



## Nonnative Invasive Weed Mapping

### **Importance: A Threat to Natural and Cultural Resources**

Nonnative invasive species are of concern given their ability to lower biodiversity, decrease forage, alter soil nutrient and water cycling, and lower the aesthetic value of natural areas. These plants compete with and exclude native species which have been and still are important for the Nez Perce people, and also have the ability to cause large-scale changes in an ecosystem. The term “nonnative species” is commonly used to describe a weedy plant species that is not originally from the area in which it occurs. Many nonnative plants are “invasive;” that is, they are introduced to an area, survive, reproduce, and cause harm economically or environmentally within their new area of introduction. For these reasons, the management and control of nonnative invasive species has been identified as a high priority issue. A weed management program for the park is now underway, beginning with a weed inventory. For the past two years staff have traversed park sites on foot, using Global Positioning System (GPS) units to collect data on weed distribution and abundance. This information is loaded onto a Geographic Information System (GIS) to graphically portray the weed populations. As weeds are treated and repeatedly mapped, this data will help quantify impacts of weeds on native ecosystems. Periodic observation of the weeds being managed is also necessary to evaluate the effectiveness of the park’s weed control program.

### **2012 Status**

This year park staff are scheduled to map Whitebird Battlefield’s state-listed, broadleaf noxious weed populations. Staff have already completed the mapping of 8 other park sites. When mapping is finished at each site, each weed species is prioritized using an established ranking system. Next, an area management plan is identified and treatment methods are selected for each weed population. Once approved, selected treatments are implemented and the site is monitored (mapped again) in order to assess treatment effectiveness.

### **Management Applications**

- Provide critical information on park ecological condition
- Provide feedback on the success of park management and restoration activities
- Support park resource planning and land health reporting efforts

### **Contact Information**

Jannis Jocius, [Jannis\\_Jocius@nps.gov](mailto:Jannis_Jocius@nps.gov)

### **Objectives**

- Document the abundance and distribution of invasive plants in the park.
- Use an Adaptive Management approach to monitor and evaluate the effectiveness of control techniques.
- Detect changes in invasive species distribution, abundance, and rate of spread.



Orange hawkweed (*Hieracium aurantiacum*) has been mapped at Weippe Prairie and is being treated.

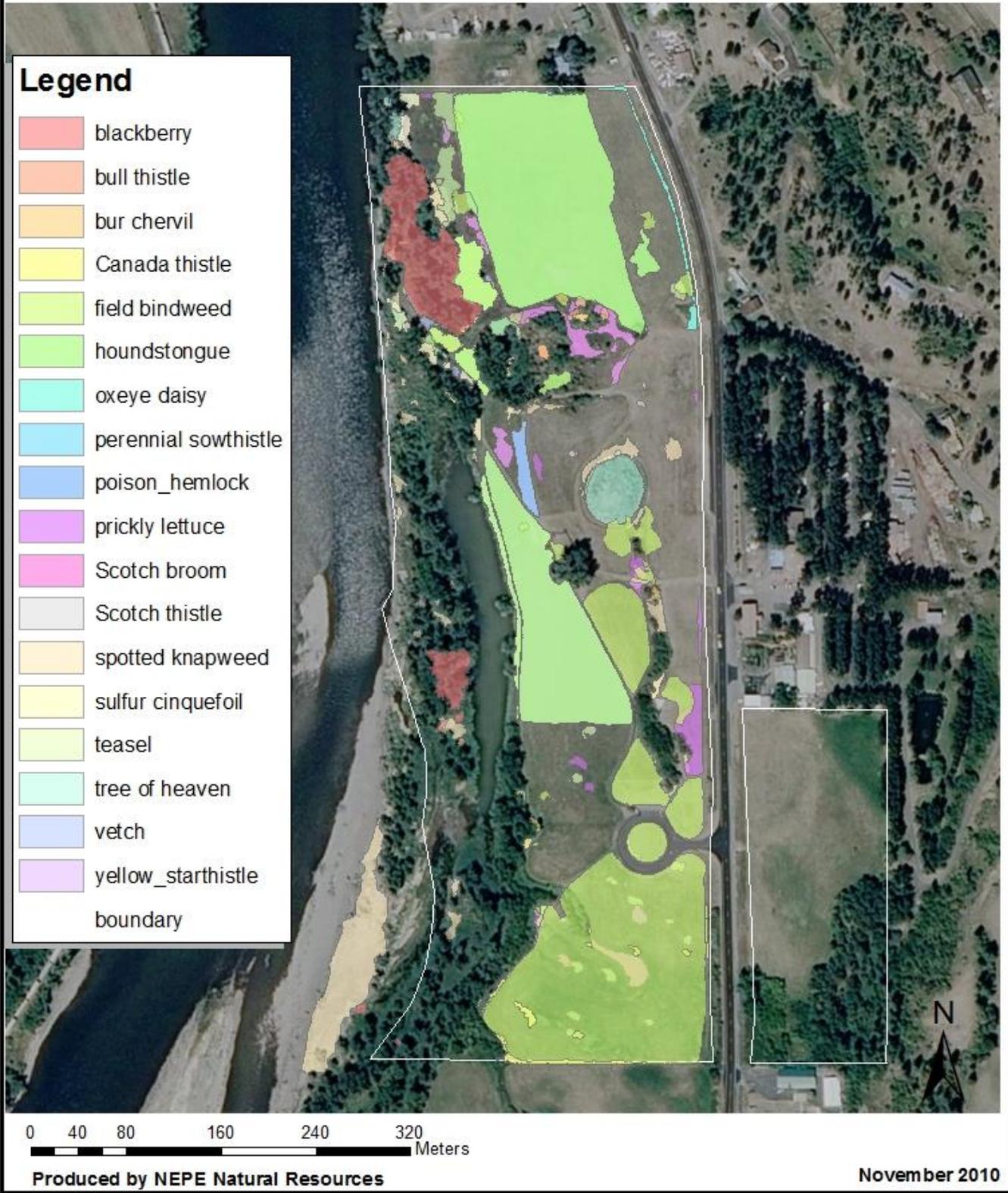


The handheld Global Positioning System (GPS) unit used for field mapping.

\*\*\*SEE BACK FOR EXAMPLE OF COMPLETED MAP.\*\*\*



# East Kamiah Weed Polygons



Example of a finished weed map for the East Kamiah/Heart of the Monster park site.