

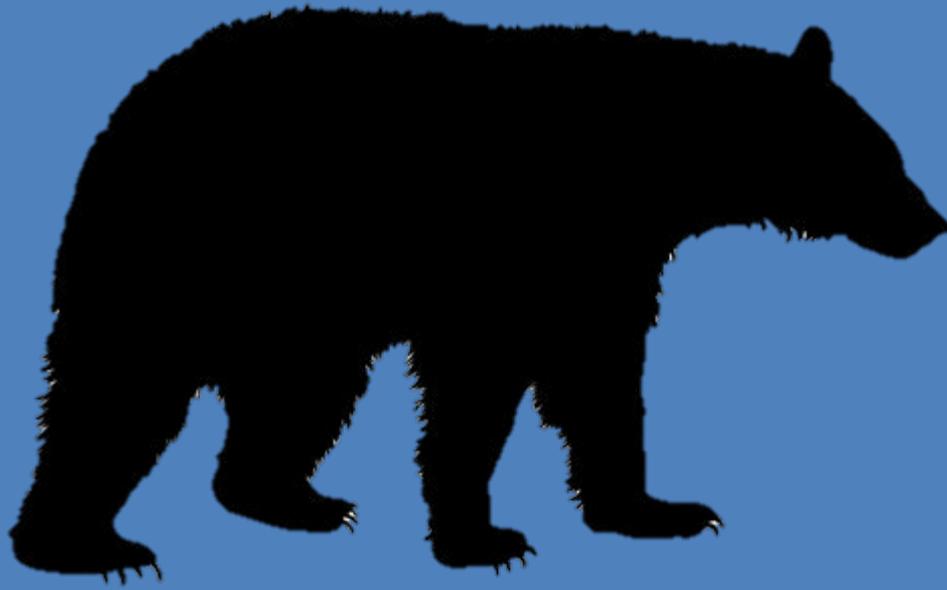


BASH Mitigation at Buckley AFB Through Atypical Partnership: Finding Common Ground to Support the USAF Mission

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Finding Common Ground

- Managing wildlife is working with people
 - Build good relationships
 - Get more accomplished
 - You can catch more bears with honey



Finding Common Ground

- Commonalities
 - Schools
 - Interests
 - Backgrounds
- Differences
 - Agency
 - Duties on base
- You have a choice
 - Ketchup & mustard
 - Oil & water



USAF Mission



- All bases are not created equal
 - Flying mission vs non-flying
 - Quantity of habitat
 - T&E species present
- This affects goals for managing wildlife while supporting the USAF mission



USAF Mission



- At bases with a flying mission there is a lot to consider
 - Human safety
 - Development
 - Cost of the aircraft
 - Risk factors of the aircraft
 - Speed of the aircraft
 - Single engine vs multi-engine
 - Ability to maneuver after engine failure

USAF Mission

- Buckley AFB
 - F16 mission
 - 3,293 acres
 - Metro Denver
 - Burrowing owl

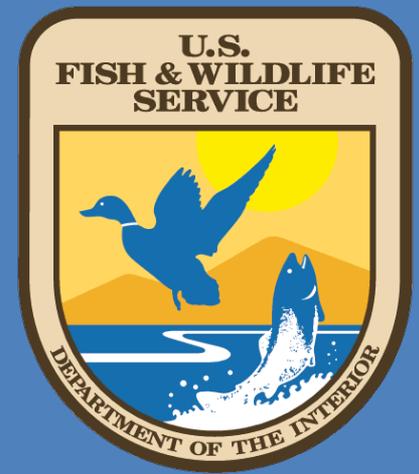


Sikes Act



- Sikes Act Purpose
 - Ensure ecosystems are protected and enhanced while allowing DoD to meet needs of military operations
 - Allows state and federal agencies to give technical assistance in managing natural resources
 - Allows federal agencies to enter into an interagency agreement with DoD

USFWS Perspective



- Protect migratory birds, federally endangered and threatened species, and critical habitat
- USFWS perspective at Buckley AFB
 - Land limitations, no critical habitat, no federally threatened and endangered species
 - Protect migratory birds by discouraging presence
 - Not by creating habitat but modifying habitat to reduce presence of avian species

USFWS Perspective



- Historically USFWS biologist served as Natural Resource Manager at BAFB
- Changed by AFCEC to a project driven biologist role
 - Due to competing roles in the NEPA process
 - Funded by AFCEC for specific INRMP wildlife and habitat management objectives
 - Liaison between DoD NRM and USFWS

USDA WS Perspective

- Resolve wildlife conflicts to allow people and wildlife to coexist
- Managing Wildlife Species to Protect
 - Agriculture
 - Health and Safety
 - Natural Resources
 - Property
 - Aviation Safety
 - Threatened and Endangered Species
 - Livestock from Predators
 - Aquaculture



USDA WS Perspective

- Reduce BASH risk at BAFB
 - Integrated Wildlife Damage Management approach
 - Develop Wildlife Hazard Assessment
 - Continuous monitoring
 - Habitat modification
 - Flight modification
 - Hazing, trapping/relocation, and take of birds and mammals



BAFB Historical Relationships

- 2011 Air Force Audit Agency BASH Audit Findings
 - USFWS/USAF created a “culture of natural resource and ecosystem conservation, as opposed to flight safety”
 - INRMP referred to “plans for prairie dog conservation areas on BAFB for this and other important native grassland species”
 - USFWS NRM “reduced wildlife depredation numbers (by 247 birds) during the migratory bird depredation permit process without obtaining prior approval”

BAFB Current Relationships

- USDA WS embedded in both 460 and 140 safety offices
- USFWS embedded in 460 civil engineering squadron
- Consistent goals and messaging coming from both sides has enabled progress
- 460 WG/SE, 460 WG/CE, 140 WG/SE, 140 WG/CE, USDA WS, USFWS are all partners working towards common goals that benefit wildlife and flying operations

Integrated Prairie Dog Management

- BAFB giving property to City of Aurora in exchange for additional property to create larger airfield buffer
- Triangle adjacent to airfield ~176 acres; ~6,000 burrows
- Treatment would reduce prairie dog take in the future, BASH risk, and take of migratory birds



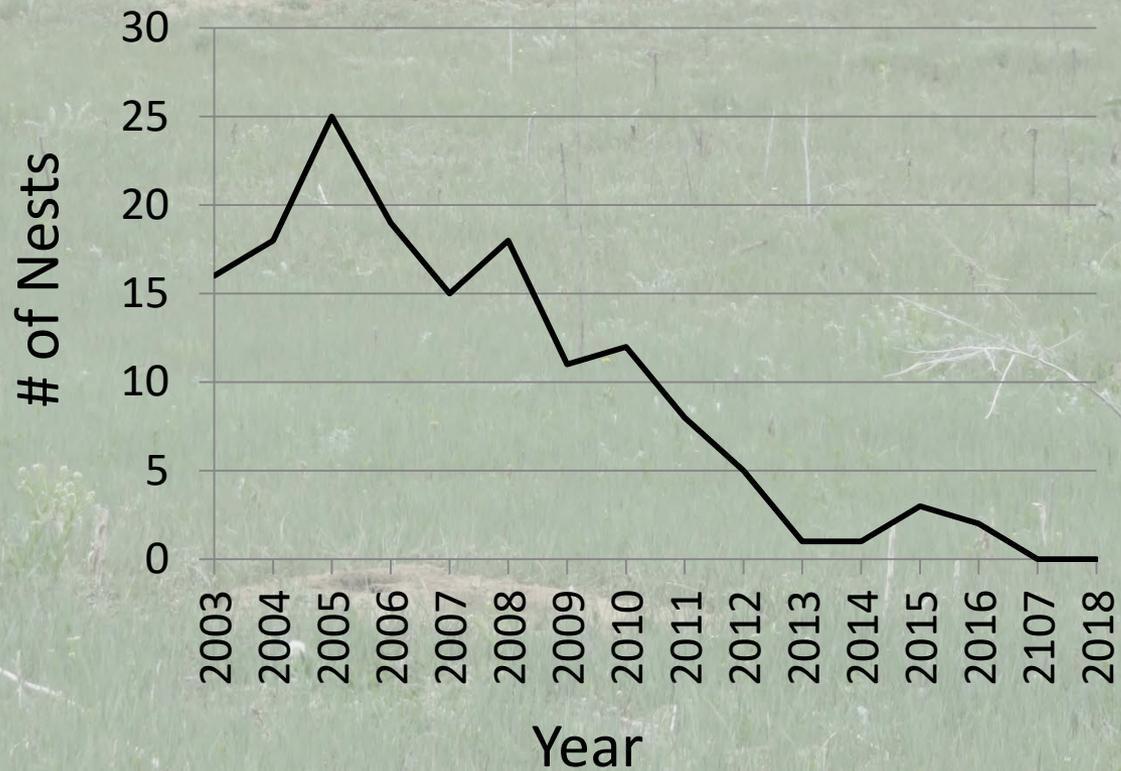
Following exclusion and rodenticide, burrows were closed to reduce habitation by prairie dogs and other species thereby reducing future mammal and raptor take





New vegetation discouraged burrowing owl nesting

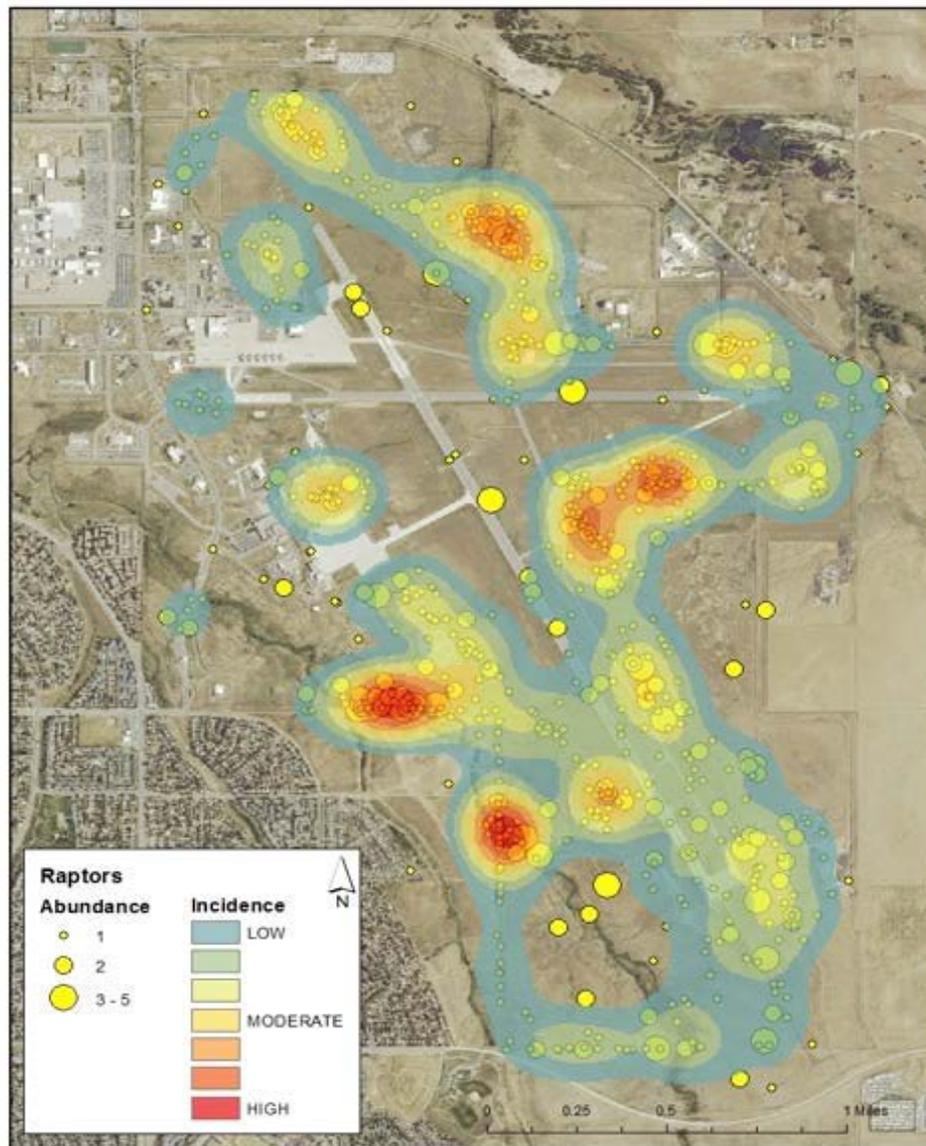
Number of Burrowing Owl Nests by Year on Buckley Air Force Base



Tree Removal Projects



USDA WS Wildlife Hazard Assessment Raptor Heat Map



- Removed ~140 cottonwoods from East Tollgate Creek
- Removed ~100 cottonwoods from Lake Williams
- 1,000 more trees to remove in future projects
- Reduced BASH risk and take of migratory birds



East Tollgate Creek - before



East Tollgate Creek - after



Lake Williams - before



Lake Williams - after

Trapping/Relocation Program

- USDA started trapping program in 2017
 - 2016, 68 raptors taken, 0 trapped & relocated
 - 2017, 20 raptors taken, 53 trapped & relocated
- Expanding trapping program
 - 460 SW/SE and USFWS bought more traps
 - Trap/relocate more birds, reduces BASH risk and take of migratory birds



Captured birds are banded and relocated



2017

- 53 raptors trapped
- 4 Goshawk traps
- Bal-chatri traps



2018

- 42 raptors trapped to date
- 10 Goshawk traps
- Bal-chatri traps



Conclusion

- Finding common ground has led to
 - Positive effects on wildlife at BAFB
 - More projects accomplished
 - In one year!
 - Cost savings \$\$\$
 - Improved relationships
 - Across base and agencies
 - Decreased BASH hazards



Questions?

