

**WORKSHOP:**  
**SETTING PRIORITIES FOR INVASIVE SPECIES MANAGEMENT**  
**ON NATIONAL WILDLIFE REFUGES**  
**DRAFT: 1 Feb 2007**

**John Heinz NWR at Tinicum, Philadelphia, PA**  
**March 13-15, 2007**

**Workshop Steering Committee Members:** Barbara Moran/R3/FWS, Doug Wells/R3/FWS, Nancy Pau/R5/FWS, Beth Goettel/R5/FWS, Brendalee Phillips/R5/FWS, Michael Lusk/NWRS/R9/FWS, Harold Laskowski/R5/FWS, Melinda Knutson/R3/FWS, Todd Sutherland/R3/FWS, Jan D Taylor/R5/FWS, Jenny Ericson/NWRS/R9/FWS, Kelly Hogan/R3/FWS

**Goals of the Workshop:** To review available decision-support tools for prioritizing invasive species control work on Refuges and make recommendations for future research and development to improve these tools and place them within an adaptive management framework.

**Objectives:**

1. Review the current status of invasive species decision support/prioritization tools for land management.
2. Discuss and clarify how decision support system/prioritization tools could be modified/improved/customized/adopted to work best for national wildlife refuges.
3. Discuss how to insert a feedback loop into the DSS that incorporates information about the success of various control methods back into the scoring in the prioritization tool (adaptive management framework).

**Products:**

Minutes of the workshop and a summary document will be prepared, capturing what the NWRS needs to adaptively manage invasive plants on refuge lands. The target audience for these materials will be the USGS Invasive Species Program, USGS scientists, and the universities.

## Day 1: OVERVIEW OF DECISION SUPPORT TOOLS

Facilitator: Todd Sutherland

Times: Workshop will begin at 8:00 AM and end at 5:00 PM

Location: John Heinz at Tinicum NWR, Philadelphia, PA

Objectives Addressed: 1, 2

- 8:00 - 8:15 Introductions/Welcome/Housekeeping (Brendalee Phillips)
- 8:15 - 8:30 Workshop overview: expected outcomes/products (Hal Laskowski, Regional Refuge Biologist and Biological Monitoring Team Leader)  
Comments by NWRs/USGS managers in attendance
- 8:30 - 9:00 National perspectives and ongoing projects (Mike Lusk, USFWS)  
How does the workshop topic relate to ongoing work on invasive species nationally and regionally, including FWS Strike Teams?
- 9:00 - 9:30 Early detection systems (Dave Barnett, USGS & Colorado State University)
- 9:30 - 9:45 *BREAK*
- 9:45 - 10:15 Summary of the Nov 2006 Invasive Species Needs Assessment Survey (Nancy Pau):15 minutes to present, then a group discussion of these results
- 10:15 - 11:15 The problem of invasives on NWRs, current status of management efforts (Jan D Taylor, Region 5 and Pat Heglund, Region 3) 15 min. EACH
- 11:15 - 12:00 Small group exercise: *Criteria for Invasive Plant Control*  
Identify and describe at least 3 criteria that your group feels must be considered in the design of an objective ranking tool.
- 12:00 – 1:00 *LUNCH*
- 1:00 - 1:30 Small groups present
- 1:30 - 1:45 Intro to decision-support tools (Beth Goettel)
- 1:45 - 2:30 Alien Plant Ranking System (APRS, Dr. Ron Hiebert)
- 2:30 -2:45 *BREAK*
- 2:45 - 4:15 **SMALL GROUP EXERCISE:** Applying APRS (Hiebert/Goettel)  
Discuss/work through applying APRS to their situations and/or an example
- 4:15 – 5:00 Small groups present

*OPTIONAL EVENING SESSION* - Possible evening social at local restaurant/pub

## **DAY 2: RECOMMENDATIONS TO IMPROVE EXISTING TOOLS & DESIGNING AN ADAPTIVE FEEDBACK LOOP**

Facilitator: Todd Sutherland

Times: Workshop will begin at 8:00 AM and end at 4:30 PM

Location: John Heinz at Tinicum NWR, Philadelphia, PA

Objective Addressed: 2 & 3

- 8:00 - 8:15     Insights from Day 1 (Todd Sutherland)
- 8:15 - 8:45     Application of APRS: experiences of a management agency (James Akerson, NPS)
- 8:45 - 9:30     Entire group discusses what customization and/or improvements might be required to make tool similar to APRS useful for the NWRS. A list of improvements/modifications is brainstormed by entire group.
- 9:30 - 9:45     *BREAK*
- 9:45 - 10:45   Small group exercise: *Designing an Invasive Species Prioritization Tool*  
Using list from previous session, choose the top 3 improvements/modifications that your group feels are required in designing a decision support tool for the NWRS.
- 10:45 - 11:30   Small groups present.
- 11:30 - 1:15    LUNCH delivered with tour of Refuge following
- 1:15 - 2:00     Principles of adaptive management (Mike Runge, USGS)  
Importance of the feedback loop to keep the DSS current and relevant.  
How do we apply adaptive management in this situation?  
How to measure 'success' in terms of improved decision-making through use of a DSS?
- 2:00 – 3:00     Panel discussion: Q&A session with guest speakers
- 3:00 – 3:15     *BREAK*
- 3:15 - 4:15     Group exercise: *Ranking the Wish List for a Prioritization Tool*  
The entire group will review the ideas generated in the morning session and rank the set of ideas for improvements/modifications to an invasive species prioritization tool. Create ranked list of recommendations to provide to science community.

4:15 - 4:30 Final thoughts

*OPTIONAL EVENING SESSION* - Possible evening social at local restaurant/pub

### **DAY 3: INTERNET RESOURCES AND BUILDING A FEEDBACK LOOP FROM OUR MANAGEMENT EXPERIENCES**

Facilitator: Todd Sutherland

Times: Workshop will begin at 8:00 AM and end at 11:00 AM

Location: John Heinz at Tinicum NWR, Philadelphia, PA

Objective Addressed: 3

8:00 - 8:30 Insights from Day 2 (Sutherland)

8:30 - 9:00 *Supporting the Adaptive Management Feedback Loop: Internet Resources*  
Demo 2-4 key invasive species internet resources with information about controlling invasive plants. (Knutson)

9:00 – 9:15 *BREAK*

9:15 - 10:15 *Supporting the Adaptive Management Feedback Loop: Recording our Experiences*  
Small group exercise: Discuss the NWRS needs and options for recording and sharing our management experiences with treatment/control methods as part of an adaptive management feedback loop. Record the needs and options for future consideration and action.

10:15 – 10:45 Small groups present

10:45 - 11:00 Summary/Closing Remarks: (Laskowski)