

A LEAVE NO TRACE
PRIMER
with related
TATC Education Committee
Handouts



TABLE OF CONTENTS

Title.	Page Number
TABLE OF CONTENTS.....	3
NOTE FOR LEAVE NO TRACE SEMINAR LEADERS.....	5
ACKNOWLEDGMENTS.....	5
Flip Chart 17.	6
THE MISSION OF THE LEAVE NO TRACE PROGRAM.	6
Flip Chart 16.	7
THE APPALACHIAN TRAIL EXPERIENCE.....	7
INTRODUCTION.....	8
Flip Chart 1.	8
EVERYTHING IS 200-FT.	9
EDITORIAL NOTES.....	11
THE SEVEN PRINCIPLES OF <i>LEAVE NO TRACE</i>	13
Flip Chart 2.	13
1. PLAN AHEAD AND PREPARE.....	13
2. TRAVEL AND CAMP ON DURABLE SURFACES.....	15
Flip Chart 3.	15
Flip Chart 19.	17
3. DISPOSE OF WASTE PROPERLY.	19
Flip Chart 4	19
Flip Chart 5.	19
Flip Chart 20	20
Flip Chart 6.	20
Flip Chart 21	21
Flip Chart 7.	21
Flip Chart 22.	22
4. LEAVE WHAT YOU FIND.....	23
Flip Chart 8.	23
5. MINIMIZE CAMPFIRE IMPACTS.....	25
Flip Chart 9.	25

TABLE OF CONTENTS

Title.	Page Number
6. RESPECT WILDLIFE.	27
Flip Chart 10.	27
7. BE CONSIDERATE OF OTHER VISITORS.	29
Flip Chart 11.	29
Flip Chart 12.	29
Flip Chart 13.	30
Flip Chart 14.	31
Flip Chart 15.	31
PORTABLE FIRE PANS AND MOUND FIRES.	33
LNT EXERCISE NUMBER ONE: MARKER FLAGS.	35
LNT EXERCISE NUMBER TWO: 200-FEET.	39
BE BEAR AWARE.	41
CHESAPEAKE PARKS & RECREATION BEAR SIGN.	42
TATC EDUCATION COMMITTEE HANDOUTS.	43

NOTE FOR LEAVE NO TRACE SEMINAR LEADERS

When getting ready to print copies of this booklet to give out at a seminar, make sure to also print the TATC Education Committee Handouts listed at the end of the booklet.

ACKNOWLEDGMENTS

Thanks to Ben Lawhon ¹, Leave No Trace, Inc. for reviewing this booklet, making knowledgeable suggestions for improvement, and for approving this volume. Thanks also to Tom Reed, Tidewater Appalachian Trail Club, and a Pulaskiteer, who contributed so much to LNT Principle # 6, Respect Wildlife, in this booklet. And last, but by no means least, a big thanks to “Our Mother” for the time I’ve been able to spend in the outdoors.

¹ A friend who previously worked for the Appalachian Trail Conference, in the Tennessee, North Carolina and Georgia Regional Office (Colloquially known as the Deep South R.O.), before moving to LNT.



Flip Chart 17 ²
POP
QUIZ
FOLLOWS

THE MISSION OF THE LEAVE NO TRACE PROGRAM ³

The mission of the Leave No Trace (LNT)⁴ program is to promote and inspire responsible outdoor recreation through education, research, and partnerships.

² Flip Charts are used during LNT seminars and presentations. They are included in this booklet so folks will have the texts of the Flip Charts after the session. Flip Chart numbers are only for seminar leader use. They are numbered in the order in which they are developed and incorporated in the booklet. Flip Chart 17 is strictly a “class waker-upper,” at the start of a session - there is no quiz.

³ © National Outdoor Leadership School

⁴ The phrase “Leave No Trace” © U.S. Forest Service.

Leave No Trace

Please !

Flip Chart 16
We do not belong to the Earth.
The earth belongs to us.
Chief Seattle

THE APPALACHIAN TRAIL EXPERIENCE

The Appalachian Trail Conference Board of Managers has defined the A.T. trail Experience as:

"The sum of opportunities that are available for those walking the Appalachian Trail to interact with the wild, scenic, pastoral, cultural, and natural elements of the environment of the Appalachian Trail, unfettered and unimpeded by competing sights or sounds and in as direct and intimate a manner as possible."

The main ideals that the Appalachian Trail Conference Board of Managers considered integral to the Appalachian Trail experience:

- Opportunities for observation, contemplation, enjoyment, and exploration of the natural world.
- A sense of remoteness and detachment from civilization.
- Opportunities to experience solitude, freedom, personal accomplishment, self-reliance, and self-discovery.
- A feeling of being part of the natural environment.

INTRODUCTION

Flip Chart 1
When hiking or camping, Tread Softly on Mother Earth
and
Leave no Trace

"Take nothing but pictures,
Kill nothing but time,
Leave not even footprints."

"Let no one say,
And to you shame,
That all was cleanliness,
Until you came ⁵."

When hiking or camping: ***TREAD SOFTLY ON MOTHER EARTH***, and ***LEAVE NO TRACE***.

For up-to-date information:

Visit the LNT web site www.LNT.org (usually in capital letters so the "L" is not confused with a "1"). From the web site purchase posters, hang tags, caps, cups, literature, decals, pins, and other LNT items. On the web site you can also look up the LNT address, points of contact, and telephone and facsimile numbers.

Misuse of the trail and its surroundings robs all the rest of us of some of its value ⁶.

Backcountry areas are places to seek solitude and a "wilderness" experience away from crowds, noise, and daily pressure of urban life. This escape should be accompanied by a personal commitment to protect and preserve these areas.

Use as many of the guidelines in this booklet as you are comfortable with, but be flexible. Always lean toward the side of nature when making decisions.

⁵ National Campers and Hikers Association (NCHA) motto.

⁶ Leave No Trace, Land Ethics, USDA Forest Service.

EVERYTHING IS 200-FT

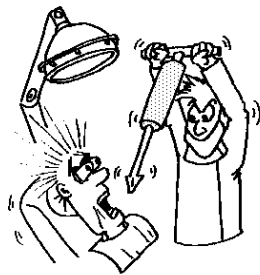
The cardinal rule is 200-feet from everything, especially 200-ft away from camp, the trail, and the water source. This measurement will come up again and again. 200-ft is approximately 70 to 80 adult paces. How many of your paces make up 200-feet⁷? Refer to the TABLE OF CONTENTS and “LNT EXERCISE NUMBER TWO: 200-FEET.”

- Camp 200-ft from streams or other water, from the trail, from other campers, and from a shelter.
- Urinate and dig catholes 200-ft from camp, from the trail, and from streams or other water.
- Bear bag your food and toiletries 200-ft from camp.
- In bear country, cook and eat 200-ft from camp. In our area, cook and eat some distance from your tent in case of food spills at your front door.
- Spread toothpaste spittle 200-ft away from camp, the trail, and from streams or other water.
- Spread waste water 200-ft from camp, the trail, and from streams or other water.
- Wash yourself, your teeth, and your dishes 200-ft from camp, from the trail, and from streams or other water.

⁷ Refer to the Table of Contents, then to LNT EXERCISE NUMBER TWO.

Leave No Trace

Please !



Brush Teeth



Bathe



Water Source



Trail



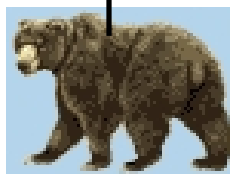
Campsite



Cook / Eat



Potty



**Bear Bag
That Bear
Appealing
Stuff**

EDITORIAL NOTES

- Within the pages devoted to THE SEVEN PRINCIPLES OF *LEAVE NO TRACE*, the Text in **boldface** type, is quoted from *Leave No Trace* documentation. Other text is paraphrased from LNT ⁸ data and other publications, and from personal experience.
- Regardless of what is written in this booklet, always refer to the appropriate, and current, LNT “Skills and Ethics” booklet for the area of the country in which you will be hiking. “Skills and Ethics” booklets are listed on the WWW.LNT.ORG web page. You should periodically check the LNT web page for new information.
- And always check with the appropriate land agency where you will be hiking and/or camping to gain information on local LNT guidelines peculiar to **that** area.

⁸ LNT = *Leave No Trace*

Leave No Trace

Please !

THE SEVEN PRINCIPLES OF *LEAVE NO TRACE*

Flip Chart 2

LNT is really (really, Really, REALLY) simple: Learn how our actions can harm the backcountry; become committed to doing as little harm as possible; go do it (or don't do it, as the case may be); and, don't be a wuss about getting fellow backcountry users to join in.

1. PLAN AHEAD AND PREPARE

A. Know the regulations and special concerns for the area you'll visit.

Contact the land manager (US Forest Service, National Park Service, US Fish and Wildlife Service (National Wildlife Refuges), state/city parks/forests, private landowner, and etc.) Advice (like that concerning fires being/not being allowed) may change from season to season.

Do you know what jurisdiction (state, county, or city, and etc.) you'll be hiking in so that you can look up the hunting seasons for **that** area ⁹ ?

Do you know the web site for the Virginia Department of Game and Inland Fisheries ?

Hunting is allowed in some State Parks and in some National Wildlife Refuges.

Hunting is allowed in many areas from and along side (but **not** across) the A.T.

One train of thought says:

When in doubt, boil, filter, or chemically treat backcountry water.

Another train of thought might say:

When in doubt, wear blaze orange.

B. Prepare for extreme weather, hazards, and emergencies.

If you're ready for the worst weather that can happen, at that time of year, in your hiking area, you don't need a fire, and you're not a danger to yourself.

C. Schedule your trip to avoid times of high use.

You'll find it quieter, and there is a better pick of campsites. Also, the traffic is easier to cope with.

Go into less used areas.

Most campsites are first-come, first-served. Avoid having to hurriedly establish camp

⁹ It is legal to hunt from and adjacent to the A.T. on most lands except for National Park land.

Leave No Trace

Please !

and trampling vegetation in an unsuitable area after dark or in bad weather. Know where alternate campsites are located. Plan extra daylight to be able to reach that alternate campsite.

D. Visit in small groups. Split larger parties into groups of 4-6.

This does not preclude your overall responsibility to remain within Forest Service and ATC guidelines of not more 20 for day trips and 10 for overnight trips (mandated in Wilderness Areas).

E. Repackage food to minimize waste.

Ziploc ® bags can be used over and over.

F. Use a map and compass to eliminate the use of rock cairns, flagging or marking paint.

Every time I see stick arrows or directions in the dirt, I remove them. Know where you are going, keep the group together, control your people.

Know and have available telephone numbers for appropriate services such as medical and rescue. Know where you are so that you can tell them where to come when aid is needed.

2. TRAVEL AND CAMP ON DURABLE SURFACES

Flip Chart 3

There may be people who feel no need for nature. They are fortunate perhaps. But for those of us who feel otherwise, who feel something is missing unless we can hike across land disturbed only by our footsteps or see creatures roaming freely as they have always done, we are sure there should still be wilderness. Mardy Murie

A. Durable surfaces include established trails and campsites, rock, gravel, dry (!¹⁰) grasses or snow.

Pine needles and leaf litter are also durable.

Ferns and other undergrowth is easily trampled down and killed. Trampling an area only two times may kill an area.

Trails and established campsites concentrate impact.

Don't short cut switchbacks and turns. You easily damage the terrain and form "rhino or social ¹¹" paths for others to follow. Remember that erosion is your shadow.

Alpine areas are extremely fragile. Plants, mosses, lichens and the like growing on rock are also very fragile. That lichen you just stepped on may have taken 75 years to grow on that rock.

Take breaks where you will not damage or trample the environment.

Broad-leafed plants and low-growing shrubs are fragile and trample easily.

Stay in the center of the trail. Walking the trail edges smashes down and kills vegetation, soil then erodes, and that nice small trail becomes a wide, ugly highway.

Try to avoid wet, muddy periods right after a storm. Heavy boots, multiple hikers, and wet conditions, deteriorate trails and campsites.

Gaiters will protect your footwear as you hike the middle of the trail in the puddles and mud.

Be considerate of the trail maintainer.

- Stay on the trail.

- Pack it in - Pack it out.

- Pick up after others.

- Toss branches off the trail.

- Keep those walking sticks next to your feet and not in the slopes at the side and turns of the trail.

¹⁰ Exclamation point (!); i.e., the emphasis is mine, Editor.

¹¹ A "rhino or social" trail is an unauthorized trail caused by repeated use.

Leave No Trace

Please !

B. Protect riparian areas by camping at least 200 feet from lakes, streams.

In areas of wet soil, and marshy and boggy areas, restrict travel to exposed rocks, or sandy soils, or find an alternate route.

Carry a collapsible one or two-gallon water carrier to reduce trips, and to lessen your rhino trail making to and from the water source and your campsite.

One 1-gallon container = four 1-liter trips;

One 2-gallon container = eight 1-liter trips.

C. Good campsites are found, not made. Altering a site is not necessary.

Don't clear-cut the ferns or other vegetation. This helps cushion your sleeping bag. Leaf litter and vegetation softens the rain and cuts down on erosion.

Don't snip branches to make room for a tent.

You don't need to move rocks or logs to use for chairs. Carry a piece of an exercise pad to sit on.

Instead of camping on a stream bank and creating a lot of impact, just visit the stream bank and camp elsewhere (remember that 200-ft ?).

Kitchen and social areas receive harder use than tent areas. Watch where you place these satellite service areas to concentrate impact in hardened areas.

Pick a site large enough for your group, don't enlarge the site.

A littered campsite encourages other folks to go elsewhere and to create their "own" new campsite.

Consider your visual impact on other hikers and campers, and on wildlife. Tuck in behind trees, or behind rocks and other screening

Stay that 200-feet from trails, water sources, and other campers.

Avoid sites showing just a wee bit of impact. Your added impact may harden the site forever.

Remove boots and wear camp shoes as soon as you can to lessen the impact of Vibram ® boot soles.

If you are late, you may be forced to camp in an area other than the planned campsite, in the dark, without proper preparation or environmental safeguards. Hurried campsite selection usually leads to unnecessary environmental damage and the trampling of much vegetation. Late comers, especially youth groups, are prone to creating a great deal of noise as they search for a campsite, then set up camp.

When breaking camp, naturalize the area. Replace rocks and branches. Rough up the area with a branch. Scatter leaves. The less your site is seen, the less chance others will use it the very next day.

Leave your campsite looking like a site you would want to use tomorrow.

Leave No Trace

Please !

If you use a shelter:

Brush it out, leave it clean.

Remove any dripped candle wax.

Leave some kindling and firewood under the shelter where it will be dry for the next person.

<p>Flip Chart 19 Two dentist/dental cartoons</p>
--

Toothpaste. Use less. Swallow it. Change to a brand that does not froth. Add water to your mouth, then swoosh the stuff over a large area of the ground, not the bushes. Go that 200-ft. Please don't leave white splats all around camp; better yet - use one you can swallow and not spit. Use less toothpaste, use salt water, use a powder, use baking soda.

Bears ¹².

Hang that food, that garbage, those cosmetics, the toothpaste, the lip balm, everything that smells sweet.

Keep all food out of your tent, and your pockets.

Double bag and hang used toilet paper and hygiene products.

Bears are smart - ever see a circus bear balancing on a big ball ?

Bear resistant canisters work well and, in some areas, are required.

Leave the bacon and tuna at home.

Don't pour things like tuna or sardine oil, bacon grease ,Vienna sausage, or Spam ® drippings, on the ground. Better yet, leave the smelly stuff home.

In areas of high black or brown bear populations such as Mount Whitney and Great Smokey Mountains National Park, and in grizzly bear country, *consult with the local land management agency for proper hiking, camping, food preparation, and bear confrontation guidelines* in T-H-A-T area. Recommendations vary from area to area and from bear species to bear species. You need to know what to do, and what not to do, under varying conditions. This could save your food, or your *LIFE*.

In popular areas

A. Concentrate use on existing trails and campsites.

It is better to have one hardened trail, than a bunch of ill-made "rhino" trails.

¹² Refer to Table of Contents and read "BLACK BEAR NEWS - READ AND HEED," and "BEAR BAGGING."

Leave No Trace

Please !

B. Walk single file in the middle of the trail, even when wet or muddy.

C. Keep campsites small. Focus activity where vegetation is absent.

Don't create "rhino" paths to the water source, the outhouse, the kitchen, etc.

In pristine areas

A. Disperse use to prevent the creation of campsites and trails.

Even faint trails will soon be followed by others.

Use of a pristine site for more than a night or two, or more than two to three times a year may build a permanent site / trail.

B. Avoid places where impacts are just beginning.

Let them recover instead of killing them completely.

Using pristine camping and hiking areas requires much more effort, and more skill to "Leave No Trace"

The site you slightly impact today, others will see, and use and kill tomorrow.

Off-trail hiking/camping is not recommended for more than 4-6 hikers/campers, preferably fewer.

Trekking Poles

As with any tool, use them with care for the environment. Keep the tips off fragile trail edges and downhill embankments. Keep them as close to your feet as possible so that other hikers will tamp down your markings. Whenever possible use those rubber tips.

3. DISPOSE OF WASTE PROPERLY

Flip Chart 4 PII - PIO
Flip Chart 5 Pack It In - Pack It Out

A. Pack it in, pack it out. Inspect your campsite and rest areas for trash or spilled foods.

Nuisance animals such as racoons and skunks and opossums that keep coming into camp for scraps and looking for garbage are sometimes destroyed to keep people safe. A nuisance animal is often a dead animal.

Take an extra garbage bag, carry out other people's garbage.

Pack out all trash, leftover food, and litter.

Burning plastic and other food containers releases poisonous gases into the atmosphere you are breathing, and leaves residues in the campfire for others to pack out.

Candy wrappers and tie-ties placed in your pocket while hiking invariably fall out when you use your handkerchief or take something else out of your pocket. Keep your candy bars and snacks in a ZipLoc ® bag, then keep the empty and torn wrappers in the same bag.

Plan meals so there are no leftovers to worry about and carry out as heavy trash.

Buried garbage is frequently dug up by animals.

B. Deposit solid human waste in catholes dug 6 to 8 inches deep at least 200 feet from water, camp, and trails. Cover and disguise the cathole when finished.

- **Avoid polluting water sources.**
- **Eliminate contact with insects and animals.**
- **Maximize decomposition.**
- **Minimize the chance of social impacts.**

Carry a small trowel or U-dig-it ® to dig that cathole 200-feet from everything ¹³. If you have a big group, or if you are in a heavily used area or the desert, extend that 200-ft limit.

Poop decomposes slowly, often taking more than a year. Keep those catholes far apart

¹³ The U-dig-it ®, being steel, works better and is less likely to break in rocky or frozen soils.

Leave No Trace

Please !

and far from camp.

Help decomposition by stirring the cathole contents with a stick before filling the hole.

Locate catholes in organic soil where there are bacteria and microbes, not in more sterile sandy or mineral, soils.

Try to use the south side of slopes where the sun will help the composting process.

Replace the cathole plug when you backfill the cathole. Then water the plug with your canteen.

Telling your group to drive a vertical into each recovered and naturalized cathole will mark it so that it is not “discovered” by someone else digging a hole in the same location.

Do not use depressions under overturned, then replaced, rocks. Rocks block the sun's heat and delay composting.

Flip Chart 20 POOP POLLUTES

And, please, dig in that dog poop, or use a poop bag. There's nothing quite so nice as finding a pile of evil smelling dog poop in the middle of the trail, in your campsite, or on your boots in your tent.

On a day hike, a newspaper bag works really well for bagging and carrying out dog poop.

Urination. Animals will sometimes paw at the salts left behind when you urinate. Try to urinate on rocks when you can, especially in the desert. Gravel or pine needles are both good locations to use.

Animals will sometimes defoliate vegetation you urinate on, or dig up the ground.

To lessen the aroma, remember that 200-ft rule, or go even farther.

Flip Chart 6

If we are big enough, strong enough, tough enough, mean enough, and have room enough to pack it in ...
--

Then we dadgum sure are big enough, strong enough, tough enough, mean enough, and have room enough to pack it out.
--

C. Pack out toilet paper (TP) and hygiene products.

Use only white, uncolored, unscented toilet paper. Or use RV (recreation vehicle) biodegradable TP.

Instead of placing it in the cathole, use double Ziploc ® bags to pack it out. And use a hand sanitizer.

Leave No Trace

Please !

TP ¹⁴ decomposes v-e-r-y slowly.

Don't burn it - the fly ash is extremely light and may drift off to start a fire.

TP flowers neither look nor smell pretty.

You can always use natural substitutes like leaves ¹⁵, or smooth rocks, or snow.

Flip Chart 21

Leaves of Three
Bright and Shiny
Never Ever Wipe Your Hiney !

D. To wash yourself or your dishes, carry water 200 feet away from streams, lakes, or springs and use small amounts of biodegradable soap.

Minimize the use of soap. Hot water, snow, or sand will do a great job.

As the last step in the meal eating process, use a small food scraper to round up those last bits of food in you bowl or pot and eat them.

Flip Chart 7

There is nothing . . . absolutely nothing that we can bring into and leave in the backcountry that is good for the backcountry. Everything . . . absolutely everything . . . always winds up violating Aldo Leopold's credo.

Aldo Leopold - A Sand County Almanac (1949)

Use a small strainer (or panty hose, cheesecloth, window screen, coffee filter) to remove any remaining food particles from the dishwater, then dump the food scraps in your garbage bag.

Use a rinseless soap for your own washing (available at REI), or just rinse with water and forget the soap.

Rinse clothes, don't soap and wash them.

Use a heavy duty garbage bag for a bathtub, 200-feet from everything.

Scatter strained dishwater 200-feet from camp, the trail, and the water source.

Scatter, swoooooosh, waste water over a large area, far from camp (remember 200-feet).

¹⁴ TP = Toilet paper

¹⁵ This may be a foolish comment, but make sure the leaves you are about to use are safe and are ***not*** something like poison ivy or nettles.

Leave No Trace

Please !

Flip Chart 22 How Long Will LITTER Last ?	
Glass bottle	1,000,000 years
Aluminum cans & tabs	80 - 100 years
Rubber boot sole	50 - 80 years
Leather	Up to 50 years
Nylon fabric	30 - 40 years
Plastic film containers	20 - 30 years
Plastic bags	10 - 20 years
Plastic coated paper	5 years
Wool sox	1 - 5 years
Cigarette butts	1 - 5 years
Orange & banana peels	2 - 5 weeks

4. LEAVE WHAT YOU FIND

Flip Chart 8

A thing is right when it tends to preserve the integrity, stability, and beauty of the biotic community. It is wrong when it tends to do otherwise.

Aldo Leopold - A Sand County Almanac (1949)

A. Preserve the past; examine but do not touch, cultural or historic structures and artifacts.

Removing artifacts and the like may liable you to a fine, or worse. Leave what you see for others to see and study.

What you see may be sacred to Native Americans and other peoples.

B. Leave rocks, plants and other natural objects as you find them.

The berries you see may be an animal's food source. Leave what you find. If a hiking group picks all the ripe berries, what do the birds and animals eat ?

Be careful not to girdle saplings with tent or tarp ropes.

When you fling rope over a branch for your food sack, and pull that heavy sack up, you unintentionally girdle that branch. Instead, use a rope with a pulley or carabiner ¹⁶, then run a second rope through the pulley or carabineer. The "haul rope" then rubs on the hardware, not on the branch.

Keep that lantern off a branch and away from a tree trunk so you don't cook the tree.

C. Avoid introducing or transporting non-native species.

Clean those boots, leave the seeds where they were found. Don't move or transplant animals (salamanders, frogs, or any others) or plants.

Shake out the tent and ground cloth before packing it away.

D. Do not build structures, furniture, or dig trenches.

If you must, bring a folding camp stool or chair, a durable sleeping pad that can take abuse as a chair or chaise lounge against a rock or a tree with rough bark, or a Therm-A-Rest ® chair. Or buy an inexpensive exercise pad and cut it into individual sitting pads.

If you must have a picnic table, go to hardened site where these are provided. But don't hog the table at an A.T. shelter. Don't hog the shelter either.

¹⁶ Refer to Table of Contents and Read “BLACK BEAR NEWS - READ AND HEED,” and “BEAR BAGGING.”

Leave No Trace

Please !

5. MINIMIZE CAMPFIRE IMPACTS

Flip Chart 9

Cartoon of camper cooking with a bear looking over his shoulder.

A. Campfires can cause lasting impacts to the backcountry. Use a light-weight stove for cooking and enjoy a candle lantern for light.

Remember, a stove leaves no trace.

Using a stove eliminates blackened rocks of a fire ring, and the extra work of wiping out signs of your fire, and is easier and quicker with which to cook.

You should carry appropriate equipment/clothing for warmth, shelter, and light.

A fire may not always be legal, or feasible, or safe.

When you arrive at the campsite there may be no wood available, it may be too dry or windy for a fire, or a fire ban may be in effect.

Does your group have the skills to build a campfire that will *Leave No Trace* ?

B. Where fires are permitted, use established fire rings, fire pans, or mound fires ¹⁷.

Pit fires are no longer recommended. The heat kills and sterilizes surrounding and underlying soil, roots, and bacteria, and the cover will sink in time.

Practice your fire building and cooking over a fire at Scout camp, or at established campsites having permanent fire rings.

Please don't build new fire rings. Use that stove.

C. Keep fires small. Only use sticks from the ground that can be broken by hand.

If it's bigger than your wrist, you don't need it. Left over, half -burned logs are an eyesore. Small diameter wood burns down to ash that's easy to scatter.

Large logs are usually left half burned and very ugly. Dragging large logs leaves trails and disturbs the area, tramples plants, and makes "rhino" trails.

Use only wood found on the ground.

If you can pick it up and break it, you need not carry an axe, a hatchet, or a saw.

The American Indian made a small fire and sat close.

The white man makes a bonfire and stands far back.

A forest with all the lower branches cut or broken off is a sorry site, and visible evidence of thoughtless campers.

¹⁷ Refer to Table of Contents and read "PORTABLE FIRE PANS and MOUND FIRES."

Leave No Trace

Please !

D. Burn all wood and coals to ash, put out campfires, then scatter cool ashes.

Leave No Trace.

6. RESPECT WILDLIFE

Flip Chart 10

Any disruption of nesting, feeding, or mating is harmful.

Jay Norwood “Ding” Darling: designed first duck stamps; 1930 Iowa Fish and Game Commission; 1934 Chief, US Biological Survey, forerunner to US Fish and Wildlife Service.

A. Observe wildlife from a distance. Do not follow or approach them.

Use binoculars and a telephoto lens so you can keep your distance and avoid disturbing or spooking wildlife. In the winter, spooked wildlife may use valuable energy and food stores to avoid your presence in their homelands.

B. Never feed animals. Feeding wildlife damages their health, alters natural behaviors, and exposes them to predators and other dangers.

Stomach enzymes may not be able to cope with human food.

An animal that becomes accustomed to humans loses its fear, may pose a danger, and may have to be destroyed.

Respect the rights and privacy of those who live in the wilderness, the natural inhabitants.

C. Protect wildlife and your food by storing rations and trash securely ¹⁸.

Also cosmetics, soap, lip balm, and etc.

The animals were there first. We are their guests. Our stay is temporary — animals are stuck with anything we leave behind.

D. Control pets at all times, or leave them at home ¹⁹.

Take care of their wastes as you take care of your own - leave it *not* on the trail.

Don't let your dog chase that chipmunk, rabbit, deer, or skunk(!). Do you know how to deskunk a dog???

E. Avoid wildlife during sensitive times: mating, nesting, raising young, or winter.

And when eating.

¹⁸ Refer to Table of Contents and Read “BLACK BEAR NEWS - READ AND HEED,” and “BEAR BAGGING.”

¹⁹ Refer to Table of Contents and read “HIKING WITH A DOG.”

Leave No Trace

Please !

F. Other.

Do the homework and research to learn regulations for the area you will be visiting (permit, group size [day/overnight], fires, areas closed due to nesting, or rehabilitation, or other reasons).

Noise: Travel quietly, except in bear country, and keep group size small. When possible, schedule your trip to avoid high use times.

Movement: Don't make sudden moves that startle wildlife.

Colors: Blend in, except during hunting season, use natural colors, put yourself in a stealth mode. Be unobtrusive.

Odors: Sun screen, insect repellent, cosmetics, even something you ate, are a few of the smells that can alert wildlife to your presence.

Avoid inadvertently forcing animals to flee your presence. In their haste they may injure themselves and use up valuable food and energy supplies. If cornered, or if they feel cornered or threatened, they may retaliate.

Don't touch or pick up animals. Their parents may abandon them. Remember, some animals carry disease pathogens.

Disturbing an animal in either hot or cold weather may affect their ability to withstand these extreme conditions.

Take time to appreciate where you are and to see that with which the area you are visiting has been blessed.

Allow wildlife free access to water sources, remember to stay that 200-ft away and avoid water holes at dawn and dusk, and during the night.

Wild lands provide food and shelter. Abuse from us adversely impacts what can live and grow there.

Experience nature without damaging it.

7. BE CONSIDERATE OF OTHER VISITORS

Flip Chart 11

We did not inherit the earth...We are borrowing it from our children.

A. Respect other visitors and protect the quality of their experience.

Keep your tents and clothing to muted colors that don't clash with the wilderness. Blend in rather than standing out.

Bright colors contribute to a crowded feeling, except that during hunting season blaze orange may save your life.

Visit others, but leave them time to enjoy the solitude. Respect their right to privacy and quiet, especially at meal time.

There's nothing quite so annoying as having a youth group floundering around in the woods, shouting back and forth, and running hither and yon, as they try to scrounge up firewood while you are trying to go to sleep after an 18-mile day, or a hard day of trail work.

Leave others personal space for their cooking, their eating, and their sleeping.

Scavenge downed wood for the fire before it gets dark so that you don't crash through the woods and brush when others are trying to get some solitude or some sleep.

Arrive at and select your campsite before dark for the same reason.

To a person inside a tent, a flashlight blazing around outside and on tent walls seems like lightning and will awaken the occupant just as quickly as that natural phenomenon.

B. Be courteous. Yield to other users on the trail.

Try to always yield to those coming uphill.

C. Step to the downhill side of the trail when encountering pack stock.

This reduces their fear of having other animals, us, higher than they are.

D. Take breaks and camp away from trails and other visitors.

See the viewpoint and the interesting sights, but take your long breaks somewhere else so everyone can enjoy the scenery with a feeling of peace and solitude.

Flip Chart 12

Bill's Law: As the sun slowly sets and the evening hush sets in - the youth group arrives.

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Please !

E. Let nature's sounds prevail. Avoid loud voices and noises.

Especially when others may be near and tired. Voices carry surprisingly far.

It's hard to count the number of times those making the noise did not even know other folks were in the area (both in camp and on the trail !).

Just because you can't immediately see other people, does not mean they are not there.

Minimum impact means not being able to see, or hear, everyone.

Turn off the watch that beeps every hour on the hour.

Hide that cell phone (it is turned **OFF**, isn't it ?) and the GPS ²⁰.

Don't be at that one very spectacular viewpoint talking on the phone to whomever.

Cell phones have their place in the backcountry. That place is in the pack, except for emergencies. Turn off the ringer !!!!!

If you must use electronic marvels, use them unobtrusively.

Leave the reveille bugle at home for use at Scout camp.

Leave the beeping computer games at home.

Keep your dog, your children, and your adult leaders quiet.

Flip Chart 13

As a last note:

The Earth is a fine place on which to live. Please remember that -

**We are the
Earthkeepers ²¹.**

²⁰ GPS = Global Positioning Satellite equipment.

²¹ As suggested by Greg Hansen, U.S. Forest Service, Tonto National Forest, at the National Interagency Leave No Trace Conference held on 30 and 31 Oct., and 1 Nov., 2001, at the U.S. Fish and Wildlife Service National Conservation Training Center, Shepherdstown WV.

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Flip Chart 14
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Flip Chart 15
Remember:

When you are in the woods, you are not at work and you are not at home; therefore, you do not have to pay attention to the digitally activated, long and short distance, voice sending and receiving communication contrivance customarily located on or about your escritoire (or within the confines of your floor-mounted, cylindrical, paper accumulator).

Turn that blasted cell-phone OFF !

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PORTABLE FIRE PANS AND MOUND FIRES ²²

Portable Fire Pans

Fire pans are metal trays with sides high enough (over three inches) to contain wood and ashes. They were first used by river runners and are becoming increasingly popular with backpackers and horsepackers. Metal oil drain pans and backyard barbeque grills make effective and inexpensive fire pans. A few outdoor companies market light-weight versions. The pan should be lined with several inches of inorganic ²³ soil, or propped up on small rocks to protect the ground from heat ²⁴.

Mound Fires

A platform or mound of mineral soil - which contains little or no decomposing material - can be built as a fire pad and later easily disguised. First locate a naturally occurring source of mineral soil or sand, such as the hole left by a tree's roots when it blows over, or large stream courses where sand and fine gravel has been deposited along the banks. Use pots or a stuff sack to carry dirt to the fire site ²⁵.

Build a circular, flat-topped fire platform, six to eight inches thick and about two feet across ²⁶, with the mineral soil ²⁷. A tarp or ground cloth should be laid down beneath the

²² Text quoted from the LNT *Outdoor Ethics* booklet "NORTHEAST MOUNTAINS AND FORESTS," footnotes mine (Bill Rogers).

²³ Mineral soil from along streams, or after precipitation, may contain damp/wet pebbles and stones that can explode when heated in/under a fire.

²⁴ Heat sterilizes the ground killing vital bacteria and other organisms, and kills vegetation (including roots and rootlets).

²⁵ If the stuff sack is first turned inside out, and you are careful, the original inside will stay clean for continued use as a clothing sack after the mineral soil or sand has been carried.

²⁶ The fire should be small enough, or the mound wide enough, so that cinders and embers do not roll off the mound.

²⁷ A small earth dam around the base of the mound *may* trap embers that might roll off the mound as the fire burns.

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soil to facilitate clean-up²⁸. The thickness of the mound is critical for insulating the ground cloth and surface underneath from the heat. Once the fire is out and cold, the leftover ashes can be scattered widely and the mineral soil returned to its source, which is then "brushed up" to eliminate signs it was disturbed.

The advantage of this type of fire is that it can be built on durable surfaces such as a flat exposed rock or ledge, or on a non-vegetated surface, such as leaf litter or pine needles, without damage to the surface or soil. However, it is less desirable than a fire pan because the mineral soil must be moved, and sources of such soil are sometimes difficult to locate.

²⁸ If the mound fire is built correctly, you can place a \$20 bill under the tarp/ground cloth, and it will be unharmed after the fire is extinguished and you are returning the spot to its natural state. Bets have been won on this ! Try it !!

LNT EXERCISE NUMBER ONE: MARKER FLAGS ²⁹

1. Equipment / Personnel Needed:

- a. Twenty marker flags.
- b. U-dig-it ®, or a small trowel.
- c. Exercise Instructor.
- d. Participants (Scouts and Scout Leaders) in groups of ten or less.

NOTES

LNT EXERCISE NUMBER ONE is written the way the exercise was done during my *Leave No Trace* Train the Trainer Course.

Since this exercise relates to backpacking, participants should be limited to ten (Scouts and Scout Leaders) in number, plus the Exercise Instructor. This is because the maximum number recommended on an overnight backpacking trip is ten.

If there are to be more than ten, break the overall group down into subgroups of ten or less. Keep the subgroups awaiting their turn out of sight and sound of the exercise.

2. Before participants gather, and out of sight of all participants:

- a. Carefully dig a plug and a cathole. Place a small ball of fresh, unused toilet paper in the hole. Replace the plug as carefully as possible so that the cathole is invisible to a casual observance.
- b. Have on hand enough marker flags for each participant to have two flags.

²⁹ Marker Flags are small colored flags on a wire, and are +/- 15-inches high. They are used to mark neighborhood pipe and wire locations, and to mark the route of new or relocated trails.. They should be available at major hardware stores, and may be called marker flags, surveyor flags, or wire flags.

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Please !

- c. Review paragraph 10.a. through 10.f. below.
3. Gather ten or fewer participants near, but to the side of the invisible cathole, so that the cathole is not trampled.
4. Tell the participants not to communicate by word or sign during this part of the exercise.
5. Tell the participants to plant their flags in separate locations, anywhere within a one-minute walk of the starting point.
6. Have the participants gather near, but to the side of the invisible cathole.
7. Explain that each flag represents the location for one day's poop from each participant at a campsite in the woods. Ask them to imagine the smell, the attraction to flies, and the unhealthy aspect of having so much poop that close to the camp.
8. Ask the participants if they can see a used cathole anywhere close-by.
9. After just a moment or so, when they cannot identify the cathole, remove the plug and show them where it is. Remove the unused toilet paper, remarking that animals may dig it up and scatter it. Then carefully replace the plug. Water the replaced plug from your water bottle to help any disturbed plants.
10. Remind participants that:
 - a. Each backpacking group should carry at least one U-dig-it ®, or small trowel. Hand sanitizer may be carried for the camping group.
 - b. They should travel at least 200-ft away from the water source, the campsite and the trail, to dig a cathole.
 - b. That catholes are dug 4 to 6-inches in diameter, and 6 to 8-inches deep.
 - c. That the cathole plug should be carefully removed and replaced so that the cathole is virtually invisible. Where necessary, leaves and twigs may be scattered over the cathole to give it a natural look.
 - d. That toilet paper should be double bagged, and be carried out at the end of the trip so that animals do not dig it up.

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- e. That smooth stones, snow, and known vegetation (not poison ivy or other bothersome plants) may be used instead of toilet paper.
 - f. That personal cleanliness is important in the backcountry and that hands should be washed after each toilet-ting adventure, or that hand sanitizer may be used.
 - g. That it takes time to dig a cathole, especially in dry, hard soil, and that it may be a good idea to dig one when you first make camp. That way it's ready when you are.
 - h. That, when time is short, you may have to dig the cathole afterwards, then move "stuff" in with a stick. Note "with a stick," don't use the U-dig-it ® for this.
 - i. Before replacing the plug, use a stick to mix the "stuff" in with the dirt in the bottom of the hole. This helps decomposition.
- 11. Hold a general question and answer session concerning the exercise.
 - 12. Have one or more of the participants gather the marker flags for future use.

End Of LNT Exercise Number One

Leave No Trace

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LNT EXERCISE NUMBER TWO: 200-FEET

1. Equipment / Personnel Needed:

- a. Measuring tape. A 50 or 100-foot tape works best.
- b. Two marking flags ³⁰.
- c. Exercise Instructor.
- d. Participants (Scouts and Scout Leaders) in groups of ten or less.

NOTE

Since this exercise relates to backpacking, participants should be limited to ten (Scouts and Scout Leaders) in number, plus the exercise leader. This is because the maximum number recommended on an overnight backpacking trip is ten.

If there are to be more than ten, break the overall group down into subgroups of ten or less. Keep the subgroups awaiting their turn out of sight and sound of the exercise.

2. Before participants gather, and out of sight of all participants:

a. With a marker flag, mark a starting point. From the starting point, with a tape measure, measure off a 200-foot distance. In your mind, or with an invisible marker, delineate the point 200-feet from the starting point.

b. Review paragraphs 10.a. through 10.e. below.

3. Gather the participants near the starting point.

4. Tell the participants not to communicate by word or sign during this part of the exercise. Giving them a general direction to walk, have the participants walk what they each “estimate” is 200-feet away from the starting point. Tell them that when they reach what they think is 200-feet, to stop and stay at the position.

³⁰ Marker Flags are small colored flags on a wire, and are +/- 15-inches high. They are used to mark neighborhood pipe and wire locations, and to mark the route of new or relocated trails.. They should be available at major hardware stores, and may be called marker flags, surveyor flags, or wire flags.

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5. The participants should end up somewhat scattered and separated.
6. At this point, walk to the measured point 200-feet from the start and identify the exact location of the 200-foot distance. Place the second marker flag at this spot.
7. Give the participant or participants closest to being 200-feet from the starting point some recognition or a small “door prize.”
8. Gather the participants at the 200-ft distance marker.
9. Explain that 200-feet is approximately 70-80 adult paces. One at a time, have each participant count paces as he or she walks back to the starting point. Ask them to remember the number of paces they each take to travel 200-ft.
10. At the starting point, remind participants that 200-feet is the distance:
 - a. To wash themselves and dishes away from camp, the trail and the water source.
 - b. To urinate or dig a cathole away from camp, the trail, and the water source.
 - c. To establish camp away from the trail, a water source, and other campers.
 - d. To spread waste water away from camp, the trail, and the water source.
 - e. To spread toothpaste spittle away from camp, the trail, and the water source.
11. Explain to the participants that in heavily used areas and in desert country, the 200-foot distance should be increased.
12. Hold a general question and answer period.
13. Gather the two marker flags for future use.

End Of LNT Exercise Number Two

BE BEAR AWARE



CHESAPEAKE PARKS & RECREATION BEAR SIGN



Chesapeake Parks and Recreation sign seen on the Chesapeake Parks and Recreation Dismal Swamp Canal Trail during October 2007.

TATC EDUCATION COMMITTEE HANDOUTS

Go to the TATC website, then download and add these
TATC Education Committee Handouts to this booklet:

BEAR BAGGING

BLACK BEAR NEWS READ AND HEED (PLEASE !)

HIKING WITH A DOG

- The Wild File
- Dogs and Giardia
- Dog Waterer

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