

---

# Small Acreage Landholder Outreach Program 2007 Annual Report

Submitted to Clark County Clean Water Program

Submitted by WSU Clark County Extension

Douglas M. Stienbarger, Project Director

Erin Harwood, Program Coordinator



Clark County  
Clean Water Program

## **Table of Contents**

### **Executive Summary**

The *Small Acreage Landholder Outreach Program* completed one *Living on the Land: Stewardship for Small Acreages* class series and graduated 32 people in 2007.

The program provided eight well and septic workshops, two BMP workshops, one on drainage and mud management, and another demonstrating manure management strategies.

The program conducted four small acreage property tours. Three properties were evaluated in 2007 for their work on water quality and two were awarded signage as Merit Farms.

The program completed two factsheets: *Well Maintenance* and the *Landowner Services Directory*.

### **Best Management Practices (BMPs) Guidelines**

#### **Task 1 a – Reference Materials**

The program tracks web site visitors and documents monthly downloads throughout the year (Table 1). Program factsheets were downloaded over 13,000 times in 2007, a considerable increase over previous years. Visitors downloaded *Improving Drainage* the most at over 4,400 downloads, more than double its 2006 downloads. The Small Acreage Expo program and registration form were posted to the Small Acreage Program web site and the WSU Extension entry page in early April. This resulted in increased web site hits in April. Over 1,400 visitors accessed the program's web site, 784 directly through bookmarks. More than 780 people accessed the *Living on the Land* program pages..

The Coordinator continued to search out new reference materials and added six factsheets or publications: wildlife interaction, water quality, native plants, livestock care, small farm business planning, and rotational grazing. Five people checked out books on small farm horse care, footing materials, construction of outbuildings, and environmentally friendly horse care from the program's small library.

#### *Deliverables*

The Program tracked hits and downloads throughout the year and reference files were updated as additional materials were located.

#### *Issues and Recommendations*

WSU provides web site tracking and download information for the entire Extension web site and only lists data for the top 100 most visited pages and most downloaded files. The

Program Director purchased software for tracking visitors and downloads for the Small Acreage Program separately. This software will be installed in 2008.

**Table 1: Small Acreage Webpage Activity**

<b>Fact sheets</b>	<b>Qtr 1</b>	<b>Qtr 2</b>	<b>Qtr 3</b>	<b>Qtr 4</b>	<b>YTD</b>
Keeping Clean Water Clean & Reducing Mud - Improving Drainage	862	1783	1128	663	4436
Save Time and Money - Properly Landscape Your Septic System	331	699	531	332	1893
Don't Let Your Dollar\$ Go Down the Drain! Septic Tank Additives	321	462	349	349	1481
Keeping Clean Water Clean & Reducing Mud: Managing Roof Runoff	189	336	266	178	969
Protecting Your Investment: Inspecting Your Septic System	165	503	186	82	936
Best Management Practices for Small Acreages	189	269	177	186	821
What's Bugging You? Natural Insect Control for Small Acreages	30	334	167	74	605
What Can You Do On Your Land? Frequently Asked Questions	116	202	159	65	542
Reduce Mud and Keep Water Clean: Sacrifice Areas	110	154	139	130	533
Constructing Ponds and Water Features - What Does It Take?	97	193	167	66	523
Simple Steps To Protect Your Surface and Well Water	62	61	83	65	271
Manure Management: Strategies for Collection, Storage & Disposal	108	44	21	81	254
Do You Qualify For Reduced Property Taxes? Current Use Taxation	28	68	41	56	193
Tips On Land & Water Management for Small Acreages in Southwest Washington	34	39	34	15	122
Information on Small Acreage Management - Resource List	0	27	24	46	97
Water Quality Self-Assessment for Small Acreages	0	36	0	0	36
<b>Total Downloads</b>	<b>2,642</b>	<b>5,210</b>	<b>3,472</b>	<b>2,388</b>	<b>13,712</b>
<b>Other Documents</b>					
2003 Annual Report	0	66	0	0	66
2004 Annual Report	314	125	77	36	350
2004 Annual Report Appendices	0	29	0	0	29
2005 Annual Report	0	0	0	0	0
2005 Annual Report Appendices	0	0	0	0	0
2006 Annual Report	0	0	0	22	22
2006 Annual Report Appendices	0	0	0	0	0
2007 Small Acreage Expo Program	68	197	0	0	265
2007 Small Acreage Expo Registration Form	31	79	0	0	110
<b>Total Downloads</b>	<b>413</b>	<b>496</b>	<b>77</b>	<b>58</b>	<b>842</b>
<b>Website Visitors</b>					
Small Acreage Web Page	387	468	338	263	1456
<i>Direct access</i>	<i>218</i>	<i>265</i>	<i>186</i>	<i>115</i>	<i>784</i>
Living on the Land Web Page	194	220	232	138	784
<i>Direct access</i>	<i>139</i>	<i>108</i>	<i>145</i>	<i>63</i>	<i>455</i>
<b>Total Visitors</b>	<b>581</b>	<b>688</b>	<b>570</b>	<b>401</b>	<b>2240</b>

## **Task 1 b – Factsheets**

The Coordinator completed an adapted factsheet on *Well Maintenance* (Appendix A) which is being reviewed by Public Health staff and will be posted to the web site in January 2008. This factsheet will be included in handout packets supplied to participants in *Well and Septic System* workshops. The second factsheet, *Landowner Services Directory*, provides small acreage landowners with a list of local companies providing services applicable to small acreage management. Listings include suppliers of gravel and hogfuel, as well as businesses offering services such as field mowing, tilling, and excavating. This directory will be posted to the web site in January and will be updated periodically.

The Coordinator submitted two articles to *Flying Changes*, a locally published regional horse magazine. The article published in September explained integrated pest management techniques which reduce the use of pesticides on small acreage horse farms (Appendix A).

The October article featured information and tips on manure management for landowners with horses. Due to space limitations, the *Flying Changes* editor will likely publish the second article in early 2008.

### *Deliverables*

Both factsheets were completed and the last factsheet will be posted to the web in January. The program submitted two articles to *Flying Changes* magazine.

### *Issues and Recommendations*

There are none at this time.

## **Public Education & Outreach**

### **Task 2a – Living on the Land: Stewardship for Small Acreages**

The program completed one *Living on the Land: Stewardship for Small Acreages* (LOL) class series in Fall 2007 which ran from September 11 through November 27. The schedule (Table 2) did not change from fall 2006, except Gordon French taught the basic soils class for the first time. Forty-seven people owning 35 properties enrolled, but over the course of 12 weeks (36 hours of instruction), 10 registrants withdrew due to scheduling conflicts and two never showed up to class. The Coordinator was unable to contact these latter two about their reasons for not attending.

Of the remaining 35 participants, 32 attended at least six classes, meeting the requirements for graduation which included a small gift and a certificate of completion (Appendix B). When asked why they signed up for the class, participants cited land stewardship, a desire to explore

**Table 2: LOL Class Schedule**

<b>Date</b>	<b>Topic</b>	<b>Instructor(s)</b>
9/11/07	What Can You Do? Turning Dreams into Reality	<i>Erin Harwood</i> , WSU Clark County Extension
	Clark County Land Use Zoning and Codes	<i>Brent Davis and Travis Goddard</i> , Clark County Community Development
9/18/07	What Do You Have & What Do You Want? Turning Dreams into Reality	<i>Doug Stienbarger</i> , WSU Clark County Extension
9/25/07	Getting Down and Dirty with Soil	<i>Gordon French</i> , LJC Feeds
10/2/07	Managing Soil to Keep It Productive	<i>Dr. Craig Cogger</i> , WSU Puyallup Extension
10/9/07	Watershed Pollution Demonstration Clark County Clean Water Program Overview	<i>Cary Armstrong</i> , Clark County Clean Water Program
	Water Quality: Making the Connection Between You and Water	<i>Clair Klock</i> , Clackamas Conservation District
10/16/07	What to Do About Weeds?	<i>Ron Hendrickson</i> , Clark County Weed Management
10/23/07	How Grass Grows, Pasture Establishment and Renovation	<i>Gene Pirelli</i> , OSU Polk County Extension
10/30/07	The Business of Horticulture	<i>Charles Brun</i> , WSU Clark County Extension
	Interacting with Wildlife	<i>Dan Libby</i> , USDA Wildlife Services
11/6/07	Managing Animals to Avoid Negative Impacts	<i>Erin Harwood</i> , WSU Clark County Extension
11/13/07	Protecting Household Drinking Water: Wells and Septics	<i>Reuel Emery and Joe Ellingson</i> , Clark County Health Department
11/20/07	Grazing Management	<i>Gary Fredricks</i> , WSU Clark County Extension
11/27/07	My Place on a Stream; <i>Workshop review &amp; Graduation</i>	<i>Lynn Cornelius</i> , WSU Clark County Extension

options for their property and improve land utilization, mud and manure management, weed identification and control, livestock care, and pasture improvement.

Eighty-eight percent of course graduates attended at least 75% of the class sessions and seven attended every session (Table 3). This is a higher percentage than previous classes where about 70% or more of graduates attended at least 75% of the sessions.

**Table 3: LOL Attendance**

<b>Classes Attended</b>	<b># Graduates</b>	<b>As % of Graduates</b>
12	7	22%
11	6	19%
10	6	19%
9	9	28%
8	3	9%
7	0	0%
6	1	3%
<b>Total</b>	<b>32</b>	<b>100%</b>

*Note: Three (9%) of 35 participants attended fewer than six classes.*

## Profile of LOL Participants.

Classes were again held on the Center for Agriculture Science and Environmental Education (CASEE) campus in Brush Prairie, a location reasonably central to small acreage owners throughout Clark County. Overall, more residents from the northern parts of Clark County continue to participate than from other areas (Table 4). The program reached the target audience in the unincorporated areas of Clark County and continued to increase participation from the Camas and Washougal areas to eight, the highest number from that area to date. A paid ad in the *Camas Washougal Post Record* spurred four participants to sign up from this area. The program continues to attract some residents from outside of the county. Many of these participants own bare land or are in the process of searching for land in Clark County.

**Table 4: Geographic Distribution of Participants**

Location		Fall 2003	Spring 2004	Fall 2004	Spring 2005	Fall 2005	Fall 2006	Fall 2007	City Totals
North	Amboy	0	3	4	7	1	3	3	21
	La Center	6	9	7	6	4	10	5	47
	Ridgefield	0	5	5	2	9	2	3	26
	Yacolt	0	6	0	0	1	10	3	20
	Woodland (Clark County)	0	0	2	0	1	2	2	7
	<i>Subtotal</i>	<i>6</i>	<i>23</i>	<i>18</i>	<i>15</i>	<i>16</i>	<i>27</i>	<i>16</i>	<i>121</i>
Central	Battle Ground	8	13	12	8	3	7	6	57
	Brush Prairie	2	4	7	2	3	0	4	22
	<i>Subtotal</i>	<i>10</i>	<i>17</i>	<i>19</i>	<i>10</i>	<i>6</i>	<i>7</i>	<i>10</i>	<i>79</i>
South	Camas	1	0	0	4	5	2	2	14
	Vancouver	4	4	3	4	8	2	4	29
	Washougal	2	1	4	0	0	4	6	17
	<i>Subtotal</i>	<i>7</i>	<i>5</i>	<i>7</i>	<i>8</i>	<i>13</i>	<i>8</i>	<i>12</i>	<i>60</i>
Out of County		0	0	2	0	5	3	3	13
<b>Totals</b>		<b>23</b>	<b>45</b>	<b>46</b>	<b>33</b>	<b>40</b>	<b>45</b>	<b>37</b>	<b>273</b>

Table 5 lists the attributes of the 37 participants from 2007 who responded to the pre-survey. Participants manage a total of 234 acres in Clark County, with an average property size of 9.7 acres, close to the average for previous LOL groups. One couple owns a single 100 acre parcel in eastern Washington which was not counted. Both average length and the longest length of time residing on their land was lower than all previous classes. More participants own properties under 10 acres than in previous years, with only seven properties 10 acres or larger (including the parcel in eastern Washington). Three participants moved onto their properties within three months of beginning the class series. Eighty-four percent of properties have septic tanks while 92% of properties have wells for potable water.

Over half the 2007 attendees use land for pasture, vegetable production, and/or lawn. These three land uses typically constitute the most common uses in all the class series (Table 6).

**Table 5: Participant Property Characteristics\***

		Fall 2003	Spring 2004	Fall 2004	Spring 2005	Fall 2005	Fall 2006	Fall 2007+	Totals
Acreage Owned	# Participants	23	45	38	34	40	45	37	<b>262</b>
	# Properties	16	34	30	29	29	33	24	<b>195</b>
	Total Acreage+	132.1	371.4	433.6	412.5	358.4	433.8	233.8	<b>2375.6</b>
	Avg Ac/ Property +	8.3	11.3	14.5	11.7	11.2	13.6	9.7	<b>11.5</b>
	Range (Ac)+	2.5 - 35	2.5 - 82	2.3 - 80.3	2.7 - 68	1.5 - 60	1 - 79	0 - 41	
	< = 5 ac	7	14	12	10	9	9	13	<b>74</b>
	> 5 ac - 10 ac	7	11	4	9	9	16	7	<b>63</b>
	> 10 ac - 20 ac	1	5	4	6	5	2	1	<b>24</b>
	> 20 ac	1	3	9	3	5	4	3	<b>28</b>
	Years Average			6.6	6.6	7.5	14.0	5.2	<b>8</b>
On Land Range			0 - 38	0 - 34	0 - 34	0 - 66	0 - 22		
	Septic System	15	30	27	35	31	30	23	<b>191</b>
	Well	12	26	27	26	27	28	21	<b>167</b>
	# respondents	20	37	38	36	32	31	37	<b>231</b>

\*Understates total, since not all participants completed survey or provided all information.

+ Excludes a 100 ac parcel outside Clark County.

Forest production represents the largest single use of acreage by the class participants in 2007, although only three parcels account for over 97% of forest acreage. Pasture accounts for the greatest amount of acreage used by participants in all class series.

Over sixty percent of participants in the 2007 class own livestock, with one landowner owning 90 sheep on her farm (Table 7). Across all LOL classes, poultry, including ducks, chickens, geese, and wild fowl, comprise the most common type of animal owned, followed by sheep

**Table 6: Land Use On Participant Properties**

Land Use	Fall 2003	Spring 2004	Fall 2004	Spring 2005	Fall 2005	Fall 2006	Fall 2007	Totals Respondents (%)	
Pasture	11	20	14	16	22	22	20	125	46%
<i>Acres*</i>	<i>23.0</i>	<i>46.0</i>	<i>71.0</i>	<i>60.5</i>	<i>57.1</i>	<i>79.2</i>	<i>85.5</i>	<i>422.3</i>	
Hay	1	6	8	9	2	3	2	31	11%
<i>Acres*</i>	<i>2</i>	<i>37</i>	<i>18</i>	<i>41</i>	<i>5</i>	<i>12</i>	<i>n/a</i>	<i>115.0</i>	
Forest	9	19	24	15	11	20	12	110	40%
<i>Acres*</i>	<i>26.0</i>	<i>30.0</i>	<i>32.0</i>	<i>18.0</i>	<i>28.2</i>	<i>119.5</i>	<i>106.3</i>	<i>360.0</i>	
Vegetable Production	12	24	31	16	22	22	20	147	54%
Orchard Production	7	24	21	14	11	16	18	111	41%
Landscape	12	20	22	18	12	14	11	109	40%
Wildlife	9	19	25	16	15	16	11	111	41%
Lawn	16	25	32	19	22	26	19	159	58%

\* Understates total since not all participants listed acreage.

+ One parcel accounts for 52 acres.

and horses. Since poultry manure contains high concentrations of nutrients relative to weight, they can pose a underappreciated danger to water quality by landowners. Educating owners on manure management for these and other animals can help reduce the amount of nutrients introduced into stormwater runoff.

**Field Trips.** Instead of conducting separate field trips for the class series, the Coordinator scheduled two property tours in September and October and invited LOL participants. Ten

**Table 7: Numbers of Livestock Owned\***

Animal	Fall 2003	Spring 2004	Fall 2004	Spring 2005	Fall 2005	Fall 2006	Fall 2007	Totals
Poultry	84	154	790	71	54	101	74	<b>1328</b>
Sheep	0	35	143	0	2	0	98	<b>278</b>
Equine	24	41	25	11	116	24	26	<b>267</b>
Alpacas	3	14	90	19	44	0	10	<b>180</b>
Cattle	5	37	23	68	9	43	0	<b>185</b>
Goats	12	31	4	0	15	83	21	<b>166</b>
Llama	12	0	2	4	7	1	10	<b>36</b>
Swine	0	0	13	0	0	19	0	<b>32</b>
Donkey	0	0	2	2	4	2	2	<b>12</b>
Ostrich/Emu	0	6	0	0	0	0	0	<b>6</b>
<i>Total</i>	<i>140</i>	<i>318</i>	<i>1090</i>	<i>175</i>	<i>251</i>	<i>273</i>	<i>241</i>	<i>2490</i>

\* Understates total since not all participants listed numbers of livestock.

LOL participants attended the first property tour at a horse farm and eight attended the second tour at a llama and poultry farm, both located in Battle Ground. LOL tour participants expressed verbal appreciation and shared the information with LOL participants unable to attend.

**LOL Class Evaluations.** Participants evaluated each class and the program (Table 8) as a whole (see forms in Appendix C). On a scale of one to five (five being the highest), participants indicated satisfaction with the course, ranking no class lower than 4.0 and most sessions above 4.2 (Table 8). Participants tend to rank most sessions well (since three is average), probably due to a reluctance to appear unappreciative.

When evaluating the entire course, participants stated they learned useful information and the classes answered most of their questions (Table 9). They also believed the course length was about right. Many indicated they would utilize the information learned to change their practices while some participants started implementing changes on their properties before completing the class. Some of the changes implemented included creating a sacrifice area, installing gutters, pasture rotation, runoff management, composting, planting native plants, and creating wildlife habitat.



**Table 8: LOL Evaluation Summary**

	Inventory 1	Inventory 2	Soils 1	Soils 2	Water 1	Animals	Grass 1	Weeds	Water 2	Grass 2	Business & Wildlife	Water 3
Current?	4.7	4.2	4.7	4.9	4.7	4.6	4.8	4.2	4.7	4.6	4.7	4.7
Understandable?	4.2	4.3	4.3	4.6	4.7	4.6	4.8	4.4	4.9	4.5	4.8	4.7
Interesting?	4.0	4.1	4.5	4.7	4.7	4.4	4.7	4.4	4.7	4.4	4.9	4.6
Answer questions?	3.7	3.6	4.2	4.7	4.3	4.3	4.5	3.9	4.6	4.4	4.9	4.3
Learn new things?	4.2	3.7	4.4	4.9	4.3	4.8	4.6	4.1	4.4	4.4	4.7	4.4
Use the info learned?	4.3	4.1	4.5	4.7	4.4	4.8	4.7	4.0	4.7	4.5	4.9	4.3
Worth your time?	4.3	4.3	4.6	4.9	4.4	4.6	4.8	4.1	4.4	4.5	4.9	4.7
<b>Average</b>	<b>4.2</b>	<b>4.0</b>	<b>4.5</b>	<b>4.8</b>	<b>4.5</b>	<b>4.6</b>	<b>4.7</b>	<b>4.2</b>	<b>4.6</b>	<b>4.5</b>	<b>4.8</b>	<b>4.5</b>

**Table 9: Overall LOL Program Evaluation Summary**

Evaluation Question	Average
What overall score would you give this program?	4.8
Did the program series answer most of your questions?	4.6
Did you learn useful information?	4.9
How much will you use this information to change your practices?	4.5
<b>Average</b>	<b>4.7</b>

In general, participants in the fall 2007 class series appreciated the information provided, as indicated in their comments below:

“Thank you for all of the info and resources. I will be using them.”

“It was even more comprehensive than [I] anticipated.”

“Thank you so much for getting all this info together and presented in such a great way.”

“Thank you for a class I looked forward to every week.”

“It was very informative for me.”

“Great job Erin! Extremely good course facilitation.”

“My son and I both enjoyed each class and looked forward to the next. We will use the information for projects together. Thank you!”

**Publicity and Promotion.** Participants learned about the class series through several different sources (Table 10). Thirty-five percent of LOL participants learned about the program through newspapers and 33% heard about the class through promotion at other Small Acreage Program events including farm tours, BMP workshops, and the Small Acreage Expo. The Coordinator sent press releases to five newspapers and paid for advertisements in *The Reflector*

and the *Camas/Washougal Post-Record*. The program also promoted the class through individual contacts, the program web site, other County programs, the annual equine directory, and the Vancouver Food Cooperative. Copies of announcements, paid advertisements, and flyers can be found in Appendix D.

**Table 10: How Participants Learned About the LOL Series**

Source	No.	%
Program Event	11	30%
Other	10	27%
Reflector	9	24%
Camas-Washougal Post Record	4	11%
E-mail	2	5%
Columbian	1	3%
Oregonian	0	0%
<b>Total</b>	<b>37</b>	

*Deliverables*

The program completed the *Living on the Land: Stewardship for Small Acreages* 12 week course and graduated 32 people.

*Issues and Recommendations*

In lieu of field trips, the Coordinator scheduled two property tours in September and October and invited participants to these. Participants’ verbal comments suggest this worked well.

**Task 2b – Wells and Septic System Maintenance Workshops**

One hundred eighty-nine people attended eight wells and septic system workshops held at different locations around the county (Table 11). The workshop agenda and topics (Table 12), remained the same as 2006. Steve Keirn replaced Reuel Emery for the septic portion of the July

**Table 11: Wells & Septic System Workshop Attendance & Schedule**

Date	Location	Time	Attendance
2/27	Fire District # 11 - Dollars Corner	6:30 – 9 pm	12
3/14	Ridgefield Public Safety Complex	6:30 – 9 pm	9
5/9	Fire District #1 - Washougal	6:30 – 9 pm	8
6/13	Fire District #3 - Hockinson	6:30 – 9 pm	39
7/11	CASEE Center	6:30 – 9 pm	47
9/13	Fire District #13 -Yacolt	6:30 – 9 pm	30
11/13	CASEE Center	3:00 – 5:30 pm	34
11/13	CASEE Center	6:30 – 9 pm**	10
<b>Total Attendance</b>			<b>189</b>

\* Workshop as part of Living on the Land class series; members of the public invited, but limited to 15.

workshop and Steve Fischnaller replaced Joe Ellingson for the wells portion of the September workshop.

**Table 12: Wells & Septics Workshop Agenda**

Time	Topic	Speaker
15 Min	<i>Introduction</i>	<i>Erin Harwood, WSU Extension</i>
45 min	<i>Maintenance Of Wells</i> Origin Of Drinking Water / What Is A Well & How It Works / Protecting Water Supplies / How To Tell If Water Is Safe / Sampling	<i>Joe Ellingson, Clark County Public Health</i>
60 min	<i>Septic System Maintenance and Inspection</i> Water Pollution / Septic System Failure / System Components / Maintenance Steps & Typical Repairs / Alternate Systems / Safety	<i>Reuel Emery, Clark County Public Health</i>
15 min	<i>Discussion and Evaluations</i>	

Published press releases and paid advertisements (Appendix E) in *The Reflector* continue to be the most effective way to attract participants to the classes. These drew 32% of workshop participants (Table 13). Public Health mailed a limited number of maintenance notices beginning in late July and included a flyer (Appendix E) listing the workshop schedule which attracted 21% of the participants. The direct mailing sent by WSU Clark County Extension attracted 23% while other methods, such as the WSU Extension online calendar, and referrals from family, friends, and WSU and Public Health staff, attracted 13%. For the workshop in Washougal, the Coordinator sent press releases and placed a paid advertisement in the Camas Washougal Post-Record, the latter generating three attendees.

**Table 13: How Participants Learned About Workshops**

Source	Number (%)
Reflector	35 (32%)
WSU Extension Mailing	25 (23%)
Public Health Letter	23 (21%)
Other	14 (13%)
Columbian	9 (8%)
Camas-Washougal Post-Record	3 (3%)
Oregonian	1 (1%)
Total Responses*	110
<i>no response</i>	<i>79</i>

\* Seven respondents indicated two or more sources

Attendees complete a written evaluation to provide feedback and rate the workshops. Individual workshop data can be found in Appendix F. In aggregate, attendees appreciated the information provided in the workshops and positively ranked sessions, with no ranking below a 3.3 on a scale of 1 to 5 (with 5 being the highest) (Table 14). The evaluations were re-

designed after the March workshop to better measure the level of increased knowledge by participants. The relative low ranking in the July workshop can be attributed to a somewhat disjointed septic presentation.

**Table 14: Evaluation Summary for Well and Septic Workshops**

Question *	Feb 27	Mar 14	May 9	Jun 13	Jul 11	Sept 13	Nov 13 (day)	Nov 13 (eve)	Overall Avg.
Do you intend to use any of this information?	4.8	4.6	4.5	4.7	4.0	4.5	4.2	4.6	4.5
Was this program understandable?	4.8	4.4	4.7	4.7	3.8	4.5	4.5	4.8	4.5
Did the program answer your questions?	4.8	4.6	4.7	4.6	3.3	4.2	3.8	4.6	4.3
Was this program worth your time to attend?	4.8	4.5	4.8	4.8	3.6	4.5	4.2	4.8	4.5
did this workshop help you learn new things or do others better?	4.7	5.0	na	na	na	na	na	na	4.8
Was this workshop current and up to date?	4.8	4.8	na	na	na	na	na	na	4.8
Was this workshop presented in an interesting way?	4.8	4.6	na	na	na	na	na	na	4.7
<b>Average</b>	<b>4.8</b>	<b>4.5</b>	<b>4.7</b>	<b>4.7</b>	<b>3.7</b>	<b>4.4</b>	<b>4.2</b>	<b>4.7</b>	<b>4.5</b>

\* Scale of 1 to 5 with 5 being most useful.

Participants' indicated the information provided in the workshops was helpful and their comments were consistent with numerical rankings they assigned.

"[I enjoyed the] professionals as teachers - [they were] very knowledgeable."

"Handouts are good. [The] well presentation was great....articulate. Q & A was very helpful."

"[The] presentation [is] well put together on well and septic systems. Both speakers [were] very informative."

"[I appreciated the] detailed descriptions of septic [systems] and wells and how they work."

"[The program was] very informative; [I am] going to have [my] spouse attend next time and will recommend program to others!."

"[The program was] easy to understand. Thank you for putting this on."

Attendees are also asked to assess their knowledge on a scale of one to five before and after the workshop about topics covered during workshop. A response of one equals poor, two fair, three average, four good, and five excellent. The difference between participants' knowledge before and after training indicates the change in their knowledge level resulting from information provided from presenters.

When asked to assess their knowledge level of topics covered before and after the workshop, 15% of respondents from all workshops increased their knowledge at least three levels (from poor to excellent) about how management practices impact clean water and their knowledge on maintenance (Table 15). Eighty-one percent of the responding participants increased their knowledge least one level on how to protect their septic systems. Overall, at least 70% of the attendees increase their knowledge about the four topic areas.

**Table 15: Septic Systems – Change in Knowledge Level**

Please rate your knowledge of the following topic areas:	Change in Knowledge Levels Before and After All Workshops (As percent of respondents)					
	Same	1	2	3	4	N (NR)*
Knowledge of well and septic maintenance	25%	32%	28%	14%	1%	111 (78)
Keeping my drinking water healthy	25%	35%	33%	8%	0%	104 (85)
Protecting my septic system	19%	33%	34%	11%	3%	109 (80)
How my management practices impact clean water	30%	38%	17%	12%	3%	100 (89)

\*N = number of responses; NR = no response

The November 13 evening workshop combined LOL participants with a public workshop. Living on the Land participants also evaluated (Appendix C) the well and septic session) and ranked the session well, with no score below 4.4 on a scale of 1 to 5 with 5 being highest (Table 16). Participant comments indicated they would change some of their management practices based on the information provided:

**Table 16: Living on the Land Evaluation Summary of Well and Septic Session**

Was this lesson:	Ranking					Average Rank
	Low				High	
	1	2	3	4	5	
Current, up to date?		1	1	4	16	<b>4.6</b>
Understandable?		1	2	3	16	<b>4.5</b>
Presented in an interesting way?	1	1	2	3	15	<b>4.4</b>
Did the program answer all the questions you had?		2	1	5	14	<b>4.4</b>
Did learn new things?		2	2	3	15	<b>4.4</b>
Will you use the information learned?		2	2	2	16	<b>4.5</b>
Was this program worth your time?		2	2	2	16	<b>4.5</b>
All questions	1	11	12	19	108	<b>4.5</b>
Participants	28					
Evaluations Completed (%)	22 (78%)					

“[I will} not [use] a garbage disposal, fix leaky plumbing, [and not] rinse paint items in house [to protect my septic system].”

“I will test [and inspect] my well more often.”

“[I will] get on a yearly contract with a septic inspector.”

“[We will] inspect our...septic tank and [find the] "as-built" drawing of the system.”

### *Deliverables*

The program completed eight workshops and met the expected overall attendance.

### *Issues and Recommendations*

There are none at this time.

## **Task 2c – Best Management Practices Workshops**

The Coordinator organized two workshops in 2007 which covered topics such as manure management and composting, and improving drainage, controlling mud, and reducing standing water.

**Installing Drainage.** The May 17<sup>th</sup> BMP workshop covered managing runoff and installing drainage to reduce mud and protect water quality. Twenty-one participants learned the basics of managing roof runoff by installing gutters and downspouts, as well as utilizing rain barrels, rain gardens, french drains, and swales. Grant Johnson, a local landscape architect and drainage specialist, presented more detailed information on drainage ideas and installation.

The program distributed flyers (Appendix G) for this workshop at the Mane Event, Program events, the Clark Conservation District plant sale, and other WSU Clark County Extension programming events. Published press releases and a paid advertisement in *The Reflector* (Appendix G) also promoted the workshop.

**Manure Management Tour.** The second BMP workshop took place in June and participants toured three small acreage properties featuring manure composting systems varying in scale and methods. The sites included a small farm in Brush Prairie, a horse stable in Ridgefield, and a small horse facility in Vancouver (also a merit farm in the program) (Table 17). Peter Moon, *O<sub>2</sub> Compost*, and David Cox, *Soil Builders Inc.*, spoke to participants. A rental bus and driver provided transportation for all participants between sites.



*David Cox shows the final product of his composting system.*

**Table 17: Manure Tour Schedule**

Time	Topics	Speaker(s)	Location
9:00 AM	Introduction, schedule, handouts and snacks	Erin Harwood, WSU Clark County Extension	CASEE Center, Brush Prairie
9:15 AM	<b><i>Load onto bus to head to Shamrock Acres</i></b>		
9:30 AM	Manure Composting Basics	Peter Moon, O2 Compost	Shamrock Acres, Brush Prairie
10:15 AM	Forced Aeration Compost System, Small Scale	Peter Moon, O2 Compost and Al O'Connor, Landowner	Shamrock Acres, Brush Prairie
10:45 AM	<b><i>Load onto bus to head to High Hopes Farm, Ridgefield</i></b>		
11:00 AM	Turned Compost System, Large Scale; Composting Business	David Cox, Soil Builders Inc.	High Hopes Farm, Ridgefield
12:15 PM	<b><i>Load onto bus to Svendsen Horse Farm, Vancouver</i></b>		
12:45 PM	Turned Compost System, Medium Scale; Cost Share Funds	Sue Svendsen, Landowner & Erin Harwood, WSU Clark County Extension	Road's End Farm, Vancouver
1:15 PM	<b><i>Load onto bus to head back to CASEE, Brush Prairie</i></b>		
1:30 PM	Done @ CASEE Center		

Despite this promotion, only 14 of the 22 pre-registered participants attended and some of those indicated they forgot about the tour. To encourage greater participation at similar future events, charging a small, nominal fee might create a greater sense of commitment from participants and increase the number of attendees. The program promoted the tour through published press releases and a paid advertisement in *The Reflector* (Appendix G). The program provided a flyer (Appendix G) at Program events, through the program listserv, and other WSU Clark County Extension programming events.

**Evaluation.** Participants rated the workshops well with no rating below 4.2 on a scale of one to five, with five being the highest (Table 18). Participants ranked the drainage workshop with a 4.5 average when asked if the program was worth their time, and several commented that

**Table 18: Evaluation Summary for 2007 BMP Workshops**

	Drainage	Manure Tour
Do you intend to use any of this information?	4.3	4.7
What overall score give this event?	4.2	4.8
Was this program worth your time to attend?	4.5	4.8
<b>Average</b>	<b>4.3</b>	<b>4.7</b>
Participants (n)	21	14
Evaluations Completed	17 (81%)	12 (86%)

the introductory presentation provided an excellent beginning to the event.

When asked to assess their knowledge level of topics covered before and after the workshops, 59% to 88% of participants indicated an increase of at least one level in knowledge on the topics provided (such as from fair to good) (Table 19). The addition of an introductory presentation by the Coordinator at the drainage workshop helped 58% of the participants increase their knowledge at least one level on how management practices impact clean water.

**Table 19: Change in Participant Knowledge Levels for BMP Workshops**

Please rate your knowledge of the following topic areas:		Change in Knowledge Levels Before and After Tour (As percent of respondents)					
		Same	1	2	3	4	N (NR)*
<b>Mud Mgmt.</b>	Knowledge of reducing mud on my property	12%	41%	35%	12%	0%	17 (4)
	Managing roof runoff	18%	41%	29%	12%	0%	17 (4)
	Installing drainage projects to manage water	12%	29%	41%	12%	6%	17 (4)
	How my management practices impact clean water	41%	29%	29%	0%	0%	17 (4)
<b>Manure Tour</b>	General manure management	33%	25%	33%	8%	0%	12 (2)
	Composting manure properly	17%	42%	33%	0%	8%	12 (2)
	Different ways to utilize manure	17%	25%	33%	17%	8%	12 (2)
	How manure management practices impact water quality	50%	33%	17%	0%	0%	12 (2)

\*N = number of responses; NR= no response

For the manure management workshop, on the topic of general manure management, 66% indicated they increased their level of knowledge at least one level. Sixty-seven percent gained at least one level of knowledge in general manure management, while 83% made at least one level change in their knowledge about composting and handling manure. It is likely the large number of participants (50%) at the manure tour indicating no knowledge change about how their practices affect clean water demonstrates the need to provide a synthesis introduction which was not done for this workshop. Short, synthesis presentations at the beginning and end of the workshop by the Coordinator may help in future BMP workshops to clarify the role of management practices and clean water with relation to the workshop topic.

Comments from the evaluations suggest participants planned to implement some of the manure management and drainage tips provided at both workshops:

“[I enjoyed the] site visits and comparison [between sites]; [I was] very impressed with the Svendsen's farm and cost share info.”

“[I plan on examining the] stall bedding and [implementing] composting.”

“[The best part was the] farm examples [and the] hands-on experience the speakers had.”

“[The] Costs associated with on farm set up [and] bedding alternatives [was valuable].”

“[I plan to] install rain water catchments and several french drains [to] retain water [on my property].”

“[The most informative part was] the first part; learning about gutters & managing runoff.”

“[It was great] having a drainage expert.”

“[I plan on] restricting animals in winter use of [the] pasture [to reduce mud].”

“[I enjoyed the talk on the] basics of how to manage water.”



### *Deliverables*

The program completed the two proposed Best Management Practice workshops attended by 35 people, five less than projected.

### *Issues and Recommendations*

Eight registrants for the manure tour failed to attend. Instituting a nominal fee for future events might encourage such no-shows to attend due a greater sense of commitment.

### **Task 2d – Outreach to Youth**

The Coordinator continued to research BMP and clean water curriculum for youth. Jefferson County WSU Extension staff shared information about their hands-on program for youth involved in animal projects.

The Coordinator mailed packets with handouts on BMP's for horses and flyers promoting the BMP poster contest for Clark County's Fair to all Clark County 4-H Horse leaders and youth. The contest offered prizes to entice entrants, including gift certificates to local feed and tack stores. The Coordinator offered to speak at 4-H club meetings to promote the contest, but received no requests. An open workshop advertised to 4-H youth and leaders prompted no responses.

**4-H Healthy Horses and Clean Water Poster Contest.** Nine youth participated in the second annual *Healthy Horses and Clean Water Poster Contest*. Five volunteers judged the posters based on criteria provided on scoring sheets (Appendix H). The judges included Clark Conservation District staff, one 4-H leader, and three LOL graduates. The top three poster authors in two of the three age groups received gift cards to a local farm and feed store and an award certificate (Appendix H). The first place entry in the Intermediate age division received a special prize by the judges for her outstanding poster, but the judges determined the three senior level entries did not merit awards. Participants received letters thanking them for their efforts.

Posters, an informational banner on the contest, and a poster about the Small Acreage Program were displayed in the horse arena during the Clark County Fair (Appendix H). Small certificates placed on each poster identified the winning posters.

**4-H Healthy Animals and Clean Water Educational Booklet.** Based on the low response rate for the poster contest and in discussion with water resources staff, the educational booklet has been cancelled. Since the state office sets 4-H curriculum and it does not contain systematic information on best management practices in 4-H livestock animal curricula and contests, generating interest in local 4-H clubs remains difficult. Instigating changes at the state level is beyond the scope of the program.

### Deliverables

The program completed the *Healthy Horses and Clean Water Poster Contest* in August with nine participants. The *4-H Healthy Animals and Clean Water Educational Booklet* was cancelled due to low response and interest.

### Issues and Recommendations

Response to the poster contest by 4-H horse youth, parents, and leaders continues to be low despite promotion by the program. The Coordinator set an earlier deadline based on feedback last year from 4-H parents, youth and leaders, but this did not increase the number of entries. Based on the low response to marketing for BMP's and the poster contest, the planned educational booklet has been suspended. WSU Jefferson County Extension staff implementing a similar program also cite low participation.

### Task 2e – Outreach Events and Promotional Activities

**Program Publicity.** The Coordinator placed a full-page program advertisement in the Clark County Executive Horse Council's (CCEHC) annual *Equine Directory* (Appendix I). The program's CCEHC membership also includes a listing in their monthly newsletter. The program also placed a half page ad (Appendix I) in *The Reflector's At Your Service* directory published each March. These two ads generated 12 requests for information and one person who attended and graduated from the LOL course.



Program display.

**Mane Event.** The *Mane Event Equine Education and Trade Fair* occurred at the Clark County Fairgrounds February 9 - 11. The program set up a display booth with information on the program and BMP implementation for small acreage landowners (Appendix I). Fifteen volunteers helped the Coordinator staff the booth during the weekend, answering questions and providing information to 201 people. Forty visitors filled out postcards requesting information on upcoming workshops, *Living on the Land*, and farm tours. The Coordinator taught two hour-long workshops on Friday and one on Saturday at the demonstration stage (Table 20). The first workshop, *Managing Mud*, focused on using gutters and downspouts, winter turnouts, and drainage installation to reduce mud, improve horse health, and enhance water quality. Participants in the second workshop, *Natural Insect Control*, learned about natural methods to control insects without pesticides, especially around horses. Attendance and evaluations were difficult to measure since participants came and went throughout the

presentation. Several participants expressed appreciation for the information and others indicated they had driven from Oregon specifically for the mud presentation.

**Table 20: 2007 Mane Event Workshops**

Date	Time	Topic	Attendance
Feb 9	5:30 - 6:30 pm	Managing Mud for Horse Health and Water Quality	30
Feb 10	6:00 - 7:00 pm	Natural Insect Control for Small Acreages	30

**Clark Conservation District Annual Plant Sale.** The Program set up a display at the Clark Conservation District’s annual plant sale February 22-25 with flyers promoting upcoming events. Five people filled out interest cards and many of the 200 plus people who bought plants stopped to look at the display. Two people signed up for upcoming spring farm tours and BMP workshops after receiving information at the event.

**Small Acreage Exposition.** The second annual Small Acreage Exposition took place Saturday April 21 at Brigand’s HideOut in Battle Ground. Fourteen speakers presented on 17 topics, including mud and manure management, fencing, and tractor maintenance. One hundred and twelve participants selected from four sessions with five concurrent classes (Table 21). Many sessions provided hands-on opportunities for landowners to learn.

The Coordinator distributed flyers at outreach events and workshops, sent a mailer listing the classes and event information, and posted the Expo information and registration on the WSU Extension web page. In addition to paid advertisements placed in *The Reflector* and the *Camas/Washougal Post-Record* two weeks prior to the event, press releases were submitted to all local media (Appendix I).

All Expo participants received handouts on small farm management, a schedule of Expo classes (Appendix I), information on upcoming events, and program promotional materials. Participants also received additional handouts from speakers. Ten vendors and agencies provided additional information through handouts and displays.

The program charged an optional \$10 fee for pre-ordered lunch although speakers, volunteers, and staff received free lunches. Attendees liked the option and made positive comments about the food. The Wilco Farm Store in Battle Ground donated morning refreshments. A local 4-H group volunteered to staff the refreshment table and make coffee in return for accepting donations for their 4-H club. Six volunteers and two WSU part-time staff provided assistance throughout the day.

The 2007 Expo offered four more classes than in 200. This increase in classes created some challenges, including overlap of speakers voices during the morning portion, making it difficult for some participants to hear their session speaker. Office portable microphones will be available to speakers next year. Adding one class per session did not significantly increase participation as originally hoped. Although pre-registrations reached 156 people, 47 people

**Table 21: Small Acreage Exposition Schedule**

	Time	Session	Title	Speaker(s)
Session A	9:00 to 10:15	A1	Selecting the Right Hay	Gary Fredricks, WSU Extension
		A2	Livestock Guardian Dogs	Nancy Ward, Brigands HideOut
		A3	Mud Management	Alex Zimmerman, CSI Geosynthetics
		A4	Manure Management	Erin Harwood, WSU Extension
		A5	Tractor Selection	John Banks & Bob Emanuel, John Deere
Session B	10:20 to 11:35	B1	Fencing for Your Property	Mike Maghetti, Animal Management Systems
		B2	Pasture Management & Evaluation	Gene Pirelli, OSU Extension
		B3	Starting a Small Farm Business	Patrice Barrentine, WSDA
		B4	Utilizing Solar Energy	Bruce Carter, Clark PUD
		B5	Weed ID & Management	Ron Hendrickson, Clark Co Weed Mgmt
Lunch	11:40 to 12:20		LUNCH w/Dog Herding Demonstrations	Volunteers & Brigands Staff
Session C	12:25 to 1:40	C1	Fencing: Hands On Demonstration	Mike Maghetti, Animal Management Systems
		C2	Pasture Assessment: Hands-On Tour	Gene Pirelli, OSU Extension
		C3	Forage and Animal Management	Gary Fredricks, WSU Extension
		C4	Expanding a Small Farm Business	Patrice Barrentine, WSDA
		C5	Soil Testing & Lime Application: Hands on and Demonstration	Mark Hufford, NW Solutions and Gudrun Mahrt, Columbia River Carbonates
Session D	1:45 to 3:00	D1	Fencing: Hands On Demonstration	Mike Maghetti, Animal Management Systems
		D2	Weed ID & Management	Ron Hendrickson, Clark Co Weed Mgmt
		D3	Manure management & manure spreader demo	Erin Harwood, WSU Extension & Scott Walz, Clark Conservation District
		D4	Tractor Maintenance & Winterization	John Banks & Bob Emanuel, John Deere
		D5	Farm Tour: Management in Action	Nancy Ward, Brigands HideOut

did not show up the day of the event. Charging a small fee and providing lunch for all participants may keep fewer people from pre-registering and not attending.

Sixty-three participants submitted evaluations for the event as a whole, a return rate of 56% (Table 22). This high return rate likely corresponds to the door prizes offered in exchange for submitting evaluations. Respondents rated the overall program an average of 4.6, with no ranking below 4.5 on a scale of one to five, five being the highest.

**Table 22: Overall Event Program Evaluation**

	<b>Ranking</b>
Do you intend to use any of information received today?	4.5
What overall score would you give the event?	4.6
Overall was the event worth your time to attend?	4.7
<b>Overall Average</b>	<b>4.6</b>
Attendance	112
Contact hours (based on 6 hour event)	378
Evaluations Completed (n)	63
Percent Responding	56%

Of those participants that completed an evaluation, 57 (90%) indicated they would recommend the program to others. Participants were asked to rate their knowledge of a topic as poor, fair, average, good, or excellent before the attended a session and then after attending that session. Based on this information, 89% of the participants increased their knowledge about farm and property management strategies by at least one level, as did 84% about available agencies and resources in Clark County (Table 23).

**Table 23: Small Acreage Expo Participant Knowledge Change**

Please rate your knowledge of the following topic areas:	Change in Knowledge Levels Before and After Expo (As percent of respondents)					
	No change	1	2	3	4	NR*
Knowledge of farm/property management strategies	11%	33%	46%	10%	0%	60 (52)
Knowledge of agencies and resources in Clark County	17%	21%	37%	24%	2%	60 (52)
How farm management practices impact water quality	32%	33%	24%	11%	0%	57 (55)

\*NR= No Response

Participants also assessed their change in knowledge on evaluations for selected individual sessions in the morning and afternoon although evaluations were not collected for the Manure



*Scott Walz demonstrates the Clark Conservation District manure spreader.*



*Gallagher Fencing staff demonstrate the installation of a cross brace in an electric fence.*

Spreading Demonstration workshop. The speaker for the weed classes used extra evaluations from the morning session in the afternoon session, so responses could not be differentiated between the two sessions. Despite creating packets for each speaker with instructions, the number of returned evaluations for individual sessions continues to be low. The Coordinator will continue to work with volunteers and speakers to try and increase the rate of returned evaluations at next year’s event.

All workshop respondents indicated their knowledge levels increased one or two levels in most subject areas (Tables 24). In general, respondents appeared to increase their knowledge the most in the manure management and least in soil testing and pasture assessment.

**Table 24: Knowledge Level Changes for Expo Sessions**

		Same	1	2	3	4
<b>Mud Management</b> (n=26)	Methods to reduce mud	8%	27%	27%	31%	8%
	Managing roof runoff	19%	46%	23%	12%	0%
	How mud management can impact water quality	15%	12%	27%	31%	15%
<b>Manure Management</b> (n=10)	Managing manure on your property	10%	20%	40%	30%	0%
	Basics of manure composting	10%	20%	20%	50%	0%
	Utilizing manure while protecting impact water quality	10%	10%	30%	50%	0%
<b>Fencing Selection</b> (n=10)	Various fencing types	0%	30%	30%	30%	10%
	Application of fencing for improved farm management	10%	10%	30%	40%	10%
	How fencing can protect surface water	20%	40%	10%	20%	10%
<b>Pasture Management</b> (n=6)	Evaluating your pasture	17%	0%	50%	33%	0%
	Managing pastures to maximize grazing	17%	0%	67%	17%	0%
	Proper pasture management to protect water quality	33%	17%	33%	17%	0%
<b>Weed ID &amp; Management</b> (n=14)	Properly identifying problem weeds in Clark County	21%	14%	50%	14%	0%
	Properly utilizing pesticides to control weeds	21%	21%	21%	36%	0%
	Utilizing other weed control methods to protect water quality	36%	21%	29%	14%	0%
<b>Soil Testing &amp; Lime Application</b> (n=13)	Proper soil testing techniques	38%	8%	38%	15%	0%
	Utilizing soil tests to determine fertilizer application rates	31%	23%	31%	15%	0%
	Applying lime for soil and pasture health	31%	23%	23%	15%	8%
<b>Pasture Assessment Tour</b> (n=4)	Grazing impacts on pasture quality	50%	0%	50%	0%	0%
	Managing grazing to protect pasture grasses	25%	25%	25%	25%	0%
	Minimum grazing height	0%	50%	0%	50%	0%
<b>Brigands Hideout Farm Tour</b> (n=7)	Managing runoff on your property	14%	29%	57%	0%	0%
	Reducing and managing mud	14%	43%	29%	14%	0%
	How farm management practices affect water quality	14%	71%	0%	14%	0%

Alex Zimmerman, erosion control specialist for CSI Geosynthetics and a Watershed Steward, encouraged participants to consider the impact of farm management strategies on water

quality in his session in the morning. This may explain why 46% of the respondents increased their knowledge at least three levels on this topic.

In the manure management session, 50% of the respondents increased their knowledge at least three levels about manure composting basics and utilizing manure to protect water quality. Fifty percent of the participants in the pasture management session taught by Gene Pirelli, OSU Extension, increased their knowledge at least two levels on pasture management techniques useful for protecting water quality.

In the soils testing session, 69% of respondents believed their knowledge increased at least one level about using soil tests to determine fertilizer application rates. After attending the weed session, 57% of respondents indicated increasing their knowledge two or more levels about properly using pesticides to control weeds and protect water quality.

For the nine sessions not evaluated for knowledge changes, no individual session rated below a 4.5 on a scale of one to five, with five being highest (Table 25). The highest rated sessions were all afternoon sessions, tractor maintenance and winterization by staff from John Deere, as well as the two hands-on fencing demonstrations by Mike Maghetti. Evaluations were not collected by the speakers for hay selection and grazing and forage management. The speaker for the beginning and advanced marketing classes used evaluations leftover from the morning session, so it was not possible to differentiate between evaluations from the two sessions.

**Table 25: Small Acreage Expo Individual Session Evaluation Summary**

	Guardian Dogs (n=5)	Tractor Selection (n=18)	Beginning Marketing (n=11)	Solar Energy (n=22)	Hands On Fencing (n=2)	Hands On Fencing (n=5)
Make sense to you?	4.4	4.6	4.6	4.8	5.0	5.0
Keep/maintain your interest?	4.6	4.4	4.6	4.7	5.0	4.8
Answer your Questions?	4.7	4.5	4.7	4.6	5.0	4.8
Average	4.6	4.5	4.7	4.7	5.0	4.9

*Evaluations were not collected for Hay Selection, Grazing and Forage Management and Advanced Marketing.*

While the landowner offered the use of propane powered heaters for the class building, the heaters utilize a large amount of power and require closed doors which necessitate using overhead lights. Unfortunately, the lights combined with audio-visual equipment, surpass the allowable amperage and trip breakers. For these reasons, heaters were not used. In any case, only three participants commented on the classroom temperature.

In their comments, five attendees indicated there should be additional class choices, while most participants believed too many concurrent class choices meant they could not attend all the sessions they might like to attend. Based on suggestions last year, fencing and weed classes were repeated several times throughout the day this year. Seven participants indicated repeating other classes next year would improve the event even more. This will be considered

in 2008, depending on speaker interest. In lieu of repeating the same class, several speakers conducted hands on versions of their lecture classes. However, most people who attended a lecture session did not attend the separate hands-on session.

When asked what management practices they might implement or change within a year as a result of what they learned at the Expo, participant's responses included mud and runoff control, weed management, manure composting, fencing, and pasture management strategies:

"[I plan to] rotate pastures." "[I will implement] pasture rotation, fencing and [manure] composting."

"I'll evaluate our mud problem and see if we can make some changes in animal [movement]."

"[I will reduce] mud [to improve] water quality."

"[I will install] barn gutters and more [native] plantings."

Other comments indicated the event was well received by participants:

"[I really enjoyed the sessions on] manure, pasture management, [and] solar [energy]; every session was terrific."

"[Being able to] connect [and] network with professionals [and] other landowners [was good]."

"[It was] helpful and useful."

"Great turnout [and] well organized."

"Thank you for the day."

"Great! Keep doing it!"

**Small Acreage Program Promotional Brochure.** The Coordinator drafted a promotional program brochure listing general class and workshop offerings, the clean water signage program, tours, and other program events. The brochure is currently being reviewed by County staff and will be completed early next year.

**Naturally Beautiful Backyard Tour.** The program provided an unstaffed display with flyers and program information at the model farm, True North Alpacas in La Center, on June 24 as part of the Clark County Naturally Beautiful Backyard Tour. The farm received 80 visitors and one requested to participate in the next *Living on the Land* fall course.

**Southwest Washington Sustainability Conference.** Staff attended the first annual SW WA Sustainability conference June 21 and 22 at downtown Vancouver. In exchange for volunteering at the event, registration was free. The Coordinator assisted county staff with tasks throughout the day and attended individual sessions on Sustainable Economic Development and Sustainable Agriculture. Clark County, a sponsor of the conference, offered



12 free tickets for local agriculture producers to attend. The program contacted local producers to offer the tickets and worked with County staff to ensure free entrance for those eight who expressed interest.

**Cascade Llama Sale.** Sale organizers invited the Coordinator to set up a static display with flyers, factsheets, and business cards at the first annual Cascade Llama sale in Ridgefield on August 24 and 25. The program provided factsheets on drainage, roof runoff, sacrifice areas, manure management, and the *Tips for Land Management in SWWA* booklet for the event’s registration table. Two people requested further information about the program, upcoming tours, and events. Depending on the structure of next year’s sale, the Coordinator may offer a workshop on general llama farm management.

**Clark County Harvest Celebration.** The Ninth Annual Harvest Celebration featured 13 Clark County farms on Saturday September 22 (Table 26). The event attracted 787 visitors most of whom visited an average of two farms. The tour included four Small Acreage Program properties with merit signage. Each of these farms displayed a poster outlining the BMP’s implemented by each farm (Appendix I). The posters highlighted the landowner’s implementation of BMP’s, including gutters, wetland protection, streamside fencing to exclude livestock, rotational grazing, an manure management. Tour participants liked the informational posters according to reports from the farm owners. All four farmers opted to keep their posters.

<b>Farm</b>	<b>First Time Visitors</b>
Columbia Gorgeous Alpacas*, Amboy Silver Star Ranch, Amboy	48
Herb Hill Farm, La Center	19
Coyote Ridge Ranch, La Center	26
Conway Family Farm*, Camas	25
Livingston Mountain Alpacas*, Camas	27
Northwest Organic Farms, Ridgefield	113
Compass Rose Alpacas*, Ridgefield	25
Wynneshire Farms, Ridgefield	60
Bi-Zi Farms, Vancouver	117
Scented Acres, Vancouver	88
Mingus Dahlia Farm, Vancouver	124
Kunze Farms, Vancouver	115
<b>Total</b>	<b>787</b>
* Farms with clean water signage.	

### Deliverables

All the deliverables were met, except for the program brochure. This will be completed and published in early 2008.

### Issues and Recommendations

Despite requesting written evaluations at the Mane Event, no workshop attendees returned them. Given the open format allowing participants to come and go, this will likely not improve much.

## Model Properties

### Task 3a – Property Tours

The program completed four tours demonstrating sound management practices that minimize surface water pollution and improve overall property aesthetics. Tours also provided a casual, peer-to-peer learning environment which promotes acceptance and understanding of information about BMP implementation.

The Program promoted the property tours through flyers handed out at the Small Acreage Expo, outreach events, and workshops. Press releases were sent to local media while a paid advertisement appeared in *The Reflector* one week prior to each tour (Appendix K). The Coordinator e-mailed office listservs. Of 70 registrants who responded, 22 learned about a tour from the LOL course, 17 from the Small Farm Expo, 17 through emails, six through ads, with the remaining eight learning through friends, other tours, or other landowners.

**Spring Tours.** Two landowners hosted tours in the spring. The May 12 tour showed 15 people the Happy Dog Ranch, a five-acre horse farm in Battle Ground which also sports a merit sign from the program. The landowner is conducting an experiment comparing footing materials in three horse paddocks. A photographer from *The Columbian* attended the May tour and published several photographs and a small write-up in the Neighbors section of *The Columbian* (Appendix K).

The second tour featured Fern Prairie Paints, a seven acre paint horse farm in Camas, also a merit sign recipient. Fourteen participants learned about implementing rotational grazing, weed management strategies, and the farm's manure management system. The landowners successfully sell or give away all finished compost they do not use. Handling and disposing of manure poses a significant problem for many small acreage landowners.

**Fall Tours.** Two landowners agreed to host tours in the fall: Z&M Ranch in September, and SnoKit Farm in October, both located in Battle Ground.



Group listens Shirley Zeller-Markle describe efforts to manage drainage and runoff.

On September 29, 17 people visited the Z & M Ranch, a five-acre Peruvian horse farm. *The Columbian* which published a brief write up one week and a photo the following week in the weekly *Neighbors* section (Appendix K) from materials submitted by the Coordinator. SnoKit farms hosted 30 people in October Where the landowner guided people around the five-acre llama and chicken farm, highlighting her implementation of BMP's, such as rotational grazing, manure management, and mud control. She also provided information on heritage chicken breeds and her small commercial egg operation.

**Evaluation.** Participants rated all tours highly, with no tour scoring below an average of 4.4 on a scale of one to five (five being highest) (Table 27). Overall, participants indicated they would use the information provided, as evidenced by average ratings between 4.6 and 4.9 for the

**Table 27: Evaluation Summary for Farm Tours**

	May 12	Jun 16	Sept 29	Oct 13
Do you intend to use any of this information?	4.6	4.6	4.1	4.1
What overall score give this event?	4.9	4.6	4.5	4.6
Overall, was this event worth your time to attend?	4.9	4.6	4.6	4.7
<b>Average</b>	<b>4.8</b>	<b>4.6</b>	<b>4.4</b>	<b>4.4</b>
Participants	15	14	17	30
Evaluations Completed	8 (53%)	5 (36%)	12 (71%)	12 (40%)

tours.

When asked to assess their change in knowledge of four key topics covered in the tours, all respondents from the May tour increased their knowledge about the four topics, while 60% to 80% did at the June tour (Table 28). Overall, respondents tended to increase their knowledge one to two levels with few increasing three or four levels. This indicates tour respondents

**Table 28: Change in Spring Tour Participant Knowledge**

Please rate your knowledge of the following topic areas:	Change in Knowledge Levels Before and After Tours (As percent of respondents)											
	May 12						Jun 16					
	Same	1	2	3	4	N (NR)*	Same	1	2	3	4	N (NR)*
Knowledge of pasture management	0%	75%	25%	0%	0%	7 (8)	20%	40%	40%	0%	0%	9 (5)
Knowledge of manure management	0%	75%	13%	13%	0%	7 (8)	20%	20%	40%	0%	20%	9 (5)
Controlling and managing runoff	0%	50%	25%	25%	0%	7 (8)	40%	20%	40%	0%	0%	9 (5)
How farm management practices impact water quality	0%	50%	38%	0%	13%	7 (8)	20%	40%	40%	0%	0%	9 (5)

\*N = number of responses; NR= no response

probably already know the basics of managing pasture, manure, runoff, and farm management. Many tour participants attended both tours, a possible explanation for the greater percentage who indicated no change in knowledge about four key topics at the second tour.

When asked to assess their change in knowledge about four key topics covered in the fall tours, over 60% of respondents increased their knowledge about the four topics at least one level (Table 29). The largest change occurred for 42% of respondents who indicated their knowledge of manure management strategies increased from poor to fair (one level).

**Table 29: Change in Fall Tour Participant Knowledge**

Please rate your knowledge of the following topic areas:	Change in Knowledge Levels Before and After Tours (As percent of respondents)											
	Sept 29						Oct 13					
	Same	1	2	3	4	N (NR)*	Same	1	2	3	4	N (NR)*
Knowledge of pasture management	10%	50%	20%	20%	0%	10 (7)	0%	42%	42%	17%	0%	12 (18)
Knowledge of manure management	10%	20%	50%	20%	0%	10 (7)	8%	33%	50%	8%	0%	12 (18)
Controlling and managing runoff	10%	20%	50%	20%	0%	10 (7)	17%	50%	33%	0%	0%	12 (18)
How farm management practices impact water quality	33%	33%	22%	11%	0%	9 (8)	40%	0%	50%	10%	0%	10 (20)

\*N = number of responses; NR= no response

The May tour with the highest knowledge increases also received the highest average rating over all the tours. The landowner’s broad implementation of BMP’s featured at the May tour may partially account for these higher ratings and increases. Also, many participants from the May tour attended subsequent tours throughout the year, lessening the change in knowledge they might experience.

Participant commented they would implement some of the best management practices discussed at the tours on their own properties and found them to be informative:

“[I plan on] controlling and managing runoff.”

“[I plan to implement] water runoff management and [change my] stall [bedding] composition.”

“[I appreciated the information on] the ways to avoid waste of water and ways to cut costs.”

“[I enjoyed the] pasture drainage strategies [and the] sustainable fence building [tips].”

“[The information on] mud control in [paddock] areas [was very helpful].”

“[I will implement] better manure composting.”

“[I will install] gutters and drainage on [my] new house [and] barn.”

“[I enjoyed the information on] managing roof runoff.”

“[I enjoyed] viewing different ideas on bedding and [farm] layouts.”

#### *Deliverables*

Four tours were completed of the program’s merit properties.

#### *Issues and Recommendations*

There are none.

### **Task 3b – Signage Recognition**

The Coordinator contacted three properties in 2007 for site visits, two which qualified for merit signage, one of which has been installed. Efforts to contact the other landowner awarded signage were unsuccessful.

The program solicited properties through the LOL class, the listserv, property tours, workshops, and other program events. Two direct mailings, one targeting previous LOL graduates and another targeting 2006 LOL graduates did not generate additional responses. Interest in the signage program among previous LOL participants has declined and the Coordinator will explore how to reach non-program property owners to promote the program, including an informational flyer or brochure about the program and contacting other groups, such as the Farm Bureau, Clark County Farm Forestry, and others.

#### *Deliverables*

The program provided two of ten promised signs to property owners, one of which was installed.

#### *Issues and Recommendations*

Despite promoting the signage program at workshops, tours and other program events, along with two direct mailings to previous LOL graduates, the program may have saturated interest in signs among the program’s current clientele (primarily the LOL participants). In addition to information flyer or brochure about the program, the program recommends increased efforts to non-program participants.

## Outreach Database

### Task 4 – Outreach Database

The Coordinator sent postcards to landowners listed in the database notifying them of the upcoming Small Acreage Expo. The Coordinator used returned letters from the Expo mailing to update the outreach database and correct any errors.

#### *Deliverables*

The database was continuously updated based on returned mailings sent by the program.

#### *Issues and Recommendations*

There are none at this time.

## Impact Evaluation and Project Reporting

### Task 5 a – Evaluation

**Workshop Evaluation.** The Coordinator tracks attendance for all classes, workshops and tours. All attendees are requested to fill out evaluations (Appendix L) and spouses or partners are encouraged to fill out separate evaluations. The program utilizes evaluations to improve program events and to generate ideas for future events. The program redesigned evaluations in 2007 to better assess the program's effectiveness at increasing participants' knowledge about topics presented. Participants rate their knowledge at the beginning and end of an event which provides an indication if they increased their knowledge of a particular topic. This helps the program assess both the subject matter delivered as well as the style of delivery.

**Information Requests.** The Coordinator answered 114 telephone and walk-in requests for information and assistance during the year. Requests generally involve whole farm management, mud control and reduction, septic maintenance, weed control, pasture management, rotational grazing, and manure management. The Coordinator sends individuals relevant publications along with invitations to upcoming classes and workshops of interest.

### Impact Evaluation

**Overview.** The program developed a survey in 2004 designed for former participants in the *Living on the Land* series to determine what, if any, impacts occurred based on the knowledge participants gained while taking the course.

**Methodology.** The close ended survey measures self-reported changes from *Living on the Land* from participants. The first four rounds of surveys were mailed to all graduates who had at

least one summer (good weather) to implement BMPs on their properties. The latest graduates include members of the Fall 2006 group. After the initial mailing, the staff followed-up with non-responders by email and/or telephone.

**Response.** As outlined in Table 28, 159 LOL participants returned the survey for an overall response rate of 83.7%. The class of Spring 2004 returned the least (76%) while the class of 2006 returned the most (91%). The initial analysis in 2006 analyzed the 119 responses received. This analysis uses the data from all responses to date.

**Table 28: Survey Response Rate**

Class	Moved	No Response			Returned Evaluation			Total	
		#	As % Class	As % Total	#	As % Class	As % Total	#	As % Total
Fall 2003		4	17.4%	2.1%	19	82.6%	10.0%	23	12.1%
Spring 2004		11	24.4%	5.8%	34	75.6%	17.9%	45	23.7%
Fall 2004		5	14.3%	2.6%	30	85.7%	15.8%	35	18.4%
Spring 2005	1	4	14.8%	2.1%	22	81.5%	11.6%	27	14.2%
Fall 2005	1	2	7.4%	1.1%	24	88.9%	12.6%	27	14.2%
Fall 2006		3	9.1%	1.6%	30	90.9%	15.8%	33	17.4%
<b>Totals</b>	<b>2</b>	<b>29</b>	<b>15.3%</b>	<b>15.3%</b>	<b>159</b>	<b>83.7%</b>	<b>83.7%</b>	<b>190</b>	<b>100.0%</b>

*Analysis*

While all responses have been entered into an Excel spreadsheet and the data checking begun, the analysis has not been completed for the LOL participant longitudinal survey. A quick look at the data shows similar trends to the 2006 analysis: 159 respondents implemented 371 BMPs implemented owning at least 1675 acres and 140 shared what they learned with over 1952 others. The analysis and report should be finished by the end of February.

*Deliverables*

The Coordinator tracks attendance and conducts evaluations for all classes, workshops and tours. The Coordinator continues to respond to requests for information and tracks the topic of interest to the caller.

*Issues and Recommendations*

The impact study analysis needs to be analyzed and the results reported. The Director will furnish a report on this analysis by the end of February 2008.

**Task 5 b – Reporting**

*Deliverables*

All quarterly reports and the 2007 annual report were submitted by the Director.

*Issues and Recommendations*

There are none at this time.



**Table 30: Summary Table for 2007**

Program Elements			2007 Goals	Qtr 1	Qtr 2	Qtr 3	Qtr 4	YTD	% 2007 Goals
<b>Best Management Practices (Task 1)</b>	Information Resources	Materials added to reference files	ongoing	1	1	1	1	4	
		Post links and resources to website	ongoing	1	1	1	1	4	
		Track Web site hits		1	1	1	1	4	
		Web site document downloads		1	1	1	1	4	
	Fact sheets	Original researched fact sheet	1				1	1	100%
		Fact sheet adapted to Clark Co	1				1	1	100%
Articles for Flying changes Magazine		2			1	1	2	100%	
<b>Public Outreach and Education (Task 2)</b>	LOL Class Series	LOL session	1				1	1	100%
		Attendance	30				33	33	110%
	Well & Septic Workshops	Well & septic workshops	8	2	2	2	2	8	100%
		Attendance	120	21	47	49	44	161	134%
	BMP Workshops	BMP Workshops	2		2			2	100%
		Attendance	40		35			35	88%
		Revise & maintain speaker's list	ongoing	1	1	1	1	4	
	4-H Youth Outreach	4-H clean Water Education booklet	1					0	0%
		BMP Display Contest	1			1		1	100%
		Small Acreage Exposition	1		1			1	100%
		Attendance	100		112			112	112%
	Outreach Events & Promotional Activities	Mane Event Equine Education and Trade Fair	2	2				2	100%
		Attendance	40	50				50	125%
		Clark Conservation District Plant Sale	1	1				1	100%
	Small Acreage Program brochure	1					0	0%	
	WSU Harvest Celebration	1			1		1	100%	
	Additional Events as identified			1	1		2		
<b>Model Properties (Task 3)</b>	Property Tours	Conduct tours	2		2	1	1	4	200%
		Attendance	30		29	17	30	76	253%
	Signage Recognition	Follow up with Previous Assessments	1		1	1		2	200%
		Enroll new farms and install signs	10	1	1			2	20%
<b>Outreach Database (Task 4)</b>	Database	Maintain database	ongoing	1	1	1	1	4	
<b>Impact Evaluation and Project Reporting (Task 5)</b>	Evaluation	Workshop evaluations	17	4	7	3	3	17	100%
		Requests for assistance		43	30	22	19	114	
		Impact evaluation of 2006 participants	1					0	0%
	Reporting	Quarterly Reports	3	1	1	1		3	100%
		Annual Report	1				1	1	100%