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Wires and Wildlife: Transmission Development and Western Migratory Species Success Story

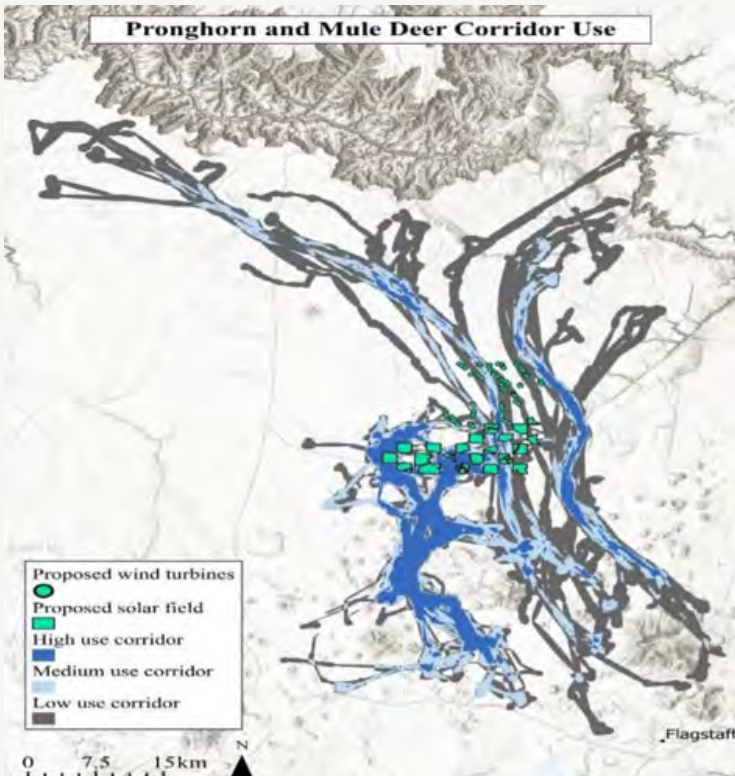


Building Connectivity with Renewable Energy Development in Arizona



The Arizona Game and Fish Department (AZGFD) led a collaborative effort in Northern Arizona to balance renewable energy development with the conservation of vital wildlife habitats. The National Wildlife Federation's (NWF) report *Wires and Wildlife: Transmission Development and Western Migratory Species*, highlights how thoughtful planning and partnerships can align infrastructure growth with ecological preservation.

Northern Arizona, a region of forested areas and grasslands under mixed public and private ownership, provides critical habitats for mule deer and pronghorn. Before the construction of 66 wind turbines and 17 solar arrays, AZGFD deployed GPS-collars on these species to track their movements and migration patterns. The resulting data established a baseline for understanding how development might impact wildlife and guided subsequent adaptive management practices



Migration maps of the San Francisco Peaks mule deer herd and North of Interstate 40 pronghorn herd in relation to proposed wind turbine and solar development projects. Through partnership, corridors of varying widths allow for the continued movement of ungulates through the project site and allow the state to evaluate.

“Matthew Kauffman et al., Ungulate Migrations of the Western U.S. Volume 5 (forthcoming).”



PHOTO: TANNER SAUL

The findings revealed significant overlap between proposed development sites and areas heavily used for seasonal migration. In response, AZGFD collaborated with county officials, private landowners, and renewable energy developers to create migration corridors through the solar project sites. These corridors, ranging from a few hundred feet to half a mile wide, were designed to accommodate wildlife movement while allowing the projects to meet their energy production goals. Wildlife-friendly fencing was also implemented, ensuring connectivity for migrating animals without compromising the facility's function.

A key innovation was the use of advanced GPS-collars with geofencing technology, which increased data collection frequency when animals approached the development sites. This allowed detailed tracking of their movements within the corridors, providing critical insights into wildlife behavior while conserving collar battery life during periods of less activity.

This initiative, as highlighted in the ***Wires and Wildlife*** report, underscores the power of collaboration between state agencies, private stakeholders, and local communities. By integrating advanced technology and data-driven strategies, the Northern Arizona project serves as a model for balancing large-scale development with wildlife conservation, ensuring a future where infrastructure and ecosystems can thrive together.

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CONTACT

Veronica Ung-Kono

Clean Energy Transmission Policy Specialist
Staff Attorney
UngKonoV@nwf.org

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