

**Statement of Robert Jackson
For Submission to
The Yellowstone Ecosystem Subcommittee
December 2001**

This statement is not included within the official agenda of the Yellowstone Ecosystem meeting. So, if I sound like a voice in the wilderness it is because that is precisely what I am. My name is Bob Jackson. I'm not a politician or a park administrator or a scientist. I am a backcountry ranger in Yellowstone National Park. My beat is one of the most remote outposts in federal service--the Thorofare country in the southeast corner of Yellowstone.

Every year for more than a generation, I have patrolled its valleys, walked its boundaries and watched its wildlife. I know what I know and I know what I have seen. For those of us who care about what is happening in the backcountry, let me be as plain as possible:

We are on the verge of an ecological disaster with the Yellowstone grizzly. Tons of elk meat left on the forest floor by hunters has habituated generations of grizzly to a new and irresistible food source. To be the first to claim a freshly killed elk carcass, grizzly have learned to follow hunting parties and to associate the sound of gunfire with food.

Like the garbage dump bears of the 1960's, the grizzlies are losing their fear of humans. Not only are hunter confrontations on the rise, but bear/human encounters of all types are increasing. This habituation during hunting season continues year round. The result is more grizzly shootings and, I fear, a greater threat to public safety from maulings.

As with the garbage dump closings, every year of delay increases the danger to the bears and the public. While speed is essential, timely action will be possible only if public agencies recognize the severity of the problem and then promptly act to shoulder their public trust responsibilities.

At the outset let me underscore what is already widely known--my views do not reflect the official views of Yellowstone National Park, the National Park Service nor, apparently, the entire government of the United States of America. My views are my own. Any overlap between my statements and those of a federal agency is purely coincidental and, as far as I am concerned, that is part of the problem.

Despite this disclaimer, I am speaking out to change minds and protect bears and humans. If I am persuasive, perhaps the gulf between the problem and the solution will not be so wide. The three questions I will address are:

- I. Why salting is an even greater problem today;
- II. Why coordinated inter-agency action is needed now; and
- III. What should be done.

I. Why Salting is an Even Greater Problem

There is a comedian who says that, "Denial is not a river in Egypt." He is right. It's apparently located in Wyoming. Consistent denial that a problem exists in Thorofare is itself the toughest aspect of the problem because denial precludes all steps toward a solution.

A. Economic Imperatives of Trophy Hunting in the 21st Century

Twenty years ago, outfitters didn't have as many customers as they do today. Back then, most of the four camps in Thorofare Country had between two and four hunters per ten day hunt. That meant ten to twenty hunters per season per camp.

Today, outfitter camps often have up to twelve or sixteen hunters for six day hunts with hunts overlapping. This means that 50 or 60 hunters in one camp or even 80 to 90 hunters in another camp per season are becoming more common.

With a lot more hunters per camp and no more "hunts" (areas where outfitters make a daily circle to hit meadows) per camp, there is more pressure to draw more elk out of the park. Shorter hunts also increase the importance of holding elk in areas where hunting is easier and faster.

Servicing greater numbers of hunters seeking to bag their trophies sooner is a powerful incentive for using salt to attract the elk to a place where they are more accessible to the customers. Competition from other outfitters adds to the pressure. Those ads in *Bugle* and *Outdoor Life* touting that over 90% of customers will get elk kills in Thorofare are true. Why would a customer choose an outfitter offering only a 30 to 40% chance of success?

More customers mean more revenue. Annual hunting season (7 wks) grosses for some of the bigger outfitters now reach \$400,000.

The resale value of a hunting camp is directly tied to the hunt numbers for that camp. In other words, it is the number of circle hunts (one guide and two hunters) available each day that sets the value of that camp. Bank loans are pegged to that resale value. Those numbers get locked in and livelihoods come to depend on keeping those numbers up.

With salt, outfitters can double the number of hunts and hunters per camp. Conversely, without salting, outfitters say (in private) they will lose their businesses.

When confronted, some of the more candid outfitters will admit their reliance on salting. In a *Bugle* interview a little more than a year ago (the May/June 2000 issue), one prominent outfitter said:

In the early 60's there were very few elk in our area. [Salting] helped concentrate elk then and it helps now--especially given the fact that we've got a wolf pack in there scattering them out nowadays.

This outfitter justified the practice, reasoning:

"The salt is a good thing for hunting, and for game management in general. The Fish and Game want the herds kept in control. If we can't kill elk on the Teton Wilderness, they'll have to be hunted on the winter range or culled on the feed grounds. Which is more ethical? I don't know."

In that same issue, another outfitter disputed my claims about the extent of salting but offered another justification:

"We are not renegades down there. Sometimes we do hunt over the salts, especially with guys who can't handle the real thing, can't take the rough country..."

Tory Taylor, an outfitter that many of you know (2000 Budweiser outdoors Man Of The Year and 2001 Wyoming Wildlife Federation conservationist of the year), also was skeptical about the extent of salting. Two years ago he asked me to give him a guided tour so he could see for himself. This is what he wrote when he returned:

"Before my trip, I believed that salt baiting was limited to a couple of 50-pound salt blocks placed in secret places here and there. But I discovered that outfitters have created dozens of salt bait stations, used for decades, with craters up to four feet deep and 20 yards across. Game trails radiate from the salt baits like spokes on a wagon wheel."

There is no question that, because of the evolving economics of the outfitting industry, salting is more widespread than ever before.

B. Piercing Agency Smokescreens

In the October 13, 2001, issue of the *Bozeman Daily Chronicle*, Scott McMillion reported state and federal bear managers found no link between salt baiting and grizzly bear habituation and

mortality. According to this article, Wyoming's Game & Fish bear specialist Mark Bruscano and Yellowstone Park's bear biologist Kerry Gunther claimed that salt baiting does not appear to put either bears or people in harms way. They said that bears do not hang around salts, and that most human/bear encounters happen by surprise.

Bruscano also stated that there are 40 to 50 salt sites that his office has mapped. He could find no hunter-caused bear deaths within two miles of those licks between 1982 and 1999. Unfortunately, these reports do not reflect what is really happening in the Thorofare country: First, the Wyoming Game & Fish Department's report is inaccurate because it ignores key information. Game & Fish has very limited knowledge of locations and numbers of salts, in large part because they assume the salt licks are just outside the park boundary. They don't know park elk (and grizzlies) travel long distances to get to these salts. In reality, the salt pits are all over the Bridger Teton Wilderness, including where five bears were killed in Thorofare four years ago.

Wyoming Game & Fish claimed to have mapped all incidents but could not find any within two miles of a single salt pit. All they would have to do is get up in a plane or ask any former hunting guide about salt locations and soon find out there is no way a bear could even get one half mile, let alone two miles, from a salt in the entire Bridger Teton Wilderness area.

Two years ago a hunter killed a griz right outside (1/3 to 1/2 mile) our boundary at Fox Park. Four salts surrounded that kill site--all within one-quarter mile. Also in reference to the statement, bears aren't just hanging around the salts, if biologists actually went in the backcountry they would see lots of grizzly tracks diverting off the trails checking out the salts. They would also see griz daybeds in the park right above the salts at times when hunter success was high.

It is important for bears to get to a carcass before other bears claim it. Thus, when elk are being consistently shot at a salt, bears stay near it. They don't want a feeding frenzy situation like we sometimes have in Thorofare.

I believe state and federal bear specialists do not want to find a link and avoid digging for the answers for two reasons: economics and politics. Outfitters have tremendous political and economic power in the state of Wyoming. They practice salt baiting and quick quartering precisely because these practices allow them to service more hunters per season, providing more revenue for state coffers.

Although Wyoming has made the practice of salt baiting illegal, the new law is virtually impossible to enforce. It is better to have no law than to have one that makes a mockery of the system. Moreover, Wyoming Game & Fish does not have the funds or the personnel to adequately patrol the region during hunting season.

Looming over this entire debate, however, is the effort to strip federal protections from the grizzly under the Endangered Species Act. If the grizzly bear is taken off the federal list of threatened species (i.e., delisted), the Game & Fish Department will have to spend less time and money enforcing Endangered Species Act regulations. Delisting will give outfitters and hunters more latitude to kill the very nuisance bears they have created so they will no longer interfere with elk hunting.

Unstated in all the official pronouncements about the health of the Yellowstone grizzly population is the assumption many of the state and federal resource management agencies and the Wyoming outfitters have everything to gain from delisting; it is only the bears that have everything to lose.

C. Collateral Damage

Besides the impact on the Yellowstone grizzly, salting creates other impacts in the backcountry. By allowing outfitters to double the number of clients per camp, salting has caused overcrowding problems not unlike those that would result from a road put into Thorofare country:

- Illegal trails are being constructed. In wilderness areas, Forest Service management requires interdisciplinary assessment and a permit to alter or create a new trail. Using chainsaws, outfitters are making new trails, which they use daily for two months a year. It allows them to travel in the dark and get an advantage over any private hunter's in getting to elk first. These informal trails see a lot more use than maintained Forest Service trails and roads do. They're often on steep grades, creating wash outs and agency liability.
- Numbers of horses have increased, causing grazing and associated resource damage;
- Outfitters see private horse users, not only as hunting competition, but also as a grazing threat. In one ten-mile section of the Thorofare two outfitters use the whole length of the open creek drainage for grazing. Any private hunter automatically becomes grazing competition along this whole route.
- Since horses are displacing elk from former hunting areas, salt placement has become even more critical to hunting success.
- Relations among certain outfitters are now strained because each grazes on each other's land.
- Because private hunters are a direct threat to take game within an outfitter's sphere of influence, horses are being run off and private hunters "hunts" are busted up by certain outfitters riding through a meadow the private hunter has staked out.

If there are more than two or three private hunters in a group, some outfitters file multiple reports with various governmental agencies that the hunters are "scab" (or un-permitted) outfitters. These reports cause the National Park Service, Forest Service, Wyoming game wardens, U.S. Fish & Wildlife Service and outfitter-hired lawmen to all visit the hunters to check out whether they are scabs. Besides wasting scarce resources in the already under-staffed backcountry, hunters subjected to repeated visits feel harassed, pack up and do not come back.

The departure of private hunters also has an impact. Twenty years ago there was a more even mixture of private hunters and outfitter guided hunters. Private hunters tend to be more spread out throughout Thorofare, not so concentrated on the park line. Today, the greater reliance on outfitters clustered around favorite salted sites magnifies the impacts that used to be diluted by dispersal.

All of these additional people in the backcountry create law enforcement problems that the Forest Service is not staffed to handle. For example:

- Chain saw use is now common for making trails and cutting firewood. Several permittees have been caught but no real penalties have been assessed. Wilderness staff at Bridger Tetons Hawk's Rest described to me how one outfitter would put one tent inside of another to muffle the sound. Another wilderness guard caught a permittee with obviously chain-sawed firewood. Again no action was taken. Still another Hawks Rest ranger caught a permittee coming out of his cache with a chain saw in his hand.
- Illegal winter stashes of equipment have become more necessary as hunter numbers per camp go up. Small "cities" of 10 to 20 wall tents per camp means lots of heavy heating stoves, Coleman lanterns, and propane bottles. It is just too much to carry out at the end of the season.
- Many salts are making it extremely dangerous for unsuspecting public users during hunting season. Carcasses, bears, and maintained trails all in close proximity are a disaster waiting to happen. And since new elk won't come to a salt if a bear is there carcasses are being dragged away from the salts. Sometimes this means dragging them closer to trails because the outfitter's hunting blind is on the other side of the salt. Other times terrain restrictions means the outfitter is left with no other option than dragging them to the side and closer to their shooting spot. Forest Service law says all carcass remains have to be removed to no closer than ¼ mile from trails but there is no one there to enforce it. Forest Service trails with elk remains are not only left near trails but are pulled even closer to them. One outfitter may have two to four carcasses, with bear on them, stacked up 50 yards to the side of where they wait for more elk to come out of the park; and
- Whole elk are left all night at trailside salt kill sites and along maintained trails. Wyoming law allows it to stay unretrieved for 48 hours!! They are left where they are

shot in the evening. A lot of private hunters are still traveling then and have no idea there are whole elk carcasses and bear right next to the trail. Backpackers set up tents along these trails. Government employees travel at night getting from one cabin to another.

II. Why Coordinated Action is Needed Now

For those of you who have not seen it, there is a new draft federal-state study addressing several of these issues (Possible Effects of Elk Harvest on Fall Distribution of Grizzly Bears in the Greater Yellowstone Ecosystem prepared jointly by the Biological Resources Division, U.S. Geological Survey and Wyoming Game & Fish Department. An online copy is available at www.peer.org/montana/grizzly_study.pdf.)

Among other things, the study finds:

- During the 1990's, numbers of hunting related grizzly mortalities have increased in the GYE (Greater Yellowstone Ecosystem). Much of this increase can be attributed to incidents during the elk harvest...in Montana and Wyoming.
- Grizzly feeding patterns have changed, as bears migrate out of Yellowstone National Park during elk season. Bears quickly learn to use available food resources, and when food availability becomes predictable, bears will establish traditional use and impart that behavior to their offspring. Availability of food associated with the elk harvest may be considered a predictable food resource to bears.
- Grizzly in search of elk meat are losing their fear of humans. During recent years, anecdotal descriptions from outfitters, guides and hunters...indicate encounters between humans and bears are a common occurrence during hunting season. Two decades ago, many of these same outfitters and guides considered observations of grizzly bears a rare event.

To give some sense of the allure of this food resource the study cites government surveys estimating that each season approximately **370 tons of elk meat** is left in gut piles outside Yellowstone Park. By any measure that is a lot of "A food resource". It is no wonder grizzlies are changing their behavior to take advantage of ours.

A. Garbage Dump Syndrome

Notwithstanding what I have said about salting, I do not think it makes any difference if the bear incident is ten yards or half a mile from a salt. What does make a difference is salt concentrating elk in small areas outside park boundaries. Combine this with the common practice of quick quartering (where there's lots of meat left) and one has a recipe for disaster.

Twenty years ago, two to four hunters per camp meant outfitters could anticipate what stock was

needed to pack out quarters. An often-told story in outfitters camps is about the private hunters who did not know how much a moose weighed and therefore had to throw a quarter or two away. Nowadays, this amount of meat is thrown away routinely by some outfitters without a bat of the eye. It is not surprising any more to see outfitters leave 150 pounds of meat on a boned moose.

Outfitters regularly quick quarter elk, popping the shoulder from the rib cage, abandoning the rib cage, neck, organ meats and skin. The elk isn't even gutted. Most fillet mignon steaks are left. With quick quartering, leaving 50 pounds or more per elk is now the rule rather than the exception. Wyoming law allows this. It has to be the most "liberal" law on meat retrieval in the United States.

In Thorofare country, if I look at a 6 x 25 square mile area, right outside Yellowstone's Southeast corner, there is between 20,000 and 30,000 pounds of carrion available in a seven-week period of time. I doubt if there is any other area around the park with such concentrated and unnatural food sources. The bears of Yellowstone know this and head to its boundaries a week before hunting season starts. The end result is that there are more hunter-bear encounters than ever before. Highly reported hunter mortalities, though rightfully alarming, are not nearly as damaging to bear populations as the habituation of these bears. They associate humans with food and act no differently than the garbage dump bears of Yellowstone, from 30 years ago.

Backcountry users report each year of more bears not leaving the trails when hikers come upon them. Grizzlies come back into Yellowstone to hibernate and end up next year eating and sleeping near our roads and tourists. Biologists say these bears are just filling up previously unfilled niches. I say some of these bears are mature bears, bears that did fill and have the ability to fill niches elsewhere. They now have no fear, something I did not see before. Even on horseback when I have to stand my ground (because of pack horses) I now see bears reluctant to move 20 yards off the trail.

These bears, our Yellowstone Bears, learn this behavior because of hunter contacts in the fall. I also feel hunter habituation is a major reason why bears are frequenting garbage cans (thus being shot by Wyoming Game & Fish personnel each summer) in developed areas away from the park. As for the bear behavior outside the park, habituation is also a direct and major contributor to grizzly mortality. It is not just chance encounter as state and park biologists maintain. Outfitters commonly report grizzlies following their horses. The bear killed at Fox Park was following the meat-packed horse so close it panicked one of the hunters into shooting it with his .44 pistol. Hunters killed another bear northeast of Yellowstone when it tried to pull quarters off a horse in their camp. Was it starving or habituated? With the bold behavior of bears I see in Thorofare, habituation has to be seriously considered.

B. Grizzlies and People Do Not Mix

The salts of Thorofare have accelerated habituation by showing bears a lot of elk carcasses immediately next to humans. Bears are traveling the same trails as the hunters are in getting to the salts. Both are often moving at the same time in the darkness of early morning or evening. When I travel the Thorofare Trail to the Southeastern corner (5 miles), during hunting season hardly a day goes by that I do not see the previous night's bear tracks. When the hunting is good I may see tracks of 5-7 bears. At the same time, any travel into the interior of the park during hunting season shows fewer tracks than 20 years ago.

A gunshot now means food to a hungry grizzly. Bears in Thorofare come to the sound of a gun. Shoot off a gun near a salt, run to the top of the hill, and watch as bears come running. Most hunters in my area now know bears will claim carcasses soon after they shoot.

There can be so many bears in Thorofare country at any given time during the hunting season that a horse dying near Bridger Lake had six or seven grizzlies on it within a day (this compares to 5-10 days before a single bear might be on a horse carcass during the summer in Yellowstone Park's interior. Unnatural concentrations of bears mean sows and cubs competing with boars at the same food source. Injuries and deaths by other bears are inevitable.

Bears staking out a salt claim killed elk as THEIR food. Common practice, though not legal, by some outfitters today is not to tag an elk until they get back with pack animals. If a bear's on it, they go hunt another elk. If they do leave someone to guard the elk it can turn into a dangerous situation when the bear shows up. We have had several maulings (and bear shootings) when bears come in on guides and hunters field dressing an elk.

A lot of bears are being killed in hunter confrontations. In my mind, we should multiply the number of formally recorded grizzly shooting deaths by two to account for those that are rumored but never officially investigated.

One time the rumor spread quickly through horse country of a certain outfitter shotgun shooting a grizzly (mother with three cubs) in the chest while she was rummaging through camp. Two days after it happened I saw three little cubs wandering around Thorofare Ranger Station. Informants talk of up to 12 bears buried behind one camp. None of this has been investigated even though validation could be easily determined. There is no reliable way to gauge what is happening in some outfitter controlled hunted areas.

The problem has become steadily worse because the volume of meat available for the bears has also grown. Last summer one outfitter, in justifying quick quartering, told me that taking the smaller quarters allows him to haul out the meat right away on his saddle horses. He has his hunters stand guard, watching for bears coming in while he skins out the elk. My response was, maybe his leaving all the meat is bringing the bears to his shooting sites.

Conditioning bears to follow hunting parties is bad news waiting to happen. Unfortunately, those in danger of being threatened by a charging grizzly are not only hunters. Those in danger now include:

- Anyone hiking trails near a salt, this includes Yellowstone Park's boundary trails;
- Campers unaware of nearby but hidden carcasses; and
- Outfitter clients who get injured by a horse rearing up because a bear is on the trail amongst these salts.

The fact that the involved public agencies are not expressing alarm about this habituation-by-hunting syndrome or taking action to curb it suggests that more tragedies will follow before real change is triggered.

C. Bears Know No Jurisdiction

One factor aggravating all these problems is the jurisdictional barriers separating the various state and federal agencies within the Greater Yellowstone Ecosystem. While we humans draw these political lines in the sand, wildlife go where the foraging and hunting are best.

The problems affecting Yellowstone Park wildlife do not stop at the park's borders. For example, over-fishing of spawning Yellowstone cutthroat outside the park can reduce that food source for the grizzlies in the park. Outfitters outside the park threaten to shoot wolves because they are competing for the same prey — elk and moose. These same Yellowstone wolves are also susceptible to habituation outside the park with all the meat being left on carcasses.

Some of these cross-border conflicts threaten human lives. For example, because the hunting goes right up to the park border, I can no longer safely patrol the line in the valley in morning or evening. The vast majority of bullets from hunters on the nearby salts come zinging into the park. The park's Lynx Creek Trail and Park Line Trail are in the direct line of fire from hunters in blinds waiting at the salts. Any horseman or backpacker using the park boundary trails and campsites during hunting season is in danger.

With the first shot, elk head back into the park. The shots follow them. The expectancy of seeing only elk at a salt lick can lead to cases of mistaken identity. I was almost shot by a hunter who mistook my horse for an elk. I was 30 yards inside the park at the time.

It is precisely because of the jurisdictional boundaries that the challenges facing the Greater Yellowstone require an overall, multi-agency game plan buttressed by political support from environmentalists, hunters and the general public.

III. What Should Be Done

I do not have an impressive title--I am a seasonal ranger. Those of you who know federal agency pecking orders know that, within the National Park and Forest Services, seasonals do not enjoy status or benefits. While the Park Service makes use of our skills and energy, our managers tend to ignore our observations and suggestions. The one question I have never been asked in three decades of service by any park superintendent, forest supervisor or other state or federal manager is, "Bob, what do you think?"

What I also think is that we can no longer conduct business as usual and should no longer tolerate lip service to back country needs as a substitute for public service. There are five overarching steps that need to be taken now to address the growing habituation of grizzly. Each of the major groups on the front lines of grizzly issues--outfitters, public agencies and conservation groups--need to play a part in the solution.

A. Five Big Steps

1. Reducing Bear Habituation Must Take Priority

Public agencies and private outfitters alike must recognize that bear habituation and its causes should be a top priority because it permeates every part of wildlife management and recreation. When confronted, usually by some "pesky" reporter, agency spokespersons will acknowledge there is a concern, but will downplay its seriousness or suggest that other matters must take priority.

What I hear is that, frankly, backcountry issues are simply not a priority in Yellowstone country. Thorofare used to be its own sub-district and flew the flag every day. The Forest Service's Hawks Rest Wilderness Station was manned summer and fall until seven years ago (The last guy had a horse fall on him while on his way out of the backcountry. Resultant permanent injuries meant he could not go back to work the next year. To this day he has received no compensation by the government for this debilitating work related injury). Now it is manned by volunteers part time. There is no way the Forest Service can accurately assess numbers of hunters in outfitter camps -- and numbers of hunters X cost per hunter is how the Forest Service calculates the amount of income each outfitter has to pay the government, a condition of doing business on public land.

Until priorities on backcountry issues change, nothing will stop the accelerating transformation of generations of grizzly into carrion and garbage scavengers.

2. Mark All Salts and Set Bounties for Violators

The locations of salts in the backcountry are an open secret. I have made maps of where many of the salts are along the boundary but I can hardly even give these maps away. Mark Bruscano of Wyoming Game & Fish says in the newspaper that there are 40 to 50 salt sites that his office has

mapped. If Wyoming Game & Fish knows of 50 salt sites, why are they not posted? How does Wyoming Game & Fish expect to enforce the new no-salt law if they do not identify the salt sites to every outfitter and customer?

The answer, of course, is that Wyoming Game & Fish and the U.S. Forest Service have yet to demonstrate any intention of enforcing anti-salt laws and regulations. A Forest Service researcher studying how to reclaim salts has tried to get me to help him find some of these salts. He has been stymied on the Forest Service side and the park has kept me from helping by deflecting him to a very unknowledgeable Game & Fish department.

Why doesn't the Forest Service, in writing, ask every outfitter in the Bridger Teton to map all of the salts in their designated areas? If these hundreds of salts are supposedly "not of their doing," wouldn't they want to tell the Forest Service so they can be rid of this embarrassment?

The Forest Service has explicitly prohibited salting in the Bridger Teton wilderness since 1990 but not one citation has been written. Their field rangers keep finding block salts but nothing is done. I even filed a written complaint after witnessing an outfitter guide with a saddlebag full of salt next to the line two years ago.

Wyoming Game & Fish has also yet to cite anyone under its law, which appears to have been crafted so as to be unenforceable. As Terry Cleveland, the Assistant Chief of the Wildlife Division of Wyoming Game & Fish, helpfully explained in a letter this past August:

Unless salt has been placed after the effective date of the statute, July 1, 2001, there is no violation...Depending upon the circumstances of the specific incident, it will be difficult to establish the knowingly requirement if the hunter has not placed the bait himself or if the salt has persisted in the soil over an extended period of time. The law enforcement officer will be required to establish the hunter meets all elements of the crime before criminal action can take place. [emphasis added]

If these agencies were serious, they would put up a sign at every identified salt prohibiting hunting over it. To back it up, the agencies would also put a sizeable (enough to buy a new pickup) reward out for information on anyone salting or hunting over salt. Disgruntled former guides act no differently than scorned spouses in divorce cases. The agencies would also pay for information given on each salt lick reported. Regardless of the monetary amount, the psychological effect of a bounty on illegal activity can be a deterrent by heightening the importance of that activity and the social ostracism associated with it.

After they are posted, the salts should, over the next few seasons, be systematically eradicated. Every salt lick should be dug out and filled with gravel or planted over. If the Forest Service doesn't have manpower (some are half the size of football fields) then volunteer conservation groups can be called on to help.

To prevent circumvention of no-salting rules by hunters, all livestock users in grizzly country should be required to carry salt for their cattle in non-leaking containers. These salts should also be picked up when the cattle leave.

3. End Quick Quartering

Mass quantities of elk carcass meat must be eliminated as a predictable food resource for the Yellowstone ecosystem grizzly.

Twenty years ago, full quarters and the elk skin were packed out of the Greater Yellowstone Ecosystem. Organ meats also need to be brought out until unnatural bear behavior ceases. The logic given by some biologists saying the bears need this protein to get them through winter hibernation doesn't hold water when the negative effects are considered. A habituated bear is a dead bear!!

All elk shot must be either hung ten feet high in a tree or immediately packed out. Today, most night kills (minus head and cape) are left on the ground overnight. My estimate is 50 percent of all elk killed on salt (in the evening) are claimed by bears before next morning. Some outfitters actually like it if the bear gets the meat because there is not as much, or no meat to pack the next day.

Unfortunately, we are losing legal ground on this issue. When confronted with photos showing how much meat is being left, the Wyoming state legislature reacted by weakening its no waste law and legalized quick quartering. For the past year, hunters in Wyoming are only required to pop off quarters at the joint and carve out the back-strap but can leave the rib meat, neck and cavity meats. The un-gutted animal has meat left from tail to the skull base.

As long as outfitters keep leaving elk buffets for the grizzly, habituation will only deepen.

Alaska addressed the problem of meat wastage in remote areas. Why can't the states surrounding Yellowstone do the same?

4. Disperse the Concentration of Hunting Around the Park Perimeter

One major factor in the habituation is the concentration of meat left in a narrow zone right outside the park. As a consequence, the park perimeter has become *The Killing Fields*.

The fire of 1988 has caused the elk to come out of the park interior much earlier than before. Where grass could be grazed under green trees with even a foot of snow on the ground, now only four to five inches of snow starts elk moving.

The salts near the line are full of hunters because a lot more elk use them. As the outfitter quoted in *Bugle* magazine stated, "very few elk were in the area before they started salting." There used to be one main migration but now the elk repeatedly go out of the park when it snows and back in when it melts. As the elk go back and forth a cross the line, more elk are shot near where the

bears are waiting.

The fires of 1988 have also meant that whole family groups of resident elk outside of Yellowstone are now completely eliminated. Heavy timber always draws some elk, no matter how great the hunting pressure. After the fires, elk thought they were still safe in those locations even though the trees were burnt and the elk were now visible to hunters. Consequently, these families are no more and the concentration of hunting has funneled them into smaller areas that scavenging bears can more effectively cover. Gone are the days when ravens and eagles could gorge themselves for two or three days on a carcass before a bear chased them off.

Unfortunately, Wyoming Game & Fish is trying to increase the kills around the park. It used to be bulls only, spikes the last ten days of the season, and no cows. Now it is everything all season long. Not surprisingly, a lot more elk are killed close to the line than 20 years ago.

A no-hunting zone around the park perimeter would help minimize hunter-bear encounters by eliminating hunting around some of the more-established salts and dispersing the concentration of hunting in small areas. The study team says most bear encounters are happening in the early September elk hunt. Their suggestion, I'm sure, will be to eliminate this early hunt. It would be a very good idea.

The situation with bow hunting of elk is a good illustration of the need for a buffer. With bow hunters the numbers of elk shot and not retrieved are tremendous. In one camp, for example, one six-day hunt yielded two recovered elk versus six gut shot, non-recovered elk. These non-recovered elk go back to the safety of the park to die and the resultant meat source near the line is very attractive to griz.

If bow hunting is not banned in the entire Yellowstone Ecosystem, it should at least be eliminated in the two to three mile zone surrounding the park. That would give bow hunters a chance to track elk that die before getting back to the park.

Undoubtedly, the best way to eliminate both grizzly mortality and human mortality from grizzly attacks is to prevent the encounter in the first place. If the encounter cannot be prevented, the second step is to avoid fatal consequences.

Agencies also need to adopt a different management approach to problem grizzlies than just shooting them first and discussing it later. Non-lethal controls like bear dogs, cracker shells and rubber bullets should be used more frequently. Lend these tools to outfitter camps.

5. Enforce the Law

Every one of the government agencies needs to step up to the plate:

a. U.S. Fish & Wildlife Service

First, U.S. Fish & Wildlife Service needs more of a presence in Thorofare. It used to be that a

former agent would ride into every camp and sit down with outfitters and guides to go over the enforcement end of the bear issue. That was before he was shackled by paperwork. The Fish & Wildlife Service needs to give their people the time to do this on a regular basis again.

Second, as part of this increased enforcement presence, U.S. Fish & Wildlife Service should treat every gut pile as a slob campsite.

Third, U.S. Fish & Wildlife Service has to restore some credibility to their investigations of grizzly shootings. Some question, with good reason, the Service's willingness to go after unnecessary shootings.

Too many agents (N.P.S. Forest Service, Game and Fish also) go "native" because their front country supervisors don't have the slightest clue on how to give support to solitary field personnel. The support system soon becomes the one with the best infrastructure in the backcountry, the outfitters. Horseshoes are replaced on the agent's horse, he gets fed a fine meal in a warm tent and his loneliness is placated with all kinds of stories from guides and hunters. It's the life he dreamed of when he read the ads of his youth, "hunt, fish, trap, become a government hunter." Once he goes native, it's almost impossible to be objective when a guide shoots a mother grizzly and her three cubs in "self defense."

The Service should make their investigative reports public as soon as possible and establish liaisons with both outfitters representatives and conservation groups, so that both know exactly what is happening and why.

b. U.S. Forest Service

First, the Forest Service has to get back into the business of managing their wilderness areas. Each year its budget gets cut more and its presence keeps shrinking.

The Forest Service cannot be dependent on the people it regulates to police the wilderness. For example, by praising outfitters for clearing Forest Service trails it gives the impression that wilderness rules appear made to be broken.

Outfitters graze their horses in the same wilderness pastures for a month at a time despite a 14-day limit. Several camps routinely cut their fall firewood with chainsaws. Why have wilderness rules if they are never invoked? Thus, one can't entirely blame outfitters for problems when the laws aren't enforced.

The prohibitions against salting in Forest Service wilderness areas are regularly flaunted. Outfitters can freely pack up to 2,000 pounds of salt 30 some miles into the wilderness to maintain their supposedly illegal licks. Outfitters have even dropped blocks of salt from airplanes, in one case while checking out snow conditions in early summer. Park rangers could never figure out why they were finding block salt in unlikely areas just inside the park. (It's hard to know where the park line is when dropping blocks from the air.)

Second, the Forest Service must start actually enforcing outfitter permit conditions. The Forest Service controls the permits for the outfitters but acts as though it is terrified of this responsibility. Due to lack of support from above, citations to outfitters get reduced, to "double secret probation" in one case. This type of ticket fixing in the past has caused credibility problems. It also causes a lot of morale problems amongst the Agency's field personnel.

Any outfitter caught salting should be banned from the valley, period. It would not take too many enforcement actions of this type to get a handle on the problem.

Third, the Forest Service has to manage the bears the same in the fall as it does in the summer. Summer campers are required to hang every candy bar ten feet high but hunters in the fall are allowed to leave hundreds of pound of meat lying on the ground for 48 hours. Tell me why this makes sense.

I do not mean to denigrate the many very good and hard working Forest Service employees that I know. They are my neighbors, friends and comrades. They should be given the funds and the clout to do their jobs the way they know they can. What I have a problem with is a system totally lacking when "multiple use" principles are applied to wilderness use areas. Commercialization without regulation in wilderness means compromised wilderness.

c. Wyoming Game & Fish

Game & Fish knows what needs to be done. They just need to get beyond the political pressures. I know that is a lot easier said than done.

Some of the biggest and most active salts are next to Game & Fish's Thorofare cabin. To not respect the Forest Service's 10-year ban on salting does not say much when that cabin is located on federal wilderness land (and it can be removed at any time by Forest Service managers).

No one likes to see photos of carcasses with lots of meat left on them or hear of people running off others horses. I know that if these employees get support from above they will gladly require that all meat come out of the backcountry.

Second, Wyoming Game & Fish has to get serious about enforcing its new no salting law. If an outfitter's gross income for a seven week hunt falls from \$400,000 to \$200,000 because he has a lot fewer elk to hunt (and he has to pay more money for legitimate hunting guides), it is going to take a fair amount of persuasion by Game & Fish to get him to abide by the law.

Third, Wyoming Game & Fish should get together with the law enforcement divisions of its sister agencies in Idaho and Montana to set comparable salting fines. Salting is not confined to Thorofare; it is happening all around the perimeter of the park. (In Africa, hunting fitters put out tubs of molasses to draw elephants out of their parks). Wyoming Game & Fish should take the lead in addressing salting throughout the Greater Yellowstone Ecosystem. Wyoming, the