



Western Governors' Species Conservation and ESA Initiative

Appendix: Year Two Report (2016-2017)

As an instrument to implement the work plan required under the Western Governors' Association (WGA) Resolution [Species Conservation and the Endangered Species Act](#), WGA conducted work sessions during 2016-2017. The sessions – combined with webinars and a series of questionnaires -- generated an enormous amount of information and diverse perspectives on how species conservation efforts can be improved. WGA has compiled this appendix to capture a cross-section of paraphrased viewpoints expressed by participants

Each work session focused on a narrow range of issues identified in [the initial framing year](#) of the Initiative (2015-2016). The Appendix is organized to correspond to each individual work session (**bold**) and then further dissected into specific stakeholder recommendations emerging from each session (*italics*). Input is identified by sector.

Note: While recommendations highlighted below were widely supported in concept, their inclusion in this document does not connote consensus among attendees.

Work Session One

Incentivizing Voluntary Conservation

When a landowner improves or maintains habitat as a condition of an assurance agreement, and conserve at-risk species, that landowner should have the ability to sell at-risk mitigation credits as long as he/she ensures the habitat is maintained in the appropriate condition through the life of the credit agreement.

- [Agriculture] The important part of the discussion around incentives and assurances is the “and.” We often look at programs designed to incentivize conservation, or provide assurances for conservation, but from a landowner’s perspective both are equally important. They shouldn’t have to be separate choices. If we truly want to incentivize practices, we need to be able to make sure that assurances and financial incentives are not mutually exclusive.
- [Agriculture] If a landowner engages in a conservation action, there should always be some form of assurance. This doesn’t always have to come in the form of a regulatory assurance. Many landowners would likely agree that providing some operational certainty or assuring that can preserve their way of life are powerful assurances to be given.
- [Agriculture] Financial incentives through marketing conservation credits are becoming more prevalent. The decision many landowners are facing now is whether a Candidate Conservation Agreement with Assurances (CCAA) should be cancelled because a species wasn’t listed. There is increasing access to financial incentives for similar conservation efforts through credit exchanges that CCAs do not offer.
- [Conservation] There is some confusion around whether a landowner can enroll in a CCAA while also marketing credits around a mitigation program. The language in the FWS Policy on Incentivizing Voluntary Prelisting Conservation seemed to indicate that they may not be compatible, but the Compensatory Mitigation Policy may suggest otherwise. We need the FWS to clarify and finalize these policies in a way that fosters compatibility between financial incentives and regulatory assurances.
- [Federal] This gets to the question of “double dipping.” Say you set up a CCAA and restore habitat for a species - you have more suitable habitat for that species now. Say that species is then listed – now people need mitigation credits. If you have a CCAA, the assurance is that you can take the habitat back to its original state and you won’t be penalized, but if you were to sell credits on top of still improving habitat once it is listed, to me that constitutes net gain and would not be double dipping.
- [Agriculture] This discussion comes down to incentivizing landowners to stay in conservation agreements (like a CCAA) if the species is not listed. In that case, there should be a financial incentive and assurance for staying engaged in the CCAA .

- [Federal] Perhaps a better way of looking at it is to get more creative about how we provide assurances beyond just CCAAs. Look at setting up a suite of best management practices (BMPs) that are endorsed by the FWS which – if implemented – would provide some level of regulatory assurance commensurate with the practices implemented.
- [State] Rather than talk about finalizing FWS policies as we were earlier, or establishing new programs as we are now, let's get back to the original concept – don't enact policies that forces landowners to make a choice between incentives and assurances.
- [Industry] This all comes down to flexibility. The more options present to private entities, and the more tools you give them, the more likely they are to participate in voluntary conservation agreements.

Enrollment in ESA assurance programs should increase eligibility for participation in financial incentives programs that are targeted to that species.

- [Federal] There have been examples of NRCS ranking certain conservation actions in terms of expected success and linking specific dollar amounts to conservation actions. If a landowner implements conservation actions specified, they were ranked higher and received priority funding first.
- [Agriculture] This seems like a good model to try to replicate in the ESA. This creates flexibility and may remove the conflict of choosing between assurances and income.
- [Agriculture] The concern I have with this is if we move toward targeting dollars to address specific species, there will be landowners who are interested in conservation but may not be in targeted areas with those species. Suddenly they are left out of these funding streams we are talking about, and areas that have been historically involved may become isolated.
- [Federal] There may be landowners with no listed species who still wish to implement conservation actions. Funding under this specific model we are discussing may not be available to them. But we are talking about tying this to ESA: I think ultimately this would just create more options. Those interested in implementing conservation outside of priority areas tied to the Act still have other options.

Increase the number of conservation programs that come with regulatory assurances.

- [Conservation] Increasing the number of financial incentive programs that already come with assurances seems like another way to make sure that you are not narrowing the funding available to incentivize conservation.

- [Federal] This may not be a reality in the new budget climate. If we ask for an increase, we must also identify where a corresponding cut will be made. There are ways that we could look to put more of this in the states' hands in the prelisting world, increasing the amount of resources that can be brought to the table.
- [Agriculture] This points out the importance of using our collective voice for more funding in general for proactive and voluntary conservation. Landowners need to unite to see that we need more funding for proactive conservation. We want to engage, but there are serious financial impediments.
- [Federal] This also points to the need from the federal perspective to have conservation actions documented and reported. There is so much good work going on, even something as informal as adhering to industry best management practices, that is likely going under-reported. We want to work with private interests to make the Act more flexible and accommodating of voluntary efforts, but if we can't see a report on what is being done and what the outcomes are, we can't provide any assurances under ESA.

Issue Programmatic Environmental Impact Statements (PEIS) for appropriate conservation policies (The Services' CCAA Policy, for example) and allow individual agreements to tier to the PEIS. Define categorical exclusions where appropriate.

- [Industry] The NEPA work associated with establishing conservation agreements can be a significant disincentive to enrolling. In some scenarios, we have been required to do a full EIS to set up a conservation agreement. There must be some relief from NEPA when associated with an ESA conservation agreement like a CCAA.
- [Agriculture] Is there a way to make NEPA more programmatic for ESA agreements? Perhaps you establish that certain conservation actions on specific species can receive a NEPA exemption and be treated on a programmatic basis.
- [Legal] The Service should consider just doing a PEIS or Categorical Exclusion on overarching umbrella policies like their CCAA policy that then tier down to individual agreements.
- [Federal] The Service should certainly explore doing more programmatic approaches under NEPA. It is being done more frequently now than in the past, but that doesn't mean that there is not more that could be done to ease the burden of application for ESA conservation agreements.

Find a way to provide assurances on public land so that Candidate Conservation Agreements (CCAs) more closely resemble Candidate Conservation Agreements with Assurances (CCAAs).

- [Agriculture] A serious impediment to landowners further engaging in conservation of pre-listed species is the fact that those with operations spanning both private and federal lands cannot get assurances on the federal part of their operations. CCAs

do not offer the same regulatory assurances that CCAAs do, and from operation and conservation perspectives it makes little sense to only improve habitat on private land for the regulatory assurance. This turns a lot of ranchers off CCAAs.

- [Federal] Federal land management agencies cannot provide the regulatory assurance of a CCAA on federal land because Section 7(a)(1) of ESA states that they must do everything under their mandate to protect listed species.
- [Agriculture] The assurance along with a CCAA is that you will not be required to do more if the species is listed. BLM can't provide that assurance because if a species is listed, they are legally required to modify land planning to account for that and they are the ones authorizing grazing permits.
- [Agriculture] Rather than providing regulatory assurances like what comes along with a CCAA, perhaps we can look to other mechanisms to incentivize landowners to conserve on federal land. Providing operational certainty through increased AUMs or extended grazing lease renewal periods if the habitat is maintained or improved to a certain level.

The Service should work with states to provide models and templates to incentivize proactive voluntary conservation.

- [Agriculture] Prior to a species even being declared a candidate for listing, it can be hard to get stakeholders mobilized and focused on conservation to avoid reaching that point. Sometimes, what is needed is more information on a species and often that information resides on private land. If a landowner is willing to open their property for examination and surveying, state or federal agencies should reward that behavior with some form of regulatory assurance.
- [Agriculture] That speaks to having shelf-ready models of conservation. We shouldn't have to start with a blank piece of paper every time a species is petitioned for listing.
- [Federal] We are starting to do this with landscape-scale planning. A suite of umbrella species that provide conservation benefits for species under them are identified. States and federal agencies should coordinate on the opposite approach as well. Why can't you look at species under those umbrella species that are already listed? When a species with similar needs is petitioned you would already have identified conservation actions that are likely to address a similar set of threats.
- [Federal] There is a lot that we can learn from past conservation efforts that can be applied to a more forward-looking landscape-scale approach. State and federal agencies are doing this already, but we should institutionalize communication between the two to establish similar groups of species so we have shelf-ready conservation actions that we know are likely to address a similar range of threats.

General Participant discussion on assurances vs. incentives

- [Industry] I question how much the assurances received for prelisting voluntary conservation are really considered in a listing decision. If participants in these conservation programs knew how much conservation work needed to be put on the ground or committed to by some type of collaborative effort to get a definitive result, you would see groups far more willing to invest in voluntary conservation efforts.
- [Sportsmen] The trouble with that is, how do you define the exact range of conservation necessary to preclude the need to list? No one can guarantee that with such certainty.
- [Agriculture] This gets to the question of what exactly is being measured to ultimately define success. For greater sage-grouse, is it habitat conditions or is it bird numbers? Without a clear understanding of what we are managing for, people will continually complain about the goalposts moving.
- [Federal] We will always have this issue so long as we are focusing on single species. Take the individual species out of the equation and rely on a diverse coalition to develop a conservation plan for a landscape.
- [Conservation] That is not how the Act is written. By definition, ESA is a tool for managing one species at a time.
- [Conservation] Speaking in terms of landscapes in an ESA context is tricky, but this gets to the need to get out ahead of the Act. States must incentivize the health of their ecosystems so the federal government doesn't have to get involved.
- [Agriculture] Do we need to shift how we think about incentives vs. assurances? Should pre-compliance incentives be offered at a landscape level and assurances targeted at a single-species level?
- [Industry] It is easy to get bogged down in only focusing on assurances to industry and landowners, but we need to remember that everyone wants assurances. NGOs want assurances that a species is going to be conserved. The Services want assurances that you are going to do what you promised in a voluntary agreement. If we think about the breadth of people involved in these efforts and think in scales of relevance to each group, that will lead to a more durable program and a durable suite of assurances.
- [Agriculture] Oftentimes for ranchers, the least important incentive is dollars. What really resonates are incentive structures that foster community sustainability. Some of the highest incentives for ranchers are lifestyle criteria. Dollars are important, but guarantees around maintaining a lifestyle and operational certainty are powerful tools.
- [Conservation] We need to be careful to not use assurances as a loaded term that is at odds with certainty. An assurance in the ESA context is primarily just a shield from further regulation.
- [Conservation] Assurances are more of a technical term of art. The fundamental message here is certainty. Certainty is an incentive. As we have discussed, there are people in the NGO community for whom no financial incentive will resonate – it comes down to certainty around conservation.
- [Federal] When you use a regulatory assurance as your primary incentive, that has real ramifications down the road. If the threat of an ESA listing is the primary incentive to sign up for conservation agreements, what happens to the incentive when

the threat of a listing is removed? If you focus on certainty and frame the incentive as “I want to make your ranch as productive and sustainable for as long as possible” that is a stronger driver for developing a sustainable working landscape.

- [State] Certainty is also big for states. The incentive is to maintain management of the species at a local level. Establishing robust planning and gaining certainty that the Services can step away and let the state retain management authority resonates with state officials.

Further review and assess Section 6 of the ESA to determine how grant funds can be used by the states for on-the-ground voluntary conservation actions to preclude the need to list a species under the ESA.

- [Industry] Do we need to reevaluate how Section 6 of the ESA is treated? From a regulated entity perspective, I don't know if FWS is currently able to empower states to be successful at what we want them to do. Often, when we go to states with a question on a candidate species, we usually end up with more questions than answers.
- [State] Section 6 has been under-utilized. If we could rework that section of the Act to hand more tools over to states, states would welcome that idea.
- [Agriculture] The reality is that we are not incentivized to act early, and neither are the states. We need to look at how Section 6 funds are focused to really spur early action.

Amend Section 6 of the ESA to include prelisted species.

- [Industry] We need to consider the possibility of opening up Section 6 to accomplish a lot of these more ambitious landscape-scale conservation strategies on a prelisting basis. If we are looking to expand conservation to a landscape-scale, we need to be able to include non-listed species. As the ESA is currently written, there is very little room to focus on non-listed species.
- [Conservation] The problem is not in the way Section 6 is written, but how we administer it.
- [Industry] It is explicitly focused on species listed as threatened or endangered. It sounds like what folks are suggesting is that to truly incentivize proactive conservation, it has to address species further up the pipeline.
- [Industry] The Services could potentially revise or promulgate new regulations and guidance regarding candidate species. It could be worth exploring new regulations clarifying that once a species is a candidate, the Services can provide certain tools to initiate the process then turn it over to states to coordinate.
- [Agriculture] Perhaps instead of expanding the Act to include pre-listed species (which could be interpreted as infringing on state authority) we look at the Clean Air Act or Clean Water Act for models of delegated authority to replicate under Section 6 of ESA.

- [State] I understand the desire and need to address species of concern before they are candidates, but much of that comes back to resources. We should focus on funding under Section 6. I don't think amending Section 6 to include pre-listed species is the right avenue to pursue that goal. States will not be on board with that and will likely see it as a severe blow to their legal authority to manage pre-listed species.

Establish the amount and type of conservation actions – based on science – that assures a species would not need to be listed under the ESA.

Establish the acceptable range of conservation efforts to be able to adapt when conditions change.

- [Agriculture] CCAAs were originally designed so that a preponderance of the range would be involved, yet they only really apply to private lands. It seems tough to understand what the exact benefit of that tool is at times. It is a classic example of us falling short when trying to utilize an assurance tool to create goalposts related to a species' status. Is there a better way to use the amount of time and resources that need to be devoted to establishing a CCAA if avoiding a listing is the goal? If a majority of the range is not engaging in the program, it changes the rules for those that do sign up and that is where the frustration comes in.
- [Federal] In a prelisting environment, there is an idea that CCAs and CCAAs will avoid a listing if there is a certain level of participation. Before a species is proposed for listing, there is unevenness. What is the motivation for federal agencies like the Bureau of Reclamation or Army Corps to issue permits with eye to species that aren't even listed or being considered for listing yet?
- [Industry] This really speaks to inadequacy in the PECE process. PECE seems inequitable at times in analyzing CCAAs such that it calls into question the very value of them. We had CCAAs on the prairie chicken and it was listed anyway. It may be a goalpost problem, or unequally balancing different stakeholders' interests.
- [Industry] When you don't fully consider conservation efforts on-the-ground, you dis-incentivize continued participation in a voluntary agreement and discourage voluntary conservation efforts for future species.
- [Agriculture] Ideally, there would be a conservation tool for folks operating on both private and public land that can provide regulatory assurance on private land along with federal land permits.
- [Federal] This is a huge issue for driving participation in voluntary conservation efforts – especially in the west where there are large swaths of intermingled private and federal land. We treat private land differently than federal land. Permitted operators on federal land are held to a higher standard on the federal portions of their operation.
- [Industry] States can be a bit lighter on their feet when it comes to pre-listing conservation. States should get deference on a listing if they have a plan in place on a species that is demonstrated to be working.

- [Industry] As long as they have a plan in place that meets an outcome that is defined collaborative with the Services, the plan should be given a chance to work. This is about a shift in the burden of proof. Rather than states having to prove that it is going to work, we should shift to the Services having to prove that it is not going to work.
- [Conservation] Our whole system is averse to cyclical review. It is not set up to establish periodic cycles of review to adapt for changing conditions on-the-ground.

Use state-wide and ecosystem level pre-emptive planning to avoid triggering the need for ESA.

- [Federal] Fundamentally, what is needed is a paradigm shift in how we prioritize species conservation. Rather than running fire-to-fire when species are petitioned, focus on conservation ecosystems.
- [Conservation] The best thing that ever happened for sage-grouse conservation in Wyoming was the state being proactive to set up a strategy, then turning it over to local groups for implementation. We need to look at a bifurcated system for ecosystems where local working groups are involved in the ecosystem-level strategy development and carry out management actions as we go along. Then allow the state to support with science and modify the strategy as necessary.
- [Agriculture] This would be beneficial. Look at the Delta in California for an example. Had there been a proactive ecosystem-level plan in place, we would not be in the situation we are in today. 8 million people moved into the delta, which is arguably not sustainable for species. Instead of managing development, they regulate the farms as they are more discrete and easy to regulate, so farmers end up carrying the burden of poor planning. We need to look at the system as a whole and anticipate consequences of actions in a more proactive and collaborative way.

Reconsider and address how CCAAs are utilized.

- [Sportsmen] Enrollment in CCAAs and similar conservation programs does not need to be simplified so much as private property owners need more resources to navigate the process. Often, your experience in setting up a conservation agreement will be heavily influenced by which FWS/NMFS region you are in and how they approach outreach and assistance in establishing agreements.
- [Agriculture] Doesn't that speak to the need to simplify the process? The Services are constantly strapped for resources and that won't likely change soon. What are you to do if your region does not prioritize resources into collaboration and outreach? This is a constant frustration expressed by landowners.

- [Federal] Another factor limiting enrollment in CCAAs is private property owners fear of their private information and threatened and endangered inventory information being publicized through FOIA. This is something that doesn't always get a lot of attention, but when you work with these folks it can be an insurmountable barrier at times.
- [Federal] We need to clearly define what conservation standard is being managed for. This is fundamental to the "goalposts" concern.
- [Agriculture] Encouraging private conservation on federal land should be a paramount focus when discussing CCAAs and CCAs.
- [Federal] There are real life examples of this tension. Ranchers are lining up to manage conifer encroachment in sage-grouse habitat; however, there is no reason for them to invest private resources on a federal allotment because there is no way to reap a reward. The example of rewarding increased AUMs for conservation work will resonate.

Work Session Two: Listing, Critical Habitat, Recovery and Delisting

Establish mechanisms for protecting confidential data from becoming publicly available through the Freedom of Information Act (FOIA).

- [Agriculture] There was some angst around the New Mexico meadow jumping mouse listing since much of the habitat is on private land and there was little-to-no data collected from private lands. This was primarily over privacy concerns, but we need to look at ways to keep landowner information private – we are leaving so much good data on the table.
- [Agriculture] An option may be to set up some form of flexibility around ESA timelines for data-deficient species. This will allow folks to set up assurance agreements with landowners and channels through which data from private land can be considered while also being protected from publication. We can do these things, but the 12-month listing clock set by ESA does not give nearly enough time to set these agreements up.
- [State] Data confidentiality is a huge issue. We have been essentially told by the Service that they don't want our state data because there is no way that they can protect it from disclosure. At times, this issue makes it impossible for the Services to genuinely consider state data.
- [Conservation] This issue ties into the concerns many in the conservation community had with the decision on dunes sagebrush lizard. Well location data in Texas was not available even to the FWS, so it wasn't clear to us how they could make

a decision not to list. FWS needs a policy delineating what level of detail is necessary in data to make a defensible decision. The lack of consistency drives litigation.

- [State] FWS can create a policy detailing their protocols for data aggregation, but it may not resolve the issue of states not being able to provide data to the FWS that would be subject to FOIA.
- [Conservation] The cleanest way to provide state data the protection it needs is to provide FWS with legal tools to go around FOIA as USDA has. A FOIA exemption for particular circumstances may make sense.
- [Conservation] This also points to the need for a more proactive approach to species conservation. Say you are 10 years out from a listing decision instead of one year – you can put in the early work with landowners and a few years down the line be able to shield landowner data by demonstrating an overall positive trend across the range without needing to reference location specific data. If you have time for the species to respond positively to conservation actions, the decision can focus much more on large-scale demographic information.
- [Conservation] There are methodologies going around to deal with this issue. The Core Areas Strategy for sage-grouse allowed FWS to use state data in the listing decision, but aggregate it in such a way that data was not location-specific. There are work arounds to this issue, but we have to be more proactive about exploring them.
- [Industry] It seems that simply providing some form of statutory exemption to FOIA for the Services to withhold raw or location specific data may fix this issue.
- [State] There is a lot of precedent for specific exemptions of data under FOIA. Certain federal agencies have exemptions, and the Magnuson-Stevens Act provides a lot of cover from FOIA for fisheries.
- [Conservation] We need to establish consistent protocols to protect landowners' information. If we create systematic ways for states to provide data to FWS that are in accordance with their own statutory limitations, wouldn't that be better for everyone? Who has the resources to dig through all this and set up those protocols is another question entirely, but allowing data to be more freely exchanged between state and federal agencies is hard to argue against.
- [State] Some regions already have protocols in place, but there is a difference between regions within the Services on how to analyze all available state data. It is not necessarily just about getting data in the system, but also protocols for how data is being used or is collected. This inconsistency in the process fosters fear in landowners over providing data to state agencies and is a real limiting factor in our understanding of species.
- [Federal] We are trying to do biological analysis and species surveying ahead of a listing decision. That ensures that it is a purely biological consideration that is firewalled from the actual policy decision of whether the species is warranted for listing. Data collected this way can often be packaged in a way that is protective of landowners but also informative of population trends.

- [Agriculture] Are there data collection sources and third-party storage entities that have periodic audits to ensure that they are a quality data sources? Finding a qualified third party to serve as a repository for data from states that packages it in such a way to ensure privacy seems like a possible solution to this.

Establish an informative “playbook” for citizens to instruct citizens on how to engage throughout various steps of the ESA process.

- [State] Citizen science is gaining traction - perhaps we need to establish mechanisms to set some sort of peer review standard or audit to ensure quality of that data.
- [Industry] An issue we have encountered with peer review is that FWS is supposed to periodically publish a peer review plan that is open for comment. It is almost never published in a transparent way that is accessible to the public.
- [Conservation] This points to a bigger problem which is a general lack of accessibility to the ESA process in general. We need a better playbook for public consumption on how the ESA is supposed to work. It could be a citizens’ guide to the ESA that helps the public understand and engage in the process. If everyone was reading from the same source on how the process is supposed to work, it may help reduce frustration around transparency.

Encourage the Services to develop Species Status Assessments prior to listing and concurrent with a recovery planning outline.

- [Federal] There is a fundamental tension between having all parties at the table for the development of recovery plans and actually getting those plans out the door on time.
- [Agriculture] The timeliness of recovery planning documents is worth exploring. The timeline for setting recovery goals on certain species are extremely extended. When recovery plans are years behind schedule, there is no level of certainty for those on-the-ground. No one knows what we are aiming at. Looking at refining recovery plan formation timelines, or providing at least some guidance in the interim, would go a long way towards creating certainty for stakeholders and the species.
- [Agriculture] Would it be possible, at the time of listing, to define an over-arching recovery goal for the range of the species that will establish some general goal posts that are kept more firmly in place?
- [Federal] I get the frustration over uncertainty of the “goal posts” at times, but we should think twice about making recovery plans action-forcing. If they become action- forcing, they can then be litigated. There have also been instances where species were delisted without meeting all the metrics specified in recovery plans, but it was clear they were recovered. If plans were action-forcing, those species would have been unable to be delisted.
- [State] The Services should be able to set some form of a recovery definition at the time of a listing. There are examples of this happening, but it should be institutionalized. It is immensely helpful to have at least some indication of what is necessary for

recovery when a listing decision is made. You have all the information available on threats, why not translate that into at least some informal guidance on a recovery vision.

- [Federal] The Species Status Assessment process helps to uncover information for both the listing and the recovery of the species. The process helps to project future conditions and can give an indication on trends and threats.
- [Federal] Including a suite of different parties in recovery plan development conflicts with linking recovery plan development to a listing decision. Anything associated with the listing realm of actions must be kept internal, so if you link recovery planning with that the Services will not be able to include other parties in recovery plan development.
- [Conservation] Species Status Assessments) are just that, an assessment of current threats and biological trends. That information is important to the recovery planning process, but it seems like the simple question of determining whether is species is warranted for listing should not incorporate recovery considerations yet. You have data on whether the species is in trouble, but isn't that data different from what is necessary to inform recovery?
- [Agriculture] I don't think we are suggesting that you completely marry recovery planning with a listing decision formally. We are mostly just trying to fill that gap between a listing and recovery plan promulgation where there is considerable uncertainty about actions to start recovering the species. Without some picture of what broad recovery goals are, there aren't any incentives to step up and conserve the species on-the-ground because no one knows what actions to take.
- [State] At the time a species is listed, the Services should be able to say that we need to reduce "x" threats. This was essentially the process of lesser prairie-chicken.
- [Conservation] It is not perfect, but the threats assessment in the listing decision seems to already be a rough prescription of how to start recovering the species prior to a formal recovery document.
- [Federal] The Services essentially did this with the New Mexico meadow jumping mouse. A "recovery vision" was established using the information collected through the SSA process. It is not a formal recovery plan, but it does provide a roadmap to recovery on day one after the species was listed. This will eventually morph into a recovery plan that will then provide the criteria for delisting.

Pair economic incentives with critical habitat and priority conservation designations on private land. Incorporate a scoring system for private land conservation priority for farm bill incentive scoring system.

- [State] Many recent critical habitat designations have been overly broad. The polar bear critical habitat designation is essentially larger than the state of California. These extremely broad critical habitat designations do not necessarily seem to fit with the original intent of ESA, and can detract from species conservation. It is adding an additional regulatory burden that has an extremely limited conservation benefit.

- [State] We should look at confining the authority of FWS to designate massive swaths of habitat as critical. Sometimes there are discretely-distributed species and it makes sense to have the entire range designated, but for species that have massive ranges across the ocean, it really doesn't make sense.
- [Industry] In some instances, the Service has indicated that they were going to use the historic range of the species as the baseline for critical habitat. This can be problematic for some species, and the language in the new critical habitat regulations seems to encourage overreach.
- [State] The economic analysis done on critical habitat designations is often not completely accurate. If an activity will require some kind of mitigation, the price will go up exceptionally on critical habitat. This has the potential of significantly increasing costs in areas that aren't necessarily key habitat.
- [Federal] There is economic analysis done, but the question is if it is being done correctly. Some think that cost should be evaluated based on the entire cost of listing a species in addition to critical habitat designations.
- [Agriculture] We should look at how critical habitat designations are perceived by private property owners. If someone identifies property of a rancher as prime habitat, it almost always comes as a negative to that landowner. When critical habitat designations or migration corridors are designated on private land, there should be some form of mitigation for the economic impact a landowner will incur.
- [Agriculture] It doesn't make sense to punish landowners who are doing the right thing by slapping critical habitat designations on them. If habitat on private land is quality enough to be considered critical, you want them to keep doing what they are doing and encourage continuation of that behavior.
- [State] You are using additional agency funding on massive designations. But also, the adverse modification trigger is based on all the habitat designated. That means the more habitat you designate, the less likely you are to have an adverse modification trigger, essentially lowering the conservation value of that designation.
- [Agriculture] The Services should have to justify through science that a critical habitat designation will actually benefit conservation of the species.

Maintain a set of statutory timelines for findings on petitions to list, but allow for flexibility around timelines based on scientific based assessments of risk to species. Use authority of the Services to initiate an emergency listing when necessary.

- [Federal] Listing timelines were amended into the ESA in response to the Secretary at the time essentially putting a moratorium on listing. The timelines are ambitious, but feasible, if the Services are fully funded. The deadlines are meant to reflect a balance between the time necessary to do analysis and the potential for a species in peril of declining to the point of

no return. The deadlines were not informed by science, but they have been used for 20 years now despite being a constant source of friction.

- [Industry] Gathering quality science to inform a listing under the current deadlines is extremely difficult. It can take two-three years at least to get quality science on species that we know little about.
- [Industry] There is not sufficient data to truly know the status of many species petitioned. If you are starting with a species whose population is unknown, you don't have genetics or breeding information. The information to make an informed decision is severely lacking. Is there a way to add flexibility in the Act to allow for proper data collection?
- [State] From a practical perspective, the Service's listing backlog has actually worked out well for many. They prioritized the backlog and published a seven-year workplan to get through the backlog. Now we have a concrete deadline for when a decision will be made and have time to coordinate with the Service to collect the right data. For many species in the workplan, the timeline is far enough out that we have time to collect baseline data.
- [County] ESA is a big hammer, and may not actually be the best tool for prioritizing due conservation. When you jump from petition to petition there may be species that are in trouble, but slip through the cracks due to a narrow focus responding to petitions. Would it be viable to consider flexibility for the Services in setting timelines that are based on a scientific evaluation of risk?
- [Federal] The issue is there is not flexibility in the statute. There aren't resources to meet the statutory deadlines, so the FWS has taken to administrative procedures that prioritize petitions. It works if they are not challenged in court.
- [Industry] The discussion on resources and flexibility is important. We need to be careful with these hypothetical discussions and not just assume that FWS is suddenly going to be fully funded. We need to be realistic and think about how to improve the process if funds never come. We can't just expect that to be the case. Building in more flexibility to the Act to allow the Services to prioritize listing work in the most efficient way makes sense.
- [Conservation] There are areas where states can step up to fill the gap in resources. We need a more efficient way of sharing data and expertise that will help inform a listing decision to take some of the burden off the federal government.
- [Industry] FWS needs more flexibility to modify listing timelines when there is not enough data to make an informed listing decision. We see this happen all the time with invertebrates. There is little information on many of them and then FWS is forced to make a decision in this truncated window of time. Some small interest groups have really found a way to leverage the Act in this way to take discretion away from the Services.
- [State] A complicating issue for timelines in the Act is the extremely low bar on positive 90-day findings. There needs to be an elevated standard for petitions before they are considered because you have so many species entering the queue for a 12-month finding that don't deserve to be there and are eating up resources.

- [Conservation] The ESA was originally intended to be a safety net for state planning. It was intended to catch things that fall through the crack of state plans. Many of the issues we have today are a result of states failing to step up and adequately plan.
- [State] I don't think there is a state out there that hasn't put together a State Wildlife Action Plan (SWAP). This again comes back to the funding question: how much money do you need to actually implement what is contained in the SWAP?
- [State] Focus on timelines driving listing decisions detracts from recovery. Resources get driven towards listing decisions because there are concrete timelines attached to that process. It makes funds that are available for Section 6 grants or agency actions diminished.
- [Industry] Is it worth examining statutory language in the Act and trying to codify flexibility that way? You could extend the deadlines and add "up to" that deadline. That way you don't have to take the full allotted time, but you could create a more reasonable approach for the Services.
- [State] The recommendation needs to include some aspect of prioritization. Some things are going to be much more urgent than others. Listing ringed seals, which are likely to become endangered around 2100, are a lower priority than listing a species in immediate danger. The listing workplan is good start. We should push to formalize and codify it.
- [Conservation] The prioritization aspect of all of this seems to be the most important component to all these discussions. Examining the legal authority for FWS to prioritize listing work is where we should focus. This process grants stakeholders predictability on when listing decisions will be made. Regardless of how you feel about amending statutory deadlines, I think we generally agree that we need to focus on shielding the FWS with the legal authority to move forward without fear of litigation when it comes to prioritizing species for listing based on conservation needs and science. There needs to be backstop deadlines to ensure that listing work is not intentionally slipping through the cracks, but greater flexibility to prioritize listing work makes sense.
- [Conservation] We also need to encourage more proactive conservation. It is a question of political will for states. We need to send a message that it is the states' duty to act as urgent care centers for these species. The system we have right now is essentially every species in trouble being sent to the emergency room with two doctors working. We need urgent care centers to ease the burden on that ESA emergency room.

Expand the FWS seven-year listing working plan to be ongoing and dynamic with positive 90-day findings added and prioritized on a rolling basis. Ensure statutory deadlines for action as a backstop under work plan. Add certainty around viability of the work plan to insulate the work plan from litigation as long it is implemented properly. Ensure executive agency authority over work plan prioritization. Maintain emergency listing provisions for species in need of immediate action.

- [Conservation] What is really important regarding the seven-year workplan are the five priority bins. Those species in bins 4 and 5 are respectively the bins for which there are ongoing conservation measures and low data. Species in those bins are scheduled to be addressed toward 2020-2023. This presents an opportunity to focus on species in those bins and allow states to take initiative of surveys and data collection for data deficient species to preclude listings.
- [Conservation] The workplan almost abolishes the 12-month finding deadlines and gives quite a bit of room for states and others to carry out voluntary initiatives. States and others should work with FWS to determine which of these species have the greatest likelihood of avoiding listing. Some are going to be really hard to bring across the finish line. Others are easy – do some survey and a few conservation actions. The FWS has not worked with the public to identify low hanging fruit in the workplan.
- [Agriculture] That sounds great, but there seems to be some legal challenge every time the FWS tried to use discretion. This prioritization relies on the agencies ability to use discretion, and they are vulnerable to being litigated on missed deadlines under the Act.
- [Industry] Isn't this work plan approach by the FWS a recognition that timelines for listing within the Act warrant examination? ESA does not allow for this sort of flexibility reflected in the seven year workplan and continue to leave FWS open to litigation.
- [Industry] Litigation leads to a severe decrease in transparency in the process since those that are not a party to the settlement are suddenly shut out. The timeframes in the Act don't reflect how it is used now. We need to look at amending listing timelines within the Act to insulate FWS from litigation.
- [State] We support the approach of the seven-year workplan but are concerned that it is vulnerable to litigation. If we want to ensure flexibility for the Services to prioritize listing work, you must insulate it from litigation by amending the Act.
- [Industry] We still need to consider if by codifying the hypothetical seven-year approach, we are permitting political mischief to occur that would delay decisions so far out that organizations that really care about a species have no choice but to sue.
- [Conservation] You would need buy-in from multiple groups on a workplan approach that has the right sideboards and backstops to stop that political mischief. Most litigation is on process, APA violations, not substance. If you can get buy in to a process that is undeniably based on science – not politics – that may work.
- [Industry] The timelines are an odd artifact from another time. They don't have any basis in science since you generally need 3 years of breeding season data to understand trends for a species.
- [Sportsmen] When we talk about adding flexibility or amending timelines, there still must be some backstop to look at threats. There may be situations where a species is data deficient but the threats are a clear and present danger to continued survival.

- [Academia] The FWS seems to be moving towards a landscape-scale approach to conservation. We need to consider deadlines in the Act that are commensurate with the time it takes to implement landscape-scale efforts and observe outcomes. In many cases, these are going to be decades long efforts on the part of the FWS.
- [Agriculture] How do you deal with something like Delta smelt through an ecosystem-scale approach? The ecosystem is irreversibly altered and it seems next to impossible to re-establish.
- [Sportsmen] This gets back to allowing the Services to prioritize their work. There are certain instances where recovery of an ecosystem is never going to happen but certain actions may help a species survive.
- [Conservation] We shouldn't limit this only to species that are inside the Act. The idea is, you protect habitat and do not allow a species to slide to the point of being imperiled. Discussion of this in context of ESA is a bit distracting, it seems more fitting in the prelisting context.
- [Industry] Ideally if we preserve habitat and ecosystems, the species will be doing better, but what if there are changes to a landscape that can't be mitigated. What then – it is a policy decision about whether a certain subset of species can go extinct. The Act doesn't have flexibility for that sort of consideration.
- [Conservation] Going back to looking at flexibility for the Services to prioritize listing work – there are a few examples to consider. Consider the listing of Sri Lankan tarantulas. There was zero conservation benefit to that listing since Sri Lanka already doesn't allow export of those species and there were existing protections already in place. On the other extreme is species directly imperiled by habitat loss where a listing will have considerable conservation benefit. Somewhere in the middle is a species like northern long-eared bat. It is a bit hard to see how the Act can directly help with disease, but using the Act to protect habitat makes the bats more resilient to the disease.
- [State] How do listings based on climate change fit in this discussion. It is an international problem that needs international solutions – I struggle to see how a listing provides direct conservation benefits to the species outside of raising awareness.
- [Conservation] A listing will still have some benefit in many cases, but species that are threatened by climate change or are conservation-reliant could be placed in a lower priority bin for a listing decision. We don't have to create a new category for listing or change listing criteria – it just again comes back to allowing the Services to better prioritize their limited resources.
- [State] Getting back to the discussion on timelines in the Act – it is more important for the Services to have discussion to extend timelines in certain circumstances than to change it from 12 months to 24 months. The hard deadlines themselves are the source of litigation.
- [Conservation] If we go down this path, there would need to be some backstops requiring the Services to demonstrate that they are making reasonable progress.

- [Conservation] The Services put out a workplan to justify relaxing statutory deadlines for certain species, and statutory deadlines would kick in if the Services don't follow their own workplan. Reasonable progress demonstration could account for shifts in budgets or funding.
- [Industry] For that to work as designed you would have to shut off the flow of litigation for a period of time though. The workplan could be ongoing and dynamic to incorporate new litigants and species as they are petitioned into the existing workplan framework.
- [Industry] Is this process just going to turn the workplan, which is a guidance document currently, into a huge burden for the Services?
- [Conservation] Essentially what is being described is a workplan document that replicates many of the benefits that the MDL provided to the FWS.
- [Conservation] The workplan could be updated on an annual basis, like the Candidate Notice of Review. Every year around November the FWS could consider species that have received positive 90-day findings and determine how to prioritize them within the workplan.
- [Industry] It sounds like we generally agree that prioritization through a workplan is a more effective way to deal with petitions than the current statutory deadlines, but can you adequately do this through the regulatory process or do we need to consider statutory changes? I have a hard time believing that FWS thinks they will win a deadline suit by pointing to the workplan. They can't possibly expect deference in courts when Congress explicitly put deadlines in the Act.
- [Federal] True that FWS may not get deference from the courts if the workplan is litigated. That said, I think many of the most litigious groups have changed their worldview to realize that it is impossible for FWS to meet all the deadlines but allowing some degree of prioritization results in the most beneficial outcome for conservation.
- [Industry] That may be true now, but what is the clock for that worldview shifting back? If an Administration comes in and the agency is perceived as dragging its feet, or being unwilling to list species, then parties that are copacetic right now will go right back to litigating.
- [Conservation] I think we can all agree that we want a workplan rather than arbitrary deadlines. What is difficult is determining how to shield that from litigation and how to maintain executive authority over the prioritization without Congress mandating some sort of approval for the workplan on a regular basis.
- [Industry] I completely agree on maintaining executive authority. We may not always love the actions that the Services take, but it is infinitely better than Congress saying that this workplan method gives too much discretion to the Executive Branch and inserting themselves in the process.
- [Industry] If we want to build support for this idea, we need to consider backstop deadlines as well. As we have discussed it, it seems like there are circumstances where species could just be kicked down the road indefinitely.

- [Conservation] Agree - to keep people at the table there must be deadlines for action. That can be negotiated, but I think some deadline or the idea needing to demonstrate “reasonable progress” both have promise.
- [Conservation] We also need to emphasize what works well in the Act and must remain unchanged regardless of where reform efforts take us. The emergency listing provision is certainly one of those things.

Expand the use of Section 4(d) Special Rules to encompass species listed as endangered under the ESA. Application of 4(d) rules for endangered species would necessarily have higher standards than those for threatened species.

- [Industry] ESA 4(d) rules should be used more expansively. They provide a better way to tailor listing decisions to local conditions and create incentives for voluntary conservation.
- [Conservation] In my experience, the Service treats threatened and endangered species more-or-less the same – increased use of 4(d) creates more a distinction.
- [Industry] That has been our experience as well. There is not much of a difference between the way threatened and endangered species are treated under ESA.
- [State] Some have suggested looking to apply 4(d) rules to species listed as endangered as well. I see the appeal in this, but that then brings us back to the question of why bother having two categories if they will be regulated the same – since 4(d) rules are the primary tool that separate threatened from endangered species from a regulatory perspective.
- [Conservation] The caveat here is that for threatened species, 4(d) rules don’t offer a conservation benefit, they mainly function as regulatory relief. Maybe the way to apply 4(d) to species listed as endangered while still maintaining that distinction is creating a higher bar for conservation – like requiring mitigation or some other conservation measure. That way you could permit certain land uses under a 4(d) for endangered species, but still require mitigation to reach a net conservation benefit.
- [Conservation] There are currently only two 4(d) rules that point to a conservation plan, the rules for lesser prairie chicken and the Coastal California gnatcatcher. The use of 4(d) rules that defer to a conservation plan that is substantive may be a good direction.
- [Conservation] Essentially, what we are saying is a 4(d) rule for a species listed as endangered would not permit any activity that doesn’t contribute to recovery. This would have to be a statutory change though.

Develop a national policy for the implementation of 4(d) rules that details best practices and incentivizes strong local input.

- [Conservation] The Services have been increasingly using 4(d) rules and it seems like the time is right for additional guidance in their use to ensure some level of consistency. The animals not covered by 4(d) rules are primarily invertebrates where there is not much of a Section 9 nexus to begin with. The FWS rarely does geographically specific 4(d) rules though. That is the real opportunity to provide some regulatory relief for communities that are doing more to conserve the species.
- [Conservation] A 4(d) rule has almost the same effect as an HCP, yet the HCP has a 500-page handbook and there is not a single policy document guiding the use of 4(d) rules. There are a lot of practices that we have discovered in researching 4(d) rules that are not in any Service documents. Some kind of guidance and nationwide consistency could lead to expanded use, spreading best practices, and reducing litigation.
- [Conservation] There is also an opportunity through 4(d) to make recovery efforts more efficient by building in some allowance for actions like prescribed burns or reintroductions that will involve take. If you put up more parameters around the use of 4(d) rules the Services will get more deference and they can use 4(d) rules more extensively.
- [Agriculture] I agree that we need more clarity around how 4(d) rules are employed. Any sort of best practices that could be memorialized in a policy that also encourages strong local input in 4(d) development would be desirable.

General participant discussion on funding recovery and delisting

- [Conservation] The FWS has a recovery budget, but how it utilizes that budget could use some improvement. Right now, the way they allocate that budget goes to funding salaries in the regions, but it is not based on recovery at times. The southeast region is coming along fastest, but it is not something that is ingrained in FWS culture – having frameworks that establish prioritization and how we distribute recovery dollars.
- [Conservation] I think there is a general agreement that recovery plans take too long to develop. A structured prioritization framework for recovery funding would help make the process of recovery plan development more efficient and effective.
- [Conservation] Finding a way to modernize recovery planning would be useful. There are some plans that are exceptional and were produced relatively quickly, others are 500 pages long and just sit on a shelf somewhere. A lot of work can be done in that space to save time and money.
- [State] There are also some species where recovery planning and critical habitat designations provide very little immediate conservation benefit and are a waste of resources for the Services. Take ringed seals for example. When/if ringed seals start to decline, that is when you should designate critical habitat because at that point there will be a mechanism you can identify as actually causing the decline. Habitat for climate threatened species is going to be different in the future than it is now. If you simply carve out the entire range of a species as critical habitat, you will likely end up with areas in the future that are

truly critical that may not be exceptionally important now – I don't see the benefit of just designating everything as critical because the threat is decades away.

- [State] Critical habitat is a big regulatory hammer for many stakeholders that provides limited conservation benefit. I think we should like critical habitat designation with the recovery planning phase to make a more informed decision.
- [Industry] Funding is important, and it comes up in every discussion we have, but it is looking more and more likely that the funding we desire is not coming any time soon. We need to start thinking more in terms of building efficiencies with the existing budget.
- [Conservation] On prioritization for recovery – there are certain countries that do this. New Zealand prioritizes conservation funding for the most taxonomically unique species.
- [Sportsmen] By its very nature, ecosystem level planning accounts for the prioritization we are talking about. You make assumptions about the most important species in the ecosystem and work on them with the goal of the benefits cascading down to other species.
- [Industry] Landscape-scale approaches make a lot of sense, but we need to be realistic about the fact that there will be winners and losers when it comes to species. By prioritizing habitat, species in the ecosystem will be generally better off, but it will not address threats for every single species – some may get worse. There is a lot of charm in focusing on the health of the ecosystem generally, that removes the prioritization from the equation, but we need to be realistic about what that entails.

General participant discussion on critical habitat.

- [State] The timeline associated with designating critical habitat should be reconsidered. Why not start with the recovery plan for the species and then designate critical habitat based on what actions and objectives are called for in the plan? Designating critical habitat carves out a lot of land that may not be truly critical for species recovery, and once the lines are drawn on a map, it becomes more of a political decision.
- [Conservation] It is warranted to have a conversation about the necessity of critical habitat. The Service has said through its enforcement action that it is not something that is a priority for them.
- [Agriculture] For a relatively limited conservation benefit, it also has an incredibly chilling effect on landowners.
- [Conservation] The value in it is knowing where to target conservation – you need to know where to target actions to recover the species, so you need to have a map.
- [Industry] Where it gets questionable in my mind is when there is a whole drawn out process to designate critical habitat that the Service doesn't seem to prioritize at times, then they come out with an economic analysis that downplays

economic impacts. That leads to a question in my mind of why: a) spend all of the resources designating something that the Service acknowledges has limited conservation benefit; and b) do the economic impact analysis if it is going to be more-or-less disregarded at the end.

- [Conservation] The Services' answer to that would be that they are legally required to. The answer from my organizations perspective is that critical habitat has a lot of conservation potential, and it hasn't been given the ability to live up to that potential. The hundreds of biological opinions I have read all only have a couple of boilerplate sentences about critical habitat. Adverse modification prohibition is not being applied in a way that actually benefits the habitat and the species.
- [Conservation] If you expand the conversation to include habitat and conservation of landscapes – not individual species – then the adverse modification trigger is a huge part of the conversation. Right now it is not, because we are focusing on the species.
- [Industry] Shifting recovery planning prior to critical habitat designation could improve species recovery. Focusing attention of critical habitat designations on what recovery plans call for seems like the smarter way to do this for the Services, species and the regulated community.
- [Conservation] I get the logic in that, but from a regulated perspective critical habitat impacts permitting and recovery planning does not. Wouldn't it make sense to take care of what is going to have an economic impact as soon as possible?
- [Academic] Why not do both at the same time? Tie recovery planning to critical habitat designations. That way the recovery plan directly informs where critical habitat is located.
- [Industry] When we have been involved in a consultation -- even if critical habitat isn't designated -- if the species is thought to present we mitigate anyway. It is just a general practice that we employ regardless of critical habitat boundaries on a map.
- [Conservation] That gets to my point. I am skeptical about how much extra burden critical habitat really adds to regulated community.
- [Industry] From a process perspective it isn't always a big factor. However, when you own the surface land the designation of critical habitat affects the value of that property. There are repercussions to the approach of designating most habitat as critical prior to knowing what the recovery needs of the species are.
- [Industry] Think about the range wide plan for lesser prairie chicken – that is how I see this playing out. The range wide plan includes a recovery plan that delineates what are called “strongholds” and connectively zones to ensure genetic transfer between strongholds. As they implement the plan, the importance of strongholds is reassessed and adjusted based on the best available science. That suggests that you can start thinking about critical habitat in relation to the success of recovery efforts on the landscape.

Work Session Three:

Role of State and Local Governments in Species Conservation and ESA Implementation

Afford states adequate time to develop a plan for at-risk species, in partnership with federal agencies, that avoids the need to list. Conservation plans must be developed by states, as at-risk species are under their management authority, and provide regulatory certainty that measurable goals – if met – will significantly contribute to precluding the need to list.

- [Agriculture] There needs to be something in statute that has teeth to manage expectations around the ESA. Something needs to clarify that if you do an action, FWS will respond in a predictable way. We have experienced great FWS employees who genuinely want to involve the local community – but you can't rely only on personalities and relationships like that.
- [Agriculture] If consultation is just box-checking and it doesn't matter what input is actually received, there is no trust. It can feel like a crapshoot whether your input will be genuinely considered, so ranchers end up saying why bother? There needs to be more clarity around how FWS considers input and transparently reaches a decision to build trust.
- [Industry] There needs to be some level of assurance that prelisting conservation efforts will be considered as a factor when the Services decide if listing is warranted. Otherwise, the lack of consideration by the Services serves as a disincentive for participation in future voluntary efforts.
- [Conservation] There must be an honest evaluation and measurement of what conservation actions are being proposed. We need to have an evaluation at some point that demonstrates if an effort is worthy, or doomed to failure. Writing that in to statute seems difficult because conservation efforts must be evaluated on a case-by-case basis.
- [State] It doesn't surprise me that we are not avoiding more listings. We are looking at critically imperiled species. I think the discussion we need to be having is how to get out ahead of the curve.
- [State] A problem that we need to be honest about is that state fish and game agencies are simply not built, from the ground up, on solving these issues. We are built on the North American model where funding is from the hook and bullet crowd. The way they operate has evolved to some extent, but the entire structure of departments is usually not geared toward conservation of nongame species.
- [Conservation] The federal government must be involved to certain extent on a lot of these species. We need leadership from Governors to an outcome that is livable for everyone at the table.

- [Federal] The Act is, by definition, risk averse. It forces us to make decisions based on objective facts. In terms of incentivizing, it is very difficult if the only thing incentivizing that participation is an assurance that a listing will be avoided because mother nature is out of our control.
- [Agriculture] Some of these frustrations come back to rigid timelines in the Act. The first time many people hear about a potential listing is at the end of the 90-day finding period. The Services need more time to reach out to locals and build partnerships.
- [Agriculture] I understand that we cannot say with certainty that a species won't be listed, but there does need to be a more defined process for consultation, which takes time to do right. In FLPMA, there is a very spelled out way that coordination has to be done with local government. All the information is there. Groups generally feel that they are on even footing in the process.
- [State] We are talking about two issues: how do we make decisions more transparent, and how do we have more certainty. There is a statutory mechanism to address these already to a certain extent – the warranted, but precluded, cooling off period in the Act.
- [Agriculture] I'm not sure warranted, but precluded, is the answer. Ranchers don't want to see more species classified as candidates. There must be some controls by which you acknowledge that a species is in trouble, but nothing is mandatory. If you elevate it to candidate, federal land management agencies have the tendency of treating it as if it were threatened or endangered in management planning.
- [State] There is no ability within the Act to defer to state plans if they are being implemented. With lesser prairie-chicken there was a range wide conservation plan and we still had to get an ESA 4(d) rule and Section 10 permits to ensure operation of the plan. If it is a robust conservation plan that the Service has endorsed, there shouldn't need to be additional steps under the Act.
- [State] We shouldn't get bogged down on the title. Candidate or not, we could use a classification that allows the Services to defer to state management for a period of time so that the effectiveness of state management can be determined – this puts pressure on everyone to succeed.
- [Federal] What is needed is to identify what is driving the decline of species so that state conservation has some metric by which to be measured. That needs to be as objective as possible so that it is not a political judgement. This wouldn't need to be accomplished through a candidate designation. It could just be extended deadlines, deferring the need for a listing decision for a period of time to let conservation efforts play out more.
- [Agriculture] This model would allow state the opportunity to show success without having to then deal with a delisting.

- [Industry] A system that allows more time for state plans to work would empower and encourage states and industry to be more active in prelisting conservation planning. This also would allow the Services to make a decision based on a larger body of evidence.
- [Conservation] Is this in reaction to a petition? If this is driven by federal agencies on species that are not yet listed, the states are not going to be supportive.
- [State] This is in response to a petitioned species. It is essentially saying listing is warranted, but precluded by a commitment from all the states in the range to a concrete conservation plan.
- [Conservation] Why wait until the point that a species is a candidate? Isn't the whole goal of this to not have that candidate by planning as early as possible. With lesser prairie chicken, the warranted but precluded designation was made 10 years ago and not much happened until the threat was on top of us. I'm not convinced that time alone is sufficient to drive action.
- [Agriculture] It is true that species were flagged early and we still saw no action on them until far later. There must be some common ground and understanding that the clock is starting to signal that we are deadly serious that something must be done. I don't think that ranchers and property owners would be concerned by having a 5-year window to get things on-the-ground if there was certainty about what would happen on the back end of that.
- [Conservation] Why not use the FWS seven-year listing workplan as a pilot for this approach? Those species that are placed in bin 4 with ongoing conservation actions – why don't we bring folks to the table for those to develop an objective goal to preclude listing.
- [Conservation] We don't have to do a whole collaborative process for every species, but maybe those ones that have a high degree of socio-economic tension. Or maybe we focus more at an ecosystem-level.
- [Agriculture] Another added benefit of this approach is getting a head start on recovery planning if the species is ultimately listed. Developing a conservation plan knowing that you are headed toward a re-evaluation in a set period time, the document could serve as a recovery plan if the species is listed.
- [Federal] If we are talking about something that serves as a defensible legal mechanism to defer listing under the ESA, FWS is going to have to be involved at some point so that there is consistency and rigor in development of the conservation plan.
- [Federal] Under this model, the federal government will need to be involved in setting the conservation targets that would preclude the need to list. Once FWS signs off on the plan they can step back and let the states determine how to accomplish the plan.
- [State] How do you measure success? How far down the path do you have to be when the species is re-evaluated after the set time period? If you're not where you need to be does that mean the whole plan is derailed and the species is listed?

- [Conservation] When we talk about deferring a listing decision for a period of time under this model, it seems more like a way to identify the low hanging fruit for species that conservation efforts have a reasonable chance of keeping off the list. Applying this model to a species that has significant hurdles to overcome may cause more frustration than anything else.

Create regulatory flexibility to allow adequate time for state-led conservation plans to be developed, implemented and evaluated before a listing determination is made. Upon the Services' acceptance of a state plan, conservation and mitigation provisions will be recognized as mitigation should the species ultimately be listed, and no further regulatory restrictions will be imposed.

- [State] States need assurances to confidently engage in proactive conservation planning for at-risk species. Generally, there need to be prelisting assurances that ensure that a plan will be enough to avert a listing. If state agencies are going to put in the time and effort to develop an extensive plan, they need to know the ultimate goal line to strive for that will ensure that federal agencies adopt the plan and abide by its basic principles.
- [Conservation] That sounds good, but can play out many different ways. It is entirely reasonable to ask for a goal line allowing that will ensure a stamp of approval from the Services, but then there are other examples of states wanting the Services to stay out of the discussion entirely since they don't have authority over prelisted species.
- [Industry] This is a fundamental tension that must be addressed to provide certainty to the regulated community. What exactly is the role of the Services in conserving prelisted species?
- [State] At a local/state level, the Services can provide valuable insight on plan development. In my state they provide some insight on sage-grouse mitigation, but have taken the position of stepping back to allow our plan to develop. If we ask, they will review, but it is not required. The Service is stepping back to take a broader look at the ecosystem, while allowing us to handle the details of getting to a broader goal. We are helping to define what their role is given they do not have authority over the species.
- [Federal] If a species is actively being considered for listing, the conservation actions are hopefully designed by states to prevent a listing. The Service can be involved for an assessment on how those actions will be ultimately evaluated come listing decisions. The Service can also play a role in providing assurances to landowners that are signing up for mitigation credits if a species is listed.
- [Federal] A very practical limitation to involvement by the Services in prelisting conservation efforts is staffing. There aren't always people available to work with locally or state-led efforts. Another limitation is certain groups that want the Services to indicate approval or sign-on to something that we have no jurisdiction for.

- [State] It would be great to have the Services come look at a state conservation program and definitively say “that will be enough,” but they are legally not allowed to do that under the current structure of ESA. This leads to the frustrations we see of the Services doing their best to engage constructively in a prelisting context, but then ultimately deciding to list.
- [Agriculture] What seems to happen is local and state plans are developed, and as they are incrementally moved up the chain they are determined to be inadequate after the fact. Strong guidance and direction from the Services can solve this problem. We need to give states some guidance to develop strong places that provide accountability for state and local governments, but also hold the Service accountable for allowing the plan to work within reason on a certain trajectory.
- [Federal] For sage-grouse, the FWS sat down with state biologists and determined a set of objectives that we all agreed would get us to “not warranted.” We have done this successfully for other species as well, but there are always a suite of post-decision factors like litigation that further complicate things.
- [Federal] The example of beardtongue is another example where FWS worked out a plan with the state that we thought would be strong enough to not warrant listing. FWS ended up getting sued which totally undercut the plan.
- [Agriculture] There is going to be litigation no matter what, so how does FWS determine what the bar is for success? Is success defending the plan successfully against litigation, or is it the plan it-self getting to “not warranted?”
- [Federal] An area to look to in improving the ESA is reigning in much of the litigation around FWS decisions. Grayling is an example where there was an immense effort with states and counties to avoid a listing. There was a lot of bridges built during that effort, but then it got sued after all of that. The FWS ended up winning that case, but that doesn’t always happen.
- [Agriculture] States just need a roadmap that assures them that they are on the right track. If the roadmap can provide a clear understanding of where we are, and what we need to do, this will empower all stakeholder groups to participate. The current lack of clarity around how conservation efforts will be weighed is what keeps industry away from these efforts. They understand that an ounce of prevention is worth a pound of cure, but the uncertainty in the process is what is really limiting industry involvement.
- [Federal] There are instances where the roadmap is clear, and the FWS can give a solid indication of where efforts need to be to prevent a listing. In other cases, like a species with a large range, it is impossible to be certain. This just points to the importance of working very early before the point of a species being petitioned. Once it is petitioned, there is a very narrow window to suddenly make a decision. 12-months is not enough time to do what needs to be done, we need to focus efforts earlier at the first indication of risk for a species.
- [State] We struggle with how to better engage the Services at the local and regional level. Is agreement on specific objectives for not warranted as far as the Services can go, or can we take that a step further and say that if those objectives are met within a definitive range, not warranted will be the result.

- [Federal] We don't know what we don't know, and we can never know what information will come to light. With that in mind, it is impossible to say with complete certainty that a species will not warrant listing, but it is desirable to get as close to that as possible.
- [Federal] Range-wide conservation planning seems to be a way to get further in front of these issues. There is not adequate guidance on multi-species habitat level conservation planning in the context of ESA, but the Service is trying to develop some. In many ways sage-grouse was the catalyst for providing resources and expertise to look more at habitat-based planning in an effort to keep species out of ESA consideration.
- [Conservation] Ecosystems and dynamic and constantly changing. When thinking about certainty and assurances, is it even realistic when looking at an ecosystem level?
- [Agriculture] Incorporate adaptive management principles in considering assurances for habitat-based conservation work. Define triggers and acceptable levels of variation within a set trajectory for the system. This can allow for minor tweaks in management while keeping things on track to satisfy defined goals as a condition of assurances provided – this avoids wholesale change that drives industry away.
- [State] We need to consider how assurances non-listed species are considered in this sort of ecosystem-level model. There is a void in our state-level system for unlisted species that covered under the State Wildlife Action Plan. Currently, there has to be a candidate or listed species present in an area to receive the assurances, but there should be a way for states to come up with a state plan for species that are SWAP identified, but not candidates or listed.
- [Local] It is worth looking at amending Section 6 to codify how pre-listed species are considered. The problem is that the FWS has policy on how they will work with the states to assist in covering prelisted species – but it just policy. We need to lock in to statute how the FWS can provide funding and guidance on non-listed species.
- [Local] ESA is limited only to threatened and endangered species. This is a major limitation in rewarding proactive conservation. There may not be an explicit prohibition, but it would be nice to see explicit permission to engage with voluntary efforts being led by state and local parties.
- [Conservation] I have some unease about modifying the language of Section 6 to do something that we can already do through regulations and guidance. Instead we should look to invest in SWAPs and other state planning tools.
- [Industry] All of this ultimately comes back to acknowledgement. Recognizing that if a state steps up with a plan that is endorsed by the Services, they will be allowed to maintain a leadership role in implementing the plan. This could come as a new stipulation in Section 4 of the Act for candidate species. Ensure that a plan is given adequate time to work if necessary criteria are met, within a certain time limit.
- [Agriculture] Instead of getting certainty that conservation actions will be sufficient to not list – which we realize is impossible to guarantee – find a way to build flexibility in around statutory deadlines for appropriate state plans. We can't

say that a species will never be listed, but rather we want to ensure that we are giving enough flexibility for the plan to work. It seems like this would really drive more collaboration and more durable conservation.

- [Federal] Flexibility around deadlines in limited circumstances is an interesting concept. There may be some species where we understand the threats, and we know what conservation actions are necessary, we just need time for the plan to unfold and work.
- [Conservation] Think about prelisting efforts in terms of incentives. What incentivizes people to come to the table and stay there? The further we move away from listed species, the less the FWS knows about the species as states have management authority and better data. It is tough for the Service to say that we need you to hit this goal, and the species won't be listed because they don't have enough data to make an informed decision.
- [Federal] Getting to a point where the Services say this species will never be listed is a bridge too far for many people in this room. What we need to figure out is how can we get as close to that as possible, while allowing for continued state management and conservation.
- [Local] Ideally, to keep folks at the table we should try to defer to local input and management as long as we can, until we cross that management threshold of being listed. Could mandating deference to state and local plans for land management agencies get us closer to that goal?
- [State] It is incredibly complicated to determine what state fish and wildlife agencies can do on federal lands.
- [Federal] It sounds nice for everything to come together neatly enough to allow federal agencies to defer to local plans, but the reality is much more complicated. What if the local plan is in direct conflict with FLPMA for example?
- [State] This discussion of jurisdictional boundaries again brings us back to the goal of looking more comprehensively at the landscape. We can't do a big drawn-out collaborative effort for every single species, so it is more cost effective to look at ecosystems in general and determine holistic management practices to stay ahead of the curve where we can.
- [Federal] Should we consider creating a new category of species in the ESA prior to candidate where there is an established conservation need, but conservation planning is underway? This would give the Services some latitude to delay a listing determination for some period of time.
- [State] I'm not sure states would go along with that. Adding a third category to petition responses essentially just expands the list of species that will not be given a "not warranted" decision outright. Maybe keep things in the warranted but precluded realm, but the precluded pertains to ongoing conservation actions.
- [State] We are also not recognizing the extent to which there are successful stories. States are engaging prelisting conservation and keeping things off the list. In my state, we can point to more successes than not, but there is still a need for a better process. If we implemented our SWAP top to bottom and all the money to do that, we would probably keep more things off the list. We have irrigation districts doing conservation work for species that could be petitioned soon, but

there is currently no way for us as the state to provide some assurance and recognition for those efforts. There is a niche of species that need a more formal framework.

- [Conservation] We could look at applying mitigation provisions as mitigation credits if a listing occurs – or provide some sort of take permit. Take assurances provided are the ultimate goal, but minus a solid framework we may be able to still get mitigation credits.
- [Industry] Essentially, what we are doing is trying to reconcile adaptive management principles with regulatory assurances for establishing a conservation agreement. This sounds like we are proposing a CCAA-like process for a broader set of species to incentivize landowners. But, the Services first need authority to give assurances based on mitigation projects.

CRS should develop a background paper on funding and financing mechanisms for species conservation efforts.

- [Academic] We have explored the idea of using mitigation and conservation banks that would create credits for conservation, but the question in my mind is how do you work them in terms of application? Is it project-by-project or a generic approach to use credits for threatened or endangered species? Creating programmatic approaches will likely lead to more programmatic means of securing funding – it is important to clarify intent here.
- [State] We have 19 different conservation plans and 20-30 separate conservation banks operating in the state. We have species assessment districts and the FWS does provide some guidance, but there are so many different variations and scenarios that it is tough to discuss programmatic funding. We need more guidance from the Services in creating markets and incentives for conservation credits and banking.
- [Industry] Another approach used for funding is targeting industry dollars by providing a more streamlined compliance process with ESA and NEPA. There are programs – primarily used on endangered fish species – that leverage industry money by providing an easier route to compliance system-wide.
- [State] We shouldn't lose sight of existing mechanisms like Section 6 grants and offshore oil and gas funds. They don't seem to be fully utilized.
- [Academic] Maybe it would be helpful for DOI or FWS to develop a background paper on funding and financing mechanisms for conservation. Research all the various methods and guidance that exist to create a roadmap. There are ways of funding conservation that we haven't explored that could be used at a landscape-level.
- [Agriculture] We should also look at the planning side of things. We are focused on project-by-project planning and it may be more cost efficient to look bigger at habitat and landscapes, but I don't see how we possibly have the bandwidth to

implement all of this in a timely fashion. We need more investment in research and planning to empower the Services to be responsive to industry looking to engage in a mitigation banking effort.

- [Agriculture] Beyond just researching funding mechanisms, there should also be more effort put in to measuring and reporting outcomes of existing conservation programs. We need to be able to confidently state how these programs translate into tangible outcomes on-the-ground. We know these programs are good, but it is going to be an uphill battle to get new funding if you can't measure and report outcomes to those controlling the purse-strings.

Make new funding mechanisms available to the Services and states for Section 6 activities.

- [Agriculture] The Services do not have the resources to engage in a timely fashion with groups that are trying to be proactive about conservation. We should explore a model of delegated authority similar to the EPA system to delegating certain tasks to states.
- [Agriculture] Delegate authority may be a bridge too far for many here, but we still need to look at funding under Section 6. If you provided additional funding to states through Section 6 will that empower them more within the Act?
- [Industry] The way the ESA is written does not encourage funding to be directed to prelisting conservation activities. Implementing conservation programs and even just moving planning efforts along seem to be lacking. The Services need more funding to be responsive and to anticipate emerging issues.
- [Industry] We don't have nearly enough resources allocated to the planning side of things to even be able to implement much of the voluntary incentive-based programs that we have discussed in a timely fashion. We need to invest in research and planning to empower the Services to be responsive to industry when they are earnestly looking to engage in mitigation banking or similar efforts.

General participant discussion on species for which the Act may not address threats.

- [State] Do we need to consider a different category outside of the ESA? There are species that will inevitably be listed, and may be listed forever, like California condor. We need to recognize that for some species, there is going to be a cost to simply keep them on the landscape. It is not really a question of recovering them anymore, it is more of a recognition that society values certain species enough to pay for the never-ending cost of maintaining them.
- [Conservation] New Zealand puts some species on an "iconic list" to prevent commingling funds for endangered/threatened and iconic species. The iconic species may also be threatened or endangered, but it doesn't matter – they are funded separately.

- [Agriculture] This makes sense, but it is concerning that there would be a process for designating species as “iconic” similar to how National Monuments are designated. If we go down that road, you are setting up for hurt feelings and a battle almost every time you want to designate.

Work Session Four: Landscape-Scale Conservation and Best Available Science

Participant discussion on principles of landscape-scale conservation – Breakout Group 1

- [Federal] One of the most important factors to consider first in designing a landscape-scale conservation effort is who all the potential partners are that will have an interest in this landscape. The sooner you can bring them in the better.
- [Industry] An important distinction is determining whether you are talking about a plan to conserve a landscape, or a plan to conserve specific species across a landscape. In some instances, it may be both, but it is an important consideration in designing a landscape-scale effort.
- [Agriculture] From a purely biological perspective, you need to first look at what ecological processes are at work that define the landscape. The ecological processes that help us define a specific landscape type – this can be specific habitat, fire adaptations, migratory range of a species, or watersheds. Once you have the biological considerations mapped out, next you need to look at cultural and socio-economic factors that define what the working landscape is for management purposes.
- [Conservation] A policy consideration is how you will connect permitting or management decisions to landscape goals. There is an issue of scale there that is challenging when it comes to the policy side of things. Permitting is considered case-by-case and rarely within the context of other management processes in play by other state/federal agencies. Coordinating these sorts of decisions across the landscape is challenge we need to consider.
- [State] That is a great point. How do you also consider these efforts to balance them with existing development and rights across a landscape? It seems difficult to coordinate all of that without government mandates.
- [Industry] A first step is to make sure everyone is at the table to define a common vision or goal. Next you need to look at existing land use and mineral permits to examine what conflicts implementing the shared goal/vision may create legally and philosophically with those existing uses.

- [Legal] A question to consider is what are we planning for, what initiates this process? Is it an endangered species, water quality concerns etc.? Whatever that catalyst is, next you need to consider what and who the plan involves. Do you develop it at a township scale, or maybe a species range is broader than that area you immediately have in mind.
- [Legal] My experience in successful landscape-scale collaboratives is that there is a precipitating idea that comes up. It can be someone at the state looking to get ahead of the curve and plan for landscapes. From there it is up to that catalyzing voice to assert leadership and bring people to the table.
- [Legal] The experience with Desert Renewable Energy Plan is worth examining. Parties got together to put together a landscape-scale plan and were initially trying to address millions of acres at first. It became clear that a central group of folks trying to drive a plan that large would be unwieldy at best. What ended up happening was partners broke the plan out in to discrete focal-areas and agency leads within each focal area were responsible for meeting a series of goals. Each agency/NGO/Industry group would bring their unique mission to the table and determine how best to reconcile a collective effort to reach focal area goals.
- [Conservation] There have been efforts where planning started and we realized the focal-area was not large enough to accomplish goals. There also plenty of examples where the inverse is true – it is too large and you need to break it up. Both of these are inherently landscape-scale conservation, but with a different focus.
- [Industry] Looking at the sagebrush ecosystem – for the last four years states and industry have determined that they need to begin to look at the ecosystem. Sage-grouse was first, but next we will be looking at brewers sparrow or any other number of species. There has been an awakening that if the ecosystem is not considered as a whole, we will forever doing one off efforts on species. Industry doesn't want that, conservation groups don't want that, states don't want that.
- [Agriculture] There is an important distinction to make. Collaboration among states is important, but if with sage-grouse the goal was to develop a multi-state plan, I think we would have failed. You need coordination across state lines, but you can't say that we are going to do this as one landscape-scale conservation plan applicable across all borders.
- [Agriculture] Most of the folks who engaged with sage-grouse get it, but there is a serious tension that we need to address around the concept of landscape-scale efforts. Many have come to think of it as command and control, top-down management. We need to think in terms of scale of influence and not dilute local voices by going too big, too fast.
- [Agriculture] Defining scale is essential. At a large enough scale, say multi-state conservation planning, it gets big enough that ultimately it becomes people in D.C. dictating what the plan looks like. It is impossible to account for local influence at the scale described. I don't have the answer for what the right size is, but there is definitely a point where local folks starts to feel diminishing returns – we need to be careful not to cross this point in planning.

- [Agriculture] The agriculture community has nearly uniformly rejected the term landscape-scale conservation as it implies top-down command. Watershed-level implies more local control. We need to be cognizant of messaging – it will matter in how these efforts are received.
- [Conservation] It comes down to relevancy. What scale do you need to look at to be relevant to the threats you are trying to address or take advantage of the opportunities that exist in a given landscape.
- [Industry] Another factor that helps determine the scope of this is the outcome that incentivizes each party to engage. If industry or landowners see from the beginning that the intended outcome is a regulatory one, you will probably not get great buy in.
- [Conservation] We need a more systematic approach to looking at lands and ecosystems. Land is infrastructure and we need to consider it as such. We need programmatic funding and programmatic approaches that treat land as any other infrastructure. Until there is a systematic approach to looking at lands, we will continue to be reactive and fight these ESA battles.
- [Federal] Who initiates this sort of landscape-scale effort? This seems to be the crux of the matter. Whose responsibility is it and whose opportunity are the catalysts for starting to plan.
- [Industry] Unfortunately, more often than not, it seems to be risk that drives these efforts. Douglas County in Colorado put together an HCP for prebbles jumping mouse solely based on the risk of a listing under ESA.
- [Agriculture] That is function of funding and gets to the underlying question of who bears the burden and how is that compensated. The concept of ecological services is a cash cow if it ever matures. If you can convince downstream users that it is beneficial for them to pay for these services, there are immense opportunities for funding.
- [Conservation] If the general philosophy here is that states need to be proactive, most of their funding comes from Pittman-Robinson dollars. This comes from gun owners, but that demographic is shifting. As the percentage of the population that hunts declines, gun groups are going to look at the 11% tax on arms at some point and wonder why. We need to have a serious conversation about where we are heading in terms of conservation values and determine how well the current model of funding to states actually works.
- [Agriculture] Getting back to incentives – it doesn't always have to come in the form of a check. One of the biggest incentives out there is maintaining quality of life or operational certainty. Ranchers can gain the assurance that their way of life is safe, States see increased revenue from tourism as a result of healthy landscapes, and industry can gain operational efficiencies. These can all be done through the marketplace and don't rely on the feds cutting checks.
- [Industry] I'm getting that there is no easy plug-and-play process that will always work. What is more important is to define the process and the essential building blocks of any effort and let localities decide what will work to accomplish a goal. If we say "here is the Cadillac plan, you need to replicate it," we are doomed for failure.

- [Industry] Industry and other stakeholders need certainty over everything. Why are they going to commit so much time and resources to something if they don't have certainty? There are all sorts of incentive programs and mitigation programs, but it is a huge risk for landowners to stick their neck out and advocate their neighbors to join. If they do this, it needs to be worth their time and investment.
- [Agriculture] The structure of a successful model for landscape-scale conservation needs to foster leadership at whatever level rises to the task. Not all Governors are going to go out like Mead and Freudenthal did for sage-grouse, so we need to make sure we aren't just limiting our discussion to exclusively the Governor level.
- [Academic] Leadership at the federal level is also essential. This is difficult because you do not want to come across as mandating top-down management, but you need someone at a high level in Interior who can speak the language and is able to facilitate and encourage the right people to get the ball rolling.
- [Conservation] We need to message this as an incentive for states. If you spend money now, you will spend less than if you are ultimately faced with a listing. There is a role for all of us to play in spreading that message.

Participant discussion on principles of landscape-scale conservation – Breakout Group 2

- [Industry] How do we define a landscape? Is it a specific habitat type, or a range of species? In my experiences with landscape-scale efforts we have focused at the watershed level and looked-for umbrella species within that area. Is it about finding the common element for the habitat that those species rely on? There are a lot of options so I'd like to get clarity from the group.
- [Sportsmen] Rather than simply focusing on habitat, it is more important to look at threats to the habitat. What scale are those threats, that can be a good starting point to define a landscape to focus on.
- [Federal] Another consideration is the characteristics of the habitat and how species utilize that habitat. What part of the life history of the species is dependent on what habitat.
- [Recreation] Ecological considerations make sense as a starting point, but you also need to account for the socio-economic factors and the stakeholder communities that will need to be engaged.
- [State] There are really two over-arching factors in landscape-scale conservation efforts. 1) The biological needs of the species; and 2) the political realm that you will be working in.
- [Sportsmen] The political environment does have an influence on all of this. The effort on sage-grouse was largely driven by the impending listing decision under ESA, but we need to focus on building the political will – and political cover – for states to look at what the next ecosystem effort will need and mobilize earlier.

- [Industry] I think industry is waking up to the idea of landscape-scale efforts. In my company, our main goal is investing in the communities we operate in and enhancing the things that those communities care about. Out west, a lot of what drives these communities is the natural landscape, so we are getting behind investing in landscapes as a means of committing to invest our communities. If you can message it that way, it resonates with the decision-makers for the company.
- [Recreation] Does maximizing benefits at the landscape-level do more for species than focusing conservation efforts at the species level? Landscape level planning will never succeed if you don't remove or modify the impetus to manage at the species level, which is driven by ESA.
- [Conservation] Our approach for non-listed species conservation is to focus on ecological processes that can happen at the ecosystem level, like fire regimes. Managing broader ecological processes that occur at the landscape-level. Once you have that layer of landscape conservation in place you can go in and manage individual species. They are different steps in the process.
- [Sportsmen] The original intent of the Act was an ecosystem-based look, but to do that first you need poster child.
- [Conservation] Monarch butterfly is good recent example – collaborators are looking at the species, but looking at a lot of ecological improvements across the range as well.
- [Industry] Industry plays a role in this as well. What we are doing is seeking to build relationships with biologists in state agencies across our footprint and then entering into agreements with the agency to provide a certain level of funding to implement our agreed upon surveying/conservation activities.
- [Federal] Landscape-scale conservation does have a negative connotation amongst many private landowners who will likely view it as just another flavor of federal over-reach.
- [Industry] Looking at ecological processes like fire are important, but they don't drill down to specific suite of species – which is what is required by the ESA. It is really hard to manage for every single species in a landscape. I see this as trajectory. I don't think this group or others looking to improve the process are going to get there immediately, but if we can show progress and take off bites successfully, and manage those habitat areas that are a fit for private sectors, municipalities, my industry, renewables to manage, in small bites, we can keep moving upward. I'm concerned that some well-intended efforts doing good work might suffer a failure that undermines movement up the curve.
- [Industry] A lot of this work is initially started by getting ahead of listings or responding to petitions, but if you start to see results and shift the focus to investing in people and communities, this starts to become more of a way of doing business than a solution to one-off species issues. It is a gradual process though that requires a lot of trust building.

- [Conservation] We need to think about what motivates people to engage. What motives industry to come to the table and help fund this, it needs to align with company vision and values long-term for success. Ideally, this is done without ESA driving it – we are getting far enough ahead that it is not just responding to ESA, it is driven by values and common goals.
- [Agriculture] The frustration of many landowners is the impact that ESA litigation can have on actually implementing what we are talking about doing here. I don't see how we can get to coordination across numerous levels of bureaucracy when agencies are paralyzed by litigation. We know our forests are in bad shape in many cases, but the Forest Service just must sit and watch a watershed degrade because we are allowing a small set of interest groups to weaponized ESA to the point where Forest Service has their hands completely tied.
- [Agriculture] There are examples of things turning a corner in some areas, but in many areas landowners have been raised on 40 years of distrust with federal agencies around ESA. Landowners have their hands full just dealing with listed species – it is already overwhelming. Many don't trust the system and have a hard time participating in it for a variety of reasons. We need to make sure whatever we move forward with on landscape-scale conservation ideas – they are not regulatory. NRCS works well because everything they do is incentive and education based, and the perception with FWS is that everything is regulatory.
- [Sportsmen] Those are great points, and really hammer home the challenge. How do we get people to the table? It needs to be truly voluntary and create incentives outside of the regulatory arena. That means we need funding, and not just from ranchers, industry, this is a public issue and the burden needs to be dispersed.
- [Sportsmen] There need to be clear goals and landscapes defined. For example, the landscape could be the entire ponderosa pine landscape across the biome, or as discrete as a watershed within that biome. I'm not advocating that one is better than the other, just noting that it is essential to have a focus and common definition of what is in question before you start.
- [Federal] Scope and objectives come into play before a listing decision when there is still discretion on that. You can't make a landscape-scale conservation effort acceptable to private landowners without looking to the government to share cost. We have to be thinking about funding and implementation. What could WGA say and do about this? There has to be some way to provide more incentives, and I don't know of any other than financial that really work for ranchers and landowners, since they operate on such a narrow margin. I think that NRCS and the working lands for wildlife program made a big step forward and I worry that in our current budget environment we're going to lose all of that. WGA can talk about the importance of these sorts of programs.
- [Federal] We should address the tension between state/federal authorities in landscape-scale conservation. There needs to be a better understanding from all parties of the similarities and differences between various authorities.

- [Conservation] We also need an understanding of tools that already exist for landscape-scale planning. I think seeing what other efforts have done to address jurisdictional concerns could be helpful. We need a one-stop shop to comprehensively details what efforts are already out there that could be utilized.
- [Industry] I know that federal authority is very limited in the prelisting realm, but if you have a candidate species occupying the same habitat as a suite of species that are not candidate or listed, can a CCAA permit be extended to the suite of species beyond just the candidate?
- [Federal] Yes, there have been instances where a CCAA covers other at-risk species beyond just the candidate.
- [Industry] Going back to the role of states in this – what is the process for recognizing that role? Many species are not under the authority of the FWS, so they will play a big role in this, but landscape-scale in the west has to include federal lands as well. What can the states do on those federal lands?
- [State] Is there some way that if a state has an active conservation program under section 6 that includes candidate species, it could be recognized or permitted to continue after that species is listed? That way they wouldn't have to go out and pursue a section 10 permit. If the plan had a permitting or contractual obligation for inclusion into the plan. It could be recognized by the service as the permitting mechanism.

Put mechanisms in place for third-party aggregation and reporting of confidential data.

- [Federal] A huge issue in sharing state data with federal agencies to inform decision making is FOIA liability. There are many cases where we simply cannot protect the data from publication that states send over.
- [Conservation] USDA has protections for landowners' data and FWS/NOAA can withhold data if they can justify that publication of that data will be potentially harmful to sensitive species. Do we need to expand that beyond just withholding data that may harm species?
- [Federal] FWS can withhold certain information from publication but it is a very narrow band of data and is incredibly hard to defend if challenged. Looking at FOIA for amendment to give FWS more cover for states would help alleviate a lot of concerns on behalf of states and landowners when it comes to data.
- [Agriculture] This Congress is pushing for more transparency in ESA, not less. It may be a tough sell. Is there room for a third-party service that sits between states and feds that is trusted with review capability to filter out private information but clearly publish what the scientific trends are? A model like this could help foster transparency and increase trust among both sides.
- [Conservation] There are already means of aggregating data and reporting it in a way that you are protective of landowners. We don't need statutory exemptions to accomplish it.

- [Conservation] It is essential to get this right. We want to encourage collaboration and let landowners know that they are not setting themselves up for future headaches and further hurdles by collaborating with state and federal agencies.

Examine the 1994 joint Services policy on data sufficiency and test it against modern means of data collection and modeling.

- [Conservation] Many frustrations with the ESA as it pertains to science can be boiled down to accessibility and transparency. I'm certainly not aware of this, but is there formal guidance that the Services use to determine best available science?
- [Federal] Much of the criteria for evaluating BAS is based in case law, but there is also a 1994 joint FWS/NMFS policy that provides a decision hierarchy on data sufficiency and how it should be weighed. The case law states that even if science is not peer reviewed, you can still consider it best available in some instances.
- [Agriculture] Case law and experience within the Services are important, but we have work to do on this issue. There needs to be some sort of third-party clearinghouse that can assess and report on the credibility of data. Industry data is often discounted and science can be perceived as being influenced by politics at times. We need some sort of impartial judgement on data used to inform decisions.
- [Federal] All ESA decisions are governed by the APA. You can decide to use certain data or not, but you have to go through a rational explanation of why you discounted certain data.
- [Agriculture] The bar for a positive 90-day finding is very low, correct?
- [Federal] Yes. It is mostly just meant to ensure that you are not overlooking something. It is an entirely different case for a 12-month finding that requires extensive data collection.
- [Federal] The feasibility of deadlines in the ESA is directly related to workload. The heavier the workload, the more unfeasible it is to get through petitions at both the 90-day and 12-month deadlines.
- [Conservation] So how do you get state data into a review process quickly enough and effectively enough for them to feel that they are at the table? A lot of this data may come in as monitoring data. The question in my mind is how well are states monitoring their populations to actually inform a FWS discussion?
- [Conservation] To the extent that federal agencies can be very clear about what they will be looking for in data assessments, the process will be easier for states to incorporate their data into the process. Similarly, states should work to be consistent with monitoring and formatting of data so it is easier to align with federal data collection methodologies. Both sides working to improve on these points would help make for a more efficient exchange.

- [Agriculture] When you are making a decision to list under ESA you are making a decision at a point in time based on the best available science. When you identify criteria for a delisting to take place, and then new science comes in, it shifts the process. This creates an ever-moving goal of what is adequate for delisting.
- [Agriculture] This is one of the biggest challenges with ESA. The bar should be higher when you are modifying a proposed future criteria for delisting than when you are making a decision based on science that is available at one point in time for listing.
- [Industry] My concern is putting the onus on defining criteria for best available science all on academia and peer reviewed science. We have seen ESA decisions based on studies before it was even published. For so many of these species, there are incredibly small groups of scientists that study them, so they are often peer reviewing their own work. Then you look at industry science which is not peer reviewed, but has to go through extensive NEPA but is still held to a lower standard.
- [Federal] Peer review is not the only criteria that is assessed in determining the validity of science. Peer reviewed and published information is considered a higher standard and deemed very credible, but it is not the only standard.
- [Industry] There is a perception in certain sectors that if it is not published and peer reviewed it won't be considered. If it is used in NEPA work it should be seen as high value – but the perception is that it will not be seen as such by the Services.
- [Federal] The Species Status Assessment process that is relatively new may address some of the concerns that folks have. The process brings together biologists from the Services with biologists from states, other federal agencies and recognized species experts. The team doesn't make the listing decision, it brings together information and writes a report. This is an effort to increase the scientific integrity of decisions by separating the biological analysis from the policy process.
- [Conservation] Going back to the 1994 policy that was mentioned that lays out a hierarchy of how much weight to give certain data – how relevant is the policy today in light of new methodologies for data collection?
- [Federal] It is still relevant minus the developments in predictive modeling and climate change analysis in the ESA. That was not as available as it is today, so there is probably further guidance to be provided there.
- [Industry] I would guess that many who are actively involved in ESA do not even know this policy exists. I would like to better understand it. For example, does it ensure that data provided by state agencies is given a high level of deference?
- [Federal] This is the crux of the issue. Does best available science need to be refined in the ESA to narrow the scope of all available information? Case law says you have to at least look at everything, but do we need to consider narrowing what actually constitutes as best available science.
- [Conservation] A good starting point would be re-examining the 1994 policy that we have been discussing and seeing if it measures up to the realities of today. Develop a set of questions that may identify deficiencies, and update the policy to address those deficiencies.

Develop data collection and reporting standards among state and federal agencies on collecting baseline data for NEPA permitting and ESA analysis.

- [Industry] In Colorado I can think of an example where there a BLM field office that also shares space with FWS and Colorado Parks and Wildlife. They have three different databases for raptors all housed in the same building, and the formatting and data contained in each database is completely different. Each agency will tell you that it is different data collected under different permits, so it cannot be combined, but if you were able to do that it would paint a more complete picture.
- [Conservation] States and federal agencies both have to do a better job on standardizing data collection and reporting procedures. States need to understand the importance of reporting. In Wyoming, there has been a lot of great work done on reducing conventional drilling sage-grouse habitat, but the reporting on it is sub-par. We need to help in reporting on data and messaging on what is working and what is not.
- [Federal] This speaks to the need for good communication between the Services and stakeholders in terms of what information is helpful in making a listing decision. There may be data that is essential to a listing decision, and other that is more peripheral. The Services need to communicate better with stakeholders so they know what data to provide.
- [Industry] More open and established lines of communication on what data the Services need to make a decision would go a long way towards building communication and trust.
- [Conservation] As I understand it, many states are not concerned about their data being incorporated if it is peer reviewed. The concerns lie in the data that is not peer reviewed, but still valid for consideration. This boils down to a monitoring, reporting and collection issue. Many federal agencies are currently trying to refine data standards across the boards. To the extent that states can shadow the movement for methodological consistency, that would help ensure their data is packaged in a way that is usable by federal agencies.
- [Industry] There is a massive amount of industry data collected for NEPA, but trying to transfer some of that data to inform an ESA listing decision is usually frivolous. It doesn't seem like anyone has figured out how to take data used in NEPA and reformat it in a way that is usable to FWS. There is a bevy of information on species just sitting on the shelves of land management agency field offices from NEPA work that could really help in an ESA context.
- [Industry] Applying data collected for NEPA to species specific issues could also be extremely useful in establishing landscape-scale efforts. If you are engaging in surveying and planning a landscape-scale effort, there is a good possibility that the data you need already exists from NEPA work.

- [Industry] Anytime there is some sort of federal nexus for industry there is a massive amount of data collected to inform the process, but it isn't usable outside of the NEPA context. This is such a waste. It is in different formats so it isn't used. Industry spends all this money for NEPA and we can't even have it inform a listing decision.

Agencies should publish guidelines on how they weigh on uncertainty associated with the use of predictive modeling in listing decisions, critical habitat designations, recovery planning and delisting decisions.

- [Industry] A challenge I see to using predictive modeling for population analysis is that there is not universal agreement that it even should be used. The Act's language pretty clearly does not allow for predication and speculation.
- [Federal] The ESA provides protection for species that are in danger of extinction at a point of time. Threatened species are in danger in the foreseeable future. The Services have been doing predictions on land use, development and habitat change for some time. People didn't object until it was done for climate change, but foreseeability and the use of models is as relevant to changes in forest health (for example) as it is to climate change. The real question is, should the Act apply protections to species that will be in danger in the foreseeable future.
- [Recreation] How does that then apply to critical habitat designations when models suggest that currently unoccupied habitat should be designated because it will be essential in the future?
- [Agriculture] I am concerned that through increased reliance on predictive modeling for climate change, the Services are anticipating changes in critical habitat for species 50-100 years out based on what areas models suggest will have characteristics necessary to recover that species in the future. I recognize the value of predictive modeling and realize that it applies beyond just climate models, but in the case of climate change I am concerned. The language in ESA is very clear, I'm not sure the Act is even equipped to deal with species threatened by climate change issues."
- [Industry] Exactly – there is value in predictive modeling, my primary question is whether the Act is even the appropriate vehicle to be addressing issues like climate change.
- [Conservation] Some species have cyclic fluctuations. I would take issue with the Services not using predictive modeling as best available science to establish trends and predict those fluctuations. In those cases, it is not different than other kinds of science and data.
- [Federal] If you are listing a species that is impacted by climate change, the question is what can you do to recover it? Can you buffer or ameliorate certain threats and what resources are available to do that? You can't change the global aspect of climate change, but there are actions that can be taken to improve resiliency in the face of it.

- [Conservation] I'm not comfortable distinguishing a climate model from a model predicting the amount of water that will be in a river for the next 30 years. I am more comfortable dealing with how it is weighed.
- [Industry] A question that we need to discuss is how much weight predictive modeling is given in listing decisions.
- [Federal] In listing decisions – there are population viability models that are developed to project reproduction and population in the future. Beyond climate change modeling, that is another way predictive modeling is used, but modeling is not able to be used in every listing decision.
- [Conservation] There is a difference between conservation planning and development planning. We need to bring those two focuses more in line with one another. Looking at landscape resiliency to development based on projections of what a city footprint will be 20-30 years in the future could be helpful for planning purposes.
- [Industry] I get the need to use predictive modeling in some cases, the bigger question in my mind is how is the data used and how is it weighed when considered with other more empirically derived information.
- [Federal] It depends on species-by-species basis. When models are used that the Services developed in-house, the assumptions and data that went into the model are clearly defined.
- [Agriculture] So it sounds like generally, decisions are made solely on predictive modeling? There is a primary consideration that goes on using more traditional methods and then a model can be built as a secondary consideration to test scenarios? For example, we can see that a species is declining, but predictive modeling is used to see what things look like if things improve, or get worse, in the next 30-50 years.
- [Federal] For the most part, yes. Ice seal and Polar bear listings were a bit different and based primarily on predictive modeling. They may be only showing minor signs of trouble now, but the climate models make it clear where they are headed.
- [Federal] These have to be case-by-case evaluations. It is going to be almost impossible to create a one size fits all rule on whether/how predictive modeling should be used.
- [Federal] When the Services use predictive modeling for climate change there is a two part evaluation that goes on. 1) How confident are you that the model can accurately predict what is happening with climate. 2) How much inference can we make on impacts to the species. If either of those two considerations verges into the realm of speculation, then that is not something that a listing decision will be based on.
- [Agriculture] Predictive modeling is necessary to know what is going on with species and should be used judiciously. There is a credibility problem though the more the Services factor in climate. The more reliance on predictive modeling in a decision, the less credible it appears.
- [Agriculture] One thing we should consider is whether the modeling itself needs to be reviewed and reassessed periodically.

- [Conservation] There seems to be a progression that is needed. Assessing models periodically will probably help us get future ones right. We have to figure out how we can get to the point where we have models that we are confident in.
- [Federal] As soon as the Services ignore climate in a decision, interest groups will be after us. If it is relied on too much, there will be more litigation. There is a fine-line that has to be walked.
- [Conservation] This all comes down to flexibility. We need to provide recommendations on how to manage ESA in a more flexible way in the face of emerging science, but we also need to go back and assess whether predictive models used are holding true. We need to do a better job of holding ourselves accountable and messaging that.
- [Conservation] Any recommendation on using predictive modeling should state that predictive models need to be relied upon, but be adaptable to change. Periodic reviews could be installed as a check on uncertainty to see if things are unfolding as we thought they would when the decision was made.
- [Conservation] Science is not static. It is in how we deliver the information that is really in question here. How do we put this across to people so that more faith is built in the way we do business. Be more transparent about mistakes – we missed this, but we got this right.
- [Legal] This speaks to this notion of trust that we keep coming back to. If you increasingly work in a collaborative way, people are going to be more trusting when you have to adjust course midway through the process.
- [Agriculture] We also need to look at capturing externalities on a broader scale. We are penalizing those closest to the ground for a global problem. Rather than penalizing those that can probably do the most in the short-term to add resiliency to climate threatened species, attach incentives to climate-based listings.
- [Conservation] Everyone wants open space and wildlife, but who is usually responsible for preserving and presenting these things to people – it is usually the ranchers.
- [Agriculture] Looking back at sage-grouse – that was the first time I have seen the ESA create an opportunity for me and not a penalty. That wasn't the ESA, that was the people involved.
- [Agriculture] It always comes back to a discussion on the carrot and the stick. In the instance of sage-grouse we actually moved beyond the fear around ESA. The Act may have been the catalyst for what happened, but we moved beyond that.
- [Agriculture] For the ESA to continue to be an opportunity creator rather than a bludgeon, funding has to be in the discussion. We are sending a mixed message. Congress is defunding agencies, so they are less and less supportive of on-the-ground conservation that could get us ahead of the next big ESA issue.
- [Agriculture] That includes being more creative than simply continuing to say keep federal dollars coming from Congress. We need to be more creative in how we bring community resources together, industry resources, and public resources.