It is well documented that ingested plastic can become lodged in throats and choked on and/or accumulates and creates blockages in digestive tracks.
- Diminishes release of toxic chemicals such as bisphenol A (BPA). Toxins leached from plastics are known to have negative effects on wildlife.

Cons:

- Bottled water is a high profit margin item for the park concessioners and partners. If reusable bottle sales (lower profit margin) do not make up for this, concessioners and partners could incur some financial loss. (See #6 for additional analysis).
- Some people perceive a risk to visitors of dehydration. (Bottled water is a relatively recent retail innovation and this concern had been well addressed before its advent. Water filling stations have been placed at primary trailheads and reusable bottles starting at prices just a few cents above the cost of one bottle of water are being sold in retail outlets throughout the park. With these, water is now more readily available at the Hermit, Bright Angel and North/South Kaibab Trailheads, as well as along the most visited portions of the Rim Trail than it ever was before).
- As GRCA encourages visitors to use the park's water, the annual turbidity event (spring runoff) could pose perception issues regarding safety of water. (We are placing information on this in the spring Guide and have begun discussions on the need for informational signs at the filling stations during this event each year).

2. Infrastructure Costs and funding source(s) for filling stations

Grand Canyon National Park began construction of ten new water filling stations in FY 2010, and all were completed in FY 2011. Total construction cost was \$288,900. Funding sources included concessions franchise fees and base funding received from Intermountain Region Office (IMRO) at the end of FY 2010. Park concessioners have also installed three additional water bottle fillings stations and adapted various water fountains to allow for reusable water bottle filling.

3. Contractual implications on concessioners, including considerations of new leaseholder surrender interest or possessory interest

Sec 3(d) of the concessions contracts for Xanterra South Rim, LLC (Xanterra), Grand Canyon North Rim, LLC. (Forever Resorts), and Sec 2(b) of the concessions contracts for DNC Parks and Resorts at Grand Canyon, Inc. (DNC) states: "The Director reserves the right to determine and control the nature, type and quality of the visitor services described in this Contract, including, but not limited to, the nature, type and quality of merchandise, if any, to be sold or provided by the concessioner within the Area."

Xanterra is the park's biggest seller of bottled water and their initial contract term was set to expire on December 31, 2011. The concessioner is under a one year amendment set to expire on December 31, 2012. DNC is under the final year of the current contract which is set to expire on December 31, 2012. Forever Resorts contract expires on December 31, 2017.

DNC has installed two water filling stations and Xanterra has installed one filling station in the Maswik Cafeteria.

All concessioners have been involved in the discussions of removal and are supportive of discontinuance of bottled water sales.

4. Operational costs of filling stations including utilities and regular public health testing

The park estimates that it will spend about \$85 a year on each filling station, which includes switching their operation from fall/winter to winter/spring and water quality sampling. With a total of 10 stations, that is a total of \$850 per year.

5. Cost and availability of BPA-free reusable containers:

The lowest priced reusable bottle is sold by DNC and it is \$1.99; and is BPA-free. All concessioners and cooperators sell a variety of BPA-free, reusable, souvenir bottles at a range of prices. Bottled water in the park starts at approximately \$1.49 per bottle.

6. Effect on concessioner and cooperating association sales revenue

Sales information for our South Rim concessioners and our cooperating association are provided below. Our belief, which is supported by the following GCA data, is that concessioners will not have a substantial loss in gross sales revenue as the individual plastic water bottle sales will be replaced by reusable water bottle sales.

DNC

DNC has two outlets within the park (Market Plaza and Desert View) and they have installed water filling stations within these facilities. They continue to sell bottled water and in addition have sold xxx refillable water bottles year to date (YTD). They do not know how many people have brought in their own bottles to be filled. They provide signage on the doors of the facilities directing guest to the filling stations. Currently DNC has two vending machines at the visitor center and bottled water is available from the machines.

Chart Removed

Xanterra

Xanterra is the largest provider of bottled water in the park. According to their records, Xanterra has seen sales for bottled water flatten out in the last three years. Within the last year, they have also seen an increase in the number of reusable water bottles being filled and a decrease in the sales of bottled water. This trend was noticeable prior to construction of the water filling stations. Xanterra does have twenty-eight vending machines around the facilities; and bottled water is available from four of these machines.

Below is the 3-year trend that Xanterra has seen in the sale of bottled water and water bottles:

Chart Removed

Grand Canyon Association

GCA has seven retail outlets within GRCA. All of the retail outlets began selling bottled water in April 2007. The association, with the approval of their Board of Directors, voluntarily discontinued the sale of bottled water in June 2011. The following is a summary of their **bottled water sales**:

| Qty Sold | Total Sales | |
|----------------|----------------------|--------------------|
| 33,628 | \$ 50,154.91 | 2007 Total |
| 41,012 | \$ 60,529.04 | 2008 Total |
| 35,941 | \$ 53,823.47 | 2009 Total |
| 39,734 | \$ 77,580.64 | 2010 Total |
| <u>9,898</u> | <u>\$ 19,406.15</u> | <u>2011 Total</u> |
| 160,213 | \$ 261,494.21 | Grand Total |

The following is a summary of the **water bottle sales** by GCA for 2010 and 2011 (May 1st to November 7th)

| Description | 2010 | | 2011 | |
|---------------------------------------|--------------|---------------------|---------------|----------------------|
| | Qty Sold | Total Sales | Qty Sold | Total Sales |
| Bottle Stainless Steel 20 oz Total | 35 | \$ 554.85 | 362 | \$ 3,938.78 |
| Bottle Stainless Steel 25 oz Total | 2,774 | \$ 46,278.57 | 4,118 | \$ 61,609.64 |
| Flip Top Stainless Bottle Total | 0 | \$ - | 13 | \$ 201.92 |
| Bottle Recycle Refill 18 oz Total | 0 | \$ - | 2,984 | \$ 11,815.57 |
| Bottle Recycle Refill 27 oz Total | 0 | \$ - | 2,986 | \$ 17,746.43 |
| Bottle Geologic Cross Section Total | 0 | \$ - | 863 | \$ 12,623.73 |
| Celebration of Art Bottle Total | 93 | \$ 1,184.30 | 39 | \$ 499.88 |
| Membership Bottle Total | 124 | \$ 1,483.94 | 142 | \$ 1,696.96 |
| Grand Total Refillable bottles | 3,026 | \$ 49,501.66 | 11,507 | \$ 110,132.91 |

7. Availability of water within concessioner food service operations

All restaurants within the park provide (non-bottled) water at the table on request. All cafeterias have water available at their beverage service stations. In addition, Xanterra has added a filling station at Maswik Lodge at their cafeteria and has converted an existing faucet to a bottle filling spigot at Yavapai Lodge along with many other drinking fountains.

8. Visitor Education in the park and on line so that visitors may come prepared with their own water bottles

Within the park, information about the filling stations and reusable water bottle promotion is currently available in the park newspaper – *The Guide* and on all new filling stations. Placards with abbreviated information are almost completed for the park's shuttle fleet. A site bulletin is being completed on the water filling stations and will be made available on-line and throughout the park. The NPS and concessioner staff within the park have been provided with information about the program (via e-mail) and encouraged to share this information with park visitors.

Externally, information on the voluntary program was put out to the media in a news release in March 2011 and is posted on the park's News Release page. If the park implements a ban on individual disposable container water sales, a news release would again be sent to local and national media outlets, posted on the park's news release page, and would be tweeted. In addition, the park has a web page dedicated to the filling stations and the reusable water bottle program. This site would be updated to reflect that water in individual disposable containers is no longer sold within the park; and a link to the filling station/ ban page would be featured on the park's home page to ensure easy access to information about the change.

9. Results of consultation with NPS Public Health Office

The park has incorporated numerous consultation meetings with the NPS Public Health Office. The Public Health Office reviewed the design of the water filling stations, commented on placement of the stations to meet public needs and all aspects were found to be satisfactory. The NPS Public Health Office is fully supportive of this ban, as any concerns about public safety have been addressed.

10. A sign plan so that visitors can easily find filling stations

There is currently signage in place at all of the water filling stations within the park. The NPS has standardized signs on all NPS operated filling stations (attached photo). In addition, placards will

soon be displayed in all of the park's free shuttle buses (draft attached), the water filling stations are clearly marked on the park map in *The Guide*, and a site bulletin is in final review.

DNC has well designed informational signs at their water filling stations that educate the public about where our water comes from and the environmental benefits of refilling water bottles. In addition, DNC has signs on each entrance door directing visitors to the filling stations (attached photos). Xanterra has signage in place, as well (attached photo).

GCA has signage in their stores which provides educational information on the environmental benefits of refilling water bottles (attached photos).

11. Safety considerations for visitors who may resort to not carrying enough water or drinking from surface water sources with potential exposure to disease

Filling station locations were chosen specifically to provide immediate water access to the largest number of people who might have an immediate need. Due to the difficult terrain and desert nature of Grand Canyon's backcountry, very few inexperienced hikers (or others likely to hike with bottled water rather than hydration packs and/or "Nalgene" bottles and water filters) venture onto non-corridor trails. All corridor trailheads now have a filling station. The trail with the largest probability of inexperienced and under-prepared hikers venturing onto it now has a filling station at the trailhead in addition to the spigots that had already been available about every 1.5 miles for the first 4.5 miles of the trail. In addition, the park's Preventative Search And Rescue (PSAR) staff focuses a great deal of their efforts on this trail.

12. A system for annual evaluation of the program, including public response, visitor satisfaction, buying behavior, public safety, and plastic collection rates

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.

13. Results of consultation with concessioners and cooperating associations

Consultation with the three concessioners located in the park and the cooperating association began on an informal scale in January 2010. These discussions included the development of alternative products that are both sustainable and affordable (various price points) in order to allow the organizations an opportunity to recoup revenue currently associated with bottled water sales.

On May 12, 2010, letters were sent to the three concessioners and GCA stating that water filling stations were being constructed and that the NPS would no longer allow the sale of water in plastic bottles within park boundaries after December 31, 2010 (See attached letter).

On December 22, 2010, letters again were sent to the concessioners informing them that the park's planned initiative for discontinuing the sale of water in plastic bottles had been temporarily delayed. This letter also stated that they could continue to sell bottled water, however they were advised that sales would likely be discontinued in the near future (See attached letter).

GCA voluntary decided to sell out the bottled water they had in stock and not restock it. They carry a variety of reusable water bottles and their staff verbally promotes the program. Their sales of reusable water bottles have jumped dramatically this year.

DNC installed filling stations in both of their markets and designed well-done informational signs to go with them. They stock a variety of reusable bottles including the park's lowest priced bottle at \$1.99.

Xanterra installed a new filling station in the Maswik Lodge cafeteria during a rehab project and has been converting existing water fountains and cafeteria water sources to include bottle friendly spigots. Xanterra carries a variety of reusable water bottles and say that they have seen marked increases in their sale this year as shown in the data above.

14. Timeline of phase in period

By January 2011, all concessioners and the park's cooperating association had broadened their lines of reusable bottles to include a variety of choices at a variety of price points. Also early in 2011, information about the park's voluntary reusable water bottle program was distributed to media outlets and park staff, as well as posted on the park's web site, so that visitors could be informed of their options and the environmental benefits of their choices. By mid-summer 2011, all but one of the new filling stations in the park was on-line. (One fillings station was added to the original plan at a later date. Most of the filling stations have experienced heavy use since they were installed.)

In December of 2011, NPS Director Jarvis issued a service wide policy on management of disposable plastic water bottles in parks. This new policy allowed for elimination of the sale of water packaged in disposable plastic bottles with the approval of the appropriate Regional Director. After performing the required assessment of the potential impacts and effects of a disposable water bottle ban, GRCA submitted a request for approval in January 2012.

If approved, the park would immediately inform concessioners and cooperators of the forthcoming ban on the sale of water in individual disposable containers, and would coordinate with concessioners and cooperators to ensure they could sell, transfer or return any product they already have in stock. Ideally, the ban would take effect 30 days from approval.



United States Department of the Interior



NATIONAL PARK SERVICE
GRAND CANYON NATIONAL PARK
P.O. BOX 129
GRAND CANYON, ARIZONA 86023-0129

IN REPLY REFER TO:
C38 (GRCA 8211)

FEB 01 2012



Memorandum

To: Regional Director, Intermountain Region

From: Superintendent, Grand Canyon National Park *David V. Ubenzo*

Subject: Request for Approval to Eliminate the Sale of Water in Individual Disposable Containers

On December 14, 2011, Director Jarvis issued policy on the recycling and reduction of disposable plastic water bottles in parks. The policy stated "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." By copy of this memorandum, Grand Canyon National Park (GRCA) is requesting approval to eliminate the sale of water in individual disposable containers (under one gallon), such as plastic water bottles and boxed water.

Grand Canyon National Park has experienced an increasing amount of litter associated with disposable plastic bottles along trails both on the rim and within the inner canyon. These bottles are also the largest contributor to litter in the area where items blow and fall below the rim, an area that can be dangerous to access and clean. In addition, waste associated with disposable bottles has become a significant part of the park's waste stream, comprising an estimated 20% of the park's overall waste stream and 30% of the park's recyclables.

Significant environmental and monetary costs are associated with the removal of litter, transport of waste and recyclables, disposal of non-biodegradable plastics in landfills, and recycling of plastics. As a fiscally responsible, Climate Friendly Park, GRCA is interested in minimizing all of these costs and believes that the most effective way to do so would be to eliminate the sale of water packaged in individual disposable containers (of less than one gallon).

While we realize that a ban on the sale of water in disposable containers is only one of the actions that can be taken, the park has already implemented a robust recycling program (currently, about 35% of the park's waste stream is diverted to recycling, and our goal is to increase that percentage to 50%); and over the last year, we have engaged in an education program intended to increase visitor use of refillable water bottles and decrease dependence on water sold in disposable plastic bottles. While the sales numbers included in our impact analysis indicate that these efforts have been successful, the dramatic increase in Grand Canyon Association's (GCA) sales of reusable water bottles after they voluntarily discontinued the sale of bottled water indicates to us that far greater success can be achieved by eliminating the sale of water in disposable containers throughout the park while still providing a safe and enjoyable experience.

For these reasons, we respectfully request permission to eliminate the sale of water packaged in individual disposable containers of less than one gallon in GRCA. Attached please find the required analysis of the

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IN AMERICA** 

potential impacts/effects of a ban on the sale of water in individual disposable containers in the park per the Director's policy memorandum.

Attachments

Concur:

John Wessels

Date:

2/2/12