

1. **Title:** Noxious, Invasive Plant Signature Program Team (SPT)

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2. **Situation**

Noxious, invasive plants are harmful non-native species that are regulated by state or federal laws because they threaten agriculture, navigation, fish, wildlife, or human health on both public and private lands. As such, noxious, invasive plants threaten economic and ecological values of all Arizonans. There are also invasive plants of concern that while not listed as “noxious”, pose similar threats and need to be addressed. In Arizona, numerous cooperative weed management areas (CWMAs) have been established over the last decade to deal with specific noxious weed species and issues. Arizona Cooperative Extension (ACE) has led the effort for several of these collaborative organizations.

In 2009, this Working Group developed and posted a ACE strategic plan (http://cals.arizona.edu/apmc/noxious_plant_wg.html) which recommended that Arizona’s CWMAs adopt the 5 “Strategic Concepts” outlined in the 2006 State’s *Arizona Invasive Species Management Plan*. These Strategic Concepts were to provide broad starting points from which each CWMA could develop and refine specific tactics for dealing with the unique noxious, invasive weed problems that occur in their area. A logic model (http://cals.arizona.edu/apmc/noxious_plant_wg.html) was also developed as a supporting document for the ACE strategic plan.

In 2010, we added a 4th and 5th objective, i.e., 4) brainstorm potential fact sheets to be developed, peer-reviewed, and published following the ACE peer-review process, and 5) plan training and testing sessions to certify local citizens and agency personnel to use restricted use chemicals to control noxious and invasive species. In 2011, we continued to revise the 5 objectives which are summarized in this SPT’s July 13, 2012 report. In this proposal we have further revised and consolidated the original 5 objectives into 2 objectives which are presented under the “**4. Outputs**” heading in this document.

3. **Inputs:**

Signature Program Area(s): Water, Plants, and Natural Resources; Animal Production Systems; Food and Fiber Production Systems

Project Leader: Larry Howery, UA Campus

County affiliates:

- Cochise, Graham & Greenlee - Kim McReynolds, Area Agent, Natural Resources
- Gila – Chris Jones, Associate Agent, ANR
- Maricopa –Ed Northam, Invasive Weed Program Coordinator; Kai Umeda, ANR/Turf Area Agent
- Mohave - Rob Grumbles, Agent, ANR & County Director
- Navajo Nation - Gerald Moore, Agent, ANR & Youth Development
- Yavapai - Jeff Schalau, Associate Agent, ANR & County Director

On-campus or Experiment Station affiliate(s):

Campus – Kevin Fitzsimmons, Specialist, Professor & Research Scientist, and, David Walker, Assistant Research Scientist, SWES; Larry Howery, Specialist, Professor, Rangeland and Forest Resources Program, SNRE; Bill McCloskey, Associate Specialist, Weed Science, PLS; Barron Orr, Associate Specialist, Geospatial Extension, OALS/SNRE; Al Fournier, IPM Program Manager, Maricopa Agricultural Center.

Collaborators:

- CWMA’s in at least 3 of the above counties/areas (e.g., Cochise, Maricopa, Yavapai), as well as others to be identified by the SPT

4. Outputs:

An in-service workshop will be conducted at a centrally located site which will facilitate attendance by as many SPT members as possible during the spring of 2013. At the workshop, each SPT member will share what has been accomplished in their area of the state towards the following two objectives (below). These objectives were also summarized in this SPT's report submitted on July 13, 2012. The process of addressing these objectives will ultimately serve to reach the majority of natural resource professionals that are currently working on noxious, invasive plant issues throughout the state of Arizona.

Objective 1 -- Educational resources, course offerings, funding

Scheduled Trainings/Workshops/Short Courses

- July/August 2012 – Conduct a PSEP training workshop for multi-family housing. (**Lead person: Dawn Gouge**).
- July/August 2012 -- 19th Annual Southwestern Noxious, Invasive Plant Short Course in Farmington, NM (3-day short course) (**Lead person: Larry Howery**)
- August 2012 -- Mohave County (AZ Strip, St. George, UT, for AZ Strip, Mohave, Coconino and southern Utah clientele) (**Lead person: Rob Grumbles**).
- August 2012 -- Conduct landscape professionals pesticide safety and use seminar in Laughlin/Bullhead City. (**Lead person: Rob Grumbles**).
- August 2012 (Navajo Nation Ag Days, Tsaile) – Conduct pest management training workshop for tribal and agency personnel in northeast AZ. (**Lead persons: Gerald Moore, Jeff Schalau, Dawn Gouge**).
- January/February 2013 – Conduct three (3), 1-day PSEP workshops with ADA to educate and train pesticide applicators for initial licensing exams. (**Lead persons: Kim McReynolds** – SE AZ; **Jeff Schalau** – northern AZ; and **Kai Umeda** -- central AZ).
- June/July 2013 -- “RNR/PLS 400, Noxious, Invasive Plants of Arizona” – 3-unit intensive 5-week summer session course to be offered Summer Session I (2013) (**Lead person: Larry Howery**)

Other Educational/Funding Efforts

- Herbicide Spray Table will be on display at the Desert Horticulture Conference in 2012 (**Lead person: Bill McCloskey**)
- Develop a framework to deliver noxious weed material and education to horticulture audiences -- pursue this idea with Ursula? (**Lead person: Jeff Schalau**)
- Develop new educational and weed mapping resources (e.g., GeoKnect app for smart phones; Fact sheet on other mobile apps supporting citizens science) (**Lead persons: Barron Orr, Bill McCloskey, Kai Umeda**)
- Look for Funding Opportunities (**Lead persons: Bill McCloskey, Larry Howery, Al Fournier**)
- Keep Task Force and ANS Websites updated (**Lead person: David Walker**)
- Continue control efforts of aquatic invasive plants (**Lead person: David Walker**)
- Answer e-mail enquiries regarding aquatic weed control and from commercial aquatic herbicide vendors to discuss products (**Lead person: David Walker**)

Objective 2 – Publications

- Camelthorn update and revision, needs to have treatment options added (**Lead person: Bill McCloskey**)
- Thistle complex – bull, Scotch, Canada, musk (**Lead persons: Jeff Schalau and Bill McCloskey**)
- Yellow and Malta starthistles (**Lead persons: Kim McReynolds and Bill McCloskey**)

5. Outcomes, Impact and Evaluation

Short-term outcomes: 1) Improve communication among CWMA's across Arizona; 2) ACE continues its role as a leader in noxious weed issues in Arizona and the Southwestern US.

Medium-term outcomes: 1) Improve awareness of noxious, invasive plant issues and provide information about where the public can go to report and/or receive additional information on the management of problematic plants; 2) Increase probability of attracting funds for noxious, invasive plant education and management; and 3) Encourage land owners and managers to control weeds on their land.

Long-term outcomes: 1) Reduction in expenditures due to prevention and early detection practices across CWMA's; 2) ACE remains a focal point for expertise (research and education); 3) Increase probability of attracting national grant awards.

Evaluation: Most CWMA programs conduct their own evaluations during educational workshops and events. SPT members will continue to share past evaluation information about what has worked and what has not which will help us to make appropriate adjustments to future programs.

6. Plan for Communicating Program Impacts

Short-term impacts will be reported in Annual Performance Reports and in final reports required from the state ACE office. Knowledge gained through informal discussions amongst SPT members will be disseminated across CWMA's and will assist in planning future programming and accomplishing medium- and long-term outcomes/impacts. Peer-reviewed fact sheets and publications will be posted on the ACE web site and distributed at future noxious, invasive plant workshops.

7. Plan for Sustainability

The success of noxious, invasive weed education and management programs is often site-specific. This SPT has remained active but needs to meet periodically to share information about what management and education programs work and what does not. The many benefits outlined in the short-, medium-, and long-term outcomes will increase exposure of ACE's efforts in this program area and also increase leverage for SPT members to attract funding from extramural sources.

8. Budget and narrative

Funding request	\$1,500.00
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In spring of 2013, we will assemble SPT members in a central location for an initial planning meeting to reevaluate our progress towards accomplishing the 2 objectives that appear under **4. Outputs (above)** and in our July 13, 2012 report. We propose to pay travel expenses for SPT members as necessary. Funding would also cover the cost of meeting rooms and the development of educational materials.

This Grant Request was submitted by Larry Howery on behalf of the Noxious, Invasive Plant SPT on July 13, 2012.