

GOVERNOR'S GRIZZLY BEAR ADVISORY COUNCIL

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Montana's Grizzly Bear Advisory Council Meeting Summary

November 13-14, 2019 FWP Region 3 Headquarters Building | 1400 South 19th Ave | Bozeman, MT

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Overview

The Grizzly Bear Advisory Council met in Bozeman on November 13-14, 2019, for its second meeting. This second meeting focused on grizzly bear distribution and connectivity between ecosystems.

The specific objectives for this meeting were to:

- Continue to build out processes and protocols to support the Council's work;
- Build understanding and awareness around grizzly bear distribution and connectivity between ecosystems, including:
 - Provide current information;
 - Explore additional informational needs and perspectives;
 - o Consider management needs and challenges; and
 - Begin to identify areas where there is shared agreement and where there is not.
- Explore ways to build consensus and find common ground; and
- Reflect on the Council's overall work to date and make any necessary adjustments.

For full video of both meeting days please visit the Grizzly Bear Advisory Council at: http://fwp.mt.gov/fishAndWildlife/management/grizzlyBear/gbac.html

Meeting Accomplishments and Next Steps

The Council's key accomplishments at this second meeting included:

- Engaging with subject matter experts representing US Fish and Wildlife Services, US
 Forest Service, US Geological Survey, Montana Fish, Wildlife, and Parks, National Park
 Service, Vital Ground, Montana Department of Transportation, and the Center for Large
 Landscape Conservation;
- Discussing key themes, questions, and emerging ideas regarding grizzly bear distribution and connectivity between ecosystems amongst themselves and with members of the public (including with content experts); and
- Refining decision making processes.

At the conclusion of the meeting, the Council, FWP support team, and facilitation team identified the following next steps:

- Shawn and Heather will send survey out to Council members for feedback on 2020 meeting locations and potential field trips;
- Council members will send agenda/presenter requests to Shawn and Heather; and
- Shawn and Heather will create a first draft for December's agenda and send it around for feedback from the Council and Support Team.

Meeting Summary

A session-by-session summary of the November 13-14, 2019, meeting is presented below:

Wednesday, November 13th

Introductions, Welcome, and Overview of Agenda (video time 0:00)

Mark Deleray, FWP Region 3 Supervisor, welcomed the Council and the public.

A general overview of the two day agenda and objectives was shared.

Council Member Updates and Reflections (video time 6:12)

Reflections and updates since the October meeting:

- Tremendous amount of information to digest on this topic; a lot of learning still to happen.
- Western Landowners Association is hosting an open to the public meeting this Friday in Alder – all are welcome. The focus is on hearing from landowners and agencies regarding wolf and grizzly bear co-existence.
- Concerns raised over the number of law suits in NW MT and Idaho related to grizzly bears and their habitat.
- Working on grasping an understanding of the different perspectives.
- October 2019 was one of the busiest months of garbage-bear conflicts ever; Republic Services continues to distribute bear resistant containers throughout MT.
- Appreciation for all those providing information to the council.
- Hopeful the Council will develop recommendations that work for everyone.
- There has been a lot of bear activity in last month, reminding folks of the importance of this Council.
- Education and outreach appear to be missing in the Bitterroot valley area, hoping the Council can come up with recommendations to help people and grizzly bears live together – social acceptance.
- Funding is an issue and will continue to be.
- Looking forward to working together for good solutions.
- There are small communities co-existing with polar bears. What lessons can be learned from them?
- There is a lot of interest from people all over the world in grizzly bears, the Council, and the future of grizzly bear management in Montana.
- There is no shortage of opinions, questions, or interest in this topic.
- Dismayed at the number of conflicts in 2019; social tolerance is critical in balancing human and bear safety.
- Excited about upcoming seminars and work that will be occurring in January on the eastern front.
- After the first meeting, some members felt overwhelmed, but having time to reflect on needs and the potential solutions helped them progress to feeling better.

- October meeting was a solid start.
- Delisting or not we have to deal with solutions.

Public Introductions (video time 34:15)

Update on Council Process and Protocols (video time 45:45)

Objective: Continue to establish and implement effective processes to support the Council's work, including additions and refinements to the Council's Charter and communications and public engagement activities.

Updated charter draft provided to Council members

Council members engaged in a discussion about the process and protocols they would use in the coming months to address issues and develop recommendations. Highlights from the discussion include:

- The council will try to reach decisions by consensus. If not possible, issues and concerns
 will still be brought forward as suggestions/input in the final report to the Governor's
 Office.
- Sometimes consensus-based efforts can over-generalize an issue. The Council wants to be thoughtful in providing meaningful and substantial recommendations.
- Once the Council gets to that point of making recommendations, they may need to consider whether consensus is possible on a given recommendation/idea.
- The Executive Order provides a good guidance and a starting point for the Council to focus their emerging ideas and recommendations.
- The Council will recognize existing management plans, but there is a real need to articulate, interpret, and provide guidance to these plans, especially as they relate to some of the social issues.
- There are a lot of complexities to existing management efforts.
- The Council wanted to clarify they may not be able to improve timeliness and operations of agency efforts.

Some members met with Secretary of the Interior Bernhardt in Choteau to express their concerns along the Eastern Front. At the meeting, the Secretary said he would get back to them within 60 days with some kind of help or response. There was appreciation that the Secretary really listened to the issues and concerns shared with him.

Communications with Council

The Council then had a chance to engage with the communications experts on the support team. Highlights from that conversation include:

The Council appreciates the newsletter that's been pulled together and thinks that kind
of information would be helpful to receive every two weeks. The newsletter includes
diverse media stories related to grizzly bears as well as grizzly bear related reports and
events.

- This meeting is being video recorded to determine it might prove useful to Council
 members as an archive as well as an opportunity for the public to engage in the
 Council's work. This is a practice run and not guaranteed for future meetings.
- All Council member bios are now live on the GBAC website.
 http://fwp.mt.gov/fishAndWildlife/management/grizzlyBear/gbacMembers.html
- The GBAC website has links to many of the references provided to the Council, including some presentations from Council meetings.
- The link for the public comment portal will be shared with the Council members so that they can access the comments at any time. Council members commit to reviewing all comments prior to each Council meeting.
- Public comments will be included in Council's final report in some manner.
- The communication team has been asked how to get the meeting minutes out to the public faster. This is an ongoing effort, and the support team is working on this.
- Reminder that you can forward calls and emails from the pubic to Vivaca when needed.
- Finding the reference materials from previous meetings is difficult on the GBAC website.
 The communications team will continue to brainstorm ways to make the GBAC website more user friendly.

The Council requested more information on tribal management. The Blackfeet Nation and the Confederated Salish and Kootenai Tribes are scheduled to participate in the December Council meeting. Their schedules did not allow them to be present during the first two Council meetings.

Panel Presentation: Grizzly Bear Distribution (video time 1:40:00)

Objective: Explore the current state of knowledge around grizzly bear distribution.

Panelists:

- Hilary Cooley, US Fish and Wildlife Service
- Cecily Costello, Montana Fish, Wildlife, & Parks
- Mark Haroldson, US Geological Survey

Mark Haroldson, USGS, Interagency Grizzly Bear Study Team (IGBST)

Estimating Distribution and Range Extend on Grizzly Bear Populations (*Presentation is available on the GBAC website under "November Past Meetings" as "GYE Distribution" PDF*)

- Started working on grizzly bears in 1976, the first year after they were listed on the ESA
- Started working in the GYE in 1984, the first year they documented an increase in population growth and distribution with grizzly bears
- "You can't manage something you don't understand"
- The study team was started in 1973 by Congress. Their primary task is to monitor status/population growth and trends. They will see grizzly bears that move from MT to WY to ID within just a few days.

- There have been various techniques over the years to look at grizzly bear distribution. In 2012, they adopted their most recent methodology that utilizes all verified grizzly bear sightings. It is laid over a 3x3 km grid system. It has a binary (0 or 1) occupied or unoccupied status. 3 km is twice the daily activity radius of a male grizzly bear. It also uses a nearest neighbor technique that allows 8 surrounding cells to estimate the nearest neighbor cell. This method allows them to compute distribution annually.
 - Verified data from the public is also included. Photos are verified by a board with verified consensus.
- The 2 national parks (Yellowstone and Grand Teton) are 12,000 square kilometers. The
 Designated Monitoring Area (DMA) was designated for suitable habitat primarily on
 public land. The recovery zone is just under 24,000 km², the DMA is just under 50,000
 km².
- Mark showed images of how verified grizzly bear sightings are appearing closer to Red Lodge and the Gravelly Mountain Range. This expansion of grizzly bear range is creating newer and increased conflicts between bears and humans in this area.
- The Greater Yellowstone Ecosystem (GYE) has the most complete data set for grizzly bear distribution in the state.
- The GYE distribution animation map is on the IGBST website https://www.usgs.gov/science/interagency-grizzly-bear-study-team?qt-science center objects
- Female expansion tends to lag behind male distribution. There is a bias in dispersal between males and females. The average dispersal for males in the GYE is 40 to 50 km for males and 10-12 km for females. Although there are females that have been documented to disperse 100's of km.

Discussion

- Why are bears expanding their territory? Is it due to a lack of food sources, competition with other bears, something else?
 - It is all of the above. There are parts of the ecosystem that show density dependent effects in the core of the GYE. A research paper was published in 2016 on this topic and is available on the IGBST website.
- Evidence from Scandinavian bears and other areas show that bears on the edges of distribution have larger home ranges. The correlation is often due to bears' social constraints, rather than to habitat suitability.
- Do female bears have high den fidelity (return to the same location)
 - Seems to be individual. Females do seem to stay within the same general home range to den, but there are many examples of bears that don't.
- Is there a process for how and when the public can submit sightings and observation data?
 - It would be nice to have a protocol for observation documentation and reporting. It needs to be a verifiable process.

- Repeated observations say something about the suitability of the habitat.
- Is the expanding population due to an increase in population?
 - The expansion of distribution is thought to be due to an increase in population.
 There is no evidence to support it is due to a degradation of habitat. Females w/cubs are a good indicator of habitat quality due to their high caloric need, and sightings of them have not changed much in the last 20 years in the GYE.
- Given current management efforts, is it likely the population will double and triple again over the next 20-30 years?
 - The states and other agencies have management plans in place outside the DMAs. A study is coming out to try and predict the future of the range for both females and males. The growth rate inside the park has been flat and higher outside the park but inside the recovery zone. Outside the recovery zone of the GYE the growth rate is lower than the core area. There was a lot of work done to make sure the growth rate in the park initially reached a flat line. There are a lot of threats to the bears outside the recovery zone. This will not make the entire population go below sustainability levels because within the core it should stay consistent.
- How do you account for the bears outside of delineated recovery zones? How do we account for bears that go into Canada, or outside recovery zones?
 - We do the best we can with the limited data sets the NCDE or CYE/Selkirk have.
 They haven't been able to get as much data without a study team. Bears in Canada aren't accounted for.
- Do you believe that if there was a hunting season, it would mostly affect the outlier bears?
 - Hunting has the potential to affect the population through human caused mortality, but if we were to have a hunting season it would be sustainable and not exceed mortality thresholds within the recovery zone.
- Do bears that are exposed to human-caused mortality change their movements? Would hunting limit connectivity?
 - Hunting may or may not severely inhibit connectivity. It would depend on how much hunting there is. We have the potential to affect the population just through human caused mortality (i.e. hunting) -> Hunting would need to be highly sustainable, but could possibly be designed to restrict territorial movement. We have mortality limits now, and we would have mortality limits after delisting.

Cecily Costello-Montana Fish, Wildlife & Parks (video time 2:49:00)

Distribution Northern Continental Divide Ecosystem (*Presentation is available on the GBAC website under "November Past Meetings" as "NCDE Distribution" PDF*)

- The zones for the NCDE are detailed in the conservation strategy.
- As of right now there is no distinct population segment in the lower 48 states. Meaning all grizzly bears are part of one population in the lower 48.
- Court rulings related to wolves have created questions as to delisting animals based on distinct population segments. If you delineate populations, then anything outside the delineation falls into a different ESA category. In 1975, there was no distinct population segment policy.
- The decision over distinct population segments and the possibility of delisting grizzly bears by ecosystem is on-going litigation.
- The NCDE has slightly different metrics for the distribution map, but it is very similar to the method described by Mark used in the GYE. They use a 6x6 grid over a ten-year window instead.
- The 2018 distribution map is representative of where females with cubs live.
- 2014 marked the year where private land area within grizzly bear habitat has surpassed that of public land area (most of that is coming off the east front). Reservations fall under private land on the NCDE distribution map.
- Currently, there is no evidence of genetic exchange of grizzly bears between the GYE and NCDE bears.

Hilary Cooley, USFWS Grizzly Bear Recovery Coordinator (video time 3:15:55)

- The recovery zones were created based on where the USFWS knew bears were or where we thought they were in 1975. These areas were vastly dominated by public lands.
- Hilary coordinates with all 6 recovery zones, and all the federal & state management agencies.
- In the CYE/Selkirk, Wayne Kasworm (USFWS) monitors the population and demographics.
- There are 6 people that work in the recovery program in the USFWS,
- The Selkirks (SE) is the only ecosystem where the recovery area boundaries extend into Canada. In part, this is due to the small land area located in the US. It is though that recovery of this grizzly bear population needs the additional land mass of habitat.
- On the Canadian side, Michael Proctor contracts for the research for the CYE and Selkirk Ecosystems.
- The Selkirk grizzly bear genetics are more closely related to the GYE bears than the NCDE bears.
- Currently, there is not a lot of grizzly bear movement between the CYE and the NCDE.
- The CYE and SE have not met their recovery goals. If you lose 1 breeding female it is much more impactful in these ecosystems than in the NCDE or GYE.
- We don't know of any bears that have naturally moved from one ecosystem to another.

Panel Presentation: Management Related to Grizzly Bear Distribution (video time 3:39:00)

Objective: Understand the core questions and considerations that wildlife managers and others face with respect to grizzly bear distribution.

Panelists:

- Hilary Cooley, US Fish and Wildlife Service
- Cecily Costello, Montana Fish, Wildlife, & Parks
- Kerry Gunther, National Park Service
- Mark Haroldson, US Geological Survey
- Scott Jackson, US Forest Service

Kerry Gunther, Head of Bear Management for Yellowstone National Park (3:39:00)

- Kerry started working in Yellowstone in 1983. Most of his job is reducing/preventing human-bear conflicts, some research and some bear management.
- YNP has a long history of human-bear conflicts. In the 1800's, the hotels would throw
 their garbage out, and people were able to watch both species of bears each garbage.
 There were several feeding stations throughout the park. By the early 1890's, a lot of
 bears were becoming conditioned to human foods and breaking into buildings and
 camps.
- The park started keeping records in 1931 about property damage and bear-human conflicts.
- In the late 1960s, there was an executive order that required better management of garbage in national parks.
- In 1979, YNP started a new grizzly bear management program to reduce habituated bears, bear-human conflicts, and sustain a healthy population of bears.
- Open pit dumps were closed throughout the GYE in 12 years, this resulted in a lot of conflicts and mortalities of bears due to the sudden lack of food.
- The long-term success of the grizzly bear management program has resulted in record lows of conflicts and property damage in the park from the 1930's to now. Most of the injuries now are defensive aggression from bears. Bear mortalities have significantly decreased also since the 1930's.
- Kerry presented a graph that showed that even though visitation has increased (4.1 million visitors this last year), in the last decade they are at the lowest number of incidents for property damage & human-bear conflicts in the history of the park.
- The risk of a bear attack in YNP, for the average visitor is about 1 in 59 million visits. The risk increases for those camping to those backpacking (1 in 323,000 overnight stays)
- The park does a lot of work in teaching people how to behave around bears and reduce conflicts.

Scott Jackson, National Carnivore Lead for the US Forest Service (video time 3:58:20)

- USFS is primarily a habitat management entity. There are 7 national forests in Montana. The US Forest Service is the largest habitat manager for grizzly bears in the lower 48.
- The ESA requires the Forest Service to do good things for grizzly bears for management on the ground, which is a complex and evolving process. The Forest Service has to consult with the USFWS on Forest Service projects regarding any ESA species.
- New science is evolving and must be incorporated into forest planning.
- The Forest Service is responsible for a multiple use mandate, which means they have to consider fire management, timber, water, recreation, etc. Grizzly bear expansion is creating challenges and tensions around recreation management (closure of roads, restricting motorized use, closing sheep allotments).
- A challenge for the Forest Service is grizzly bear expansion into areas on Forest Service land where they have not had to consult before. As grizzly bears show up in new places, it effects the demands of plans and projects as they coordinate more with the USFWS.
- Another challenge for the Forest Service is identifying where bears can be relocated. Plans and policies have to be in place before a bear can be relocated to another area.
- They continue to manage human access to improve grizzly bear habitat, manage livestock allotments, Food/Attractant Storage Orders and many other management actions that try to support grizzly bear conservation success.
- For the most part the US Forest Service does not handle or directly participate in the management of bears.
- The conservation strategies are integrated into a forest plan, as well as other regulatory statues such as National Forest Management Act and National Environmental Policy Act.

Mark Haroldson, US Geological Services (video time 4:16:00)

Changing Mortality Trends in the Greater Yellowstone Ecosystem (*Presentation is available on the GBAC website under "November Past Meetings" as "Mortality Trends in GYE" PDF*)

- Much of this presentation ties in with his presentation from the morning session.
- The Greater Yellowstone monitoring network shows that housing density in the GYE has tripled since 1970, and it is expected to double again by 2050.
- Within the GYE Demographic Monitoring Area is mostly public land, but increases in humans/human densities/private lands has effects on grizzly bear conservation.
- Documented mortalities for independent age bears follow the same pattern as the distribution expands, the mortalities expand.
- Most of the mortalities outside the DMA are on private land.
- Self-defense kills are primarily hunter/hunting related issues, but also some are hikers/other recreationists.
- Increasing trend of livestock conflicts outside the recovery zone.
- Mortalities within the recovery zone have stayed about the same from 1999-2018.

Hilary Cooley, USFWS (video time 4:33:30)

- There are low numbers of bears in the CYE, which results in lower levels of conflict and lower levels of mortality.
- They haven't drawn a DMA for either the SE or CYE because they haven't reached that point yet.

Cecily Costello, MT FWP (video time 4:35:40)

Management captures have decreased in the core of the NCDE population.

Discussion

- In YNP, with the number of people interacting with grizzly bears, are they seeing more issues with habituation with bears in the park?
 - Food conditioning is different than habituation. Food conditioning results from bears receiving food rewards. Habituation is a waning of a bear's flight response from benign interactions between humans and bears. Habituation is tolerated in the park. This takes up most of their management time. Outside the park, habituated bears are more prone to get into conflict and have less supervision from management officials.
- How do you decide and who decides when a bear is too habituated?
 - o Inside the park, habituated bears are almost never removed. Food conditioned bears have very low tolerance due to all the preventative measures put in place.
- Will bears become less habituated if they have been bear sprayed?
 - o It would be too early to tell this, especially outside the park. And there isn't enough data to discern this.
- Explain the term "independent age bear".
 - A dependent age bear is still with their mother so a cub born that year or a yearling typically. An independent age bear is generally 2+ years old.
- Why do you distinguish between misidentification and illegal?
 - Misidentification is illegal but is generally not considered malicious.
- When mortalities are counted, is a sow with 3 cubs counted as 4 mortalities or 1 mortality?
 - Only independent age bears count against the mortality limits inside the DMA, but all bears are counted in all areas for documentation.

Table Discussions: Grizzly Bear Distribution (video time 4:37:00)

Report Back and Reflections: Grizzly Bear Distribution (video time 5:06:45)

Objectives: Capture key insights and take-aways from the panel and table discussions. Begin to identify a menu of ideas that respond to the opportunities and challenges presented by grizzly bear distribution in the state.

Summary and Key Themes Below

FUNDING

- What is the current funding?
- Where does it come from? Federal/State/County/Private
- How is it allocated?
- How does listing/delisting impact current funding and potential available funding?
- What are the most sustainable funding mechanisms?
- Diversified funding needed
- Is there a way to restructure resources?
- Taxation system?
- How to address lack of capacity
- More people = more funding
- How does grizzly bear conservation and management work with OR against other agency priorities?
 - Competing funding
 - Opportunity for partnerships and collaboration for funding?
 - Scaled collaboration to align resources
- How does distribution inform where resources are allocated including staffing?
- What are the resource gaps?
- Are there barriers beyond funding in creating positions? Legislation?
- How can we engage people for funding that are not yet directly impacted?
- What is the funding for compensation? How is it defined/determined? Where are the gaps? How are these programs run?
- What incentives exist?
- What incentives are needed?
- Identify sectors that do/will profit from having grizzly bears on the landscape

TOURISM

- What is the value?
- Are any of the tourism dollars going in to grizzly bear conservation and management? Especially from Yellowstone and Glacier National Parks

SOCIAL TOLERANCE

- What are the metrics being used in the various studies?
 - UM Metcalf Survey (in progress)
 - High Divide Survey MT and ID (papers now in review)
 - University of Wyoming
 - o Idaho State
 - University of Idaho
 - What are the gaps in the above surveys? Does the council need to do one to address the gaps? i.e.: survey local communities where grizzlies have not yet appeared
- How is social tolerance defined?
- How do we deal with diverse experiences on social tolerance?
- Support local solutions
 - Apple festival

- Green mapping project
- How to empower communities
- Are NGOs more effective in engaging local communities and fostering collaboration between communities and agencies?

TRIBAL

- Tribal management and cultural relevance
- How does the ESA apply on tribal lands?
- How can we more effectively engage tribes in our discussions?

INFORMATION/KNOWLEDGE REQUEST

- More comprehensive data collection needed
- Efficacy study on conflict prevention and management
- ESA Info
 - How does the ESA impact the Council's recommendations
 - o Request detailed understanding of litigation
 - Council to come up with questions for Bill?
 - Bill to respond during December meeting
- Council would like to hear from
 - Wyoming
 - o Idaho
 - o Canada
 - Eastern MT and Rocky Mtn Front management strategies
 - Request for more info on Bitterroot including transplant protocols
- Clarify DMA zones
 - o How are they created?
 - o Can they be changed?
 - What are the implications for changing them/keeping them as is? How are bears managed in and out of DMA's?
- Protecting Connectivity
 - o Must connectivity remain an objective?
 - O What are the current objectives?
 - o How are they determined?
 - Are there areas that bears should not go?
- What is necessary for viable biologically habitat?
- What are the distribution goals statewide?
- Request for independent biologists to present
- Trend moving toward private land request for more information
- Trust vs distrust of information sources
- What is the plan post delisting?
- What are the science needs?
- Management mode versus recovery mode
- How are transplant protocols determined?

Livestock Association – is there collaboration?

EDUCATION AND OUTREACH

- Easily accessible and understandable information for the general public
- Role clarification of various agencies
- Clear and consistent messaging
- Clear protocols, conflict responses
- Incorporation of values/culture
- Proactive vs reactive
 - O How to engage people when they are not yet directly impacted?
- What are the prevention tools?
 - O What is working? Efficacy?
 - O What are the barriers?
 - O Where are the gaps?
 - Increased access to tools
 - Everyone to carry bear spray
 - Hunter education
 - o Range Riders
 - o Drones
 - Who to call for help when a grizzly is sighted/human safety concerns
- Getting out ahead prevention
- Communities talking with communities
- Increasing education and public involvement for more consistent sharing sightings of grizzly bears
- Black Bear management relevance? Transferrability of lessons learned?
- Polar Bear management relevance (Churchill, Manitoba)? Transferrability of lessons learned?

HUMAN SAFETY APPLIES EVERYWHERE

LAYERS OF PERSPECTIVES

- Individual
- Industry
 - What can we do to keep land owners on the land including maintaining their livelihoods – livestock, ranching
- Ecosystem
- Statewide
 - o council prefers to address issues as statewide as opposed to individual ecosystems;
 - unified management for the state with recognition of different practices may be needed in different regions of the state
 - how to deal with different expectations of management practices in various regions of the state particularly on private land
- Rural/urban divide
- National
- International
- Tensions between natural environment and social environment

PARTNERSHIPS

- Private land owners
- Land Trusts
- Rail Roads
- City/County agencies

Agencies' Request for Guidance (MT FWP, USFS, USFWS, USGS small group discussion summary)

- Want guidance on where is socially acceptable and what does this mean
 - O Where should grizzly bears exist?
 - O Where should they not exist?
 - How to determine the balance of social tolerance and biologically suitable habitat including how to define these
 - Guidance on translocation protocols and the implications
 - How to get additional capacity for boots on the ground
 - o Set of questions from the council regarding their information requests on the litigation
 - 'socially acceptable/biologically suitable' has worked reasonably well for public lands not as well for private lands
 - o Is it still sufficient to rely on that term socially acceptable?
 - If so, might the Council offer input on how to determine/define socially acceptable and biologically suitable?

Public Input (video time 5:41:00)

The items below are integrated into the summary of key themes and emerging ideas in the section above.

- Grizzly bears are an American issue, not just a Montana issue.
- The role of private lands is increasing for grizzly bear recovery.
- Why is there mistrust of information? What information/science tends to be mistrusted?
- Need for tribal input.
- How do we assess the efficacy of education problems?
- Connectivity, doing more outside of DMA's for connectivity. Can we focus research efforts on the borders of ecosystems to identify genetic connectivity?
- Better identification of current resources (management, education, funding, etc)
- How do we get more consistent reporting, especially in the NCDE?
- How do we teach the public how to get valuable reporting data?
- Funding is a continued issue.
- People need to know who to call for help when a bear does show up in their yard.
- How do you get proactive work and investment done in areas where conflict hasn't occurred yet?

Key Take-Aways and Action Items

Provide a link on the website about the GYE court decision.

- A greater understanding of the ESA is desired. The Council should generate a list of questions to guide this discussion for a future meeting.
- Outside perspective is very valued, hearing some non-agency perspectives would be helpful.
- Today's information filled in a lot of gaps and started to set the foundation for what to think about or prepare for the next meeting.

Thursday, November 14th

Reflections from Tuesday's Meeting

- Tuesday was an information rich day.
- The question of where should bears be is a complicated question. Biologically suitable is a different, and potentially an easier question to answer than what is socially acceptable.
- Funding is just a piece of the larger puzzle. How do we integrate all of the complexities and connections?
- Should the council develop a working definition of "socially acceptable"?
- Working on bringing diverse view points together.

Welcoming Remarks from FWP Director Martha Williams (video time 9:00)

- Great appreciation for the engagement and thoughtfulness of the Council members.
- The number one piece of collaborative processes is the ability to listen, to be comfortable with silence, asking thoughtful questions, and recognizing when more information may be necessary.
- Martha very much believes in this collaborative process. She is fully supportive of the Council, and so are all of the sister agencies.

Finding Common Ground

Objectives: Explore the approaches and practices that help diverse groups find common ground

Chase Hibbard, Hibbard-Sieben Livestock Company (video time 13:30)

Chair of the Wolf Advisory Committee, and has served as a community and legislative leader

- This Council has a monumental task at hand. It is hard to grasp the complexities of
 grizzly bear recovery given there are four recovery areas in this state with different
 statuses, connectivity issues, private/public land ownership, and the human safety
 concern. There are passionate and polarized ideas about management.
- The dynamics of this group are critical to successful and attainable recommendations.
- The wolf advisory council had a slightly different task knowing that delisting was imminent however, the diversity of the group was similar and finding common ground

was essential. Does not remember the exact protocol, but he believes that on all issues they found consensus. Everybody got something, but nobody got everything. They did hold private/closed to the public meetings. This was essential for relationship development. The Council did have a technical support team similar to that of the GBAC. The biggest aspect to durability was the incremental approach. The tools ramped up as the wolf numbers ramped up.

- The most important aspect was relationship development amongst the Council members. Spending time to get to know each other especially in the beginning is essential. Finding common ground at the beginning is critical in order to have the harder discussions around the issues that seem to create more divisiveness.
- 'Each one of you will have to give a little to get a lot. Maintain your principles. The whole is greater than the sum of its parts. Look at the big picture. Don't get caught up in the details don't lose the forest through the trees.'
- This is the 31st year of the Devil's Kitchen Working Group. It is a group of landowners, agency personnel, sportsman groups, and certain interested public members. They work to address management of public and private land including the Beartooth WMA, 4-5 ranches, and public lands. Approximately 250,000 acres of lands. Started initially because of elk management and how to get hunting access, reduce private land destruction to high elk numbers, how to increase the quality of hunting experiences, and how to improve land owner-sportsman group relationships. Their initial goal was to see bull elk die of old age. They were able to come together as a community and address a natural resource issue with solutions that have endured for many years. All decisions are made by consensus. We haven't taken a vote in 31 years. Anyone and everyone is invited, but you have to be invested, willing to stay and build trust. Be open to discussions and conversations. Consensus is key to decision making.

Panel Presentation: Connectivity between Ecosystems (Video Time 59:35)

Objective: Explore the current state of knowledge around connectivity between ecosystems.

Panelists:

- Hilary Cooley, US Fish and Wildlife Service
- Cecily Costello, Montana Fish, Wildlife, & Parks
- Mitch Doherty, Vital Ground
- Mark Haroldson, US Geological Survey

Cecily Costello, MT FWP

Potential Paths for Male-mediated Gene Flow Between the NCDE and GYE Grizzly Bear Populations (Presentation is available on the GBAC website under "November Past Meetings" as "NCDE/GYE Connectivity" PDF)

• Grizzly bears on the Great Plains were highly dependent on the herds of bison and elk.

- If bears did move from the NCDE to the GYE they would drastically increase the genetic diversity in the GYE.
- Genetic diversity of the GYE would be beneficial. We are not seeing inbreeding effects or a critical need for increased diversity. For the period of 1985 through 2010 they estimated 0.2% instance of inbreeding, which makes it a negligible effect.
- During the 1970's, there is no evidence of a "bottle neck" effect when the bears became isolated to the GYE.
- It is believed that bears from the GYE and NCDE populations are less than 50 miles from each other based on current distributions.
- Road densities did factor into the layers for analysis, but highways weren't specifically considered a barrier.
- MT FWP favors natural connectivity versus translocation.
- GPS collars have been used since 2000 mostly with males to track movement.

Hilary Cooley, USFWS (video time 2:02:00)

- Presentation focused on Cabinet-Yaak Movement.
- They have seen very little movement of bears moving between the CYE and NCDE.
 There is a lot of movement, however, in between Canada and the SE and the CYE via natural movements.
- Most of the data comes from genetics, not from collared bears.
- An augmentation bear from 2018 moved from the CYE to the Bitterroot. This young male bear was augmented from the NCDE, then naturally moved to the Bitterroot then back to the CYE.

Mitch Doherty, Conservation Manager for Vital Ground (video time 2:13:20)

- Vital Ground is a land trust organization based out of Missoula, MT. They work all over MT, some of Canada, ID, WY, and WA. They protect and restore private lands for grizzly bear conservation and support programs that reduce human-grizzly bear conflicts. Work voluntarily with land owners using conservation easements and property acquisitions.
- Focus on keeping agricultural land and forest lands working and limiting development. Can offer cash payments, help with tax deductions, stewardship programs.
- There are many different land trusts throughout Montana. In 2018, in MT there were 2.6 million acres of land under different conservation easements including state, federal agencies and private entities.
- Montana is ranked #1 in the US for land conservation.
- Vital Ground takes a strategic approach to land conservation. They analyzed the most important lands in 2017 for grizzly bear recovery, sustainability and connectivity, as well as places where human-bear conflict is likely to occur.
- Wind River Project/Highway 2 Connectivity Area: in 2011, Vital Ground made their first purchase in this area. They are in the process of wrapping up their 3rd phase of working with Y2Y to purchase the lands in this area to improve connectivity for CYE bears.
- In the 9 mile, Vital Ground purchased 52 acres along the Clark Fork River because of the existing infrastructure under the interstate to create movement.

- Each property is different, sometimes they are looking for state or tribal take overs, but in many cases, Vital Ground will continue to manage them.
- All accredited land trusts are required to monitor their conservation easements once a
 year. They reach out to their land owners to see what plans land owners will be doing
 the upcoming year and coordinate times to go out and do monitoring.
- There is great demand for conservation easements, however there is not enough funding to meet the demand.

Rob Ament, Senior Conservationist Center for Large Landscape Conservation & Road Ecology Program Manager Western Transportation Institute (WTI) at MSU

"Roads and Grizzlies, What do we Know so Far?"

- The Banff studies performed by Dr. Tony Clevenger examine the largest mitigated highway in the world. The study in Banff was so well funded because the trans-Canadian highway that crosses through it went from 2 lanes to 4 lanes in the 1980's. No one knew what 4 lanes was going to do to the habitat and wildlife.
 - His work looked at over-passes and under-passes. Grizzly bears tend to prefer over-passes. Over time, wildlife will increase their use of both types as they become more comfortable with them.
 - In Banff, they used hair snares on the passes to look how many individual bears were crossing throughout the park to gather genetics. This looked at gene-flow across the highways. Grizzly bears did show some discontinuity north and south of the highway, but not for black bears. Many of the grizzly bears using the crossings were offspring of bears that used it early in their lives. Movement did occur in both directions.
 - They found the size of crossing structures mattered. Grizzly bears utilized the larger structures. Sows with cubs only used the larger structures.
 - There is no data on the vegetation that indicate whether grizzly bears prefer more vegetated crossings, especially compared to over-passes and under-passes.
- The 2nd largest mitigated highway is in the Flathead Valley. Dr. Marcel's study was on Hwy 93 looking at fencing effectiveness with use on crossing structures.
- 50% of the world is human dominated. As a result, wildlife movement is contracted. In high human footprint areas, wildlife movement is only half to one-third of what it would be in low human footprint areas.

<u>Deb Wambach, MT Department of Transportation, Butte District Biologist</u> "Thinking about the issues of scale"

- Deb is part of the International Conference of Ecology & Transportation, MT Wildlife & Transportation Summit, Wildlife accommodation process with MDT.
- There are 5 biologists for MDT. They are very involved with many wildlife coalitions. Two years ago, they developed a more consistent, formalized means in which they

- would consider wildlife needs in the business process. MDT is very engaged and very interested in looking at wildlife issues and finding solutions.
- Mortality (direct mortality resulting from a vehicle conflict), here in MT, 97% of all of our wildlife-vehicle collisions occur with deer.
- Grizzly bears fall into all other 3% of mortalities. There is a database that documents reported carcasses found on the roadway by MDT staff. Hwy patrol, MFWP and others contribute to the documented known mortalities. There are a few locations in the state that show patterns in grizzly bear mortality.
- MDT consults with USFWS when they do projects in grizzly bear habitat. MDT does look
 at patterns of mortality. "MDT planning is very location specific and there is not a one
 solution fits all scenario for road ecology and wildlife accommodations"
- Mitigating connectivity effects for bears is difficult due to the temporal and spatial nature of their movements.
- There are not a lot of new roads being built, especially in Western MT, primarily we only fix or expand our roads.
- Discussions between MDT and USFWS and BNSF Railroad are in progress. They have been working with together to provide a habitat conservation plan and towards mitigation and conservation measures. BSNF Railroad is finalizing the HCP.
- Right of way fencing is the property of the land owner. On the interstate system the fence is the property of the highway department, however with consideration with what happens on adjacent land.

Governor Steve Bullock Phones-In (video time 3:10:30)

- Expressed great thanks to and confidence in the Council members.
- "Embrace both what is an opportunity and a responsibility you all have as a Council to influence the future of grizzly management and recovery to our state."
- There is tremendous capacity for partnerships and to achieve meaningful results.

Google Earth Mapping Exercise with Mark Haroldson (video time 4:11:11) Shapefiles are available at https://www.sciencebase.gov/catalog/ Search grizzly bear paths Using Google Earth, anyone can play around with these layers.

<u>Table Discussions and Report Back/Reflections: Connectivity between Ecosystems</u> (video time 4:30:00)

Building on the discussion from yesterday, what are additional thoughts/questions/ideas regarding management challenges and opportunities in relation to connectivity?

Added to and re-emphasized from the following categories from yesterday:

FUNDING

- Where is the money going to come from?
- Compensation for agriculture

- Capacity to increase response time
- Diversified funding needed
- Support for conservation easements
- Federal bills
- Tax benefit based on wildlife values on private land
- Restructure current resources
- Review how resource allocation is prioritized
- Scaled collaboration that aligns resources
- Identify sectors that do/will profit from grizzly bears on the landscape

SOCIAL TOLERANCE

- What is manageable? Most livable?
- How to empower communities?
- Stable funding is needed
- Opportunities to engage NGOs on the ground

LAYERS OF PERSPECTIVES

- Statewide perspective versus individual recovery zones
- Unified management for the state
- Different regions feature different dynamics
- Rural-urban divide
- Pride and respect for grizzly bears in MT
- Different expectations in different areas

TRIBAL

- How can we better engage the various tribes?
- Desire to understand their perspective and programs

INFORMATION/KNOWLEDGE REQUEST

- Livestock Association
- Reimbursement/compensation program
- Damages/losses related to grizzly bears
- What are the current connectivity objectives? Is connectivity an objective? How are connectivity zones defined?
- Canada perspective
- Eastern MT and Rocky Mtn Front management strategies
- Is genetic diversity an issue?
- translocation

EDUCATION AND OUTREACH

- How do we educate new areas where bears are moving?
- Creating 'value' for grizzly bears positive view grizzlies as an asset

- Clear and consistent messaging
- Clear protocols, conflict responses
- Better and clearer communication
- Bear spray increased awareness statewide; trade program for those from out of state
- Hunter education with consistent messaging
- Incorporate values/culture
- Proactive vs reactive

HABITAT

- Incentives
- Food storage orders
- Rural/urban divide
- Minimal impacts on bears

RESEARCH

- Survey local communities where grizzlies are not yet occurring though are predicted to do so
- Develop relationships with land owners for tracking bears

PARTNERSHIPS

- Private land owners
- Land trusts
- Watershed groups
- Railroads
- City/county agencies
- Where are the gaps? New partners?

Public Input (video time 5:27:50)

- Determining where bears cross roads is difficult, but how do we account for the fact that roads may already be barriers
- MDT doesn't do mitigations as a stand-alone, it has to be paired with road improvement
- Are we taking advantage of the federal transportation bill and potential funding?
- How do we bring railroads to the table and continue these discussions?
- Are there are opportunities to increase funding mechanisms for conservation land easements?
- Better preparation for communities where bears will be moving into, especially with attractant storage, enforcement and available resources
- Making sure that management policy and actions around problem bears in those connectivity areas aren't hindering connectivity
- Making sure land management agencies are prepared for bears being moved into new areas
- Making sure public land management agencies are promoting land that is suitable for bears, especially in connectivity areas

- The council helps everyone think about things state-wide, instead of ecosystem to ecosystem. How can we make sure we get state-wide resources?
- How to we make sure we connect with county commissioners?
- What are all the groups that do work and capacity for this work?

Capture Key Take-Aways

- With every highway project there is an opportunity for wildlife adaptive management.
- Working lands are the key to connectivity and conservation for wildlife.
- How can we coordinate partners and programs so we aren't competing with each other?
- We need stable funding so that communities know there will be continued support.
- Where are the lessons learned across the landscape?
- How can manage a diversity of expectations in various geographic locations?
- How can a management plan empower land owners?
- Recovery is a statewide issue.
- Work on getting tribal involvement.
- Education and Outreach
- Is connectivity an objective the council is trying to address?
- Trying define social tolerance and all the layers .
- The council may need time to just spend time with each other, to get to know each other better and hear everyone's voice.

Next Steps

- Next meeting will focus on conflict protocols and response. The Council should send their suggestions for next meeting to Shawn and Heather.
- Questions and information needs can be sent to Shawn and Heather so responses can be coordinated.