

# Leave No Trace

JENNIFER JOHNSON: So welcome to this webinar. We'll just do a quick introduction of ourselves. So I'm Jennifer Johnson. I'm a current PhD student here at WSU. And like Mary, I'm an adventure facilitator with the WSU Outdoor Recreation Center, which is where this Leave No Trace content is coming to you from.

MARY ALETTA: And I'm Mary. I'm an undergraduate student here studying environmental science, and I'm also an adventure facilitator with Jen.

JENNIFER JOHNSON: So Leave No Trace is a concept-- there we go-- that's been developing for, actually, a few decades now. But it's part of the Leave No Trace Center for Outdoor Ethics, is what it's called. And it really just teaches people to enjoy the outdoors, but, at the same time, to act responsibly. It's this mission that reaches millions of people through education research partnerships. And there's also a lot of volunteer opportunities that we'll discuss towards the end of the presentation.

And so just something to get us started. In the webinar, there is a chat function. And so if you could all enter just your names so we know who's joining us today, and describe a natural place that's really special to you. So I can share mine. I grew up in Arizona, but my grandparents actually ran a visitor center in southern Utah. And so that became somewhere that we went to every summer-- we still go to almost every summer.

But I can tell you, just as it's becoming more popular of a place, that it's changed a lot. And Leave No Trace is something that I would like a lot more people to know about to ensure that it stays natural and special to me as well as everyone else who visits it.

MARY ALETTA: Yeah. For me, I grew up in upstate New York, so I went to the Adirondack State Park a lot all throughout my childhood. And I really love to embrace the Leave No Trace principles because that kind of place growing up was so pristine, and there are so many little lakes and things that were just virtually left untouched. And I just want that to be how it is for generations to come. So I'm pretty passionate about this.

JENNIFER JOHNSON: And so when we're thinking of really special places, whether it's special to you, also know that anywhere you visit-- any natural place-- and all the places that we don't visit are special to someone. And so the idea behind Leave No Trace is to ensure that they stay natural, that they stay clean so they're enjoyable for anyone who visits those areas.

And so just a quick kind of history of Leave No Trace and the center that now runs this. There's a bunch of information online that we'll go over. But it actually started following the passage of the Wilderness Act in the mid '60s, so it's been around for a while, this idea. But it's taken a lot of forms. So in the '70s, there was a big environmental movement, especially in regards to

education and preserving the outdoors. And so there were brochures put together with little national leadership or any coordination.

There were a lot of names that were going about this-- Wilderness Matters, Wilderness Ethics, Minimum-Impact Camping, or No-Trace Camping. But as it gained ground, it gained support in the 1980s. The No Trace program was actually developed by the National Forest Service. Perfect, another person. [INAUDIBLE] love it. And then finally, Leave No Trace was actually selected as the name in the '90s. And a partnership formed between the four land management agencies and what's called NOLS, the National Outdoor Leadership School.

And in '93, there was a big summit in DC. They recommended the creation of this nonprofit and currently runs it. It's in Boulder, Colorado. It's the national headquarters, but you can find centers actually all over the country. And they developed guides and educational resources. They have many partnerships around the nation, and they have plenty of opportunities to get involved that we'll talk about.

MARY ALETTA: So today, Leave No Trace, since 2003, has become a part of the Center for Outdoor Ethics. The Center partners with really big land management agencies throughout the country, outdoor equipment manufacturers, retailers, guide services, youth organizations, nonprofit organizations, and educational institutions to promote the minimum-impact outdoor recreation. The center has 11 staff members in Boulder and three teams of traveling educators that will go around the country.

The strategic priorities is frontcountry, kids, and local. The organization has a current focus on these areas in order to reach new and emerging audiences. And the organizational focus is on people as a solution to recreation-related impacts. Empowering people to develop a sense of communal ownership of the outdoors generates a more sustainable and more environmentally educated global community overall.

So more of the focus is to educate, connect, and protect. We educate people about minimum-impact skills and responsible outdoor recreation, connect people to their natural world so that they care about its future health, and protect ecosystems by being lifelong outdoor stewards. Approximately \$0.80 of every \$1 raised by the Center directly supports its programs that train and educate millions each year and develop these connections.

So earlier, I mentioned that they have these federal agency partners. So the Center for Outdoor Ethics is under a Memorandum of Understanding with the five largest land management agencies in the US to provide Leave No Trace education on public lands. So each of these agencies have Leave No Trace trained staff who train other agency personnel and the general public.

And the federal agencies have national Leave No Trace coordinators who serve as nonvoting advisors on the center's board of directors and education review committee. And they play a critical role in providing Leave No Trace information millions of outdoor enthusiasts each year.

So some of these partnerships are the US Forest Service, that gets 180 million visits per year; the Bureau of Land Management, which gets 60 million visits per year; the National Park Service, with 280 million visitors per year; and the Fish and Wildlife Service, with 40 million; and Army Corps with 335 million visits per year. So there's a lot of impact with using these government agencies.

JENNIFER JOHNSON: And so why all this is important. This idea of Leave No Trace, like we said, it's been developing for decades, but it's becoming more and more important as these natural places are becoming more and more special. They're getting more and more visitors each year, which is great. We want people to develop these connections to natural places. At the same time, we need to make sure that they understand their responsibility to the lands that they visit.

And so as Mary just stated, all those millions of people that are visiting these areas each year are getting more and more, and as a result, there's various impacts that we have on these natural areas. These impacts include direct impacts to the environment, such as soil. We lose organic matter, compaction. There's erosion that then has long-term impacts on vegetation in the area, which leads to vegetation loss. All these visitors often-- if you're doing water recreation, we can bring invasive species. And then depending on the activities, you can see a lot of tree damage to some of these areas that are visited by millions of people.

There's also impacts to wildlife. So even though they're all cute and fluffy, there is this idea that wildlife should stay wild. And so this disturbance, that people who visit these areas-- when we feed them, when we change their habitat, we alter their behavior, we can actually damage their health and reproduction.

And then in results, with all those water activities that we love, we can have an impact on the water resources. So turbidity and sedimentation, the actual composition of the water, as well as all the waste that we could potentially be putting into these natural water sources. So like we said, with all these people coming, there's all these impacts.

So not only the crowding. There can be conflicts between groups. A lot of people in a very small area sharing resources, sharing land can have issues, as well as cultural resource impacts. So theft of artifacts. This is one of the principles we'll be talking about. Or even damage to these historical features that, they've survived for thousands of years, but more people that are visiting these areas and causing impacts means that they might not be available for future generations. And that's really the goal of Leave No Trace, is making sure that everything we're enjoying today, our kids and our grandkids and any future generations can enjoy them as well.

And so here are just some images of the impact. So we'll see signs in all the places we visit. Right behind this sign, you can see humans have gone into the area and altered it. Here is not storing whatever we bring into the area properly. So this little bear got into some waste. We see impacts to soil and vegetation here, with roads that were created-- not natural. This is just

debris in the campsite. More trash or waste that's left. Campfires that have impacts to the areas around them.

This one is-- there's no reason for this, but carving onto plants, again, damaging that vegetation. Leaving behind waste impacts. Impacts to wildlife, to the areas themselves. Again, cute and fluffy, but they really don't need your granola bars. [CHUCKLES] Lots of people leaving things behind. And then, something that started out natural, because we want to enjoy it, which is great, we are altering that landscape to something that works better for people. And so we see these areas a lot more frequently nowadays.

MARY ALETTA: So there's a lot of research that goes into Leave No Trace. There's human dimensions that tells us about visitor's perceptions, attitudes, and behaviors, and just gets us to know more about people that come to the parks and how their actions can impact the overall ecosystem. And there's actually a field called recreation ecology, which tells us about these recreation impacts and also how they can be reduced and managed by the managers and also visitors.

So now, we're going to get into talking about the Seven Leave No Trace Principles. We're going to go through these and talk about them more. And as we go, you can go ahead and contribute some comments to things that come to mind as we're talking about examples that you yourself have done, or that you think should be done out in the outdoors.

So these are all principles-- and we like to use that word rather than rules, because obviously things like safety come first, and sometimes you can't always abide to all these principles. But they are just kind of a foundation. And they all build off of each other, and they're just really important to keep in mind. And as long as you are aware of them, you're making the outdoors a better place.

So the first principle is Plan Ahead and Prepare. This involves everything before you go outside. So things like looking at weather; knowing what trails you're going on and directions; bringing proper stuff, like garbage bags or whatever you need to follow the rest of the principles.

That is all really fundamental in following the rest of them. Because like I said, they all build off of each other. So making sure that you're planning before your trip can really reduce your impacts and prevent the possibility of needing to take from nature to provide for yourself if you forgot something that you need.

JENNIFER JOHNSON: Great. So the second one is Travel and Camp on Durable Surfaces. So we go into the outdoors, whether it's in the winter, in the spring, summer, fall-- the areas in which we are walking, which we're driving, which we're camping on, some will be more impacted than others. So in general, it's really great to hike on already trails, to hike single file-- we don't want to widen those trails any more than they already are.

When we're looking at campsites, to camp somewhere that's already established, or on areas that are going to have less of an impact. So snow or ice, obviously, is great. Rocks and gravel are also preferred to, let's say, grasses or meadows.

When you're camping, it's good to be at least 200 feet from water sources, so we can protect those riparian areas that are more susceptible to damage and impacts. And just in general, to avoid places where your impacts are just beginning. So if you are walking maybe between your campsite and the river, to not keep walking the same path and so you're creating this new path, but rather to have less of an impact by varying that path each time, to keep it as natural as possible.

MARY ALETTA: Next, we have Dispose of Waste Properly. This involves everything that you're doing outdoors in terms of fecal waste and things like that. You need to prepare if you're going out into the really pristine backcountry areas. Like, you need to bring either your shovel and dig catholes, about 6 inches deep, and make sure you're doing that far away from streams.

And then, there are also some areas where you can't dig catholes, because things need soil to decompose, so if you're up on a glacier or in a desert where there's very little organic matter in the soil, you need to bring your own bags to do that stuff. And this sometimes can lead to-- people will leave these bags all over the place, and it's becoming a huge issue. So really emphasizing taking out everything that you bring and not leaving anything behind. And this will also contribute to keeping wildlife healthy and our water resources healthy.

Things like trash and all that, just being prepared and having the capability of carrying that out. And understanding that, when you go out in the backcountry, that you have that kind of responsibility, that, yeah, it's extra weight to carry your trash out, but it's just something that you need to do. You don't want to go into one of your favorite areas and see a bunch of trash everywhere. That never feels good to see.

JENNIFER JOHNSON: And a good thing for that one is "pack it in, pack it out." Whatever you're taking into an area with you, you're also taking out with you. So the next one is called Leave What You Find. And this is the idea of preserving the past. So we go to these areas that have great history with them. You can see, perhaps artifacts, you can see paintings-- whatever it might be.

But the idea is to examine but never touch these cultural or historical sites and artifacts. Again, the main component behind Leave No Trace is making sure that future generations have the same access and have the same enjoyment from these areas we're visiting today. And so Leave What You Find is talking about leaving the rocks, leaving the plants, leaving any natural objects as you find them.

So if you go to a campsite, you don't pull over these logs and make a bench or create a table or anything like that. You're leaving what you're finding. You're using what's available. This is also where avoid introducing any nonnative species or invasive species-- no transporting of invasive

species. This falls under this principle. And then also, in terms of actually establishing campsites, there is safety, but trying to avoid digging something like a trench or something that's going to leave a lasting impact if at all possible is a big part of this one.

MARY ALETTA: Yeah. And also, it's hard to remember-- sometimes like if you find something really cool or beautiful in nature, a lot of people will take that and put it on their shelf or something, but it usually will just collect with all your stuff, and you're preventing all these other people from being able to see it and appreciate that natural beauty.

So the next one is Minimizing Campfire Impacts. This one you want to be extra careful of when you are in the backcountry. Definitely stick to areas that are already established campfire rings. Obviously, this excludes emergency situations. But if you really need those emergency situations, there's ways to build fires with minimal impact by really making sure that it's being done safely, and that it's being put out all the way before going to bed. It can be one of the most damaging things of all of these, if you are irresponsible about fire. And it can really have an impact on wildlife and everything if you're just burning things and not keeping it maintained.

JENNIFER JOHNSON: This one also kind of can attach to Leave What You Find. So you're not breaking off branches from trees that are still growing. If you do grab wood, take it from the ground. And it's even better to bring your own so you're not taking resources from the areas around you.

So I think we're on five. Our fifth one is Respect Wildlife. So we saw some images where this is in play. But wildlife is those stay wild. And so we can observe it from a distance, but try not to follow or approach, for their safety as well as your own.

Never feed the animals. They have their own nutritional habits, so any new foods can actually damage their health. And changing that diet can be really detrimental to the area. So keeping it natural for them. Protecting them from your own food, because yes, they're going to smell it, and they're going to want it. So making sure you're storing rations very securely, any trash is being kept in either like bear bins-- something that they can't get into-- or vehicles is even better.

If you do bring a pet, this is where it falls in. So making sure your pets are always on leashes, because they're probably going to want to chase that squirrel or that deer, which then is changing their natural environment. So controlling your pets at all times. I mean, leaving them at home is always the best option, but I understand wanting to take them with you. So just making sure they're always on a leash.

And avoiding wildlife during sensitive times is the last part. So during breeding seasons, making sure you're leaving alone. Same with mating, nesting. If they're raising their young, those are really specific times that wildlife are developing these habits, and they're more sensitive to these impacts. So that's part of planning ahead-- that first principle-- is making sure you know when these seasons are and being really respectful of that.

MARY ALETTA: And if you're following all of the principles up to this point, chances are, you will be respecting wildlife, hopefully.

JENNIFER JOHNSON: [LAUGHS] Yeah.

MARY ALETTA: So the last one is to Be Considerate of Other Visitors. And again, if you're following all these other things, you'll likely be doing this. But this kind of emphasizes, when you're in areas where there's lots of campsites around and a lot of other people trying to enjoy the area, just to be respectful of that and quiet. Like, not having crazy loud conversations in the middle of the night. [LAUGHS]

And again, this leads into leaving things clean for the next person, because there's other people visiting in all these places. And this one just kind of ensures that everyone's having a good time outdoors, and you're looking out for each other and not stepping on anybody's ability to enjoy the outdoors for themselves. So those are all the principles.

Here's just more pictures of people not leaving things how they found it. There's really no reason to do this. And it can cause some-- it's just not nice. [LAUGHS] Not nice to see when you're trying to enjoy the pristine nature. And here's more pictures of not minimizing campfire impact. We've got ashy things coming out of the fire pit. It's not a defined fire ring. There's trash everywhere. This wouldn't be a nice thing to come to if you're coming to your favorite campsite and you saw this.

JENNIFER JOHNSON: And so part of this organization of Leave No Trace, they just kind of put this challenge out to anyone who wants to take the time to enjoy these natural areas. So the Leave No Trace Challenge, as they state, is to prevent avoidable resource and social impacts, minimize unavoidable impacts, and then preserve the quality of resources and recreation experiences. So it's everything we've been talking about. It's just leaving it as you find it, or even in better shape.

So if you're out and about and you see something that is not following these Seven Principles, it's best to try to correct it yourself. So if you see little pieces of trash, microtrash, to pick it up, take it out with you. If you see someone who is, like, blasting their music, you can politely go up and explain the reasons that's not great to either other visitors or to wildlife and changing that. And so there are ways to approach this and try to leave the place better than you found it.

And so these are some of the programs that are offered by Leave No Trace. The first one is called PEAK. And so this stands for Promoting Environmental Awareness in Kids. And so this is one of their big educational programs. It's actually presented as a pack of six activities, and then there are additional activities for teens. And then there's also other languages available. It can be purchased through the Center. I believe the website is going to be shown at the end.

And it's also available through "Packing the PEAK" grant. And there's a bunch of downloadable activities. There's videos, there's hands-on things. There's actually an online collection of these

interactive web-based activities. And these can really help kids learn to Leave No Trace. And educating kids who are just starting their ventures out in the natural areas they're visiting, it's great to teach them these young. This is one in the packs that really enables them to understand these Seven Principles.

Another program that Leave No Trace offers is called the Traveling Trainer Program. And so this is actually supported by Subaru, and it provides support and vehicles for this partnership. It began in 1999, and it's allowed the Leave No Trace Center to reach out to millions of individuals.

It's a hands-on approach, and it's actually considered to be one most effective ways to engage the public. So if you have a group, whether it's you and your colleagues, family, friends-- whatever it might be, you can reach out to the Center, and they can actually send experts to give talks, to do interactive activities with whatever group you feel needs it. And it's gotten really good reviews. And it's, again, one of those most effective ones.

Then there's the State Advocate Program. And so this is actually occurring in over 48 states. It's expanded quite a bit over the years. And so advocates are volunteers in their respective states who help coordinate and conduct these Leave No Trace trainings, whether it's outreach and education-- it can be, again, with any group that seeks some kind of training program. So the advocates receive the training, the materials, and financial support from the Center. And again, this reaches thousands of people annually. It's another option for trying to spread the knowledge of Leave No Trace.

Then there's the Frontcountry Program. So compared to backcountry, which is, usually, you're not close to hospitals or resources-- you're on your own-- frontcountry is one of the more common ways to enjoy the outdoors. And so it's defined as outdoor areas that are easily accessible by vehicle and mostly visited by day users.

And so 85% of outdoor recreation actually happens in frontcountry. So when you go to these national parks, these national forests, it tends to be these frontcountry. And so the Center is working with a lot of their partners across the US to develop programs that can help protect these resources that are most visited. And again, it's reaching a lot of individuals. So if you are visiting these areas, if you know you're going to be doing a frontcountry exhibit or a trip and you want some more information, there's this frontcountry program that has specifics to those who are enjoying these areas.

And then International Programs. So this is actually one of their newer ones, but the Center international branch organizations that are in Canada, New Zealand, Ireland, and Australia. And then they have 60 partner organizations, agencies, and educational institutions around the world. And so Leave No Trace Center, their staff offer this Master Educator Course and other training options to the international community. So if you know people or know of colleagues or others who are in these other countries, they can also have access to the Leave No Trace Center.

MARY ALETTA: So there's a three-tiered training structure if you want to get more information about Leave No Trace and become involved in this training. There's training options all over the country. So the first level is just Awareness Workshops. These are 30 minutes to a full-day introductory workshops that just introduce people to the concept of Leave No Trace.

It's designed for the general public, and this has had-- millions of people worldwide have been trained in Leave No Trace awareness. It's really good thing to do, like-- we do them on our outdoor rec center trips. Every time we have an overnight trip, we'll try to get everybody there awareness trained.

And then there's the next level, which is the Trainer Course. And this is a two-day field course resulting in a certification. This is taught by Master Educators. And there is currently over 28,000 trainers. And then the next level is a Master Educator Course. And this is an intensive five-day field-oriented course, offered by one of the Center's course providers in various regions of the country. And there's currently 6,000 Master Educators worldwide.

There's also quite a bit of involvement in social media. There's over 80,000 followers in Facebook, YouTube, Twitter. I don't really know what this is.

[LAUGHTER]

Blogs. So that's great, to get people involved that way, because you can learn all these things over social media as well. And that contributes to that connection that people make, and kind of holding people accountable.

There's also publications and materials. There's these little cards that you can take with you for teaching people. Skills and ethics booklets. There's lesson plans-- "101 Ways to Teach Leave No Trace," which is great for if you're in a setting where you're teaching kids or just large groups and trying to teach awareness. There's brochures and the PEAK pack that we talked about earlier. A lot of these resources are available in different languages, and on the online store, or by calling the Center.

JENNIFER JOHNSON: And so ways to get involved. So there's been a lot of information. Like we said, there's a lot of resources out there. But the easiest way is just to join Leave No Trace-- become a member or a partner of the Center. To practice. So every day, whether you're just in your neighborhood park or you're actually going to vacation to these larger areas, to practice these Leave No Trace Principles when you're outside.

To visit the website and educate yourself. So it's really simple. It's a great website. There's a bunch of resources. They break everything down for you. And so just take some time to read through some of that. Spread the word. So tell others about Leave No Trace. Like I said, it's been growing quite a bit, and more and more people are becoming aware of it, but it would be great if everyone was, as everyone is visiting these areas that are special to someone.

Take one of those courses. So just the basic level of awareness, you can get small certification in that. And it can help you to educate others and to make sure you're practicing it appropriately when you're outside. One of my favorites, and I think most important, is educating the next generation. So introduce a kid to Leave No Trace. You can use that PEAK online tool or any other tool you find works for you or you think is really helpful.

And then finally, just simply put, enjoy the outdoors responsibly. So we love that the outdoors is becoming more and more popular. More and more people want to visit these national parks and these natural areas. But we need to ensure it's done responsibly so that, like we said, those future generations can enjoy them as well.

And so is just, you know, that pristine, beautiful picture that we would like to keep as is. So Leave No Trace is about enjoying the outdoors responsibly and it starts with you. Each individual can have a really big impact, whether it's just following the Seven Principles, teaching it to others-- that one person can make a change. So like I said, when you're outside, just make sure you're trying to employ these principles.

MARY ALETTA: And leading by example. You know, people see somebody else being responsible in the outdoors or cleaning something up, it's just going to cause a whole trickle effect. So every little thing counts.

JENNIFER JOHNSON: And then here are those resources. So they do have a number to call. They have an info email, so if you have any questions, if you're interested in getting one of these training courses in your area or bringing it to your group, you can just send them an email. Or you can visit their website. And like we said, there's dozens of resources that are easily accessed for you, downloadables, just things online to play around, whatever it might be.

So for those of you who are still on, if you have any questions. Perfect--

[LAUGHTER]

[INAUDIBLE] posted-- please type them into that box. We can answer anything you might need. And if something comes up later, again, these websites are great resources to go to.

So Jonathan asks, has anyone had any experiences with lightweight alternatives for fires? And the easiest way is one of the camping stoves. They can get a little pricey, but they are getting really lightweight, so if you're looking at backpacking and try to minimize that weight you're bringing with you, there are some great camping stoves out there that are extremely lightweight and really good alternatives to actually building a fire, which is going to have, like we said, one of those largest impacts on the environment around them.

MARY ALETTA: I know Jetboils are like the [INAUDIBLE]

JENNIFER JOHNSON: That's what I have.

[LAUGHTER]

Yeah, that's what I have personally.

MARY ALETTA: Yeah, they're expensive, but they're--

JENNIFER JOHNSON: They're getting cheaper [LAUGHS]--

MARY ALETTA: [INAUDIBLE]

JENNIFER JOHNSON: --I will say. They're getting more common. The only-- my thing with them is you can't refill the fuel so you have to keep buying new ones, but if that's the biggest issue I have with it, it's doing pretty well. And yeah, they're only a couple pounds, so very lightweight.

MARY ALETTA: Yeah, and WhisperLites are also pretty good. They're fairly light.

JENNIFER JOHNSON: Those are really easy to fix yourself, so tend to last a lot longer.

MARY ALETTA: Yeah. They last a super long time, and you can refill the fuel bottle, which is nice.

JENNIFER JOHNSON: But yeah, the alternative of using a stove to a campfire is always preferred with Leave No Trace.

MARY ALETTA: Definitely. Yeah. And more efficient for all.

JENNIFER JOHNSON: Yeah. OK. So again, if you have any questions, that email or the website has a lot of materials that you can go check out. But thank you for listening today, and hopefully you can start using these principles when you go out and enjoy the environment. We really appreciate it.

MARY ALETTA: Yup. Thank you.