
Small Acreage Landholder Outreach Program 2008 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..... 3

TASK 1 - BEST MANAGEMENT PRACTICES (BMPS) GUIDELINES 3

Task 1a. Information Resources 3

Task 1b. Factsheets..... 5

TASK 2 - PUBLIC EDUCATION & OUTREACH 5

Task 2a. Living on the Land: Stewardship for Small Acreages 5

Task 2b. Wells and Septic System Maintenance Workshops 11

Task 2c. Best Management Practices Workshops..... 14

Task 2d. Outreach Events and Promotional Activities 17

Task 2e. Outreach Database 25

TASK 3 - MODEL SMALL ACREAGE PROPERTIES 25

Task 3a. Property Tours 25

Task 3b. Signage Recognition..... 27

TASK 4 – SMALL FARMS OUTREACH..... 27

Task 4a. Agricultural Entrepreneurship 27

Task 4b. Small Farms Business Fact sheet 29

TASK 5 - IMPACT EVALUATION AND PROJECT REPORTING 30

Task 5a. Evaluation 30

Task 5b. Reporting 31

Executive Summary

The *Small Acreage Landholder Outreach Program* completed one *Living on the Land: Stewardship for Small Acreages* class series and graduated 31 people in 2008.

The program provided eight well and septic workshops in addition to three BMP workshops on mud and runoff management, manure composting, and pasture management.

The program conducted two small acreage property tours. Six properties were evaluated in 2008 for their efforts to implement BMP's to protect water quality and three were awarded merit signs. The program also completed one fact sheet: *Five Steps to Better Pasture and Grazing Management*.

Task 1 - Best Management Practices (BMPs) Guidelines

Task 1a. Information Resources

The Coordinator updated the fact sheet *Do You Qualify for Reduced Taxes? Current Use Taxation* with new contact information for the current use tax program coordinator at the Clark County assessor's office. This was posted to the Extension web site along with the *Landowner Services Directory*. Suggestions for additions to the Directory have been solicited from the Small Acreage listserv members and it will be updated as needed.

The Coordinator added announcements for BMP workshops, tours, and classes to the WSU Extension website calendar (<http://clark.wsu.edu/calendar/index.asp>). The 2007 Annual Report and associated appendices, along with the Small Acreage Expo program and registration form were posted also to the website.

The program website URL changed from <http://clark.wsu.edu/horticulture/smallFarmProgram.html> to <http://clark.wsu.edu/horticulture/smallAcreageProgram.html> to better reflect the clientele who own small acreage properties the program serves and allow a small farm section to be added to the site in the future. The old URL automatically referred visitors to the new page through the end of the year.

The program tracks web site visitors and documents monthly downloads throughout the year (Table 1). Program fact sheets were downloaded over 7,500 times in 2008, nearly half the downloads for 2007. Visitors continue to download the fact sheet *Improving Drainage* the most, with more than 940 downloads. The three septic system fact sheets also continue to be popular, with a total of 2,385 downloads together. The Small Acreage Expo program and registration form were posted to the Small Acreage Program web site and the WSU Extension entry page in March, resulting in increased web site hits during the first and second quarters. Over 2,500 visitors accessed the program's web site, 694 directly through bookmarks. More than 400 people accessed the *Living on the Land* program pages.

The Coordinator sought out new reference materials throughout the year and added five fact sheets or publications: soil testing, soil fertility, stormwater management, water quality, and water rights.

Table 1: Small Acreage Webpage Activity

Fact sheets	Qtr 1	Qtr 2	Qtr 3	Qtr 4	YTD
Keeping Clean Water Clean & Reducing Mud - Improving Drainage	310	297	145	191	943
Save Time and Money - Properly Landscape Your Septic System	272	147	199	284	902
What's Bugging You? Natural Insect Control for Small Acreages	655	322	213	165	820
Don't Let Your Dollar\$ Go Down the Drain! Septic Tank Additives	235	156	156	267	814
Protecting Your Investment: Inspecting Your Septic System	494	189	177	175	669
Reduce Mud and Keep Water Clean: Sacrifice Areas	96	133	126	154	509
Manure Management: Strategies for Collection, Storage & Disposal	66	118	95	141	420
Constructing Ponds and Water Features - What Does It Take?	88	112	39	137	376
What Can You Do On Your Land? Frequently Asked Questions	178	91	61	91	371
Do You Qualify For Reduced Property Taxes? Current Use Taxation	121	67	100	79	334
Best Management Practices for Small Acreages	74	0	0	184	258
Keeping Clean Water Clean & Reducing Mud: Managing Roof Runoff	97	0	35	105	237
Water Quality Self-Assessment for Small Acreages	52	38	56	83	229
Information on Small Acreage Management - Resource List	35	65	104	0	204
Small Acreage Landowner Services Directory	29	35	76	55	195
Simple Steps To Protect Your Surface and Well Water	58	35	0	86	179
Protecting Drinking Water: Simple Tips for Well Maintenance	0	0	0	94	94
Tips On Land & Water Management for Small Acreages in SW WA	26	0	0	0	26
Total Downloads	2886	1805	1582	2291	7580
Other Documents					
2008 Small Acreage Expo Program	0	0	0	60	60
Community Supported Agriculture Brochure	0	0	0	0	0
2008 Small Acreage Expo Registration Form	0	0	0	0	0
2003 Annual Report	0	0	0	0	0
2007 Annual Report	0	0	0	0	0
2006 Annual Report	31	0	0	0	31
2004 Annual Report	0	0	0	0	0
2004 Annual Report Appendices	0	0	33	0	33
2005 Annual Report	0	0	0	0	0
2005 Annual Report Appendices	31	144	0	0	175
2006 Annual Report Appendices	22	65	0	0	87
2007 Annual Report Appendices	60	88	0	0	148
Total Downloads	144	297	33	60	534
Website Visitors					
Small Acreage Web Page	625	665	491	392	2173
Direct access	269	214	101	110	694
Living on the Land Web Page	71	94	147	101	413
Direct access	0	0	0	32	32
Total Visitors	696	759	638	493	2586

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 2009.

Task 1b. Factsheets

The Coordinator completed an adapted factsheet on *How Green is Your Grass? Five Steps to Better Pasture and Grazing Management* (<http://clark.wsu.edu/horticulture/smallAcreageProgram/PastureGrazingMgmt.pdf>) which was posted to the web site in November. This fact sheet highlighted five key steps landowners could take to improve their pastures, utilize fewer pesticides, and protect water quality.

The second factsheet and the article to *Flying Changes*, a locally published regional horse magazine, were not completed due to time constraints from the Coordinator's maternity leave.

Deliverables

One factsheet was completed and the posted to the web in November.

Issues and Recommendations

Due to the Coordinator's maternity leave, the second factsheet and the article to *Flying Changes* were not completed.

Task 2 - 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 2008 which ran from September 3 through November 19. The schedule (Table 2) did not change from fall 2007, except Scott Melville from Clark County Community Development was able to teach the zoning and codes portion of the second class. Forty-six people owning 29 properties enrolled, but over the course of 12 weeks (36 hours of instruction), three registrants withdrew due to scheduling conflicts and two never showed up to class.

Of the remaining 41 participants, 31 attended at least six classes, meeting the requirements for graduation which included a small gift and a certificate of completion (Appendix A). When asked why they signed up for the class, participants cited land stewardship, a desire to explore options for their property, improving land utilization, streamside area management, septic and well maintenance, mud

Table 2: LOL Class Schedule

Date	Topic	Instructor(s)
9/3/08	What Do You Have & What Do You Want? Turning Dreams into Reality	<i>Doug Stienbarger</i> , WSU Clark County Extension
9/10/08	What Can You Do? Turning Dreams into Reality	<i>Doug Stienbarger</i> , WSU Clark County Extension
	Clark County Land Use Zoning and Codes	<i>Scott Melville</i> , Clark County Community Development
9/17/08	Managing Soil to Keep It Productive	<i>Dr. Craig Cogger</i> , WSU Puyallup Extension
9/24/08	Getting Down and Dirty with Soil	<i>Gordon French</i> , LJC Feeds
10/1/08	What to Do About Weeds?	<i>Ron Hendrickson</i> , Clark County Weed Management
10/8/08	Watershed Pollution: <i>Hands On Demonstration</i> 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
10/15/08	How Grass Grows, Pasture Establishment and Renovation	<i>Gene Pirelli</i> , OSU Polk County Extension
10/22/08	The Business of Horticulture	<i>Charles Brun</i> , WSU Clark County Extension
	Interacting with Wildlife	<i>Dan Libby</i> , USDA-APHIS
10/29/08	Grazing Management	<i>Gary Fredricks</i> , WSU Cowlitz Extension
11/5/08	Protecting Household Drinking Water	<i>Reuel Emery</i> , Clark County Public Health
11/12/08	Managing Animals to Avoid Negative Impacts	<i>Erin Harwood</i> , WSU Clark County Extension
11/19/08	My Place on a Stream <i>Workshop review & Graduation</i>	<i>Jen Naas</i> , WSU Clark County Extension

reduction, runoff management, weed identification and control, livestock care, and pasture improvement.

Sixty-five percent of course graduates attended at least 75% of the class sessions and two attended every session (Table 3) which remains lower than previous classes where 70% or more of graduates attended at least 75% of the sessions.

Table 3: LOL Attendance

Classes Attended	# Graduates	As % of Graduates
12	2	6%
11	5	16%
10	2	6%
9	11	35%
8	6	19%
7	3	10%
6	2	6%
Total	31	100%

Note: An additional ten (24%) participants attended fewer than six classes.

Profile of LOL Graduates. 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) which reflects the program’s targeted audience: small acreages in the unincorporated areas of Clark County. The program continues to attract participants from outside of the county (6% since 2004), many of whom either own bare land or are in the process of searching for land in Clark County.

Table 4: Geographic Distribution of Graduates

Location	Fall 2003	Spring 2004	Fall 2004	Spring 2005	Fall 2005	Fall 2006	Fall 2007	Fall 2008	City Totals	
North	Amboy	0	3	4	5	1	3	3	1	20
	La Center	6	7	4	5	3	6	5	1	37
	Ridgefield	0	5	2	2	7	2	2	6	26
	Yacolt	0	6	0	0	1	7	3	0	17
	Woodland (Clark County)	0	0	2	2	1	2	2	3	12
	<i>Subtotal</i>	<i>6</i>	<i>21</i>	<i>12</i>	<i>14</i>	<i>13</i>	<i>20</i>	<i>15</i>	<i>11</i>	<i>112</i>
Central	Battle Ground	8	14	8	5	4	6	6	7	58
	Brush Prairie	2	4	5	2	0	0	2	3	18
	<i>Subtotal</i>	<i>10</i>	<i>18</i>	<i>13</i>	<i>7</i>	<i>4</i>	<i>6</i>	<i>8</i>	<i>10</i>	<i>76</i>
South	Camas	1	0	0	1	4	1	1	1	9
	Vancouver	4	3	2	3	3	2	2	4	23
	Washougal	2	1	3	0	1	3	6	0	16
	<i>Subtotal</i>	<i>7</i>	<i>4</i>	<i>5</i>	<i>4</i>	<i>8</i>	<i>6</i>	<i>9</i>	<i>5</i>	<i>48</i>
Out of County	0	0	4	2	2	1	0	5	14	
Totals	23	43	34	27	27	33	32	31	250	

Table 5 lists the attributes of the 31 graduates from 2008 who responded to the pre-survey. Graduates manage 228.89 acres in Clark County, averaging 9.95 acres, a figure lower than previous LOL class averages except Fall 2003. Average length of time residing on their land was similar to previous classes at 5.70 years. Again this year, more graduates own properties 10 acres or smaller rather than larger parcels. However, more graduates in the 2008 class own properties between 10 and 20 acres in size than in the past.

Eighty-one percent of graduate properties (22 of 27, not counting spouses) have septic tanks on their property while 59% of properties have wells for potable water. Improperly maintained septic tanks pose a potential health risk to residents’ drinking water and to aquatic wildlife. Educating landowners on regular maintenance and inspection for their septic tanks may help reduce this risk and protect water quality.

Over half the 2008 graduates use land for pasture, vegetable production, landscape, wildlife habitat, orchard production and/or lawn. These land uses typically constitute the most common land uses in all the class series (Table 6). Hay production represents the largest single use of acreage by the class graduates in 2008, although only two parcels account for over 68% of hay acreage. Lawn accounts for the greatest amount of acreage used by graduates in all class series.

Over fifty percent of graduates in the 2008 class own livestock, mainly poultry consisting of chickens, and turkeys (Table 7). For all years, poultry, including ducks, chickens, geese, and wild fowl, comprise

Table 5: Graduate Property Characteristics*

		Fall 2003	Spring 2004	Fall 2004	Spring 2005	Fall 2005	Fall 2006	Fall 2007+	Fall 2008	Totals
Acreage Owned	# Graduates	23	43	34	27	27	33	32	31	250
	# Properties	19	33	27	22	24	26	24	27	202
	Total Acreage+	132.10	376.82	412.40	322.44	299.06	387.85	323.24	228.89	2482.8
	Avg Ac/Property	8.26	11.08	15.27	14.02	12.46	15.51	14.69	9.95	12.66
	Range (Ac)+	2.5-35	2.5-82	2.3-80.3	5-68	1-60	1-79	2-40.6	1.6-49	
	< = 5 ac	7	13	11	8	7	8	13	12	14
	> 5 - 10 ac	7	13	3	8	9	11	6	3	60
	> 10 - 20 ac	1	5	5	4	4	2	1	6	28
	> 20 ac	1	3	8	3	4	4	3	2	28
Years On Land	Average	5.77	7.23	8.27	8.95	8.14	11.95	5.42	5.70	7.68
	Range	0.08 - 8.5	0 - 34	0 - 38	0 - 40	0.25 - 34	0.10 - 66	0 - 17	0 - 26	
Properties with Septic Systems		14	31	25	22	23	24	22	22	183
Properties with Wells		11	27	25	18	21	23	20	16	161

*Understates total since not all graduates completed survey or provided all information.

+ Excludes a 100 ac parcel outside Clark County.

the most common type of animal owned, followed by cattle and horses. Since poultry manure contains high concentrations of nutrients relative to weight, it can pose a underappreciated danger to water quality. Educating landowners on manure management for these and other animals can help reduce

Table 6: Land Use On Graduate Properties

Land Use	Fall 2003	Spring 2004	Fall 2004	Spring 2005	Fall 2005	Fall 2006	Fall 2007	Fall 2008	Totals	
									No.	%
Pasture	11	19	15	12	17	18	18	19	129	52%
<i>Acres*</i>	<i>22.50</i>	<i>32.50</i>	<i>73.00</i>	<i>57.50</i>	<i>53.06</i>	<i>65.23</i>	<i>80.50</i>	<i>31.00</i>	<i>415.3</i>	
Hay	2	6	8	6	2	3	1	5	33	13%
<i>Acres*</i>	<i>2.00</i>	<i>39.00</i>	<i>18.00</i>	<i>23.00</i>	<i>5.00</i>	<i>12.00</i>	<i>n/a</i>	<i>51.75</i>	<i>150.8</i>	
Forest	9	22	16	9	10	17	9	9	101	41%
<i>Acres*</i>	<i>29.00</i>	<i>25.50</i>	<i>30.00</i>	<i>8.00</i>	<i>28.04</i>	<i>116.50</i>	<i>106.30</i>	<i>11.50</i>	<i>355</i>	
Vegetable Production	12	26	23	14	17	17	16	17	142	58%
Orchard Production	7	20	17	11	10	13	15	14	107	43%
Landscape	12	20	15	11	11	12	9	14	104	42%
Wildlife	9	21	15	13	12	14	9	12	105	43%
Lawn	15	27	23	15	18	22	17	13	150	61%

* Understates total since not all participants listed acreage.

+ One parcel accounts for 52 acres.

the amount of nutrients introduced into stormwater runoff.

Table 7: Numbers of Livestock Owned*

Animal	Fall 2003	Spring 2004	Fall 2004	Spring 2005	Fall 2005	Fall 2006	Fall 2007	Fall 2008	Totals
Poultry	86	112	792	65	40	44	44	108	1291
Cattle	3	90	23	68	9	43	0	15	251
Equine	27	28	25	10	53	18	15	21	197
Alpacas	0	7	90	19	41	0	28	12	197
Sheep	0	5	143	0	0	0	8	4	160
Goats	3	28	4	0	2	73	21	12	143
Swine	0	2	13	0	0	9	90	3	117
Llama	12	0	2	9	7	1	10	4	45
Rabbits	20	3	0	0	0	0	0	0	23
Donkey	0	0	2	4	4	2	2	1	15
Ostrich/Emu	0	6	0	0	0	0	0	0	6
Total	151	275	1092	171	152	188	216	179	2424

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

Average	4.8
----------------	------------

LOL Class Evaluations. Participants evaluated each class (Table 8) and the program as a whole (Table 9) (forms in Appendix F). 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 4.5. The

Table 8: LOL Evaluation Summary

	Inventory 1	Inventory 2	Soils 1	Soils 2	Weeds	Water Quality	Grass	Business & Wildlife	Hay/Animals	Well & Septics	Animals	Stormwater
Current?	4.4	4.6	4.7	4.9	4.9	4.6	4.6	4.6	4.7	4.6	5.0	4.9
Understandable?	4.6	4.4	4.6	4.4	4.8	4.7	4.6	4.6	4.8	4.4	5.0	5.0
Interesting?	4.5	4.4	4.6	4.6	4.6	4.7	4.6	4.7	4.8	4.2	4.9	5.0
Answer questions?	4.1	4.2	4.6	4.2	4.5	4.4	4.5	4.6	4.7	4.0	4.8	4.8
Learn new things?	4.3	4.4	4.6	4.5	4.5	4.5	4.7	4.8	4.7	4.3	4.9	4.8
Use the info learned?	4.6	4.3	4.8	4.6	4.6	4.5	4.5	4.6	4.6	4.4	4.8	4.8
Worth your time?	4.6	4.7	4.9	4.7	4.7	4.5	5.0	4.8	4.7	4.1	5.0	4.9
Average	4.4	4.4	4.7	4.5	4.7	4.6	4.7	4.7	4.7	4.3	4.9	4.9

two highest rated classes were Pasture Management presented by Gene Pirelli, and Mud and Manure Management presented by the Coordinator.

When evaluating the entire course, participants stated they learned useful information and the classes answered most of their questions. They also thought the course length was about right. Many indicated they would utilize the information learned to change practices on their acreages, such as

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?	4.8
Did you learn useful information?	4.9
How much will you use this information to change your practices?	4.4

setting up rotational grazing in pastures, fencing livestock away from water bodies such as wetlands and streams, reducing fertilizer use, and installing rain barrels and gardens to manage roof runoff. Many participants also commented they felt much more knowledgeable about general land management practices.

In general, participants in the fall 2008 class series appreciated the information provided, as indicated in their comments below:

“This was a great class. We don’t have our property yet but the information provided will definitely help in our decision. All of the contact info will also be of huge help.”

“Thank you [for a] very worthwhile program!”

“[The class series] gave me a wonderful amount of information, I have learned a great deal.”

“Nearly every class gave us ideas for better management & tools.”

“I believe you put together a great program. Thank you very much for all your work and more.”

Publicity and Promotion. Participants learned about the class series through several different sources (Table 10). Forty-two percent of LOL participants learned about the program from the office website, Clark County Fair, friends, family, and coworker, while 30% heard about the program through email. Another 15% saw promotions at other Small Acreage Program events including farm tours, BMP workshops, and the Small Acreage Expo, while another 13% reported seeing press releases or paid advertisements in *The Reflector* or *the Columbian* (press releases were also sent to *Camas/Washougal Post-Record* and the *Oregonian*). The program also promoted the class through individual contacts, the program web site, other County programs, and other WSU lists. Copies of announcements, paid advertisements, and flyers can be found in Appendix A.

Table 10: How Participants Learned About LOL

Source	No.	%
E-mail	16	30%
Other (friends, family, and coworkers)	9	17%
Small Acreage Events	8	15%
Clark County Fair	8	15%
Reflector	5	9%
WSU Website	5	9%
Columbian	2	4%
Oregonian	0	0%
Camas/Washougal Post-Record	0	0%
Total	53	

Deliverables

The program completed the *Living on the Land: Stewardship for Small Acreages* 12 week course and graduated 31 people.

Issues and Recommendations

There are none.

Task 2b. Wells and Septic System Maintenance Workshops

One hundred and eighty people attended eight wells and septic system workshops held in different locations around the county in 2008 (Table 11). The workshop agenda and topics can be seen in Table 12. Presenters shortened the 2007 introduction and wells’ presentation in order to allow time to administer Public Health’s operation and maintenance exam which allows homeowners to inspect their gravity fed system or gravity fed system with a pump. Reuel Emery replaced Joe Ellingson for the

Table 11: Wells & Septics Workshop Attendance & Schedule

Date	Location	Time	Attendance
February 6	Fire District #3 - Hockinson	6:30 – 9 pm	32
March 12	Fire District #1 - Washougal	6:30 – 9 pm	20
May 7	CASEE Center – Brush Prairie	6:30 – 9 pm	45
June 11	Fire District # 11 - Dollars Corner	6:30 – 9 pm	32
July 9	Fire District # 10 - Amboy	6:30 – 9 pm	9
September 10	Public Safety Complex - Ridgefield	6:30 – 9 pm	23
November 4	CASEE Center – Brush Prairie	3:00 – 5:30 pm	10
November 4	CASEE Center – Brush Prairie	6:30 – 9 pm*	9
Total Attendance			180
<i>Participants Who Took Self-Inspection Test</i>			<i>124 (71%)</i>

* Workshop as part of *Living on the Land* class series; members of the public invited, but limited to 10.

Table 12: Wells & Septics Workshop Agenda

Time	Topic	Speaker
5 Min	<i>Introduction</i>	<i>Erin Harwood, WSU Extension</i>
40 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>
50 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>
10 min	<i>Question and Answer Session</i>	<i>Reuel Emery & Erin Harwood</i>
20 min	<i>Homeowners Operation & Maintenance Exam</i>	<i>Reuel Emery & Erin Harwood</i>
10 min	<i>Evaluations</i>	<i>Erin Harwood</i>

wells portion of the last four workshops.

Published press releases and paid advertisements (Appendix B) in *The Reflector* continue to be the most effective way to attract participants to these classes, drawing 49% of workshop participants (Table 13). Public Health’s postcard notices to homeowners with septic systems due for inspection attracted 24% of total participants. Other promotional methods attracted 14%: WSU Extension online calendar and referrals from family, friends, WSU, and Public Health staff. For the workshop in Washougal, the Coordinator submitted press releases and a paid advertisement to the Camas Washougal Post-Record, drawing two people to the workshop. The Coordinator distributes flyers handed at all Small Acreage Program workshops and outreach events (Appendix B).

Table 13: How Participants Learned About the Workshop

Source	Number (%)
Reflector	68 (49%)
Public Health Mailing	33 (24%)
Other	19 (14%)
Columbian	13 (9%)
E-mail	5 (4%)
Oregonian	1 (1%)
Total Responses*	139
No Response	41

* Six 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 B. In general, attendees appreciated the information provided in the workshops and positively ranked the sessions, with no ranking below a 4.0 on a scale of 1 to 5 (with 5 being the highest) (Table 14). This rating was higher than in 2007, when the lowest

Table 14: Evaluation Summary for Well and Septic Workshops *

Question	Feb	Mar	May	Jun	Jul	Sept	Nov Aft	Nov Eve	Overall Avg
Do you intend to use any of this information?	4.6	4.4	4.4	4.6	4.8	4.5	4.1	4.8	4.5
Was this program understandable?	4.6	4.3	4.3	4.5	4.5	4.6	4.0	4.8	4.4
Did the program answer your questions?	4.5	4.1	4.1	4.3	4.8	4.2	4.1	4.8	4.4
Was this program worth your time to attend?	4.6	4.2	4.2	4.4	4.8	4.5	4.1	4.5	4.4
Average	4.6	4.2	4.2	4.5	4.7	4.4	4.1	4.7	4.4

* scale of 1 to 5 with 5 being excellent

ranking was a 3.3. This may be attributed to consistent presentations given by the same presenters throughout the year.

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

“[I enjoyed the] explanation[s] about well construction and septic systems, and info about care. All was good.”

“[I appreciated the] opportunity to ask questions from people with real answers.”
 “[The workshop] provided good concepts of [basic] well [and] septic maintenance.”
 “[The program] taught me how to protect my septic system and how to [properly] manage it.”
 “[I felt] the presenters were very knowledgeable and informative.”
 “[I left with] a better understanding about well water and my septic system.”

Attendees also assess their knowledge about topics before and after the workshop, using a scale of one to five: 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 by presenters.

When asked to assess their knowledge level about topics before and after the workshop, most respondents indicated an increase of several levels in knowledge on the topics provided (Table 15).

Table 15: Well and Septic Workshops Participant Knowledge Increase

Knowledge area	Before and After Workshop Knowledge Change (As percent of respondents)					
	Same	1	2	3	4	N (NR) *
Knowledge of well & septic maintenance	16%	41%	35%	8%	1%	127 (53)
Keeping my drinking water healthy	25%	44%	23%	7%	1%	126 (54)
Protecting my septic system	22%	37%	29%	9%	2%	129 (51)
How my management practices impact clean water	35%	30%	27%	6%	1%	125 (55)

*N = number of responses; NR = no response

Seventy-seven percent of respondents increased their knowledge of protecting their septic system by at least one level. Eighty-five percent of respondents indicated a one or more level increase in their general knowledge of well and septic maintenance.

The November evening workshop combined an LOL class with public participation. Living on the Land participants evaluated (form in Appendix B) the well and septic session and ranked the session well, with no score below 4.0 on a scale of 1 to 5 with 5 being highest (Table 16).

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

Was this lesson:	Ranking					Average Rank
	Low 1	2	3	4	High 5	
Current, up to date?				5	9	4.6
Understandable?			2	4	8	4.4
Presented in an interesting way?			5	1	8	4.2
Did the program answer all the questions you had?	1		1	7	4	4.0
Did learn new things?			2	5	6	4.3
Will you use the information learned?			2	5	7	4.4
Was this program worth your time?		1	2	5	6	4.1
All questions	1	1	14	32	48	4.3
Participants	20					
Evaluations Completed (%)	15 (75%)					

Participant comments indicated they would change some of their management practices based on the information provided:

“[I will] be checking insulation around well head; get [my] septic tank inspected [and] ask for [the] location of [my] septic tank and drain field.”

“[It was] interesting [to learn] how a well is dug and it's different parts. I now [also] understand different septic systems.”

“[I learned] how to check [my] septic and what to keep in your [well] pump house.”

“[I enjoyed learning about] preventive maintenance for septics and wells.”

Deliverables

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

Issues and Recommendations

Registration and attendance was low at three workshops located in Amboy and Brush Prairie. The driving distance to the Amboy fire station may have led to decreased attendance. While press releases were sent out for the Brush Prairie classes, staff did not see any printed.

Due to Public Health budgets, Public Health will do a limited number of workshops themselves in 2009. WSU Clark County Extension will explore providing workshops in 2009 from other funding focused on well and septic maintenance instead of the inspection exam. Public Health and WSU Clark County Extension staff will continue to work together to provide current and coordinated information.

Task 2c. Best Management Practices Workshops

The Coordinator organized three workshops in 2008 covering manure and mud management, composting, improving drainage, and pasture management (rotational grazing and proper fertilizing). The program promoted the workshops through paid advertisements in *The Reflector*, press releases to local media, flyers distributed at all Small Acreage Program events, an e-mail to the program listserv, and other Extension events (Appendix C).

Manure Composting. The March 20th BMP workshop attracted 15 registrants, but four did not show up. The Coordinator, along with Lisa Schuchman, Resource Planner from the Clark Conservation District, taught participants about manure management: collection, composting, use on their property, and disposal. Participants practiced calculations to determine the volume of manure and soiled animal bedding produced and how much storage space they would need to compost those materials for six months.

Mud Management. The May BMP workshop in Ridgefield attracted 16 participants. Participants practiced calculating runoff volume from buildings and how to manage that runoff through the installation of gutters, downspouts, french drains, swales, and other drainage improvements.

Pasture Management. The final BMP workshop at the CASEE Center in Brush Prairie in August drew 33 participants, more than other workshops held during 2008. The workshop provided

participants with information on managing pastures for livestock, while also protecting water quality through appropriate grazing techniques, reduced pesticide use, and proper fertilizing.

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 17). Participants ranked the pasture workshop at an average of 4.7, the highest of the three workshops.

Table 17: 2008 BMP Workshops Evaluation Summary

Question	March 20	May 15	August 19
Do you intend to use any of this information?	4.1	4.5	4.5
What overall score would you give this event?	4.4	4.8	4.8
Overall, was this event worth your time to attend?	4.4	4.5	4.7
Average	4.3	4.6	4.7
Participants (n)	11	16	33
Evaluations completed	10	15	25
<i>Percent completed evaluations</i>	<i>91%</i>	<i>94%</i>	<i>76%</i>

* scale of 1 to 5 with 5 being excellent

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 (such as from fair to good) on all topics covered (Table 18). Ninety percent indicated they increased their level of knowledge at least one level on the topics of general manure management and proper manure composting. All respondents at the mud management workshop showed at least a one level increase in knowledge in utilizing footing materials and utilizing different methods to capture and route runoff to reduce mud.

Table 18: Change in Participant Knowledge Levels for BMP Workshops

Please rate your knowledge of the following topic areas:		Before and After Workshop Knowledge Change (As percent of respondents)					
		Same	1	2	3	4	N (NR) *
Manure Mgmt.	General manure management	10%	60%	30%	0%	0%	10 (1)
	Composting manure properly	10%	40%	20%	20%	10%	10 (1)
	Different ways to utilize manure	20%	30%	30%	20%	0%	10 (1)
	How manure management practices impact water quality	70%	10%	20%	0%	0%	10 (1)
Mud Mgmt.	General mud and runoff management	7%	50%	29%	7%	7%	14 (2)
	Utilizing heavy use areas and footing materials for livestock	0%	43%	21%	21%	14%	14 (2)
	Different methods to capture and route runoff	0%	50%	29%	14%	7%	14 (2)
	How property management practices impact water quality	15%	46%	15%	23%	0%	13 (3)
Pasture Mgmt.	Keys to general pasture management	12%	44%	24%	16%	4%	25 (8)
	Setting up a rotational grazing scheme	24%	36%	32%	8%	0%	25 (8)
	Fertilizing pastures to maintain pasture quality	24%	16%	32%	24%	4%	25 (8)
	How pasture management practices impact water quality	32%	32%	28%	4%	4%	25 (8)

*N = number of responses; NR= no response

In the mud management workshop, 57% of respondents increased their knowledge two or more levels about utilizing heavy use areas and footing materials for livestock, while 50% increased their knowledge two or more levels about different methods to capture and route runoff. Respondents possessed more basic knowledge about pasture management than other topics, as evidenced by the 12%-32% whose knowledge did not change. This might indicate a need for a more advanced class in this topic. Nevertheless, 60% of respondents did increase their knowledge two or more levels about properly fertilizing pastures. Overall, the increases in knowledge indicate most people learned better management techniques for improving water quality on their land.

Despite emphasizing how proper manure management practices impact water quality throughout the presentation, a large number of participants (70%) at the manure workshop indicated no knowledge change. However, the data shows that all respondents who reported no change on this topic started with at least an average knowledge and many said they already had an above average or excellent knowledge of the topic.

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

“[The most informative portion was] placing pipes in compost bins [to improve composting efficiency].”

“[I liked seeing samples of] different [manure composting] structures.”

“[I appreciated the information on] the amount of storage space I would need based on calculation.”

“[I plan to start] composting horse manure [and sign up for the Conservation District’s] manure exchange program.”

“[I plan on] building proper bins [for composting].”

“[I will] test [my] soil [before applying manure].”

“[I appreciated the information on] rain barrels, runoff [management], [and] rain gardens.”

“[I plan on creating] smaller winter areas [for my animals].”

“[I plan to reduce] mud, [improve] drainage, [and implement] rotational grazing.”

“[I plan to implement] soil testing and setting rotational grazing.”

“[I will create a] sacrifice area and [implement] fertilizing [and] soil testing.”

Deliverables

The program completed the three proposed BMP workshops attended by 60 people.

Issues and Recommendations

Despite promotion, ten registrants for the mud management workshop failed to attend. A reminder e-mail to registrants prior to the workshop may help reduce no shows.

Task 2d. Outreach Events and Promotional Activities

Hands On Horse Expo. The program staffed a booth and made presentations at the *Hands On Horses Expo*, which replaced the *Mane Event* (2006 and 2007). Unlike the Mane Event, the Silver Buckle Youth Equestrian Center coordinated the *Hands On Horses Expo*, partly as a fundraiser for their youth outreach programs. The organization proved difficult to work with and did not provide volunteer entrance passes until the first day of the event. The booth space also cost more, despite discounts for non-profits and speakers.



Small Acreage Answer Clinic display at Wilco Farm Store in Battle Ground.

The Coordinator and 13 volunteers staffed an informational booth and talked to 150 people at the three-day event on February 8, 9, and 10. The program answered questions, provided information, and distributed flyers for upcoming events. Event attendance decreased compared to previous years and 2008 program contacts decreased by 51 compared to 2007, likely due to limited advertising by event sponsors. Twenty-three visitors filled out postcards requesting information on upcoming workshops, small acreage tours, and the *Living on the Land* class series. Eight people were added to the *LOL* hold list and two visitors indicated interest in potentially hosting small acreage property tours in the future. To direct participants to the program booth, the program placed an ad in the Expo program (Appendix D).

The Coordinator also presented a small acreage runoff management activity for kids and parents twice during the Expo. The activity consisted of large sand-filled tubs where parents and children could set up a small acreage property, complete with a house, barn, well, fencing, and animals. The Coordinator then “made it rain” and discussed with participants the results of their set up and how it may impact or protect water quality. This unstructured activity was available in the kid’s area to any interested passerby. Six families participated in the activity on Saturday and Sunday and several youth opted to do the activity more than once to see if they could improve their protection of water quality. Running multiple sand boxes simultaneously was challenging and the activity may be better suited to a captive audience rather than an open activity area. The sand tubs were difficult to dry out between days, limiting the number available for use on the second day.

Clark Conservation District Annual Plant Sale. The program provided flyers promoting upcoming workshops, tours, and the Small Acreage Expo at the annual Clark Conservation District plant sale, held February 21 through 23 at the CASEE Center in Brush Prairie.

Small Acreage Answer Clinic. In an effort to attract new participants to events, the program partnered with the Clark Conservation District to host a Small Acreage Answer Clinic at the Wilco Farm Store in Battle Ground on Saturday March 1 from 10 am to 2 pm. The date coincided with the sale of poultry chicks which typically draws more customers to the store. The program advertised the answer clinic through press releases (Appendix D). A display inside Wilco featured program information for both organizations, as well as general BMP information. Flyers on upcoming events and fact sheets were available to visitors. Only 13 contacts were made during four hours. The low number of contacts likely resulted from rainy weather and small numbers of poultry chicks available. A more suitable location near the front of the store would help draw more attention to the display and probably increase contacts.

Parks Manure Bins. The local chapter of the Washington Trail Riders Association (WTRA) expressed interest in partnering with the Small Acreage Program to place manure compost bins for trail rider use at Battle Ground Lake State Park. Working with WTRA board members and the State Park Area Manager, the State Park Regional Manager in Olympia approved the manure bin plan. Clean Water staff, the Coordinator, the State Park Area Manager, and WTRA board members met in April to finalize the plans and determine a location for the bins. Materials purchased during the second quarter were collected by State Parks staff in September. Volunteers from WTRA and State Parks staff began construction during early October. WTRA is working with a local contractor to pour the concrete pad, after which the sides of bins will be constructed. Clean Water staff and the Coordinator continue to work with the State Park Area Manager on designing educational signage which must be approved by Washington State Parks. The program submitted design suggestions during the fourth quarter, but further discussion and approval of the design is pending.



WTRA volunteers framed the two bin system at Battle Ground Lake State Park.

The program selected three county parks for potential horse trail signage to encourage users to pick up manure after their horses, educate users about protecting water quality, and to promote the program. These parks include the Lucia Falls/Hantwick Road trailhead of the Bells Mountain Trail in Yacolt, Cottonwood Beach in Washougal, and Whipple Creek Park in Ridgefield. Signage design has been delayed due to the maternity leave of the Coordinator and will be delayed until 2009.

Small Acreage Exposition. The third annual *Small Acreage Expo* took place Saturday, April 19, at Brigands HideOut in Battle Ground. Twelve speakers were to present on 15 topics, including mud management, drainage installation, fencing, proper manure fertilizing, alternative energy, and weed management (Table 19). Due to low registration numbers for their sessions, the fencing and small engine equipment maintenance sessions were canceled. Participants were encouraged to select alternate classes from the schedule.

To promote the event, the Coordinator distributed flyers at outreach events and workshops, sent a mailing in March, sent an announcement to local Extension listservs, and posted the Expo program and registration on the WSU Extension and Small Acreage web pages. *The Reflector* and *Camas-Washougal Post Record* ran paid advertisements and press releases were submitted to all local media (Appendix D). A reporter from *The Capital Press* attended and wrote article highlighting the event, speakers, and topics covered (front page, Small Acreage section, May 9, 2008).

Participants were provided with a packet of handouts on small acreage property management, a schedule of Expo classes, information on upcoming events, and program promotional materials. Coffee and tea were provided by the program while a local 4-H group staffed a refreshment table in exchange for donations to raise funds for their club. The Coordinator arranged for four agencies and four businesses including the Clark Conservation District, the Clark County Clean Water Program, and Dan's Tractor, to set up booths or provide informational materials at the event.

Table 19: 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	Fertilizing Pastures & Lime Application	Gordon French, LJC Feeds
		A3	Streamside Property Management	Lynn Cornelius, WSU Extension
		A4	Fencing for Your Property	Mike Maghetti, Animal Management Systems
		A5	Small Engine Equipment Maintenance	JD Fernstrom, Stihl, Inc.
Session B	10:20 to 11:35	B1	Alternative Energy for Small Acreages	Bob Ward, Clark Public Utilities
		B2	Weed ID & Management	Ron Hendrickson, Clark Co Weed Mgmt
		B3	Small Engine Equipment Maintenance	JD Fernstrom, Stihl, Inc.
		B4	Fencing: Hands On Demonstration	Mike Maghetti, Animal Management Systems
		B5	Barn Stall & Aisleway Drainage	Wayne Berry, Double J Barns & Equipment
Lunch	11:40 to 12:20		LUNCH w/Dog Herding Demonstrations	Volunteers & Brigands Staff
Session C	12:25 to 1:40	C1	Alternative Energy for Small Acreages	Bob Ward, Clark Public Utilities
		C2	Farm Tour: Management in Action	Nancy Ward, Brigands HideOut
		C3	Forage and Animal Management	Gary Fredricks, WSU Extension
		C4	Fencing: Hands On Demonstration	Mike Maghetti, Animal Management Systems
		C5	Mud, Mud Go Away! Drainage	Grant Johnson, Grant Johnson Drainage Co.
Session D	1:45 to 3:00	D1	Livestock Guardian Dogs	Nancy Ward, Brigands HideOut
		D2	Weed ID & Management	Ron Hendrickson, Clark Co Weed Mgmt
		D3	Utilizing Manure: Spreader Demo	Scott Walz, Clark Conservation District
		D4	Fencing: Hands On Demonstration	Mike Maghetti, Animal Management Systems
		D5	Fertilizing Pastures & Lime Application	Gordon French, LJC Feeds

Based on comments received from participants at the 2007 event, four sessions with five concurrent classes were offered again this year. Once again, five class selections per session did not significantly increase participation and two speakers opted not to participate due to low registration numbers for their sessions. In an effort to increase the number of registrants attending the event, the program charged a \$10 registration fee for each person, which included a boxed lunch. Fewer people pre-registered in 2008 than for previous Expos. The flat registration fee combined with unseasonably cold weather may have led to the low registration. Reducing class offerings to four classes per session, making registration free, and offering lunch for \$10 at future events may help resolve some of these issues.

Forty-seven participants submitted evaluations for the event as a whole, a return rate of 68% (Table 20). Once again, offering door prizes in exchange for completing evaluations, likely contributed to a high

return rate. Respondents rated the program overall an average of 4.4, with no ranking below 4.3 on a scale of one to five, five being the highest (Table 20).

Table 20: Small Acreage Exposition Summary Evaluation

	Ranking
What overall score would you give this event?	4.3
Do you intend to use any of the information provided?	4.4
Did you learn something new or how to do others differently?	4.5
Overall Average	4.4
Attendance	69
Evaluations Completed (n)	47
Returned Evaluations	68%

Of participants completing an event evaluation, 40 (85%) 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 attending the event and then after attending the event. Based on this information, 55% of respondents increased their knowledge two or three levels about resources available to them in Clark County, as did 40% about their knowledge of property management (Table 21). Over 80% of respondents increased their level of knowledge by at least one level about all three knowledge areas. Together, the data demonstrate expo participants learn important management strategies about protecting water quality.

Table 21: Small Acreage Expo - Change in Knowledge Levels

Knowledge Area	Before and After Expo Knowledge Change (As percent of respondents)					N (NR) *
	Same	1	2	3	4	
Knowledge of farm/property management strategies	15%	40%	38%	2%	4%	47 (22)
Knowledge of agencies and resources in Clark County	13%	32%	34%	21%	0%	47 (22)
How management practices impact water quality	20%	56%	16%	7%	2%	45 (24)

*N = number of responses; NR = no response

Participants also assessed their change in knowledge on evaluations for selected individual sessions. Evaluations were not collected for the manure spreading demonstration session, or the weed management sessions. The speaker for the pasture classes used extra evaluations from the morning session in the afternoon session, so it was not possible to differentiate between evaluations from the two sessions. In addition, due to the open nature of the sessions, participant counts cannot be accurately made and often the evaluations returned are so few that no accurate interpretations can be drawn. (This was the case for Lynn Cornelius, Gee Creek Project Coordinator, who explained methods to protect streamside areas, and Grant Johnson, of Grant Johnson Drainage Company, who presented on methods for reducing mud around their homes and outbuildings.)

Respondents from classes reported their knowledge levels increased one or two levels for most of the workshops (Table 22), indicating the Expo sessions strike a balance in the depth of information presented: not so simple that most people do not learn anything, but not so technical that people have a difficult time learning. A presentation on managing drainage inside stalls and barns provided by Wayne Berry from Double J Trailers in Woodland increased respondents' knowledge about using

footing materials to reduce mud and installing stall mats to reduce waste. Several respondents indicated they felt the presentation did not provide broad enough information on managing drainage, but rather concentrated on the vendor’s product. These speakers may require more guidance in providing the requested information if invited to future events. A farm tour led by the owner of the host farm led to 60% of the respondents increasing their knowledge at least one level on the topic of reducing mud and 66% on the topic of managing roof runoff (Table 22). Gordon French from LJC Feeds talked about proper timing and application rates of fertilizers and lime for pastures. Gordon emphasized utilizing a soil test to determine fertilizer rates. Clearly subjects less understood initially by respondents, at least 77% increased their knowledge at least two levels on these topics (Table 22).

Table 22: Knowledge Level Change for Individual Expo Sessions

Workshop	Topic	Before and After Workshop Knowledge Change (As percent of respondents)					
		Same	1	2	3	4	N (NR)*
Streamside Property Management	How you can protect streamside areas on your property	0%	33%	33%	0%	33%	3 (0)
	Permits needed for working near or in streams	0%	67%	33%	0%	0%	3 (0)
	Reducing erosion on stream banks	0%	33%	0%	0%	0%	1 (2)
Barn Stall & Aisleway Drainage Management	Methods to install stall mats in animal stalls	13%	38%	25%	25%	0%	8 (0)
	Installing stall mats to reduce bedding use	25%	50%	25%	0%	0%	8 (0)
	Utilizing footing materials to reduce mud	13%	38%	0%	38%	13%	8 (0)
Farm Tour - Management in Action	Managing roof runoff on your property	40%	20%	20%	10%	10%	10 (1)
	Reducing and managing mud	33%	33%	22%	11%	0%	9 (2)
	How farm management practices affect water quality	56%	11%	0%	22%	11%	9 (2)
Mud, Mud Go Away!	Methods to reduce mud	40%	20%	20%	0%	0%	4 (1)
	How to manage roof runoff	60%	20%	0%	0%	0%	4 (1)
	Utilizing french drains and other methods to manage runoff water	40%	20%	0%	20%	0%	4 (1)
Pasture Fertilizing and Lime Application	Fertilizer application timing and rates for pastures	0%	15%	38%	46%	0%	13 (1)
	Utilizing soil tests to determine fertilizer application rates	0%	8%	62%	23%	8%	13 (1)
	Applying lime for soil and pasture health	0%	23%	31%	23%	23%	13 (1)

*N = number of responses; NR = no response

The five sessions where a knowledge change assessment was not requested received too few evaluations to report. Despite handing out evaluations, the speaker for alternative energy did not receive any back for his morning session and no one attended his afternoon session. The guardian dogs demonstration, provided by Expo host Nancy Ward, owner of Brigands HideOut, continues to be well received and draws a nice crowd who watch along her fence.

Thirty participants indicated they would change their mud, manure management, runoff, weed, or pasture management strategies within a year as a result of what they learned at the Expo:

“[Plan to change] how we treat pastures - definitely will add lime and fertilizer.”

“[I will implement] streamside restoration, drainage (less mud), and weed management.”

“[We will change our] weed management now that [they] can be identified.”

“[We will change our] pasture management [by] controlling mud and [creating] sacrifice areas.”

Other comments indicated the event was well received by participants:

“Everything was important information for our new property.”

“[This was our] first year [and the information] was very helpful.”

“The cost was very nice, not too much.”

“[It was a] nice informative program.”

Small Acreage Expo Impact Survey. In an effort to gauge the what changes past participants made based on information learned at Expos, the Program mailed a cover letter and brief survey to the 203 participants from the 2006 and 2007 events (Appendix F). While 61 (30%) surveys were returned and 3% were not deliverable due to address changes, not all respondents answered each question resulting in different N values in the following tables. Fifty-seven of the respondents own or manage a total of 690.3 acres (Table 23).

Table 23: Respondent Property Acreage (n=57)

Average Acreage	12.1
Median Acreage	5
Standard Deviation	18.1
Minimum Acreage	2
Maximum Acreage	100
Total Acreage	690.3

Ninety-eight percent of respondents shared what they learned with others, primarily friends and family (Table 24), thus reaching an additional 548 people. Peer-to-peer sharing of BMP information constitutes one of the strengths of the Small Acreage Program.

Table 24: Information Shared with Others (n=60)

Participants	Shared With:	Total Shared With:
75%	Family	548
65%	Friends	
53%	Neighbors	
17%	Other Groups	
8%	Others	

Forty-nine percent of the respondents strongly agreed they managed their property differently based on what they learned, indicating the event provided enough information to successfully encourage landowners to implement BMP's and change their land management (Table 25).

Table 25: Management Changes Based on Information Received at Event (n=59)

	Strongly Disagree	Some-what Disagree	Neither Agree or Disagree	Some-what Agree	Strongly Agree	Don't Know or Unsure
Based on what I learned, I now manage my property differently	2%	3%	5%	36%	49%	2%

Ninety-five percent of the respondents indicated they had implemented practices or management changes as a result of attending the event, with 69% implementing four or more (Table 26). Implemented BMP's potentially improve water quality on 650 acres. BMP's installed by survey respondents include rotational grazing, mud management, and pasture management (Table 27).

Table 26: BMP's Implemented (n=58)

Respondents	No. BMPs
16 (26%)	1 – 3
14 (23%)	4
15 (25%)	5
13 (21%)	6 or more
58 (95%)	1 – 12 BMPs
Acreage Impacted	650 ac

Table 27: BMP's Implemented Based on Attendance at Event (n=58)

Practice	% of Respondents
Rotational grazing	66%
Mud management/ footing materials	64%
Pasture management	60%
Weed management	57%
Manure composting	53%
Installing fencing	41%
Roof runoff/drainage installation	33%
Cover manure pile	31%
Soil testing	24%
Stream side management	16%
Other	16%

Other = hay selection, small acreage business planning, solar improvements, tractor maintenance, lime application, rain gardens, and planting natives

Thirty-four of the 61 respondents identified one management change they implemented as the most important. Pasture management and weed management were most often identified (Table 28). Properly managing pastures can reduce the amount of runoff and erosion, which can transport manure to nearby waterbodies. Appropriately identifying and controlling weed species with appropriate methods decreases the potential for runoff of pesticides into storm water.

Table 28: BMP Implemented with Most Impact (n=34)

Practice	% of Respondents
Pasture management	21%
Weed management	18%
Mud management/footing materials	15%
Manure composting	15%
Rotational grazing	12%
Soil testing	9%
Roof runoff/drainage installation	6%
Cover manure pile	3%
Installing fencing	3%
Stream side management	0%
Other	0%

Clark County Harvest Celebration. The 10th Annual Harvest Celebration featured 14 Clark County host farms on Saturday September 20 (Table 29). The event attracted nearly 1000 visitors to the participating farms, which included four Small Acreage Program signage farms. Each of these farms displayed a poster outlining the BMP's implemented by each farm (Appendix D). All four farms opted to keep their posters.

Table 29: 2008 Harvest Celebration Attendance

Farm	Visitors	Total Farm Visits
Silver Star Ranch	50	59
Brigands HideOut *	80	119
Bethany Vineyards	32	73
Compass Rose Alpacas *	42	68
Northwest Organic Farms	203	266
Wynneshire Farms	56	161
Bi-Zi Farms	93	179
Scented Acres +	110	110
Storytree Farm *	90	128
Felida Red Barn +	20	20
Kunze Farms	155	166
Livingston Mountain Alpacas *	18	24
Linda's Dahlias & More	32	36
Mingus Dahlia Farm	42	42
Total	981	1409

* Farms with clean water signage.

+ Estimate based on discussion with landowner; no volunteer available.

Clark County Horse Symposium. This event, to be planned by the Clark County Executive Horse Council, did not take place.

Deliverables

All the deliverables were met except the Clark County Horse Symposium, which did not take place.

Issues and Recommendations

Due to the difficulties working with Silver Buckle Youth Equestrian Center on the *Hands On Horse Expo*, the increased price for booth space, and decreased attendance and number of contacts, the program should not participate in this event in the future.

The Small Acreage Answer Clinic at the Wilco Farm Store garnered fewer contacts than anticipated. Future clinics should coordinate with Wilco staff to find a better location and time the outreach event to in-store promotions or events.

The county parks signage project has been delayed until 2009 and may be included in the scope of work for that year.

Task 2e. Outreach Database

The Coordinator utilized returned mail from the Expo mailing to update the Small Acreage database. The e-mail listserv is updated as needed, based on sign ups received at outreach events, workshop and class registrations and requests for removal.

Deliverables

The outreach database and e-mail listserv were updated throughout the year as needed.

Issues and Recommendations

There are none.

Task 3 - Model Small Acreage Properties

Task 3a. Property Tours

The program completed three tours demonstrating sound management practices that minimize surface water pollution and improve overall property aesthetics. Tours also provide 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 E). The Coordinator e-mailed office listservs. Of 45 registrants who responded, 25 learned about a tour through emails, three through ads

and published press releases, with the remaining two learning through the flyer and talking with the Coordinator.

Spring Tours. The first small acreage tour took place March 22 at Road’s End Farm, owned by Sue and Bill Svendsen. Twelve people toured the five acre horse property in Vancouver, looking at runoff management, footing materials, manure management, and suburban horse living.

The second small acreage tour took place June 14 at True North Alpacas, owned by Peggy Sue and Owen Snooey. Twenty-four people toured the five acre alpaca property in La Center, looking at alpaca care, wetland protection, protection and improvement of wildlife habitat, natural insect control, footing materials, rain barrels, runoff management, and manure management.

Fall Tour. Brigands HideOut, located in Battle Ground, agree to host a tour September 27. The program canceled this tour due to low registration. The minimum number of registrants to hold a tour is 10.

Evaluation. Participants rated both tours highly, with no tour scoring below an average of 4.4 on a scale of one to five, with five being highest (Table 30). Overall, participants indicated they would use the information provided, as evidenced by average ratings between 4.7 and 5.0 for the tours. Despite asking all participants to complete evaluations, only one completed and returned an evaluation for the second tour. However, many participants verbally expressed satisfaction with the tour.

Table 30: Evaluation Summary for Small Acreage Tours

	Mar 22	Jun 14
Do you intend to use any of this information?	4.7	5.0
What overall score give this event?	5.0	5.0
Overall, was this event worth your time to attend?	5.0	5.0
Average	4.9	5.0
Participants	12	24
Evaluations Completed	6 (50%)	1 (4%)

When asked to assess their change in knowledge about four key topics covered at the March tour, 67% of the respondents showed at least a two level increase in knowledge about pasture management (Table 31). For both manure management and methods of controlling and managing roof runoff, 66% felt they increased their knowledge one or more levels. Discussion throughout the tour by the Coordinator and Clark Conservation District staff highlighting the importance of BMP’s for water quality protection led to 60% of the respondents increasing their knowledge for this topic at least one level.

Table 31: Change in Knowledge Levels for Small Acreage Tour (March)

Knowledge Area	Before and After Tour Knowledge Change (As percent of respondents)					N (NR)*
	0	1	2	3	4	
Knowledge of pasture management	17%	17%	50%	17%	0%	6 (6)
Knowledge of manure management	33%	33%	33%	0%	0%	6 (6)
Controlling and managing runoff	33%	33%	33%	0%	0%	6 (6)
How management practices impact water quality	40%	40%	20%	0%	0%	5 (7)

*N = number of responses; NR = no response

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

“[The most informative part of the tour is] having a visual for the manure [management and] gutter management. [Also] being exposed to continuing education you offer.”

“[I appreciated the information on] manure and mud management.”

Deliverables

Two of the three proposed tours were completed of the program’s merit properties.

Issues and Recommendations

Due to low registration, the third tour planned for September at a property in Battle Ground was cancelled.

Task 3b. Signage Recognition

The Coordinator solicited small acreage owner participation through a mailing to the 2007 LOL class and the small acreage e-mail listserv, resulting in six property owners expressing interest. The Coordinator visited these six properties to assess their implementation of BMP’s for water quality protection. One landowner only recently moved onto her property and is still working to establish fencing and guttering, so did not qualify for a sign. Three of the remaining five properties qualified for signs and two have picked up and installed the signs. The third landowner has not yet made it to the office to pick up their sign. Two other properties are still being assessed for their implementation of manure management.

Deliverables

The program provided three of eight promised signs to property owners, two of which were installed.

Issues and Recommendations

Despite promoting the signage program at workshops, tours and other program events, along with a direct mailing to previous LOL graduates, the program may have saturated interest in signs among the program’s current clientele (primarily the LOL participants). Increased efforts to reach non-program participants through press releases to local media appear to be too broad and did not generate much interest. An informational flyer or brochure about the program may help reach non-program participants, in addition to more personal contact with small acreage groups.

Task 4 – Small Farms Outreach

Task 4a. Agricultural Entrepreneurship

To address a gap in educational support available to local farmers, Extension funded this part of the program to organize a business planning class series based on the *Cultivating Success - Agricultural Entrepreneurship* (<http://cultivatingsuccess.ag.uidaho.edu/>) curriculum. This intensive business

planning class covers evaluating resources, planning and research, legal and management issues, marketing strategies, budgets and financial statements, and finding funding sources (Table 32). Participants produced a completed business plan by the time they finished the course. Farmers and small business resource providers serve as guest speakers, bringing practical experience to the class.

Table 32: Agricultural Entrepreneurship Course Schedule

Date	Topic	Instructor(s) & Guest Speakers
Feb 5	Business Planning Basics <i>Vision, goals & mission statement</i>	Instructor: Erin Harwood, WSU Clark County Extension Guest Speaker: James Vosin, Purple Rain Vineyard
Feb 12	Product and Industry Description Business Structures	Instructor: Erin Harwood, WSU Clark County Extension Guest Speaker: Matt Bisturis, Schwabe, Williamson & Wyatt
Feb 19	Market Analysis: Consumer Trends	Instructor: Jim Julian, OSU Extension
Feb 26	Marketing: The 5 P's and Direct Marketing From the Farm	Instructor: Erin Harwood Guest Speaker: Lorrie Conway, Conway Family Farms
Mar 4	Marketing: Direct Marketing Options	Instructor: Patrice Barrentine, WSDA Guest Speaker: Bill Zimmerman, Bi-Zi Farms
Mar 11	Management and Operations Regulations & Tax Reporting	Instructors: Claudia Coles, WSDA and Barb Funk, BG Business and Tax Service
Mar 18	Management and Operations Risk Management: Insurance	Instructors: Sheryl Teuscher, Country Companies and Chris Mahelona, USDA Risk Management Agency
Mar 25	Financing: Balance Sheets & Income Statements	Instructor: Honora Whitaker-Mead, CPA
Apr 1	Financing: Record Keeping & Budgets	Instructors: Robin Hayden, CPA, CFE & Lorrie Conway, CPA
Apr 8	Graduation Celebration Present finished business plans	Instructors: Students

The ten-week class series began February 5 and ended April 8. Thirty participants owning 21 farms registered for the class to learn about business planning, marketing methods and opportunities, and how to develop or expand a small farm business. One participant dropped from the series during week two due to health issues. Of the remaining participants, 27 (90%) graduated by attending at least 70% of the classes (Table 33).

Table 33: Agricultural Entrepreneurship Attendance

Classes Attended	# Participants	As % of Participants
10	2	7%
9	11	37%
8	10	33%
7	4	13%
6	0	0%
5	2	7%
4	0	0%
3	0	0%
2	0	0%
1	1	3%

Participants rated the class sessions well, with no average score below 3.9 on a scale of one to five, five being highest (Table 34). Participant comments indicate they enjoyed the course sessions and learned valuable information for planning their business from the series:

Table 34: Agricultural Entrepreneurship Evaluation Summary (n=19)

	Planning Basics	Product/ Industry	Market Analysis	Marketing Basics	Marketing Options	Regulations & Taxes	Risk Management	Budgeting I	Budgeting II
Use any of this info?	4.8	4.3	4.1	4.3	4.3	4.4	3.7	4.6	4.9
Learn something new?	4.8	4.1	3.9	4.2	4.4	4.2	4.3	4.4	4.6
Overall score give session?	4.6	4.1	3.9	4.4	4.3	3.9	3.8	4.1	4.6
Average	4.7	4.1	4.0	4.3	4.3	4.2	3.9	4.3	4.7

“This was extremely comprehensive, giving us ideas we never even considered.”

“It was an excellent class. I have already [recommended it to others].”

“This course was appropriate in all respects. Thanks. [It was a] great course [and I will] highly recommend it.”

“I liked the guest speakers; I liked everything.”

Deliverables

The program completed the proposed 10 week class series, *Cultivating Success: Agricultural Entrepreneurship*, graduated 27 people out of 30 participants.

Issues and Recommendations

There are none at this time.

Task 4b. Small Farms Business Fact sheet

Processing farm products into a more finished form adds monetary value which helps farmers sustain their economic viability. Food processing requires utilizing a certified kitchen. Currently, no centralized list of these facilities exists in Clark County. The Coordinator will compile a list of certified kitchens with their availability, costs, and other conditions of use.

Clark County Public Health maintains a database of all certified facilities in the county, including certified kitchens available for rent. The Coordinator, working with WSU Extension food safety faculty, was able to get Public Health to collaborate on this project. Public Health compiled a list of certified kitchens in the county. During the Coordinator’s absence, WSU food staff contacted each facility on the list to obtain information on availability, rental cost, size, and available equipment. Three facilities indicated they are willing to rent to the public and provided information. The Coordinator and WSU food staff is working to find additional facilities in Clark County available for public use before completing the fact sheet. Due to the extra time involved in finding additional facilities, the fact sheet will be delayed. It should be completed in early 2009.

Deliverables

The small farms business fact sheet has been delayed, but should be completed in 2009.

Issues and Recommendations

There are none at this time.

Task 5 - Impact Evaluation and Project Reporting

Task 5a. Evaluation

Workshop Evaluation. The Coordinator tracks attendance for all classes, workshops and tours. All attendees are requested to fill out evaluations (Appendix F) 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. In addition to rating program quality, 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 105 telephone and walk-in requests for information and assistance during the year. Requests generally involve soil testing, 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. All graduates through 2007 have been surveyed after they had at least one summer (good weather) to implement BMPs on their properties. The latest graduates include members of the Fall 2007 group. After initial mailings, the staff followed-up with non-responders by email and/or telephone.

Response. As outlined in Table 35, 181 LOL participants returned the survey for an overall response rate of 82.6%. The class of Fall 2007 returned the least (75%) 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.

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. Since 2003, 181 respondents out of 219 graduates implemented 429 BMPs on at least 1403 acres affecting at least 1100 livestock (excluding poultry). One hundred fifty-five shared what they learned with over 2037 other people.

Over 36% tested their soil, 65% of 134 respondents with septic systems inspected their system, and 72% of the 129 respondents with wells tested them, all as a result of what they learned. Almost 80% agreed funding the LOL through Clean Water Program fees they pay was a good use of the fee.

Table 35: Survey Response Rates of LOL Graduates

Class	Moved	No Response			Returned Evaluation			Total	
		No.	% of Class	% of Total	No.	% of Class	% of Total	No.	% of Total
Fall 2003		4	17%	2%	19	83%	9%	23	11%
Spring 2004		10	23%	5%	33	77%	15%	43	20%
Fall 2004		5	15%	2%	29	85%	13%	34	16%
Spring 2005	1	4	15%	2%	22	81%	10%	27	12%
Fall 2005	1	2	7%	1%	24	89%	11%	27	12%
Fall 2006		3	9%	1%	30	91%	14%	33	15%
Fall 2007		8	25%	4%	24	75%	11%	32	15%
Totals	2	36		16%	181		83%	219	100%

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 Director has not yet analyzed the combined data through 2007 due to time constraints. The impact study analysis needs to be analyzed and the results reported. The Director will try to provide an updated analysis in the spring 2009.

Task 5b. Reporting

Deliverables

All quarterly reports and the 2008 annual report were submitted by the Director.

Issues and Recommendations

The impact analysis has been consistently delayed. It is difficult to set aside the time to check and correct data entry as needed, import into SPSS, perform data computations, analyze, and report the analysis. Since the only the Director can do this analysis using SPSS, he will continue to try to block out the time necessary to complete the analysis.

Table 36: Summary Table for 2008

Program Elements			2008 Goals	Qtr 1	Qtr 2	Qtr 3	Qtr 4	YTD	% 2008 Goals
Best Management Practices (Task 1)	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	
		Track web site document downloads		1	1	1	1	4	
	Fact sheets	Fact sheet adapted to Clark Co	2			1		1	50%
		Articles for Flying changes Magazine	1					0	0%
Public Outreach and Education (Task 2)	LOL Class Series	LOL session	1				1	1	100%
		Attendance	30				31	31	103%
	Well & Septic Workshops	Well & septic workshops	8	2	2	2	2	8	100%
		Attendance	120	52	77	34	34	197	164%
	BMP Workshops	BMP Workshops	3	1	1	1		3	100%
		Attendance	60	11	16	33		60	100%
	Outreach Events & Promotional Activities	Revise & maintain speaker's list	ongoing	1	1	1	1	4	
		Small Acreage Exposition	1		1			1	100%
		Attendance	100		69			69	69%
		Hands On Horses Exposition	2	2				2	100%
		Clark Conservation District Plant Sale	1	1				1	100%
		Manure Bins & Signage	1	1				1	100%
		WSU Harvest Celebration	1			1		1	100%
		Clark County Horse Symposium	2					0	
		Attendance	30					0	
		Additional Events as identified		1				1	
Outreach Database	Maintain and update database	ongoing		1			1		
Model Properties (Task 3)	Property Tours	Conduct tours	3	1	1			2	67%
		Attendance	45	12	24			36	80%
	Signage Recognition	Follow up with Previous Assessments	1					0	0%
		Enroll new farms and install signs	8		3			3	38%
Small Farms (Task 4)	Agricultural Entrepreneurship	10 week course	1		1			1	100%
		Attendance	30		30			30	100%
	Fact sheet	Small Farm Business Fact sheet	1						
Impact Evaluation and Project Reporting (Task 5)	Evaluation	Workshop evaluations	19	4	6	3		13	68%
		Requests for assistance		37	33	32	3	105	
		Impact evaluation of 2007 participants	1			1		1	100%
	Reporting	Quarterly Reports	3	1	1	1		3	100%
		Annual Report	1				1	1	100%