

Common Raven Monitoring and Management within Desert Tortoise Conservation Areas

2024 Request for Proposals (RFP)

Proposals are Due Friday, January 05, 2024 (5:00 pm PST)

U.S. Fish & Wildlife Service (USFWS) Contact for Technical Questions: Kerry L. Holcomb, Desert Tortoise Recovery Office, Recovery Biologist, Email kerry_holcomb@fws.gov, Office 442-222-4300

Bureau of Land Management (BLM) Contact for Technical Questions: Mark Massar, District Wildlife Biologist, Email mmassar@blm.gov, Office 760-898-5367

Superior-Cronese Critical Habitat Unit (CHU) within Fort Irwin National Training Center Contact for Technical Questions: David H. Davis, Certified Wildlife Biologist-Directorate of Public Works, Email david.h.davis44.civ@army.mil, Office 760-380-6435

Fremont-Kramer CHU within Edwards Air Force Base Contact for Technical Questions: Wes King, Biological Scientist, Email wesley.king.2@us.af.mil, Office 661-277-6298

Ord-Rodman CHU within Barstow Marine Corps Logistics Base Contact for Technical Questions: David Houseman, Environmental Protection Specialist, Email david.c.housman.civ@army.mil, Office 760-380-6435

Joshua Tree National Park Contact for Technical Questions: Michael Vamstad, Wildlife Ecologist, Email michael_vamstad@nps.gov, Office 760-367-5562

National Fish and Wildlife Foundation (NFWF) Contact for Administrative Questions:

Primary: Anna Beatrice, Manager, Impact-Directed Environmental Accounts, National Fish and Wildlife Foundation, Email Anna.Beatrice@nfwf.org, Office 202-595-2659

Alternate NFWF Contact for Administrative Questions:

Eliza Braendel, Senior Manager, Impact-Directed Environmental Accounts, National Fish and Wildlife Foundation, Email Eliza.Braendel@nfwf.org, Office 415-593-7628

***Proposals will be disqualified and not reviewed if they are either incomplete or not by the specifications detailed below. PROPOSALS NEED TO BE SUBMITTED FOR EACH STRATUM SEPARATELY AND CAN NOT BE COMBINED.** If anything in the proposal is optional, it must be specifically noted as an option, with a separate budget; otherwise, if the proposal is selected, all actions detailed in the proposal will be required to fully satisfy the funding agreement. If the proposal references this RFP, the RFP needs to be included as an Appendix and a reference to that Appendix must be added wherever the RFP is mentioned.

Introduction

This marks the 12th year of efforts to monitor and manage Common Raven (*Corvus Corax*; raven or CORA) predation of Mojave desert tortoises (*Gopherus agassizii*; tortoise) within California's Warm Deserts Ecoregion (Level II, Omernik and Griffith 2014). This management is being enacted pursuant to the Raven Predation Control Environmental Assessment (USFWS, 2008) and adaptive management memo (USFWS 2021).

Predation control efforts have been and will continue to be implemented in high-quality, sensitive tortoise habitat of southern California based on adaptive management thresholds (Holcomb et al. 2021). These efforts have been and will continue to be implemented within designated tortoise critical habitat units as well as other areas of importance as identified by the Raven Sub-group and Renewable Energy Action Team (CORA Monitoring & Management Areas; Map 1).

Since 2022, we have and will continue to prioritize monitoring and management actions within Tortoise Recruitment Priority Areas (TRPA). TRPAs are all 10 km² hexagons that contain >0.3 live tortoise observations per transect kilometer walked between 2001 and 2019, then buffered by 1.8 km (USFWS unpublished data, Map 1). Consequently, prioritizing raven monitoring and management within TRPAs ensure a focus on the densest

contemporary pockets of tortoise occupancy and thus the highest potential to respond to an ecological-release from a predator like the raven.

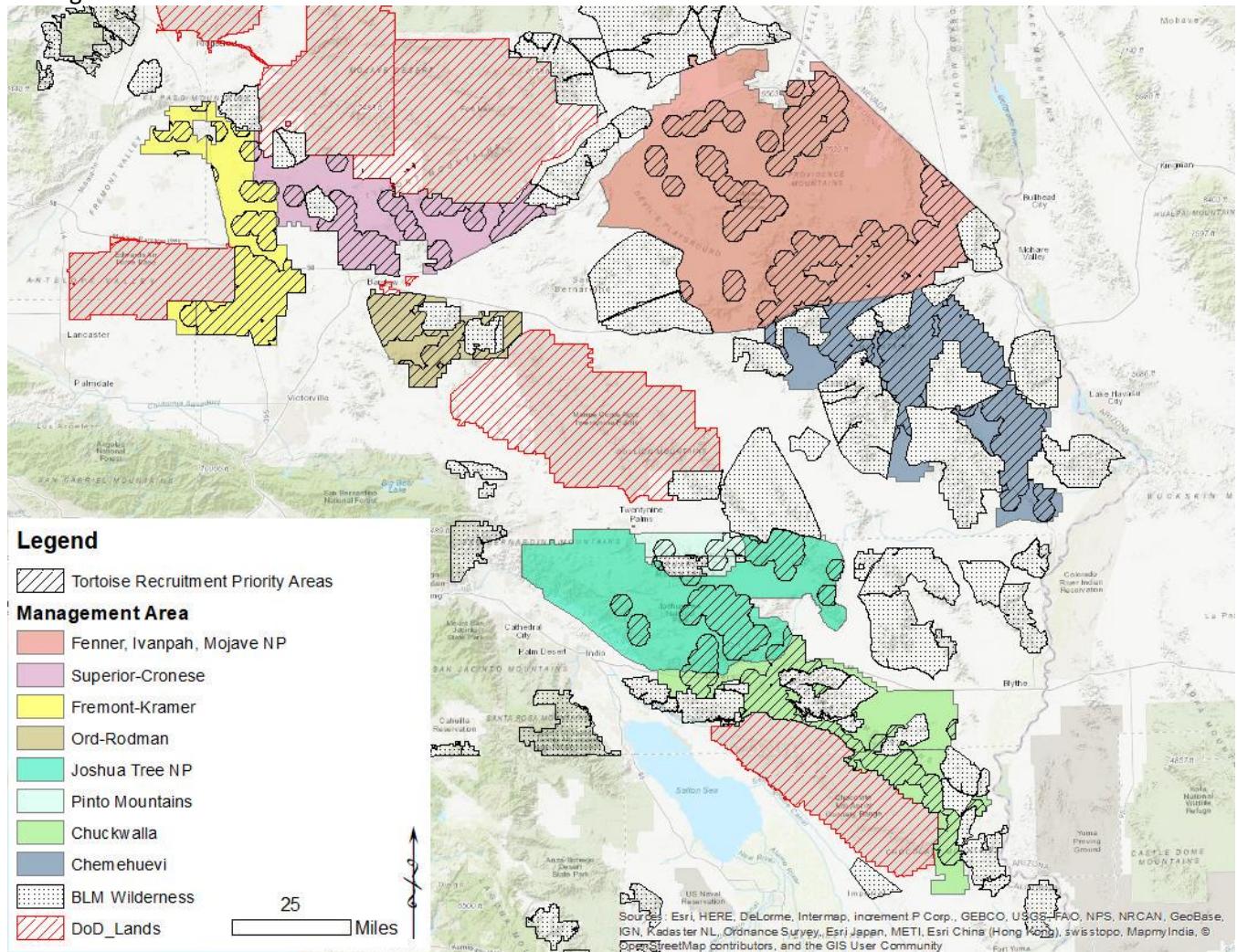
Work during 2024 will focus on locating active raven nests, determining the raven nest stage, and timing the application of food-grade oil to a target number of raven eggs in each CORA Monitoring and Management Area (Table 1). The goal this year is to addle or recommend to Animal and Plant Health Inspection Service Wildlife Services (WS) all raven nests within Tortoise Recruitment Priority Areas (TRPAs). Fifty point-counts will also be completed in each CORA Monitoring and Management Area to estimate raven density trends and monitor our progress towards restoring raven as well as raven-nest density back to levels compatible with Mojave desert tortoise recovery. Finally, 22 survival trials (20 tortoise decoy trials, 1 novel object trial, and one camera only trial) in the Fremont-Kramer, Superior-Cronese, Ord-Rodman, Fenner-Ivanpah-Mojave, and Chuckwalla Monitoring and Management Areas.

Locating active raven nests, determining raven nest stage, and timing the application of food grade oil (i.e., addle) to a target number of raven eggs must be done as efficiently as possible, in terms of cost per unit effort—i.e., cost per egg oiled. Frugality is necessitated by a limited budget and the likely need to continue this program in perpetuity. As such, the nest stage (aka, phenology) will only be monitored to the extent necessary to synchronize 2024 oiling efforts. As such, all planning efforts should consider nest phenology data collected during previous seasons, indicating a mean oiling date of May 1, 2020, with a standard deviation of 19.49 days. This predicts that 95% of raven nests in our CORA Monitoring and Management Areas are available to be oiled between the last seven days of March and the first seven days of June, according to 2020-2023 oiling records.

Table 1 CORA Monitoring and Management Area specific 2024 Egg Take Targets, based on 2023 or the most recent density point estimate. Please note that on average, each raven nest contains 4 eggs, but egg counts vary with fall-winter precipitation, spring warming rate, and proximity to subsidies (Hanley et al. 2021, Currylow et al. 2021). **Green text** indicates mean common raven density estimates that are less than the 0.89 ravens km⁻² adaptive management threshold (Holcomb et al. 2021), the **orange text** indicates mean common raven density estimates that are less than the threshold but have an upper 95th percent confidence limit that exceeds 0.89 ravens km⁻², and the **red text** indicates mean common raven density estimates that exceed 0.89 ravens km⁻².

CORA Monitoring & Management Strata	Area (km ²)	2020 Mean Density Estimate (raven km ⁻²)	2023 (or most recent) Mean Density Estimate (raven km ⁻²)	Percent Change	2024 Egg Take Target
Chemehuevi	2,328	0.27	0.18	-33%	120
Fenner, Ivanpah, MNP	4,041	0.62	0.26	-58%	299
Fremont-Kramer	1,701	2.44	1.08	-56%	316
Ord-Rodman	702	1.08	0.57	-47%	114
Superior-Cronese	2,215	1.56	1.03	-34%	310
JTNP, Pinto Mountains	737	1.37	0.32	-55%	67
Chuckwalla	1,798	0.70	0.10	-86%	51
	13,523				1,277.2

Map 1 California CORA Monitoring and Management Areas color-coded to reflect individual areas named in the legend.



1) Performance Period and Total Survey Effort per Priority Area

Nest surveys, point counts, and oiling will be performed over an approximately two-month period, between March 24 and June 9, 2024, in each CORA Monitoring and Management Area (see Table 1 for further details regarding area-by-area “2024 Egg Take Targets”). Additionally, each crew should include up to three weeks for data curation, image analysis, report writing, and editing based on comments received on each management strata report, resulting in a performance period that will not exceed June 30, 2024. Oiling will be performed in all management areas this year.

For each management area, the total effort required to locate and oil the target number of eggs will be clearly detailed in the proposal in terms of person-days and the estimated cost per raven egg oiled (**partial nests will be oiled and nests will not be monitored for phenology or offending status outside of an initial sweep to calibrate this year’s specific nest phenology**). This person-day estimate should also include conducting 50 ten-minute two-kilometer radius point counts (**between sunrise and 1400h, with sustained winds of <40km/h, and no more than light precipitation**) in Chemehuevi, Fenner-Ivanpah-Mojave National Preserve, Fremont-Kramer, Ord-Rodman, Superior-Cronese, and Joshua Tree-Pinto Mountains, and Chuckwalla monitoring and management areas. Additionally, this person-day estimate should include deployment, retrieval, and analysis of 22

survival trials in the Fremont-Kramer, Superior-Cronese, Ord-Rodman, Fenner-Ivanpah-Mojave, and Chuckwalla Monitoring and Management Areas

Project administration and fieldwork efforts will be separated and described clearly by total person-days for each category. Project administration and fieldwork person-days will be further broken down by specific tasks such as but not limited to, database management, survival trial image review and analysis, initial nest monitoring, oiling effort, and point count effort.

2) Budget

The Budget should be organized into cost-type categories. Budget Categories should be further itemized into distinct line items. Budget descriptions need to be estimated clearly and itemized by tasks such as, but not limited to: raven egg oiling, point counts, database management, project administration, deployment and retrieval of 22 tortoise decoy stations at predetermined random points in the Fremont-Kramer, Superior-Cronese, Ord-Rodman, Fenner-Ivanpah-Mojave and Chuckwalla management areas, project administration, tortoise decoy station photographic data review, hotel rate (cost per day and number of days, these should be kept to a minimum), camp rate (cost per day and number of days), mileage (cost per mile by the number of estimated miles), equipment/supplies (total cost), and overhead (percent of labor).

Monthly financial reports will be accepted in either one of two formats. The first option that will be accepted is an estimated daily cost per person day with the total person days for that month as well as an estimate of the cost per egg oiled. The first option must include an attached memo each month with a detailed description of how the person-day cost was estimated from expenses and tasks. The memo can be reused each month. The second option that will be accepted is an estimated cost for each task that month such as, but not limited to, fieldwork (days multiplied by a fixed rate per day), accommodation rates (cost per day), mileage (cost per mile by the number of miles), equipment/supplies (total cost), project administration (days multiplied by a fixed rate per day), and overhead (percent of labor).

3) Nest Location and Egg Oiling

Nest searching and egg oiling (i.e., addling) will be conducted during daylight hours by slowly driving established open routes and by walking to monitoring points or known nest points (Maps 3 through 8) while scanning suitable raven nesting substrates with and without binoculars. To the extent possible, point count surveys should be integrated into the nest location and egg oiling process to optimize efficiency. Searches and addling will be conducted by one to two personnel (preference determined by personnel) in a vehicle with the individual(s) observing, navigating, preparing to addle, and driving.

Nests can also be located by watching raven behavior from a vantage point that enables the use of either a rangefinder or compass and map to estimate the location of possible nests throughout Joshua tree forests. Reaching addling targets may require more intensive searching in hard-to-reach locations during some breeding seasons because of environmental conditions that depress raven reproductive output.

Speeds on dirt roads will not exceed 20 miles per hour. On paved roads, a balance will be made between safety and raven nest search effectiveness but posted speed limits will not be exceeded.

Upon sighting a potential raven nest, the vehicle or pedestrian will stop. The crew member(s) will

then take a closer look at the birds/nest in question with a high-power spotting scope. In cases of a raven nest or highly suspected raven nest, surveyors will then use a pole-mounted camera sprayer to determine whether eggs are present in the nest. If eggs are present, oil should be applied. The basic nest data will be collected on the provided datasheets and according to the provided data dictionary—note that this project’s data formats are specific to our analysis process and data not conforming to these supplied data dictionaries will not be accepted (e.g., see Attachment Six).

The vehicle or pedestrian survey will re-commence when the observer’s full attention is again on the landscape.

4) Identification of Desert Tortoise Remains

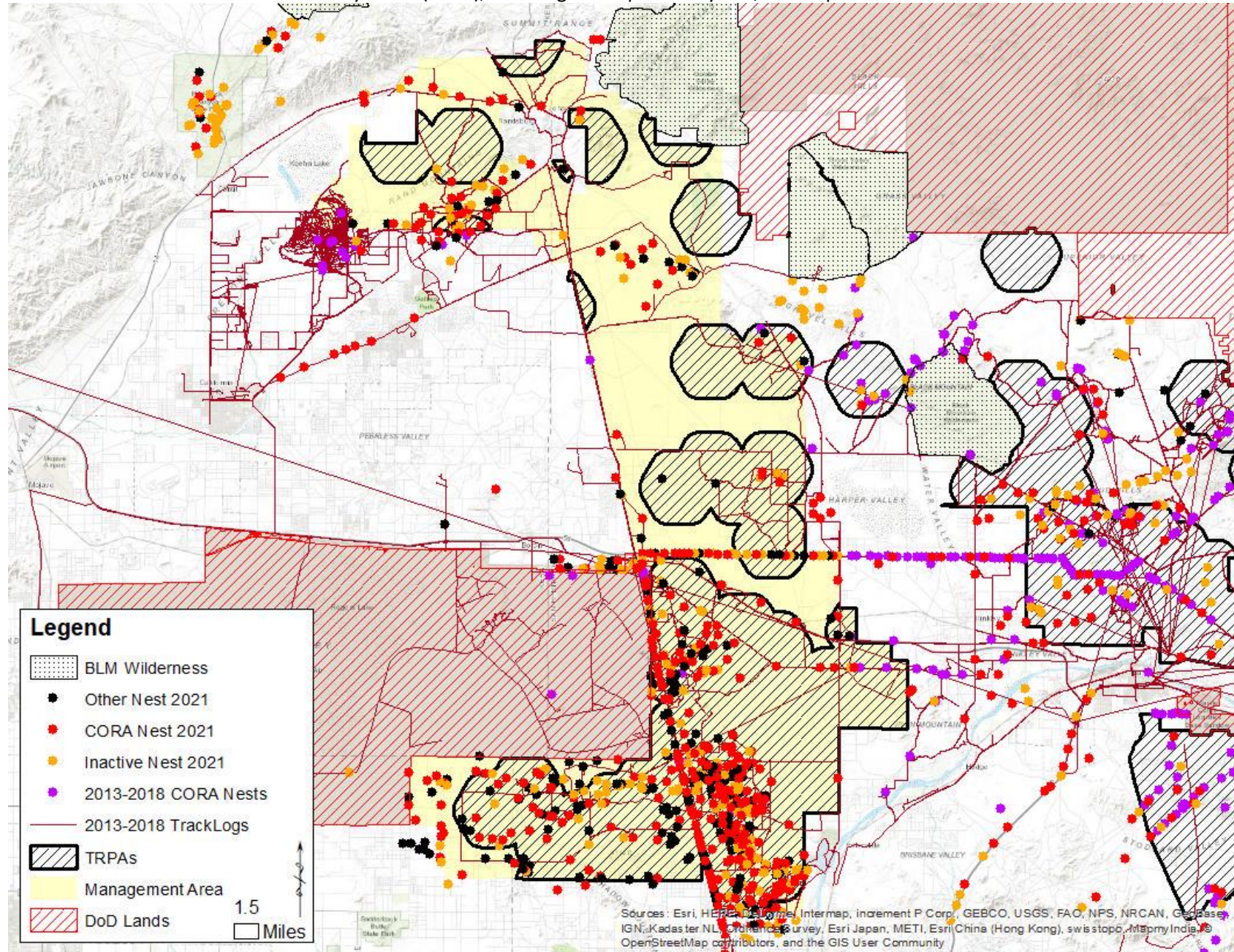
Any observed tortoise remains will be cataloged and photographed on a white background with a standard scale to clearly show the composition of identified remains. Record details on the provided datasheets and according to the provided data dictionary (e.g., number of individuals present and length(s) of carapace; see Attachment Three). Time since death will be based upon a standardized key from Berry and Woodman 1984 (modified in 2000; Attachment Two). Desert tortoise remains will be removed from the sample plot, labeled in separate bags after being dried, and mailed to USFWS contact at end of the season.

5) Notification of Desert Tortoise Remains

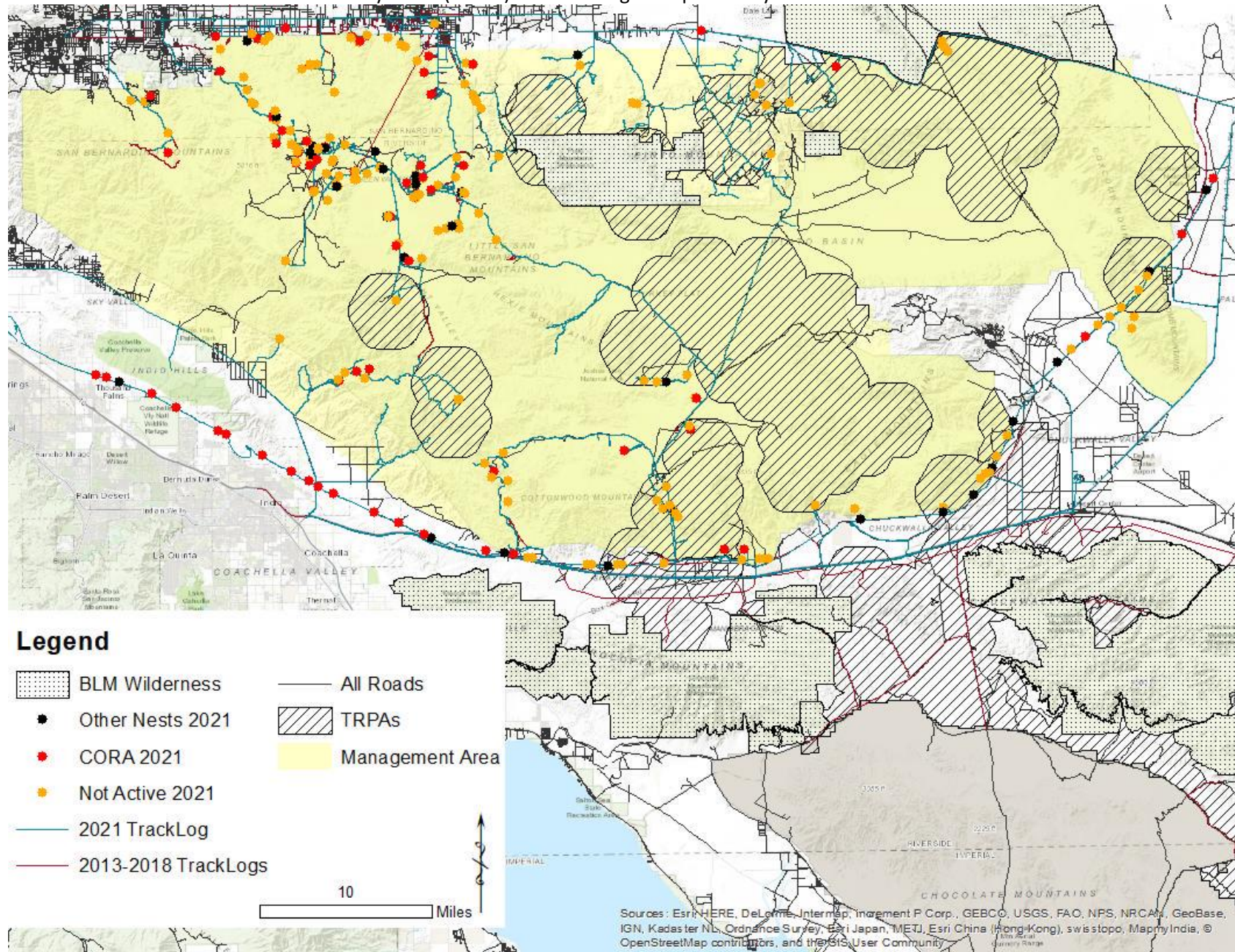
If desert tortoise remains are positively identified at a nest or perch sites, surveyors will notify USFWS and either the BLM, National Park Service (NPS), or military installation (depending on land ownership) point of contact immediately by electronic mail, if possible, or if internet coverage is limited, no later than 72 hours after the observation. Surveyors will follow Attachment Three guidelines and provide USFWS with Critical Habitat Unit (CHU), nest ID, substrate, GPS site location (NAD 1983 Zone 11, Easting and Northing in meters), species occupying nest, breeding development stage, number of carcasses, description of remains, age class, time since death, and date remains were found. The identified USFWS contact will notify WS, and WS will coordinate with appropriate recipients to facilitate the removal of offending ravens.

Immediately notify USFWS and either the landowner contacts if any desert tortoises are found hit or dead along any of the survey routes. Include the location of remains (UTM coordinates), time since death, age class of tortoise, and any other pertinent information. This information is being used to further the efficiency of USFWS’s and BLM’s efforts to manage road mortality across the range of the tortoise.

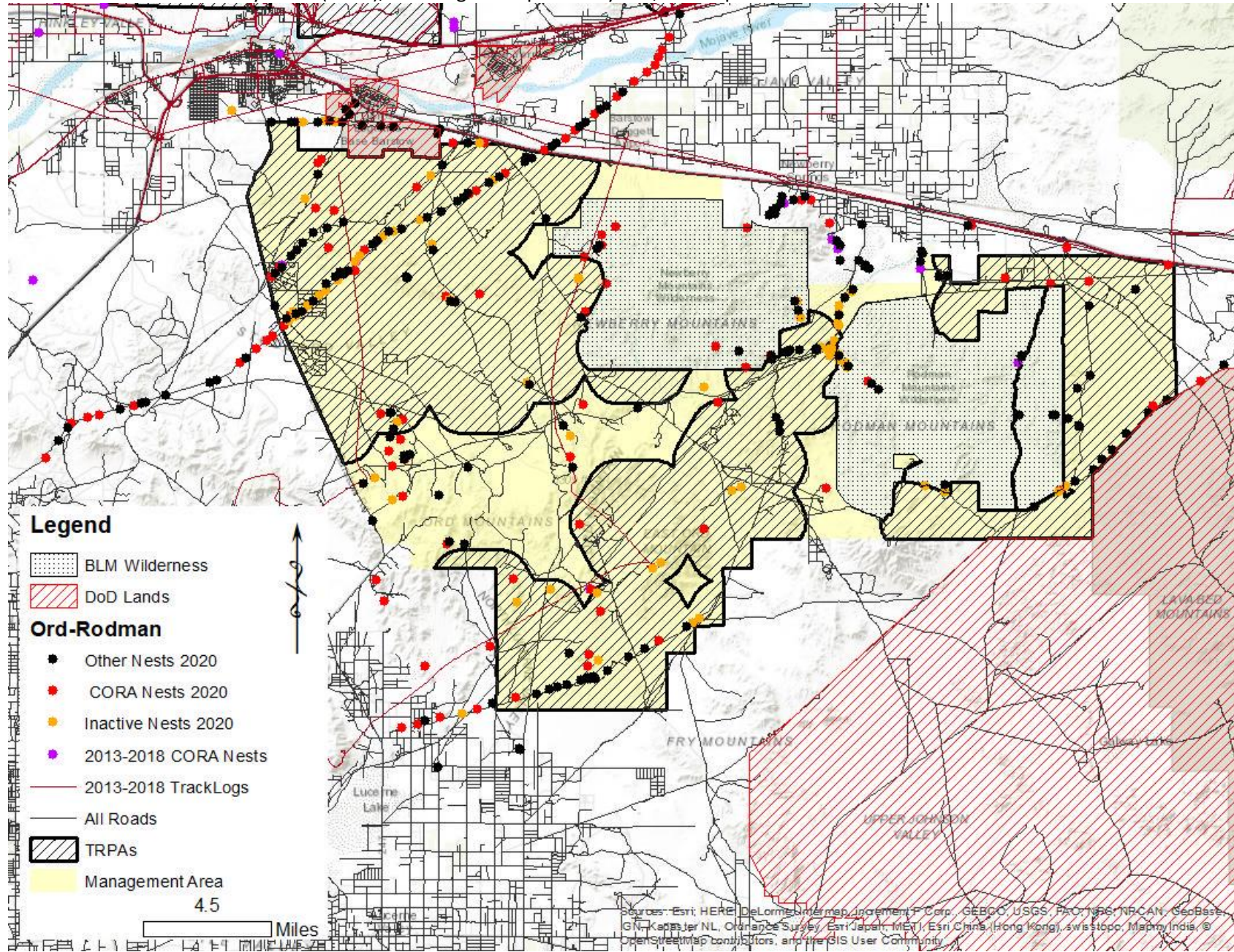
Map 2 Common Raven (CORA) and other large nests are located within the Fremont-Kramer CORA Monitoring and Management Area. In addition to Tortoise Recruitment Priority Areas (TRPA), track-logs from previous years, and Department of Defense Lands.



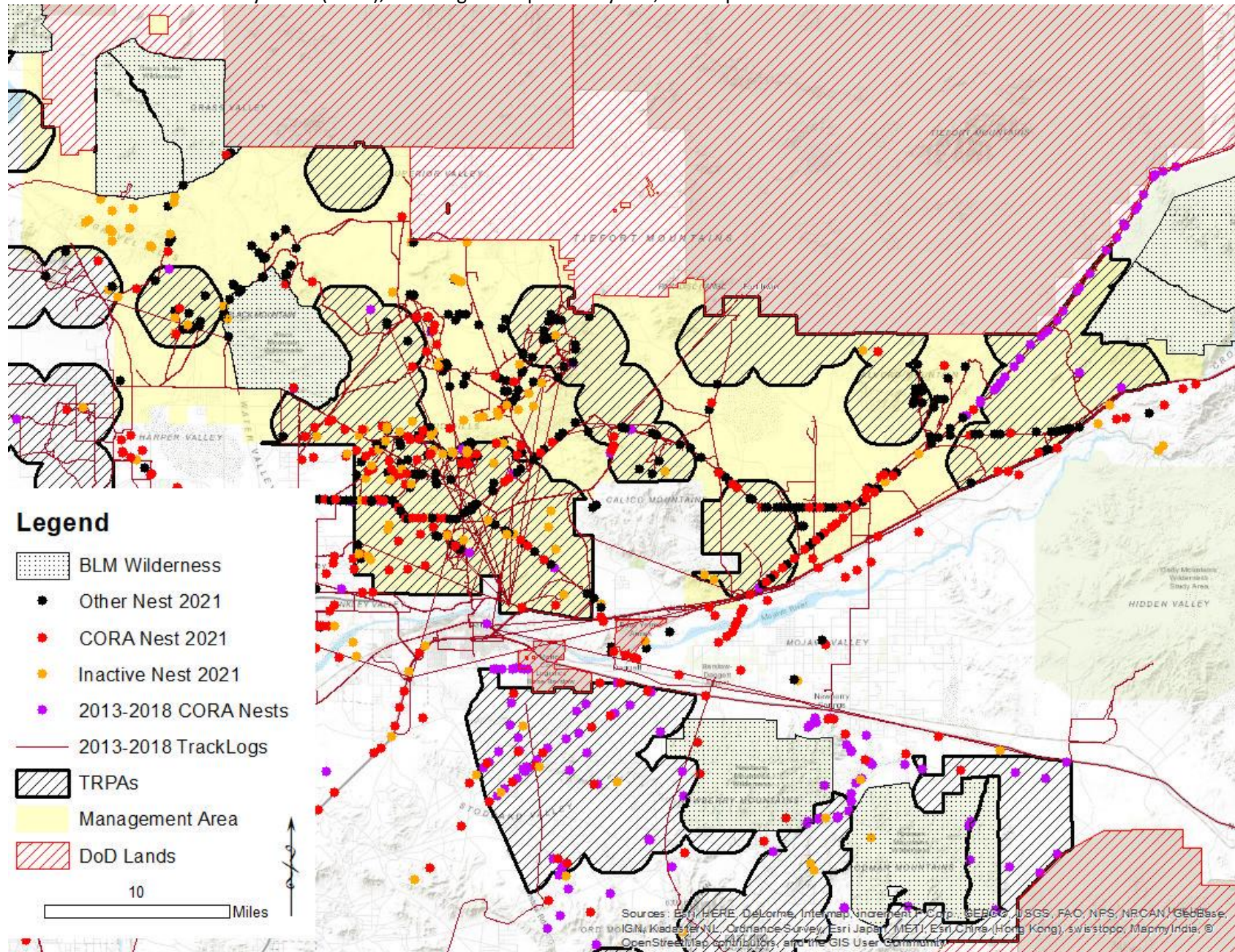
Map 3 Common Raven (CORA) & other large nests located within the Joshua Tree NP and Pinto Basin CORA Monitoring and Management Area. In addition to Tortoise Recruitment Priority Areas (TRPAs) and track-log from previous years.



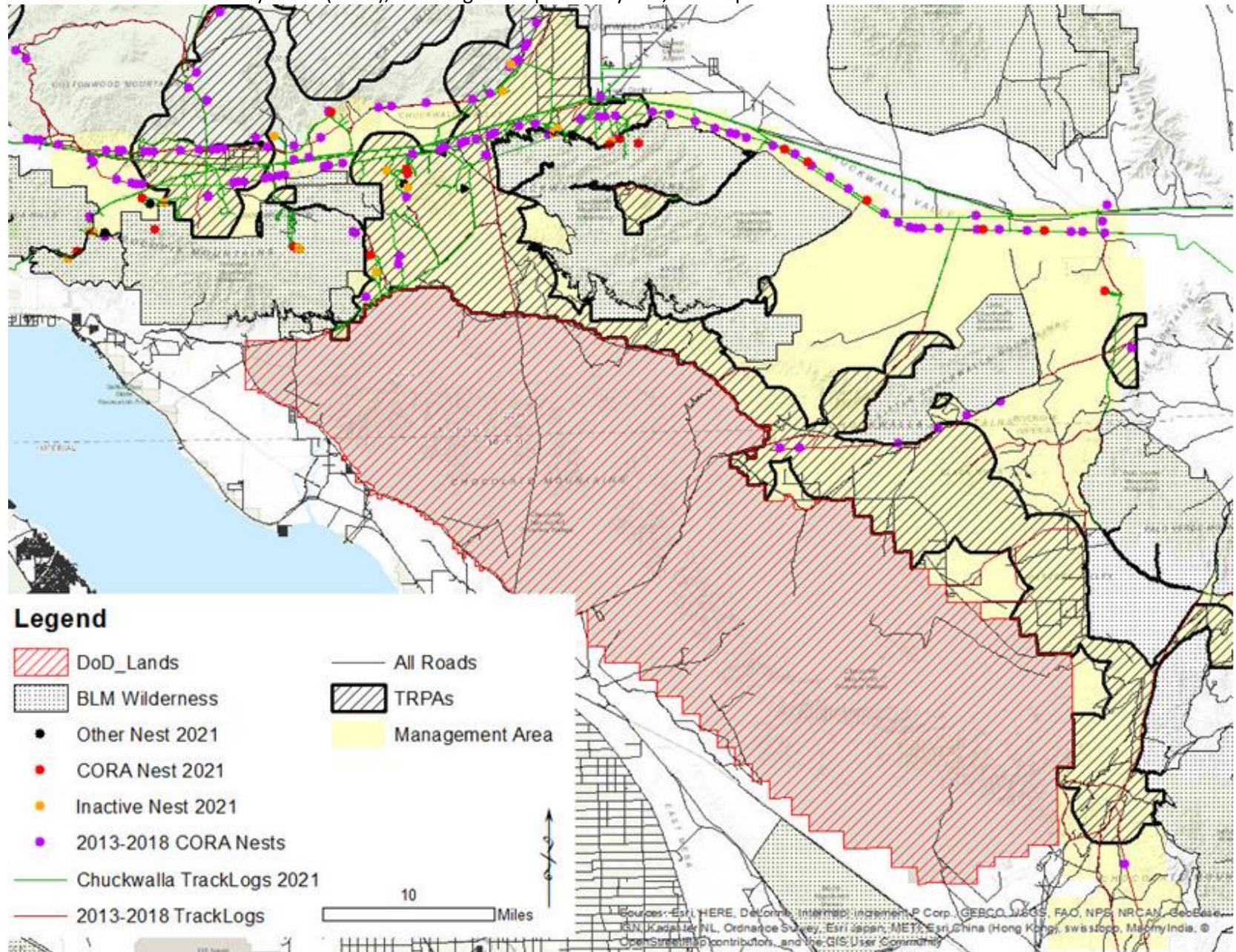
Map 4 Common Raven (CORA) and other large nests are located within the Ord-Rodman Monitoring and Management Area. In addition to Tortoise Recruitment Priority Areas (TRPA), track-logs from previous years, and Department of Defense Lands.



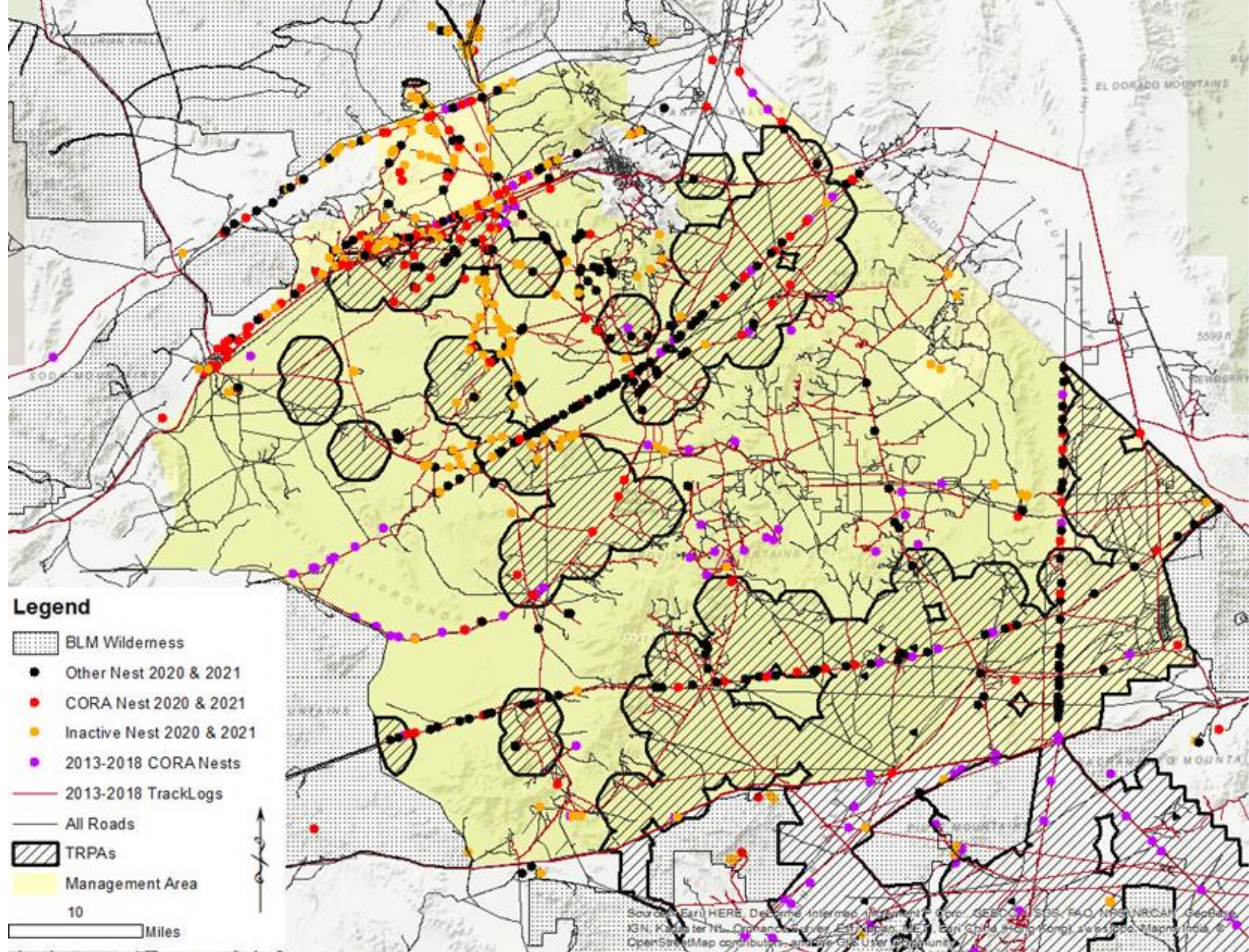
Map 5 Common Raven (CORA) and other large nests are located within the Superior-Cronese Monitoring and Management Area. In addition to Tortoise Recruitment Priority Areas (TRPA), track-logs from previous years, and Department of Defense Lands.



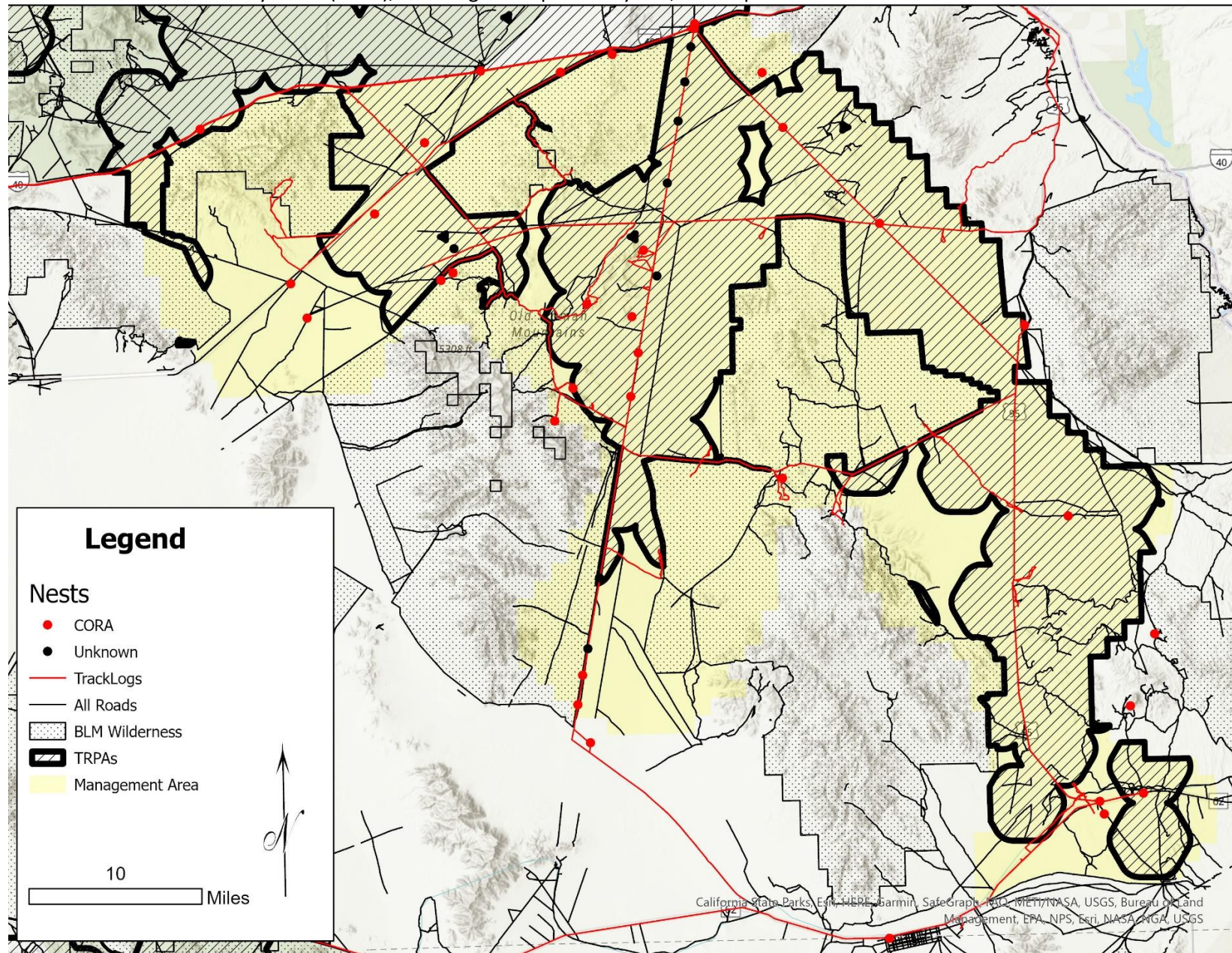
Map 6 Common Raven (CORA) as well as other large nests located within the Chuckwalla Monitoring and Management Area. In addition to Tortoise Recruitment Priority Areas (TRPA), track-logs from previous years, and Department of Defense Lands.



Map 7 Common Raven (CORA) as well as other large nests located within the Fenner-Ivanpah-Mojave National Preserve Monitoring and Management Area. In addition to Tortoise Recruitment Priority Areas (TRPA), track-logs from previous years, and Department of Defense Lands.



Map 8 Common Raven (CORA) as well as other large nests located within the Chemehuevi Monitoring and Management Area. In addition to Tortoise Recruitment Priority Areas (TRPA), track-logs from previous years, and Department of Defense Lands.



6) Measuring Common Raven Predator Pressure with Tortoise Decoys paired with Passive Infrared Camera Traps

The recipient will deploy and retrieve 20 tortoise decoy stations, 1 camera-only station (camera control), and 1 novel-object station (object control) at 22 predetermined random points in ONLY the Fremont-Kramer, Superior-Cronese, Ord-Rodman, Fenner-Ivanpah-Mojave and Chuckwalla monitoring and management areas. The recipient will review images from each survival trial and report raven observations as a time series of the number of ravens observed per calendar day—including all days with zero observations. Additionally, raven observations will be categorized into approach-attack classes and weekly attack rates will be estimated for each area (Sum of 0 or 1 attacks per twelve-hour period divided by the number of twelve-hour periods sampled, times fourteen to account for the cumulative probability of fourteen sample periods per week). Models will be deployed opportunistically during initial nest locations and oiling phase, but before April 10, 2020. Care should be taken to deploy these models when ravens are not visibly present in the area. Models will be left in place for 15 days.

7) Deliverables

The recipient will provide the following deliverables (all GPS locations will be in UTM NAD83 datum). All electronic files will be compatible with Adobe Acrobat or Microsoft Office (i.e., Word, Excel), and all electronic data will be compatible with ESRI ArcMap version 10 (e.g., shapefile or geodatabase). Data files will also be mailed via FedEx or USPS to the USFWS contact identified in the funding agreement.

1. Monthly:

1. Number of eggs oiled
2. Number of nests with a potential for oiling
3. GPS track logs (as ArcGIS shapefile) of all routes driven within the study areas
4. GPS locations of all desert tortoise remains that cannot be associated with a specific raven nest or perch
5. GPS locations of all desert tortoise sightings (including roadkill)
6. *See bullet point #2 "Budget" for Monthly Financial Requirements*

2. At the end of the funding agreement:

1. A summary Excel spreadsheet that contains (see Attachment Five):
 - a. Nest ID
 - b. Nesting substrate
 - c. Locations in UTMs (Easting, Northing)
 - d. Breeding status of occupied nest
 - e. Description of desert tortoise remains associated with a nest or nearby perch site
 - f. The estimated time since death for the tortoise remains
 - g. Date found
 - h. Most recent date of observation
 - i. Notification of desert tortoise remains if applicable
2. NFWF Final Programmatic Report:
 - a. Executive summary
 - b. Methodology
 - c. Results
 - i. Nest locations in UTMs
 - ii. Dollars per egg oiled

- iii. Separate maps of:
 1. CHU boundary with land ownerships, survey routes, and powerlines
 2. nest sites (include key indicating active nests, inactive nests, and bird species) and incidental live desert tortoise encounters and carcass locations (include raven predated and roadkill tortoises)
- iv. Summary tables detailing:
 1. Desert tortoise carcasses by age class (i.e., adult, sub-adult, juvenile, and hatchling)
 2. Oil application actions at Common Raven nest sites and effect on nest success and fledging (optional)
- v. QA/QC process and assurances for data and reports
- d. Discussion
 - i. Compare results to 2023 (or most recent) egg-addling efforts for the respective strata
 - ii. Summary page of recommendations for future raven monitoring and management actions (*Optional*)
- 3. All photographs and recorded details of desert tortoise remains encountered; photographs need to be GPS tagged
- 4. All photographs and recorded details of live desert tortoise observations; photographs need to be GPS tagged
- 5. All photographs and recorded data of nests; photographs need to be GPS tagged
- 6. Scanned field datasheets as pdf's
- 7. ArcGIS shapefile or geodatabase (i.e., shapefile, GPS track-log files) needs to be mailed electronically and physically on a flash drive to the USFWS contact
- 8. NFWF Final Financial Report

8) References

- Hanley, B., Currylow, A., Holcomb, K. L., Shields, T., Boland, S., Boarman, W., and Vaughn, M. 2021. StallPOPdV4 Web Interactive: Software to compute population control treatments of a subsidized predator [Online Software: <https://cwhl.vet.cornell.edu/tools/stallpopd#collapse5>]. DOI: <https://doi.org/10.7298/sk2e-0c38.4>.
- Currylow, A., Hanley, B., Holcomb, K. L., Shields, T., Boland, S., Boarman, W., and Vaughn, M. 2021. Identifying population management strategies for avian predators: a decision tool. Human-Wildlife Interactions.
- Holcomb, K. L., Coates, P. S., Prochazka, B. G., Shields, T., and Boarman, W. I. 2021. A desert tortoise-common raven viable conflict threshold. Human-Wildlife Interactions, 15(3).
- Omernik, J.M. and Griffith, G.E., 2014. Ecoregions of the conterminous United States: evolution of a hierarchical spatial framework. Environmental management, 54(6), pp.1249-1266.
- USFWS, 2021. 2008 Common Raven Management Environmental Assessment Phase III Adaptive Management Memo. US DOI, Palm Springs, California.
- USFWS, 2008. Environmental Assessment to Implement a Desert Tortoise Recovery Plan Task: Reduce Common Raven Predation on the Desert Tortoise. US DOI, Ventura, California. Available at: www.fws.gov/carlsbad/PalmSprings/DesertTortoise/Raven%20EA%20Final%203-08.pdf

Attachment One
Priority Management Actions by CHU and NPS Unit for 2024

1. Chemehuevi CHU
 - Initial phenology check survey of the nest to best time oiling efforts in elevation-latitude classes, (coordinate routes with NPS contact) (see Item 3, “Nest Location and Egg Oiling”, beginning on page 5). **NOTE:** Management actions are prohibited throughout BLM Wilderness while a Minimum Tools Analysis is completed by the Bureau. Pole-mounted and handheld oil applicators are permitted in Wilderness Areas managed by Joshua Tree National Park.
 - Apply oil to CORA eggs to addle (see #3)
 - Remove offending ravens (coordinate with USFWS, BLM, NPS contact, and WS)
 - Conduct 50, 10-minute variable radius point counts **between sunrise and 1400 hours when sustained winds are less than 40km/h and there is no more than light precipitation** at previously determined random points.

2. Fenner, Ivanpah, and MNP
 - Initial phenology check survey of the nest to best time oiling efforts in elevation-latitude classes, (coordinate routes with NPS contact) (see Item 3, “Nest Location and Egg Oiling”, beginning on page 5). **NOTE:** Management actions are prohibited throughout BLM Wilderness while a Minimum Tools Analysis is completed by the Bureau. Pole-mounted and handheld oil applicators are permitted in Wilderness Areas managed by Joshua Tree National Park.
 - Apply oil to CORA eggs to addle (see #3)
 - Remove offending ravens (coordinate with USFWS, BLM, NPS contact, and WS)
 - Conduct 50, 10-minute variable radius point counts **between sunrise and 1400 hours when sustained winds are less than 40km/h and there is no more than light precipitation** at previously determined random points.
 - Deploy and retrieve 20 tortoise decoy survival trail, 1 cameras only survival control, and 1 novel-object survival trail control at 22 predetermined random points (note: these points will be 250 meters from variable radius point count locations)
 - Survival trial image review. (see #6)

3. Joshua Tree National Park and Pinto Mountains CHU
 - Initial phenology check survey of the nest to best time oiling efforts in elevation-latitude classes, (coordinate routes with NPS contact) (see Item 3, “Nest Location and Egg Oiling”, beginning on page 5). **NOTE:** Management actions are prohibited throughout BLM Wilderness while a Minimum Tools Analysis is completed by the Bureau. Pole-mounted and handheld oil applicators are permitted in Wilderness Areas managed by Joshua Tree National Park.
 - Apply oil to CORA eggs to addle (see #3)
 - Remove offending ravens (coordinate with USFWS, BLM, NPS contact, and WS)
 - Conduct 50, 10-minute variable radius point counts **between sunrise and 1400 hours when sustained winds are less than 40km/h and there is no more than light precipitation** at previously determined random points.

4. Ord-Rodman CHU (includes a portion within Barstow Marine Corps Logistics Base)
 - Initial phenology check survey of the nest to best time oiling efforts in elevation-latitude classes, (coordinate routes with NPS contact) (see Item 3, “Nest Location and Egg Oiling”, beginning on page 5). **NOTE:** Management actions are prohibited throughout BLM Wilderness while a

Minimum Tools Analysis is completed by the Bureau. Pole-mounted and handheld oil applicators are permitted in Wilderness Areas managed by Joshua Tree National Park.

- Apply oil to CORA eggs to addle (see #3)
- Remove offending ravens (coordinate with USFWS, BLM, NPS contact, and WS)
- Conduct 50, 10-minute variable radius point counts **between sunrise and 1400 hours when sustained winds are less than 40km/h and there is no more than light precipitation** at previously determined random points. Deploy and retrieve 20 tortoise decoy survival trail, 1 camera only survival control, and 1 novel-object survival trail control at 22 predetermined random points (note: these points will be 250 meters from variable radius point count locations)
- Survival trial image review. (See #6)

5. Fremont-Kramer CHU (includes a portion within Edwards Air Force Base and Desert Tortoise Research Natural Area)

- Initial phenology check survey of the nest to best time oiling efforts in elevation-latitude classes, (coordinate routes with NPS contact) (see Item 3, “Nest Location and Egg Oiling”, beginning on page 5). **NOTE:** Management actions are prohibited throughout BLM Wilderness while a Minimum Tools Analysis is completed by the Bureau. Pole-mounted and handheld oil applicators are permitted in Wilderness Areas managed by Joshua Tree National Park.
- Apply oil to CORA eggs to addle (see #3)
- Remove offending ravens (coordinate with USFWS, BLM, NPS contact, and WS)
- Conduct 50, 10-minute variable radius point counts **between sunrise and 1400 hours when sustained winds are less than 40km/h and there is no more than light precipitation** at previously determined random points.
- Deploy and retrieve 20 tortoise decoy survival trail, 1 camera only survival control, and 1 novel-object survival trail control at 22 predetermined random points (note: these points will be 250 meters from variable radius point count locations)
- Survival trial image review. (See #6)

6. Superior-Cronese CHU and Fort Irwin’s southeast conservation area

- Initial phenology check survey of the nest to best time oiling efforts in elevation-latitude classes, (coordinate routes with NPS contact) (see Item 3, “Nest Location and Egg Oiling”, beginning on page 5). **NOTE:** Management actions are prohibited throughout BLM Wilderness while a Minimum Tools Analysis is completed by the Bureau.
- Apply oil to CORA eggs to Addle (see #3)
- Remove offending ravens (coordinate with USFWS, BLM, NPS contact, and WS)
- Conduct 50, 10-minute variable radius point counts **between sunrise and 1400 hours when sustained winds are less than 40km/h and there is no more than light precipitation** at previously determined random points.
- Deploy and retrieve 20 tortoise decoy survival trail, 1 camera only survival control, and 1 novel-object survival trail control at 22 predetermined random points (note: these points will be 250 meters from variable radius point count locations)
- Survival trial image review. (See #6)

7. Chuckwalla CHU

- Initial phenology check survey of the nest to best time oiling efforts in elevation-latitude classes, (coordinate routes with NPS contact) (see Item 3, “Nest Location and Egg Oiling”, beginning on page 5). **NOTE:** Management actions are prohibited throughout BLM Wilderness while a

Minimum Tools Analysis is completed by the Bureau.

- Apply oil to CORA eggs to Addle (see #3)
- Remove offending ravens (coordinate with USFWS, BLM, NPS contact, and WS)
- Conduct 50, 10-minute variable radius point counts **between sunrise and 1400 hours when sustained winds are less than 40km/h and there is no more than light precipitation** at previously determined random points.
- Deploy and retrieve 20 tortoise decoy survival trail, 1 camera only survival control, and 1 novel-object survival trail control at 22 predetermined random points (note: these points will be 250 meters from variable radius point count locations)
- Survival trial image review. (See #6)

Attachment Two

Protocol adapted from:

Berry, K.H., and A.P. Woodman. 1984. Methods used in analyzing mortality data for most tortoise populations in California, Nevada, Arizona, and Utah. Appendix 7 in Berry, K.H. (ed.), *The Status of the desert tortoise (*Gopherus agassizii*) in the United States*. Report to the U.S. Fish and Wildlife Service from the Desert Tortoise Council on Order No. 11310-0083-81.

- A) Shell <50 mm MCL B
- B) Scutes may be fading slightly, and/or bone may be slightly porous with <75% bone surface pitted <1 year
- BB) Scutes more weathered than above; bone, if still present, extremely porous with >75% bone surface pitted. C
- C) Scutes faded, curling, maybe breaking 1-2 years
- CC) Scutes breaking apart, very faded, curled; growth rings peeling and cracking >2 years
- AA) Shell >50 mm MCL D
- D) Shell 51-120 mm MCL E
- E) Scutes not fading, and/or bone solid. <1 year
- EE) Scutes and/or bone more weathered than above F
- F) Scutes fading, growth rings beginning to peel, and/or bone solid or slightly porous..... 1-2 years
- FF) Scutes faded; growth rings peeling, cracking, and brittle. and/or bone slightly to extremely porous..... G
- G) Scutes faded, usually curling; growth rings peeling and cracking; <75% bone porous. 2-4 years
- GG) Scutes very faded, curling, usually breaking, and/or bone extremely porous (>75%).....>4 years
- DD) Shell >120 mm MCL.....H
- H) Scutes not faded, and/or bone solid..... <1 year

- HH) Scutes and/or bone more weathered than above..... I
 - I) Scutes of both the plastron and carapace faded. J
 - J) Shell worn with depressed scutes..... K
 - K) Very slight peeling or cracking of growth rings, and/or bone solid..... 1-2 years
 - KK) Scutes and bone are more weathered than above.....L
 - L) Some peeling and cracking of growth rings on scutes, and/or bone solid 2-4 years
 - LL) Growth rings peeling and cracking, and/or bone peeling, cracking, or showing mosaic cracking. >4 years
 - JJ) Scutes on shell not depressed. M
 - M) Growth rings not peeling or cracking, and/or bone solid..... 1-2 years
 - MM) Scutes and/or bones more weathered than above.....N
 - N) Growth rings beginning to crack and peel on scutes, and/or bone solid..... 2-4 years
 - NN) Growth rings peeling and cracking on scutes, and /or bone peeling, cracking, or showing mosaic cracking>4 years
- II) Scutes of either the plastron or the carapace faded, but not both O
 - O) Shell worn with depressed scutes P
 - P) Some peeling and cracking of growth rings, usually on the vertebral scute, and/or bone solid1-2 years
 - PP) Scutes and/or bone more weathered than above.Q
 - Q) Growth rings on scutes peeling and cracking, usually not curled, and/or bone solid or beginning to crack and peel2-4 years

- QQ) Growth rings on scutes peeling, cracking, and usually curled; and/or bone solid if scutes still cover it, or peeling and cracking if exposed..... >4 years
- OO) Scutes on shell not depressed. R
- R) Growth rings may be beginning to crack and peel, and/or bone solid 1-2 years
- RR) Scutes and/or bone more weathered than above..... S
- S) Scutes may be curling at edges; growth rings cracking and peeling; and/or bone solid if still covered by scutes, or may show some cracking and peeling if exposed. 2-4 years
- SS) Scutes may be curling and/or breaking, growth rings cracking and peeling, and/or bone solid if still covered by scutes..... >4 years

**Attachment Three
Desert Tortoise Remains Notification Guidelines**

Date Found	DTMA	Nest ID	Nesting Substrate	Easting	Northing	Species	Breeding/ Development Stage	Number of Carcasses	Description of Remains	Age Class	Time Since Death
5/30/2016	Ord-Rodman	ON051418-P059	Wooden Utility Support Structure	545314	3848714	CORA	Fledgling	3	Disarticulated	Hatchling (<60)	1-2 yrs

*Please copy and paste cells in electronic correspondence from a Microsoft Excel document. Do not change the order of cells above.

**Describe extra details, if needed, in electronic correspondence that may aid WS to find and/or remove offending ravens such as the level of difficulty in finding the nest, preferred route of travel to reach the nest, compass bearings, etc.

Attachment Four Proposal Guidelines

The work described in this RFP for the CHUs and NPS units will be performed over a two-and-a-half-month period (Oiling: March 24 and June 9, 2024, Reports: June 10 to a maximum of June 22, 2024). Once recipients are selected, the funding agreements will be between each recipient and NFWF. All proposals should be sent via email to Anna Beatrice at Anna.Beatrice@nfwf.org by **Friday, January 5, 2024 (5:00 pm PST)**.

Proposals should include the following information:

1. A description of how your organization plans on completing the work described in the RFP.
2. Information about the qualifications, experience, and past performance of the Project Director/Principal, as well as all other staff that would contribute.
3. Your detailed budget for the activities described in the RFP.
4. Your detailed survey effort by person days and hours.
5. The tax ID number for your organization.
6. The mailing address for your organization (not a P.O. Box).
7. Financial information for your organization, as described below in Attachment Six.
8. Insurance information for your organization. If selected, please be prepared to add the National Fish and Wildlife Foundation as additional insured.
9. If the proposal references this RFP, the RFP needs to be included as an Appendix and a reference to that Appendix must be added wherever the RFP is mentioned.

Attachment Five Required Financial Documents

To consider your proposal, the Foundation requires non-Federal applicants to submit specific financial documents. **ALL FINANCIAL DOCUMENTS MUST BE NO MORE THAN 2 YEARS OLD AND FROM THE SAME YEAR.**

State/Local Government Agencies

- Certificate of Insurance. A Certificate of Insurance (COI) is a document issued by an insurance company that verifies the existence of insurance coverage. Specifically, the COI lists the effective date of the policy, the type of insurance coverage purchased, and the types and dollar amount of applicable liability. If funds are awarded, your organization must agree to obtain and maintain all appropriate insurance against liability for injury to persons or property from any and all activities undertaken by your organization and associated with the funding agreement in any way and must have NFWF named as an additional insured on all such policies and provide NFWF with appropriate Certificates of Insurance reflecting such additions within sixty (60) days after a funding agreement is fully executed.
- Most recent GAAP Audited Financial Statements (with Auditor's Opinion)
- A-133 Audit (if applicable – for entities that expend more than \$750,000 in federal financial assistance funds in a given fiscal year)

Non-Profit Organizations / Universities

- Certificate of Insurance. A Certificate of Insurance (COI) is a document issued by an insurance company that verifies the existence of insurance coverage. Specifically, the COI lists the effective date of the policy, the type of insurance coverage purchased, and the types and dollar amount of applicable liability. If funds are awarded, your organization must agree to obtain and maintain all appropriate insurance against liability for injury to persons or property from any and all activities undertaken by your organization and associated with the funding agreement in any way and must have NFWF named as an additional insured on all such policies and provide NFWF with appropriate COI reflecting such additions within sixty (60) days after a funding agreement is fully executed.
- Most recent IRS Form 990 (Income Tax Return)
- Most recent GAAP Audited Financial Statements (with Auditor's Opinion)
- A-133 Audit (if applicable – for entities that expend more than \$750,000 in federal financial assistance funds in a given fiscal year)
- Certificate of Good Standing. A Certificate of Good Standing, sometimes called a Certificate of Existence or Certificate of Authorization, is a state-issued document used to demonstrate that a corporation, limited liability company, or non-profit entity exists, is authorized to do business in the state, and has complied with all state-required formalities. More information on requesting a California Certificate of Good Standing can be found here: <http://kepler.sos.ca.gov/> For other states, please visit the Secretary of State website for the applicable state.
- Conflict of Interest Disclosure. On a separate piece of paper, state whether your organization, or any individuals or organizations associated with your organization, has an actual or potential conflict of interest with respect to NFWF, the Scope of Work, or the subject matter of your proposal and, if so, the nature and specific details of that conflict.
- Statement of Litigation. On a separate piece of paper, state any litigation (including bankruptcies) involving your organization and either a federal, state, or local government

agency as parties. This includes anticipated litigation, pending litigation, or litigation completed within the past twelve months. If your organization is not involved in any litigation, please state.

Businesses

- Certificate of Insurance. A Certificate of Insurance (COI) is a document issued by an insurance company that verifies the existence of insurance coverage. Specifically, the COI lists the effective date of the policy, the type of insurance coverage purchased, and the types and dollar amount of applicable liability. If funds are awarded, your organization must agree to obtain and maintain all appropriate insurance against liability for injury to persons or property from any and all activities undertaken by your organization and associated with the funding agreement in any way and must have NFWF named as an additional insured on all such policies and provide NFWF with appropriate COI reflecting such additions within sixty (60) days after a funding agreement is fully executed.
- Businesses are not required to submit financial documents.
- Certificate of Good Standing. A Certificate of Good Standing, sometimes called a Certificate of Existence or Certificate of Authorization, is a state-issued document used to demonstrate that a corporation, limited liability company, or non-profit entity exists, is authorized to do business in the state, and has complied with all state-required formalities. More information on requesting a California Certificate of Good Standing can be found here: <http://kepler.sos.ca.gov/> For other states, please visit the Secretary of State website for the applicable state.
- Conflict of Interest Disclosure. On a separate piece of paper, state whether your organization, or any individuals or organizations associated with your organization, has an actual or potential conflict of interest with respect to NFWF, the Scope of Work, or the subject matter of your proposal and, if so, the nature and specific details of that conflict.
- Statement of Litigation. On a separate piece of paper, state any litigation (including bankruptcies) involving your organization and either a federal, state, or local government agency as parties. This includes anticipated litigation, pending litigation, or litigation completed within the past twelve months. If your organization is not involved in any litigation, please state.

Individuals

- A Certificate of Insurance (COI) is a document issued by an insurance company that verifies the existence of insurance coverage. Specifically, the COI lists the effective date of the policy, the type of insurance coverage purchased, and the types and dollar amount of applicable liability. If funds are awarded, you must agree to obtain and maintain all appropriate insurance against liability for injury to persons or property from all activities undertaken by you and associated with the funding agreement in any way and must have NFWF named as an additional insured on all such policies and provide NFWF with appropriate COI reflecting such additions within sixty (60) days after a funding agreement is fully executed.
- Individuals are not required to submit financial documents.
- Conflict of Interest Disclosure. On a separate piece of paper, state whether you, or any individuals or organizations associated with you, have an actual or potential conflict of interest with respect to NFWF, the Scope of Work, or the subject matter of your proposal and, if so, the nature and specific details of that conflict.
- Statement of Litigation. On a separate piece of paper, state any litigation (including bankruptcies) involving you and either a federal, state, or local government agency as parties. This includes anticipated litigation, pending litigation, or litigation completed within the past twelve months. If you are not involved in any litigation, please state.

Attachment Six Required Datasheets

Who Found Nest:		Initial Detection Date: / / 201_		Study Area			(Sketch the nest location on the reverse side of this sheet.) Comments
Waypoint ID _N_____1__ - _____		UTM (NAD83) Zone 11S		Easting: _____	Northing: _____		
Best viewed from Easting _____ Northing _____		Habitat		Topography		Route	
¹ Nest Location:		² Nest Height (m):		³ Nest Aspect:		Photo ID (s)	

To be filled out at the end of the season									
Nest Fate		Cause of Failure If applicable		Total Young Observed		Total Young Observed Fledged		# Tort Remains Found	
WS Action Taken?			Carc IDs of Tort			# Pellets Collected		Tort in Pellet?	

Observer	Date MM/DD/YY	Start Time (12hr am/pm)	End Time (12hr am/pm)	⁴ Species Use	# Adults Present	⁵ Breeding/ Develop. Stage	# of Young	Descr of Young (Age, behavior)	Tortoise Carcass & # (#/N/Unk)	Raven Pellets (?Y/N/Unk)	Dir of Carcass Search Transects (N-S, etc)	Expanded Search ⁶	Comments: Cause of Failure or why chose B/D Stage (use back, too)