



HOT SPOT ANALYSIS

Team: Jessie Johnson and Matt Schneider
Location: Columbia River Gorge National Scenic Area
U.S. Forest Service, Oregon State Parks, Washington State Parks
292,500 acres, 3,000,000 visitors/year
Oregon and Washington, U.S.A.
Dates: 06/24 – 07/01
Year: 2019
Host: Burt Edwards, Communications Director, Friends of the Columbia Gorge
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NARRATIVE

The Columbia River Gorge National Scenic Area (the Gorge) was created in 1986 and this 80-mile gorge is comprised of U.S. Forest Service (USFS) land, Oregon and Washington state parks, other public and private conservation lands, and several communities. According to the USFS, the National Scenic Area was created “to protect and enhance the scenic, natural, cultural, and recreational resources of the Columbia River Gorge; and to protect and support the economy of the area by encouraging growth to occur in urban areas, and allowing future economic development consistent with resource protection.”

Created by uplift, erosion, glacial flooding, and volcanic activity, the Columbia River carves the only near-sea level passage through the Cascade Mountains. This 4,000-foot deep gorge has the highest concentration of waterfalls in the United States. The area is also home to thousands of diverse plant species, including over 800 species of wildflowers; over a dozen of which are endemic to the Gorge. Notably, some of the most ecologically sensitive places in the Gorge also have the highest visitation.

Between 2010 and 2019, the Gorge saw a dramatic increase in visitation, tied directly to the growth of the metropolitan Portland area, as well as the corresponding increase in tourism to both the Portland area and the entire state of Oregon. Media coverage of the Gorge increased after the 2017 Eagle Creek fire, started by a teenager throwing fireworks. This fire consumed 50,000 acres, threatened life and property, and resulted in the closure of many of the Gorge’s most popular trails. The fire also ignited renewed awareness of and enthusiasm for the Gorge, while simultaneously limiting areas where

visitors could go. (Some sites did reopen in 2019, but many areas will remain closed at least into 2020, as the fire destabilized the steep gorge walls, causing dangerous conditions.)

Recreation impacts have been increasing, especially as closures have pushed more visitors into fewer areas. Rachel Pawlitz, USFS spokeswoman for the National Scenic Area, stated that rangers at the most popular sites are reporting severe parking shortages, traffic congestion, litter and toilet paper on trails, half-buried feces, trail erosion as a result of people shortcutting switchbacks, and graffiti on historic buildings, signs, rocks and trees. Managers and stakeholders involved with the Hot Spot also reported unprepared hikers, dog waste, dogs off leash, strain on local search and rescue resources, damage to wildflowers, and invasive species as persistent problems.

During the Hot Spot, numerous stakeholders expressed that one silver lining to the Eagle Creek fire is renewed collaboration between land management agencies, nonprofit organizations, and businesses that are associated with the Gorge. When the National Scenic Area was selected as a 2019 Leave No Trace Hot Spot, several well-designed visitor outreach efforts were already underway, including the “Ready, Set, GOrge!” initiative, the “We Speak the Gorge” tourism partnership, and the award-winning Trailhead Ambassador (THA) volunteer program. During the Hot Spot, the Subaru/Leave No Trace Traveling Trainers were able to join a dedicated coalition in their ongoing efforts to improve stewardship and Leave No Trace education in the Gorge.

SECTION 1: SITE/AGENCY ASSESSMENT

Visitors

Because of its proximity to Portland, Oregon, many Gorge visitors are from the metro-Portland area. Tourism agencies, such as Travel Oregon and Travel Portland, have also publicized the Gorge as a must-see destination to both United States and international visitors. This publicity has attracted visitors from throughout Oregon and Washington, as well as many tourists from other states and countries. Up to 30% of Gorge visitors are from outside of the United States.

According to Stan Hinatsu, Columbia River Gorge National Scenic Area Recreation Staff Officer, up to 80% of visitors come to the Gorge to walk and/or hike. Sightseeing, especially along the waterfall corridor, is also extremely popular with visitors. The Gorge also attracts road and mountain bikers, anglers, rock climbers, paddlers, campers, backpackers and equestrians. Frontcountry camping is available on both sides of the Gorge and is very popular with visitors.

Impacts

The most pressing recreation impacts are visitor-created trails (and the subsequent trail erosion), invasive species and litter. Secondary impacts include unprepared visitors, dogs off-leash, pet waste, strain on local search and rescue organizations, and congestion along historic Highway 30, as well as in parking lots, at trailheads and at waterfalls. To help reduce pressing impacts, the USFS, Friends of the Columbia Gorge (the Friends), Travel Oregon and the Oregon Department of Transportation (ODOT) created a “[Ready, Set, GORge!](#)” educational campaign. Some key Ready, Set, GORge! messages include:

1. Protect vital habitat by using only authorized trails and campsites.
2. Leave no trace by packing out your trash and picking up litter that you find.
3. Stop the spread of invasive species by using a boot brush, available at many trailheads.

Additionally, THA volunteers reach visitors with these messages, as well as other relevant information, at popular trailheads from April through September. USFS also employs seasonal rangers to educate visitors on low impact practices, as well as enforce rules and regulations.

To mitigate visitor-created trails, land managers have employed several strategies. In some areas, the USFS works with a landscape architect to disguise and deter the use of social trails in an aesthetically pleasing way, primarily utilizing natural materials. In other areas, land managers have placed barriers to block visitor-created trails; however, some barriers have been moved or destroyed. In popular areas, there are numerous visitor-created trails and it is difficult for the agencies’ limited staff and volunteers to consistently address them in a timely manner. Furthermore, the USFS acquired certain tracts of land with well-used visitor-created trails, and closing these trails has proven to be difficult.

To reduce invasive species in the Gorge, boot brushes and educational signage have been installed at numerous popular trailheads. However, it is unknown how many visitors diligently use the boot brushes before and after hiking, and invasive species continue to plague many areas in the Gorge. Previously, the Friends promoted a “[Boot Brush Pledge](#)” to encourage visitors to commit to using a boot brush before and after hiking in the Gorge. Groups, such as the Friends and Trailkeepers of Oregon (TKO), organize volunteer work parties to remove invasive species.

Visitors are encouraged to pack out all litter, as well as dog waste. Some trailheads are equipped with trash cans, as well as dog waste bags. Many trailheads do not have restroom facilities and abandoned toilet paper is a widespread issue in popular areas.

While parking lot congestion and crowding are primarily management issues, it is worth noting that flaggers have been stationed at the busiest sites to help direct traffic. Additionally, a seasonal permit system was enacted in 2018 for the busy [Dog Mountain Trail](#) on weekends from April 20 through June 16, peak wildflower season. This system was put in place to increase visitor safety, as hikers were parking along state Highway 14 and walking along the busy roadway when the parking lot was full. Managers stressed that a permit system designed to protect resources (as opposed to addressing the immediate safety threat) would have been more difficult to achieve.

Management Frameworks

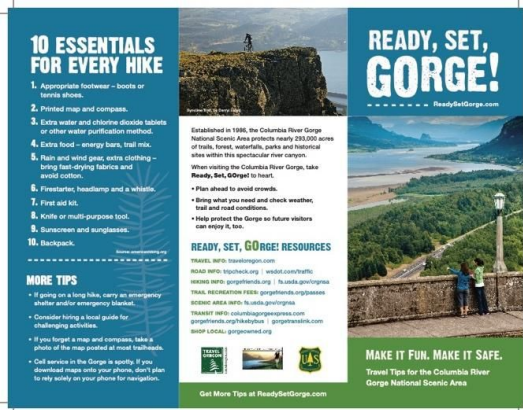
Management of the Gorge is shaped by stipulations of the National Scenic Area Act. According to the [Management Plan](#) for the Gorge, “The Management plan for the Scenic Area is based upon a vision created by Congress, the Gorge Commission, the U.S. Forest Service, county and city governments, state and federal agencies, Indian tribal governments, concerned citizens, and interest groups. The vision provides a sense about the future of the Gorge 20, 50 or 100 years from now. It supplies the adhesive that binds the plan.” It is unknown if current visitation and recreation rates and their related impacts are consistent with the management plan.

Leave No Trace in Management Plans

Leave No Trace is not identified in the [Management Plan for the Columbia River Gorge National Scenic Area](#); however, Leave No Trace principles, practices and recommendations provide the informal underlying framework for visitor education, as well as staff and volunteer training.

On-Site Presence of Leave No Trace

Leave No Trace information is integrated on-site to varying degrees at trailheads and popular sites throughout the Gorge through signage, face-to-face contacts, programming, interpretive messages, printed information, social media messages and websites. The strongest example of Leave No Trace information is the Ready, Set, GORge! campaign. This information is available to visitors on the [Friends](#), [USFS](#), [Travel Oregon](#) and other websites. Numerous locations in and around the Gorge also provide this information in a [trifold](#) and more detailed [brochure](#) format.



Ready, Set, Gorge Standard Tri-Fold

Both [Trailhead Ambassadors](#) and seasonal rangers provide Leave No Trace education to visitors through trailhead outreach, on-trail conversations and through formal programming at trailheads and throughout communities in and around the Gorge. Leave No Trace practices and communication skills are currently part of the THA and ranger trainings.

Due somewhat to agency standards requirements and funding limitations, Leave No Trace information on trailhead signage is less consistent and robust than other messaging outlets. Many trailheads do include information on using boot brushes to prevent the spread of invasive species and these signs include the reasons for this practice. Some trailheads also include basic graphics on how to share the trail (yield triangle).



Signage at Coyote Wall



Signage at Angel's Rest



Signage [Wahkeenah Falls](#)



Signage at Catherine Creek



Signage at Beacon Rock



Boot Brush signage

Leave No Trace is currently integrated into current public outreach, as well as ranger and volunteer training. Moving forward, Leave No Trace will form the framework for future educational efforts, both in the Gorge and in local communities.

Staff and Volunteers

It is unknown exactly how many Master Educators or Trainers are employed throughout the Gorge; however, there are numerous Master Educators and Trainers in the Portland area. Peder Nelson, Peder.nelson@oregonstate.edu, is a Master Educator and a member of the Leave No Trace Citizen Science Advisory Board. Nelson attended the Hot Spot Strategy discussion and is willing to assist with future Citizen Science efforts in the Gorge.

There is a strong volunteer presence in the Gorge. The Trailhead Ambassador program, managed by the Friends and funded through the Mt. Hood and Columbia River Gorge Regional Tourism Alliance, started with a pilot program at the popular Dog Mountain Trailhead in 2017. In the 2018 season, the program grew to include nearly 100 volunteers who conduct visitor outreach at 10 popular trailheads in the Gorge and in the Mt. Hood National Forest from mid-April through mid-September. Every THA is required to receive a four-hour training, which includes effective communication techniques in line with Leave No Trace communication practices. The [volunteer handbook](#) also includes examples of strategies to engage and educate visitors.

Initial Contact Engagement

For the most part, visitors are likely going to ask you questions first. If they don't start the conversation, here are some good tips to get them engaged.

Use **Icebreakers** to get to know hikers, remembering that we cannot prevent people from using public land. We are there to enhance their hiking experience, create awareness and inform safe hiking practices.

Icebreaker ideas:

- "Hello, my name is Kevin and I'm volunteering as a Trailhead Ambassador."
- "Do you have any questions about your trip today?"
- "Have you hiked this trail before?"
- "Do you have a map of the trail? You can take a picture of it here."

Secondary Engagement

You've now broken the ice with a visitor and have their attention. Share some information from the below topic areas to help make sure they are as prepared as possible out on the trail.

- Trail information (elevation gain, miles to complete the hike, hazards on the trail)
- Daylight Hours and weather
- Leave No Trace principles
 - Plan Ahead and Prepare
 - Travel and Camp on Durable Surfaces
 - Dispose of Waste Properly
 - Leave What You Find
 - Minimize Campfire Impacts
 - Respect Wildlife
 - Be Considerate of Other Visitors
- Ready, Set, Gorge!
 - 10 essentials
 - Plan your route ahead of time to avoid crowds
 - Bring what you need and research road, trail and weather conditions
 - Take steps to help protect the Gorge so that future visitors can enjoy it, too

Examples of conversations to start:

- "Have you hiked this trail before? It might be a little late in the day to start such a long trek, I have a list of alternative hikes close by if you are interested?"
- "Do you have a trail map with you?"
- "There aren't bathrooms along the trail for you or your dog, make sure to stop at the bathrooms here on your way out, and grab some of our Smokey the Bear bags for your dog. You can dispose of them on your way out."
- "Invasive weeds are a challenge in this area, it would be great if you could use the boot brush before heading out on the trail."
- "The weather can change pretty quickly on this hike, you might want to grab an extra layer for your hike today"
- "How did you hear about this trail?"
- "Where are you visiting from?"

Excerpts from Trailhead Ambassador Handbook

TKO provides regular "trail party" opportunities for volunteers to help with trail maintenance throughout the Gorge. According to Steve Kruger, TKO Executive Director, the number of volunteers attending trail parties has increased from 700 before the Eagle Creek fire to 2,500 after the fire. TKO also provides resources to help volunteers publicly advocate for trails, both in the Gorge and throughout Oregon.

Additionally, Friends of Multnomah Falls volunteers help visitors at the busy Multnomah Falls Visitor Center.

Key volunteer groups include:

Friends of the Columbia River Gorge

Natalie Ferraro, natalie@gorgefriends.org

Trailkeepers of Oregon

Steve Kruger, steve.kruger@trailkeepersoforegon.org

Friends of Multnomah Falls

Chris Meinicke, chris.meinicke@frontier.com

Key Stakeholders for Further Implementation of Leave No Trace include:

Friends of the Columbia Gorge

Burt Edwards, burt@gorgefriends.org

Kevin Gorman, kevin@gorgefriends.org

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Oregon State Parks

Miranda Mendoza, Miranda.mendoza@oregon.gov

Trailkeepers of Oregon

Steve Kruger, steve.kruger@trailkeepersoforegon.org

Mt. Hood and Gorge Regional Destination Management Organization

Lizzie Keenan, Lizzie@hood-gorge.com

Pacific Northwest Experience

Leslie Wangler, leslie.wangler@pnwtourism.com

SECTION 2: EVALUATION OF HOT SPOT EVENTS

Review of Programs

Overall, Hot Spot programs were successful and well received by participants. In particular, the Traveling Trainers found the communication workshops, site tours, strategy session and final action planning meeting to be valuable both for advancing communication and education efforts, as well as gaining a better understanding of impacts and current mitigation efforts. Burt Edwards' efforts and consistent communication, both before the Hot Spot and throughout the week, helped bolster participation at events.

Communication workshops at The Gorge Pavilion in Cascade Locks and at REI Portland brought volunteers, land managers, communications staff, as well as other public facing individuals together to learn and strategize effective communication practices, with a focus on the "Authority of the Resource" technique. Participants also had the chance to discuss successful Gorge-specific stewardship messages.

Both the strategy meeting and action planning meeting provided opportunities for stakeholders to share and evaluate the successes and challenges of ongoing efforts, and brainstorm new avenues for reaching visitors with Leave No Trace education. These meetings also encouraged stakeholders to focus on achievable, near-term opportunities for outreach and education, as opposed to long-term management issues. There was broad agreement that, while both management and education are equally vital for protecting Gorge resources, stakeholders can take more immediate action on educational efforts.

The Traveling Trainers delivered a presentation about the Hot Spot and Leave No Trace efforts in the Gorge to attendees of the Pacific Northwest Experience 4th Anniversary Celebration. Attendees were primarily frontline staff in area tourism and hospitality industries, and many were enthusiastic to learn about the Hot Spot and what they can do to share stewardship messages.

Portland Athletic and Outdoor Professionals (AOP) hosted a Creating Stewardship through Social Media panel discussion at the Keen headquarters. Over sixty people attended and engaged in conversations about how to best utilize social media to educate and share a Leave No Trace outdoor ethic. Panelists emphasized the importance of using media purposefully to tell a stewardship story, and offered suggestions on how to have positive discussions on social media platforms.

Site tours of both western and eastern Gorge sites provided Traveling Trainers a chance to see different impacts occurring throughout the Gorge, and discuss some of the unique challenges of on-site visitor communication.

Finally, the Traveling Trainers enjoyed the chance to conduct public outreach at Beacon Rock State Park. Heath Yeats, Washington State Parks Area Manager, stated that visitation was slower than normal during this Sunday event; regardless, the parking lot was full most of the day and there was a constant stream of visitors hiking on the trail. This event allowed Traveling Trainers to interact with visitors and witness crowded trail conditions firsthand.

Hot Spot Participants -- Hosts, Partners, Stakeholders

The Hot Spot's primary host was the Friends of the Columbia Gorge, but stakeholders from both Oregon and Washington State Parks, USFS, Travel Oregon, Athletic and Outdoor Professionals of Portland, and the Pacific Northwest Experience helped to organize the week's agenda. The following groups participated in Hot Spot events:

[Athletic and Outdoor Professionals of Portland](#)
[Friends of the Columbia Gorge](#)
[Mt. Adams Chamber of Commerce and Visitor Center](#)
[USDA Forest Service](#)
[Mt. Hood and Gorge Regional Destination Tourism Organization](#)
[Mt. Hood Wilderness Stewards](#)
[Oregon Department of Transportation](#)
[Oregon State Parks](#)
[GLOBE Observer](#)
[Pacific Crest Trail Association](#)
[Pacific Northwest Experience](#)
[Portland State University](#)
[The Dalles Area Chamber of Commerce](#)
[The Nature Conservancy](#)
[Trailkeepers of Oregon](#)
[US Army Corps of Engineers Bonneville Dam](#)
[Washington State Parks](#)
[Weinstein PR](#)

Hot Spot Metrics

Total number of events: **10**

Impressions: **87,664**

Touchpoints (number of individuals with whom the Hot Spot reached directly): **262**

Volunteer man-hours: **0**

Measures of service (pounds of trash removed, miles of trail restored, number of campfire rings dismantled, etc.): **N/A**

Media From Hot Spot

Information about the Hot Spot was primarily shared on various social media sites. However, the most effective publicity was created by stakeholders reaching out directly to their constituents to generate attendance at events. For many events, participants were asked to RSVP or register, which allowed for the opportunity to remind people of program dates and times.

There was not any media coverage before the Hot Spot and media did not attend any events. However, there were several social media posts before, during and after the Hot Spot. An **album of images from the Hot Spot** is linked here: <https://www.flickr.com/gp/77476952@N04/P41Ft0>

Social Media Examples:

 **Friends of the Columbia Gorge**
June 21 at 10:42 AM · 🌐

For many of you, Leave No Trace is a way of life when in nature. Join us and Leave No Trace Center for Outdoor Ethics at a free event on June 29 at the Portland REI where you'll learn about how to effectively communicate LNT with the public.



GORGEFRIENDS.ORG
Leave No Trace | Effective Communication Training
Join us for a special workshop focused on effective communication ...

👍 13 1 Share

👍 Like 💬 Comment ➦ Share 👤 Profile



CREATING STEWARDSHIP
— through social media —
FRIDAY • JUNE 28, 2019 • 5PM • KEEN HQ

JUN 28 **Creating Stewardship Through Social Media**
Public · Hosted by Leave No Trace Center for Outdoor Ethics and 2 others · 2 co-hosts pending [?]

★ Interested ✓ Going ➦ Share ⋮

🕒 Today at 5 PM – 7 PM
Starts in about 2 hours · 73°F Partly Cloudy

📍 Keen Footwear HQ
505 NW 13th Ave, Portland, Oregon 97209 Show Map
inizers/photos/gm.5946219276989...

SECTION 3: RECOMMENDATIONS

On Site Messaging

R1. Review on-site signage for efficacy.

Signage provides an opportunity to reach visitors with relevant low-impact messages upon their arrival (Duncan & Martin, 2002; Jacobi, 2003; Johnson & Swearington, 1992; Martin, 1992; Thorn, 1995). Anecdotal evidence suggests that many Gorge visitors choose to visit a site upon the recommendation of friends or family, or because they saw the site on social media. According to land managers, these visitors are less likely to receive stewardship messages prior to arrival and often arrive on site, seeking information on their destination. Consequently, intentional and well-designed signage can be an important tool in reaching visitors.

We recommend that land managers utilize existing kiosks to promote two to four of the most relevant low-impact practices in that area. Research indicates that, despite the number of messages on a sign, most visitors only internalize two messages (Cole, et al., 1997). Messages should be eye-catching (with graphics, if possible), concise, compelling (include the reasons for the practices), and be written with easy-to-understand language (7th grade reading level).

Messaging examples include:

- “Stick to the Trail! Trampled flowers can’t make seeds. Fewer seeds=fewer flowers!”
- “Carry out all trash, including food! Food scraps can make animals sick.”

We have found that consistency in signage graphics and messaging can help with visitor compliance. Consequently, signs should look the same across sites and have similar messages. While we understand that agencies have unique signage standards, signs that mirror the messages that visitors receive online can promote compliance.

Many visitors arrive without route information. We recommend that managers review kiosk signage to ensure maps are easy to read and accurate, and to include written route descriptions alongside maps, where appropriate. Include a note that encourages visitors to take photos of maps if they do not have a printed copy.

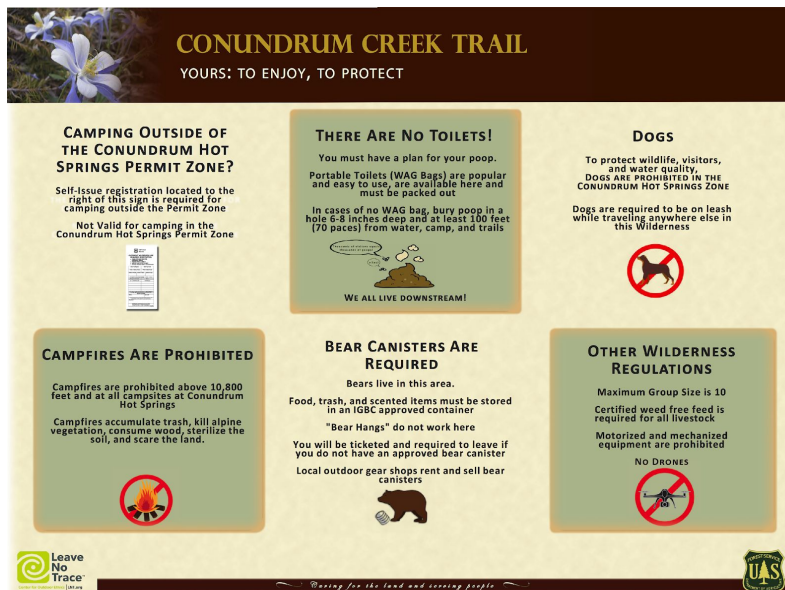
Ensuring that signage is easily accessible can encourage more visitors to stop and read information. We recommend reviewing signs to ensure they are located in high-traffic areas where the greatest number of visitors will see them. Ensure access to kiosks are not impeded by vegetation or other obstacles. Include signs with key messages in bathrooms or other high traffic areas, when applicable.

To help visitors stay on established trails, we recommend making sure that trails are clearly marked, especially at key intersections. Some visitors accidentally take visitor-created trails because the established trails are not clearly marked. In popular areas, such as trails in the Waterfall Corridor, mark the most impactful and commonly-used visitor-created trails with small, unobtrusive signs that clearly state that this is not a trail. These signs can be lighthearted, graphic-heavy and educational, such as the “Worms at Work – Stick to the Trail” sign discussed by Steve Kruger (TKO) during the Hot Spot.

We can provide examples of effective trailhead signage and assist in developing clear and effective messages. We do recognize that new signage can be difficult to install due to funding constraints (submitting signage for review in the National Scenic Area can cost close to \$800). To post new signage inexpensively and to test efficacy, land managers in other areas have created temporary signage, created in-house, to post on existing kiosks and at the site of impacts. We also recognize that signage in the National Scenic Area must meet certain aesthetic standards; however, placing signs *at* the site of impacts can increase the efficacy of even small, unobtrusive signs (Cole et al., 1997; Duncan & Martin, 2002; Hockett, 2000; Hockett & Hall, 2007; Jacobi, 2003; Martin, 1992; Widman, 2010; Winder & Roggenbuck, 2000; Winter, 2006).



Kiosk signage can be eye-catching, attractive and easy to read quickly.



Example of signage with reasons for rules and recommendations



Example of signage with three focused messages



Example of signage at the site of impact

Web and Print Educational Resources

R2. Review and refresh the Ready, Set, GORge! website.

The content on the Ready, Set, GORge! website provides high quality, area-specific Leave No Trace messaging to visitors. By emphasizing the importance of planning ahead and being prepared, staying on trails, leashing pets, etc., the website offers quality information to help visitors enjoy the Gorge responsibly. As stakeholders already have plans to review the Ready, Set, GORge! campaign in Fall 2019, we recommend several straightforward changes that could encourage more visitors to visit the website and read its messages.

1. Place the key Ready, Set, GOrgE! messages in bold images and text at the top of the [landing page](#). Currently, the Ready, Set, GOrgE! messages live further down the landing page. By placing this information more prominently on the top of the site, and/or increasing font size and including appealing images, this information could engage more visitors. Large, bold “teaser” headings, such as “How to Avoid the Crowds,” accompanied by a few key takeaway messages for each of the three sections could also increase eyeballs on this information. This way, if visitors choose not to click on the Ready, Set, GOrgE links, they will at least see some of the most important information.
2. Review language so that messages are clear, motivating and action-guiding. When trying to encourage visitors to consider visiting less crowded sites, avoid referring to the crowded hikes as “most popular” or “wildly popular,” which might sound appealing to some visitors. Likewise, encourage use of other trails by not referring to them as “less popular” and, instead, describe these places as “peaceful,” having “more solitude,” or being a “hidden gem.”
3. Many of the Ready, Set, GOrgE! recommendations do include motivating reasons for the practices, such as “Stop the spread of invasive species by using a boot brush, available at many trailheads.” Review low impact recommendations to ensure that each includes at least one reason and consider providing Gorge-specific reasons, such as “Dogs have fallen over the cliff edge on this hike and died. Please leash your dogs to keep them safe!” Include links with to relevant information and articles, such as [“Dog’s Trip Over Waterfall Has Lessons for Owner.”](#)

Volunteers

R3. Expand volunteer reach.

Presently, THA volunteers are being successfully deployed at trailheads at numerous popular sites throughout the Gorge. These volunteers have received communication training that includes the Authority of the Resource Technique. Traveling Trainers and stakeholders discussed expanding volunteer reach beyond the trailhead by posting Ambassadors at strategic locations on-trail, such as popular resting places, locations of frequent impacts, etc. The primary role of these roving volunteers would be promoting stewardship, but a secondary benefit would be preventing the need for search and rescue efforts. On-trail outreach will require volunteers of adequate physical ability and skills in navigation and first aid. It is also important to emphasize that the role of roving volunteers is to educate, not enforce rules and regulations. Another opportunity for visitor education is to place volunteers on the Columbia Gorge Express bus to deliver engaging and informative interpretive talks that focus on stewardship.

R4. Create rapid response program to mitigate impacts before they increase.

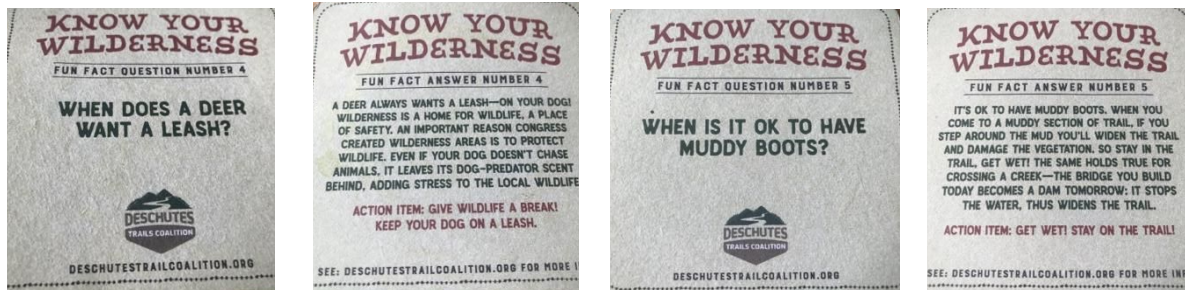
Research shows that mitigating impacts can reduce their frequency (Cialdini, Kallgren and Reno, 1991). Thus, a rapid response system that encourages both visitors and volunteers to report impacts through email, app, citizen science portal, website, or social media tagging could help to monitor impacts throughout the Gorge. A rapid response volunteer team could be recruited and trained to respond quickly to reported impacts. A hypothetical example of rapid response in action would be mitigating invasive species on or near trails. Visitors or volunteers could share a geotagged picture of invasive plants along a trail. Trained volunteers could quickly respond, perhaps even before these plants went to seed. Furthermore, new shortcuts on switchbacks or other emerging social trails could be quickly

documented, reported and mitigated. Benefits include an increase in visitor satisfaction (not getting lost or hurt on unauthorized trails), lower overall cost for impact mitigation (responding to low level impacts before they get worse), and visitor education (seeing and/or interacting with rapid response volunteers on the trail).

Partnerships

R5. Partner with hospitality and tourism staff.

At the Hot Spot's two communication workshops, many of the staff and THA volunteers who attended were already trained in effective visitor communication. Communication training should continue to be included in ranger and THA trainings, and we recommend that this type of training also be provided to frontline hospitality and tourism employees. These trainings had previously been offered as part of the Columbia Gorge Tourism Alliance's "We Speak the Gorge" campaign. This initiative was successful in helping local business' employees serve as unofficial ambassadors for Gorge stewardship; however, funding for We Speak the Gorge has ended. Collaboration with local communities is vital to changing the norms and culture of an area, as well maximizing visitor reach, and a renewal of funding would allow the We Speak the Gorge program to continue to distribute educational materials and frontline training to businesses and organizations. During the Hot Spot, stakeholders discussed providing signs or tabletop displays to area restaurants. An example of this type of collaboration are the following coasters, created by the Deschutes Trail Coalition:



At the Pacific Northwest Experience 4th Anniversary Celebration, frontline hospitality and tourism employees requested both written materials for visitors, as well as verbal message suggestions, to better help visitors protect the Gorge. To increase cohesiveness and comprehension, written messages provided for tourism organizations and businesses should align with the written and verbal on-site messaging delivered by Gorge signs, kiosks and Trailhead Ambassadors.

R6. Create a stewardship script for use by tour operators, bus drivers, ride share operators, etc.

Stakeholders indicated that some Gorge tour operators are invested in its preservation. However, according to stakeholders familiar with both the Columbia Gorge Express and other tour operators, the quality and consistency of tour operators' messages vary considerably. Thus, we recommend creating entertaining talking points for tour operators and bus drivers that highlight the ecological, social and personal safety reasons for Leave No Trace practices in the Gorge to help to align tour/transportation messaging with other messages found online and on-site.

Prioritize messaging

R7. Utilize trail ambassadors to learn where visitors find Gorge information.

In order to capitalize on existing hierarchies in online and social media information sources, it is important to know where visitors get their information. Stakeholders discussed using Trailhead Ambassadors to query visitors on where they got information about the Gorge. This data will be useful in devising future strategies for increasing the coherence of Gorge stewardship messages.

R9. Enhance the coherence of Gorge stewardship messages across platforms and URLs.

When visitors search “Columbia River Gorge” or “Multnomah Falls,” their search engine returns a ranked list. While it is difficult to manipulate this list, it is possible to contact the creators of top-ranking web pages with turnkey messaging and media to include on their sites. Text and media on landing pages of top Gorge-related websites is preferred over just inserting links to existing messages on other pages (such as the National Scenic Area, Friends of the Gorge, or Ready, Set, GORge! websites), although these links do at least enhance the SEO of backlinked pages.

Potential Challenges for Implementing Recommendations

The degree of collaborative effort required for many of the above recommendations can be challenging. Fortunately for the Gorge stakeholder community, many ‘coalitions’ already exist for stewardship-related efforts. Moving forward strategically with individual tasks and outcomes in mind, with accompanying timelines, can help prevent certain objectives from fizzling or falling through the cracks. We have found that establishing working groups within existing coalitions to strategically focus on individual objectives can be helpful.

The scope and scale of cohesive efforts within a landscape as complex as this also provides some large challenges. We are developing planning resources for Leave No Trace implementation, as well as a ‘problem/solution’ handbook compiling long-term outcomes and best practices from past Hot Spots to further streamline the foundational planning process required for many of these efforts. Understanding what worked, what didn’t, and what unforeseen hurdles or benefits resulted from similar efforts will be greatly beneficial. These resources will be shared as soon as they are available.

Successful Actions to Continue

The Traveling Trainers delivered a presentation about the Hot Spot and Leave No Trace efforts in the Gorge to attendees of the Pacific Northwest Experience 4th Anniversary Celebration. Attendees were primarily frontline staff in area tourism and hospitality industries, and many were enthusiastic to learn about the Hot Spot and what they can do to share stewardship messages. Staff from Travel Oregon’s PDX Welcome Center were particularly interested in turnkey stewardship messages and materials to share with visitors, as many tourists fly to Portland and immediately visit the Gorge. We recommend contacting [Leslie Wangler](#), founder of Pacific Northwest Tourism and co-founder of Pacific Northwest Experience, to explore this opportunity.

SECTION 4: GOLD STANDARD SITE POTENTIAL

Gold Standard Site recognition is a realistic goal for the Gorge. Several Gold Standard Site requirements are currently in place. Many staff members, as well as public-facing volunteers, are trained in Leave No Trace practices and communication techniques. The Ready, Set, GOrge! campaign provides locally-relevant Leave No Trace information to visitors, both online and in print materials. Interpretive rangers offer fun, educational programs on how to enjoy the Gorge responsibly, and many programs focus on youth education. Management agencies also partner with numerous nonprofit and tourism organizations to disseminate low impact messaging. However, it might be realistic to consider a timeline of 5 to 8 years to achieve Gold Standard Site recognition. The Gorge is such a physically large and diverse area, with sites managed by several unique agencies. Consequently, implementing Gold Standard Site requirements throughout the entire Scenic Area would require additional time and resources. Additionally, the area is still recovering from the 2017 Eagle Creek fire and recovery efforts will continue to require extensive resources for the next several years.

Priorities for working toward Gold Standard Site recognition are outlined below:

- A. Training
 - Ensure that agency staff (USFS, Oregon State Parks and Washington State Parks) and volunteer groups have multiple staff members/volunteers trained at the Master Educator and/or Trainer level. This is especially helpful in ensuring that frontline staff throughout the Gorge can receive consistent Leave No Trace communication-focused training.
- B. On Site Messaging
 - Create consistent and relevant Leave No Trace messages to post on site. The boot brush educational signs at many Gorge sites are a prime example of signage that is consistent (the same sign is posted at all boot brush facilities) and compelling, as the reasons why visitors should clean their shoes are clearly listed. Agencies could create similar messages for other impacts, such as visitor-created trails, picking flowers, litter and unprepared visitors, to be posted at sites where those impacts are occurring.
- C. Youth Programming
 - Create a Gorge-wide Jr. Ranger program. Some sites, such as those in Oregon and Washington State Parks, already offer this resource to young visitors. Trailhead Ambassadors could hand out a Jr. Ranger booklet at trailheads.

Please fill out the [Leave No Trace In Every Park Online Self Assessment](#). This tool will help guide your decision-making regarding the recommendations above as well as help us better understand how to leverage our resources most efficiently to help parks and protected areas across the country.

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