

DRAFT NEVADA WEED MAPPING DATA STANDARDS

MINIMUM REQUIRED ELEMENTS: what (and how), when, who, where, how much.

(note: the options for each required element are listed in descending order of preference)

1a. Identification of Weed, using at least one of the following:

- a. scientific name
- b. common name as listed on the current Nevada Noxious Weeds list
- c. USDA plant code
- d. diagnostic photograph(s)

1b. Identification Confidence, expressed as 0% to 100% confidence.

1c. Identification Method(s) (by personal knowledge, by other expert [who?], compared with specimen / photo / drawing [where?], keyed in reference [what?], etc.)

2. Date(s) observed and/or surveyed.

3a. Observer/Surveyor/Source Name(s), plus as much of the following as possible:

- a. email address(s)
- b. telephone number(s)
- c. postal address(s)
- d. organization(s)
- e. citation, if from a secondary source such as literature report, museum specimen, etc., and not a primary observation

3b. Reporter Name(s), if different from 3a above, plus as much of 3a.a.-d. as possible.

4. Location, conveyed by at least one, and preferably two or more, of the following:

- a. electronic shapefile(s) of polygon, line, and/or point coordinate(s) of infestation, which **must include geodetic datum** (NAD83, NAD27, etc.), **coordinate system**, and **projection** (if any) used (points should include data from 4.d.1.-3. below).
- b. copy of clear detailed paper or electronic map of infestation, preferably using the 1:24,000 topographic series base map or finer, which **must include map quadrangle name and scale** or other **map source**.
- c. for linear corridors (roads, drainages, utilities, etc.), precise narrative description of:
 1. segment surveyed (e.g., end points, start point plus distance plus direction, etc.), and
 2. width of infestation along corridor (e.g., 50 feet on each side, 100 feet along south bank, etc.)
- d. written point coordinate(s), which **must include geodetic datum** (NAD83, NAD27, etc.), **coordinate system**, and **projection** (if any) used, and preferably also describing:
 1. position of point(s) relative to infestation; e.g., center, SW corner, on road 200 feet due east, etc.
 2. dimensions of infestation (e.g., 50 x 200 feet; 50 meter diameter circle, single plant, etc.).
 3. orientation of long dimension above (if any); e.g., north-south, ESE-WNW, along river, etc.
- e. other detailed narrative directions and description of location, beginning with State, County, and Township-Range-Section(s)-Quarter(s), and including as much of 4.d.1.-3. as possible.

5. Abundance, expressed as **estimated area of infestation**, **plus** at least one of the following:

- a. counted or estimated number of individuals (or above-ground stems) of target species.
- b. percent cover, or cover class, of target species within the infested area (method or system used **must** be documented).
- c. estimated and/or sampled density of individuals (or above-ground stems) of target species within the infested area (method used **must** be documented).

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ADDITIONAL REQUESTED INFORMATION:

4. Location: coordinate error. For GPS/GIS and written coordinate data (including , the measured or estimated error in the data provided, including:

- a. measured or estimated
- b. type of error (examples: absolute; 90% confidence; PDOP [point dilution of precision, from GPS]; etc.)
- c. magnitude of error (a number: 4.2, 6.9, etc.)
- d. units of error (meters, feet, etc.)
- e. data reflect differential corrections applied (Y/N)

4. Location: GPS equipment used. When applicable; examples: Garmin eTrex, Trimble Geoexplorer, etc.

6. Survey Completeness. Extent of infestation completely surveyed, expressed as:

- a. Yes/No/Unknown, or
- b. Estimated % of the total infestation that was captured in the survey

7. Age of Infestation. (New/Historic/Unknown)

8. Trend of Infestation. If a repeat visit to the same infestation, please record:

- a. Date of previous visit
- b. Extent trend (area of infestation rapidly/moderately/slightly increased/decreased, unchanged, or change unknown)
- c. Density trend (density of infestation rapidly/moderately/slightly increased/decreased, unchanged, or change unknown)

9. Control Actions. Description of any eradication or control actions taken during the survey, or known to have occurred in the past, including:

- a. Date of action
- b. Date certainty (known or estimated)
- c. Action type (mechanical, herbicide, herbivory, biocontrol, fire, etc.)
- d. Control agent (if known; examples: hand-pulled, mowed, plowed, Round-Up [include herbicide application rate if known], goats, weevils, etc.)
- e. Current results (eradicated, % defoliated, % killed, re-sprouting, % flowering/setting seed, etc.)

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USEFUL OPTIONAL INFORMATION:

- 1c. Identification Method(s): documenting specimen** collected from the site and deposited at an herbarium (preferably within Nevada). If this was done, please list all available specimen data including:
- Collector name
 - Collector's collection number
 - Collection date
 - Herbarium where deposited (RENO, UNLV, NSMC, etc.)
 - Herbarium accession number
- 4.e. Location: other detailed narrative directions and description of location.** If this option is used, other helpful information includes distance and direction (air or road) from nearby landmark(s) or location(s), and elevation.
- 10. Survey Extent.** Description of the complete area(s) surveyed/examined, including uninfested areas, using the same option(s) under **4. Location**.
- 11. Ownership.** Legal owner(s) or public management agency(ies) or ownership category (e.g., private) with jurisdiction over the lands occupied by the infestation.
- 12. Plant Condition/Vigor.** Narrative of current condition of target species in the infested area, including vigor or lack thereof and any apparent causes **not** related to intentional control actions.
- 13. Biological Interactions.** Any disease, predation, competition, parasitism, symbiosis, pollination, hybridization, dispersal, etc., observed to involve the target species.
- 14. Phenology.** Percent of target species in dormant, vegetative, budding, flowering, fruiting, and seeding conditions (may total > 100% since a plant can exhibit multiple phenologies).
- 15. Age Structure.** Percent of target species senescent, mature, juveniles, first-year, seedlings (should total 100%)
- 16. Site Description.** Dominant species, other species present, moisture, substrate/soils, topography, slope/aspect, light, water temperature/pH/clarity/etc. (aquatics), etc.
- 17. Site Condition.** Past or present disturbances of any kind, current site use(s) if any, anticipated future disturbances or uses.