

From: [Daniel Thompson](#)
To: (b) (6), (b) (7)(C), (b) (7)(F)
Cc: [brian.debolt](#); [Brad Hovinga](#); [Scott Edberg](#); [Richard King](#); [John Lund](#); [Dan Smith \(WGF\)](#); [Jason Hunter](#); (b) (6), (b) (7)(C), (b) (7)(F); [Rene Schell](#); [Mark.Gocke@wyo.gov](#); [Lyle Lamb](#); [cody.beers_contact](#); [Steven.sanders@wyo.gov](#); [Matthew Brackin](#); [Andrew.Jackson@wyo.gov](#); [Todd - FS Stiles](#); [Angell_Rayce M -FS](#); [Hartley_David B -FS](#); [Flower_Joseph - FS](#); (b) (6), (b) (7)(C), (b) (7)(F) -FS; [Lane_William - FS](#); [VonKienast_Jeff -FS](#); [Cernicek_Mary -FS](#); [Salzmann_Kristie L -FS](#); [Jacobson_Kerry J. \(USAWS\)](#); [ember.oakley@fremontcountyny.gov](#); [Erin@tetoncountyattorney.com](#); [Hambrick_Stephanie A. \(USAWS\)](#); (b) (6), (b) (7)(C); [Stone_Bo](#); [Cooley_Hilary](#); [D'agostino_Michael J](#)
Subject: [EXTERNAL] Re: WWWCTF - Grizzly 863 update
Date: Thursday, April 23, 2020 6:38:37 PM

I thought this was a fun comment, be prepared for so many many more...

[Allen Sphatt](#) Her and pepper were seen a couple months ago there was a video of Felicia fighting a pack of wolves over an Elk carcass the about a few weeks later someone reported they found the remains of a bear cub that was killed by wolves I am not presenting this as fact that pepper is gone but as a possible explanation why Felicia is alone

On Thu, Apr 23, 2020 at 4:22 PM (b) (6), (b) (7)(C), (b) (7)(F) <(b) (6), (b) (7)(C), (b) (7)(F)@fws.gov> wrote:

Good afternoon,

Please see the attached press release that has been sent out this afternoon.

If you are contacted by the media or the public, please be sure to document your contacts. At minimum document who called, what they asked and what information you provided. We want to be sure to give consistent responses. The talking points are outlined in the media release. My advice is to refer the media to our PIO in Denver. He will deal with responding to all media inquiries after talking with us.

I've already received calls from the BUCKRAIL stating the USFS is actively hazing the bears on the road and setting traps to catch and relocate the bears. Please keep us posted on any actions your agencies is taking or planning to take.

We are not actively trying to trap the bears at this time so please don't make that a talking point.

Let me know if you have any questions or concerns.

(b) (6), (b) (7)(F)

From: FWS Region 6 <fw6media@fws.gov>
Sent: Thursday, April 23, 2020 12:57 PM
To: D'agostino, Michael J <michael_dagostino@fws.gov>
Subject: [EXTERNAL] USFWS and Partners Urge Responsible Grizzly Bear Viewing in Togwotee Pass Area in Wyoming (Preview)

U.S. Fish and Wildlife Service

News Release

U.S. FISH AND WILDLIFE SERVICE

Interior Region 7 - Upper Colorado River Basin
Colorado, New Mexico, Utah, Wyoming

134 Union Blvd., Lakewood, Colorado 80228



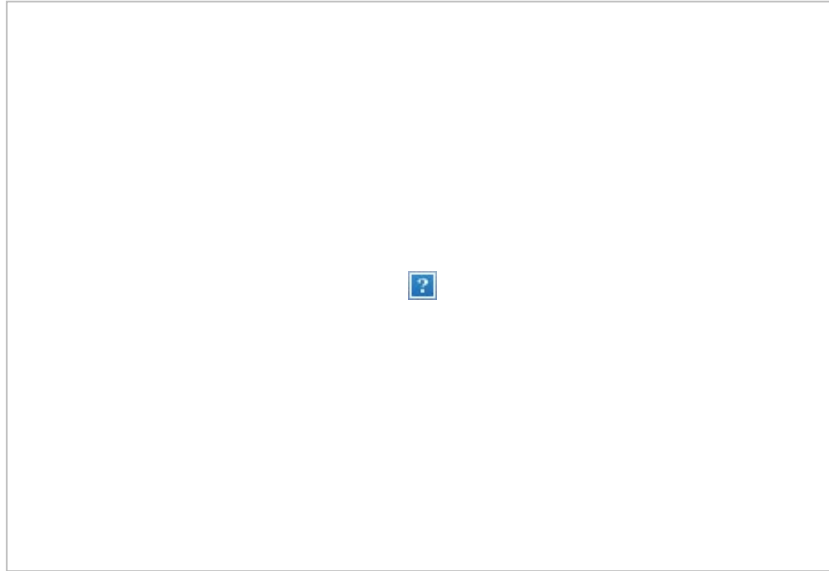
For Immediate Release

April 23, 2020

Contact: Michael D'Agostino, 720-390-0160, michael_dagostino@fws.gov

U.S. Fish and Wildlife Service and Partners Urge Responsible Grizzly Bear Viewing in Togwotee Pass Area in Wyoming

Grizzly bears at risk of harm from illegal and irresponsible human activities



People and cars dangerously close to a grizzly bear on U.S. Highway 26/287 in 2019, creating unsafe conditions for people and wildlife. Credit Todd Stiles/U.S. Forest Service

DENVER – For the past three summers, many people have viewed and photographed grizzly bears near U.S. Highway 26/287 between Dubois and Moran Junction in the Togwotee Pass area in Wyoming. A female grizzly bear, known as “863” by wildlife managers and “Felicia” by public observers, and her cub, “Pepper,” have become habituated to the roadside along Highway 26/287. As more people have become aware of these bears, it has created [unsafe conditions](#) for people and wildlife. The public’s help is needed to ensure continued safety of these bears and people passing through the area.

The U.S. Fish and Wildlife Service, U.S. Forest Service, Wyoming Game and Fish Department, Wyoming Department of Transportation, and Wyoming Highway Patrol are unified in our approach and committed to ensuring safe conditions for people and wildlife. To achieve this goal, we need your help. Please remember to:

- Never approach bears: always stay at least 100 yards (300 feet) away from bears, about the length of a football field
- Never feed, leave food for or make food accessible to bears
- Obey traffic signs, laws and regulations
- Drive carefully, slowly and watch for wildlife on and near highways and roadsides
- Report any unlawful activity or dangerous situations to the State Agency Law Enforcement Communications System at 1-800-442-2767

As bears emerge from winter hibernation and become active over the coming weeks, drivers should stay alert and use caution. Violators can be cited and fined for harming, harassing, or feeding bears or for creating unsafe driving conditions.

The future of these grizzly bears is uncertain. Human behavior plays a big role. The more habituated bears become to humans and the road, the greater the odds of an accident.

Female bears can exhibit aggressive behaviors to defend their young from perceived threats. Increased human presence makes aggressive bear behavior more likely, and potentially dangerous, for bears and people. Once bears act aggressively towards humans, they must be removed by wildlife managers - using hazing, relocation, or euthanasia - to protect human safety. These actions are generally avoidable if people

do not habituate bears to humans.

To safeguard human and bear safety, several law enforcement agencies are coordinating to help manage human-bear interactions along U.S. Highway 26/287. These agencies will apply applicable legal protections and Forest Orders to hold accountable anyone who knowingly harasses, harms, or feeds grizzly bears. [Grizzly bears](#) are currently protected under the federal Endangered Species Act and Wyoming state law. Law enforcement agencies will enforce other federal and state statutes and regulations as they relate to harming or harassing grizzly bears.

Illegal behaviors such as feeding bears threatens human and bear safety. Feeding bears can habituate bears to people and roadsides. Feeding bears can foster aggressive bear behavior and increases the chances of human-wildlife conflict. It is illegal to intentionally approach a grizzly bear or disrupt its normal behavior of feeding, breeding, or sheltering.

The Wyoming Department of Transportation will assist with protecting motorists and wildlife in the area by using signage to safely regulate traffic on U.S. Highway 26/287. The Wyoming Highway Patrol will monitor the highway to ensure compliance with state motor vehicle laws.

Stopping along the roadside to view bears can create dangerous driving conditions. It is unlawful to stop or park along the highway except in the case of an emergency or at designated pull off areas, such as scenic overlooks.

For additional bear safety tips, visit: <http://igbconline.org/bear-safety/>, <https://wgfd.wyo.gov/bear-wise-wyoming> and <https://www.fws.gov/news/blog/index.cfm/2016/7/8/Wildlife-Safety-Tips-for-Enjoying-the-Great-Outdoors>.

The mission of the U.S. Fish and Wildlife Service is working with others to conserve, protect, and enhance fish, wildlife, plants, and their habitats for the continuing benefit of the American people. For more information on our work and the people who make it happen in the West, visit [our website](#), [connect with us on Instagram and Facebook](#), [follow us on Twitter](#), [watch our YouTube channel](#), and [download public domain photos from Flickr](#).

– FWS –

This email was sent to michael_dagostino@fws.gov
US Fish and Wildlife Service, 134 Union Blvd, Lakewood, CO 80822, USA
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(b) (6), (b) (7)(C), (b) (7)(F), Special Agent
U.S. Fish and Wildlife Service
Office of Law Enforcement
200 North 1st Street
Lander, Wyoming 82520

(b) (6), (b) (7)(C), (b) (7)(F) - Office
(b) (6), (b) (7)(C), (b) (7)(F) - Cell

From: (b) (6), (b) (7)(C), (b) (7)(F)

Sent: Monday, April 20, 2020 8:21 AM

To: brian.debolt <brian.debolt@wyo.gov>; daniel.thompson <daniel.thompson@wyo.gov>; Brad Hovinga <brad.hovinga@wyo.gov>; Scott Edberg <scott.edberg@wyo.gov>; Richard King <Richard.King@wyo.gov>; John Lund <john.lund@wyo.gov>; Dan Smith (WGF) <dan.smith1@wyo.gov>; Jason Hunter <jason.hunter@wyo.gov>; Michael Boyce <michael.boyce@wyo.gov>; Rene Schell <rene.schell@wyo.gov>; Mark.Gocke@wyo.gov <Mark.Gocke@wyo.gov>; Lyle Lamb <lyle.lamb@wyo.gov>; cody.beers_contact <cody.beers@wyo.gov>; Steven.sanders@wyo.gov <Steven.sanders@wyo.gov>; Matthew Brackin <matthew.brackin@wyo.gov>; Andrew.jackson@wyo.gov <Andrew.jackson@wyo.gov>; Todd -FS Stiles <todd.stiles@usda.gov>; Angell, Rayce M -

FS <rayce.angell@usda.gov>; Hartley, David B -FS <david.hartley@usda.gov>; Flower, Joseph - FS <joseph.flower@usda.gov>; [REDACTED] <[\[REDACTED\]@usda.gov](mailto:[REDACTED]@usda.gov)>; Lane, William - FS <William.Lane@usda.gov>; VonKienast, Jeff -FS <jeff.vonkienast@usda.gov>; Cernicek, Mary -FS <mary.cernicek@usda.gov>; Salzmann, Kristie L -FS <kristie.l.salzmamm@usda.gov>

Cc: Jacobson, Kerry J. (USAWEY) <Kerry.Jacobson@usdoj.gov>; 'ember.oakley@fremontcountywy.gov' <ember.oakley@fremontcountywy.gov>; Erin@tetoncountyattorney.com <Erin@tetoncountyattorney.com>; Hambrick, Stephanie A. (USAWEY) <Stephanie.Hambrick@usdoj.gov>; Thibeault, Terence <terence_thibeault@fws.gov>; Stone, Bo <bo_stone@fws.gov>; Cooley, Hilary <hilary_cooley@fws.gov>; D'agostino, Michael J <michael_dagostino@fws.gov>

Subject: WWWCTF - Grizzly 863 update

Good morning,

The press release for Grizzly 863 should be finalized soon. We will get a copy of the release to you before it goes out.

WYGFD Warden Brian Debolt said he heard that Grizzly 863 was out of her den this weekend and people were gathering to photograph her. Please pass along any information you have or hear.

Thank you.

[REDACTED], Special Agent
U.S. Fish and Wildlife Service
Office of Law Enforcement
200 North 1st Street
Lander, Wyoming 82520

[REDACTED] - Office

[REDACTED] - Cell

--

Dan J. Thompson, PhD
Large Carnivore Section Supervisor
Wyoming Game and Fish Dept
260 Buena Vista Dr
Lander, WY 82520
(307) 332-2688
Daniel.Thompson@wyo.gov

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From: Daniel Thompson
To: Flower, Joseph - FS
Cc: (b) (6), (b) (7)(C), (b) (7)(F); brian.debolt; Brad Hovinga; Scott.edberg@wyo.gov; Richard King; John Lund; Dan Smith (WGF); Jason Hunter; Rene Schell; Mark.Gocke@wyo.gov; Lyle Lamb; cody.beers_contact; Steven.sanders@wyo.gov; Matthew Brackin; Andrew.jackson@wyo.gov; Stiles, Todd -FS; Angell, Rayce M -FS; Hartley, David B -FS; (b) (6), (b) (7)(C), (b) (7)(F) -FS; Lane, William - FS; VonKienast, Jeff -FS; Cernicek, Mary -FS; Salzmänn, Kristie L -FS; Jacobson, Kerry J. (USAWY); ember.oakley@fremontcountywy.gov; Erin@tetoncountyattorney.com; Hambrick, Stephanie A. (USAWY); (b) (6), (b) (7)(C); Stone, Bo; Cooley, Hilary; D'agostino, Michael J
Subject: [EXTERNAL] Re: WWWCTF - Grizzly 863 update
Date: Friday, April 24, 2020 8:23:51 AM

Yeah that was one of the rumors flying around that "you guys" (USFS) were currently working on trapping and relocating....good stuff

On Fri, Apr 24, 2020 at 8:19 AM Flower, Joseph - FS <joseph.flower@usda.gov> wrote:

Thanks (b) (6), (b) (7)(C) – appreciate you, Dan, and this whole bunch for being proactive and getting this press release out early this year. The Shoshone NF has taken no action to haze or trap these bears and currently have no plans to do so.

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To: D'agostino, Michael J <michael_dagostino@fws.gov>
Subject: [EXTERNAL] USFWS and Partners Urge Responsible Grizzly Bear Viewing in Togwotee Pass Area in Wyoming (Preview)

U.S. Fish and Wildlife Service

News Release

U.S. FISH AND WILDLIFE SERVICE

Interior Region 7 - Upper Colorado River Basin

Colorado, New Mexico, Utah, Wyoming

134 Union Blvd., Lakewood, Colorado 80228



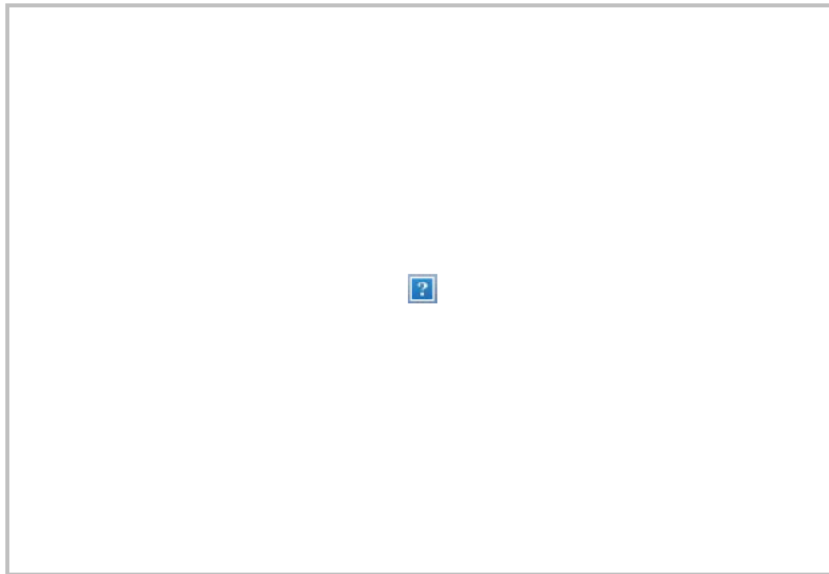
For Immediate Release

April 23, 2020

Contact: Michael D'Agostino, 720-390-0160, michael_dagostino@fws.gov

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U.S. Fish and Wildlife Service

Office of Law Enforcement

200 North 1st Street

Lander, Wyoming 82520

(b) (6), (b) (7)(C), (b) (7)(F) - Office

(b) (6), (b) (7)(C), (b) (7)(F) - Cell

From: (b) (6), (b) (7)(C), (b) (7)(F)

Sent: Monday, April 20, 2020 8:21 AM

To: brian.debolt <brian.debolt@wyo.gov>; daniel.thompson <daniel.thompson@wyo.gov>; Brad Hovinga <brad.hovinga@wyo.gov>; Scott Edberg <scott.edberg@wyo.gov>; Richard King <Richard.King@wyo.gov>; John Lund <john.lund@wyo.gov>; Dan Smith (WGF) <dan.smith1@wyo.gov>; Jason Hunter <jason.hunter@wyo.gov>; (b) (6), (b) (7)(C), (b) (7)(F) <(b) (6), (b) (7)(C), (b) (7)(F)@wyo.gov>; Rene Schell <rene.schell@wyo.gov>; Mark.Gocke@wyo.gov <Mark.Gocke@wyo.gov>; Lyle Lamb <lyle.lamb@wyo.gov>; cody.beers_contact <cody.beers@wyo.gov>; Steven.sanders@wyo.gov <Steven.sanders@wyo.gov>; Matthew Brackin <matthew.brackin@wyo.gov>; Andrew.jackson@wyo.gov <Andrew.jackson@wyo.gov>; Todd -FS Stiles <todd.stiles@usda.gov>; Angell, Rayce M -FS <rayce.angell@usda.gov>; Hartley, David B -FS <david.hartley@usda.gov>; Flower, Joseph - FS <joseph.flower@usda.gov>; (b) (6), (b) (7)(C), (b) (7)(F) <(b) (6), (b) (7)(C), (b) (7)(F)@usda.gov>; Lane, William - FS <William.Lane@usda.gov>; VonKienast, Jeff -FS <jeff.vonkienast@usda.gov>; Cernicek, Mary -FS <mary.cernicek@usda.gov>; Salzmman, Kristie L -FS <kristie.l.salzmman@usda.gov>
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Thank you.

(b) (6), (b) (7)(C), (b) (7)(F), Special Agent

U.S. Fish and Wildlife Service

Office of Law Enforcement

200 North 1st Street

Lander, Wyoming 82520

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Dan J. Thompson, PhD
Large Carnivore Section Supervisor
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Lander, WY 82520
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Daniel.Thompson@wyo.gov

--

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From: (b) (6), (b) (7)(C), (b) (7)(F) -FS
To: Cooley, Hilary
Subject: RE: [EXTERNAL] RE: WWWCTF - Grizzly 863 update
Date: Friday, May 1, 2020 1:19:28 PM
Attachments: [image004.png](#)
[image005.png](#)
[image006.png](#)
[image007.png](#)

Hilary,

Thanks for bringing this back up. We have started some conversations about this on the B-T and the Shoshone. Someone will get back to you hopefully soon.

Thanks!

Jason



(b) (6), (b) (7)(C), (b) (7)(F)
(b) (6), (b) (7)(C), (b) (7)(F)

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Jackson, WY 83001

office:

cell:

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www.fs.fed.us



Caring for the land and serving people

From: Cooley, Hilary <hilary_cooley@fws.gov>

Sent: Friday, April 24, 2020 9:21 AM

To: Stiles, Todd -FS <todd.stiles@usda.gov>; daniel.thompson <daniel.thompson@wyo.gov>; Flower, Joseph - FS <joseph.flower@usda.gov>; (b) (6), (b) (7)(C), (b) (7)(F) -FS <(b) (6), (b) (7)(C), (b) (7)(F)@usda.gov>; Koob, Steven -FS <steven.koob@usda.gov>

Cc: (b) (6), (b) (7)(C), (b) (7)(F) <(b) (6), (b) (7)(C), (b) (7)(F)@fws.gov>; brian.debolt <brian.debolt@wyo.gov>; Brad Hovinga <brad.hovinga@wyo.gov>; Scott.edberg@wyo.gov; Richard King <Richard.King@wyo.gov>; John Lund <john.lund@wyo.gov>; Dan Smith (WGF) <dan.smith1@wyo.gov>; Jason Hunter <jason.hunter@wyo.gov>; (b) (6), (b) (7)(C), (b) (7)(F) <(b) (6), (b) (7)(C), (b) (7)(F)@wyo.gov>; Rene Schell <rene.schell@wyo.gov>; Mark.Gocke@wyo.gov; Lyle Lamb <lyle.lamb@wyo.gov>; cody.beers_contact <cody.beers@wyo.gov>; Steven.sanders@wyo.gov; Matthew Brackin <matthew.brackin@wyo.gov>; Andrew.jackson@wyo.gov; Angell, Rayce M -FS <rayce.angell@usda.gov>; Hartley, David B -FS <david.hartley@usda.gov>; (b) (6), (b) (7)(C), (b) (7)(F) -FS <(b) (6), (b) (7)(C), (b) (7)(F)@usda.gov>; Lane, William - FS <William.Lane@usda.gov>; VonKienast, Jeff -FS <jeff.vonkienast@usda.gov>; Cernicek, Mary -FS <mary.cernicek@usda.gov>; Salzmman, Kristie L -FS <kristie.l.salzmman@usda.gov>; Jacobson, Kerry J. (USAWY) <Kerry.Jacobson@usdoj.gov>; ember.oakley@fremontcountywy.gov; Erin@tetoncountyattorney.com; Hambrick, Stephanie A. (USAWY) <Stephanie.Hambrick@usdoj.gov>; (b) (6), (b) (7)(C) <(b) (6), (b) (7)(C)@fws.gov>; Stone, Bo <bo_stone@fws.gov>; D'agostino, Michael J <michael_dagostino@fws.gov>

Subject: Re: [EXTERNAL] RE: WWWCTF - Grizzly 863 update

USFS folks:

We spoke a few times about potentially issuing the USFS a permit to haze bears. You currently have coverage under the grizzly bear 4d rule (attached), but we also write "letters of implementation" to agencies detailing

specifics of what they are authorized to do. I'm happy to write one for USFS. Would need to know who to address to, if we want for both Shoshone and BT, and we could work together on the language to ensure it covers what you might need to do.

-Hilary

From: Stiles, Todd -FS <todd.stiles@usda.gov>

Sent: Friday, April 24, 2020 8:36 AM

To: daniel.thompson <daniel.thompson@wyo.gov>; Flower, Joseph - FS <joseph.flower@usda.gov>; (b) (6), (b) (7)(C), (b) (7)(F)

-FS <(b) (6), (b) (7)(C), (b) (7)(F)@usda.gov>; Koob, Steven -FS <steven.koob@usda.gov>

Cc: (b) (6), (b) (7)(C), (b) (7)(F) <(b) (6), (b) (7)(C), (b) (7)(F)@fws.gov>; brian.debolt <brian.debolt@wyo.gov>; Brad Hovinga <brad.hovinga@wyo.gov>; Scott.edberg@wyo.gov <Scott.edberg@wyo.gov>; Richard King <Richard.King@wyo.gov>;

John Lund <john.lund@wyo.gov>; Dan Smith (WGF) <dan.smith1@wyo.gov>; Jason Hunter

<jason.hunter@wyo.gov>; (b) (6), (b) (7)(C), (b) (7)(F) <(b) (6), (b) (7)(C), (b) (7)(F)@wyo.gov>; Rene Schell <rene.schell@wyo.gov>;

Mark.Gocke@wyo.gov <Mark.Gocke@wyo.gov>; Lyle Lamb <lyle.lamb@wyo.gov>; cody.beers_contact

<cody.beers@wyo.gov>; Steven.sanders@wyo.gov <Steven.sanders@wyo.gov>; Matthew Brackin

<matthew.brackin@wyo.gov>; Andrew.jackson@wyo.gov <Andrew.jackson@wyo.gov>; Angell, Rayce M -FS

<rayce.angell@usda.gov>; Hartley, David B -FS <david.hartley@usda.gov>; (b) (6), (b) (7)(C), (b) (7)(F) C -FS

<(b) (6), (b) (7)(C), (b) (7)(F)@usda.gov>; Lane, William - FS <William.Lane@usda.gov>; VonKienast, Jeff -FS

<jeff.vonkienast@usda.gov>; Cernicek, Mary -FS <mary.cernicek@usda.gov>; Salzmann, Kristie L -FS

<kristie.l.salzmann@usda.gov>; Jacobson, Kerry J. (USAWY) <Kerry.Jacobson@usdoj.gov>;

ember.oakley@fremontcountywyo.gov <ember.oakley@fremontcountywyo.gov>; Erin@tetoncountyattorney.com

<Erin@tetoncountyattorney.com>; Hambrick, Stephanie A. (USAWY) <Stephanie.Hambrick@usdoj.gov>; (b) (6), (b) (7)(C)

<(b) (6), (b) (7)(C)@fws.gov>; Stone, Bo <bo_stone@fws.gov>; Cooley, Hilary <hilary_cooley@fws.gov>;

D'agostino, Michael J <michael_dagostino@fws.gov>

Subject: [EXTERNAL] RE: WWWCTF - Grizzly 863 update

Greetings all, Employees from Blackrock Ranger District have generally stopped once or twice per day just to look in on the situation. We have posted the sign we did last year (attached here) just to show that we are paying attention, and to try and get the 100 yard message out loud and clear. We have obviously not in any way "hazed" 863 or taken remotely any action such as that. We have made a handful of public contacts, and other than one group of three guys on snowshoes several days ago that were trouble makers, everyone has been pretty low key and just basically staying on the road shoulder. We have installed the signs at the following locations to try and get people's attention:

1. Blackrock Ranger Station (kiosk and on our public toilet building)
2. Hatchet bulletin board in the snowmobile trailhead next to the campground
3. Up on a temporary sandwich board kiosk in the Fourmile parking area- this is getting a lot of traffic.
4. On the bulletin board at the Togwotee snowmobile parking lot toilet building
5. On the gate that WYDOT maintains to its soil storage site by the wildlife under crossing structure- 863 is spending a lot of time here.

I will make sure this press release also gets posted here at Blackrock, up at Fourmile, and at the WYDOT gate. Thank you everyone, and thanks FWS for getting this press release together!

From: Daniel Thompson <daniel.thompson@wyo.gov>

Sent: Friday, April 24, 2020 8:22 AM

To: Flower, Joseph - FS <joseph.flower@usda.gov>

Cc: (b) (6), (b) (7)(C), (b) (7)(F) <(b) (6), (b) (7)(C), (b) (7)(F)@fws.gov>; brian.debolt <brian.debolt@wyo.gov>; Brad Hovinga

<brad.hovinga@wyo.gov>; Scott.edberg@wyo.gov <Scott.edberg@wyo.gov>; Richard King <Richard.King@wyo.gov>; John Lund

<john.lund@wyo.gov>; Dan Smith (WGF) <dan.smith1@wyo.gov>; Jason Hunter <jason.hunter@wyo.gov>; (b) (6), (b) (7)(C), (b) (7)(F)

<(b) (6), (b) (7)(C), (b) (7)(F)@wyo.gov>; Rene Schell <rene.schell@wyo.gov>; Mark.Gocke@wyo.gov; Lyle Lamb

<lyle.lamb@wyo.gov>; cody.beers_contact <cody.beers@wyo.gov>; Steven.sanders@wyo.gov; Matthew Brackin

<matthew.brackin@wyo.gov>; Andrew.jackson@wyo.gov; Stiles, Todd -FS <todd.stiles@usda.gov>; Angell, Rayce M -

FS <rayce.angell@usda.gov>; Hartley, David B -FS <david.hartley@usda.gov>; (b) (6), (b) (7)(C), (b) (7)(F) -FS <(b) (6), (b) (7)(C), (b) (7)(F)@usda.gov>; Lane, William - FS <William.Lane@usda.gov>; VonKienast, Jeff -FS <jeff.vonkienast@usda.gov>; Cernicek, Mary -FS <mary.cernicek@usda.gov>; Salzmann, Kristie L -FS <kristie.l.salzmann@usda.gov>; Jacobson, Kerry J. (USAWY) <Kerry.Jacobson@usdoj.gov>; ember.oakley@fremontcountywy.gov; Erin@tetoncountyattorney.com; Hambrick, Stephanie A. (USAWY) <Stephanie.Hambrick@usdoj.gov>; (b) (6), (b) (7)(C) <(b) (6), (b) (7)(C)@fws.gov>; Stone, Bo <bo_stone@fws.gov>; Cooley, Hilary <hilary_cooley@fws.gov>; D'agostino, Michael J <michael_dagostino@fws.gov>
Subject: Re: WWWCTF - Grizzly 863 update

Yeah that was one of the rumors flying around that "you guys" (USFS) were currently working on trapping and relocating....good stuff

On Fri, Apr 24, 2020 at 8:19 AM Flower, Joseph - FS <joseph.flower@usda.gov> wrote:

Thanks (b) (6), (b) (7)(F) – appreciate you, Dan, and this whole bunch for being proactive and getting this press release out early this year. The Shoshone NF has taken no action to haze or trap these bears and currently have no plans to do so.

From: (b) (6), (b) (7)(C), (b) (7)(F) <(b) (6), (b) (7)(C), (b) (7)(F)@fws.gov>

Sent: Thursday, April 23, 2020 4:22 PM

To: brian.debolt <brian.debolt@wyo.gov>; daniel.thompson <daniel.thompson@wyo.gov>; Brad Hovinga <brad.hovinga@wyo.gov>; Scott.edberg@wyo.gov; Richard King <Richard.King@wyo.gov>; John Lund <john.lund@wyo.gov>; Dan Smith (WGF) <dan.smith1@wyo.gov>; Jason Hunter <jason.hunter@wyo.gov>; (b) (6), (b) (7)(C), (b) (7)(F) <(b) (6), (b) (7)(C), (b) (7)(F)@wyo.gov>; Rene Schell <rene.schell@wyo.gov>; Mark.Gocke@wyo.gov; Lyle Lamb <lyle.lamb@wyo.gov>; cody.beers_contact <cody.beers@wyo.gov>; Steven.sanders@wyo.gov; Matthew Brackin <matthew.brackin@wyo.gov>; Andrew.jackson@wyo.gov; Stiles, Todd -FS <todd.stiles@usda.gov>; Angell, Rayce M -FS <rayce.angell@usda.gov>; Hartley, David B -FS <david.hartley@usda.gov>; Flower, Joseph - FS <joseph.flower@usda.gov>; (b) (6), (b) (7)(C), (b) (7)(F) -FS <(b) (6), (b) (7)(C), (b) (7)(F)@usda.gov>; Lane, William - FS <William.Lane@usda.gov>; VonKienast, Jeff -FS <jeff.vonkienast@usda.gov>; Cernicek, Mary -FS <mary.cernicek@usda.gov>; Salzmann, Kristie L -FS <kristie.l.salzmann@usda.gov>
Cc: Jacobson, Kerry J. (USAWY) <Kerry.Jacobson@usdoj.gov>; 'ember.oakley@fremontcountywy.gov' <ember.oakley@fremontcountywy.gov>; Erin@tetoncountyattorney.com; Hambrick, Stephanie A. (USAWY) <Stephanie.Hambrick@usdoj.gov>; (b) (6), (b) (7)(C) <(b) (6), (b) (7)(C)@fws.gov>; Stone, Bo <bo_stone@fws.gov>; Cooley, Hilary <hilary_cooley@fws.gov>; D'agostino, Michael J <michael_dagostino@fws.gov>
Subject: Re: WWWCTF - Grizzly 863 update

Good afternoon,

Please see the attached press release that has been sent out this afternoon.

If you are contacted by the media or the public, please be sure to document your contacts. At minimum document who called, what they asked and what information you provided. We want to be sure to give consistent responses. The talking point are outlined in the media release. My advice is to refer the media to our PIO in Denver. He will deal with responding to all media inquiries after talking with us.

I've already received calls from the BUCKRAIL stating the USFS is actively hazing the bears on the road and setting traps to catch and relocate the bears. Please keep us posted on any actions your agencies is taking or planning to take.

We are not actively trying to trap the bears at this time so please don't make that a talking point.

Let me know if you have any questions or concerns.

(b) (6), (b) (7)

From: FWS Region 6 <fw6media@fws.gov>

Sent: Thursday, April 23, 2020 12:57 PM

To: D'agostino, Michael J <michael_dagostino@fws.gov>

Subject: [EXTERNAL] USFWS and Partners Urge Responsible Grizzly Bear Viewing in Togwotee Pass Area in Wyoming (Preview)

U.S. Fish and Wildlife Service

News Release

U.S. FISH AND WILDLIFE SERVICE

Interior Region 7 - Upper Colorado River Basin

Colorado, New Mexico, Utah, Wyoming



134 Union Blvd., Lakewood, Colorado 80228

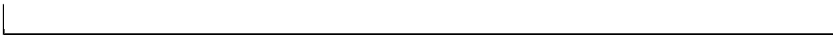
For Immediate Release

April 23, 2020

Contact: Michael D'Agostino, 720-390-0160, michael_dagostino@fws.gov

U.S. Fish and Wildlife Service and Partners Urge Responsible Grizzly Bear Viewing in Togwotee Pass Area in Wyoming

Grizzly bears at risk of harm from illegal and irresponsible human activities



People and cars dangerously close to a grizzly bear on U.S. Highway 26/287 in 2019, creating unsafe conditions for people and wildlife. Credit: Todd Stiles/U.S. Forest Service

DENVER – For the past three summers, many people have viewed and photographed grizzly bears near U.S. Highway 26/287 between Dubois and Moran Junction in the Togwotee Pass area in Wyoming. A female grizzly bear, known as “863” by wildlife managers and “Felicia” by public observers, and her cub, “Pepper,” have become habituated to the roadside along Highway 26/287. As more people have become aware of these bears, it has created [unsafe conditions](#) for people and wildlife. The public’s help is needed to ensure continued safety of these bears and people passing through the area.

The U.S. Fish and Wildlife Service, U.S. Forest Service, Wyoming Game and Fish Department, Wyoming Department of Transportation, and Wyoming Highway Patrol are unified in our approach and committed to ensuring safe conditions for people and wildlife. To achieve this goal, we need your help. Please remember to:

- Never approach bears: always stay at least 100 yards (300 feet) away from bears, about the length of a football field
- Never feed, leave food for or make food accessible to bears
- Obey traffic signs, laws and regulations
- Drive carefully, slowly and watch for wildlife on and near highways and roadsides
- Report any unlawful activity or dangerous situations to the State Agency Law Enforcement Communications System at 1-800-442-2767

As bears emerge from winter hibernation and become active over the coming weeks, drivers should stay alert and use caution. Violators can be cited and fined for harming, harassing, or feeding bears or for creating unsafe driving conditions.

The future of these grizzly bears is uncertain. Human behavior plays a big role. The more habituated bears become to humans and the road, the greater the odds of an accident.

Female bears can exhibit aggressive behaviors to defend their young from perceived threats. Increased human presence makes aggressive bear behavior more likely, and potentially dangerous, for bears and people. Once bears act aggressively towards humans, they must be removed by wildlife managers - using hazing, relocation, or euthanasia - to protect human safety. These actions are generally avoidable if people do not habituate bears to humans.

To safeguard human and bear safety, several law enforcement agencies are coordinating to help manage human-bear interactions along U.S. Highway 26/287. These agencies will apply applicable legal protections and Forest Orders to hold accountable anyone who knowingly harasses, harms, or feeds grizzly

bears. [Grizzly bears](#) are currently protected under the federal Endangered Species Act and Wyoming state law. Law enforcement agencies will enforce other federal and state statutes and regulations as they relate to harming or harassing grizzly bears.

Illegal behaviors such as feeding bears threatens human and bear safety. Feeding bears can habituate bears to people and roadsides. Feeding bears can foster aggressive bear behavior and increases the chances of human-wildlife conflict. It is illegal to intentionally approach a grizzly bear or disrupt its normal behavior of feeding, breeding, or sheltering.

The Wyoming Department of Transportation will assist with protecting motorists and wildlife in the area by using signage to safely regulate traffic on U.S. Highway 26/287. The Wyoming Highway Patrol will monitor the highway to ensure compliance with state motor vehicle laws.

Stopping along the roadside to view bears can create dangerous driving conditions. It is unlawful to stop or park along the highway except in the case of an emergency or at designated pull off areas, such as scenic overlooks.

For additional bear safety tips, visit: <http://igbconline.org/bear-safety/>, <https://wgfd.wyo.gov/bear-wise-wyoming> and <https://www.fws.gov/news/blog/index.cfm/2016/7/8/Wildlife-Safety-Tips-for-Enjoying-the-Great-Outdoors>.

The mission of the U.S. Fish and Wildlife Service is working with others to conserve, protect, and enhance fish, wildlife, plants, and their habitats for the continuing benefit of the American people. For more information on our work and the people who make it happen in the West, visit [our website](#), [connect with us on Instagram and Facebook](#), [follow us on Twitter](#), [watch our YouTube channel](#), and [download public domain photos from Flickr](#).

– FWS –

This email was sent to michael_dagostino@fws.gov
US Fish and Wildlife Service, 134 Union Blvd, Lakewood, CO 80822, USA
[Unsubscribe](#)

[Redacted]

(b) (6), (b) (7)(C), (b) (7)(F), Special Agent
U.S. Fish and Wildlife Service
Office of Law Enforcement
200 North 1st Street
Lander, Wyoming 82520

(b) (6), (b) (7)(C), (b) (7)(F) - Office

(b) (6), (b) (7)(C), (b) (7)(F) - Cell

From: (b) (6), (b) (7)(C), (b) (7)(F)

Sent: Monday, April 20, 2020 8:21 AM

To: brian.debolt <brian.debolt@wyo.gov>; daniel.thompson <daniel.thompson@wyo.gov>; Brad Hovinga <brad.hovinga@wyo.gov>; Scott Edberg <scott.edberg@wyo.gov>; Richard King <Richard.King@wyo.gov>; John

Lund <john.lund@wyo.gov>; Dan Smith (WGF) <dan.smith1@wyo.gov>; Jason Hunter <jason.hunter@wyo.gov>;
(b) (6), (b) (7)(C), (b) (7)(F) <(b) (6), (b) (7)(C), (b) (7)(F) @wyo.gov>; Rene Schell <rene.schell@wyo.gov>; Mark.Gocke@wyo.gov
<Mark.Gocke@wyo.gov>; Lyle Lamb <lyle.lamb@wyo.gov>; cody.beers_contact <cody.beers@wyo.gov>;
Steven.sanders@wyo.gov <Steven.sanders@wyo.gov>; Matthew Brackin <matthew.brackin@wyo.gov>;
Andrew.jackson@wyo.gov <Andrew.jackson@wyo.gov>; Todd -FS Stiles <todd.stiles@usda.gov>; Angell, Rayce M -
FS <rayce.angell@usda.gov>; Hartley, David B -FS <david.hartley@usda.gov>; Flower, Joseph - FS
<joseph.flower@usda.gov>; (b) (6), (b) (7)(C), (b) (7)(F) <(b) (6), (b) (7)(C), (b) (7)(F) @usda.gov>; Lane, William - FS <William.Lane@usda.gov>;
VonKienast, Jeff -FS <jeff.vonkienast@usda.gov>; Cernicek, Mary -FS <mary.cernicek@usda.gov>; Salzmman, Kristie
L -FS <kristie.l.salzmman@usda.gov>
Cc: Jacobson, Kerry J. (USAWE) <Kerry.Jacobson@usdoj.gov>; 'ember.oakley@fremontcountyywy.gov'
<ember.oakley@fremontcountyywy.gov>; Erin@tetoncountyattorney.com <Erin@tetoncountyattorney.com>;
Hambrick, Stephanie A. (USAWE) <Stephanie.Hambrick@usdoj.gov>; Thibeault, Terence
<terence_thibeault@fws.gov>; Stone, Bo <bo_stone@fws.gov>; Cooley, Hilary <hilary_cooley@fws.gov>;
D'agostino, Michael J <michael_dagostino@fws.gov>

Subject: WWWCTF - Grizzly 863 update

Good morning,

The press release for Grizzly 863 should be finalized soon. We will get a copy of the release to you before it goes out.

WYGF Darden Brian Debolt said he heard that Grizzly 863 was out of her den this weekend and people were gathering to photograph her. Please pass along any information you have or hear.

Thank you.

(b) (6), (b) (7)(C), (b) (7)(F), Special Agent
U.S. Fish and Wildlife Service
Office of Law Enforcement
200 North 1st Street
Lander, Wyoming 82520
(b) (6), (b) (7)(C), (b) (7)(F) - Office
(b) (6), (b) (7)(C), (b) (7)(F) - Cell

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--

Dan J. Thompson, PhD
Large Carnivore Section Supervisor
Wyoming Game and Fish Dept
260 Buena Vista Dr
Lander, WY 82520
(307) 332-2688
Daniel.Thompson@wyo.gov

--

E-Mail to and from me, in connection with the transaction of public business, is subject to the Wyoming Public Records Act and may be disclosed to third parties.

From: Daniel Thompson
To: Cooley, Hilary
Cc: (b) (6), (b) (7)(C), (b) (7)(F); Brad Hovinga; (b) (6), (b) (7)(C), (b) (7)(F) Brian DeBolt
Subject: Re: [EXTERNAL] Re: Solitude bear feeding situation
Date: Monday, November 23, 2020 1:03:47 PM

(b) (6), (b) (7)(C) talked to alliance/foundation folks today and they are going to use their contacts to reach out directly to some of the main players involved (photographers and "advocate" types). I think we see how that plays out through today/tomorrow and then next step from my perspective would be to go through Koshmrl or local outlet to further messaging. I'll put together some points based on what (b) (6), (b) (7)(C) sent to the group. That's my two cents

On Mon, Nov 23, 2020 at 12:58 PM Cooley, Hilary <hilary_cooley@fws.gov> wrote:

The Service is considering a press release or some sort of statement.

I'd rather us do a joint release than do something on our own. What's the latest on WGF doing a release? Or are you thinking of asking Mike K to get the story out thru article in JHNG?

From: (b) (6), (b) (7)(C), (b) (7)(F) <(b) (6), (b) (7)(C), (b) (7)(F)@fws.gov>
Sent: Monday, November 23, 2020 8:40 AM
To: Daniel Thompson <daniel.thompson@wyo.gov>; Cooley, Hilary <hilary_cooley@fws.gov>
Cc: Brad Hovinga <brad.hovinga@wyo.gov>; (b) (6), (b) (7)(C), (b) (7)(F) <(b) (6), (b) (7)(C), (b) (7)(F)@wyo.gov>; Brian DeBolt <brian.debolt@wyo.gov>
Subject: Re: [EXTERNAL] Re: Solitude bear feeding situation

Hilary and (b) (6), (b) (7)(C),

Here's a copy of the press release we used at Togowotee Pass. This may be a good starting point for drafting a release on 399.

(b) (6), (b) (7)(C), (b) (7)(F), Special Agent
U.S. Fish and Wildlife Service
Office of Law Enforcement

(b) (6), (b) (7)(C)

(b) (6), (b) (7)(C)

(b) (6), (b) (7)(C) Office

(b) (6), (b) (7)(C) - Cell

From: Daniel Thompson <daniel.thompson@wyo.gov>
Sent: Tuesday, October 27, 2020 4:23 PM
To: (b) (6), (b) (7)(C), (b) (7)(F) <(b) (6), (b) (7)(C), (b) (7)(F)@fws.gov>
Cc: (b) (6), (b) (7)(C) <(b) (6), (b) (7)(C)@fws.gov>; (b) (6), (b) (7)(C) <(b) (6), (b) (7)(C)@fws.gov>; Richard King <richard.king@wyo.gov>; Brad Hovinga <brad.hovinga@wyo.gov>; (b) (6), (b) (7)(C), (b) (7)(F) <(b) (6), (b) (7)(C), (b) (7)(F)@wyo.gov>; Doug Brimeyer <doug.brimeyer@wyo.gov>; Scott Edberg <scott.edberg@wyo.gov>; Brian DeBolt <brian.debolt@wyo.gov>; Cooley, Hilary <hilary_cooley@fws.gov>

Subject: Re: [EXTERNAL] Re: Solitude bear feeding situation

Thanks for clarification, we didn't plan on any releases until after some resolution on enforcement. I'll let Rick follow up on anything else, but for now we are still sending all media inquiries to FWS while under investigation.

DT

On Tue, Oct 27, 2020 at 4:21 PM (b) (6), (b) (7)(C), (b) (7)(F) <(b) (6), (b) (7)(C), (b) (7)(F)@fws.gov> wrote:
Rick [et.al](#),

I mis-spoke about a press release. I apologize for the misunderstanding. All we have at the moment are drafted talking points about the grizzly situation in the event the media calls.

I know we talked about a press release and not wanting to draw too much attention to the bears and the feeding. What would the WYGFD like to see in a press release?

(b) (6), (b) (7)(C), (b) (7)(F), Special Agent
U.S. Fish and Wildlife Service
Office of Law Enforcement

(b) (6), (b) (7)(C)

(b) (6), (b) (7)(C) - Office

(b) (6), (b) (7)(C) - Cell

From: (b) (6), (b) (7)(C), (b) (7)(F) <(b) (6), (b) (7)(C), (b) (7)(F)@fws.gov>

Sent: Tuesday, October 27, 2020 4:01 PM

To: (b) (6), (b) (7)(C) <(b) (6), (b) (7)(C)@fws.gov>; (b) (6), (b) (7)(C) <(b) (6), (b) (7)(C)@fws.gov>

Cc: Brad Hovinga <brad.hovinga@wyo.gov>; Daniel Thompson <daniel.thompson@wyo.gov>; (b) (7)(C), (b) (7)(F), (b) (6) <(b) (7)(C), (b) (7)(F), (b) (6)@wyo.gov>; Richard King <richard.king@wyo.gov>; Doug Brimeyer <doug.brimeyer@wyo.gov>; Scott Edberg <scott.edberg@wyo.gov>; Brian DeBolt <brian.debolt@wyo.gov>; Cooley, Hilary <hilary_cooley@fws.gov>

Subject: Re: [EXTERNAL] Re: Solitude bear feeding situation

(b) (6), (b) (7)(C) [et.al](#),

In the interest of public safety, can we get this press release expedited?

(b) (7)(C), (b) (6), (b) (7)(F), Special Agent
U.S. Fish and Wildlife Service
Office of Law Enforcement

(b) (6), (b) (7)(C)

(b) (6), (b) (7)(C)

(b) (6), (b) (7)(C) - Office

(b) (6), (b) (7)(C) - Cell

From: Cooley, Hilary <hilary_cooley@fws.gov>

Sent: Monday, October 26, 2020 11:47 AM

To: (b) (6), (b) (7)(C) <(b) (6), (b) (7)(C)@fws.gov>; Brian DeBolt <brian.debolt@wyo.gov>; Scott Edberg <scott.edberg@wyo.gov>

Cc: Brad Hovinga <brad.hovinga@wyo.gov>; Daniel Thompson <daniel.thompson@wyo.gov>; (b) (6), (b) (7)(C), (b) (7)(F) <(b) (6), (b) (7)(C), (b) (7)(F)@wyo.gov>; Richard King <richard.king@wyo.gov>; Doug Brimeyer <doug.brimeyer@wyo.gov>

Subject: Re: [EXTERNAL] Re: Solitude bear feeding situation

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Comments/edits appreciated.

-Hilary

From: (b) (6), (b) (7)(C), (b) (7)(F) <(b) (6), (b) (7)(C), (b) (7)(F)@fws.gov>

Sent: Monday, October 26, 2020 10:20 AM

To: Brian DeBolt <brian.debolt@wyo.gov>; Scott Edberg <scott.edberg@wyo.gov>

Cc: Brad Hovinga <brad.hovinga@wyo.gov>; Daniel Thompson <daniel.thompson@wyo.gov>; (b) (6), (b) (7)(C), (b) (7)(F) <(b) (6), (b) (7)(C), (b) (7)(F)@wyo.gov>; Richard King <richard.king@wyo.gov>; Doug Brimeyer <doug.brimeyer@wyo.gov>; Cooley, Hilary <hilary_cooley@fws.gov>

Subject: Re: [EXTERNAL] Re: Solitude bear feeding situation

Just got off the phone with Hilary - She's standing by.

(b) (6), (b) (7)(C), (b) (7)(F), Special Agent

U.S. Fish and Wildlife Service

Office of Law Enforcement

(b) (6), (b) (7)(C)

(b) (6), (b) (7)(C)

(b) (6), (b) (7)(C) - Office

(b) (6), (b) (7)(C) - Cell

From: Brian DeBolt <brian.debolt@wyo.gov>

Sent: Monday, October 26, 2020 10:04 AM

To: Scott Edberg <scott.edberg@wyo.gov>

Cc: Brad Hovinga <brad.hovinga@wyo.gov>; (b) (6), (b) (7)(C), (b) (7)(F) <(b) (6), (b) (7)(C), (b) (7)(F)@fws.gov>; Daniel Thompson <daniel.thompson@wyo.gov>; (b) (6), (b) (7)(C), (b) (7)(F) <(b) (6), (b) (7)(C), (b) (7)(F)@wyo.gov>; Richard King <richard.king@wyo.gov>; Doug Brimeyer <doug.brimeyer@wyo.gov>; Cooley, Hilary <hilary_cooley@fws.gov>

Subject: Re: [EXTERNAL] Re: Solitude bear feeding situation

Folks,

Just a quick follow up from this morning's phone call. Hillary Cooley will be the media contact for any inquiries. Thank you

Brian

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(b) (6), (b) (7)(C), (b) (7)(F),

Teton County's no feeding ordinances is essentially unenforceable. It's not a criminal violation, but they have the ability to take civil action. They've not ever done it to my knowledge. I don't believe there's any risk in the county getting involved.

Brad

On Sat, Oct 24, 2020, 5:59 PM (b) (6), (b) (7)(C), (b) (7)(F) <(b) (6), (b) (7)(C), (b) (7)(F)@fws.gov> wrote:

I've been in contact today with (b) (6), (b) (7)(C), (b) (7)(F) following her interview yesterday. She sent a photo documenting that she removed the bait/feed from her property. She said she did not see any bears last night or this morning. I asked that she contact me if any bears show up on her property. She agreed. She said her neighbors saw "the famous bears" yesterday.

Scott - (b) (6), (b) (7)(C), (b) (7)(F)

(b) (6), (b) (7)(C), (b) (7)(F) Please have Teton County coordinate any law enforcement actions with Brian and I.

(b) (5), (b) (7)(C)

Sent from my iPhone

On Oct 24, 2020, at 1:10 PM, Brian DeBolt <brian.debolt@wyo.gov> wrote:

This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.

Yes don't we are drafting some talking points for them now

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Thanks Brian. That is not a good situation. Any chance Teton County will take any enforcement action?

If this becomes public, assume USFWS is the media contact?

On Sat, Oct 24, 2020, 11:36 AM Brian DeBolt <brian.debolt@wyo.gov> wrote:

Folks,

We Became aware of a concentration of GPS points from a radio collared grizzly bear at a residence in the solitude subdivision near the airport in Jackson Hole Last week. Investigation revealed at least one more unmarked grizzly bear and an unmarked black bear visiting the residence. The lady has been known to feed wildlife for quite some time now.

(b) (5), (b) (7)(C), (b) (7)(F) visited with her and she indicated she would stop feeding. However, there were additional clusters of grizzly bear locations at her residence after that.

Agent (b) (5), (b) (7)(C), (b) (7)(F) and myself Visited her residence for an interview yesterday. At that time grizzly bear 399 and her 4 cubs showed up and fed off her back porch for approximately 2 hours while we interviewed her. In my opinion, the bears have been there in the past and are very familiar with feeding at this particular residence. The fish and wildlife service is discussing options for a bear feeding case.

We have all been discussing options for dealing with the bears if they do not move on their own.

The owner of the residence has assured us that all food including grain, horse cubes, and bird seed has been cleaned up as of yesterday evening.

Thanks

Brian

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Dan J. Thompson, PhD
Large Carnivore Section Supervisor
Wyoming Game and Fish Dept
260 Buena Vista Dr
Lander, WY 82520
(307) 332-2688
Daniel.Thompson@wyo.gov

--

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(307) 332-2688
Daniel.Thompson@wyo.gov

--

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From: Daniel Thompson
To: (b) (6), (b) (7)(C), (b) (7)(F)
Cc: Cooley, Hilary; Brad Hovinga; (b) (6), (b) (7)(C), (b) (7)(F); Brian DeBolt
Subject: Re: [EXTERNAL] Re: Solitude bear feeding situation
Date: Monday, November 23, 2020 3:36:34 PM
Attachments: Ongoing Monitoring and Management of Grizzly Bears in the Jackson Region.docx

This was what I had floating around in my head early this am when I couldn't sleep. Not ready for primetime but some of the sentiments could be used if approached by media....feel free to use or toss.

On Mon, Nov 23, 2020 at 8:40 AM (b) (6), (b) (7)(C), (b) (7)(F) <(b) (6), (b) (7)(C), (b) (7)(F)@fws.gov> wrote:
Hilary and Dan,

Here's a copy of the press release we used at Togowotee Pass. This may be a good starting point for drafting a release on 399.

(b) (6), (b) (7)(C), (b) (7)(F), Special Agent
U.S. Fish and Wildlife Service
Office of Law Enforcement

(b) (6), (b) (7)(C)

(b) (6), (b) (7)(C) - Office

(b) (6), (b) (7)(C) - Cell

From: Daniel Thompson <daniel.thompson@wyo.gov>

Sent: Tuesday, October 27, 2020 4:23 PM

To: (b) (6), (b) (7)(C), (b) (7)(F) <(b) (6), (b) (7)(C), (b) (7)(F)@fws.gov>

Cc: (b) (6), (b) (7)(C) <(b) (6), (b) (7)(C)@fws.gov>; (b) (6), (b) (7)(C) <(b) (6), (b) (7)(C)@fws.gov>; Richard King <richard.king@wyo.gov>; Brad Hovinga <brad.hovinga@wyo.gov>; (b) (6), (b) (7)(C), (b) (7)(F) <(b) (6), (b) (7)(C), (b) (7)(F)@wyo.gov>; Doug Brimeyer <doug.brimeyer@wyo.gov>; Scott Edberg <scott.edberg@wyo.gov>; Brian DeBolt <brian.debolt@wyo.gov>; Cooley, Hilary <hilary_cooley@fws.gov>

Subject: Re: [EXTERNAL] Re: Solitude bear feeding situation

Thanks for clarification, we didn't plan on any releases until after some resolution on enforcement. I'll let Rick follow up on anything else, but for now we are still sending all media inquiries to FWS while under investigation.

DT

On Tue, Oct 27, 2020 at 4:21 PM (b) (6), (b) (7)(C), (b) (7)(F) <(b) (6), (b) (7)(C), (b) (7)(F)@fws.gov> wrote:
Rick [et.al](#),

I mis-spoke about a press release. I apologize for the misunderstanding. All we have at the

moment are drafted talking points about the grizzly situation in the event the media calls.

I know we talked about a press release and not wanting to draw too much attention to the bears and the feeding. What would the WYGFD like to see in a press release?

(b) (6), (b) (7)(C), (b) (7)(F), Special Agent
U.S. Fish and Wildlife Service
Office of Law Enforcement

(b) (6), (b) (7)(C)

(b) (6), (b) (7)(C)

(b) (6), (b) (7)(C) - Office

(b) (6), (b) (7)(C) - Cell

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U.S. Fish and Wildlife Service
Office of Law Enforcement

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(b) (6), (b) (7)(C) - Office

(b) (6), (b) (7)(C) - Cell

From: Cooley, Hilary <hilary_cooley@fws.gov>

Sent: Monday, October 26, 2020 11:47 AM

To: (b) (6), (b) (7)(C), (b) (7)(F) <(b) (6), (b) (7)(C), (b) (7)(F)@fws.gov>; Brian DeBolt <brian.debolt@wyo.gov>; Scott Edberg <scott.edberg@wyo.gov>

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Comments/edits appreciated.

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[REDACTED]

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Ongoing Monitoring and Management of Grizzly Bears in the Jackson Region

Lately much attention in the Jackson Valley has centered on a specific grizzly bear family group that has been visible and foraging south of Jackson. These grizzly bears have a high profile celebrity status among many people in the public and has resulted in additional scrutiny on management actions and how agencies handle the situation. Right now the family group is foraging naturally primarily on chokecherries and serviceberries on private lands, but sometimes doing so roadside, which draws crowds of people and makes the situation unique from a crowd control perspective. The behavior of this bear is what it has grown accustomed to in regards to habituation to people and roadsides primarily in Grand Teton National Park, however now they are on private lands and areas that are multi-jurisdictional and in less controlled situations. We understand and appreciate the overwhelming interest in these bears, but we implore people to leave these bears alone as they prepare for denning. The longer they are pressured and/or harassed the higher potential there is for a negative outcome. The Game and Fish is working closely with the Teton County Sheriff's Office, private landowners and residents of the valley and the US Fish and Wildlife Service to vigilantly monitor the situation for the safety of bears and people alike. We will continue to notify the public of movements in a proactive fashion and will continue to use management techniques such as hazing (on the bears) when people are uncooperative. We remind the public that harassment of grizzly bears is a federal offense under the Endangered Species Act. Please do your part to keep these bears wild and resist the temptation to foster a negative situation, do not approach or pressure these grizzly bears or any wildlife, secure attractants and thanks for your support and cooperation.

From: [Daniel Thompson](#)
To: [Brian DeBolt](#)
Cc: [Cooley, Hilary](#)
Subject: Re: FW: Bear Encounter - Solitude
Date: Wednesday, November 25, 2020 6:47:27 AM

Thanks Brian, I did get a report of 399 and cubs bedded on private property off Fall Creek road last night, it was too late to follow up further but I let [REDACTED] know and the report sounded fairly credible. Just FYI.

On Wed, Nov 25, 2020 at 6:31 AM Brian DeBolt <brian.debolt@wyo.gov> wrote:

Folks,
update from yesterday. [REDACTED] will provide any further information today. Mostly in regard to [REDACTED]'s continued feeding and presence of bears on her property. This incident occurred about 400 meters south of her property. We do not know if this is bear 399 or not. The report was of only 1 cub.
Thanks,
Brian

----- Forwarded message -----

From: [REDACTED] <[REDACTED]@wyo.gov>
Date: Tue, Nov 24, 2020 at 3:40 PM
Subject: FW: Bear Encounter - Solitude
To: Brian DeBolt <brian.debolt@wyo.gov>

Sent from my Verizon, Samsung Galaxy smartphone

----- Original message -----

From: (b) (6) <(b) (6)@icloud.com>
Date: 11/24/20 13:38 (GMT-07:00)
To: [REDACTED] <[REDACTED]@wyo.gov>, [REDACTED] <[REDACTED]@fws.gov>
Cc: (b) (6) <(b) (6)@gmail.com>, (b) (6) <(b) (6)@hotmail.com>, (b) (6) <(b) (6)@gmail.com>, (b) (6) <[REDACTED]@bakermckenzie.com>
Subject: Bear Encounter - Solitude

[REDACTED] and [REDACTED],

I just spoke with (b) (6), a long time Solitude resident. He and his wife and some grandkids were walking to the Snake River on a pathway maintained by Solitude. The entire family was chased by what they believed to be a grizzly bear and had to run. He said he saw one cub up in a tree and when they passed that tree the bear stopped. I don't know if grizzly cubs can climb trees so it may have not be a grizzly.

Regardless, the Solitude Board is concerned that [REDACTED] is continuing to feed Moose and I'm sure bears are happy eating whatever it is she is putting out. In my 25 years in

Solitude, we've never had bear problems like we are having this fall and winter. We would like to know if the US Fish and Wildlife intends to do anything about Ms. (b) (6), (b) (7)(C)'s continuing to feed animals - including grizzly bears. This puts us all, including the animals, in danger.

Thank you,

(b) (6)

Solitude Board of Directors

----- Original message -----

From: (b) (6) <(b) (6)@ChurchofJesusChrist.org>

Date: 11/24/20 19:29 (GMT-07:00)

To: (b) (6), (b) (7)(C), (b) (7)(E) <(b) (6)@wyo.gov>, (b) (6) <(b) (6)@me.com>, (b) (6) <(b) (6)>

Subject: Grizzly chasing the family from the trail to the Snake

Thank you for coming so quickly, (b) (6), (b) (7)(C), (b) (7)(E). I will include (b) (6), a local resident and friend, on this email. The below photos are a little hard to see. They are stills taken from a very shakey video from our grandson who had already made it to the road that we drove on to see where the chase occurred.

Story: as we were walking back from the Snake, our grandson (videographer) saw a bear ahead of us where the trail takes a 90 degree right angle from walking from east to north as we leave the Snake. He then said that the bear was running at us. It was over 100 feet away at that time. I was walking forward to where he was so I could see what he was talking about when he noted the bear was running toward us. I could see it had a broad head, was a light brown with blond highlights, had a noticeable hump, and that it was running very fast. I yelled for the family to go over the fence so the bear could stay on the trail. We started running across the snow covered meadow, yelling at the family to keep running and not look back. My daughter was struggling carrying her six year old so I took her daughter. We were the slowest of the group. As I took her, I noted a cub about 6-8 feet up a cottonwood on my left. Once we were on the road, we gathered into a group knowing that the bear was much faster than we were. We prayed for help and the bear stopped chasing us. Several grandkids noted that the bears stopped and looked at us then went back to a tree and started to climb it. I assume she was checking her cub. No one else saw the cub. We stayed in a group and were loud as we walked back to the car. She demonstrated what it is to be a mother bear.

The below photos show the bear chasing us in the meadow. The first is of my daughter with the bear noted over her left shoulder. The second is of my other daughter and her daughter and me. I can send the video clip if you desire.

Thank you for coming. I fear that others may inadvertently separate the sow from her cub or cubs though we saw no more than one. They may be injured. We are so grateful we weren't.

My cell number is (b) (6) if I can help.

(b) (6)



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Brian DeBolt
Wyoming Game and Fish Department
Large Carnivore Conflict Coordinator
260 Buena Vista
Lander, WY 82520
307-335-2625 (office)
307-330-6977 (mobile)
e-mail address: Brian.DeBolt@wyo.gov

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--

Dan J. Thompson, PhD
Large Carnivore Section Supervisor
Wyoming Game and Fish Dept
260 Buena Vista Dr
Lander, WY 82520
(307) 332-2688
Daniel.Thompson@wyo.gov

--

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From: [Daniel Thompson](#)
To: [Brian DeBolt](#)
Cc: [Cooley, Hilary](#)
Subject: [EXTERNAL] Re: FW: Bear Encounter - Solitude
Date: Wednesday, November 25, 2020 6:47:50 AM

This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.

Thanks Brian, I did get a report of 399 and cubs bedded on private property off Fall Creek road last night, it was too late to follow up further but I let [REDACTED] know and the report sounded fairly credible. Just FYI.

On Wed, Nov 25, 2020 at 6:31 AM Brian DeBolt <brian.debolt@wyo.gov> wrote:

Folks,
update from yesterday. [REDACTED] will provide any further information today. Mostly in regard to [REDACTED]'s continued feeding and presence of bears on her property. This incident occurred about 400 meters south of her property. We do not know if this is bear 399 or not. The report was of only 1 cub.

Thanks,
Brian

----- Forwarded message -----

From: [REDACTED] <[\[REDACTED\]@wyo.gov](mailto:[REDACTED]@wyo.gov)>
Date: Tue, Nov 24, 2020 at 3:40 PM
Subject: FW: Bear Encounter - Solitude
To: Brian DeBolt <brian.debolt@wyo.gov>

Sent from my Verizon, Samsung Galaxy smartphone

----- Original message -----

From: (b) (6) <(b) (6)@icloud.com>
Date: 11/24/20 13:38 (GMT-07:00)
To: [REDACTED] <[\[REDACTED\]@wyo.gov](mailto:[REDACTED]@wyo.gov)>, [REDACTED] <[\[REDACTED\]@fws.gov](mailto:[REDACTED]@fws.gov)>
Cc: (b) (6) <(b) (6)@gmail.com>, (b) (6) <(b) (6)@hotmail.com>, (b) (6) <(b) (6)@gmail.com>, (b) (6) <[\[REDACTED\]@bakermckenzie.com](mailto:[REDACTED]@bakermckenzie.com)>
Subject: Bear Encounter - Solitude

(b) (6), (b) (7)(C) and (b) (6), (b) (7)(C),

I just spoke with Weatherford Clayton, a long time Solitude resident. He and his wife and some grandkids were walking to the Snake River on a pathway maintained by Solitude. The entire family was chased by what they believed to be a grizzly bear and had to run. He said he saw one cub up in a tree and when they passed that tree the bear stopped. I don't know if grizzly cubs can climb trees so it may have not been a grizzly.

Regardless, the Solitude Board is concerned that (b) (6), (b) (7)(C), (b) (7)(F) is continuing to feed Moose and I'm sure bears are happy eating whatever it is she is putting out. In my 25 years in Solitude, we've never had bear problems like we are having this fall and winter. We would like to know if the US Fish and Wildlife intends to do anything about (b) (6), (b) (7)(C), (b) (7)(F)'s continuing to feed animals - including grizzly bears. This puts us all, including the animals, in danger.

Thank you,

(b) (6)

Solitude Board of Directors

----- Original message -----

From: (b) (6) <(b) (6)@ChurchofJesusChrist.org>

Date: 11/24/20 19:29 (GMT-07:00)

To: (b) (6), (b) (7)(C), (b) (7)(F) <(b) (6)@wyo.gov>, (b) (6) <(b) (6)@me.com>, (b) (6) <(b) (6).com>

Subject: Grizzly chasing the family from the trail to the Snake

Thank you for coming so quickly, (b) (6), (b) (7)(C), (b) (7)(F). I will include (b) (6), a local resident and friend, on this email. The below photos are a little hard to see. They are stills taken from a very shakey video from our grandson who had already made it to the road that we drove on to see where the chase occurred.

Story: as we were walking back from the Snake, our grandson (videographer) saw a bear ahead of us where the trail takes a 90 degree right angle from walking from east to north as we leave the Snake. He then said that the bear was running at us. It was over 100 feet away at that time. I was walking forward to where he was so I could see what he was talking about when he noted the bear was running toward us. I could see it had a broad head, was a light brown with blond highlights, had a noticeable hump, and that it was running very fast. I yelled for the family to go over the fence so the bear could stay on the trail. We started running across the snow covered meadow, yelling at the family to keep running and not look back. My daughter was struggling carrying her six year old so I took her daughter. We were the slowest of the group. As I took her, I noted a cub about 6-8 feet up a cottonwood on my left. Once we were on the road, we gathered into a group knowing that the bear was much faster than we were. We prayed for help and the bear stopped chasing us. Several grandkids noted that the bears stopped and looked at us then went back to a tree and started to climb it. I assume she was checking her cub. No one else saw the cub. We stayed in a group and were loud as we walked back to the car. She demonstrated what it is to be a mother bear.

The below photos show the bear chasing us in the meadow. The first is of my daughter with the bear noted over her left shoulder. The second is of my other daughter and her daughter and me. I can send the video clip if you desire.

Thank you for coming. I fear that others may inadvertently separate the sow from her cub or cubs though we saw no more than one. They may be injured. We are so grateful we weren't.

My cell number is (b) (6) if i can help.

(b) (6)

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Brian DeBolt
Wyoming Game and Fish Department
Large Carnivore Conflict Coordinator
260 Buena Vista
Lander, WY 82520
307-335-2625 (office)
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e-mail address: Brian.DeBolt@wyo.gov

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--

Dan J. Thompson, PhD
Large Carnivore Section Supervisor
Wyoming Game and Fish Dept
260 Buena Vista Dr
Lander, WY 82520
(307) 332-2688
Daniel.Thompson@wyo.gov

--

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Act and may be disclosed to third parties.

From: [Haroldson, Mark A](#)
To: [Cooley, Hilary](#)
Subject: Re: Contingency trapping plan & update
Date: Wednesday, December 9, 2020 1:54:50 PM

copy

From: Cooley, Hilary <hilary_cooley@fws.gov>
Sent: Wednesday, December 9, 2020 1:48 PM
To: Kasworm, Wayne <wayne_kasworm@fws.gov>; van Manen, Frank T <fvanmanen@usgs.gov>; Fortin-Noreus, Jennifer K <jennifer_fortin-noreus@fws.gov>; (b) (6), (b) (7)(C), (b) (7)(F) <(b) (6), (b) (7)(C), (b) (7)(F)@usgs.gov>; Becker, Scott A <scott_becker@fws.gov>; Haroldson, Mark A <mharoldson@usgs.gov>
Subject: Re: Contingency trapping plan & update

No luck.

Bears were spotted in the river bottom (Gros Ventre) on the elk refuge, scavenging a hunter-killed elk carcass. Still there this morning. Elk hunt ends Sunday.

From: Cooley, Hilary <hilary_cooley@fws.gov>
Sent: Monday, December 7, 2020 8:37 AM
To: Kasworm, Wayne <wayne_kasworm@fws.gov>; van Manen, Frank T <fvanmanen@usgs.gov>; Fortin-Noreus, Jennifer K <jennifer_fortin-noreus@fws.gov>; (b) (6), (b) (7)(C), (b) (7)(F) <(b) (6), (b) (7)(C), (b) (7)(F)@usgs.gov>; Becker, Scott A <scott_becker@fws.gov>; Haroldson, Mark A <mharoldson@usgs.gov>
Subject: Re: Contingency trapping plan & update

Bears are still out and about, but sticking to the Park for now. They were spotted yesterday at Mormon Row. (b) (6), (b) (7)(C), (b) (7)(F) thinks they might be heading to den now. Hopefully she is right!

From: Cooley, Hilary <hilary_cooley@fws.gov>
Sent: Wednesday, December 2, 2020 5:09 PM
To: Kasworm, Wayne <wayne_kasworm@fws.gov>; van Manen, Frank T <fvanmanen@usgs.gov>; Fortin-Noreus, Jennifer K <jennifer_fortin-noreus@fws.gov>; (b) (6), (b) (7)(C), (b) (7)(F) <(b) (6), (b) (7)(C), (b) (7)(F)@usgs.gov>; Becker, Scott A <scott_becker@fws.gov>; Haroldson, Mark A <mharoldson@usgs.gov>
Subject: Re: Contingency trapping plan & update

Hi everyone,

No more updates on 399. NPS and WGF both assume they are still in the Park because there have been no reports, no tracks spotted...

I did get a chance to check out the shop at the elk refuge this morning. If at some point we do need a place to work up bears, it is huge, has power, and away from the public.

From: Cooley, Hilary <hilary_cooley@fws.gov>
Sent: Monday, November 30, 2020 10:48 AM
To: Kasworm, Wayne <wayne_kasworm@fws.gov>; van Manen, Frank T <fvanmanen@usgs.gov>; Fortin-Noreus, Jennifer K <jennifer_fortin-noreus@fws.gov>; (b) (6), (b) (7)(C), (b) (7)(F) <(b) (6), (b) (7)(C), (b) (7)(F)@usgs.gov>; Becker, Scott A <scott_becker@fws.gov>; Haroldson, Mark A <mharoldson@usgs.gov>
Subject: Fw: Contingency trapping plan & update

From: Cooley, Hilary <hilary_cooley@fws.gov>
Sent: Monday, November 30, 2020 10:47 AM
To: Walsh, Noreen <noreen_walsh@fws.gov>
Cc: Hogan, Matt <Matt_Hogan@fws.gov>; Small, Stephen M <stephen_small@fws.gov>; Bush, Jodi <jodi_bush@fws.gov>; Armitage, Stacy A <stacy_armitage@fws.gov>; Munoz, Anna <anna_munoz@fws.gov>; (b) (6), (b) (7)(C), (b) (7)(F) <(b) (6), (b) (7)(C), (b) (7)(F)@fws.gov>
Subject: Re: Contingency trapping plan & update

NPS sent an update this morning:

Bears are still inside the Park.

The last 100% confirmed sighting of bears was in Park on Blacktail Butte. Nothing confirmed since then, but there was an unconfirmed report from yesterday that the bears were near Glacier View turnout. That's between Moose and Jenny Lake, inside the Park.

Keeping track of bears in the Park is much more difficult because there are few roads and no residents to provide updates. Will send updates as they come in.

From: Cooley, Hilary <hilary_cooley@fws.gov>
Sent: Wednesday, November 25, 2020 5:12 PM
To: Walsh, Noreen <noreen_walsh@fws.gov>
Cc: Hogan, Matt <Matt_Hogan@fws.gov>; Small, Stephen M <stephen_small@fws.gov>; Bush, Jodi <jodi_bush@fws.gov>; Armitage, Stacy A <stacy_armitage@fws.gov>; Munoz, Anna <anna_munoz@fws.gov>; (b) (6), (b) (7)(C), (b) (7)(F) <(b) (6), (b) (7)(C), (b) (7)(F)@fws.gov>
Subject: Re: Contingency trapping plan & update

Hi everyone,

Bears crossed back into the Park today. They travelled up the west side of the Snake River and are inside the boundary. Hopefully they stay this time!

From: Cooley, Hilary <hilary_cooley@fws.gov>
Sent: Wednesday, November 25, 2020 9:38 AM

To: Walsh, Noreen <noreen_walsh@fws.gov>

Cc: Hogan, Matt <Matt_Hogan@fws.gov>; Small, Stephen M <stephen_small@fws.gov>; Bush, Jodi <jodi_bush@fws.gov>; Armitage, Stacy A <stacy_armitage@fws.gov>; Munoz, Anna <anna_munoz@fws.gov>; (b) (6), (b) (7)(C), (b) (7)(F) <(b) (6), (b) (7)(C), (b) (7)(F)@fws.gov>

Subject: Re: Contingency trapping plan & update

WGF received a report of 399 on Crescent H, a private subdivision with very large lots off Fall Creek Rd, in the same general area she had been (south of Wilson). No further details yet.

From: Cooley, Hilary <hilary_cooley@fws.gov>

Sent: Tuesday, November 24, 2020 5:00 PM

To: Walsh, Noreen <noreen_walsh@fws.gov>

Cc: Hogan, Matt <Matt_Hogan@fws.gov>; Small, Stephen M <stephen_small@fws.gov>; Bush, Jodi <jodi_bush@fws.gov>; Armitage, Stacy A <stacy_armitage@fws.gov>; Munoz, Anna <anna_munoz@fws.gov>; (b) (6), (b) (7)(C), (b) (7)(F) <(b) (6), (b) (7)(C), (b) (7)(F)@fws.gov>

Subject: Re: Contingency trapping plan & update

Hi everyone,

I spent time today on the ground with WGF. It looks like the bears left the Fall Creek Rd. area. We saw no photographer vehicles; I think after a couple of days with no bears, they gave up - at least for now. We checked on a report from homeowners in the area, who said they spent some time on their property. We found tracks that appeared a couple days old. The tracks headed west, straight towards the mountains and USFS land. I checked out some of the other places they have spent time (geese feed, bee hives). It was good to see the area, but we just aren't sure where she'll show up next.

WGF let me know that Rob Wallace is here in town and was planning a tour of 399 locations today and potentially an interview with JHNG.

-Hilary

From: Cooley, Hilary <hilary_cooley@fws.gov>

Sent: Tuesday, November 24, 2020 9:34 AM

To: Walsh, Noreen <noreen_walsh@fws.gov>

Cc: Hogan, Matt <Matt_Hogan@fws.gov>; Small, Stephen M <stephen_small@fws.gov>; Bush, Jodi <jodi_bush@fws.gov>; Armitage, Stacy A <stacy_armitage@fws.gov>; Munoz, Anna <anna_munoz@fws.gov>; (b) (6), (b) (7)(C), (b) (7)(F) <(b) (6), (b) (7)(C), (b) (7)(F)@fws.gov>

Subject: Re: Contingency trapping plan & update

I am out with wgf now. We do not know where bears are. No reports from today or yesterday.

From: Walsh, Noreen <noreen_walsh@fws.gov>

Sent: Monday, November 23, 2020 5:27:13 PM

To: Cooley, Hilary <hilary_cooley@fws.gov>

Cc: Hogan, Matt <Matt_Hogan@fws.gov>; Small, Stephen M <stephen_small@fws.gov>; Bush, Jodi <jodi_bush@fws.gov>; Armitage, Stacy A <stacy_armitage@fws.gov>; Munoz, Anna <anna_munoz@fws.gov>; (b) (6), (b) (7)(C), (b) (7)(F) <(b) (6), (b) (7)(C), (b) (7)(F)@fws.gov>

Subject: Re: Contingency trapping plan & update

Got it. - thanks Hilary

On Nov 23, 2020, at 5:25 PM, Cooley, Hilary <hilary_cooley@fws.gov> wrote:

There are no new updates on 399 location.

Sounds like WGF not be putting out a press release immediately. They are working with local NGOs and the Jackson Hole News and Guide to get the message out. I believe they are targeting a Wednesday story. Hope to have more info tomorrow.

From: Cooley, Hilary <hilary_cooley@fws.gov>

Sent: Monday, November 23, 2020 10:13 AM

To: Walsh, Noreen <noreen_walsh@fws.gov>; Hogan, Matt <Matt_Hogan@fws.gov>

Cc: Small, Stephen M <stephen_small@fws.gov>; Bush, Jodi <jodi_bush@fws.gov>; Armitage, Stacy A <stacy_armitage@fws.gov>; Munoz, Anna <anna_munoz@fws.gov>; (b) (6), (b) (7)(C), (b) (7)(F) <(b) (6), (b) (7)(C), (b) (7)(F)@fws.gov>

Subject: Re: Contingency trapping plan & update

(b) (6), (b) (7)(C), (b) (7)(F) and I had a phone call with WGF this morning. WGF attendees: Dan Thompson (Carnivore section lead), Brian Deboldt (conflict coordinator), Brad Hovinka (regional supervisor), (b) (6), (b) (7)(C), (b) (7)(F), (b) (6), (b) (7)(C), (b) (7)(F), (b) (6), (b) (7)(C), (b) (7)(F)).

Bears are still localized in a very large berry patch adjacent to Fall Creek Rd, just a few miles south of Wilson. They are foraging naturally (many berries remain) and have not been in conflict since accessing the geese feed almost 2 weeks ago.

There are homes in the broader area, but she is not at or very close to houses. They have been in view of and very close to the county road (35 MPH).

(b) (6), (b) (7)(C), (b) (7)(F) emphasized that this situation is not unique, and there are many bears in the Jackson area doing the same thing.

The problem here is that photographers have keyed into her visibility and have been stalking her, staging in the area, driving back and forth, causing traffic problems, trespassing on private land, etc. They have gotten very close (10-15 ft)

and at least once blocked her as she tried to cross the road. Private landowners are beginning to complain, and local NGOs are also upset at their behavior. WGF has been managing the bear, hazing when very close to the road to try to avoid a vehicle strike and to keep crowds from forming. The Sherrif's office has been helping with crowd control.

Because many berries are still in the area, she could remain there for a while longer. We agreed on a strategy to try to change the behavior of photographers:

- 1) WGF will reach out to local NGOs and ask them to help get some messaging out - leave bears alone, consequences to bears
- 2) WGF will consider putting out a press release asking for help - perhaps a joint press release with Sherrif's office
- 3) WHF will continue monitoring and haze when needed
- 4) (b) (6), (b) (7)(C), (b) (7)(F) will investigate legal options

I will be out on the ground with (b) (6), (b) (7)(C), (b) (7)(F) tomorrow and should be able to give you a better feel for the situation.

- Hilary

From: Cooley, Hilary <hilary_cooley@fws.gov>
Sent: Sunday, November 22, 2020 5:46 PM
To: Walsh, Noreen <noreen_walsh@fws.gov>
Cc: Hogan, Matt <Matt_Hogan@fws.gov>; Small, Stephen M <stephen_small@fws.gov>; Bush, Jodi <jodi_bush@fws.gov>; Armitage, Stacy A <stacy_armitage@fws.gov>; Munoz, Anna <anna_munoz@fws.gov>
Subject: Re: Contingency trapping plan & update

(b) (6), (b) (7)(C) was trying to take a day off today (except for emergencies). Reports from their network Spotted her back in the berry patch near the road, but out of view. I drove the road and did not see her. There are a number of houses in the area, so it's very good she's keying in on the berries and not other things.

(b) (6), (b) (7)(C) hazed her 3 times last night to keep her away from the road. Sounds like photographers have been a problem (drawing attention to her, getting too close), and we are having a call with law enforcement ((b) (6), (b) (7)(C), (b) (7)(F)) tomorrow

morning to see if he can help.

I have an all-day video call tomorrow but will try to get out on the ground with [REDACTED] on Tuesday.

From: Cooley, Hilary <hilary_cooley@fws.gov>
Sent: Sunday, November 22, 2020 9:34:50 AM
To: Walsh, Noreen <noreen_walsh@fws.gov>
Cc: Hogan, Matt <Matt_Hogan@fws.gov>; Small, Stephen M <stephen_small@fws.gov>; Bush, Jodi <jodi_bush@fws.gov>; Armitage, Stacy A <stacy_armitage@fws.gov>; Munoz, Anna <anna_munoz@fws.gov>
Subject: Re: Contingency trapping plan & update

I forgot to add:

On the way in last night I saw 2 big digital reader boards along the road (1 on hwy 22 near Wilson and another on the Moose-Wilson RD on the way to Teton Village) with "Bears in area. Please slow down."

From: Cooley, Hilary <hilary_cooley@fws.gov>
Sent: Sunday, November 22, 2020 9:30:00 AM
To: Walsh, Noreen <noreen_walsh@fws.gov>
Cc: Hogan, Matt <Matt_Hogan@fws.gov>; Small, Stephen M <stephen_small@fws.gov>; Bush, Jodi <jodi_bush@fws.gov>; Armitage, Stacy A <stacy_armitage@fws.gov>; Munoz, Anna <anna_munoz@fws.gov>
Subject: Re: Contingency trapping plan & update

Update from wygf at 9:00:

"Hey sorry no new updates, [REDACTED] was out past dark making sure she didn't get on road or hit by vehicles. Advocacy people are very happy with how [REDACTED] is handling the situation. no different news this am. "

I arrived in Jackson last night. -5 degrees this morning! Planning on driving that way later today and hope to have more news.

From: Walsh, Noreen <noreen_walsh@fws.gov>
Sent: Saturday, November 21, 2020 8:35:58 PM
To: Cooley, Hilary <hilary_cooley@fws.gov>
Cc: Hogan, Matt <Matt_Hogan@fws.gov>; Small, Stephen M <stephen_small@fws.gov>; Bush, Jodi <jodi_bush@fws.gov>; Armitage, Stacy A <stacy_armitage@fws.gov>; Munoz, Anna <anna_munoz@fws.gov>
Subject: Re: Contingency trapping plan & update

Thank you so much Hilary. Drive safely!

On Nov 21, 2020, at 8:08 PM, Cooley, Hilary
<hilary_cooley@fws.gov> wrote:

Yes, Sorry. I was working on my phone at a rest stop. Bears were eating berries very close to the road and WY biologist honked the horns to move them a bit farther off the road. I think Dan was talking about people slowing and stopping to view the bears, causing traffic problems.

From: Walsh, Noreen <noreen_walsh@fws.gov>
Sent: Saturday, November 21, 2020 7:43 PM
To: Cooley, Hilary <hilary_cooley@fws.gov>
Cc: Hogan, Matt <Matt_Hogan@fws.gov>; Small, Stephen M <stephen_small@fws.gov>; Bush, Jodi <jodi_bush@fws.gov>; Armitage, Stacy A <stacy_armitage@fws.gov>; Munoz, Anna <anna_munoz@fws.gov>
Subject: Re: Contingency trapping plan & update

Hilary, Thanks but not sure I fully understand. Is he saying that they hazed the bears away from the road? And is the gluttonous horde a reference to crowds of people?

Thank you
Noreen

On Nov 21, 2020, at 7:39 PM, Cooley, Hilary
<hilary_cooley@fws.gov> wrote:

Update from wgf:

“Lightly gazed group away from Fall Ck road (horn honking etc), they're just eating chokecherries but the gluttonous horde won't leave them alone, great assistance from sheriff's office. All is good.”

From: Hogan, Matt <Matt_Hogan@fws.gov>
Sent: Saturday, November 21, 2020 11:48:24 AM
To: Cooley, Hilary <hilary_cooley@fws.gov>; Walsh, Noreen

<noreen_walsh@fws.gov>

Cc: Small, Stephen M <stephen_small@fws.gov>; Bush, Jodi

<jodi_bush@fws.gov>; Armitage, Stacy A

<stacy_armitage@fws.gov>; Munoz, Anna

<anna_munoz@fws.gov>

Subject: RE: Contingency trapping plan & update

Good deal....fingers crossed. Thanks.

From: Cooley, Hilary <hilary_cooley@fws.gov>

Sent: Saturday, November 21, 2020 10:10 AM

To: Hogan, Matt <Matt_Hogan@fws.gov>; Walsh, Noreen

<noreen_walsh@fws.gov>

Cc: Small, Stephen M <stephen_small@fws.gov>; Bush, Jodi

<jodi_bush@fws.gov>; Armitage, Stacy A

<stacy_armitage@fws.gov>; Munoz, Anna

<anna_munoz@fws.gov>

Subject: Re: Contingency trapping plan & update

Update from WGF:

Bears left the big berry patch in mosquito creek sometime last night. They are headed north now, most likely along the river bottom. Staying out of trouble.

From: Cooley, Hilary <hilary_cooley@fws.gov>

Sent: Friday, November 20, 2020 4:35:35 PM

To: Hogan, Matt <Matt_Hogan@fws.gov>; Walsh, Noreen

<noreen_walsh@fws.gov>

Cc: Small, Stephen M <stephen_small@fws.gov>; Bush, Jodi

<jodi_bush@fws.gov>; Armitage, Stacy A

<stacy_armitage@fws.gov>; Munoz, Anna

<anna_munoz@fws.gov>

Subject: Re: Contingency trapping plan & update

WGF Update at 4:30:

The Sherriff's office placed no stopping signs along the road near where bears have been spending time. Mid-day today, the bears moved farther away from the road, but are still in the general area on private land (same landowner that I referred to this morning). There are quite a few frozen berries (likely chokeherries) in the area and bears have been feeding on them. "Bears and

people behaving."

From: Cooley, Hilary <hilary_cooley@fws.gov>
Sent: Friday, November 20, 2020 8:58 AM
To: Hogan, Matt <Matt_Hogan@fws.gov>; Walsh, Noreen <noreen_walsh@fws.gov>
Cc: Small, Stephen M <stephen_small@fws.gov>; Bush, Jodi <jodi_bush@fws.gov>
Subject: Re: Contingency trapping plan & update

Update from WGF at 9:00:

"Bears are still on the same berry patch on private land off Fall Creek road. The landowner is adamant that he does not want the bears harassed. Sherriff's office is handling people and keeping them away. Situation is very manageable and they are just naturally foraging."

From: Cooley, Hilary <hilary_cooley@fws.gov>
Sent: Thursday, November 19, 2020 5:10 PM
To: Hogan, Matt <Matt_Hogan@fws.gov>; Walsh, Noreen <noreen_walsh@fws.gov>
Cc: Small, Stephen M <stephen_small@fws.gov>; Bush, Jodi <jodi_bush@fws.gov>
Subject: Re: Contingency trapping plan & update

Update from WGF at 5:00:

"Bears still in same spot off Fall Creek road doing nothing wrong. More people showed up. Sheriff arrived and dispersed people."

From: Cooley, Hilary <hilary_cooley@fws.gov>
Sent: Thursday, November 19, 2020 8:16 AM
To: Hogan, Matt <Matt_Hogan@fws.gov>; Walsh, Noreen <noreen_walsh@fws.gov>
Cc: Small, Stephen M <stephen_small@fws.gov>; Bush, Jodi <jodi_bush@fws.gov>
Subject: Re: Contingency trapping plan & update

Update at 0800:

No additional news on bear; still assuming in same area.

From: Cooley, Hilary <hilary_cooley@fws.gov>
Sent: Wednesday, November 18, 2020 5:51 PM
To: Hogan, Matt <Matt_Hogan@fws.gov>; Walsh, Noreen <noreen_walsh@fws.gov>

Cc: Small, Stephen M <stephen_small@fws.gov>; Bush, Jodi <jodi_bush@fws.gov>

Subject: Re: Contingency trapping plan & update

Update from wgf:

No news at dark. All quiet on Jackson front for now.

From: Cooley, Hilary <hilary_cooley@fws.gov>

Sent: Wednesday, November 18, 2020 2:08:42 PM

To: Hogan, Matt <Matt_Hogan@fws.gov>; Walsh, Noreen <noreen_walsh@fws.gov>

Cc: Small, Stephen M <stephen_small@fws.gov>; Bush, Jodi <jodi_bush@fws.gov>

Subject: Re: Contingency trapping plan & update

Sounds like it was last week after she left the park. I spoke with (b) (6), (b) (7)(C) last friday; he called to reassure me that things were ok and that he thinks we can get her through. I thought he was speaking to the fact that she left the park again and general concerns about conflict. He may have thought I had heard these specifics. There are several WGF people providing updates.

From: Hogan, Matt <Matt_Hogan@fws.gov>

Sent: Wednesday, November 18, 2020 2:02 PM

To: Cooley, Hilary <hilary_cooley@fws.gov>; Walsh, Noreen <noreen_walsh@fws.gov>

Cc: Small, Stephen M <stephen_small@fws.gov>; Bush, Jodi <jodi_bush@fws.gov>

Subject: RE: Contingency trapping plan & update

Thanks. Still a little confused as to when she was taking advantage of honey, grain and compost. How long ago was that?

From: Cooley, Hilary <hilary_cooley@fws.gov>

Sent: Wednesday, November 18, 2020 1:59 PM

To: Walsh, Noreen <noreen_walsh@fws.gov>; Hogan, Matt <Matt_Hogan@fws.gov>

Cc: Small, Stephen M <stephen_small@fws.gov>; Bush, Jodi <jodi_bush@fws.gov>

Subject: Re: Contingency trapping plan & update

From WGF: No new updates as of midday, bears are still

out of sight on private land.

From: Walsh, Noreen <noreen_walsh@fws.gov>
Sent: Tuesday, November 17, 2020 4:57 PM
To: Cooley, Hilary <hilary_cooley@fws.gov>; Hogan, Matt <Matt_Hogan@fws.gov>
Cc: Small, Stephen M <stephen_small@fws.gov>; Bush, Jodi <jodi_bush@fws.gov>
Subject: RE: Contingency trapping plan & update

Thanks Hilary!

*Noreen Walsh
Regional Director
U. S. Fish and Wildlife Service
Department of Interior Regions 5 and 7
303 236 7920*

From: Cooley, Hilary <hilary_cooley@fws.gov>
Sent: Tuesday, November 17, 2020 4:56 PM
To: Hogan, Matt <Matt_Hogan@fws.gov>; Walsh, Noreen <noreen_walsh@fws.gov>
Cc: Small, Stephen M <stephen_small@fws.gov>; Bush, Jodi <jodi_bush@fws.gov>
Subject: Re: Contingency trapping plan & update

Update from WGF:

Bears finished deer kill, rested away from the road a while and ambled into the woods out of site. They are no longer visible.

From: Cooley, Hilary <hilary_cooley@fws.gov>
Sent: Tuesday, November 17, 2020 10:23 AM
To: Hogan, Matt <Matt_Hogan@fws.gov>; Walsh, Noreen <noreen_walsh@fws.gov>
Cc: Small, Stephen M <stephen_small@fws.gov>; Bush, Jodi <jodi_bush@fws.gov>
Subject: Re: Contingency trapping plan & update

Report from WGF just now:

Bear is feeding on road-killed deer on Fall Creek Road, south of Jackson. There are about 10 vehicles present.

 is there monitoring the situation, and will just let them finish and move on. WGF is getting lots of phone calls, but "nothing overly notable".

From: Cooley, Hilary <hilary_cooley@fws.gov>
Sent: Tuesday, November 17, 2020 8:36 AM
To: Hogan, Matt <Matt_Hogan@fws.gov>; Walsh, Noreen <noreen_walsh@fws.gov>
Cc: Small, Stephen M <stephen_small@fws.gov>; Bush, Jodi <jodi_bush@fws.gov>
Subject: Re: Contingency trapping plan & update

Yes, I reach out to them, but I don't always get a response. Their updates have decreased I think because they really don't know where she is. I had a good conversation with [REDACTED] (the [REDACTED] (b) (6), (b) (7)(C), (b) (7)(F) on the ground) on Friday, and I do believe they will notify me if something changes.

From: Hogan, Matt <Matt_Hogan@fws.gov>
Sent: Tuesday, November 17, 2020 8:28 AM
To: Cooley, Hilary <hilary_cooley@fws.gov>; Walsh, Noreen <noreen_walsh@fws.gov>
Cc: Small, Stephen M <stephen_small@fws.gov>; Bush, Jodi <jodi_bush@fws.gov>
Subject: RE: Contingency trapping plan & update

Thanks Hilary. Are you reaching out to WGF or are you waiting for them to reach out to you? If the later, maybe it's worth checking in to see if they have any new info. Thanks.

From: Cooley, Hilary <hilary_cooley@fws.gov>
Sent: Tuesday, November 17, 2020 8:23 AM
To: Walsh, Noreen <noreen_walsh@fws.gov>; Hogan, Matt <Matt_Hogan@fws.gov>
Cc: Small, Stephen M <stephen_small@fws.gov>; Bush, Jodi <jodi_bush@fws.gov>
Subject: Re: Contingency trapping plan & update

I have no updates on the bear this morning. The last update I received was mid-week last week. She was spotted on a trail camera south of Hwy 22 and west of Jackson. I have received no updates from WGF since then. Without a radio collar, she is difficult to find unless near a road. I take no news as good news.

From: Cooley, Hilary <hilary_cooley@fws.gov>

Sent: Monday, November 16, 2020 5:22 PM
To: Walsh, Noreen <noreen_walsh@fws.gov>; Hogan, Matt <Matt_Hogan@fws.gov>
Cc: Small, Stephen M <stephen_small@fws.gov>; Bush, Jodi <jodi_bush@fws.gov>
Subject: Re: Contingency trapping plan & update

I received no updates on location or status today.

From: Cooley, Hilary
Sent: Monday, November 16, 2020 11:19 AM
To: Walsh, Noreen <noreen_walsh@fws.gov>; Hogan, Matt <Matt_Hogan@fws.gov>
Cc: Small, Stephen M <stephen_small@fws.gov>; Bush, Jodi <jodi_bush@fws.gov>
Subject: Contingency trapping plan & update

I added a draft trapping plan to the conflict management response options. Please let me know if you have any questions.

I have not received any update from WGF yet today on location/status. I assume she is still on private land and out of conflict.

- Hilary

Grizzly Bear Recovery Program
US Fish and Wildlife Service
hilary_cooley@fws.gov
406-243-4903

From: [Daniel Thompson](#)
To: [Cooley, Hilary](#)
Subject: [EXTERNAL] Re: on another note
Date: Tuesday, February 23, 2021 6:16:21 PM

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That was fast! Let me check with folks, we're doing some black bear dens end of this week and next so its busy but Tuesday looks good.

On Tuesday, February 23, 2021, Cooley, Hilary <hilary_cooley@fws.gov> wrote:

Great.

Yes, let's get a discussion going early.

This Friday is good, also next Tues, Wed, Thurs are fairly open.

From: Daniel Thompson <daniel.thompson@wyo.gov>

Sent: Tuesday, February 23, 2021 3:32 PM

To: Cooley, Hilary <hilary_cooley@fws.gov>

Subject: [EXTERNAL] on another note

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We met with (b) (6), (b) (7)(C) (FWS investigator) to talk about path forward and other things as we move into another active bear season, obviously much discussion was related to 399 and feeding activities and recent media. He's going to be reaching out to you in regards to some release to reinforce that feeding is illegal (apparently some viewed the declination to prosecute as a free for all to start feeding grizzly bears). Wanted to let you know and also start the conversation as to plans to deal with potential issues should they arise when said bear family group leaves the park and how we handle that situation, just so we're all on the same page and have a gameplan without including the entire government. Maybe we can set something up in the next few weeks?

DT

--

Dan J. Thompson, PhD
Large Carnivore Section Supervisor
Wyoming Game and Fish Dept
[260 Buena Vista Dr](#)
[Lander, WY 82520](#)
(307) 332-2688
Daniel.Thompson@wyo.gov

--

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--

Dan J. Thompson, PhD
Large Carnivore Section Supervisor
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260 Buena Vista Dr
Lander, WY 82520
(307) 332-2688
Daniel.Thompson@wyo.gov

--

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From: [Daniel Thompson](#)
To: [Cooley, Hilary](#)
Subject: [EXTERNAL] Re: on another note
Date: Wednesday, February 24, 2021 10:18:57 AM

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Great ill send out an invite, thanks!

On Wednesday, February 24, 2021, Cooley, Hilary <hilary_cooley@fws.gov> wrote:
Yes, that works.

From: Daniel Thompson <daniel.thompson@wyo.gov>
Sent: Wednesday, February 24, 2021 9:07 AM
To: Cooley, Hilary <hilary_cooley@fws.gov>
Subject: Re: [EXTERNAL] on another note

How about 11am on Tuesday next week?

On Tue, Feb 23, 2021 at 4:06 PM Cooley, Hilary <hilary_cooley@fws.gov> wrote:
Great.

Yes, let's get a discussion going early.

This Friday is good, also next Tues, Wed, Thurs are fairly open.

From: Daniel Thompson <daniel.thompson@wyo.gov>
Sent: Tuesday, February 23, 2021 3:32 PM
To: Cooley, Hilary <hilary_cooley@fws.gov>
Subject: [EXTERNAL] on another note

This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.

We met with (b) (6), (b) (7)(C) (FWS investigator) to talk about path forward and other things as we move into another active bear season, obviously much discussion was related to 399 and feeding activities and recent media. He's going to be reaching out to you in regards to

some release to reinforce that feeding is illegal (apparently some viewed the declination to prosecute as a free for all to start feeding grizzly bears). Wanted to let you know and also start the conversation as to plans to deal with potential issues should they arise when said bear family group leaves the park and how we handle that situation, just so we're all on the same page and have a gameplan without including the entire government. Maybe we can set something up in the next few weeks?

DT

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--

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From: (b) (5), (b) (7)(C), (b) (7)(F)
To: [Hilary Cooley](#)
Subject: Re: [EXTERNAL] Re: 399
Date: Wednesday, March 10, 2021 12:23:43 PM

Yes. I'll be around.

From: "Hilary Cooley" <hilary_cooley@fws.gov>
To: (b) (6), (b) (7)(C), (b) (7)(F) <(b) (6), (b) (7)(C), (b) (7)(F)@bayland.net>
Sent: Wednesday, March 10, 2021 8:12:22 AM
Subject: Re: [EXTERNAL] Re: 399

Super, (b) (6), (b) (7)(F). Thanks!

I'm just starting to revamp the plan, so will get back to you with the details. Are you around for the next few weeks?

From: (b) (6), (b) (7)(C), (b) (7)(F) <(b) (6), (b) (7)(C), (b) (7)(F)@bayland.net>
Sent: Monday, March 8, 2021 9:26 PM
To: Cooley, Hilary <hilary_cooley@fws.gov>
Subject: [EXTERNAL] Re: 399

This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.

Hi Hilary,

I'd be glad to help out with bears! Let me know what I can do to help you out!

(b) (6), (b) (7)(F)
(b) (6), (b) (7)(C), (b) (7)(F)
(b) (6), (b) (7)(C), (b) (7)(F)
(b) (6), (b) (7)(C), (b) (7)(F)
Cell- (b) (6), (b) (7)(C), (b) (7)(F)
(b) (6), (b) (7)(C), (b) (7)(F)

From: "Cooley, Hilary" <hilary_cooley@fws.gov>
To: (b) (6), (b) (7)(C), (b) (7)(F) <(b) (6), (b) (7)(C), (b) (7)(F)@bayland.net>
Sent: Monday, March 8, 2021 10:32:38 AM
Subject: 399

Hey (b) (6), (b) (7)(F),

I hope retirement is treating you well!

Trying to get ahead of 399 this year and so revamping our contingency trapping plan.
Wondering if you'd be interested in helping out a trapping team as a contractor (if she gets into trouble)? No pressure...

-Hilary

Grizzly Bear Recovery Program
US Fish and Wildlife Service
hilary_cooley@fws.gov
406-243-4903

From: [Gunther, Kerry A](#)
To: [Cooley, Hilary](#)
Subject: Re: [EXTERNAL] Re: Togwotee Pass Grizzly Bear Hazing Operation
Date: Wednesday, July 21, 2021 7:10:24 AM
Attachments: [YELL Non-LE Firearms Policy.pdf](#)
[Final YELL Bear Hazing Plan 2017.pdf](#)

Hilary,

For the NPS, we have a "Policy for Use of Firearms by non-Law Enforcement Resource Management Personnel", as well as a "Bear Hazing and Aversive Conditioning Plan", both are signed off/approved by both our Superintendent and Chief Law Enforcement Ranger. The Firearms policy requires completion of a basic firearms safety course, and an annual qualification and safety refresher. In the Firearms policy, we have appendices with short training curriculums and protocols for use of the various hazing rounds (beanbags, rubber bullets, crackershells, etc.). I have attached copies of our Firearms policy and Hazing plan.

Kerry Gunther
Bear Management Biologist
Yellowstone National Park
Office: (307)344-2162
Cell: (406)404-0481

From: Cooley, Hilary <hilary_cooley@fws.gov>
Sent: Tuesday, July 20, 2021 5:13 PM
To: Gunther, Kerry A <Kerry_Gunther@nps.gov>
Subject: Re: [EXTERNAL] Re: Togwotee Pass Grizzly Bear Hazing Operation

Thanks Kerry. I asked (b) (6), (b) (7)(C) that question and have been making sure to mention whenever I get questions or comparisons.

Question: What certification do you require for (b) (6), (b) (7)(C) and other hazers in YNP? I need to get someone certified and am trying to figure out exactly what type of certification they need? Normal firearms safety for bear work?

Thanks,
Hilary

From: Gunther, Kerry A <Kerry_Gunther@nps.gov>
Sent: Tuesday, July 20, 2021 2:48 PM
To: Cooley, Hilary <hilary_cooley@fws.gov>; VonKienast, Jeff- FS <jeff.vonkienast@usda.gov>; Daniel Thompson <daniel.thompson@wyo.gov>; Stiles, Todd -FS <todd.stiles@usda.gov>
Cc: Lyle Lamb <lyle.lamb@wyo.gov>; Brian DeBolt <brian.debolt@wyo.gov>; Brad Hovinga <brad.hovinga@wyo.gov>; (b) (6), (b) (7)(C), (b) (7)(F) <(b) (6), (b) (7)(C), (b) (7)(F)> @wyo.gov>; Jason Hunter <jason.hunter@wyo.gov>; Matthew Brackin <matthew.brackin@wyo.gov>; Martens, Darin -FS <darin.martens@usda.gov>; (b) (6), (b) (7)(C), (b) (7)(F) <(b) (6), (b) (7)(C), (b) (7)(F)> @usda.gov>; (b) (6), (b) (7)(C), (b) (7)(F) <(b) (6), (b) (7)(C), (b) (7)(F)> @usda.gov>; Flower, Joseph - FS <joseph.flower@usda.gov>; (b) (6), (b) (7)(C), (b) (7)(F) <(b) (6), (b) (7)(C), (b) (7)(F)> @nps.gov>; (b) (6), (b) (7)(C), (b) (7)(F) <(b) (6), (b) (7)(C), (b) (7)(F)> @bayland.net>
Subject: Re: [EXTERNAL] Re: Togwotee Pass Grizzly Bear Hazing Operation

Hilary,

For your response to those wanting to implement a Wildlife Brigade on Togwotee Pass, I wanted to let you know that just like in Grand Teton National Park, Yellowstone National Park does not staff bear-jams (for wildlife viewing) on any of our road miles with speed limits greater than 45 mph. Having volunteers managing traffic at those speeds would just not be safe.

Kerry Gunther
Bear Management Biologist
Yellowstone National Park
Office: (307)344-2162

Cell: (406)404-0481

From: Cooley, Hilary <hilary_cooley@fws.gov>

Sent: Tuesday, July 13, 2021 8:57 AM

To: VonKienast, Jeff- FS <jeff.vonkienast@usda.gov>; Daniel Thompson <daniel.thompson@wyo.gov>; Stiles, Todd -FS <todd.stiles@usda.gov>

Cc: Lyle Lamb <lyle.lamb@wyo.gov>; Brian DeBolt <brian.debolt@wyo.gov>; Brad Hovinga <brad.hovinga@wyo.gov>; <(b) (6), (b) (7)(C), (b) (7)(F)> @wyo.gov>; Jason Hunter <jason.hunter@wyo.gov>; Matthew Brackin <matthew.brackin@wyo.gov>; Martens, Darin -FS <darin.martens@usda.gov>; <(b) (6), (b) (7)(C), (b) (7)(F)> -FS <(b) (6), (b) (7)(C), (b) (7)(F)> @usda.gov>; <(b) (6), (b) (7)(C), (b) (7)(F)> -FS <(b) (6), (b) (7)(C), (b) (7)(F)> @usda.gov>; Flower, Joseph - FS <joseph.flower@usda.gov>; <(b) (6), (b) (7)(C), (b) (7)(F)> <(b) (6), (b) (7)(C), (b) (7)(F)> @nps.gov>; Gunther, Kerry A <Kerry_Gunther@nps.gov>; <(b) (6), (b) (7)(C), (b) (7)(F)> <(b) (6), (b) (7)(C), (b) (7)(F)> @bayland.net>

Subject: Re: [EXTERNAL] Re: Togwotee Pass Grizzly Bear Hazing Operation

Not everyone is available tomorrow, but it's the only day this week that works for <(b) (6), (b) (7)> and I.

So, we'll move forward with a call tomorrow morning at 8:30. Feel free to call me for an update if you can't make it. Will send Teams link.

Thanks everyone,
Hilary

From: Cooley, Hilary <hilary_cooley@fws.gov>

Sent: Monday, July 12, 2021 4:58 PM

To: VonKienast, Jeff- FS <jeff.vonkienast@usda.gov>; Daniel Thompson <daniel.thompson@wyo.gov>; Stiles, Todd -FS <todd.stiles@usda.gov>

Cc: Lyle Lamb <lyle.lamb@wyo.gov>; Brian DeBolt <brian.debolt@wyo.gov>; Brad Hovinga <brad.hovinga@wyo.gov>; <(b) (6), (b) (7)(C), (b) (7)(F)> @wyo.gov>; Jason Hunter <jason.hunter@wyo.gov>; Matthew Brackin <matthew.brackin@wyo.gov>; Martens, Darin -FS <darin.martens@usda.gov>; <(b) (6), (b) (7)(C), (b) (7)(F)> -FS <(b) (6), (b) (7)(C), (b) (7)(F)> @usda.gov>; tcsofront@tetonsheriff.org <tcsofront@tetonsheriff.org>; <(b) (6), (b) (7)(C), (b) (7)(F)> C -FS <(b) (6), (b) (7)(C), (b) (7)(F)> @usda.gov>; Flower, Joseph - FS <joseph.flower@usda.gov>; <(b) (6), (b) (7)(C), (b) (7)(F)> <(b) (6), (b) (7)(C), (b) (7)(F)> @nps.gov>; Gunther, Kerry A <Kerry_Gunther@nps.gov>; <(b) (6), (b) (7)(C), (b) (7)(F)> <(b) (6), (b) (7)(C), (b) (7)(F)> @bayland.net>

Subject: Re: [EXTERNAL] Re: Togwotee Pass Grizzly Bear Hazing Operation

Hi everyone,

Wednesday will be the end of our 14-day intermittent hazing effort. Are folks open to another call to hear a summary and discuss future steps?

For those interested, I suggest Wednesday morning any time before 11am. Please let me know what works for you.

Thanks,
Hilary

From: Cooley, Hilary <hilary_cooley@fws.gov>

Sent: Friday, July 9, 2021 8:34 AM

To: VonKienast, Jeff- FS <jeff.vonkienast@usda.gov>; Daniel Thompson <daniel.thompson@wyo.gov>; Stiles, Todd -FS <todd.stiles@usda.gov>

Cc: Lyle Lamb <lyle.lamb@wyo.gov>; Brian DeBolt <brian.debolt@wyo.gov>; Brad Hovinga <brad.hovinga@wyo.gov>; <(b) (6), (b) (7)(C), (b) (7)(F)> @wyo.gov>; Jason Hunter <jason.hunter@wyo.gov>; Matthew Brackin <matthew.brackin@wyo.gov>; Martens, Darin -FS <darin.martens@usda.gov>; <(b) (6), (b) (7)(C), (b) (7)(F)> -FS <(b) (6), (b) (7)(C), (b) (7)(F)> @usda.gov>; tcsofront@tetonsheriff.org <tcsofront@tetonsheriff.org>; <(b) (6), (b) (7)(C), (b) (7)(F)> -FS <(b) (6), (b) (7)(C), (b) (7)(F)> @usda.gov>; Flower, Joseph - FS <joseph.flower@usda.gov>; <(b) (6), (b) (7)(C), (b) (7)(F)> <(b) (6), (b) (7)(C), (b) (7)(F)> @nps.gov>; Gunther, Kerry A <Kerry_Gunther@nps.gov>; <(b) (6), (b) (7)(C), (b) (7)(F)> <(b) (6), (b) (7)(C), (b) (7)(F)> @bayland.net>

Subject: Re: [EXTERNAL] Re: Togwotee Pass Grizzly Bear Hazing Operation

Update on maintenance plan:

Bear 863 has not been seen near highway since Saturday, so we are suspending monitoring for now. USFS will notify us if/when she comes back and we'll reassess staffing at that point.

From: Cooley, Hilary

Sent: Tuesday, June 29, 2021 7:45 AM

To: VonKienast, Jeff- FS <jeff.vonkienast@usda.gov>; Daniel Thompson <daniel.thompson@wyo.gov>; Stiles, Todd -FS <todd.stiles@usda.gov>

Cc: Lyle Lamb <lyle.lamb@wyo.gov>; Brian DeBolt <brian.debolt@wyo.gov>; Brad Hovinga <brad.hovinga@wyo.gov>; (b) (6), (b) (7)(C), (b) (7)(F) <(b) (6), (b) (7)(C), (b) (7)(F)>@wyo.gov>; Jason Hunter <jason.hunter@wyo.gov>; Matthew Brackin <matthew.brackin@wyo.gov>; Martens, Darin -FS <darin.martens@usda.gov>; (b) (6), (b) (7)(C), (b) (7)(F) -FS <(b) (6), (b) (7)(C), (b) (7)(F)>@usda.gov>; tcsofront@tetonsheriff.org <tcsofront@tetonsheriff.org>; (b) (6), (b) (7)(C), (b) (7)(F) -FS <(b) (6), (b) (7)(C), (b) (7)(F)>@usda.gov>; Flower, Joseph - FS <joseph.flower@usda.gov>; (b) (6), (b) (7)(C), (b) (7)(F) <(b) (6), (b) (7)(C), (b) (7)(F)>@nps.gov>; Gunther, Kerry A <Kerry_Gunther@nps.gov>; (b) (6), (b) (7)(C), (b) (7)(F) <(b) (6), (b) (7)(C), (b) (7)(F)>@bayland.net>

Subject: Re: [EXTERNAL] Re: Togwotee Pass Grizzly Bear Hazing Operation

Maintenance Plan Update:

USFS has been checking in 863 for the last few days. They did not see her at all until Sunday, when she was spotted about 400 yards from highway. Have not yet received an update from yesterday.

I am finalizing hiring paperwork for 3 people to cover monitoring/hazing at the following schedule for the next 2-3 weeks:

(b) (6), (b) (7)(C), (b) (7)(F): Mon-Tues

(b) (6), (b) (7)(C), (b) (7)(F): Wed-Fri - (b) (6), (b) (7)(F) will begin work tomorrow

(b) (6), (b) (7)(C), (b) (7)(F): Sat-Sun

(b) (6), (b) (7)(C), (b) (7)(F) (b) (6), (b) (7)(C), (b) (7)(F): not sure yet the extent of his availability

From: Cooley, Hilary <hilary_cooley@fws.gov>

Sent: Monday, June 21, 2021 4:46 PM

To: VonKienast, Jeff- FS <jeff.vonkienast@usda.gov>; Daniel Thompson <daniel.thompson@wyo.gov>; Stiles, Todd -FS <todd.stiles@usda.gov>

Cc: Lyle Lamb <lyle.lamb@wyo.gov>; Brian DeBolt <brian.debolt@wyo.gov>; Brad Hovinga <brad.hovinga@wyo.gov>; (b) (6), (b) (7)(C), (b) (7)(F) <(b) (6), (b) (7)(C), (b) (7)(F)>@wyo.gov>; Jason Hunter <jason.hunter@wyo.gov>; Matthew Brackin <matthew.brackin@wyo.gov>; Martens, Darin -FS <darin.martens@usda.gov>; (b) (6), (b) (7)(C), (b) (7)(F) -FS <(b) (6), (b) (7)(C), (b) (7)(F)>@usda.gov>; tcsofront@tetonsheriff.org <tcsofront@tetonsheriff.org>; (b) (6), (b) (7)(C), (b) (7)(F) -FS <(b) (6), (b) (7)(C), (b) (7)(F)>@usda.gov>; Flower, Joseph - FS <joseph.flower@usda.gov>; (b) (6), (b) (7)(C), (b) (7)(F) <(b) (6), (b) (7)(C), (b) (7)(F)>@nps.gov>; Gunther, Kerry A <Kerry_Gunther@nps.gov>; (b) (6), (b) (7)(C), (b) (7)(F) <(b) (6), (b) (7)(C), (b) (7)(F)>@bayland.net>

Subject: Re: [EXTERNAL] Re: Togwotee Pass Grizzly Bear Hazing Operation

Thanks for the quick responses.

Let's shoot for 8:30 on Thursday morning. I'll follow with a phone or video invite.

From: VonKienast, Jeff- FS <jeff.vonkienast@usda.gov>

Sent: Monday, June 21, 2021 3:52 PM

To: Cooley, Hilary <hilary_cooley@fws.gov>; Daniel Thompson <daniel.thompson@wyo.gov>; Stiles, Todd -FS <todd.stiles@usda.gov>

Cc: Lyle Lamb <lyle.lamb@wyo.gov>; Brian DeBolt <brian.debolt@wyo.gov>; Brad Hovinga <brad.hovinga@wyo.gov>; (b) (6), (b) (7)(C), (b) (7)(F) <(b) (6), (b) (7)(C), (b) (7)(F)>@wyo.gov>; Jason Hunter <jason.hunter@wyo.gov>; Matthew Brackin <matthew.brackin@wyo.gov>; Martens, Darin -FS <darin.martens@usda.gov>; Wilmot, Jason L -FS <jason.wilmot@usda.gov>; tcsofront@tetonsheriff.org <tcsofront@tetonsheriff.org>; (b) (6), (b) (7)(C), (b) (7)(F) -FS <(b) (6), (b) (7)(C), (b) (7)(F)>@usda.gov>; Flower, Joseph - FS <joseph.flower@usda.gov>; (b) (6), (b) (7)(C), (b) (7)(F) <(b) (6), (b) (7)(C), (b) (7)(F)>@nps.gov>; Gunther, Kerry A <Kerry_Gunther@nps.gov>; (b) (6), (b) (7)(C), (b) (7)(F) <(b) (6), (b) (7)(C), (b) (7)(F)>@bayland.net>

Subject: RE: [EXTERNAL] Re: Togwotee Pass Grizzly Bear Hazing Operation

I'm available from 0700-0930



Jeff von Kienast
District Ranger

Forest Service

Shoshone National Forest, Wind River Ranger District

p 307-455-4151

f 307-455-3866

jeff.vonkienast@usda.gov

1403 W. Ramshorn
Dubois, WY 82513
www.fs.fed.us



Caring for the land and serving people

From: Cooley, Hilary <hilary_cooley@fws.gov>

Sent: Monday, June 21, 2021 3:20 PM

To: Daniel Thompson <daniel.thompson@wyo.gov>; Stiles, Todd -FS <todd.stiles@usda.gov>

Cc: VonKienast, Jeff- FS <jeff.vonkienast@usda.gov>; Lyle Lamb <lyle.lamb@wyo.gov>; Brian DeBolt <brian.debolt@wyo.gov>; Brad Hovinga <brad.hovinga@wyo.gov>; (b) (6), (b) (7)(C), (b) (7)(F) <(b) (6), (b) (7)(C), (b) (7)(F)@wyo.gov>; Jason Hunter <jason.hunter@wyo.gov>; Matthew Brackin <matthew.brackin@wyo.gov>; Martens, Darin -FS <darin.martens@usda.gov>; (b) (6), (b) (7)(C), (b) (7)(F) -FS <(b) (6), (b) (7)(C), (b) (7)(F)@usda.gov>; tcsofront@tetonsheriff.org; (b) (6), (b) (7)(C), (b) (7)(F) -FS <(b) (6), (b) (7)(C), (b) (7)(F)@usda.gov>; Flower, Joseph - FS <joseph.flower@usda.gov>; (b) (6), (b) (7)(C) <(b) (6), (b) (7)(C), (b) (7)(F)@nps.gov>; Gunther, Kerry A <Kerry_Gunther@nps.gov>; (b) (6), (b) (7)(C), (b) (7)(F) <(b) (6), (b) (7)(C), (b) (7)(F)@bayland.net>

Subject: Re: [EXTERNAL] Re: Togwotee Pass Grizzly Bear Hazing Operation

Update on Grizzly 863:

863 was out of view for a few days and spent a couple of days feeding at the Togwotee Overlook over the weekend. Yesterday, she crossed the highway several times below Togwotee Lodge. (b) (6), (b) (7)(C) et al. hazed her each time. Her behavior has notably changed - As soon as any vehicle slows down or stops, the bears take off running. Same reaction with people on foot. Advocates are staying away from the area.

Wednesday, 6/23, is the last day for this 14-day hazing effort. I'd like to schedule an after-action briefing on Thursday morning to discuss what happened, what went well, and determine the next course of action.

Can folks make a call Thursday morning? I can do any time before noon.

From: Cooley, Hilary <hilary_cooley@fws.gov>

Sent: Wednesday, June 16, 2021 9:12 AM

To: Daniel Thompson <daniel.thompson@wyo.gov>; Stiles, Todd -FS <todd.stiles@usda.gov>

Cc: VonKienast, Jeff- FS <jeff.vonkienast@usda.gov>; Lyle Lamb <lyle.lamb@wyo.gov>; Brian DeBolt <brian.debolt@wyo.gov>; Brad Hovinga <brad.hovinga@wyo.gov>; (b) (6), (b) (7)(C), (b) (7)(F) <(b) (6), (b) (7)(C), (b) (7)(F)@wyo.gov>; Jason Hunter <jason.hunter@wyo.gov>; Matthew Brackin <matthew.brackin@wyo.gov>; Martens, Darin -FS <darin.martens@usda.gov>; (b) (6), (b) (7)(C), (b) (7)(F) -FS <(b) (6), (b) (7)(C), (b) (7)(F)@usda.gov>; tcsofront@tetonsheriff.org <tcsofront@tetonsheriff.org>; (b) (6), (b) (7)(C), (b) (7)(F) -FS <(b) (6), (b) (7)(C), (b) (7)(F)@usda.gov>; Flower, Joseph - FS <joseph.flower@usda.gov>; (b) (6), (b) (7)(C), (b) (7)(F) <(b) (6), (b) (7)(C), (b) (7)(F)@nps.gov>; Gunther, Kerry A <Kerry_Gunther@nps.gov>; (b) (6), (b) (7)(C), (b) (7)(F) <(b) (6), (b) (7)(C), (b) (7)(F)@bayland.net>

Subject: Re: [EXTERNAL] Re: Togwotee Pass Grizzly Bear Hazing Operation

Hazing operation update:

We are starting to see success. 863 is now behaving skittish towards vehicles and people. The number of hazings have decreased each day and it sounds like they did not see her at all yesterday. The local crowds are now supporting the effort by staying away from the area.

I think everyone is aware of the massive online response to our operation. Lots of misinformation out there, including emails to the Secretaries of Interior and Ag. We've been working to correct the message. I've attached the talking points we compiled. FWS will also be releasing streamlined messaging for the broader public.

From: Cooley, Hilary <hilary_cooley@fws.gov>

Sent: Sunday, June 13, 2021 3:44 PM

To: Daniel Thompson <daniel.thompson@wyo.gov>; Stiles, Todd -FS <todd.stiles@usda.gov>

Cc: VonKienast, Jeff- FS <jeff.vonkienast@usda.gov>; Lyle Lamb <lyle.lamb@wyo.gov>; Brian DeBolt <brian.debolt@wyo.gov>; Brad Hovinga <brad.hovinga@wyo.gov>; (b) (6), (b) (7)(C), (b) (7)(F) <(b) (6), (b) (7)(C), (b) (7)(F)@wyo.gov>; Jason Hunter <jason.hunter@wyo.gov>; Matthew Brackin <matthew.brackin@wyo.gov>; Martens, Darin -FS <darin.martens@usda.gov>; (b) (6), (b) (7)(C), (b) (7)(F) -FS

<(b) (6), (b) (7)(C), (b) (7)(F)@usda.gov>; tcsofront@tetonsheriff.org <tcsofront@tetonsheriff.org>; (b) (6), (b) (7)(C), (b) (7)(F) -FS <(b) (6), (b) (7)(C), (b) (7)(F)@usda.gov>; Flower, Joseph - FS <joseph.flower@usda.gov>; (b) (6), (b) (7)(C), (b) (7)(F) <(b) (6), (b) (7)(C), (b) (7)(F)@nps.gov>; Gunther, Kerry A <Kerry_Gunther@nps.gov>; (b) (6), (b) (7)(C), (b) (7)(F) <(b) (6), (b) (7)(C), (b) (7)(F)@bayland.net>
Subject: Re: [EXTERNAL] Re: Togwotee Pass Grizzly Bear Hazing Operation

Saturday Update:

8 hazings during the day. Sounds like she is beginning to behave a bit differently - Acting skittish around stopped vehicles and people on foot.

The people on the ground are doing a great job with PR. I'll be circulating a Q&A sheet for input to make sure our messaging is on point.

From: Cooley, Hilary <hilary_cooley@fws.gov>
Sent: Saturday, June 12, 2021 7:52 AM
To: Daniel Thompson <daniel.thompson@wyo.gov>; Stiles, Todd -FS <todd.stiles@usda.gov>
Cc: VonKienast, Jeff- FS <jeff.vonkienast@usda.gov>; Lyle Lamb <lyle.lamb@wyo.gov>; Brian DeBolt <brian.debolt@wyo.gov>; Brad Hovinga <brad.hovinga@wyo.gov>; (b) (6), (b) (7)(C), (b) (7)(F) <(b) (6), (b) (7)(C), (b) (7)(F)@wyo.gov>; Jason Hunter <jason.hunter@wyo.gov>; Matthew Brackin <matthew.brackin@wyo.gov>; Martens, Darin -FS <darin.martens@usda.gov>; (b) (6), (b) (7)(C), (b) (7)(F) -FS <(b) (6), (b) (7)(C), (b) (7)(F)@usda.gov>; tcsofront@tetonsheriff.org <tcsofront@tetonsheriff.org>; (b) (6), (b) (7)(C), (b) (7)(F) -FS <(b) (6), (b) (7)(C), (b) (7)(F)@usda.gov>; Flower, Joseph - FS <joseph.flower@usda.gov>; (b) (6), (b) (7)(C), (b) (7)(F) <(b) (6), (b) (7)(C), (b) (7)(F)@nps.gov>; Gunther, Kerry A <Kerry_Gunther@nps.gov>; (b) (6), (b) (7)(C), (b) (7)(F) <(b) (6), (b) (7)(C), (b) (7)(F)@bayland.net>
Subject: Re: [EXTERNAL] Re: Togwotee Pass Grizzly Bear Hazing Operation

Forgot to mention:

Mike Koshmrl, reporter from Jackson Hole News & Guide, is interested in interviewing people involved, and will probably show up there on Togwotee early next week. Dan Thompson and I both talked with him Friday. It's important that we have a consistent message and so I'd ask that if he shows up and wants to talk with staff, interview requests go thru me (USFWS) or (b) (6), (b) (7)(C), (b) (7)(F) (USFS). Our PR people will likely clear an interview with (b) (6), (b) (7)(C), (b) (7)(F), but we need to wait til we get the go-ahead.

He also wants to do a ride along. I said he's welcome to go check it out, but that we cannot have people with us while hazing due to human safety. He is persistent and I would be he'll continue pushing for that.

From: Cooley, Hilary <hilary_cooley@fws.gov>
Sent: Saturday, June 12, 2021 7:35 AM
To: Daniel Thompson <daniel.thompson@wyo.gov>; Stiles, Todd -FS <todd.stiles@usda.gov>
Cc: VonKienast, Jeff- FS <jeff.vonkienast@usda.gov>; Lyle Lamb <lyle.lamb@wyo.gov>; Brian DeBolt <brian.debolt@wyo.gov>; Brad Hovinga <brad.hovinga@wyo.gov>; (b) (6), (b) (7)(C), (b) (7)(F) <(b) (6), (b) (7)(C), (b) (7)(F)@wyo.gov>; Jason Hunter <jason.hunter@wyo.gov>; Matthew Brackin <matthew.brackin@wyo.gov>; Martens, Darin -FS <darin.martens@usda.gov>; (b) (6), (b) (7)(C), (b) (7)(F) -FS <(b) (6), (b) (7)(C), (b) (7)(F)@usda.gov>; tcsofront@tetonsheriff.org <tcsofront@tetonsheriff.org>; (b) (6), (b) (7)(C), (b) (7)(F) -FS <(b) (6), (b) (7)(C), (b) (7)(F)@usda.gov>; Flower, Joseph - FS <joseph.flower@usda.gov>; (b) (6), (b) (7)(C), (b) (7)(F) <(b) (6), (b) (7)(C), (b) (7)(F)@nps.gov>; Gunther, Kerry A <Kerry_Gunther@nps.gov>; (b) (6), (b) (7)(C), (b) (7)(F) <(b) (6), (b) (7)(C), (b) (7)(F)@bayland.net>
Subject: Re: [EXTERNAL] Re: Togwotee Pass Grizzly Bear Hazing Operation

Day 2 hazing: 863 was away from highway for the morning, near Flagstaff Road. In the afternoon, she spent some time on Flagstaff Road and approached one of our vehicles. We hazed her once and she reacted quickly. Later in the day she approached the highway and was hazed. She persisted approaching the highway; our crew allowed her to cross and hazed her on the other side. That seemed to be pretty effective - she ran out of site and the crew is expecting her to be out of site for most of the day today.

No significant issues with crowds/people.

From: Cooley, Hilary <hilary_cooley@fws.gov>
Sent: Thursday, June 10, 2021 9:24 PM
To: Daniel Thompson <daniel.thompson@wyo.gov>; Stiles, Todd -FS <todd.stiles@usda.gov>
Cc: VonKienast, Jeff- FS <jeff.vonkienast@usda.gov>; Lyle Lamb <lyle.lamb@wyo.gov>; Brian DeBolt <brian.debolt@wyo.gov>; Brad Hovinga <brad.hovinga@wyo.gov>; (b) (6), (b) (7)(C), (b) (7)(F) <(b) (6), (b) (7)(C), (b) (7)(F)@wyo.gov>; Jason Hunter <jason.hunter@wyo.gov>; Matthew

Brackin <matthew.brackin@wyo.gov>; Martens, Darin -FS <darin.martens@usda.gov>; (b) (6), (b) (7)(C), (b) (7)(F) -FS
(b) (6), (b) (7)(C), (b) (7)(F) <[\[REDACTED\]@usda.gov](mailto:[REDACTED]@usda.gov)>; tcsfront@tetonsheriff.org <tcsfront@tetonsheriff.org>; (b) (6), (b) (7)(C), (b) (7)(F) -FS <[\[REDACTED\]@usda.gov](mailto:[REDACTED]@usda.gov)>;
Flower, Joseph - FS <joseph.flower@usda.gov>; (b) (6), (b) (7)(C), (b) (7)(F) <[\[REDACTED\]@nps.gov](mailto:[REDACTED]@nps.gov)>; Gunther, Kerry A
<Kerry_Gunther@nps.gov>

Subject: Re: [EXTERNAL] Re: Togwotee Pass Grizzly Bear Hazing Operation

Hi everyone,

Day 1 of the hazing effort was successful. 863 was out of sight in the willows for most of the day, but we were able to haze her hard on two occasions. At the end of day she seemed to be staying several hundred yards away from road. We didn't have too much trouble with traffic - likely because she was mostly out of view and we got on her quickly when she appeared. The extra support was a big help. We had 2 hazers and 2-3 support staff for most of the day.

Thanks everyone,
Hilary

From: Daniel Thompson <daniel.thompson@wyo.gov>

Sent: Thursday, June 10, 2021 7:57 AM

To: Stiles, Todd -FS <todd.stiles@usda.gov>

Cc: VonKienast, Jeff- FS <jeff.vonkienast@usda.gov>; Lyle Lamb <lyle.lamb@wyo.gov>; Brian DeBolt <brian.debolt@wyo.gov>; Brad Hovinga <brad.hovinga@wyo.gov>; (b) (6), (b) (7)(C), (b) (7)(F) <[\[REDACTED\]@wyo.gov](mailto:[REDACTED]@wyo.gov)>; Jason Hunter <jason.hunter@wyo.gov>; Matthew Brackin <matthew.brackin@wyo.gov>; Martens, Darin -FS <darin.martens@usda.gov>; Cooley, Hilary <hilary_cooley@fws.gov>; (b) (6), (b) (7)(C), (b) (7)(F) -FS <[\[REDACTED\]@usda.gov](mailto:[REDACTED]@usda.gov)>; tcsfront@tetonsheriff.org <tcsfront@tetonsheriff.org>; (b) (6), (b) (7)(C), (b) (7)(F) -FS <[\[REDACTED\]@usda.gov](mailto:[REDACTED]@usda.gov)>; Flower, Joseph - FS <joseph.flower@usda.gov>

Subject: [EXTERNAL] Re: Togwotee Pass Grizzly Bear Hazing Operation

This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.

Thanks, I am not sure why WGFD is not considered part of these ongoing efforts since we've been on the ground constantly for multiple years for this particular situation. We will continue to provide guidance and support but were directed that FWS is handling hazing efforts. Look forward to seeing what happens.

On Wednesday, June 9, 2021, Stiles, Todd -FS <todd.stiles@usda.gov> wrote:

Just an update, we could use all the presence we can get from State Patrol and law enforcement over the next several days. Actual hazing operations of grizzly 863 will be occurring intensely over the next 14 days. If 863 responds as we hope, there may be lulls in the action, but there may also be times where there is a need for law enforcement to move folks along to ensure public safety. You can see our schedule below, it is pretty thin on personnel, and we are hopeful that our support folks can make people move along from the highway right of way by just telling them they can't stop, but if that doesn't work, we need State Patrol or Teton County to provide that support if possible. I just wanted to share this schedule so everyone is in the loop here.

Please see below for more information. Teton Dispatch Center is in the loop, and in the event that specific law enforcement presence is needed, we will make that request through them.

Thank you for your support.

Best,



Todd Stiles
District Ranger
Forest Service
Bridger-Teton
National Forest,
Blackrock Ranger
District
p 307-543-3910
f 307-543-9149
todd.stiles@usda.gov

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Moran, WY 83013
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Caring for the land
and serving people

From: (b) (6), (b) (7)(C), (b) (7)(F) -FS <(b) (6), (b) (7)(C), (b) (7)(F)@usda.gov>
Sent: Wednesday, June 9, 2021 11:28 AM
To: grte_dispatch@nps.gov
Cc: Stiles, Todd -FS <todd.stiles@usda.gov>; Cooley, Hilary <hilary_cooley@fws.gov>; (b) (6), (b) (7)(C), (b) (7)(F) -FS <(b) (6), (b) (7)(C), (b) (7)(F)@usda.gov>
Subject: Togwotee Pass Grizzly Bear Hazing Operation

Hello Teton Interagency Dispatch,

Here are some details regarding the upcoming Togwotee Pass Grizzly Bear Hazing Operation

Togwotee Pass Grizzly Bear Hazing Operation as submitted to TIDC 11:30 am 6/9/21

- Two-week period of intensive dawn to dusk hazing of Grizzly bear 863. Thursday June 10 – Wednesday June 23.
- There is a morning shift and an afternoon shift. Each shift has one person dedicated to hazing, and an additional person (1-3 people) to provide support and safety for traffic, people and bears.
- Project Area: Highway 26 Corridor from Blackrock Ranger Station to Togwotee Pass
- Participating Agencies: US Fish and Wildlife Service, Bridger-Teton National Forest, Shoshone National Forest, Yellowstone National Park, Grand Teton National Park, Wyoming Highway Patrol
- Project lead: Hilary Cooley, US Fish and Wildlife Service
- Blackrock RS is primary gathering location for all personnel.
- Primary repeaters: Lava, Gravel, Rendezvous
- One point of contact for each shift will call into service with TIDC, and one point of contact will call out of service for each shift
- Primary point of contact for coordination: (b) (6), (b) (7)(C), (b) (7)(F) cell
- List of probable participants

- Hilary Cooley, USFWS
- (b) (6), (b) (7)(C), (b) (7)(F), USFWS
- (b) (6), (b) (7)(C), Shoshone NF
- (b) (6), (b) (7)(C), (b) (7)(F), Yellowstone NP
- (b) (6), (b) (7)(C), (b) (7)(F), Bridger-Teton NF
- Todd Stiles, Bridger-Teton NF
- Steve Koob, Bridger-Teton NF
- Michael Burdick, Bridger-Teton NF
- Jackie Arnal, Bridger-Teton NF
- Lesley Williams-Gomez, Bridger-Teton NF
- (b) (6), (b) (7)(C), (b) (7)(F), Bridger-Teton NF
- Linda Merigliano, Bridger-Teton NF
- Ryan Hasten, Bridger-Teton NF
- Undetermined, Wyoming Highway Patrol

- DRAFT schedule

	MORNING SHIFT		AFTERNOON SHIFT	
	Hazing 06:00-14:00	Support 06:00-14:00	Hazing 14:00-21:00	Support 14:00-21:00
Thursday, June 10	(b) (6), (b) (7)(C)	(b) (6), (b) (7)(C) /Cooley	(b) (6), (b) (7)(C)	Arnal, Burdick
Friday, June 11	(b) (6), (b) (7)(C)	(b) (6), (b) (7)(C) /Cooley, Burdick	YNP, (b) (6), (b) (7)(C)	Williams-Gomez
Saturday, June 12	(b) (6), (b) (7)(C)	(b) (6), (b) (7)(C) /Koob	YNP, (b) (6), (b) (7)(C)	
Sunday, June 13	(b) (6), (b) (7)(C)	(b) (6), (b) (7)(C) /Koob	YNP, (b) (6), (b) (7)(C)	Williams-Gomez
Monday, June 14	(b) (6), (b) (7)(C)	(b) (6), (b) (7)(C), (b) (7)(F)	YNP, (b) (6), (b) (7)(C)	Peterson, Burdick
Tuesday, June 15	(b) (6), (b) (7)(C)	(b) (6), (b) (7)(C)	(b) (6), (b) (7)(C)	Peterson, Burdick
Wednesday, June 16	(b) (6), (b) (7)(C)	(b) (6), (b) (7)(C)	(b) (6), (b) (7)(C)	Peterson, Burdick

Thursday, June 17	(b) (6), (b) (7)(C), (b) (7)(F)				Burdick
Friday, June 18	(b) (6), (b) (7)(C), (b) (7)(F)				Arnal
Saturday, June 19	(b) (6), (b) (7)(C), (b) (7)(F)				
Sunday, June 20	(b) (6), (b) (7)(C), (b) (7)(F)				Arnal
Monday, June 21	(b) (6), (b) (7)(C), (b) (7)(F)				Merigliano, Peterson
Tuesday, June 22	(b) (6), (b) (7)(C), (b) (7)(F)				Peterson
Wednesday, June 23	(b) (6), (b) (7)(C), (b) (7)(F)				Arnal, Peterson

Please let me know you would like more information.

Thanks for your support!!

(b) (6), (b) (7)(C), (b) (7)(F)

Cc: Stiles, Cooley, (b) (6)



(b) (6), (b) (7)(C), (b) (7)(F)

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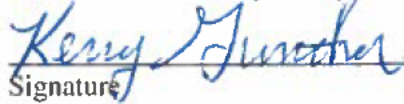
**Yellowstone National Park Policy
For Use of Firearms by Non-Law Enforcement
Resource Management Personnel**



**Bear Management Office
Wildlife and Aquatic Resources Branch
Yellowstone Center for Resources
February 1, 2016**

The policy and standards for "Firearms Use by Non-Law Enforcement Resource Management Personnel in Yellowstone National Park" is approved by the Park Superintendent and Chief Ranger and shall be in effect in Yellowstone National Park for five years or until final approval of a Department Of Interior or Bureau policy. Upon approval of a Department of Interior or Bureau policy, Yellowstone National Park's policy will no longer be in effect and Department Of Interior or Bureau firearms standards for Non-Law Enforcement Resource Management Personnel will apply.

Written/Submitted By: Kerry Gunther – Bear Management Biologist


Signature

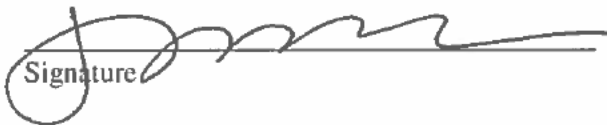
4 / 11 / 16
Date

Reviewed/Recommended By: PJ White – Chief, Branch of Wildlife and Aquatic Resources


Signature

4 / 11 / 16
Date

Reviewed/Recommended: Jenifer Carpenter – Director, Yellowstone Center for Resources


Signature

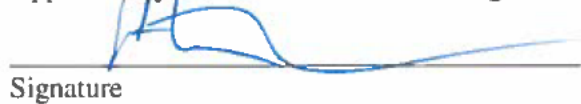
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Date

Reviewed/Recommended: Lorant Veress – Deputy Chief Ranger, Yellowstone National Park


Signature

5 / 20 / 16
Date

Approved By: Pete Webster – Chief Ranger, Yellowstone National Park


Signature

4 / 11 / 16
Date

Approved By: Dan Wenk – Superintendent, Yellowstone National Park


Signature

4 / 20 / 2016
Date

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INTRODUCTION

The use of firearms by National Park Service (NPS) employees may be required as a tool during official natural resource management activities such as live capture of wildlife (primarily bears) for research or management purposes, destruction of sick or injured wildlife, removal of wildlife involved in conflicts with people, aversive conditioning or hazing of wildlife from human use areas, or for the general safety of the resource manager and the public. In fulfilling resource obligations that may require the use of a firearm, employees must keep visitor and employee safety as paramount.

The wearing, carrying, using, and protection of firearms placed in an employee's care is a tremendous responsibility. In addition, the employee and the NPS are liable for any misuse of a firearm, for whatever reason (accidental discharge, lack of training, inexperience, etc.). Considering the hazards and the potential element of danger inherent in the use of firearms, all personnel engaged in natural resource management activities requiring the use of a firearm must be properly trained, qualified, and equipped. These standards apply to all non-Law Enforcement NPS employees sanctioned to use firearms while working within Yellowstone National Park.

NON-LAW ENFORCEMENT PERSONNEL FIREARM POLICY

The primary purposes for the issuance of firearms to resource management personnel is for the protection of the employee or park visitor in case of an animal attack, for dispatching sick or injured animals, or for aversive conditioning and hazing of wildlife from human use areas. Secondly, the weapon is available for personal protection during management actions, and patrolling areas closed due to dangerous or recurring wildlife problems. The classroom portion of the training required for firearms safety, marksmanship, maintenance, storage, performance, limitations, accountability, control, security, and preservation measures is the amount of time considered sufficient by the qualified training instructor as appropriate to cover these subjects thoroughly prior to qualification. This policy is intended for Yellowstone National Park (YNP) non-Law Enforcement, Resource Management staff beginning in 2016, will be reviewed at least every 5 years thereafter, and revised as needed. These policies are not intended to substitute for detailed information provided during training, but rather to suggest what topics such training should cover.

This policy also applies to NPS commissioned law enforcement personnel in terms of firearm use for resource management purposes including wildlife aversive conditioning and hazing curriculums, methodology, and training.

General Firearm Requirements

- Only Department of Interior (DOI), NPS, or YNP approved firearms shall be carried and used by non-Law Enforcement personnel for official purposes. Only authorized persons (those with an authorized certificate of need on file, Appendix 1) may carry and use firearms while on official duty. Candidates for firearms safety training include any DOI or NPS employees whose duties can reasonably be expected to include circumstances where firearms are needed for safety around bears or other predators or for dispatching sick or injured wildlife.

- Employees of other government agencies may be authorized to carry firearms for bear safety in YNP, in areas where such use is permitted for NPS employees, by providing a letter or other written documentation demonstrating that they have successfully completed bear safety and firearms training that meet or exceed NPS standards.
- Independent researchers are prohibited from possessing firearms while conducting permitted field research activities in YNP, unless otherwise authorized by the Superintendent. Independent researchers are also prohibited from bringing firearms in to government buildings and government vehicles (cars, trucks, boats, aircraft).
- Prior to the YNP employee's being authorized to carry and use firearms, the employee's background will be checked to guarantee that they have not been convicted of a misdemeanor crime of domestic violence, felony crime, or have a history of mental illness. The Chief Law Enforcement Official or designee will conduct a background check using the Federal Bureau of Investigation's "Firearms Instacheck System" for any non-Law Enforcement employee who uses firearms on official business. The "Firearms Instacheck System" is the same national background check that is conducted by the FBI or sanctioned State Law Enforcement Agency before any person can purchase a firearm.
- Drug testing is required for NPS staff authorized to carry a firearm.
- Vacancy announcements for positions that may be required to carry a firearm will provide that information.
- Non-Law Enforcement staff members who are uncomfortable with carrying firearms will not be required to carry, even if they have successfully completed firearms training.
- All non-Law Enforcement personnel authorized to carry and use firearms will do so responsibly and discriminately and are accountable for his/her actions.
- No firearms other than NPS-issue shall be carried or used while on duty except upon the written authorization from the Chief Ranger (authorized certificate for use of personal firearm, Appendix 2). Authorization for use of personally-owned firearms shall include the type and caliber/gauge of firearm and a written justification for the authorization.
- Any firearm used by Yellowstone National Park employees shall be under lock and key when: (a) not being used in the field, (b) in transit, or (c) the firearm is not under the direct control of the cognizant person. The concept of "being locked" implies that the firearm is to be stored in a locked hard case or stored in a soft gun case and a child-proof safety lock employed.
- Personal protection equipment, such as hearing and eye protection, will be issued and worn during firearms training and qualification.
- All issued and approved firearms (authorized certificate of need on file) shall be periodically inspected (by an NPS approved inspector for YNP) and properly maintained to ensure that all items are in serviceable condition.

- All firearms actions shall be maintained to factory standards.
- All persons legitimately engaged in non-Law Enforcement activities with a firearm will be trained in the proper use of mechanical safeties. Mechanical safeties shall remain engaged until the decision to fire has been made.
- Non-Law Enforcement employees and cooperating agency personnel authorized to carry and use firearms will ensure the security of his/her assigned or authorized personal firearm while on or off duty and shall report the loss or theft of any firearm to the proper authorities as soon as possible. Any authorized person who loses an assigned firearm through carelessness may be deemed guilty of negligence.
- Except for training, legitimate wildlife management actions, destruction of sick or injured wildlife, specimen collection for scientific research, training purposes, or emergency signaling or survival, a firearm may only be discharged by non-Law Enforcement personnel as a last resort when there is imminent danger of death or serious injury from an attack by a wild animal.
- Prior to non-Law Enforcement employees being authorized to carry and use firearms, they must successfully complete firearms safety training (Appendix 3) and qualify (Appendix 4) with all types and calibers of firearms they are authorized to carry and use. Each person is responsible for the care, cleaning, and maintenance of the authorized firearm they use in the field. Firearms safety training may consist of instruction by a certified NPS firearms instructor in the training elements outlined in Appendix 3, or by other nationally recognized federal, state, or private organizations (USGS, FLETC, American Association of Certified Firearms Instructors, U.S. Military, state police courses, state hunter safety courses, National Rifle Association courses, GunSite Academy courses, or equivalent).
- Firearms training for non-Law Enforcement personnel must contain, at a minimum, the firearms training elements listed in Appendix 3. All firearms training curriculums must stress the potential hazards associated with firearms use and training and include appropriate safeguards to minimize the risks and liabilities to everyone involved in the training.
- All firearms training for non-Law Enforcement Resource Management personnel will emphasize the Four Basic Rules of Firearms Safety (Appendix 5).
- Firearms training is also required for staff using less-than-lethal aversive conditioning or hazing rounds on wildlife, including the use of cracker shells (Appendix 6), Deter-it Balls (Appendix 7), bean bag rounds (Appendix 8), rubber bullets (Appendix 9), and rubber batons (Appendix 10).
- In addition to firearms training, all Yellowstone National Park non-Law Enforcement employees that carry firearms for defense against bears and other predators must also have a basic knowledge and understanding of bear and cougar behavior and aggression. Training should include methods to prevent predator attacks, reacting to aggressive

encounters, carnivore defensive and predatory aggression, behavioral methods to diffuse predator aggression, and use of bear spray to deter predator attacks. In incidents of wildlife attacks, firearms are only to be used as a last resort when all other methods of avoidance and deterrence are exhausted. Bear and cougar Behavior and Safety training standards must meet or exceed the standards outlined in the YNP Bear Behavior and Safety Training Aid (Appendix 11) and the YNP Mountain Lion Behavior and Safety Training Aid (Appendix 12).

- If circumstances allow, non-lethal deterrents such as bear spray should always be used as defense against dangerous wild animals before escalating to lethal force. Training and practice in the use of bear spray is required for any YNP non-Law Enforcement staff trained and authorized to carry a firearm for defense against large carnivore attacks. Bear spray training programs must meet or exceed the standards in the YNP Bear Spray Training Aid (Appendix 13).
- When using firearms to stop a charging or attacking bears, it is imperative that employees know where to aim and have the ability to shoot quickly and accurately while under a great deal of stress. Due to the inherent dangers of using firearms to lethally stop an attacking bear, all non-Law Enforcement Resource Management staff that carry firearms for this purpose require additional training. The Training Aid for Stopping a Charging Bear with a Firearm is found in Appendix 14.
- In incidents where sick, injured, or nuisance wildlife are to be euthanized, the situation and potential methods (chemical, cervical dislocation, exsanguination, penetrating captive bolt, gunshot) will be evaluated and the most humane and practical method for the particular species and existing circumstances will be used. Due to the inherent dangers of using firearms to dispatch free ranging bears, non-Law Enforcement staff involved in this activity require additional training. The Training Aid for Firearm Euthanasia of Bears is found in Appendix 15.

APPROVED FIREARMS FOR RESOURCE MANAGEMENT

Defense Against Bear and Other Predator Attacks

The types and calibers of firearms and ammunition to be acquired and maintained must be determined by the chief ranger and approved by the superintendent. For reliability and liability reasons, only double-action revolvers, slide-action (pump-action) shotguns, and lever-, slide-, and bolt-action rifles should be carried by non-Law Enforcement personnel for defense against grizzly bear, black bear, and mountain lion attacks. The following firearms are approved for use by Yellowstone National Park non-Law Enforcement personnel for defense against grizzly bear, black bear, and mountain lion attacks:

Revolvers: .41 mag., .44 mag., .454 Casull, .460 S&W mag. and .50 S&W mag.

Shotguns: 10 and 12 gauge (1 oz. or heavier slugs only, no buck shot)

Rifles: high powered .30 caliber or larger rifles (.30-06, .308, .375 H & H mag., .444 Marlin, .450 Marlin, .45-70 Government, etc.).

Non-Law Enforcement staff should have a basic knowledge of defensive and terminal ballistics, prior to choosing the firearm and rounds they will carry in the field. The training aids “Choosing Your Defensive Weapon” (Appendix 16) and “Choosing Your Defensive Bullet” (Appendix 17) provide relevant background information on these topics.

Destroying Sick, Injured, or Nuisance Wildlife

Resource Management personnel occasionally have to euthanize sick or injured wildlife or destroy nuisance carnivores (grizzly bears, black bears, wolves, coyotes, fox, etc.) that pose a threat to human safety. For the euthanasia of injured or nuisance wildlife species using firearms, it is recommended that park employees involved in such actions be exposed to training and qualifications for current ethics, practices, appropriate target area, and techniques to appropriately carry out such operations with specific wildlife species. The type and caliber of firearm chosen for euthanasia of free roaming wildlife depends on the circumstances, condition, size, speed, and aggressiveness of the animal. The following firearms are approved for use by Yellowstone National Park non-Law Enforcement Resource Management personnel for euthanasia or destruction of sick, injured, or nuisance wildlife:

Pistols: .22 cal., .38 special, 357 mag., .40 cal., 41 mag., .44 mag., .45 cal., .454 Casull, .460 S&W mag, and .50 S&W mag.

Shotguns: 10 and 12 gauge (1 oz. slugs only, no buck shot)

Rifles: .22 cal., .300 mag., 30-06, .308, .338 mag., .375 H & H mag., .444 Marlin, .450 Marlin, .45-70 Government.

STORAGE AND TRANSPORT OF FIREARMS AND AMMUNITION

No firearms shall be carried or used while on duty except upon written authorization by the Chief Law Enforcement Official (authorized certificate of need on file, Appendix 1). Such authorizations, including those for personally-owned firearms, (see appendix 2, form for registering/approval for use of personally owned firearm), shall include the type and caliber/gauge of firearm and a written justification for the authorization. When using a firearm while performing your job related duties, it is imperative that you always store the firearm properly when not in immediate use. These rules apply for all firearms capable of firing lethal or less-than-lethal rounds.

Firearm Storage

- For resource management, wildlife management, and research purposes in Yellowstone National Park, when firearms and ammunition are not being actively used they must be stored in a gun safe or locked gun closet, accessible only by authorized persons. When transporting firearms and ammunition, they must be secured by the best available security method, (i.e. locked cases, appropriate trigger locks, or in vehicle lock weapons carriers). The overarching storage requirement is that firearms and ammunition must be secured in manner so that they are not accessible to unauthorized persons.

- Any firearm (government or personally owned) used by DOI personnel for non-Law Enforcement Resource Management work duties shall be under lock and key when: 1) not being used in the field, 2) when in transit, or 3) when the firearm is not under the direct control of the cognizant person. The concept of “being locked” implies that the firearm is to be stored in a locked gun safe, locked gun closet, locked hard case, locked vehicle weapons carrier, or stored in a soft gun case and a child safety lock employed.
- For resource management, wildlife management, and research purposes in Yellowstone National Park, when firearms are not being actively used in the field, they must be stored in a locked gun safe, gun cabinet, or locked gun closet.
- Firearms shall not be left unattended in motor vehicles or watercraft unless they are secured in a locked hard case or soft gun case with a child safety lock employed and stored out of public view. No firearm shall be left unattended in vehicles, watercraft, or offices overnight.
- Access to firearms and ammunition storage containers shall be limited to those employees designated and authorized to use, issue, and maintain firearms and ammunition.
- All approved firearms and ammunition shall be secured when on travel status and removed from public view when left unattended, even for short periods of time.
- Employees who temporarily store issued/approved firearms or ammunition in their residence and other accommodations shall secure such firearms in an unloaded condition in a locked container, cabinet, safe, storage room, or closet to preclude access by any unauthorized persons. In addition, for added safety, a child-safety locking device or trigger lock must also be employed while storing firearms in residences.

Ammunition Storage

- Ammunition stores shall be kept in a locked safe, vault, or approved storage container; accessible only by authorized persons.
- Firearms and ammunition stores shall not be kept in the same storage container.

Transport on Aircraft

The mode of firearm and ammunition transport on field aircraft will conform to DOI Office of Aircraft Services (OAS) regulations, which includes the following:

- Interagency Aviation Transport of Hazardous Materials Handbook/Guide.
- Aerial Capture, Eradication and Tagging of Animals (ACETA) Handbook (350 DM 2.3).
- OAS Operational Procedures Memorandum No. 01-37, Effective January 1, 2001.

- For field aircraft, the firearm must be declared to the pilot or authorized representative prior to boarding.
- All firearms and ammunition transported onboard commercial aircraft must be in accordance with Title 14, Code of Federal Regulations, Part 108 – Airplane Operator Security, Special Federal Aviation Regulations, Section 108.11: Carriage of Weapons.

Transport in Motor Vehicles and Watercraft

- Employees authorized to carry and use a firearm as a part of their official duties must follow all YNP protocols concerning the transportation and mode of carry of firearms in motor vehicles and watercraft.
- Firearms shall not be left unattended in motor vehicles or watercraft unless they are secured out of public view. No firearm shall be left unattended in vehicles or watercraft overnight.

TRAINING

The NPS requires firearms training for all non-Law Enforcement employees authorized to possess or use firearms in the performance of their natural resource management duties. The training, must be relevant to each employee's assignment and duties and must include training in all types and calibers of firearms assigned to or to be used by the employee. Firearms training for bear and cougar safety should be conducted jointly by a wildlife biologist and a certified firearms instructor.

Firearms training must include safety, marksmanship, maintenance, storage, performance, limitations, accountability and control, security, and preservation measures (Appendix 3). An appropriate amount of time should be scheduled to cover these subjects prior to qualification. Employees must qualify annually with their issued/approved sidearm, and any other firearm they are authorized to carry/use in accordance with park standards.

Minimum Training Standards

- Only those persons who are competent in the safe handling of firearms and have successfully completed approved firearms safety training and qualification may be authorized to carry and use firearms.
- Training in the safe carry and use of firearms must include classroom, range training, qualification, and the legal and ethical aspects associated with carrying and using firearms.
- All firearms training must be relevant to the employee's assignment. For example, employees carrying firearms for defense against bear attacks should be trained in bear behavior, use of bear spray as a non-lethal option, defensive and terminal ballistics, reactive defensive shooting, center of mass concept, and the brain and brain stem Central Nervous System (CNS) triangle kill zone.

- Evidence of all firearms training shall be documented by a certified firearms instructor who is qualified to instruct employees in the safe carry and use of firearms.
- Completion of a Basic Firearms Safety Course (Appendix 3) is required for all non-Law Enforcement personnel required to carry or use firearms in the performance of their natural resource management duties.
- Employees cannot be certified to carry and use a firearm when on official duty without first successfully completing an appropriate Safety Course.
- All Basic Firearms Safety Courses for non-Law Enforcement personnel will contain, at a minimum, the Firearms Training Elements outlined in Appendix 3.
- Non-Law Enforcement Resource Management Employees that use firearms and firearm-like devices to fire cracker shells, bean bag rounds, rubber bullets, and rubber batons to haze or aversively condition bears, wolves, or other wildlife must successfully complete a general firearms safety training that includes, at a minimum, the Firearms Training Elements (Appendix 3), and for use on bears, the YNP Bear Hazing Plan (available from the Bear Management Office), and for use on wolves, the YNP plan-Management of Habituated Wolves in Yellowstone National Park (available from the Wolf Project Office), as well as the following YNP Training Curriculums: 12 Gauge Cracker Shells (Appendix 6), Deter-it Balls (Appendix 7), 12 Gauge Bear Bag Thumper rounds (Appendix 8), 12 Gauge Strike II Rubber Slugs (Appendix 9), and KO1 Impact Batons (Appendix 10).

Refresher Training

- To re-certify for firearms carry and use, a DOI, NPS, or Yellowstone National Park Firearms Refresher Safety Course must be successfully completed annually. Re-certification is valid for 12 months. Firearms refresher training must include, at a minimum, Firearms Training Elements # 1 (a, b, c), and #2 (a, b) outlined in Appendix 3, as well as successful qualification with the type and caliber of the issued or personnel firearms that will be used by the employee.
- A Basic Firearms Safety Course must be repeated if the employee does not successfully complete the Refresher training. Poor performance or unsafe behavior by employees using firearms also constitutes grounds for repeating the Basic Course or termination of authorization to carry and use firearms.

QUALIFICATION

All non-Law Enforcement employees whose duties may require the use of firearms must qualify at a minimum annually with the type and caliber of firearm(s) to be used, and participate in a YNP approved course of fire (Appendix 4). Qualification standards for firearms for use in natural resource management operations by non-Law Enforcement personnel is delegated by the park superintendent (CFR 36 2.4 (d)). Yellowstone National Park approved courses for use of

firearms by non-Law Enforcement personnel for natural resource management activities are established by the Director, Yellowstone Center for Resources and approved by the Chief Ranger and the park Superintendent and are outlined in this document (Appendix 4).

Non-law enforcement employees must attain a passing score (70 percent or higher) with each firearm type and caliber they are authorized to carry and use. A score of less than 70 percent shall be considered unsatisfactory (Fail) for the purpose of firearms qualification and the employee may not perform duties which require the carry and use of a firearm.

All firearms training shall be conducted by qualified firearms instructors in combination with a wildlife biologist. Firearms instructor training courses will prepare instructors to teach Basic and Refresher Firearms Safety courses for non-Law Enforcement employees that carry and use a firearm during the performance of their official duties. Firearms instructors can teach or assist in teaching Basic and Refresher Firearms Safety courses and Range Qualifications.

Defense Against Bear Attack

For protection against bear attack, non-Law Enforcement resource management qualification standards for revolvers, rifles, and shotguns are outlined in Appendix 4, Section A.

Destroying Sick, Injured, or Nuisance Wildlife

Firearms and circumstances for euthanizing sick, injured, or nuisance wildlife may be significantly different than firearms used for defense against bear attacks. Standards for non-Law Enforcement resource management personnel that may be required to use a firearm to euthanize sick, injured, or free ranging nuisance wildlife are outlined in Appendix 4, Section B.

Hazing/Aversive Conditioning of Wildlife

For hazing/aversive conditioning (shell crackers, Deter-it Balls, bean bags, rubber bullets, rubber batons) of bears, wolves, and other wildlife training standards for non-Law Enforcement resource management personnel are outlined in Appendices 5, 6, 7, 8, & 9.

APPENDIX 1

**YELLOWSTONE NATIONAL PARK
CERTIFICATE OF NEED FOR ISSUANCE OF A FIREARM FOR OFFICIAL USE**

Name of Requester (First, Middle Initial, Last): _____

Project: _____

Location of field work: _____

Purpose of Use: _____

Time Frame of Use **Start Date:** _____ **End Date:** _____

Firearm(s) Used **NPS:** _____ **Personal:** _____

Type/Caliber of each Firearm to be Used

Firearm #1: _____

Firearm #2: _____

Firearm #3: _____

Firearm #4: _____

Training

Course: _____ Date: _____

Checks:

Criminal History Negative _____

BLES Chief Signature: _____

I certify that the following employee has a need for the use of a firearm in connection with official duties and that he/she has met the training requirements outlined in Department of Interior and Yellowstone National Park Resource Management Firearms Use policy and guidelines.

Supervisor's Name: _____

Supervisor's Signature: _____ **Date:** _____

Prior to Issuing Firearm (Supervisors Initials):

Signed Copy of Certificate of Need on file: _____

Safety Lock Provided for Firearm: _____

Signed Copy of Authorization to Carry Personal Firearm on file (if applicable): _____

Record of Qualification on file for each type/Caliber of Firearm Listed: _____

APPENDIX 2

AUTHORIZATION FORM FOR USE OF A PERSONALLY OWNED FIREARM FOR OFFICIAL NATURAL RESOURCE AND MANAGEMENT OPERATIONS

Purpose/Scope

To establish guidelines and/or procedures for ensuring compliance with NPS policies for use of personally owned firearms for official business. This directive encompasses natural resource personnel with particular emphasis toward the roles/responsibilities of park resource and wildlife management activities. Authorization for the use of a personally owned firearm by non-law enforcement park personnel is delegated by the park superintendent (CFR 36 2.4 (d)) and the Department of the Interior's, Departmental Manual (Part 485, 5(B)-2) in order for an employee to fulfill the duties of his/her job.

_____, has requested permission to carry a personally-owned weapon while assigned to or performing natural resource management operations that involve live capture, destruction, sterilization, marking, or for the general safety of the resource manager and their crew.

Firearm information

Manufacturer	Model Type	Caliber	Serial Number

This firearm has been checked by a certified gunsmith or armorer and is deemed to be in safe operating condition for use in official duties of employee for resource management operations only.

Brief description of reason for carrying this firearm for official duties

I recommend that this employee be authorized to carry and use this weapon in full compliance with applicable natural resource, DOI, and National Park Service policies.

Supervisors Signature: _____ Date: _____

Chief Rangers Signature: _____ Date: _____

APPENDIX 3

FIREARMS TRAINING ELEMENTS

These Firearms Training Elements are those topics that must, at a minimum, be covered in any DOI-certified firearms training course for non-law enforcement personnel.

1. General Firearms Safety

- a. General Firearms Safety
- b. Four Rules of Firearms Safety
 - Rule 1:** Treat All Firearms As Always Loaded.
 - Rule 2:** Never Allow A Firearm To Point At Anything You Are Not Willing To Destroy.
 - Rule 3:** Keep Your Finger Off The Trigger And Out Of The Trigger Guard Until Your Sights Are On Target.
 - Rule 4:** Be Sure Of Your Target And What Lies Beyond.
- c. Dry Firing Safety

2. Range Safety

- a. Range Commands
- b. Range Rules

3. Safe Firearms Handling When In the Field

- a. Field Policies
- b. Commercial Airlines
- c. Field Aircraft (Helicopter and Fixed-Wing)
- d. Watercraft
- e. Government Vehicles
- f. Personal Carry
- g. Target Identification
- h. Hazards of Terrain
 - 1. Obstacles
 - 2. Fences
- i. Extreme Cold

4. Departmental and Bureau Firearms Regulations and Policies

- a. Good Record Management
- b. Firearms Training Requirements
- c. Certification/Recertification (annual, semi-annual, etc.)
- d. Certificate of Issuance
- e. Firearms and Employee's Travel Authorization
- f. Domestic Violence Qualification Inquiry
- g. Proper Use of Child Safety Locks
- h. Use of Mechanical Safeties
- i. Accident/Incident Reporting
- j. Safe Transport of Firearms
- k. Safe Storage of Firearms
- l. DOI and Bureau Firearms Safety Committees

- m. Appropriate Federal, State, and local firearm laws
- n. State and Federal Collection Permits (Specimen Collection)

5. Employee and Supervisor Responsibilities Associated with Firearms

- a. Employee Responsibilities
- b. Supervisor Responsibilities

6. Firearms-related Ethics and Liabilities

- a. Personal Ethics and Firearms
- b. Liabilities Associated with Firearms Use
- c. Federal Employees Liability Reform and Tort Compensation Act of 1988
- d. State and Federal Collection Permits
- e. Public relations and Public Awareness for Specimen Collection
- f. Research Project Plans (Specimen Collection)

7. Modern Firearms Handling Principles and Techniques

- a. How to Demonstrate Safety at Every Opportunity
- b. Understanding Cognitive versus Reflexive Functions
- c. Modern Firearms Technique
 - 1. Weaver Stance
 - 2. Presentation of the Firearm
 - 3. Compressed Surprise Break (Trigger Press)
 - 4. Flash Sight Picture
 - 5. Heavy Duty Firearm
 - 6. Defensive Mindset
- d. The Defensive Triad (Defense Against Wild Animals)
- e. The 3 Ways of Firing a Gun:
 - 1. Intentional Discharge (ID)
 - 2. Accidental Discharge (AD)
 - 3. Negligent Discharge (ND)
- f. Why and When To Use the Mechanical Safety
- g. Center of Mass Concept (Defense Against Wild Animals)
- h. Reactive-Defensive Shooting (Defense Against Wild Animals)
- i. Verifying and Re-verifying the Condition of the Firearm
- j. Grip and Stance
- k. Safe Presentation of the Firearm
- l. Marksmanship and Breath Control
- m. Malfunctions
- n. Loading and Unloading
- o. Methods and Timing of Reloading Firearms During Defense Against Wild Animals
- p. Low and High Ready Positions
- q. Field Ready Condition - Empty Chamber, Magazine Full, Safety On
- r. Methods of Firearms Carry - Slings and Holsters
- s. Depress (Search) and Evaluate (Defense Against Wild Animals)
- t. Safe Movement with a Firearm
- u. Live-fire Range and Field Exercises

8. The Defensive Mindset (Defense Against Wild Animals Only)

- a. Alertness
- b. Decisiveness
- c. Aggressiveness
- d. Proper Preparation

9. Ballistics

- a. Internal Ballistics
- b. External Ballistics
- c. Shotguns and Rifled Slugs (Defense Against Wild Animals)
- d. Sighting-in the Firearm
- e. Verifying Point of Aim
- f. Practical Accuracy versus Precision
- g. Terminal Ballistics

10. Firearms Maintenance

- a. Field Stripping/Disassembly
- b. Cleaning the Firearm
- c. Lubrication
- d. Preservation of Firearm Surfaces
- e. Proper Firearms Storage

APPENDIX 4

FIREARMS QUALIFICATION COURSES OF FIRE

A. Bear & Cougar Protection

This qualification course of fire was developed to test the proficiency of persons carrying a handgun, shotgun, or rifle for personal protection in bear habitat. Proficiency and speed are tested in this course of fire. A bullet placed in the chest and penetrating both lungs in addition to piercing the heart will not always immediately stop a charging bear, even within 15 yards. Bears can run at speeds of approximately 40 ft./sec. and precise shot placement is nearly impossible under these conditions. Quick multiple shots and center-of-mass shot placement should be employed against a charging bear. Once the bear is slowed or stopped, an immediate killing shot in which the bullet penetrates the brain or brain stem (central nervous system triangle from center of nose to top of eyes) should be taken. Thus a realistic bear target should always be used for qualification. The target should have a 10-inch diameter center-of-mass circle as well as a v-shaped area which represents the brain/brain stem (CNS Triangle) area (Figure 1).

Handgun, 6-Shot Revolver Qualification Course.—This course is fired at the 10 inch diameter scoring ring. Any hit inside or breaking the 10 inch center-of-mass ring or CNS triangle scores as one point per hit. Any hit outside the 10 inch center-of-mass ring is scored as zero. A minimum score of 70% is required for qualification.

Target: The preferred target for bear protection qualification is a life sized front view of a walking or running grizzly bear with a 10 inch diameter center of mass scoring ring and the CNS scoring triangle (Figure 1). If this target is unavailable, a National Rifle Association (NRA) B-16 target (Figure 2) or similar target with a 10-inch scoring ring can be substituted. On the B-16 target, the black circle (out circle) is approximately 10 inches in diameter. However, the B-16 and similar bull's-eye targets are not recommended as they make it difficult to teach the center-of-mass concept.

Qualification: With the target placed 15 yards from the shooter. The revolver will be holstered and the hammer will be forward in the un-cocked position. On command, the shooter will draw the handgun from its holster and fire three (3) rounds within 14 seconds. Upon firing the last round, the shooter will fully reload the handgun and come to the Low Ready Position (described in the Long Gun section) with the trigger finger off of the trigger and out of the trigger guard, the shooter will then re-holster the firearm and move forward to a distance of ten yards from the target and come to the low ready position. On command the shooter will fire two (2) rounds in 12 seconds. Upon firing the last round, the shooter will fully reload the handgun and come to the Low Ready Position with the trigger finger off of the trigger and out of the trigger guard. On command the shooter will fire two (2) rounds in 8 seconds. Upon firing the last round, the shooter will fully reload the handgun and re-holster. The shooter will then move forward to a distance of five yards from the target. On command the shooter will fire three (3) rounds in 7 seconds. Upon firing the last round, the shooter will fully reload the handgun and come to Low Ready Position with the trigger finger off of the trigger and out of the trigger guard, the shooter will then wait for further commands from the firearms instructor. On Command to unload, the shooter will fully unload, show clear, and re-holster the handgun.

Distance (yards)	Position	Number of Rounds	Time Limit (seconds)
15	Offhand/Standing	3	14
10	Offhand/Standing	2	12
10	Offhand/Standing	2	8
5	Offhand/Standing	3	7

Total Rounds:10

Possible score: 10

Passing score: 7 ($\geq 70\%$)

Score: A passing score must consist of the following: Seven of 10 rounds must touch or cut the 10 inch center-of-mass circle and/or CNS Triangle (70% or better).

Long Gun: Shotgun or Rifle.—This course is fired at the 10 inch diameter scoring ring. Any hit inside or breaking the 10 inch center-of-mass ring or CNS triangle scores as one point per hit. Any hit outside the 10 inch center-of-mass ring and CNS triangle is scored as zero. A minimum score of 70% is required for qualification.

Target: The preferred target for bear protection qualification is a life sized front view of a walking or running grizzly bear with a 10 inch diameter center-of-mass scoring ring and the CNS scoring triangle (Figure 1). If this target is unavailable, a National Rifle Association (NRA) B-16 target (Figure 2) or similar target with a 10-inch scoring ring can be substituted. On the B-16 target, the black circle (out circle) is approximately 10 inches in diameter. However, the B-16 and similar bull's-eye targets are not recommended as they make it difficult to teach the center-of-mass concept.

Qualification: Load the shotgun or rifle with four (4) rounds in the magazine (field ready condition – empty chamber, full magazine, safety on). The long gun should be held in the sling position. With the target placed at 15 yards from the shooter, on command, the shooter will unsling the long gun and fire three (3) rounds within 14 seconds. Upon firing the last round the shooter will put the safety in the “on” position, reload the firearm to the fully loaded condition (4 rounds in the magazine, one round in the chamber, safety on), and go to the High or Low Ready Position, then move forward to a distance of 10-yards from the target.

The High Ready Position for a right-handed shooter would consist of the left hand gripping the forearm, the right hand gripping the pistol grip with index finger on the safety (if possible), and the long gun held so that the muzzle is pointing up at approximately a 45° angle and the front sight or bead is aligned with the target. This is reversed for a left-handed shooter.

The Low Ready Position for a right-handed shooter consists of the left hand gripping the forearm and the right hand gripping the pistol grip with index finger on the safety (if possible), the heel (butt) of the stock is firmly seated in the shoulder pocket, and the muzzle is pointed at approximately a 45° angle to the ground. This is reversed for a left-handed shooter

On command from the firearms instructor, the shooter will fire two (2) rounds within 12 seconds. Upon firing the last round the shooter will put the safety in the "On" position, reload the shotgun/rifle to the fully loaded condition and go back to the High or Low Ready Position. On command from the firearms instructor, the shooter will fire two (2) rounds within 8 seconds. Upon firing the last round the shooter will put the safety in the "On" position, reload the shotgun/rifle to the fully loaded condition and go back to the High or Low Ready Position. On command of the firearms instructor, the shooter will move forward to a distance of 5-yards from the target. On command from the firearms instructor, the shooter will fire three (3) rounds within 7 seconds. The shooter will then put the safety "On", unload the remaining 2 rounds, place the firearm in a safe condition, and wait for further commands from the firearms instructor.

Distance (yards)	Position	Number of Rounds	Time Limit (seconds)
15	Offhand/Standing	3	14
10	Offhand/Standing	2	12
10	Offhand/Standing	2	8
5	Offhand/Standing	3	7

Total Rounds:10

Possible score: 10

Passing score: 7 ($\geq 70\%$)

Score: A passing score must consist of the following: At least seven of 10 rounds must touch or cut the 10 inch center-of-mass circle or CNS Triangle ($\geq 70\%$).

FIGURES



Figure 1



B-16
25 Yard—Special Tagboard
Slow Fire
Size 10½ x 12

Figure 2

B. Destroying Sick, Injured, or Nuisance Wildlife

This qualification course of fire was developed to test the precision shooting skills of personnel that may be required to use firearms to euthanize sick, injured, or nuisance wildlife including bears, wolves, coyote, bison, elk, or other large or small mammals. There is no time limit for this course of fire. Successful completion of the bear and cougar protection qualification course (Appendix 4, Section A) also acts as qualification for destroying sick, injured, or nuisance wildlife.

Handgun Course--This course is fired at a 12 inch diameter scoring ring. Any hit inside the 12 inch ring scores as one point per hit. Any hit outside the ring scores as zero. A minimum score of 70% is required for qualification.

Target: 12-inch diameter.

Distance (yards)	Position	Number of Rounds	Time Limit (seconds)
15	Offhand/Standing	3	None
10	Offhand/Standing	2	None
10	Offhand/Standing	2	None
5	Offhand/Standing	3	None

Total rounds: 10

Possible score: 10

Passing score: 7 ($\geq 70\%$)

Score: A passing score must consist of the following: Seven of 10 rounds must touch or cut the 12 inch scoring ring (70% or better).

Rifle Course – This course is fired at a 12 inch diameter scoring ring. Any hit inside the 12 inch ring scores as one point per hit. Any hit outside the ring scores as zero. A minimum score of 70% is required for qualification.

Target: 12-inch diameter.

Distance (yards)	Position	Number of Rounds	Time Limit (seconds)
15	Shooters Choice	2	None
25	Shooters Choice	4	None
50	Shooters Choice	4	None

Total rounds: 10

Possible score: 10

Passing score: 7 ($\geq 70\%$)

Score: A passing score must consist of the following: Seven of 10 rounds must touch or cut the 12 inch scoring ring (70% or better).

APPENDIX 5

FOUR BASIC RULES OF FIREARMS SAFETY – TRAINING AID

In carrying out day-to-day Resource Management duties, employees rarely need to carry anything more than bear spray. However, during bear capture, relocation or hazing of problem bears, and when investigating reports of injured bears we sometimes need to carry firearms for our protection and for the protection of park visitors or other YNP staff. When using a firearm while performing your job related duties, it is imperative that you always follow these Four Rules of Firearms Safety and fully understand and practice safe gun handling. You may be able to break one of the Rules and get away with no injury, but no one can break two or more of these rules without someone getting hurt. Remember, anyone that uses firearms long enough will have a firearm discharge when they do not intend it to. These rules apply for all firearms used for firing live or hazing rounds. Practice these rules so that they become instinctive even when using firearms under stressful conditions. Remember, your best defense in bear country is still your brain, through your knowledge and understanding of bear behavior!

- 1) **TREAT ALL FIREARMS AS ALWAYS LOADED:** This rule applies to all firearms that we use for bear management including paintball guns, pellet guns, bb guns, dart guns, shotguns, rifles, and revolvers. Always use the Three Point Method (**Look, Feel, & Look**) to verify the condition of the firearm.
- 2) **NEVER ALLOW A FIREARM TO POINT AT ANYTHING YOU ARE NOT WILLING TO DESTROY:** This is the easiest rule to violate. Always be alert to the location of your gun muzzle and the muzzles of firearms held by others. Safe muzzle control must be maintained at all times.
- 3) **KEEP YOUR FINGER OFF THE TRIGGER AND OUT OF THE TRIGGER GUARD UNTIL YOUR SIGHTS ARE ON YOUR TARGET:** Remember, the safety is a mechanical device designed to keep those that break the safety rules safe. Learn to use the mechanical safety as it provides an additional level of safety. The safety cannot, however, be relied on 100% of the time as anything mechanical can malfunction.
- 4) **BE SURE OF YOUR TARGET AND WHAT LIES BEYOND:** You must not only identify your target but also what is in front, beside, and in back of your target before firing.

A gun's mechanical safety device is never foolproof. Always keep the muzzle pointed in a safe direction and use safe gun handling practices as your first line of safety. Treat every firearm as if it is loaded, even if it is not.

APPENDIX 6

YELLOWSTONE NATIONAL PARK 12-GAUGE CRACKER SHELLS TRAINING CURRICULUM and PROTOCOL

DESCRIPTION

12-gauge Cracker Shells are designed for long range hazing operations. Cracker Shells explode with a loud bang after traveling approximately 60 meters (200 feet) down range. Cracker Shells are designed to scare the bear away from the sound of the explosion. They are not designed to contact the bear or other wildlife and should never be aimed directly at wildlife. Cracker Shells are used with cylinder bore (no choke) shotguns only.

The Cracker Shells currently used (product #6600) in Yellowstone are manufactured by Stoneco Inc. of Trinidad, Colorado, and distributed by Margo Supplies Ltd. Alberta, Canada. The current cost is approximately \$1.32 per shell.

All bear hazing operations will be in accordance with the approved plan: "*Yellowstone National Park Bear Hazing Plan*". All wolf hazing operations will be in accordance with the approved plan: "*Management of Habituated Wolves in Yellowstone National Park*".

SPECIFICATIONS

Caliber: 12-gauge, 2 ¾ inch cartridges

Accuracy: Cracker Shells are inherently inaccurate and are significantly affected by wind or contact with vegetation or the ground.

Operational Range: Approximately 50 – 70 meters.

Approved Target Species: coyote, wolf, mountain lion, black bear, grizzly bear, and all ungulate species.

TARGET AREA

Cracker Shells are not designed to contact bears or other wildlife species and should never be aimed directly at any animal.

TARGET DISTANCE

Cracker Shells travel approximately 60 meters before exploding.

ACCURACY

1. The trajectory of cracker shells may not be consistent from one round to the next.
2. The rounds may ricochet if they contact the ground, vegetation or other objects.
3. Make sure that the round is shot into clear, open space to minimize the chance of ricochet.

TRAINING CURRICULUM

1. Review manufacturer and distributor recommendations for use.
2. Review the Human Safety Requirements and Standard Rules of Firearm Safety.
3. Review the Wildlife Safety Rules for use.
4. Emphasize that Cracker Shells are intended to be shot into the air and should never be aimed at any Wildlife.
5. Review the operational range of Cracker Shells.
6. Instructor demonstrates impact of cracker rounds at various distances.
7. Practice estimating distances: 50 yards, 60 yards, 80 yards,
8. Instructor demonstrates proper position and angle of shotgun.
9. Participants demonstrate ability to unload duty rounds and confirm state of emptiness of duty shotgun.
10. Participants demonstrate proper position and angle of shotgun. Shoot 2 rounds at different distances. (Use oldest rounds first for training.)
11. Participants demonstrate proper handling and disposal of un-exploded shell.

MANUFACTURER RECOMMENDATIONS FOR USE

1. The design of the Cracker Shell requires low muzzle velocity, as a result, the over-powder wad may stick in the barrel of the gun. Check barrel of the gun after each Cracker Shell is fired to assure no blockage.
2. Ear and eye protective devices should be worn while using the Cracker Shell.
3. The Cracker Shell can cause fire if used improperly. Check for flammable material downrange before firing.
4. Check for fire in the area where the round exploded following use.
5. Warning: It is dangerous to place 12-gauge shells in a larger gauge gun.
6. Caution: Cracker Shells must not be used in guns with chambers shorter than 2 ¾ inches.
7. For best results the Cracker Shells should be used within one year from the date on the box.
8. For the best operating results, use a clean, cylinder bore (no choke) shotgun.
9. The Cracker Shell is designed for bird and animal scaring and any other use is strictly prohibited by law. Never fire Cracker Shells at any human being.
10. The angle of the shotgun should be 45 to 60 degrees when firing Cracker Shells.
11. Cracker shells should only be used for distances of 200 feet or more.
12. Don't shoulder the shotgun, shoot from the hip or under the arm.

HUMAN SAFETY RULES

Staff and Visitor Safety Considerations

1. Make sure that visitors and staff are not in the line of fire.
2. Do not shoot at or near people with Cracker Shells.
3. Always wear hearing and eye protection when firing Cracker Shells.
4. When hazing bears, Cracker Shells should be fired from a secure spot such as near a building or vehicle whenever possible to provide the shooter with an escape refuge in case the bear charges.
5. When hazing bears with Cracker Shells from a secure location near a building or vehicle, the shooter must at a minimum have bear spray and a defensive weapon such as a loaded shotgun, high powered rifle of .30 caliber or larger (.30-06, .308, .375 H & H mag., .444

Marlin, .450 Marlin, .45-70 Government, etc.), or large caliber revolver (.41 magnum or larger) as backup.

6. When hazing bears with Cracker Shells from an unsecure location, where escape into a building or vehicle is not possible, the shooter is required to have bear spray as a defensive weapon, and in addition, be accompanied by a trained staff member to act as armed back-up, with a loaded shotgun or high powered rifle of .30 caliber or larger.
7. Always make sure you are not hazing the bear or other wildlife towards park visitors, staff, or other people.
8. Always make sure that the bear or wildlife being hazed has a clear escape path that is not blocked by people, traffic, developed areas, or geographic features.
9. When hazing with Cracker Shells, the round should be fired so that it explodes between the shooter and the animal. If the round explodes beyond the animal, it may cause the animal to flee towards the shooter.
10. When hazing bear family groups, always be aware that if pushed too hard, or the cubs become separated from their mother, the mother bear may become agitated and aggressively defend her cubs against the shooter or any other people in the area.

Weapon Cleaning and Checks

1. Dirty barrels can affect accuracy and premature explosion.
2. Clean the weapon at the end of the hazing operation.
3. Extremely dirty barrels may be cleaned by soaking the barrel overnight in warm water, then drying and applying a light coat of oil.
4. A Billings game warden reported damage to a barrel due to an in-barrel explosion. No other barrel damage has been reported to Margo Supplies.
5. Inspect the barrel for damage following all in-barrel explosions.

Premature Explosion

1. Due to the roped fuse and gun powder in the round, cracker shells inherently have problems with premature explosion. Shells manufactured prior to Dec. of 2003 have had a premature explosion rate of 1% to 5%. Shells manufactured after Dec. of 2003 have had a premature explosion rate of up to 10%.
2. Shells outside of their one year manufacture date have a greater chance of premature explosion.
3. Yellowstone rangers (and other users) have reported instances of shells exploding in the barrel, thus the caution to:
4. Always wear ear and eye protection.
5. After any in barrel explosion, check the barrel for obstructions or deformities.

Un-exploded or "Fizzed" Shells

1. If the shell does not fire from the weapon or explode in the barrel, place the weapon on the ground and stay 25 feet away for 30 minutes. Then eject the round by pumping the round out away from your body, let it sit on the ground for 2-3 minutes. Then using a shovel, pick-up the shell, place in a bucket of water for 48 hours. Contact the Safety Office for proper disposal.
2. If the shell fires from the weapon, does not explode or simply "fizzles" let it sit on the ground and stay 25 feet away for 30 minutes. Then using a shovel, pick-up the shell, place in a bucket of water for 48 hours. Contact the YNP Safety Office for the current method of proper disposal.
3. Always wear ear and eye protection when handling un-exploded shells.

STANDARD RULES OF FIREARM SAFETY

When using 12-gauge Cracker Shells always follow the 4 Standard Rules of Firearm Safety:

Rule #1: Treat all firearms as always loaded.

Rule #2: Never allow a firearm to point at anything you are not willing to destroy.

Rule #3: Keep your finger off of the trigger and out of the trigger guard until your sights are on your target.

Rule #4: Be sure of your target and what lies beyond.

WILDLIFE SAFETY RULES

1. Only shoot Cracker Shells up into the air at a 45 to 60 degree angle.
2. Never shoot Cracker Shells directly at any animal. There have been several incidents in National Parks where bears have been killed when hit with Cracker Shells.
3. When hazing family groups, always be aware that if pushed too hard, the cubs, yearlings, calves, or fawns may become separated from their mother which ultimately could result in their death.

CRACKER SHELL STORAGE

In order to insure the most accurate results with Cracker Shells, the distributor recommends:

1. The shells should be stored in their plastic cartons until just prior to their use.
2. The shells should be stored in a cool (less than 80 degrees) dry place
3. Gun powder starts to de-stabilize at temperatures higher than 80 degrees.

APPENDIX 7

YELLOWSTONE NATIONAL PARK WILDLIFE DETER-IT BALL HAZING ROUND (.68 Caliber Paintball Gun) TRAINING CURRICULUM and PROTOCOL

DESCRIPTION

The Wildlife Deter-It Ball is a soft, thick-walled-gelatin capsule filled with a clear, biodegradable, non-toxic liquid designed to provide a humane method of animal deterrence. The shell is designed to minimize breakage and maximize delivered kinetic energy for hazing effect. Wildlife Deter-It rounds deliver approximately 19 ft/lbs of kinetic energy. If Deter-It Balls break on impact with a solid object, the liquid will not stain and will wash away. Deter-It Balls are fired from standard .68 caliber paintball rifles and pistols. In Yellowstone National Park, Deter-It Balls are approved for use as a non-lethal wildlife hazing round, delivering an unpleasant experience without hide penetration or injury. In Yellowstone National Park, Deter-it Ball rounds are approved for use for hazing of all ungulate species and for carnivore species that are adult coyote-size or larger. All bear hazing operations will be in accordance with the approved plan: *"Yellowstone National Park Bear Hazing Plan"*. All wolf hazing operations will be in accordance with the approved plan: *"Management of Habituated Wolves in Yellowstone National Park"*.

Advantages:

- Quiet.
- Easy to Use.
- Positive Public Perception (paintball guns look like toys not lethal weapons).
- Relatively Low Kinetic Energy (low risk of penetration or injury to animal or person).
- Low Cost (cost per round significantly cheaper than bean-bags, rubber bullets, or cracker shells).

Disadvantages:

- Low Kinetic Energy (may not be as effective as bean-bag rounds, rubber bullets, or rubber batons when deployed on large species).

Deter-It Balls approved for use in Yellowstone National Park are distributed by Nelson Technologies, Inc. of Kingsford, Michigan (800-236-9278). Cost is approximately \$0.19 per round, (cheaper if purchased in bulk).

SPECIFICATIONS

Caliber: .68 paintball gun

Projectile: liquid-filled soft gelatin ball.

Projectile Mass: 5 grains

Muzzle Velocity: 450 FPS

Muzzle Energy: 15 ft. lbs.

Operational Range: 10 - 50 meters (may be used at longer distances with significantly reduced efficacy and accuracy).

Approved Target Species: coyote, wolf, black bear, grizzly bear, and all ungulate species found in Yellowstone National Park.

TARGET AREA

Wildlife Deter-It Balls are designed to make contact with the coyote, wolf, bear, or ungulate. The large muscle mass of the rump or shoulders is the target area for paintball gun Deter-It Ball round deployment.

TARGET DISTANCE

Wildlife Deter-It Balls have an operational range of 10 – 50 meters. Distances beyond 50 meters are not accurate and the round may not have enough kinetic energy to be effective at long distances.

TRAINING CURRICULUM

1. Review the Human Safety Requirements and Standard Rules of Firearm Safety.
2. Review the wildlife safety rules for use.
3. Review the approved wildlife target areas for Wildlife Deter-It Balls.
4. Review the minimum and maximum target distances for Wildlife Deter-It Balls.
5. Instructor demonstrates impact at various distances.
6. Practice estimating distances: 10 meters, 25 meters, and 50 meters.
7. Instructor demonstrates gun safety procedures and proper use of paintball gun with Deter-It Ball rounds.
8. Participants demonstrate proper use of paintball gun with Deter-It Ball rounds. Shoot 10 rounds. Four rounds at 10 meters, four rounds at 25 meters, and two rounds at 50 meters.

HUMAN SAFETY RULES

1. Make sure that visitors and staff are not in the line of fire.
2. Do not shoot people with wildlife specific Deter-It Ball rounds. Wildlife specific Deter-It Ball rounds are thicker and heavier than citizen recreation paint-ball rounds and are not marketed for use on humans.
3. Always make sure that the bear or other wildlife being hazed has a clear escape path that is not blocked by people, traffic, developed areas, or geographic features.
4. When hazing bears, personnel firing Wildlife Deter-It Balls should be near the security of a building or vehicle whenever possible to provide the shooter with an escape refuge in case the bear charges.
5. When hazing bears with Wildlife Deter-It Balls from a secure location near a building or vehicle, the shooter must at a minimum have bear spray and a defensive weapon such as a loaded shotgun, high powered rifle of .30 caliber or larger (.30-06, .308, .375 H & H mag., .444 Marlin, .450 Marlin, .45-70 Government, etc.), or large caliber revolver (.41 magnum or larger).
6. When hazing bears with Wildlife Deter-It Balls from an unsecure location, where escape into a building or vehicle is not possible, the shooter is required to have bear spray and in addition, a trained staff member to act as armed back-up with a loaded shotgun or high powered rifle of .30 caliber or larger.
7. Always make sure you are not hazing the bear or other wildlife towards park visitors, staff, or other people.
8. When hazing bear family groups, always be aware that if pushed too hard, or the cubs become separated from their mother, the mother bear may become agitated and aggressively defend her cubs against the shooter or any people in the area.

9. Do not shoot cubs or yearlings with wildlife Deter-it Balls. All painful stimuli should be used only on the adult female bear, as painful stimuli to the young may cause the mother bear to aggressively defend her young.

STANDARD RULES OF FIREARM SAFETY

When firing Deter-It Balls from a paintball gun, always follow the 4 Standard Rules of Firearm Safety:

Rule #1: Treat All Firearms As Always Loaded.

Rule #2: Never Allow A Firearm To Point At Anything You Are Not Willing To Destroy.

Rule #3: Keep Your Finger Off The Trigger And Out Of The Trigger Guard Until Your Sights Are On The Target.

Rule #4: Be Sure Of Your Target And What Lies Beyond.

WILDLIFE SAFETY RULES

1. Wildlife Deter-It Balls have a wide margin of safety. The large muscle areas of the rump and shoulders are the primary target area.
2. Do not shoot at vulnerable areas such as the eyes or head.
3. Do not shoot Deter-It Ball rounds at wildlife that are closer than 10 meters to reduce the risk of injuring or killing the animal.
4. When hazing bear family groups, always be aware that if pushed too hard, the cubs may become separated from their mother which ultimately could result in their death.

WILDLIFE DETER-IT BALL STORAGE

Wildlife Deter-It Balls will melt at high temperatures. Wildlife Deter-It Balls should be stored in a cool, dry, shaded, location or in a refrigerator or freezer when not in use.

DISPOSAL

Deter-It Balls are not re-loadable or re-usable. Deter-It balls are biodegradable. Deter-It Balls can be disposed of in any refuse receptacle in the park.

APPENDIX 8

YELLOWSTONE NATIONAL PARK 12-GAUGE AERO-SOCK & BEAN BAG THUMPER ROUNDS TRAINING CURRICULUM and PROTOCOL

DESCRIPTION

The 12-gauge Aero-Sock and Bean Bag Thumper rounds are flexible projectiles fired from 12-gauge shotguns that expand on impact to spread their force over a broad surface area. The Aero-Sock and Bean Bag Thumper rounds are intended to be non-lethal bear, wolf, and ungulate deterrents, delivering an unpleasant experience without hide penetration or injury. Field tests have proven these products effective at temporarily displacing bears and ungulates from human use areas. All bear hazing operations will be in accordance with the approved plan: "*Yellowstone National Park Bear Hazing Plan*". All wolf hazing operations will be in accordance with the approved plan: "*Management of Habituated Wolves in Yellowstone National Park*".

The wildlife-specific bean bags approved for use in Yellowstone National Park are distributed by Margo Supplies Ltd., Alberta, Canada. Approved products include #6614 – 12-gauge Aero-Sock and #6612 – 12-gauge Bean Bag Thumper. The Aero-Sock (#6614) is the preferred round as it provides better accuracy, however, the Bean Bag Thumper (#6612) is a viable alternative, especially at shorter distances (10-15 meters). The current (2015) cost for each of these rounds is \$9.50 per round.

In addition to wildlife-specific bean bag rounds, any law enforcement bean bag rounds that have been approved for use as less-than-lethal rounds for use on people are approved for use on large mammals (grizzly bears, black bears, wolves, ungulates) in Yellowstone National Park.

SPECIFICATIONS

Caliber: 12-gauge

Projectile: 5 cm fabric bag, filled with lead shot.

Projectile Mass: 40 grams.

Muzzle Velocity: 300 FPS

Accuracy: 15 cm at 15 m (with a cylinder smooth bore)

Operational Range: 10 – 25 meters (may be used at longer distance with significantly reduced efficacy and accuracy).

Approved Target Species: wolf, black bear, grizzly bear, and all ungulate species found in Yellowstone National Park.

TARGET AREA

Aero-Sock and Bean Bag Thumper rounds are designed to make contact with the bear or other animal being hazed. The large muscle mass of the rump is the target area for bean bag round deployment on all wildlife.

TARGET DISTANCE

Aero-Sock and Bean Bag Thumper rounds have an operational range of 10 – 25 meters. For the safety of the animal being hazed, do not shoot at animals closer than 10 meters. Aero Sock and Bean Bag Thumper rounds are not effective nor accurate at distances beyond 25 meters.

TRAINING CURRICULUM

1. Review manufacturer/distributor recommendations for use.
2. Review the Human Safety Requirements and Standard Rules of Firearm Safety.
3. Review the wildlife safety rules for use.
4. Review the approved wildlife target areas for Aero-Sock and Bean Bag Thumper Rounds.
5. Review the minimum and maximum target distances for Aero-Sock and Bean Bag Thumper Rounds.
6. Instructor demonstrates impact at various distances.
7. Practice estimating distances: 10 yards, 15 yards, 20 yards, 25 yards, 30 yards, 40 yards.
8. Instructor demonstrates proper position and angle of shotgun.
9. Participants demonstrate proper position and angle of shotgun. Shoot 2 rounds. One round at 15 yards, one round at 25 yards.
10. Participants explain proper disposal of bean bags.

MANUFACTURER/DISTRIBUTOR RECOMMENDATIONS FOR USE

1. The 12-gauge Aero-Sock and Bean Bag Thumper rounds are designed to be non-penetrating and are intended to distribute their impact force over a wide surface area. Upon impact, the bag collapses and conforms to the target, distributing its energy over the area of the bag.
2. Warning: It is dangerous to place 12-gauge shells in a larger gauge gun. These shells must not be used in guns with chambers shorter than 2 ¾ inches.
3. Danger: Do not shoot towards people with wildlife-specific Aero-Sock or Bean Bag Thumper rounds. Wildlife-specific Aero-Sock and Bean Bag Thumper rounds may be lethal or cause serious injury to people.
4. Aero-Sock and Bean Bag Thumper rounds will not cycle semi-automatic shotguns. A shotgun front bead that protrudes into the bore may cut the bag. Remove the burr with a hone stone. For use in cylinder, improved cylinder, or rifled barrels only. Do not use in full or modified choke shotguns as reduced velocities or a bore obstruction may occur.
5. Only shoot at the large muscle mass of the rump of the animals being hazed.
6. Do not shoot at vulnerable areas such as the head, rib cage, or stomach.
7. Do not shoot at animals closer than 10 meters to prevent the chance of injuring or killing the animal.
8. Do not attempt to haze bears with bean bag rounds without adequate armed back-up, that is, personnel with loaded shotgun or high powered rifle.

HUMAN SAFETY RULES

1. Make sure that visitors and staff are not in the line of fire.
2. Always wear eye protection when firing 12-gauge Aero-Sock and Bean Bag Thumper Rounds.

3. When hazing bears, 12-gauge Aero-Sock and Bean Bag Thumper Rounds should be fired from a secure spot such as near a building or vehicle whenever possible to provide the shooter with an escape refuge in case the bear charges.
4. When hazing bears with 12-gauge Aero-Sock and Bean Bag Thumper Rounds from a secure location near a building or vehicle, the shooter must at a minimum have bear spray and a defensive weapon such as a loaded shotgun, high powered rifle of .30 caliber or larger (.30-06, .308, .375 H & H mag., .444 Marlin, .450 Marlin, .45-70 Government, etc.), or large caliber revolver (.41 magnum or larger) readily available as backup.
5. When hazing bears with 12-gauge Aero-Sock and Bean Bag Thumper Rounds from an unsecure location, where escape into a building or vehicle is not possible, the shooter is required to have bear spray as a defensive weapon, and in addition, be accompanied by a trained staff member to act as armed back-up, with a loaded shotgun or high powered rifle of .30 caliber or larger.
6. Always make sure you are not hazing the bear or other wildlife towards park visitors, staff, or other people.
7. Always make sure that the wildlife being hazed have a clear escape path that is not blocked by people, traffic, developed areas, or geographic features.
8. When hazing bear family groups, always be aware that if pushed too hard, or the cubs become separated from their mother, the mother bear may become agitated and aggressively defend her cubs against the shooter or any other people in the area.
9. Do not shoot cubs or yearlings with 12-gauge Aero-Sock and Bean Bag Thumper Rounds. All painful stimuli should be used only on the adult female bear, as painful stimuli to the young may cause the mother bear to aggressively defend her young.

STANDARD RULES OF FIREARM SAFETY

When using 12-gauge Aero-Sock or Bean Bag Thumper Rounds always follow the 4 Standard Rules of Firearm Safety:

Rule #1: Treat all firearms as always loaded.

Rule #2: Never allow a firearm to point at anything you are not willing to destroy.

Rule #3: Keep your finger off of the trigger and out of the trigger guard until your sights are on your target.

Rule #4: Be sure of your target and what lies beyond.

WILDLIFE SAFETY RULES

1. Only shoot at the large muscle areas of the rump.
2. Do not shoot at vulnerable areas such as the head, rib cage, or stomach.
3. Do not shoot Aero-Sock or Bean Bag Thumper rounds at bears or other wildlife that are closer than 10 meters to reduce the risk of injuring or killing the animal.
4. Never shoot cubs, yearlings, calves, or fawns with Aero-Sock or Bean Bag Thumper rounds.
5. When hazing family groups, always be aware that if pushed too hard, the cubs, yearlings, calves, or fawns may become separated from their mother which ultimately could result in their death.

DISPOSAL

Aero-Sock and Bean Bag Thumper rounds contain lead shot. After the bear or other animal has left and you can safely search the area, bean bag rounds should be retrieved and properly disposed of. Contact the Safety Office for current information on the proper method of disposal for lead.

APPENDIX 9

YELLOWSTONE NATIONAL PARK 12 GAUGE STRIKE II RUBBER SLUGS TRAINING CURRICULUM and PROTOCOL

DESCRIPTION

The Strike-Two Rubber Slug is a soft rubber baton fired from a 12-gauge shotgun that is intended to be a non-lethal bear, wolf, or ungulate deterrent, delivering an unpleasant experience without hide penetration or injury. Field tests have proven this product effective at temporarily displacing bears, wolves, and ungulates from human use areas. All bear hazing operations will be in accordance with the approved plan: “*Yellowstone National Park Bear Hazing Plan*”. All wolf hazing operations will be in accordance with the approved plan: “*Management of Habituated Wolves in Yellowstone National Park*”.

The wildlife specific rubber slug approved for use in Yellowstone National Park is the Strike-Two Rubber Slug distributed by Margo Supplies LTD. of Alberta, Canada. The approved round is product #6610, 12-gauge Strike-Two Rubber Slug. The current (2015) cost for each of these rounds is \$4.25 per round.

SPECIFICATIONS

Caliber: 12-gauge

Projectile: soft rubber baton

Projectile Mass: 73 grain

Muzzle Velocity: 738 FPS

Muzzle Energy: 89 ft. lbs.

Velocity @ 10 meters: 590 FPS

Energy @ 10 meters: 57 ft. lbs.

Operational Range: 30 – 60 meters (may be used at longer distance with significantly reduced efficacy and accuracy).

Approved Target Species: grizzly bear, black bear, wolf, and all ungulate species found in Yellowstone National Park.

TARGET AREA

Strike-Two Rubber Slugs are designed to make contact with the animal being hazed. The large muscle mass of the rump is the target area for Strike-Two Rubber Slug deployment on grizzly bears, black bears, wolves, and ungulates.

TARGET DISTANCE:

Strike-Two Rubber Slugs have an operational range of 30 – 60 meters. For the safety of the animal being hazed, do not shoot animals at distances closer than 30 meters. Distances beyond 60 meters are not effective nor accurate with Strike-Two Rubber Slugs.

TRAINING CURRICULUM

1. Review manufacturer and distributor recommendations for use.
2. Review the Human Safety Requirements and Standard Rules of Firearm Safety.
3. Review the wildlife safety rules for use.
4. Review the allowable target areas on wildlife for Strike-Two Rubber Slugs.
5. Review the minimum and maximum target distance for Strike-Two Rubber Slugs.
6. Instructor demonstrates impact at various distances.
7. Practice estimating distances: 25 yards, 30 yards, 40 yards 50 yards, 60 yards, and 70 yards.
8. Instructor demonstrates gun safety procedures and proper use of shotgun with Strike-Two Rubber Slugs.
9. Participants demonstrate proper use of 12-Gauge Shotgun with Strike-Two Rubber Slugs. Shoot 2 rounds. One round at 30 yards, one round at 50 yards.

MANUFACTURE'S DIRECTIONS FOR USE OF STRIKE-TWO RUBBER SLUGS

1. The design of this 12-gauge rubber slug requires low muzzle velocity, as a result, the over-powder wad may stick in the barrel of the gun. Check barrel of the gun after each shot to assure that there is no blockage. Low gas pressure requires manual operation of auto loading shotguns.
2. **WARNING** – It is dangerous to place 12-gauge shells in a larger gauge gun. These shells must be used in guns with chambers shorter than 2 ¾ inches.
3. **DANGER** – Do not shoot at or towards people. Strike-Two Rubber Slugs are wildlife specific and may be lethal or cause serious injuries to people.
4. Use only in guns for smokeless powder. Do not use in guns with Twist or Damascus barrels.
5. Use only a clean shotgun with a cylinder bore (No Choke, i.e. use only in a barrel designed for slugs)
6. Only shoot at the large muscle mass of the rump.
7. Do not shoot at vulnerable areas such as the head, rib cage, or stomach.
8. Do not shoot at animals closer than 30 meters to prevent the chance of injuring or killing the animal.
9. Do not attempt to deter a bear with bean bag rounds without adequate armed back-up, that is, personnel with loaded shotgun or high powered rifle.

HUMAN SAFETY RULES

1. Make sure that visitors and staff are not in the line of fire.
2. Always wear eye protection when firing Strike-Two Rubber Slugs.
3. When hazing bears, 12-gauge Strike-Two Rubber Slugs should be fired from a secure location near a building or vehicle whenever possible to provide the shooter with an escape refuge in case the bear charges.
4. When hazing bears with 12-gauge Strike-Two Rubber Slugs from a secure location near a building or vehicle, the shooter must at a minimum have bear spray and a defensive weapon such as a loaded shotgun, high powered rifle of .30 caliber or larger (.30-06, .308, .375 H & H mag., .444 Marlin, .450 Marlin, .45-70 Government, etc.), or large caliber revolver (.41 magnum or larger) readily available as backup.
5. When hazing bears with 12-gauge Strike-Two Rubber Slugs from an unsecure location, where escape into a building or vehicle is not possible, the shooter is required to have bear spray as a defensive weapon, and in addition, be accompanied by a trained staff

member to act as armed back-up, with a loaded shotgun or high powered rifle of .30 caliber or larger.

6. Always make sure you are not hazing the bear or other wildlife towards park visitors, staff, or other people.
7. Always make sure that the bear or other wildlife being hazed has a clear escape path that is not blocked by people, traffic, developed areas, or geographic features.
8. When hazing bear family groups, always be aware that if pushed too hard, or the cubs become separated from their mother, the mother bear may become agitated and aggressively defend her cubs against the shooter or any other people in the area.
9. Do not shoot cubs or yearlings with Strike-Two Rubber Slugs. All painful stimuli should be used only on the adult female bear, as painful stimuli to the young may cause the mother bear to aggressively defend her young.

STANDARD RULES OF FIREARM SAFETY

When using Strike-Two Rubber Slugs fired from a 12-gauge shotgun, follow the Standard Firearm Safety Rules:

Rule #1: Treat All Firearms As Always Loaded.

Rule #2: Never Allow A Firearm To Point At Anything You Are Not Willing To Destroy.

Rule #3: Keep Your Finger Off The Trigger And Out Of The Trigger Guard Until Your Sights Are On The Target.

Rule #4: Be Sure Of Your Target And What Lies Beyond.

WILDLIFE SAFETY RULES

1. Only shoot at the large muscle areas of the rump.
2. Do not shoot at vulnerable areas such as the head, rib cage, or stomach.
3. Do not shoot Strike-Two Rubber Slugs at bears that are closer than 30 yards to reduce the risk of injuring or killing the animal.
4. When hazing bear family groups, always be aware that if pushed too hard, the cubs may become separated from their mother which ultimately could result in their death.

DISPOSAL

Strike-Two Rubber Slugs are not re-loadable or re-usable. An effort should be made to find the rounds if possible after the bear or other wildlife has left and you can safely search the area. Rounds can be disposed of in any refuse receptacle in the park. Strike-Two Rubber slugs are small, black, and may bounce after hitting the bear or other wildlife and so may be difficult to locate after firing.

APPENDIX 10

YELLOWSTONE NATIONAL PARK STANDARD ENERGY KO1 IMPACT BATON SL-1 SINGLE SHOT PROJECTILE LAUNCHER TRAINING CURRICULUM AND PROTOCOL

DESCRIPTION

Sage International Ltd's SL-1 single shot 37 mm projectile launcher is manufactured as a less lethal solution for law enforcement and riot control needs. The SL-1 is capable of delivering accurate blunt trauma-inducing batons, combination baton/chemical rounds, non-pyrotechnic barricade penetrating projectiles as well as pyrotechnic chemical agents. The SL-1 Launcher and its family of ammunition are known as L3AOS (Less Lethal Launched Ammunition and Ordnance System). For Yellowstone National Parks' Bear and Wildlife Management purposes the only approved weapon round is the KO1 Impact Baton (Standard Energy), a small, polyurethane baton with nylon rings designed to absorb shock without hide penetration. The SL-1 achieves exceptional accuracy by combining a rifled barrel, calibrated sighting, and a family of ammunition manufactured to quality standards which maximizes performance.

The calibrated sighting system consists of a flip-up rear aperture and a flip-up front ballistic ladder calibrated from 20 to 100 meters in 20 meter increments. The KO1 Impact Baton (the round approved for use on bears) is not accurate beyond 35 meters.

All bear hazing operations will be in accordance with the approved plan: "*Yellowstone National Park Bear Hazing Plan*". All wolf hazing operations will be in accordance with the approved plan: "*Management of Habituated Wolves in Yellowstone National Park*".

SPECIFICATIONS

Caliber: 37 mm

Projectile: polyurethane baton with nylon rings designed to absorb shock

Projectile Mass: 77.5 grams

Velocity: 240 feet/second (73.5 meters/second)

Kinetic Energy @ 10 feet: 81 ft/lbs. (114 joules)

Operational Range: 25 - 35 meters

Approved Target Species: black bear and grizzly bear

TARGET AREA

KO1 Impact Batons are designed to make contact with the bear.

Grizzly Bears and Black Bears: The large muscle mass of the rump is the target area for KO1 Impact Baton round deployment.

Wolves: KO1 Impact Batons are not approved for use on wolves in Yellowstone National Park.

Ungulates: KO1 Impact Batons are not approved for use on ungulates in Yellowstone National Park.

TARGET DISTANCE

KO1 Impact Batons have an operational range of 25 – 35 meters. For the safety of the animal being hazed, do not shoot at animals closer than 25 meters. KO1 Impact Batons are not accurate at distances beyond 35 meters.

TRAINING CURCCULUM

1. Review specifications, target animals, target area, target distance, human safety, 4 rules of firearms safety, and wildlife safety requirements and recommendations for use.
2. Instructor demonstrates impact at various distances.
3. Practice estimating distances: 15 yards, 20 yards, 25 yards, 35 yards, 40 yards.
4. Instructor demonstrates safety, proper position, and use of SL-1 Projectile Launcher.
5. Participants demonstrate safety, proper position, and use of SL-1 Projectile Launcher. Shoot 2 rounds. One round at 25 yards, one round at 35 yards.
6. Participants explain proper recycling and re-loading of rounds by BMO staff.

HUMAN SAFETY RULES

1. Make sure that visitors and staff are not in the line of fire.
2. Always wear eye and hearing protection when firing KO1 Impact Batons.
3. When hazing bears with KO1 Impact Batons, the shooter should fire from a secure spot such as near a building or vehicle whenever possible, to provide the shooter with an escape refuge in case the bear charges.
4. When hazing bears with KO1 Impact Batons from a secure location near a building or vehicle, the shooter must at a minimum have bear spray and a defensive weapon such as a loaded shotgun, high powered rifle of .30 caliber or larger (.30-06, .308, .375 H & H mag., .444 Marlin, .450 Marlin, .45-70 Government, etc.), or large caliber revolver (.41 magnum or larger) readily available as backup.
5. When hazing bears with KO1 Impact Batons from an unsecure location, where escape into a building or vehicle is not possible, the shooter is required to have bear spray as a defensive weapon, and in addition, be accompanied by a trained staff member to act as armed back-up, with a loaded shotgun or high powered rifle of .30 caliber or larger.
6. Always make sure you are not hazing bears or other wildlife towards park visitors, staff, or other people.
7. Always make sure that the bear or wildlife being hazed has a clear escape path that is not blocked by people, traffic, developed areas, or geographic features.
8. When hazing bear family groups, always be aware that if pushed too hard, or the cubs become separated from their mother, the mother bear may become agitated and aggressively defend her cubs against the shooter or any other people in the area.
9. Do not shoot cubs or yearlings with KO1 Impact Batons. All painful stimuli should be used only on the adult female bear, as painful stimuli to the young may cause the mother bear to aggressively defend her young.

STANDARD RULES OF FIREARM SAFETY

With the SL-1 Single Shot KO1 Impact Baton Projectile Launcher always follow the Standard Rules of Firearm Safety:

Rule #1: Treat All Firearms As Always Loaded.

Rule #2: Never Allow A Firearm To Point At Anything You Are Not Willing To Destroy.

Rule #3: Keep Your Finger Off The Trigger And Out Of The Trigger Guard Until Your Sights Are On The Target.

Rule #4: Be Sure Of Your Target And What Lies Beyond.

BEAR SAFETY RULES

1. Only shoot at the large muscle areas of the rump.
2. Do not shoot at vulnerable areas such as the head, rib cage, or stomach.
3. Do not shoot KO1 Impact Batons at bears that are closer than 25 meters, to prevent the chance of injuring or killing the animal.
4. When hazing bear family groups, always be aware that if pushed too hard, the cubs may become separated from their mother which ultimately could result in their death.

DISPOSAL

KO1 Impact Rounds are re-loadable. After use, find and retrieve the rounds (after the bear has left and you can safely search the area). Return the rounds and cartridge cases (Warning-shell cases may be hot immediately after being fired, use caution!) to the Bear Management Office (344-2162, 344-2167) for reloading.

APPENDIX 11

BEAR BEHAVIOR AND SAFETY - TRAINING AID

UNDERSTANDING BEAR BEHAVIOR & AGGRESSION

Your best defense against bear attacks is not your bear spray or your firearm, but your brain. Your reaction to an encounter with a bear should be based on the bear's behavior and the cause of that behavior. Therefore, it is important that you "*Understand The Bears Mindset*" as much as possible. A good knowledge and understanding of bears, bear behavior, bear aggression, bear food habits, and bear ecology can empower you to decrease the chances of having encounters with bears, and to diffuse aggressive encounters when they occur.

There are two main types of bear attacks on people, 1.) Defensive, and, 2.) Predatory. You should respond very differently to each type of attack, therefore you must be able to tell the difference between a defensive attack and a predatory attack.

Defensive Attacks & Aggression.--Defensive attacks are the most common cause of bear-inflicted human injury. In almost all bear attacks, bears are reacting defensively to a perceived threat to themselves or their cubs during a surprise encounter with people. In these incidents, the bear wants to neutralize the threat (you), gather up their cubs (if present), and leave. In Yellowstone National Park the chances of being injured by a bear in a defensive attack, are very low, approximately 1 in 3 million.

Recognizing Defensive Aggression:

- If you are attacked after any sudden, surprise encounter with a bear, you can assume that it is a defensive attack.
- If the bear hop charges toward you, clacks its teeth, sticks out its lips, huffs, woofs, or rushes a few steps towards you and slaps the ground with its paws, it is warning you that it is nervous about your presence and that you are too close. Heed this warning and back away. If these warning signs precede an attack, you can assume that the attack is defensive in nature.
- In a defensive attack the bear will charge toward you with its ears laid back.
- A bear that rears up onto its hind legs is trying to gather more information through scent, sight, and sound to determine what you are and what your intentions are. To get a better scent, the bear may circle down-wind of you.

How to React to Defensive Attacks:

- Once a bear that is displaying defensive aggression has made physical contact with you, you should be passive and play dead to diffuse the situation and minimize injury.

Predatory Attacks & Aggression.--Many people think that the reason for most bear attacks is that the bear wants to kill and eat you. In reality this is almost never true! In the vast majority of confrontations between bears and people, the bear is only trying to defend itself or its cubs from a perceived threat (you), and the bear's reaction is entirely defensive. Actual predatory attacks do occasionally occur, but are extremely rare. In Yellowstone National Park the chances of

being involved in a predatory bear attack are approximately 1 in 52 million. Behaviorally, it can be difficult to distinguish a predatory bear from a bear that is just curious or food conditioned.

Recognizing Predatory Attacks:

- Predatory bears don't give warning signals or use threat displays or vocalize, there is no huffing, blowing, barking, jaw-popping, hop charging, ground slapping, or bluff charging during a predatory attack.
- Predatory bear's ears will be erect and forward (not laid back).
- Predatory bears will be intensely interested in you their potential victim, visually locked on.
- Predatory bears will keep bearing in on you.

How to React To Predatory Attacks:

- During a predatory attack you should be aggressive and fight back using any available weapon (bear spray, rocks, sticks) to stop the aggression by the bear.
- Fight back as if your life depends on it, because it does. Predatory attacks usually persist until the bear is scared away, overpowered, injured, or killed.

REDUCING THE RISKS OF SURPRISE ENCOUNTERS WITH BEARS

- **BE ALERT:** See the bear before you surprise it. Watch for bear sign such as tracks, scat, and feeding sites (diggings, rolled rocks, torn up logs, ripped open ant hills).
- **AVOID HIKING AT DAWN, DUSK, OR AT NIGHT:** Whenever possible avoid hiking at dawn, dusk, or at night. During the hot summer season these are the periods when grizzly bears are most active.
- **WORK CLOSE TOGETHER OR IN GROUPS:** Whenever possible space your selves close together (50 feet or closer) or in groups of 3 or more people when working and hiking. (91% of the people injured by bears in YNP since 1970 were hiking alone or with only one hiking partner, only 9% of the people injured by bears were in groups of three or more people).
- **DON'T EXPECT BEARS TO NOTICE YOU FIRST:** In Yellowstone National park bears hibernate for approximately 5 months each year and have only 7 months of active time to obtain all of their nutritional needs. Therefore a bear with its head down feeding may not see you as quickly as you would think. Pay attention and see the bear before it sees you and before you surprise it.
- **MAKE NOISE, ALERT BEARS TO YOUR PRESENCE:** When hiking, periodically yell "Hey Bear" especially when walking through dense vegetation or blind spots, or when traveling upwind, near loud streams, or on windy days. Avoid thick brush whenever possible.
- **AVOID CARCASSES:** Ungulate carcasses are a highly preferred bear food that bears will guard and defend against other scavengers or humans. Dead ungulates will attract and hold many bears near the carcass site. It is risky to approach a carcass; many bears may be bedded nearby just out of sight. If you find a fresh dead ungulate carcass that still has meat remaining, leave the immediate area by the same route you approached the

carcass from. If you walked to the carcass without encountering a bear you should be able to back out the same way without surprising a bear. Report the carcass to the Bear Management Office. (Note: 23 grizzly bears were observed around one bison carcass in Hayden Valley in Yellowstone National Park a few years ago).

- **STAY WITH YOUR GEAR:** Don't leave your packs, lunches, food, or beverages unattended as they may attract and hold bears at the site. If you surprise a bear that's eating your stashed food you may lose more than your lunch.

REACTING TO ENCOUNTERS WITH BEARS AT LONG DISTANCES

- **IF THE BEAR DOES NOT SEE YOU:** If the bear doesn't see you, keep out of sight and detour as far as possible behind and downwind of the bear.
- **IF THE BEAR SEES YOU:** If the bear sees you, retreat slowly and leave the area. If possible slowly walk upwind to let your scent reach the bear. Regardless of the distance, never approach the bear.
- **IF THE BEAR STANDS UP ON TWO LEGS:** Some people mistakenly believe that when a bear rears up onto two legs that the bear is about to charge, that rearing up on two legs is an aggressive posture that means the bear is going to attack (people have learned this from Hollywood Movies), **THIS IS NOT TRUE!** When a bear stands up on two legs it is trying to gather more information about what you are and what your intentions are. Bears gather this information through a combination of scent, sight, and sound. Standing up on two legs improves the bears' ability to gather sight and scent information. This is a good time to start backing away, talking to the bear in a calm voice, and letting the bear know that you are a person and that you mean no harm to the bear or its cubs.

REACTING TO SURPRISE ENCOUNTERS WITH BEARS AT CLOSE DISTANCES

- **BEAR WARNING BEHAVIOR:** If the bear clacks its teeth, sticks out its lips, huffs, woofs, or slaps the ground with its paws, it is warning you that it is nervous about your presence and that you are too close. Heed this warning and back away.
- **DO NOT PANIC!, DO NOT RUN!** Do not run, shout, or make sudden movements. You don't want to startle the bear. Do not run! You cannot outrun a bear. Running may trigger a chase response in the bear. Bears in Yellowstone chase down elk calves all the time. You do not want to look like a slow elk calf.
- **BACK AWAY SLOWLY:** Immediately but slowly back away. Often time's slowly putting distance between yourself and the bear will defuse the situation.
- **PREPARE YOUR BEAR SPRAY:** Draw your bear spray from the holster, remove the safety tab, and prepare to use it if the bear charges.
- **SHOULD YOU CLIMB A TREE?:** Climbing a tree to avoid an attack might be an option but is often impractical. Remember all black bears and most grizzly bears can climb trees (if there is something up the tree that the bear really wants). Running to a tree or frantically climbing a tree may provoke an un-aggressive bear to chase you. Many

people have been pulled from trees before they can get high enough to get away. Remember, you have probably not climbed a tree since you were 10 years old, it is harder than you remember.

REACTING TO A CHARGING BEAR AFTER A SURPRISE ENCOUNTER

- **STAND YOUR GROUND.** As soon as the bear starts to charge, stop backing away and stand still. Most of the time charging bears stop short of making contact or veer off at the last second (a bluff charge). If you stop and stand your ground, the bear is more likely to break off the charge or veer away. If you run it is likely to trigger a chase response from the bear. If you are charged by a bear and have bear pepper spray, this is the time to use it. Start spraying the charging bear when it is about 30 - 60 feet away.
- **DO NOT PLAY DEAD TOO EARLY:** Do not drop to the ground and “play dead” too early. Wait until the bear makes contact or the nano-second just before the bear makes contact. Remember, by standing your ground the bear is likely to break off the charge or veer away.
- **IF THE BEAR MAKES CONTACT:** If the bear makes contact, this is the point where you become passive and “play dead”. Drop to the ground; keep your pack on to protect your back. Lie on your stomach, face down and clasp your hands over the back of your neck with your elbows protecting the sides of your face. Remain still and stay silent to convince the bear that you are not a threat to it or its cubs.
- **DON'T GET UP TOO SOON:** After the bear leaves, wait several minutes before moving. Listen and look around cautiously before you get up to make certain the bear is no longer nearby. If the bear is gone, get up and walk (don't run) out of the area. Remember, the sow grizzly needs time to gather up her cubs which may have climbed trees or hidden in nearby brush. If you get up too soon, before the sow has had time to gather up her cubs and leave, she may attack again.
- **DO NOT FIGHT BACK:** During a surprise encounter where the bear is reacting defensively, you should not fight back. Fighting back will only prolong the attack and will likely result in more serious injuries. Since 1970 in Yellowstone National Park, when attacked by a bear during a surprise encounter those that played dead received only minor injuries 75% of the time. However, those that fought back during surprise encounters received very severe injuries 80% of the time.
- **WHEN NOT TO PLAY DEAD:** If the bear has not reacted aggressively, and has not initiated a charge or otherwise acted defensively, you should back away. Never drop to the ground and “play dead” with a bear that has not been aggressive or defensive. Being submissive or “playing dead” with a curious bear could cause the bear to become predatory. A defensive bear will charge almost immediately during a surprise encounter, and will charge with its head low and ears laid back. A curious or predatory bear will approach with its head up and ears erect. When approached by a curious or predatory bear you should be aggressive and fight back.

BEARS AND UNGULATE CARCASSES

Bison, elk, and other wildlife carcasses are among the highest quality bear foods in the park. Due to the high quality of wildlife carcasses as bear food, bears will protect carcasses from other bears, wolves, and people. To avoid surprise encounters with bears scavenging ungulate carcasses:

- Watch for ravens, magpies, and coyotes, these are usually your first indication that a carcass is nearby. Remember, bears often bury carcasses with dirt, duff, and sticks so you may not actually be able to see the dead elk or bison.
- If you see a carcass several hundred yards away, you can detour around it, but give it a wide berth, a carcass can attract and hold a dozen bears or more. These bears may be bedded all around the carcass increasing your chances of having a surprise encounter with a bear. When detouring around a carcass, choose a route with good visibility and where the wind is at your back so that your scent is pushed out ahead of your direction of travel to warn unseen bears of your presence. If it is unsafe to detour around a carcass, turn back and find another trail to hike.
- If you stumble on a carcass up close, don't run, back away the same direction you came from. Chances are that if you walked in to the carcass without surprising a bear that you can leave from the same direction without being detected.
- If you surprise a bear on a carcass, slowly back away. If the bear charges stand your ground and deploy your bear pepper spray. Bears often bluff charge off of carcasses then run back and stand on the carcass. This is the bears' way of letting you know that it has claimed the carcass and that it wants you to leave.

CAMPING IN BEAR COUNTRY

Resource management staff may occasionally be required to overnight in the backcountry as part of their work assignments. Whenever possible, staff should attempt to overnight in backcountry patrol cabins. If cabins are not available within a reasonable distance from the work site, designated campsites that provide a food storage device should be used. Occasionally neither patrol cabins nor designated campsites are located near backcountry work sites. Under these circumstances camping in non-designated sites may be required. Choose non-designated camping sites and camping methods that reduce the risks of bears entering your campsite.

Don't Camp Where Bears Feed, Rest or Travel Regularly.--Bears commonly travel along hiking trails, stream sides, lake shores, saddles, ridges, and the edges of meadows. Whenever possible avoid camping in these areas. You are better off camping deep in the forest or out the middle of large meadows. Camping in forested areas surrounded by fallen trees reduces the likelihood that bears will be traveling or foraging near your tent. Camping in the open will better allow you to see approaching bears, and give you more time to react before bears enter camp. Camping in the open will also give the bear a better chance of seeing and being aware of your camp, making it less likely that a bear will unknowingly enter your camp. Avoid the forest/non-forest edge, bears spend a lot of time foraging in these areas.

Store Food in a Bear-Proof Manner.--Proper storage methods include bear-proof food storage boxes (provided at some designated campsites), approved bear-proof food storage canisters, and

hanging your food and garbage from a tree branch or bear pole. When hanging food and garbage it must be suspended at least 10 feet or more above the ground, 6 feet or more out from the tree trunk that supports the branch the food is hung from, and 5 feet or more below the limb the food is hung from.

Designate a Core Sleeping Area.--Designate a core sleeping area for all personnel. The core sleeping area should be at least 100 yards up wind of the cooking, eating and food storage area. Keep all crew members within the core camping area perimeter – no satellite camping. Someone camping off by themselves is more vulnerable to a bear attack than someone camping in a large concentrated group. Bears are also more comfortable entering a camp where the tents are spread out over a large area, than they are entering a small and dense sleeping area that is packed with people and tents.

Designate a Cores Food Area.--The core food area is where you will cook, eat, and store all of your food and garbage. If possible locate the food area a minimum of 100 yards down-wind from the core sleeping area. That way a bear following the scent of your food will not be lured through the designated sleeping area. Keep all odorous items in the food area. Remember, cool air tends to travel down slope at night, designate your food storage/cooking/eating area downwind and down slope from your core sleeping area.

Maintain Order in Your Kitchen.--Pick up all food scraps, place them in zip-lock bags with your garbage and store them in a bear-proof manner. Make sure that no food or odorous items are left out overnight or while you are away from camp on day-hikes.

Avoid Highly Odorous Foods.--Bacon, sausage, and fish give off strong odors while cooking, and when scraps are thrown away. In addition, their odors tend to permeate your clothing.

Never Leave Food Unattended.--Never leave food or garbage unattended unless it is stored in a bear-proof manner (food storage box or hung). Even in an occupied camp a bear could enter camp and get into your food or garbage. Once a bear gets into your food or garbage it will be hard to get it to leave, and if you are successful in getting it to leave, it will likely return.

Don't bring Snacks to Bed.--Keep all food, drink, candy and scented toiletries out of sleeping bags, tents and their stuff sacks.

Make a Plan for How You will react if a Bear Enters Camp.--Have a pre-determined plan on how you and the rest of the crew in camp will react if a bear approaches or enters your camp. A large unified response from all members of the crew will enhance your chances of hazing a bear out or away from camp.

APPENDIX 12

MOUNTAIN LION BEHAVIOR AND SAFETY TRAINING AID

MOUNTAIN LION ENCOUNTERS

Mountain lions range throughout Yellowstone National Park in the summer, and are found primarily on the Northern Range of Yellowstone National Park in winter. Mountain lions have attacked humans in North America, but these incidents are rare. There has never been a human attack reported in Yellowstone National Park. The likelihood of seeing a lion, and of encountering an aggressive lion are very remote, however you should be prepared and have knowledge of how to react to an encounter if one occurs.

Reducing the Risks:

- Hike in groups whenever possible. Do not hike alone.
- Bear pepper spray has also proven effective on mountain lions.

If You Encounter A Lion:

- Stay calm. Don't run! Mountain lions chase things that run because they associate them with prey.
- Do not turn your back on the lion. Stand your ground, or move away slowly while facing the lion.
- Talk to the lion in a firm confident voice.

If A Mountain Lion Approaches You, Behaves Aggressively, Or Treats You As Prey:

- Enlarge Your Image. Try to appear as large as possible. Wave your arms. Group up with your co-workers.
- Stare at the lion and yell at the lion in a loud voice.
- Arm Yourself. Use a large stick to defend yourself. Throw rocks or sticks at the lion to chase the lion off. Try to convince the lion that you are not prey and that you are a danger to them.

If A Mountain Lion Attacks:

- FIGHT BACK! Do Not Play Dead! Fight back as if your life depends on it, because it does. Playing dead is for defensive bear attacks, not mountain lion attacks.

INTERPRETING MOUNTAIN LION BODY LANGUAGE

Mountain lion encounters can be divided into several broad categories. In each type of encounter, the lion's body language gives an indication of the lion's intentions and how you should react.

Incidental Sightings

- *Description:* Opportunistic lion sightings at a distance, the lion does not hold eye contact and runs or walks into forest cover. These are the most common type of mountain lion sightings.
- *Interpretation of Lion Behavior:* Secretive/Avoidance.

- *Risk of Attack:* Low.
- *Your Reaction:* Make noise to keep the lion heading away from you. You should leave the area.

Defensive Aggression

- *Description:* You have a surprise encounter with a mountain lion at a close distance. The lion reacts by hissing, snarling, and vocalizations.
- *Interpretation:* Defensive behavior and/or protecting kittens in a den, an attack is possible.
- *Risk of Attack:* Moderate, depends on the distance to animal and your reaction to the animal.
- *Your Reaction:* Immediately back away while facing and staring at the lion.

Predatory – Prey Assessment/Stalking

- *Description:* Intense staring, following, and hiding behavior. The mountain lion remains nearby and maintains eye contact, staring or glaring at you. The lion may face you or circle behind you and generally maintains a steady distance from you, neither approaching nor retreating.
- *Interpretation:* Assessing your potential as prey and assessing potential for success of attack.
- *Risk of Attack:* Moderate to high.
- *Your Reaction:* Stare at the lion while making noise and throwing rocks and/or sticks to haze the lion out of the area. Alert any other people in the area. Leave the area and report your encounter to wildlife management personnel or local area rangers.

Predatory - Pre-attack

- *Description:* Crouching; tail twitching; intense staring; ears flattened like wings; body low to the ground; head may be up.
- *Interpretation:* Pre-attack
- *Risk of Attack:* High
- *Your Reaction:* Face, stare at, and yell at the lion; throw rocks and/or sticks to haze the mountain lion out of the area. Once successful at chasing lion off, leave the area and report your encounter to wildlife management personnel or local area rangers.

Predatory - Attack Imminent

- *Description:* Ears flat; fur out; tail twitching; body and head low to ground; rear legs pumping.
- *Interpretation:* Attack imminent
- *Risk of Attack:* Very High and Immediate
- *Your Reaction:* Face and stare at lion; yell at lion; throw rocks and/or sticks to haze the mountain lion out of the area; if lion makes contact fight back as if your life depends on it, because it probably does.

APPENDIX 13

USE OF BEAR SPRAY TO STOP AGGRESSIVE PREDATOR BEHAVIOR TRAINING AID

The decision to carry a firearm as a potential defensive weapon against an aggressive bear or cougar should not be taken lightly. Any staff assigned a firearm for potential defense against bears or cougars should have a thorough knowledge of bear and cougar behavior and of the efficacy and use of bear spray to deter aggressive predator behavior. Bear spray has proven to be an effective, non-lethal, bear deterrent capable of stopping aggressive behavior in bears and cougars. The proper use of bear spray will reduce human injuries caused by bears as well as the number of bears killed in self-defense. When carrying bear spray, it is important that you select an EPA approved product that is specifically designed to stop aggressive behavior from bears. Personal defense, jogger defense, and law enforcement or military defense spray may not contain the correct active ingredients or have the proper delivery system to divert or stop a charging or attacking bear.

SELECTING PROPER BEAR SPRAY:

- All bear sprays must be registered with the Environmental Protection Agency (EPA). Only use bear spray products that clearly state “for deterring attacks by bears.” The EPA registration number is displayed on the front label.
- EPA registered bear spray has an active ingredient, clearly shown on the label, of 1% to 2% Capsaicin and related Capsaicinoids. The active ingredient is what affects the bears eyes, nose, mouth, throat, and lungs.
- EPA registered bear spray have a minimum duration of at least 6 seconds or more to compensate for multiple bears, wind, bears that may zigzag, circle, or charge multiple times, and for the hike out after you have stopped a charging bear.
- EPA registered bear spray’s shoot a minimum distance of 25 feet or more to reach the bear at a distance sufficient for the bear to react to effects of the active ingredients in time to divert or stop the bears charge and give the bear time to retreat.
- EPA registered bear spray have a minimum content of 7.6 oz or 215 grams.
- Each Yellowstone National Park staff member or volunteer working in bear country should carry a can of bear spray in a quickly accessible fashion. Bear spray should also be readily available in the sleeping, cooking, and toilet areas of backcountry camps.
- Be sure the expiration date on your bear spray is current. Expired bear spray should be replaced.

UNDERSTANDING PROPER USE OF BEAR SPRAY

Bear spray is a non-lethal pepper deterrent containing active ingredients derived from capsicum. Capsicum derivatives are an extreme irritant of the skin, eyes, nose, throat, and lungs of bears, humans, and other mammals. Bear spray stops the aggression in bears by causing burning and irritation of the eyes, nose, throat, and lungs. It temporarily reduces the bear's ability to breathe, see clearly, and use its sense of smell. This stops the charge or aggressive behavior and gives you time to leave the area. Remember bear spray is designed as a deterrent to stop a charging or aggressive bear.

Bear Spray is Not Used like Insect Repellent.--Bear spray is not to be applied to people like insect repellent. Bear pepper spray is intended to stop an aggressive, charging, or attacking bear. Bear spray comes out in a fine mist, getting into the bears eyes, nose, mouth, and lungs. Bear spray stops bear aggression by temporarily restricting sight, smell, and respiration. Once it is sprayed on a person or object it is no longer in a fine mist and is just a hot spicy solution. Think of bear spray like Tabasco Sauce, it tastes great on your eggs but you would not want somebody to throw it in your face.

Do Not Spray Tents or Equipment.--Do not spray your tent or other equipment expecting that it will keep the bear from touching, sniffing, or investigating your tent or equipment. Bear spray does not work that way. Bear spray deters bears when the fine mist gets into the bears eyes, nose, mouth, throat, and lungs, restricting breathing, sight, and smell. Once sprayed onto equipment or the ground it is just a hot, spicy solution that may actually attract bears (bears are curious and investigate new odors). Do not practice spraying your bear spray in human use areas.

USING BEAR SPRAY TO DETER AN AGGRESSIVE BEAR OR OTHER PREDATOR

Bear spray is a non-lethal bear deterrent designed to stop aggressive behavior in bears. Capsicum, the active ingredient in bear spray is a strong irritant to the eyes, nose, mouth, throat, and lungs of bears. Bear spray has been proven to be a good defense against charging bears and has been effective in most reported cases where it has been used. Remember, no bear deterrent is 100% effective. Use proper bear avoidance safety techniques as your first line of defense!

Proven Effective.--In a study in Alaska, bear pepper spray was effective in stopping aggressive behavior in grizzly bears in over 92% of the incidents where it was used.

Easy to Use.--Unlike with a firearm, you don't have to be a good shot with bear spray. All you need to do is put up a cloud of bear spray between you and the charging bear. Precise aiming is not necessary.

Practice.--Use an inert bear spray to practice quick drawing bear spray from its holster, removing the safety tab with your thumb, and firing. Practice firing inert bear spray with the wind at your back, into a head wind, and with a cross-wind so that you understand how bear spray is affected by the wind.

Bear Spray is Not a Substitute for Vigilance.--Bear pepper spray is not a substitute for caution. Be vigilant and use bear encounter prevention methods, body language, and bear safety protocols as your first line of defense.

Keep it Readily Accessible.--Bear spray must be immediately accessible in a quick draw holster, not stored in your pack. If your bear spray is not quickly accessible you will not have time to use it. Think of surprising a bear at a distance of 50 feet. The bear is charging at you at approximately 44 feet per second. You would not have time to pull your bear spray out of your pack.

When to Spray.--Start to spray the charging bear when it is about 30 - 60 feet away.

How to Spray.--Point the bear spray nozzle toward the charging bear, aim slightly downward and using a slight side to side motion spray a 2 – 3 second blast so that the bear must pass through the cloud of bear spray before it gets to you. If the bear continues to charge, keep spraying until the bear changes direction. It is better to aim slightly low, than to aim too high possibly allowing the bear to run underneath the spray. If you have a strong cross-wind you will have to aim slightly up-wind so the spray drifts back in front of you. If you have a strong tail-wind it will carry the bear spray further giving you an added margin of safety. If you have a strong head-wind the spray will blow into your own face and incapacitate you. With a strong head-wind you may consider not using your bear spray and instead relying solely on standing your ground, then playing dead if the bear makes contact (**Caution!** do not play dead with a curious or predatory bear).

Leave the Area Promptly after Use.--After you spray a bear with bear spray you should promptly leave the area as the effects of the bear spray will eventually wear off.

Know its' Limitations.--Bear spray is adversely affected by below freezing temperatures, strong winds, heavy rain or snow, and age. These factors may reduce the distance and duration that bear spray will spray. Check the expiration date on your bear spray. Properly dispose of expired bear spray.

PROPER STORAGE OF BEAR SPRAY

Bear spray is a non-lethal pepper deterrent containing active ingredients derived from capsicum. Capsicum derivatives are an extreme irritant of the skin, eyes, nose, throat, and lungs of bears, humans, and other mammals. Bear spray containers are under high pressure and are extremely flammable. If punctured, bear spray canisters may become flying missals with erratic flight paths. When not being used in the field, bear spray must be stored properly to avoid injury or irritation from accidental exposure.

In the Office.--When storing bear spray in an office it should always be stored in a safety container. Do not store bear spray near open flame, fire, sparks, or heated surfaces. Exposure to temperatures above 120 degrees may cause bear spray canisters to burst.

In a Vehicle.-- Bear spray should never be transported or stored inside the passenger compartment of any vehicle unless it is contained in a transportation and storage safety container. In Bear Management Office trucks bear spray should be transported and stored in the bed or the tool box, not inside the cab. Remember, the inside of a pickup or car with the windows closed can reach temperatures over 181 degrees F. Bear spray can explode at a temperature of about 120 degrees. Accidental discharge of bear spray in a car or truck could incapacitate the driver and would likely cause a crash.

In a Helicopter or Airplane.-- Bear spray is not allowed inside of helicopters or fixed wing aircraft. Bear spray must be transported outside of the cockpit in the baskets or sling load. Accidental discharge of bear spray in a helicopter or small plane could incapacitate the pilot and likely cause a crash.

Check the Expiration Date.--The seal on bear spray canisters may fail any time after the end of the expiration year printed on the can. Check the date and properly dispose of any expired cans of bear spray (deposit expired bear spray at the Supply Center).

FIRST AID FOR ACCIDENTAL EXPOSURE TO BEAR SPRAY

Bear spray is a non-lethal pepper deterrent containing active ingredients derived from capsicum. Capsicum derivatives are an extreme irritant of the skin, eyes, nose, throat, and lungs of bears, humans, and other mammals. There have been incidents where park employees were accidentally exposed to bear spray from a variety of causes including: spraying bear spray into a strong headwind, running over a bear spray canister with a vehicle, dropping a bear spray canister on a sharp rock, carrying a bear spray that had a missing safety tab, and explosion of a bear spray caused by storing in a hot vehicle. The following protocol should be used in cases of accidental exposure.

Exposure In the Eyes.-- Hold eye open and rinse slowly and gently with cold water for 15 – 20 minutes. People who wear contact lenses should remove the lenses after rinsing the eyes for 5 minutes, after removing contacts continue rinsing the eyes for 15 – 20 minutes.

Exposure on the Skin or Clothing.--Take off contaminated clothing. Rinse skin immediately with plenty of cold water for 15 - 20 minutes or more. A non-oil based soap or detergent (Dawn Dish Soap) can be used to remove the bear spray from the skin. Pat dry with cloth towel. **Do Not Rub!** Do not use lotion, salves, or creams on the affected areas, as these trap the bear pepper spray against the skin. A wet towel or ice pack may be used on the affected areas to reduce inflammation.

Exposure in the Lungs (If Inhaled).--Move away from bear spray to an area of fresh air as soon as possible.

Exposure in the Throat and Stomach (If Ingested).--Do not induce vomiting.

Post Exposure Monitoring.--All effects should dissipate within 45 minutes. The individual should be closely observed for symptoms of physical distress (chest pain, cold sweat, or shallow breathing). Asthma sufferers may experience acute stress. If anything other than a normal reaction occurs or the symptoms persist beyond 45 minutes, medical attention should be given or summoned immediately.

If Having Trouble Breathing or Having a Skin Reaction After Exposure.--Call one of the following for treatment advice – POISON CONTROL (800-222-1222), 3E MSDS (800-451-8346), Mammoth Clinic (307-344-7965)

Exposure to Vehicle, Office, or Equipment.--Wash thoroughly with Dawn Dish Soap (manufacturer's recommendation).

PROPER DISPOSAL OF USED & EXPIRED BEAR SPRAY

Bear spray is a non-lethal pepper deterrent containing active ingredients derived from capsicum. Capsicum derivatives are an extreme irritant of the skin, mucus membranes, eyes, nose, throat, and lungs of bears, humans, and other mammals. All EPA approved Bear Spray has an expiration date marked on the can. Although the capsicum solution in Bear Spray remains a hot, potent, irritant long after the expiration date, the aerosol propellant and pressure seal on the canister may fail any time after the expiration date. For your safety, do not continue to carry expired Bear Spray. Expired bear spray may not deploy properly at a charging bear, or may leak resulting in accidental human exposure. Bear Spray with a current expiration date is available for purchase at the Mammoth Supply Center. All expired or damaged cans of bear spray should be disposed of. When disposing of bear spray, care must be taken to reduce the risks of accidental exposure to maintenance staff that empty, compact, and transport garbage.

Do Not Throw Full Cans of Bear Spray into the Trash.--Throwing full cans of bear spray into the trash could result in accidental Bear Spray exposure to maintenance workers during trash pickup, compaction, transport, or landfill disposal. Do Not Throw full, unused Cans of Bear Spray into Garbage Cans, Dumpsters, or Roll-offs!!

Supply Center Recycling.--The Yellowstone National Park Supply Center in Mammoth has a recycling bin for bear spray containers. Simply bring your expired or damaged cans of bear spray to the Mammoth Supply Center and they will properly remove and dispose of the active ingredient, and recycle the aluminum container and plastic top.

Self-Disposal.--You may also dispose of your expired bear spray yourself. Take the expired or damaged bear spray container to an outside area well away from human use areas. Direct spray down-wind and toward the ground and press and hold the trigger valve until all of the pressure is released. Surgical gloves and a respirator will reduce the chances of accidental exposure to the bear spray while you are emptying it. Do not empty bear spray in human use areas. Once sprayed and no longer in an atomized mist, bear spray is just a hot, spicy solution that could act as a bear attractant. After emptying the can, securely wrap the container in several layers of newspaper, then place in a sealed plastic bag and discard in the roll-off dumpster or garbage dumpster. Whenever possible, dispose of emptied bear spray (wrapped in newspaper, sealed in plastic) in the roll-off dumpster which is taken directly to the Logan Landfill. The trash in the regular garbage cans and dumpsters first goes to the compost facility at West Yellowstone where compostable trash is separated from non-compostable garbage. During the garbage/compost sorting process workers could be exposed to a low level of bear spray residue causing a temporary but unpleasant experience.

APPENDIX 14

STOPPING A CHARGING BEAR WITH A FIREARM - TRAINING AID

When using a firearm to stop a charging bear, it is imperative that you know where to aim and that you have the ability to shoot quickly and accurately while under a great deal of stress. Most incidents where firearms are used to stop charging bears occur at distances of only 30 – 45 feet, with the bear charging at a rate of approximately 45 ft. per second. There is no time for precise aiming or shooting from a stable position. Under these conditions, Reactive Defensive Shooting techniques are used. Reactive Defensive Shooting is significantly different from other types of shooting such as target shooting or hunting. Unlike target shooting where the emphasis is solely on accuracy, or hunting which relies on a combination of accuracy and power, in Reactive Defensive Shooting a good balance between accuracy, ballistic power, and speed are all needed. Know how to use your gun and be mentally prepared to use it to defend your life or the life of a co-worker against an attacking bear if necessary. Remember, your best defense in bear country is still your brain, through your knowledge and understanding of bear behavior!

REACTIVE DEFENSIVE SHOOTING

- Defensive shooting techniques are used when defending ones life during a sudden aggressive attack by a bear.
- The primary objective of Reactive Defensive Shooting is to first stop, then kill the charging or attacking bear.
- Getting on target, shooting quickly and accurately, and having adequate stopping power are all of paramount importance.

CENTER OF MASS CONCEPT

- Because a charging bear is moving at great speed (approximately 45 ft./sec.), is bounding up and down as it runs, and must be stopped within just a few seconds or less, there is no precise stationary place on the bear to aim, so you should use the Center of Mass Concept for aiming.
- Practical accuracy is what you are striving for, aim for the large imaginary elliptical circle centered on the bears nose, that encompasses the head and shoulders of the bear as it comes at you (Figure 1 - circle).
- Bullets that hit the Central Nervous System (CNS) are the most effective in stopping a bear attack (Figure 1 – CNS triangle).

Choosing to carry a gun comes with the responsibility of knowing how to use it effectively and safely. Practice with moving targets and develop instinctual comfort loading and firing the gun so that under situations of duress (bear attack), you'll be able to do what you have to do.



Figure 1. Center of mass aiming point on a charging grizzly bear.

APPENDIX 15

USE OF FIREARMS TO EUTHANIZE FREE ROAMING BEARS TRAINING AID

Park staff may occasionally be required to euthanize free roaming bears. Whenever possible, bears should be captured in culvert traps or free-darted and euthanized chemically or with a penetrating captive bolt. On rare occasions firearms may be required to lethally remove a problem bear or to euthanize an injured bear in the field. Shooting a free-roaming bear that is not behaving aggressively is significantly different than shooting an aggressive charging bear. When shooting a charging bear, Reactive Defensive Shooting Techniques are used, and the Center of Mass is your target area. When shooting a free-roaming bear at long range that is not charging, the heart and lungs is the preferred target area.

Bears must be hit very hard and in the right place to immobilize and/or kill them. Only high-powered, .30 caliber or larger rifles (.30-06, .308, .375 H & H magnum, .444 Marlin, .450 Marlin, .45-70 Government) should be used for euthanasia of free roaming bears. For long distance euthanasia, you should generally avoid brain and spine shots as there is very little margin for error. If you only wound the bear there is a much greater chance that it will charge and possibly attack you. Wounded bears also pose a significant safety risk to other people in the area. The preferred shot for long distance euthanasia is at the heart/lung/shoulder triad of a bear standing with a broadside, 90 degree orientation. On a broadside presentation, follow the centerline of the foreleg a bit less than a third of the way up the body. An accurate shot in this area will hit the heart, lungs, or shoulder. Frontal shots are difficult because a bear's heart is very low in the chest and almost perfectly centered between the forelegs, providing a very small target. For safety reasons, when euthanizing healthy free-ranging bears the shooter should probably not be closer than 50 yards unless they are in a secure location.

To reduce the risks of shooting and wounding a bear, shots should be taken at the closest distance you can safely shoot from. In most cases where an injured bear needs to be euthanized with a firearm, you will likely be able to approach within 100 yards to get a good accurate shot. In incidents where a healthy bear that has been involved in bear-human conflicts needs to be euthanized with a firearm, bait or spot-and-stalk techniques may be needed to get close enough to ensure a good, accurate shot. Although a bear shot through the lungs will eventually die, it can also cover a lot of ground very quickly and at a high rate of speed, keep shooting until the bear no longer moves.

When approaching an injured or seriously wounded bear or a bear that you have just shot, walk up to it from behind or approach its back whenever possible. Place an additional shot through the back of the head or through the spine angled toward the chest cavity.

EUTHANIZING BEARS WITH FIREARMS:

- Bears are large durable animals with dense muscles and extremely heavy bones.
- Try to get into position for a 90 degree broadside shot whenever possible.

- Whenever possible use multiple shooters firing simultaneously.
- To anchor a bear, smash the shoulder bone with a good bullet. A brain shot is not recommended unless the bear is charging and must be stopped instantly.
- The heart, lung, shoulder triad is your largest target area.
- For safety, keep shooting until the bear no longer moves.

ALTERNATIVE SHOT PLACEMENT

If a broadside shot is not an option, and circumstances dictate that you must attempt a shot, the following options for shot placement are viable alternatives to a broadside shot:

- Frontal Shot: aim for the head, point of shoulder, or center of chest.
- Rear Shot: aim for the tail, this shot is deadly if the spine is hit or the bullet travels through the chest cavity and hits vital organs.
- Quartering Away: aim for the rear ribs on a trajectory so the bullet travels through the chest cavity and lodges in the opposite shoulder.
- Quartering Towards: aim for the point of the shoulder/base of neck area to break down the bear and penetrate the chest cavity.

APPENDIX 16

CHOOSING THE PROPER FIREARM FOR DEFENSE AGAINST LARGE PREDATORS – TRAINING AID

In carrying out day-to-day Bear Management duties, we sometimes need to carry a weapon or deterrent for bear related defensive purposes. When choosing a defensive weapon it is imperative that you understand the advantages and effectiveness as well as the limitations of the weapon or deterrent you choose to carry. The best defensive weapon or deterrent for each individual depends on their ability to shoot the weapon fast and accurately. To a large degree, speed and precision are influenced by a person's ability to tolerate recoil. Bullet construction and ballistic performance effect penetration and knock down power. With firearms, choose the weapon with the highest muzzle energy that you can still handle the recoil so that you can shoot both fast and accurately. Remember, your best defense in bear country is still your brain, through your knowledge and understanding of bear behavior!

Advantages, Effectiveness, and Limitations of Defensive Weapons Issued To Bear Management Office Personnel:

- **BEAR SPRAY:** *Advantages* – small, light-weight, easy to carry, easy to use, can be deployed rapidly and accurately, precise aiming not necessary, can be fired from hip while in holster, no recoil, multiple shots, 92% effective in stopping aggressive behavior in grizzly bears, not lethal to bear, accidental human exposure unpleasant but not lethal. *Limitations* – short range, cannot be reloaded, affected by wind, precipitation (heavy rain & snow), and cold temperatures, cans may explode at high temperatures, should not be stored in vehicles.
- **.45-70 LEVER ACTION:** *Advantages* – easy to use, can be deployed rapidly with precision, highly accurate at short range, moderate recoil, multiple shots, can be reloaded, good penetration and stopping power at short range. *Limitations* – long & heavy, hard to pack, lethal to bear, accidental human exposure can result in serious injury or death.
- **.30-06 BOLT ACTION:** *Advantages* - easy to use, highly accurate, moderate recoil, multiple shots, can be reloaded, good penetration and stopping power at short or long range. *Limitations* – long & heavy, hard to pack, slower than .45-70, shotgun, and .44 mag., lethal to bear, accidental human exposure can result in serious injury or death.
- **12 GAUGE SHOTGUN:** *Advantages* – easy to use, can be deployed rapidly, multiple shots, can be reloaded, better stopping power than .44 mag. *Limitations* – long and heavy, hard to pack, heavy recoil, poor penetration, not as accurate as .45-70 or .30-06, stopping power is inferior to that of .45-70 or .30-06, lethal to bear, accidental human exposure can result in serious injury or death.
- **.44 MAGNUM HANDGUN:** *Advantages* – small, moderate weight, easy to pack, easy to use, can be deployed rapidly, multiple shots, can be reloaded. *Limitations* – moderately heavy, heavy recoil results in barrel rise, difficult to shoot accurately,

lethal to bear, accidental human exposure can result in serious injury or death. Best used as a backup firearm.

Weapon or Deterrent	Ease of Carry	Ability to Fire Quickly	Recoil	Accuracy	Muzzle Energy (ft./lbs.) ^a
Bear Spray	Small/Light	Fast	None	Good	N/A ^b
.45-70 Lever Action	Long/Heavy	Fast	Moderate	Good	3,597
.30-06 Bolt Action	Long/Heavy	Moderate	Moderate	Good	2,498
12 gauge Shotgun	Long/Heavy	Fast	Heavy	Moderate	1,902
.44 Magnum Revolver	Small/Moderate Weight	Fast	Heavy	Moderate	1,260

^aInfluences penetration and knock down power.

^b Not applicable but 94% effective at stopping and turning aggressive bears.

Safety Tip: Bear spray is a light weight, easy to use, accurate, and highly effective (92% successful) bear deterrent. The use of a firearm to deter a dangerous bear should always be considered a last resort.

APPENDIX 17

CHOOSING THE PROPER BULLET FOR DEFENSE AGAINST LARGE PREDATORS – TRAINING AID

In carrying out day-to-day Bear Management duties, we sometimes need to carry a weapon for bear related defensive purposes. When choosing a bullet for your defensive weapon, it is imperative that you understand the advantages, effectiveness, and limitations of the bullet you choose. Most incidents where firearms are used to stop charging bears occur at distances of only 10 – 15 yards or less. This makes aerodynamic bullet shape and ballistic coefficients largely irrelevant. Bullet shape is relevant only to the degree that it influences or enhances penetration. Choose an extremely heavy bullet with a broad frontal flat (called the meplat). Heavier bullets penetrate deeper than lighter bullets. In addition, heavier bullets travel slower than lighter bullets and therefore experience less impact stress when hitting the intended target. This makes heavier bullets much less likely to fracture upon hitting bears which are large, heavy, thick boned, and muscular. When the target is close and extremely tough (as in bears), reliable performance is better achieved by increasing bullet weight and decreasing velocity. Selecting a bullet with a broad flat meplat is also critical. Broad meplated bullets penetrate deeper than small meplated bullets. When the back half of the bullet carries significantly more weight than the front half, the back half tends to over-take the front of the bullet upon impact, causing the bullet to turn sideways which reduces penetration. One of the most important components of a defensive bear cartridge is bullet construction. Choose a tough, well-constructed, heavy-for-caliber bullet designed for penetration that has a high sectional density and high muzzle energy. Bullets with limited expansion, steel jacketed, solid brass, naval bronze, or hard cast alloy are best. Avoid hollow point bullets for defense against bears as they generally have insufficient penetration. Remember, your best defense in bear country is still your brain, through your knowledge and understanding of bear behavior!

TERMINAL BALLISTICS

The ability to stop an attack by a bear is dependent on the degree of bullet penetration, destruction of vital organs and skeletal structures, and the size, health, and mind set of the bear. Bullets that hit the Central Nervous System (CNS) are the most effective at stopping a charging bear. Large calibers with strong, heavily constructed bullets give the best results. High velocity/small mass bullets may break apart upon impact, especially at short ranges, and may not attain sufficient penetration.

SECTIONAL DENSITY

Sectional density is the ratio of bullet weight (mass) to its cross-sectional area. To calculate the Sectional Density of a bullet, divide the bullet weight in lbs. by the area of the bullet base in inches². The greater the sectional density of a bullet, the lesser the rate of velocity loss from drag and the deeper is its penetration of a target. As a bullet expands, it loses sectional density.

IDEAL BULLET PERFORMANCE CHARACTERISTICS

- *Tough bullet construction* – Choose bullets that hold together and penetrate hide, muscle, cartilage, and bone.
- *High Weight Retention* - Choose bullets that have high weight retention that don't break apart; bullets with 90 – 100% weight retention are best for stopping charging bears. Choose bullets designed for limited expansion that are steel jacketed or made of hard cast lead alloy, solid brass, or naval bronze.

- *Deep Penetration* - Choose bullets designed for deep penetration. Heavy bullets with broad frontal flats will actually penetrate deeper than bullets with small aerodynamic frontal flats.
- *High Kinetic Energy Transfer* - Choose bullets with high kinetic energy transfer to the target.
- *Wound Channel* - Choose bullets that will leave a large wound channel without expanding too rapidly and that won't break apart, or loose penetration.

If you do not understand the power of the firearm and ammunition necessary to kill a bear, you may only wound or injure it, which is not only inhumane but also potentially more dangerous to you and others in the area.

Yellowstone National Park

Bear Hazing & Aversive Conditioning Plan



Bear Management Office
Wildlife and Aquatic Resources Branch
Yellowstone Center for Resources
March 1, 2017

This Yellowstone National Park "Bear Hazing and Aversive Conditioning Plan" has been reviewed by the Director of the Yellowstone Center for Resources, the Chief of the Wildlife and Aquatic Resources Branch, the Chief Ranger, Deputy Chief Ranger, and Bear Management Biologist, and is approved by the Park Superintendent. This plan is intended for Yellowstone National Park Resource and Visitor Protection staff and Yellowstone Center for Resources Bear Management, Wildlife, and Resource Management staff that haze bears as part of their official duties. This "Bear Hazing and Aversive Conditioning Plan" goes into effect beginning in 2017 and will be reviewed at least every 5 years thereafter, and revised as needed.

Written/Recommended By:



Kerry Gunther, Bear Management Biologist

3 / 1 / 17

Date

Reviewed/Recommended By:



PJ White, Chief, Wildlife and Aquatic Resources Branch

3 / 7 / 17

Date



Jennifer Carpenter, Director - Yellowstone Center for Resources

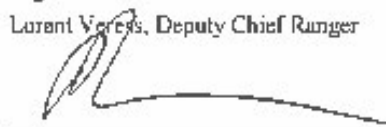
3 / 7 / 17



Laurent Veres, Deputy Chief Ranger

3 / 16 / 2017

Date



Pete Webster, Chief Ranger

3 / 25 / 17

Date

Approved By:



Dan Wenk, Superintendent

4 / 10 / 17

Date

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INTRODUCTION

Yellowstone bears spend up to 6 months hibernating in winter dens without eating. Because of this long period of fasting and the need to accumulate large fat reserves for hibernation, bears are a very food motivated species for the 3-4 months prior to den entrance. This food motivation combined with their intelligence, adaptability, and omnivore generalist lifestyle, allows bears to quickly learn to exploit new food resources, especially high-calorie human foods. However, bears that become conditioned to human foods can be a significant threat to park visitors and their property, and so are not tolerated in Yellowstone National Park (YNP). Bears' behavioral flexibility combined with their strong food motivation are also influencing factors in their propensity to become habituated (tolerant) to human presence in exchange for access to habitats containing high quality natural foods. Once habituated to people, bears require greater management attention to prevent human-bear conflicts from occurring. Hazing and aversive conditioning are non-lethal tools sometimes used by bear managers to address the human safety concerns associated with food conditioned and/or habituated bears that use habitats in proximity to areas of concentrated visitor use.

Aversive conditioning is a learning process in which deterrents (pain, noise, threat, or other unpleasant stimuli) are consistently administered to bears with the intent to permanently eliminate behavior deemed undesirable by managers (Hopkins et al. 2010). The practice of hazing employs the same operational tools and tactics as aversive conditioning, but recognizes that efforts to work with a particular individual bear cannot always be constant or consistent enough to result in successful long-term behavior modification (the goal of aversive conditioning), but can address immediate short term safety considerations. Therefore, for the purposes of this plan, aversive conditioning is defined as the use of pain, noise, threat, or other unpleasant stimuli with the intent of long-term behavior modification; whereas hazing is the opportunistic use of these same conditioning deterrents to address immediate, short-term concerns for the safety of visitors and their property. For example, a bear that has learned to approach visitors' vehicles along roads for human food handouts is a prime candidate for aversive conditioning in an attempt to permanently change its behavior, as a last resort prior to the decision to capture and lethally remove the bear from the ecosystem. Whereas opportunistic hazing to get a bear to leave an area of concentrated visitor use is appropriate to address the immediate human safety concerns of a bear that has purposefully or inadvertently entered a park development. The cumulative effects of hazing may alter a bear's behavior for long periods of time, or possibly permanently, if administered frequently and consistently enough. In these cases, the application of hazing techniques has produced the long-lasting effects of aversive conditioning. It is important to understand that hazing and aversive conditioning are not solutions to human-bear problems, they are simply additional tools, used secondarily to other management actions such as visitor education, visitor and traffic management, enforcement of food and garbage storage regulations, and enforcement of bear approach distance regulations. Efforts to teach park visitors correct behaviors to prevent conflicts from occurring, including correct methods of storing food and garbage as well as proper behavior around bears and bear viewing etiquette should always be considered the first option in addressing human-bear conflicts. Social surveys indicate that aversive conditioning has stronger support among park visitors than lethal removal of bears (Richardson et al. 2015). However, long-term experience indicates that efforts to

induce permanent behavior modifications in bears are very costly in terms of staff time and budgets, and generally have a low success rate.

Throughout this plan, the term hazing is used recognizing that the intent in most operations conducted under this plan are to address immediate concerns for the safety of visitors and their property. However, a desired secondary objective of many hazing operations is long term behavior modification. In addition, in some specific situations, the primary intent of negative conditioning will be to induce long term behavior modifications as a last resort prior to management removal of bears from the wild.

PURPOSE

The goal of Yellowstone National Park's (YNP) bear management program is to restore, protect, and perpetuate the natural abundance, distribution, movements, genetics, food habits, habitat use, behavior, and ecological processes of grizzly and black bears as free from human influences as possible. However, park management recognizes that in an area that receives over four million visits annually, primarily during the active (non-denning) bear season, some human influences on bear behavior are inevitable. The objectives of the Park's bear management program are accomplished primarily through proactive means, including visitor and employee education and bear-resistant garbage management and food storage. However, when bears enter developments or other areas of concentrated visitor use, damage property, or become conditioned to human foods, measures such as hazing or aversive conditioning may be implemented, both for visitor safety and bear safety (to prevent the need to capture and lethally remove bears). The purpose of this plan is to ensure that park staff implement hazing and aversive conditioning protocols in the safest, most effective, and coordinated manner possible.

SCOPE

Development and oversight of the Bear Hazing and Aversive Conditioning Plan lie within the Yellowstone Center for Resources Bear Management Office and the Resource and Visitor Protection Division. Certified Range Masters and the wild-land Fire Management Officer provide advice and oversight on human and fire safety concerns involving firearms and pyrotechnics. This plan applies to all personnel that are involved with the hazing or aversive conditioning of grizzly and black bears in the park. It is critical that all methods be employed correctly, as improper use will reduce the effectiveness and could lead to human or bear injury or death, or result in property damage, visitor complaints, and/or legal action. Only hazing methods described in this plan may be used on bears in YNP. Under limited conditions, methods detailed in this plan may be applied to rectify situations involving wildlife species other than bears that do not have an approved species-specific hazing plan. All wolf hazing operations must follow the plan for "Management of Habituated Wolves in Yellowstone National Park."

LEGAL AUTHORITY

The Lacey Act of 1894 (U.S., Statutes at large, vol. 28, p. 73) grants significant discretionary authority to the Secretary of the Interior for the management of animals in Yellowstone National Park. In addition, the Organic Act grants authority to the National Park Service (NPS) for the management of native animal populations including grizzly bears and black bears within park boundaries. Under the authority of both the Lacey Act and Organic Act, the NPS has developed guidelines for the use of aversive conditioning as a management option for bears (Natural Resources Management Guidelines, NPS-77). Because grizzly bears are currently listed as a Threatened Species under the authority of the Endangered Species Act, any use of hazing or aversive conditioning techniques on grizzly bears is done under sub-permit from the U.S. Fish and Wildlife Service (USFWS). Personnel from YNP are authorized to harass grizzly bears while conducting aversive conditioning activities with rubber bullets, specially trained dogs, noise, and sprays under conditions as described in Section (i) C and D of the grizzly bear 4(d) rule, 50 CFR 17.40(b). In addition, in regards to the Threatened Species status of grizzly bears, hazing and aversive conditioning are considered “Take” by the USFWS. Section (i) F of the grizzly bear 4(d) rule, 50 CFR 17.40(b) states “The regulations of the National Park Service shall govern all taking of grizzly bears in National Parks”. This “Bear Hazing and Aversive Conditioning Plan”, as signed by the superintendent, contains the guidelines and protocols established for conducting hazing and aversive conditioning operations on grizzly bears and American black bears in YNP.

OBJECTIVES

Under this plan, the objectives for grizzly bear and black bear hazing and aversive conditioning operations in YNP are to:

1. Move bears out of developed areas intended for visitor or administrative use any time it is safe to do so.
2. Teach bears to avoid park developments, administrative housing areas, front-country campgrounds, occupied backcountry campsites, and other areas of concentrated human activities.
3. Temporarily displace bears from wildlife carcasses that need to be moved or removed from developed areas, campgrounds, roadsides, boardwalk trails, backcountry trails, backcountry campsites, or other areas due to human safety concerns.
4. Prevent, eliminate, or dissuade bears from the expression of dangerous, potentially dangerous, or destructive behaviors towards humans and their property.
5. Allow bears to forage for natural foods and engage in natural behaviors in all wilderness and backcountry habitats in the park.
6. Allow bears to forage for natural foods and engage in natural behaviors in undeveloped habitats adjacent to roads and boardwalk trails when it is safe to do so.
7. Allow visitors to view and photograph bears in undeveloped habitats adjacent to roads and boardwalk trails when it is safe to do so.
8. Conduct hazing operations in a manner so that bears do not develop a rigid “fear reaction” to people, but rather understand that they have options to avoid areas of concentrated human use.

HISTORY and PHILOSOPHY

Conditioning, either positive or negative, can result in an animal associating a reward or punishment with its behavioral response to a stimulus (Gillin et al. 1994, Honeyman 2008, Mazur 2010). Aversive conditioning involves pairing a negative stimulus such as pain, loud noise, or threat with bear behavior managers have deemed undesirable (Katmai 2001). This learning technique can be applied in an attempt to prevent or eliminate the expression of dangerous, potentially dangerous, or destructive behaviors by bears towards humans and their property (Katmai 2001). Properly delivered, aversive conditioning can teach a bear to associate a punishing experience with its presence in a residential area or campground, the act of obtaining human food, or the process of behaving aggressively or too boldly toward people. Aversive conditioning should only be conducted when the bear is involved in one of these activities. Otherwise, the bear may associate the aversive conditioning stimulus with whatever other behavior it is engaged in at that moment. However, even if delivered while the bear is in the act, long-term conditioning cannot be assured. A bear may simply be displaced temporarily (the goal of hazing), or it may learn the wrong thing, such as to abandon the behavior only when it detects the presence of a uniformed Park employee with a shotgun (loaded with hazing rounds).

For punishment to be most effective, it should be instant and severe (Davey 1981, Homstol 2011). A progression from mild to severe conditioning, may promote habituation of the bear to the hazing stimuli. However, when hazing in areas frequented by large numbers of people, such as developments, campgrounds, or along roads, light hazing is often necessitated due to concerns for human safety. Therefore, hazing should be conducted aggressively (bean bags, rubber bullets, rubber batons) when safe to do so, but soft hazing (clapping, yelling, lights, sirens, vehicle pressure, human pressure) should be used when dictated by circumstances (areas with large numbers of unmanaged visitors). Once bears are pushed to the edges of developments through soft hazing, then aggressive hazing can be applied until the bear has left the hazing zone perimeter. Regardless of whether using aggressive or soft hazing, it should occur as soon as safely possible after the bears' undesirable behavior is exhibited, to increase the probability that the animal will associate the hazing stimulus with the undesirable behavior. It may be better to attempt to displace a bear as soon as it begins entering a campground or development with soft hazing (yelling, clapping, vehicle lights, horns, sirens, vehicle pressure, human pressure), than to take the time to retrieve the hazing equipment required for firing contact rounds. Bears may learn to recognize uniformed park staff, NPS vehicles, hazing behavior by humans, the presence of shotguns, or even individual people. Bears also readily learn the noise associated with their hazing experiences. For example, bears that have been previously hazed with 12 gauge contact rounds will often flee at the sound created by working the action on a pump shotgun.

In some situations teaching wariness of humans may be the only option available to prevent a bear from developing a dangerous behavior. For example, it is very difficult to catch a bear in the act of crushing a tent in a backcountry campsite or climbing on cars along a road. If a bear is beginning a pattern of such undesirable behavior and cannot be caught at it, the next reasonable option is to haze the bear for its proximity to humans, campsites, campgrounds, or cars. Similarly, a bear that is repeatedly observed boldly approaching and/or following humans within several meters should be hazed whenever it closely approaches humans.

Any aggressive act toward a bear can escalate into the need to kill the bear if the bear is injured or responds to hazing aggressively, endangering human life. Human safety, the potential benefits of hazing the bear, the consequences of not hazing, and the danger to the bear should be evaluated in each incident. Whenever possible, qualified YNP personnel should be prepared to haze when responding to bears exhibiting undesirable behavior, but they should not execute the procedure unless the safety of both humans and the bear are reasonably assured. Remember that you never have to haze a bear, although you may have to kill one if it reacts aggressively to hazing or you injure it with hazing rounds. Park staff should never feel obligated to haze a bear when safety is not assured.

It is important that aversive conditioning efforts have clearly defined goals and post-implementation evaluation. Formal aversive conditioning of bears has been attempted in YNP at least since 1902, using different techniques with mixed results. Techniques that were effective were maintained, while those that were ineffective, not humane, or became too costly, dangerous, or impractical were discarded. Retraining highly intelligent, very adaptable, extremely food motivated species such as bears is challenging and time-consuming and in many cases, may be impossible. The limited long-term success of aversive conditioning in YNP to date, has been accomplished when food attractants (natural or anthropogenic) have been successfully eliminated or made bear-resistant, and hazing has been implemented repeatedly and consistently over small geographic areas with distinct boundaries that are easily recognizable to bears.

HAZING TERMINOLOGY

Aversive Conditioning: A learning process in which deterrents (pain, noise, threat, or other unpleasant stimuli) are consistently administered to bears in an effort to permanently eliminate behavior deemed undesirable by park managers (Hopkins et al. 2010). Capturing, radio collaring, and monitoring the target bear are essential to effectively implement aversive conditioning on a consistent basis. Major constraints of aversive conditioning are the funding and staff time needed to consistently implement aversive conditioning during every teachable moment (catching bears in the act). Even the best-coordinated efforts to retrain bears could be negated by just one instance where the bear is able to perform its undesirable behavior without a negative consequence. It is especially difficult to successfully change bear behavior because bears are such an intelligent and highly food motivated species. Aversive conditioning is most effective on naïve bears, especially if you apply aversive conditioning the first time they engage in behavior deemed inappropriate by managers.

Hazing: The practice of hazing employs the same operational tactics and tools as aversive conditioning, but recognizes that the efforts to work with a particular bear cannot be constant or consistent enough to result in successful long-term behavior modification (the goal of aversive conditioning). Therefore, hazing is a technique where deterrents (pain, noise, threat, or unpleasant stimuli) are administered to bears opportunistically to immediately, but temporarily, modify the bears' undesirable behavior on a short term basis (Hopkins et al. 2010). Hazing is commonly used to get bears to leave developments, campgrounds, or other areas of concentrated human activities, due to human and/or bear safety concerns. Capturing and radio collaring the

target bear is not necessary for implementing hazing. The cumulative effects of hazing may alter a bear's behavior for long periods of time, or possibly permanently, if administered frequently and consistently enough. In these cases, the application of hazing techniques has produced the long-lasting effects of aversive conditioning. Hazing is most effective when applied to naïve bears, especially if you haze them the first time they engage in behavior deemed inappropriate by managers.

Hard Hazing: Also referred to as *heavy hazing* or *aggressive hazing* involves the use of hard hitting contact rounds (bean bags, rubber bullets, rubber batons) to haze bears. Hard or aggressive hazing is the tool of choice when the bear has been caught in the act of undesirable behavior, the bear has a clear escape path that is known to be free of park visitors, all nearby visitors can be adequately controlled, and it is safe to conduct the hazing operation. Note: the paintball gun fired rounds (Deter-It Ultra-Mag & Powder-ball) approved for hazing in YNP have very little impact energy, especially considering the thick fat, hide, and fur of bears and therefore are considered to be an intermediate hazing tool falling somewhere in between soft and hard hazing techniques.

Soft Hazing: Also referred to as light hazing, involves the use of clapping, yelling, vehicle pressure, human pressure, lights, sirens, horns or other noise to haze bears. Light hazing is the tool of choice when large numbers of unmanaged park visitors are nearby and it is uncertain if the bear has a clear escape path free of park visitors.

Food Conditioned Bear: A bear that has learned, through prior food reward, to associate people, human activities, human-use areas, or food or garbage storage receptacles as sources of anthropogenic foods (Hopkins et al. 2010). Once a bear is food conditioned, it has learned a positive association between humans and food, and human safety becomes a concern (Homstol 2011). Most wildlife biologists consider human food conditioning a negative, potentially dangerous behavior in bears. Therefore, as a general rule, food conditioned bears are not tolerated in YNP. Bears that become conditioned to human foods are captured and removed (killed or sent to zoos).

Habituated Bear: A bear that shows little to no overt reaction to people as a result of being repeatedly exposed to human stimuli without substantial consequence (Hopkins et al. 2010). Wildlife biologists do not consider habituation to be either good or bad, it is simply an adaptable behavior that is inevitable when bears and other wildlife are exposed to frequent benign encounters with large numbers of people. In national parks with high visitation, some habituation of bears to people is inevitable and may be necessary if bears are to survive in park units increasingly dominated by humans (Gunther et al. 2015).

Human-Bear Conflict: Incidents where bears damage property, obtain anthropogenic foods, injure people, or kill people.

Conflict Bear: Any bear with a history of being involved in multiple incidents of conflicts with humans such as damage to property or attempting to obtain human foods, garbage, or other anthropogenic attractants. Bears feeding on natural foods along backcountry trails, boardwalk trails, and roadsides are not considered conflict bears. Under this plan, traffic congestion (bear-

jams) caused by habituated bears foraging for natural foods along roadside habitats are considered people/traffic management problems and should be managed accordingly.

Developed Area: All areas within the outer edge of the human impact footprint of visitor and administrative activity complexes including campgrounds, hotels, lodges, cabins, restaurants, stores, dormitories, employee housing areas, administrative buildings, or other buildings and facilities used by park visitors, NPS, concessionaire, or contractor staff.

Road Corridor: All paved or gravel roads open to motorized visitor travel during all or part of the year. The maintained roadside pull-outs, road shoulder, and drainage ditch adjacent to park roads are considered part of the road corridor. Natural habitat adjacent to roads, road shoulders, road drainage ditches, and roadside pull-outs is not considered part of the road corridor.

Boardwalk Trail: Boardwalk trails are short front-country trails accessed from park roads and/or developments that contain interpretive signs providing visitors with information about geyser basins or other natural features. Boardwalk trails are constructed to provide a stable walking surface with gentle grades or steps to get up and down hills, allowing use by visitors of a wide-range of ages, physical abilities, and hiking experience. YNP contains approximately 15 miles of boardwalk trails. Stock animals (horses, mules, and llamas), bicycles, and overnight camping are not allowed on boardwalk trails. Boardwalk trails receive very high levels of visitor use during the peak season of visitation (mid-May through mid-October), but relatively little use in early spring, late fall, and winter.

Backcountry: All areas of YNP outside of developed areas, road corridors (paved or gravel), and boardwalk trails. Backcountry areas include, but are not limited to, all areas proposed for wilderness designation.

Management Zones: For bear hazing operation purposes, YNP is divided into four broad-scale management zones, each with different levels or prescriptions of appropriate hazing response. The four management zones include: 1) developed areas, 2) road corridors, 3) boardwalk trails, and 4) backcountry areas (including on-trail and off-trail areas) as defined above.

Developed Area Hazing Perimeter (No Bear Zone): Under this hazing plan, park developments are managed for people and bears are actively excluded. For hazing operations, an approximate 100 meter buffer (no bear zone) is established around the perimeter of the footprint of all park developed areas. Each District Ranger should establish a Developed Area Hazing Perimeter of approximately 100 yards around the outside edge of the development footprints within their respective districts. Whenever safe to do so, bears should be hazed until they leave the development and the 100 meter no bear zone (developed area hazing perimeter) surrounding the development. In some cases, use of readily distinguishable natural (e.g., vegetation cover, forest/non-forest edge) or anthropogenic (e.g. edge of pavement) features that are easily recognizable to park staff and bears may necessitate a perimeter larger or smaller than 100 meters. The exact distance of the hazing perimeter is not as important as having a boundary that can be easily recognized by bears and consistently applied by park staff. In most situations, an area outside of the development that provides the bear with good horizontal cover (can no longer see the bear) makes the best boundary. Whether using natural or man-made boundaries, the

hazing perimeter should be predetermined, easily distinguishable, and consistently applied by all staff. District Rangers should work with Bear Management Office staff to establish, digitize, and produce maps of the Developed Area Hazing Perimeter for each developed area in the park. These maps should be posted in Ranger Station offices, placed in patrol vehicles, or otherwise provided to all staff approved as hazing operations leaders in the District. The maps help ensure that all staff are providing bears with a consistent hazing message. By delivering a consistent message, bears are more likely to learn the intended message and less likely to react aggressively to hazing efforts. Developed Area Hazing Perimeters may periodically be changed based on new information, data, or hazing experiences. However, local area bears will need to go through a new learning period when hazing boundaries are changed.

HAZING TOOLS and TECHNIQUES

Hazing Rounds and Firearms

Requests for hazing ammunition should be given to the local District Ranger and that person will request them from the Bear Management Office. This will allow tracking of use, effectiveness, and ensure everyone is using the proper type of hazing rounds. To minimize the risk of accidentally firing lethal rounds during hazing operations, 12-gauge cracker shells and contact hazing rounds should only be fired from shotguns designated as hazing guns. All dedicated hazing guns should have orange stocks. The orange stocks also designate to the public that the firearm is used for less-than-lethal rounds. **Lesson Learned:** During a hazing operation in YNP in the 1990's, a lethal slug was accidentally fired from a shotgun containing both lethal rounds and cracker shells. Fortunately, the slug hit the ground and no person or bear was hurt in the incident. Other agencies have accidentally killed bears by unintentionally hitting them with lethal rounds during hazing operations. In all of these incidents lethal rounds were mixed with hazing rounds in the magazine with the intention only to use the live rounds as lethal backup if needed. These incidents underscore the importance of using separate firearms for lethal back-up cover guns and hazing guns. 12-gauge lethal slugs should never be mixed with hazing rounds in the shotgun magazine.

Many different types of wildlife hazing rounds are commercially available. However, when engaged in complex hazing operations, park staff have many strategic as well as safety considerations for both visitors and bears to concentrate on. Therefore, to reduce the complexity of choices in hazing rounds, the number of different types of rounds approved for use in YNP have been kept to minimum. The approved rounds were chosen to cover the range of distances and contact impacts needed to successfully implement hazing operations. Minimizing the types of different rounds also simplifies purchasing, inventory, and training requirements. Approved hazing rounds may be periodically changed based on experience and effectiveness, or new research or technology.

Approved Standard Hazing Tools and Techniques

Vehicle Threat Pressure.--Vehicles can be an effective hazing tool. By driving vehicles at bears (without hitting them), it can apply enough threat pressure to get bears to leave paved roads, roadside pull-outs, road shoulders, adjacent roadside drainage ditches, park developments, or other areas of concentrated human activity with road access. The speed of the vehicle and the distance to which the bear is approached by the hazing vehicle before stopping or turning, can be modified to apply either light (slow and distant) or more aggressive (fast and close) pressure. The effectiveness of vehicle pressure can be enhanced by using it in combination with auditory deterrents such as sirens, horns, or the public address (P.A.) system. Caution must be taken that no contact is made between the vehicle and the bear(s). It is critical that road conditions and other vehicle and visitor safety concerns be considered prior to applying vehicle threat pressure to bears. For visitor and driver safety, overhead lights should always be utilized when hazing bears with vehicles. Unless there is an immediate threat to human safety, this method should only be used on established roads and parking lots. This method should not be used on icy or wet slippery surfaces. As with any hazing incidents, ensure the bear has a safe and desired escape route and all visitors are in a safe location prior to initiating the hazing operation. The goal of this hazing method is to move the bear off of the paved road, roadside pull-out, road shoulder, drainage ditch, development, or other area of concentrated human use accessible from roads. As soon as the bear(s) is clear of the prescribed hazing zone, pressure and noise should be discontinued.

Non-Projectile Auditory Deterrents.--There are 7 standard non-projectile auditory deterrents used in YNP. These include yelling, clapping, banging pots or other objects, air horns, vehicle horns, vehicle sirens, and P.A. systems (vehicle-based or hand-held). These deterrents are often sufficient to move bears short distances; however some bears quickly habituate to these sounds if used repeatedly without the use of pain-inducing contact rounds. Although the efficacy of these methods may deteriorate over time, they are especially useful for applying light pressure to safely move bears from areas with large numbers of people nearby.

Yelling: Yelling can be an effective method to move bears out of developments and off of roads or carcasses. Most bears will eventually habituate to yelling if used repeatedly without the use of pain-inducing contact rounds. Be careful what you yell, the public is always listening and may be recording. Be professional, do not swear or joke around while hazing. By yelling something like, “get out of here bear,” not only will the bear associate the experience with humans, the public is also notified that a bear is in the area. If hazing must be done with many visitors nearby, ask them to yell as well. This makes them feel involved which gains more support for your decision to haze, and increases the effectiveness of yelling as a hazing tool.

Clapping & Banging Pots or Other Objects: Clapping or banging pots and pans or other objects by themselves or in combination with yelling can be an effective method of light hazing to move bears out of developments and off of the paved road. However, most bears will eventually habituate to these methods if used repeatedly without the use of pain-inducing contact rounds.

Air Horns: These highly portable devices emit very loud noises that can effectively displace bears that are not habituated to them. Bears will usually eventually habituate to loud noises relatively quickly when not used in conjunction with pain inducing contact rounds. Therefore air

horns should be used conservatively, or held in reserve for situations when circumstances dictate the need for light hazing pressure.

Vehicle Horns and Sirens: Vehicle horns and/or sirens can be an effective method to haze bears off of paved roads, road shoulders, roadside drainage ditches, or maintained roadside pull-outs. Horns and sirens can also be used to haze bears out of developments. Although bears will often habituate to horns and sirens after repeated use, these devices do give the bear a first notice that you want them to move. If they do not respond, contact hazing rounds may be needed to get the desired response from the bear.

Public Address (P.A) Systems: Both vehicle and hand-held public address systems can be effective at getting bears to move off of the paved road, road shoulder, roadside drainage ditch, or maintained roadside pull-outs. Often just scratching a finger nail across the P.A. mike with the volume turned up is all it takes to get a bear or other animal to move off of the paved road. P.A. systems are also effective at getting people to move (especially people on the far side of the bear) to safer locations. Yelling instructions to people at a distance can sometimes cause them to panic (due to sense of urgency caused by yelling) whereas talking calmly to distant people through a P.A. system may cause less panic among visitors.

Noise-making Projectiles.-- Cracker Shells fired from 12 gauge shotguns are the only noise-making projectile rounds approved for hazing operations in YNP. Use of 15- and 18-millimeter (mm) platform hazing rounds such as Bear Bangers and Screammers are not currently approved for use in YNP.

Cracker Shells: 12-gauge Cracker Shells are designed for long range hazing operations. Cracker shells propel an ignited firecracker-like projectile to a range of approximately 60 meters (200 feet) down range, with a detonation time of 2 seconds or less. Cracker Shells are light weight and their trajectory can be affected by wind. There is an initial small report at the muzzle, followed by a louder explosion, or bang when the firecracker detonates. Cracker Shells are designed to scare the bear away from the sound of the explosion. Therefore they should be placed so the bear runs toward a clear escape path. As with all hazing techniques, use of Cracker Shells should be accompanied by yelling so the bear associates the experience with human presence. Because the cracker shells travel up to 60 meters or more, a large area must be surveyed for hazards prior to use. Only use Cracker Shells outside of, or at the edge of and firing out of, campgrounds or developed areas. The use of cracker shells must comply with fire hazards guidelines explained in the Safety Section of this plan. When hazing with Cracker Shells, the round should be fired so it explodes between the shooter and the animal. If the round explodes beyond the animal, it may cause the animal to flee towards the shooter. Cracker Shells alone are often sufficient to move bears the first few times they are used on an individual bear, however some bears quickly habituate to Cracker Shell explosions if used repeatedly without the use of pain-inducing contact rounds. The Cracker Shells currently used (product #6600) in YNP are manufactured by Stoneco Inc. of Trinidad, Colorado, and distributed by Margo Supplies Ltd. Alberta, Canada. The current (2016) cost is approximately \$1.32 per shell. Because of the small size of the charge used to project the firecracker, the wadding may be left lodged in the barrel, therefore the barrel should be checked after each Cracker Shell is fired. **Cracker Shells are not designed to make contact with the bear and should never be aimed directly at any bear.** Hitting a bear (or person) with

a Cracker Shell could result in hide or body cavity penetration and injury or death of the bear. To reduce the likelihood of hitting a bear with a Cracker Shell, they should always be fired at a 45 – 60 degree angle from the ground. Cracker Shells should never be skipped off of the ground to reduce their flight distance, because the angle of ricochet cannot be accurately predicted. **Lesson Learned:** In 2004, a 183 pound adult male black bear was accidentally killed by a park ranger at the Slough Creek Campground when inadvertently struck at close distance by a cracker shell fired at a downward angle (to reduce flight distance) that ricocheted off of a branch. The cracker shell hit the bear, penetrated the skin, and detonated near the groin area just forward of the right leg. In Glacier National Park in 2009, a 160 pound adult male black bear was accidentally killed when a ranger attempted to reduce the flight distance of a Cracker Shell by skipping it off of the ground. The Cracker Shell skipped up into the groin area of the under belly, penetrating the hide then detonating and killing the bear. A subadult black bear was also killed in Denali National Park by a Cracker Shell fired at close range that penetrated the bear's body cavity and then detonated. Proper angle of fire and protocol for use of cracker shells are described in the YNP 12-Gauge Cracker Shells Training Curriculum and Protocol, Appendix 6, in the YNP Policy for Use of Firearms by Non-law Enforcement Resource Personnel (2016).

Contact Projectiles.-- Five different contact projectiles, each with different range limitations and impact energy are approved for use on bears in YNP. The four approved contact rounds include .68 caliber paintball gun fired Wildlife Deter-It Ultra-Mag Rounds, .68 caliber paintball gun fired Powder-balls, 12-gauge shotgun fired Bean Bag rounds (both aero sock and bean bag thumper rounds), 12-gauge shotgun fired Strike-Two Rubber Slugs, and when more impact energy is deemed necessary, SL-1 launcher fired 37-mm Rubber Batons. All 12 gauge contact rounds should only be fired from designated hazing firearms with orange stocks. Contact hazing rounds should not be fired from shotguns that are used to fire lethal rounds. Use of designated hazing guns significantly reduces the risks of accidentally firing lethal rounds during hazing operations. Use of shotguns with orange stocks also lets the public know that less-than-lethal rounds are being used on the bear. All 12 gauge hazing rounds are potentially dangerous, even lethal, to both bears and humans.

Deter-It Ultra-Mag Rounds: Deter-It Ultra-Mag rounds are fired from standard .68 caliber paintball rifles and pistols. The Deter-It Ultra-Mag round is a soft, thick-walled-gelatin capsule filled with a clear, biodegradable, non-toxic liquid designed to provide a humane method of animal deterrence. The round is designed to minimize breakage and maximize delivered kinetic energy for hazing effect. As with all hazing techniques, use of Deter-It Rounds should be accompanied by yelling so the bear associates the experience with human presence. If Deter-It rounds break on impact with a solid object, the liquid will not stain and will wash away. Deter-It rounds are designed to make contact with the bear being hazed. The large muscle mass of the hind quarter or shoulders is the target area for paintball gun Deter-It round deployment. Deter-It rounds have an operational range of 10 to 50 meters. Distances beyond 50 meters are not accurate and the round may not have enough kinetic energy to be effective at longer distances. Deter-It rounds deliver approximately 19 foot pounds of kinetic energy and have little to no risk of hide penetration. However they should not be aimed at the bears head to avoid risk of damage to the eyes. Deter-It Ultra-Mag rounds can melt at high temperatures (such as temperatures commonly experienced when stored inside vehicles in July and August), these rounds can also freeze at low temperatures. Deter-It rounds approved for use in YNP are distributed by Nelson

Technologies, Inc. of Kingsford, Michigan (800-236-9278). Current (2016) cost is approximately \$0.23 per round, (\$0.20 if purchased in bulk). Deter-It Ultra-Mag rounds are also available from Margo Supplies Ltd., Alberta, Canada.

Powder-ball .68 Caliber Rounds: Powder-ball rounds are fired from standard .68 caliber paintball rifles and pistols. Unlike the Deter-It Ultra-Mag rounds described above, Powder-ball rounds are impervious to water, freezing, or extreme heat (melting), and are therefore more stable for transportation and storage. In addition, Powder-balls have golf-ball dimpling to provide longer and more stable flight. Powder-balls fly further with more precision than paintball gun fired Deter-It Ultra-Mag rounds. The dry powder creates puffs of powder on impact with animals or the ground, allowing the shooter to steer target animals in the desired direction. The dry powder fill of Power-balls is non-toxic with no risk from accidental animal ingestion.

Aero-sock and Bean Bag Thumper Rounds: The 12-gauge Aero-Sock and Bean Bag Thumper rounds are flexible projectiles fired from 12-gauge shotguns that expand on impact to spread their force over a broad surface area. The Aero-Sock and Bean Bag Thumper rounds are intended to be non-lethal bear deterrents, delivering an unpleasant experience without hide penetration or injury. Field tests have proven these products effective at temporarily displacing bears from human use areas. As with all hazing techniques, use of Aero-sock and Bean Bag Thumper Rounds should be accompanied by yelling so the bear associates the experience with human presence. Aero-Sock and Bean Bag Thumper rounds are designed to make contact with the bear or other animal being hazed. As with other contact projectiles, to avoid wounding or killing a bear, bean bag rounds should only be fired at the large muscle mass of the hind quarter. Aero-Sock and Bean Bag Thumper rounds are reserved for close range situations and have an operational range of 10 to 25 meters. **For the safety of the animal being hazed, do not shoot at animals closer than 10 meters.** Aero Sock and Bean Bag Thumper rounds are not effective (due to low impact energy) nor accurate at distances beyond 25 meters. The wildlife-specific bean bags approved for use in YNP are distributed by Margo Supplies Ltd., Alberta, Canada. Approved products include #6614 – 12-gauge Aero-Sock and #6612 – 12-gauge Bean Bag Thumper. The Aero-Sock (#6614) is the preferred round as it provides better accuracy; however, the Bean Bag Thumper (#6612) is a viable alternative, especially at shorter distances (10-15 meters). The current (2016) cost for 12-gauge Aero-Sock rounds is \$9.50 per round. The current cost of 12-gauge Bean Bag Thumper rounds is \$9.75 per round. In addition to these wildlife-specific bean bag rounds, any law enforcement bean bag rounds that have been approved as less-than-lethal rounds for use on people are approved for use on grizzly bears and black bears in YNP.

Strike Two Rubber Slugs: The Strike-Two Rubber Slug is a soft rubber slug fired from a 12-gauge shotgun that is intended to be a non-lethal bear deterrent, delivering an unpleasant experience without hide penetration or injury. Field tests have proven these rounds effective at temporarily displacing bears from human use areas. As with all hazing techniques, use of Strike-Two Rubber Slugs should be accompanied by yelling so the bear associates the experience with human presence. Strike-Two Rubber Slugs are designed to make contact with the bear being hazed. Rubber slugs can injure or kill bears or humans if used improperly. To avoid injuring the face, eyes, and soft flank and stomach tissues the large muscle mass of the hind quarter is the target area for deployment on grizzly bears and black bears. Strike-Two Rubber Slugs have an

operational range of 30 to 60 meters and deliver approximately 89 foot-pounds of kinetic energy. **For the safety of the bear being hazed, do not shoot animals at distances closer than 30 meters.** Distances beyond 60 meters are not effective (due to low impact energy) or accurate. Rubber slugs are relatively light-weight and their trajectories can be affected by wind. The wildlife specific rubber slug approved for use on bears in YNP is the Strike-Two Rubber Slug distributed by Margo Supplies LTD., of Alberta, Canada. The approved round is product #6610, 12-gauge Strike-Two Rubber Slug. The current (2016) cost for each of these rounds is \$4.25 per round. If Strike-Two Rubber Slugs are not available, any soft rubber slug designed for less-than-lethal use on humans that has a muzzle energy of less than 90 foot pounds is approved for use on bears under this plan.

SL-1 Rubber Batons: Sage International Ltd's SL-1 single shot 37-mm projectile launcher is manufactured as a less lethal solution for law enforcement and riot control needs. The SL-1 is capable of delivering accurate blunt trauma-inducing batons, combination baton/chemical rounds, non-pyrotechnic barricade penetrating projectiles, as well as pyrotechnic chemical agents. The SL-1 Launcher and its family of ammunition are known as L3AOS (Less Lethal Launched Ammunition and Ordnance System). Under YNPs' Bear Hazing Plan the only approved weapon round is the KO1 Impact Baton (Standard Energy), a small, polyurethane baton with nylon rings designed to absorb shock without hide penetration. The SL-1 achieves exceptional accuracy by combining a rifled barrel, calibrated sighting, and a family of ammunition manufactured to quality standards which maximizes performance. KO1 Impact Batons are designed to make contact with the bear. The large muscle mass of the hind quarter is the target area for KO1 Impact Baton round deployment on grizzly bears and black bears. KO1 Impact Batons have an operational range of 25 to 35 meters. KO1 Impact Batons deliver approximately 153 foot-pounds of kinetic energy. For the safety of the bear being hazed, do not shoot at animals closer than 25 meters. KO1 Impact Batons are not accurate and loose impact energy at distances beyond 35 meters. As with all hazing techniques, use of SL-1 Launcher fired KO1 Impact Batons should be accompanied by yelling so the bear associates the experience with human presence.

Approved Alternative Hazing Methods

In addition to cracker shells, Deter-it Ultra-mag rounds (painless paintball rounds), bean bag rounds, rubber slugs, and rubber batons, several other hazing methods are approved for use in YNP. However, these alternative methods should only be used when standard hazing tools are not safe or readily available and the bear is involved in a "teachable moment" where the bear is in the act of undesirable behavior within an appropriate Hazing Zone. Approved alternative hazing methods include human threat pressure, throwing rocks, rolling rocks, use of slingshots, and use of water.

Human Threat Pressure: When hazing bears out of the middle of developments, where large numbers of people are present and it is difficult to control or even know the location of all visitors, it may be desirable to apply light pressure so as to move the bear slowly and in a controlled manner, rather than at a run in panic which might force an encounter between the bear and visitors. Human pressure from a group of people walking toward, staring at, yelling, and/or clapping hands may apply just enough stress to get the bear to leave. Once the bear is moved to the edge of the development, and has a known, clear flight path, then hazing rounds in

combination with yelling should be employed until the bear leaves the hazing perimeter. Once the bear enters cover or makes it 100 yards from the edge of the development, hazing and yelling should stop. **Only very experienced staff should use this tactic.** The human pressure method works best on black bears, subadult grizzly bears, and docile adult grizzly bears and should not be attempted on dominant, aggressive, or agitated bears. Remember, during the breeding season, a highly habituated docile female in estrous can attract large dominant males to developments and roadsides. These dominant males should **not** be hazed using threat pressure. Due to the chances of an adult female responding with defensive aggression, human threat pressure should not be routinely used on grizzlies with cubs or yearlings. If attempting this technique on female grizzlies with young, extreme caution is warranted and a greater distance should be left between the bears and the people applying the pressure. With black bears a group of 2 or 3 people is often sufficient to walk bears out of campgrounds and developments. However, due to the much more aggressive nature of grizzlies, human threat pressure should only be applied by groups of 4 or more people. Always be aware of the bear's body language and stay with your team as a tight group. When hazing from foot, all personnel involved must carry bear spray (for personal protection) and have at least one staff member with lethal backup such as a loaded shotgun, high powered rifle of .30 caliber or larger (.30-06, .308, .375 H & H mag., .45-70 Government, etc.), or large caliber revolver (.41 magnum or larger) readily available as lethal backup. Whenever possible, a vehicle or multiple vehicle escort should be used to provide an added margin of safety.

Throwing Rocks: Rock throwing is an inexpensive method to haze bears out of an area where their presence is deemed unacceptable to park management. Rock throwing is relatively easy, takes little training, and does not leave trash behind. In addition, rocks are readily available at no cost in most areas of the park. However, park visitors generally perceive rock throwing as inaccurate, unprofessional, dangerous, and disrespectful to bears. Therefore, the purpose of throwing rocks should always be explained to any park visitors that observe the hazing incident. Use of rocks as a hazing tool should always be used in conjunction with yelling so the bear associates the activity as undesirable in the presence of people. Personnel using rocks as a hazing tool should possess the ability, strength, and aim to safely propel rocks at the intended target.

Rocks thrown at bears must not be larger than the size of a walnut, and must be aimed at the large muscle mass of the bears' hind quarter. To improve accuracy, only smooth, round, symmetrical rocks should be used for hazing. When throwing rocks, it is essential that no people or property are within 180 degrees of the target and that the bear has an adequate escape route into an area free of people.

Rolling Rocks: In some districts, park staff have used a technique of rolling rocks toward bears to get them to leave the paved road, roadside pullouts, road shoulder, and road drainage ditch. When using this technique, rocks larger than the size of a walnut may be used as long as the bear is not aimed at or hit with the rocks.

Slingshots: Slingshots increase the effective range of rocks as a hazing tool, but also increase the safety hazards involved. Like rock throwing, some visitors perceive sling shots as unprofessional, inaccurate, disrespectful, and dangerous to bears. Therefore, the purpose of using slingshot launched rocks should always be explained to any park visitors that observe the hazing incident. To use a slingshot, staff must practice regularly. A leather glove should always be worn

on the hand holding the stock (handle) of the slingshot. Only those employees who have a primary responsibility for bear hazing and permission from their supervisor are allowed to haze bears with slingshots. As with rock throwing, slingshots should be used in conjunction with yelling so the bear associates the activity as undesirable in the presence of people. To improve accuracy, only smooth, round, symmetrical rocks should be used for hazing bears with slingshots. **Rocks shot from slingshots must not be larger than the size of a marble, and must be aimed at the large muscle mass of the bears' hind quarter.** Make sure the backdrop within 180 degrees of the target is clear of any other staff, visitors, or property. Always give the bear an escape route into an area that is free of people.

Water: The use of water in a large steady stream has proven effective at temporarily displacing some bears from human use areas. Super-Soaker type water guns or hoses with a nozzle that gives a steady, hard stream can be effective. If a wild-land fire engine crew is available, the fire hose can be an effective hazing tool. As with all hazing techniques, use of water for hazing should be accompanied by yelling so the bear associates the experience with human presence.

Karelian Bear Dogs

The Bear Management Office often receives inquiries as to why Karelian Bear Dogs are not used in YNP. While Karelian Bear Dogs can be an effective hazing tool, they have not proven to be any more effective than cracker shells, bean bag rounds, rubber bullets, or rubber batons when consistently applied. In addition, Karelian Bear Dogs require many handlers, a year-round trainer with park housing, a large budget, and rapid response time to be effective. At YNP, all these conditions are significant challenges to overcome, thereby making the standard hazing contact rounds described in this plan more cost-effective alternatives. Under this plan, Karelian Bear Dogs are not prohibited from use and may be used on an experimental basis (under the guidance of Bear Management staff) as a method of hazing or aversive conditioning. However, Karelian Bear Dogs are a resource that is not currently available to park staff, and given budget, vehicle, and housing constraints, will likely not be available anytime in the near future.

Use and Testing of New Techniques, Technology, & Hazing Rounds

Under this plan, the Bear Management Office may test, evaluate the effectiveness of, and authorize for field use, new techniques, technologies, or aversive rounds not specifically listed in the Standard Hazing Tools and Techniques section of this plan. When warranted by their effectiveness, new techniques, technologies, and firearms rounds will be added to next revision of the Bear Hazing and Aversive Conditioning Plan. Field staff are not authorized to independently experiment with new hazing rounds without approval from the Bear Management Office.

Tools and Techniques Specifically Not Approved for Bear Hazing Operations in YNP

Park staff occasionally inquire about other hazing methods they may have used in other national park units or during earlier time periods in YNP. The following hazing tools and any other methods not specifically defined in this plan (listed above), are not approved for hazing bears in YNP.

Bear Spray: Bear spray was developed as defensive protection for people recreating (hiking, biking, fishing, camping, etc.), working, or living in areas inhabited by bears; not as an offensive tool. Bear spray is administered in a pressurized cloud, not as a steady stream of liquid. For this reason one must be within 15 to 30 feet of a bear for it to be effective, and once deployed, the cloud will also affect all visitors and staff within a large radius, including the staff member deploying the spray. The fine mist of bear spray can easily drift into open windows of nearby vehicles or buildings, or into the eyes of any visitors or staff in the general area. In addition, once bear spray settles onto the ground or other objects, it can act as a bear attractant. For these and other reasons, bear spray is not approved for bear hazing operations in YNP. **Note:** Bear Spray is approved, highly effective, and encouraged for use by park staff and visitors as a defensive weapon to stop aggressive bears and other wildlife during surprise or predatory encounters. For personal protection (not hazing), bear spray is required to be carried by all staff involved in hazing operations. In addition, all staff of the Yellowstone Center for Resources are required to carry bear spray when working in backcountry areas and at bear-jams. However, bear spray is not approved for use as a hazing tool.

Live (Lethal) Rounds: Live (lethal) rounds of any caliber should never be used as hazing or aversive conditioning rounds, either for their noise-making effects or as contact rounds. Use of lethal rounds (even just for their noise making effects) pose a significant risk to nearby visitors and the hazing team, as well as to the bear being hazed (even if not aimed at the bear).

Birdshot: The expanding pattern of birdshot with distance makes birdshot difficult for the user to control. In addition, bird shot can break skin, damage eyes, cause penetration injury and seriously wound bears. For these reasons, the use of 10-, 12-, or 20- gauge steel or lead bird shot is not approved for hazing bears in YNP. The 12-gauge Aero-Sock and 12-gauge Bean Bag Thumper rounds are the approved contact rounds for short range hazing operations in YNP.

Rubber Buckshot: Rubber buckshot is inaccurate and has very low impact energy. Rubber buckshot is not approved for use under this hazing plan. The 12-gauge Aero-Sock and 12-gauge Bean Bag Thumper rounds are the approved contact rounds for short range hazing operations in YNP.

Soft 12-Gauge Rubber Balls (Cart-A-Ball): Have been found to be too inaccurate to be considered effective. The 12-gauge Aero-Sock and 12-gauge Bean Bag Thumper rounds are the approved contact rounds for short range hazing operations in YNP.

12-Gauge Signal Flares: Due to wild-land fire danger concerns and to simplify purchase, inventory, and training, 12-gauge signal flares are not approved for use in bear hazing operations in YNP. Under this hazing plan, the 12-gauge cracker shell is the only non-contact, noise making projectile round approved for use in bear hazing operations.

15-mm Scare Cartridges: A large variety of 15-mm Scare Cartridges including Bear Bangers, Bear Bombs, Screammers, Screammers with Comets, Whistlers, Whistlers with Comets, and projectile signal flares are marketed and sold as bear and wildlife scare products. Due to wildland fire danger concerns and to simplify purchase, inventory, and training, none of the 15-mm platform scare cartridges are approved for use for bear hazing operations in YNP. Under this hazing plan, the 12-gauge cracker shell is the only non-contact, noise making projectile round approved for use in bear hazing operations.

18-mm CAPA Cartridge Launchers: Due to wildland fire danger concerns, concerns for the safety of the bears being hazed, and to simplify purchase, inventory, and training, 18-mm CAPA cartridge flares are not approved for use in bear hazing operations in YNP. Under this hazing plan, the 12-gauge cracker shell is the only non-contact, noise making projectile round approved for use in bear hazing operations.

BEAR-Best Ecological Alternative Round Bear Deterrent Cartridge: These 12 gauge rounds were used as bear hazing rounds in the late 1980's and early 1990's. However, use was discontinued after experience determined these rounds were inaccurate and could penetrate the bears' skin at shorter distances. Old boxes of these rounds are occasionally found in ammunition storage lockers and patrol car trunks and should be disposed of because they are no longer approved for use on bears in YNP. **Lesson Learned:** An adult female black bear that had repeatedly been eating rose-hips along the road in the Hellroaring Overlook, Phantom Lake, and Floating Island Lake areas was accidentally killed with a Bear Deterrent Cartridge in 1990. The round penetrated between two ribs and punctured the bears' lungs. The inaccuracy of the round fired at close range contributed to the bears' death.

HAZING METHODOLOGY

Staff Roles and Responsibilities

Primary control over specific hazing operations should be maintained by the District Ranger or designee, of the District the hazing operation is being conducted in, or by Bear Management Office staff in conjunction with District staff. Prior to any hazing operation being undertaken, an operation leader should be designated, usually the staff member with the most experience in hazing operations. The District Ranger in each District of the park will determine which of their staff members are experienced enough in hazing operations and knowledgeable enough in bear behavior to lead hazing operations and be designated as hazing operation leaders within their respective Districts. The Bear Management Biologist will determine which Bear and Resource Management Staff from the Yellowstone Center for Resources are qualified to lead hazing operations. For each hazing operation, the designated operation leader should determine the course of action to be taken after assessing the circumstances, identifying the animal, and addressing safety concerns. The hazing operation leader should organize an adequate number of personnel to assist in the hazing action, document the outcome, and make public contacts to explain the action to bystanders. Whenever possible, employees who are trained to perform hazing actions and are familiar with hazing operations should be chosen to assist the hazing operations leaders. It is the responsibility of the hazing operation leader to outline a plan, make assignments, address safety concerns, and lead the operation through completion. The operation

leader is also responsible for documenting the action in writing on a Bear Sighting Form. A debriefing should be conducted as soon as possible after the action has been completed to discuss the outcome and potentially improve future hazing operations.

The following guidelines outline staff roles for participation in hazing operations:

Law Enforcement (LE) Rangers:

- Work with Bear Management Office staff to establish, digitize, and map Developed Area Hazing Perimeters.
- Report all bear activity within developed areas, campgrounds, and road corridors to the Bear Management Office.
- Enforce food and garbage storage regulations.
- Correct food storage compliance deficiencies as necessary.
- Report all non-functioning bear-resistant garbage cans, dumpsters, and recycling bins, as well as garbage pick-up schedule deficiencies to the Maintenance Office.
- Provide leadership and supervision of hazing operations.
- Provide explanations to the public about the hazing operation and why it is needed.
- Actively participate in hazing actions.
- Provide long-gun cover during hazing operations.
- Report to the Bear Management Office the hazing incident and outcome of the action.

Bear Management Staff:

- Work with District Rangers to establish, digitize, and map Developed Area Hazing Perimeters.
- Report all non-functioning bear-resistant garbage cans, dumpsters, and recycling bins, as well as garbage pick-up schedule deficiencies to the Maintenance Office.
- Procure, store, distribute and track bear hazing rounds and bear hazing operations.
- Provide leadership and supervision of hazing operations.
- Provide explanations to the public about the hazing operation and why it is needed.
- Actively participate in hazing actions.
- Provide long-gun cover during hazing operations.
- Call in LE Rangers when necessary to assist with long-guns to cover hazing operations.
- Document the outcome of hazing operations.
- Testing/Researching new hazing and aversive conditioning techniques, methodologies, equipment, and firearms rounds.

Field Interpreters:

- Report all non-functioning bear-resistant garbage cans, dumpsters, and recycling bins, as well as garbage pick-up schedule deficiencies to the Maintenance Office.
- Report all bear activity within developed areas, campgrounds, and road corridors to local area LE Rangers or the Bear Management Office.
- Report to LE Rangers or Bear Management Office staff when they encounter a situation that potentially warrants a hazing operation.
- Provide explanations to the public about the hazing operation and why it is needed.

Campground Staff and Hosts:

- Report all non-functioning bear-resistant garbage cans, dumpsters, and recycling bins, as well as garbage pick-up schedule deficiencies to the Maintenance Office.
- Correct food storage compliance deficiencies as necessary.
- Report all bear activity within developed areas, campgrounds, and road corridors to local area LE Rangers or the Bear Management Office.
- Report to LE Rangers or Bear Management Office staff when they encounter a situation that potentially warrants a hazing operation.
- Provide explanations to the public about the hazing operation and why it is needed.

Maintenance Employees:

- Fix deficiencies to bear-resistant garbage cans and dumpsters, recycling bins, sewage lagoon fences, and garbage pick-up schedules.
- Report all bear activity within developed areas, campgrounds, and road corridors to local area LE Rangers or the Bear Management Office.
- Report to LE Rangers or Bear Management Office staff when they encounter a situation that potentially warrants a hazing operation.

Concessions Management Employees:

- Report all non-functioning bear-resistant garbage cans, dumpsters, and recycling bins, as well as garbage pick-up schedule deficiencies to the Maintenance Office.
- Report bear activity within developed area land assignments to local area LE Rangers or the Bear Management Office.
- Report to LE Rangers or Bear Management Office staff when they encounter a situation that potentially warrants a hazing operation.
- Contact District LE Rangers regarding food storage compliance deficiencies as necessary.

Underlying Principles of Hazing and Aversive Conditioning of Bears

All staff leading hazing and aversive conditioning operations should have a thorough understanding of the following underlying principles of bear hazing operations:

1. *Remove Food Rewards and Bear Attractants:* Animals easily form associations between pain stimuli and sound cues; however they do not easily form associations between stimuli that are not evolutionary relevant, such as between food and pain (Homstol 2011). Yellowstone bears spend up to 5 months hibernating in winter dens, making them very food motivated during the 7 months they are active. Because of this strong food motivation to put on fat to survive 5 months of fasting, hazing cannot be expected to work on a long-term basis if the food attracting the bear to the area, either natural or anthropogenic, cannot be removed or made unavailable to bears. The food rewards simply overwhelm the effects of the negative hazing stimulus (Gillin et al. 1994, Mazur 2010). Thus, if you are unable to remove or make bear-resistant the food (natural or anthropogenic) attractant luring the bear to the roadside or development, then do not expect hazing to have anything other than an immediate short-term temporary effect. Common natural foods that lure bears into developments include ungulate carcasses, clover, and rosehips. Ungulate carcasses should always be removed from developments

and when within 100 meters of roads. Clover within developments can be sprayed with herbicides and rose fruits (berry-like rosehips) can be picked. Notify the Bear Management Office if you have these or other natural or anthropogenic food attractants luring bears into your developed area.

2. *Hazing Works Through Dominance Not Pain:* Bears appear to have a high pain tolerance. It is important to remember that hazing likely works more through dominance than by pain. Staff conducting hazing are essentially becoming the dominant bear in the area. Bears communicate through body posture and vocalizations. Staff engaged in hazing must learn to interpret a bears' body posture and vocalizations to understand how a bear is responding to their hazing efforts.
3. *Haze During Teachable Moments:* To enhance long-term effectiveness of hazing operations, bears should be hazed while in the act of doing something wrong (e.g. while in a development or campground, while investigating a vehicle, garbage can, or recycle bin). The objective is to make it easy for the bear to do the right thing and difficult for them to continue the behavior that puts them in conflict with humans.
4. *Make Noise:* It is essential that personnel directly involved in the hazing of a bear, yell at the bear before and during the hazing operation to ensure that the negative stimulus is associated not only with the developed area or the deleterious bear behavior, but with humans as well. Once the bear is beyond the development hazing perimeter or has stopped the undesirable behavior, yelling (and hazing) should stop.
5. *Make it Difficult When Bears Make the Wrong Choices:* Hazing will have the best long-term results if bears are hazed every time they engage in an unwanted behavior.
6. *Reward Desired Behavior:* All shooting and yelling should stop when the bear has reached vegetation cover, the edge of the developed area hazing perimeter, leaves the site where they should not be, (e.g., campsite, garbage can, recycle bin), or is continuing to leave (Hunt 2004). Shooting and yelling should resume if the bear stops and turns or looks while still within the development or hazing perimeter or resumes the undesirable behavior. Staff are often tempted to fire off a few more cracker shells for good measure, once the bear has already entered cover and is out of view. This only waists cracker shells and confuses the bear. Bears should be rewarded (hazing stops) for leaving the development and entering cover.
7. *Be Consistent:* Bears respond best to clear, consistent messages given repeatedly (Hunt 2004). Therefore, it is important for all staff to follow the management zone hazing prescriptions, the developed area hazing perimeters, and other guidelines contained within this plan, so that all staff are consistent with each other and send the bear a clear, consistent message.
8. *Predictability Enhances Safety:* When a bear understands the message, and knows it has options, it is less likely to respond to hazing with defensive aggression aimed at the hazer or park visitors. If all staff are consistent with their hazing operations in terms of

enforcing developed area hazing perimeters, hazing zone prescriptions, and the specific bear behaviors deemed undesirable, the safety of all staff involved in hazing operations, as well as that of park visitors, will be enhanced.

9. *Never Sneak up on a Bear to Haze it:* Sneaking up on a bear to haze it could result in explosive defensive aggression from the bear. In addition, if the bear knows your intention, it gives the bear the opportunity to make the right choice and leave on its own, prior to the use of hazing rounds.
10. *Always Leave the Bear an Escape Route:* The bear should have an avenue escape when being hazed, thereby increasing the likelihood the bear will flee and reducing the chances that the bear will turn in defense.
11. *Do Not Freelance:* Bears should always be hazed from park developments when it is safe to do so. Outside of park developed areas, we can and should expect bears to make use of all available habitat. Habituation is a natural adaptation by bears to the large numbers of people visiting the park. Outside of developed areas, visitor education on proper visitor behavior around bears, enforcement of food and garbage storage regulations, and enforcement the mandatory 100-yard distance (from bears) should be the first management actions taken. Failure to follow the management zone hazing prescriptions contained in this plan without a reasonable safety justification leaves you outside of the scope of this plan, and therefore, vulnerable to legal action should something go seriously wrong.
12. *Change-up Your Methods:* Bears sometimes habituate to particular hazing methods, even contact rounds. Mixing up your methods may be of some benefit in preventing bears from becoming habituated to a particular hazing method.
13. *Bears are Individuals:* All bears are individuals and may respond to hazing differently. These differences between individuals and sex and age classes make it necessary for NPS hazing personnel to be able to identify sex and age classes of bears. Never assume that what may appear to be a lone subadult is not a dependent yearling or two-year-old whose mother is hidden in nearby cover, or that an apparent group of subadults is not a small female with equal size two-year-old offspring, until they have been proven so.
14. *Females in Estrous:* Large dominant males that are typically wary of people and developments can be attracted into areas of concentrated human use by habituated female bears in estrous. It may be difficult to establish dominance (through hazing) over these males. Always exercise caution when dealing with adult males associated with females in estrous.
15. *Females with Young:* Adult female grizzlies may fiercely defend their young against any perceived threat. Extreme caution must be taken to deliver hazing rounds directly to the adult female and not to her young, to avoid provoking her to charge to their defense.

16. *Cubs and Yearlings*: Never use contact rounds, rocks, or slingshots on cubs and yearlings because these devices could potentially injure or kill them. In addition, the use of pain-inducing contact rounds on cubs or yearlings could cause the adult female bear to turn on you or nearby park visitors in defense of her young.
17. *Subadults*: Bears age 2.5 through 4.5 years are at an important age of independent learning and therefore a critical time for teaching boundaries for behavior around people and developments. If aggressive or curious behavior towards humans, entering developments or campgrounds, damaging property, and obtaining human food or garbage are not associated with punishing consequences, these behavioral patterns may persist throughout their lives.
18. *Treed Bears*: Bears, especially cubs, yearlings, and black bears, use trees as a means of escape from perceived threats. Climbing a tree to escape a perceived threat is also somewhat of submissive behavior. A bear that is repeatedly shot with bean bag rounds or rubber bullets while in a tree, learns that it has few options when confronted by people (Hunt 2004), and may develop a rigid fear reaction to all encounters with people, increasing the likelihood of bear attack during encounters. It is better to move away and let the bear come down, then once down, if it does not leave on its own, resume hazing. Paint-balls shot at the tree trunk above the bear (not at the bear) will sometimes cause the bear to climb back down. Once down, see if the bear will leave on its own, as immediately hitting it again with contact rounds may simply send it back up the tree.
19. *Established Problem Behavior Patterns*: Some bears that have well established patterns of problem behavior may respond unpredictably and possibly violently if the outcome of their next attempt at the behavior is a punishing experience rather than the expected reinforcing (rewarding) or neutral experience. Always be prepared for the potential for a violent response to hazing.
20. *Safety*: Human safety, the benefits of hazing, the consequences of not hazing the bear, and danger to the bear should always be evaluated before conducting hazing operations. Remember, that you never have to haze a bear (although initiating a hazing operation may mean you have to kill one if it responds aggressively). Staff should never feel obligated to haze a bear when safety is not assured.

Management Zone Hazing Prescriptions

For bear hazing operation purposes, YNP is divided into four broad-scale Management Zones based on location, the level and type of visitor recreational activities within the location, and the appropriate level (as determined by park management) of hazing response (hazing prescription, Table 1). The 4 broad-scale Management Zones include: 1) developed areas, 2) road corridors, 3) boardwalk trails, and 4) backcountry areas (including on-trail and off-trail areas). The 4 zones are essentially a continuum of decreasing human activity and management decisions increasingly favoring the needs of bears. Developed areas are managed for people to the exclusion of bears, whereas backcountry areas are managed for bears and humans can be excluded if their activity is incompatible with bears. Road corridors and boardwalk trails are transition zones between developments and backcountry, with road corridors slightly favoring human activities

(transportation) and boardwalk trails slightly favoring bear activities when human and bear activities are not compatible. All staff involved in hazing operations should become familiar with the definitions and designated boundaries of these four management zones as described in the Definitions of Hazing Terminology section of this plan (page 5).

Developed Areas: Park visitors as well as NPS, concessions and contractor staff are given priority over bears in all developed areas of the park. Bears sometimes enter front-country developments for a variety of reasons including travel, foraging for natural foods, avoiding more dominate bears, seeking human foods or garbage, or other reasons. Under this plan, front-country developments are managed for people and bears are actively excluded through hazing, aversive conditioning, capture and relocation, or capture and removal. Each park development has a designated hazing perimeter that has been established by the Bear Management Office in conjunction with the District Ranger for the area (Appendix A). The hazing perimeter should be approximately 100 yards beyond the outside edge of the development complex. Easily recognizable (to both bears and staff), man-made (e.g., edge of pavement, power-line corridor) or natural (e.g., edge of forest, horizontal vegetation cover, river, creek, stream, or gulley) features should be used to distinguish the boundaries of the hazing perimeter. The Developed Area Hazing Perimeter can be periodically adjusted based on new information, data, and hazing experience in that development. **Hazing should be conducted anytime a bear is within a development or within the designated hazing perimeter of the development, and it is safe to conduct hazing operations.** By consistently hazing bears every time they enter the *Developed Area or Hazing Perimeter*, some bears will learn to avoid entering park developments. To reduce the attractiveness of developments to bears, all anthropogenic attractants should be stored in a bear-resistant manner and all ungulate carcasses or other natural foods should be removed, if possible.

Road Corridors: From a management perspective, road corridors are a transition zone between developments and backcountry areas and are managed for both human and bear uses. Primary human uses include visitor, administrative, and emergency transportation and visitor bear and wildlife viewing and photography. Human activities are generally given priority in all recreation management decisions where bear and human activities are not compatible on the road and the maintained roadside pull-outs, road shoulder, and drainage ditch. However, bear activities are generally given priority in undeveloped natural habitats adjacent to roads, pull-outs, shoulders, and drainage ditches. Bears frequent habitat adjacent to roads in the park for many reasons. In the past (1910 – 1969) bears commonly panhandled along park roads for food handouts from park visitors. Strict enforcement of regulations prohibiting the recreational hand feeding of bears since 1970, has mostly eliminated this behavior in park visitors and bears. However, bears are still regularly observed near park roads traveling, foraging for native foods, avoiding more dominant bears, and exhibiting other natural behaviors (e.g., mating, sleeping, swimming).

Unlike park developments which are managed solely for people and bears are actively excluded, under this hazing plan, roadside habitats are managed for both human and bear uses. All ungulate carcasses within 100 meters of the road should be moved further from the road, or relocated to wildlife carcass dumps or other areas not used by visitors or staff. Although bears are not allowed to remain or linger on the paved road or maintained roadside pull-outs, shoulder, and adjacent drainage ditches, they are tolerated in roadside meadows and are not actively

discouraged from using roadside habitats to forage for natural foods. Bears that are attempting to cross the road do not warrant hazing, rather, traffic and visitors should be managed to allow the bear(s) safe opportunities to cross. Extremely close proximity of bears to people can be dangerous to both. Hazing bears that linger or travel on the paved road corridor will minimize the potential for bears to be hit by vehicles, minimize the potential of both purposeful and inadvertent human food rewards in the road corridor, and discourage use of the road as a travel route by bears. Soft hazing through the use of vehicle horns, sirens, public address systems, yelling, clapping, or vehicle threat pressure are often the most effective, practical and safe method available for hazing in road related situations. Soft hazing puts less stress on bears, thereby decreasing the likelihood of an aggressive or defensive response by the bear. This is an important consideration at times and locations where many visitors may be present close by.

As a general rule, bears should not be routinely hazed while foraging natural foods in undeveloped habitats adjacent to roads. Instead, the mandatory 100-yard minimum approach distance between people and bears should be strictly enforced. However, bears may be hazed away from roadside habitat under certain conditions, including 1) a bear-jam has formed on a dangerous blind-curve and insufficient staff are available to prevent visitors from parking inappropriately, creating a dangerous traffic situation; 2) there are insufficient staff to enforce on park visitors the 100 yard minimum approach/viewing distance rule for bears, and visitors are approaching bears too closely, and 3) any time the situation is considered overly dangerous for park visitors, staff, or the bear. In addition, bears that approach people or investigate vehicles are candidates for aversive conditioning in an effort to dissuade them from continuing this behavior. However, hazing should not be used simply to break up bear-jams because you are tired of managing them. Remember, visitors are here to see, enjoy, and appreciate bears. Bears are the wildlife species visitors most want to see, and bear viewing is second only to geyser gazing as the activity most visitors' travel to Yellowstone to engage in. In most cases, with adequate law enforcement staff, no stopping zones can be established to allow bears access to undeveloped roadside habitats while still maintaining traffic movement.

With regards to habituated bears foraging in roadside habitats, consistency and predictability of human behavior is paramount to human safety. Therefore minimum bear viewing distance regulations should be consistently enforced and the road corridor management hazing prescription should be adhered to. Staff should not freelance when managing roadside bears because this is confusing to the public and makes human actions unpredictable to bears, thereby increasing the chances of defensive aggression. Non-compliance with this plan puts park staff out of the scope of their job duties and may leave staff, YNP, and the NPS vulnerable to legal action should something go seriously wrong.

Boardwalk Trails: Like roads, boardwalk trails are in a transition zone between developments and backcountry areas and are managed for both visitor and bear uses. As a general rule, bears are given priority in recreation management decisions where bear and human activities in habitat adjacent to boardwalk trails are not compatible. Ungulate carcasses within 100 meters of boardwalk trails may be moved or left in place and the boardwalk closed until the carcass is consumed. Carcasses should only be removed from habitat adjacent to boardwalk trails during peak visitation seasons and if the carcasses can be safely (for YNP staff) removed without damaging thermal features or riparian areas or putting staff at risk of thermal burns.

Bears feeding on native foods that cannot be easily or safely removed (e.g., elk calves, root foods, forbs, mushrooms, ants) in habitat accessed by boardwalks can often be accommodated through temporary closures of boardwalks to visitor use, especially during the spring and fall shoulder seasons.

Proposed Wilderness, Backcountry Areas & Undeveloped Lands: Bears are generally given priority in all recreation management decisions where bear and human activities are not compatible in backcountry areas of the park. As a general rule, all ungulate carcasses are left in place or moved to safer locations, but not removed from backcountry areas. YNP implements Bear Management Areas which are seasonal closures and restrictions on recreational use of backcountry areas during periods when bear activity is concentrated on specific foods in predictable locations. In addition, short-term emergency closures of backcountry trails, campsites, and off-trail areas to recreational use are implemented when human activities conflict with natural bear activities and behaviors. In most situations, these seasonal and emergency closures are adequate to address bear related safety concerns in backcountry areas and hazing is not necessary. However, under certain circumstances hazing is appropriate in backcountry situations. Hazing is an appropriate management response in incidents where bears frequently enter occupied backcountry campsites, damage property, investigate tents, food poles, food storage boxes, or fire-rings, knowingly approach or follow hikers, or attempt to break into backcountry patrol cabins. In addition, for visitor safety purposes, hazing may be used to temporarily displace bears from ungulate carcasses in backcountry areas so that carcasses can be moved to locations further from trails or campsites in an effort to promote visitor safety and reduce habituation of bears to people. The objective of moving ungulate carcasses in backcountry areas is to promote visitor safety while still allowing bears access to feed on carcasses.

Table 1. Summary of objectives and hazing prescriptions for different bear management zones in Yellowstone National Park.

Management Zone	Management Objective	Hazing Prescription
Developments	- Managed for people to the exclusion of bears. - All bears, wary, habituated, and human-food conditioned are excluded. - Visitor activities given priority over bears.	Haze bears out of developments anytime it is safe to do so.
Road Corridors	- Transition zone managed for both people & bears. - Managed for visitor transportation and bear viewing. - Bears allowed access to roadside habitats for natural behaviors and foraging. - Bears allowed to cross, but not linger on paved road, roadside pullouts, road shoulder, or roadside drainage ditch. - Habituation of bears to people and people to bears expected. - Human-food conditioned bears are not tolerated.	- Management of visitors' behavior and enforcement of visitor bear approach distances (100 yard rule) are first choice in management actions. - Bears that linger on road, roadside pullouts, road shoulder, or roadside drainage ditch are hazed. - Bears are hazed from natural habitat along roads only when a significant safety risk to park visitors exists. - Bears may be hazed from carcasses adjacent to roads in order to move carcasses to safer locations. - Curious bears that approach visitors or vehicles on roads may be hazed.
Boardwalk Trails	- Transition zone managed for both people & bears. - Bears allowed access to habitats adjacent to boardwalks for natural behaviors and foraging. - Human-food conditioned bears are not tolerated.	- Boardwalks may be closed to public use when visitor and bear activities are not compatible. - Bears may be hazed from carcasses adjacent to boardwalk trails in order to move carcasses to safer locations. - Curious bears that approach visitors on Boardwalk trails may be hazed.
Proposed Wilderness, Backcountry, & Undeveloped Lands	- Bears generally given priority in recreation management decisions where bear and human activities are not compatible. - Proactive implementation of seasonal recreational use restrictions and closures for known high use bear areas. - Temporary emergency recreational closures when human activities conflict with bear activities. - Human-food conditioned bears are not tolerated.	- Bears may be hazed from backcountry campsites. - Bears may be hazed from carcasses in order to move carcasses away from trails and campsites to safer locations. - Curious bears that approach visitors on trails may be hazed. - Bears may be hazed away from patrol cabins.

Implementation of the Hazing Operation

The following steps provide basic guidelines for implementing hazing operations:

1. *Determine a Leader:* Determine a team leader for the hazing operation. The team leader will gather adequate staff to conduct the operation and assign tasks to each of the team members.
2. *Conduct a Safety Reconnaissance:* The team leader will ensure that a safety reconnaissance for potential hazards, presence of visitors, public relations uncertainties, hazardous terrain, etc. has been completed before beginning the hazing operation.
3. *Identify the Hazing Perimeter:* To send a clear message to bears, all employees must use the same development hazing perimeter boundary. In YNP, it is approximately 100 meters around all developed areas. If a bear is inside of this perimeter, it should be hazed until it leaves the perimeter, but no further, and ideally, into forest or vegetation cover. Bears outside of the hazing perimeter should not be hazed in any way. It is their reward and teaches them where it is acceptable to be. If you are hazing along a road corridor, boardwalk trail, or backcountry area, determine an appropriate hazing perimeter at which you will discontinue all hazing (yelling, noise making projectiles, contact projectiles).
4. *Choose Your Hazing Method:* The team leader will choose the appropriate hazing round or technique to be used. Methods chosen should be based on the distance of the bear, sex and age class, bears behavior, impact energy needed, as well as visitor, staff, and bear safety considerations. Light hazing may be appropriate in areas with many visitors present, whereas heavier handed hazing methods may be more effective when the bear has a clear flight path to an area free of human activity. Different types of twelve-gauge hazing rounds may be mixed in the shotgun magazine at the discretion of the person doing the hazing. Using a beanbag round or rubber slug followed with a cracker shell may increase the effectiveness of cracker shells used on the same bear in the future. Because bears habituate to noisemakers rapidly, it is recommended that the combination of a beanbag/rubber slug round followed by cracker shell(s) be considered when practical. When hazing from unsecure locations (i.e. not near a building or vehicle), the person conducting the hazing should always be accompanied by a trained staff person to provide armed back-up with a loaded shotgun or high powered rifle of .30 caliber or larger.
5. *Inform the Public:* Before beginning hazing, ensure that information about the hazing operation has been given to any of the public that may observe the incident. After a hazing event, be sure to discuss the operation with all visitors within approximately 200 meters (or who observed the event) about what happened and why hazing was implemented. Generally, once visitors understand what you are doing and why, they will be more receptive to the hazing operation. When talking to the public, do not refer to pyrotechnics as firecrackers, as the public may misconstrue it as acceptable for them to toss firecrackers at bears.

6. *Have Both Non-lethal and Lethal Backup Cover:* When hazing bears, hazing rounds should be fired from a secure location near a building or vehicle whenever possible to provide the shooter with an escape refuge in case the bear turns to defend itself. When hazing bears from a secure location near a building or vehicle, the hazing round shooter must at a minimum, have bear spray and a defensive weapon such as a loaded large caliber revolver (.41 magnum or larger), 12 gauge shotgun with slugs, or high powered rifle of .30 caliber or larger (.30-06, .308, .375 H & H mag., .444 Marlin, .450 Marlin, .45-70 Government, etc.) readily available as backup. When hazing bears from an unsecure location, where escape into a building or vehicle is not possible, the person firing the hazing rounds is required to have bear spray as a defensive weapon, and in addition, be accompanied by a trained staff member to act as armed back-up, with a 12 gauge shotgun loaded with slugs or a high powered rifle of .30 caliber or larger. The person providing armed back-up is also required to carry bear spray. It is important that if the bear being hazed turns on you, that you have a plan and carry out that plan without hesitation.
7. *Notify Park Dispatch:* Park dispatch should be notified before any projectiles are fired to alert them and any other personnel in the area of the situation.
8. *Haze Aggressively When Safe to Do So:* Remember that you are establishing yourself as the “dominant bear”. Look big and raise your arms. Haze aggressively when it is safe to do so.
9. *Use Light Hazing Pressure When Circumstances Dictate:* Due to human safety considerations, when hazing within developments and from roadsides or boardwalks where many people are present, light hazing pressure should be applied until the bear can be safely hazed more aggressively into an undeveloped area that is free of people.
10. *Make Noise:* It is essential that personnel directly involved in the hazing of a bear yell at the bear before and during the hazing operation to ensure that the negative stimulus is associated not only with the developed area or the deleterious behavior, but with humans as well. Make lots of noise when hazing so the bear associates the negative experience with humans. Once the bear is beyond the development hazing perimeter or has stopped the undesirable behavior, yelling (and hazing) should stop.
11. *Reward the Bear for Desired Behavior:* Once the bear has left the development and hazing perimeter and made it to cover or stopped the undesirable behavior, all shooting, rock throwing and yelling should cease, therefore rewarding the bear for the desired behavior. Do not continue hazing because this will be confusing to the bear and reduce the efficacy of the hazing treatment.
12. *Post Hazing Monitoring:* The area surrounding the hazing operation should be monitored to determine and document the outcome or effect of the hazing operation on the bear and to keep people away from the area. If using cracker shells, you must also monitor for smoke and/or fire ignition. Littered shell cases spent in the action should be recovered

and disposed of. Look for any spent bean bag rounds, rubber bullets, or rubber batons and inspect them for evidence of impact to the bear to confirm that you hit it.

Hazing Operations Reporting

A Bear Sighting Form should be filled out completely as soon as possible after all hazing operations and sent to the Bear Management Office. The reason for the hazing operation, hazing technique used, number of rounds fired, type of rounds fired, number of known hits, bears reaction, safety concerns, lessons-learned, and success or failure of the hazing should be included on the back of the form. The Bear Sighting Reports are used to track the effectiveness of different hazing methods and the response of particular bears to hazing. If the bear was not positively identified by ear-tags or radio collar, include a detailed description of the size, weight, sex, color, and physical description of the bear that was hazed.

SAFETY GUIDELINES FOR HAZING OPERATIONS

Although the benefits of management hazing can be substantial, especially in developed areas, they should never outweigh the importance of conducting hazing operations safely. Safety is the top priority during all hazing operations, for you, for your co-workers, for visitors, and for the bears being hazed. When safety concerns cannot be adequately addressed, the hazing operation should not be initiated. Hazing operations should be terminated if conditions become unsafe at any time during the bear hazing operation. The following safety guidelines and precautions should be followed during all hazing operations.

Safety of the Hazing Team

When conducting bear hazing operations, the following guidelines will promote, but not ensure, safety of the hazing team:

- A missed opportunity to haze a bear is of little consequence compared to the potential negative outcomes when hazing is done under unsafe conditions or in an unsafe manner. Stop an operation immediately if it becomes unsafe and never haze beyond your personal training and/or comfort level.
- Both grizzly bears and black bears may respond to hazing with defensive aggression. Both species of bears are capable of, and have killed humans. However, behaviorally, grizzly bears are much more aggressive and much more likely to attack than black bears. Grizzly bears are known for their sudden, explosive aggression. You do not want to incur the wrath of an angry grizzly bear. Always haze from a secure location whenever possible, have both non-lethal and lethal backup, and have a plan on what you will do if the bear turns on you or other people nearby.
- Hazing should not be initiated unless enough crew members are present and equipment available to effectively move the bear out of the developed area, and the public can be managed and informed about the hazing operation.
- Remember that different bears respond differently to hazing based on past experiences, general temperament, sex, age, and their dominance among other bears. Even the bears' current mood may affect its reaction to hazing (maybe the bear has just got beaten up by a larger bear in a fight over a carcass or an estrous female, or has been repeatedly hazed

for grazing clover in a roadside meadow while it attempts to put on fat for hibernation). Bears may react differently from one year to the next, or even within the same year or day. Always be ready for the potential that the bear being hazed might turn on you or nearby visitors in defense.

- The use of shotgun fired hazing rounds is limited to personnel who have qualified for use of firearms under NPS or YNP Firearms Policy.
- Never fire live (lethal) rounds as hazing rounds, not even for their noise making effects. Use of lethal rounds could put nearby hazing team members at risk.
- Never mix live (lethal) rounds with hazing rounds in the magazine. Use another trained staff member or separate firearm as your lethal backup cover-gun. Mixing lethal rounds with hazing rounds in the shotgun magazine could put nearby hazing team members at risk.
- Personnel involved in hazing operations should refrain from entering areas of hazardous (e.g., thermal areas) or unfamiliar terrain or from initiating hazing without adequate equipment to safely proceed (e.g., bear spray, firearm, partner with lethal back-up, radio, headlamp or flashlight, adequate clothing, and personal protective equipment).
- Whenever possible, work in pairs. A minimum of two people are required when hazing from unsecure positions (i.e. when not adjacent to a building or vehicle). Groups of three or more provide an added margin of safety.
- Always haze from a safe distance. Bears can sprint at approximately 45 feet per second and therefore, can reach you very quickly. Personnel involved in hazing operations should maintain an adequate distance from the bear and maintain an acute awareness of aggressive or agitated bear postures and vocalizations to help ensure that the safety of the bear, park visitors, and staff involved in the hazing is not jeopardized.
- When hazing bears with projectiles, always make sure that other staff members are not in the line of fire.
- Never sneak up on a bear to haze it. Sneaking up on a bear to haze it could result in explosive defensive aggression from the bear.
- Always wear eye protection when firing all 12-gauge and 37-mm hazing rounds.
- When hazing with shotguns, open the action and check the barrel of the shotgun after each shot to assure there is no blockage of the barrel.
- Use only cylinder bore shotguns with a chamber 2 ¾ inches or longer for firing all 12-gauge hazing rounds.
- When hazing bears, hazing rounds should be fired from a secure location near a building or vehicle, whenever possible, to provide the shooter with an escape refuge in case the bear turns to defend itself.
- Cracker shells or other low velocity hazing rounds and lead slugs should never be mixed in the shotgun magazine. The wadding of low velocity hazing rounds may not clear the barrel. The blockage could cause the barrel to explode when a slug is fired, potentially injuring the shooter or other hazing team members.
- When hazing bears from a secure location near a building or vehicle, the shooter must at a minimum have bear spray and a defensive weapon such as a loaded large caliber revolver (.41 caliber magnum or larger), 12-gauge shotgun with slugs, or high powered rifle of .30 caliber or larger (.30-06, .308, .375 H & H mag., .444 Marlin, .450 Marlin, .45-70 Government, etc.) readily available as backup.

- When hazing bears from an unsecure location, where escape into a building or vehicle is not possible, the person firing the hazing rounds is required to have bear spray as a defensive weapon, and in addition, be accompanied by a trained staff member to act as armed back-up with a loaded shotgun or high powered rifle of .30 caliber or larger. The person providing armed back-up is also required to carry bear spray. It is important that if the bear being hazed turns on you, that you have a plan and carry out that plan without hesitation.
- When firing cracker shells, only shoot up into the air at a 45 to 60 degree angle, this will minimize the chances of the shells exploding on or near hazing team members.
- Cracker shells should never be skipped off of the ground to reduce their flight distance, because the angle of ricochet cannot be accurately predicted. Attempting to skip cracker shells could put other hazing team members at risk of being hit by the round.
- When hazing with Cracker Shells, the round should be fired so that it explodes between the shooter and the bear. If the round explodes beyond the bear, it may cause the bear to flee toward the shooter.
- Bears should not be hazed so intensely that they turn on the hazer in defense.
- When hazing bear family groups, always be aware that if pushed too hard, or the cubs become separated from their mother, the mother bear may become agitated and aggressively defend her cubs against the shooter or any other people in the area.
- Do not hit cubs with rocks or other hazing rounds. With family groups all painful stimuli and contact rounds should be used only on the adult female bear, as painful stimuli to the cubs, yearlings, or two-year-olds and subsequent bawling may cause the mother bear to aggressively defend her young.
- As each hazing method is stepped up from non-contact, to contact, to heavier impact contact rounds, staff conducting hazing must consider whether or not the potential benefits outweigh the potential risks to the bear, park staff, and visitors.
- Shotguns used in hazing operations should be handled and stored in such a manner that acknowledges their lethal potential, even when firing less-than-lethal rounds.
- Report any problems encountered with hazing protocols, firearms, rounds, and procedures to the Bear Management Office and District Ranger promptly so that training, equipment, or technique deficiencies can be addressed.

Firearms Safety Rules

The following rules of firearms safety are required during all bear hazing operations where firearms (including paintball guns) are used:

- Rule #1: Always treat all firearms as if they are loaded at all times.
- Rule #2: Never allow any firearm to point at anything you are not willing to destroy.
- Rule #3: Keep your finger off of the trigger and out of the trigger guard until your sites are on your target.
- Rule #4: Be sure of your target and what lies beyond (visitors, staff, buildings, vehicles, etc.).

Safety of Park Visitors

When conducting bear hazing operations, the following guidelines will enhance, but not ensure, the safety of park visitors:

- Always do a reconnaissance for potential safety hazards, presence of visitors, public relations uncertainties, etc. before conducting hazing operations. Never use any projectiles when there is any danger of hitting people, property, or cubs. If at any time before or during the hazing operation it is determined that the backdrop is not safe, the hazing operation should be terminated immediately or switched to light hazing non-contact techniques.
- It is important that if the bear being hazed turns on park visitors, that you have a plan and carry out that plan without hesitation.
- When hazing bears with projectiles, always make sure that visitors are not in the line of fire.
- Never fire live (lethal) rounds as hazing rounds, not even for their noise making effects. Use of lethal rounds could put nearby visitors at risk.
- Never mix live (lethal) rounds with hazing rounds in the magazine because of the possibility of inadvertently firing a slug while hazing. Use another trained staff member or separate firearm as your lethal backup cover-gun. Mixing lethal rounds with hazing rounds in the shotgun magazine could put nearby visitors at risk.
- Cracker shells or other low velocity hazing rounds and lead slugs should never be mixed in the shotgun magazine. The wadding of low velocity hazing rounds may not clear the barrel. The blockage could cause the barrel to explode when a slug is fired, potentially injuring nearby visitors.
- When firing cracker shells, only shoot up into the air at a 45 to 60 degree angle, this will minimize the chances of the shells exploding on or near park visitors.
- Cracker shells should never be skipped off of the ground to reduce their flight distance, because the angle of ricochet cannot be accurately predicted. Attempting to skip cracker shells could put visitors at risk of being hit by the round.
- Always know your target and what lies beyond the target animal.
- Always make sure you are not hazing the bear towards park visitors, staff, or traffic.
- Always make sure that the bear being hazed has a clear escape/retreat path that is not blocked by people, traffic or developed areas.
- Bears should only be hazed in a direction that provides a safe avenue of retreat into an undeveloped area that is free of people.
- Use of cracker shells and less-than-lethal contact projectiles should be made with careful consideration to surroundings and situations. Loud noises should be utilized with the safety of the public in the immediate area taken into consideration. When using cracker shells, the danger of wild-land or structural fire and the human safety considerations of potentially igniting a fire must be considered.

Safety of the Bears Being Hazed

In addition to the safety of park visitors and the hazing team, the safety of the bear(s) being hazed is also paramount. When conducting bear hazing operations, the following guidelines will enhance (but not ensure) safety for the bear being hazed:

- Never fire live (lethal) rounds as hazing rounds, not even for their noise making effects. Use of lethal rounds could put the bear being hazed at risk.
- Never mix live (lethal) rounds with hazing rounds in the magazine. Use another trained staff member or separate firearm as your lethal backup cover-gun. Mixing lethal rounds with hazing rounds in the shotgun magazine could put the bear being hazed at risk.
- Never shoot cracker shells directly at any animal. There have been several incidents in national parks including YNP, where bears have been killed when hit with cracker shells.
- When using cracker shells, only shoot up into the air at a 45 to 60 degree angle, this will minimize the chances of the shells exploding on or near the bear being hazed.
- Cracker shells should never be skipped off of the ground to reduce their flight distance, because the angle of ricochet cannot be accurately predicted. Attempting to skip cracker shells could put the bear being hazed at risk of being hit by the round.
- When firing hazing rounds designed to make contact with the bear (wildlife deter-it balls, Powder balls, bean bag rounds, rubber slugs, and rubber batons), always aim for the large muscle areas of the bear's hindquarter.
- When firing contact rounds, do not aim at vulnerable areas such as the head, rib cage, or stomach.
- When firing contact rounds, know your equipment and the minimum safe firing distances of the rounds you are firing. Never shoot at distances closer than the rounds prescribed minimum range, even if the bear is not responding to being hit with the projectile. Firing too close, has led to less-lethal rounds penetrating and unintentionally killing bears.
- Cracker shells or hazing rounds and lead slugs should not be mixed in the magazine, because of the possibility of inadvertently firing a slug at a bear while hazing.
- Never sneak up on a bear to haze it. Sneaking up on a bear to haze it could result in explosive defensive aggression from the bear requiring use of lethal force and resulting in a dead bear.
- When hazing bear family groups, always be aware that if pushed too hard, the cubs may become separated from their mother which ultimately could result in their death. Also remember that if pushed too hard, the adult female may turn in defense of her cubs, potentially requiring lethal force, resulting in a dead bear.
- Never shoot cubs or yearlings with contact hazing rounds or hit them with rocks.
- As each method is stepped up from non-contact, to contact, to heavier impact contact rounds, staff conducting hazing must consider whether or not the potential benefits of hazing outweigh the potential risks to the bear.

Wildland and Structural Fire Safety

The risks of both wildland and structural fire caused by cracker shells must be considered during all hazing operations. The following guidelines will reduce the risk of wildland or structural fires caused by cracker shells:

- Cracker shells are capable of starting wildland fires when the fire danger is rated as high or at any fire danger rating if they land in highly combustible material.
- Contact the YNP Fire Cache (2181) or Fire Management Supervisor (2182) to obtain updates on the current park fire danger rating prior to using cracker shells in hazing operations. The current fire danger rating is also posted near all park entrance stations.
- During periods of high fire danger, cracker shells should only be fired into terrain free of significant fire fuels and personnel should remain in the hazing area for at least 30 minutes observing for smoke and/or fire ignition.
- Only shoot Cracker Shells up into the air at a 45 to 60 degree angle, this will minimize the chances of the shells exploding on or near buildings or combustible materials on the ground.
- Cracker shells should not be fired so that they hit buildings, land on roof's, or land in combustible material adjacent to any building or structure.

HAZING WILDLIFE SPECIES OTHER THAN BEARS

Occasionally, the need arises to move animals other than bears out of areas of concentrated human activity where their presence has been deemed inappropriate or a human safety hazard. Only by direction of the Chief Ranger, Deputy Chief Ranger, District Ranger or designee, or wildlife biologist should hazing of non-bear or wolf species be undertaken. Such actions should be considered only after all other preventative measures (food and garbage storage, visitor management, traffic management, and removal of anthropogenic attractants) have been exhausted. While it is recognized that the hazing of an animal might temporarily alleviate an ongoing conflict, such actions should not be routinely undertaken as a solution to conflicts. Under limited conditions, methods detailed in this plan may be applied to rectify situations involving wildlife species other than bears that do not have an approved species-specific hazing plan. All wolf hazing operations must follow the plan "Management of Habituated Wolves in Yellowstone National Park".

ACKNOWLEDGEMENTS

The information in this plan was gained from the experiences of many Park employees during grizzly bear and black bear hazing operations conducted in YNP over the last 30+ years. Information on hazing and aversive conditioning was also gleaned from the hazing plans and protocols of Katmai, Sequoia and Kings Canyon, Yosemite, and Glacier National Parks. In addition, much can be learned from the early pioneers of bear hazing and aversive conditioning operations in Yellowstone, especially C.J. Jones, the Park Game Warden from 1902 – 1905, park wildlife biologist Olaus Murie, who conducted aversive conditioning on bears on an

experimental basis in the park in the early 1940's, and Carrie Hunt, Forrest Hammond, and Colin Gillin who conducted aversive conditioning research with bears in the park in the 1980's.

LITERATURE CITED

- Davey, G. 1981. Animal learning and conditioning. University Park Press, Baltimore, Maryland, USA.
- Gillin, C.M., F.M. Hammond, and C.M. Peterson. 1994. Evaluation of an aversive conditioning technique used on female grizzly bears in the Yellowstone Ecosystem. International Conference on Bear Research and Management 9(1):503-512.
- Glacier National Park. 2010. Bear management plan, Glacier National Park. U.S. Department of Interior, National Park Service, Glacier National Park, West Glacier, Montana, USA.
- Gunther, K.A., K.R. Wilmot, S.L. Cain, T. Wyman, E.G. Reinertson, and A.M. Bramblett. 2015. Habituated grizzly bears: a natural response to increasing visitation in Yellowstone and Grand Teton National Parks. Yellowstone Science 23(2):33-39.
- Gunther, K.A. and M.A. Haroldson. 2015. Early attempts at modifying bear behavior in Yellowstone National Park. Yellowstone Science 23(2):83-87.
- Homstol, L. 2011. Applications of learning theory to human-bear conflict: the efficacy of aversive conditioning and conditioned taste aversion. Master of Science Thesis, University of Alberta, Edmonton, Alberta, Canada.
- Honeyman, J. 2008. A retrospective evaluation of the effectiveness of aversive conditioning on grizzly bears in Peter Lougheed Provincial Park, Alberta, Canada. Master of Science Thesis, Royal Roads University, Colwood, British Columbia, Canada.
- Hopkins, J.B. S. Herrero, R.T. Shideler, K.A. Gunther, C.C. Schwartz, and S.T. Kalinowski. 2010. A proposed lexicon of terms and concepts for human-bear management in North America. Ursus 21(2):154-168.
- Hunt, C.L. 2004. Bear shepherding guidelines for safe and effective treatment of human-bear conflicts. The Wind River Bear Institute. Florence, Montana, USA.
- Katmai National Park and Preserve. 2001. Bear-human conflict management plan: Katmai National Park and Preserve, Aniakchak National Monument and Preserve, Alagnak Wild River. U.S. Department of Interior, National Park Service, Katmai National Park, USA.
- Mazur, R.L. 2010. Does aversive conditioning reduce human-black bear conflict? Journal of Wildlife Management 74(1):48-54.

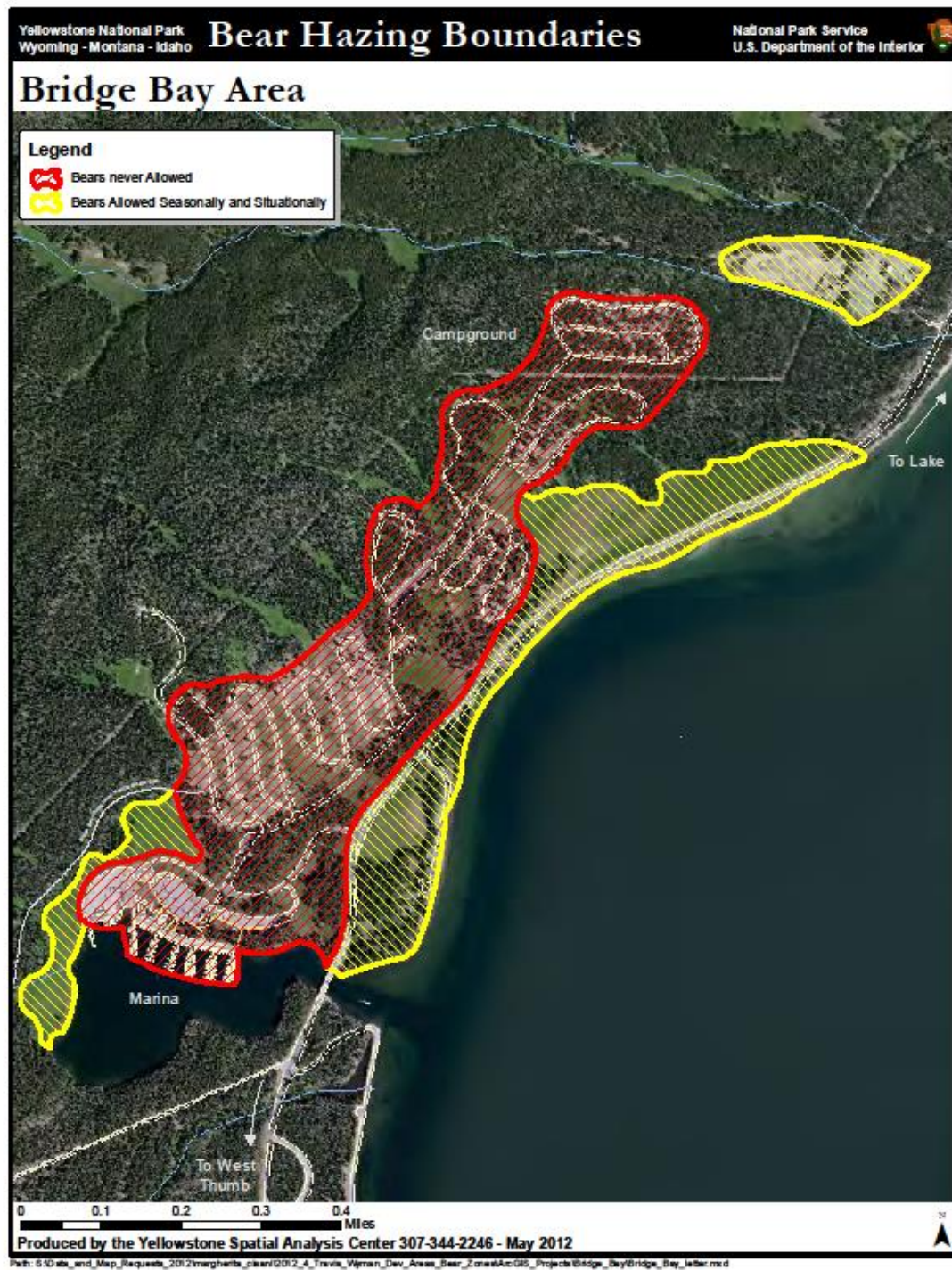
Richardson, L. K. Gunther, T. Rosen, and C. Schwartz. 2015. Visitor perceptions of roadside bear viewing and management in Yellowstone National Park. *The George Wright Forum* 32(3):299-307.

Sequoia and Kings Canyon National Parks. 1992. Bear management plan, Sequoia and Kings Canyon National Parks. U.S. Department of Interior, National Park Service, Sequoia and Kings Canyon National Parks, Three Rivers, California, USA.

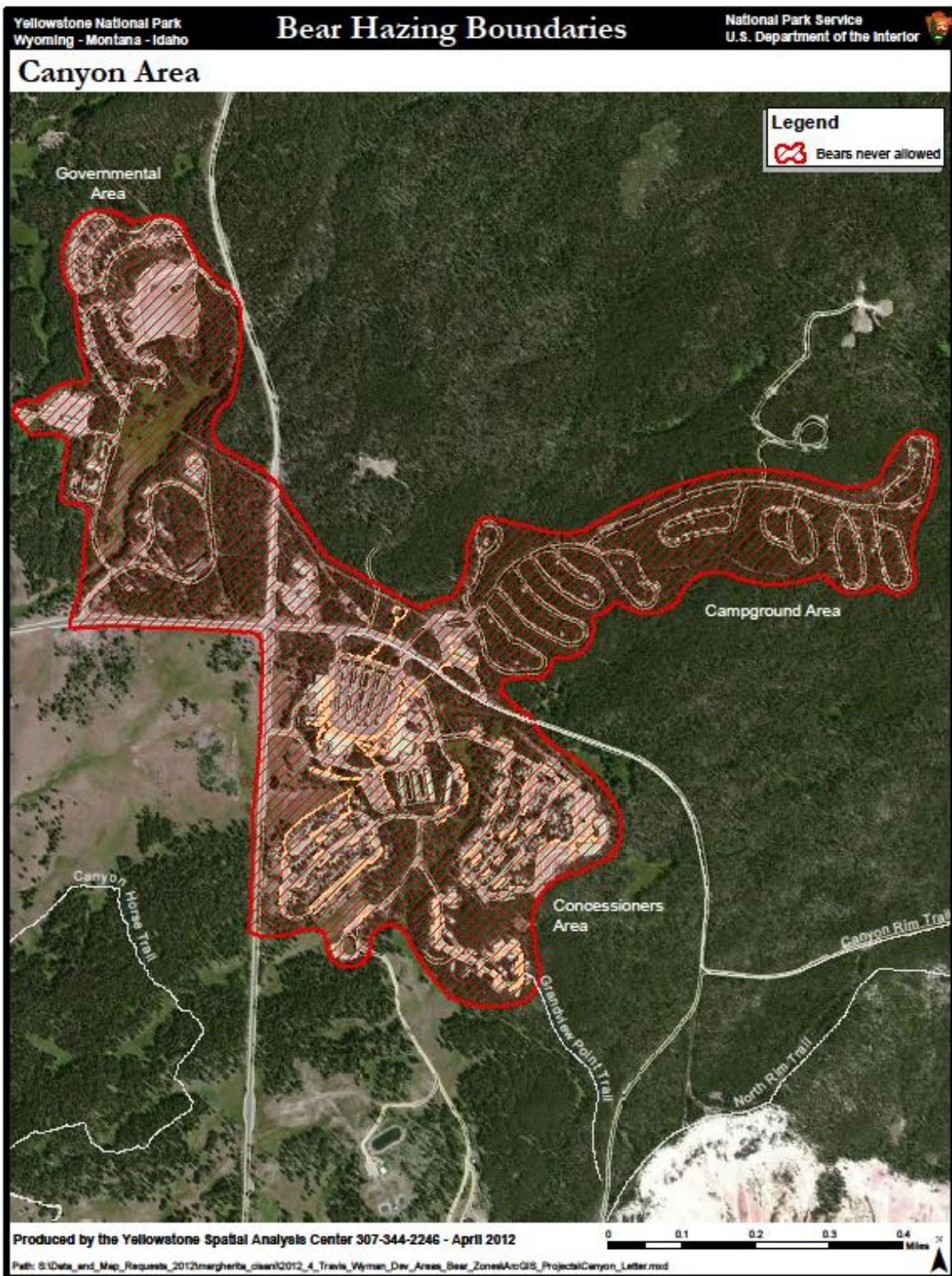
Yosemite National Park. 2002. Yosemite National Park human-bear management plan. U.S. Department of Interior, National Park Service, Yosemite National Park, California, USA.

APPENDIX A

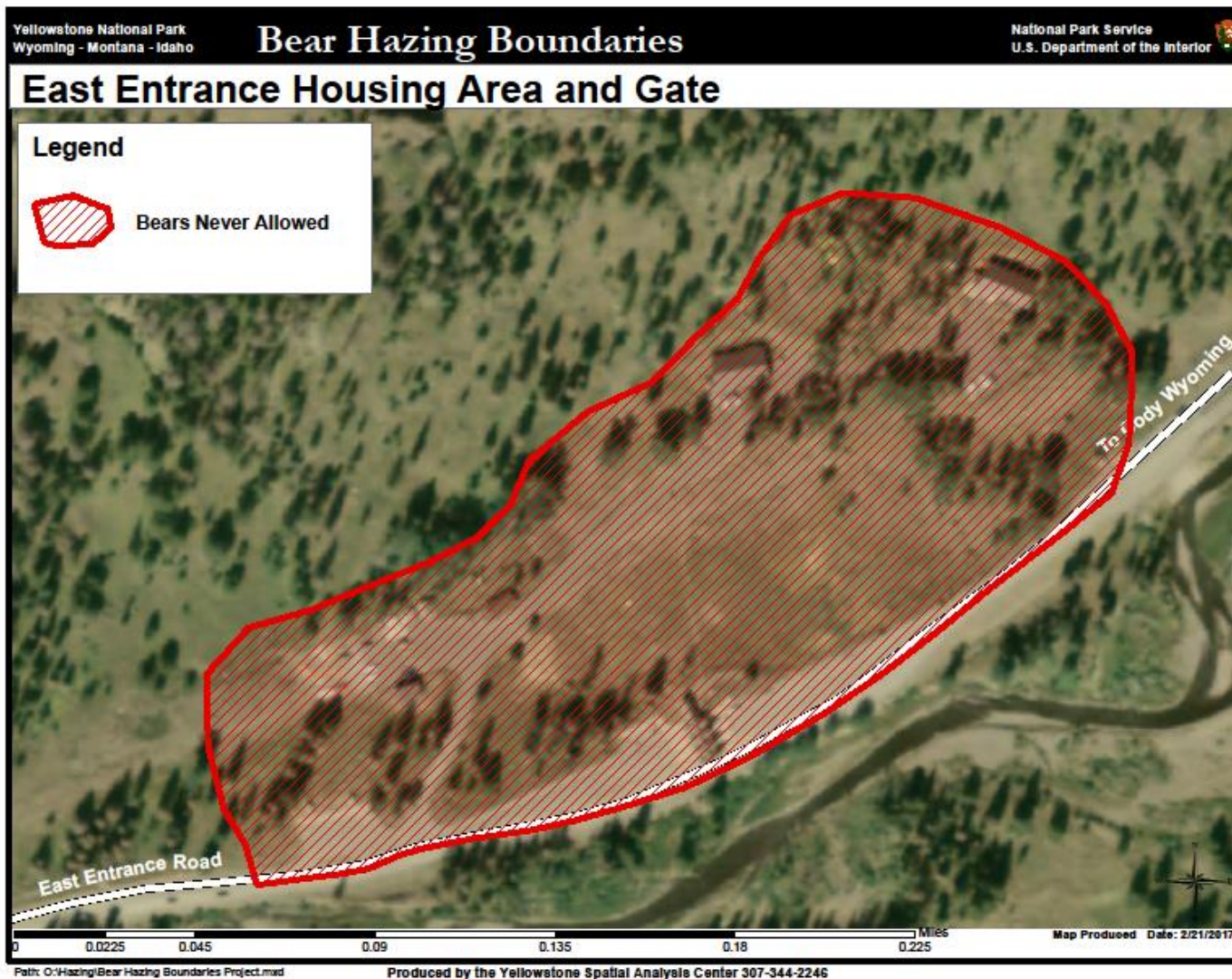
Developed Area Hazing Perimeter Maps



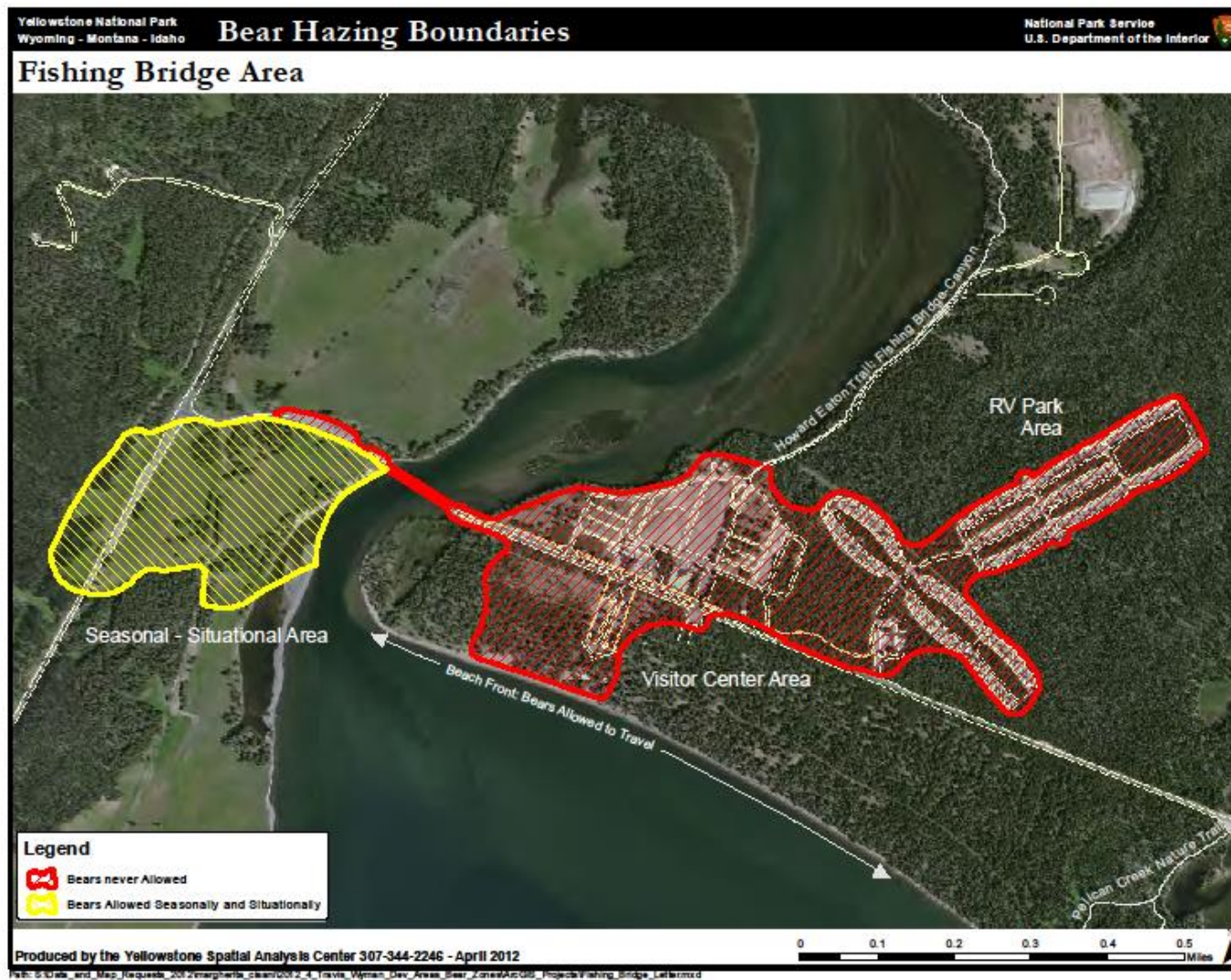
Bridge Bay developed area hazing perimeter (No Bear Zone).



Canyon Village developed area hazing perimeter (No Bear Zone).



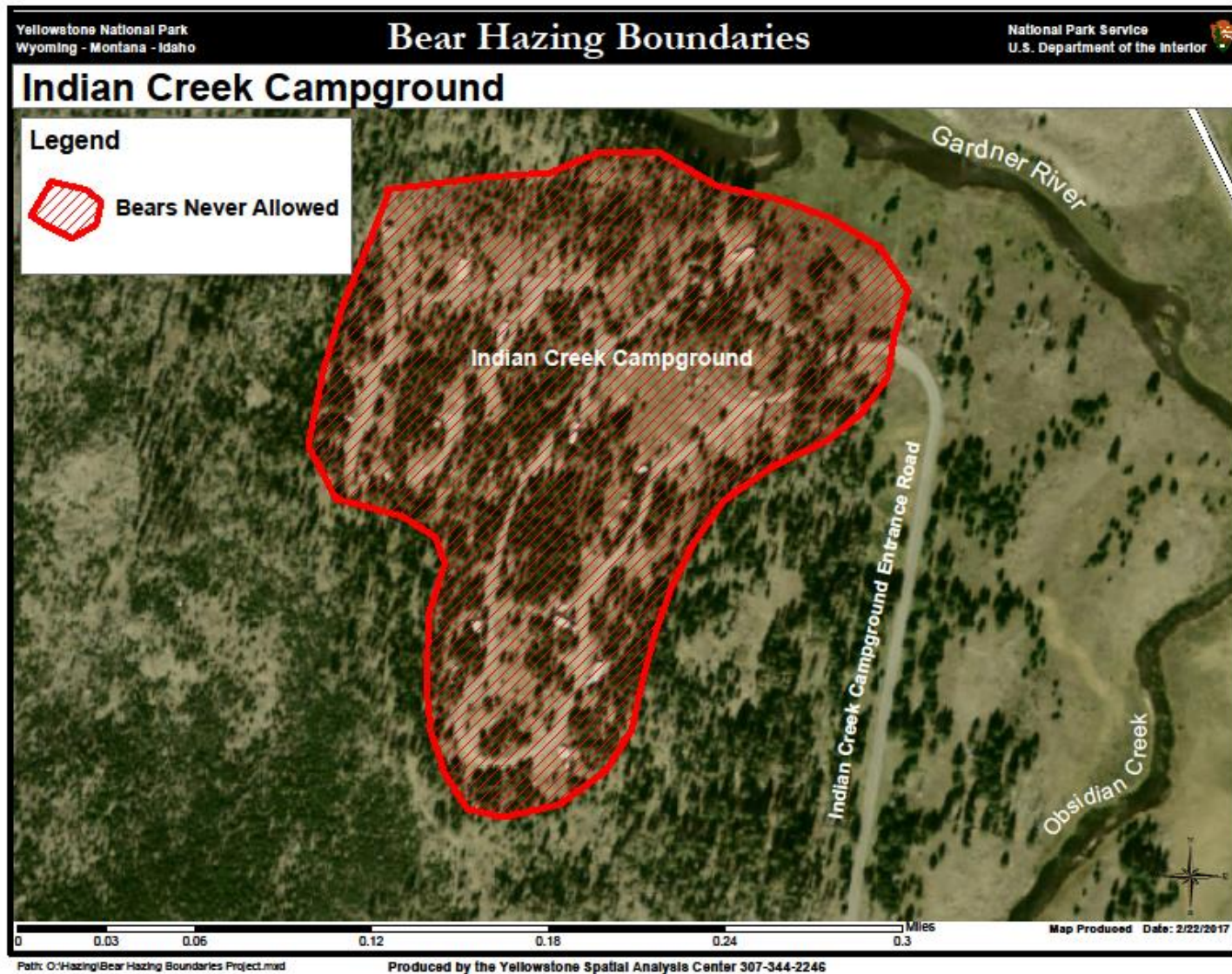
East Entrance developed area hazing perimeter (No Bear Zone).



Fishing Bridge developed area hazing perimeter (No Bear Zone).



Grant Village developed area hazing perimeter (No Bear Zone).



Indian Creek Campground developed area hazing perimeter (No Bear Zone).

Lake Area

Legend



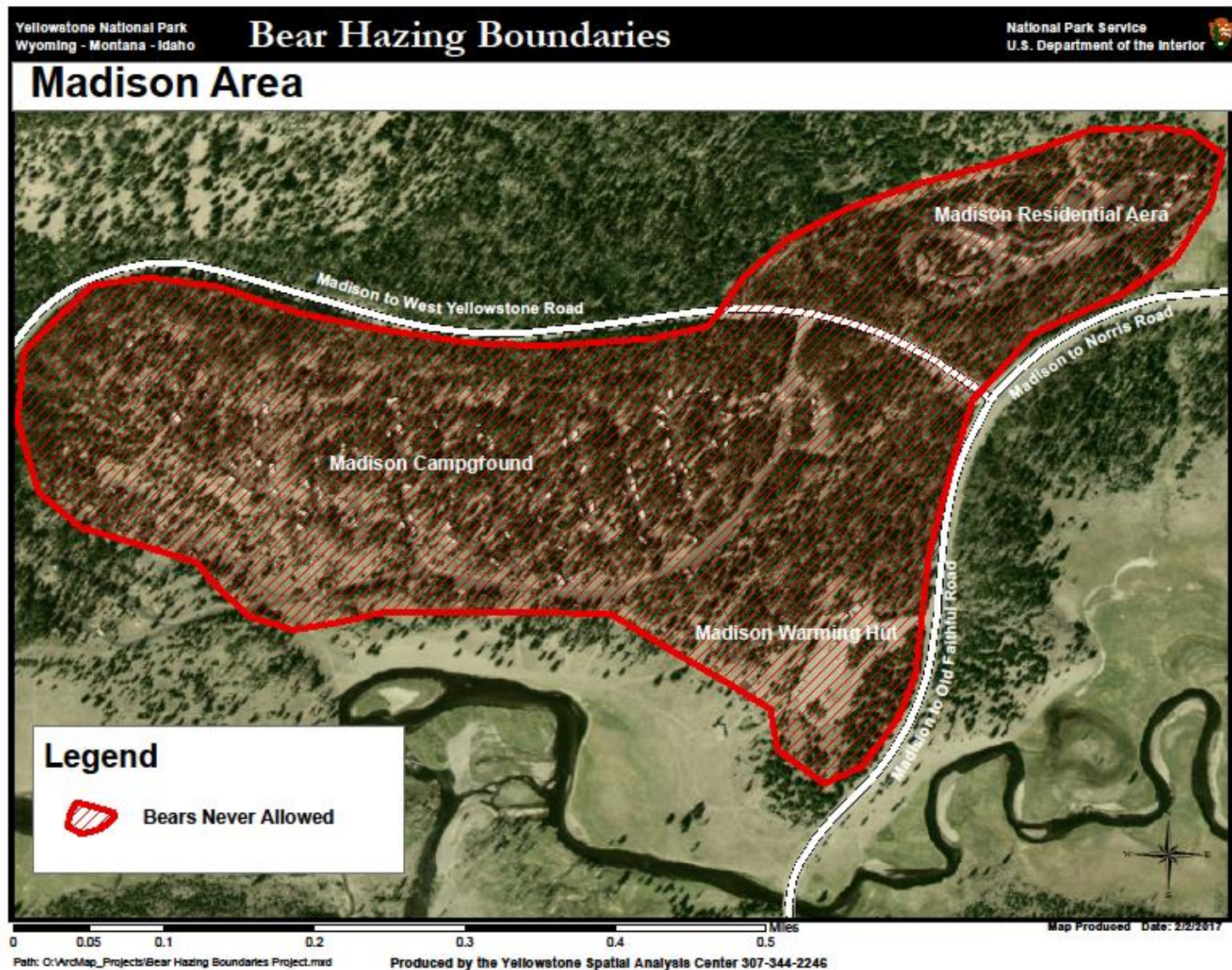
Bears never Allowed



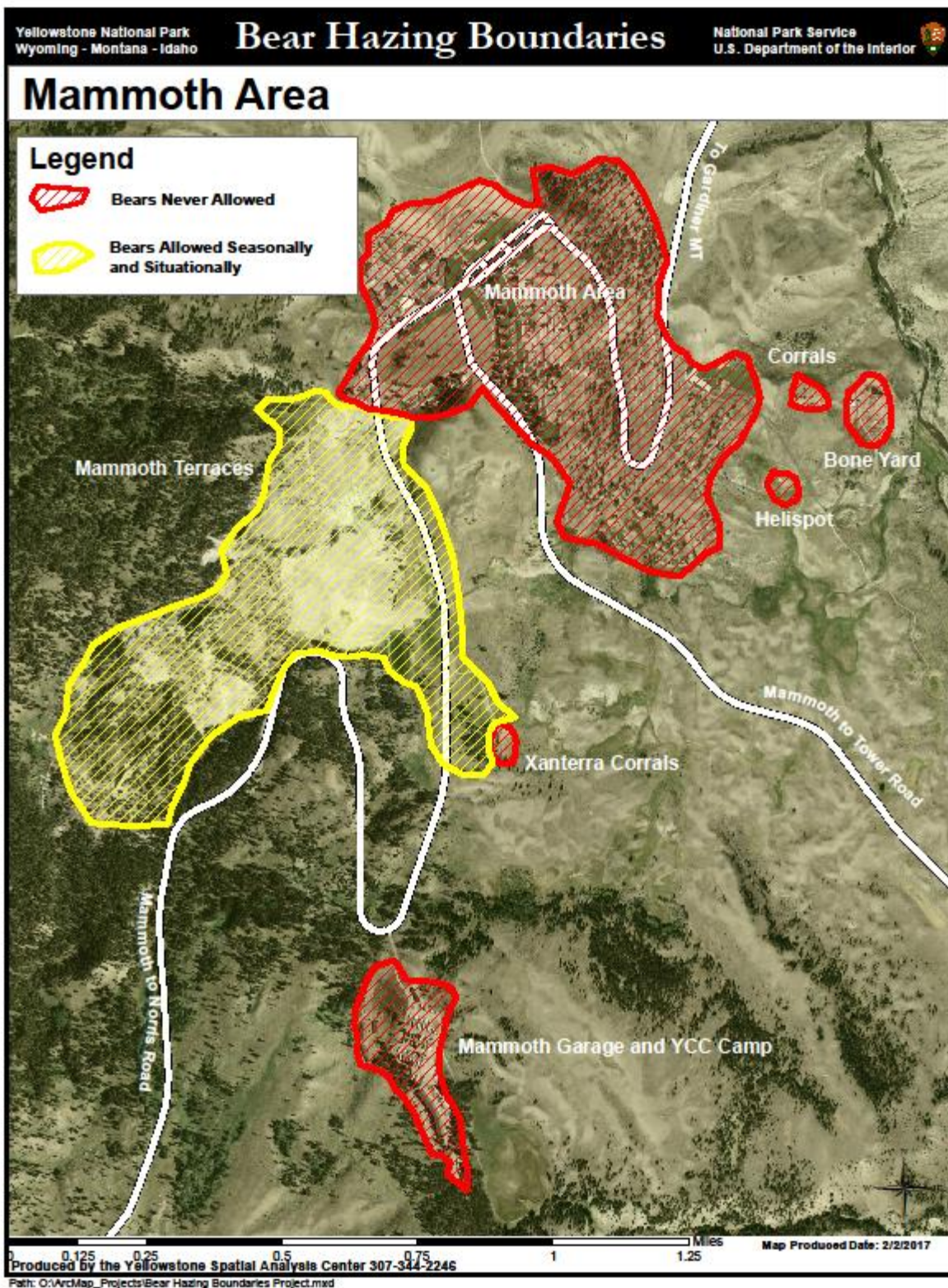
Produced by the Yellowstone Spatial Analysis Center 307-344-2246 - May 2012

Path: S:\Data_and_Map_Requests_2012\margherita_clean\2012_4_Travis_Wyman_Dev_Areas_Bear_Zones\ArcGIS_Projects\Lake\Lake_126.mxd

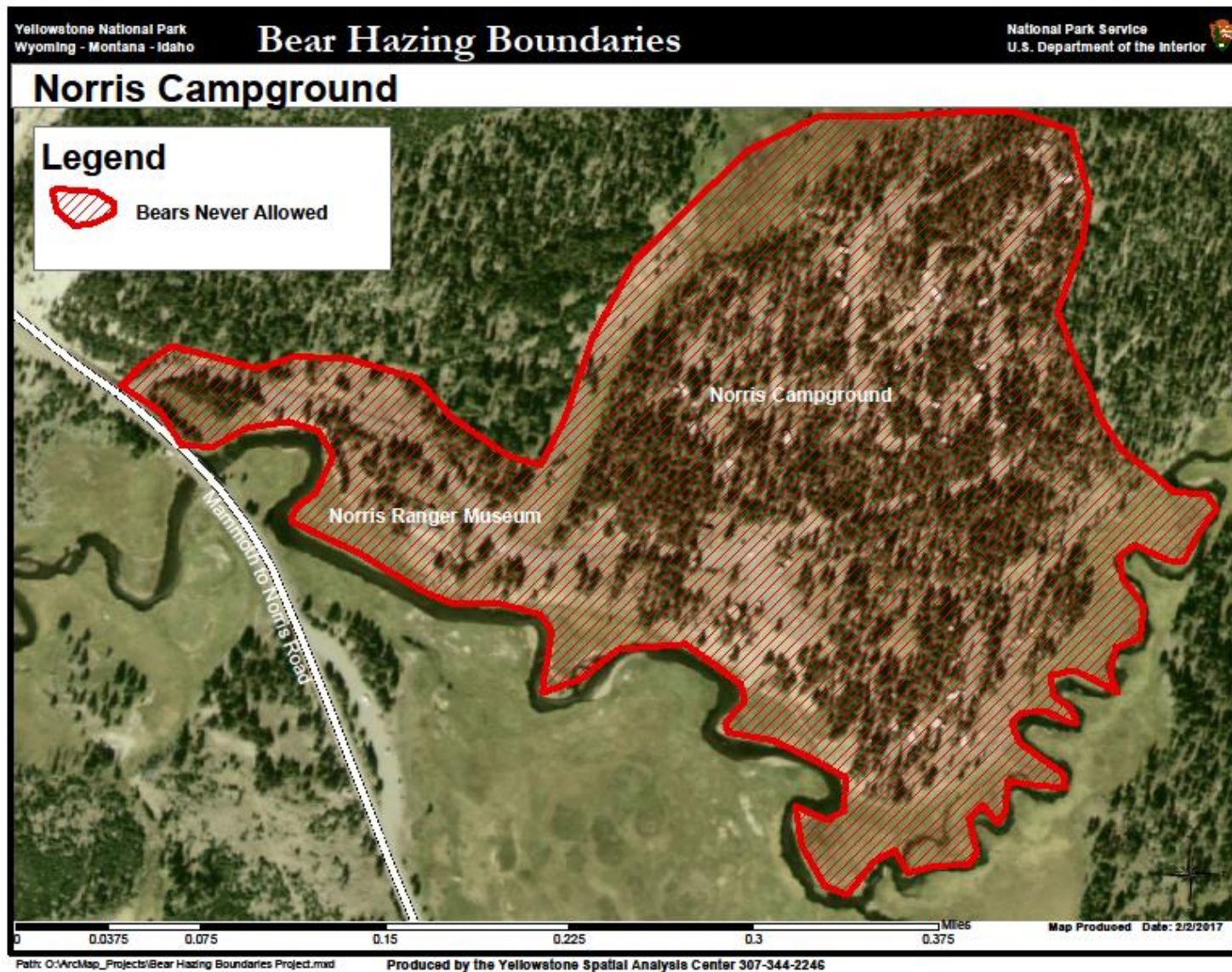
Lake Village developed area hazing perimeter (No Bear Zone).



Madison developed area hazing perimeter (No Bear Zone).



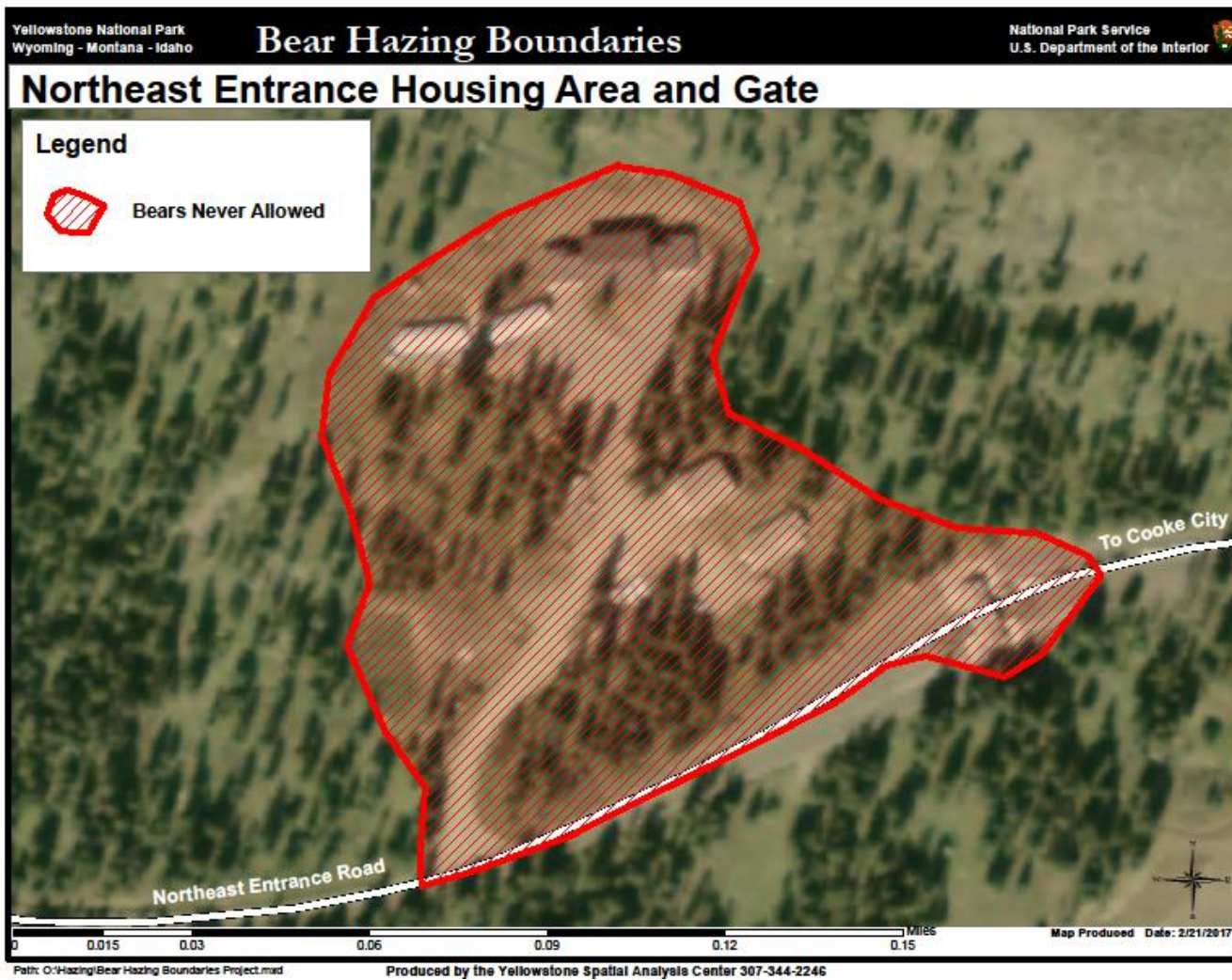
Mammoth developed area hazing perimeter (No Bear Zone).



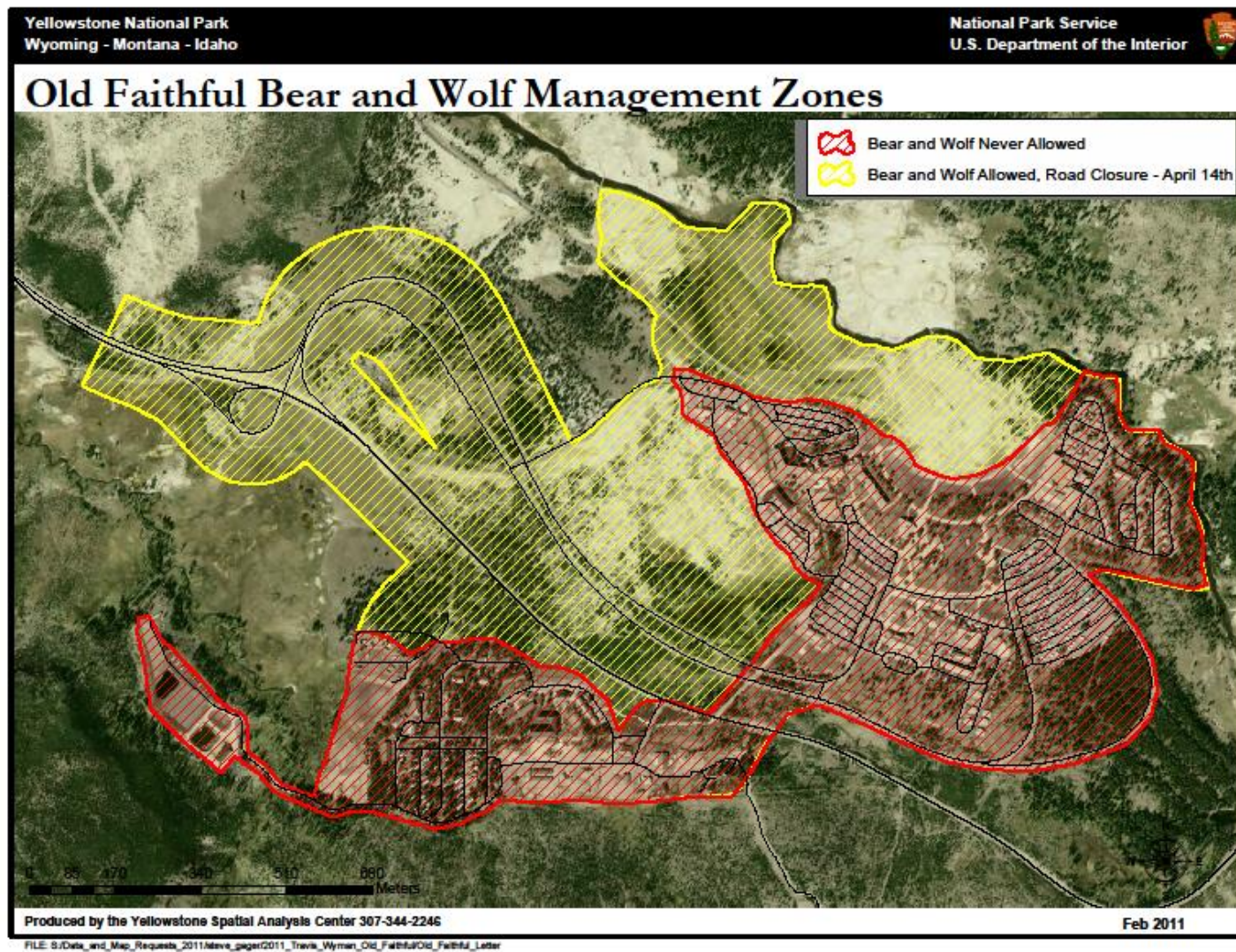
Norris Campground developed area hazing perimeter (No Bear Zone).



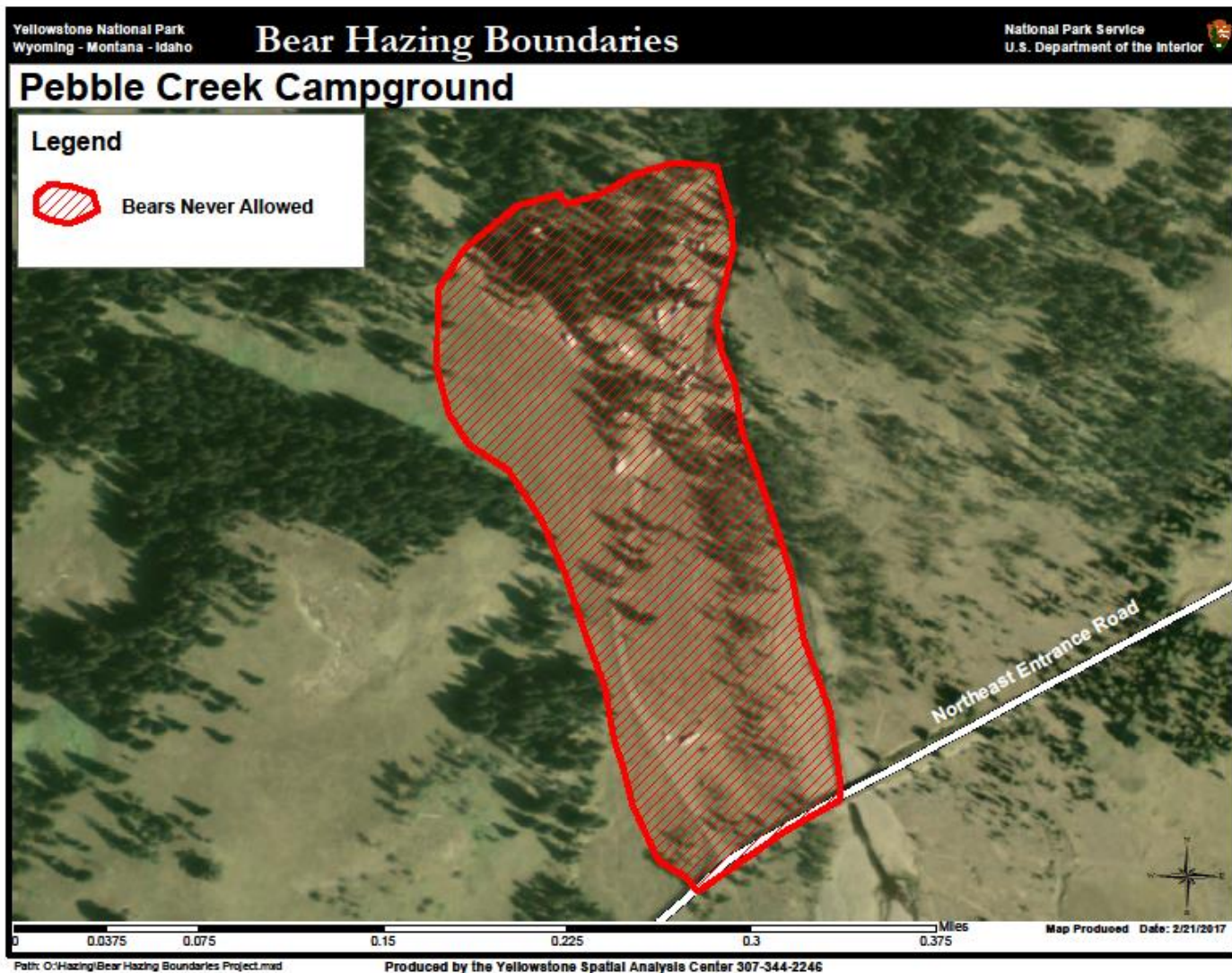
Norris Government developed area hazing perimeter (No Bear Zone).



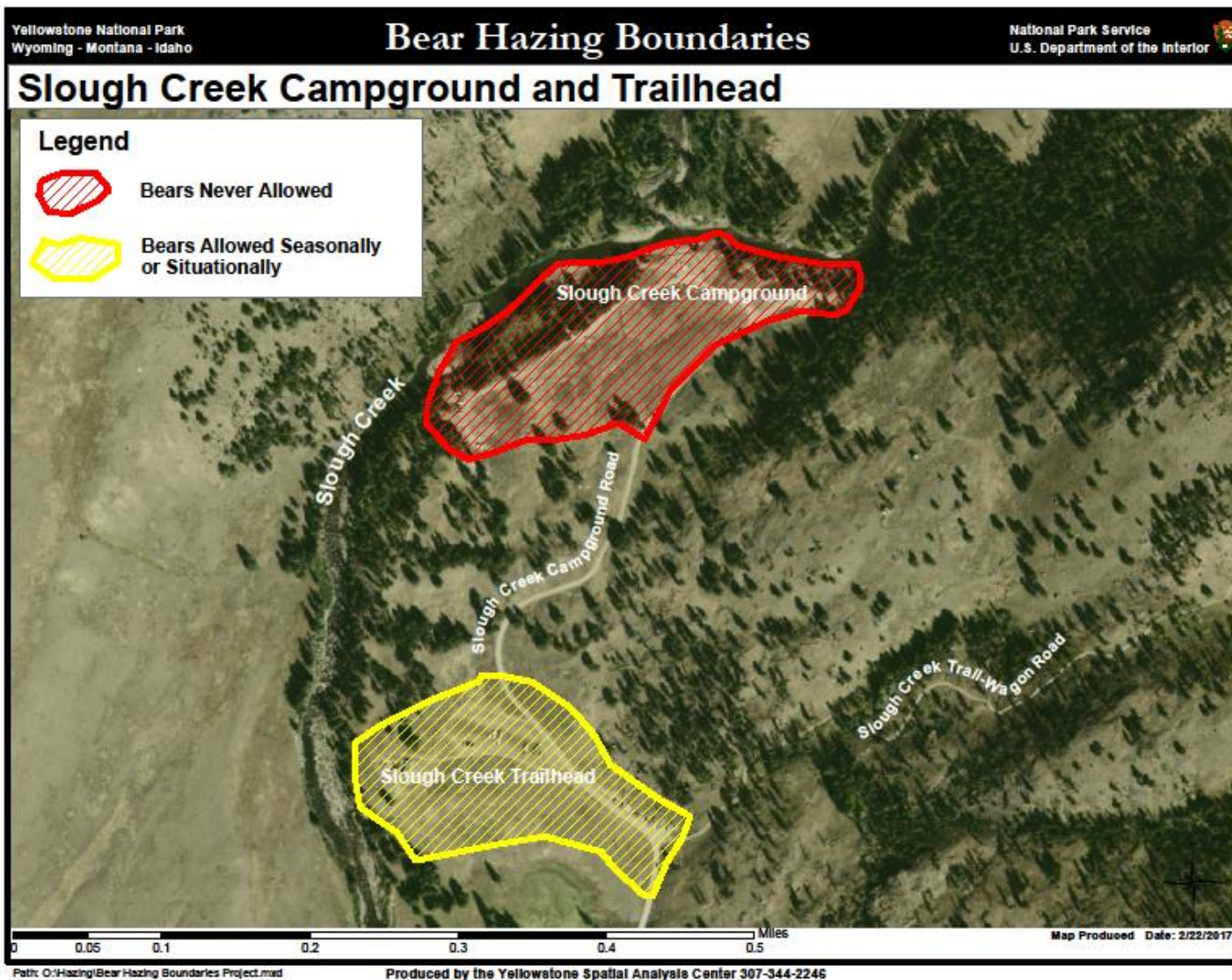
Northeast Entrance developed area hazing perimeter (No Bear Zone).



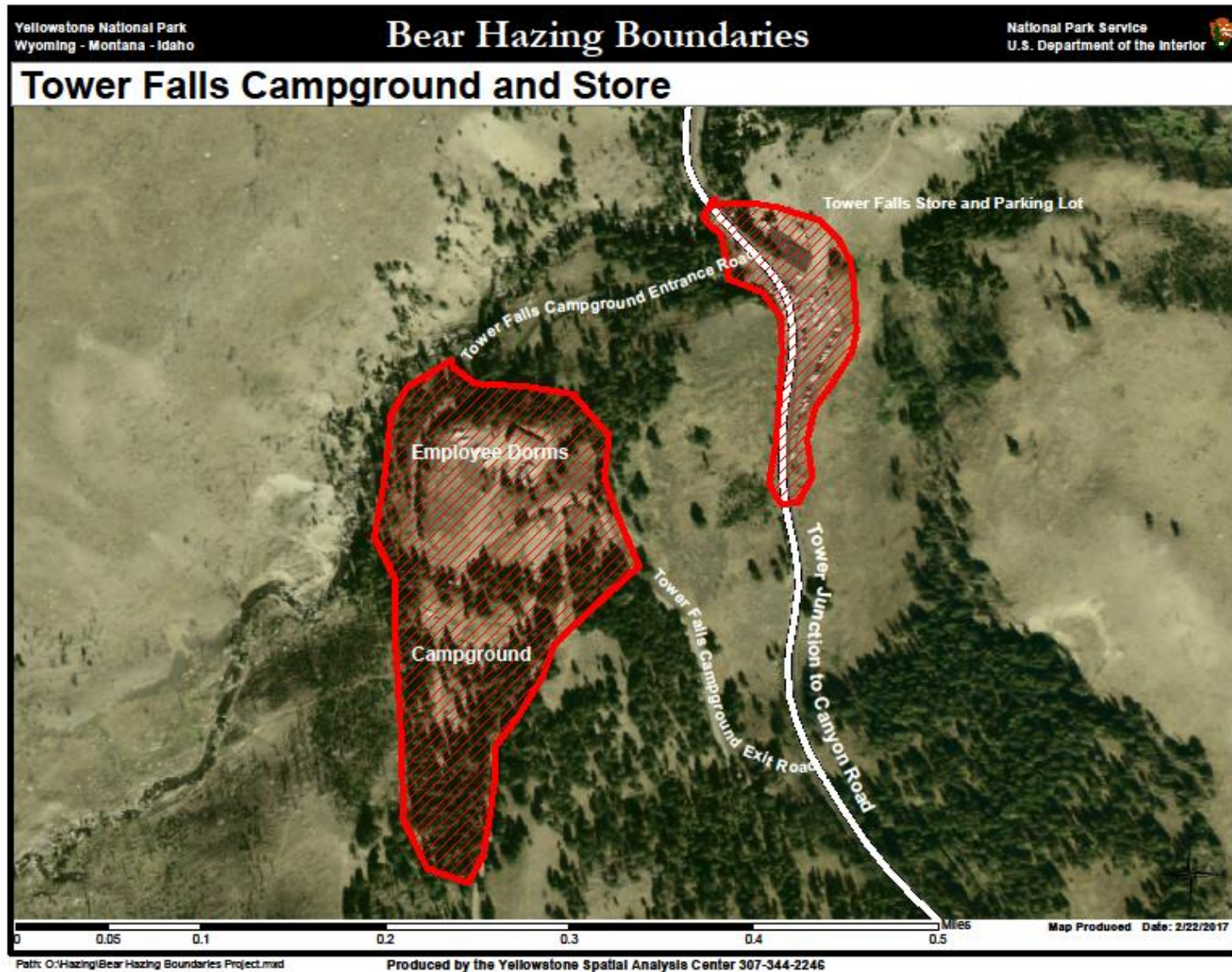
Old Faithful developed area hazing perimeter (No Bear Zone).



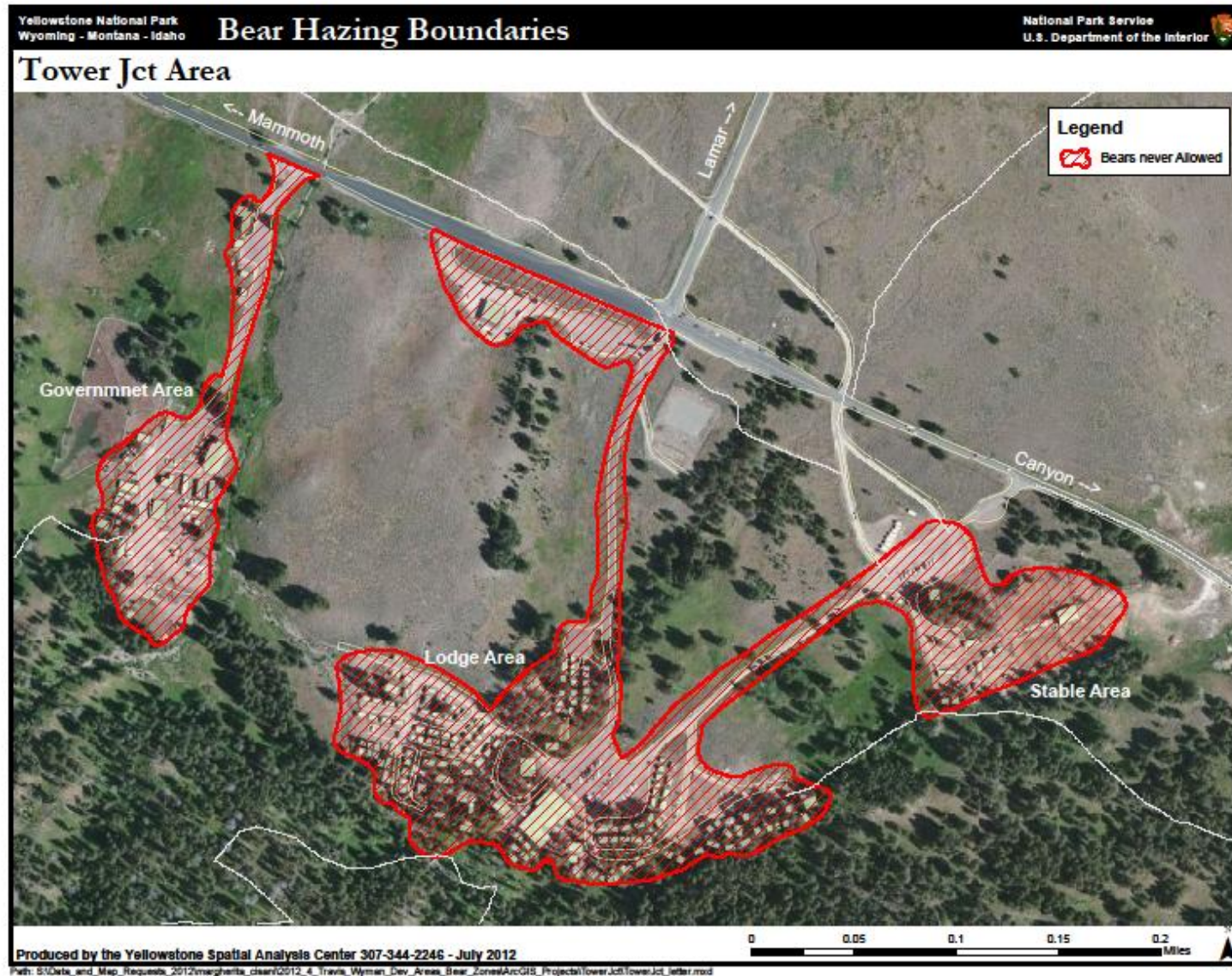
Pebble Creek Campground developed area hazing perimeter (No Bear Zone).



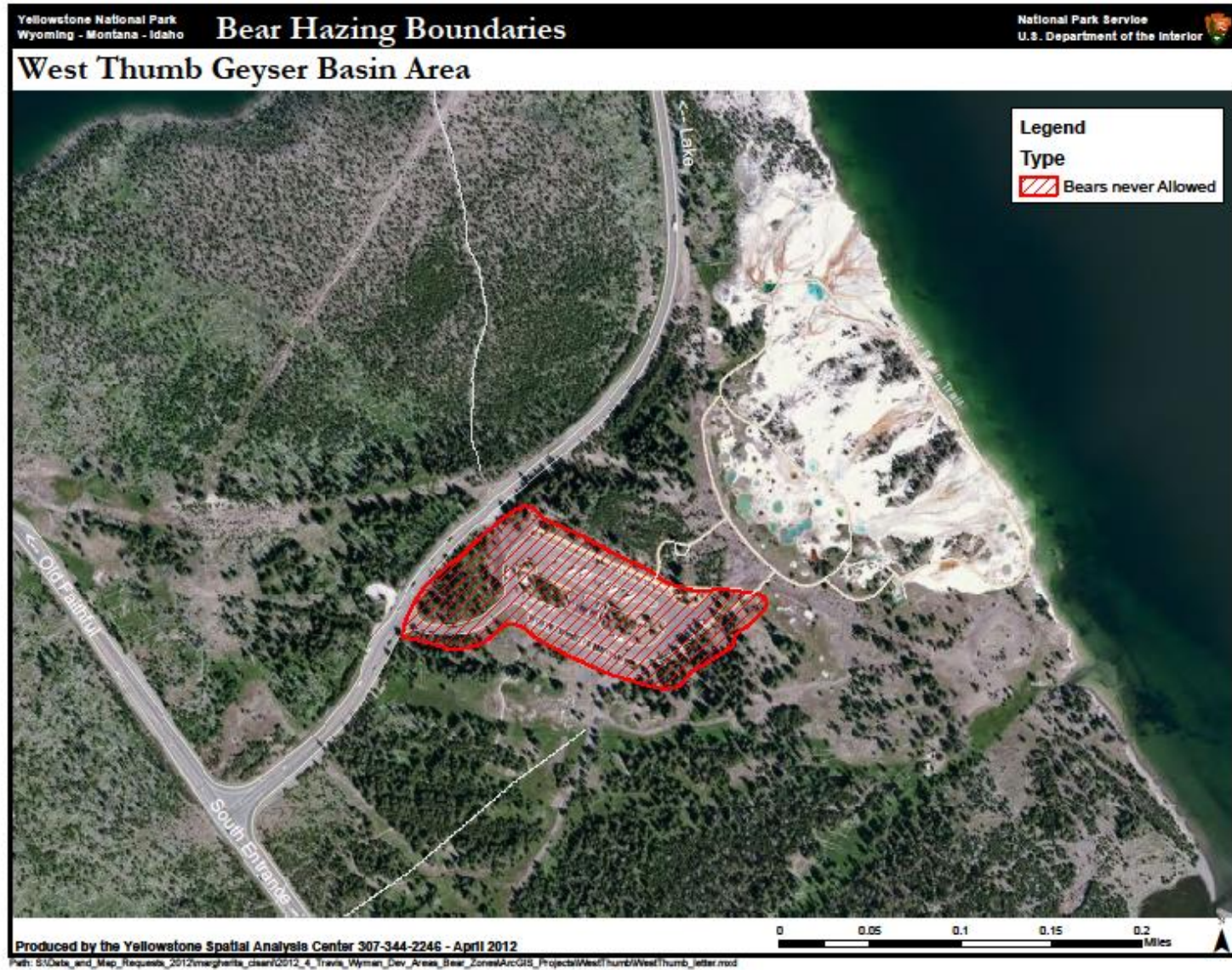
Slough Creek developed area hazing perimeter (No Bear Zone).



Tower Fall developed area hazing perimeter (No Bear Zone).



Tower/Roosevelt developed area hazing perimeter (No Bear Zone).



West Thumb developed area hazing perimeter (No Bear Zone).

From: (b) (5), (b) (7)(C), (b) (7)(F)
To: [Cooley, Hilary](#)
Subject: Re: [EXTERNAL] Brady Hours 8/2
Date: Monday, August 9, 2021 9:41:32 AM

Hi Hilary,

That sounds good. And I think it perfect timing as it appears her roadside activity is nose diving anyway. I will forecast that it may increase in Fall since YNP bears activity patterns increase during hyperphagia???

Will email receipts next round.

(b) (5), (b) (7)(C)

On Mon, Aug 9, 2021 at 9:10 AM Cooley, Hilary <hilary_cooley@fws.gov> wrote:

Thanks (b) (5), (b) (7)(C),
2 things:

- Starting next week, we'll need to cap your hours at 20 hrs/week. This is unless we need you to do additional work (e.g., 399)
- Please email receipts to Kate and I. They are difficult to keep track of when you send via text.

Thanks again, (b) (5), (b) (7)(C).

From: (b) (5), (b) (7)(C), (b) (7)(F) <(b) (5), (b) (7)(C), (b) (7)(F)@gmail.com>
Sent: Friday, August 6, 2021 3:08 PM
To: Cooley, Hilary <hilary_cooley@fws.gov>; Smith, Kate <kate.smith@mso.umt.edu>
Subject: [EXTERNAL] Brady Hours 8/2

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Hi Kate and Hilary,

Between 8/1-8/4 I worked 38 hrs. I did not include a mileage report as I believe these date were covered in the mileage report you grouped together already.

Thanks,
(b) (5), (b) (7)(C)

From: [Gunther, Kerry A](#)
To: [Cooley, Hilary](#)
Subject: Re: 399
Date: Thursday, August 12, 2021 2:16:33 PM

Yes, I think they are using habituation but they mean food conditioned, those bears are already highly habituated but I believe only began getting into anthropogenic foods last fall. I don't know of any evidence that #399 ever frequented Yellowstone National Park. I will be gone on vacation for the next 2 weeks, and will be in a Wilderness Area with no cell phone coverage. I guess I'll find out what happened when I get back.

Kerry Gunther
Bear Management Biologist
Yellowstone National Park
Office: (307)344-2162
Cell: (406)404-0481

From: Cooley, Hilary <hilary_cooley@fws.gov>
Sent: Thursday, August 12, 2021 12:41 PM
To: Gunther, Kerry A <Kerry_Gunther@nps.gov>
Subject: Fw: 399

Hey Kerry -
Wanted to make sure you're in the loop.
Our Director asked us for contingency plans for 399. We said YNP would be best relocation site, if needed, but said there is reluctance. See below message...
It seems there are some misunderstandings: We are hoping not to have to relocate. Also, I think Cam is confusing "habituation" with "food conditioned". Do you agree?

Do you know if 399's natal home range was in YNP?

From: Carpenter, Jennifer C <Jennifer_Carpenter@nps.gov>
Sent: Monday, August 9, 2021 4:31 PM
To: Hogan, Matt <Matt_Hogan@fws.gov>
Cc: Reynolds, Michael T <Michael_Reynolds@nps.gov>
Subject: 399

Hi Matt-

As we discussed, I reached out to Mike and Cam on this. As an introduction to a future phone call, here are Cam's thoughts about possible relocation to YELL.

If FWS is looking for translocation options (to anywhere) there are several things that need to happen.

- During this conversation last year, FWS had very limited habituation data beyond anecdotal. Their data and information needs to be much more detailed and convincing that high levels of habituation is occurring.
- They need to develop a public outreach strategy that includes media outlets and especially social media, articulating the types of behaviors observed, with detail, and that continued habituation could require translocation of the bear and her cubs. They're going to get seriously questioned on this so need to be prepared.
- Initiate some type of "save the bears" initiative for 399 and her cubs., stressing that translocation is a better option than euthanization and could protect the cubs from also becoming victim to human habituation.
- Outreach to WY congressional and state wildlife, proactively describing the issues and potential solutions and request for their assistance in supporting any decisions.
- Many locations in Yellowstone would not be far enough from GRTE to prevent nearly immediate return so it's not clear that this relocation to YELL is a viable strategy.
- Even the furthest northern locations in Yellowstone are only 63 miles from the north boundary of the JDR/GRTE boundary. That is not a long distance to cover, even with yearlings.
- At this point for the multiple reasons listed above we do not support translocation to YELL. Once FWS begins to get a handle on bullets 1-4 and then ascertains the viability of bullets 5-6, we can discuss more in depth.
- Last, I hope that FWS does not underestimate the immense public backlash that is coming if this isn't handled strategically.

Thanks

Jennifer

~~~~~

Jennifer Carpenter  
Associate Regional Director  
Resource Stewardship and Science  
NPS Regional Office Serving DOI Regions 6, 7 & 8  
720-955-0090 (cell)

**From:** (b) (6), (b) (7)(C), (b) (7)(F)  
**To:** [Cooley, Hilary](#)  
**Subject:** Re: [EXTERNAL] Order/Time off  
**Date:** Friday, October 1, 2021 12:32:34 PM

---

Thanks Hilary.

No problem on the rubber bullets. Hazed the bears several times this morning but didn't need to use rubber bullets just cracker shells. 863 wouldn't let me get close enough. She ran every time she saw me however the cubs are a different story. The cubs don't seem to have the same urgency they once did to stick with mom and like to linger by the road.

I'll put it all in an update this evening.

I will for sure to let (b) (6), (b) (7) know he's missing out.

Thanks again.

(b) (6), (b) (7)

----- Original Message -----

From: Cooley, Hilary <hilary\_cooley@fws.gov>  
To: (b) (6), (b) (7)(C), (b) (7)(F) <(b) (6), (b) (7)(C), (b) (7)(F)@bayland.net>  
Sent: Fri, 01 Oct 2021 10:46:35 -0400 (EDT)  
Subject: Re: [EXTERNAL] Order/Time off

Hi (b) (6), (b) (7),

Yes - time off is no problem. We'll find someone to cover for the 9th and 10th. I'm hoping she'll be in bed by early November and the rest will be a non-issue.

Rubber bullets might be another 1-2 weeks - they've been back ordered for a while. So go easy on them!

Say hi to (b) (6), (b) (7)! Let him know he's missing out on updating the contingency plan for 399.

-Hilary

---

From: (b) (6), (b) (7)(C), (b) (7)(F) <(b) (6), (b) (7)(C), (b) (7)(F)@bayland.net>  
Sent: Friday, October 1, 2021 6:03 AM  
To: Cooley, Hilary <hilary\_cooley@fws.gov>  
Subject: [EXTERNAL] Order/Time off

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Hi Hilary.

I just had a couple questions for you. It sounds like (b) (6), (b) (7) picked up some cracker shells from (b) (6), (b) (7) the other day that were delivered. I was just wondering if you knew when the rubber bullets are supposed to arrive? We have about 10 left.

Also, I have a few dates that I've already dedicated myself too prior to taking this position. The dates include Oct. 9, Saturday, and Oct. 10, Sunday.

I do have a trip planned for around the 18th of November until Thanksgiving weekend to celebrate my father's 90th birthday in Illinois. I hope these won't be a problem.

If (b) (6), (b) (7)(C) is around that weekend in October I can always work his hours if he wants to switch.

Hope all is going well with you. If you need anything else for your press release please let me know.

Thank you!

(b) (6), (b) (7)(C)

**From:** [Gunther, Kerry A](#)  
**To:** [Cooley, Hilary](#)  
**Subject:** Re: YNP Bear Hazing Plan  
**Date:** Wednesday, October 20, 2021 9:10:03 AM  
**Attachments:** [Final YELL Bear Hazing Plan 2017.pdf](#)

---

Kerry Gunther  
Bear Management Biologist  
Yellowstone National Park  
Office: (307)344-2162  
Cell: (406)404-0481

---

**From:** Cooley, Hilary <[hilary\\_cooley@fws.gov](mailto:hilary_cooley@fws.gov)>  
**Sent:** Wednesday, October 20, 2021 7:25 AM  
**To:** Gunther, Kerry A <[Kerry\\_Gunther@nps.gov](mailto:Kerry_Gunther@nps.gov)>  
**Subject:** time to talk this morning?

Hey Kerry,

Would like to ask you about a few things:

1. I'd like to walk thru things with you re: capture scenarios
2. Looks like NPS RD gave approval for NPS staff to assist, so wanted to see what your thoughts are
3. wondering if you have a safety plan for capture operations

Do you have time this morning to talk?

---

Grizzly Bear Recovery Program  
US Fish and Wildlife Service  
[hilary\\_cooley@fws.gov](mailto:hilary_cooley@fws.gov)  
406-243-4903



# **Yellowstone National Park**

## **Bear Hazing & Aversive Conditioning Plan**



**Bear Management Office**  
**Wildlife and Aquatic Resources Branch**  
**Yellowstone Center for Resources**  
**March 1, 2017**

This Yellowstone National Park "Bear Hazing and Aversive Conditioning Plan" has been reviewed by the Director of the Yellowstone Center for Resources, the Chief of the Wildlife and Aquatic Resources Branch, the Chief Ranger, Deputy Chief Ranger, and Bear Management Biologist, and is approved by the Park Superintendent. This plan is intended for Yellowstone National Park Resource and Visitor Protection staff and Yellowstone Center for Resources Bear Management, Wildlife, and Resource Management staff that haze bears as part of their official duties. This "Bear Hazing and Aversive Conditioning Plan" goes into effect beginning in 2017 and will be reviewed at least every 5 years thereafter, and revised as needed.

*Written/Recommended By:*



Kerry Gunther, Bear Management Biologist

3 / 1 / 17

Date

*Reviewed/Recommended By:*



PJ White, Chief, Wildlife and Aquatic Resources Branch

3 / 7 / 17

Date



Jennifer Carpenter, Director - Yellowstone Center for Resources

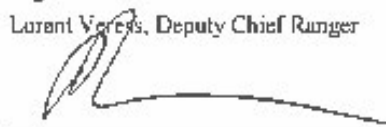
3 / 7 / 17



Laurent Veres, Deputy Chief Ranger

3 / 16 / 2017

Date



Pete Webster, Chief Ranger

3 / 25 / 17

Date

*Approved By:*



Dan Wenk, Superintendent

4 / 10 / 17

Date

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## INTRODUCTION

Yellowstone bears spend up to 6 months hibernating in winter dens without eating. Because of this long period of fasting and the need to accumulate large fat reserves for hibernation, bears are a very food motivated species for the 3-4 months prior to den entrance. This food motivation combined with their intelligence, adaptability, and omnivore generalist lifestyle, allows bears to quickly learn to exploit new food resources, especially high-calorie human foods. However, bears that become conditioned to human foods can be a significant threat to park visitors and their property, and so are not tolerated in Yellowstone National Park (YNP). Bears' behavioral flexibility combined with their strong food motivation are also influencing factors in their propensity to become habituated (tolerant) to human presence in exchange for access to habitats containing high quality natural foods. Once habituated to people, bears require greater management attention to prevent human-bear conflicts from occurring. Hazing and aversive conditioning are non-lethal tools sometimes used by bear managers to address the human safety concerns associated with food conditioned and/or habituated bears that use habitats in proximity to areas of concentrated visitor use.

Aversive conditioning is a learning process in which deterrents (pain, noise, threat, or other unpleasant stimuli) are consistently administered to bears with the intent to permanently eliminate behavior deemed undesirable by managers (Hopkins et al. 2010). The practice of hazing employs the same operational tools and tactics as aversive conditioning, but recognizes that efforts to work with a particular individual bear cannot always be constant or consistent enough to result in successful long-term behavior modification (the goal of aversive conditioning), but can address immediate short term safety considerations. Therefore, for the purposes of this plan, aversive conditioning is defined as the use of pain, noise, threat, or other unpleasant stimuli with the intent of long-term behavior modification; whereas hazing is the opportunistic use of these same conditioning deterrents to address immediate, short-term concerns for the safety of visitors and their property. For example, a bear that has learned to approach visitors' vehicles along roads for human food handouts is a prime candidate for aversive conditioning in an attempt to permanently change its behavior, as a last resort prior to the decision to capture and lethally remove the bear from the ecosystem. Whereas opportunistic hazing to get a bear to leave an area of concentrated visitor use is appropriate to address the immediate human safety concerns of a bear that has purposefully or inadvertently entered a park development. The cumulative effects of hazing may alter a bear's behavior for long periods of time, or possibly permanently, if administered frequently and consistently enough. In these cases, the application of hazing techniques has produced the long-lasting effects of aversive conditioning. It is important to understand that hazing and aversive conditioning are not solutions to human-bear problems, they are simply additional tools, used secondarily to other management actions such as visitor education, visitor and traffic management, enforcement of food and garbage storage regulations, and enforcement of bear approach distance regulations. Efforts to teach park visitors correct behaviors to prevent conflicts from occurring, including correct methods of storing food and garbage as well as proper behavior around bears and bear viewing etiquette should always be considered the first option in addressing human-bear conflicts. Social surveys indicate that aversive conditioning has stronger support among park visitors than lethal removal of bears (Richardson et al. 2015). However, long-term experience indicates that efforts to

induce permanent behavior modifications in bears are very costly in terms of staff time and budgets, and generally have a low success rate.

Throughout this plan, the term hazing is used recognizing that the intent in most operations conducted under this plan are to address immediate concerns for the safety of visitors and their property. However, a desired secondary objective of many hazing operations is long term behavior modification. In addition, in some specific situations, the primary intent of negative conditioning will be to induce long term behavior modifications as a last resort prior to management removal of bears from the wild.

## **PURPOSE**

The goal of Yellowstone National Park's (YNP) bear management program is to restore, protect, and perpetuate the natural abundance, distribution, movements, genetics, food habits, habitat use, behavior, and ecological processes of grizzly and black bears as free from human influences as possible. However, park management recognizes that in an area that receives over four million visits annually, primarily during the active (non-denning) bear season, some human influences on bear behavior are inevitable. The objectives of the Park's bear management program are accomplished primarily through proactive means, including visitor and employee education and bear-resistant garbage management and food storage. However, when bears enter developments or other areas of concentrated visitor use, damage property, or become conditioned to human foods, measures such as hazing or aversive conditioning may be implemented, both for visitor safety and bear safety (to prevent the need to capture and lethally remove bears). The purpose of this plan is to ensure that park staff implement hazing and aversive conditioning protocols in the safest, most effective, and coordinated manner possible.

## **SCOPE**

Development and oversight of the Bear Hazing and Aversive Conditioning Plan lie within the Yellowstone Center for Resources Bear Management Office and the Resource and Visitor Protection Division. Certified Range Masters and the wild-land Fire Management Officer provide advice and oversight on human and fire safety concerns involving firearms and pyrotechnics. This plan applies to all personnel that are involved with the hazing or aversive conditioning of grizzly and black bears in the park. It is critical that all methods be employed correctly, as improper use will reduce the effectiveness and could lead to human or bear injury or death, or result in property damage, visitor complaints, and/or legal action. Only hazing methods described in this plan may be used on bears in YNP. Under limited conditions, methods detailed in this plan may be applied to rectify situations involving wildlife species other than bears that do not have an approved species-specific hazing plan. All wolf hazing operations must follow the plan for "Management of Habituated Wolves in Yellowstone National Park."



## **LEGAL AUTHORITY**

The Lacey Act of 1894 (U.S., Statutes at large, vol. 28, p. 73) grants significant discretionary authority to the Secretary of the Interior for the management of animals in Yellowstone National Park. In addition, the Organic Act grants authority to the National Park Service (NPS) for the management of native animal populations including grizzly bears and black bears within park boundaries. Under the authority of both the Lacey Act and Organic Act, the NPS has developed guidelines for the use of aversive conditioning as a management option for bears (Natural Resources Management Guidelines, NPS-77). Because grizzly bears are currently listed as a Threatened Species under the authority of the Endangered Species Act, any use of hazing or aversive conditioning techniques on grizzly bears is done under sub-permit from the U.S. Fish and Wildlife Service (USFWS). Personnel from YNP are authorized to harass grizzly bears while conducting aversive conditioning activities with rubber bullets, specially trained dogs, noise, and sprays under conditions as described in Section (i) C and D of the grizzly bear 4(d) rule, 50 CFR 17.40(b). In addition, in regards to the Threatened Species status of grizzly bears, hazing and aversive conditioning are considered “Take” by the USFWS. Section (i) F of the grizzly bear 4(d) rule, 50 CFR 17.40(b) states “The regulations of the National Park Service shall govern all taking of grizzly bears in National Parks”. This “Bear Hazing and Aversive Conditioning Plan”, as signed by the superintendent, contains the guidelines and protocols established for conducting hazing and aversive conditioning operations on grizzly bears and American black bears in YNP.

## **OBJECTIVES**

Under this plan, the objectives for grizzly bear and black bear hazing and aversive conditioning operations in YNP are to:

1. Move bears out of developed areas intended for visitor or administrative use any time it is safe to do so.
2. Teach bears to avoid park developments, administrative housing areas, front-country campgrounds, occupied backcountry campsites, and other areas of concentrated human activities.
3. Temporarily displace bears from wildlife carcasses that need to be moved or removed from developed areas, campgrounds, roadsides, boardwalk trails, backcountry trails, backcountry campsites, or other areas due to human safety concerns.
4. Prevent, eliminate, or dissuade bears from the expression of dangerous, potentially dangerous, or destructive behaviors towards humans and their property.
5. Allow bears to forage for natural foods and engage in natural behaviors in all wilderness and backcountry habitats in the park.
6. Allow bears to forage for natural foods and engage in natural behaviors in undeveloped habitats adjacent to roads and boardwalk trails when it is safe to do so.
7. Allow visitors to view and photograph bears in undeveloped habitats adjacent to roads and boardwalk trails when it is safe to do so.
8. Conduct hazing operations in a manner so that bears do not develop a rigid “fear reaction” to people, but rather understand that they have options to avoid areas of concentrated human use.

## **HISTORY and PHILOSOPHY**

Conditioning, either positive or negative, can result in an animal associating a reward or punishment with its behavioral response to a stimulus (Gillin et al. 1994, Honeyman 2008, Mazur 2010). Aversive conditioning involves pairing a negative stimulus such as pain, loud noise, or threat with bear behavior managers have deemed undesirable (Katmai 2001). This learning technique can be applied in an attempt to prevent or eliminate the expression of dangerous, potentially dangerous, or destructive behaviors by bears towards humans and their property (Katmai 2001). Properly delivered, aversive conditioning can teach a bear to associate a punishing experience with its presence in a residential area or campground, the act of obtaining human food, or the process of behaving aggressively or too boldly toward people. Aversive conditioning should only be conducted when the bear is involved in one of these activities. Otherwise, the bear may associate the aversive conditioning stimulus with whatever other behavior it is engaged in at that moment. However, even if delivered while the bear is in the act, long-term conditioning cannot be assured. A bear may simply be displaced temporarily (the goal of hazing), or it may learn the wrong thing, such as to abandon the behavior only when it detects the presence of a uniformed Park employee with a shotgun (loaded with hazing rounds).

For punishment to be most effective, it should be instant and severe (Davey 1981, Homstol 2011). A progression from mild to severe conditioning, may promote habituation of the bear to the hazing stimuli. However, when hazing in areas frequented by large numbers of people, such as developments, campgrounds, or along roads, light hazing is often necessitated due to concerns for human safety. Therefore, hazing should be conducted aggressively (bean bags, rubber bullets, rubber batons) when safe to do so, but soft hazing (clapping, yelling, lights, sirens, vehicle pressure, human pressure) should be used when dictated by circumstances (areas with large numbers of unmanaged visitors). Once bears are pushed to the edges of developments through soft hazing, then aggressive hazing can be applied until the bear has left the hazing zone perimeter. Regardless of whether using aggressive or soft hazing, it should occur as soon as safely possible after the bears' undesirable behavior is exhibited, to increase the probability that the animal will associate the hazing stimulus with the undesirable behavior. It may be better to attempt to displace a bear as soon as it begins entering a campground or development with soft hazing (yelling, clapping, vehicle lights, horns, sirens, vehicle pressure, human pressure), than to take the time to retrieve the hazing equipment required for firing contact rounds. Bears may learn to recognize uniformed park staff, NPS vehicles, hazing behavior by humans, the presence of shotguns, or even individual people. Bears also readily learn the noise associated with their hazing experiences. For example, bears that have been previously hazed with 12 gauge contact rounds will often flee at the sound created by working the action on a pump shotgun.

In some situations teaching wariness of humans may be the only option available to prevent a bear from developing a dangerous behavior. For example, it is very difficult to catch a bear in the act of crushing a tent in a backcountry campsite or climbing on cars along a road. If a bear is beginning a pattern of such undesirable behavior and cannot be caught at it, the next reasonable option is to haze the bear for its proximity to humans, campsites, campgrounds, or cars. Similarly, a bear that is repeatedly observed boldly approaching and/or following humans within several meters should be hazed whenever it closely approaches humans.

Any aggressive act toward a bear can escalate into the need to kill the bear if the bear is injured or responds to hazing aggressively, endangering human life. Human safety, the potential benefits of hazing the bear, the consequences of not hazing, and the danger to the bear should be evaluated in each incident. Whenever possible, qualified YNP personnel should be prepared to haze when responding to bears exhibiting undesirable behavior, but they should not execute the procedure unless the safety of both humans and the bear are reasonably assured. Remember that you never have to haze a bear, although you may have to kill one if it reacts aggressively to hazing or you injure it with hazing rounds. Park staff should never feel obligated to haze a bear when safety is not assured.

It is important that aversive conditioning efforts have clearly defined goals and post-implementation evaluation. Formal aversive conditioning of bears has been attempted in YNP at least since 1902, using different techniques with mixed results. Techniques that were effective were maintained, while those that were ineffective, not humane, or became too costly, dangerous, or impractical were discarded. Retraining highly intelligent, very adaptable, extremely food motivated species such as bears is challenging and time-consuming and in many cases, may be impossible. The limited long-term success of aversive conditioning in YNP to date, has been accomplished when food attractants (natural or anthropogenic) have been successfully eliminated or made bear-resistant, and hazing has been implemented repeatedly and consistently over small geographic areas with distinct boundaries that are easily recognizable to bears.

## **HAZING TERMINOLOGY**

*Aversive Conditioning:* A learning process in which deterrents (pain, noise, threat, or other unpleasant stimuli) are consistently administered to bears in an effort to permanently eliminate behavior deemed undesirable by park managers (Hopkins et al. 2010). Capturing, radio collaring, and monitoring the target bear are essential to effectively implement aversive conditioning on a consistent basis. Major constraints of aversive conditioning are the funding and staff time needed to consistently implement aversive conditioning during every teachable moment (catching bears in the act). Even the best-coordinated efforts to retrain bears could be negated by just one instance where the bear is able to perform its undesirable behavior without a negative consequence. It is especially difficult to successfully change bear behavior because bears are such an intelligent and highly food motivated species. Aversive conditioning is most effective on naïve bears, especially if you apply aversive conditioning the first time they engage in behavior deemed inappropriate by managers.

*Hazing:* The practice of hazing employs the same operational tactics and tools as aversive conditioning, but recognizes that the efforts to work with a particular bear cannot be constant or consistent enough to result in successful long-term behavior modification (the goal of aversive conditioning). Therefore, hazing is a technique where deterrents (pain, noise, threat, or unpleasant stimuli) are administered to bears opportunistically to immediately, but temporarily, modify the bears' undesirable behavior on a short term basis (Hopkins et al. 2010). Hazing is commonly used to get bears to leave developments, campgrounds, or other areas of concentrated human activities, due to human and/or bear safety concerns. Capturing and radio collaring the

target bear is not necessary for implementing hazing. The cumulative effects of hazing may alter a bear's behavior for long periods of time, or possibly permanently, if administered frequently and consistently enough. In these cases, the application of hazing techniques has produced the long-lasting effects of aversive conditioning. Hazing is most effective when applied to naïve bears, especially if you haze them the first time they engage in behavior deemed inappropriate by managers.

*Hard Hazing:* Also referred to as *heavy hazing* or *aggressive hazing* involves the use of hard hitting contact rounds (bean bags, rubber bullets, rubber batons) to haze bears. Hard or aggressive hazing is the tool of choice when the bear has been caught in the act of undesirable behavior, the bear has a clear escape path that is known to be free of park visitors, all nearby visitors can be adequately controlled, and it is safe to conduct the hazing operation. Note: the paintball gun fired rounds (Deter-It Ultra-Mag & Powder-ball) approved for hazing in YNP have very little impact energy, especially considering the thick fat, hide, and fur of bears and therefore are considered to be an intermediate hazing tool falling somewhere in between soft and hard hazing techniques.

*Soft Hazing:* Also referred to as light hazing, involves the use of clapping, yelling, vehicle pressure, human pressure, lights, sirens, horns or other noise to haze bears. Light hazing is the tool of choice when large numbers of unmanaged park visitors are nearby and it is uncertain if the bear has a clear escape path free of park visitors.

*Food Conditioned Bear:* A bear that has learned, through prior food reward, to associate people, human activities, human-use areas, or food or garbage storage receptacles as sources of anthropogenic foods (Hopkins et al. 2010). Once a bear is food conditioned, it has learned a positive association between humans and food, and human safety becomes a concern (Homstol 2011). Most wildlife biologists consider human food conditioning a negative, potentially dangerous behavior in bears. Therefore, as a general rule, food conditioned bears are not tolerated in YNP. Bears that become conditioned to human foods are captured and removed (killed or sent to zoos).

*Habituated Bear:* A bear that shows little to no overt reaction to people as a result of being repeatedly exposed to human stimuli without substantial consequence (Hopkins et al. 2010). Wildlife biologists do not consider habituation to be either good or bad, it is simply an adaptable behavior that is inevitable when bears and other wildlife are exposed to frequent benign encounters with large numbers of people. In national parks with high visitation, some habituation of bears to people is inevitable and may be necessary if bears are to survive in park units increasingly dominated by humans (Gunther et al. 2015).

*Human-Bear Conflict:* Incidents where bears damage property, obtain anthropogenic foods, injure people, or kill people.

*Conflict Bear:* Any bear with a history of being involved in multiple incidents of conflicts with humans such as damage to property or attempting to obtain human foods, garbage, or other anthropogenic attractants. Bears feeding on natural foods along backcountry trails, boardwalk trails, and roadsides are not considered conflict bears. Under this plan, traffic congestion (bear-

jams) caused by habituated bears foraging for natural foods along roadside habitats are considered people/traffic management problems and should be managed accordingly.

*Developed Area:* All areas within the outer edge of the human impact footprint of visitor and administrative activity complexes including campgrounds, hotels, lodges, cabins, restaurants, stores, dormitories, employee housing areas, administrative buildings, or other buildings and facilities used by park visitors, NPS, concessionaire, or contractor staff.

*Road Corridor:* All paved or gravel roads open to motorized visitor travel during all or part of the year. The maintained roadside pull-outs, road shoulder, and drainage ditch adjacent to park roads are considered part of the road corridor. Natural habitat adjacent to roads, road shoulders, road drainage ditches, and roadside pull-outs is not considered part of the road corridor.

*Boardwalk Trail:* Boardwalk trails are short front-country trails accessed from park roads and/or developments that contain interpretive signs providing visitors with information about geyser basins or other natural features. Boardwalk trails are constructed to provide a stable walking surface with gentle grades or steps to get up and down hills, allowing use by visitors of a wide-range of ages, physical abilities, and hiking experience. YNP contains approximately 15 miles of boardwalk trails. Stock animals (horses, mules, and llamas), bicycles, and overnight camping are not allowed on boardwalk trails. Boardwalk trails receive very high levels of visitor use during the peak season of visitation (mid-May through mid-October), but relatively little use in early spring, late fall, and winter.

*Backcountry:* All areas of YNP outside of developed areas, road corridors (paved or gravel), and boardwalk trails. Backcountry areas include, but are not limited to, all areas proposed for wilderness designation.

*Management Zones:* For bear hazing operation purposes, YNP is divided into four broad-scale management zones, each with different levels or prescriptions of appropriate hazing response. The four management zones include: 1) developed areas, 2) road corridors, 3) boardwalk trails, and 4) backcountry areas (including on-trail and off-trail areas) as defined above.

*Developed Area Hazing Perimeter (No Bear Zone):* Under this hazing plan, park developments are managed for people and bears are actively excluded. For hazing operations, an approximate 100 meter buffer (no bear zone) is established around the perimeter of the footprint of all park developed areas. Each District Ranger should establish a Developed Area Hazing Perimeter of approximately 100 yards around the outside edge of the development footprints within their respective districts. Whenever safe to do so, bears should be hazed until they leave the development and the 100 meter no bear zone (developed area hazing perimeter) surrounding the development. In some cases, use of readily distinguishable natural (e.g., vegetation cover, forest/non-forest edge) or anthropogenic (e.g. edge of pavement) features that are easily recognizable to park staff and bears may necessitate a perimeter larger or smaller than 100 meters. The exact distance of the hazing perimeter is not as important as having a boundary that can be easily recognized by bears and consistently applied by park staff. In most situations, an area outside of the development that provides the bear with good horizontal cover (can no longer see the bear) makes the best boundary. Whether using natural or man-made boundaries, the

hazing perimeter should be predetermined, easily distinguishable, and consistently applied by all staff. District Rangers should work with Bear Management Office staff to establish, digitize, and produce maps of the Developed Area Hazing Perimeter for each developed area in the park. These maps should be posted in Ranger Station offices, placed in patrol vehicles, or otherwise provided to all staff approved as hazing operations leaders in the District. The maps help ensure that all staff are providing bears with a consistent hazing message. By delivering a consistent message, bears are more likely to learn the intended message and less likely to react aggressively to hazing efforts. Developed Area Hazing Perimeters may periodically be changed based on new information, data, or hazing experiences. However, local area bears will need to go through a new learning period when hazing boundaries are changed.

## **HAZING TOOLS and TECHNIQUES**

### **Hazing Rounds and Firearms**

Requests for hazing ammunition should be given to the local District Ranger and that person will request them from the Bear Management Office. This will allow tracking of use, effectiveness, and ensure everyone is using the proper type of hazing rounds. To minimize the risk of accidentally firing lethal rounds during hazing operations, 12-gauge cracker shells and contact hazing rounds should only be fired from shotguns designated as hazing guns. All dedicated hazing guns should have orange stocks. The orange stocks also designate to the public that the firearm is used for less-than-lethal rounds. **Lesson Learned:** During a hazing operation in YNP in the 1990's, a lethal slug was accidentally fired from a shotgun containing both lethal rounds and cracker shells. Fortunately, the slug hit the ground and no person or bear was hurt in the incident. Other agencies have accidentally killed bears by unintentionally hitting them with lethal rounds during hazing operations. In all of these incidents lethal rounds were mixed with hazing rounds in the magazine with the intention only to use the live rounds as lethal backup if needed. These incidents underscore the importance of using separate firearms for lethal back-up cover guns and hazing guns. 12-gauge lethal slugs should never be mixed with hazing rounds in the shotgun magazine.

Many different types of wildlife hazing rounds are commercially available. However, when engaged in complex hazing operations, park staff have many strategic as well as safety considerations for both visitors and bears to concentrate on. Therefore, to reduce the complexity of choices in hazing rounds, the number of different types of rounds approved for use in YNP have been kept to minimum. The approved rounds were chosen to cover the range of distances and contact impacts needed to successfully implement hazing operations. Minimizing the types of different rounds also simplifies purchasing, inventory, and training requirements. Approved hazing rounds may be periodically changed based on experience and effectiveness, or new research or technology.

## Approved Standard Hazing Tools and Techniques

***Vehicle Threat Pressure.***--Vehicles can be an effective hazing tool. By driving vehicles at bears (without hitting them), it can apply enough threat pressure to get bears to leave paved roads, roadside pull-outs, road shoulders, adjacent roadside drainage ditches, park developments, or other areas of concentrated human activity with road access. The speed of the vehicle and the distance to which the bear is approached by the hazing vehicle before stopping or turning, can be modified to apply either light (slow and distant) or more aggressive (fast and close) pressure. The effectiveness of vehicle pressure can be enhanced by using it in combination with auditory deterrents such as sirens, horns, or the public address (P.A.) system. Caution must be taken that no contact is made between the vehicle and the bear(s). It is critical that road conditions and other vehicle and visitor safety concerns be considered prior to applying vehicle threat pressure to bears. For visitor and driver safety, overhead lights should always be utilized when hazing bears with vehicles. Unless there is an immediate threat to human safety, this method should only be used on established roads and parking lots. This method should not be used on icy or wet slippery surfaces. As with any hazing incidents, ensure the bear has a safe and desired escape route and all visitors are in a safe location prior to initiating the hazing operation. The goal of this hazing method is to move the bear off of the paved road, roadside pull-out, road shoulder, drainage ditch, development, or other area of concentrated human use accessible from roads. As soon as the bear(s) is clear of the prescribed hazing zone, pressure and noise should be discontinued.

***Non-Projectile Auditory Deterrents.***--There are 7 standard non-projectile auditory deterrents used in YNP. These include yelling, clapping, banging pots or other objects, air horns, vehicle horns, vehicle sirens, and P.A. systems (vehicle-based or hand-held). These deterrents are often sufficient to move bears short distances; however some bears quickly habituate to these sounds if used repeatedly without the use of pain-inducing contact rounds. Although the efficacy of these methods may deteriorate over time, they are especially useful for applying light pressure to safely move bears from areas with large numbers of people nearby.

***Yelling:*** Yelling can be an effective method to move bears out of developments and off of roads or carcasses. Most bears will eventually habituate to yelling if used repeatedly without the use of pain-inducing contact rounds. Be careful what you yell, the public is always listening and may be recording. Be professional, do not swear or joke around while hazing. By yelling something like, “get out of here bear,” not only will the bear associate the experience with humans, the public is also notified that a bear is in the area. If hazing must be done with many visitors nearby, ask them to yell as well. This makes them feel involved which gains more support for your decision to haze, and increases the effectiveness of yelling as a hazing tool.

***Clapping & Banging Pots or Other Objects:*** Clapping or banging pots and pans or other objects by themselves or in combination with yelling can be an effective method of light hazing to move bears out of developments and off of the paved road. However, most bears will eventually habituate to these methods if used repeatedly without the use of pain-inducing contact rounds.

***Air Horns:*** These highly portable devices emit very loud noises that can effectively displace bears that are not habituated to them. Bears will usually eventually habituate to loud noises relatively quickly when not used in conjunction with pain inducing contact rounds. Therefore air

horns should be used conservatively, or held in reserve for situations when circumstances dictate the need for light hazing pressure.

*Vehicle Horns and Sirens:* Vehicle horns and/or sirens can be an effective method to haze bears off of paved roads, road shoulders, roadside drainage ditches, or maintained roadside pull-outs. Horns and sirens can also be used to haze bears out of developments. Although bears will often habituate to horns and sirens after repeated use, these devices do give the bear a first notice that you want them to move. If they do not respond, contact hazing rounds may be needed to get the desired response from the bear.

*Public Address (P.A) Systems:* Both vehicle and hand-held public address systems can be effective at getting bears to move off of the paved road, road shoulder, roadside drainage ditch, or maintained roadside pull-outs. Often just scratching a finger nail across the P.A. mike with the volume turned up is all it takes to get a bear or other animal to move off of the paved road. P.A. systems are also effective at getting people to move (especially people on the far side of the bear) to safer locations. Yelling instructions to people at a distance can sometimes cause them to panic (due to sense of urgency caused by yelling) whereas talking calmly to distant people through a P.A. system may cause less panic among visitors.

**Noise-making Projectiles.--** Cracker Shells fired from 12 gauge shotguns are the only noise-making projectile rounds approved for hazing operations in YNP. Use of 15- and 18-millimeter (mm) platform hazing rounds such as Bear Bangers and Screammers are not currently approved for use in YNP.

*Cracker Shells:* 12-gauge Cracker Shells are designed for long range hazing operations. Cracker shells propel an ignited firecracker-like projectile to a range of approximately 60 meters (200 feet) down range, with a detonation time of 2 seconds or less. Cracker Shells are light weight and their trajectory can be affected by wind. There is an initial small report at the muzzle, followed by a louder explosion, or bang when the firecracker detonates. Cracker Shells are designed to scare the bear away from the sound of the explosion. Therefore they should be placed so the bear runs toward a clear escape path. As with all hazing techniques, use of Cracker Shells should be accompanied by yelling so the bear associates the experience with human presence. Because the cracker shells travel up to 60 meters or more, a large area must be surveyed for hazards prior to use. Only use Cracker Shells outside of, or at the edge of and firing out of, campgrounds or developed areas. The use of cracker shells must comply with fire hazards guidelines explained in the Safety Section of this plan. When hazing with Cracker Shells, the round should be fired so it explodes between the shooter and the animal. If the round explodes beyond the animal, it may cause the animal to flee towards the shooter. Cracker Shells alone are often sufficient to move bears the first few times they are used on an individual bear, however some bears quickly habituate to Cracker Shell explosions if used repeatedly without the use of pain-inducing contact rounds. The Cracker Shells currently used (product #6600) in YNP are manufactured by Stoneco Inc. of Trinidad, Colorado, and distributed by Margo Supplies Ltd. Alberta, Canada. The current (2016) cost is approximately \$1.32 per shell. Because of the small size of the charge used to project the firecracker, the wadding may be left lodged in the barrel, therefore the barrel should be checked after each Cracker Shell is fired. **Cracker Shells are not designed to make contact with the bear and should never be aimed directly at any bear.** Hitting a bear (or person) with



a Cracker Shell could result in hide or body cavity penetration and injury or death of the bear. To reduce the likelihood of hitting a bear with a Cracker Shell, they should always be fired at a 45 – 60 degree angle from the ground. Cracker Shells should never be skipped off of the ground to reduce their flight distance, because the angle of ricochet cannot be accurately predicted. **Lesson Learned:** In 2004, a 183 pound adult male black bear was accidentally killed by a park ranger at the Slough Creek Campground when inadvertently struck at close distance by a cracker shell fired at a downward angle (to reduce flight distance) that ricocheted off of a branch. The cracker shell hit the bear, penetrated the skin, and detonated near the groin area just forward of the right leg. In Glacier National Park in 2009, a 160 pound adult male black bear was accidentally killed when a ranger attempted to reduce the flight distance of a Cracker Shell by skipping it off of the ground. The Cracker Shell skipped up into the groin area of the under belly, penetrating the hide then detonating and killing the bear. A subadult black bear was also killed in Denali National Park by a Cracker Shell fired at close range that penetrated the bear's body cavity and then detonated. Proper angle of fire and protocol for use of cracker shells are described in the YNP 12-Gauge Cracker Shells Training Curriculum and Protocol, Appendix 6, in the YNP Policy for Use of Firearms by Non-law Enforcement Resource Personnel (2016).

**Contact Projectiles.**-- Five different contact projectiles, each with different range limitations and impact energy are approved for use on bears in YNP. The four approved contact rounds include .68 caliber paintball gun fired Wildlife Deter-It Ultra-Mag Rounds, .68 caliber paintball gun fired Powder-balls, 12-gauge shotgun fired Bean Bag rounds (both aero sock and bean bag thumper rounds), 12-gauge shotgun fired Strike-Two Rubber Slugs, and when more impact energy is deemed necessary, SL-1 launcher fired 37-mm Rubber Batons. All 12 gauge contact rounds should only be fired from designated hazing firearms with orange stocks. Contact hazing rounds should not be fired from shotguns that are used to fire lethal rounds. Use of designated hazing guns significantly reduces the risks of accidentally firing lethal rounds during hazing operations. Use of shotguns with orange stocks also lets the public know that less-than-lethal rounds are being used on the bear. All 12 gauge hazing rounds are potentially dangerous, even lethal, to both bears and humans.

**Deter-It Ultra-Mag Rounds:** Deter-It Ultra-Mag rounds are fired from standard .68 caliber paintball rifles and pistols. The Deter-It Ultra-Mag round is a soft, thick-walled-gelatin capsule filled with a clear, biodegradable, non-toxic liquid designed to provide a humane method of animal deterrence. The round is designed to minimize breakage and maximize delivered kinetic energy for hazing effect. As with all hazing techniques, use of Deter-It Rounds should be accompanied by yelling so the bear associates the experience with human presence. If Deter-It rounds break on impact with a solid object, the liquid will not stain and will wash away. Deter-It rounds are designed to make contact with the bear being hazed. The large muscle mass of the hind quarter or shoulders is the target area for paintball gun Deter-It round deployment. Deter-It rounds have an operational range of 10 to 50 meters. Distances beyond 50 meters are not accurate and the round may not have enough kinetic energy to be effective at longer distances. Deter-It rounds deliver approximately 19 foot pounds of kinetic energy and have little to no risk of hide penetration. However they should not be aimed at the bears head to avoid risk of damage to the eyes. Deter-It Ultra-Mag rounds can melt at high temperatures (such as temperatures commonly experienced when stored inside vehicles in July and August), these rounds can also freeze at low temperatures. Deter-It rounds approved for use in YNP are distributed by Nelson

Technologies, Inc. of Kingsford, Michigan (800-236-9278). Current (2016) cost is approximately \$0.23 per round, (\$0.20 if purchased in bulk). Deter-It Ultra-Mag rounds are also available from Margo Supplies Ltd., Alberta, Canada.

***Powder-ball .68 Caliber Rounds:*** Powder-ball rounds are fired from standard .68 caliber paintball rifles and pistols. Unlike the Deter-It Ultra-Mag rounds described above, Powder-ball rounds are impervious to water, freezing, or extreme heat (melting), and are therefore more stable for transportation and storage. In addition, Powder-balls have golf-ball dimpling to provide longer and more stable flight. Powder-balls fly further with more precision than paintball gun fired Deter-It Ultra-Mag rounds. The dry powder creates puffs of powder on impact with animals or the ground, allowing the shooter to steer target animals in the desired direction. The dry powder fill of Power-balls is non-toxic with no risk from accidental animal ingestion.

***Aero-sock and Bean Bag Thumper Rounds:*** The 12-gauge Aero-Sock and Bean Bag Thumper rounds are flexible projectiles fired from 12-gauge shotguns that expand on impact to spread their force over a broad surface area. The Aero-Sock and Bean Bag Thumper rounds are intended to be non-lethal bear deterrents, delivering an unpleasant experience without hide penetration or injury. Field tests have proven these products effective at temporarily displacing bears from human use areas. As with all hazing techniques, use of Aero-sock and Bean Bag Thumper Rounds should be accompanied by yelling so the bear associates the experience with human presence. Aero-Sock and Bean Bag Thumper rounds are designed to make contact with the bear or other animal being hazed. As with other contact projectiles, to avoid wounding or killing a bear, bean bag rounds should only be fired at the large muscle mass of the hind quarter. Aero-Sock and Bean Bag Thumper rounds are reserved for close range situations and have an operational range of 10 to 25 meters. **For the safety of the animal being hazed, do not shoot at animals closer than 10 meters.** Aero Sock and Bean Bag Thumper rounds are not effective (due to low impact energy) nor accurate at distances beyond 25 meters. The wildlife-specific bean bags approved for use in YNP are distributed by Margo Supplies Ltd., Alberta, Canada. Approved products include #6614 – 12-gauge Aero-Sock and #6612 – 12-gauge Bean Bag Thumper. The Aero-Sock (#6614) is the preferred round as it provides better accuracy; however, the Bean Bag Thumper (#6612) is a viable alternative, especially at shorter distances (10-15 meters). The current (2016) cost for 12-gauge Aero-Sock rounds is \$9.50 per round. The current cost of 12-gauge Bean Bag Thumper rounds is \$9.75 per round. In addition to these wildlife-specific bean bag rounds, any law enforcement bean bag rounds that have been approved as less-than-lethal rounds for use on people are approved for use on grizzly bears and black bears in YNP.

***Strike Two Rubber Slugs:*** The Strike-Two Rubber Slug is a soft rubber slug fired from a 12-gauge shotgun that is intended to be a non-lethal bear deterrent, delivering an unpleasant experience without hide penetration or injury. Field tests have proven these rounds effective at temporarily displacing bears from human use areas. As with all hazing techniques, use of Strike-Two Rubber Slugs should be accompanied by yelling so the bear associates the experience with human presence. Strike-Two Rubber Slugs are designed to make contact with the bear being hazed. Rubber slugs can injure or kill bears or humans if used improperly. To avoid injuring the face, eyes, and soft flank and stomach tissues the large muscle mass of the hind quarter is the target area for deployment on grizzly bears and black bears. Strike-Two Rubber Slugs have an

operational range of 30 to 60 meters and deliver approximately 89 foot-pounds of kinetic energy. **For the safety of the bear being hazed, do not shoot animals at distances closer than 30 meters.** Distances beyond 60 meters are not effective (due to low impact energy) or accurate. Rubber slugs are relatively light-weight and their trajectories can be affected by wind. The wildlife specific rubber slug approved for use on bears in YNP is the Strike-Two Rubber Slug distributed by Margo Supplies LTD., of Alberta, Canada. The approved round is product #6610, 12-gauge Strike-Two Rubber Slug. The current (2016) cost for each of these rounds is \$4.25 per round. If Strike-Two Rubber Slugs are not available, any soft rubber slug designed for less-than-lethal use on humans that has a muzzle energy of less than 90 foot pounds is approved for use on bears under this plan.

*SL-1 Rubber Batons:* Sage International Ltd's SL-1 single shot 37-mm projectile launcher is manufactured as a less lethal solution for law enforcement and riot control needs. The SL-1 is capable of delivering accurate blunt trauma-inducing batons, combination baton/chemical rounds, non-pyrotechnic barricade penetrating projectiles, as well as pyrotechnic chemical agents. The SL-1 Launcher and its family of ammunition are known as L3AOS (Less Lethal Launched Ammunition and Ordnance System). Under YNPs' Bear Hazing Plan the only approved weapon round is the KO1 Impact Baton (Standard Energy), a small, polyurethane baton with nylon rings designed to absorb shock without hide penetration. The SL-1 achieves exceptional accuracy by combining a rifled barrel, calibrated sighting, and a family of ammunition manufactured to quality standards which maximizes performance. KO1 Impact Batons are designed to make contact with the bear. The large muscle mass of the hind quarter is the target area for KO1 Impact Baton round deployment on grizzly bears and black bears. KO1 Impact Batons have an operational range of 25 to 35 meters. KO1 Impact Batons deliver approximately 153 foot-pounds of kinetic energy. For the safety of the bear being hazed, do not shoot at animals closer than 25 meters. KO1 Impact Batons are not accurate and loose impact energy at distances beyond 35 meters. As with all hazing techniques, use of SL-1 Launcher fired KO1 Impact Batons should be accompanied by yelling so the bear associates the experience with human presence.

### **Approved Alternative Hazing Methods**

In addition to cracker shells, Deter-it Ultra-mag rounds (painless paintball rounds), bean bag rounds, rubber slugs, and rubber batons, several other hazing methods are approved for use in YNP. However, these alternative methods should only be used when standard hazing tools are not safe or readily available and the bear is involved in a "teachable moment" where the bear is in the act of undesirable behavior within an appropriate Hazing Zone. Approved alternative hazing methods include human threat pressure, throwing rocks, rolling rocks, use of slingshots, and use of water.

*Human Threat Pressure:* When hazing bears out of the middle of developments, where large numbers of people are present and it is difficult to control or even know the location of all visitors, it may be desirable to apply light pressure so as to move the bear slowly and in a controlled manner, rather than at a run in panic which might force an encounter between the bear and visitors. Human pressure from a group of people walking toward, staring at, yelling, and/or clapping hands may apply just enough stress to get the bear to leave. Once the bear is moved to the edge of the development, and has a known, clear flight path, then hazing rounds in

combination with yelling should be employed until the bear leaves the hazing perimeter. Once the bear enters cover or makes it 100 yards from the edge of the development, hazing and yelling should stop. **Only very experienced staff should use this tactic.** The human pressure method works best on black bears, subadult grizzly bears, and docile adult grizzly bears and should not be attempted on dominant, aggressive, or agitated bears. Remember, during the breeding season, a highly habituated docile female in estrous can attract large dominant males to developments and roadsides. These dominant males should **not** be hazed using threat pressure. Due to the chances of an adult female responding with defensive aggression, human threat pressure should not be routinely used on grizzlies with cubs or yearlings. If attempting this technique on female grizzlies with young, extreme caution is warranted and a greater distance should be left between the bears and the people applying the pressure. With black bears a group of 2 or 3 people is often sufficient to walk bears out of campgrounds and developments. However, due to the much more aggressive nature of grizzlies, human threat pressure should only be applied by groups of 4 or more people. Always be aware of the bear's body language and stay with your team as a tight group. When hazing from foot, all personnel involved must carry bear spray (for personal protection) and have at least one staff member with lethal backup such as a loaded shotgun, high powered rifle of .30 caliber or larger (.30-06, .308, .375 H & H mag., .45-70 Government, etc.), or large caliber revolver (.41 magnum or larger) readily available as lethal backup. Whenever possible, a vehicle or multiple vehicle escort should be used to provide an added margin of safety.

*Throwing Rocks:* Rock throwing is an inexpensive method to haze bears out of an area where their presence is deemed unacceptable to park management. Rock throwing is relatively easy, takes little training, and does not leave trash behind. In addition, rocks are readily available at no cost in most areas of the park. However, park visitors generally perceive rock throwing as inaccurate, unprofessional, dangerous, and disrespectful to bears. Therefore, the purpose of throwing rocks should always be explained to any park visitors that observe the hazing incident. Use of rocks as a hazing tool should always be used in conjunction with yelling so the bear associates the activity as undesirable in the presence of people. Personnel using rocks as a hazing tool should possess the ability, strength, and aim to safely propel rocks at the intended target.

**Rocks thrown at bears must not be larger than the size of a walnut, and must be aimed at the large muscle mass of the bears' hind quarter.** To improve accuracy, only smooth, round, symmetrical rocks should be used for hazing. When throwing rocks, it is essential that no people or property are within 180 degrees of the target and that the bear has an adequate escape route into an area free of people.

*Rolling Rocks:* In some districts, park staff have used a technique of rolling rocks toward bears to get them to leave the paved road, roadside pullouts, road shoulder, and road drainage ditch. When using this technique, rocks larger than the size of a walnut may be used as long as the bear is not aimed at or hit with the rocks.

*Slingshots:* Slingshots increase the effective range of rocks as a hazing tool, but also increase the safety hazards involved. Like rock throwing, some visitors perceive sling shots as unprofessional, inaccurate, disrespectful, and dangerous to bears. Therefore, the purpose of using slingshot launched rocks should always be explained to any park visitors that observe the hazing incident. To use a slingshot, staff must practice regularly. A leather glove should always be worn

on the hand holding the stock (handle) of the slingshot. Only those employees who have a primary responsibility for bear hazing and permission from their supervisor are allowed to haze bears with slingshots. As with rock throwing, slingshots should be used in conjunction with yelling so the bear associates the activity as undesirable in the presence of people. To improve accuracy, only smooth, round, symmetrical rocks should be used for hazing bears with slingshots. **Rocks shot from slingshots must not be larger than the size of a marble, and must be aimed at the large muscle mass of the bears' hind quarter.** Make sure the backdrop within 180 degrees of the target is clear of any other staff, visitors, or property. Always give the bear an escape route into an area that is free of people.

*Water:* The use of water in a large steady stream has proven effective at temporarily displacing some bears from human use areas. Super-Soaker type water guns or hoses with a nozzle that gives a steady, hard stream can be effective. If a wild-land fire engine crew is available, the fire hose can be an effective hazing tool. As with all hazing techniques, use of water for hazing should be accompanied by yelling so the bear associates the experience with human presence.

### **Karelian Bear Dogs**

The Bear Management Office often receives inquiries as to why Karelian Bear Dogs are not used in YNP. While Karelian Bear Dogs can be an effective hazing tool, they have not proven to be any more effective than cracker shells, bean bag rounds, rubber bullets, or rubber batons when consistently applied. In addition, Karelian Bear Dogs require many handlers, a year-round trainer with park housing, a large budget, and rapid response time to be effective. At YNP, all these conditions are significant challenges to overcome, thereby making the standard hazing contact rounds described in this plan more cost-effective alternatives. Under this plan, Karelian Bear Dogs are not prohibited from use and may be used on an experimental basis (under the guidance of Bear Management staff) as a method of hazing or aversive conditioning. However, Karelian Bear Dogs are a resource that is not currently available to park staff, and given budget, vehicle, and housing constraints, will likely not be available anytime in the near future.

### **Use and Testing of New Techniques, Technology, & Hazing Rounds**

Under this plan, the Bear Management Office may test, evaluate the effectiveness of, and authorize for field use, new techniques, technologies, or aversive rounds not specifically listed in the Standard Hazing Tools and Techniques section of this plan. When warranted by their effectiveness, new techniques, technologies, and firearms rounds will be added to next revision of the Bear Hazing and Aversive Conditioning Plan. Field staff are not authorized to independently experiment with new hazing rounds without approval from the Bear Management Office.

## **Tools and Techniques Specifically Not Approved for Bear Hazing Operations in YNP**

Park staff occasionally inquire about other hazing methods they may have used in other national park units or during earlier time periods in YNP. The following hazing tools and any other methods not specifically defined in this plan (listed above), are not approved for hazing bears in YNP.

*Bear Spray:* Bear spray was developed as defensive protection for people recreating (hiking, biking, fishing, camping, etc.), working, or living in areas inhabited by bears; not as an offensive tool. Bear spray is administered in a pressurized cloud, not as a steady stream of liquid. For this reason one must be within 15 to 30 feet of a bear for it to be effective, and once deployed, the cloud will also affect all visitors and staff within a large radius, including the staff member deploying the spray. The fine mist of bear spray can easily drift into open windows of nearby vehicles or buildings, or into the eyes of any visitors or staff in the general area. In addition, once bear spray settles onto the ground or other objects, it can act as a bear attractant. For these and other reasons, bear spray is not approved for bear hazing operations in YNP. **Note:** Bear Spray is approved, highly effective, and encouraged for use by park staff and visitors as a defensive weapon to stop aggressive bears and other wildlife during surprise or predatory encounters. For personal protection (not hazing), bear spray is required to be carried by all staff involved in hazing operations. In addition, all staff of the Yellowstone Center for Resources are required to carry bear spray when working in backcountry areas and at bear-jams. However, bear spray is not approved for use as a hazing tool.

*Live (Lethal) Rounds:* Live (lethal) rounds of any caliber should never be used as hazing or aversive conditioning rounds, either for their noise-making effects or as contact rounds. Use of lethal rounds (even just for their noise making effects) pose a significant risk to nearby visitors and the hazing team, as well as to the bear being hazed (even if not aimed at the bear).

*Birdshot:* The expanding pattern of birdshot with distance makes birdshot difficult for the user to control. In addition, bird shot can break skin, damage eyes, cause penetration injury and seriously wound bears. For these reasons, the use of 10-, 12-, or 20- gauge steel or lead bird shot is not approved for hazing bears in YNP. The 12-gauge Aero-Sock and 12-gauge Bean Bag Thumper rounds are the approved contact rounds for short range hazing operations in YNP.

*Rubber Buckshot:* Rubber buckshot is inaccurate and has very low impact energy. Rubber buckshot is not approved for use under this hazing plan. The 12-gauge Aero-Sock and 12-gauge Bean Bag Thumper rounds are the approved contact rounds for short range hazing operations in YNP.

*Soft 12-Gauge Rubber Balls (Cart-A-Ball):* Have been found to be too inaccurate to be considered effective. The 12-gauge Aero-Sock and 12-gauge Bean Bag Thumper rounds are the approved contact rounds for short range hazing operations in YNP.

*12-Gauge Signal Flares:* Due to wild-land fire danger concerns and to simplify purchase, inventory, and training, 12-gauge signal flares are not approved for use in bear hazing operations in YNP. Under this hazing plan, the 12-gauge cracker shell is the only non-contact, noise making projectile round approved for use in bear hazing operations.

*15-mm Scare Cartridges:* A large variety of 15-mm Scare Cartridges including Bear Bangers, Bear Bombs, Screamers, Screamers with Comets, Whistlers, Whistlers with Comets, and projectile signal flares are marketed and sold as bear and wildlife scare products. Due to wildland fire danger concerns and to simplify purchase, inventory, and training, none of the 15-mm platform scare cartridges are approved for use for bear hazing operations in YNP. Under this hazing plan, the 12-gauge cracker shell is the only non-contact, noise making projectile round approved for use in bear hazing operations.

*18-mm CAPA Cartridge Launchers:* Due to wildland fire danger concerns, concerns for the safety of the bears being hazed, and to simplify purchase, inventory, and training, 18-mm CAPA cartridge flares are not approved for use in bear hazing operations in YNP. Under this hazing plan, the 12-gauge cracker shell is the only non-contact, noise making projectile round approved for use in bear hazing operations.

*BEAR-Best Ecological Alternative Round Bear Deterrent Cartridge:* These 12 gauge rounds were used as bear hazing rounds in the late 1980's and early 1990's. However, use was discontinued after experience determined these rounds were inaccurate and could penetrate the bears' skin at shorter distances. Old boxes of these rounds are occasionally found in ammunition storage lockers and patrol car trunks and should be disposed of because they are no longer approved for use on bears in YNP. **Lesson Learned:** An adult female black bear that had repeatedly been eating rose-hips along the road in the Hellroaring Overlook, Phantom Lake, and Floating Island Lake areas was accidentally killed with a Bear Deterrent Cartridge in 1990. The round penetrated between two ribs and punctured the bears' lungs. The inaccuracy of the round fired at close range contributed to the bears' death.

## HAZING METHODOLOGY

### **Staff Roles and Responsibilities**

Primary control over specific hazing operations should be maintained by the District Ranger or designee, of the District the hazing operation is being conducted in, or by Bear Management Office staff in conjunction with District staff. Prior to any hazing operation being undertaken, an operation leader should be designated, usually the staff member with the most experience in hazing operations. The District Ranger in each District of the park will determine which of their staff members are experienced enough in hazing operations and knowledgeable enough in bear behavior to lead hazing operations and be designated as hazing operation leaders within their respective Districts. The Bear Management Biologist will determine which Bear and Resource Management Staff from the Yellowstone Center for Resources are qualified to lead hazing operations. For each hazing operation, the designated operation leader should determine the course of action to be taken after assessing the circumstances, identifying the animal, and addressing safety concerns. The hazing operation leader should organize an adequate number of personnel to assist in the hazing action, document the outcome, and make public contacts to explain the action to bystanders. Whenever possible, employees who are trained to perform hazing actions and are familiar with hazing operations should be chosen to assist the hazing operations leaders. It is the responsibility of the hazing operation leader to outline a plan, make assignments, address safety concerns, and lead the operation through completion. The operation

leader is also responsible for documenting the action in writing on a Bear Sighting Form. A debriefing should be conducted as soon as possible after the action has been completed to discuss the outcome and potentially improve future hazing operations.

The following guidelines outline staff roles for participation in hazing operations:

*Law Enforcement (LE) Rangers:*

- Work with Bear Management Office staff to establish, digitize, and map Developed Area Hazing Perimeters.
- Report all bear activity within developed areas, campgrounds, and road corridors to the Bear Management Office.
- Enforce food and garbage storage regulations.
- Correct food storage compliance deficiencies as necessary.
- Report all non-functioning bear-resistant garbage cans, dumpsters, and recycling bins, as well as garbage pick-up schedule deficiencies to the Maintenance Office.
- Provide leadership and supervision of hazing operations.
- Provide explanations to the public about the hazing operation and why it is needed.
- Actively participate in hazing actions.
- Provide long-gun cover during hazing operations.
- Report to the Bear Management Office the hazing incident and outcome of the action.

*Bear Management Staff:*

- Work with District Rangers to establish, digitize, and map Developed Area Hazing Perimeters.
- Report all non-functioning bear-resistant garbage cans, dumpsters, and recycling bins, as well as garbage pick-up schedule deficiencies to the Maintenance Office.
- Procure, store, distribute and track bear hazing rounds and bear hazing operations.
- Provide leadership and supervision of hazing operations.
- Provide explanations to the public about the hazing operation and why it is needed.
- Actively participate in hazing actions.
- Provide long-gun cover during hazing operations.
- Call in LE Rangers when necessary to assist with long-guns to cover hazing operations.
- Document the outcome of hazing operations.
- Testing/Researching new hazing and aversive conditioning techniques, methodologies, equipment, and firearms rounds.

*Field Interpreters:*

- Report all non-functioning bear-resistant garbage cans, dumpsters, and recycling bins, as well as garbage pick-up schedule deficiencies to the Maintenance Office.
- Report all bear activity within developed areas, campgrounds, and road corridors to local area LE Rangers or the Bear Management Office.
- Report to LE Rangers or Bear Management Office staff when they encounter a situation that potentially warrants a hazing operation.
- Provide explanations to the public about the hazing operation and why it is needed.



#### *Campground Staff and Hosts:*

- Report all non-functioning bear-resistant garbage cans, dumpsters, and recycling bins, as well as garbage pick-up schedule deficiencies to the Maintenance Office.
- Correct food storage compliance deficiencies as necessary.
- Report all bear activity within developed areas, campgrounds, and road corridors to local area LE Rangers or the Bear Management Office.
- Report to LE Rangers or Bear Management Office staff when they encounter a situation that potentially warrants a hazing operation.
- Provide explanations to the public about the hazing operation and why it is needed.

#### *Maintenance Employees:*

- Fix deficiencies to bear-resistant garbage cans and dumpsters, recycling bins, sewage lagoon fences, and garbage pick-up schedules.
- Report all bear activity within developed areas, campgrounds, and road corridors to local area LE Rangers or the Bear Management Office.
- Report to LE Rangers or Bear Management Office staff when they encounter a situation that potentially warrants a hazing operation.

#### *Concessions Management Employees:*

- Report all non-functioning bear-resistant garbage cans, dumpsters, and recycling bins, as well as garbage pick-up schedule deficiencies to the Maintenance Office.
- Report bear activity within developed area land assignments to local area LE Rangers or the Bear Management Office.
- Report to LE Rangers or Bear Management Office staff when they encounter a situation that potentially warrants a hazing operation.
- Contact District LE Rangers regarding food storage compliance deficiencies as necessary.

### **Underlying Principles of Hazing and Aversive Conditioning of Bears**

All staff leading hazing and aversive conditioning operations should have a thorough understanding of the following underlying principles of bear hazing operations:

1. *Remove Food Rewards and Bear Attractants:* Animals easily form associations between pain stimuli and sound cues; however they do not easily form associations between stimuli that are not evolutionary relevant, such as between food and pain (Homstol 2011). Yellowstone bears spend up to 5 months hibernating in winter dens, making them very food motivated during the 7 months they are active. Because of this strong food motivation to put on fat to survive 5 months of fasting, hazing cannot be expected to work on a long-term basis if the food attracting the bear to the area, either natural or anthropogenic, cannot be removed or made unavailable to bears. The food rewards simply overwhelm the effects of the negative hazing stimulus (Gillin et al. 1994, Mazur 2010). Thus, if you are unable to remove or make bear-resistant the food (natural or anthropogenic) attractant luring the bear to the roadside or development, then do not expect hazing to have anything other than an immediate short-term temporary effect. Common natural foods that lure bears into developments include ungulate carcasses, clover, and rosehips. Ungulate carcasses should always be removed from developments

and when within 100 meters of roads. Clover within developments can be sprayed with herbicides and rose fruits (berry-like rosehips) can be picked. Notify the Bear Management Office if you have these or other natural or anthropogenic food attractants luring bears into your developed area.

2. *Hazing Works Through Dominance Not Pain:* Bears appear to have a high pain tolerance. It is important to remember that hazing likely works more through dominance than by pain. Staff conducting hazing are essentially becoming the dominant bear in the area. Bears communicate through body posture and vocalizations. Staff engaged in hazing must learn to interpret a bears' body posture and vocalizations to understand how a bear is responding to their hazing efforts.
3. *Haze During Teachable Moments:* To enhance long-term effectiveness of hazing operations, bears should be hazed while in the act of doing something wrong (e.g. while in a development or campground, while investigating a vehicle, garbage can, or recycle bin). The objective is to make it easy for the bear to do the right thing and difficult for them to continue the behavior that puts them in conflict with humans.
4. *Make Noise:* It is essential that personnel directly involved in the hazing of a bear, yell at the bear before and during the hazing operation to ensure that the negative stimulus is associated not only with the developed area or the deleterious bear behavior, but with humans as well. Once the bear is beyond the development hazing perimeter or has stopped the undesirable behavior, yelling (and hazing) should stop.
5. *Make it Difficult When Bears Make the Wrong Choices:* Hazing will have the best long-term results if bears are hazed every time they engage in an unwanted behavior.
6. *Reward Desired Behavior:* All shooting and yelling should stop when the bear has reached vegetation cover, the edge of the developed area hazing perimeter, leaves the site where they should not be, (e.g., campsite, garbage can, recycle bin), or is continuing to leave (Hunt 2004). Shooting and yelling should resume if the bear stops and turns or looks while still within the development or hazing perimeter or resumes the undesirable behavior. Staff are often tempted to fire off a few more cracker shells for good measure, once the bear has already entered cover and is out of view. This only waists cracker shells and confuses the bear. Bears should be rewarded (hazing stops) for leaving the development and entering cover.
7. *Be Consistent:* Bears respond best to clear, consistent messages given repeatedly (Hunt 2004). Therefore, it is important for all staff to follow the management zone hazing prescriptions, the developed area hazing perimeters, and other guidelines contained within this plan, so that all staff are consistent with each other and send the bear a clear, consistent message.
8. *Predictability Enhances Safety:* When a bear understands the message, and knows it has options, it is less likely to respond to hazing with defensive aggression aimed at the hazer or park visitors. If all staff are consistent with their hazing operations in terms of

enforcing developed area hazing perimeters, hazing zone prescriptions, and the specific bear behaviors deemed undesirable, the safety of all staff involved in hazing operations, as well as that of park visitors, will be enhanced.

9. *Never Sneak up on a Bear to Haze it:* Sneaking up on a bear to haze it could result in explosive defensive aggression from the bear. In addition, if the bear knows your intention, it gives the bear the opportunity to make the right choice and leave on its own, prior to the use of hazing rounds.
10. *Always Leave the Bear an Escape Route:* The bear should have an avenue escape when being hazed, thereby increasing the likelihood the bear will flee and reducing the chances that the bear will turn in defense.
11. *Do Not Freelance:* Bears should always be hazed from park developments when it is safe to do so. Outside of park developed areas, we can and should expect bears to make use of all available habitat. Habituation is a natural adaptation by bears to the large numbers of people visiting the park. Outside of developed areas, visitor education on proper visitor behavior around bears, enforcement of food and garbage storage regulations, and enforcement the mandatory 100-yard distance (from bears) should be the first management actions taken. Failure to follow the management zone hazing prescriptions contained in this plan without a reasonable safety justification leaves you outside of the scope of this plan, and therefore, vulnerable to legal action should something go seriously wrong.
12. *Change-up Your Methods:* Bears sometimes habituate to particular hazing methods, even contact rounds. Mixing up your methods may be of some benefit in preventing bears from becoming habituated to a particular hazing method.
13. *Bears are Individuals:* All bears are individuals and may respond to hazing differently. These differences between individuals and sex and age classes make it necessary for NPS hazing personnel to be able to identify sex and age classes of bears. Never assume that what may appear to be a lone subadult is not a dependent yearling or two-year-old whose mother is hidden in nearby cover, or that an apparent group of subadults is not a small female with equal size two-year-old offspring, until they have been proven so.
14. *Females in Estrous:* Large dominant males that are typically wary of people and developments can be attracted into areas of concentrated human use by habituated female bears in estrous. It may be difficult to establish dominance (through hazing) over these males. Always exercise caution when dealing with adult males associated with females in estrous.
15. *Females with Young:* Adult female grizzlies may fiercely defend their young against any perceived threat. Extreme caution must be taken to deliver hazing rounds directly to the adult female and not to her young, to avoid provoking her to charge to their defense.

16. *Cubs and Yearlings*: Never use contact rounds, rocks, or slingshots on cubs and yearlings because these devices could potentially injure or kill them. In addition, the use of pain-inducing contact rounds on cubs or yearlings could cause the adult female bear to turn on you or nearby park visitors in defense of her young.
17. *Subadults*: Bears age 2.5 through 4.5 years are at an important age of independent learning and therefore a critical time for teaching boundaries for behavior around people and developments. If aggressive or curious behavior towards humans, entering developments or campgrounds, damaging property, and obtaining human food or garbage are not associated with punishing consequences, these behavioral patterns may persist throughout their lives.
18. *Treed Bears*: Bears, especially cubs, yearlings, and black bears, use trees as a means of escape from perceived threats. Climbing a tree to escape a perceived threat is also somewhat of submissive behavior. A bear that is repeatedly shot with bean bag rounds or rubber bullets while in a tree, learns that it has few options when confronted by people (Hunt 2004), and may develop a rigid fear reaction to all encounters with people, increasing the likelihood of bear attack during encounters. It is better to move away and let the bear come down, then once down, if it does not leave on its own, resume hazing. Paint-balls shot at the tree trunk above the bear (not at the bear) will sometimes cause the bear to climb back down. Once down, see if the bear will leave on its own, as immediately hitting it again with contact rounds may simply send it back up the tree.
19. *Established Problem Behavior Patterns*: Some bears that have well established patterns of problem behavior may respond unpredictably and possibly violently if the outcome of their next attempt at the behavior is a punishing experience rather than the expected reinforcing (rewarding) or neutral experience. Always be prepared for the potential for a violent response to hazing.
20. *Safety*: Human safety, the benefits of hazing, the consequences of not hazing the bear, and danger to the bear should always be evaluated before conducting hazing operations. Remember, that you never have to haze a bear (although initiating a hazing operation may mean you have to kill one if it responds aggressively). Staff should never feel obligated to haze a bear when safety is not assured.

### **Management Zone Hazing Prescriptions**

For bear hazing operation purposes, YNP is divided into four broad-scale Management Zones based on location, the level and type of visitor recreational activities within the location, and the appropriate level (as determined by park management) of hazing response (hazing prescription, Table 1). The 4 broad-scale Management Zones include: 1) developed areas, 2) road corridors, 3) boardwalk trails, and 4) backcountry areas (including on-trail and off-trail areas). The 4 zones are essentially a continuum of decreasing human activity and management decisions increasingly favoring the needs of bears. Developed areas are managed for people to the exclusion of bears, whereas backcountry areas are managed for bears and humans can be excluded if their activity is incompatible with bears. Road corridors and boardwalk trails are transition zones between developments and backcountry, with road corridors slightly favoring human activities

(transportation) and boardwalk trails slightly favoring bear activities when human and bear activities are not compatible. All staff involved in hazing operations should become familiar with the definitions and designated boundaries of these four management zones as described in the Definitions of Hazing Terminology section of this plan (page 5).

*Developed Areas:* Park visitors as well as NPS, concessions and contractor staff are given priority over bears in all developed areas of the park. Bears sometimes enter front-country developments for a variety of reasons including travel, foraging for natural foods, avoiding more dominate bears, seeking human foods or garbage, or other reasons. Under this plan, front-country developments are managed for people and bears are actively excluded through hazing, aversive conditioning, capture and relocation, or capture and removal. Each park development has a designated hazing perimeter that has been established by the Bear Management Office in conjunction with the District Ranger for the area (Appendix A). The hazing perimeter should be approximately 100 yards beyond the outside edge of the development complex. Easily recognizable (to both bears and staff), man-made (e.g., edge of pavement, power-line corridor) or natural (e.g., edge of forest, horizontal vegetation cover, river, creek, stream, or gulley) features should be used to distinguish the boundaries of the hazing perimeter. The Developed Area Hazing Perimeter can be periodically adjusted based on new information, data, and hazing experience in that development. **Hazing should be conducted anytime a bear is within a development or within the designated hazing perimeter of the development, and it is safe to conduct hazing operations.** By consistently hazing bears every time they enter the *Developed Area or Hazing Perimeter*, some bears will learn to avoid entering park developments. To reduce the attractiveness of developments to bears, all anthropogenic attractants should be stored in a bear-resistant manner and all ungulate carcasses or other natural foods should be removed, if possible.

*Road Corridors:* From a management perspective, road corridors are a transition zone between developments and backcountry areas and are managed for both human and bear uses. Primary human uses include visitor, administrative, and emergency transportation and visitor bear and wildlife viewing and photography. Human activities are generally given priority in all recreation management decisions where bear and human activities are not compatible on the road and the maintained roadside pull-outs, road shoulder, and drainage ditch. However, bear activities are generally given priority in undeveloped natural habitats adjacent to roads, pull-outs, shoulders, and drainage ditches. Bears frequent habitat adjacent to roads in the park for many reasons. In the past (1910 – 1969) bears commonly panhandled along park roads for food handouts from park visitors. Strict enforcement of regulations prohibiting the recreational hand feeding of bears since 1970, has mostly eliminated this behavior in park visitors and bears. However, bears are still regularly observed near park roads traveling, foraging for native foods, avoiding more dominant bears, and exhibiting other natural behaviors (e.g., mating, sleeping, swimming).

Unlike park developments which are managed solely for people and bears are actively excluded, under this hazing plan, roadside habitats are managed for both human and bear uses. All ungulate carcasses within 100 meters of the road should be moved further from the road, or relocated to wildlife carcass dumps or other areas not used by visitors or staff. Although bears are not allowed to remain or linger on the paved road or maintained roadside pull-outs, shoulder, and adjacent drainage ditches, they are tolerated in roadside meadows and are not actively

discouraged from using roadside habitats to forage for natural foods. Bears that are attempting to cross the road do not warrant hazing, rather, traffic and visitors should be managed to allow the bear(s) safe opportunities to cross. Extremely close proximity of bears to people can be dangerous to both. Hazing bears that linger or travel on the paved road corridor will minimize the potential for bears to be hit by vehicles, minimize the potential of both purposeful and inadvertent human food rewards in the road corridor, and discourage use of the road as a travel route by bears. Soft hazing through the use of vehicle horns, sirens, public address systems, yelling, clapping, or vehicle threat pressure are often the most effective, practical and safe method available for hazing in road related situations. Soft hazing puts less stress on bears, thereby decreasing the likelihood of an aggressive or defensive response by the bear. This is an important consideration at times and locations where many visitors may be present close by.

As a general rule, bears should not be routinely hazed while foraging natural foods in undeveloped habitats adjacent to roads. Instead, the mandatory 100-yard minimum approach distance between people and bears should be strictly enforced. However, bears may be hazed away from roadside habitat under certain conditions, including 1) a bear-jam has formed on a dangerous blind-curve and insufficient staff are available to prevent visitors from parking inappropriately, creating a dangerous traffic situation; 2) there are insufficient staff to enforce on park visitors the 100 yard minimum approach/viewing distance rule for bears, and visitors are approaching bears too closely, and 3) any time the situation is considered overly dangerous for park visitors, staff, or the bear. In addition, bears that approach people or investigate vehicles are candidates for aversive conditioning in an effort to dissuade them from continuing this behavior. However, hazing should not be used simply to break up bear-jams because you are tired of managing them. Remember, visitors are here to see, enjoy, and appreciate bears. Bears are the wildlife species visitors most want to see, and bear viewing is second only to geyser gazing as the activity most visitors' travel to Yellowstone to engage in. In most cases, with adequate law enforcement staff, no stopping zones can be established to allow bears access to undeveloped roadside habitats while still maintaining traffic movement.

With regards to habituated bears foraging in roadside habitats, consistency and predictability of human behavior is paramount to human safety. Therefore minimum bear viewing distance regulations should be consistently enforced and the road corridor management hazing prescription should be adhered to. Staff should not freelance when managing roadside bears because this is confusing to the public and makes human actions unpredictable to bears, thereby increasing the chances of defensive aggression. Non-compliance with this plan puts park staff out of the scope of their job duties and may leave staff, YNP, and the NPS vulnerable to legal action should something go seriously wrong.

*Boardwalk Trails:* Like roads, boardwalk trails are in a transition zone between developments and backcountry areas and are managed for both visitor and bear uses. As a general rule, bears are given priority in recreation management decisions where bear and human activities in habitat adjacent to boardwalk trails are not compatible. Ungulate carcasses within 100 meters of boardwalk trails may be moved or left in place and the boardwalk closed until the carcass is consumed. Carcasses should only be removed from habitat adjacent to boardwalk trails during peak visitation seasons and if the carcasses can be safely (for YNP staff) removed without damaging thermal features or riparian areas or putting staff at risk of thermal burns.

Bears feeding on native foods that cannot be easily or safely removed (e.g., elk calves, root foods, forbs, mushrooms, ants) in habitat accessed by boardwalks can often be accommodated through temporary closures of boardwalks to visitor use, especially during the spring and fall shoulder seasons.

*Proposed Wilderness, Backcountry Areas & Undeveloped Lands:* Bears are generally given priority in all recreation management decisions where bear and human activities are not compatible in backcountry areas of the park. As a general rule, all ungulate carcasses are left in place or moved to safer locations, but not removed from backcountry areas. YNP implements Bear Management Areas which are seasonal closures and restrictions on recreational use of backcountry areas during periods when bear activity is concentrated on specific foods in predictable locations. In addition, short-term emergency closures of backcountry trails, campsites, and off-trail areas to recreational use are implemented when human activities conflict with natural bear activities and behaviors. In most situations, these seasonal and emergency closures are adequate to address bear related safety concerns in backcountry areas and hazing is not necessary. However, under certain circumstances hazing is appropriate in backcountry situations. Hazing is an appropriate management response in incidents where bears frequently enter occupied backcountry campsites, damage property, investigate tents, food poles, food storage boxes, or fire-rings, knowingly approach or follow hikers, or attempt to break into backcountry patrol cabins. In addition, for visitor safety purposes, hazing may be used to temporarily displace bears from ungulate carcasses in backcountry areas so that carcasses can be moved to locations further from trails or campsites in an effort to promote visitor safety and reduce habituation of bears to people. The objective of moving ungulate carcasses in backcountry areas is to promote visitor safety while still allowing bears access to feed on carcasses.

Table 1. Summary of objectives and hazing prescriptions for different bear management zones in Yellowstone National Park.

| Management Zone                                       | Management Objective                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Hazing Prescription                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|-------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Developments                                          | <ul style="list-style-type: none"> <li>Managed for people to the exclusion of bears.</li> <li>All bears, wary, habituated, and human-food conditioned are excluded.</li> <li>Visitor activities given priority over bears.</li> </ul>                                                                                                                                                                                                                                                                                   | <ul style="list-style-type: none"> <li>Haze bears out of developments anytime it is safe to do so.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Road Corridors                                        | <ul style="list-style-type: none"> <li>Transition zone managed for both people &amp; bears.</li> <li>Managed for visitor transportation and bear viewing.</li> <li>Bears allowed access to roadside habitats for natural behaviors and foraging.</li> <li>Bears allowed to cross, but not linger on paved road, roadside pullouts, road shoulder, or roadside drainage ditch.</li> <li>Habituation of bears to people and people to bears expected.</li> <li>Human-food conditioned bears are not tolerated.</li> </ul> | <ul style="list-style-type: none"> <li>Management of visitors' behavior and enforcement of visitor bear approach distances (100 yard rule) are first choice in management actions.</li> <li>Bears that linger on road, roadside pullouts, road shoulder, or roadside drainage ditch are hazed.</li> <li>Bears are hazed from natural habitat along roads only when a significant safety risk to park visitors exists.</li> <li>Bears may be hazed from carcasses adjacent to roads in order to move carcasses to safer locations.</li> <li>Curious bears that approach visitors or vehicles on roads may be hazed.</li> </ul> |
| Boardwalk Trails                                      | <ul style="list-style-type: none"> <li>Transition zone managed for both people &amp; bears.</li> <li>Bears allowed access to habitats adjacent to boardwalks for natural behaviors and foraging.</li> <li>Human-food conditioned bears are not tolerated.</li> </ul>                                                                                                                                                                                                                                                    | <ul style="list-style-type: none"> <li>Boardwalks may be closed to public use when visitor and bear activities are not compatible.</li> <li>Bears may be hazed from carcasses adjacent to boardwalk trails in order to move carcasses to safer locations.</li> <li>Curious bears that approach visitors on Boardwalk trails may be hazed.</li> </ul>                                                                                                                                                                                                                                                                          |
| Proposed Wilderness, Backcountry, & Undeveloped Lands | <ul style="list-style-type: none"> <li>Bears generally given priority in recreation management decisions where bear and human activities are not compatible.</li> <li>Proactive implementation of seasonal recreational use restrictions and closures for known high use bear areas.</li> <li>Temporary emergency recreational closures when human activities conflict with bear activities.</li> <li>Human-food conditioned bears are not tolerated.</li> </ul>                                                        | <ul style="list-style-type: none"> <li>Bears may be hazed from backcountry campsites.</li> <li>Bears may be hazed from carcasses in order to move carcasses away from trails and campsites to safer locations.</li> <li>Curious bears that approach visitors on trails may be hazed.</li> <li>Bears may be hazed away from patrol cabins.</li> </ul>                                                                                                                                                                                                                                                                          |



## Implementation of the Hazing Operation

The following steps provide basic guidelines for implementing hazing operations:

1. *Determine a Leader:* Determine a team leader for the hazing operation. The team leader will gather adequate staff to conduct the operation and assign tasks to each of the team members.
2. *Conduct a Safety Reconnaissance:* The team leader will ensure that a safety reconnaissance for potential hazards, presence of visitors, public relations uncertainties, hazardous terrain, etc. has been completed before beginning the hazing operation.
3. *Identify the Hazing Perimeter:* To send a clear message to bears, all employees must use the same development hazing perimeter boundary. In YNP, it is approximately 100 meters around all developed areas. If a bear is inside of this perimeter, it should be hazed until it leaves the perimeter, but no further, and ideally, into forest or vegetation cover. Bears outside of the hazing perimeter should not be hazed in any way. It is their reward and teaches them where it is acceptable to be. If you are hazing along a road corridor, boardwalk trail, or backcountry area, determine an appropriate hazing perimeter at which you will discontinue all hazing (yelling, noise making projectiles, contact projectiles).
4. *Choose Your Hazing Method:* The team leader will choose the appropriate hazing round or technique to be used. Methods chosen should be based on the distance of the bear, sex and age class, bears behavior, impact energy needed, as well as visitor, staff, and bear safety considerations. Light hazing may be appropriate in areas with many visitors present, whereas heavier handed hazing methods may be more effective when the bear has a clear flight path to an area free of human activity. Different types of twelve-gauge hazing rounds may be mixed in the shotgun magazine at the discretion of the person doing the hazing. Using a beanbag round or rubber slug followed with a cracker shell may increase the effectiveness of cracker shells used on the same bear in the future. Because bears habituate to noisemakers rapidly, it is recommended that the combination of a beanbag/rubber slug round followed by cracker shell(s) be considered when practical. When hazing from unsecure locations (i.e. not near a building or vehicle), the person conducting the hazing should always be accompanied by a trained staff person to provide armed back-up with a loaded shotgun or high powered rifle of .30 caliber or larger.
5. *Inform the Public:* Before beginning hazing, ensure that information about the hazing operation has been given to any of the public that may observe the incident. After a hazing event, be sure to discuss the operation with all visitors within approximately 200 meters (or who observed the event) about what happened and why hazing was implemented. Generally, once visitors understand what you are doing and why, they will be more receptive to the hazing operation. When talking to the public, do not refer to pyrotechnics as firecrackers, as the public may misconstrue it as acceptable for them to toss firecrackers at bears.

6. *Have Both Non-lethal and Lethal Backup Cover:* When hazing bears, hazing rounds should be fired from a secure location near a building or vehicle whenever possible to provide the shooter with an escape refuge in case the bear turns to defend itself. When hazing bears from a secure location near a building or vehicle, the hazing round shooter must at a minimum, have bear spray and a defensive weapon such as a loaded large caliber revolver (.41 magnum or larger), 12 gauge shotgun with slugs, or high powered rifle of .30 caliber or larger (.30-06, .308, .375 H & H mag., .444 Marlin, .450 Marlin, .45-70 Government, etc.) readily available as backup. When hazing bears from an unsecure location, where escape into a building or vehicle is not possible, the person firing the hazing rounds is required to have bear spray as a defensive weapon, and in addition, be accompanied by a trained staff member to act as armed back-up, with a 12 gauge shotgun loaded with slugs or a high powered rifle of .30 caliber or larger. The person providing armed back-up is also required to carry bear spray. It is important that if the bear being hazed turns on you, that you have a plan and carry out that plan without hesitation.
7. *Notify Park Dispatch:* Park dispatch should be notified before any projectiles are fired to alert them and any other personnel in the area of the situation.
8. *Haze Aggressively When Safe to Do So:* Remember that you are establishing yourself as the “dominant bear”. Look big and raise your arms. Haze aggressively when it is safe to do so.
9. *Use Light Hazing Pressure When Circumstances Dictate:* Due to human safety considerations, when hazing within developments and from roadsides or boardwalks where many people are present, light hazing pressure should be applied until the bear can be safely hazed more aggressively into an undeveloped area that is free of people.
10. *Make Noise:* It is essential that personnel directly involved in the hazing of a bear yell at the bear before and during the hazing operation to ensure that the negative stimulus is associated not only with the developed area or the deleterious behavior, but with humans as well. Make lots of noise when hazing so the bear associates the negative experience with humans. Once the bear is beyond the development hazing perimeter or has stopped the undesirable behavior, yelling (and hazing) should stop.
11. *Reward the Bear for Desired Behavior:* Once the bear has left the development and hazing perimeter and made it to cover or stopped the undesirable behavior, all shooting, rock throwing and yelling should cease, therefore rewarding the bear for the desired behavior. Do not continue hazing because this will be confusing to the bear and reduce the efficacy of the hazing treatment.
12. *Post Hazing Monitoring:* The area surrounding the hazing operation should be monitored to determine and document the outcome or effect of the hazing operation on the bear and to keep people away from the area. If using cracker shells, you must also monitor for smoke and/or fire ignition. Littered shell cases spent in the action should be recovered

and disposed of. Look for any spent bean bag rounds, rubber bullets, or rubber batons and inspect them for evidence of impact to the bear to confirm that you hit it.

### **Hazing Operations Reporting**

A Bear Sighting Form should be filled out completely as soon as possible after all hazing operations and sent to the Bear Management Office. The reason for the hazing operation, hazing technique used, number of rounds fired, type of rounds fired, number of known hits, bears reaction, safety concerns, lessons-learned, and success or failure of the hazing should be included on the back of the form. The Bear Sighting Reports are used to track the effectiveness of different hazing methods and the response of particular bears to hazing. If the bear was not positively identified by ear-tags or radio collar, include a detailed description of the size, weight, sex, color, and physical description of the bear that was hazed.

## **SAFETY GUIDELINES FOR HAZING OPERATIONS**

Although the benefits of management hazing can be substantial, especially in developed areas, they should never outweigh the importance of conducting hazing operations safely. Safety is the top priority during all hazing operations, for you, for your co-workers, for visitors, and for the bears being hazed. When safety concerns cannot be adequately addressed, the hazing operation should not be initiated. Hazing operations should be terminated if conditions become unsafe at any time during the bear hazing operation. The following safety guidelines and precautions should be followed during all hazing operations.

### **Safety of the Hazing Team**

When conducting bear hazing operations, the following guidelines will promote, but not ensure, safety of the hazing team:

- A missed opportunity to haze a bear is of little consequence compared to the potential negative outcomes when hazing is done under unsafe conditions or in an unsafe manner. Stop an operation immediately if it becomes unsafe and never haze beyond your personal training and/or comfort level.
- Both grizzly bears and black bears may respond to hazing with defensive aggression. Both species of bears are capable of, and have killed humans. However, behaviorally, grizzly bears are much more aggressive and much more likely to attack than black bears. Grizzly bears are known for their sudden, explosive aggression. You do not want to incur the wrath of an angry grizzly bear. Always haze from a secure location whenever possible, have both non-lethal and lethal backup, and have a plan on what you will do if the bear turns on you or other people nearby.
- Hazing should not be initiated unless enough crew members are present and equipment available to effectively move the bear out of the developed area, and the public can be managed and informed about the hazing operation.
- Remember that different bears respond differently to hazing based on past experiences, general temperament, sex, age, and their dominance among other bears. Even the bears' current mood may affect its reaction to hazing (maybe the bear has just got beaten up by a larger bear in a fight over a carcass or an estrous female, or has been repeatedly hazed

for grazing clover in a roadside meadow while it attempts to put on fat for hibernation). Bears may react differently from one year to the next, or even within the same year or day. Always be ready for the potential that the bear being hazed might turn on you or nearby visitors in defense.

- The use of shotgun fired hazing rounds is limited to personnel who have qualified for use of firearms under NPS or YNP Firearms Policy.
- Never fire live (lethal) rounds as hazing rounds, not even for their noise making effects. Use of lethal rounds could put nearby hazing team members at risk.
- Never mix live (lethal) rounds with hazing rounds in the magazine. Use another trained staff member or separate firearm as your lethal backup cover-gun. Mixing lethal rounds with hazing rounds in the shotgun magazine could put nearby hazing team members at risk.
- Personnel involved in hazing operations should refrain from entering areas of hazardous (e.g., thermal areas) or unfamiliar terrain or from initiating hazing without adequate equipment to safely proceed (e.g., bear spray, firearm, partner with lethal back-up, radio, headlamp or flashlight, adequate clothing, and personal protective equipment).
- Whenever possible, work in pairs. A minimum of two people are required when hazing from unsecure positions (i.e. when not adjacent to a building or vehicle). Groups of three or more provide an added margin of safety.
- Always haze from a safe distance. Bears can sprint at approximately 45 feet per second and therefore, can reach you very quickly. Personnel involved in hazing operations should maintain an adequate distance from the bear and maintain an acute awareness of aggressive or agitated bear postures and vocalizations to help ensure that the safety of the bear, park visitors, and staff involved in the hazing is not jeopardized.
- When hazing bears with projectiles, always make sure that other staff members are not in the line of fire.
- Never sneak up on a bear to haze it. Sneaking up on a bear to haze it could result in explosive defensive aggression from the bear.
- Always wear eye protection when firing all 12-gauge and 37-mm hazing rounds.
- When hazing with shotguns, open the action and check the barrel of the shotgun after each shot to assure there is no blockage of the barrel.
- Use only cylinder bore shotguns with a chamber 2 ¾ inches or longer for firing all 12-gauge hazing rounds.
- When hazing bears, hazing rounds should be fired from a secure location near a building or vehicle, whenever possible, to provide the shooter with an escape refuge in case the bear turns to defend itself.
- Cracker shells or other low velocity hazing rounds and lead slugs should never be mixed in the shotgun magazine. The wadding of low velocity hazing rounds may not clear the barrel. The blockage could cause the barrel to explode when a slug is fired, potentially injuring the shooter or other hazing team members.
- When hazing bears from a secure location near a building or vehicle, the shooter must at a minimum have bear spray and a defensive weapon such as a loaded large caliber revolver (.41 caliber magnum or larger), 12-gauge shotgun with slugs, or high powered rifle of .30 caliber or larger (.30-06, .308, .375 H & H mag., .444 Marlin, .450 Marlin, .45-70 Government, etc.) readily available as backup.

- When hazing bears from an unsecure location, where escape into a building or vehicle is not possible, the person firing the hazing rounds is required to have bear spray as a defensive weapon, and in addition, be accompanied by a trained staff member to act as armed back-up with a loaded shotgun or high powered rifle of .30 caliber or larger. The person providing armed back-up is also required to carry bear spray. It is important that if the bear being hazed turns on you, that you have a plan and carry out that plan without hesitation.
- When firing cracker shells, only shoot up into the air at a 45 to 60 degree angle, this will minimize the chances of the shells exploding on or near hazing team members.
- Cracker shells should never be skipped off of the ground to reduce their flight distance, because the angle of ricochet cannot be accurately predicted. Attempting to skip cracker shells could put other hazing team members at risk of being hit by the round.
- When hazing with Cracker Shells, the round should be fired so that it explodes between the shooter and the bear. If the round explodes beyond the bear, it may cause the bear to flee toward the shooter.
- Bears should not be hazed so intensely that they turn on the hazer in defense.
- When hazing bear family groups, always be aware that if pushed too hard, or the cubs become separated from their mother, the mother bear may become agitated and aggressively defend her cubs against the shooter or any other people in the area.
- Do not hit cubs with rocks or other hazing rounds. With family groups all painful stimuli and contact rounds should be used only on the adult female bear, as painful stimuli to the cubs, yearlings, or two-year-olds and subsequent bawling may cause the mother bear to aggressively defend her young.
- As each hazing method is stepped up from non-contact, to contact, to heavier impact contact rounds, staff conducting hazing must consider whether or not the potential benefits outweigh the potential risks to the bear, park staff, and visitors.
- Shotguns used in hazing operations should be handled and stored in such a manner that acknowledges their lethal potential, even when firing less-than-lethal rounds.
- Report any problems encountered with hazing protocols, firearms, rounds, and procedures to the Bear Management Office and District Ranger promptly so that training, equipment, or technique deficiencies can be addressed.

### **Firearms Safety Rules**

The following rules of firearms safety are required during all bear hazing operations where firearms (including paintball guns) are used:

- Rule #1: Always treat all firearms as if they are loaded at all times.
- Rule #2: Never allow any firearm to point at anything you are not willing to destroy.
- Rule #3: Keep your finger off of the trigger and out of the trigger guard until your sites are on your target.
- Rule #4: Be sure of your target and what lies beyond (visitors, staff, buildings, vehicles, etc.).

## **Safety of Park Visitors**

When conducting bear hazing operations, the following guidelines will enhance, but not ensure, the safety of park visitors:

- Always do a reconnaissance for potential safety hazards, presence of visitors, public relations uncertainties, etc. before conducting hazing operations. Never use any projectiles when there is any danger of hitting people, property, or cubs. If at any time before or during the hazing operation it is determined that the backdrop is not safe, the hazing operation should be terminated immediately or switched to light hazing non-contact techniques.
- It is important that if the bear being hazed turns on park visitors, that you have a plan and carry out that plan without hesitation.
- When hazing bears with projectiles, always make sure that visitors are not in the line of fire.
- Never fire live (lethal) rounds as hazing rounds, not even for their noise making effects. Use of lethal rounds could put nearby visitors at risk.
- Never mix live (lethal) rounds with hazing rounds in the magazine because of the possibility of inadvertently firing a slug while hazing. Use another trained staff member or separate firearm as your lethal backup cover-gun. Mixing lethal rounds with hazing rounds in the shotgun magazine could put nearby visitors at risk.
- Cracker shells or other low velocity hazing rounds and lead slugs should never be mixed in the shotgun magazine. The wadding of low velocity hazing rounds may not clear the barrel. The blockage could cause the barrel to explode when a slug is fired, potentially injuring nearby visitors.
- When firing cracker shells, only shoot up into the air at a 45 to 60 degree angle, this will minimize the chances of the shells exploding on or near park visitors.
- Cracker shells should never be skipped off of the ground to reduce their flight distance, because the angle of ricochet cannot be accurately predicted. Attempting to skip cracker shells could put visitors at risk of being hit by the round.
- Always know your target and what lies beyond the target animal.
- Always make sure you are not hazing the bear towards park visitors, staff, or traffic.
- Always make sure that the bear being hazed has a clear escape/retreat path that is not blocked by people, traffic or developed areas.
- Bears should only be hazed in a direction that provides a safe avenue of retreat into an undeveloped area that is free of people.
- Use of cracker shells and less-than-lethal contact projectiles should be made with careful consideration to surroundings and situations. Loud noises should be utilized with the safety of the public in the immediate area taken into consideration. When using cracker shells, the danger of wild-land or structural fire and the human safety considerations of potentially igniting a fire must be considered.

## **Safety of the Bears Being Hazed**

In addition to the safety of park visitors and the hazing team, the safety of the bear(s) being hazed is also paramount. When conducting bear hazing operations, the following guidelines will enhance (but not ensure) safety for the bear being hazed:

- Never fire live (lethal) rounds as hazing rounds, not even for their noise making effects. Use of lethal rounds could put the bear being hazed at risk.
- Never mix live (lethal) rounds with hazing rounds in the magazine. Use another trained staff member or separate firearm as your lethal backup cover-gun. Mixing lethal rounds with hazing rounds in the shotgun magazine could put the bear being hazed at risk.
- Never shoot cracker shells directly at any animal. There have been several incidents in national parks including YNP, where bears have been killed when hit with cracker shells.
- When using cracker shells, only shoot up into the air at a 45 to 60 degree angle, this will minimize the chances of the shells exploding on or near the bear being hazed.
- Cracker shells should never be skipped off of the ground to reduce their flight distance, because the angle of ricochet cannot be accurately predicted. Attempting to skip cracker shells could put the bear being hazed at risk of being hit by the round.
- When firing hazing rounds designed to make contact with the bear (wildlife deter-it balls, Powder balls, bean bag rounds, rubber slugs, and rubber batons), always aim for the large muscle areas of the bear's hindquarter.
- When firing contact rounds, do not aim at vulnerable areas such as the head, rib cage, or stomach.
- When firing contact rounds, know your equipment and the minimum safe firing distances of the rounds you are firing. Never shoot at distances closer than the rounds prescribed minimum range, even if the bear is not responding to being hit with the projectile. Firing too close, has led to less-lethal rounds penetrating and unintentionally killing bears.
- Cracker shells or hazing rounds and lead slugs should not be mixed in the magazine, because of the possibility of inadvertently firing a slug at a bear while hazing.
- Never sneak up on a bear to haze it. Sneaking up on a bear to haze it could result in explosive defensive aggression from the bear requiring use of lethal force and resulting in a dead bear.
- When hazing bear family groups, always be aware that if pushed too hard, the cubs may become separated from their mother which ultimately could result in their death. Also remember that if pushed too hard, the adult female may turn in defense of her cubs, potentially requiring lethal force, resulting in a dead bear.
- Never shoot cubs or yearlings with contact hazing rounds or hit them with rocks.
- As each method is stepped up from non-contact, to contact, to heavier impact contact rounds, staff conducting hazing must consider whether or not the potential benefits of hazing outweigh the potential risks to the bear.

## **Wildland and Structural Fire Safety**

The risks of both wildland and structural fire caused by cracker shells must be considered during all hazing operations. The following guidelines will reduce the risk of wildland or structural fires caused by cracker shells:

- Cracker shells are capable of starting wildland fires when the fire danger is rated as high or at any fire danger rating if they land in highly combustible material.
- Contact the YNP Fire Cache (2181) or Fire Management Supervisor (2182) to obtain updates on the current park fire danger rating prior to using cracker shells in hazing operations. The current fire danger rating is also posted near all park entrance stations.
- During periods of high fire danger, cracker shells should only be fired into terrain free of significant fire fuels and personnel should remain in the hazing area for at least 30 minutes observing for smoke and/or fire ignition.
- Only shoot Cracker Shells up into the air at a 45 to 60 degree angle, this will minimize the chances of the shells exploding on or near buildings or combustible materials on the ground.
- Cracker shells should not be fired so that they hit buildings, land on roof's, or land in combustible material adjacent to any building or structure.

## **HAZING WILDLIFE SPECIES OTHER THAN BEARS**

Occasionally, the need arises to move animals other than bears out of areas of concentrated human activity where their presence has been deemed inappropriate or a human safety hazard. Only by direction of the Chief Ranger, Deputy Chief Ranger, District Ranger or designee, or wildlife biologist should hazing of non-bear or wolf species be undertaken. Such actions should be considered only after all other preventative measures (food and garbage storage, visitor management, traffic management, and removal of anthropogenic attractants) have been exhausted. While it is recognized that the hazing of an animal might temporarily alleviate an ongoing conflict, such actions should not be routinely undertaken as a solution to conflicts. Under limited conditions, methods detailed in this plan may be applied to rectify situations involving wildlife species other than bears that do not have an approved species-specific hazing plan. All wolf hazing operations must follow the plan "Management of Habituated Wolves in Yellowstone National Park".

## **ACKNOWLEDGEMENTS**

The information in this plan was gained from the experiences of many Park employees during grizzly bear and black bear hazing operations conducted in YNP over the last 30+ years. Information on hazing and aversive conditioning was also gleaned from the hazing plans and protocols of Katmai, Sequoia and Kings Canyon, Yosemite, and Glacier National Parks. In addition, much can be learned from the early pioneers of bear hazing and aversive conditioning operations in Yellowstone, especially C.J. Jones, the Park Game Warden from 1902 – 1905, park wildlife biologist Olaus Murie, who conducted aversive conditioning on bears on an



experimental basis in the park in the early 1940's, and Carrie Hunt, Forrest Hammond, and Colin Gillin who conducted aversive conditioning research with bears in the park in the 1980's.

### **LITERATURE CITED**

- Davey, G. 1981. Animal learning and conditioning. University Park Press, Baltimore, Maryland, USA.
- Gillin, C.M., F.M. Hammond, and C.M. Peterson. 1994. Evaluation of an aversive conditioning technique used on female grizzly bears in the Yellowstone Ecosystem. International Conference on Bear Research and Management 9(1):503-512.
- Glacier National Park. 2010. Bear management plan, Glacier National Park. U.S. Department of Interior, National Park Service, Glacier National Park, West Glacier, Montana, USA.
- Gunther, K.A., K.R. Wilmot, S.L. Cain, T. Wyman, E.G. Reinertson, and A.M. Bramblett. 2015. Habituated grizzly bears: a natural response to increasing visitation in Yellowstone and Grand Teton National Parks. Yellowstone Science 23(2):33-39.
- Gunther, K.A. and M.A. Haroldson. 2015. Early attempts at modifying bear behavior in Yellowstone National Park. Yellowstone Science 23(2):83-87.
- Homstol, L. 2011. Applications of learning theory to human-bear conflict: the efficacy of aversive conditioning and conditioned taste aversion. Master of Science Thesis, University of Alberta, Edmonton, Alberta, Canada.
- Honeyman, J. 2008. A retrospective evaluation of the effectiveness of aversive conditioning on grizzly bears in Peter Lougheed Provincial Park, Alberta, Canada. Master of Science Thesis, Royal Roads University, Colwood, British Columbia, Canada.
- Hopkins, J.B. S. Herrero, R.T. Shideler, K.A. Gunther, C.C. Schwartz, and S.T. Kalinowski. 2010. A proposed lexicon of terms and concepts for human-bear management in North America. Ursus 21(2):154-168.
- Hunt, C.L. 2004. Bear shepherding guidelines for safe and effective treatment of human-bear conflicts. The Wind River Bear Institute. Florence, Montana, USA.
- Katmai National Park and Preserve. 2001. Bear-human conflict management plan: Katmai National Park and Preserve, Aniakchak National Monument and Preserve, Alagnak Wild River. U.S. Department of Interior, National Park Service, Katmai National Park, USA.
- Mazur, R.L. 2010. Does aversive conditioning reduce human-black bear conflict? Journal of Wildlife Management 74(1):48-54.

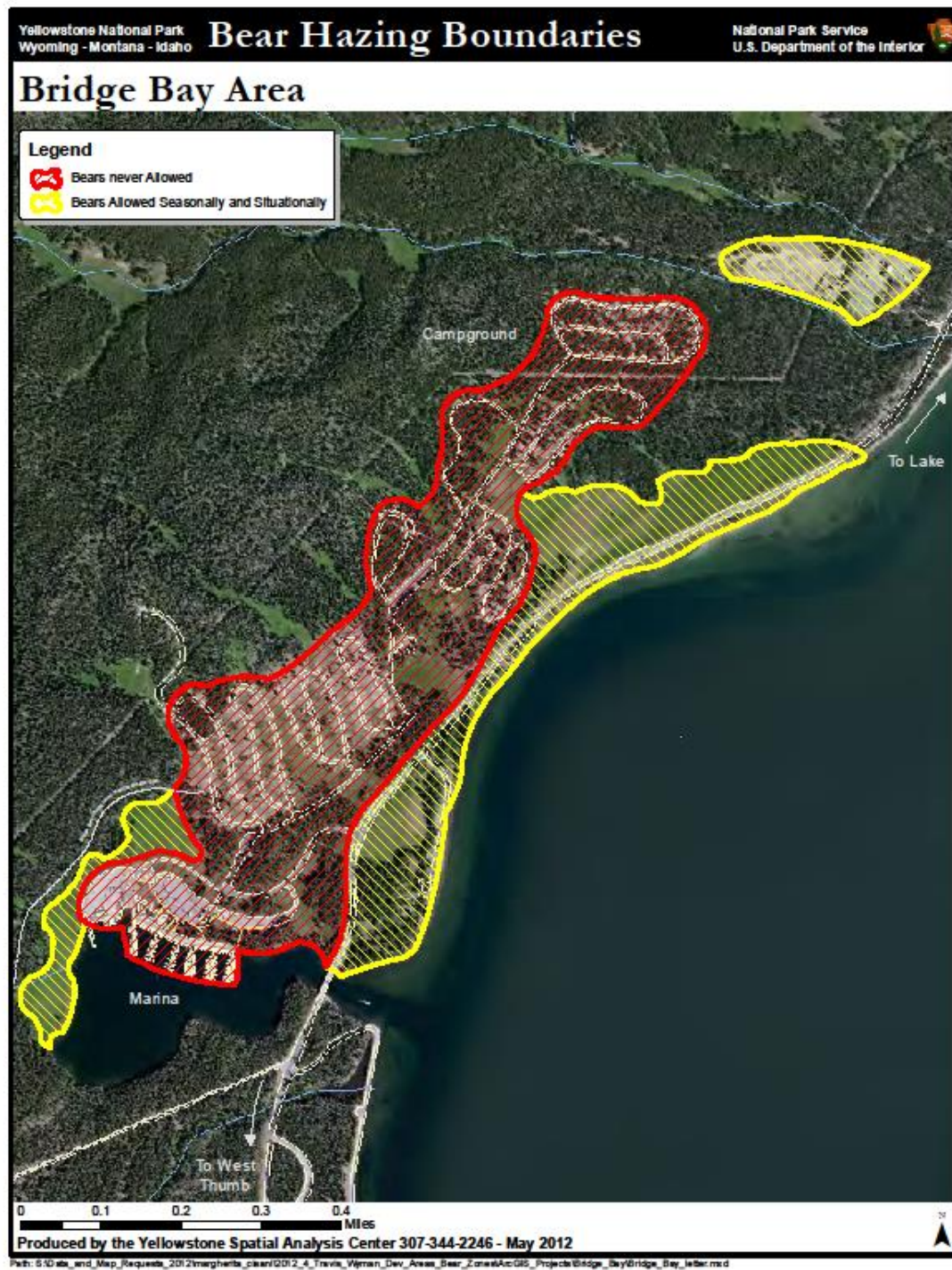
Richardson, L. K. Gunther, T. Rosen, and C. Schwartz. 2015. Visitor perceptions of roadside bear viewing and management in Yellowstone National Park. *The George Wright Forum* 32(3):299-307.

Sequoia and Kings Canyon National Parks. 1992. Bear management plan, Sequoia and Kings Canyon National Parks. U.S. Department of Interior, National Park Service, Sequoia and Kings Canyon National Parks, Three Rivers, California, USA.

Yosemite National Park. 2002. Yosemite National Park human-bear management plan. U.S. Department of Interior, National Park Service, Yosemite National Park, California, USA.

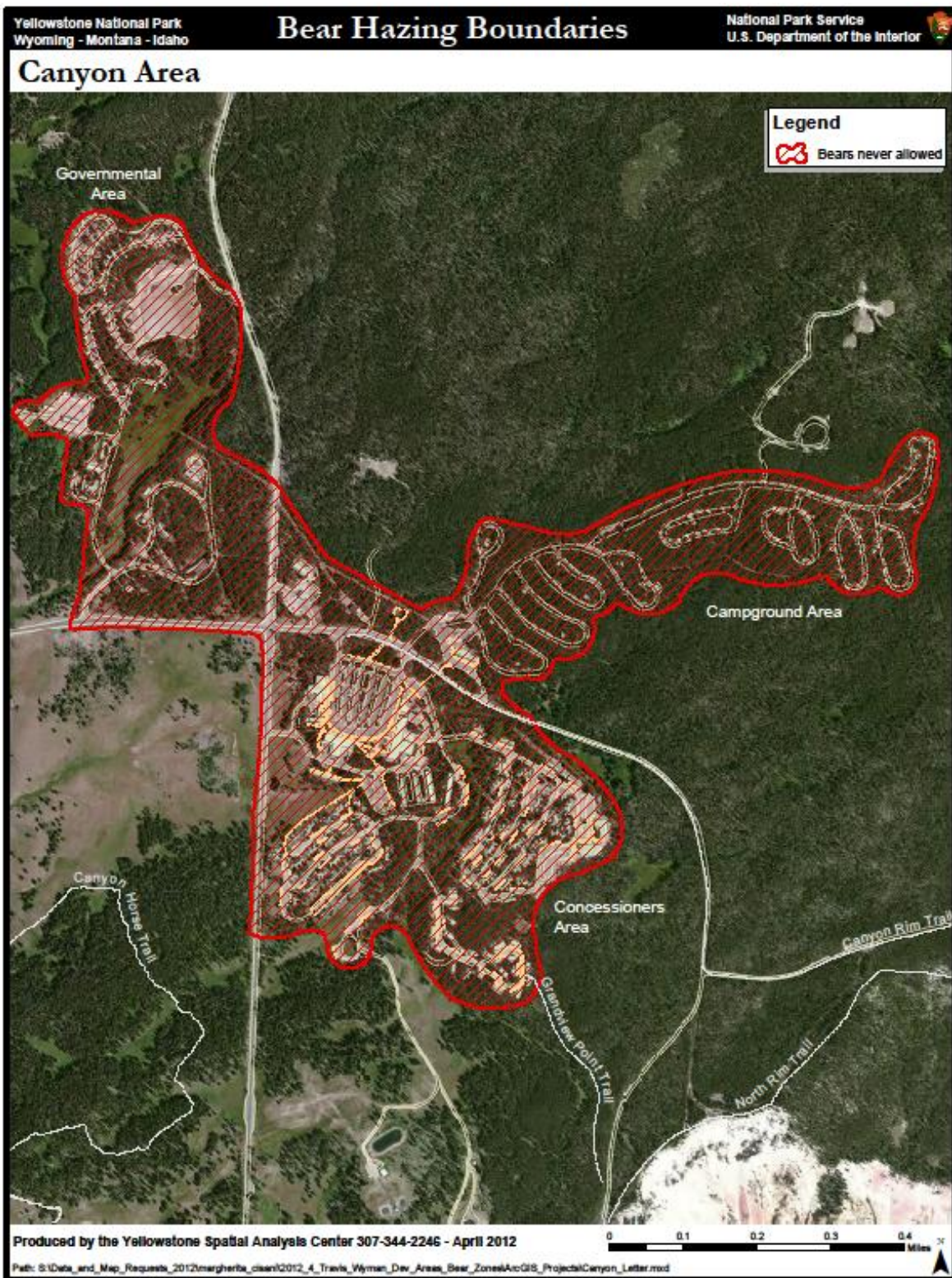
## APPENDIX A

### Developed Area Hazing Perimeter Maps



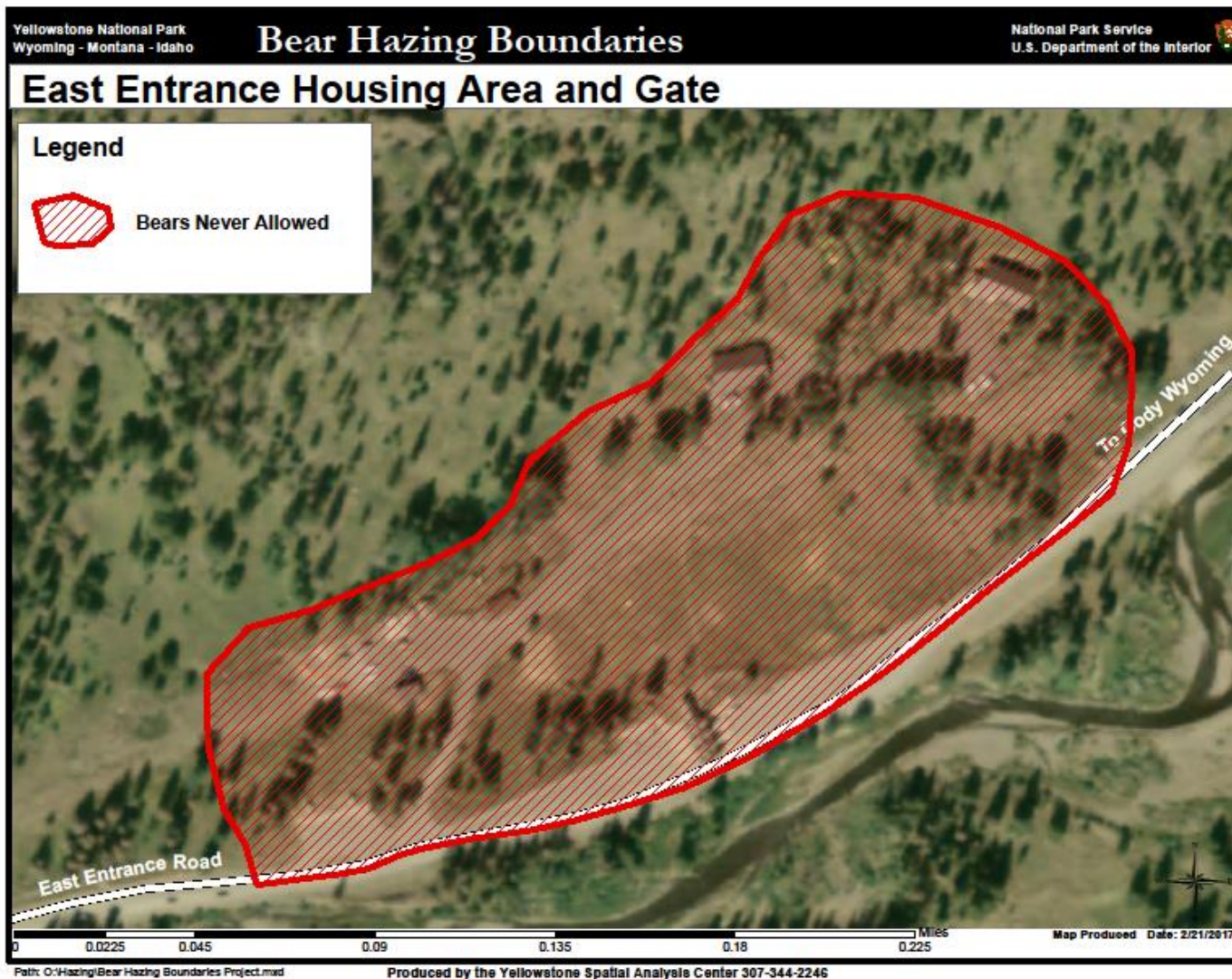
Bridge Bay developed area hazing perimeter (No Bear Zone).



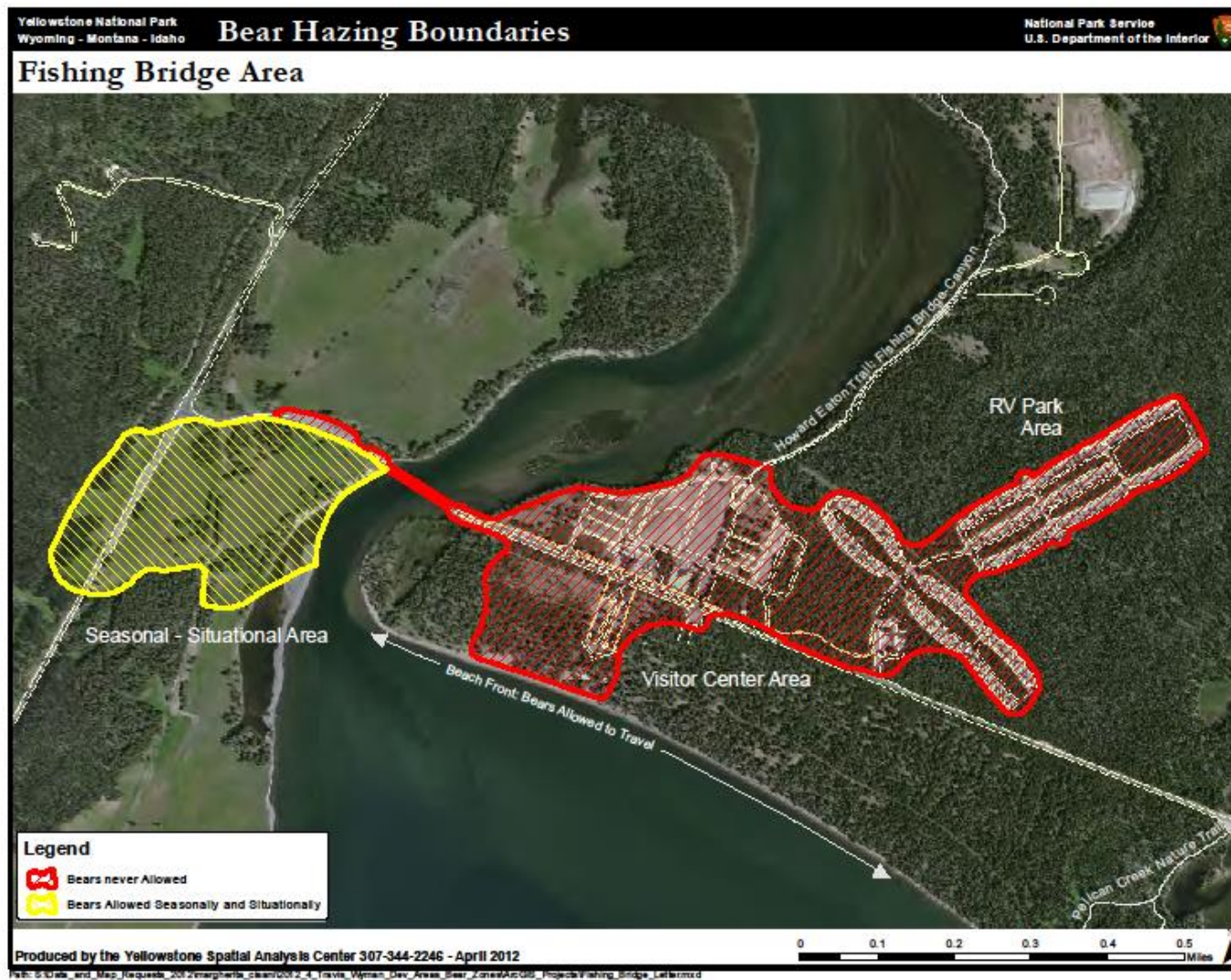


Canyon Village developed area hazing perimeter (No Bear Zone).





East Entrance developed area hazing perimeter (No Bear Zone).



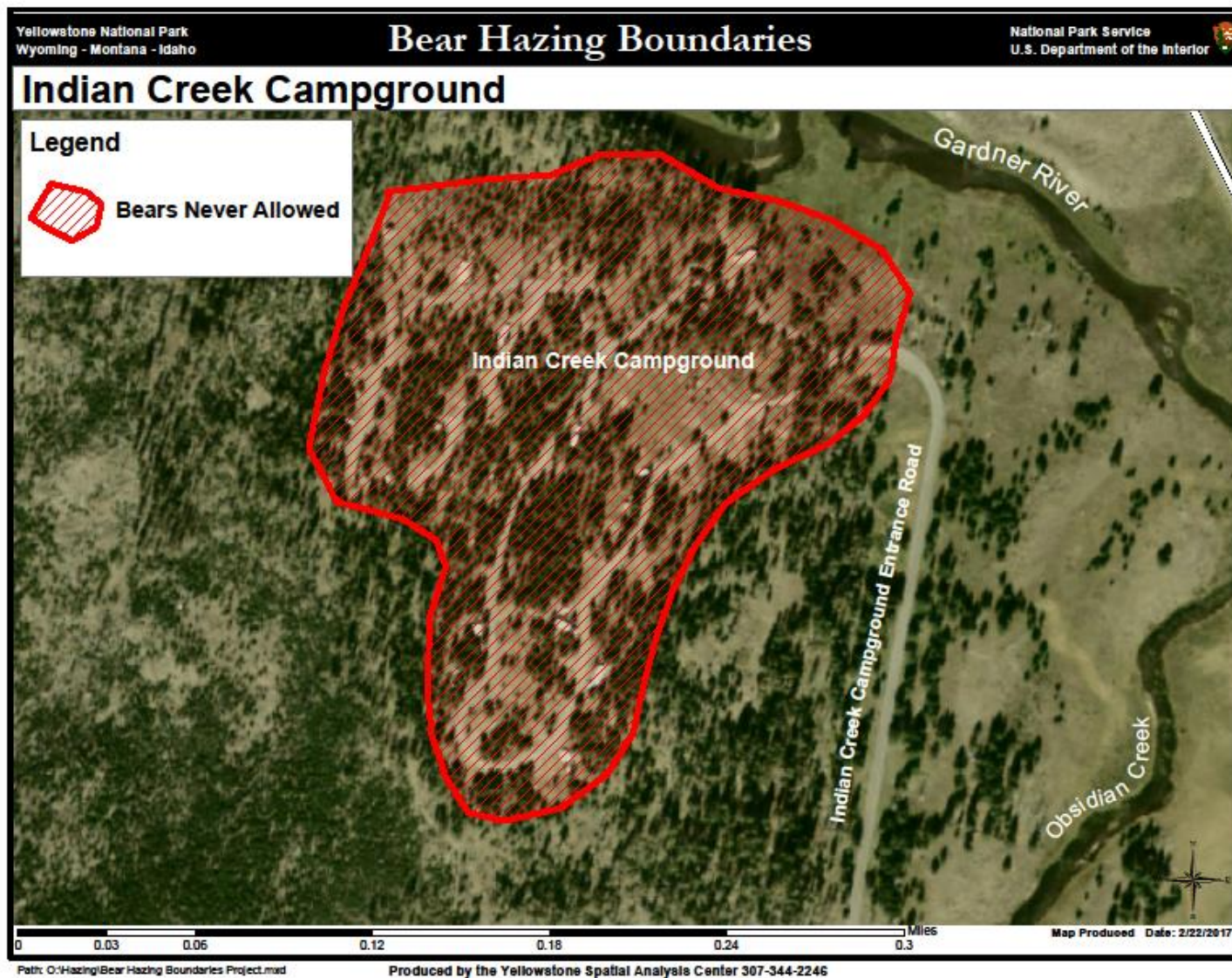
Fishing Bridge developed area hazing perimeter (No Bear Zone).





Grant Village developed area hazing perimeter (No Bear Zone).





Indian Creek Campground developed area hazing perimeter (No Bear Zone).



## Lake Area

### Legend



Bears never Allowed

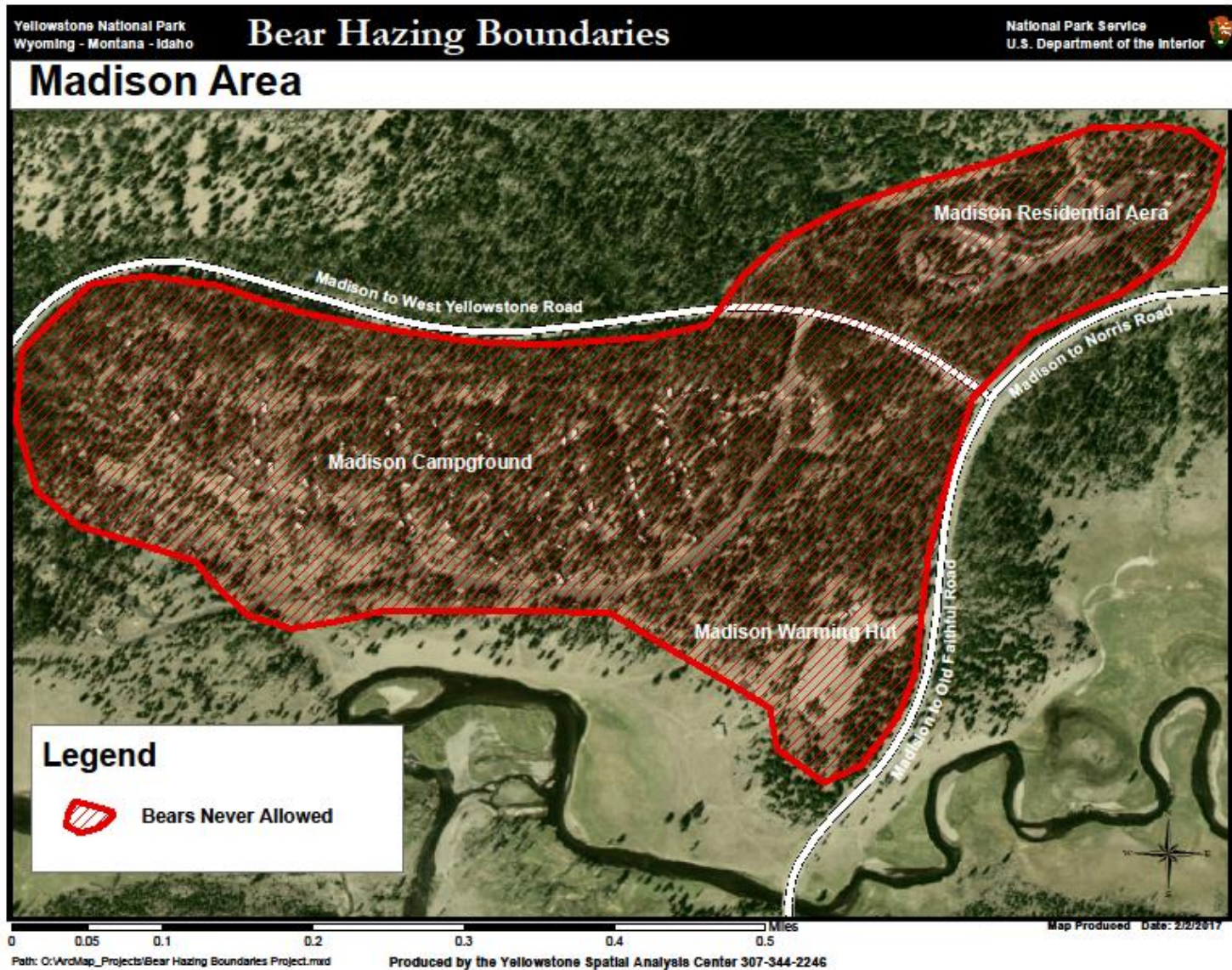


Produced by the Yellowstone Spatial Analysis Center 307-344-2246 - May 2012

Path: S:\Data\_and\_Map\_Requests\_2012\margherita\_clean\2012\_4\_Travis\_Wyman\_Dev\_Areas\_Bear\_Zones\ArcGIS\_Projects\Lake\Lake\_126.mxd

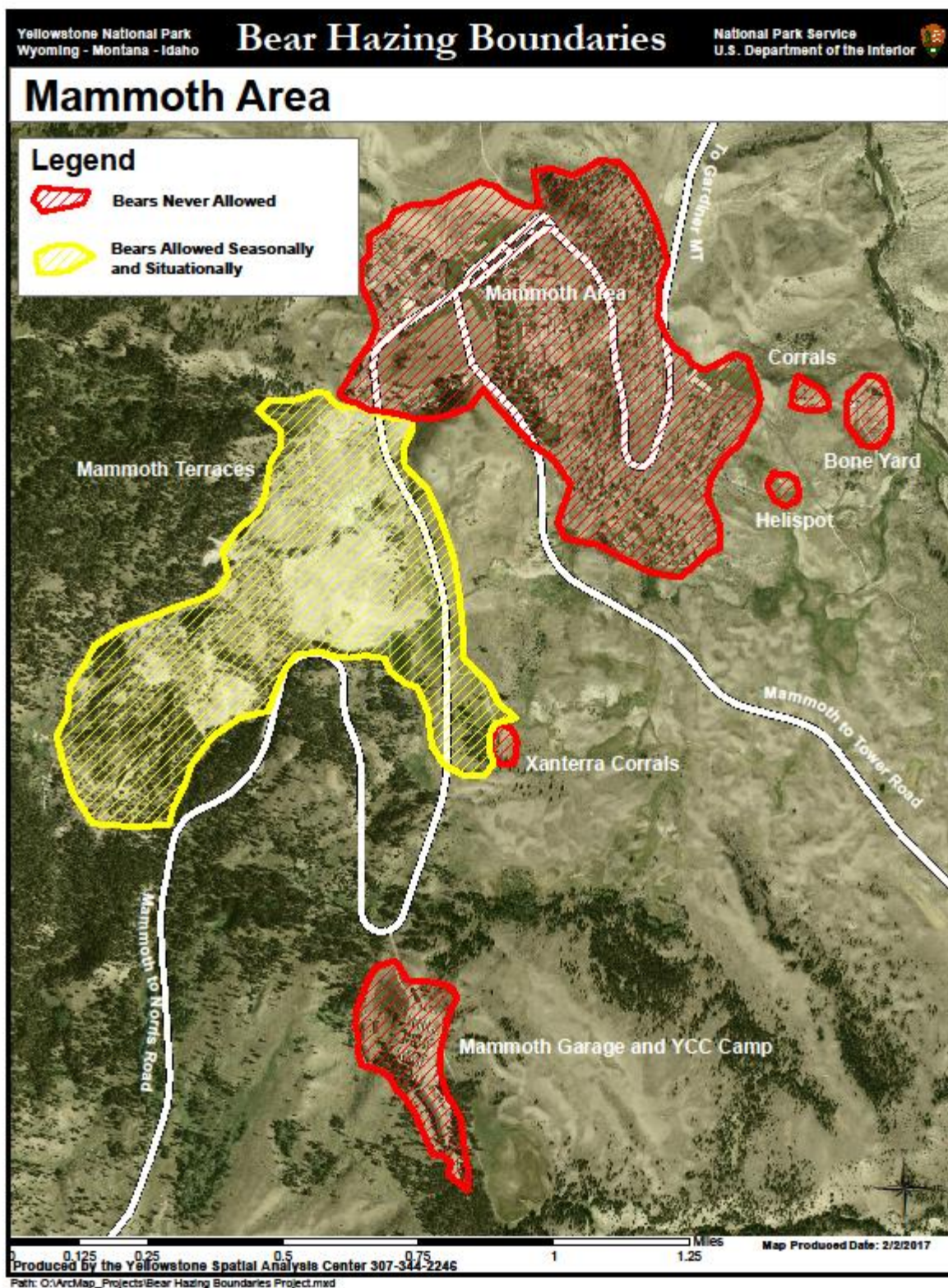
Lake Village developed area hazing perimeter (No Bear Zone).





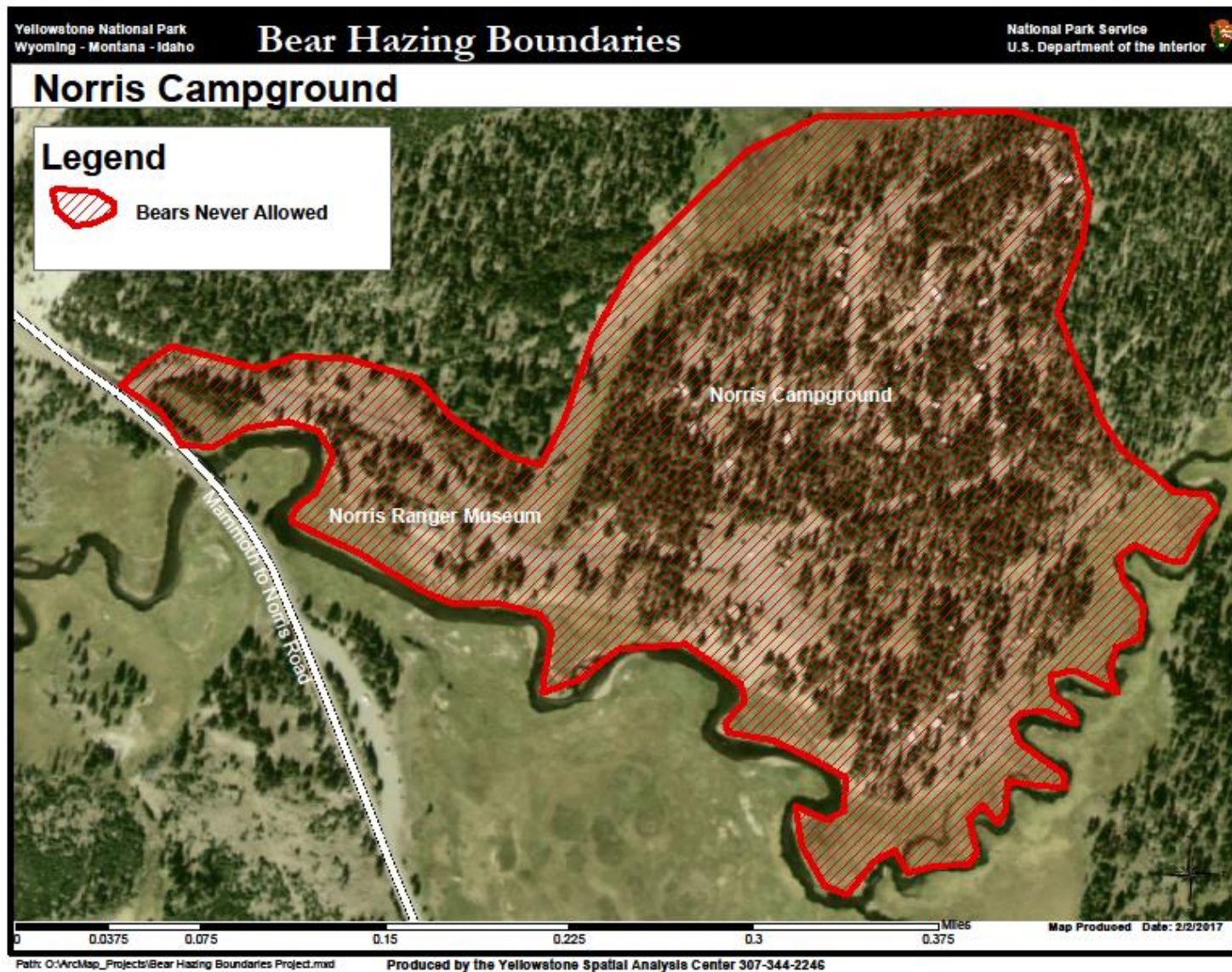
Madison developed area hazing perimeter (No Bear Zone).





Mammoth developed area hazing perimeter (No Bear Zone).



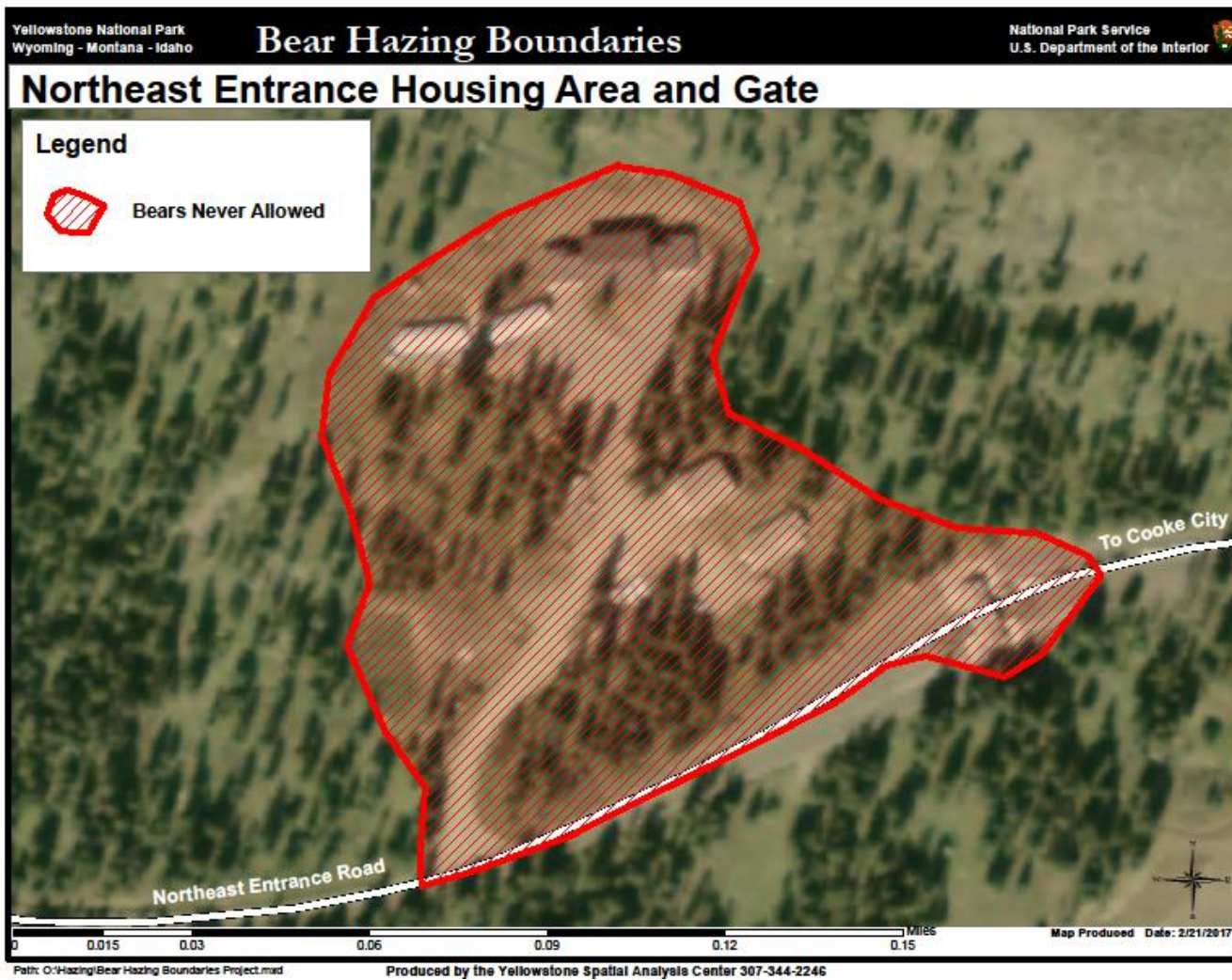


Norris Campground developed area hazing perimeter (No Bear Zone).



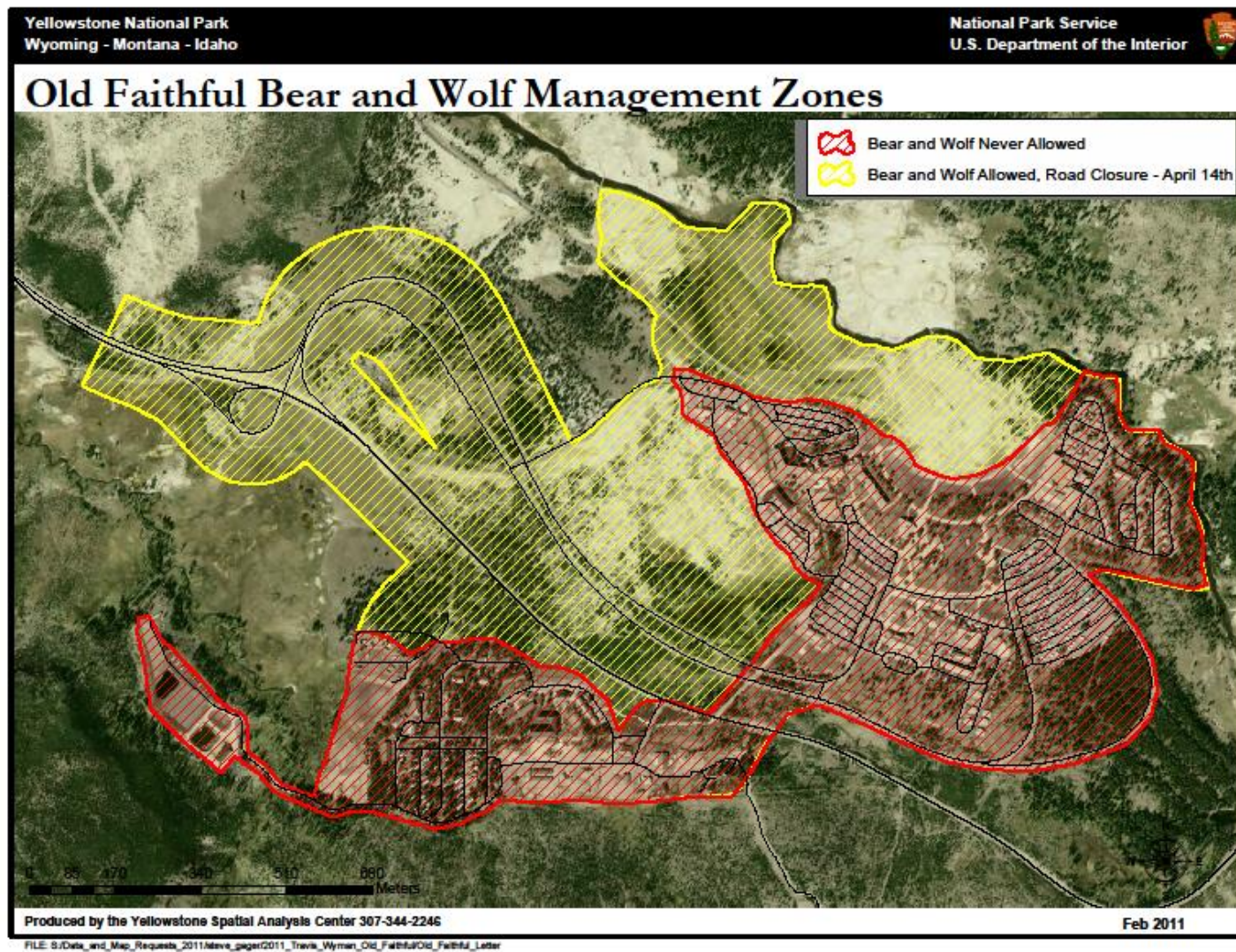


Norris Government developed area hazing perimeter (No Bear Zone).



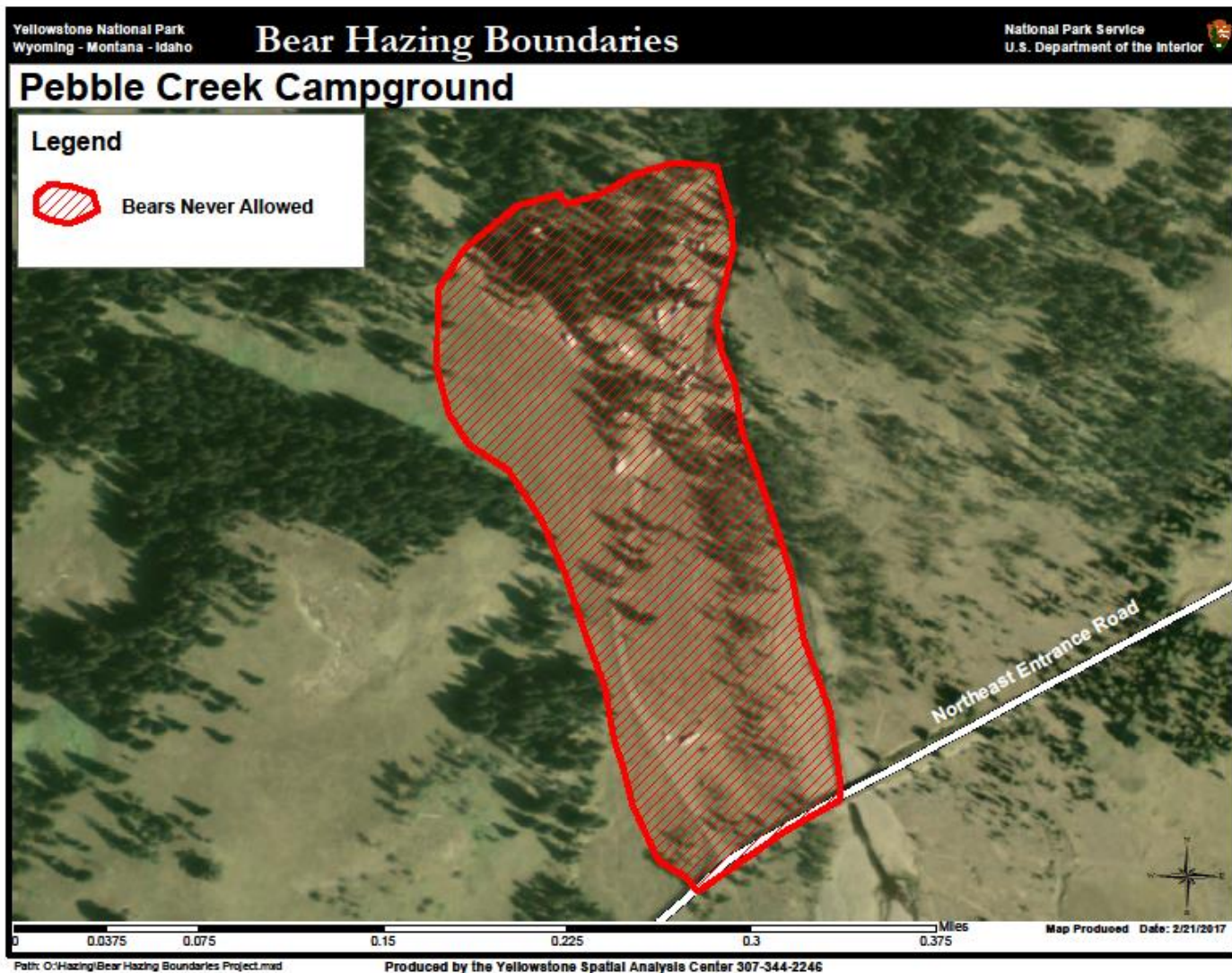
Northeast Entrance developed area hazing perimeter (No Bear Zone).





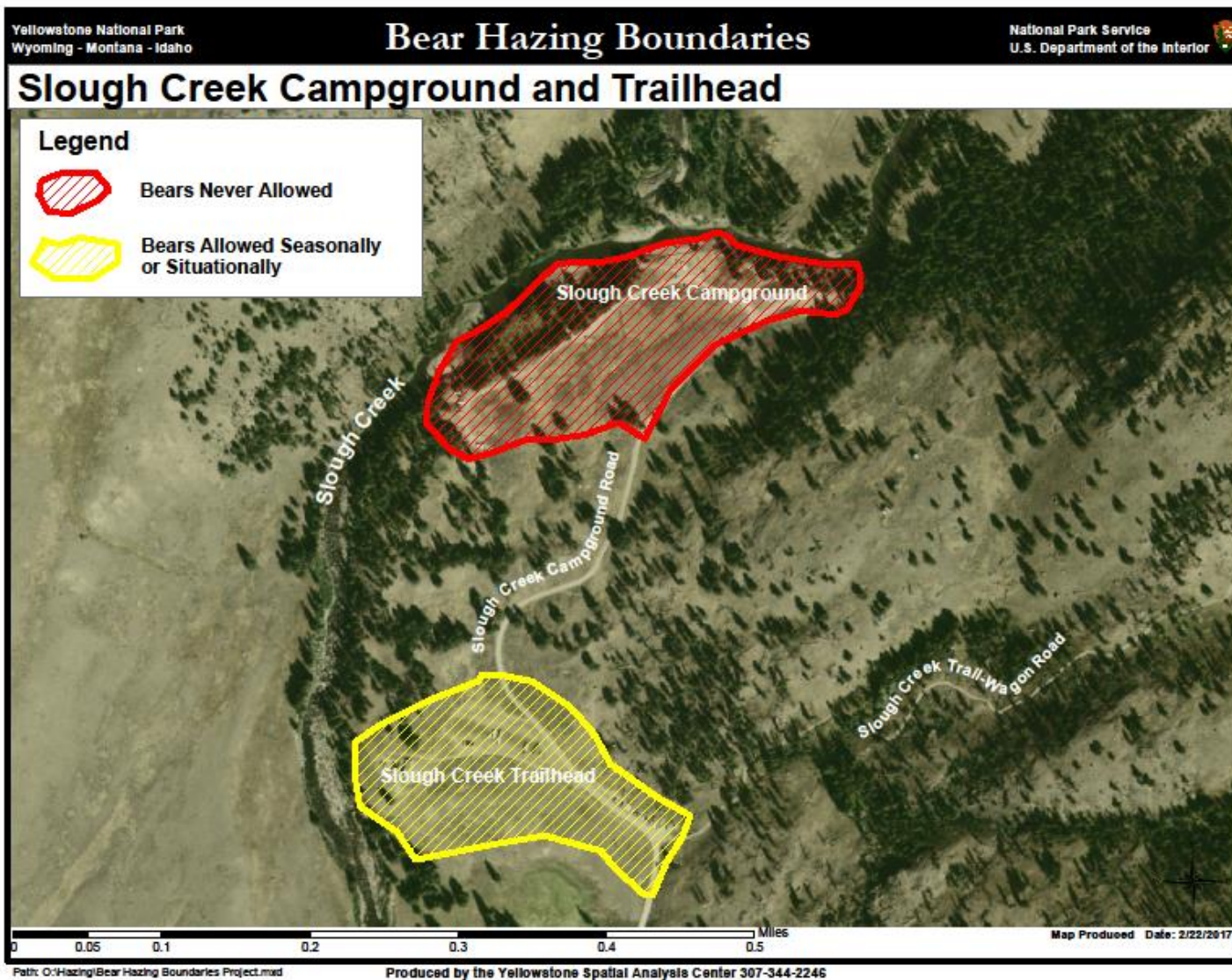
Old Faithful developed area hazing perimeter (No Bear Zone).



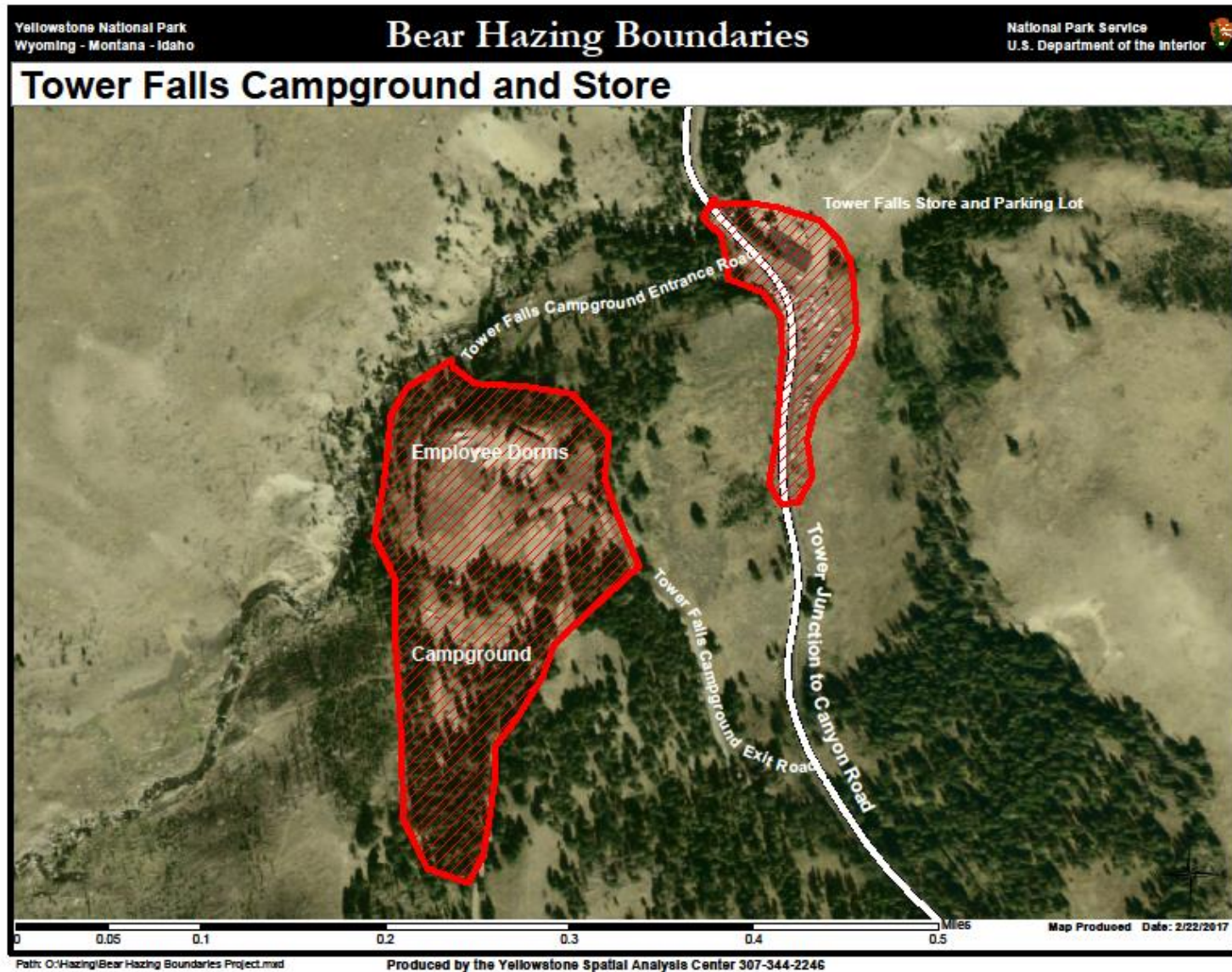


Pebble Creek Campground developed area hazing perimeter (No Bear Zone).



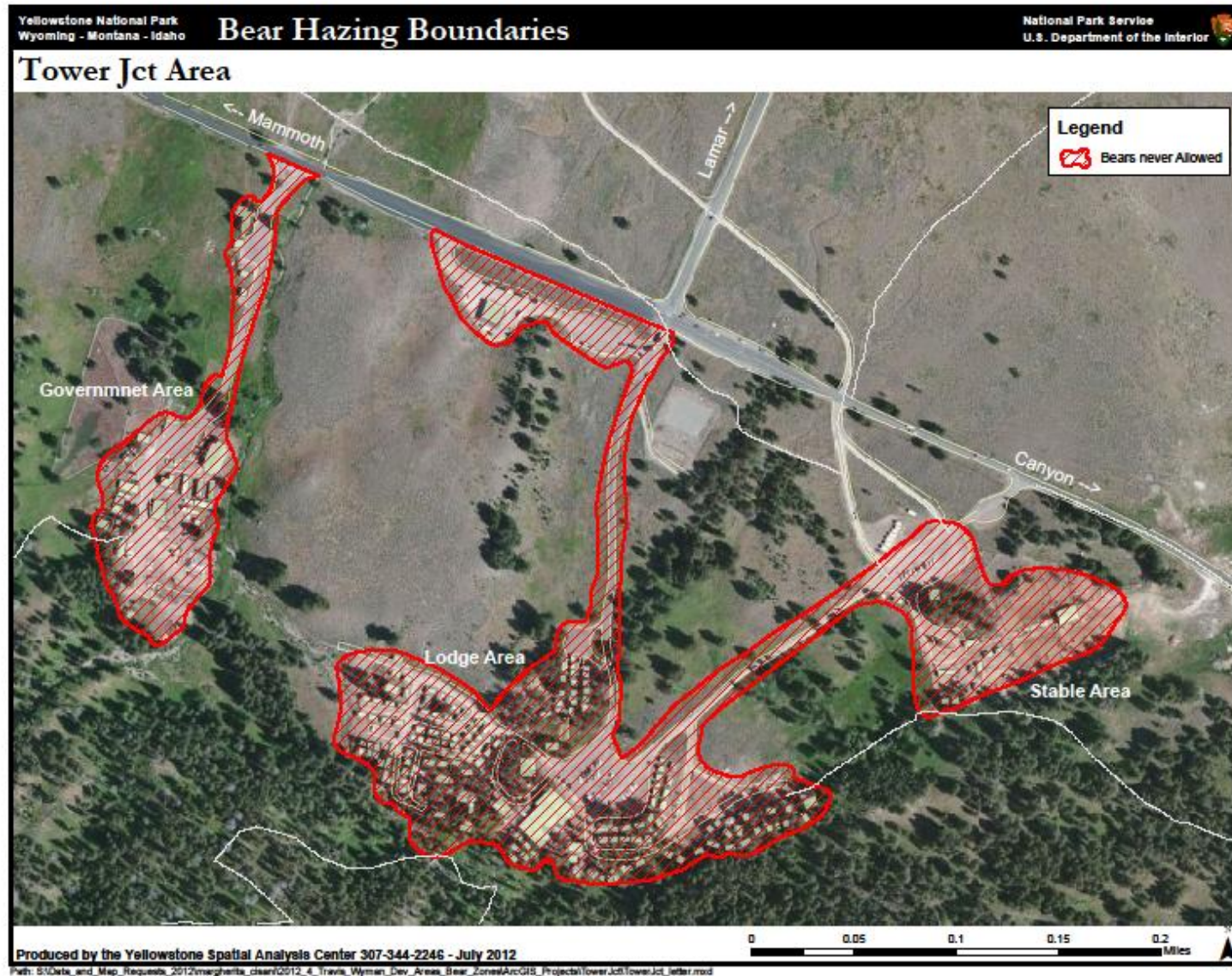


Slough Creek developed area hazing perimeter (No Bear Zone).



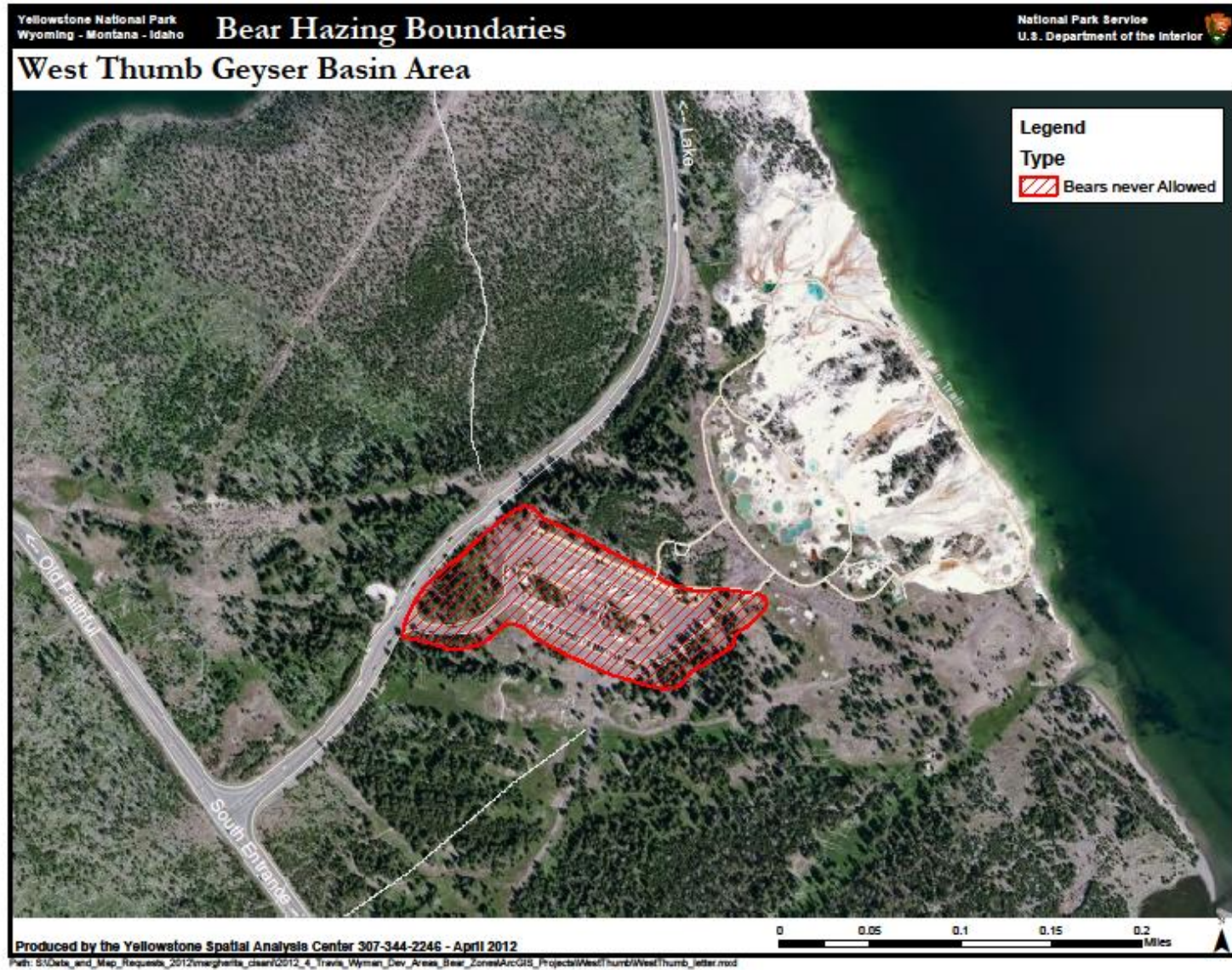
Tower Fall developed area hazing perimeter (No Bear Zone).





Tower/Roosevelt developed area hazing perimeter (No Bear Zone).





West Thumb developed area hazing perimeter (No Bear Zone).

**From:** [Daniel Thompson](#)  
**To:** [Cooley, Hilary](#)  
**Subject:** [EXTERNAL] Fwd: Consideration of Grizzly 399 behavior/human safety  
**Date:** Thursday, October 28, 2021 8:59:46 AM

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**This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.**

I would expect more of these as the level of conflicts and conditioned behavior increases, talking with Rick this afternoon as well about overall situation.

----- Forwarded message -----

**From:** (b) (6) <(b) (6)@gmail.com>  
**Date:** Thu, Oct 28, 2021 at 8:51 AM  
**Subject:** Consideration of Grizzly 399 behavior/human safety  
**To:** <[joseph\\_szuszwalak@fws.gov](mailto:joseph_szuszwalak@fws.gov)>  
**Cc:** <[daniel.thompson@wyo.gov](mailto:daniel.thompson@wyo.gov)>, <[Brian.DeBolt@wyo.gov](mailto:Brian.DeBolt@wyo.gov)>

Hi Joseph,

I know your job managing grizzlies is not easy right now and I respect that. However, I feel we have reached a threshold in Teton County for grizzly bear safety concerns.

I am a Rafter J Subdivision resident in Teton County, WY (1 mile south of Town of Jackson). I am writing to you to express concern over Grizzly 399 and her cubs presence and behavior in our neighborhood. They have been observed by residents in our neighborhood on back decks and in yards. I am not comfortable with this as I have 3 children who bike to school and walk to the school buses. They also enjoy playing in the neighborhood's open space lands and our own yard.

Please get more aggressive to remove these bears. It is clear that 399's cubs have become habituated to residential neighborhoods and things can only turn ugly in the future. I pray that it is not one of my children that is sacrificed for this cause to "Save the Bears". These bears are outside of the Yellowstone Recovery Zone and need to be relocated or removed completely this fall.

Thanks,

(b) (6)  
(b) (6)

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E-Mail to and from me, in connection with the transaction of public business, is subject to the Wyoming Public Records Act and may be disclosed to third parties.