APPENDIX H
RESTORATION SITES
Ironwood Forest National Monument
Travel Management Plan

Existing disturbed areas will be restored to near natural conditions as much as possible. Proposed restoration work sites include existing disturbed areas caused by illegal off road vehicle use, past mining activities, intensive recreational target shooting or other surface disturbing activities, or are needed to implement the route closures or route use restrictions identified under the Monument route travel designations. Restoration treatments to restore natural soil function, drainage patterns, and vegetative cover will typically include:

1) Installation of temporary or permanent physical barriers to limit continued vehicle access on the restoration site.
2) Installation of signs to identify the restoration site, and prevent or deter entry.
3) Treatment to remove non-native invasive plants, with chemical or mechanical methods; All herbicide applications will be subject to approved BLM Pesticide Use Procedures, which require a project specific Pesticide Use Proposal, environmental review for NEPA compliance, use or approved herbicides, and application by or supervised by a certified applicator
4) Treatment to disguise the site and avoid attracting continued use; vertical and ground cover mulching, raking to erase tracks or other evidence of use.
5) Ripping to 12" - 18" to break up compacted soil crust and promote water infiltration and revegetation where appropriate given soil conditions and other factors.
6) Finish grading to promote surface runoff infiltration and stabilize erosion.
7) Seeding with native plants from adjacent plant cover.
8) Transplanting to propagate native cacti and other plants with barrier effect.
9) Installation of erosion control (straw mats, wattles or other material).
10) Installation of rock mats or revetment to stabilize sheet and gully erosion

Restoration work will be accomplished with BLM crews, volunteers or contractors. Methods that will be used will primarily use hand tools. Heavily impacted sites may require use of heavy mechanical equipment. Archaeological surveys and clearances will be completed prior to surface disturbing restoration work. Desert tortoise surveys and clearances will be completed prior to restoration work using heavy equipment, and operating guidelines for construction in desert tortoise habitat will be followed during the work.

The areas and sites that would be restored are listed in Table 6 of the TMP, and site maps are included in this Appendix. Additional restoration sites may be identified in the future as damage reports are received and additional surveys are completed.

FIGURE 1. SAWTOOTH RESTORATION SITE
LOCATION: T9S R6E SEC34
Restore vehicle impacts on steep eroding mountain slope
Imagery 5/26/12

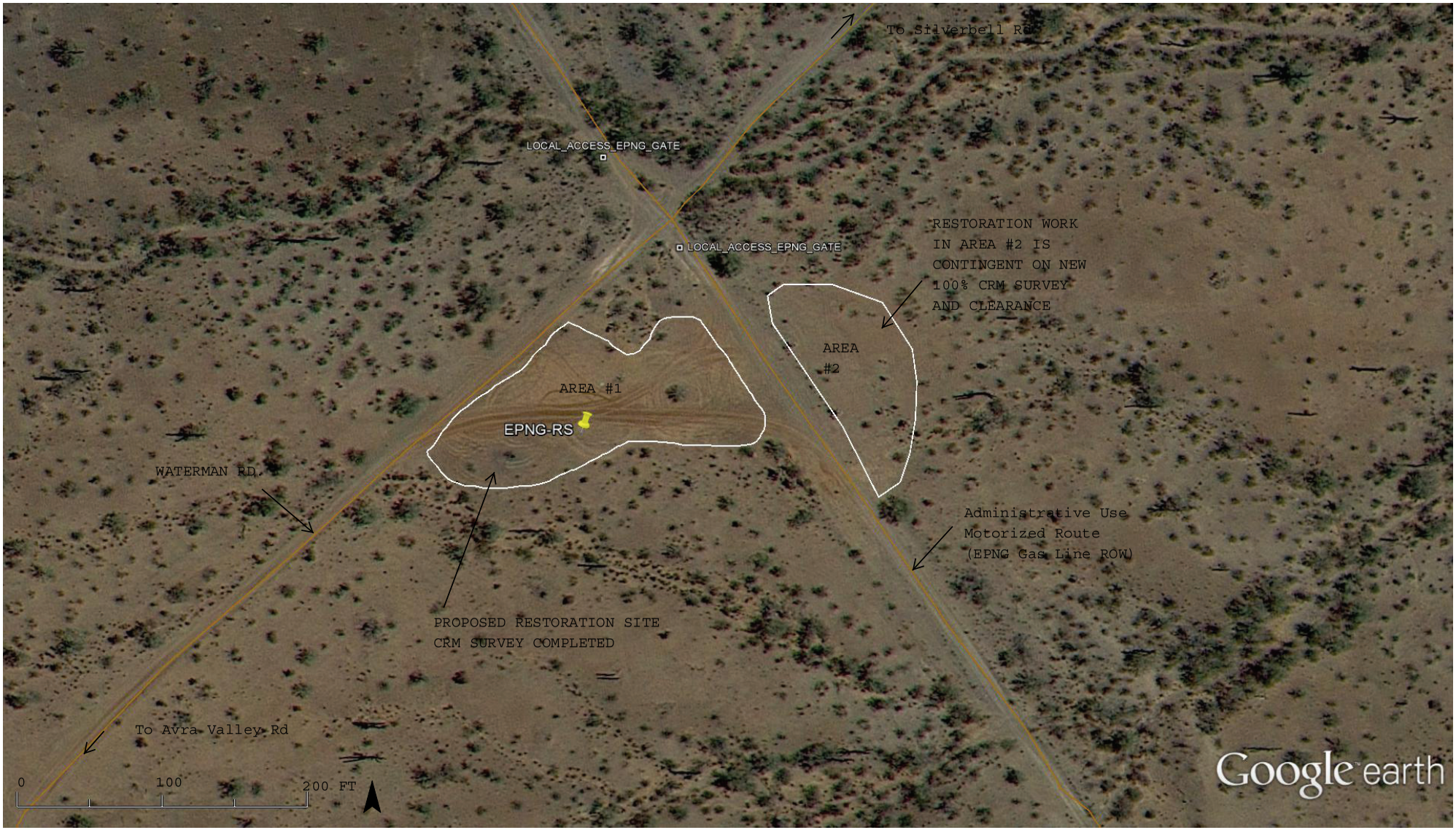

FIGURE 2-A. GAS LINE RESTORATION SITES
Restore off road vehicle use impacts, block access to restoration sites from Waterman Rd.
LOCATION: T12S R9E SEC3
Imagery Date: 05/26/12

FIGURE 2B. GASLINE B RESTORATION SITES

Restore off road vehicle use and target shooting impacts, temporarily block access to restoration sites from administrative primitive road.

LOCATION: T12S R9E SEC 23, 24

Imagery Date: 05/26/12

FIGURE 3A: UPPER WATERMAN, AND BACKSTOP SLOPE RESTORATION
Past mining and quarry disturbance under restoration, and disturbance from intensive target shooting
LOCATION: T12S R9E SEC 30

FIGURE 3B. WATERMAN LOWER RESTORATION SITE
Past mining and quarry disturbance under restoration, and disturbance from intensive target shooting
LOCATION: T12S R9E SEC 30

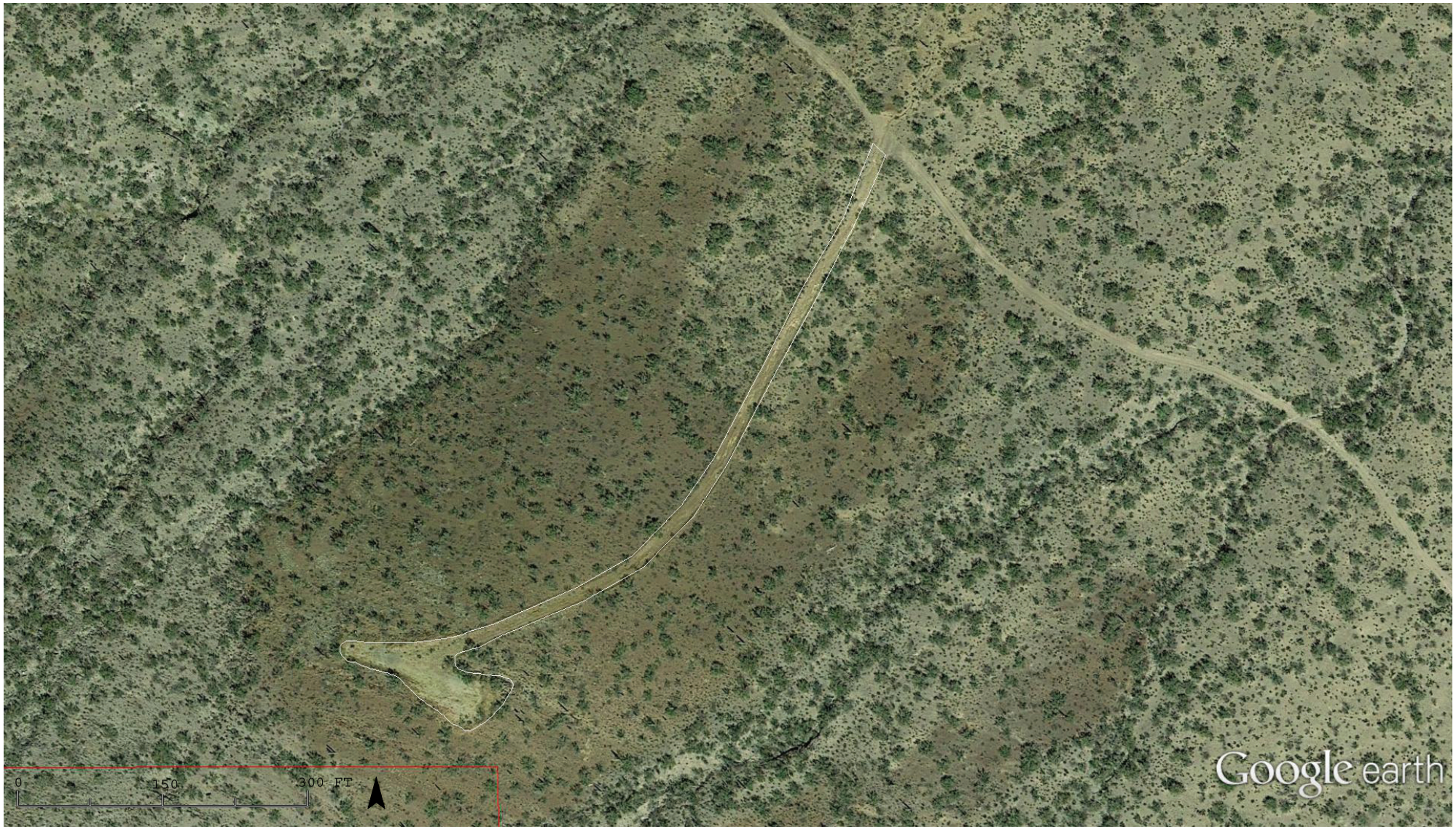

FIGURE 3C: WATERMAN MINERAL EXPLORATION
Disturbance from past mining claim exploration work on steep slope
LOCATION: T12S R9E SEC30

FIGURE 4A: PAN QUEMADO MINERAL EXPLORATION RESTORATION
Existing disturbance from inactive mining claim exploration earthwork.
LOCATION: T12S R9E SEC 30

FIGURE 4B: PAN QUEMADO QUARRY RESTORATION
INACTIVE LIMESTONE QUARRY ON MOUNTAIN SLOPE
LOCATION: T12S R9E SEC 33

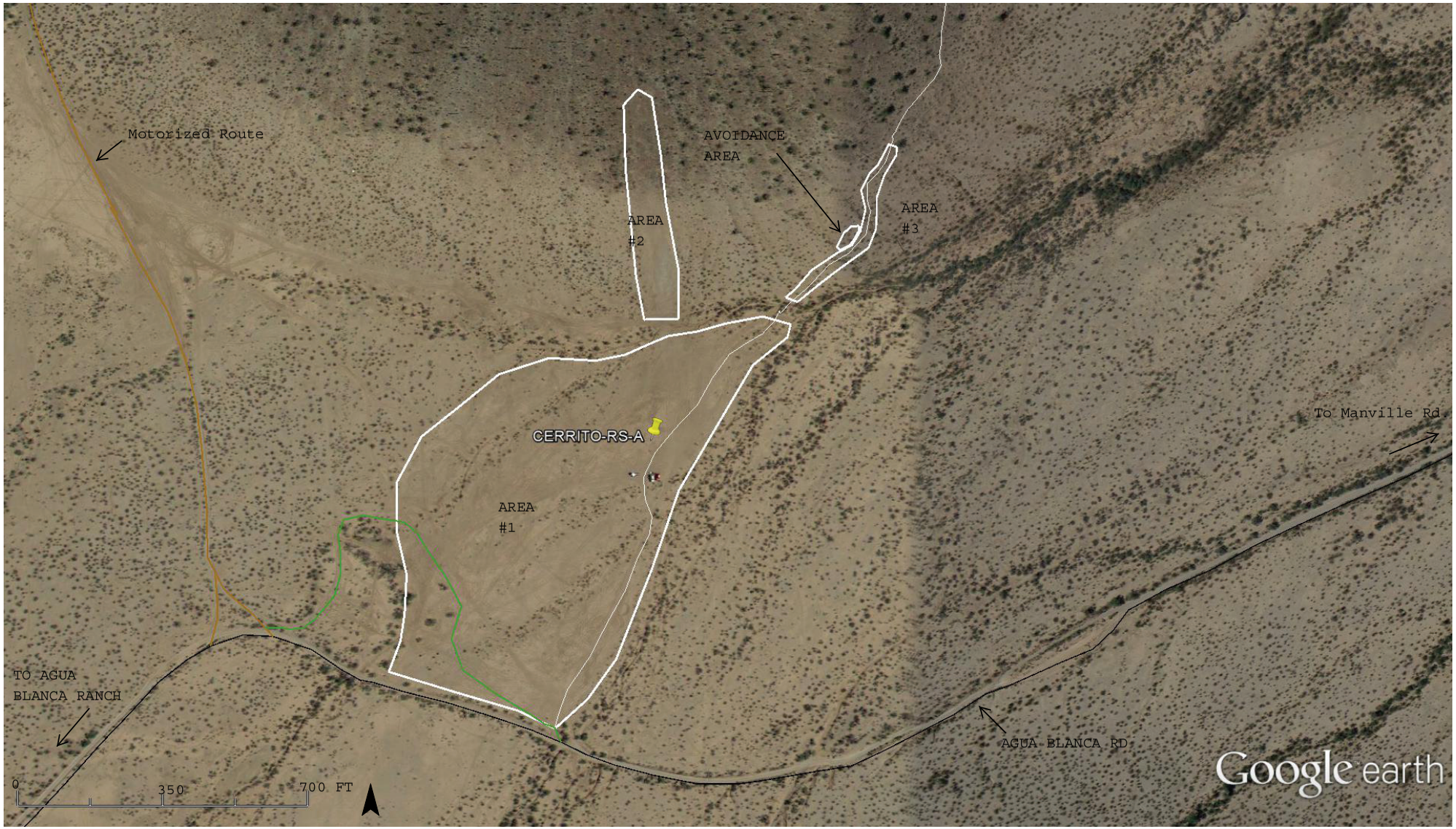

FIGURE 5A. CERRITO REPRESO RESTORATION SITES

Restore off road vehicle use and target shooting impacts, temporarily block access to restoration sites from primitive roads.

LOCATION: T13S R9E SEC 13, 24

Imagery Date: 05/26/12

FIGURE 5b. CERRITO REPRESO RESTORATION SITES

Restore off road vehicle use and target shooting impacts, temporarily block access to restoration sites from primitive roads.

LOCATION: T12S R9E SEC 10

Imagery Date: 05/26/12

FIGURE 5C. CERRITO REPRESO RESTORATION SITES

Restore off road vehicle use and target shooting impacts, temporarily block access to restoration sites from primitive roads.

LOCATION: T13S R9E SEC 13

Imagery Date: 05/26/12

FIGURE 6. MANVILLE OFF ROAD VEHICLE IMPACTS

Restore off road vehicle use impacts along Agua Blanca Rd.; temporarily block access to restoration sites from the road.

LOCATION: T12S R9E SEC 10

FIGURE 7: ROCKY OHV RESTORATION SITE
Disturbance caused by OHV use and past vegetation treatment.
LOCATION: T13S R10E SEC 17

FIGURE 8: RED HILL QUARRY RESTORATION
Restore disturbed area at closed mineral materials quarry site.
LOCATION: T11S R9E SEC 21

FIGURE 9. AVRA HILL RESTORATION SITES
Restore off road vehicle use and target shooting impacts, block access to restoration sites from designated primitive road
LOCATION: T12S R9E SEC3
Imagery Date: 05/26/12