

Yellowstone Ecosystem Subcommittee Fall Meeting Minutes
November 3-4, 2015

Members present:

Joe Alexander, Shoshone National Forest
Mary Erickson, Gallatin and Custer National Forest
Melany Glossa, Beaverhead-Deerlodge National Forest
Loren Grosskopf, Wyoming County Commissioners Association - Park Co
Cornie Hudson, BLM – Montana
Dan Wenk, Yellowstone National Park
David Kampwerth, USFWS- Idaho
Gregg Losinski, Idaho Department of Fish and Game
Brian Nesvik, Wyoming Game and Fish Department
Tricia O'Connor, Bridger-Teton National Forest
Tom Rice, Montana Association of Counties - Beaverhead County
Lisa SolbergSchweb, USFWS – Wyoming
Chris Servheen, USFWS Grizzly Bear Recovery Coordinator
Garth Smelser, Caribou-Targhee National Forest
Bob Inman, Montana Fish Wildlife and Parks
Frank van Manen, USGS Interagency Grizzly Bear Study Team
David Vela, Grand Teton National Park and the John D. Rockefeller, Jr. Memorial Parkway
Leander Watson, Shoshone Bannock tribes
Delissa Minnick, BLM – Wyoming
Steve Schmidt, Idaho Department of Fish and Game
Richard Hannan, Deputy Regional Director - FWS

November 3, 2015 1:00 p.m.

Welcome and Introductions: Mary Erickson

- Introductions and roll call
- Acknowledge the importance of this issue—you can't go anywhere without seeing stories about Yellowstone Grizzly Bear and the potential for delisting. There's a lot of passion, interest, emotion and personal investment in Yellowstone Grizzly Bear and the value it holds for all of us. We will try something a little differently relative to public comment and some addition of clarifying questions. I am going to ask people to strive to respect each other in the comments and how you participate in this process. I know there are a lot of divergent views and people tend to hold to their view and part of that is often demonizing or disrespecting other people and their views. It's important at

these conversations that we build a community where people's views can be out there and we also have that respect for people in the room. I received a number of emails from people when they saw the agenda posted on the IGBC website and one of the concerns we heard out there was there wasn't adequate time for public comment. The challenge in that is we have the work of the committee and we have limited time for this meeting. But we are going to increase the time for public comment this afternoon and tomorrow. To make that work affectively we put a public comment sign-up sheet at the back. We'll take 30 minutes at the end of the meeting today and tomorrow for those who want to make a comment, and will divide the time among those who sign up. This is not a question and answer period, but a time to express your views.

- Sideboards
 - There will not be a proposed delisting rule for the Yellowstone Grizzly Bear rolled out at this meeting; that's not the purpose of this meeting. A delisting rule does not yet exist in a format ready to go out for public comment. The Fish and Wildlife Service representatives will talk more on that process and when you might expect something.
 - These YES meetings are not public hearings about eventual delisting. That isn't the role of the YES committee and we'll go through a little background about our role. Public meetings on delisting would be the responsibility of the US Fish and Wildlife Service.
 - On a few of the topics, we will allow for clarifying questions, first from the committee and then for those in attendance, managed within the time frames.

Spring 2015 Meeting Minutes Approval: Mary Erickson

- Motion by Joe Alexander to approve spring 2015 minutes
- Motion seconded by Loren Grosskopf

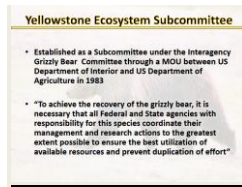
Motion Carried

Videos of all powerpoint presentations are filed on the IGBC website at:

<http://www.igbconline.org/index.php/yellowstone-ecosystem-subcommittee>

(Note: Link to PDF version of ppt's as inserted objects in this document may not work on all systems; the IGBC link above should work for all)

Yellowstone Ecosystem Subcommittee: Mary Erickson



Questions from the Committee:

Loren Grosskopf: On a matter of history, the YES committee does have a specific mission statement and there were 5 different mandates in Yellowstone Plan of Action. Would it help if I read the mission statement?

Mary: Yes, and there are 5 year action plans on the IGBC website for YES over history.

Loren: Mission statement: YES is a multi-agency organization charged with the recovery of the grizzly in the Yellowstone Ecosystem. The committee is made up of federal, state, county and tribal agency partners. The YES is a subcommittee of the Interagency Grizzly Bear Committee-IGBC, the multi-agency group made up of the United States and Canadian agencies responsible for the recovery of the grizzly bear in the contiguous United States and adjoining Canadian provinces.

Mary: Thanks, and again the IGBC website contains a whole legacy of documents around the Yellowstone Ecosystem Subcommittee, what the work of the committee was on an annual basis and what it was in 5 year increments. For me, having served on this committee for 8 years, and never having had a conversation amongst ourselves and with the public on how we got here, what's our role, what we do and what we don't do; I thought it was helpful that we reflect on that a little bit because I think that is important as we move forward.

Review of the Delisting Process and Delisting Update: Richard Hannan, Chris Servheen

Rich Hannan: I'm the Deputy Regional Director for the FWS for the Pacific Region. That encompasses the states of Washington, Oregon, Idaho, Hawaii, and the Pacific Islands. The reason I'm here is because the conservation of grizzly bears is important to regions in the FWS, the Mountain Prairie Region, which is headquartered in Denver and outwards, and, while we have different geographies, we work seamlessly across those boundaries to affect the mission the American public has given us-conservation of fish and wildlife resources. I'm here with Chris and will probably field most of the questions about policy. Chris has been a long time expert on grizzly bears and has been the face of grizzly bears for the Fish and Wildlife Service for quite some time. But I will try to approach, Mary, the issue of where we are at from a broad perspective and where we are going to go. The agency in the past has been likened by some to be an emergency group. It's the last stop, the backstop to prevent a species from going extinct.

Often times those species on the list have withstood hundreds of years of human impact and they've decreased to the point that it becomes questionable whether or not they can be sustained on the landscape. And so the Endangered Species Act was created. Being listed was not meant to be a permanent resting spot; it's really the trigger action to get those species off the list to recover them to the point that they can be a part of that landscape in a sustainable manner. Grizzly bears have been a conservation success. The FWS believes that the Yellowstone Grizzly Bear is recovered. YES has gone on record that recovery has occurred and that a proposal to delist is appropriate. I believe the IGBC has as well. Biologically we believe this has been a huge success. How do we take that biological success and manifest it into how that species should be delisted. That is where we are at today. How has that success occurred? There have been many hands that have come together to get us to the point that we have bears in places that they haven't been for years and years and years. There are many hands, federal, state, tribal, NGO's, those who recreate, and more importantly those people who live here, raise their families and work in the Yellowstone Ecosystem. So how do we take this success and manifest it into the actual delisting? How does that happen? One of the things we do when we delist a species is we have to make sure there is a regulatory matrix in place that insures that the pressures that once caused that species to decline have been arrested so that species doesn't end up needing protection again. That's what we've been working on. When a species comes off the endangered species list, when it's met the policy and legal threshold to qualify for delisting, the management of those species goes back to the states. The state Fish and Wildlife agencies are professionals; they go to the same schools that we went to, study the same classes and are just as committed to managing those species. For the past several months the FWS has had discussions with our state counterparts. If we were to go forward with delisting proposal, what would that regulatory framework look like? For the past several months the FWS has had rich, thoughtful, productive discussions with the states in moving forward. We anticipate and hope that these talks will be concluded successfully and that we will, together with the states, have a framework for moving forward that would allow the proposed delisting. There is no proposed rule right now that exists, even though some people have alleged that there is and we are hiding it, but there isn't. We had a proposed rule in 2007 and we started by looking at that and started to dust it off to see where there are holes, where do some of these discussions need to be plugged into that proposed rule because it makes no sense to do it in a linear fashion, do one and then the other. So we are preparing ourselves for the successful conclusion of those discussions in a way that would allow us to create a timely proposed rule that could be shared with the public; that we can share with federal agencies- those that manage the lands that have led to the success, in addition to the states that we have worked with so diligently. Any proposed rule, if and when we bring these discussions to successful closure, would be issued and go out to the public for review and comment and everybody gets a chance to comment. I've been asked why someone from New York should be

allowed to comment when they don't have to live with the results. That's what makes our country stand out from other countries-we have a system that allows everyone to have a voice. We also have a special obligation to the tribes. We have an obligation to work with them, consult with them in a thoughtful and meaningful way that allows us to work through this kind of action and any regulatory action that we may undertake. We have had discussions and will continue to have them. So we do not have a proposed rule but we are setting the stage to be able to develop one. But because there is not one, there is nothing for me to share with you today to have a discussion about. There is also not a revised conservation strategy, so again because it doesn't exist, I have nothing to share with you.

So, let's talk about YES for just a minute. The Service is very cognizant with the role that YES plays in approving changes to the conservation strategy and we want to be respectful of that process. Accordingly, any suggested changes to the conservation strategy will not be finalized without the approval of YES. We are committed to working with YES to find a process that works for both the committee and the Service in moving forward. In addition to review and approval by YES, we anticipate signatories to the conservation strategy would also signify their support by resigning a new conservation strategy, just as was done in 2007. And the signatories to that conservation strategy we anticipate would be the same organizations as before and that would be the Northern Rocky Mountain and Intermountain Regions of the Forest Service, the Intermountain Region of the National Park Service, the Central Region for the USGS, the state directors for BLM-Idaho, Montana, and Wyoming, and the states of Idaho, Montana, and Wyoming, the Services, Pacific and Mountain Prairie Region.

That provides a backdrop of where we are at and what we've been working on. Chris, would you like to address more specifics of how a delisting process would work?

Chris Servheen: Good afternoon, everyone. To delist a species, we need to not only determine the recovery goals, which are outlined in the recovery plan, have been met, but that the species no longer meets the definition of a threatened or endangered species, using the same five factors as the threats analysis that is used in listing a species. Those five factors include: the status of the species' habitat; the potential for over-utilization, in other words, threats to the population; disease or predation; adequacy of existing regulatory mechanisms; and any other natural or man-made factors that could potentially affect the continued existence of the species.

The evaluation of delisting involves a threats analysis, and that's essentially what a proposed rule is...a threats analysis on the status of the grizzly bear. As stated, the Service believes, and the YES believes the Yellowstone grizzly bears are recovered at this time. Delisting them is a different issue though; it's a process that we go through that follows this threats analysis. The Service is currently evaluating right now if adequate regulatory mechanisms will be in place.

That's the issue we're concentrating on, and that's our discussion with the states, whether regulatory mechanisms related to population management will be efficient to assure that the grizzly bear will not be threatened in the future. As with any delisting, the proposal to delist would be subject to scientific peer review, as well as public comment. I'd like to remind you that the grizzly bear was delisted in 2007, and was delisted for two years in this ecosystem. It was relisted in 2009 after the delisting proposal was overturned in federal court and the original district court overturned the delisting on two factors—that the district court didn't think the regulatory mechanisms were adequate, and that we'd adequately explained that the decline in whitebark wouldn't threaten the future of grizzly bears. We appealed that district court decision to the Ninth Circuit and the Ninth Circuit upheld that regulatory mechanisms were sufficient, but the Ninth Circuit said that they too did not believe that we fully addressed the issue of decline in whitebark and whether declines in whitebark would threaten the grizzly bear population. So delisting the grizzly bear came down to that issue of whitebark pine, how the reduction in whitebark would affect the individual and the population of grizzly bears in the Yellowstone Ecosystem. The IGBC over the past two years has done an extensive analysis of how the declines in whitebark have affected the population, and that work has been presented by Frank van Manen, the study team leader in great detail at these meetings and that work has been published in journals. The end result of that analysis, as studied by the study teams couldn't detect any affect at an individual level of the population level with that decline in whitebark.

So, as directed by the Endangered Species Act, and as Richard said, our job is to get the species delisted- to get the species to the point where it is no longer endangered. Our objective all along has been to get to delisting. So, as directed by the Act, we are considering whether to move forward with a delisting proposal. We've been working with the states, talking to the tribes, and our partner agencies, and these discussions are ongoing. We are considering all this partner input, in order to assure that the population will remain viable and recovered in the absence of ESA protections. The final decision on whether to move forward with the proposal will probably be made over the next several months. It's important to recognize that any such delisting would only impact the Yellowstone grizzly bear population. All the other grizzly bears in the lower 48 states would remain listed as threatened species. Additionally any delisting process requires extensive opportunities for public review and comment and the entire proposed delisting rule would be sent out for scientific peer review. The process is the document is published in the Federal Register, there is extensive public notice that the proposal is available, it's posted on a website so everyone will know where it is and be able to comment on it. In addition to having a comment period, and the last time we had the comment period it took 120 days in 2007. In addition, we would have two public hearings. These are formal public hearings where there's an officer and a stenographer that takes public comments and

everybody can get up and give their opinions and concerns about the proposal to delist. As Mary said, this is not what we're doing today because there's no proposal out and this is not a hearing. If we get to the proposal to delist this population, it would be published, would be on a website, people could comment in writing, and we would have at least two public hearings. At the end of that time period, we would evaluate all the comments, consider the comments along with the threats analysis, and make a final decision on whether to delist the population or not. That process takes 6-12 months from the initial start when the proposed rule is published, to the end when a decision is made. That's where we are today...still several months away; we're still evaluating whether we should move forward with this and how we should do it. We still have the conservation strategy to revise should we move forward with this process.

Questions from the Committee:

Trisha O'Conner: If we make changes to the conservation strategy, what's the timing in relation to the rule and delisting? What's the sequence?

Chris: We haven't worked out the details of that sequence yet. In 2007 we completed the conservation strategy before we proposed to delist. The conservation strategy is essentially the demonstration of the existence of adequate regulatory mechanisms. It's the post delisting plan that outlines how the habitat would be managed, how the population would be managed, how the monitoring system would continue, how nuisance bears would be managed.

Leander Watson: You said you had spoken with the various states on how they're going to manage grizzly bears. Is it possible that our tribe can get those discussion, or recommendations? I can only speak on behalf of the Shoshone Bannack Tribe. I'm just here as staff. It would be nice if you would come and consult with our tribe.

Chris: Leander, as you know I did come over and consult with your tribal council, and we heard clearly what the views of the council were. We still have ongoing discussion with the states, so there's no final decision on that process.

Leander: You do have our concerns?

Chris: Yes, we do and took them to heart.

Questions from the Public:

Kelly Nokes-Wild Earth Guardians: Is the Service going to designate the Yellowstone Ecosystem as a distinct population?

Chris: As we did last time, we designated it as a distinct population segment and then we proposed the delisting.

Lisa Robertson: You mentioned you considered all the man made threats to the species. Do you consider trapping a threat? Last Oct. 13 a grizzly cub was stuck in a trap most of the day. The status of the cub is unknown. Do you take that into account? Do you know how many cubs have been trapped?

Chris: Yes, we take that into account. Every mortality has to be evaluated as a risk to the population. I don't have any specific information on bears that have been trapped. There are probably some bears that are captured by mistake in traps. We have very few records on that that I'm aware of.

Lisa: Has the service thought about issuing an incidental take from that?

Chris: To whom?

Lisa: To the state?

Chris: So that a take permit would be issued to trappers who were trapping for other species that inadvertently trapped grizzly bears? No, I don't think we've considered that.

Dierdre Bainbridge: I'm concerned about climate change. It has been raining for the last three days when it's time for bears to go into their dens. In terms of biological sustainability, what have you done about effective order 13653? What have you done to be mindful of climate change in terms of the species moving forward? Have you considered that?

Chris: Climate change is one of the threats that will be covered in the proposed rule.

Timothy: The concern I have is trust in the government. Two years ago the superintendent of Grand Teton National Park signed off on increasing the incidental take.

Mary: Timothy, I'm going to interrupt you here. This session is for clarifying questions based on the presentation.

Timothy: If you'll give me a moment I'll get there. That information about increasing the incidental take was never taken to the press, nor was it provided to the public. The only way that information came out was through a FOIA request. So my question for you in going forward is are we going to have to continue to file FOIA requests to get the actual conversations to get the information pertaining to delisting grizzly bear? Are you going to be forthright and give us the information we need to offer appropriate public comment?

Chris: When we put out any proposed rule when we get to that point, all the details will be in that document and as far as the threats analysis, there will be an evaluation of the mortality rate and sources in the ecosystem. Those threats will be evaluated. That would include any take in Grand Teton NP.

Timothy: You haven't answered my question, but that's okay.

Ken Nelson: Does that mean you will be releasing the data...I'm taking off on his question.

Chris: All the data on mortality is available through the study team and the annual reports. All the details on each mortality...

Ken: That is your process?

Chris: I'm not sure what you're asking.

Ken: The data sets on all issues involved in the delisting decision. The point Tim was making is you don't see to be transparent and we're basically asking you to be more transparent, to bring outside scientists for outside peer review and make data sets available so that third party scientists can evaluate.

Chris: The only data sets that are not released are locational data on grizzly bears. All the rest of the data is fully available...survival, mortality, distribution pattern, survival, cub production, and all of that data is available through the study team and the annual reports. These documents are full of that kind of information if you're interested in doing your own analysis.

Ken: That's your analysis of that...it's not the raw data.

Chris: There are tables of raw data in these reports.

Mary: I'm going to suggest we move on.

Sara Malachowski: You made a statement that the purpose of delisting the grizzly bear, or any endangered species, is to move them into state management. How should the governor respond to people who care about the grizzly delisting...respond to the fact, that just recently, the management of the wolf was taken away from the state because they were mismanaged and the objective of the state management of the wolf was really to eliminate the species all together. Could you respond to this?

Mary: I'm going to call a time out here. We really wanted to try something different in terms of creating some dialogue in understanding the presentation. The challenge is that folks now

are beginning to turn that into a way to air views or beliefs on that. While I appreciate that, I need folks to stay with clarifying questions on the topic.

Cindy Campbell: You've all mentioned a couple times that this committee does not make the decision on delisting, but makes recommendations. Are there other committees making recommendations as well or are yours the end of the line for the process?

Chris: The Yellowstone Ecosystem Subcommittee can make a recommendation to move forward to make a proposal to delist or that they think the grizzly bear is recovered, but the statutory authority as to whether grizzly bears should be delisted or not is the sole purview of FWS. There are no other Interagency grizzly bear committees. The decision is based on the results of the threats analysis and the public comments received in the comment process in the proposed rule.

Cindy: Then this is the only committee that will make recommendations on the proposed rule before the next step is taken?

Richard: Chris, I think you should clarify, I mean YES has a very specific role and it deals with the conservation strategy, which is a part of the process, but it is not the proposed rule.

Cindy: I understand, I just wondered if there were other committees making recommendations to FWS.

Richard: Well, the Interagency Grizzly Bear Committee can also make a recommendation, but the decision is up to FWS.

Cindy: What I'm getting at is, can a third party make a recommendation?

Chris: That's the public process, where if there's a proposal that comes out it will be open to public comment.

Bonnie Rice Sierra Club: About two years ago the study team released a report on some workshops about methods to estimate the population. As far as I know that hasn't been approved, so what is the status of that in the context of a proposed delisting rule and revised conservation strategy? At one point I heard from the Service that it was going to be released with the other two documents, so three documents would be released for public comment at a time.

Chris: What you're referring to is a demographic section in the recovery plan that in 2013 was put out for public comment using the recommendations from the study team as to the methods used to estimate population. That went out for public comment but it has not been

finalized. And it will be finalized as part of the public comment process on any proposal to delist. So we will probably take public comment on that again.

Bonnie: So the three documents will be released at the same time?

Chris: Well, we're not sure about the conservation strategy; it may be finished before that, but certainly people can comment on all those documents before they're finalized.

Sharon Maier: When the state management plans are incorporated into the delisting role, we have concerns, specifically with the wolf process, that the National Park Service unit John D. Rockefeller Parkway was included as a hunting area by FWS when delisting went through. We would like to not see that repeat itself with grizzly bears. It created a management problem and a burden on the Park Service. I'd like to see how those issues are going to be addressed prior to delisting.

Chris: That issue will be addressed in the new proposed rule.

Debra Patla: My question is about regulatory mechanisms and demographic thresholds and about how numbers fall and actions could be relisting. From the public standpoint, I guess there is an agreement on bear numbers. State agencies say 1200 bears and increasing, but USGS saying it hasn't been increasing. Is that part of what you're working out now and how are you going to decide that if there's such a discrepancy on how you count bears and more importantly when there isn't time. There will be a huge debate on that, so how are you going to deal with that?

Chris: Yes, that very issue is the subject of discussions with the states but we have not concluded yet. As far as numbers of bears we use the latest estimate that the study team comes up with, which is the Chao2 estimator. In 2014 it was 757 bears. That's the number the study team publishes as the current number out there.

Kelly Nokes: Going back to your statement that you intend to designate a DCS before delisting, I wonder if the Service will speak to how you intend to comport that decision with the 2014 District case that came down in the grey wolf context, Humane Society vs. Jewell which basically stands for the proposition that you can't simultaneously designate a DCS for the sole purpose of delisting based on ESA 1996 policy.

Chris: The FWS and the Department of Justice do not agree with that decision and it is being appealed.

Ken Nelson: Just a question on your conversation with the states. What assurances are they trying to build into delisting? Of the three states involved, if you have two states that are

properly funding their Fish and Game personnel to manage population, if one state decides or the legislature decides not to fund, what triggers do you have against the states if their legislative bodies don't comply with funding their agencies properly to enforce the delisting regulations?

Chris: That's the type of discussion we're having with the states right now. We have to be assured that there would be adequate regulatory mechanisms among all three states and cooperation from all three states before we could move forward with a proposal to delist.

Tom Mangelson: I was just at a conference in Washington DC two days ago called Living Large Through Bears, Wolves, and People. Dan Ash, Director of FWS gave a talk and he is convinced that bears are ready to be delisted. He gave a number between 800 and 1200, and so I know the number you just mentioned is 757 and obviously it's up and down because of the bears killed. Even if the Fish and Wildlife directory who has to sign off on this has this number between 800-1200, then obviously there's a discrepancy. He's the main guy...we need to get right numbers to the right people.

Chris: People throw numbers out; it often becomes difficult to keep everybody on task. We depend on the study team for the estimate. The current method that's used is the Chao2 estimate. The 2014 Chao2 estimate is 757.

Mike Caverat: I have a question about the long term potential for inbreeding of bears. In this ecosystem they are all pretty much contained. I was wondering how much the study had taken into account being cut off from other bears.

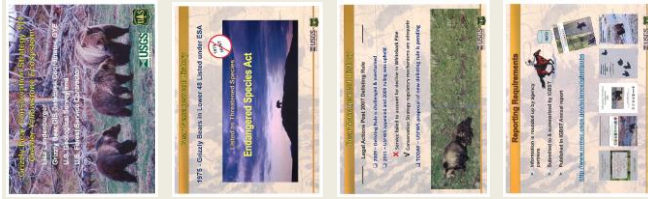
Chris: Yes, that is one of the things that are considered in the threats analysis and there's new information available on the genetics of the Yellowstone population. Frank will present that tomorrow. We continue to try to facilitate the movement of bears between Northern Continental Divide and Yellowstone, and we test the genetics of any bear that's captured or dies, looking for a bear moving from one to the other one. I think it's just a matter of time and we'll see that. We've seen sub adult bears go 140 air miles and that's the distance between the two ecosystems. That particular movement was not between the two.

Bonnie: What's the process for updating the states' management plans?

Chris: That is up to the states. There are three different answers to that; you may need to get with the state representatives to update you on that.

Grizzly Bear Conservation Strategy 101 - Greater Yellowstone Ecosystem: Lisa Landenburger

(Note: This ppt was divided into four parts as it was too big to create one PDF)



Dan Tyers: Lisa Landenburger is the habitat database coordinator for the Yellowstone Ecosystem. You've heard reference to the conservation strategy this morning. It is a foundational part of grizzly bear management in the Greater Yellowstone Ecosystem. It's functional, it's insightful as a document and is more remarkable as it's crafted in committee, and it's very technical. So with the potential for a new delisting rule, it seems reasonable to return to it to review it. We invited Lisa to provide a primer, and as she provides the basic tenants of the conservation strategy, keep in mind that it's a dynamic document, that it can be revised, and after years of living with it, we have identified elements to come forward for revision. Lisa has a good way of summarizing a very technical document.

Lisa: Thank you, Dan. Good afternoon, everyone. Thank you to those of you who have spent a better part of their lives working on these issues, and thank you to the public for making themselves informed. With all the discussions about delisting, it was thought that this would be a good opportunity to provide a refresher for those who have been around awhile, and maybe a primer for those who are a little bit new to the topic of the grizzly bear conservation strategy, which is the salient operative document for managing the Yellowstone grizzly bear population if and when it's delisted and removed from federal protection, under the Endangered Species Act. It took 30 years from when the grizzly bear was first listed in 1975 to arrive at the current version of the strategy, which was formerly adopted in 2007. There was plenty of angst, controversy, and lots of compromise between all of the parties involved. If we look at where we are today, it's evident that the conservation strategy has paid off. In spite of intrinsic flaws in the document overall it has led to some remarkable advancements and makes a case for grizzly bear management. With that said, you can think of this presentation as Conservation Strategy 101.

Questions from the Committee:

Loren Grosskopf: I want to make clear does the mortality limits only applies to the recovery zone?

Lisa: No, the habitat standard applies only to the recovery zone, but population standards apply ecosystem wide; what they call the demographic monitoring area, which is an area pretty much based on suitable habitat established by the US Fish and Wildlife Service.

Loren: There are issues out there on the population versus the conservation area because you have federal land managers managing the habitat and state Game and Fish managing the population.

Questions from the Public:

Bonnie Rice: I think it's important to clarify that the population in this ecosystem hasn't grown since 2002. It's confusing to the public on hearing different estimates on how many bears there are—750 to 1200. It's extremely confusing to people as to what is really happening with the population. It's important to this committee to be clear on that. The growth rate has flattened and there isn't a large increase in bears since 2002.

Lisa: That's correct; there are not many more bear from the 2000's but it's a vast increase from the 80's. Frank, if you'd like to address this question. There are different methods for estimating population. The Chao 2 is much more conservative estimate where the mark resite is probably much more accurate but has a higher level of uncertainty. The more conservative is 750; more realistic would be the 1000.

Frank: I'll explain more of that tomorrow but please reference our annual reports. That's the information from the study team. The information you see in press releases is not from us.

Bonnie: But you still see 1150 from some state agencies.

Frank: I will try to clarify that tomorrow. Science is sometimes a messy process.

Bonnie: We need consistency on the numbers that are put out in the media and to the general public.

Daryl Hunter: Since you're talking about the leveling of the grizzly bear population, I think we should all be able to agree that there would be no need for a hunting season then?

Mary: OK, we are open for clarifying questions for the speaker, appreciate that; it's something you could offer in public comment.

Ken Nelson: That question confused me a little bit, so 757 is the number, correct?

Lisa: That is the number that was published in the 2014 Interagency Grizzly Bear Study Team Report.

Joe Alexander: On the question about population estimates, one of the things we are charged with is using the best possible science and that's what Frank and the study team has done and that's why we have some new estimates that have come out that's maybe creating some confusion, but that's what we are charged to do. The other part is the grizzly bear population has not flat lined, we have an expanding population outside the demographic area.

Penny Maldonado: how is social tolerance measured?

Lisa: It's not really something you can measure.

Cindy Campbell: You mentioned land management is committed to the conservation strategy but it's not legally binding. Is it stronger than a suggestion, I assume?

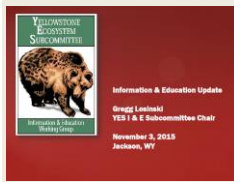
Lisa: We're in an awkward position because in the Forest Plan Amendment, the Record of Decision says if the bear is relisted, the Forests will fall back to their original Forest Plans. It's been an overwhelming consensus for managers across the ecosystem that we will continue to abide by the standards in the conservation strategy.

Brian Nesvik: I think I can help clarify that too. The conservation strategy is applied to a post delisted bear population, and the conservation strategy informs regulatory mechanisms that are implemented by land management agencies through forest plans for example and also through the three states and their state management plans, regulations, and state statutes, the conservation strategy provides the framework for them.

Lisa: That's correct; the state plans are appendices to the conservation strategy.

Mary: The conservation strategy is for a post delisted bear; there was the ability for land managers to build that guidance into their existing Forest Plans, and for some of the forests that has been done so that regardless of the status of the bear, those would be built into the land management plans.

I&E Updates and Initiatives: Gregg Losinski



Gregg: Part of my job is a little bit more of the creative and outreach side. You'll see what we've been working on as well as the social acceptance that was talked about earlier. We need to do more education outreach within the agencies. Those folks do lots of other jobs, along with biologists and others, but at the phase we are at, the level of education needs to be

increased. The IGBC gives out \$36,000 for education and outreach products. We request proposals and the deadline was last Friday and we only had three proposals. We should have gotten more requests internally. I encourage to cut your information people as much slack when it comes to grizzly bear outreach and encourage them maybe as part of their job descriptions to do more in that respect. I thank my supervisor and my agency to allow me to do what I do here.

I&E Updates and Initiatives, Wyoming Bear Wise Community Project: Dan Thompson:



Dan: I am Dan Thompson from large carnivore section of Wyoming Game and Fish and am giving this talk for Dusty Lasseter. This community project is about our section devoted to managing large carnivores throughout the state.

I&E Updates and Initiatives, Wildlife Management Institute: Chris Smith



Chris: Thanks for letting me talk for a few minutes on what Wildlife Management Institute brings to the IGBC and the Yellowstone Ecosystem Subcommittee with respect to information, education, and outreach. By way of brief background, WMI is a scientific and educational non-profit established in 1911. Our mission has been to enhance conservation and professional management of North America's wildlife. We accomplish that in consultation work with federal and state agencies and NGO partners. I am the western field representative so I cover all of the western states for the institute. Before I joined the institute in 2011, I was Deputy Director of Montana Fish Wildlife and Parks from 1998-2011 and represented the state at the executive committee level of the IGBC. I appreciate Lisa's summary on what was involved in developing the conservation strategy because I oversaw Montana's participation in that and served as the chair of the IGBC executive committee through the 2007 delisting process. When I joined the institute it seemed like a logical fit for me to bring the institute's capacity into the IGBC. I will briefly talk about our support.

Public Comment:

Mary: We will have a chance for members for the public to make comments. First we will go to Rueben Fast Horse who is an envoy for President John Steele of the Oglala Lokota Nation, and then we have 13 people who are signed up to give comment.

Rueben Fast Horse: I am very happy to be here to hear about our relative and to share our perspective as Lokota people, as native people of this country, as well as those natives that are here representing their tribes. To Whom It May Concern: As President of the Oglala Sioux Tribe, I write to inform you that the Oglala Sioux Tribe strongly opposes the federal government's proposed removal of the Yellowstone grizzly bear from the Endangered Species Act, ESA, protections of the US Fish and Wildlife Services, and informed FWS Director Dan Ash's position in a letter dated Dec. 16, 2014. I am also the Chairman of the Great Plain's Tribal Chairman's Association and I signed an official resolution of the GPTCA's in opposition to this policy on Dec. 19, 2014. That detailed tribal concerns arising from this issue. Last month the Oglala Sioux Tribe council passed an official resolution against the delisting and trophy hunting of the grizzly bear, the strongest condemnation of this policy the tribe can make. Our Chief of the Great Sioux Nation Orville Looking Horse who is the 19th generation keeper of our pipe has also backed this with the Ocheti Shakomi (?). The attorney also issued a statement Oct. 20, 2014 that detailed the significance of the grizzly bear in Lakota, Dakota and Nakota culture, a relationship that existed since time immemorial that is reflected in the ceremonial and healing practices of the native people. The Oglala Sioux Tribe is in full support of Chief Looking Horse's statement, and recognizes the grizzly as a relative, a healer and a teacher of all our peoples. As exemplified in narratives related to our ancestors, such as the revered defender of our culture, Crazy Horse.

The OST, like every other nation of the Ocheti Shakomi (sp?), and the other 40 or more tribal nations that oppose the delisting of the grizzly bear object to the state of Wyoming, Montana, and Idaho selling multiple thousand dollar trophy hunting licenses to kill a being we consider sacred, for sport. In our ancestral homelands we reject the state's designation of the grizzly as a trophy game animal. The very idea of trophy hunting grizzly bears brings to mind a tragic episode in Lakota culture and the great injustices that give exoneration of the Black Hills that participated in 1874 by Lt. George Armstrong Custer and the 7th Calvary. The most disturbing image from that illegal incursion is one of Custer with a dead grizzly bear he trophy hunted in our sacred homelands. It is the image that represents the loss of our Black Hills and the desecration of our holy land. The federal government recognizes the OST as one of the 26 associated tribes of the Yellowstone, but did not include the Oglala Sioux Tribe or indeed any tribal nation in the conservation strategy relative to its plans to delist the grizzly bear, ignoring the tribal nations impacted by this proposal, an act that will take place on our ancestral lands

speaks to the complete lack of respect accorded tribal nations in this process. The OST, along with other associated tribes of Yellowstone, tribal nations farther afield impacted by this policy must give seniority of the conservation strategy and included in all subsequent decisions in the decision making process. Continuing to ignore tribal nations on this issue is a violation of tribal sovereignty and an attack on our religious and spiritual freedoms and a clear violation of federal trust responsibility. Contrary to the recent claims by the FWS and the press, as President of the Oglala Sioux Tribe, I've received no invitation from the FWS to initiate formal consultation process on this issue that is mandated by a plethora of executive orders, Secretarial orders, Congressional acts and laws. By failing to do so the FWS remains in contravention of President Obama's recent executive order related to tribal consultation. The President's 2013 executive order establishing the White House Council on Native American Affairs further recognize that greater engagement and meaningful consultation with tribes is of paramount importance in developing any policies affecting tribal nations. As one of the 26 federally recognized tribes, the federal government acknowledges us having an ancestral connection to the region now known as YNP and Greater Yellowstone. The OST must be consulted by the FWS in a thorough manner with affected tribes to define a consultation timeline. The consultation process must take place and be concluded before any proposed delisting rule can be issued. The OST stands in solidarity with other tribal nations that have called for the Department of Interior to institute a moratorium on the delisting of the Yellowstone grizzly bear so a full thorough meaningful tribal consultation process can take place, during which the points raised by each respective tribal nation and their official resolutions and declarations can be fully addressed and incorporated into future federal grizzly bear management plans and policy positions. A moratorium would also let tribes engage independent scientists to review the raw data that FWS is basing its decisions on, but has yet has refused to release to tribal nations or independent scientists. Transparency is essential for not only tribal members, but also the American people as a whole, to have any confidence in this process.

If there are any questions on my statement, please feel free to contact the President's office at 605-867-8420, or you may email him at johns@oglala.org. Signed, John Yellowbird Steele.

I'd like to share one more thing with you in closing, and this is something we've been seeing a lot of great stuff her today and I have enjoyed and became educated in the process, but also something I think is sometimes missed. I'd like to sing the bear song. Many tribes have bears in their ceremonies as well as their songs and how they have this association has been going on since before there was an American government so to speak. And so in Lakota this song says, it talks about the bear, a relative. Lakota people never ate bear because initially when they did, the skeletal remains looked too human, too close to ourselves, so they forgo that. They look to the bear for medicine, when it's sick it will dig to look for medicine to help itself, and there in

turn, we learn from him or her. And so in Lakota this song says, “What is it that is holy? It is something that is growing. The bear, the great bear. From like a cloud he comes over the mountains like a storm.” Something’s growing, and I think with people backing this and looking into the bear, our relationship as human beings, that is what he’s trying to say. This song has been around for a very long time through my relatives. I’d like to share this song with you in closing, and I thank you for your time. (sings bear song)

Lyn Dalebout: Have been here for 40 years and worked off and on for Teton Science Schools and was on the History Association Board for nine years. What an honor to follow that song. I have learned a lot today and now understand the process and the stage you are at but I do feel it’s important that we give some feedback to you, given the understanding that you are the board that will recommend what needs to happen, and you are the leaders in this process. The facts compiled by different researchers is conflicting, to say the least in regards to defining the grizzly bear population as recovered. Facts will always be conflicting as scientists view their data through lens of their inquiry. We all have a way we see the world and it profoundly influences the actions we take. Call it the uncertainty principle, or the observer affect. Although people try to do their best, I believe it is not possible to be completely objective in how we interpret the research. That’s why it’s very important to listen to other people’s perspectives and take into consideration what they too are observing. So what we are left with is always the intention, the motivation, and most importantly, the quality of heart of those interpreting the data. That’s where wisdom comes in. This board has been given the most challenging and sacred task of protecting these grizzly bears. In my opinion, that is the sole purpose of your mission as the IGBC. I know there’s a lot of governmental protocol and definitions, but at the core, it is to protect the grizzly bear, as you very much know. If the eventual delisting fits within that mission, then so be it. But delisting is not feasible or desirable at this time for many reasons. Great uncertainty is the main one; unpredictability of climate change and how that unfolding story will influence the food choices and survival of the bears; uncertainty of increased pressures of expanding human populations on our grizzly families as more and more people congest the West. An increased human presence gobbling up the land is also pressuring the grizzlies. Thank you for your leadership that has been entrusted to you by the public. To safeguard that trust, it is key you don’t take hasty actions to delist the griz based on other actions, such as procedure, protocol, or personal legacy. Yes, progress has been made but the conditions on the ground have dramatically changed since this committee was set in motions almost four decades ago. It’s important you base this decision on the ground truthing of this present moment. It does not constitute failure if you decide not to delist at this time. Perhaps it’s time to redefine the mission of this group in light of what’s shifting on the ground. Institutions can evolve if their members step forward in leadership that comes from the mind and the heart. Your legacy could be that you are written up in history as a band of leaders that

safeguarded the fate of the grizzly bear in the face of public pressures, protected them, which is what I know you want to do; these great grizzlies who so need and require your protection. May it be so.

Jim Layborn: We've heard a lot today about the biological importance, the ecological, spiritual importance, of these animals. I'd like to talk about the economic importance. I'd like to thank Terry Gunther, Leslie Richardson, Tatania Rosen, and Chuck Schwartz for their important work on the economics of roadside bear viewing. Of all the recent scientific papers on grizzly bears in the GYE, I find this to be the most important paper and most relevant to our valley here and Grand Teton National Park. If you haven't read this paper, please take the time to do so. Grizzly bears are the iconic species of the Yellowstone region; there are few other animals so revered and reviled as the great bear. Now we know with scientific certainty their true value to the economics of roadside bear viewing. It is now clear without a doubt why one of the reasons visitors make pilgrimages by the millions to Wyoming's national parks is to see bears, specifically, grizzly bears. A full 99% of Yellowstone visitors who were polled expected to see a grizzly bear on their trip here, and amazingly 67% actually did. And 62% of those who did not see a bear were disappointed. One key measure on how important bears are to visitors is the willingness to pay considerably more than just a park entrance fee to see one. The vast number of wildlife tour companies operating in Jackson Hole is a testament to this. When I first moved to this valley 18 years ago there were only two wildlife tour companies operating. Today there are at least 25 different tours or safaris. I've worked part time as a guide for the last ten years. I currently work for Grizzly Country Adventures. I can tell you that virtually every single person I have ever guided has asked if we would see a bear. Many of these people were fortunate to see a grizzly bear and many said it was something they would never forget. These experiences are so powerful and compelling that many of these people return year after year to see grizzly 399, 610, and their offspring, and they make significant contributions annually to our tourist economy. Look no farther than this hotel we are in today, which offers its guest wildlife safaris branded with the logo of a grizzly bear paw.

The political push that is going on right now to delist Yellowstone grizzly bear ignores the immense value grizzly bears have for our regional tourist based economy, the second largest driver for economy in the state of Wyoming. There is an ongoing multi-year IGBST study of grizzly bear/hunter interactions here in Teton National Park. A lot of our visible or roadside bears have been collared as part of this project. I'm looking forward to seeing the final report. Let's keep in mind that the elk hunters of Teton NP are 2/10 of 1% of the annual visitors. Wouldn't it be appropriate to take this GPS collared tracking data that we have invested so many tax dollars in already, and incorporate it into a study on economic interaction of these grizzly bears with the other 99.8% of the recreational visitors to Grand Teton NP. It likely would show that hundreds of millions of dollars of grizzly bear based ecotourism could evaporate if

trophy hunters killed a famous grizzly bear. The economics of roadside bear viewing has already quantified a significant reduction in park visitors if roadside bear viewing is diminished—over ten million dollars a year and a loss of 155 jobs. This is not a far-fetched concept. There is a very real likelihood that our roadside bears would become a target of trophy hunters if the federal government delists the grizzly bear, and the state of Wyoming creates a hunting area on national forest lands that border our national park. You may have already seen widely published tracking data of the GPS collared 399 and 610 in the Jackson Hole magazine or in previous IGBC annual reports that showed, not only do these bears leave the relative safety of GTNP to forage, but also to den in the national forest. And yet when I asked Frank van Manen specifically for this data which is generated by federally funded research to illustrate my point about potential loss of our famous bears to trophy hunters, he denied me on the grounds that it was his date, IGBC's data. Well, Frank, I don't think this is your data. It's a public resource, and I am formally calling on the Interagency Study Team, Grand Teton NP, the Wyoming Game and Fish commission, to do a study on the economic implications of grizzly bear hunting in this valley and the potential damage it could cause to our growing and sustainable wildlife tourist economy. Who here in this audience would support your tax dollars on such a study? Thank you.

Andrea Santarsiere: I am a staff attorney with the Center for Biological Diversity based in Victor, ID. Thank you for the informative presentations today. I'd like to talk about why we think delisting would be premature at this time. The ESA mandates protection for any species imperiled that has lost a significant portion of its range. Grizzly bears in the US currently occupy just 2-4% of their historic range. I think that's an important miniscule number that we don't hear enough about. With that in mind, taking a piecemeal approach to delisting grizzly bears contravenes ESA. I think it's legally flawed and I think it's scientifically flawed. There is still concern about the isolation of Yellowstone grizzly bears. I would urge the Service, YES, states to work on conserving connectivity for those bears before we're working on delisting. One way to accomplish that would be to re-establish grizzly bears in the Selway Bitterroot, which is one of six primary recovery areas and yet we have no grizzly bears there. This would make it possible to connect with bears in the Northern Continental Divide, which could resolve a lot of potential genetic problems. There's been a lot of concern about the number, the population number that we've been using to refer to grizzly bears. Today we were told we would stick to the Chao2 number. Even today we saw 757-1000. We've seen other numbers and it is extremely confusing to the public. We get a lot of calls about it and we try to explain the methodology, but for the general public that's trying to understand if there's a huge growth or if we're using different methodology. I urge you to stick to one method which should be the Chao 2 because the mark resite is not proved yet, and urge all the partners in the YES committee to do the same.

Kent Nelson: I would like to talk briefly about mortality and conflicts. I have a 2009 report that has 31 discreet items as to how to lower conflict with bears. This is something that really, really, really needs to be worked on. A lot of them seem to be no-brainer items and I don't see enough work being done on them. This is the fourth report of this sort that has been done and it seems kind of silly that less has been done on this issue.

Daryl Hinter: I would like to make comments tomorrow.

Roger Hayden: Tomorrow too.

Mike Cavaroc: I moved up here 7 years ago today. On a prior visit I had a transcendental experience when I saw bear 399 come out of her den and she was with her three cubs at the time in 2008 and they were walking along the snow. That established a strong connection in nature with me and I've become more involved and educated myself on how nature works. My life was turned upside down on that day. Since moving up here I've become much more active in the community in a myriad of ways. My concern is that listing the population of grizzly bears would take away similar experiences for others. I think fewer sightings would have an impact on visitation. I also work as a wildlife safari guide and the overwhelming majority of people want to see a grizzly bear because it's a unique treasure. That's an experience I want to share with other people. I understand they may be delisted, I don't believe it's time because bears are trapped in this ecosystem and it's premature when there's no well-established corridor for other bears to get here or to leave. I don't think they should be delisted until there's a healthy amount of traffic through these corridors.

Lisa Robertson: tomorrow

Bonnie Rice: I am here representing 2.4 million of our members and supporters around the country who care very deeply about the future of grizzly bears in the Yellowstone Ecosystem. I would like to thank the committee to allow questions during the presentation and extending the comment period. One comment on the process we're talking about today, we're talking about the process but not the science and that seems a little backwards to me. Bears have been making a comeback in the Greater Yellowstone Region and we appreciate that. It's been a lot of hard work by a lot of people and an engaged public over many years. They're making a comeback, but we don't feel that they are there yet in terms of removing Endangered Species Act protections. There have been relatively recent profound changes in this ecosystem. It takes a long time to see the effects in a slowly reproducing species like grizzly bears-at least a decade to see these kinds of trends, so we feel we need to take more time and take a precautionary approach. We don't know the full effects and some we know about are extremely troubling. The population has completely flattened; there aren't a lot more bears out there since 2002. Conflict and mortality are up and it's not just due to more bears out

there. The population growth has flattened and the distribution has gone down by 38%. It doesn't make sense that it is due to density and a lot more bears in the ecosystem. We've also seen a decline of females with cubs, and that's very concerning seeing as how important they are to the trajectory of this population. And we still have a completely isolated population here. These are the reasons we feel it's not time to delist.

Debra Patla: tomorrow

Lloyd Dorsey: tomorrow

Matt Fagan: tomorrow

Diedra Bainbridge:

Tenley Thompson: I'm a wildlife biologist here in Jackson Hole and a wildlife tour operator. I want to speak briefly to the economic impacts because I think the biological and political impacts have been very well stated by others. I think it's incredibly important for the grizzly bear committee to understand how important bears are economically to the area and to understand that issue when they make decisions like delisting. Wyoming Game and Fish's perspective on wolf hunting cost me personally at my business-over a quarter of a million dollars over the loss of two wolves total because of a lack of a buffer zone and some other issues. I calculated that based on two years ago income we'd probably lose about half a million dollars if trophy bear hunting was permitted in the vicinity of Grand Teton and YNP. I'm one of the smaller tour operators in the valley, so you would have to triple, quadruple, or quintuple that when you're speaking to the other 23 companies who are vested in the economic interest of the grizzly bear here. While as a wildlife biologist, I have very serious concerns about the science we're looking at and how we make these decisions, I also have very strong economic concerns about delisting and how it's going to affect local economy, local jobs, and local people. Thank you very much.

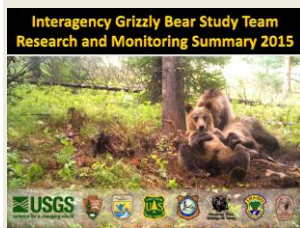
Meeting adjourned for the day

Nov. 4, 2015

Mary: I would like committee members to let me know feedback how this format of clarifying questions and public comment worked as far as balance of keeping on task and hearing from people. There is a signup sheet in the back if you want to be on our mailing list. There's a public comment sheet in the back and we put down the names of those who were here yesterday and wanted to make comment today. We will try to allow 30 minutes for public comment at the end of the session today. We will reverse the order of public comment and scheduling the spring meeting date on the agenda so comments will be last.

We will allow for clarifying questions again today for our topics. Please stick to clarifying questions to the speaker on the topic.

IGBST Research and Monitoring Summary 2015: Frank van Manen



Frank van Manen: Good morning, my name is Frank van Manen and I am the team leader on the Interagency Grizzly Bear Study Team and it is my pleasure to give you an update on our research and monitoring activities this year and provide some prospectus on where we are with population status and answer some of the questions you had yesterday in the process. I would like to acknowledge the member agencies and personnel that participate as part of the IGBST, and federal, state, and tribal partners. This has been a long-term collaborative, a very effective group of folks that work together well, and we've been able to accomplish a lot in four decades. A quick overview of what I plan to present this morning:

- Population estimation and trend
- Grizzly bear mortalities
- Occupancy by females with offspring
- Known-fate monitoring
- Food monitoring; Summary

Summary:

Population

▪Population estimate = 714

- No major change in long-term trend
- No evidence of bears leaving core of ecosystem

Mortality

- Approximately 20% outside DMA
- Livestock and site conflicts

2015 mortality limits not exceeded so far

- Year of relatively low food supply
- Average whitebark pine production
- Low availability of winter-killed carcasses
- Berry production low
- Short season for moth foraging

Questions from the Committee:

Steve Schmidt: In the Demographic Monitoring Area (DMA), growth has leveled off between 0-2%. Would you comment on growth outside the DMA and how that is changing regionally, and what metrics we should be collecting to better understand the growth outside the DMA for us and the public.

Frank: We keep monitoring mortality and conflicts; we're just not monitoring for females with cubs—we're still collecting information on females with cubs of the year, but our flight surveys are not covering those areas outside the DMA. So we are still collecting as much information as we can and it should be informative for managers. If you look at all the sources of data, and we've documented this our 2012 report, the core of the ecosystem, YNP, reaching carrying capacity quite a while ago, probably in the late nineties, and we see that effect expanding out from the park to the entire recovery zone. We've documented that in terms of annual growth rates within these different zones. We're expanding well beyond the recovery zone boundaries and bears pushing out on the boundaries of the DMA. The conflicts Wyoming is experiencing on the eastern portion of the ecosystem is young sub adult male bears getting into trouble, getting pushed outside the monitoring area. I've made a comparison of fitting sardines in a sardine can; the sardine can is full and nasty stuff is spilling over. So what can managers do to get a better sense of how many bears are outside the DMA? The DMA is all that we can handle as a study team so you can't rely on your stand up estimate data to really monitor what's going on outside the DMA, but we do have information on where conflicts are occurring, how many are occurring, trends over time, mortality data, which is valuable for decision making.

Steve: Is it fair to say that outside the DMA the growth rate is greater than inside; greater than the 2%?

Frank: They are starting to expand into those new areas. There is also mortality there, so the growth rate may be a little bit below 1, but you still have bears entering those new areas that contribute to the population of the ecosystem, which is more if you add all those outside the DMA into our 714 estimate for the DMA; there's more than 714 in the ecosystem.

Loren G: I realize the estimate you've given us is for 2014. Is that on the website yet?

Frank: No, and the reason is we consider our annual report to be the final product for releasing the estimate, usually out by June. 714 is the official estimate for the DMA, which might fractionally change.

David Vela: Is there anything that the team felt was surprising for 2015, and what advice do you have for federal land managers based on what you experienced this year?

Frank: There was nothing really surprising. The last two years we've had relatively low mortality rates. We predicted that our estimate might go down a little bit, but the long term trend is not much of a change from previous years. What we're seeing fits in the realm of normal for populations like this and an ecosystem like this.

Richard: You had said the Chao2 is the best estimator but underestimates up to 40%

Frank: Up to 40%, yes.

Richard: So it could be up to 1000 bears?

Frank: It could be, yes. Part of science is dealing with uncertainty. I want to point out the incredible challenges we have in studying a species like grizzly bears in this ecosystem—not very accessible areas, an animal that's cryptic, large home ranges, low densities, everything that works against a good population estimate, we're dealing with. If you account for that 40% under estimation bias, we'd be close to 1,000 individuals. I think that is more on target as to what the population is. Chao2 is a conservative estimate.

Richard: We really don't know what the total population is if we look outside the DMA. If the population is estimated at 40% more and growth is 0-2%, could that 0-2 explain the population of bears we're seeing outside the DMA? Or is that growth higher than that?

Frank: We're starting to speculate a little bit, but the reason we start to see some animals spill over is they're filling in the little bit of space inside the DMA, there's a little bit of growth on the peripheries of the DMA and automatically you're going to have some sub-adult individuals, including some females. More females with cubs outside the DMA is a natural progression of the population. If there's no room in the core, they will get pushed out.

Richard: The last question is about sustainable mortality rate 7.6 for independent females and dependent young, 15% for males. What does that number mean?

Frank: At that rate allows the population to stay at the current level.

Questions from the Public:

Tom Mangelsen: You mentioned there were 57 mortalities this year with limited growth. Is this 57 counted in the 714 total population?

Frank: You're kind of counting/comparing apples and oranges. We have a population that's based on the starting point of counting females with cubs, getting the Chao2 estimator model averaging and dividing the total population from that. The mortality will be applied to that number. You can't subtract mortalities from that number and then determine the mortality rate.

Tom: So 714 less 57 would be the accurate number? (Frank: No) How does that 57 compare to last year and previous years at the same time seeing as we are still in hunting season?

Frank: We are higher than the previous years.

Mark Haroldson: Can I clarify it? There are not 57 but 52 documented mortalities so far. The population estimate is basically for what comes out of the den. The mortality is subtracted from that.

Frank: We're not subtracting that from the population estimates.

Andrea Santarsiere: You mentioned that outside the DMA there's some population sinked areas; can you explain what those are, where, and how many there are.

Frank: Don't misinterpret the population sinks as specific ones scattered throughout. It's a concept. The boundaries for the DMA were determined on suitable habitat. Beyond those boundaries you into areas where bears will have tougher time making a living without causing a lot of conflict and social acceptance will be a lot less. In principle, once you get outside that DMA, you start running into those situations. I'm not referring to specific sink areas. It's a concept-greater probability of mortality outside those demographic monitoring boundaries.

Rich Sense: questions about monitoring outside the DMA, particularly along areas that might be envisioned as groomed corridors between Yellowstone and (can't understand). Are there any collection efforts out there?

Frank: At this point, it's incidental. Any records we get from various agencies we keep track of, but the DMA doesn't cover those areas. We are at the limits of the area we can monitor and there isn't enough out there to monitor.

Rich: Is the reason partly budgetary?

Frank: Partially maybe, but also there is no biological evidence that those areas need to be monitored intensively yet. It could change in the future. Any incidental data that we get or useful data, we will keep track of but have no plans for monitoring.

Deidra Bainbridge: You told us that the core recovery zone had peaked in terms of carrying capacity the late 90's. Then you told us all about how food sources in that area had been drastically diminished. So if there are no food sources in the major recovery area, can you really tell us that they aren't migrating out in search of food?

Frank: That is correct—I encourage you to look at publications. We put out a food synthesis report in 2013; there are seven or eight peer review published papers on all that work that's documented in the report. The conclusion is we don't see at the individual or population level, a response to all of the changes that have occurred.

Genetic Monitoring of Grizzly Bears in the GYE: Frank van Manen



Summary:

- N_e in the Yellowstone grizzly bear population has increased 4-fold since the 1980s
- Temporal estimators show similar increase from historical time (1910–1960)
- Number of breeders has also increased
- Generation interval increased from 8 to 14 years
- Genetic diversity has remained stable
- Low rate of inbreeding (0.2% during 1985–2010)

Frank: I want to recognize the senior author on this, Pauline Kamath, a geneticist in the Northern Rocky Mountain Science Center with the USGS. We were really lucky to tap into her expertise. We've also collaborated with Gordon Luikart of the University of Montana, David Paetkau at Wildlife Genetics International in Canada, and I would like to recognize Mark Haroldson who conceived of this idea, and some field personnel-Craig Whitman, who has been very meticulous with our records, and all those in the various agencies who have helped.

Questions from the Committee:

Garth Smelser: With the increasing census population in isolation will the affected population continue to increase, or over time, would that genetic drift kick in?

Frank: We expect that the effective population size will keep increasing if the population keeps increasing. We're reaching the point that that might not be the case anymore. Because the census population is much higher than several decades ago, and knowing the effective population size is much larger, yes, there will be some loss of genetic diversity, but given where the population size is at, that is going to be a pretty minor factor.

Garth: Will stability stay constant even in isolated population?

Frank: I would not anticipate a lot of change in the next couple of decades.

Questions from the Public:

Daryl Hunter: Considering the genetic isolation, we've got problem bears here. Would it be possible to do a problem bear swap for genetic diversity?

Frank: That's more of a policy question the state should probably answer...interesting idea, a conflict bear swap! There is some language in the conservation strategy that pertains to moving bears if necessary, it is a last resort that could be done.

Daryl: It could be a problem solver.

Frank: I doubt managers would want to move problem bears from one ecosystem to another.

Cindy Campbell: Will this in-depth genetic monitoring be required by the states as the process goes forward? It seems like a lot of good work is being done that should continue? As a scientist do you feel that's important?

Frank: I think it's very important to collect genetic samples through animals we get our hands on or through non-invasive means because it can be easily obtained and can be very valuable. These analyses are very involved so it wouldn't be necessary every year. You can only do these types of analyses every so often, but there's certainly lots of value.

Jim Layborn: As a follow-up to Daryl's question, there are non-target animals that can be captured. Do you support relocation to enhance diversity?

Frank: That's a policy question. We don't make recommendations, just state what the scientific results show and it's up to managers to decide if that's an option they want in their toolbox.

Chris Servheen: Two answers to the questions asked. Will this type of data be collected in the future...the answer is yes. Every bear that's captured and every bear that dies in the ecosystem will have genetic data collected from them from now on. These analyses could be done in the future with the collected data. The end result is there's not really much genetic concern in this population. To the question about moving bears around, in the conservation strategy there is a statement that if there is any defective diversity over time, then we could move bears. This work really enhances the fact that this population genetically is very healthy at this point and there's no urgency to move bears. If we wanted to it would be easy to do that. We've moved bears between ecosystems before. We've moved bears into the Cabinet Mountains for example from the Northern Continental Divide and they stayed there and bred there. We're also interested in seeing Northern Continental Divide bears get down into the Yellowstone Ecosystem and vice versa. We have bears now about half way between the two. I think it's just a matter of time, but the bottom line is there's no urgency and worry about the diversity of the Yellowstone population.

Siva Sundaesan: Given the data set and the level of data that you have, do you have information on their fitness?

Frank: No we haven't. At study team meetings we've talked about the general issue of looking at fitness, but what measure of fitness would that be?

Siva: Well with female bears you probably have....lifetime...success (can't understand)

Frank: That's where things get difficult, to get a large sample for every year, that's challenging with the type of system we're studying here. I understand that there's value in looking at some measure of fitness. That could be a topic we might explore in the future.

Scott Christiansen: Can you talk a little more on the classic study of Franklin and what that means in relation to what we're talking about in this genetic study.

Frank: It goes back to the slide where I mentioned genetic drift and the effects are much reduced if you have a larger effective population size. It's always dangerous to use specific thresholds and cutoffs for these type of criteria. The work that Franklin did is based on that principle, that if your effective population size reaches somewhere close to 500 individuals, in an isolated population, your rate of loss of genetic diversity from a conservation standpoint, would be acceptable.

Steve: In the results from this study were about 450?

Frank: Correct. We're not saying we are already there, but we are approaching it and we'll be curious to see if in another decade or so we're actually there or beyond.

Public and Media Response to Bear Removal in the GYE: Kerry Gunther

I am going to cover briefly an incident we had this summer in YNP and some of the social media response we had to it. We had a tragic situation where a hiker in YNP was killed and consumed by a grizzly bear. We quickly captured that bear and all the evidence from the scene: tracks, bite wounds, DNA, and confirmed we had captured the responsible bear. It was a female with two cubs of the year; we killed the sow, and sent the cubs to the Toledo Zoo. We had a similar incident in 2011 that was covered in the traditional media but didn't get much coverage in the social media. This year we were overwhelmed with the mostly negative response we got from social media. Someone posted personal emails and phone numbers and we got hundreds and hundreds of emails and calls, overloading inboxes with mostly hate mail and thinly veiled threats. I think it's the wave of the future, using social media as a weapon, and that a few people putting out false information can stir up lots of other people who may not know any of the facts. Some people claimed we weren't going to do any investigation but just kill the first bear we found. In 2011 when we had a fatality with consumption of the body, we spent two months trapping with 173 trap nights, 175 captures, and we didn't kill all those bears. It was the very last bears we caught that matched the DNA and those were the bears that were removed. Once it was put out there, we were playing catch up and never caught up.

Someone else put out that while it might have been a female that killed the person, it was probably a male that fed on him, throwing out doubt that we caught the real bear, but our investigation found no male tracks, the bite wound size was not male and there was no male DNA. People were purposely putting out false information to discredit us. This will probably happen more and more in the future. Another thing that doesn't help is that someone named this bear and people all over the world were concerned with it even though they had never heard of or seen this bear. And they didn't seem to be concerned about the total population, just the bear with a name. There was a petition on a website with over 50,000 signatures to save "Blaze". If those same 50,000 people had given \$20 to preserve bear habitat, or conservation easements, it would have protected the whole bear population for generations into the future. I think we need to get the word out that we are trying to save the whole population vs one bear for future generations.

I just want other agencies to know if they are facing something similar, you will get bombarded with this, and probably false information sent out. It's almost impossible to get ahead of it once it starts.

Mary: We all deal with this at some level, some false information gets out there and starts to spread. What are your lessons learned in terms of what you would do differently?

Dan Wenk: Let me give you just an indication of what was sort of the impact of this. We had probably around 6,000 comments on the original post. We tried to give the facts but there were several “bear experts “who said they were trained and actually knew what went on in this situation. The bottom line is no one will be able to say what the circumstances of the death of this individual were. We made decisions based on the totality of the circumstances, based on the preservation of a grizzly bear population. There was a lot of conservation on how we could successfully rehabilitate a bear, how the bear could be relocated into the wild. We talked to a lot of experts. The places people talked about sending these bears would have been impossible even if we would have wanted to.

We’re taking proactive steps, looking at options when/if it happens again. What is irresponsible is people who are well known in the field acknowledge the fact that they model behavior that we don’t want people to model in bear country, like not carrying bear spray even though they claim to be an expert.

We’re going to try to get the facts out as efficiently and effectively as possible. There’s nothing we can do about social media. Let me give you an example of the intensity of this. National Geographic did a post on this. A typical post will get 100-300 comments in the first couple days. They had over six thousand comments in the first three hours. We have to figure out a little bit different strategy for the future. All we can do is get the best and the total info out as soon as we can.

Joe Alexander: People naming wildlife seems to increase the emotional attachment. Any thoughts on educating people on thinking about the population as a whole and not individual bears?

Kerry: We have a campaign where we have our interpretive rangers doing bear spray demonstrations. We need to have them emphasize population management rather than individual management.

Dan: Generally it’s not the visitors that name them but the local population. I would suggest that 399 is as much of a name as Blaze.

Mary: I would add that it seems it is something within the I&E subcommittee we think about the outreach to partners and the discussion on the value you create by focusing so much on individuals versus the population because it doesn’t speak to the longer term goals of managing the population, and it causes us to spend a lot of energy on something that isn’t particularly well spent.

Loren: Is there some suggestion of what the YES committee can help with conversations or on individual websites?

Mary: We don't have a stand-alone website. We have the link on the IGBC. Gregg, there's probably some discussion on how to handle this. We don't want to take away the value communities put on individual bears, but bridge the understanding of what that does or doesn't accomplish.

Gregg: There are a lot of basic concepts we as wildlife managers take for granted that the general population doesn't know or has never been presented to them. There's a Northern American Conservation Strategy put together that we can build off of. We're not unique in this situation. This happens all across the country and the world—take Cecil for example.

Steve Schmidt: Grizzly bear conflicts give us the opportunity to explain what grizzly bear management may look like in the future. For example, we have concluded that this habitat is full of bears, at carrying capacity. Therefore when we have a bear that's in conflict, we do not have good options for relocating that bear and we need to not be bashful about telling folks we have very few options for problem bears. For example, we have explored routinely putting problem bears in zoos, but they are at capacity too. We have learned it's difficult to move a bear far enough away. Every time we touch a bear we own that bear; we know its history and if we turn it loose somewhere else and it hurts someone, that's on us.

Spring Meeting Schedule: Mary Erickson

The plan is to set up our traditional spring meeting date held in concert with GYCC. Choices: last week of March—no; first week of April is out; April 13/14—looks good. Decision: spring meeting April 13/14 for YES in Bozeman. (Note: later changed to April 13/14 in West Yellowstone, MT as no facilities large enough were available in Bozeman)

The next thing is we heard that we don't have a delisting rule proposal or conservation strategy but there are discussions going on. We would want to be engaged if possible. We can meet more than twice a year for a compelling reason. We should look in the timeframe of February.

Richard: That could be very helpful to the FWS. We are working on dates and are in active discussions. That timeframe would be helpful if we were able to propose a delisting and conservation strategy; that would be timely. We don't have a timeframe in mind, but being nimble would be helpful.

Mary: Should we hold a placemaker in February or should we leave that open? We would need some lead time to get information out to the public.

Richard: I don't have a timeframe so the more nimble the better.

Mary: The tension is if we don't hold some dates, we may not get a date that works. How about the second week of Feb., sometime during the week of Feb. 8? That would not be a

coordinated meeting with GYCC. How about the 10th midday to midday on the 11th? We will stay in communication with the Service, but need three or four weeks' notice, and the location may also depend on the date.

Decision: hold Feb. 10/11. (Note: meeting did not take place)

Public Comment:

Daryl Hunter: I'm a wildlife guide, photographer, and published Greater Yellowstone resource guide. Grizzly bears get named or have numbers; that happens. I met a guy who said he'd like to v 399 on his wall. He said she is famous and that makes her a better trophy. I imagine he'd like the whole family on his wall. Grizzly bears aren't only cool to look at, but are also revenue bears. Wildlife photography is a pastime, a pastime that has become the hobby of more and more people. Empty nesters are flocking to digital photography. The Greater Yellowstone has hundreds of hobby wildlife photographers and thousands more visit every year. Hundreds of local photographers are really good because we get lots of practice. Our local photographers and regular visitors post their revenue bear photos to social networks and have many followers all over the world. These people make Yellowstone a destination. Photos of revenue bears exponentially drive tourism. Our revenue bears are the ones we see regularly. I understand hunting grizzly bears is also money into the economy. I understand an outfitter can charge \$30,000 for a grizzly 399 rug opportunity. That's an impressive looking revenue source, but is shortsighted when you consider 10 million a year bear viewing economy and 155 jobs created by our revenue bears. Unlike a lot of the folks here, I don't care if the grizzly is delisted, I just don't want this non growing island population hunted. Someday I'm sure there will be a hunt. We are in Wyoming. When it happens, all hunting should take place outside the recovery zone. If it's a good recovery zone, it should also be a good trench zone it will ensure forty years of effort to get grizzlies delisted for the endangered species program. This will also keep our revenue grizzlies alive. To do otherwise would be ludicrous. Our revenue bears spend a lot of time in the Teton wilderness. When the Teton wilderness opens to hunting, most of our revenue bears will be dead.

Roger Haydon: I just have a request for the powerpoints to be online.

Mary: We are working on that

Lisa Robertson: I am a volunteer manager of an organization called Wyoming Entrapped, dedicated to making the environment safe for people, pets, and wildlife, and awareness in trapping regulations. Thank you for the opportunity and thank you to everyone working on the grizzly recovery for so many years giving these remarkable animals a chance to survive. Some

of the most spectacular moments of my life has been viewing these species. I moved to Jackson 26 years ago from the east coast, having very little knowledge about large predators and western culture, but with a deep desire to live where the wildlife roamed. We immediately signed on to a YNP bear watching trip, but sightings of bears were non-existent on the tour. Since then I've been dedicated to preserving these wild places. To tell you how long ago that was, I believe my husband, Steve, and I had the first handheld GPS units in the Park. Two years ago after several local dogs were caught in traps, we learned about our state trapping regulations, or lack of. On Oct. 15 a grizzly bear cub was trapped in a legal baited Conibear trap set for pine marten on the Reef Creek Trail in the Cody area. A hunter heard the incredible noise of the cub and reported it to the Wyoming Game and Fish Department. By the time officials responded with required resources to handle the potential dangerous situation, the cub was gone, along with the Conibear. Conibears are considered quick kill traps. Trappers are only required to check this kind of trap once every week. We know the bear cub was caught for hours, potentially days. The status of the 50 pound cub is unknown. No animals are immune to the indiscriminate nature of traps. If not for the hunter's report and call to Wyoming Untrapped, the public would never know about it. In Wyoming trappers are not required to report any non-target species unless the injuries can result in death, or the animal has died. This inevitably results in gaps in reporting. Trappers are totally unaccountable for the trapping of any endangered species even if the incident is reported. They can set unlimited number of traps year-round for predatory animals with no license required. And in the fur bearing trapping season, with a \$44 license, unlimited traps. Traps can be set on trails with no setbacks, on over 85% of public lands. A legal trap, on Wyoming public land has caught a protected species, a grizzly bear cub. This is one we know about. We ask, is this not a man-made threat to the species? Isn't the FWS mandated to include this threat in the overall grizzly recovery? The argument made is that we don't know the numbers of trapping incidents out there. There's a reason; trappers aren't required to report. Although entering the delisting process, perhaps it's time to issue an incidental take permit, issued under Section 10 of the US Endangered Species Act to private, non-federal entities when otherwise undertaking lawful projects that might result in the take of a threatened and endangered species. To protect grizzly cubs, this might require trappers to undertake certain modifications, such as postpone the trapping season until grizzlies have settled into the winter, require 24 hour trap checks for all traps, require reporting of any grizzly incidents, or all trapping incidents within grizzly habitat. This delisting is extremely controversial and this incident is another example of possible harm to grizzly cubs. In closing, we have witnessed the results of delisting of another species, the wolf. Surprisingly, the USFWS allowed the designation predator status in Wyoming outside the designated trophy game area and it became open warfare on the species, including a dead, bloody wolf displayed in our town square. And in the trophy zone, the population was over-managed to minimum numbers to prevent re-listing. We suspect that this could eventually

happen to the grizzlies. Until the non-consumptive user is guaranteed an equal voice in grizzly management, and the inclusion that trapping is a factor in grizzly cub mortality estimates, we do not believe grizzly delisting is appropriate at this time. We encourage investigation of these issues as soon as possible.

Debra Patla: Grizzly bear conservation has engaged my interest since my first field job in 1987, which was mapping grizzly bear habitat in the Teton Basin District on the Targhee Forest. My teammates and I were dismayed were being destroyed by clearcutting. The huckleberries were being lost because of clearcutting, resulting in maybe 100 years of lost crop. The forest managers were saying they didn't have to follow the guidelines because there were no bears there. Things changed thanks to legal actions, appeals, buyouts of sheep allotments, and managers embraced that bear habitat needed to be protected. As delisting is contemplated, uncertainty of human behavior is something to worry about. You can put those mechanisms in place but what happens ten, twenty years from now they start sliding away. There's no teeth to enforce them and the bear starts sliding towards extinction again. That would be huge loss for the thousands of people who are trying to recover the bears. I see delisting as a train that has huge momentum and what's going past in the windows isn't very clear to us. In fifteen years we saw things we never expected-die off of conifer trees, whitebark, spruce, and other trees that bears depend on, unravelling of the cutthroat trout lake system, shrinkage of wetlands, change in plants, the huge increase in vehicles, the speeds they go, traveling at night. What's the home going to look like for bears in fifteen years? We don't know. It's a dangerous and radical idea to assume things won't change. The hunting of bears for sport is going to be hugely controversial and bring shame to Wyoming. I'm a biologist and I try to see the population, but when a bear is twenty years old and is shot and that's seen on video, people are going to see that and what are they going to think? A shrinking number of bears on a shrinking island-what a dishonor that brings to all of you who have worked so hard to recover bears and what a shame to lose this marvelous predator. I ask you to slow down this delisting train. It isn't inevitable that bears are delisted and that hunting is practiced. Thanks.

Lloyd Dorsey: Thanks for having this positive engagement for the public. I hope it portends well for future opportunities. My wife and I have had the privilege of living in this ecosystem for forty years now. I am a big game hunter. I was lucky to harvest a mule deer in occupied grizzly bear habitat this year and I harvested an elk as well. Over the years I've hunted in occupied habitat in Park County, Sublette County, Teton County, and Fremont County. What a marvelous place to be-in this ecosystem. My wife and I are campers and hikers in grizzly bear habitat as well. I can testify to one thing as a backpacking hunter, muledeer and elk are getting heavier! I'm also the conservation director for the Wyoming Chapter of the Sierra Club. I'd like to

mention three things that I've heard here. One is social tolerance or acceptance, having pepper spray be mandatory, and economic value of grizzly bears in this ecosystem. On the social tolerance issue, I encourage the agencies to seek a better word than tolerance because that can be perceived as negative. In Gregg's presentation, he said 3.8 million people visit here, and most of them are wildlife enthusiasts who support wildlife, they don't just tolerate it. It can be defined, measured, and tracked by keeping an eye on the overwhelming support for grizzly bears in this ecosystem and beyond. 3.8 million is more than twice the population of Wyoming and Montana. My wife and I carry pepper spray, and even carry extra cans. Pepper spray should be mandatory in occupied grizzly bear habitat, particularly for hunters. When we look back on the mortality rate for bears we see the number of bears killed by hunters. As a hunter I am so shocked to see that pepper spray isn't carried or used to the extent that it needs to be. People have spoken of the economic value of grizzly bears and roadside viewing. These people contribute hundreds of millions of dollars to the economy of these three states and we cannot forget that these grizzly bears, wolves, mountain lions, coyotes, predators, scavengers that result in a healthy ecosystem bring in so many visitors. I was a wildlife guide as well and those are the number one thing you get asked about. I was encouraged yesterday when Richard said all Americans are stakeholders in the conservation of grizzly bears and I worry if that would continue if grizzly bears were delisted. Grizzly bears don't need less protection. Reflecting back on the mortality report, grizzly bears need more protection. There is no indication that delisting would result in better protection for grizzly bears. Bears are worth far more alive than dead.

Diedra Bainbridge: I had the privilege of working with Starker Leopold, who was the national park service agency advisor for several years in the 70's. He was vehemently opposed to hunting in parks and he said if there is to be hunting in parks it would be with sharpshooters removing any remnant of the animals who interfere with the wildlife biology and the habitat of other species. So we know that we've had hunting in the park for years now, but we did have a bison and elk management plan in 2007. That plan has a biological opinion that is to be followed. Mr. Hannan, when you said grizzly bears have been showing up in places that they haven't been before is a good thing. It actually is not a good thing. As you're proposing the conservation strategy and you haven't followed your own biological opinion, at least in terms of hunting on the refuge, perhaps it's a key that this hunting should be modified or stopped because grizzly bears are now showing up to be eating dead animal parts roadside with people watching them. And then you say when the grizzly bear become habituated to people and are no longer afraid. Well, who habituated these grizzly bears to people, to be no longer afraid? I'm very concerned that you're coming up with the strategy when you haven't followed it for eight years, including the Endangered Species Act Listing Plan which states that areas adjacent to the recovery zone should not have carcass piles, yet we had 610 and two of her cubs, one of them 760, at the Snake River Ranch in 2012. Nobody got rid of the piles so that bear returned

to the ranch and was considered a problem bear and was killed for eating dead animal parts in front of humans.

Tom Mengelson: This whole exercise has been going on for a long time-how do we get the numbers high enough. I applaud those who have worked on the recovery plan and thank them. The numbers always seem to be a bit skewed. Today we found out the legitimate number is 714. Dan Ashe, Director of FWS, it is his duty to sign off on any delisting papers. He suggested 800-1200 to scientists back in DC two weeks ago. So if the number is 714 I hope somebody gets that number to him. I mentioned I didn't understand the 52 mortalities that hadn't been subtracted from that number. Mary and others tried to explain to me that number is when the bears come out of the den and the mortality isn't counted until the following year. I still think we should subtract the 52 mortalities from the 714 number; that gives us a reality of 662 just for a reference point as of today. I'd like to suggest to everyone in this room to look at Dave Mattson's analysis of the data. His analysis sheds a quite different light on the situation. He strongly disagrees with the conclusion of the study team. He doesn't believe the grizzly bear should be delisted at this time. He worked for many years for IGBST. He is highly respected amongst his colleagues.

I'd like to talk about the grizzly not as a species, but as an individual. It is a being with intelligence and emotions, one who feels joy, defends its young, feels pain and anguish. In 1969 I was a zoology student studying in Nebraska. We were in a class studying about being anthropomorphic, giving human traits to non-human animals. In the past 35 years we have come to realize that animals do have emotions and feel joy and pain, just like us. To me this whole exercise isn't just about recovering a species but also about politics and control. Blaze and Cecil are examples of our changing times. Killing large predators for fun is generally not accepted by the public. Carnivores are not used for food. I grew up hunting rabbits and know about hunting. It's not just about social media; it's about people being disgusted and having a voice. Giving animals a name is not doing anything to them but recognizing them. To quit worrying about individuals and focus on the population is an unfortunate comment. Bears have rights just like wolves, cougars, coyotes. Jane Goodall reminds us that every person, every animal counts. It's not about species or population all the time. There are 2,000 grizzlies killed in Alaska and several hundred in BC killed for fun every year. Delisting and having a sport hunt, having Wyoming Game and Fish Department offering licensing for \$650 for grizzly bears on their website last year is unpalatable and inhumane, as it is with wolves, cougars, and black bears. Go see the Youtube video of the grizzly being killed in BC (describes the video) Hunts like this will happen here if it's delisted. Most bears aren't seen who are shot. What has happened to our humanity, intellect, respect for others, and our compassion for non-human beings? Delisting is epitome of lack of compassion...let's not do it.

Cathy Loewer: My purpose today is not on financial purposes, or on behalf of any group or coalition. I am a Jackson, WY resident and I'm here to speak on the issue for one reason. I was taught to stand up for what I believe is just and right. I listened to all the comments on behalf of keeping the grizzly bear protected. I noticed a general theme in that the final decision is up to the committee, and many respect that decision and people realize that eventually the grizzly bear will be delisted, but the time is not now. Reasons consisted of everything from global warming, roadside enjoyment of bears, a plateaued population, economic gain, and so on. The question I pose today is, if the time is not now, then when? How many bears are too many for the Greater Yellowstone Ecosystem to sustain? I for one believe the time is now. The population was reported as 600 at the YES Committee here at the spring meeting in 2012. Today it's reported as 714, not counting those outside the Greater Yellowstone Ecosystem. These numbers to me represent growth, and the number could be closer to 1,000 as mentioned earlier today. Frank van Manen was quoted in the Jackson Hole Daily on November 2nd as saying the factors for the increase in the grizzly bear euthanization include a larger population of bears, pushing the fringes of its core recovery area and a reduction of the availability of natural food sources. There are simply more bears confined into a small area. Since bears need large home ranges and are territorial, old and female grizzlies often will move to the fringes of prime habitat to avoid fights with large, dominant males. Grizzly bears are moving to areas outside the recovery zone. They are getting into more and more areas where the potential for conflicts are greater. Wyoming Game and Fish reported capturing and relocating 24 grizzlies in 2015, which is a 50% increase in just one year. The human habituation in the relocation process is completely unnatural and inhumane and will not lessen anytime soon, as their food source continues to be depleted. Yellowstone grizzlies have the highest consumption of meat than any other, up to 70% of their diet. This uncontrolled saturation of bears can only lead to them moving further from the park, causing more human habituation and conflict. Lance Crosby, the hiker mentioned earlier, was killed in Yellowstone this summer. The bear was later euthanized due the hiker's body being consumed and cached with the intent for return and further eating. The Park said in a media statement that normal defensive attacks by female bears defending their young do not involve consumption of the victim's body. Points being raised that if we delist the grizzly, the roadside grizzly bear will disappear. My understanding is that the management of the grizzly bears would take place outside of the parks in areas where probabilities for conflicts are greater. Another point made is that we are moving closer to grizzly habitat and we are putting pressure on the bears. The land in northwest Wyoming is 97% public, 3% private, and of that 3%, an estimated 1.5% is under conservation easement. With grizzly bears now moving into subdivisions south of Jackson, much of the conflict is because the grizzly has moved into our area. I love to hear economic success stories as much as anyone, and I'm happy to hear that the wildlife tourism business is now thriving, but you should also know that it is at a cost. Ranchers and outfitters who have been operating in these valleys

for generations are losing livestock, hunting tags are diminishing, and their livelihoods are in jeopardy. Everyone here today should consider the weight of the decision the YES committee has the task of making; that we will all be respectful of their recommendations, regardless of the outcome, the same way many of us who have been waiting for delisting for several years. The YES committee chose to spend two years to study the effects of whitebark pine on the grizzly bear population back in 2012, despite Wyoming Game and Fish's recommendation to delist. At the same time, Bridger Teton NF Deputy Forest Supervisor, Jose Castro tried to voice his concerns about the loss of elk and moose on the Bridger Teton NF, and the urgency of delisting, to no avail. This is not a decision being made in haste, and has been studied and examined for years. While I understand many here do not want the grizzly to be removed from the Endangered Species List, we should unanimously be celebrating the fact the recovery of the grizzly bear population in the Greater Yellowstone Ecosystem has been an incredible success story. As mentioned by Frank today, the population has increased four-fold from the eighties and genetic diversity has remained stable. It is now time to focus on preserving our entire delicate ecosystem. While I appreciate the beauty of the grizzly bear and the tourists visiting our parks, I also equally enjoy the beauty of the moose, whose population has been decimated due to the lack of predator management. No one wants to see the grizzly population wiped out, only balanced to a level that can be sustained. My hope is that the committee makes the decision based on facts, data, extensive research, the recommendations of the wildlife biologist experts, and what is best for the ecosystem as a whole. I also ask them to consider bear density and its impact on cubs, the research showing we have reached carrying capacity, economic impact on outfitting and cattle and the ranching industry, and livestock conflicts, increase in number of bears euthanized, increase in bear relocations, the burden on resource of the Wyoming Game and Fish Department, the USFWS, and Forest Service; also to consider public safety and the impact on big game population, and the committee does not make the decision on environmental pressure. Thank you.

Cindy Campbell: I live about twenty miles down the road. My mother was born in Cody and my grandfather was a Forest Supervisor. I owned a family printing business that was here in Jackson for 40 years that closed in 2012. I have deep personal ties to this community. November 1, 2014 I heard Wyoming Game and Fish had killed grizzly bear 760. I found myself immersed in everything grizzlies. It brought me back to the day I had written a letter to the Superintendent of Yellowstone NP when I was 12 years old about my outrage of killing a bear because he received a food reward caused by sloppy campers. I felt the same sadness and anger both times. On Nov. 2, 2014 I created the Facebook page 760: his life, his death. Pretty soon Richard S. created a petition which spoke to the outrage of killing 760. It has 170,000 signatures and is still growing. I take a different look at it than an individual bear, nor as Blaze,

or 399. That is not what we're doing here. These bears are ambassadors for their species, catalysts for a wider grizzly bear conversation outside the Yellowstone Ecosystem. We understand many of these 170,000 have never stepped foot in the Yellowstone Ecosystem, and many of them are petition signers, but we also understand why killing 760 and the way the public was handled struck a chord. We in the 760 community, me and those online, have a powerful voice in the social media arena. Our campaigns have reached the entire world and our message is clear: we feel a mistake was made in the killing of 760; a mistake was made in the handling of the bear and her cubs, and we have grave concerns about the timetable for delisting. The world is watching like never before, and is ready to step up for grizzly bears. As a side note, I did my best on my page to keep emotions out of it and I hope none of those on my site harassed you two gentlemen. I can't control it; it is social media and you need to control your side. As public and social media users, we need to know that all parties are using the latest technology to provide the most accurate information on websites, Facebook pages, news releases, and all aspects of social media because our world demands it. The public also needs to trust your use of accurate data. We need to be assured these processes are up to date and factually correct, particularly in regard to delisting the grizzly bear. Decades of experience does not guarantee you have it right. I have found this past year there is some reason to question the validity of some of these processes. We have questions and concerns and they are not coming from some petitioner sitting in New Zealand. They're coming from qualified, experienced scientists who disagree with your findings so far. Disconnect of any kind does not help the bears. Yesterday a couple media stories were shared and they were talked about as being strange and not factual. One story was written by Louisa Wilcox. I don't need to remind this committee of her decades of work on behalf of grizzly bear conservation, and I don't find her work strange. Another story references shoddy data from of Ohio State University. Her analysis was the result of 234 experts, of which 110 had direct experience working with Yellowstone grizzly bear doing research. Her conclusion was the majority said the delisting is not the correct decision. I end today by asking you to extend an invitation to peers, professionals, outside experts, and even adversaries who share a different set of conclusions to come sit at your table. Allowing for out of box checks and balances before you submit any recommendations to Fish and Wildlife Service as it concerns delisting the grizzly bears. A species brought to the brink of extinction sixty years ago is counting on you to get it exactly right.

Kelly Nokes: Wild Earth Guardians has a mission to protect and restore wildlife, wild places, wild rivers in the American West. I provide these comments on behalf of our 121,000 members. Thanks to the committee for the public process in this meeting. I appreciate your efforts to allow the public voice to be heard by increasing the allotted time for public comment, and for the clarifying question on presentations. I will not repeat many of the compelling comments made already today and yesterday; however I will reiterate the stance of many of

those who have spoken before me. Guardians is greatly concerned that proposing delisting for the GYA sub population of grizzlies is premature at this time. We ask that the Service seriously consider the plain language of the ESA and the agency's own 1996 DPS policy statement, which clearly prohibits the Service from designating a DPS for the sole purpose of delisting. Delisting a species by individual ecosystems does not mean the species as a whole is recovered. In fact, delisting the GYA sub population could likely hamper recovery efforts for the whole population in the lower 48 in the end. Even though one ecosystem may be doing well in potentially achieving recovery goals, this does not mean the species is recovered as a whole. The ESA is intended to recover species in its entirety, not selected individual populations at a time. Instead of devoting limited resources for a proposed delisting rule, which is sure to face intense legal scrutiny given recent case law, we suggest that the Service direct its efforts for achieving recovery for the entire population of threatened grizzly bears throughout the species historic range.

Terry Schramm, Walton Ranch: I've spent the last 35 years living and working in grizzly country and have had a lot of interaction. We have given up an allotment where we used to run our cattle because of grizzly conflicts. But that's not what I'm here to talk about. A good bear is one that is seldom or never seen. I've heard from a lot of photographers and tour operators here who chase these bears for profit. They run these bears around 24/7. I'm not sure that's a good idea for habituating these cubs of the year until the time they leave their mother. I don't think they have any fear of humans. I think the chance of mortality is extremely high, so people who are trying to save these bears are maybe leading to their demise. Lloyd's thing on social tolerance...if you want to broaden your horizons, you can go to the next Sublette county Commissioner meeting and I'm sure you'll get a different point of view. For the lady who said about the group for 760, she can have her opinion on how it was handled by Game and Fish and elected officials, but she doesn't have to answer to anybody. If somebody gets killed after those incidents, she doesn't have to answer; they do, so I can understand their decision.

Steve French: My wife and I own Yellowstone Grizzly Foundation and have dedicate most of our lives to conservation and education. Yesterday someone said they had their epiphany seeing a grizzly bear and cubs. My epiphany came in 1976 as a park surgeon I saw my first grizzly bear attack patient. Not being from here, grizzly bears were not part of my landscape. Since then I've been trying to wrap my head around this amazing animal. So we have spent a lot of time in the field and the one thing that is constant is change. Bears and people change. I remember the first time we exceeded the 15 females with cubs of the year on a six year running average. We thought that was success. Now I see we have 48 sometimes 50 females with cubs of the year. It's amazing, back then we really did not know if we were going to be documenting the extinction of this population. Now today we get to squabble over a number of 700, 800, or 600? That was inconceivable back then. I told someone one time that we'll know what

recovery is when we have more bear problems. Could we ever get more recovery like 50,000 or 100,000 like in the time of Lewis & Clark? Well, sure we could, if we all leave! But that's not going to happen, so we have to deal with it. What we do is a privilege and what I really appreciate is the hard work of Chris Servheen, Kerry Gunther, Mark Haroldson. They do the hard work. And all the managers here, you have to deal with the public and take all the slack, and I want to say I appreciate everything the government has done for grizzly bear recovery. What we get to do is the fun work. We wouldn't be here today if it weren't for the fine work of the IGBC, YES, and all the different state and federal agencies who work tirelessly every day. I don't think they get the credit they deserve. And I don't think the grizzly bear gets the credit it deserves. It's the one that is recovered; they are amazing. A couple weeks ago we were hiking over Sublette Pass, an area devastated. We didn't see a living whitebark pine stand in six hours. And right there in the middle of nowhere, was a stand. These bears have secret spots. I hope we never know all of their secrets. I can guarantee you they know how to make a living. They are food machines. In about a quarter of a mile, a bear ate ten different food items. They deserve as much credit as we people who care about bears. If we give them the space they know how to make babies and how to fill their stomachs. It's really that simple. At some point can we all stop and celebrate that we have the luxury of arguing about how many bears there are when we've got so many compared to when we thought they were going to be an extinct population. Can we just say isn't this great that we can have discussions about bears because we have so many now?

Mary: Thank you all. I need to apologize to Franz, Bonnie, and Jeff because we don't have time for more comment. I am going to have to think about a process to equalize the process of how much time people have because there's a sense of everyone wants to have their voice in the room but there has to be a fairness, particularly as folks come reading letters and that type of thing. I would clarify, we do keep this in the record, but it is not an official part of the delisting record when it comes to Fish and Wildlife Service. We said that early in the meeting but I wanted to make sure people understand that. It's still very useful to the YES committee, but it's not part of the public hearing record that the FWS would use. For those who didn't get to comment, if you want to send it to me in writing and we will send it out to the YES committee if you had something you wanted to share.

Franz Camenzind, Ph.D., Jackson, WY:

The following are the comments I wanted to share with you at the end of Wednesday's YES meeting, but time didn't allow. Thank you for considering them now.

I ask that the group give serious consideration to delaying the decision to begin the delisting of the Yellowstone Ecosystem grizzly bear population. I ask this in light of the stated fact that the core habitat has witnessed a lowering of grizzly bear carrying capacity due to the decline of

important food sources: Yellowstone Lake cutthroat trout (severely reduced), whitebark pine trees (down by 75%), decline in elk populations, and the tenuous status of the army cut worm moth.

My second reason for asking for a delay is the noted flattening of the population growth rate and the significant increase in grizzly bear mortality reported thus far for 2015. I fully realize that one year does not a trend make however, most population biologists would say that for a slow reproducing species like the grizzly, trends- either up or down, have a few year lag time in presenting themselves. Why not wait another 2 or 3 years to see if a declining trend is indeed forming?

My third reason for asking for a delay is the unknown impacts of climate change. Some changes will be subtle and others very pronounced. But subtle or pronounced, we can't say we know them all or what their impact may be. For example, if the Yellowstone Lake cutthroat population is rebounding as was hinted at in Tuesday's presentations, what will climate change do to spawning stream temperatures and invertebrate and vertebrate species composition? Even with a successful "rescue" of the trout population from the jaws of the lake trout, we may lose the game due to significant environmental changes which we cannot control on the ecosystem level.

And my fourth reason to ask for a delay in progressing with delisting combines my first three reasons- it is the precautionary principle. When data are not clear, definitive or are in doubt, when future conditions critical to success are unknown or not predictable with a reasonable level of confidence, err on the side of caution. The current circumstances surround the Yellowstone grizzly bear population describe the perfect situation for applying the precautionary principle. Please wait- uncertainty about the future should demand caution.

My last comment involves an inconsistency, if not an outright hypocrisy surrounding one important element of grizzly bear biology and the "living in bear country" program. It involves the continuation of black bear hunting over bait in the Primary Conservation Area, the Demographic Monitoring Area and the Occupied Area. How can the GYIBC or the YES conduct a very concentrated, expensive- and successful campaign to clear up camps sites, hunting camps, bear-proof garbage cans etc, and have ranchers dispose of carcasses and still allow bear baiting? Black bear baiting is the intentional setting out of domestic food waste (obviously covered with human scent) with the expressed purpose of attracting black bears. To think that grizzly bears will not be attracted to these baits, and very likely consume the bait- i.e. get a human food reward, is simply beyond reason or professional responsibility. This is such an inconsistent practice as to question the value of the entire effort to keep grizzly bears from acquiring human food rewards. Please, get the state agencies to prohibit bear baiting at least in the PCA and the DMA.

Until this hypocrisy is eliminated, how can the public be expected to understand the agencies' commitment to keeping grizzlies and humans safe when the same agencies permit garbage to be placed in the wilds of the Yellowstone country with the expressed purpose of attracting bears?

Meeting adjourned

Meeting minutes prepared by Sue Rupert, Custer Gallatin NF

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