Conservation Agreement and Strategy for Graham's Beardtongue (*Penstemon grahamii*) and White River Beardtongue (*P. scariosus* var. *albifluvis*)

WEED MANAGEMENT PLAN

Prepared by the Penstemon Conservation Team

State of Utah School and Institutional Trust Lands Administration
Uintah County, Utah
Utah Public Lands Policy Coordination Office
Utah Division of Wildlife Resources
Rio Blanco County, Colorado
Bureau of Land Management
U.S. Fish and Wildlife Service

July 2015

SWCA
ENVIRONMENTAL CONSULTANTS

CONSERVATION AGREEMENT AND STRATEGY FOR GRAHAM'S BEARDTONGUE (*PENSTEMON GRAHAMII*) AND WHITE RIVER BEARDTONGUE (*P. SCARIOSUS* VAR. *ALBIFLUVIS*):

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INTRODUCTION

The monitoring and adaptive management approach prescribed here is intended to guide the development and implementation of this weed management plan for Graham's beardtongue (*Penstemon grahamii*) and White River beardtongue (*P. scariosus* var. *albifluvis*); see section 6.5 of the *Conservation Agreement and Strategy for Graham's Beardtongue (*Penstemon grahamii*) and White River Beardtongue (*P. scariosus *var.* albifluvis*)* (Penstemon Conservation Team 2014), which is hereafter referred to as the Agreement. Implementation of adaptive management will be the responsibility of the Penstemon Conservation Team. Therefore, the Penstemon Conservation Team anticipates that changes to this plan may be required based on new information as it becomes available.

The purpose of this management plan is to meet the requirements of the Agreement. The following conservation actions from Table 4 of the Agreement pertain specifically to weed management:

20. Within 1 year of signing the Agreement, the conservation team will develop, fund, and implement a weed management plan (approved by consensus) in conservation areas that includes repeated annual targeted surveys to detect invasions and treatment of invasive species as soon as detected. This plan can be incorporated as part of a rangewide monitoring plan.
21. The weed management plan will identify treatment options for each known invasive species in the habitat of the species, with the goal of selecting the most appropriate option that controls weeds and minimizes adverse effects to Graham's or White River beardtongues and their native plant community.
22. The conservation team will develop and implement a monitoring protocol in the weed management plan to determine the effectiveness of their actions.
23. The conservation team will review and update the weed management plan annually based on surveys, monitoring, and other information sources, and create an annual schedule of work targeting priority areas.
24. The weed management plan will develop and adopt best management practices (BMPs) for preventing the spread of invasive and/or exotic plants in the designated conservation areas on federal and non-federal lands. (Penstemon Conservation Team 2014:30)

OVERVIEW

The Penstemon Conservation team is dividing weed management within conservation areas into two main strategies:

1. The first strategy is treatment of county and state noxious weeds according to existing weed management programs. Bureau of Land Management (BLM) weed management occurs under the *Vernal Field Office Surface Disturbing Weed Policy* (BLM 2009) and the *White River Field Office Integrated Weed Management Plan* (BLM 2010). State weed management occurs through county weed management programs, including the Uintah County Weed Department and the Rio Blanco County Weed & Pest Department. The bulk of the weed management plan for the Agreement will occur under these existing strategies. Under existing policies, BLM and county employees survey, monitor, and treat noxious weed infestations on BLM lands and county rights-of-way (ROWs). Weed management in conservation areas will fall under the jurisdiction of these existing noxious weed programs. Surveys, monitoring, and treatment will follow the established protocols in these programs. For noxious weed infestations found on private or state lands, the BLM and the counties will coordinate with the appropriate landowner for permission for weed removal.

2. Under the *Draft Livestock Grazing Management Plan* (Penstemon Conservation Team 2015), monitoring sites identified as having significant invasive weed cover will be targeted for treatment. The second strategy of this weed management plan will be incorporated when the rangewide monitoring plan (in progress) is established, likely in 2016. For the rangewide monitoring plan, weed infestations will first be identified through the collection of plant community transect data or other monitoring methods. Once problem areas are identified, the Penstemon Conservation Team will determine the appropriate treatment and monitoring protocol. Weeds identified under this portion of the plan may include, but are not limited to, Utah or Colorado state-designated noxious weeds. Other invasive species, including cheatgrass, blue mustard, and halogeton, may be targeted for treatment if they are negatively impacting Graham's beardtongue or White River beardtongue populations. This strategy is not discussed at length in this weed management plan and will be developed as part of the rangewide monitoring plan.

This weed management plan consists of the following sections:

1. Surveys and Detection
2. Treatment
3. Monitoring
4. Data Collection
5. Best Management Practices
6. Public Outreach and Education

1. Surveys and Detection

We compiled all existing noxious weed data from Uintah and Rio Blanco Counties and from the BLM National Invasive Species Information Management System (NISIMS) database within conservation areas. NISIMS is a nationwide BLM weed survey, infestation, and treatment database. The Penstemon Conservation Team used these data to identify known weed infestations near or within conservation areas. Uintah and Rio Blanco Counties have no known weed infestations documented within or near conservation areas. See Figure A.1 in Appendix A for an overview map of the conservation areas.

Surveys will be conducted annually by BLM employees with the help and coordination of county weed control supervisors within these infestation locations and along all major roadways within the conservation areas. See Figures A.2–A.5 in Appendix A for current infestation locations in conservation areas in Conservation Units 1–5. Known weed infestation areas from near or within conservation areas and typical types of treatment are listed in Table 1.

Additional search areas in 2015 will include lands within the Wolf Den fire burn area (Figure A.6 in Appendix A). Two-tracks and navigable roads within the Wolf Den fire burn area will be searched by BLM employees by truck or utility vehicle (UTV). Additional search areas in future years will be determined based on information collected from survey information from previous years. Areas of new surface disturbance within conservation areas will be targeted for additional weed surveys. Opportunistic observations made in the field regarding noxious weed infestations will also be compiled and tracked along with other noxious weed data.

On BLM lands, pre-construction weed surveys are required for most surface-disturbing permitted activities. These survey data within conservation areas will be compiled by the respective BLM office and submitted to the Weed Management Subcommittee lead so that they can be compiled with other NISIMS weed data. County weed data are collected by county weed supervisors. These data will be submitted to the Weed Management Subcommittee on an annual basis.

Table 1. Weeds Identified and Treatment Types in Designated Conservation Areas on BLM Lands

Conservation Unit	Weed	Conservation Area	Treatment
1	Broadleaved pepperweed (LELA)	Wrinkles Road	None, eradicated
1	Broadleaved pepperweed (LELA)	Sand Wash Road	Chemical: Upland tank mix
1	Saltcedar (TARA)	Sand Wash Road	Usually do not remove, or chemical: Aquatic tank mix
1	Spotted knapweed (CEBI2)	Sand Wash Road	Chemical: Upland tank mix
1	Chicory (CIIN)	Sand Wash Road	Chemical: Upland tank mix
1	Black henbane (HYNI)	Sand Wash Road	Manual removal, chemical: Upland tank mix
1	Whitetop (CADR)	Sand Wash Road	Chemical: Upland tank mix
1	Russian knapweed (ACRE3)	Sand Wash Road	Chemical: Upland tank mix
2	Saltcedar (TARA)	Buck Canyon/Sunday School Canyon	Usually do not remove, or chemical: Aquatic tank mix
2	Whitetop (CADR)	Buck Canyon/Sunday School Canyon	Chemical: Upland tank mix
2	Black henbane (HYNI)	Seep Ridge Road, south of PEGR	Manual removal, chemical: Upland tank mix
2	Broadleaved pepperweed (LELA)	Seep Ridge Road, south of PEGR	Chemical: Upland tank mix
2	Musk thistle (CANU4)	Seep Ridge Road	Chemical: Upland tank mix
2	Field bindweed	Seep Ridge Road, south of PEGR	Usually do not remove, or chemical: Upland tank mix
2	Scotch thistle	DNR property, Kings Well Road	Manual removal, chemical: Upland tank mix
3	Russian knapweed (ACRE3)	East Seep Canyon	Chemical: Upland tank mix
3	Saltcedar (TARA)	Evacuation Creek	Usually do not remove, or chemical: Aquatic tank mix
3	Broadleaved pepperweed (LELA)	Rabbit Mountain?	Chemical: Upland tank mix
4	Russian olive (ELAN)	White River at Bonanza Bridge	Aquatic tank mix
4	Saltcedar (TARA)	Hells Hole Canyon, White River at Bonanza Bridge	Usually do not remove, or chemical: Aquatic tank mix
5	No weeds in NISIMs	N/A	N/A

2. Treatment

No chemical weed treatment will occur within 300 feet of known locations of Graham's beardtongue or White River beardtongue unless chemical-specific mitigation measures have been consulted on and approved by the U.S. Fish and Wildlife Service. Within 300 feet of plants, mechanical removal by hand or using hand tools can be used for noxious weed infestations.

Within penstemon habitat and conservation areas, the BLM and counties will used chemicals approved for use in existing BLM documents for compliance with the National Environmental Policy Act. For example, upland weeds within the VFO, including knapweeds, broadleaved pepperweed, whitetop, and black henbane, are typically treated with 2,4-D, clopyralid, and chlorsulfuron. Mechanical removal by hand or using hand tools can also be used.

For all herbicide treatments of infestations within conservation areas, the following mitigation measures will be followed:

- Spraying will not be done when wind speeds exceed 6 miles per hour.
- A reduced application rate will be used.
- Pump pressure will be adjusted, per label instructions.
- Droplet size will be increased to the largest size possible while still effectively covering the target vegetation. This could be accomplished using larger nozzles or reduced pressure.

For herbicide treatment of infestations within 1,200 feet of known Graham's beardtongue or White River beardtongue points[1], these additional mitigation measures will be followed:

- Manual spot treatments using herbicide injection, wick application, cut stump, or backpack sprayers shall be utilized.
- All those involved in the spray application shall conduct (or shall accompany a qualified botanist/ecologist on) a preliminary, meandering survey of the special status plant populations. Care shall be taken to avoid spraying special status plants.
- When practical, spray treatments would occur when most beneficial to special status plant species.
- Pesticide containers shall be stored away from special status plants in spill proof containers.
- Drift reducing agents shall be used when practical.

The Penstemon Conservation Team does not typically treat tamarisk because the tamarisk beetle is active within the Green River and its major drainages. Tamarisk and Russian olive are found in ditches, roadsides, and drainages, and they are not likely to impact upland areas where Graham's and White River beardtongues occur. If a particular infestation of either of these species within conservation areas is problematic, seedlings or resprouts up to 3.5 feet in height can be treated using aquatic-safe herbicides as foliar spray. (Aquatic-safe herbicides are required within 10 feet of water.) Trees larger than this require cut-stump or frill-cut herbicide application at full strength.

[1] The distance of 1,200 feet is based on the most restrictive minimum "no effect" distance of chlorsulfuron from the BLM Biological Assessment for Vegetation Treatments on BLM Lands in 17 Western States, June 2007.

3. Monitoring

Treatment sites will be monitored, at a minimum, every other year for the life of the Agreement. If enough time and staff are available, treatment sites will be monitored every year for the life of the Agreement (and beyond).

Monitoring will be conducted by way of vehicle surveys (truck, UTV, or all-terrain vehicle [ATV]) along major roadways and two-tracks. Monitoring will consist of observations of the previously infested area and will include estimates of the size of the current weed infestation. Often, monitoring can be done concurrently with herbicide application or weed treatment. The perimeter, density, and phenology of the weed infestation will be documented during each visit using a Trimble global positioning system (GPS) unit and NISIMS protocols (see the next section, Data Collection, for more information on NISIMS).

4. Data Collection

All areas that are surveyed, treated, or monitored will be recorded using GPS units. Data will be collected in NAD 83, UTM Zone 12 projection.

Data collected by BLM employees will be recorded using existing NISIMS databases and protocols (see http://www.blm.gov/style/medialib/blm/wo/Planning_and_Renewable_Resources/nisims.Par.29521.File.dat/NISIMS_25_User_Guide.pdf for NISIMS protocols). Any survey, infestation, and treatment data collected by non-BLM employees can either be provided to the BLM so that BLM employees can digitize the data into the NISIMS database or the BLM will provide a database check-out to the third party, who can then collect data using the check-out. After surveys, treatment, and monitoring are completed, the database check-out will then be returned to the BLM, where it can be checked back into the local database and, eventually, into the nationwide NISIMS database.

Any NISIMS database check-outs made outside of the BLM or weed data collected by other means should be submitted to the Vernal BLM botanist on the Weed Management Subcommittee as soon as those data are complete and available. At a minimum, all of these data should be submitted by December 1 of each year. Data and check-in/check-outs will be managed by the Vernal BLM botanist. This person is currently Jessi Brunson.

NISIMS data collected by the Vernal and White River Field Offices of the BLM will be uploaded to the statewide NISIMS database by the end of the calendar year, at the latest. These data will then be available to download from the national database for planning the subsequent year's weed surveys, treatment, and monitoring.

5. Best Management Practices for Noxious and Invasive Weed Prevention

BMPs are intended to lessen the environmental impact of surface-disturbing activities. BMPs are included in both the Vernal Field Office Surface Disturbing Weed Policy and in the White River Field Office Integrated Weed Management Plan.

In this section, the Penstemon Conservation Team has included BMPs from the White River Field Office Integrated Weed Management Plan (BLM 2010) that apply to all activities (including fire-related activities, grazing, and surface-disturbing projects) within conservation areas and within 300 feet of Graham's or White River beardtongue plants on BLM land. BMPs will be provided to any permittee or

program during project planning and environmental analyses. Appropriate BMPs will be included as permit stipulations or conditions of approval for any project within conservation areas or on BLM land within 300 feet of known beardtongue locations. These BMPs will apply across all land ownership to the extent practicable, including activities permitted by the counties or state on non-federal lands.

This list of BMPs incorporates many suggested practices under many types of land management operation types and is designed to allow managers to pick and choose those practices that are most applicable and feasible for each situation.

A. Site-Disturbing Projects

PRE-PROJECT PLANNING

- Environmental analyses for projects and maintenance programs should assess weed risks, analyze high-risk sites for potential weed establishment and spread, and identify prevention practices.
- Determine site-specific restoration and monitoring needs and objectives at the onset of project planning.
- Learn to recognize noxious and invasive weeds.
- Inventory all proposed projects for weeds prior to surface-disturbing activities. If weeds are found, they would be treated (if the timing was appropriate) or removed (if seeds were present) to limit weed seed production and dispersal.
- Restrict movement of equipment and machinery from weed-contaminated areas to non-weed-contaminated areas.
- Locate and use weed-free project staging areas. Avoid or minimize travel through weed-infested areas, or restrict travel to periods when spread of disseminules is least likely.
- Identify sites where equipment can be cleaned. Remove mud, dirt, and plant parts from project equipment before moving it into a project area. Seeds and plant parts should be collected and incinerated when possible.
- If certified weed-free gravel pits become available in the county, the use of certified weed-free gravel would be required wherever gravel is applied to public lands and within conservation areas (e.g., roads).
- Maintain stockpiled, non-infested material in a weed-free condition. Topsoil stockpiles will be promptly revegetated to maintain soil microbial health and reduce the potential for weeds.
- For reclamation within conservation areas or within 300 feet of Graham's or White River beardtongue plants on BLM land, seed mixes will follow protocols outlined in the Penstemon Conservation Team Restoration Plan, to be developed in 2016. The Restoration Plan Subcommittee should consider using the following BMP regarding reclamation seed mixes:
    - Use native seed mixes when practical. A certified seed laboratory will test each lot according to Association of Official Seed Analysts standards (which include an all-state noxious weed list) and provide documentation of the seed inspection test. The seed should contain no noxious, prohibited, or restricted weed seeds and should contain no more than 0.5% by weight of other weed seeds. Seed may contain up to 2.0% of "other crop" seed by weight, including the seed of other agronomic crops and native plants; however, a lower percentage of other crop seed is recommended.

PROJECT IMPLEMENTATION

- Clean all equipment coming from off-site prior to entering and working in sites with little to no weed infestations.
- Minimize soil disturbance. To the extent practicable, native vegetation should be retained in and around project activity areas and soil disturbance kept to a minimum.
- If a disturbed area must be left bare for a considerable length of time, cover the area with weed barrier until revegetation is possible.

POST-PROJECT

- Clean all equipment before leaving the project site when operating in weed-infested areas.
- Inspect, remove, and properly dispose of weed seed and plant parts found on clothing and equipment. Proper disposal means bagging and incinerating seeds and plant parts or washing equipment in an approved containment area.
- For revegetation within conservation areas or within 300 feet of Graham's or White River beardtongue plants on BLM land, revegetation will follow protocols outlined in the Penstemon Conservation Team Restoration Plan, to be developed in 2016. The Restoration Plan Subcommittee should consider using the following BMP regarding revegetation:
    - Revegetate disturbed soil where appropriate to optimize plant establishment for that specific site. Define revegetation objectives for each site. Revegetation may include topsoil replacement, planting, seeding, fertilization, and certified weed-free mulching as necessary. Use native material where appropriate and feasible.
- Monitor sites where seed, hay, straw, or mulch has been applied. Eradicate weeds before they form seed. In contracted projects, contract specifications could require that the contractor control weeds for a specified length of time.
- Inspect and document all surface-disturbing activities in noxious weed–infested areas for at least three growing seasons following completion of the project. For ongoing projects, continue to monitor until reasonably certain that no weeds are present. Plan for follow-up treatments based on inspection results.

B. Road Maintenance

PRE-PROJECT PLANNING

- Communicate with contractors, local weed districts, or weed management areas about projects and BMPs for prevention.
- Remove mud, dirt, and plant parts from project equipment before moving it into a project area. Seeds and plant parts should be collected and incinerated when practical or washed off in an approved containment area.
- Avoid acquiring water for road dust abatement where access to water is through weed-infested sites.
- Treat weeds on travel ROWs before seed formation so construction equipment does not spread weed seed.
- Schedule and coordinate blading or pulling of noxious weed–infested roadsides or ditches in consultation with the local weed specialist. When it is necessary to blade weed-infested roadsides or ditches, schedule the activity when disseminules are least likely to be viable.

PROJECT IMPLEMENTATION

- Retain shade to suppress weeds by minimizing the removal of trees and other roadside vegetation during construction, reconstruction, and maintenance; particularly on south aspects.
- Do not blade or pull roadsides and ditches infested with noxious weeds unless doing so is required for public safety or protection of the roadway. If the ditch must be pulled, ensure weeds remain on-site. Blade from least-infested areas to most-infested areas.

POST-PROJECT

- Clean all equipment (power or high-pressure cleaning) of all mud, dirt, and plant parts before leaving the project site if operating in areas infested with weeds. Seeds and plant parts should be collected and incinerated when possible.
- When seeding has been specified for construction and maintenance activities, seed all disturbed soil (except travel routes) soon after work is completed.
- For revegetation within conservation areas or within 300 feet of Graham's or White River beardtongue plants on BLM land, revegetation will follow protocols outlined in the Penstemon Conservation Team Restoration Plan, to be developed in 2016. The Restoration Plan Subcommittee should consider using the following BMP regarding revegetation:
    - Use a certified weed-free seed mix suitable for local environmental conditions that includes fast, early growing (preferably native) species to provide quick revegetation. Consider applying weed free mulch with seeding.
- Periodically inspect roads and ROWs for noxious weeds. Train staff to recognize weeds and report locations to the local weed specialist. Follow up with treatment when needed.
- When reclaiming roads, treat weeds before roads are made impassable. Inspect and follow up based on initial inspection and documentation.
- To avoid weed infestations, create and maintain healthy plant communities whenever possible, including utility ROWs, roadsides, scenic overlooks, trailheads, and campgrounds.

C. Wilderness Recreation

- Inspect and clean mechanized trail vehicles of weeds and weed seeds.
- Wash boots and socks before hiking into a new area. Inspect and clean packs, equipment, and bike tires.
- Avoid hiking through weed infestations whenever possible.
- Keep dogs and other pets free of weed seeds.
- Avoid picking unidentified "wildflowers" and discarding them along trails or roadways.
- Maintain trailheads, campgrounds, visitor centers, boat launches, picnic areas, roads leading to trailheads, and other areas of concentrated public use in a weed-free condition. Consider high-use recreation areas as high-priority sites for weed eradication.
- Sign trailheads and access points to educate visitors on noxious and invasive weeds and the consequences of their activities.
- In areas susceptible to weed invasion, limit vehicles to designated, maintained travel routes. Inspect and document travel corridors for weeds, and treat as necessary.

D. Watershed Management

- Frequently and systematically inspect and document riparian areas and wetlands for noxious weed establishment and spread. Eradicate new infestations immediately because effective tools for riparian-area weed management are limited.
- Promote dense growth of desirable vegetation in riparian areas (where appropriate) to minimize the availability of germination sites for weed seeds or propagules transported from upstream or upslope areas.
- Address the risk of invasion by noxious weeds and other invasive species in watershed restoration projects and water quality management plans.

E. Grazing Management

- Consider prevention practices and cooperative management of weeds in grazing allotments. Prevention practices may include altering season of use, minimizing surface disturbance, exclusion, preventing weed seed transportation, maintaining healthy vegetation, revegetation, inspection, education, and reporting.
- Provide certified weed-free supplemental feed in a designated area so new weed infestations can be detected and treated immediately. Pelletized feed is unlikely to contain viable weed seed.
- If livestock may contribute to seed spread in a weed-infested area, schedule livestock use prior to seed-set or after seed has fallen.
- If livestock were transported from a weed-infested area, annually inspect and treat entry units for new weed infestations.
- Consider closing infested pastures to livestock grazing when grazing will either continue to exacerbate the condition or contribute to weed seed spread. Designate those pastures as unsuitable range until weed infestations are controlled.
- Manage the timing, intensity (utilization), duration, and frequency of livestock activities to maintain the competitive ability of desirable plants and retain litter cover. The objective is to prevent grazers from selectively removing desirable plant species and leaving undesirable species.
- Exclude livestock grazing on newly seeded areas with fencing to ensure that desired vegetation is well established, usually after two to three growing seasons.
- Reduce ground disturbance, including damage to biological soil crusts. Consider changes in the timing, intensity, duration, or frequency of livestock use; location and changes in salt grounds; restoration or protection of watering sites; and restoration of yarding/loafing areas, corrals, and other areas of concentrated livestock use.
- Inspect areas of concentrated livestock use for weed invasion, especially watering locations and other sensitive areas that may be particularly susceptible to invasion. Inventory and manage new infestations.
- Defer livestock grazing in burned areas until vegetation is successfully established, usually after two to three growing seasons.

F. Outfitting or Recreation Pack and Saddle Stock Use

- Allow only certified weed-free hay or feed on BLM lands.
- Inspect, brush, and clean animals (especially hooves and legs) before entering public land. Inspect and clean tack and equipment.
- Regularly inspect trailheads and other staging areas for backcountry travel. Bedding in trailers and hay fed to pack and saddle animals may contain weed seed or propagules.
- Tie or contain stock in ways that minimize soil disturbance and prevent loss of desirable native species.
- Authorized trail sites for tying pack animals should be monitored several times per growing season to quickly identify and eradicate new weeds. Trampling and permanent damage to desirable plants are likely. Tie-ups should be located away from water and in shaded areas where the low light helps suppress weed growth.
- Educate outfitters to look for and report new weed infestations.

G. Wildlife

- Periodically inspect and document areas where wildlife concentrate in the winter and spring and cause excess soil disturbance.
- Use weed-free materials for all wildlife management activities.
- Incorporate weed prevention into all wildlife habitat improvement project designs.

H. Fire

INCIDENT PLANNING

- Increase weed awareness and weed prevention by providing training to new and/or seasonal fire staff on invasive weed identification and prevention.
- For prescribed burns, inventory the project area and evaluate potential weed spread with regard to the fire prescription. Areas with moderate to high weed cover should be managed for at least 2 years prior to the prescribed burn to reduce the number of weed seeds in the soil. Continue weed management after the burn.
- Ensure that a weed specialist is included on a fire incident management team when wildfire or prescribed operations occur in or near a weed-infested area. Include a discussion of weed prevention operational practices in all fire briefings.
- Use operational practices to reduce weed spread (e.g., avoid weed infestations when locating fire lines).
- Identify and periodically inspect potential helispots, staging areas, incident command posts, base camps, and similar areas, and maintain a weed-free condition. Encourage network airports and helibases to do the same.
- Develop a burned-area integrated weed management plan, including a monitoring component to detect and eradicate new weeds early.

FIRE-FIGHTING

- Ensure that all equipment (including borrowed or rental equipment) is free of weed seed and propagules before entering incident location.
- When possible, use fire suppression tactics that reduce disturbances to soil and vegetation, especially when creating fire lines.
- Use wet- or scratch-lines where possible instead of fire breaks made with heavy equipment. Given the choice of strategies, avoid ignition and burning in areas at high risk for weed establishment or spread.
- Hose off vehicles on site if they have traveled through infested areas.
- Inspect clothing for weed seeds if foot travel occurred in infested areas.
- When possible, establish incident bases, fire operations staging areas, and aircraft landing zones in areas that have been inspected and are verified to be free of invasive weeds.
- Cover weed-infested cargo areas and net-loading areas with tarps if weeds exist and cannot be removed or avoided.
- Flag off high-risk weed infestations in areas of concentrated activity, and show weeds on facility maps.
- If fire operations involve travel or work in weed-infested areas, a power wash station should be staged at or near the incident base and helibase. Wash all vehicles and equipment upon arrival from and departure to each incident. This includes fuel trucks and aircraft service vehicles.
- Identify the need for possible fire rehabilitation to prevent or mitigate weed invasion during a fire incident, and apply for funding during the incident.

6. Public Outreach and Education

The BMPs outlined above apply to permitted activities on county, state, and federal lands. However, there are many dispersed activities that occur on lands in conservation areas that are not permitted, including dispersed ATV use, hunting, and hiking. The Weed Management Subcommittee will look for education opportunities at points of impact. If a major ATV use area or dispersed hiking area occurs within conservation areas, the Weed Management Subcommittee will consider public outreach, including educational kiosks, for reducing weed seed transport.

The activities associated with this portion of the weed management plan will occur opportunistically as use areas are identified. Any weed outreach and education activities within conservation areas or Graham's or White River beardtongue habitat will be reported to the Penstemon Conservation Team as part of the annual reporting process.

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Appendix A:

Maps

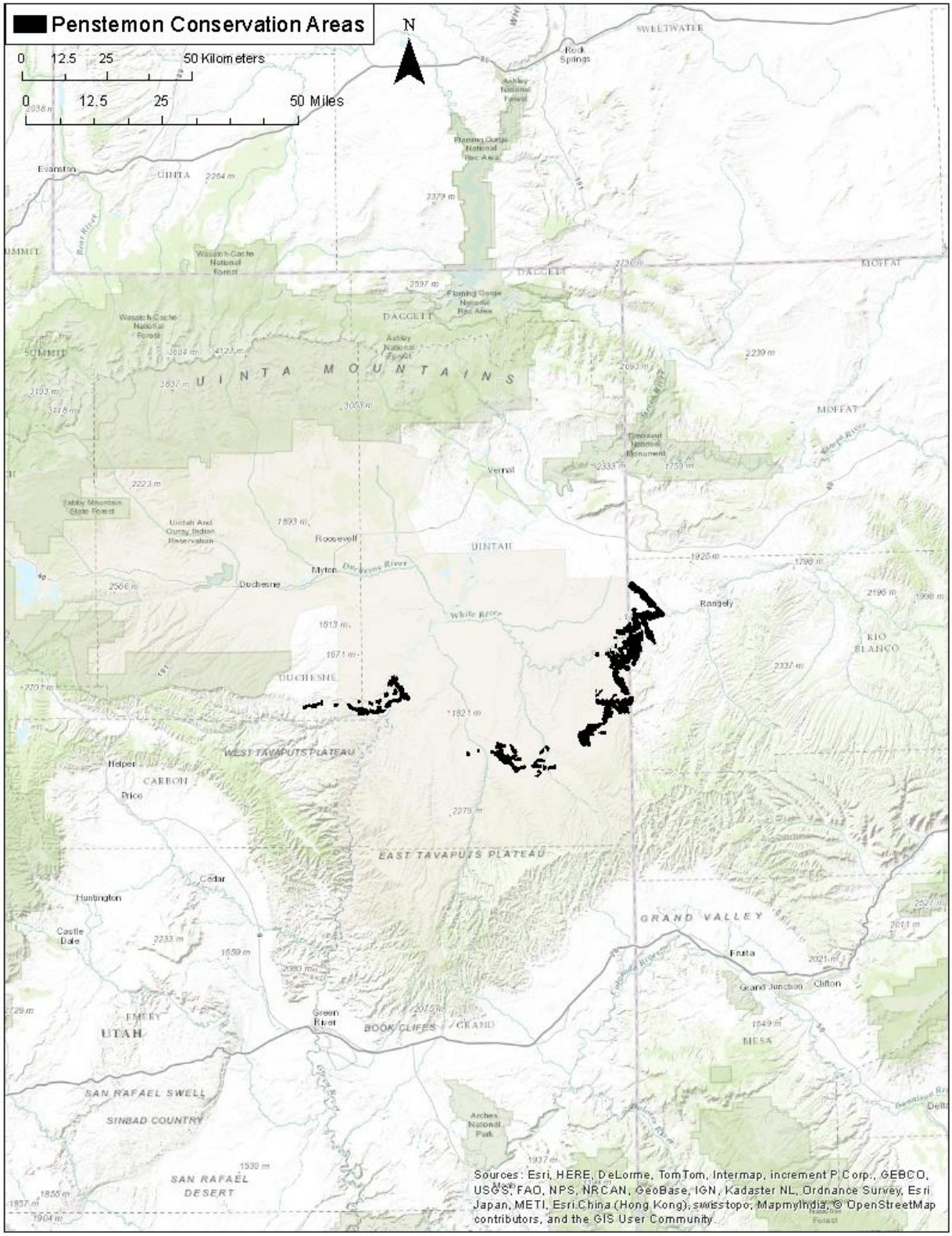

Figure A.1. Overview of conservation areas.

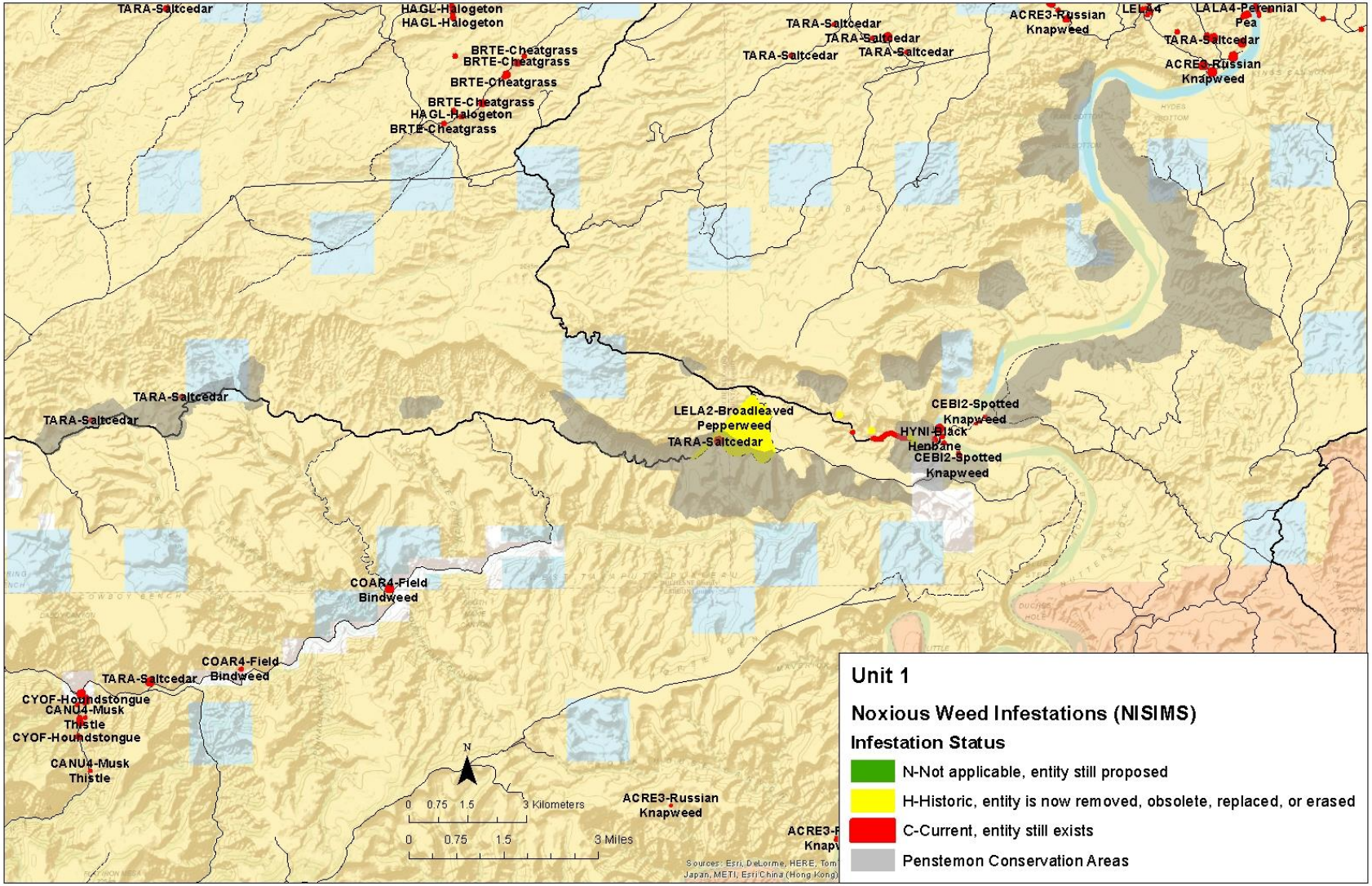

Figure A.2. Weed infestations within the Unit 1 conservation areas.

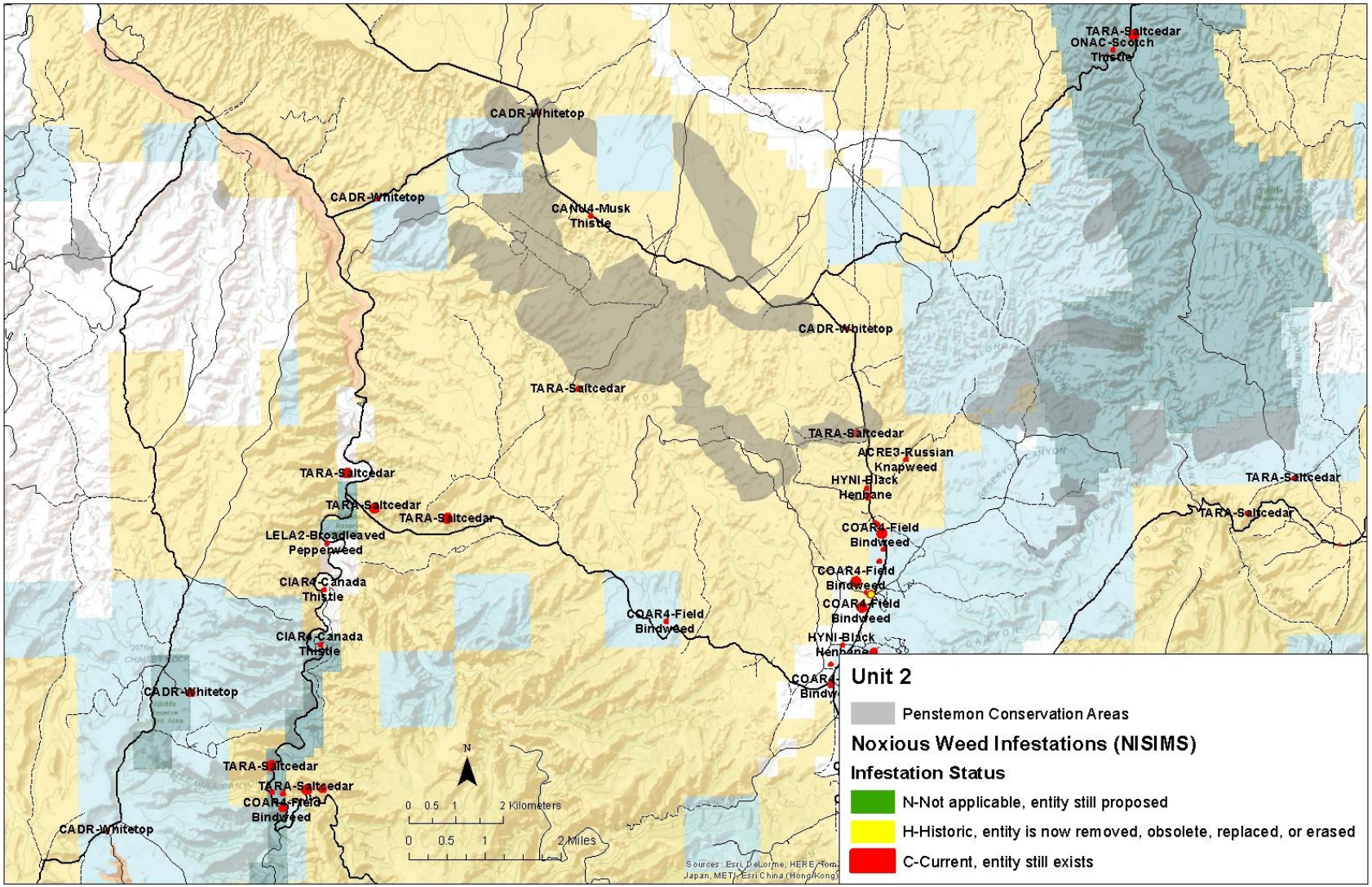

Figure A.3. Weed infestations within the Unit 2 conservation areas.

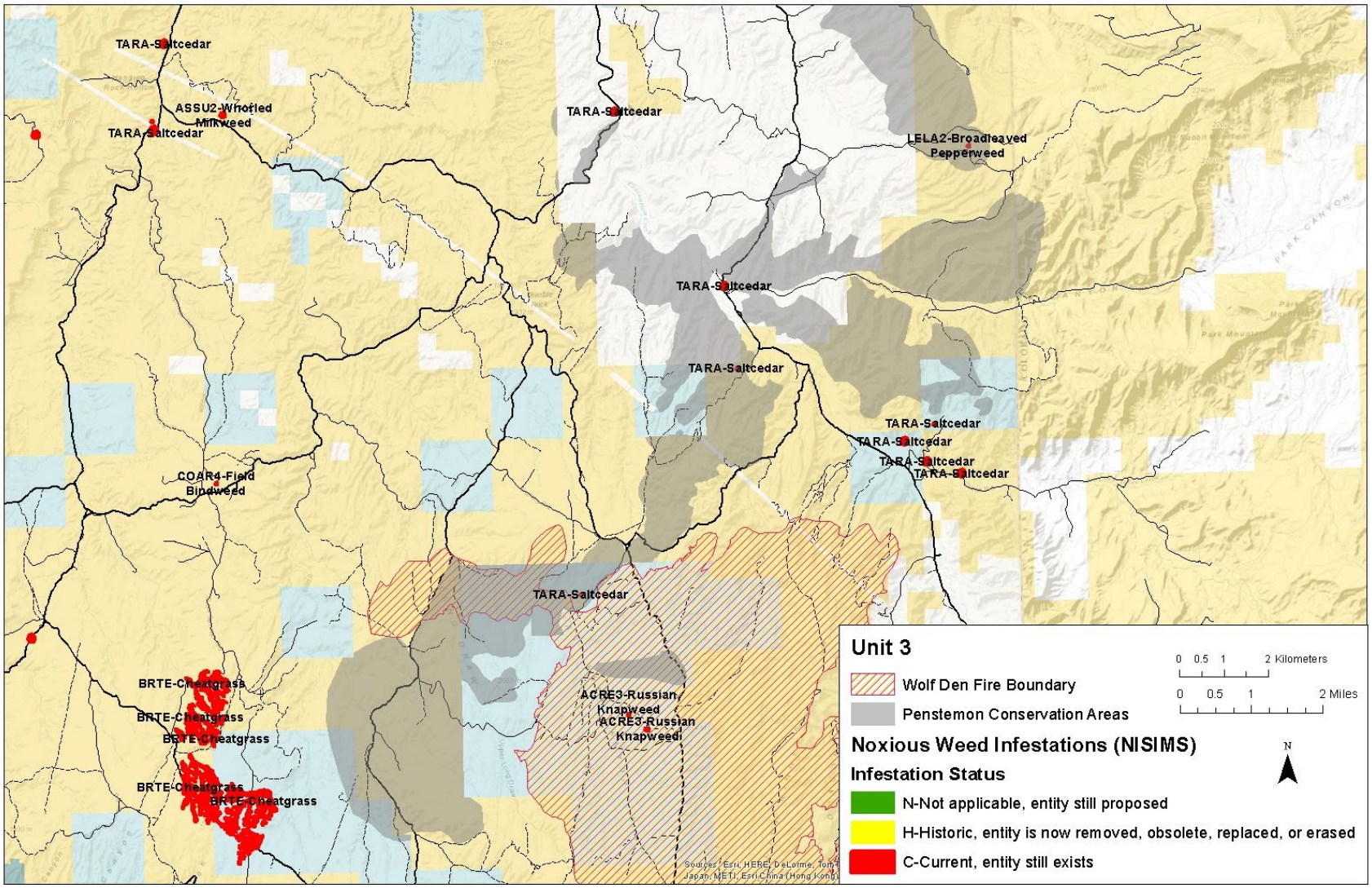

Figure A.4. Weed infestations within the Unit 3 conservation areas.

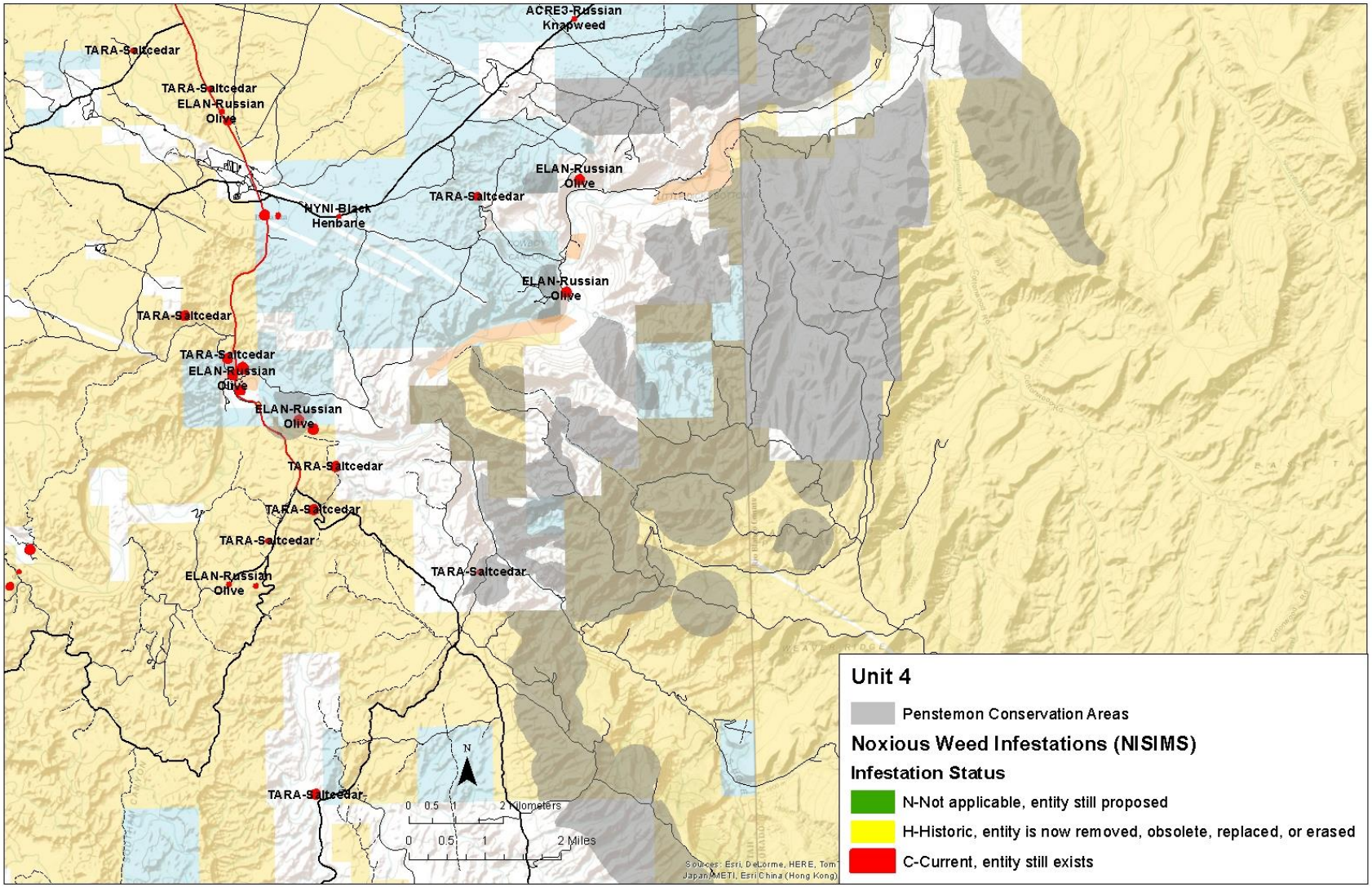

Figure A.5. Weed infestations within the Unit 4 conservation areas.

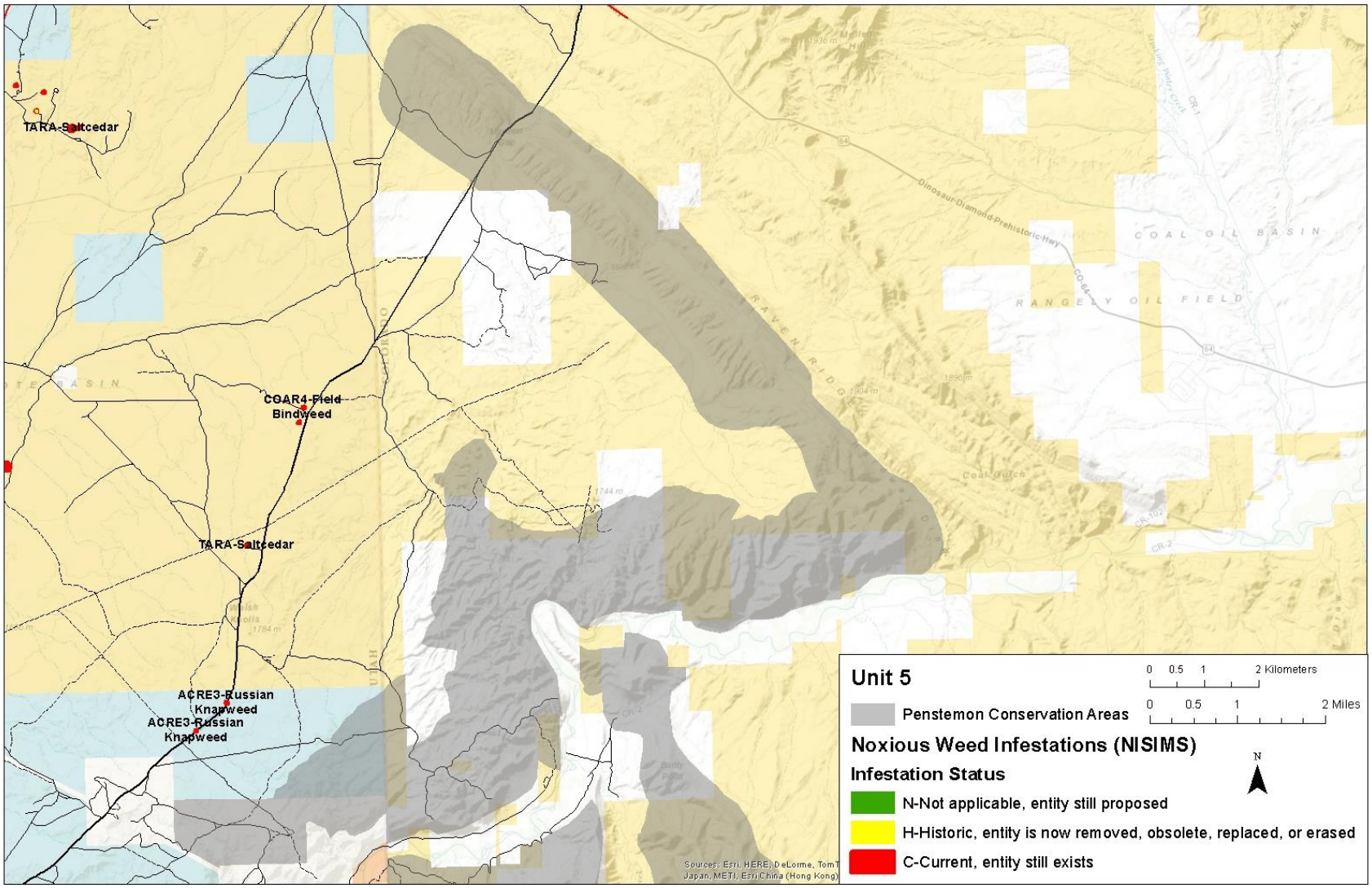

Figure A.6. Weed infestations within the Unit 5 conservation areas.

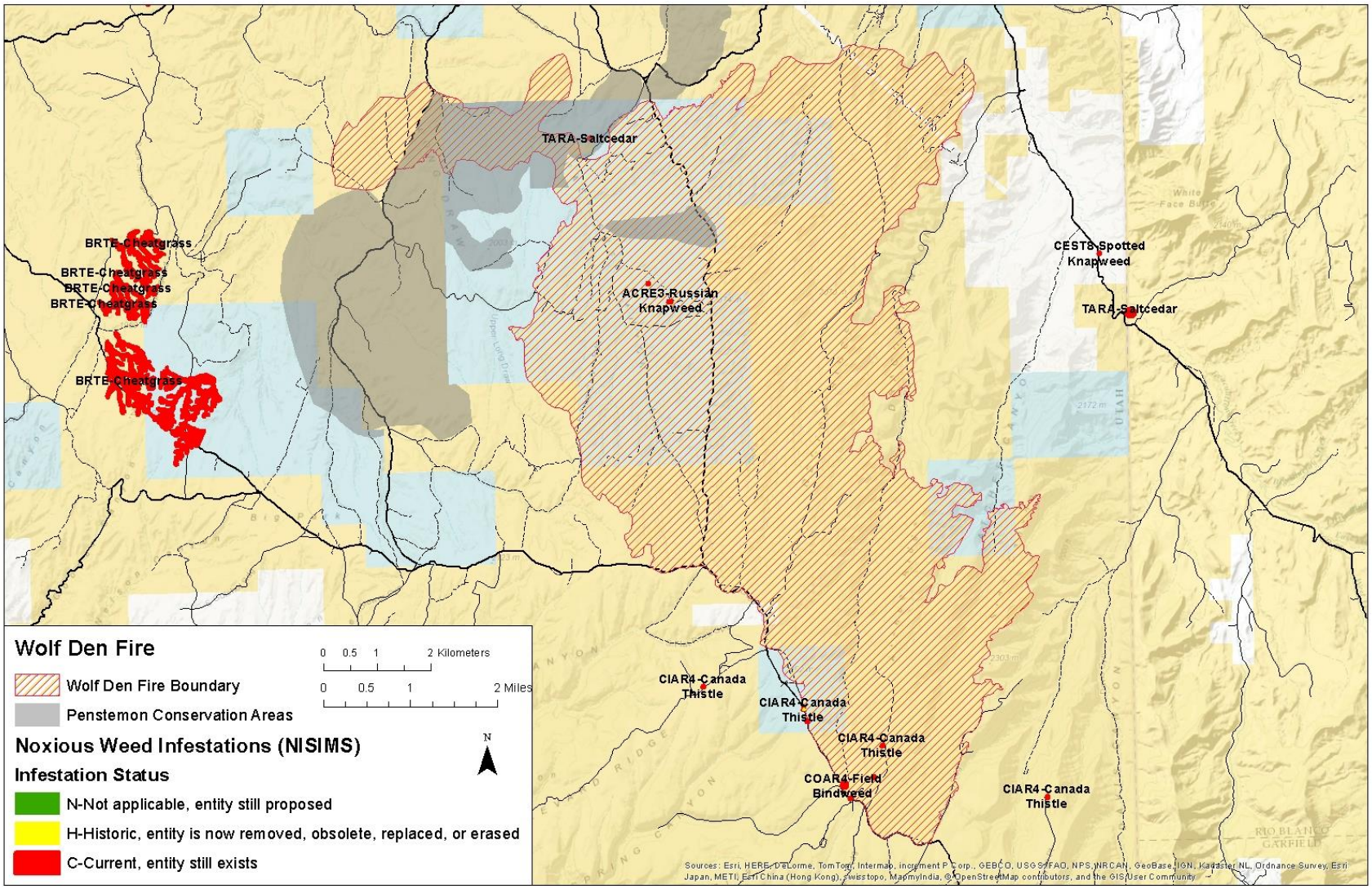

Figure A.7. Known weed infestations within the Wolf Den fire burn area.