Partnering Opportunities – Examples External and Internal

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Senior Advisor
The Redlands Institute

Strategic Management of Invasive Species of the Southwest U.S.
Phoenix, 26-30 October 2009
Partnering Opportunities - External and Internal Discussion Points

External

- National – Agency and Nongovernmental Organizations (NGO)
- State / Regional – Agency and NGOs
- Local – Cooperative Weed Management Areas

Internal - the environmental matrix
Partnering Opportunities – External
National with applicability to DoD

Agency
- DoD Conservation
  - Legacy Resource Management Program
  - Strategic Environmental Research and Development Program (SERDP)

NGO
- National Military Fish and Wildlife Association
- Invasive Species Working Group
- American Society of Agronomy Div. A-2, Military Land Use and Management
- Cooperative Ecosystems Studies Units
**Partnering Opportunities – External**

Example: Legacy Resource Management Program

![Department of Defense Legacy Resource Management Program](image)

<table>
<thead>
<tr>
<th>Service</th>
<th>Res Type</th>
<th>Project Title</th>
<th>Proj No</th>
<th>Owner</th>
<th>Author</th>
<th>Status</th>
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<tbody>
<tr>
<td>DoD</td>
<td>NAT</td>
<td>Introduction of Invasive Species from Participation in OCONUS Exchanges</td>
<td>03-123</td>
<td>DoD Reviewers</td>
<td>Contanceco, Alfred</td>
<td>Completed</td>
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<td>DoD</td>
<td>NAT</td>
<td>Pulling Together: A Public/Private Partnership to Manage Invasive and Nonnative Plants V</td>
<td>03-423</td>
<td>DoD Reviewers</td>
<td>Manwudley, Jonathan</td>
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<td>NAT</td>
<td>Reproductive Inhibition of the Brown Tree Snake</td>
<td>03-19</td>
<td>DoD Reviewers</td>
<td>Lagerson, Kathleen</td>
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<td>DoD</td>
<td>NAT</td>
<td>Model Invasive Species Control Project: Yellow Star Tulip</td>
<td>03-100</td>
<td>DoD Reviewers</td>
<td>Ayris, Sandra</td>
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<td>DoD</td>
<td>NAT</td>
<td>Field Evaluation of Chemical Methods for Brown Tree Snake (BTS) Management</td>
<td>03-1992</td>
<td>DoD Reviewers</td>
<td>Tagerson, Kathleen</td>
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<td>DoD</td>
<td>NAT</td>
<td>Invasive Plants in Managed and Natural Systems: Linking Science and Management</td>
<td>03-105</td>
<td>DoD Reviewers</td>
<td>Heynhart, Robert</td>
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<tr>
<td>Army</td>
<td>NAT</td>
<td>Restoration of Biodiversity in Ecosystems Dominated by Invasive Species</td>
<td>03-189</td>
<td>Army APC Reviewers</td>
<td>Stone, Sheridan</td>
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</tbody>
</table>
Partnering Opportunities – External Example: SERDP

SON Number: SISON-10-01

November 6, 2008

Strategic Environmental Research and Development Program (SERDP)

FY 2010 STATEMENT OF NEED

Sustainable Infrastructure (SI) Focus Area

SOUTHWEST ECOLOGICAL SYSTEMS ON DEPARTMENT OF DEFENSE LANDS: ALTERED FIRE REGIMES AND NON-NATIVE INVASIVE PLANTS
Partnering Opportunities – External

Example: National NGOs

- American Society of Agronomy Division A-2 Military Land Use & Management ([https://www.agronomy.org/membership/divisions/a02/](https://www.agronomy.org/membership/divisions/a02/))

Partnering Opportunities - External Regional / State with applicability to DoD

Agency
- Agricultural Extension Service
  http://www.cal-ipc.org/

NGOs
- Sonoran Desert Invasive Species Council
- Southwest Vegetation and Management Association (SWVMA)
- Desert Southwest Cooperative Ecosystems Studies Unit
- Native Plant Societies
Partnering Opportunities - External
Example: Sonoran Desert Invasive Species Council

- Management Assessment
- MOU
- Strategic Plan
- Resource Guide
- Advocacy and Information Sharing

INVASIVE PLANTS OF THE SONORAN DESERT
A Resource Guide for Invasive Plant Management in the Sonoran Desert
Partnering Opportunities – External

Example: SWVMA

- Annual workshop
- Pesticide certification training
- Cooperative Weed Management Area sessions
- Peer to peer support

2009 SWVMA Conference at Casa Grande, AZ
Francisco Grande Hotel & Golf Resort
(800) 237-4238 • (520) 836-6444
2654 West Gila Bend Highway
Casa Grande, Arizona 85293

November 03-05, 2009
http://www.franciscogrande.com/
Partnering Opportunities - External

Local

Cooperative Weed Management Areas – CWMAs

- **Borderlands CWMA**
  - Curt McCasland
  - 1611 N Second Ave
  - Ajo, AZ 85321
  - 520-387-5359
  - curtis_mccasland@fws.gov

- **Central Arizona CWMA**
  - Ed Northam
  - 216 E. Taylor
  - Tempe, AZ 85281
  - 480-947-3882
  - fnortham@msn.com

- **King of Arizona CWMA**
  - Karen Reichhardt
  - BLM Yuma Field Office
  - 2555 Gila Ridge Road
  - Yuma, AZ 85365
  - 928-317-3245
  - Karen_Reichhardt@blm.gov
Partnering Opportunities External
Example: King of Arizona CWMA

- Annual Work Plans
- Educational / Awareness projects
  - Aliens in the Garden curriculum
    (http://yumaconservationgarden.org/)
  - Playing cards / Brochures / Display Poster / T-shirts
- Monitoring / Early Detection Rapid Response projects
- NIS Control projects
  - Weed warriors
  - Salt cedar mulch
  - Highway 95 collaboration
Partnering Opportunities External
Example: King of Arizona CWMA Monitoring

Roadway & ‘Hotspot’ vector mapping
Partnering Opportunities External
Example: King of Arizona CWMA Early Detection Rapid Response

- Arugula aka garden rocket (*Eruca vesicaria*)
Partnering Opportunities External
Example: King of Arizona CWMA Control Projects

Weed Warriors

Salt Cedar Mulch
Partnering Opportunities External
Example: King of Arizona CWMA Control Projects

Highway 95 collaboration
Partnering Opportunities Internal
Mission and Installation Support

- Mission Impact Assessment
- Resources
  - Troop training - labor
  - Public Affairs - outreach
- Army Environmental Matrix
  - Sustainable Range Program (SRP)
  - Directorate of Public Works (DPW)
**Partnering Opportunities Internal**

**Example: Army Environmental Matrix**

### Sustainable Range Program Environmental Activities Matrix (Phase 1)

<table>
<thead>
<tr>
<th>Environmental Sustainability Requirement</th>
<th>Environmental Program</th>
<th>Range Program</th>
<th>Integrated Training Area Management (ITAM) MDEP - TATM</th>
<th>Invasive Species &amp; Noxious Weeds Management</th>
<th>Identification, monitoring and planning as a component of the Integrated Pest Management Plan (IPMP) and NDMC</th>
<th>Removal of vegetation that inhibits maneuver or training activities. Creating maneuver corridors in high vegetation areas. Clearing other natural or manmade material to support training.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conservation</td>
<td>MDEP - VENN</td>
<td>Integrated Training Area Management (ITAM) MDEP - TATM</td>
<td>Real Property Services MDEP - QDPW</td>
<td>Develop and implement integrated open space and building/facility pest management strategies. Includes personnel to conduct pest surveillance, identification, breeding site removal, pesticide applications and other required actions. Also includes mowing, prescribed burning, and application of herbicides to control weeds (to include invasive species &amp; noxious weeds), brush, vegetative fire hazards and poisonous plants on training areas and ranges.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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### Example:

- **Conservation**: MDEP - VENN
- **Integrated Training Area Management (ITAM)**: MDEP - TATM
- **Real Property Services**: MDEP - QDPW
Partnering Opportunities Internal
Example: SRP

- Training
- Requirements
- Analysis
- Land Rehabilitation and Maintenance
- Range and Training
- Land Assessment
- Sustainable Range Awareness
Partnering Opportunities Internal
Example: DPW

<table>
<thead>
<tr>
<th>Public Works (DPW)</th>
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</thead>
<tbody>
<tr>
<td><strong>SERVICE:</strong> Outdoor Pest Control</td>
</tr>
<tr>
<td><strong>SSP:</strong> Respond to Other Outdoor Pest Management Service Orders</td>
</tr>
</tbody>
</table>

**COMPONENTS**
Includes the following:
- Routine pest control based on customer requests as outlined in the Integrated Pest Management Plan (IPMP).
- Plant pests & diseases
- Weeds
- Invasive plants and animals
- Retrieval of animal carcasses

**OUTPUT**

<table>
<thead>
<tr>
<th>MEASURE</th>
<th>TARGET</th>
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</thead>
<tbody>
<tr>
<td>Prompt and satisfactory response to service orders</td>
<td>% Service Orders reported</td>
</tr>
</tbody>
</table>

**DATA OWNER**
DPW is Responsible

**REPORTED TO**
Not currently routinely reported DPW is responsible office

**OUTCOME**

<table>
<thead>
<tr>
<th>MEASURE</th>
<th>TARGET</th>
</tr>
</thead>
<tbody>
<tr>
<td>% of Services successfully performed</td>
<td>=&gt; 69%</td>
</tr>
</tbody>
</table>

**DATA OWNER**
Installation Pest Management Coordinator

**REPORTED TO**
Not currently routinely reported DPW is responsible office
Partnering opportunities are limitless

Partnering is the only route with a chance of success

Pitfalls – people go, money goes, partnerships at risk

Plan and prepare for detours
Background Slides
Partnering Opportunities – External Example: Regional Federal Agency

Regional Predictions of Non-native Plant Species Now and Under Future Climate Scenarios
Natural Resources Report NPS/IMR/SODN-002
Partnering Opportunities – External Example: National NGO

A great place to start understanding the scope of the challenge and opportunities specific to military installations and operations.
Symposium—Impacts of Invasive Species On Biodiversity and Land Use

Partnering Opportunities - External and Internal National ...

Evaluating Broad-Scale Correlates of Biocontrol Success with Purple Loosestrife: Management Implications and a General Protocol for Post-Release Evaluation. Walter P. Carson, Univ. of Pittsburgh; Stephen M. Hovick, Univ. of Georgia

Studies to Control the Guinea Grass at a Military Base in Hawaii. Antonio Palazzo, USA-CRREL; Tim Cary, U.S. Army ERDC-CRREL; Watts, K. watts, U.S. Army Environmental Command


Perennial Weeds in Agricultural Landscapes: Managing Threats to Smallholder Livelihoods. Nicholas R. Jordan, Univ. of Minnesota

The Effectiveness of Cover Crops for Invasive Weed Control. Timothy Dickson, Washington Univ., St. Louis; Brian Wilsey, Iowa State Univ.; Andrea Blong, Iowa State Univ.; Ryan Busby, U.S. Army ERDC-CERL; Dick Gebhart, U.S. Army ERDC-CERL


Current Trends in Destructive Insect and Disease Invasion of North America. Andrew M. Liebhold, U.S. Forest Service

Army and DoD Focus in Managing the Spread of Invasive Species. Harold Balbach, U.S. Army CERL-CN; Lisa J. Rew, Montana State Univ.; Joseph D. Fleming, U.S. Forest Service

Tracking Military Vehicles to Better Understand Invasive Species Spread. Heidi Howard, ERDC-CERL; Harold Balbach, U.S. Army CERL-CN; Lisa J. Rew, Montana State Univ.; Paul Ayers, Univ. of Tennessee; Alan B. Anderson, U.S. Army Engineer Res. and Develop. Center
Partnering Opportunities – External Example: State Agricultural Extension Service
<table>
<thead>
<tr>
<th>Hour</th>
<th>Monday</th>
<th>Tuesday</th>
<th>Wednesday -- First Session</th>
<th>Wednesday -- Second Session</th>
<th>Thursday</th>
</tr>
</thead>
<tbody>
<tr>
<td>730</td>
<td>Conf. Registration CEU sign-up Breakfast Buffet</td>
<td>Welcome - SWVMA Pres. KEYNOTE SPEAKER -Mike Abate &quot;Governor Brewer's Wildlands Policy on Invasives&quot; Invasive Spp Council Report Tom McMahon Morning Break - fruit Informational Talks by Sponsors/Vendors - 5-15 minutes each Poster Session - Promenade Area Banquet Lunch open Board Meeting, Elections Election results, WMA Breakout Instructions WMA (&amp; other groups) Breakout session WMA's Report back to entire group Snack break Fire Keynote - Eddie Alford &quot;Wildfires in the Sonoran Desert&quot; Wrap Up - Next Day Announcements Member reception Happy Hour &amp; Hors d'oeuvres</td>
<td>Fire Behaviour for Weed Mngrs Eddie Alford Sprayers &amp; Calibration: Using less to do more Andrew Greese Wildfire Seeding at Cave Creek Park John Gunn Invasive Vegetation Technology Ed Northam The Effects of Disturbance along Right of Ways, and Easements Rod Cook Banquet Lunch from Francisco Grande till 1300 Fire and Invasive Species Herbicide Registration Process Jesse Richardson Moenkopi Wash Invasive Species Control Renee Benally Riparian Weed Control on National Forest Lands on the Verde River Laura Moser Invasive Species Control Fire and Weeds Malta Starthistle Control at the SpurCross Conservation Area Kevin Smith</td>
<td>Coffee/Tea, Bagels, Danish and Fruit</td>
<td>Morning Break - 30 min Monsanto Donna R Farmer Russian Olive Control Research John Brock GPS/laptop system for mapping weeds Clark Cory Tall Pots for Woody Plant Restoration Diana Stuart</td>
</tr>
</tbody>
</table>

Field trip instructions
## Desert Southwest Cooperative Ecosystem Studies Unit

### Projects

Click on the column headings to sort by that particular column. Click on the numbers at the bottom of the table to advance to the next page.

How to submit a project through the DSCESU agreement.

<table>
<thead>
<tr>
<th>Search Projects</th>
<th>Title</th>
<th>Location</th>
<th>Agency</th>
<th>Institution</th>
<th>Abstract</th>
<th>Start Date</th>
<th>End Date</th>
<th>PI</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>invasive</td>
<td></td>
<td></td>
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<td></td>
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</tbody>
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<th>Title</th>
<th>Location</th>
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<th>Institution</th>
<th>Abstract</th>
<th>Start Date</th>
<th>End Date</th>
<th>PI</th>
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<tbody>
<tr>
<td>Mapping and Baseline Demographic Studies of Invasive African Buffelgrass in Big Bend</td>
<td>Big Bend National Park</td>
<td>National Park Service</td>
<td>Texas State University</td>
<td>9/1/2001</td>
<td>5/4/2004</td>
<td>Lemke, David</td>
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EXECUTION PAGE FOR

United States Army Yuma Proving Ground

Authority to Enter into This Memorandum of Understanding (MOU): U.S. Army Yuma Proving Ground’s participation in this agreement is made under the authority of the Skies Act of 1960 as amended by the Skies Act Improvement Act of 1997 (16 U.S.C. 670a et seq.), which states “...a military department may enter into cooperative agreements with States, local governments, nongovernmental organizations, and individuals to provide for the maintenance and improvement of natural resources on, or to benefit natural and historic research on, Department of Defense installations.”

Special Condition Statement Option: Nothing herein shall be construed as authorizing, or obligating US Army Yuma Proving Ground (YPG) to perform any act, or refrain from performing any act, where such action/inaction would violate any federal, state, or local statute, rule or regulation, including, but not limited to, the Anti-Deficiency Act. Further, nothing herein shall be construed as waiving any right or defense available in law or equity including, but not limited to, the Sovereign Immunity of the United States. Finally, the YPG signatory, or his designated representative, without advance notice, may unilaterally terminate YPG participation in this agreement. YPG will provide a written courtesy notice of termination of participation as soon as reasonably possible thereafter.

Participation on Steering Committee: I do (X) / do not (__) desire to have U.S. Army Yuma Proving Ground represented on the Sonoran Desert Invasive Species Council Steering Committee. YPG will provide a representative to serve on the steering committee in accordance with Article VI.E of the MOU.

Participation in Cooperative Weed Management Areas (CWMA): U.S. Army Yuma Proving Ground will be a participant in the following CWMAs:

- Borderlands CWMA
- X King of Arizona CWMA

By __________________________ Date __________________________

Stephen D. Kreider
Colonel, U.S. Army
Commanding

*Although some partners may desire to identify formal participation in only one CWMA (so as to enable defining the boundaries of a particular CWMA), this does not preclude cooperative projects with members of another CWMA, when appropriate.