



ASSOCIATION of  
FISH & WILDLIFE  
AGENCIES

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**ENERGY & WILDLIFE POLICY COMMITTEE**

**Chair: Brad Loveless (KS)**

**Vice-Chair: Bob Sargent (GA)**

**September 27, 2023**

**8:00 am - 11:00 am MST**

**113<sup>th</sup> AFWA Annual Meeting**

**Calgary, Alberta**

**Room: See Whova App**

**Committee Charge:** The energy and wildlife policy committee is focused on understanding and ameliorating the effects of energy development and generation in North America and its impacts on fish and wildlife resources and their landscape habitats at the state, province, territory, region, and international levels.

**Agenda**

8:00 am Call to Order/ Approval of Minutes from March 2023 NA meeting  
*Brad Loveless, KDWPT*

- *Call to order 7:59*
- *Motion to approve minutes – voted and approved*

8:05 State and Provincial Roundtable  
*One representative per state agency highlights a couple of legislative and policy initiatives, issues, or success stories.*

- *Oregon- offshore, on-shore wind uptick but transmission is the limiting factors; we do have some regulatory authority and are working with developers to find least conflict sites.*
- *Craig Johnson – Alberta – fine tune caribou and sage grouse plans to remove old oil and gas infrastructure; wind and solar – government put a pause on all approvals for renewables for the next 6 mos until there is a plan for end of life; to date, all development has been on private land and there will be a push to have on crown (public) land; we don't have regulatory authority, but do have arms length regulator; we have some directives on bats and wind and solar, but are dated, so working on updating those documents.*
- *Colorado – Colorado Oil and Gas changed to the Energy and Carbon Management Commission which officially added helium drilling, geothermal drilling, carbon sequestration; carbon is trying to go into old oil and gas but might be a challenge; orphan well program is taking off bc they passed financial assurance program where you have to pay for them orphan wells, so big improvements from operators closing low producing wells; wind and solar - transmission line that will affect Lesser Prairie Chickens (LPCs), line currently will go through critical habitat, project selection short list recently released; 15.5GW in SE CO half could impact LPCs.*
- *Garry George – Audubon – Transmission and Birds report recommending having been giving webinars to members and congress, encourages coordination with state agencies.*

- TX – bill in last session to give department required role in wind and solar siting, but did pass through senate but not house, so didn't make any headway, but it is likely just a taste of what is to come; what did pass was a bill where renewable energy projects are excluded from a revised tax break program; SB1290- current and potential effects on operation and disposal of solar and wind equipment to water and environment, but TPWD was not a named agency for that report; BOEM leasing in Gulf, no bids for Galveston offshore, perhaps bc low cost of energy in TX in general, lower wind speed, higher costs due to inflation etc, and political environment in TX.
- Kansas – much less activity this session for energy issues, talking about protections for flint hills, request to governor for moratorium to keep wind out of flint hills, and have been discussing how do we include solar in this conversation too- wildlife and VISUAL impacts the viewshed is so important for tourism, no solar on undisturbed prairie grasslands which pushed development off the hilltops and into the lowlands;
- Jordan Myer – Missouri – MDC is non-regulatory so we work as technical advisors, with wind energy, we have largest population of Indiana bats so we are encouraging developers to follow guidelines for bats as they come in; growing solar interest, which has indirect impacts to land conversion for bats; Policy – last legislation session was stagnant but in previous year a bill passed requiring interstate transmission to provide power in proportion to state in response to some imminent domain issues.
- Jasmine Kleiber – NV – state is almost entirely public land (86%) and has become hotspot for all things energy, 11 geothermal facilities occurring in greater sage grouse habitat, 5 transmission lines in the process w/1 congressionally mandated in 2010 so don't need NEPA. That line is in NE NV and construction is projected to be completed in 2 years, the line is in sage grouse habitat; the other 4 lines span the entire length of the state and include the Green Link project which is impacting desert tortoise and other native fish SCGN, Amargosa Toad, pass through 2 Wildlife management areas; Greenlink North Project – E/W line entirely through sage grouse habitat and dixie valley toad habitat; 9 wind, 19 solar in southern part of the state alone – cumulative impacts were not addressed, we have an energy review program that requires applications to be reviewed by NDOW as well as a permit application to the appropriate agencies so this gives us a heads up on what is coming down the line. 270% increase in applications from last year likely b/c of the transmission lines; solar PEIS involvement as a cooperating agency so the influx/development wont slow down; developing a siting tool TNC web based geospatial mapper that compiles spatial datasets including species and habitat, disturbance sites/brownfields, municipalities data, and create a heatmap on conflict with resources. NDOW is cooperating agency for the PEIS but not early on so we didn't get to see early on
- Georgia – Trina Morris – rolled out solar siting tool with TNC, lots of solar projects in terrible locations; nuclear reactor start up
- Arizona – recently updated swap, have ERT that's been public facing for 20 years that we continue to add layers to, exploring avenue to expand to conservation analyses ; cooperating agency on PEIS, offsetting measures; no listed species of bats.
- LA - Wind lease – LA has 3 miles of state water – carbon sequestration, 2 leases on WMAs on abandoned oil and gas to re-perforate the wells, just the lease is a good revenue source, trying to figure out what to do with wind

8:50 Wind Wildlife Working Group update  
Karen Voltura, CO Parks and Wildlife

- Updating the state mechanisms for regulatory for low impact siting, will update the document with wind and solar, have 2 orgs doing the research on it now and having it specific to SFWAs;
- Looking at state of the science- cumulative impacts; research summary vs research usage for recommendations and policy; how do we use the research – states get pushback when we make

a recommendation and hear, well what is the science on that? So, we want a document that will give a roadmap and some kind of document that allows us.

- How to build on available resources? From REWI or other? Yes, take what is out there already and build on; draw on other industries; for example, oil and gas doesn't have research on bighorn but could bring in other fields; how to structure mitigation and cumulative impacts; how can we promote states working together and translation policy from science to research;
- More opportunity to collaborate with AFWA Bat WG,
- We do not cover Offshore wind now, so the **committee might want to think about offshore.**
  - Sarah – OR - Would love to be able to compare notes – commercial fisheries, feel short trying to address impacts to birds and terrestrial species; we don't have any science on offshore.
  - Offshore research is mostly in Europe
  - LA – migratory birds coming in are out of gas once they enter LA, so there is a big risk, trawling operation won't be able to move through these areas; presume there will be a wide buffer around the turbine; new technology of floating turbines
  - Garry – there is a research collaborative from NE region, science plan was just released; thinking about doing a West coast and gulf – Regional Wildlife Science Collaborative -RWSC
  - Avian group for gulf to try to understand the issue of migrants -

9:00 Resolution for Communications Framework vote

- Karen provided background on the wind protocol.
- Gary Fraser – how does this apply to solar, given nature of the activities, lack of reg authority, how would you describe comms protocol as addressing needs and interests of SFWA in relation to WEGs
  - This just enhances; in the WEGs, its obviously federal focused, so this document focuses on state state communications
  - If we didn't have WEGs, would this document get you where you want to be?
    - KV: from a comms perspective, yes, but the WEGs bring in the technical aspect, it doesn't give anything outside of the communications aspect. Would be a very different document without the WEGs. For solar, we need to be more deliberate b/c we don't have a document like the WEGs to
- Call Vote:
  - Garry George moved, Sarah Reif second – **resolution approved**

9:05 Solar Wildlife Working Group update

Meaghan Gade, AFWA

- Solar survey report was published on the AFWA website in April 2023 are considering working it up to be published in an outlet like The Wildlife Professional. As part of the report, we had 6 recommendations and we are using the Recommendations from the survey as a guide path for the work of the working group.
  - Recommendations: Ensure early coordination; Provide relevant state-level information (tools, maps, data); Enhance interstate collaboration ; Collect and Share data; Conduct additional research; Develop solar PV energy guidelines
- BMP database –Small team has reached out to all states asking if they have existing solar-specific BMPs. Identified 17 states with existing solar BMPs, 6 states in progress, and other states expressed interest .

- *Representative from Texas (Jessica Schmerler) working on getting those into a searchable database. Jessica is going on maternity leave so need a new person, would be a good to have more folks to participate in the database.*
- *Continue to bolster state voices in various forums.*
- *Working with ACP on Solar Guidelines, more from Tom later in the meeting.*

9:15 Canadian Province Spotlight: Alberta **(slides attached)**  
*Craig Johnson, Fish and Wildlife Director, South Region, Alberta Fish and Wildlife*

- *Alberta fish and wildlife identifies risk to fish and wildlife, guidelines, policies, referrals, want more proactive but still good to be on that referral; regulators include Alberta energy, forestry and parks, water approvals, AUC, AER, Govt of Canada are legislated by province*
- *Links for wind/bats directives from the province:*
  - [Wildlife wind directive](#)
  - [Wildlife solar directive](#)
  - [Bat Mitigation Framework](#)

9:35 Bats and Wind, A Canadian Perspective **(slides attached)**  
*Dr. Robert Barclay, Professor Emeritus- Biological Sciences University of Calgary*

- *Most bats that are impacted by wind are Hoary and Silver haired bat*
- *Curtailment at night, during fall migration, and when wind speed is low can work. In models, it shows a 60% decline in collisions, with only a 0.43% loss in annual wind energy production, but in real world data it doesn't always work .*
- *Brad: What would be changed with curtailment for better results?*
  - *Just shut them down completely but that is probably overkill. Could also increase cut in speeds*
- *Mortality rates were they just for spring summer migratory period?*
  - *It is annual, but mostly in that 6-8 week window, estimated fatality estimates adjusted for uncertainty*
- *To make informed decisions, we need data. Thank you Dr. Barclay for your work on that.*
  - *Hard to get those data*
- *Appreciate the conversation on Hoary bat, in US, the writing is on the wall for the listing; Eastern states have been dealing with this issue ; would like to hear lessons learned pre-listing and throughout the process, large scale HCP planning efforts lessons, so would like to get ahead of this*

9:50 Improving collaboration with Canadian Partner, Discussion  
*All*

10:00 **Break**

10:10 Update on Guidelines for Mitigating Wildlife Impacts from Large Scale Solar  
*Tom Vinson, Vice President Policy and Regulatory Affairs, American Clean Power*

- *ACP came to AFWA suggesting doing something with solar because it's the states who have the nexus with solar, unlike wind; before starting with AFWA, wanted to get consensus with industry which turned out to be much more challenging than anticipated*
- *Industry thought they should take a step back and get a better understanding of what state concerns are and then do education series to understand both sides perspectives –in August we hosted Industry and SFWA 101 webinars and recording available.*

- Met in Denver to start talking comms protocol; first half of the day spent discussing the same issues we dealt with on the wind and understanding limitations etc. Where is solar different from wind, what can be recycled and what needs to change?
- Day 2 we worked through the wind comms framework, thinking about the tiers/stages. We don't have a solar framework to work off of so we had to **discuss what are the stages** that we can split out for solar, and we will likely have stages that are not in the wind – including: Relationship building, preliminary area assessment, site characterization, Field Studies, Construction, and Operations stage that isn't just counting dead things, but instead research opportunities-for example, big game.
  - o We don't want to make changes to the wind doc for the sake of changes, are we making changes because either because it is solar specific or for clarity and that is all.
  - o Challenge: keeping ourselves on track to just comms, we keep talking about guidelines
  - o Trying to make it flexible enough to be flexible across states that have different regulatory standards
  - o Other topics: species scope, resources that are used during due diligence like ERTs, SWAPS used? And we encourage the use of those in either the comms or guideline.
  - o Solar has more new, smaller developers which makes it more challenging – ‘two chucks in a truck’, they are the developers who are not going to come to state bc they are there to get the land lease and then sell.
- Solar Energy Industry Association has been involved, they stepped away from the Comms Protocol, but want to be included in the next steps
- Draft document on the guidelines?
  - o Tom- the comms protocol has been helpful to define the stages on solar development, which was a challenge on the industry to nail down those stages.
  - o Industry was developing a ‘site assessment framework’ – beyond communications, **what type of document would states find valuable to collaborate on?**
    - Regional guidelines are better, but if looking at national scale, having that site assessment . if you go to bmp's, it is too fine scale
    - So broader, ‘how do you build a project’ would be valuable even without regional specificity is good
    - Impacts of solar is on the habitat, so looking at the habitat at the regional scale.
  - o What do States expect out of the ‘guidelines’
    - Brad proposes that we come up with a way to develop what would be useful and expected, add to virtual meeting agenda.
  - o What would be useful with national guidelines, but need to keep in mind that some states have their own guidelines, **so what is the gap between communication and individual state need. What would be useful to developers?**
    - Tom: data layers are valuable, BMPs have mixed reviews on value. He will take this back to his members and report back.
    - AFWA and ACP take the question back to their members
  - o Laura- I stopped getting calls about what TPWD can do to stop renewables,
    - Developers say they don't have a choice where the solar goes because that is where there is room on the grid or that is where the willing landowner is, etc. so we need to think about transmission and we need to influence that outcome.
  - o Missouri – we are in similar situation, the project goes where its going to go, so can we provide information to developers and to legislatures. Explaining the process to the **public** is also important.
    - Tom: Does industry need to do a better job of explaining how they select sites? Yes.

- *Early and often communication adds trust and credibility for both sides in the eye of the public. If the agency can say, yes we are talking to developers, when the public asks, that is better for the credibility of everyone.*
- *Solar margins are so slim, so it has to go as close to the transmission as possible.*

10:30 US Fish and Wildlife Service Update  
Matt Hogan, Gary Frazer, USFWS

- *USFWS would like to continue to work with everyone to find smartest path forward; solar guidelines are an altruistic contribution to the service to conservations community as a whole, **but it is a significant undertaking so want to make sure there is value add.***
- *Just in: Prairie chicken and NLEB will continue to be treated as endangered species; wind and solar ESA will continue to be a factor.*
- *Bats – final listing decision on tricolored bats; little brown bat coming out soon*
- *We have been talking to Nextera about working on fleetwide HCP incorporating our evolving knowledge including monitoring and research. Hopeful that by stepping back and looking at broad scale, other companies can latch to this model*
- *Guidance memo- under appropriate circumstances, mitigation from take of bats at wind can consider funding research as appropriate, for white nose syndrome bats. For these species, its not habitat it is disease driving their declines, so doing research is appropriate.*
  - *Brad – this is a great development, and that is where the action is at where we can make some difference.*
  - *Would that include developing/deploying something like a vaccine? Gary- we are looking at effective mitigation, we are considering anything that is can help with effectiveness*
- *DOE is giving loan to company for transmission line across KS and MO, now into effects of transmission line construction; how do we establish the legal connection to transmission will be important.*
- *Moving forward with proposed changes to regulations on Section 10 permitting, proposing that HCP can be issued for both listed and unlisted species if applicant wants that. If the applicant suspects that a listing will happen, they can cover their bases. Section 7, for projects with federal nexus, proposed regs include establish authority for us to establish compensatory mitigation for take of a species after avoid and minimize including buying credits in conservation bank. Sec 7 on same level as HCP. Hoping to meet CRA deadline by next April deadline*
- *NV – we are seeing the state / leg undermining states ability to manage species when there is an HCP. Is there any language in there b/c that species is now in limbo?*
  - *Gary- A listed species doesn't mean we are talking authority away from the state, we are adding fed protection, but some states don't see it that way*
    - *NV – well our regional FWS can often see it that way as well. The door swings both ways*
  - ***Consider that this might undermine state authority.***
  - *In MO – public service commission meetings that brings us to the table for some HCPs, but our FWS and language of HCPs do push for state involvement, so wording matters.*
- ***Extend conversation at virtual meeting – maybe it comes down to an implementation document.***
- *Laura: Update on MBTA? Still in OMB. High likelihood of being shut down next week but the employees that are working on this will be allowed to work.*

10:45 USGS Update  
Mona Khalil, USGS

- *Will provide full presentation at the virtual meeting, and will send out slides with the links to all the projects and will give full presentation at the virtual meeting.*

11:00            Wrap-up and Adjourn

- Adjourn at 11:22
- Follow up meeting October 11 at 3 EST.

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**ENERGY & WILDLIFE POLICY COMMITTEE**

**Chair: Brad Loveless (KS)**

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**October 11, 2023**

**3:00 EST – 4:00 EST**

**113<sup>th</sup> AFWA Annual Meeting Virtual Post-Meeting**

**Committee Charge:** The energy and wildlife policy committee is focused on understanding and ameliorating the effects of energy development and generation in North America and its impacts on fish and wildlife resources and their landscape habitats at the state, province, territory, region, and international levels.

**Agenda**

Welcome and Recap of EWPC in Calgary (meeting minutes attached)

- State updates- LA offshore wind; NV- lots of things going on including transmission lines;
- Wind Wildlife Working Group – talked about wind comms document; voted to pass and approve the communications protocol
  - o lots of appreciation and praise on the comms protocol from the directors at the Business Meeting, really great feedback as a way to improve outcomes.
  - o Abby – I was the facilitator for WEG and states were strong advocates for conservation so want to put out a huge congratulations to both states and ACP for pulling this together
  - o Public webinar October 18, 2023 at 3 EST. Register [here](#).
- Solar Wildlife Working Group updates
- 2 talks from Canadian partners; director of Alberta F&W and Robert Barclay; presentations are included in meeting packet with tons of great information
- Update from Tom Vinson on Solar Guidelines
- USFWS update – waiting to see what happens with the solar guidelines process AFWA and ACP are undergoing;

USGS Update - *Mona Khalil, USGS*

- North American Bat Monitoring Program (NABat) –
  - o completed analyses on relative abundance in summer ranges on Tricolor, little brown, and big brown bats
  - o Offshore bats documentation of over water movement of red bats
  - o Automated species classification – improve open source species classification methods to integrate with NABat
- Grassland birds –
  - o Study in ND to see how grassland bird population varies in relation to oil and gas drilling and biofield production and found that changing cropping patterns from cereal grains to corn and soybeans have a larger negative impact on grassland birds than oil and gas



- Raptor Mortality along Powerlines
  - o Illegal shooting is now a leading cause of death of birds along powerlines in the Western US
- Hydropower and Fish Passage
  - o Novel D-cylinder fish ladder evaluation to improve fishway ladder entry efficiency to get more fish to move upstream
  - o 10 year retrospective of Elwha River Dam Removal – video in slides
- Migration mapping for Ungulate Migration and Energy Infrastructure
  - o Have existing maps for 182 herds and developing recommendations

Follow up conversations:

- **Solar Guidelines** – Beyond the Solar communications protocol, what kind of document would be valuable for states to collaborate on (i.e. a site assessment framework, or something else)?
  - o Between the Solar Comms and the individual state BMPs, what else do we need? Industry is thinking of some kind of national scale site assessment framework – is there a gap we should collaborate on trying to fill for collaborating?
    - Brad- focus has been on the communication, which is a broad brush approach and beyond that, what else? Any time the industry is comfortable sharing the critical points and process and what they are thinking about it useful so we can be a partner. So it seems like we might be on the right track with the Comms
    - Tom- lets keep this drumbeat up and as we move along the comms, we can have this conversation more. Industry will continue to think about the site assessment
      - What does industry need/want to be helpful: GIS and other data layers; beneficial if state is developing BMPs to engage with Industry on that ideally when things are in draft form so we can have an opportunity to comment.
      - Brad- as states develop BMPs, who should states contact on industry side? Tom- as the trade group, we appreciate being in the loop but if state has relationships with a developer, bring them in and they will likely bring ACP in too. But reach out to ACP as a fail safe
      - Mona – ‘if the industry agrees’, given that consensus on BMPs is going to be hard to reach, is there someone who can take leadership on the science that is building now? Tom: whether we would include BMPs in a site assessment framework is still up in the air; we have to manage our members and don’t need 100% consensus, but want opportunity to have everyone feel like they have been heard; for BMPs we are reacting to what the states are doing as opposed to doing something ourselves. We are trying to raise the bar in terms of how developers do site assessment; something like... as X stage of the process, here’s what you should be doing, talking to, and in terms of what you are finding, what do you do next (move forward, find new place, collect other information), so thinking about bigger framework rather than prescriptive of things like stay x meters away from y
      - Gary Frazer – USFWS has been approached to develop guidelines, but as we see it, Solar is mostly on non federal lands. But so the service is still prepared to see if there is a role to play. Our view if the need for smart siting can be met through some other way than a parallel to WEG’s, great, and if not, we will reassess. REWI is also someone we all look to address the science to inform renewable energy development

- Abby Arnold, REWI- REWI is a collaborative made up of states and industry, conservation community, and have great investment in research and need to increase those budgets. Can we provide incentive for increased investment in research. ?With wind, we had over 20 years of investment behind the WEG development, and we just don't have that with solar.
  - Brad – Tom, APLIC standards we couldn't go to lowest common denominator, we had to go to the most proactive utilities and let the others recognize they are voluntary; listen to the proactive utilities who are thinking big picture so please continue to look for places to raise the bar.
    - Tom – I agree. It was helpful to me that there is value in the type of document that I have been describing, so I know when are developing something worthwhile.
- **USFWS HCPs for Non-Listed**– USFWS proposed policy allowing HCPs for non-listed species. However, when there is an HCP in place, it might be interpreted as taking the authority away from the state. What language could be used to clarify this? Do we need an implementation document?
  - Conservation Benefit agreement for land management activities that would provide net conservation benefit covering non listed and listed species and land owners could choose if they want to take back to baseline conditions at the end. HCPs are for converting habitat to non habitat for non-listed species, to have some certainty for what is ahead if USFWS were to list a species
  - Perception is that HCPs for non-listed species, it takes authority away from states. But in USFWS perspective, it just adds another layer of protection. We don't administer these in any way that takes away authority.
  - Brad- Is an implantation document needed? For states who are particularly interested in this issues, I think it would be necessary document just for clarification.
  - Gary – asked my folks to double down on responses to comments section on this issue, that issuing these permits, does NOT take away authority from states.
  - Gary – conservation benefit agreement vs HCP is no different and one isn't better than the other , all means for the ESA.

#### Other Business

- Eric Begin – Canadian Wildlife Service –
  - Developing policy framework to assess mig birds, wetlands, and reduce cumulative effects and hope is that next year CWS could present to committee next year on these policies.