JORDAN VALLEY CWMA 2009 END OF YEAR REPORT

The Jordan Valley (JV) Cooperative Weed Management Area (CWMA) has brought together those individuals responsible for weed management within the CWMA, developed common management objectives, set realistic management priorities, facilitated effective treatment methods, and coordinated efforts along logical geographic boundaries with similar land types, use patterns, and problem species. The CWMA has also provided educational opportunities to the general public, teachers and students, and local landowners raising their awareness of the problems associated with noxious and invasive weeds.

The CWMA encompasses over 5 million acres of state, private, and BLM lands located within Malheur County, Oregon and Owyhee County, Idaho (see attached map for CWMA boundary). The major noxious weed problems within the CWMA are leafy spurge, hoary cress, perennial pepperweed, Scotch thistle, and diffuse, spotted, Russian knapweed, along with yellow starthistle and rush skeletonweed. In 2009 large scale efforts were made by the CWMA to inventory and treat populations of leafy spurge, Scotch thistle, hoary cress and perennial pepperweed.

Dennis Stanford is the Chairperson for this CWMA and the Owyhee Cattleman's Heritage Foundation administers the cost share grant. In 2007 the CWMA entered into a contract with the Owyhee Watershed Council to secure services for an individual to assist with the numerous noxious weed projects scheduled within the CWMA. Through this contract the Council provided their Jordan Valley Weed Coordinator, Eric Morrison, to assist with these weed projects located in Idaho and Oregon. Major duties of this position were as follows:

- implement early detection rapid response (EDRR) to weed invasion;
- provide public outreach, education, and training;
- assist with grant applications;
- complete numerous reports such as end-of-year reports and annual operating plans;
- map and assist with treatment of noxious and invasive weeds;
- organize weed control projects and activities; and
- organize monthly CWMA meetings

This contract was funded in 2009 through the numerous grants listed below.

Grant Source	
OWEB	$27,800
TNC (Idaho NRCS * CIG grant)	$7,500
Oregon Department of Agriculture	$6,500
Owyhee Sage Grouse Working Group	$2,500
PTI**	$5,000
Total funding	**$49,300**

*CIG is a Conservation Innovation Grant for Invasive Species Management
**Pulling together Initiative

The CWMA held eight meetings in 2009 to discuss various projects and weed issues. Participation at these meeting has been excellent with a number of landowners attending along

with representatives from Owyhee and Malheur County Soil Conservation Districts, Idaho Department of Lands, Oregon and Idaho Department of Agriculture, Oregon and Idaho BLM, Owyhee and Malheur County Weed Departments, Oregon Department of Transportation, Oregon and Idaho TNC, the Local Sage Grouse Working Group, Rocky Mountain Elk Foundation, the Owyhee Watershed Council and Oregon Natural Desert Association (ONDA). Both the Owyhee County and Malheur County Commissioners remain extremely supportive of our efforts and progress to date. Cooperation among all of these individuals and agencies mentioned above has been the key to the success of this CWMA.

2009 Accomplishments

Mapping

Mapping was done in cooperation with the Idaho BLM and the Eastern Owyhee CWMA. By combining efforts and coordinating timing all groups were able to increase mapping acres by sharing mobilization costs. In 2009, approximately 125,000 acres of leafy spurge and hoary cress were surveyed and mapped in Owyhee County. In addition to the known locations in and adjacent to Boulder Creek, hoary cress was mapped in the Spencer Reservoir and Meadow Creek areas near the Eastern Owyhee CWMA boundary.

This mapping effort provided the CWMA with specific leafy spurge and hoary cress locations and also showed us how far these species had spread into the uplands adjacent to the drainages in these areas. This information was used to provide exact weed locations to the BLM, TNC, private landowners, and contractors allowing them to easily locate and treat these weed infestations in remote areas.

Mapping was also continued on Upper Reynolds Creek for hoary cress, Scotch Thistle and perennial pepperweed on private and public land covering an estimated 7,500 acres.

In 2009 the CWMA purchased a computer and software to help in the mapping survey and data collection responsibilities. More time and training with the software will be accomplished in order to become more proficient. This will enable the Jordan Valley CWMA to better accomplish the goal data collection and transfer among cooperating agencies and landowners.

Bio-control

A result of the continued aerial sketch mapping in 2009 was the identification of sites with vastly decreased leafy spurge populations due to bio control releases from 2002 – 2007. The use of bio-control agents in the Boulder and Jordan Creek canyons has helped to decrease resident populations and to keep leafy spurge from increasing downstream.

Over 150,000 Apthona were released on portions of the Boulder Creek drainage. Idaho State Lands, Idaho BLM and Oregon Department of Transportation helped in the collection and IDL and Jordan Valley CWMA released the bio control agents. Larger numbers of Apthona were released per site in order to obtain faster results and to allow for a quicker development of an insectary in the area.

Biological control will continue in 2009 with the PTI grant, continued support from the Bureau of Land Management, and adequate travel funds from Idaho State Department of Agriculture for leafy spurge flea beetle (*Apthona* spp.) collection and release.

Weed Treatment

In addition to spraying performed by private landowners on leafy spurge, Scotch thistle, perennial pepperweed, Russian knapweed, and hoary cress, the BLM, TNC, and private contractors also treated noxious weeds within the CWMA. Weed sites were treated through these efforts within 35,500 acres of treatment area. These sites ranged from .1 acre to 5 acres in size.

Five cooperative spray projects were also completed this year. The Brace Flat Scotch thistle project involved six BLM, County, and private individuals. The Lone Tree Scotch thistle project involved a total of nine private and county individuals and one contractor. Upper State Lands for leafy spurge involved 3 state employees 2 BLM ane 2 volunteers. The Quintana (9 people) project covered the same acreage with fewer people in less time due to the success of the first year of the treatment on the site.

And Morgan Ranches (contractor and 2 people) allowed the incorporation of private and public lands that connected the upper Boulder area with the private lands to the state line. This means that the only area not treated were the portions of Boulder Creek not conducive to spraying, but that have some Apthona releases from previous years. All projects were considered successful based on the turnout and the amount of ground that was treated. It was estimated that Scotch thistle has decreased by over 90% on the Brace Flat project from 2006 to 2009. Lone Tree spraying used less chemical and covered more acres than in past years. See attached map for spray locations.

Although the JV CWMA contains large areas of prime sage grouse habitat noxious weeds, such as hoary cress, are currently expanding into these areas at an alarming rate. In an effort to protect and increase brood rearing habitat for sage grouse in these areas the Owyhee County Sage Grouse Working Group partnered with the CWMA in 2007 to 2009 "hold the line" on this noxious weed. The Working Group provided funding to the CWMA this year which was used to treat hoary cress in those areas where it was advancing toward prime sage grouse nesting habitat. This funding allowed for more acres to be treated in 2009 throughout the CWMA which benefited sage grouse as well as other nesting birds.

The 45 ranch was treated and reseeded in 20again in 2009. This is a continuing effort to restore wildlife habitat in the meadow areas of the historic ranch.

Education

On April 30, 2009 the CWMA participated in the annual Owyhee 5th Grade Field Days at the Owyhee Reservoir. Approximately 400 students attended these Field Days with 300 of these students visiting the noxious weed station. These students were presented with information regarding noxious weed impacts, identification and control. Based on the success and interest in this weed exhibit the CWMA plans to participate in these Field Days again in 2010.

The CWMA has hosted weed seminars from 2004-2009 and plans to host another seminar in Jordan Valley in January 2010. In 2009 over one hundred recertification credits were earned by participants from Idaho Oregon and Nevada. Attendance has been holding steady at around 45 people from the three state area. Three recertification credits for pesticide applicator training will be applied for. We are anticipating approximately 50 private landowners, as well as representatives from county, state, and federal agencies attending this seminar. This seminar will focus on weed identification and treatment, herbicide recommendations and economic impacts of noxious weed infestations.

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We are currently mailing out over 150 agendas, meeting notices, and minutes from previous meetings to individuals, groups, and agencies within the CWMA. The agenda is also posted on the Jordan Valley website, and during the summer and fall educational fliers were sent with the utility bills by the town of Jordan Valley, reaching 145 households.

Numerous ranch visits were made for one on one discussions dealing with weed control issues and weed management plans.

Other Endeavors
The Jordan Valley CWMA continues to work with USDA/ARS in research, demonstration and control efforts with annual grasses. Five research/demonstration plots within the CWMA were reseeded and treated with the one-pass system. Seed germination research has been conducted in the area and one site has been a bio-control release site.

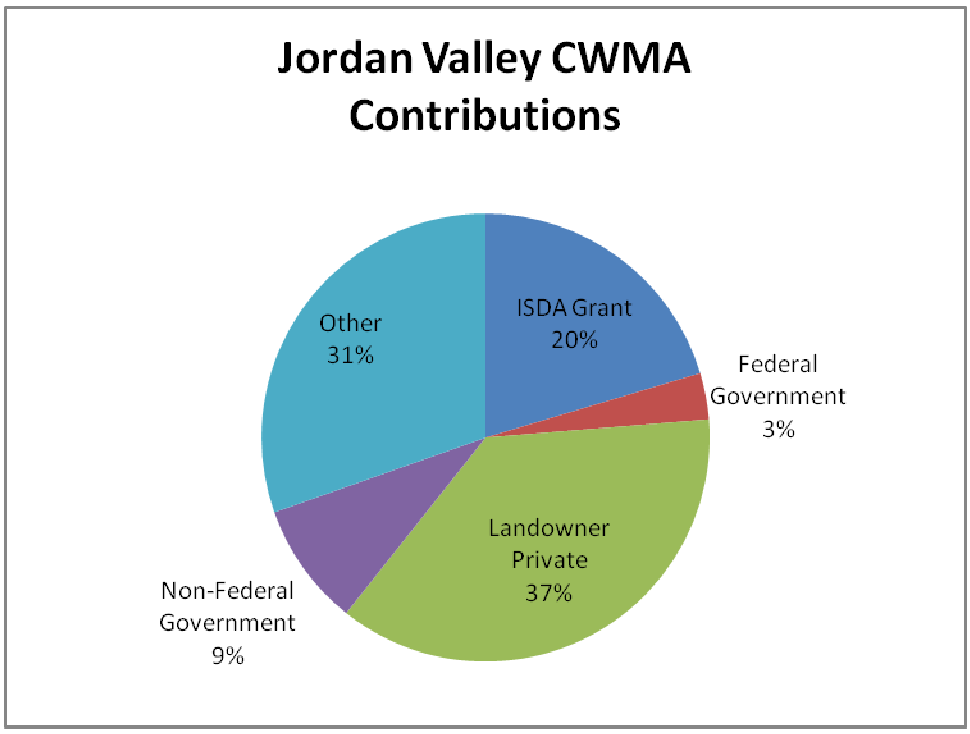
Owyhee Sage Grouse Local Working Group, TNC and the JV CWMA partnered on a Juniper mastication project on private ground to determine the economic feasibility and habitat improvement effects from the treatments. Two sites were masticated with different tree sizes, densities and slope. The forb and grass populations will be monitored over the next several years.

The CWMA office has been used by the BLM and landowners for permitee meetings, by the Census Bureau for training and testing and by the Malheur County Vector District as office and testing space. We feel that involvement in the community is vital in accomplishing our goal of working together.

Other Funding Sources
In addition to Idaho cost share dollars the CWMA also received funds and grants from the groups listed below. These funds provided additional support for weed control activities within the CWMA for 2009.

- Owyhee County Local Sage Grouse Working Group
- Idaho BLM Advisory Board
- Oregon Watershed Enhancement Board (OWEB)
- Oregon State Weed Board
- Idaho NRCS Conservation Innovation Grant (CIG) for Invasive Species
- The Nature Conservancy
- Oregon Dept of Transportation
- Malheur County Weed Advisory Board
- Owyhee County Weed Department
- Owyhee Watershed Council
- United States Department of Agriculture/Agricultural Research Service

The following chart is a breakdown showing total in-kind contributions in the amount of $107,513 from the various CWMA partners during the 3-16-09 to 12-31-09 time period:



2009 Plans

Leafy spurge will continue to be our #1 priority in terms of mapping, treatment, and monitoring. The CWMA will also focus on hoary cress, perennial pepperweed, Scotch thistle and diffuse, spotted, and Russian knapweed as these noxious weeds are becoming a major problem in portions of Malheur and Owyhee Counties.

To continue our leafy spurge mapping program in the Boulder Creek watershed TNC will be providing us with detailed remote sensing data obtained through the use of a helicopter. Remote sensing is an excellent tool for early detection of isolated leafy spurge infestations that may be located in the remote, rugged, and inaccessible areas within this watershed. This information will be used to monitor the success of past treatment efforts in these areas and will also be used to locate (early detection) and aggressively treat (rapid response) any new infestations to prevent them from spreading or increasing in size.

As discussed earlier the CWMA, with assistance from the BLM/ISDA bio-control specialist (Joey Milan) plans to collect and release flea beetles in 2009 at specific sites along a 20+ mile stretch of Boulder and Jordan Creek that cannot be treated with chemicals due to water table, soil type and terrain. Release rates would vary between 10-50 flea beetles/leafy spurge stem. We anticipate using CWMA members and volunteers to collect and release these insects. We will

continue to monitor and assess the impacts to leafy spurge from previous releases and we will continue to collect baseline data from any new releases.

We anticipate receiving additional funds from the various grants and groups listed earlier. These funds will be used to provide additional support for weed control activities within the CWMA for 2009.

It is our desire to continue to raise the public's awareness of noxious and invasive weeds such as leafy spurge, hoary cress, Scotch thistle, perennial pepperweed, yellow starthistle, and diffuse, spotted, and Russian knapweed along with the new potential invaders (i.e. salt cedar and squarrose knapweed) that Idaho added to their noxious weed list in 2007. This will be accomplished through the following activities:

We plan to host a winter weed seminar in Jordan Valley during January 2010 and will invite speakers who can talk specifically on, herbicide recommendations, weed identification, early detection rapid response (EDRR) and prevention measures for these species.

We plan to host another half-day sprayer calibration and GPS demonstration seminar in the spring of 2010.

We plan to participate in the annual Owyhee Field Days at the Owyhee Reservoir and we anticipate that we will reach approximately 600 fifth grade students with our weed display and discussion.

The Jordan Valley CWMA is planning a workshop dealing with leafy spurge and Russian knapweed control successes and difficulties. This would include classroom work and well as in the ground tour looking at difficult situations and challenges.

Appendix III
2009 Project Summaries

Category	Weed Species	Numbers
Acres treated (herbicide)	Leafy spurge**	120 Acres
	Scotch thistle	70 Acres
	Hoary cress	75 Acres
	Perennial pepperweed	25 Acres
Bio Control	Leafy Spurge	150,000 *Apthona*
Treatment Area	Leafy spurge	20,000 Acres
	Scotch thistle	7,500 Acres
	Hoary cress	4,500 Acres
	Perennial pepperweed	3,500 Acres
Monitoring	Leafy spurge	2,500 Acres
	Hoary cress	1,000 Acres
Mapping (aerial and ground)	Leafy spurge and Hoary cress	
Public contacts	N/A	1,250

** Many treatments areas were remote requiring backpack sprayers

Appendix IV
Gross Infested Acres of Noxious Weeds
Jordan Valley CWMA

Common Name	Scientific Name	Gross Acres	Percent of Gross Acres Infested	Net Acres
1. Black Henbane	*Hyoscyamus niger*			
2. Bohemian Knotweed	*Polygonum bohemicum*			
3. Brazilian Elodea	*Egeria densa P.*			
4. Buffalobur	*Solanum rostratum*	45	5	0.07
5. Canada Thistle	*Cirsium arvense*	25000	10	25.00
6. Common Crupina	*Crupina vulgaris*			
7. Dalmatian Toadflax	*Linaria genistifolia ssp. dalmatica*			
8. Diffuse Knapweed	*Centaurea diffusa*	55	10	0.06
9. Dyer's Woad	*Isatis tinctoria*			
10. Eurasian Watermilfoil	*Myriophyllum spicatum*			
11. Field Bindweed	*Convolvulus arvensis*			
12. Giant Hogweed	*Heracleum mantegazzianum*			
13. Giant Knotweed	*Polygonum sachalinense*			
14. Hoary Alyssum	*Berteroa incana*			
15. Houndstongue	*Cynoglossum officinale*	1	0.1	0.10
16. Hydrilla	*Hydrilla verticillata*			
17. Japanese Knotweed	*Polygonum cuspidatum*			
18. Johnsongrass	*Sorghum halepense*			
19. Jointed Goatgrass	*Aegilops cylindrica*	3	0.1	0.30
20. Leafy Spurge	*Euphorbia esula*	5000	10	5.00
21. Matgrass	*Nardus stricta*			
22. Meadow Knapweed	*Centaurea pratensis*			
23. Mediterranean Sage	*Salvia aethiopis*			
24. Milium	*Milium vernale*			
25. Musk Thistle	*Carduus nutans*	2	0.1	0.20
26. Orange Hawkweed	*Hieracium aurantiacum*			
27. Oxeye Daisy	*Chrysanthemum leucanthemum*			
28. Parrotfeather Milfoil	*Myriophyllum aquaticum*			
29. Perennial Pepperweed	*Lepidium latifolium*	700	10	0.70
30. Perennial Sowthistle	*Sonchus arvensis*			
31. Plumeless Thistle	*Carduus acanthoides*			
32. Poison Hemlock	*Conium maculatum*	25	25	0.06
33. Policeman's Helmet	*Impatiens glandulifera*			
34. Puncturevine	*Tribulus terrestris*	1000	50	5.00
35. Purple Loosestrife	*Lythrum salicaria*			
36. Rush Skeletonweed	*Chondrilla juncea*	200	1	0.02
37. Russian Knapweed	*Acroptilon repens*	75	10	0.08
38. Saltcedar	*Tamarix*	25	10	0.03
39. Scotch Broom	*Cytisus scoparius*			
40. Scotch Thistle	*Onopordum acanthium*	10000	5	5.00
41. Silverleaf Nightshade	*Solanum elaeagnifolium*			

42. Skeletonleaf Bursage	*Ambrosia tomentosa*			
43. Small Bugloss	*Anchusa arvensis*			
44. Spotted Knapweed	*Centaurea maculosa*	100	10	0.10
45. Squarrose Knapweed	*Centaurea squarrosa*			
46. Syrian Beancaper	*Zygophyllum fabago*			
47. Tall Hawkweed	*Hieracium piloselloides*			
48. Tansy Ragwort	*Senecio jacobaea*			
49. Toothed Spurge	*Euphorbia dentata*			
50. Vipers Bugloss	*Echium vulgare*			
51. Water Hyacinth	*Eichhornia crassipes M.*			
52. White Bryony	*Bryonia alba*			
53. Whitetop	*Cardaria draba*	25000	25	62.50
54. Yellow Devil Hawkweed	*Hieracium glomeratum*			
55. Yellow Hawkweed	*Hieracium caespitosum*			
56. Yellow Starthistle	*Centaurea solstitialis*	1	0.01	0.01
57. Yellow Toadflax	*Linaria vulgaris*			

Information in the above table cannot be considered accurate or utilized for any accounting of efficacy of treatment or land use practice. All Numbers are strictly best guess estimates. Final column expressed as acres not percent

Appendix V
Chemical Purchases

Chemical	Quantity	Weed Species
Dyne-Amic	23 gal	All necessary
Escort	48 oz	Hoary cress, Perennial Pepperweed
Hilight	10 gal	All
Imazapic	10 gal	Leafy spurge
Milestone	11.25 gal	Scotch thistle, knapweeds
Outpost	10 gal	Leafy spurge, Scotch thistle
Phase	30 gal	All necessary
Platoon	35 gal	Scotch thistle, leafy spurge, knapweeds,
Telar	192 oz	Hoary cress, Perennial pepperweed, Scotch thistle