

Table of Contents

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and Public Works

Subcommittee on Fisheries, Water,
and Wildlife

Washington, D.C.

STATEMENT OF:	PAGE:
THE HONORABLE ALEX PADILLA, A UNITED STATES SENATOR FROM THE STATE OF CALIFORNIA	3
THE HONORABLE CYNTHIA LUMMIS, A UNITED STATES SENATOR FROM THE STATE OF WYOMING	8
CHARLTON H. BONHAM, CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE	14
MADELEINE WEST, DIRECTOR, CENTER FOR PUBLIC LANDS, THEODORE ROOSEVELT CONSERVATION PARTNERSHIP	19
RICHARD KING, CHIEF GAME WARDEN, WYOMING DEPARTMENT OF FISH AND GAME	24

CHALLENGES AND OPPORTUNITIES TO FACILITATE WILDLIFE MOVEMENT AND
IMPROVE MIGRATION CORRIDORS

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The subcommittee met, pursuant to notice, at 2:33 p.m. in room 406, Dirksen Senate Office Building, the Honorable Alex Padilla [chairman of the subcommittee] presiding.

Present: Senators Padilla, Lummis, Carper, Ricketts, Boozman, Sullivan.

STATEMENT OF THE HONORABLE ALEX PADILLA, A UNITED STATES SENATOR
FROM THE STATE OF CALIFORNIA

Senator Padilla. Good afternoon, everybody. This hearing will come to order. Welcome to the third hearing this Congress of the Senate Environment and Public Works Subcommittee on Fisheries, Water, and Wildlife and the first hearing this year focused specifically on protecting wildlife.

Before I set the stage for the topic of today's hearing, I will do one housekeeping item at the top. The time is just after 2:30 in the afternoon now. At four o'clock, there is a Rules Committee hearing, so somewhere a few minutes after four o'clock, I may excuse myself for a few minutes to cast a vote in the Rules Committee and then make my way back to the hearing. I appreciate Senator Lummis or whoever may hold the gavel for those few minutes while I come and go.

Back to the topic of today's hearing, every day, every month, and every season in America, animals across the Country cross roads and highways, hop fences, and barriers and navigate human-made obstacles in order to survive. As our Country continues to grow both in population and in development, so do interactions between wildlife and humans. Yet, all too often, that can mean traditional wildlife corridors for migration are being cut off by human-made barriers and that the biodiversity of the land around us is coming under threat.

So, today, we will be examining the challenges and opportunities to facilitating wildlife movement and improving migration corridors across the Country. In California, we certainly do love our wildlife, and not just because we are the most biodiverse State in the Nation.

We regularly hear stories of a new critter that has captured the hearts of Californians and the public's imagination, whether a surfboard-stealing sea otter off the coast of Santa Cruz or a band of newts so beloved they have attracted a newt brigade of volunteers to help them cross the road safely.

It is the awe that we felt when the Yurok Tribe reintroduced the once nearly extinct and sacred California condor, or the passion with which the Tolowa Dee-ni' Nation works to protect the Roosevelt elk in order to reduce human-elk conflicts.

Perhaps none have reached the level of fame of the beloved P-22, the mountain lion here behind me, the iconic mountain lion of Griffith Park who was known for wandering around the Hollywood Hills. Born in the Santa Monica mountains of Southern California, P-22 had to cross two major freeways to get to his eventual home in Griffith Park, and even then, he became increasingly isolated by the habitat around him, severely fragmented by human development.

A cultural icon of the Los Angeles area, photographed by the Hollywood sign, adorned on tee-shirts and honored in the Natural History Museum of Los Angeles County, Angelenos' hearts broke when last December, P-22 tragically passed away after being hit by a car. But the fascination surrounding P-22 helped spur a movement that led to the construction of the historic Wallis Annenberg Wildlife Crossing, which, when complete, will allow more mountain lions to safely cross ten lanes of Highway 101 and connect to their needed habitat.

The truth is, while they might not all attract the same following as P-22, stories like this happen every single day across America, whether for daily or seasonal migration or being pushed away by a climate in crisis, wildlife face barriers to migration that threaten their lives and, in turn, threaten the vibrant biodiversity of our Nation and our outdoor recreational culture.

To be completely truthful, the interruption of wildlife corridors and lack of adequate crossings threaten human lives, as well. Drivers in the United States face a 1 in 127 chance of hitting an animal in their lifetime, a statistic that increases to as high as 1 in 38 for drivers in West Virginia, for example.

It is estimated that wildlife involved in crashes kills more than 150 drivers every year in America, with millions of auto claims made for animal collisions on top of that, and

whether from vehicle repairs, medical expenses, towing or cleanup, crashes cost between \$8 billion to \$12 billion annually. We pay an enormous human toll when we fail to provide adequate crossings.

Today, I am looking forward to having a bipartisan discussion about the ways we can improve habitat connectivity, boost biodiversity, and the resilience of our ecosystems and protect human lives. That can come in the form of investing in physical infrastructure and habitat connectivity projects like overpasses, underpasses, culverts, and more.

To do that, we need better data gathering, with technology like GPS collars to better understand where, when, and how animals are migrating throughout the year and where the highest risk of vehicular collisions exists.

It can also mean advancing nature-based solutions, like protecting some of our last remaining wilderness areas and improving management of the landscapes that species migrate across. Because wildlife migration will never be neatly confined to within one State, one county, or a city's borders, we know that we will have to work collaboratively across local, State, and tribal boundaries to share data, advance partnerships, and improve connectivity.

In the past, this committee has come together in a bipartisan way to approve \$350 million to the Department of

Transportation to fund wildlife crossing projects and reduce wildlife vehicle collisions. While we still await the implementation of that funding, we have proven that there is a bipartisan interest to make progress, and, as I think we will learn more about today, to think even bigger than just individual wildlife crossings to boost wildlife connectivity across the Country. Often, we just need a roadmap to know what we should do next, and I am grateful to all of our witnesses for coming together to provide just that. I look forward to hearing from each of you today.

With that, let me hand it over the Ranking Member Lummis to make her opening statement.

[The prepared statement of Senator Padilla follows:]

STATEMENT OF THE HONORABLE CYNTHIA LUMMIS, A UNITED STATES
SENATOR FROM THE STATE OF WYOMING

Senator Lummis. Thank you, Chairman Padilla. One of the really fun things about having you as the Chairman and getting to be the Ranking Member with you is, of course, California is the most populous State, mine is the least, but how similar the problems are.

Yours are more exacerbated by dealing with the amount of traffic that confronts your wildlife populations, and we have tremendous issues with regard to State ownership of land, Federal ownership of land, private ownership, tribal ownership, you know. It is just so fun to work with you on this committee, so I appreciate you.

I want to thank each of the witnesses for agreeing to be here today.

Wyoming is a haven for big game species: bison, elk, moose, pronghorn, mule deer, and many others whose habitat varies by season. Wildlife migration corridors allow these big game species to move between seasonal ranges, of which there are many in Wyoming. In many cases, a herd's migration route will encompass a mix of, as I said, Federal, State, tribal, and private property, which makes their management a challenge that must be addressed with a collaborative spirit.

It is very evident in Wyoming, and we, I think, have done a

really good job of creating a template for how these issues can be addressed. Wildlife corridors can span hundreds of miles in one direction, I am sure that is true in California as well, like elk and mule deer that travel between the greater Yellowstone ecosystem down to the red desert and back each year, so that means going from the Teton Range that goes up into Yellowstone and Grand Teton National Park.

Down through the Bridger Teton National Forest, I have a farm that abuts the Bridger National Forest, so I see a lot of these animals passing through. Then it runs down to residential areas near Pinedale, Wyoming, then to the checkerboard lands near the Upper Green River Basin. Checkerboard means the Union Pacific, and so there is Federal land mixed in with UP land and private land along the railroad. That includes State and private lands and Federal lands.

Then, it ends up on Bureau of Land Management land in southern Wyoming. If you travel between Pinedale, Wyoming and Jackson, you will see overpasses for the antelope, because they don't like to go through a culvert. You will see underpasses under the roads for deer, because they don't want to go over.

I think we have done a really good job, especially along that particular migration corridor, of addressing these issues. That has meant working with the National Parks Service, U.S. Forest Service, Bureau of Land Management, State and private

lands. Identifying and maintaining these corridors really takes collaboration among all stakeholders, and that has got to be even more difficult in California with your big populations.

That is why I am so pleased we will be able to hear today from Richard King. Richard, thank you so much for coming. Richard is the Chief Game Warden and Chief of Wildlife Division at the Wyoming Department of Game and Fish.

Mr. King has worked at the Wyoming Game and Fish for 21 plus years, and his expertise in on-the-ground wildlife management will enhance today's conversation, because he has worked directly on the issues that I just discussed.

In 2018, then Secretary Ryan Zinke over at the Department of the Interior signed Secretary Order 3362, which directs Interior's agencies to work with western States to enhance and improve the quality of migration corridors. The order rightfully keeps States in the driver's seat, as States have primacy over their wildlife. It also calls for the respect of private property rights, ensuring the continuation of a voluntary-based program.

That is how I believe it should be done. I used to be involved with the Western Governors' Association. These issues come up at WGA a lot. California is a member of the Western Governors' Association, so we work with all the western States on some of these issues.

Wyoming continues to lead the way in collaborating with Federal land managers, private land owners, and other stakeholders to complete important habitat conservation work in a voluntary, incentive-based manner. In 2020, Wyoming Governor Mark Gordon signed the Wyoming Mule Deer and Antelope Migration Corridor Protection Executive Order. This order, in conjunction with the Wyoming Game and Fish Commission's hard work, implements a designation process for migration corridors with public input and the best available science.

I am proud of the Wyoming model, which relies on collaboration rather than coercion to benefit our State's big game species. We must continue to recognize the leadership role played by States while also respecting the rights of private landowners. As you said, Chairman Padilla, providing some funding through the Highway Bill, especially for States that have tremendous issues with regard to collisions between wildlife and vehicles is also an important part of this.

Thanks again to our witnesses. I look forward to hearing your opening statements and our discussions afterwards.

[The prepared statement of Senator Lummis follows:]

Senator Padilla. Thank you.

Now, I would like to turn to our witnesses. I will introduce them, and they will proceed with their testimony.

First, I am proud to introduce Chuck Bonham, who serves as Director of the California Department of Fish and Wildlife. California's habitat and wildlife diversity is unequalled by any other State, so Chuck's testimony and knowledge will be invaluable to us as we consider how to improve connectivity.

Second, we will hear from Madeleine West, who serves as Director of the Center for Public Lands at the Theodore Roosevelt Conservation Partnership, having previously worked for the Western Governors' Association. Madeleine has spent a lot of time working closely with State wildlife agencies, hunting and fishing organizations, and private landowners on wildlife migration.

Third, we will hear from Richard King, who, as you just heard, serves as Chief Game Warden at the Wyoming Game and Fish Department. He has served at the Department for an impressive 25 years, and I am glad to have Mr. King with us today, given Wyoming's strong leadership in protecting migration and advancing partnerships.

Senator Lummis. You know, Mr. Padilla, he is our Joe Pickett. Do you know who Joe Pickett is?

Senator Padilla. Remind me.

Senator Lummis. C.J. Box, who is an author from Wyoming, who has written numerous books about a game warden by the name of Joe Pickett, and it is a series of books about a Wyoming game warden, and he is a nationally acclaimed author. I will give you a copy of one of his books. Anyway, Richard is Wyoming's Joe Pickett.

Senator Padilla. Very good.

Senator Lummis. Without the flaws.

[Laughter.]

Senator Padilla. So that is just building suspense for his testimony.

[Laughter.]

Senator Padilla. We will begin with Mr. Bonham.

STATEMENT OF CHARLTON H. BONHAM, DIRECTOR, CALIFORNIA DEPARTMENT
OF FISH AND WILDLIFE

Mr. Bonham. Thank you, Chair, Ranking Member, Senator. My name is Chuck Bonham, and I am the Director of the California Department of Fish and Wildlife, which I think is the greatest job in the world.

I boiled my testimony down to two words today. The first is connectivity, which is the underpinning of nature. All of life needs connection. As people, we need it, like our social connections in a chaotic world. Nature needs it too, but across the United States, we face a challenge where wildlife is losing the ability to migrate.

From our largest animals, bears and lions, down to our smallest and everything in between, the reality is, all wildlife needs the ability to move: small mammals, birds, amphibians, invertebrates, plants, and reptiles. In California, we have 60 species of reptiles and amphibians, like the Mohave desert tortoise, the Arroyo toad, they need the freedom to move.

That idea of freedom of movement applies to our fish, as well, iconic salmon and steelhead swimming upstream, running through culverts, bumping into barriers. Connectivity gives them the freedom to roam and produces benefits: gene flow, seasonal migration, pollination, foraging.

In a scrambled world because of climate disruption, animals

and plants face three basic choices. They can adapt, they die, or they can move. We, as people, have the opportunity to give them that movement through our decisions. Make no mistake, one huge cause of wildlife mortality is vehicle collisions. This is a glaring people problem, too, yet smart investments in our infrastructure can solve this problem.

Then my second word for today: fixable. This is a fixable problem, underscore fixable. The data speaks for itself. You do a corridor project, pick a State, Oregon, Wyoming. After the project, the collision rates drop dramatically, 80 to 90 percent. Our department in California has learned from other States.

Mr. King in Wyoming was one of the first to forge an alliance between their game department and transportation. Arizona is doing innovative work on this. The same thing is happening on the Federal front, where recently, the Association of Fish and Wildlife Agencies, along with the Native American Fish and Wildlife Society and entities in Wyoming hosted convenings to talk about doing these projects with tribal rights in mind and landowner property rights in mind. It is doable; it is fixable.

Your leadership has ensured the Bipartisan Infrastructure Law is providing \$350 million annually through the Wildlife Crossings Pilot Program. In California, we are matching that

investment and exceeding it. Just my little old department, one State department, is spending \$90 million in the last two years to design and build crossings and fix fish barriers.

When you factor in our transportation agency Caltrans, that number jumps exponentially in the investments we are making in California. We have gotten new laws that requires to inventory the corridor problems across our State highway system and create market incentives, where my department, through permitting, can grant to a developer or transportation agency, a mitigation credit when they include a corridor in their development. That is true voluntary, market-based resolution of a long-running problem.

We see examples on the ground from Los Angeles, as the Senator mentioned in his opening remarks, to Riverside County, way up into the Redwood Forest, back down in the Mohave Desert, along the coastal zone near San Diego. These are projects that pop out as things people care about and want dealt with and is fixable.

California is like other place. We have unrivaled diversity in every way: our people, our economy, and our wildlife. We actually have more types of animals and plants in California than any other State. Sadly, though, we also face the highest rate of imperiled species compared to all the other United States. A reason is the lack of freedom to roam:

connectivity, my first word. My second word, it is fixable, we just to take these kinds of lessons to heart. We need to allocate the time, the energy, secure the funding, harness our people power, put our creativity on collaboration, the utilization of partnerships for science, for mapping, for engineering, design and permitting.

These projects allow us to future-proof California, other places in the west, so the angler can know salmon in the river, the hunter can know bighorn sheep, and our people can know more mountain lions wandering under the Hollywood sign in California.

Thank you for your time. I look forward to questions.

[The prepared statement of Mr. Bonham follows:]

Senator Padilla. Thank you.

Ms. West?

STATEMENT OF MADELEINE WEST, DIRECTOR, CENTER FOR PUBLIC LANDS,
THEODORE ROOSEVELT CONSERVATION PARTNERSHIP

Ms. West. Good afternoon, Chairman Padilla, Ranking Member Lummis, members of the subcommittee. I am Madeleine West, Director of the Center for Public Lands at the Theodore Roosevelt Conservation Partnership.

Our mission is to ensure all Americans have quality places to hunt and fish. We work with partners to develop and advance policies at the State and Federal level that benefit fish and wildlife habitat. Wildlife corridor conservation is therefore core to our mission. Collaborative efforts to study how, why, and where a variety of wildlife species move and migrate are underway in many parts of the Country. My testimony focuses largely on big game species in the west, as that is where the majority of our work has been focused.

Across the west, herds of elk, mule deer, pronghorn, big horn sheep, moose, and bison make seasonal movements year after year from their summer ranges to their winter ranges and back again. Healthy, robust big game herds contribute to a way of life for many in the west, and they contribute to a \$454 billion national outdoor recreation economy, particularly in rural communities, often close to public land utilized for hunting and other forms of recreation, but it is not only about economics.

Big game species directly contribute to a critical

ecological food chain by serving as prey for apex predators like mountain lions and bears, and habitat utilized by big game is also habitat that supports a diverse suite of species, such as waterfowl, riparian and aquatic species, even pollinators. By making sure those habitats are conserved and connected, we give a multitude of species greater ability to adapt and be resilient to the effects of prolonged drought, harsher winter climates, and a cycle of invasive annual weeds and wildfire that we so often see in my part of the Country.

It is because of these broad ecological benefits that support for the conservation of big game migration corridors has persisted across three presidential administrations continues to earn support from a bipartisan collection of western governors. Back in 2008, the Western Governors' Association, with leadership from the State of Wyoming in particular, commenced a multi-year effort that brought together State, Federal, and tribal agencies, private landowners, industries, and nongovernmental organizations for the purpose of prioritizing the conservation of wildlife corridors.

At that time, the Obama Administration provided resources to the States to support this locally driven, bottom up approach. Then, as Senator Lummis noted, in 2018, the Trump Administration doubled down on this work with the signing of the Department of the Interior's Secretarial Order 3362 that focused

on three distinct big game species and 11 of the western States. The order created several programs that provide grant funding and added capacity to State agencies, landowner organization, and NGOs for research and conservation projects.

Then, after the Biden Administration began, the Department of the Interior explicitly embraced the Secretarial Order, consistently included this issue in their early priorities, actively continued to implement programs and support funding, and expanded those programs to Tribal governments and private landowners.

Today, current programs focused on big game in the west garner broad support and offer a model for how the Federal Government can support State and tribal-led wildlife corridor conservation efforts more broadly across the Country. We believe this work should persist over time and be effectively scaled up to include additional wildlife species and geographies.

Demand for each of these programs is high, with requests far exceeding available funding levels, yet these programs are discretionary and funding levels are sourced from reprogrammed funds, making them unreliable and inconsistent. Dedicated and consistent Federal funding would be very valuable.

Importantly, it is critical that coordination between Federal, State, and Tribal agencies, as well as private

landowners, and hunting, fishing, and conservation organizations continue and be fostered.

In closing, we stand ready to work with Congress to advance this issue. Thank you very much, Mr. Chairman. I look forward to answering questions.

[The prepared statement of Ms. West follows:]

Senator Padilla. Thank you.

Mr. King?

STATEMENT OF RICHARD KING, CHIEF GAME WARDEN, WYOMING DEPARTMENT
OF FISH AND GAME

Mr. King. Good afternoon, Chairman Padilla, Ranking Member Lummis, and members of the committee. My name is Richard King, aka Joe Pickett, and I am Chief Game Warden with Wyoming Game and Fish Department.

Each summer, millions of people visit Wyoming's portion of the greater Yellowstone ecosystem, making stops Grand Teton and Yellowstone National Park. These visitors are blessed with the opportunity to see a rich diversity of native wildlife on their summer ranges and can observe mule deer and prong horned does with newborn fawns and cow elk with their less-than-graceful calves among a backdrop of the snow-covered Teton Range. These does and cows capitalize on lush, protein-rich foods that this high country environment delivers, and in turn, provides the nourishment their offspring need to grow quickly.

As quickly as the green wave hits this high country environment, winter returns, bringing snow and cold temperatures in a challenging environment, triggered by increasing snow and decreasing temperatures, migratory big game begin to move out along routes learned over generations. These routes will take them to lower elevation winter ranges, where forage is abatable on south-facing slopes and wind-swept ridges, although their odds of survival are largely determined by the fat stores they

bring with them from their summer buffet.

Along their routes to winter ranges, they will make short stops to rest in areas of high-quality habitat. These stopover areas may be relatively small and used only for a short duration, but are weighted heavily in the equation of survival. Some of the mule deer observed in Grand Teton in July will migrate through the private land of a fourth-generation dry land farmer in Teton County, Idaho. Some will migrate to the 2.2 million acre Wind River Reservation, where tribal wildlife managers welcome the return and oversee the well-being of this natural resource, just as their ancestors have for thousands of years. Some of the deer will move through Yellowstone National Park, the Shoshone National Forest and eventually find winter refuge on many small parcels of private property, just outside of the fast-growing community of Cody, Wyoming.

Regardless of their final destination, migrating deer will cross highways and other roads with rapidly increasing traffic volumes, exposing people to greater and greater risk of a collision.

In Wyoming, our biologists, working closely with scientist at the University of Wyoming and elsewhere have entered the era of big data, and we can now describe the routes used by migratory wildlife in detail. This ability to trace these movements allows us to visualize the importance of State,

Federal, tribal, and private land. The intact migrations we observe in Wyoming today reflect the habitat stewardship that has occurred and continues to occur on these lands.

Former Governor Mike Sullivan described Wyoming as a small town with unusually long roads. I would add that Wyoming is a small town with unusually long migrations, and Wyoming's approach to policy starts with the recognition that our strong sense of community shapes the way we work together. Governor Mark Gordon's Migration Corridor Executive Order, which supports conservation of migration habitat while recognizing private landowner rights and multiple use opportunities, was created after carefully listening to and incorporating the ideas of private landowners, industry partners, including oil and gas producers, and scientists who have devoted their intellect to the study of animal movement.

Nearly a century ago, Aldo Leopold observed that conservation will ultimately boil down to rewarding the private landowner, who conserves the public interest. Wyoming is finding abundant opportunities to team up with private landowners whose working lands provide a critical linkage in the migration chain. Through our partnership with the USDA, for example, we know that voluntary, incentive-based programs with built in flexibility and agility to meet individual landowners needs is paramount.

The intact landscapes that support migration provide important ecological functions and benefit a wide diversity of wildlife, from predators to pollinators. The management abundance and quality of our wildlife resources are deeply intertwined with important components of the State's economy, including agriculture and tourism.

The study of animal migrations in Wyoming allows us to prioritize conservation efforts and highlights the need to focus our attention on working lands. These working lands are integral in maintaining landscapes where animals can move freely between important habitats, and landowners in Wyoming are eager to help conserve the ecological functions their lands provide. Conservation opportunities on working lands require strong relationships, and State and Federal and private resources applied in a flexible and agile manner.

I greatly appreciate your interest in wildlife conservation and the opportunity to share some of Wyoming's experience with you. Thank you, and I look forward to our discussion.

[The prepared statement of Mr. King follows:]

Senator Padilla. Thank you very much. Thank all three of you for your testimony.

We will now turn to questions. Before I begin, I just want to thank Senator Ricketts for being here, and we have also been joined by Senator Boozman for this worthwhile conversation.

As we begin questions, I want to start with one relative to public opinion as it relates to wildlife and wildlife migrations. Polling has shown that an overwhelming majority of Republicans, Democrats, and Independents support restoring or preserving wildlife habitat connectivity and migration corridors.

First, Director Bonham, are you seeing that level of support in California?

Mr. Bonham. Absolutely, and the reason is pretty simple. People get it. The experience people have with our wildlife ranges, but they all intuitively connect with this idea of connectivity.

I see it in three ways, as examples. The photo that you had behind you of P-22, the mountain lion, that lion was in the middle of Los Angeles. An apex predator in one of the largest cities in the world, stuck in an island surrounded by roads, that animal could look across 10 lanes of highway and see other mountain lions, but they cannot connect. As a result, the population that is stranded in the Santa Monica Mountains is

breeding out to extirpation.

As a result of his death, and I am the individual that made the hard decision to euthanize that animal, a movement has emerged. Citizens like Beth Pratt, foundations like the Wallis Annenberg Foundation, 3,000 people who donated to the cause, and now we will have a crossing over 10 lanes of highway, 300,000 people travel that daily, but there are different examples.

In 2022, our department sold almost two million licenses for hunting and fishing. I am a fly fisherman. I have been to your great State, Ranking Member, for that passion. You stand in a river; you know a salmon and a trout need connectivity.

If you are a hunter, and you hunt big game, you know desert bighorn sheep need broad landscapes that they can move around for their survival. Whether you are a hunter or an angler or a Hollywood celebrity, you know what freedom to roam means, and that is why it is, I would say, a nonpartisan issue in my experience in California.

Senator Padilla. Mr. King, a follow-up question: can you speak to the support for Wyoming's habitat connectivity efforts and why these methods might be so broadly supported?

Mr. King. Absolutely, thank you for the question. In Wyoming, we do enjoy broad support for preserving migration corridors and the work we are doing to ensure safe passage across highways and roadways in Wyoming. It is really easy to

get behind conserving wildlife.

Wyoming's wildlife is important to the people that live there. It is also important to the millions of people that visit every year, and it is easy to get behind those actions that help safe passage of people along our roads and highways. It is definitely a win-win situation.

I would just highlight the work of our State's first overpass for pronghorns that was built in 2012 that was mentioned already. That was a fantastic project where pronghorn that have been crossing there for thousands of years were able to continue to do so, and yet the safety for folks travelling on that highway has been increased significantly. The support is definitely there.

Senator Padilla. Finally, Ms. West, based on your work and research, why do you believe there is such strong bipartisan support for this issue, and why is it important to TRCP?

Ms. West. Thank you, Senator. I can sit here and say that this is the top conservation issue for hunting and fishing organizations and conservation issues broadly right now, because abundant wildlife populations of big game species and small game species, even, like waterfowl, are important to the TRCP and our partners and the 14 million hunters in this Country, but it is more than just animals that you can hunt.

Many non-hunted species benefit from high quality habitat,

healthy habitat, connected habitat, indirectly. The work that has been done for big game in indirectly supporting other species, and that is why so many non-hunting conservation organizations have supported this work over the years.

That is why this work is relevant to the 148 million people who enjoy wildlife watching in this Country. A new report from the Fish and Wildlife Service recently came out with numbers from 2021, and 148 million people enjoy watching wildlife in the Country, so it is an easy issue for the American public to get behind.

Senator Padilla. Thank you. I will now recognize Senator Lummis and ask her to chair in my absence for a few minutes while I run over the Rules Committee and back.

Senator Lummis. [Presiding.] Thank you, Mr. Chairman.

When I turn it over to you, Senator Ricketts, I hope you will talk a little bit about your work as governor and member of the Western Governors' Association on these issues at WGA, but before that, I want to ask a couple of questions.

Mr. King, I know last week, you were involved in a meeting on these subjects. Department of Interior was there, USDA, conservation community. Could you describe what you heard from those who are working so hard on this issue?

Mr. King. Thank you for the question. Last week in Jackson was a great opportunity for folks that are working hard

on the ground to preserve wildlife migrations. They were able to get together in this forum that was put together by the Greater Yellowstone Coordinating Committee.

One of the first things I observed was just how important that forum is. It was really important to get folks together who are on the ground trying to do this work. The value of that forum was invaluable. I heard a lot about the importance of private lands, and I wanted to stress that point today.

Private lands are very important in a State like Wyoming where half the State is privately owned. Our partnerships with private lands is absolutely critical, and I heard the practitioners at last week's meeting stress that point.

I also heard that time is of the essence. The west is changing rapidly, and we need to respond rapidly. The opportunities are there right now. I heard that government leaders need to work closely together, so there is a lot of great work going on amongst different departments and different agencies. The more often that they can come together and support one another's efforts, the better off wildlife will be.

I heard the importance of things like conservation easements and other tools that are being put on the ground. I heard a lot from nongovernmental organizations who are really working hard to raise funds and to help in this effort. What I heard from them is that they need things to move more quickly,

and they need speed and agility in the programs that they are trying to put forth for wildlife conservation.

Lastly, I heard just how powerful Secretarial Order 3362 has been in providing funding and support for Wyoming's efforts and other States, as well. Again, it was a wonderful format. I appreciate it. Thank you.

Senator Lummis. So, could you go into a little more detail about Secretarial Order 3362 and how that affected what Wyoming is already doing?

Mr. King. Yes, thank you. Secretarial Order 3362 really was, first off, it was designed well. It was designed with input from States and other agencies and entities. It has provided us an opportunity to really maximize the great work that Wyoming has been doing for a long time. It has provided directed funding to efforts like fence conversions, where we are able to convert hundreds of miles of fence into wildlife-friendly fences that allow for passage and migration. It has allowed us to address cheatgrass concerns, for example, which is really a plague in our State right now.

Senator Lummis. It is.

Mr. King. Secretarial Order 3362 really has complemented Wyoming's work. It is the right approach for us. Our State-based action plans are driven by efforts that are already underway in the States, and we really appreciate the help and

support that is provided.

Senator Lummis. Thank you. Ms. West, can you speak to how TRCP works with State wildlife agencies and private landowners? Before you answer, I want to put in a plug for the Partnership of Rangeland Trusts. These trusts are, I think, another way to really plug in to what is the West's most significant conservation easement organization, the groups involving California, the Montana Land Reliance, the Wyoming Stock Growers Land Trust, Colorado Cattlemen's Land Trust, Kansas, I don't know if Nebraska is involved in this, but those land trusts, I think, can be a good partner in these efforts, as well.

That said, Ms. West, I am interested in your response.

Ms. West. Thank you, Senator. We work closely with State wildlife agencies in the western States, as well as private landowner and landowner organizations, like Wyoming Stock Growers. This work is only happening because of the work that State wildlife agencies and private landowners are doing on the ground.

We are not an on-the-ground conservation organization. We do not hold conservation easements. We are not a land trust. We are a policy organization, and so we look at how we can add capacity and support for the priorities that States and private landowners have. In the context of wildlife migration corridors, when the States have shown leadership around this

work, we have been working actively to make sure that support for Secretarial Order 3362 continued when the Biden Administration came in that the funding for the several programs that have really been funneling money to States for research and data collection and added capacity for conservation projects continues and grows.

We have been working to make sure that those programs are eligible for private landowners, like the grant program administered by the National Fish and Wildlife Foundation, which funds not only State wildlife agencies and Tribal wildlife agencies, but also private landowner groups and NGOs doing conservation work, like land trusts. We have been supportive of USDA expanding their work in this area into a private land pilot program in Wyoming, and now also Montana and Idaho.

I am here today just to talk about the wild success of these programs to date in supporting State and private landowners and acknowledge that with additional funding, more benefit could be happening.

Senator Lummis. I have encouraged the USDA and will continue to do so. If they are going to involve themselves to actually help land trusts, they have to be more permissive. Their restrictions make landowners not want to participate, and that just dries up tremendous opportunities for conservation.

I have a question for you as well, Mr. Bonham, but my time

has expired, so I will come back to you in round two. The floor is now with Mr. Ricketts.

Senator Ricketts. Great, thank you very much, Ranking Member Lummis. I also want to thank the Chairman as well for having this important hearing. Thank you to our witnesses for coming to describe your experiences with wildlife management.

In Nebraska, we have a number of wildlife species that are migratory, and in fact, we have that central flyway migratory corridor that goes through our State that includes the migration of the sandhill crane. The sandhill cranes have been coming through Nebraska for millions of years. About a million of them come to Nebraska and land in the Platte River Valley. That is about 80 percent of the world's population of sandhill crane.

As governor, I actually named the sandhill crane as our State migratory bird. Actually, we talked a little bit about some of the risks to people when you have wildlife crossing streets and there are car accidents.

Ms. West, you talked about some of the economic upsides, but tourism is another one that doesn't involve hunting as we get thousands of tourists to come in and watch those migrations. If you haven't seen it, I highly recommend it. It is actually a really fantastic thing to see. I was also encouraged to hear you all talk about the need to have cooperation with the Federal, State, local, NGOs, also, but speaking with private

landowners, because that is necessary that we have a Federal land policy that includes all that.

In Nebraska, 97 percent of the State is privately owned. I often say our farmers and ranchers are the original conservationists because they wanted to pass on their family farm or ranch to the next generation. We have to have Federal land policy that includes collaborative cooperation in collusion with those private landowners to be successful. I have been concerned about some of the Federal programs that have really gone beyond that and have presented overreach.

Maybe Ms. West, you can start us off, just talk a little bit about how can private landowners be engaged and incentivized to participate in these migratory corridor programs?

Ms. West. Thank you, Senator. First of all, seeing the sandhill cranes in Nebraska is definitely on my bucket list. They are nice in Colorado, but not as good as in Nebraska, so I have been told.

Some of the best wildlife habitat and corridor habitat is on private land in this Country because private landowners have done so much proactive, voluntary conservation work on their own to have outstanding habitat quality. The programs in place now, the discretionary programs started under Secretarial Order 3362, offer a number of avenues for voluntary private landowner-driven research and funding and conservation opportunity.

The program administered by the National Fish and Wildlife Foundation that I mentioned, their Big Game Migration Corridor Program, has funded, I will get you the actual number, but somewhere in the realm of 170 different projects on private land for conservation. That is one opportunity available to private landowners, is to apply to that competitive grant program.

Also, a discretionary program at the Fish and Wildlife Service is their Partners for Fish and Wildlife Program, which has a long history of working with voluntary private landowner incentives to fund conservation projects. They have received about \$3 million since the Secretarial Order was signed five and a half years ago. That is another opportunity. The USDA pilot program that we have been talking about is an opportunity for private landowners to access a variety of existing Farm Bill programs that have eligibility specifically if you are in good quality or marginal quality migratory habitat for big game and want to access those programs.

Senator Ricketts. Thank you, Ms. West.

Mr. King, talk to me a little bit about with your corridor program, a couple things: how has the State had an opportunity to participate with the Federal Government and private landowners on this, and what do you do when you have conflicting priorities with a land corridor and private property use? How have you handled some of those priorities and the differences

and conflicts and resolved them?

Mr. King. Senator, thank you for that question. Wyoming has been very fortunate in that we have tremendous landowner support. We have landowners whose property, they recognize the value of the ecological functions that they provide on their property. We have been able to partner closely with them.

Some of our leadership was recognized early on. For example, the USDA came to us and offered up the opportunity to create a pilot program wherein the power of USDA programs could be well-matched with what the State was already doing. That pilot program has been proven to be tremendously successful. I think some of the things that we have learned from that is that those programs need to be adaptable and agile and be implemented quickly to benefit landowners.

The second part of your question, I am sorry, was?

Senator Ricketts. Just about how you, if you have competing interests for a land corridor versus private property use, how do you resolve some of those?

Mr. King. You bet. As I mentioned in my testimony, in Wyoming, we have found that it is really important that our boots on the ground folks are working closely with all entities that are involved.

What we have found that works best is that when folks come together, they first identify the common need or theme that they

are focused on addressing, and then we can find creative solutions to make sure that all stakeholder needs can be met. I think that the development of our governor's executive order, for example, is a great example.

We talked to all the people that might be impacted and affected by that order and developed a framework that could work for everybody. At the end of the day, what is most important is to make sure that we are talking to one another and hearing each other's concerns and then putting our creative thoughts together.

Senator Ricketts. It sounds like a lot of upfront work and upfront communication.

Mr. King. Absolutely.

Senator Ricketts. Right. Thank you very much.

Mr. King. Thank you.

Senator Ricketts. I yield back.

Senator Lummis. Mr. Boozman?

Senator Boozman. Well, thank you very much for being here. Thank you, Senator Lummis, for all of your work in this area. I know that you are a leader and doing a tremendous job.

While most of the discussion today has been focused on western issues and big game, I wanted to bring up a topic that is important to both of us, and that is that there are a lot of similarities between the Central Valley of California and the

Arkansas Delta and Grand Prairie with our bird migratory corridors.

I am referring to you, Mr. Bonham. Can you discuss the important of collaboration between the agriculture industry, State wildlife agencies, U.S. Fish and Wildlife Service on water supply and management capability issues?

Mr. Bonham. I can, Senator, thank you for the question. W.H. Auden wrote that thousands have lived without love, but not one without water. That is true for the conflict we often see in California's Central Valley, which was Senator Ricketts' question. I have found, if you sit at the table long enough, and you put in the sweat equity talking about issues, there is a way to find balance.

The balance we are pursuing in the Central Valley is a combination of things. Our species that migrate in our rivers need water, but they also need habitat restoration. There is strong common ground between the agricultural sector and my department and the U.S. Fish and Wildlife Service to do actual hands-on restoration projects. Plant trees, improve riparian corridors, restore floodplain habitat access for salmon, and also encourage agricultural communities to engage on voluntary redistribution of water that maximizes the time of year.

Voluntary agreements that incentivize habitat restoration as a package through discussion and collaboration produces a

much more durable result, more regularly sometimes than the regulator can do through the power of its authorities. I say that as a regulator at the Department of Fish and Wildlife.

Senator Boozman. Very good. I am a member of the Migratory Bird Conservation Commission, and they do a tremendous job preserving America's waterfowl for future generations, and that is something I know that we are all very passionate about. At the turn of the 20th century, over-hunting, neglect for wetlands, the list goes on and on, really decimated the U.S. waterfowl populations.

The Migratory Bird Commission was created in 1929 and has been a tremendous success. It has surely been successful due to effective cooperation between State and local governments and the Federal Government. How do we take some of the other programs or create new programs that build on that model? You can all jump in and just kind of, again, it is a good model. They have been very, very successful.

Mr. Bonham. If I might, Senator, I think the Secretarial Order 3362, which has been raised several times, is a perfect example of federalism. It happened here in Washington, but out at the State level, it is our State agency, Mr. King's State agency, that has the data, that has the relationships, that has the staff that sit on the back of the tailgate, shooting the breeze at the end of the day, trying to figure out solutions.

When you combine what is going on at our agencies at the State level with guidance and policy direction from above, you integrate funding sources, and you really incentivize partnerships, you can fix the problem. That is playing out in this wildlife corridor space. I think it is the integration of the local knowledge, the State data and science, the guidance from D.C., a soft touch, not too much of a hard touch, and an infusion of investment where everyone is matching funds, public and private, and we are doing projects.

Senator Boozman. Very good.

Ms. West. Thank you, Senator. I concur with Mr. Bonham.

I will just add, there are a number of regional and locally driven organizations working, like the Migratory Bird Commission. There are a series of joint ventures supported by the U.S. Fish and Wildlife Service, but really, that bring together State and NGO and landowner organizations in that region to address the issues to migratory birds in that specific region and come up with solutions.

When it comes to migratory bird corridor conservation, migratory birds are very similar to big game. They need to travel from their summer ranges long distances down to their winter ranges, and they need places to stop along the way. There has been a significant amount of data collected about migratory birds and waterfowl, but not to the same extent as

there has been for some terrestrial species.

If the existing Secretarial Order programs and the funding that they catalyze and the capacity that they have brought to organizations to do research and mapping was expanded to include birds, I think that would go a long way to helping our understanding for what they need to really thrive into the future.

Senator Boozman. Very good. One of the things that you all can help me with is that you mentioned, Mr. Bonham, the importance of water. I think we all agree with that. In fact, if you look at what is asked for regarding conservation from the USDA programs, when you get out west, 60 percent have to do with water. I want to preserve that and make sure that in the next Farm Bill that we have the ability to continue on, carbon sequestration, all of those things are so important, the different deals, but water is a big deal.

Again, it depends, so much of the Farm Bill is regionality, different regions, you can't do a one-size-fits-all, so I need your help regarding that. The other thing that I need your help on -- will you not yell at me if I ask more?

Senator Lummis. You go right ahead. Mr. Boozman, of course, is the Ranking Republican on the Senate Ag Committee. He has been working for the last year on this five-year Farm Bill.

In about an hour, the U.S. House will be voting on a continuing resolution that will include, as I understand it, an extension of the Farm Bill, so Senator Boozman can continue with his good work. I want to thank you so much for your outstanding work on the Farm Bill and wish you well. With that, you may proceed.

Senator Boozman. I appreciate it. Again, nobody is more of a champion than you. We had the opportunity to be in Wyoming and had a great visit. It was very, very successful.

The only thing that I wanted to say, also, that I think is so important, when we look at the USDA programs, and this isn't about the people or whatever, they do an excellent job. We make these things way too complex. The grant process, it shouldn't be that if you are interested, that you have to get a grant writer to do it.

By the time you get it done, it takes forever, and then once it is actually received and said you are good to go, it might take two years before it is implemented. That is an area that, again, these are low-hanging fruit that we need to work together to make these programs more successful and I think are really important.

Mr. Bonham. Senator, if I might, I 100 percent agree. I come to my position from the private sector. I have been at it 12 years, so I can't use this excuse much longer. We make it

too complicated for those that are entering our pathways, and this is showing up in wildlife corridors as well.

At the end of the day, when you build a crossing, it is a construction project. You have to deal with procurement, design, build, and contracting, and we could save a ton of time through efficiencies just in the management of projects. That translates, as well, into the farm world, as you know. Thank you for your leadership on the Farm Bill. We are confident that the tools in that bill, like easements, will help us both in the water space and in the wildlife corridor space.

Senator Boozman. Thank you, Senator Lummis.

Senator Lummis. Thank you, again, for your work on the Farm Bill and on these issues.

Senator Boozman. Thank you. We appreciate all of you today, very, very much.

Senator Lummis. Senator Sullivan?

Senator Sullivan. Thank you, Madam Chair. I want to thank the witnesses for being here. I am somebody who is an avid outdoorsman; I was the former Commissioner of the Alaska Department of Natural Resources, and I support proactive approaches to conserve wildlife while keeping public lands open to all, Alaskans and Americans, and managed for multiple uses, but in my State, too often, we have outside groups who come up and tell everybody how we should be running our State.

They especially tell the Native people in Alaska how to run their lives. We call those groups eco-colonialists. I hope there are no eco-colonialists here, because it is kind of people with power come up from the lower 48, condescendingly telling Alaska Natives who have been living there for tens of thousands of years what is good for them, a lot of eco-colonialists. There are a lot of eco-colonialists in the Biden Administration. The pick and choose approach to consultation is just remarkable to me, particularly, again, as it relates to Native people.

Ms. West, I want to describe to you that the following Federal processes as coordinated efforts between Federal, State, and Tribal agencies, private landowners, and other organizations, as you state, are needed in your testimony. Assume a hypothetical, one that included no outreach or consultation to any federally recognized Tribes, despite this being required by law, so that is kind of category A.

The other, category B, included 36,000 public comments, 50 letters to federally recognized Tribes, 30 public hearings, and 30 consultation meetings. Which one of those pursuant to your testimony would you think is the better approach, with regard to just Federal management, but also respecting Alaska Native people? Do you have a sense? It is a pretty easy question.

Ms. West. Senator, in your hypothetical scenarios, I would pick option B.

Senator Sullivan. B, good. That is a good answer. I think every American would.

The person who doesn't, though, is Secretary Haaland, so what I just described was Secretary Haaland's outreach, lack of outreach, to any Alaska Native groups on their ANWR and NPRA proposed new regulations, none, zero. This is the Administration that overturns all of the Trump records of decisions in Alaska based on no consultation, and then they don't consult. The hypocrisy is just unbelievable.

The second example, B, that you liked, that was the Trump Administration's approach to the Ambler Road. Again, the ironies here are just incredible.

Let me just open it up to all of you, Mr. King, Ms. West, Mr. Bonham, can you explain from your perspective how it is important to do consultations? Again, this Administration, they talk environmental justice, they talk racial equity, but they have a giant asterisk.

If it is for Alaska Natives, they don't get any justice, no racial equity. Why? Because a lot of those groups want to have resource development and want to build roads, want to develop their economy. The Biden Administration is like, hell no. Hell, no.

What do you think about consulting, especially with federally recognized Tribes, but other stakeholders and how

important that is in the process that is all about the core element of this hearing, which is improving migration corridors? I will take it from any of you.

Mr. King, do you want to start?

Mr. King. Senator, thank you for that opportunity. I would highlight this chart and graph that we brought. This highlights some elk migrations out of the Greater Yellowstone ecosystem. That ribbon graph at the bottom demonstrates how they move in and out of so many different land jurisdictions during their seasonal migrations. I think it just highlights the point you are making, that there are a lot of folks involved in conserving wildlife in the States.

Senator Sullivan. Yes.

Mr. King. As we look to conserve wildlife, you can't just focus on one aspect. You can't just focus on Federal lands; you can't just focus on State lands. You have to incorporate the entire ecosystem. That requires a lot of outreach and a lot of boots on the ground and a lot of conversations, and looking for those ways where we can put creative solutions into action.

We won't find those creative solutions unless we are sitting at the table, talking face to face. We have seen in Wyoming that that is absolutely critical to getting work done, is just sitting down with folks, finding out the common themes, common threads, and then being creative about the best solutions

for everybody.

Senator Sullivan. Great. Go ahead.

Mr. Bonham. Senator, if I might, I am Chuck Bonham from the State of California. I am flying home this evening, assuming I can make it from here to DCA, to, tomorrow morning, preside over a wildlife conservation board meeting, where my department will return ancestral lands to the Fort Independence Indian Community, one of four Paiute Tribes in the Owens Valley on the east side of our Sierra, Nevada.

I am looking forward to that. It took many years of conversation to realize the harms my predecessor has produces and how to cure them.

Senator Sullivan. Did you learn about those through consultations with those groups and respecting those groups? Again, the Feds, in my State, the Alaska Native people, they get ignored, right? That is almost 20 percent of the population of Alaska, they talk a big game on racial justice, racial equity, environmental justice, and then they ignore, Deb Haaland ignores the Native people of Alaska more than any other Secretary of Interior, probably, in history.

Mr. Bonham. I appreciate that feedback, but from California, I can tell you, having spent a lot of time at the table with federally recognized tribes, Klamath River Basin, including the Yurok Tribe, the Karuk Tribe, and the Klamath

Tribes that the Department of the Interior and the State of California and the State of Oregon have figured out the way to do a corridor project.

Next year, we will open up access of 400 plus miles of habitat for salmon and steelhead in the third-largest producer of salmon on the west coast, the Klamath River. I understand your frustration in Alaska, but I am also thankful for your question, because today, on corridors, wildlife corridors are a fixable problem around the United States with time, energy, and partnerships.

Senator Sullivan. Good.

Ms. West, do you have a comment at all?

Ms. West. Thank you, Senator. I will just add, the beauty of the migration corridor programs that were put in place by Secretary Zenke and Secretarial Order 3362 is that it puts the Federal programs at the service of the States and the tribes who are leading on the work.

The States and tribes raise their hands and volunteer or actively, I should say, pursue Federal funding and capacity to advance their priorities, their migration corridor priorities, get capacity from the U.S. geological survey to collect data on movement, and turn that into maps, where perhaps they don't have the internal capacity, but they have access to experts as USGS who can do the work with them collaboratively.

There are a number of programs in place that really are at the service of the States and tribes who are leading on this work, and that is what I think is very unique about this effort and why it has garnered a lot of support.

Senator Sullivan. Good, thank you. Thank you, Mr. Chairman. I would just ask, and I know the big Chairman is here as well, not just the subcommittee chairman, but this is a really important issue.

My State is being slammed. The Department of Interior keeps reversing previous Administration records of decisions because there wasn't enough consultation, and then, they don't consult at all. It is unbelievable. It is so hypocritical you can't even believe it.

I would love to have a hearing on it and bring Secretary Haaland here and say, why do you ignore the Native people of Alaska? You just ignore them. She does it all the time, and she does it because they want to develop their resources, and she doesn't want to let them. It is an outrage. I appreciate the witnesses for their good, thoughtful testimony on this topic.

Senator Padilla. [Presiding.] Senator Lummis, for a comment, before recognizing Senator Carper.

Senator Lummis. Thank you. I might point out that Mr. Bonham ran Trout Unlimited before he was at the California

Department of Wildlife, and Trout Unlimited really has an extraordinary reputation in this Country for work on collaborative efforts and with private landowners. When you lead an organization like that and then go into a government agency, I think it is already in your DNA to work with private landowners.

As a fisheries aficionado, it is just great that you have chosen to go into government service for this time, but I just want to thank you for your service at TU. It really is outstanding and has a great track record. Thank you, Mr. Chairman. I yield back.

Senator Padilla. Thank you all for recognizing and respecting the California way.

With that, Senator Carper.

Senator Carper. Thanks, Mr. Chairman. My thanks to you and Senator Lummis for pulling this together to talk and listen about some of the challenges and the opportunities to facilitate wildlife movement and to improve migration corridors. Our thanks to the witnesses. Where do you all live? Mr. Bonham, where do you live?

Mr. Bonham. I live in the Bay Area. My home office is in Sacramento, and I am very familiar with Interstate 80 as a result.

Senator Carper. I bet you are. I used to be stationed at

Moffatt Field Naval Air Station during the Vietnam War and after that. I have a son that lives out there not far from you.

Ms. West?

Ms. West. Senator, I live in Denver, Colorado.

Senator Carper. Okay, thanks.

Mr. Bonham. Senator, I live in Laramie, Wyoming at the 7,200-foot elevation of I-80.

Senator Carper. Okay. We are glad you are here. Thanks for joining us and giving us a chance to consider something that is important to us in Delaware and across the Country.

We have heard a fair amount about successful programs that are focused on big game migration in western States. I want to talk a little bit about eastern States, and Delaware is one of those, although I have lived all over the Country.

What can eastern States like Delaware, like my native State of West Virginia, and others learn from what has worked out west, and maybe what is not? I like to say, find what works, and do more of that. Find out what doesn't work, and don't do that.

Ms. West, why don't you lead us off? What can we learn?

Ms. West. Thank you very much, Senator. I think we can learn that when the Federal Government supports bottom-up, locally driven conservation priorities, it can be a wonderful combination that leads to success. What we have seen with big

game in the west is a series of Federal program that incentivize State and tribal agencies to do wildlife conservation work. They build capacity when those agencies don't have the staff or expertise necessary, and that has led to significant conservation outcomes.

These programs are easily scalable to include additional geographies, like the beautiful State of Delaware and additional species, all the programs with the stroke of a pen you could expand the scope of the work, and it would be applicable. I would say even conservation that focuses just on big game still supports healthy habitat for a myriad of other species, even amphibians and reptiles and avian migrating species, because healthy connected habitat for big game supports a broad array of other species.

That is why this issue has been so broadly supported, even by organizations that work primarily outside of the west by the National Audubon Society and others that focus all across the Country on these priorities.

Senator Carper. Thank you. Mr. Bonham?

Mr. Bonham. Senator, I think a lesson you can learn, which is 100 percent applicable in Delaware, if you build it, they will come. You don't have to have a lion or a grizzly --

Senator Carper. I think I have heard that somewhere before.

Mr. Bonham. Yes. I hope it is not trademarked, because they will be calling me.

You don't have to have a lion; you don't have to have a grizzly bear to love wildlife crossings. In 2017, in Riverside County in California, we completed the Clinton Keith Wildlife Crossing Project. So it was designed for one particular animal, but now it is supporting butterflies, birds, deer, coyote, foxes, and get this, the Quino checkerspot butterfly, a federally listed endangered species. We thought about it back then for one animal, but we built it, and they all came. I think that is a lesson available to every State when it comes to wildlife crossings.

Senator Carper. Good. Mr. King, I was sitting here looking at this, the order of your name reversed, instead of calling you Richard King, we could call you King Richard.

[Laughter.]

Mr. King. Yes, sir.

Senator Carper. Not completely on a serious subject.

Mr. King. I appreciate your consideration in asking for help in terms of lessons learned. While I am not familiar as much with the east coast as much as I am with the west, one, I do know that you have a lot of private property. And I know that is where the conservation values really lie. There are lots of opportunities on private lands.

In Wyoming, what we did was we went to private landowners and asked them, what do you need, and how can we help, and what will encourage and incentivize you to provide these conservation benefits on your private land? Then we built programs and partnerships to provide that. So my recommendation is simply to have boots on the ground and meetings face to face, and meeting landowners where they are, and recognizing those significant values that private lands play in conserving our Country's wildlife.

Senator Carper. Good, thank you.

Mr. Chairman, do I have time for one more question, please?

Senator Padilla. Mr. Chairman, of course.

Senator Carper. Thanks so much.

A question on wildlife corridors and endangered species, this will be for each of you again. The habitat loss and fragmentation is one of, I believe, five major drivers of global biodiversity loss. My question would be, how can the study of conservation of wildlife corridors help threatened and endangered species, or prevent species from becoming endangered in the first place? Mr. King?

Mr. King. Thank you. It has been mentioned by Mr. Bonham that connectivity is key. When we can connect habitats together, we can maximize the effectiveness of the conservation efforts that are occurring on those properties. So part and

parcel and key to conserving our Country's wildlife is that connectivity, and making sure that healthy habitats are connected. Really, it is that simple, but it is difficult to do.

Senator Carper. Thank you. Ms. West?

Ms. West. Thank you, Senator. I would agree, and just add that by investing in connecting habitat now, you are really preventing the decline of species into the future. It is a proactive step to invest in our species before they become eligible under the Endangered Species Act. Once they are imperiled, it is much more cost ineffective, rather expensive and time consuming to try to recover them.

But if we can look at habitat connectivity and the movement of wildlife species and create that interconnectedness and give species more ability to adapt to changing habitat conditions over time, we are setting them up for future success and we are preventing declines that are very difficult to reverse once we get there.

Senator Carper. Thanks. Mr. Bonham?

Mr. Bonham. Senator, same answer, different words. I forget if I have mentioned, I have actually been director 12 years, which makes me the longest serving ever, and I think now the longest serving State director.

Senator Carper. Does it seem longer?

[Laughter.]

Mr. Bonham. I have lived through catastrophic wildfires, epic, biblical drought, and so many things. I believe this is a non-partisan issue, corridors, because everyone understands what it means to have safe passage to a safe place. Climate disruption has scrambled the natural world. We have some salmon that we used to call spring run, the time of year they would swim back upstream. They are no longer spring run, they are fall run, because their life strategy is adapting to climate change.

They need the ability to go from point A to point B, safe passage to a safe place. Because they are either going to die, adapt, or we can provide freedom to roam. That is why I think this hearing is so important.

Senator Carper. Great. One of you said that you think the subject matter here is, can and should be bipartisan. We have plenty of partisan issues that we deal with all the time. It is nice to have one that can help draw us together, so thank you. Thanks for joining us.

Thanks, Mr. Chairman, and thank you, Senator Lummis.

Senator Padilla. Thank you, Mr. Chairman.

Continuing that theme and spirit of bipartisanship, I have a question. We have heard a bit about Secretarial Order 3362, which focused on improving migration corridors for big game

species. It is important to note that this order was issued under the Trump Administration and was continued under the Biden Administration, showing the broad support for wildlife movement corridors.

My question is more specifically about mapping. Ms. West, since the order was issued, how has research and mapping improved, and have these improvements led to on-the-ground projects? How can Congress further support these efforts?

Ms. West. Thank you, Senator.

The timing of the signing of the Secretarial order coincided with a massive advancement in GPS technology in general. So it really was the perfect timing to be providing funding for increased data collection and mapping work. Even 10 years ago, GPS collars would only show you where and how animals moved with a little blip every 12 hours. Now you can get hourly pinpoints that help you really see specifically how and where and why the animals are moving across the landscape and using different components of their seasonal habitat along the corridor.

That is just incredibly valuable information when you are trying to figure out how to spend limited conservation dollars on the ground. You can justify the need much better with this really accurate data, and you can demonstrate a greater return on investment for the conservation funding that you have spent,

whether it is on fence removal, oftentimes we talked about working with private landowners.

If you go to a private landowner and you show them the maps and the actual data and they can see how their fence might be impeding a corridor, they had no idea before. Once they know, that is when they roll up their sleeves and find a solution work that my fellow panelists have talked about can really happen.

So the Secretarial Order catalyzed that in a few different ways, funding through the National Fish and Wildlife Foundation grant program can support that work. But also the U.S. Geological Survey and their corridor mapping team brought not just resources in terms of money to the table, but actual technical capacity and expertise to many State agencies that don't have that level of GIS capacity. So they have been able to map 66, I believe it is 66 different migration routes and corridors just in 11 western States in the last five years. So that is pretty significant information.

Senator Padilla. Thank you.

Mr. Bonham, anything from California's efforts to improve the data that you would like to share?

Mr. Bonham. Yes. Mapping results in direct action in the field. Here is an example. Our Department of Fish and Wildlife has worked with academics and also the National Park Service in the Mojave Desert. I-15 connects Los Angeles to Las Vegas, I

hear the Olympics are coming to Los Angeles. It is a highly transited area.

There is a private company, Brightline West, building a high-speed rail to connect Las Vegas to Los Angeles. We have desert bighorn sheep on either side of both the highway and the future rail, not good for the sheep. The mapping, working with tribes, Federal and State agencies, allowed us to identify three specific spots along that corridor where we now have a public-private partnership, I believe the commitment of two States, Senator Padilla's leadership. Next year, we are building three over-crossings over I-15.

So when people go back and forth between Los Angeles and Las Vegas, they can see a crossing and realize, desert bighorn sheep and a host of other species will be able to use it, because of the mapping.

Senator Padilla. Thank you.

Senator Lummis?

Senator Lummis. Thank you. First of all, I want to thank you all for coming and testifying today. Your expertise is very much appreciated and needed by us.

My question is this. Think about your audience here. You are talking to the United States Senate, which does not have your level of expertise or your boots-on-the-ground experience on this issue. But we want to know what we can do to help you

do your jobs better, and that is my question to each of you. First of all, please use some time to say what you wish you would have been asked that you weren't. And also say what you want us to know that would allow us to help you.

Mr. Bonham?

Mr. Bonham. I could use your help on three things. Then I will tell you what I wish you had asked me.

First, I do think there is value in considering memorializing the Secretarial orders, in the sense that Congressional direction motivates. Second, Ranking Member Lummis, it is not just a money issue. But these are construction projects, and they cost. The Bipartisan Infrastructure Law sent \$350 million to the Federal Highway Administration. My department is spending \$90 million. We are going to need an infusion of capital when it is warranted.

Third, one of the biggest challenges is collaboration between government entities. For far too long, Richard and I have been talking in the Wildlife space, and we need to have this conversation with the Transportation space. We need to be encouraged, cajoled, persuaded, motivated. It is the two entities, Wildlife and Transportation together, that can change this dynamic.

Here is what I wish you would have asked me. When would I liked to come to Jackson and go fishing with you on the Snake

River?

Senator Lummis. That can be arranged. I love to fish, even though I am a lousy fisherman.

Mr. Bonham. Me too.

Senator Lummis. No, I suspect that is not true. You are welcome any time, and I would relish the opportunity. Thank you.

Mr. Bonham. Thank you.

Senator Lummis. Ms. West?

Ms. West. Thank you. Senator, I will just say, I know a number of outstanding anglers that we could provide to make the trip valuable for you both.

Thank you for the opportunity. I would have liked to have been asked a little bit more about where the funding for the work to date focused on big game has come from. It has been, the programs under Secretarial Order 3362 have been discretionary in purpose and have been funded with reprogrammed funds, which means every year, my good colleagues who are relying on this funding and their colleagues in other States and tribes, wonder if there will be another year of funding.

For five years, that has been fine, I think, and everyone has been grateful for that assistance. But we are at a point where I think we can claim success and it would be really valuable to the project proponents who are working on crossing

projects, or fence removal projects, to be able to plan years out, to have some dedicated, reliable funding so they can work on multi-year projects. Because research for all kinds of wildlife takes more than one year of data collection to really have a good sense for how things are going.

So I think I would want you to note that. And also, back to Director Bonham's testimony and opening remarks, that this is a fixable issue. I may go so far as to say it is mostly a money problem, not that we have limited amounts of money in this Country, but we have the foundation of strong leadership at the local level and at the State government level. We have people rolling up their sleeves to do good work, and if they had more resources, more good work could be done. Thank you.

Senator Lummis. Thank you. Mr. King, and excuse me if I have to bug out halfway through your statement for another meeting, but thanks so much for coming.

Mr. King. Thank you for the invitation, and that you for the opportunity. I would state simply that recognition that the States really are the right entity to lead these efforts, we have great data, we have good wildlife managers. We know what we are doing. We have a proven track record. I think just a simple recognition that because of the importance of State-led conservation efforts, and the importance of private lands that more regulation probably isn't the answer, but more cooperation

certainly is.

So anything we can do to ensure that all entities are working together and are pulling in the same direction is critically important for us.

I think lastly, just to reiterate that recognizing that this really is a multidisciplinary effort. It does involve transportation departments; it does involve wildlife agencies. It does involve extractive natural resources producers and private landowners. There are a lot of people that play a role in wildlife conservation. The recognition that we can achieve great things if we work together is probably the simple message, I would leave with you today.

Senator Lummis. Thank you, witnesses. I yield back to the Chairman with my thanks for this panel of witnesses and this topic. It is timely. Thank you, Mr. Chairman, for your leadership on this issue.

Senator Padilla. Thank you, and thank you for your partnership.

I have just one last round of questions before we will begin to close this hearing. As you have heard from our witnesses, States are pioneering new ways to make our infrastructure more resilient and responsive to wildlife needs. We also know that that is just one piece of the puzzle. We also have to protect the natural landscapes around us and ensure that

we have landscape scale connectivity.

A question for Mr. Bonham. How important is Federal and State land acquisition to creating connectivity for wildlife? What other ways can the Federal and State governments work together to support connectivity?

Mr. Bonham. Senator, thank you for the question. Land acquisition done willing seller, willing buyer, which need not always be fee title, sometimes can be conservation easement, is an integral part of a corridor project. Because it is just not the physical infrastructure you are designing, you are thinking about the ingress and egress to the structure for success criteria on your design.

That means you need to take a look at the landscape mosaic, sometimes it is private, sometimes it is public. Sometimes you can find a partnership with a land trust that in turn is working with a private landowner who already wanted to do something with the property to benefit wildlife.

Two examples. If you have ever driven from San Jose, California out to Santa Cruz, you are on Highway 17. People go back and forth. One of the most notorious curves is called the Laurel Curve. We have now a functioning under-crossing, which is actually like an over-crossing, because it is an elevated highway. The Santa Cruz Land Trust, working with landowners, has conserved either side. So it is like an hourglass, allowing

animals to move into the connectivity structure. Within hours of opening it, a bobcat wandered through.

Same thing is true for the Highway 101, P-22 Wallis Annenberg crossing. The Santa Monica River's Mountain Conservancy, in conjunction with the National Park system, has made sure the properties on either side will remain open space to facilitate the crossing.

Other landscape things include a lot of the initiatives you are taking with Secretary Crowfoot and Governor Newsom around conserving 30 percent of our biodiversity in California by 2030. Sometimes that is landscape-scale conservation through national monuments and other things.

Senator Padilla. Thank you.

Ms. West, what other tools does the Federal Government have to conserve areas for wildlife corridors?

Ms. West. Thank you, Senator. When it comes to public land management, so when these wildlife corridors overlap with federally managed public lands, we like to think of it as an all tools in the toolbox approach. It really does depend on the particular corridor, what the species needs to move.

Where I live in Colorado, there is a lot of mule deer. They don't migrate in nice, beautiful lines like they often do in Wyoming. They sort of move in more blobs down off the top of mesas down into the valleys where there is food in the winter.

I completely lost my train of thought, I am sorry. What was your question?

Senator Padilla. What other tools does the Federal Government have?

Ms. West. Thank you. I am sorry, I got so distracted by Wyoming and the lovely mule deer herd. So the tools in the toolbox are different when the species migrate in different ways. When you have a large landscape, the management tools really need to be about keeping the landscape permeable, so that species can move through. That means you don't have to have a fence around the whole area and prevent the animals from moving through, because there is not a road to protect them from. It means that as long as you have development limited in the density of the structures, they still have a pathway to move through.

So you can have roads, but they are limited in density, or they have crossing structures on them, or if it is renewable energy development, for example, you can have a solar array, but instead of having one large 2,000-acre solar array, you chunk it out into pieces so the animals can move through it.

Where in Wyoming they have done amazing work mapping, not just the migration corridor but along the path where the animals stop over, where they might have bottlenecks because of geographic features, you want to be more protective in those

important areas that are really critical for movement. If you cut off a bottleneck, then you have cut off the whole corridor. So there is a whole variety of tools in the toolbox and the science and the mapping really help support what the best tool is.

Senator Padilla. Thank you.

Finally, for Mr. King, we have talked about the partnerships. From your experience, what kind of Federal and State, for that matter, might encourage private landowners to participate more in the establishment of protection of corridors?

Mr. King. Thank you, Senator. There are some great projects that are underway. I mentioned that our USDA partnership is one such program, where we are able to stack together different programs from the Farm Bill, for example, different NRCS and FSA programs. Really, anything that can incentivize and keep working lands as working lands is critically important.

So those Federal programs, if they can be designed in such a way that they are attractive to private landowners, and those private landowners can take advantage of those programs and continue to keep their working lands as working lands, that is I think where we will see the best success.

Senator Padilla. Thank you very much.

There may be additional questions you will receive in writing, either from my office or other members of the committee after the hearing. I want to thank you all for your participation here today in a very thoughtful and productive discussion.

I also want to thank Chairman Carper, Ranking Member Capito, as well as Subcommittee Ranking Member Lummis and all our colleagues who participated today, and I am sorry I missed remarks by Senator Boozman, who reminded us of the importance of waterways in this conversation as well, and the potential use of the Farm Bill as a vehicle to advance some of the ideas that have come up today.

As you have heard today, all across the Country, the same roads, highways, bridges, and other human development that make our Nation increasingly interconnected, both for people and our economy, have the effect of disconnecting the wildlife around us. By fragmenting migration routes, we endanger the lives of countless animals, we risk decreasing the rich biodiversity of our Nation, we undermine our thriving outdoor recreation economy, and we even increase the risk to human life.

Because migration patterns will never adhere to State or local or tribal boundaries, it is clear that in order to protect ecosystems and better co-exist with the wildlife around us, we need to come together in a bipartisan way to support State,

local, tribal, and private landowner efforts to restore wildlife corridors and improve connectivity.

As I mentioned earlier today, just last Congress this committee came together to approve \$315 million in grants through the Bipartisan Infrastructure Law to reduce the number of wildlife-vehicle collisions. Yet while this funding has the potential to usher in a future of safer, more resilient infrastructure across the Country or future proofing, as Director Bonham put it, the Department of Transportation has yet to implement it.

So first, we need to continue to conduct oversight and ensure this funding is administered as intended. I look forward to the full committee's upcoming oversight hearing on the Bipartisan Infrastructure Law where we can do just that.

But as you heard from Ms. West, Congress can also take a major step forward in improving habitat connectivity by providing authorized funding streams for Federal agencies to implement Secretarial Order 3362. Rather than force Federal agencies to pull funding from their general funds, it is Congress' job to provide the specific and stable funding needed to address these issues over the long term.

We must also improve collaboration across jurisdictions. I spend a lot of time in this committee talking about California's leadership and how the Nation can learn from California's

progress. But as Director Bonham pointed out in his testimony, and as we heard from Mr. King, we can all learn a thing or two from Wyoming's leadership in designating wildlife corridors and building partnerships.

And we must include what we learn from tribal governments which often have cultural and spiritual connections to the wildlife they seek to protect. I am proud that Senator Lujan, my colleague from New Mexico, is advancing a separate effort on that front.

Finally, my hope is that after today's hearing, we can take some of the bipartisan momentum around habitat connectivity, incorporate some of the ideas that we have heard today and come together to move a bipartisan bill that supports voluntary conservation efforts throughout the Country, whether that includes Federal funding for State and local research and data gathering, or on-the-ground projects that restore wildlife corridors, bipartisan progress is possible.

I look forward to working with any and all of my colleagues who are ready to continue this important work.

Once again, I want to thank you all for being here and with that, this hearing is adjourned.

[Whereupon, at 4:11 p.m., the hearing was adjourned.]