

Non-Habitat Project Proposal Form

MDEP Team(s) Submitting Proposal: **Humboldt-Pershing** Hunt Unit Group: **043-046**

Project Title: **Unit 043 & 044 Coyote Removal during fawning period**

1. Limiting Factor Rank Score: **5** Needs Assessment Strategy: **Predation, Coyote & Mtn. Lion removal**

2. Justification: Downward Population Trend 3-yr avg low fawn ratios 3-yr avg low buck ratio
 3-yr avg low harvest numbers Disease detected Anecdotal reports

3. Body performing work: Wildlife Services Private contractor
 NDOW-Wildlife Health Other

4. Predator Plan Project Category: Implementation Experimental Management Experimentation Data Gathering

5. Type of Project: Lethal Non-Lethal
 Capture & test Collaring effort Other

6. Level of Monitoring: Rigorous Intermediate Standard

7. Project Duration: one year two years three years 4+

8. Annual Cost: Under \$10,000 \$10 – \$25,000 \$25 - \$50,000 \$50,000+

9. Funding Source: Heritage Fund NGO Predator Fund NDOW Wildlife Services Other None

10. Is funding source eligible for matching funds? Yes No

11. Will this project benefit additional wildlife species? Yes Probably No

Additional Species Benefit: **ANTELOPE**

12. Access for public hunting? Yes No

13. Are there other predator projects in area? Yes No

14. Will project expand knowledge of the mule deer population, mule deer habitat, or predator-prey relationships?
 Yes Probably No

15. Other MDEP teams involved: **Humboldt-Pershing** **Humboldt-Pershing**

16. Additional projects approved for this team:

17. Measure of success? Upward population trend 3-yr avg increased fawn ratio
 3-yr avg higher observed buck ratio 3-yr avg increased 4-pts in harvest Other

Project Start Date: **5/1/23** Estimated End Date: **7/31/25**

Funding Source(s): Estimated Project Cost: \$

Oversight Committee Use Only

Approved

Not Approved

Priority #

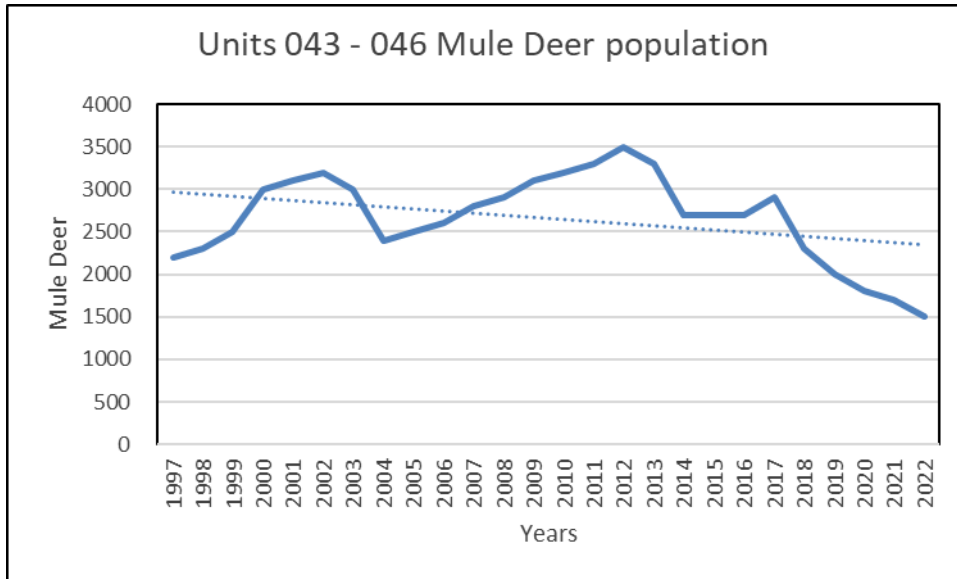
Route Project to:

Comments:

Units 043 -046 Mule Deer
Coyote Removal Project
MDEP Humboldt & Pershing Co.s

Background

Units 043-046's mule deer population has been declining since 2013. The 2012 published estimate was 3,500 mule deer. The 2022 published estimate is 1,500 mule deer indicating a 57% decline. 1998 to 2020 average mule deer population estimate for this herd is 2,750. Various environmental and predation factors are thought to have contributed to this rapid decline.



- Declining fall and spring survey sample sizes. Fall 2012-2018 AVG 717 deer, 2017 fall survey showed 569 deer with a post-hunt buck ratio of 23. In 2019, random polygon methodology was used on the fall survey. All units were surveyed. Results totaled 83 deer 25 bucks: 100 does: 25 fawns. Individual units (Unit 043 = 7 deer 20 bucks: 100 does: 20 fawns, Unit 044 = 45 deer 23 bucks: 100 does: 23 fawns, Unit 045 = 21 deer 39 bucks: 100 does: 23 fawns & Unit 046 = 10 deer 17 bucks: 100 does: 50 fawns). Spring 2013-2020 AVG 446 deer, no surveys or poor survey conditions 2016, 2017 & 2018. 2019 spring sample size was 449 deer with excellent survey conditions. 2020 spring survey sample size 289 deer 26 fawns: 100 does and smallest sample size since 1995. Survey conditions were considered excellent.
- Declining spring fawn ratios; below maintenance 2013-2021
 - 2013 = 781 deer = 21 fawns: 100 adults
 - 2014 = 718 deer = 22 fawns: 100 adults
 - 2015 = No Survey
 - 2016 = poor surveys conditions incomplete survey
 - 2017 = poor survey conditions incomplete survey
 - 2018 = 569 deer = 30 fawns: 100 adults
 - 2019 = 449 deer = 32 fawns: 100 adults
 - 2020 = 289 deer = 26 fawns: 100 adults
 - 2021 = 600 deer = 26 fawns: 100 adults

2019-2021 avg is 28 fawns: 100 adults

Average fawns: 100 adults 2013 to 2021 is 26. Possible coyote predation on fawns, poor body condition of does entering winter and poor winter range.

- Fall Survey totals & ratios. * 2019 survey methodology was random polygon all other years were direct search.
 2010 = 661 deer, 24 bucks: 100 does: 50 fawns
 2011 = No Survey
 2012 = 1,201 deer, 44 bucks: does: 32 fawns
 2013 = 805 deer, 32 bucks: 100 does: 34 fawns
 2014 = No Survey
 2015 = No Survey
 2016 = 592 deer, 37 bucks: 100 does: 43 fawns
 2017 = 569 deer, 23 bucks: 100 does: 39 fawns
 2018 = No Survey
 2019* = 83 deer, 25 bucks: 100 does: 25 fawns

Numerous wildfires that occurred in the early 2000s, mostly in the lower elevations that converted brush communities into annual grasslands. Since the declining population trend, a few fires have occurred in the unit group coupled with drought conditions is thought to have continued to hamper mule deer habitat in the lower elevations. The upper elevations of Units 043, 045 & 046 are thought to be in good condition during this timeframe.

Coyote Removal Recommendations

Recommended Units for coyote removal to include 043 and 044. Coyote removal during fawning timeframe May through July for a duration of 3 years.

Unit 043 Humboldt Range, within the attached polygon with specific attention to the following drainages (canyons): Unionville area (Peru Canyon, Congress Canyon, Straight Canyon both forks & Wilson Canyon), Coyote Canyon, Bloody Canyon, Star Canyon & Santa Clara Canyon all located on the east side of the range.

Unit 044 East Range: within the polygon with specific attention to Inskip and Willow Canyons.

Recommended method for coyote removal to include aerial efforts within polygons and ground efforts in the specific canyons listed above. Request removal of mountain lions if they are encountered while performing coyote removal. Effort for removal during May-July timeframe should be at least once a week aerial/ground depending on what the crew is finding.

During the coyote removal project NDOW will conducted annual aerial spring mule deer surveys in all units within 043, 044 & 046 to obtain spring fawn ratios to determine project success.

During coyote control efforts in Units 043 and Unit 044, Unit 046 would be the untreated group. In the past, these units have all showed similar recruitment rates and could suggest if coyote removal has been effective and if coyote removal in Unit 046 is warranted.

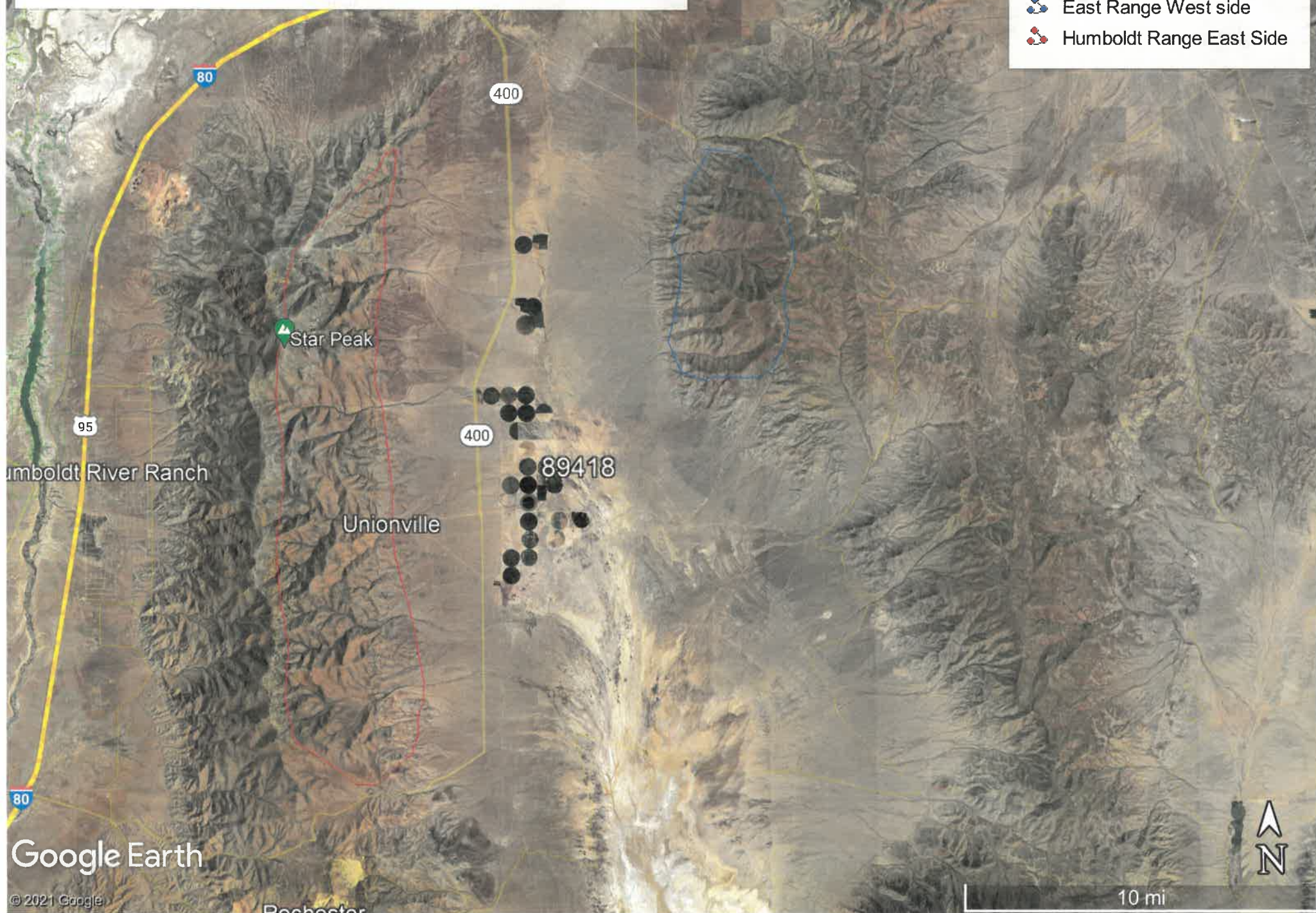
The overall goal is to increase fawn recruitment to a level above maintenance and get this herd's population back to 1998 – 2020 average size of 2,750 mule deer.

Units 043, 044 Coyote Removal Project Map

Map showing the locations of Units 043 and 044 for the Coyote Removal Project.

Legend

-  ?
-  East Range West side
-  Humboldt Range East Side



Google Earth

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Recheater

10 mi

