

Instructions for Entering Invasive Animal Data

The DOI Performance Measure: Percent Invasive Animal Species Controlled

Time Frame: FY 2011 – establish target baseline; FY 2012-2016 – annually report and review target.

Measure: The number of invasive animal populations controlled/number of invasive animal populations.

Measure Scope: This includes all populations of invasive animal species that occur on DOI lands and that for which population control and management plans have been developed and documented.

Measurement Process: Equals 100 times the number of populations of invasive species that are controlled at the end of the reporting period, divided by the number of populations of invasive animals.

Definitions:

Invasive Animal – an animal (invertebrate, fish, amphibian or reptile, bird, or mammal) that is nonnative (or alien) to the ecosystem under management and whose introduction causes or is likely to cause economic or environmental harm or harm to human health.

Population – a discrete group of individual animals that does not interact with other groups of the same species (e.g., separated by a barrier).

Control – to eradicate or reduce to a maintenance level.

Eradicate – to eliminate from a localized area all of the individuals in a population, as verified using monitoring and inventories.

Reduce to a maintenance level – periodic control will have to be done less frequently than annually.

Number of invasive animal populations controlled (numerator) – number of populations of invasive animals that are known to be under control at the end of the reporting period.

Number of invasive animal populations (denominator) – cumulative number of invasive animal populations known to occur at the beginning of the reporting period.

Guidelines for Entering Invasive Animal Populations Controlled Data

Required Fields Appear in Bold

- A. **State:** Use two-digit state abbreviation.
- B. **District:** The BLM District where the population occurs – established code string from FBMS. If more than one, district with the majority of the lead for the action/land.
- C. **County:** County where the population occurs. If more than one, include all in descending area order.
- D. **Location Name:** Study site or location name commonly used (e.g., Wilson Ranch, Willow Creek at Campground, Westbend Reservoir and Sand Island).

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- E. Habitat Type: Short, one-word description (e.g., river, stream, lake, pond, reservoir, meadow forest).

Use as much location data as possible, understanding that population data tend to be polygons, not points. UTM data in NAD 83 is preferred. If you are lacking location descriptions, this will quickly provide the information for fields F-M:

<http://www.esg.montana.edu/gl/gl.html>

- F. Watershed: USGS HUC code and name – 2 digit region, 4-digit subregion, or 8-digit accounting code (preferred) - use the above link to find 8t-digit code and name.
- G. Location (TRS): Town, Range, Section in TXXN, RXXE, SXX format.
- H. UTM Projection: such as NAD 27, NAD 83.
- I. UTM Zone: Usually the first 2 numbers on your GPS <http://en.wikipedia.org/wiki/File:Utm-zones.jpg>
- J. UTM Northing (X): The first group of numbers.
- K. UTM Easting (Y): The second group of numbers.
- L. Latitude (UTMs are preferred).
- M. Longitude (UTMs are preferred).
- N. **Taxon:** Invert, Fish, Herp, Bird, Mammal. Please use one of these exactly. A separate entry is required for each species.
- O. **Scientific Name:** Recognized scientific genus species.
- P. **Common Name:** Most commonly recognized common name (note: as BLM gathers baseline data, the WO will keep a standard list of names).
- Q. **Identifying Document:** Document which identifies this population as in need of control (e.g., *Colorado River Basin Chubs Recovery Plan, NMDGF, 2005; Rio Grande Cutthroat Trout Recovery Team Priorities 2011*). Please include as much information as possible, including main author/lead and year when possible. If a hyperlink is available, include in the notes.
- R. **Lead Agency:** Identifying or implementing control measures (e.g., State Department of Game and Fish; APHIS).
- S. **Treatment Type:** If a treatment is planned or completed, a short description (two words or less) of treatment type (chemical, manual, passive, biological, none – meaning none planned, unknown - meaning there is not a know treatment, such as for zebra mussels).
- T. Treatment Description: Short narrative description of treatment (e.g., raft electroshocking, underwater spearfishing and antimycin application).
- U. **Current Outcome:** Control situation as of current reporting year: Identified (population has been identified as invasive, no action yet); Controlled (identified for control and have achieved either eradication or less-than-annual management); Managed (identified for control, management actions are underway, but population has not been eradicated or “controlled”) and Unknown (no current method is available for control of this species – this

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would be included in the measure as identified, but not controlled, although could help focus research).

V. **FY achievements** – Use abbreviation for each year, both known and projected: I=Identified; C=Controlled; M=Managed but Not Controlled; and U=Unknown.

AD. Reporting Person – The BLM employee entering this data.

AE. Contact Person – The person with the most knowledge about the population or treatment (may be another agency biologist). If non-BLM person, please indicate agency (e.g., Jack Smith, NMDGF).

AF. Notes/Description: Please put in any additional information about the population, invasion status or potential, identification, treatment, plans, partners, etc.

Additional Definitions and Examples

Controlled: Under the DOI definition, “control” means to eradicate, or reduce to a maintenance level (periodic control will have to be done less frequently than annually). The BLM will likely not have many populations which meet this definition. However, capturing the amount of “non-controlled” management could be a valuable tool as invasive species efforts continue. The National Park Service (NPS) currently tracks two levels: “Controlled,” which meets the DOI standard, and “managed, but not controlled.” Doing something similar to NPS helps to identify financial and technical needs. The following definitions from an Integrated Pest Management Workshop were provided, which can further define levels of control. The first two levels meet the DOI definition of “Controlled.”

1. Complete eradication from the managed area (*DOI and BLM=Controlled*).
2. Complete eradication from a specific area (*DOI and BLM=Controlled, if a barrier exists*).
3. Reduction of a population to a less than significant harm level (*DOI=Uncontrolled, BLM=Managed, but not controlled*).
4. Invasive species contained within a given area (*DOI=Uncontrolled, BLM=Managed, but not controlled*).

Unknown: At this level of control, it would be indicated when a control method is not known currently for the species, such as for zebra or Quagga mussels occurring in a reservoir because there is no way to eradicate adults or stop veligers from moving downstream. This situation would be *DOI=Uncontrolled, BLM=Unknown*. If the population was contained, such as a lake and there were inspection and washing stations, mussels in this system could be considered Managed, but not controlled.

To simplify as much as possible, only report on the spreadsheet the BLM definitions: I=Identified, C=Controlled, M=Managed but Not Controlled or U=Unknown. If in doubt, contact Stephanie Carman or just use the first two definitions.

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Frequent Questions and Examples

What is considered an invasive species? A species that is nonnative and causing harm is an invasive species. In areas where a species is stocked as game, they would not be considered invasive, but in areas where these same species are being targeted for removal for restoration of native species, they would be considered invasive. Nuisance animals which are native are not considered invasive. See guidance at:

<http://www.invasivespeciesinfo.gov/docs/council/isacdef.pdf> Examples: nonnative trout targeted for removal for restoration of a stream would be considered invasive. Bass stocked by the state wildlife agency for sportfishing opportunities would not be considered invasive. Mormon crickets overrunning an area would not be considered invasive as they are native.

How do we determine the number of invasive animal populations? The population must be “known”, interpreted as recognized in planning documents. The U.S. Fish and Wildlife Service use the Refuge Annual Performance Planning database and NPS use a similar internal database. As BLM does not have similar planning documents for animal species, staff will collate information from BLM management plans and state and federal species management plans, including Aquatic Invasive Species plans, where actions are identified on BLM lands. The controlling action does not have to be completed by BLM, but must occur on BLM lands. Examples: Restoration of native cutthroat trout in areas where brown trout currently dominate and has been identified as a priority action in the recovery plan. Brown trout are considered an invasive species in this situation, being nonnative and causing harm. The interagency/interdisciplinary team has identified four areas on BLM lands where this occurs. This number “four” would be in the denominator of the target. This year, removal of the nonnative brown trout and installation of a barrier has been scheduled. This number “one” would count as “percent animal populations controlled,” assuming the treatment was successful. The treatment would not need to be led by BLM, but the action must occur on BLM land.

How do we define “controlled?” To meet the DOI standard, the population must be eradicated or reduced to a maintenance level (periodic control will have to be done less frequently than annually), as verified using monitoring and inventories. In addition to this, the BLM will also collect data on populations managed, but not controlled to the definition above. Example: In a stream where nonnative bass have been removed and a barrier installed, annual inventories indicate that the invasive fish have been successfully eradicated. This population will count as controlled, unless the regular inventory/monitoring shows differently. In a river where there is ongoing nonnative species removal, such as the Colorado River and tributaries, mechanical removal occurs frequently and native species are responding positively to the decrease in nonnative species density, but nonnatives are still present throughout the river. This population of invasive fish would count as managed, but not controlled. When a population is reduced to a

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less than significant harm level, such as is often done for feral pigs, this would be reported as managed, but not controlled.

For questions, contact Stephanie Carman, BLM-WO, stephanie_carman@blm.gov , 202 912 7404