



Administrative

Author: Steven McLay
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Created: 07/23/2013

Coauthor:

Last Accessed: 08/14/2013

Current Owner: Steven McLay

Project Title: Weed Spotter Mobile App

Sponsor: Army

Division: Army National Guard

Have you already made contact with the abovementioned sponsor? Yes

Installation(s):

Name:	POC:	POC Email:
Primary Najaf Training Center (Camp Adair)	LTC Ken Nygren	ken.a.nygren.mil@mail.mil
State: OR	Country:	
Cont. Proj.: No		

To the best of your knowledge, is your work original and not duplicative of existing efforts? Yes

Will you need access to a DoD installation? Yes

Resource Type: Natural Resources **Exp Compl. Date:** 09/14/2015

Primary Theme: Invasive Species

Sec. Theme: Habitat Restoration/Enhancement

Areas of Emphasis

Area of Emphasis

Communication, Partnerships, and Public Awareness

Budget Items**Requesting Organization #1: Benton Soil and Water Conservation District**

Item	Description	Item Cost (\$)
Other Labor	Marketing designer to create billboard, posters, PowerPoint slides, website content, stickers/tattoos that will announce app, and display board	\$10,000.00
Other Labor	Public service announcement (PSA) producer and related costs to create 30 second PSA	\$500.00
Overhead/Admin	General administrative, supply and utility costs (17.5%)	\$37,166.00
Materials/Supplies	Billboard sign production (printing) (see match section)	\$1,260.00
Other Labor	1 year of post-production mobile app maintenance	\$2,000.00
Salary	Project Manager - to oversee project research, documentation, and report of findings	\$19,200.00
Other Labor	Videographer to create three-minute video for use at events and for promotion on websites, Facebook pages, and to be posted on YouTube, and a 30 second pre-roll version	\$5,000.00
Materials/Supplies	Display board	\$1,000.00
Materials/Supplies	Video- 20-30 hard copies for Najaf Training Center and CWMA partners	\$250.00
Salary	In-house contract oversight, legal review, steering committee participation. (36/hr for 150 hrs)	\$5,400.00
Other	Running of PSA on 5 broadcast platforms and 3 digital platforms, 10 times/wk for 16 weeks (Broad Rotator)- 75/commercial on broadcast and 5/commercial on digital (170,000 listeners/week)(10x16x5x75+10x16x2x5 = 61,600) MATCHED (see match section)	\$61,600.00
Other	Rental of billboard space and printing - six billboards for 16 weeks each. (1290 for rental of space for 4 week period) (see matched section)	\$11,640.00
Materials/Supplies	Promotional cards with QR code, Posters, Stickers, tattoos with application information	\$3,000.00
Other Labor	Project evaluation (contractor) 80 hrs at 50/hr- follow up with target audiences	\$4,000.00
Travel	Attendance at December 2014 Interagency Noxious Weed Symposium to meeting sites	\$110.00
Other Labor	Microsite landing page design	\$4,000.00
Other Labor	Mobile application developer to develop, beta-test, and revise app	\$30,000.00
Materials/Supplies	Boot brushes with application information printed on them- 5000 @ 3.25 each	\$16,250.00
Total Award Request:		\$212,376
Total Legacy Funds Requested:		\$212,376

Summary of Recipient's Cost Sharing or Matching Contributions

Requesting Organization #1: Benton Soil and Water Conservation District

Item	Description	Value
Services and property contributions	Third party in-kind - BiCoastal Media- Running of PSA on 5 broadcast platforms and 3 digital audio platforms, 10 times/wk for 16 weeks (Broad Rotater), 75/commercial	\$61,600
Services and property contributions	Partners promote app and weed awareness, display materials and share; beta-test app and OMD administration.	\$7,452
Loaned or donated equipment (including space)	Classroom space at Najaf Training center. Meetings and training related to the project.	\$750
Volunteer services (skilled/unskilled labor)	beta-testing of application by volunteers and project partners	\$1,440
Services and property contributions	CBS Outdoor covers 22% of billboard costs	\$2,838
Total Contributions:		\$74,080

Expected Products

Requesting Organization #1: Benton Soil and Water Conservation District

Prod. Type	Description	Due Date
Outreach Tool	Web microsite landing page	09/14/2015
Software	Mobile application	09/14/2015
Poster for Outreach	To be hung in the range office, meeting rooms, local businesses, and partners offices	09/14/2015
Final Report	Report on the project, evaluation, and next steps	09/14/2015
Fact Sheet	The Fact Sheet is a required product for all Legacy projects.	09/14/2015
Outreach Tool	Website advertisement to promote the use of application	09/14/2015
Video Footage	YouTube video (2-3 min and 30 sec versions)	09/14/2015
Awareness Tool	Public service announcement (30 sec)	09/14/2015
Awareness Tool	Stickers, Boot brushes, tattoos, promotional cards, display board, and banner	09/14/2015
GIS Data	Data gathered by application users - sent to Oregon Invasive Hotline	09/14/2015
Training Curriculum	PowerPoint training slides for Web App	09/14/2015
Poster for Outreach	Billboards (6 each)	09/14/2015

Contributing Partners

Contributing Partner #1: Oregon Military Department

Item	Description	Value
Loaned or Donated Equipn	Classroom and equipment	\$750
Services and property cont	Administration, logistics	\$2,300
Total Contributions by Oregon Military Department:		\$3,050

Contributing Partner #10: Benton County Natural Areas and Parks

Item	Description	Value
Services and property cont	beta-test application	\$128
Volunteer services (skilled	Brief app at two presentations, share materials.	\$128
Services and property cont	Discuss in newsletters and post link on website.	\$64
Total Contributions by Benton County Natural Areas and Parks:		\$320

Contributing Partner #11: Benton Soil and Water Conservation District

Item	Description	Value
Services and property cont	Attend education and outreach mtgs during project	\$512
Total Contributions by Benton Soil and Water Conservation District:		\$512

Contributing Partner #12: Institute for Applied Ecology

Item	Description	Value
Services and property cont	Discuss in newsletters and post link on website	\$64
Services and property cont	Brief app at 2 presentations, share materials.	\$128
Services and property cont	beta-test app	\$128
Total Contributions by Institute for Applied Ecology:		\$320

Contributing Partner #13: Siuslaw National Forest

Item	Description	Value
Services and property cont	Brief app at two presentations, share materials.	\$128
Services and property cont	beta-test application	\$128
Services and property cont	Advertise and post link on website	\$32
Services and property cont	Attend education and outreach mtngs during project	\$512
Total Contributions by Siuslaw National Forest:		\$800

Contributing Partner #14: Cascade Pacific Resource Conservation and Development

Item	Description	Value
Services and property cont	Brief app in at least two presentations	\$64
Services and property cont	Discuss in newsletters and post link on website	\$64
Total Contributions by Cascade Pacific Resource Conservation and Development:		\$128

Contributing Partner #15: Oregon State University College Forests

Item	Description	Value
Services and property cont	Brief app at 2 presentations, share materials.	\$128
Total Contributions by Oregon State University College Forests:		\$128

Contributing Partner #16: CBS Outdoor advertising

Item	Description	Value
Services and property cont	Will cover 22% cost of the billboard campaign	\$2,838
Total Contributions by CBS Outdoor advertising:		\$2,838

Contributing Partner #2: Oregon State University Extension Service

Item	Description	Value
Services and property cont	beta-test app	\$128
Services and property cont	Attend education and outreach mtng during project	\$512
Services and property cont	Discuss in newsletters and post link on website	\$64
Services and property cont	Brief app at two presentations, share materials.	\$128
Total Contributions by Oregon State University Extension Service:		\$832

Contributing Partner #3: Marys River Watershed Council

Item	Description	Value
Services and property cont	Discuss in newsletters and post link on website	\$64
Services and property cont	beta-test Application	\$128
Services and property cont	Attend education and outreach mtng during project	\$512
Services and property cont	Brief app at 2 presentations, share materials.	\$128
Total Contributions by Marys River Watershed Council:		\$832

Contributing Partner #4: Luckiamute Watershed Council

Item	Description	Value
Services and property cont	beta-test Application	\$128
Services and property cont	Discuss in newsletters and post link on website	\$64
Services and property cont	Brief app at two presentations, share materials.	\$128
Total Contributions by Luckiamute Watershed Council:		\$320

Contributing Partner #5: Greenbelt Land Trust

Item	Description	Value
Services and property cont	Advertise and post link on website and newsletters	\$64
Services and property cont	Discuss in newsletters and post link on website	\$128
Services and property cont	beta-test Application	\$128
Services and property cont	Attend education and outreach mtngs during project	\$512
Total Contributions by Greenbelt Land Trust:		\$832

Contributing Partner #6: Western Invasives Network

Item	Description	Value
Services and property cont	Discuss in newsletters and post link on website	\$64
Services and property cont	Brief app in at least two presentations	\$64
Total Contributions by Western Invasives Network:		\$128

Contributing Partner #7: Volunteers from various organizations

Item	Description	Value
Volunteer services (skilled)	Beta testing of application	\$1,440
Total Contributions by Volunteers from various organizations:		\$1,440

Contributing Partner #8: CBS Corp. CBS Outdoor advertising

Item	Description	Value
Services and property cont	Will cover 22% cost of the billboard campaign	\$2,838
Total Contributions by CBS Corp. CBS Outdoor advertising:		\$2,838

Contributing Partner #9: BiCoastal Media (radio advertising)

Item	Description	Value
Services and property cont	BCM will double the run time of purchased air time	\$61,600
Total Contributions by BiCoastal Media (radio advertising):		\$61,600

Project Detail

Project Synopsis: Early Detection and Rapid Response (EDRR) is the most cost effective way to control small populations of invasive plants, and protect native habitats, plants, and animals. Najaf Training Center and Benton County Cooperative Weed Management Area (CWMA) will develop an innovative mobile app and supporting outreach materials. The app will give the user two dynamic pieces of information for the county and habitat in which the user is located- 1) the top five EDRR species- 2) the top five most common invasive species. The outreach materials will inform target audiences about invasive species and use of the app.

This project addresses Legacy’s Invasive Species Area of Emphasis by involving a CWMA and implementing a mobile app to enhance regional biosecurity. It also addresses the Declining Habitat Area of Emphasis by enhancing the protection of native Willamette Valley habitats, including wetlands, oak woodlands and upland savannas, which are strategy habitats in the Oregon Conservation Strategy.

**Approach &
Work Plan:**

Abstract:

Oak woodlands once covered about 400,000 acres in the Willamette Valley, but currently less than 28,000 acres remain. After prevention of invasive species establishment, Early Detection and Rapid Response (EDRR) is the most cost effective way to control small populations of new invaders and protect native habitats, plants and animals. This project will serve as an excellent model of stewardship, leadership and partnership. Najaf Training Center and Benton County Cooperative Weed Management Area (members include over 20 federal and non-profit organizations) will work together to develop an innovative EDRR mobile application and a comprehensive suite of supporting outreach materials to engage target audiences in detection of invasive plants. Target audiences of this project include military members, their families, others who use the Najaf Rifle Range as a training facility and civilians who recreate in the natural areas and parks within Benton County. The Weed Spotter Mobile Application will be available for Android and iPhone platforms, and give the user two dynamic pieces of information dependent on the county and habitat where the user is located: 1) the top five EDRR species or "What to Report"; and 2) the top five most common invasive species or "What NOT to Report". The mobile application will access vegetation data available through the Oregon Explorer database and invasive species location information via Oregon Department of Agriculture's Weed Mapper database. When a user positively identifies one of the top five EDRR plants, they will be able to report it to the Oregon Invasives Hotline. Hotline reports are immediately fielded by hotline managers who are able to confirm reports and inform the appropriate land managers. This system allows the land managers to respond rapidly and avoid large scale infestations. As mentioned above, the user will also learn the top five invasive plants they are likely to see in any particular county and habitat type. These are plants that are widespread and should not be reported. The Weed Spotter Mobile App will be the first application to help untrained civilians and military members differentiate between widespread invasive species and EDRR species worth reporting. A second goal of the project is to encourage the target audiences to clean weed seeds from their clothing, gear and pets before and after recreating in parks and natural areas and training at the Najaf Rifle Range. To accomplish this behavior change, boot brushes printed with information about the Weed Spotter Mobile App will be distributed to the target audiences. The application will be developed, beta-tested and refined by November 2014. Then, beginning in that same month, the outreach materials will be deployed. Outreach will be heavily concentrated during the spring and summer of 2015 with a 16-week media blitz. The media blitz will include: 1) six billboards that will display information about the new mobile application and invasive weed awareness; and 2) a 30-second public service announcement that will run on five regional radio stations and radio websites. Military members and civilians who use Najaf during this timeframe will receive complimentary boot brushes for weed seed removal and will see a poster, video or PowerPoint presentation that describes the problem of invasive species and how they can help by downloading and using the free mobile application. During the same period, partners of the Benton County Cooperative Weed Management Area will give their constituents boot brushes and disseminate the supporting outreach materials via their websites, presentations, at events and in various other formats (see Expected Products section). This project addresses the Legacy Grant's Invasive Species Area of Emphasis by involving a Cooperative Weed Management Area and implementing a new Early Detection and Rapid Response (EDRR) mobile application to enhance regional biosecurity. It also addresses the Declining Habitat Area of Emphasis by mobilizing civilian and military personnel in the search for small populations of newly established invasive species that threaten native Willamette Valley habitats, including wetlands, oak woodlands and upland savannas. Both oak woodlands and upland savannas are listed as key strategy

habitats in the Oregon Conservation Strategy and the Benton County Prairie Conservation Strategy.

Work Plan: April 2014: Project approved and funds awarded: solicit bids for development of project elements; select contractors; develop and award contracts; begin discovery phase of mobile app development. **May:** Create mobile app outline/architecture (function and elements, flow chart, database); begin outreach design phase; media campaign package (billboard, poster, promo cards, stickers, tattoos, PowerPoint slides, weed brush messaging, web blurb, banner, display board). **July:** Prototyping of mobile app; commence production of public service announcement (PSA). **September:** Implement mobile app design. **October:** Final testing and bug fixing of mobile app. **November:** Mobile app ready for release; project partners begin to use media to promote use of app and to raise awareness about invasive plants and weed seed removal; begin post-production mobile app maintenance until the end of the grant. **May:** 16-week media blitz; billboards and PSAs run. **August:** Evaluation: poll public and military members to gauge the success and reach of the app and supporting outreach campaign. **September:** Complete progress report on Legacy website; deliver mandatory fact sheet to Legacy.

Military Mission Benefits:

A key goal of this project is to increase awareness about invasive weeds among military members who use Najaf as a training facility. To accomplish this, information will be posted at the range office where units are inprocessed and briefed. Weed removal brushes will be given to military members during site orientation. Via posters, promo cards and other promotional materials, civilian and military visitors to the site will be introduced to the mobile app and alerted to the need to watch for and report invasive plants at the facility. These actions will aid military personnel in maintenance of the diverse habitat types found at Najaf, which boasts nine distinct plant communities, three of which are listed in either the Oregon Conservation Strategy or Benton County Prairie Conservation Strategy as key habitats in severe decline in the Willamette Valley. Since service members rely on the diversity of landscapes available at Najaf to replicate the range of conditions that may be encountered during combat, it is imperative to keep weeds from gaining a foothold and reducing the existing biodiversity to a hazardous weedy monoculture. The prompt control of invasive weeds helps ensure that trainers have options when planning training operations. Invasive weeds do not recognize political boundaries and require a cooperative, regional approach to combat effectively. The Benton County Cooperative Weed Management Area (BCCWMA), with over 20 federal, state and local agency and non-profit members, was established to enhance regional weed control efforts. Partnering with BCCWMA greatly magnifies the weed control and restoration efforts occurring at Najaf by linking into the efforts occurring on all the lands managed by BCCWMA partners, and reducing the likelihood of re-infestation. Furthermore, the Weed Spotter Mobile App will initially be targeted for use by audiences in the Benton County, Oregon area, but will be designed for use anywhere in Oregon. As the project moves forward, the Project Manager and our partners at Oregon Department of Agriculture will promote use of the app to a statewide audience. Finally, the mobile application created during this project has great potential for replication across the country, which would lead to a reduction in overall expenditures on weed control, by catching infestations early. DoD funding and other resources are continually being used to execute a site-specific plan to address a problem, but these plans do not include a longer term solution. Only through partnering with local and regional groups will DoD get the most value for the resources expended. This project serves as a model to DoD for partnership with local organizations for regional initiatives focused on the Early Detection and Rapid Response method of invasive weed control.

Follow-on Work:

Potential proposal ideas that could be submitted as new projects in the future.

Work Description: This effort is associated with an active Cooperative Weed Management Area, and is just one component of a larger education and outreach campaign (see attached public engagement strategy). The BC CWMA will continue to move its outreach campaign forward with the Weed Spotter App as a premier feature. For example, the mobile application will continue to be promoted by the partner organizations after completion of the work associated with this grant, thereby increasing the user base. Follow-on work will also include an emphasis on encouraging target audiences to clean their gear, shoes and other equipment before entering and after leaving natural areas.

In the short-term, as the app's users begin to report sightings to the Oregon Invasives Hotline, the hotline managers will direct the information to the appropriate land managers and those managers will be able to take prompt action (or Rapid Response) to control these new invaders. In the long-term, the Weed Mapper data will become more robust and useful to the land managers within the project's target area because the hotline reports will be uploaded to the Weed Mapper database. As the available data becomes more complete, land managers will be better able to respond rapidly to reports and keep new infestations from gaining a foothold within each manager's jurisdiction.

From a pragmatic standpoint, the Weed Spotter app will need to be maintained by the app developer indefinitely. The project partners will identify a funding stream for this purpose. The Weed Spotter App is just one tool in the BC CWMA's weed awareness and control toolbox.

FY 2015: \$2,000

FY 2016: \$2,000

FY 2017 : \$2,000

Map/Figure file uploaded for this project.

Technical POC

Requesting Organization #1: Benton Soil and Water Conservation District

TPOC Name: LTC Steven N McLay

Address: 1776 Militia Way SE

PO Box 14350

Salem, OR 97309

COM Phone: 503-584-3637

DSN: 355-3637

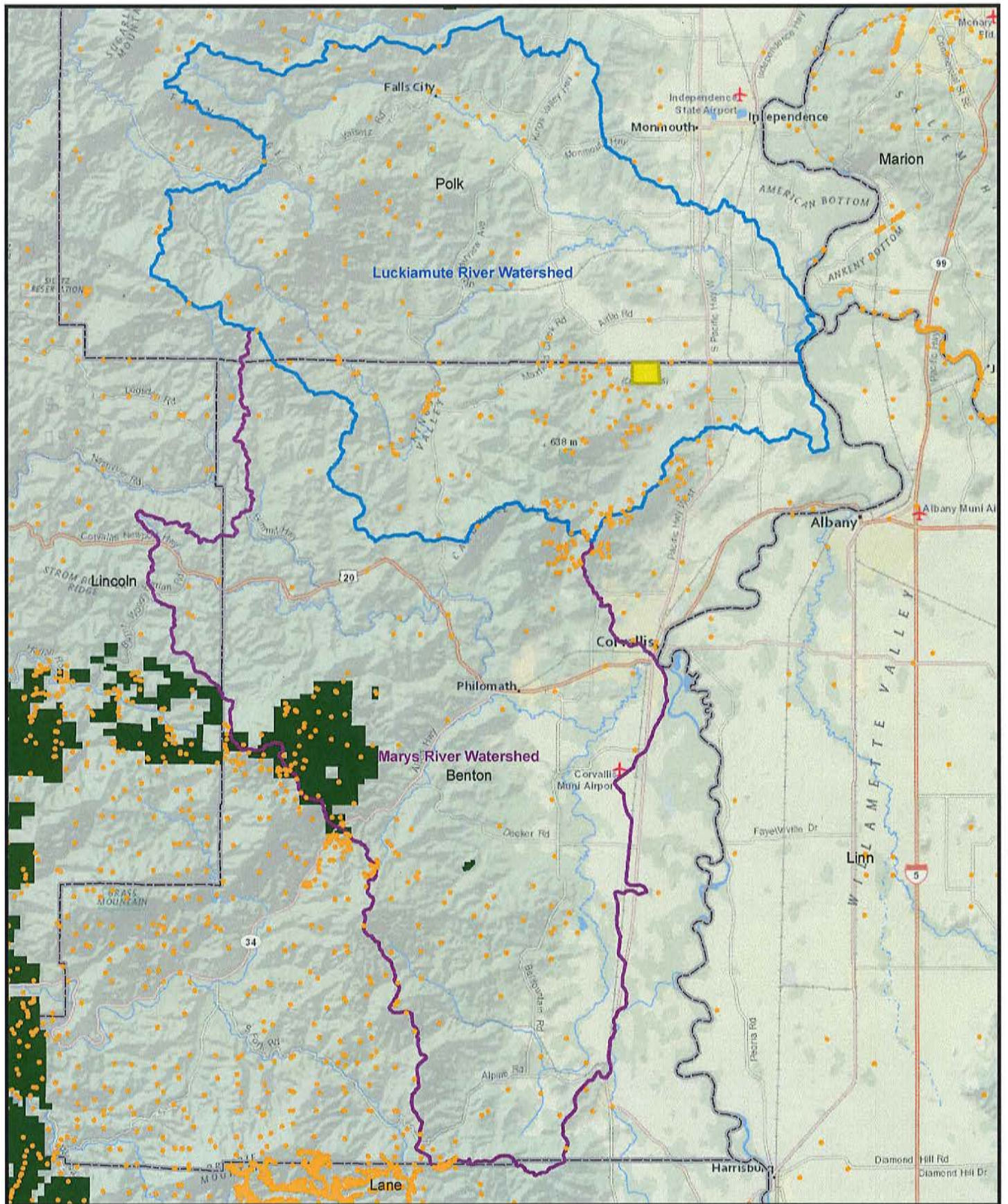
Email: steven.n.mclay.mil@mail.mil

Review Comments

Comments: 8/14/2013 5:12:47 PM - Steven McLay Action Taken: Map file uploaded

8/14/2013 1:18:14 PM - Steven McLay Action Taken: Map file uploaded

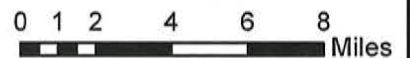
Int. Comments:



Legend

- All Weed Species - from WeedMapper
- Najaf Training Center
- US Forest Service
- County Boundaries
- Watershed**
- Luckiamute River Watershed
- Marys River Watershed

Proposal - Regional View



Map Author: CA OMD JFHQ AGI-E
 Map Date: 13 August 2013

No warranty is made by the Oregon Military Department as to the accuracy, reliability, or completeness of these data for individual use or aggregate use with other data.

Invasive Weeds Planning Process: Public Engagement Strategy

Key outcomes: Education/Empowerment/Actions/Results
 Why should you care? What can you do? Who can help?

Overarching Goal: Reduce the spread of invasives; stop new invasives from coming in.

Priority Audiences	Desired Outcomes	Message	Actions	Delivery System	Evaluation Method
Recreationalists (ex: hikers, bikers, hunters, fishers, military members using Najaf Rifle Range)	Be informed and aware	Stop the Spread	Identify & convene subcommittee	Mobile App development and supporting outreach materials	random surveys of recreationalists leaving recreational areas
	Stop the spread	Clean your gear			
	Report invasives	Report new invaders	solidify agreements among partners-use same message(s), who will be responsible for which components of plan & timeline of activities	billboards	phone surveys
				volunteers talking to recreationalists at trailheads, entry points	surveys of people who got hunting/fishing licenses
Private Landowners (ex: urban, rural, agricultural, forestry)	Be informed	Stop the Spread	Identify & convene subcommittee	Neighborhood meetings	pre and post surveys of landowners who attend meetings
	Avoid planting invasives	Know the weeds and what to do			
	Control invasives on your land		solidify agreements among partners-use same message(s), who will be responsible for which components of plan & timeline of activities	radio announcements, newspaper ads/articles	random phone surveys?
	Know where to go for help/ resources			billboards	random phone surveys?

Priority Audiences	Desired Outcomes	Message	Actions	Delivery System	Evaluation Method
	Report invasives			brochures and GardenSmart Oregon available at local nurseries consistent messaging across organizations on social media- facebook, websites...	? # of brochures and Garden Smarts taken by shoppers at each nursery?
Public Land Managers / employees (ex: Public Works & Parks Depts; road crews/grounds crews,)	use BMPs for maintenance work clean equipment before moving from infested areas to areas with sensitive species	Stop the Spread know when to mow/ mow at the right time	Identify & convene subcommittee identify funding needs and sources	create accessible comprehensive BMPs and deliver information (trainings, pamphlets, etc) train land managers/employees	check stats on who and how many people are accessing these sites track movement of invasives in rights of way, power lines, etc pre and post surveys of land managers and employees
		know the weeds	solidify agreements among partners- use same message(s), who will be responsible for which components of plan & timeline of activities-who will help us deliver BMPs? secure participation/cooperation/involvement of public land managers	develop useful weed calendar of events and weed ID tools for these workers	quiz land mngmt employees on information found in calendar and ID tools record/track # of land mngmt organizations willing to participate
		report invaders found in new locations			
Other Audiences					
Businesses (ex: realtors, creekside business, nurseries)					
Associations (ex: Farm Bureau, Chamber, granges)					
Community Groups (ex: Youth groups, Lions/Odd Fellows, etc)					
Utility & Maintenance Workers (ex: landscapers, phone & utility workers, forestry workers)					
Educators/Students (ex: OSU, LBCC, K-12, Nature Centers, Park Programs)					