Comment on Establishing a Categorical Exclusion for Virtual Fencing Technologies on Lands Managed by the Department of the Interior

Property and Environment Research Center (PERC)

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Main Points:

- Virtual fencing projects provide low-cost, low-maintenance alternatives to traditional barbed-wire fencing
- The Department of the Interior should create a department-wide categorical exclusion for virtual fencing projects in order to facilitate more interest and participation in pilot programs

The Property and Environment Research Center (PERC) respectfully submits this comment to request the Department of the Interior (DOI) to establish a categorical exclusion (CE) for the deployment and operation of virtual fencing technologies on lands managed by the Bureau of Land Management (BLM) and the Fish and Wildlife Service. Virtual fencing represents a significant advancement in agricultural management and wildlife conservation, offering a cost-effective, low-maintenance, and flexible alternative to traditional physical fencing methods.

The Property and Environment Research Center

PERC is the national leader in market solutions for conservation, with over 45 years of research and a network of respected scholars and practitioners. Through research, law and policy, and innovative field conservation programs, PERC explores how aligning incentives for environmental stewardship produces sustainable outcomes for land, water, and wildlife. Unlike other conservation groups, PERC is firmly committed to private property rights and pursuing conservation through voluntary markets and incentives, rather than top-down regulation. PERC has supported the creation of virtual fencing projects by creating a virtual fencing fund, partnering with landowners to pilot the technology in ranches across the country.[1]

[1] *Virtual Fencing: Revolutionizing the future of conservation and agriculture*, PERC Conservation Innovation Lab (last visited June 19, 2025).

Virtual Fencing Operations Should Be Granted a Department-Wide CE Due to Their Conservation Benefits

Virtual fencing technologies utilize GPS-enabled collars and base stations to create invisible boundaries for livestock. These systems emit auditory cues and, if necessary, mild corrective stimuli to keep animals within designated areas. The technology has been successfully implemented on livestock operations across the United States, demonstrating its effectiveness in managing grazing patterns, protecting sensitive habitats, and reducing human-wildlife conflicts.

A notable example is the use of virtual fence technology on BLM lands in Colorado.[2] The placement of towers was approved under a CE covering "nondestructive data collection, inventory, study, research, and monitoring activities."[3] The success of this initiative underscores the potential benefits of virtual fencing technologies in land management. In another proposed virtual fence project in Nevada, a CE was not issued, likely because the data collection aspect of the Colorado project was not present.[4] A consistent and clear CE covering all virtual fencing deployment and operations will facilitate greater adoption of this technology.

Rationale for a Department-Wide Virtual Fencing Categorical Exclusion

Virtual fencing offers several advantages over traditional fencing methods:

- **Reduced Habitat Fragmentation**: Unlike physical fences, virtual fences do not create barriers that impede wildlife movement, thereby conserving migration corridors and reducing the risk of entanglement for other wildlife species such as birds.
- **Minimized Disturbance**: The installation and removal of virtual fencing components cause minimal disturbance to the landscape, conserving soil integrity and reducing erosion risks.
- **Improved Post-Fire Recovery**: Wildfires often destroy traditional fencing infrastructure, delaying recovery and requiring costly reconstruction. Virtual fencing can be deployed more quickly and economically, enabling strategic livestock grazing that avoids heavily burned areas. As a result, grazers can regain access to grazing lands quicker and with greater security than with traditional fencing infrastructure.[5]

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[2] Bureau of Land Management, *Categorical Exclusion: Placement of a Base Station to Support a Virtual Fence Project*, DOI-BLM-CO-N010-2022-0023-CE (May 9, 2022).

[3] 43 C.F.R § 46.210(e).

[4] Bureau of Land Management, *Board Corral Allotment Virtual Fence Grazing Project Environmental Assessment*, DOI-BLM-CA-N020-2024-0004-EA (Dec. 26, 2023).

[5] Jayson Jacoby, *Virtual fencing pilot project could help ranchers recover faster from 2024 wildfires*, Baker City Herald (Apr. 30, 2025).

- **Enhanced Flexibility**: Virtual fencing systems can be easily adjusted to accommodate changing land use needs, seasonal variations, and conservation priorities. This may allow grazers to keep cattle away from energy infrastructure, out of riparian corridors, and off of heavily-used roadways.

- **Cost-Effectiveness**: While virtual fencing poses some upfront and potentially ongoing costs, it requires less maintenance and upkeep than traditional fencing, which can quickly become costly when sections need to be repaired or replaced. Ultimately, the technology has been shown to be more cost effective for both grazers and land management agencies as a way to encourage grazing on public lands, while still achieving conservation goals.

Alignment with Existing CE

The DOI has previously recognized the minimal environmental impact of virtual fencing through CE. For instance, the CE which approved building a virtual fence base station highlighted the non-invasive nature of such projects.[6] Extending this rationale to encompass the broader application of virtual fencing technologies is consistent with existing DOI practices. However, certain virtual fencing projects are being required to go through an entire environmental assessment or environmental impact statement process, often taking years to complete and delaying conservation efforts. A streamlined and universal CE, focused specifically on virtual fencing, will create better outcomes for grazing and conservation on DOI lands.

Consistency with National Environmental Policy Act Regulations

The National Environmental Policy Act (NEPA) allows for CE when actions do not individually or cumulatively have a significant effect on the human environment. Virtual fencing technologies, by their nature, pose minimal environmental risks and align with the criteria set forth in NEPA regulations for CE.

Recommendations

PERC recommends that the DOI establish a department-wide CE for the deployment and operation of virtual fencing technologies, encompassing both base stations and the broader system components. The proposed CE should include:

- **Installation and Operation**: Authorization for the placement and operation of base stations and associated infrastructure.

- **Placement of Collars**: Authorization for grazing permittees to use virtual fence collars on livestock on DOI managed lands.

[6] *Categorical Exclusion*, *supra* n.2.

- **Maintenance and Removal**: Provisions for the maintenance and eventual removal of virtual fencing base stations.
- **Use as a Grazing Tool**: Department-wide recognition of virtual fencing as an effective tool for both conservation and grazing.

By adopting this CE, the DOI can facilitate the broader adoption of virtual fencing technologies enhancing land and wildlife management efforts while minimizing administrative burdens.

Conclusion

Virtual fencing technologies represent a forward-thinking approach to land and wildlife management, offering environmental, operational, and economic benefits. Establishing a CE for their deployment and operation on DOI-managed lands will streamline the approval process, encourage innovation, and support the Department's mission to manage and conserve public lands for the benefit of current and future generations.