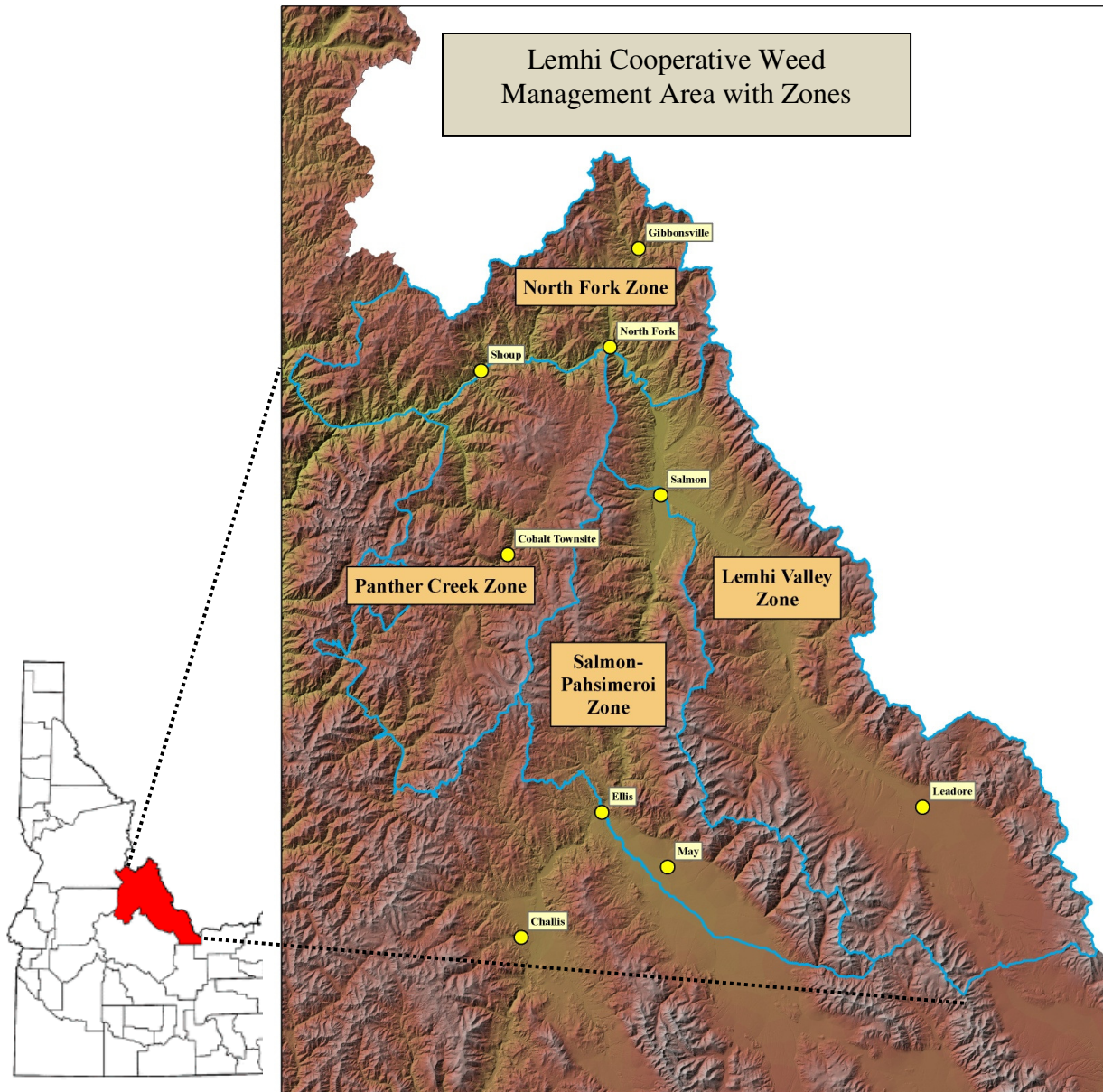


Lemhi County Cooperative Weed Management Area

Year Ending December 31, 2009

Annual Report



Lemhi Cooperative Weed Management Area Exhibit 2 – 2009 End-of-Year

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Introduction

The Lemhi County Cooperative Weed Management Area (LCWMA) was developed in 2001 to address noxious weed issues affecting Federal, State and private land while erasing property boundaries.

The goal of the Lemhi CWMA is to bring together individuals, agencies and organizations responsible for and interested in invasive plant species to coordinate management activities throughout Lemhi County. The primary purpose of the Lemhi CWMA is to promote efficient and effective integrated weed management. The Lemhi CWMA emphasizes all aspects of integrated weed management, including education, prevention, early detection, inventory, various treatment methods and monitoring.

The Lemhi CWMA lies within the boundaries of Lemhi County with the exception of those portions of Lemhi County within the Frank Church-River of No Return Wilderness, the Birch Creek and Little Lost River drainages. Refer to the map of Lemhi CWMA boundaries in Appendix B.

Major weeds of concern within the CWMA are broken into two categories consisting of new invaders (currently managed as eradication); Purple loosestrife, Puncturevine, Salt Cedar, Scotch thistle, Perennial pepperweed and established invader (currently managed as control all identified known sites); Rush Skeletonweed and Houndstongue. These weed species have the ability to invade large portions of the CWMA and cause severe economic downfalls in regard to agriculture and the tourism industry, in addition to a degraded ecosystem for the abundant wildlife distribution located within the CWMA. Maps of all projects can be found in an electronic format submitted with this report.

Summary of Year 2009 Projects

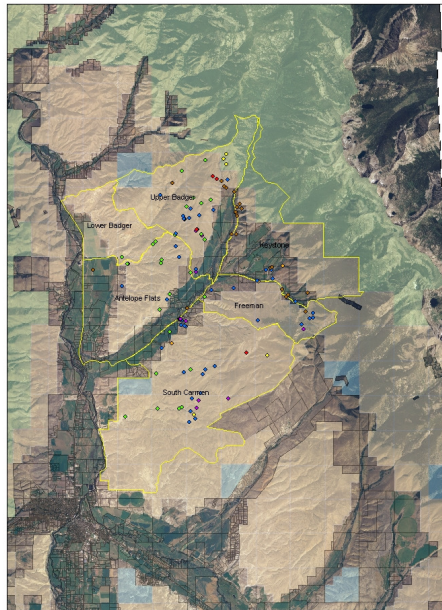
<p><u>Graze Weeds (\$10,000.00 ISDA State Funding)</u> Private in-kind \$3,252.00 Non-Fed in-kind \$1,498.00 Federal match \$2,234.00</p>

This was the ninth year that the integrated approaches of grazing, biological control and herbicide have been used in order to combat Leafy spurge in the special management area (SMA) of the Carmen Creek Drainage. Results from this project have been dramatic with the overall density of spurge greatly reduced. Because of the reduced forage base for the goats, we formulated a maintenance strategy for the area in the spring of 09. This in turn is allowing us to review the data from the previous 9 years and look at exactly what areas were grazed and when.

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Where we have had biological control releases and where herbicide applications have been made. A total of 2,194 acres were inventoried and grazed during the 2009 field season with a total project cost of \$16,173.00. Figure 1 below depicts the SMA with identified zones and the areas grazed in 2009; figure 2 is a history of biological releases that have occurred with the intent of impacting Leafy spurge.

Carmen Creek SMA Biological Control Agents



Legend

Bio_Control

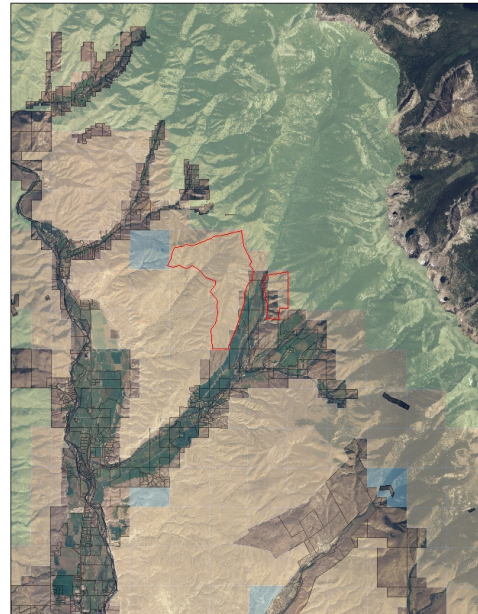
- <all other values>

AGENT_RELE

- Aphthona Czwialinae
- Aphthona flava
- Aphthona lacertosa
- Aphthona nigricutis
- Oberea erythrocephala
- Spurgia esulae



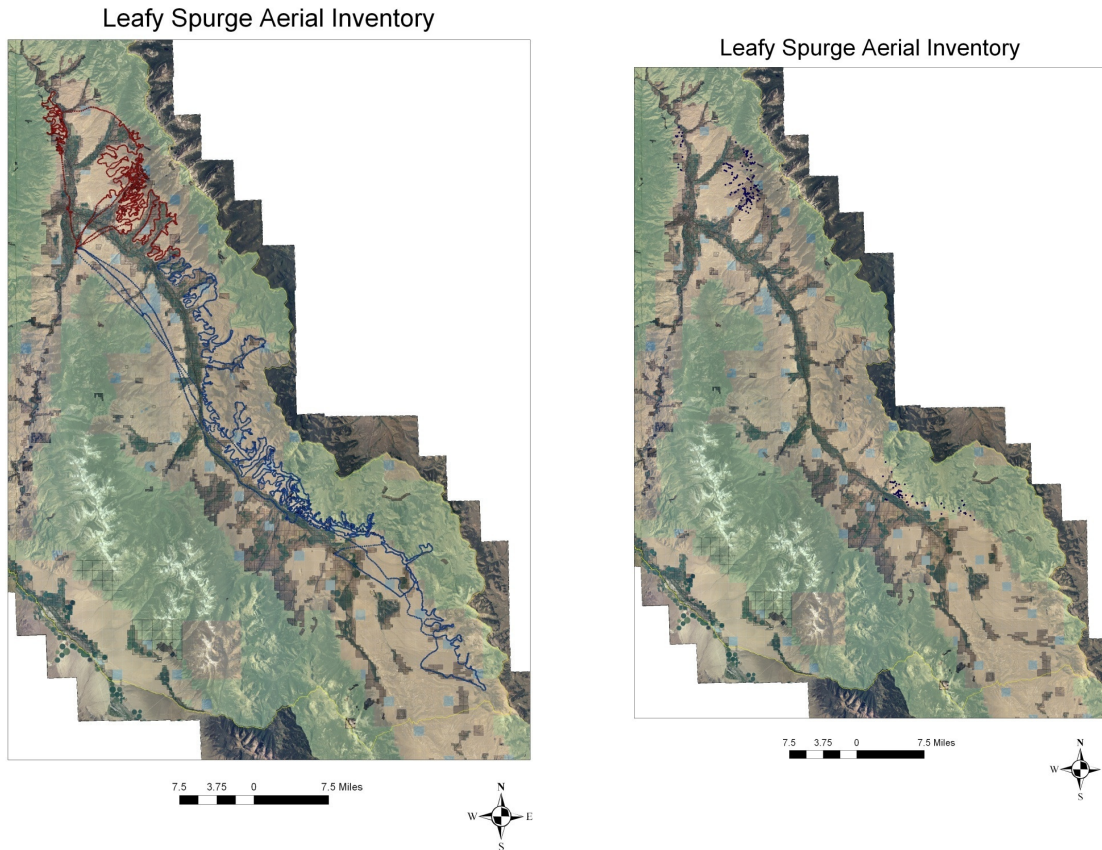
2009 Goat Grazing Area



Aerial Inventory (\$9,970.00 ISDA Federal Funding)
 Non-fed in-kind \$1,193.50
 Federal in-kind \$345.00

The Lemhi CWMA is constantly trying to improve the way that we are able to accomplish objectives. During the 2009 field season we undertook a large scale aerial inventory for leafy spurge. Our original intention was to look for Rush Skeletonweed however, due to environmental conditions the grasses never cured enough to allow for aerial observation. During this project a total of 225,354 acres were inventoried across mixed ownership lands. Prior to the

inventory we knew of Leafy Spurge infestations around the Leadore area and Carmen creek with a large gap in-between both locations. This inventory allowed us to find small spot infestations that we had been missing around both of the known locations but didn't find any additional areas. Utilizing this type of inventory also helped us find a very large patch of Rush Skeletonweed, luckily 1 plant stuck out and originally it was thought this was an isolated location. However when ground crews inventoried the area, the infestation became 300 acres with a dense 50 acre patch. The helicopter also found a known patch of Scotch Thistle. Figure 1 below shows the leafy spurge that was found during the inventory and Figure 2 depicts the track log for the helicopter.

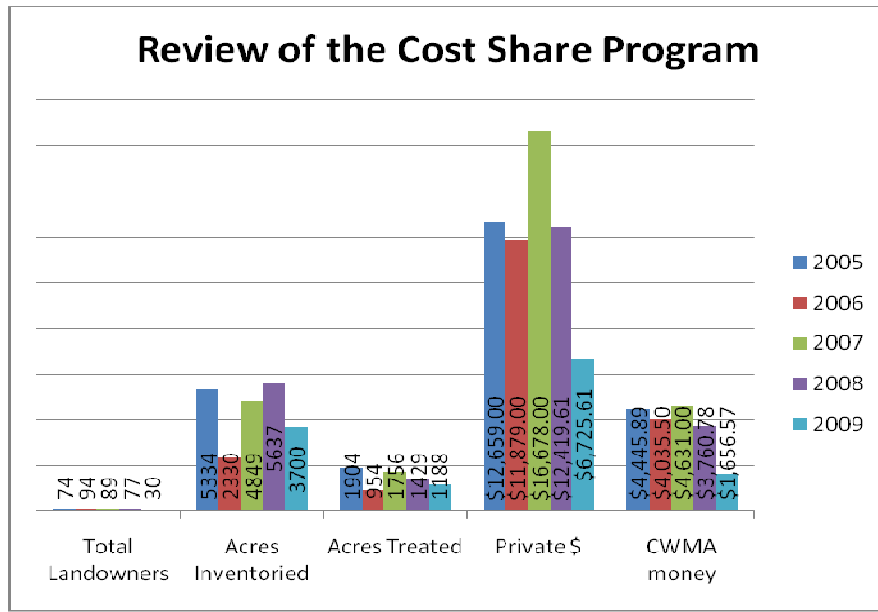


Herbicide Cost Share (\$1,656.57 ISDA State Funding)
Private in-kind \$24,847.67

This is the eighth year for the cost share program that reimburses private landowners for a portion of the herbicide costs they incur while treating noxious weeds on their property. The herbicide reimbursement project is very cost effective in that for every \$1.00 of CWMA money spent, the landowners contribute on average \$4.05 of their own money. In addition \$18,122.06 of in-kind value was generated bringing the total in-kind value of the cost share program to

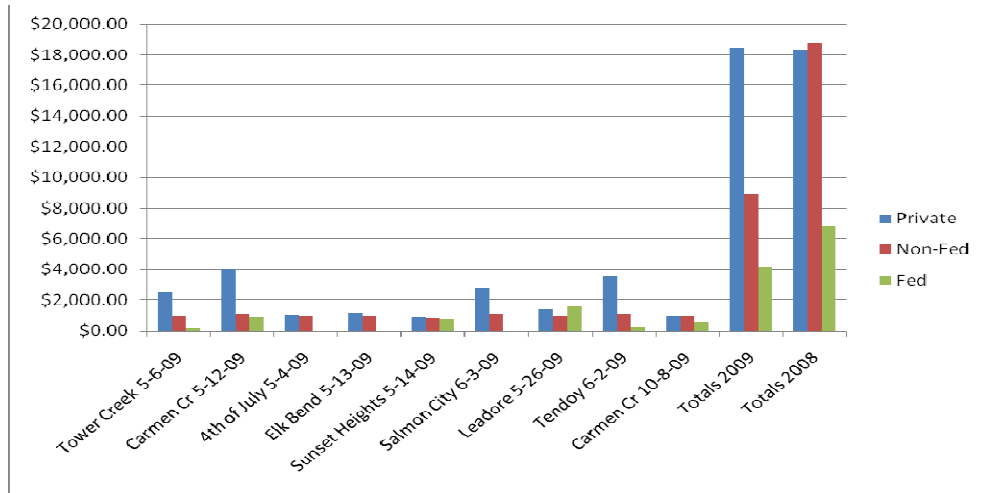
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\$26,504.24 In 2009 private landowners inventoried 3,700 acres for noxious weeds, and treated 1,188 chemical acres of noxious weeds. Unfortunately, participation in this program decreased significantly this year. We feel that this is due to a couple of reasons; the first being that people are forgetting about this program and we need to do another educational campaign and the second being the economy. Next year we will focus on getting the word out about the cost share program and hopefully increase participation once again.

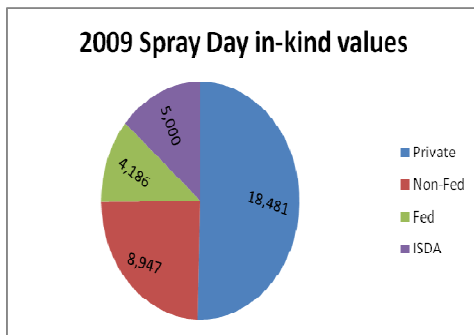


Spray Days (\$5,000.00 ISDA State Funding)	
Private in-kind	\$18,481.00
Non-Fed in-kind	\$8,947.00
Fed in-kind	\$4,186.00

A spray day is an event sponsored by the CWMA and hosted by private citizens to encourage members from all agencies to come together and work with the private landowners for the good of the community. These events are designed to target a specific noxious weed that is of concern to the CWMA; however private landowners are permitted to treat any noxious weed with the herbicide. The CWMA was involved in 9 community spray day events with 802 public contacts in 2009. These spray days generated \$18,481 of private in-kind value to our weed control efforts for a total of 632.5 chemical acres treated and over 2,000 acres inventoried. The total project cost for spray days is \$36,614.00 of which ISDA funded \$5,000 making this project our most successful in regards to match with a 7:1 ratio.



The graph above shows the amount of private, non-fed and federal in-kind created at each spray day event. We in-turn use this data to determine the success of each spray day and decide if the area warrants another event in subsequent years.



The spray days are not only a terrific way to treat noxious weeds but it is probably our best form of tailgate education. Since we began this project many private landowners have purchased their own sprayers for ATV's, Tractors, Vehicles and backpacks. It also gives us a chance to teach them calibration, weed identification, reading the label, safety and a plethora of additional information.

Herbicide for species of Concern (\$5,000.00 ISDA State Funding)
 Non-fed in-kind \$15,500
 Federal in-kind \$17,041.10

This project is used to compliment the spray day events that occur during the spray season. In order to ensure that a specific noxious weed was controlled members from the CWMA continued herbicide applications to treat all remaining infestations. This resulted in a total of 116 chemical



acres, 9,680 inventoried acres and \$22,541.10 in-kind. There are two primary weed species targeted during this project, consisting of Houndstongue and Whitetop. The picture shows an isolated infestation of Houndstongue rosettes located between the state highway and the Salmon river, this year was the second year of treatment with no known seed production.

Biological Agent Purchase (ISDA Federal Funding)

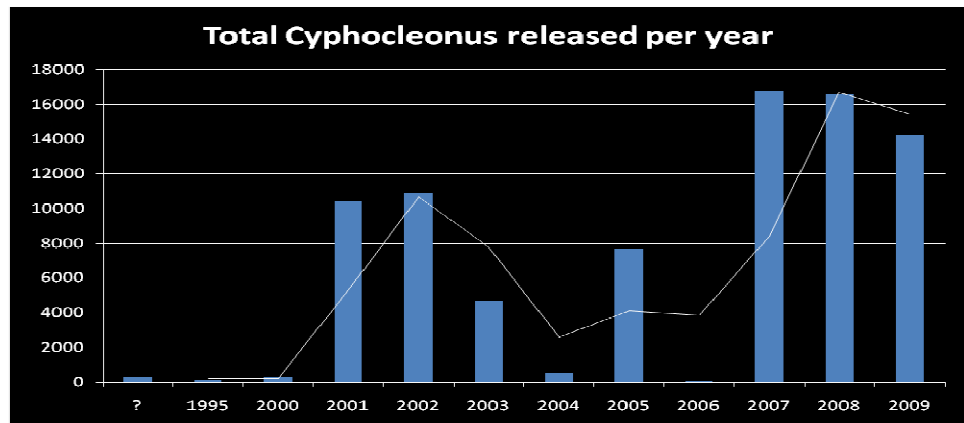
This project was funded by the ISDA in the amount of \$2,000 for the purchasing of Leafy Spurge bio-control agents. However, thanks to the work of Joey Milan we were able to travel to an insectary in Idaho and collect over 66,000 agents. Because, of this the Lemhi CWMA will be returning the monies for this project.

In addition to the Leafy spurge agents collected this year, we also collected over 14,000 *Cyphocleonus Achates*. Many of these were collected from a Forest Service research station and over 2000 were collected during our youth collection day. This was an event sponsored by our CWMA where youth under the age of 16 came to a local insectary, learned about noxious weeds and the control measures currently being used. After which we began collecting *Cyphocleonus*, at the conclusion of the day 2,215 agents had been collected and subsequently released in appropriate locations.

The LCWMA also sponsored two local teachers to attend the “Bios with an Attitude” course held in Coeur d’Alene this year. Both of these teachers are very active and would like to include a bio-control component in the school curriculum. One of our goals is to establish a managed insectary

for the youth to maintain and disperse *Cyphocleonus* throughout the CWMA and potentially the state.

We also undertook a large scale monitoring project for historical releases of



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Cyphocleonus Achates. In past years our CWMA has been very active in releasing this agent, however little follow up data is present. Findings from this project have been very interesting and we are in the process of writing a report with our results. This will be available for view prior to the 2010 field season commencing. This project was made possible because of our bio-control database that was created this spring. The database will also be detailed in the upcoming report. See the figure above for Cyphocleonus release numbers by year.

<u>Seasonal Weed Technicians (\$5,000.00 ISDA Federal Funding)</u>
<u>Non-fed in-kind \$25,012.14</u>
<u>Fed in-kind \$31,938</u>

This project is utilized to help hire additional employees to combat noxious weeds on land within the Lemhi CWMA. Due to this project, we were able to hire 2 nine month employees and 1 six month employee. These people were involved at every CWMA event in addition to assisting with County and Federal work. Having this crew allows us to target specific weed problems with on all landownership in an attempt to eradicate the species from our area. This crew is heavily involved with Houndstongue, Rush Skeletonweed, Puncturevine, Whitetop, Perennial pepperweed and Salt cedar.

ADDITIONAL PROJECTS WITHOUT ISDA FUNDING

Education

The Lemhi CWMA also completed many other projects where ISDA funding wasn't sought. Our educational department is very active and held pesticide recertification credits for; Winter school, fall showcase, Calibration workshop and a Pesticide training seminar. In addition to these courses we also had a booth at our local fair and at the career fair this year. Newspaper and radio articles are routinely placed in circulation and the webpage averages over 1 viewer a day.

Rush Skeletonweed Contracting

Due to the continual invasion of Rush Skeletonweed into the Lemhi CWMA we are no longer able to treat all infestations with the current resources available, because of this a contract was let in order for a commercial applicator to treat infestations that would otherwise go untreated. The contract was awarded to Whitebark Inc. and the work took place in the Lower Salmon River Corridor. The locations of Rush for this contract are very hard to reach and require long travel distances either on stock or by foot. The total funding utilized for this contract was \$30,000

however for us to maintain treating every known site this value will most likely have to be increased. Every year we find on average 30 new sites of Rush Skeletonweed within the CWMA.

Equipment and Supplies

In order to effectively complete our work, the Lemhi CWMA actively maps all infestations of weeds, treatment areas, biological releases and monitoring sites. This past year we upgraded our GPS units to the Trimble Nomad and Juno units. This in turn allows us to utilize Arc Pad in the field making our work more efficient. Funding for this project was supplied by the Forest service.

Database management

This project goes hand in hand with our equipment purchases this year. This year the CWMA hired a full time employee that would not only assist with the treatment of noxious weeds in the field season but would be the primary person involved in updating our databases. Currently all of our weed sites are housed in a Forest Service database, this includes landownership of private, county, State and Federal. We are now able to look at the entire CWMA and know what is happening in regards to a particular weed species regardless of jurisdiction. In addition to our weed database, a biological database was created. All of our historical releases and current releases are housed in a single shape file making the data accessible in an instant. This year we are scanning the historical release pictures and will place hyperlinks to the release locations so that we will be able to see the pre-release site.

Salt cedar removal and reimbursement



The Lemhi CWMA made the decision to aggressively manage Salt Cedar once the species was placed on the Noxious Weed List. In order to encourage landowners to participate with the project the Lemhi CWMA offered to remove the species free of charge and provide a \$50.00 certificate for a replacement species. At the start of the 2008 year an estimated 10 plants were located on private property, currently there are 20 known sites. This year we removed the remaining 6 plants and are now in a monitoring phase should retreatment be necessary. The picture on the left is a salt cedar that was removed from private property; it is unknown if this plant was naturally occurring or if it was planted. Since two more were found in close proximity, we believe that this is most likely naturally occurring.

Annual Field Review

The Lemhi CWMA made the decision two years ago that we would hold a field review of a project that has been completed each year. This review would be open to the public and reviewing officials would be encouraged to attend. The purpose of this event is to showcase some of the activities that have been occurring due to funding received for the CWMA. This year's review took place in the Salmon River Corridor from North Fork to Corn Creek. Over the past eight years there has been a tremendous amount of work that has been completed for a multitude of species. The picture on the right is taken at a permanent monitoring site that was established. Reviewing officials that attended were Rick Vanbebber (Region 4 USFS), Bob Cope (County commissioner), and Craig Nemeth (BLM management).

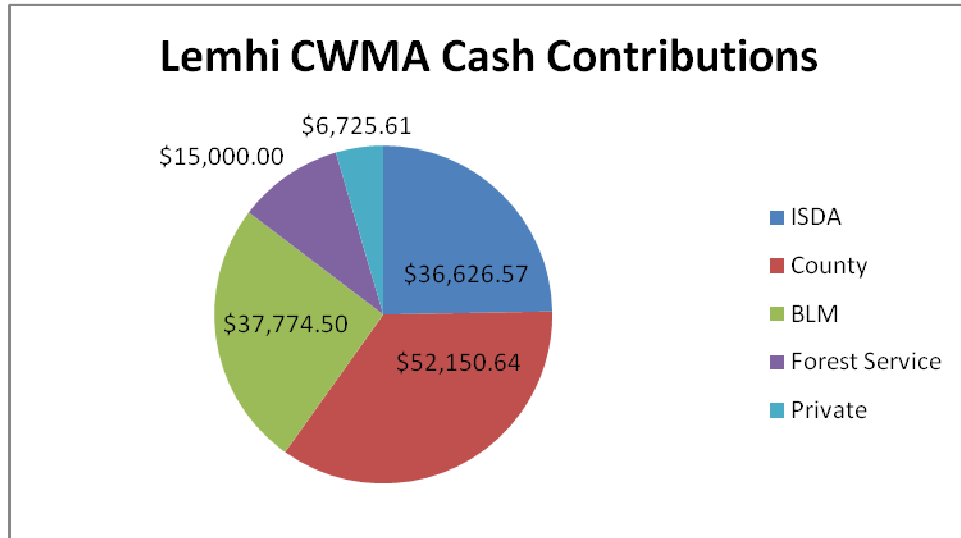


Vegetation Monitoring

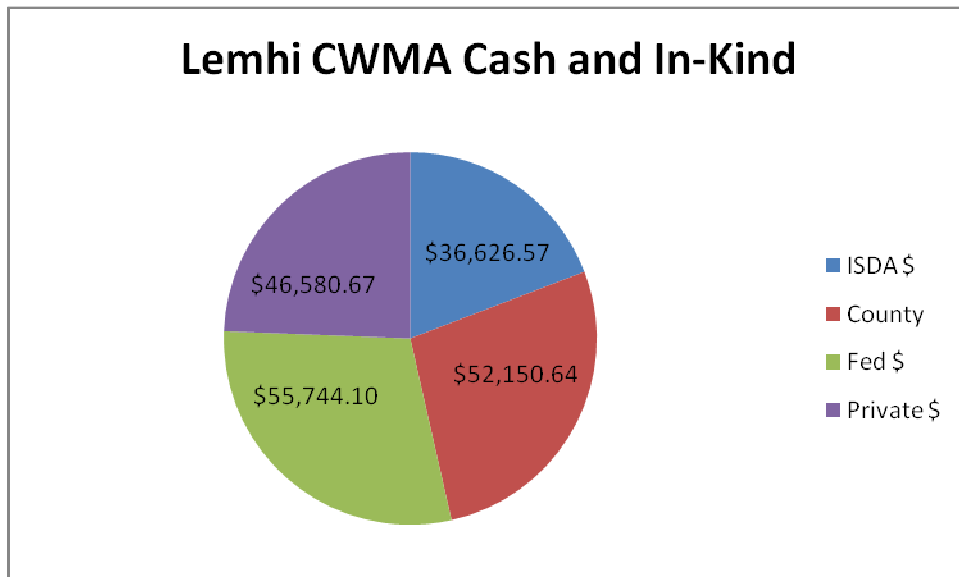
The Lemhi CWMA has a very active monitoring program and is primarily spearheaded by the Forest Service. This year we contracted with a statistician to develop a monitoring protocol which would allow us to monitor the permanent sites but would also allow us to analyze the data for our region.

Contributions and Expenditures for the LCWMA (Appendix I)

The following graph shows the cash contributions that the Lemhi CWMA received in 2009 with a total value of \$148,227.32 received. Private cash contributions were calculated through the cost share program and money that they either paid for herbicide or contractor wages. These figures are calculated only on projects that were funding with support from the ISDA. The Lemhi CWMA did complete many additional projects that are not included in this graph.



The following pie chart shows all cash and in-kind values that the Lemhi CWMA brought in during the 2009 fiscal year for a total of \$191,101.98 for the projects that were funded through the CWMA



Appendix II Project Summaries:

Category	Weed species	Acres Treated
Re-vegetation	NA	70
Mechanical Control	Carmen Spurge (grazing)	2,194 acres
Biological Releases	Spotted knapweed	14,257 Cyphocleonus released
	Leafy Spurge	200 Oberea Erythrocephala
	Leafy Spurge	66,000 Athona Spp
	Canada Thistle	130 Urophora Cardui
Inventoried acres	All species - cost share	3,700 acres
	Puncturevine	52 acres
	Whitetop	1,932 acres
	Rush skeleton weed	2,458 acres
	Spotted Knapweed	4,774 acres
	Houndstongue	10,602 acres
	Leafy spurge	225,354 acres
	Hoary alyssum	134 acres
	Dalmatian toadflax	190 acres
	Scotch thistle	307 acres
	Russian Knapweed	938 acres
	Total	250,441
Treated chemical acres	All species total	3,137.54 acres
Public Contacts		8,000
GPS/GIS Mapping		250,441 acres

Appendix III Herbicide Purchases:

Chemical/description	Quantity	purpose
Telar xp	2 lbs	Houndstongue and Whitetop
Plateau	10 gal	Whitetop and Leafy spurge
Outpost 22K/ Tordon	25 gal	Knapweed, Leafy spurge
Forefront	120 gal	Knapweed, thistles