

Common Raven Monitoring and Management within Desert Tortoise Conservation Areas/ California CORA Monitoring and Management Areas

2022 Request for Proposals (RFP)

Proposals are Due Tuesday, February 1, 2022 (5:00 pm PT)

U.S. Fish & Wildlife Service (USFWS) Contact for Technical Questions: Kerry L. Holcomb, Senior Endangered Species 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@mail.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: Benjamin Cody Leslie, Environmental Protection Specialist, Email benjamin.leslie@usmc.mil, Office 760-577-6744

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

Mojave National Preserve Contact for Technical Questions: Neal Darby, Wildlife Biologist Lead, Email neal_darby@nps.gov, Office 760-252-6146

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

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

Alternate NFWF Contact for Administrative Questions:

Anne Butterfield, Senior Manager, Impact-Directed Environmental Accounts, National Fish and Wildlife Foundation, Email Anne.Butterfield@nfwf.org, Office 415-243-3106

***Proposals will be disqualified, and not reviewed, if they are either incomplete or not in accordance with the specifications detailed below. PROPOSALS NEED TO BE SUBMITTED FOR EACH STRATUM SEPARATELY AND CANNOT 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 10th year of efforts to monitor and manage Common Raven (*Corvus Corax*; hereafter raven or CORA) depredation on Mojave desert tortoise (*Gopherus agassizii*; hereafter tortoise) populations within California's Warm Deserts Ecoregion (Level II, Omernik and Griffith 2014). Management efforts are enacted pursuant to the Raven Predation Control Environmental Assessment (USFWS, 2008). Depredation control efforts have and will continue to be implemented in the high-quality, sensitive tortoise habitat of southern California (i.e., 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; hereafter CORA Monitoring & Management Area, Map 1). Starting in 2022, monitoring and management actions could be prioritized within Tortoise Recruitment Priority Areas, which are 10 km² hexagons that contain >0.3 live tortoise observations per transect walked between 2001 and 2019 and buffered by 1.8 km (Holcomb et al. 2021, USFWS unpublished data, Map 1; hereafter Tortoise

Recruitment Priority Areas or TRPA).

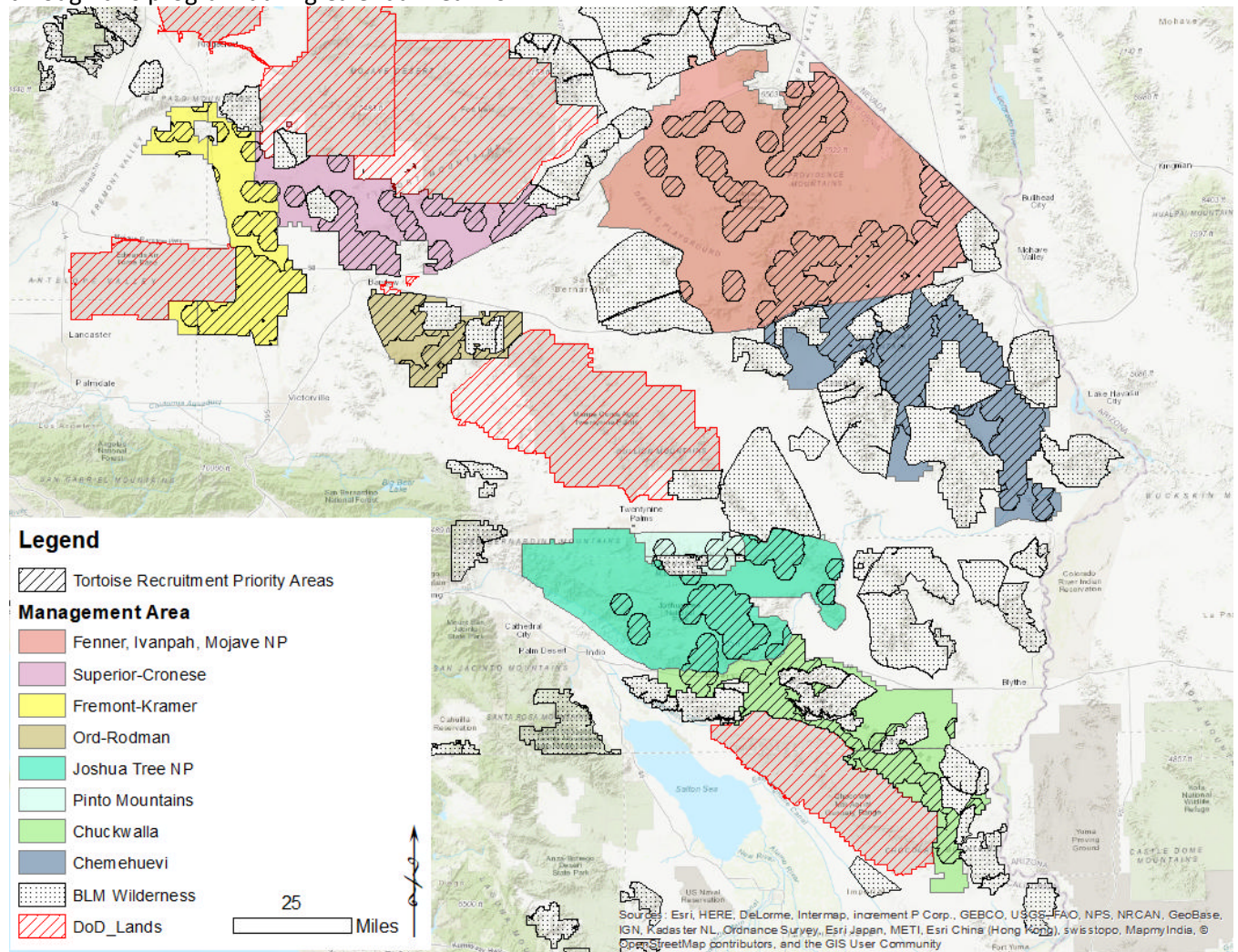
Work during 2022 will focus on locating active raven nests, determining raven nest stage, and carefully timing the application of food grade oil (i.e., addle) to a target number of raven eggs in each CORA Monitoring and Management Area (Table 1). The goal this year is to addle or recommend to Animal and Plant Health Inspection Service Wildlife Services (WS) all nests within Tortoise Recruitment Priority Areas (TRPAs). We will also conduct 50 point counts in each CORA Monitoring and Management Area to refine our estimates of raven density, to document any detectable annual variation in raven density, and to monitor our progress towards our goal of restoring raven and raven nest density back to levels compatible with Mojave desert tortoise recovery. Finally, we will conduct tortoise decoy survival trials, using three-dimensionally printed tortoise decoys in the Chuckwalla, Fremont-Kramer and Fenner-Ivanpah-Mojave National Preserve areas, to refine our model of depredation as a function of raven density.

Locating active raven nests, determining raven nest stage, and carefully 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 here by our limited budget and the likely need to continue this program in perpetuity. As such, nest stage (aka, phenology) will only be monitored to the extent necessary to plan oiling efforts. As such, all planning efforts should consider nest phenology data collected during previous seasons which indicate a mean oiling date of May 1, 2020, with a standard deviation equal to 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 oiling records.

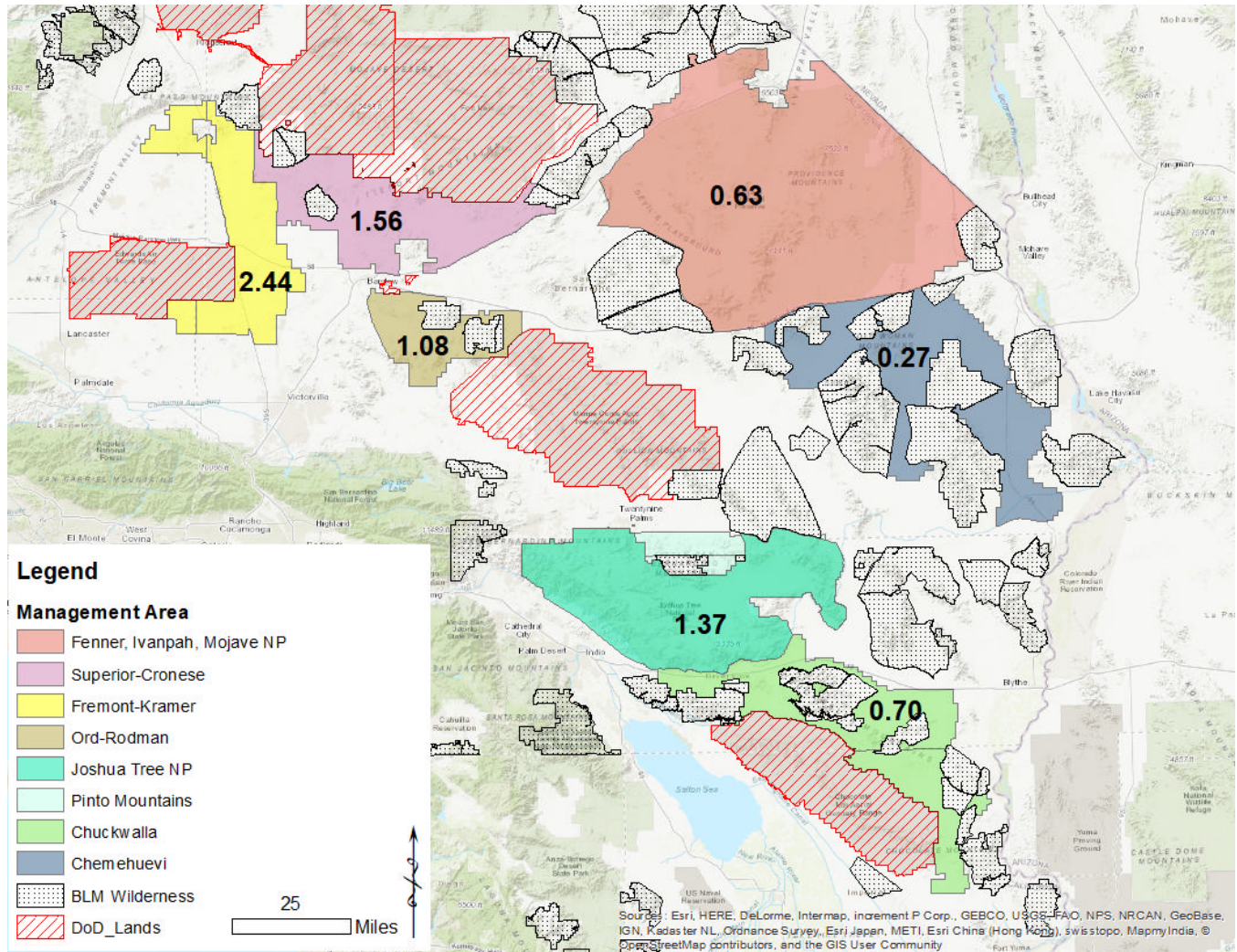
Table 1 2022 CORA Management Monitoring and Management Area specific “Eggs to be oiled” targets, which are the quotient of “2022 Egg Take Targets” divided by the average addling efficiency (93.16%, n=224). Please note that on average, each raven nest contains 4 eggs, but egg counts vary with fall precipitation, spring warming rate, and proximity to subsidies (Hanley et al. 2021a&b). *indicates that a management area will not receive treatment through this program during Calendar Year 2022.

2022 Management Areas (abbreviation)	Mean 2020 Density	Eggs Oiled in 2020	2022 Egg Take Target	Eggs to be Oiled in 2022
Chemehuevi (CI)*	0.27	31	0	0
Fenner, Ivanpah, MNP (FIM)	0.63	149	228	237
Fremont-Kramer (FK)	2.44	961	944	982
Ord-Rodman (OR)	1.08	281	48	50
Superior-Cronese (SC)	1.56	393	532	553
JTNP, Pinto Mountains (JP)	1.37	105	127	132
Chuckwalla (CW)	0.7	n/a	193	201
Totals		1920	2,072	2,155

Map 1 California CORA Monitoring and Management Areas. Each area is color-coded so that the management area name can be found in the legend. Chemehuevi is included in this map but will not receive treatment through this program during Calendar Year 2022.



Map 2 Estimated mean CORA density (ravens/km²) within each California Management Areas. Management Areas labeled according to mean 2020 point count estimates of raven density (ravens/km²; 513 observations at 534 two-kilometer distance points plots). Chemehuevi is included in this map but will not receive treatment through this program during Calendar Year 2022.



1) Performance Period and Total Survey Effort per Priority Area

Nest surveys and oiling will be performed over an approximately two-month period, between March 24 and June 9, 2022 in each CORA Monitoring and Management Area (Map 1, please see Figure 1 for further details regarding area-by-area “Eggs to be Oiled in 2022” targets). Additionally, each crew should include three weeks for data curation, image analysis, report writing, and editing based on comments received for each management strata, resulting in a performance period that will not exceed June 30, 2022.

For each management area, total effort required to locate and oil the target number of eggs will be clearly detailed in the proposal by person days and 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 that year’s nest phenology**). This person day estimate should also include the deployment and retrieval of 22 tortoise decoy bait stations at predetermined random points in the Fremont-Kramer, Chuckwalla, and Fenner-Ivanpah-Mojave National Preserve areas, and conduct fifty

ten-minute two-kilometer radius point counts (**between sunrise and 1400h, with sustained winds of <40km/h, and no more than light precipitation**).

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, bait station 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, deployment and retrieval of 22 tortoise decoy bait stations at predetermined random points in the Fremont-Kramer, Chuckwalla, and Fenner-Ivanpah-Mojave National Preserve areas, project administration, tortoise decoy bait 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 number of estimated miles), equipment/supplies (total cost, including the purchase of 176 non-rechargeable batteries for camera traps), 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 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 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 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. Nests can also be located by watching raven behavior from a vantage point that enables the use of either a rangefinder or compass to map possible nests across a Joshua-tree forest within identified priority areas. Reaching addling targets may require more intensive searching in hard-to-reach locations during some breeding seasons as a result of environmental conditions depressing raven reproductive output. In a safe manner, searches and addling will be conducted by one to two personnel (preference determined by personnel) in a vehicle with individual(s) observing, navigating, preparing to addle, and driving.

Speeds on dirt roads will not exceed 20 miles per hour. On paved roads, a balance will be made between safety and 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 or not eggs are present in the nest. If eggs are present, oil should be applied.

Then 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

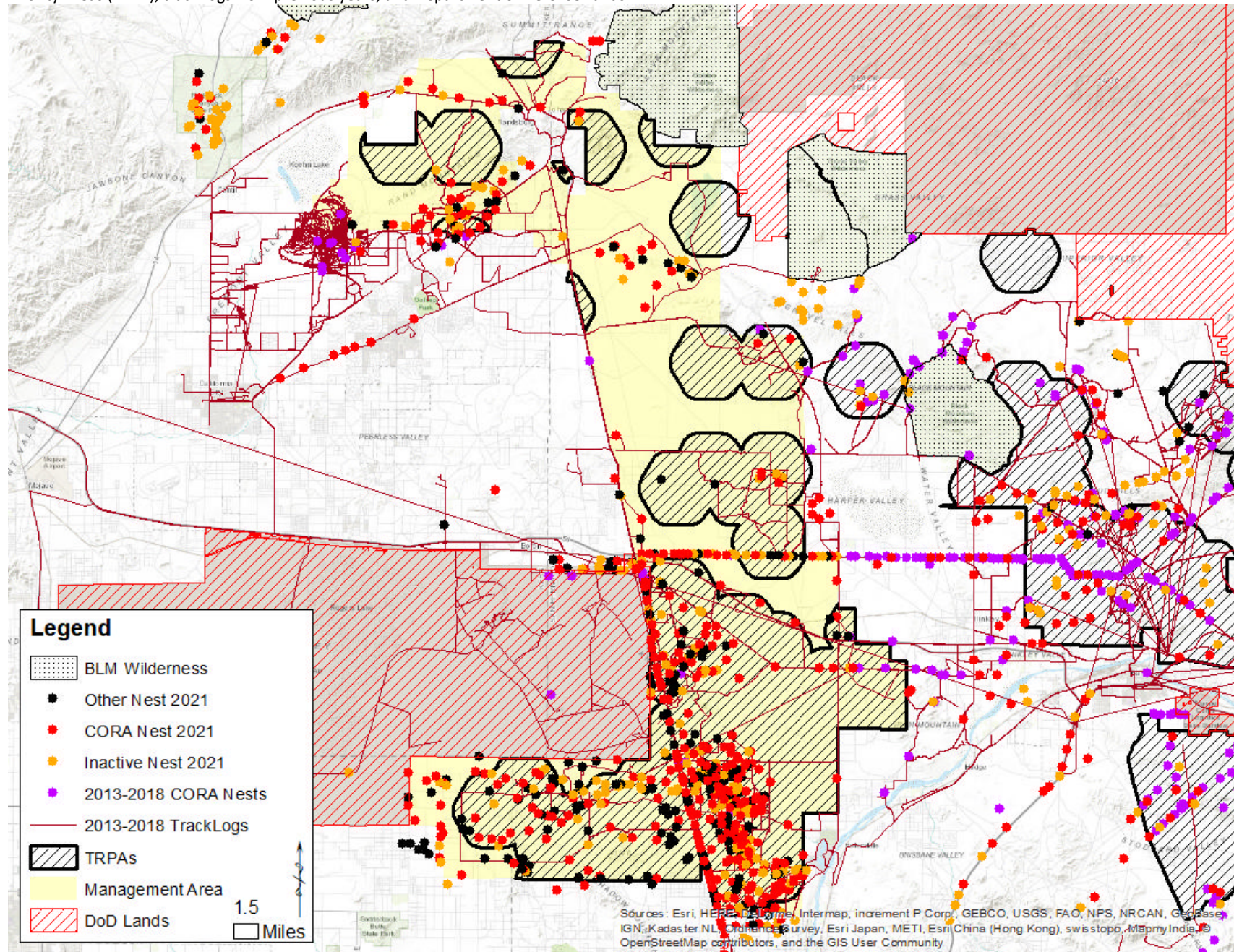
Any observed tortoise remains will be catalogued and photographed on a white background with a standard scale to clearly show the composition of identified remains. Record details on the provided datasheets and according to the provided data dictionary (e.g., number of individuals present and length(s) 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 season.

5) Notification of Desert Tortoise Remains

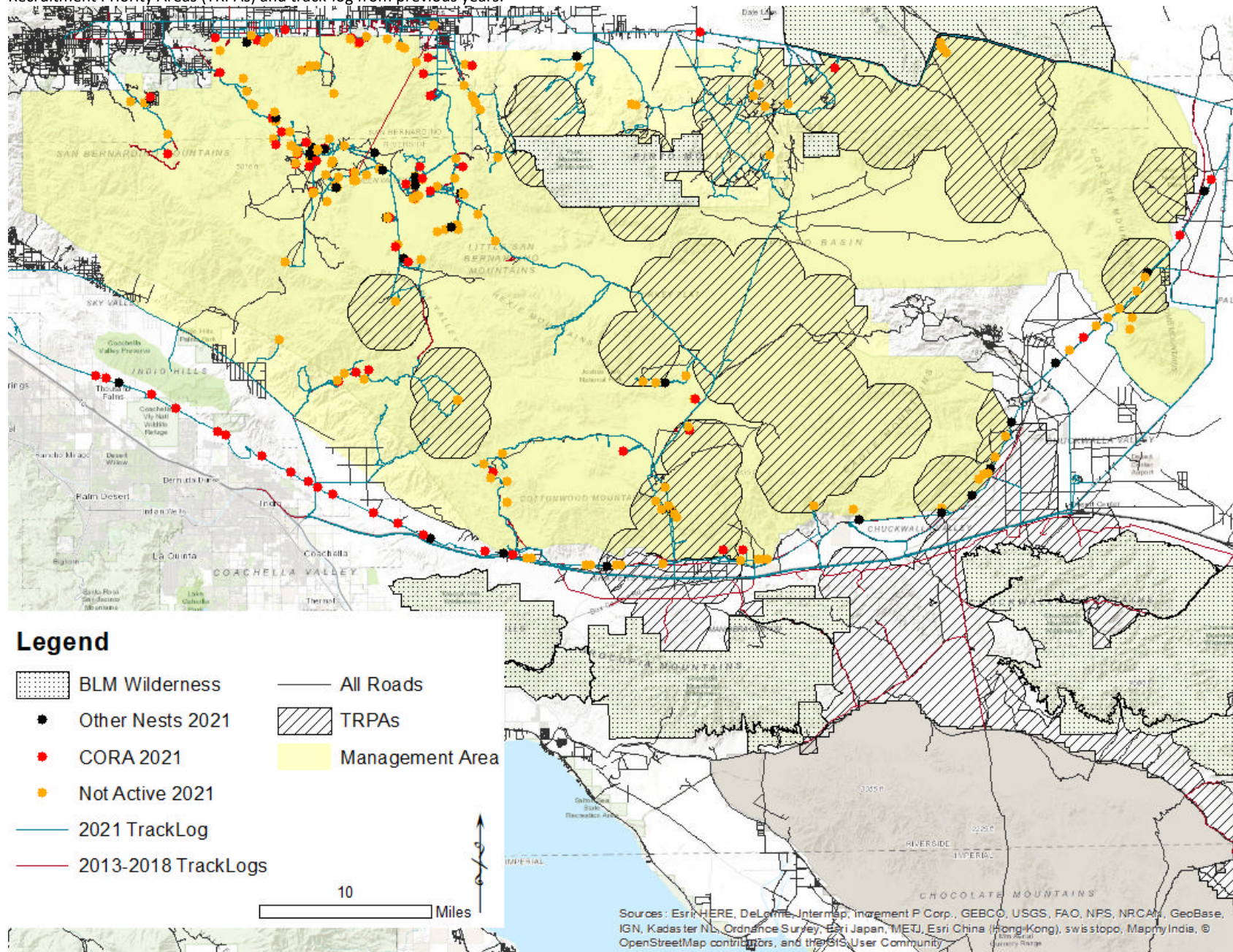
In the event that desert tortoise remains are positively identified at a nest or perch sites, surveyors will notify USFWS and either the BLM, National Park Service (NPS), or military installation (depending on land ownership) point of contact immediately by electronic mail, if possible, or if internet 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 removal of offending ravens.

Immediately notify USFWS and either the landowner contact 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.

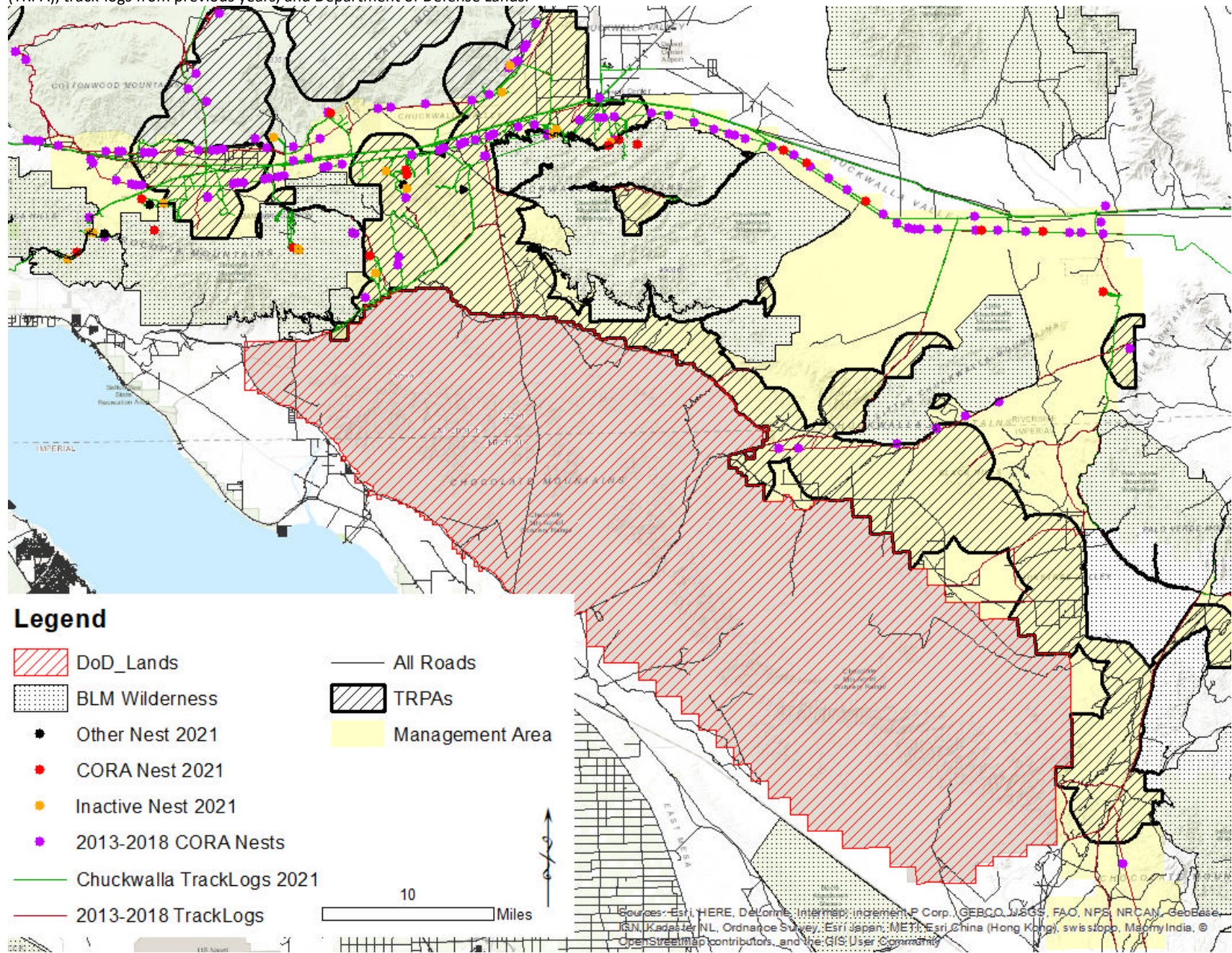
Map 3 Common Raven (CORA) as well as other large nests located within the Fremont-Kramer CORA Monitoring and Management Area. In addition to Tortoise Recruitment Priority Areas (TRPA), track-logs from previous years, and Department of Defense Lands.



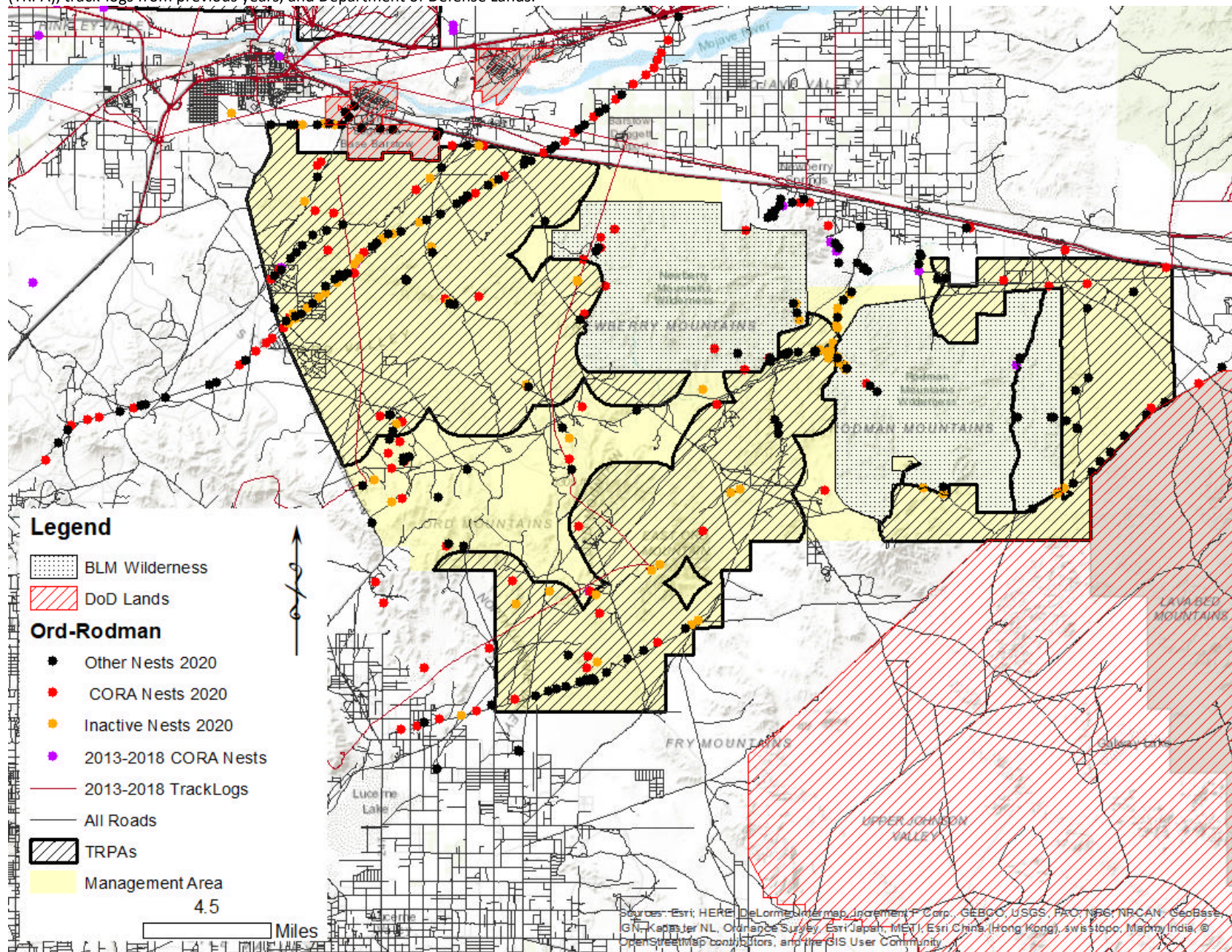
Map 4 Common Raven (CORA) & other large nests located within the Joshua Tree NP and Pinto Basin CORA Monitoring and Management Area. In addition to Tortoise Recruitment Priority Areas (TRPAs) and track-log from previous years.



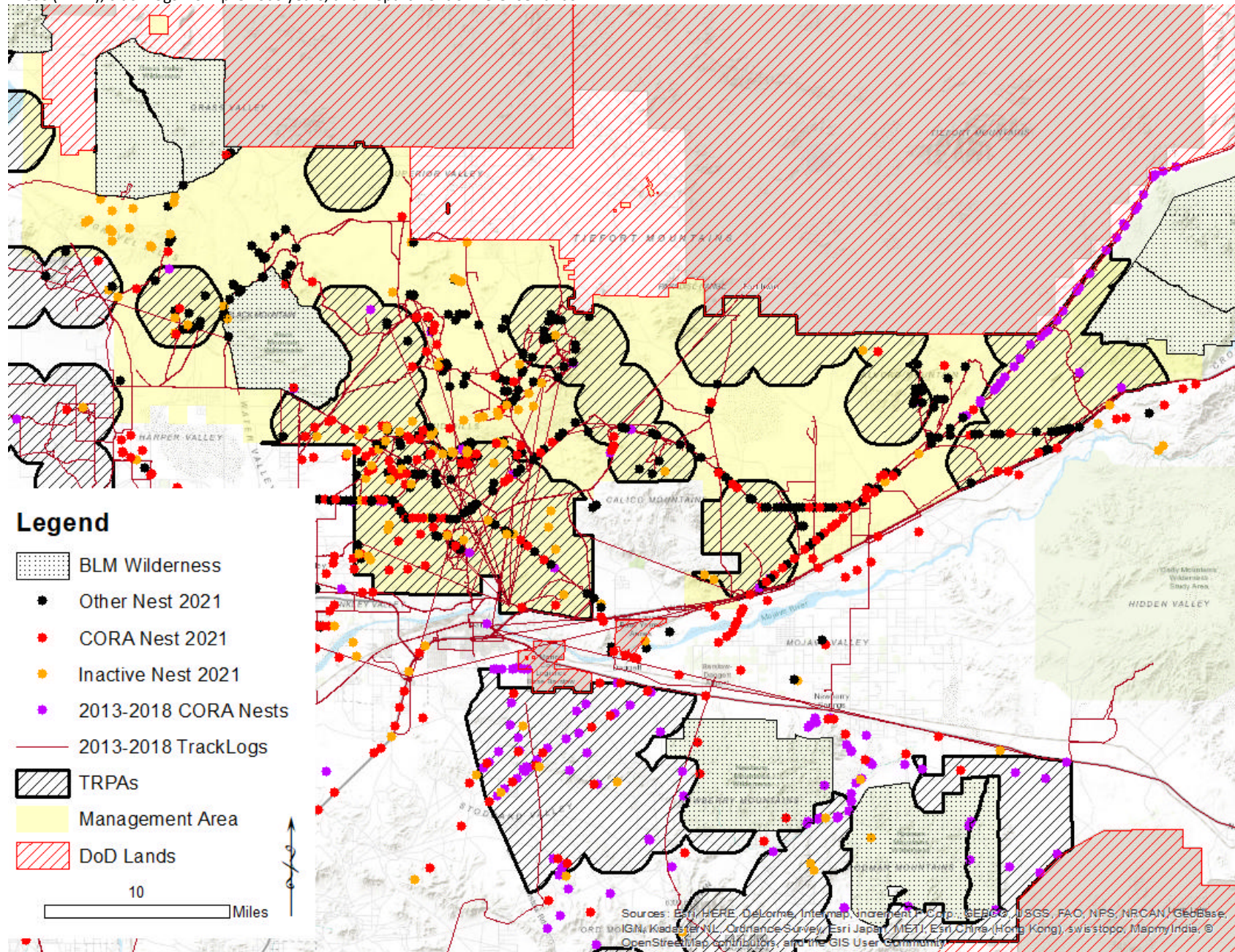
Map 5 Common Raven (CORA) as well as other large nests located within the Chuckwalla Monitoring and Management Area. In addition to Tortoise Recruitment Priority Areas (TRPA), track-logs from previous years, and Department of Defense Lands.



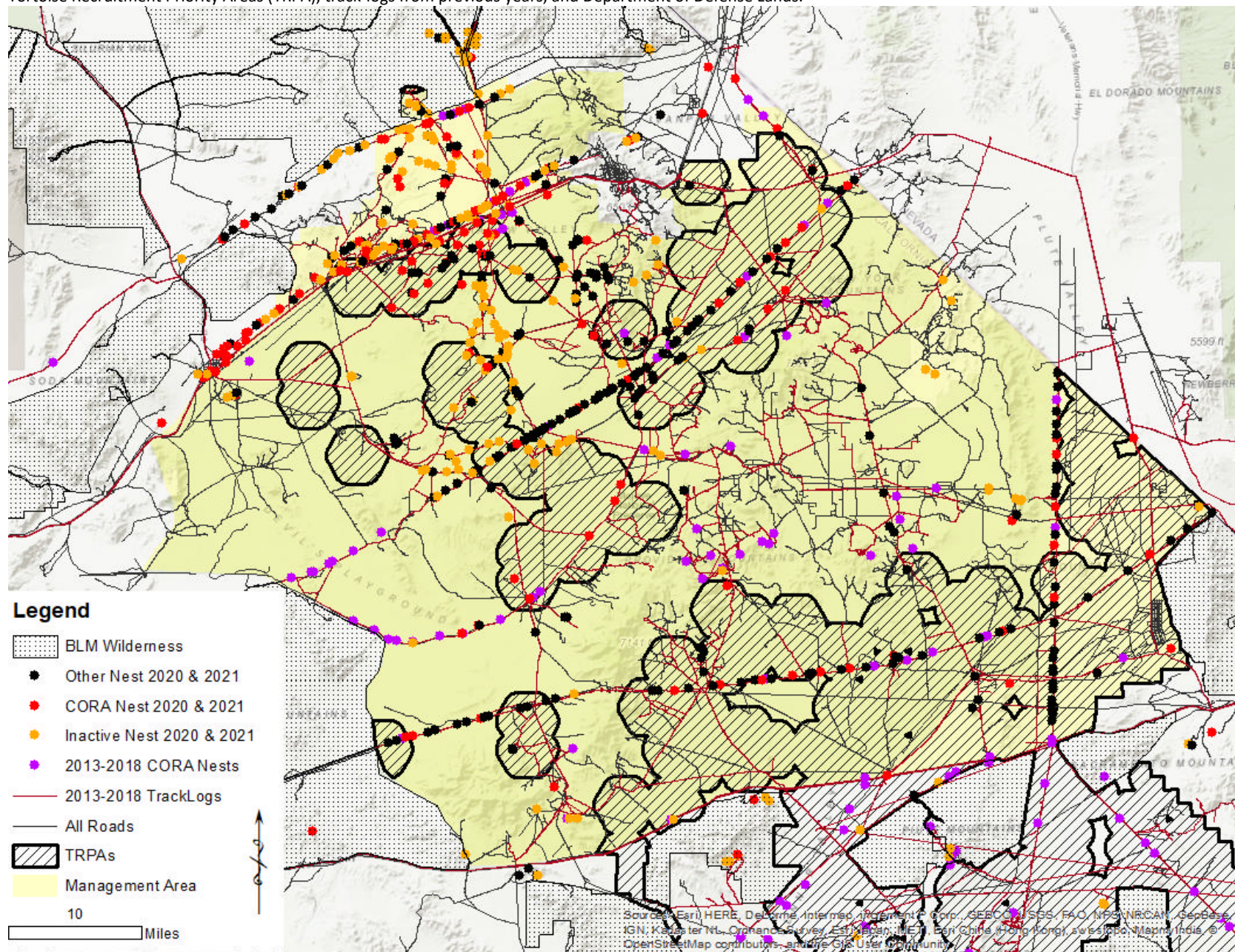
Map 6 Common Raven (CORA) as well as other large nests located within the Ord-Rodman Monitoring and Management Area. In addition to Tortoise Recruitment Priority Areas (TRPA), track-logs from previous years, and Department of Defense Lands.



Map 7 Common Raven (CORA) as well as other large nests 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 8 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.



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, one camera-only station (camera control), and one novel-object station (object control) at 22 predetermined random points in **ONLY** the Fremont-Kramer, Chuckwalla, and Fenner-Ivanpah-Mojave National Preserve management areas. The recipient will review images from each bait station and report raven observations within a one-and-a-half-meter hemispherical area centered on the tortoise decoy. Models will be deployed opportunistically during initial nest searching and oiling phase, but before April 10, 2022. 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 and no more than 20 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 (include roadkill)
6. *See bullet point #2 "Budget" for Monthly Financial Requirements*

4. 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 UTM's (Easting, Northing)
 - d. Breeding status of occupied nest
 - e. Description of desert tortoise remains associated with nest or nearby perch site
 - f. Estimated time since death for the tortoise remains
 - g. Date found
 - h. Most recent date of observation
 - i. Location and number of raven food pellets positive for tortoise remains (optional)
 - j. Notification of desert tortoise remains, if applicable
 - k. Results of WS actions (optional)
2. NFWF Final Programmatic Report (A draft will be provided with at least one week for review at least one week before June 30, 2022).
 - a. Executive summary
 - b. Methodology
 - c. Results
 - i. Nest locations in UTM's
 - 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 2021 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 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. StallPOPdV4 Web Interactive: Software to compute population control treatments of a subsidized predator [Online Software: <https://cwhl.vet.cornell.edu/tools/stallpopd#collapse5>]. 2021a. doi: <https://doi.org/10.7298/sk2e-0c38.4>. 2021a
- Hanley, B., Currylow, A., Holcomb, K. L., Shields, T., Boland, S., Boarman, W., and Vaughn, M. Identifying population management strategies for avian predators: a decision tool. Human-Wildlife Interactions. 2021b.
- Holcomb, K. L., Coates, P. S., Prochazka, B. G., Shields, T., and Boarman, W. I. A desert tortoise-common raven viable conflict threshold. Human-Wildlife Interactions. 2021.
- 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, 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 2022

1. Joshua Tree National Park and Pinto Mountains CHU
 - I. Initial phenology check survey of nest to best time oiling efforts in elevation-latitude classes, (coordinate routes with NPScontact) (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.
 - II. Apply oil to CORA eggs to Addle (see #3)
 - III. Remove offending ravens (coordinate with USFWS, BLM, NPS contact, and WS)
 - IV. Conduct 50, 10-minute variable radius point counts **between sunrise and 1400h, when sustained winds are less than 40km/h and there is no more than light precipitation** at previously determined random points.

2. Mojave National Preserve, Piute-Fenner and Ivanpah CHU
 - I. Initial phenology check survey of nest to best time oiling efforts in elevation-latitude classes, (coordinate routes with NPScontact) (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.
 - II. Apply oil to CORA eggs to Addle (see #3)
 - III. Remove offending ravens (coordinate with USFWS, BLM, NPS contact, and WS)
 - IV. Conduct 50, 10-minute variable radius point counts **between sunrise and 1400h, when sustained winds are less than 40km/h and there is no more than light precipitation** at previously determined random points.
 - V. Before April 10, 2022, Deploy and retrieve 20 Techno-Tort™ bait stations, one camera stations (camera control), and one novel-object station (object control) at 22 predetermined random points (note: these points will be 250 meters from variable radius point count locations. but)
 - VI. Techno-tort™ bait station image review. (see item 6, “Measuring Common Raven Predator Pressure with Tortoise Decoys paired with Passive Infrared Camera Traps”, on page 8)

3. Ord-Rodman CHU (includes portion within Barstow Marine Corps Logistics Base)
 - I. Initial phenology check survey of nest to best time oiling efforts in elevation-latitude classes, (coordinate routes with NPScontact) (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.
 - II. Apply oil to CORA eggs to Addle (see #3)
 - III. Remove offending ravens (coordinate with USFWS, BLM, NPS contact, and WS)
 - IV. Conduct 50, 10-minute variable radius point counts **between sunrise and 1400h, when sustained winds are less than 40km/h and there is no more than light precipitation** at previously determined random points.

4. Fremont-Kramer CHU (includes portion within Edwards Air Force Base and Desert Tortoise Research Natural Area)
 - I. Initial phenology check survey of nest to best time oiling efforts in elevation-latitude classes,

(coordinate routes with NPScontact) (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.

- II. Apply oil to CORA eggs to Addle (see #3)
 - III. Remove offending ravens (coordinate with USFWS, BLM, NPS contact, and WS)
 - IV. Conduct 50, 10-minute variable radius point counts **between sunrise and 1400h, when sustained winds are less than 40km/h and there is no more than light precipitation** at previously determined random points.
 - V. Before April 10, 2022, Deploy and retrieve 20 Techno-Tort™ bait stations, one camera stations (camera control), and one novel-object station (object control) at 22 predetermined random points (note: these points will be 250 meters from variable radius point count locations)
 - VI. Techno-tort™ bait station image review. (see #6)
5. Superior-Cronese CHU and Fort Irwin’s southeast conservation area
- I. Initial phenology check survey of nest to best time oiling efforts in elevation-latitude classes, (coordinate routes with NPScontact) (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.
 - II. Apply oil to CORA eggs to Addle (see #3)
 - III. Remove offending ravens (coordinate with USFWS, BLM, NPS contact, and WS)
 - IV. Conduct 50, 10-minute variable radius point counts **between sunrise and 1400h, when sustained winds are less than 40km/h and there is no more than light precipitation** at previously determined random points.
6. Chuckwalla Bench CHU
- I. Initial phenology check survey of nest to best time oiling efforts in elevation-latitude classes, (coordinate routes with NPScontact) (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.
 - II. Apply oil to CORA eggs to Addle (see #3)
 - III. Remove offending ravens (coordinate with USFWS, BLM, NPS contact, and WS)
 - IV. Conduct 50, 10-minute variable radius point counts **between sunrise and 1400h, when sustained winds are less than 40km/h and there is no more than light precipitation** at previously determined random points.
 - V. Before April 10, 2022, Deploy and retrieve 20 Techno-Tort™ bait stations, one camera stations (camera control), and one novel-object station (object control) at 22 predetermined random points (note: these points will be 250 meters from variable radius point count locations)
 - VI. Techno-tort™ bait station 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, may be 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 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 vertebrals, 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 Microsoft Excel document. Do not change 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 nest, preferred route of travel to reach 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, 2022, Reports: June 10 to a maximum of June 22, 2022). Once recipients are selected, the funding agreements will be between each recipient and NFWF. All proposals should be sent via email to Eliza Braendel at Eliza.Braendel@nfwf.org by **Tuesday, February 1, 2022 (5:00 pm PT)**.

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 for 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.

Attachment Five Required Financial Documents

In order 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 which 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 which 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 any and 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.

