BLM-funded or BLM-permitted Wild Horse and Burro Research Projects, January 2026

Institution; Project Name	Dates	Goals and Status	Implications
BLM-funded WHB research projects; FERTILITY CONTROL			
Northwest Wildlife Conservation, with Cornell University**;** Improvements to SpayVac vaccine	2023-2027	<u>Goals</u>: Test the contraceptive effectiveness of the 'Spayvac' porcine zona pellucida [PZP] vaccine when injected in mares' neck or rump, compared to untreated controls. <u>Status</u>: Mares were vaccinated in June 2023, stallions were introduced two months later. Foaling rate and hormonal levels monitoring is ongoing.	Humane, safe, effective, long-term contraception could reduce growth rates and save costs.
USDA - APHIS - National Wildlife Research Center; Identification of a single-dose, long-lasting adjuvant for oocyte growth factor vaccine	2023-2026	<u>Goals</u>: Test the contraceptive effects of oocyte growth factor [OGF] vaccine formulations in mares. <u>Status</u>: Initial testing began in June 2023. Further testing for the two most immunogenic vaccine formulations began in 2024. Foaling rate and hormonal levels monitoring is ongoing.	Humane, safe, effective, long-term contraception could reduce growth rates and save costs.
Oregon State University; Uterine tube occlusion after transcervical polidocanol foam infusion in mares	2024-2026	<u>Goals</u>: Proof of concept study to test whether a minimally invasive procedure blocks the junction where the oviduct enters the uterus. Researchers will monitor for any post-procedure discomfort. <u>Status</u>: Project is enrolling privately-owned mares for the study and conducting tests as enrollment allows.	Humane, safe, effective, long-term contraception could reduce growth rates and save costs.
Purdue University; Development of a contraceptive vaccine that induces long-lasting infertility in horses	2024-2027	<u>Goals</u>: Test whether a fertility control vaccine against the Izumo sperm surface protein prevents fertility in privately-owned mares. <u>Status</u>: A water-soluble Izumo vaccine, and related PZP vaccines, have been prepared with the antigen bound to collagen nanoparticles designed for long-term immune response. There is ongoing monitoring of privately owned mares in the trial.	Humane, safe, effective, long-term contraception could reduce growth rates and save costs.
BLM-funded WHB research projects; WHB INTERACTIONS WITH THE ENVIRONMENT			
US Geological Survey; Livestock and wild horse influences on vegetation and wildlife in sagebrush ecosystems	2022-2026	<u>Goals</u>: Create a publicly available geospatial database with a long-term time series of livestock grazing levels and wild horse herd sizes. Model effects of livestock and WHB on vegetation, sagebrush-obligate birds, and other ecosystem health indicators. <u>Status</u>: Database is in beta testing. Preliminary analyses on effects of environmental covariates are ongoing.	This project will gauge the separate ecological effects of wild horses and livestock.
US Geological Survey; Mapping wild horse densities across broad landscapes of the Western United States	2024-2026	<u>Goals</u>: WHB density is usually measured at the scale of herd management area boundary polygons. This model will create long-term time series of estimated wild horse densities at the scale of pixels on the landscape. <u>Status</u>: Preliminary results are in preparation.	Detailed maps of past density could improve scientific analyses of wild horse effects.

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Institution; Project Name	Dates	Goals and Status	Implications
BLM-funded WHB research projects; WHB INTERACTIONS WITH THE ENVIRONMENT (continued)			
US Geological Survey, with UDWR and USU; Spatial dynamics and resource partitioning among feral, wild, and domestic ungulates	2024-2028	<u>Goals</u>: Assess habitat use overlap among wild horses, pronghorn antelope, mule deer, cattle, and sheep in western Utah. <u>Status</u>: BLM funded wild horse GPS radio telemetry. Wildlife and domestic species GPS radio collaring was funded by and ongoing via collaboration with Utah Division of Wildlife Resources [UDWR] and Utah State University [USU]. Data collection is ongoing.	Ecological interactions across species can be measured in terms of what parts of shared habitats they use.
BLM-funded WHB research projects; OTHER TOPICS			
US Geological Survey; Development of population model and cost analysis for managing wild horses	Software support in 2026	<u>Goals</u>: Continue minimal, technical support of "PopEquus" software, which compares costs and population outcomes that result from various removal and fertility control management actions. <u>Status</u>: Link to model: https://rconnect.usgs.gov/popequus/	BLM offices use PopEquus to compare herd management alternatives.
Texas A&M University; BLM Wild Horse and Burro genetic monitoring	2025-2028	<u>Goals</u>: Analyze genetic diversity based on DNA in hair samples. <u>Status</u>: Genetic monitoring has been part of BLM's herd management efforts for decades. Reporting is ongoing.	BLM monitors genetic diversity and risks of inbreeding depression.
US Geological Survey; Testing and optimizing new genomic markers for wild horses	2024-2026	<u>Goals</u>: Compare the utility of single nucleotide polymorphisms (SNPs) for genetic monitoring, as opposed to the currently used genetic markers (microsatellites) <u>Status</u>: Genotyping complete; analyses ongoing.	Modern methods may provide more detailed genetic information at lower cost.
BLM-approved WHB research projects _funded entirely by other sources_			
Aarhus University (Denmark) with Texas A&M; Inbreeding status and climate change adaptability of feral horse populations	2024-2027	<u>Goals</u>: Use whole-genome genotyping across multiple wild horse populations to assess genetic diversity, relatedness, and potential evolutionary adaptation to local environments. <u>Status</u>: Genetic samples from 25 herds identified have been genotyped. Analyses ongoing.	Whole-genome genetic methods may provide more detail about these questions than microsatellite DNA.
Utah State University; Mountain lion prey selection in SE Nevada	2021-2026	<u>Goals</u>: Assess levels of horse and other ungulate prey in mountain lion diets, before and after a wild horse gather. <u>Status</u>: Initial results published in peer-reviewed journal; further data collection ongoing.	Predation is mainly on foals, but seems to not prevent herds from growing overall.