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

2021 Request for Proposals (RFP)
Proposals are Due Friday, January 29, 2021 (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 760-322-2070 Ext. 421

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

Alternate NFWF Contact for Funding agreementing and 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 ninth year of efforts to monitor and manage Common Raven (*Corvus Corax;* hereafter raven or CORA) depredation on the Mojave desert tortoise (*Gopherus agassizii*; hereafter tortoise). These efforts have and will continue to be implemented in high-quality 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 management stratum or strata, Map 1).

During Phase I implementation (2013-2018) of the 2008 Common Raven Monitoring and Management Environmental Assessment (hereafter 2008 EA), management strata were rotated among years such that each stratum was surveyed and managed in its entirety or in part for at least three raven breeding seasons

(approximately Mid-march to June, depending on weather conditions). Phase I, however, did not result in the 2008 EA target of a 75 percent reduction in offending nests when analyzed across California's management strata. Therefore, in accordance with the selected 2008 EA alternative, our program advanced to Phase II in 2019. Phase II (2019 and 2020) also failed to reduce the threat of raven depredation by 75 percent. This short fall in effectiveness is best demonstrated by spring 2020 point count estimates of raven density, which indicate that all strata have a raven density above 0.4 ravens per square kilometer (Map 2). This indicates also that our program should advance to Phase III during the 2021 raven-nesting season. Note, that this density threshold is under evaluation with regard to both Greater Sage-Grouse (*Centrocercus urophasianus*) nest success and weekly survival probabilities for three-dimensionally printed tortoise decoys. Preliminary analysis of both grouse nest success and desert tortoise life stage specific survival probabilities support 0.4 ravens per square kilometer as an ecologically relevant threshold for triggering the use of raven egg addling and removal techniques.

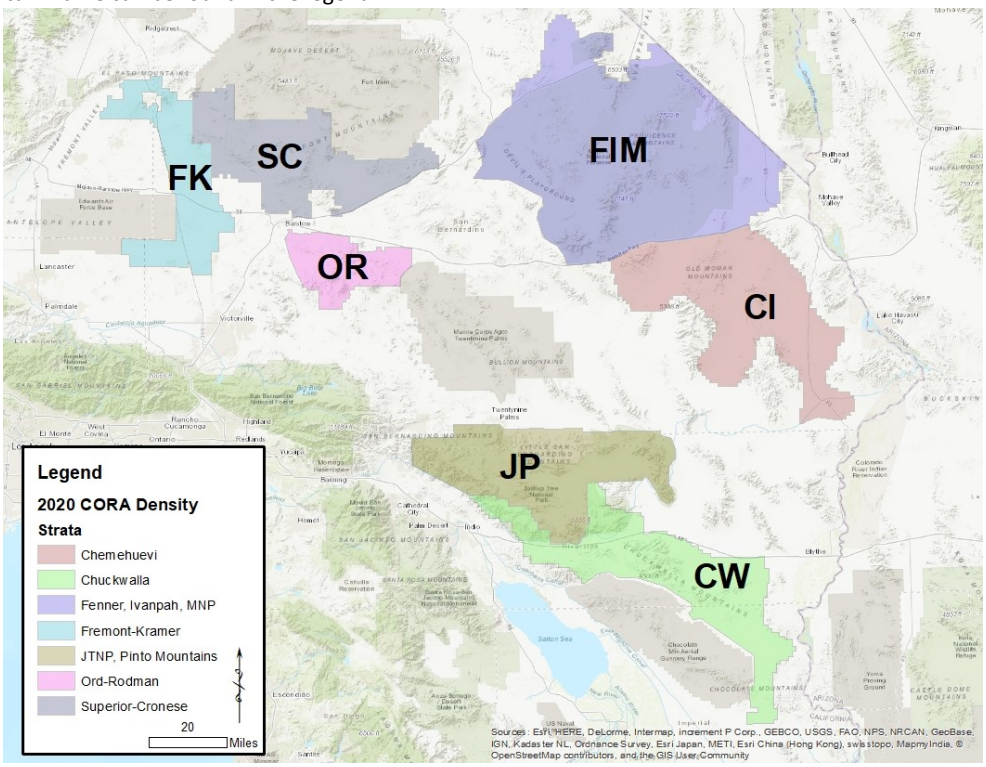
Phase I and II did provide a clear view of the issues contributing to unnaturally-high (i.e., subsidized) raven densities in the California desert and our understanding of the impacts that breeding and nonbreeding ravens have on tortoise meta-population stability and thus long-term viability. Phase I and II also demonstrates the California Deserts Common Raven Monitoring and Management Program's commitment to subsidy reduction, outreach, and education. Nevertheless, the combined effect of Phase I and II monitoring, management, research, outreach, and education has failed to restore raven-tortoise conflicts to pre-subsidized levels, and thus has not resulted in the decrease in raven depredation necessary to recover the Mojave desert tortoise.

This next year of management will, therefore, focus entirely on an aggressive strategy to oil (i.e., addle) a target number of raven eggs in each strata (Figure 1). We will also conduct 40 to 50 point counts in each stratum to refine our estimates of raven density, to document any detectable annual variation in raven density, and monitor our progress towards our goal of restoring raven density back to 0.4 ravens per square kilometer throughout all management strata. Finally, we will conduct depredation pressure surveys, using three-dimensional tortoise decoys in the Fremont-Kramer and Chuckwalla strata as well as the Mojave National Preserve, to refine our model of depredation as a function of raven density. The goal of oiling this season is efficiency, in terms of cost per unit effort—i.e., cost per egg oiled, with an assumed addling efficiency of at least 96%. As such, nest phenology will only be monitored to the extent necessary to plan oiling efforts. This planning should further 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 strata are available to be oiled between the last 7 days of March and the first 7 days of June, according to 2020 oiling records.

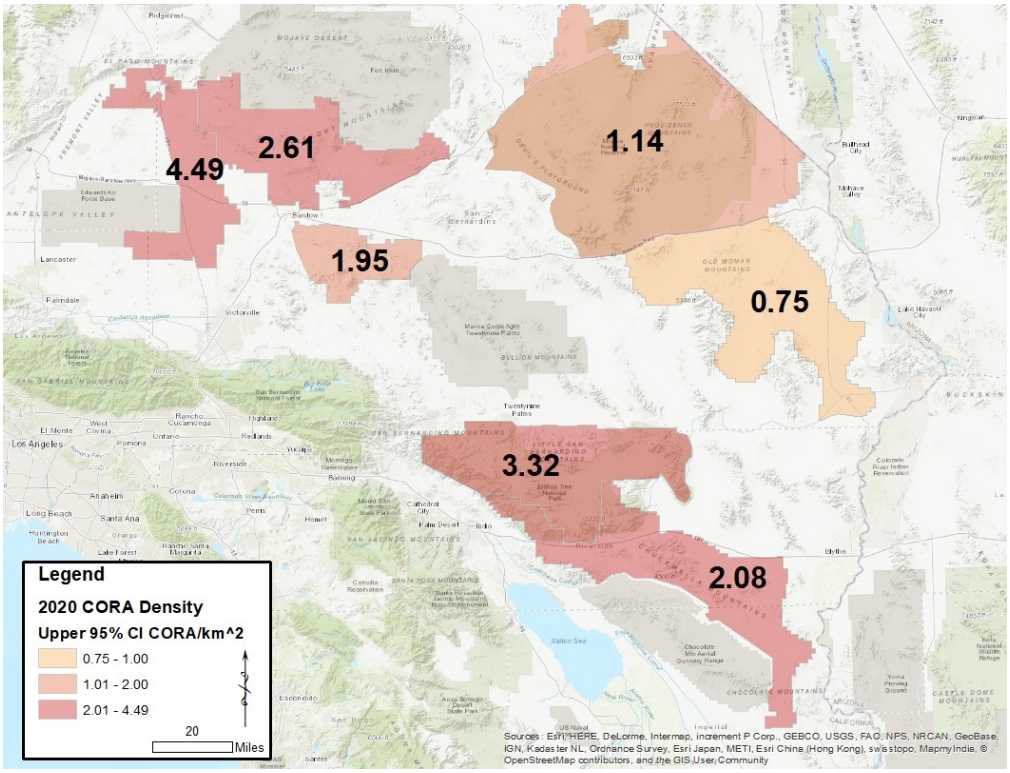
Figure 1 2021 CORA Management Strata specific "Eggs to be oiled in 2021" targets, which are the products of "2021 Egg Take Targets" and average addling efficiency (93.16%, n=224). Please note that on average, each raven nest contains four eggs, but egg counts vary as a function of fall precipitation, spring warming rate, and subsidy availability/proximity.

2021 CORA Monitoring Stratum (abbreviation)	Eggs Oiled in 2020	Oiled Eggs that Hatched	2019 Percent Effective	2020 Percent Effective	2021 Egg Take Targets	Eggs to be Oiled in 2021
Chemehuevi (CI)	31	1	n/a	93.75	73	76
Fenner, Ivanpah, MNP (FIM)	149	23	n/a	84.56	268	279
Fremont-Kramer (FK)	961	12	n/a	98.75	860	895
Ord-Rodman (OR)	281	0	n/a	100.00	98	101
Superior-Cronese (SC)	393	2	96.34	99.49	438	456
JTNP, Pinto Mountains (JP)	105	0	n/a	100.00	193	200
Chuckwalla (CW)	n/a	n/a	n/a	n/a	271	281
	1920				2,200	2,288

Map 1 California CORA Monitoring and Management Strata. Each stratum is labeled with its respective abbreviation and is color-coded so that the full stratum name can be found in the legend.



Map 2 Estimated Upper 95% Confidence Interval (CI) of CORA density (ravens/km^2) within each California Monitoring and Management Stratum. Stratum are labeled and color coded according to 2020 point count estimates of the upper 95% confidence interval of raven density (ravens/km^2; 513 observations at 534 two-kilometer distance points plots).



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, 2021 in each management stratum (Map 1, *please see Figure 1 for stratum-by-stratum "Eggs to be Oiled in 2021" targets and Attachment 1 for Priority Management Actions by stratum for 2021*). Additionally, each crew should include 1 to 2 weeks for data curation, image analysis, and report writing for each management strata, resulting in a performance period that will not exceed June 22, 2021. For each management stratum, 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 (bait stations will be supplied) at predetermined random points in the Fremont-Kramer and Chuckwalla Strata as well as Mojave National Preserve, 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 and Chuckwalla Strata as well as Mojave National Preserve, project administration, tortoise decoy bait station photographic data review, time series of raven observations, and weekly attack rate analysis (Sum of 0 or 1 attacks per twelve-hour period divided by the number of twelve-hour periods sampled), 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), 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). (*See Attachment 1 for Priority Management Actions by stratum for 2021)*

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 7), 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 GPS enabled 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, one or two person crews (preference determined by recipients) will conduct searches and addling 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

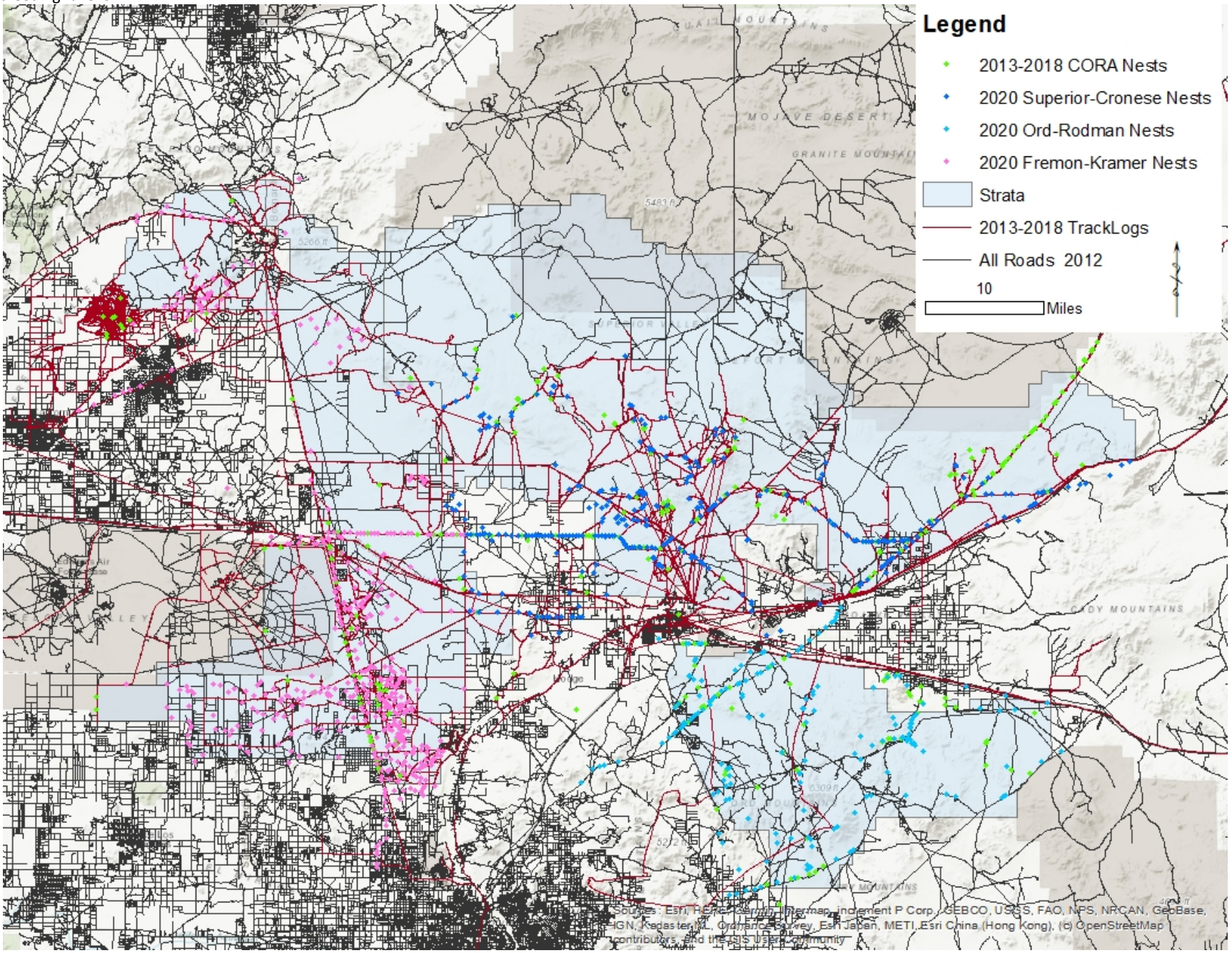
Any observed tortoises remains will be catalogued and photographed (including road kill) on a white background with a standard scale to clearly show the composition of identified remains. Record details on the provided datasheets and according to the provided data dictionary (e.g., number of individuals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

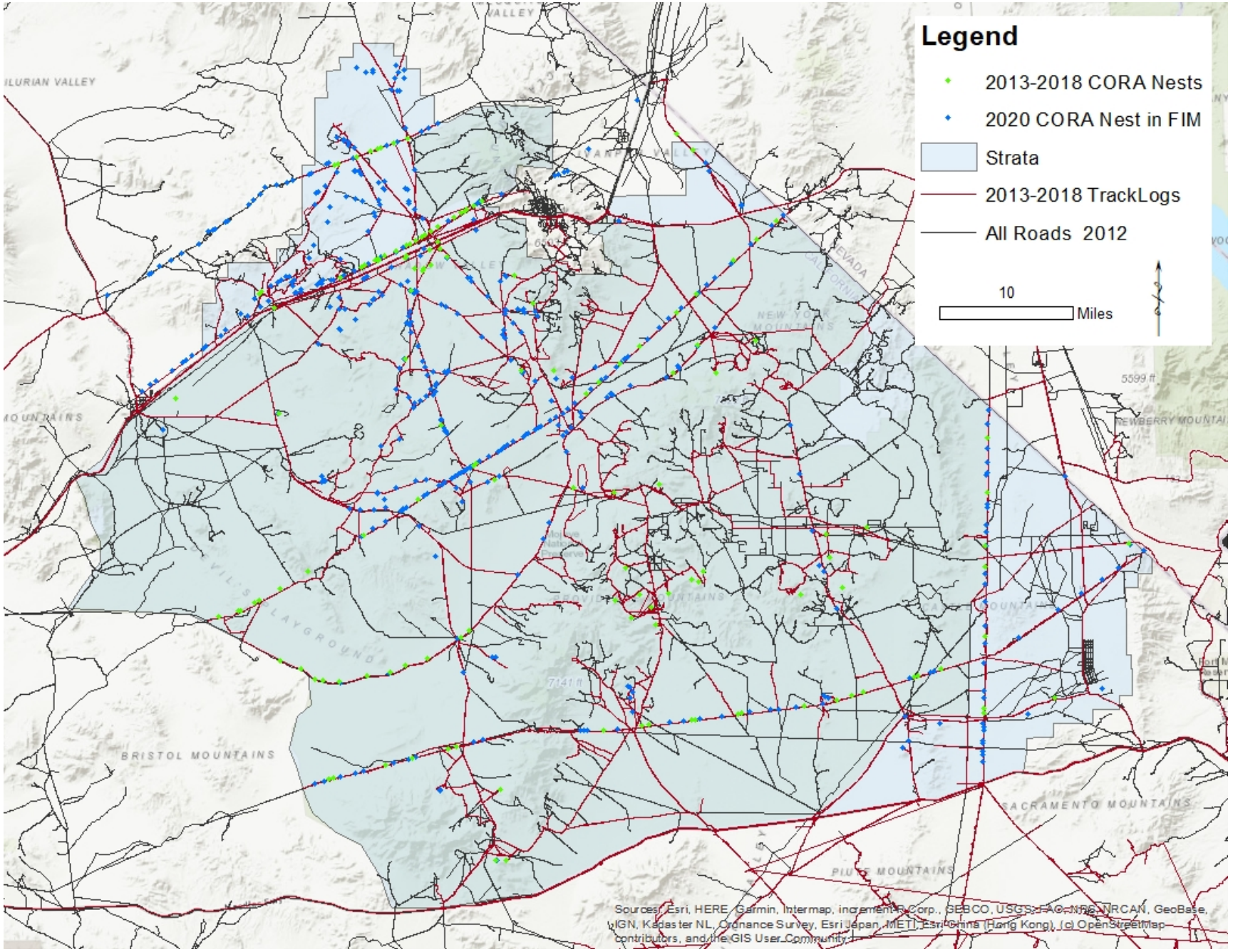
In the event that desert tortoise remains are positively identified at a nest or perch sites, surveyors will notify USFWS and either BLM, NPS, or military installation (depending on land ownership) point of contact immediately by electronic mail, if possible, or if internet coverage is limited, no later than seventy-two hours after the observation. Surveyors will follow Attachment Three guidelines and provide USFWS with 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 the Service's and BLM's efforts to manage road mortality across the range of the tortoise.

Map 3 Common Raven (CORA) nests, both active and inactive, located in the western Mojave Desert between 2013 and 2020. Points collected in 2020 are color coded with respect to each management stratum displayed and extend up to 8 miles (12.9 km) outside of each management stratum, thus accounting for the average foraging distance of breeding ravens.

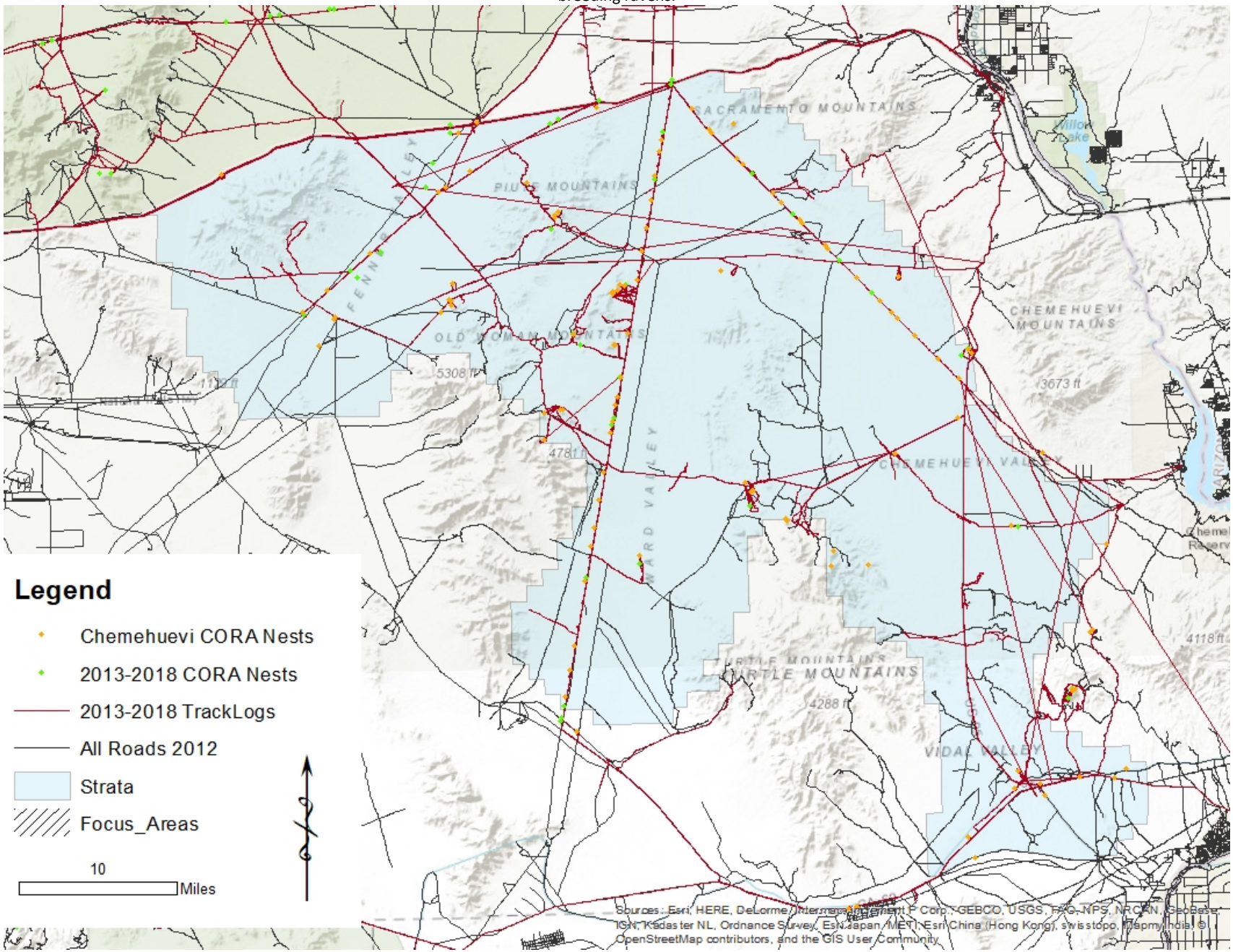


Map 4 Common Raven (CORA) nests, both active and inactive, located in the Fenner, Ivanpah, Mojave NP (FIM) Management Stratum between 2013 and 2020. Points collected in 2020 are color coded with respect to the FIM Management Stratum and extend up to 8 miles (12.9 km) outside of the management stratum, thus accounting for the average foraging distance of breeding ravens.



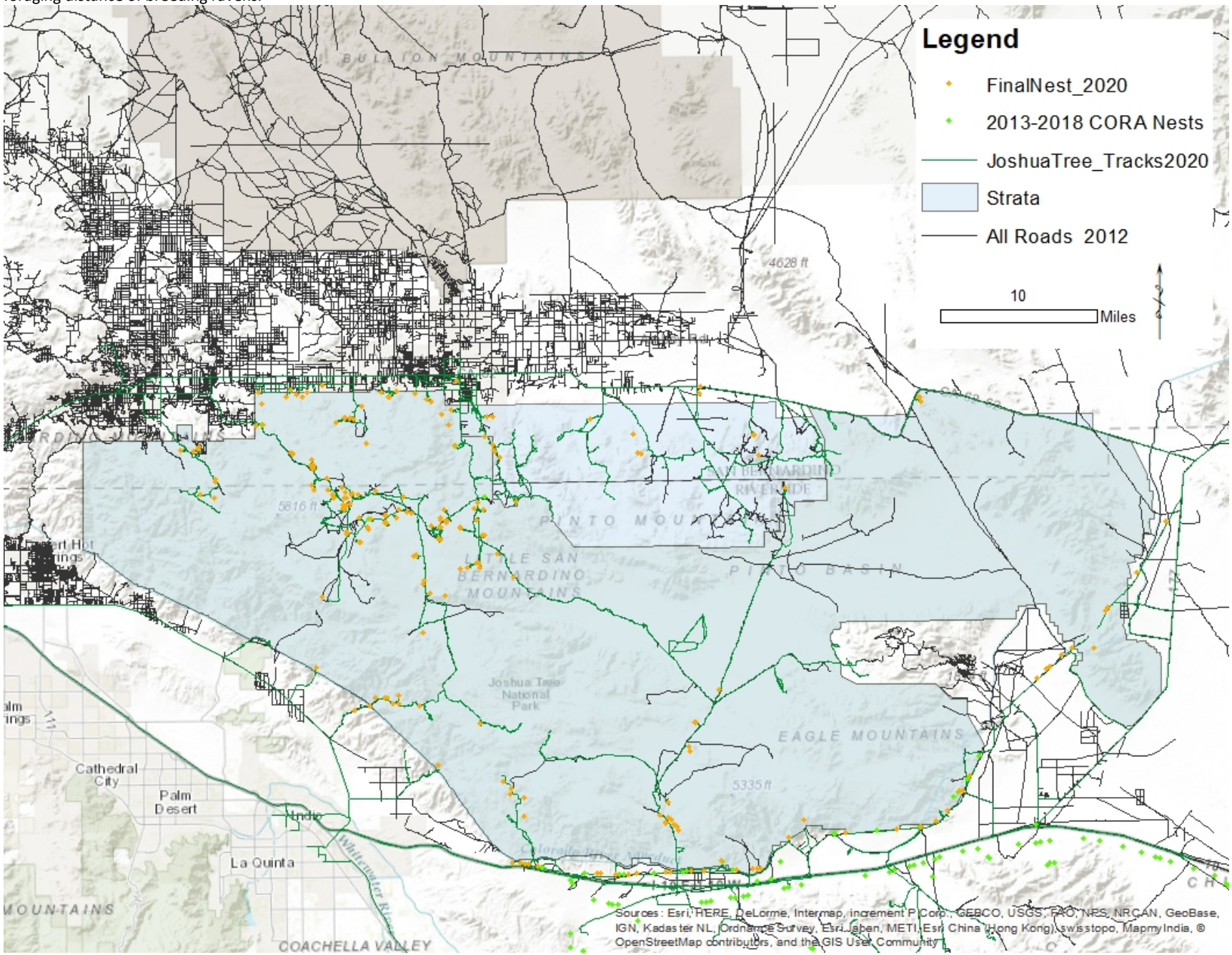
Map 5 Common Raven (CORA) nests, both active and inactive, located in the Chemehuevi (CI) Management Stratum between 2013 and 2020. Points collected in 2020 are color coded with respect to the CI Management Stratum and extend up to 8 miles (12.9 km) outside of the management stratum, thus accounting for the average foraging distance of

breeding ravens.



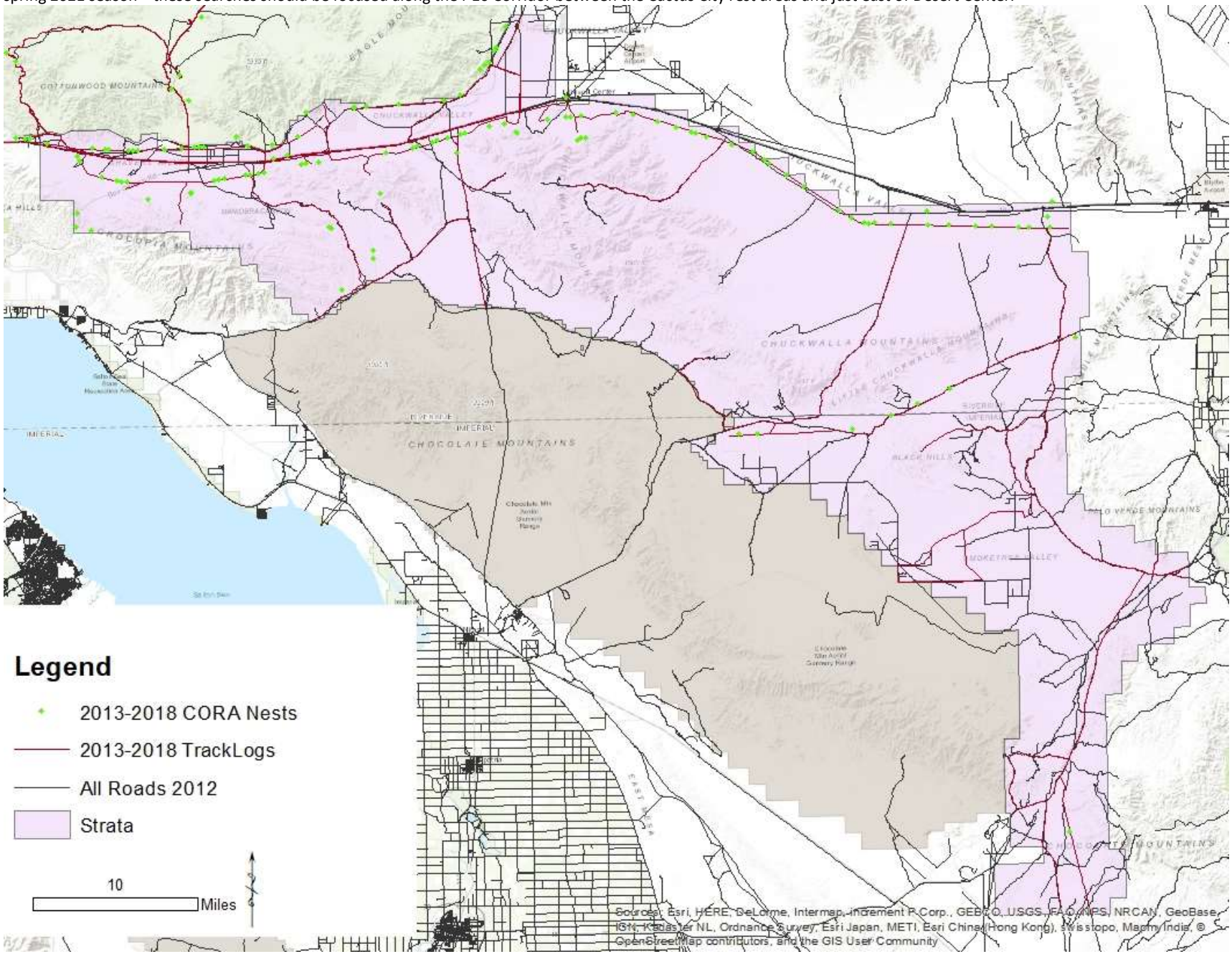
Map 6 Common Raven (CORA) nests, both active and inactive, located in the Joshua Tree NP and Pinto Basin Management Stratum (JP) between 2013 and 2020. Points collected in 2020 are color coded with respect to the JP Management Stratum and extend up to 8 miles (12.9 km) outside of each management strata, thus accounting for the average

foraging distance of breeding ravens.



Map 7 Common Raven (CORA) nests, both active and inactive, located in the Chuckwalla (CH) Management Stratum between 2013 and 2018. The Chuckwalla Management Stratum has not received the same level of monitoring that many of the other strata have, which will make nest searching a larger part of management in this stratum during the

spring 2021 season—these searches should be focused along the I-10 Corridor between the Cactus City rest areas and just east of Desert Center.



6) Measuring Common Raven Predator Pressure with Tortoise Decoys paired with Passive Infrared Camera Traps (Fremont-Kramer and Chuckwalla Management Strata and Mojave National Preserve <u>ONLY</u>)

The recipient will deploy and retrieve 20 tortoise decoy bait stations, 1 camera-only station (camera control), and 1 novel-object station (object control) at 22 predetermined random points in the Fremont-Kramer and Chuckwalla Strata as well as Mojave National Preserve. The recipient will review images from each bait station 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 strata (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 raven are not visibly present in the area. Models will be left in place for 15 days. (*See Attachment 1 for Priority Management Actions by stratum for 2021*)

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 at the end of the funding agreement. (*See Attachment 1 for Priority Management Actions by stratum for 2021*)

1. **Monthly:**
    1. Number of eggs oiled
    2. Number of eggs remaining to be oiled (where eggs remaining will equal the target number of eggs oiled minus the number of eggs oiled to date)
    3. Number of nests with a potential for oiling
    4. Cost per raven egg oiled
    5. GPS track logs (as ArcGIS shapefile) of all routes driven and all walking paths within the study areas
    6. GPS locations of all desert tortoise remains associated with a specific raven nest or perch
    7. GPS locations of all desert tortoise sightings (include roadkill)
    8. *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 UTMs (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
        j. Notification of desert tortoise remains, if applicable

    k. Results of WS actions
2. NFWF Final Programmatic Report
    a. Executive summary
    b. Methodology
    c. Results
        i. Nest locations in UTMs
        ii. Separate maps of:
            1. CHU boundary with land ownerships, survey routes, and powerlines
            2. nest sites (include key indicating active nests, inactive nests, bird species, and offending raven nest sites) and incidental live desert tortoise encounters and carcass locations (include raven predated and roadkill tortoises)
        iii. Graphs detailing:
            1. Dollars per egg oiled
        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
        v. QA/QC process and assurances for data and reports
    d. Discussion
        i. Compare results to 2020 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 flashdrive to USFWS contact
8. NFWF Final Financial Report

Attachment One
Priority Management Actions by stratum for 2021

1. Joshua Tree National Park and Pinto Mountains CHU Stratum
    I. Initial nest phenology survey to best predict timing of oiling efforts in elevation-latitude classes, (coordinate routes with Joshua Tree National Park contact) (see #3)
    II. Apply oil to CORA eggs to addle (see #3)
    III. Refer offending ravens (coordinate with USFWS, BLM, NPS contact, and Wildlife Services)
    IV. Conduct fifty 10 minute variable radius point counts at previously determined random points (**conducted between sunrise and 1400h, with sustained winds of <40km/h, and no more than light precipitation**).

2. Mojave National Preserve, Piute-Fenner and Ivanpah CHU Stratum
    I. Initial nest phenology survey to best predict timing of oiling efforts in elevation-latitude classes, (coordinate routes with Mojave National Preserve contact) (see #3)
    II. Apply oil to CORA eggs to addle (see #3)
    III. Refer offending ravens (coordinate with USFWS, BLM, NPS contact, and Wildlife Services)
    IV. Conduct fifty 10 minute variable radius point counts at previously determined random points (**conducted between sunrise and 1400h, with sustained winds of <40km/h, and no more than light precipitation**).
    V. Deploy and retrieve 20 Techno-Tort™ bait stations, 1 cameras stations (camera control), and 1 novel-object station (object control) at 22 predetermined random points outside of wilderness but within the Mojave National Preserve (note: these points will be 250 meters North of a variable radius point count locations)
    VI. Techno-tort™ bait station image review. (see #6)

3. Ord-Rodman CHU (includes portion within Barstow Marine Corps Logistics Base) Stratum
    I. Initial nest phenology survey to best predict timing of oiling efforts in elevation-latitude classes, (coordinate routes with Barstow Marine Corps Logistics Base contact) (see #3)
    II. Apply oil to CORA eggs to addle (see #3)
    III. Refer offending ravens (coordinate with USFWS, BLM, MCLB contact, and Wildlife Services)
    IV. Conduct fifty 10 minute variable radius point counts at previously determined random points (**conducted between sunrise and 1400h, with sustained winds of <40km/h, and no more than light precipitation**).

4. Fremont-Kramer CHU (includes portion within Edwards Air Force Base and Desert Tortoise Research Natural Area) Stratum
    I. Initial nest phenology survey to best predict timing of oiling efforts in elevation-latitude classes, (coordinate routes with Edwards Air Force Base and Desert Tortoise Research Natural Area contact) (see #3)
    II. Apply oil to CORA eggs to Addle (see #3)
    III. Refer offending ravens (coordinate with USFWS, BLM, Edwards Air Force Base and Desert Tortoise Research Natural Area contact, and Wildlife Services)
    IV. Conduct fifty 10 minute variable radius point counts at previously determined random points (**conducted between sunrise and 1400h, with sustained winds of <40km/h, and no more than light precipitation**).

V. Deploy and retrieve 20 Techno-Tort™ bait stations, 1 cameras stations (camera control), and 1 novel-object station (object control) at 22 predetermined random points (note: these points will be 250 meters North of a variable radius point count locations)
VI. Techno-tort™ bait station image review. (see #6)

5. Chemehuevi CHU Stratum
   I. Initial nest phenology survey to best predict timing of oiling efforts in elevation-latitude classes (see #3)
   II. Apply oil to CORA eggs to addle (see #3)
   III. Refer offending ravens (coordinate with USFWS and BLM contact, and Wildlife Services)
   IV. Conduct fifty or fewer 10 minute variable radius point counts at previously determined random points (**conducted between sunrise and 1400h, with sustained winds of <40km/h, and no more than light precipitation**).

6. Superior-Cronese CHU and Fort Irwin's Southeast Conservation Area Stratum
   I. Initial nest phenology survey to best predict timing of oiling efforts in elevation-latitude classes, (coordinate routes with Fort Irwin's contact) (see #3)
   II. Apply oil to CORA eggs to addle (see #3)
   III. Refer offending ravens (coordinate with USFWS, BLM, Fort Irwin contact, and Wildlife Services)
   IV. Conduct fifty 10 minute variable radius point counts at previously determined random points (**conducted between sunrise and 1400h, with sustained winds of <40km/h, and no more than light precipitation**).

7. Chuckwalla Bench CHU Stratum
   I. Initial phenology check to best predict timing of oiling efforts in elevation-latitude classes, (coordinate routes with FWS and BLM contact)(see #3)
   II. Apply oil to CORA eggs to addle (see #3)
   III. Refer offending ravens (coordinate with USFWS and BLM contact, and Wildlife Services)
   IV. Conduct fifty 10 minute variable radius point counts at previously determined random points (**conducted between sunrise and 1400h, with sustained winds of <40km/h, and no more than light precipitation**).
   V. Deploy and retrieve 20 Techno-Tort™ bait stations, 1 cameras stations (camera control), and 1 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
Key for Estimating Time Since Death for Shell-Skeletal Remains

Appendix 5 - 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 solid .....1-2 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 peel .....2-4 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 CHU's and NPS units will be performed over a two and a half month period (Oiling: March 24 and June 9, 2021, Reports: June 10 to a maximum of June 22, 2021). 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 **Friday, January 29, 2021 (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 organizations which receive more than $500,000 in federal dollars in a given 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 organizations which receive more than $500,000 in federal dollars in a given 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.

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 & # ([6]#/N/Unk)	Raven Pellets ([7]Y/N/Unk)	Dir of Carcass Search Transects (N-S, etc)	Expanded Search?[8]	Comments: Cause of Failure or why chose B/D Stage (use back, too)