SUMMARIZED VERSION OF THE NORTH AMERICAN INVASIVE PLANT MAPPING STANDARDS

This summary contains only the data fields that are required in the NAWMA mapping standards. A full version of the mapping standards, including all the required and optional fields, can be obtained at the NAWMA web site,www.NAWMA.org.

Coordinated Mapping: These are intended to be the *minimum* standards. The standards address the most basic information necessary to compare invasive species problems across tribal, county, state, national, and even international borders. This minimum level of information is not intended to discourage individual counties, agencies, or other entities from collecting additional information. For example, inventories done for research purposes will collect a whole range of information not mentioned in these standards.

Inventory and Monitoring Standards: There are three basic elements of a weed inventory: what is the weed; where is it located; and finally how large is the infestation. The required fields listed below are organized into basic data fields. Each of the data field/subject area is divided into the following subheadings:

> **Data Field Name**: This is name that will appear on the inventory form and on requests for information between agencies, states and weed management areas. It will provide common vocabulary for sharing information.
> **Definition**: Provides a description and explanation of the data field.
> **Core Element**: This tells you whether this is a core or required data field. Some data elements are very common and useful for weed inventories but will not be required for the information sharing; these will be called optional fields. Only required fields will be used for integrating and sharing information across ownerships.
> **Coding**: Describes the proper way information should be entered.
> **Data Value:** This tells you whether the field is made up of numbers, numeric. The field can also be made up of text or a combination of text and numbers, called alphanumeric. The number sequence that follows indicates how many digits (field width) and decimal points are allowed in the field.

Required Fields

Collection Date, Plant Name, Infested Area, Canopy Cover, Source of the Data, Country, State or Province, County or Municipality, Hydrologic Unit Code, Location

Collection Date

F**ield Name**: Collection Date.
Definition: The date the weed infestation was observed in the field. It does not refer to the date information was entered into the computer.
Core Element: Yes, this is a required field.
Coding: Enter the date where YYYY equals the four digits or numbers of the year (2002), mm equals the two digit representation of the month (10) and dd stands for the two digit representation for the day of the month (03). The date will be in the following format yyyymmdd.
Data Value: Numeric (8,0) Collection date, 20021003

Plant Name

Field Name(s): Genus, Species, Intra specific (optional), Authority.
Definition: These fields will contain the scientific or species name of the weed. The scientific name consists of the genus name followed by the species name, in Latin. Some plants are further classified into subspecies or variety. Lastly, the individual who first classified the plant and assigned the scientific name is called the authority.
Core Element: Genus and species are required elements. Subspecies and authority are optional.
Coding: Enter the Genus and species name as it appears in either your plant key, the PLANTS Database (http://plants.usda.gov/plants/index.html) or from the tables that appear in Appendix A.
Data Value(s):
Genus: Alphanumeric (2,0)
Species: Alphanumeric (30,0)
Intraspecific: Alphanumeric (30,0)
Authority: Alphanumeric (20,0)
Example: The scientific name for yellow star thistle is: Centaurea soltitialis L. You would record: **Genus:** Centaurea, **Species**: soltitialie, **Authority:** L.

Infested Area
Definition: Area of land containing one weed species. An infested area of land is defined by drawing a line around the actual perimeter of the infestation as defined by the canopy cover of the plants, excluding areas not infested. Areas containing only occasional weed plants per acre do not equal one acre infested. If the area of the infestation was not recorded s default size of 1/10th (.10) of an acre or 0.04 hectares will be used. It is highly recommended that only a single weed species be entered for each infested area. These standards will be applied across North America. Canada and Mexico commonly use hectares to measure land. In the United States acres are the common land measure. Since acres and hectares are not equivalent, it is important to know which system was used to measure the infestation. This field is called the *Unit of Measure*.
Core Element: Both *Infested Area* and *Unit of Measure* are required fields.
Coding: Infested Area: Enter the number of acres/hectares Unit of Measure: Enter hectares or acres.
Data Value: Infested Area: Numeric (9,2), Unit of Measure: Alphanumeric (9,0)
Example: Infested Area: 1.6 **Unit of Measure:** hectares

Canopy Cover
Field Name: Canopy Cover
Definition: Canopy cover will be estimated as a percent of the ground, covered by foliage of a particular weed species. Cover will be recorded as a numeric value. If inventory procedures includes the use of cover classes such as the Greater Yellowstone Area, 10 point codes, Daubenmire codes the midpoint of the cover class will be entered as the cover value.
Core Element: This is a required field.
Coding: This field is percent canopy cover and therefore only numbers are an appropriate entry. The field should not exceed 3 digits or numbers. If you are using a cover classes like the Greater Yellowstone Area, 10-point class codes or the Daubenmire cover class codes; enter the midpoint of the cover class. There are some examples of these cover classes and the mid point conversion located in Appendix B.
Data Value: Numeric (3,1): **Canopy Cover:** 14

Source of the Data
Field Name: Source of the Data
Definition: This field refers to the owner or manager of the data. This may be a different person or entity from the landowner or the person who collected the data. It may be an office manager or a database specialist. This entity that will be responsible for answering questions about the data or be responsible for data requests.
Core Element: Required
Coding: This field using the same coding system as for national ownership, described in a previous section.
Data Value: Alphanumeric (5,0): **Source of Data:** CPS

Country
Field Name: Country
Definition: The nation or country in which the infestation is located. Separate records or mapping polygons will be created for infestations that cross international boundaries.
Core Element: Required
Coding: Enter the two-digit code for the country. These are the same as postal codes.
Data Value: Alphanumeric (6,0): **Country:** MX

State or Province
Field Name: State Province
Definition: The state or province where the infestation is located.
Core Element: This is a required field and must be completed for each infestation or data record.
Coding: This field will use the standard postal codes, which is a two-letter abbreviation for the state or province. A complete list of codes is located in Appendix D.
Data Value: Alphanumeric (2,0): **State or Province:** BC

County or Municipality
Field Name: County _Municipality
Definition: The county (US, Mexico and Canada) or municipality (Canada), where the infestation is located.
Core Element: This is a required field for all inventories.
Coding: In the United States these are three digit numeric codes, called FIPS. A complete list of county codes is located in Appendix E. Examples of codes from Canada and Mexico are yet to be obtained.
Data Value: Alphanumeric (5,0) (Canada??): **County:** 013

Hydrologic Unit Code

Field Name: HUC_ Number

Definition: The Hydrological Unit Code or HUC number is a unique number assigned to the 2,000 major watersheds in the United States and Puerto Rico. The United States Geological Survey (USGS) has divided the all the water systems in the US into watersheds using the following system.

Core Element: This is a required field only for aquatic species that are found in streams and rivers. It is an optional field for all terrestrial weed nfestations and for aquatic infestation found in lakes and ponds.

Coding: Each hydrologic unit, region, sub region, basin, sub basin, watershed and sub water shed are represented by a two-digit code for a possible total of twelve digits. USGS maintains a standards nationwide coding for only the first four levels; region, sub region, basin and sub basin. You can locate your area and the appropriate code at: http://www.epa.gov/win/address.html

Data Value: Numeric (12, 0)

Using USGS standards, the local area has further subdivided this sub basin into the watershed, East Fork of the South Fork of the Salmon River. In this case the HUC number would be as follows: **HUC Number:** 1706220804

Location

Data Field(s): Legal, Latitude and Longitude (Lat-Longs), Universal Transverse Mercator's (UTMs)

Definition: The location of an infestation will refer to the center of the infestation or the center of the polygon, which defines it. Today location can be described using a variety of tools; any of the following methods may be used; legal; metes and bounds; Lat-Longs, and; UTMs.

Core Element: Location is a required field. There are four acceptable methods; the user can chose any one of the methods described below. If GIS is used to locate the polygons, the user must also create a data field and enter the center location information for the center of the polygon.

Coding: Use the coding conventions for the chosen location. The designations behind a data field indicate whether or not a field is required for the individual method.