# Small Acreage Landholder Outreach Program 2005 Annual Report

Submitted to Clark County Clean Water Program

Submitted by WSU Clark County Extension

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## **Executive Summary**

The Small Acreage Landholder Outreach Program completed two Living on the Land: Stewardship for Small Acreages class series and graduated 54 people in 2004.

The program completed seven wells and septic workshops and provided two workshops on mud management and another on barns, outbuildings, and runoff management.

The program conducted three small acreage property tours. Ten properties were evaluated in 2005 for the merit and model property portion of the program. Seven of the properties assessed this year and ten assessed in 2004 were awarded signage.

The program completed six fact sheets, Inspecting Your Septic System, Improving Drainage, Sacrifice Areas, Properly Landscape Your Septic System, Water Quality Self Assessment Guide for Small Acreages, and Managing Manure.

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

#### Task 1 a - Reference Materials

WSU Clark County Extension updated its website in January 2005, including the Small Acreage Program pages. A brief <u>overview of the program</u> includes links to partners websites and provides descriptions of workshops, training, property tours, and the signage recognition program. In December, the program added a picture of Don and Dee Morse, the first couple to receive and install a sign on their property to the program web page. A <u>separate webpage</u> describes the Living on the Land class series and the goals and objectives of the program.

The Coordinator added over 20 new fact sheets and other reference materials to the resource files, updated the resource list and reorganized it by topic, and added web links in March (Appendix A). The updated resource list was posted to the web in March.

The program tracks website visitors and downloads monthly throughout the year (Table 1). With little advertising, 899 visitors accessed the Living on the Land webpage and 471 downloads of the annual reports occurred.

| Program Reporting Documents    | Qtr 1 | Qtr 2 | Qtr 3 | Qtr 4 | YTD |
|--------------------------------|-------|-------|-------|-------|-----|
| 2003 Annual Report             | 52    | 68    | 61    | 30    | 211 |
| 2004 Annual Report             | 0     | 43    | 65    | 41    | 149 |
| 2004 Annual Report Appendices  | 0     | 34    | 33    | 44    | 111 |
| Total Downloads                | 52    | 145   | 159   | 115   | 471 |
|                                |       | •     |       | •     | •   |
| Small Acreage Website Visitors | 124   | 262   | 267   | 213   | 866 |

**Table 1: Small Acreage Webpage Activity** 

### Deliverables

The program updated reference files and revised the resource list which was posted to the web page in March. Hits and downloads were tracked throughout the year.

#### Issues and Recommendations

Website visitors and downloads were not recorded for January and WSU does not archive this information. The Coordinator set up a schedule and reminder system to ensure that the information will be collected regularly. The Coordinator started tracking visitors who directly access the Small Acreage Program and LOL web pages. This should be continued through 2006.

## Task 1 b - Fact sheets

All six of the completed factsheets have been posted to the web and are available for download. The program produced two original fact sheets and four adapted to be Clark County specific (Appendix A). The factsheets have been downloaded off the website over 2700 times (Table 2). The most popular, at 552 downloads, was the roof runoff factsheet.

**Table 2: Small Acreage Webpage Activity** 

| Resource List  | Qtr 1 | Qtr 2 | Qtr 3 | Qtr 4 | YTD  |
|--|-------|-------|-------|-------|------|
| Information on Small Acreage Management - Resource List                    | 55    | 92    | 49    | 37    | 233  |
| Fact sheets  |       |       |       |       |      |
| BMPs for Small Acreages  | 0     | 131   | 87    | 71    | 289  |
| Do You Qualify For Reduced Property Taxes? Current Use Taxation            | 45    | 120   | 76    | 49    | 290  |
| Keeping Clean Water Clean & Reducing Mud - Managing Roof<br>Runoff         | 76    | 195   | 182   | 99    | 552  |
| Simple Steps To Protect Your Surface and Well Water                        | 41    | 76    | 60    | 30    | 207  |
| What Can You Do On Your Land? Frequently Asked Questions                   | 46    | 69    | 67    | 46    | 228  |
| Constructing Ponds and Water Features - What Does It Take?                 | 56    | 144   | 118   | 59    | 377  |
| Reduce Mud and Keep Water Clean: Sacrifice Areas                           | 0     | 8     | 94    | 77    | 179  |
| Tips On Land & Water Management for Small Acreages in Southwest Washington | 4     | 80    | 62    | 47    | 193  |
| Protecting Your Inve\$tment: Inspecting Your Septic System                 |       |       |       | 42    | 42   |
| Keeping Clean Water Clean & Reducing Mud - Improving Drainage              |       |       |       | 193   | 193  |
| Save Time and Money - Properly Landscape Your Septic System                |       |       |       | 2     | 2    |
| Total Downloads  | 323   | 915   | 795   | 752   | 2785 |

Factsheets completed in 2005 are briefly described below:

Improving Drainage describes methods, in addition to guttering, small acreage landowners can use to collect and re-direct rainwater to keep water clean and reduce mud, such as berms, grassy swales, french drains, and dry wells.

Sacrifice Areas explains why sacrifice areas or turnouts are important and how they reduce mud, protect pastures and maintain water quality through the use of appropriate footing materials.

Properly Landscape Your Septic System provides landowners tips and suggestions on incorporating their septic system into their home landscape design without damaging the system.

Inspecting Your Septic System outlines proper septic system inspection and the importance of suitable maintenance.

Managing Manure explains the benefits and process of composting animal manure on-site to protect water quality.

Water Quality Self Assessment Guide for Small Acreages walks landowners through a pictorial self assessment of their management practices. It helps landowners identify areas where they could implement BMPs to improve neighbor relations, avoid regulatory intervention, and better protect water quality.

### Deliverables

The program completed all six factsheets, although the final one on manure management will not be posted until early January.

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 two Living on the Land: Stewardship for Small Acreages (LOL) class series in 2005. The spring series ran from February through the middle of May and graduated 27 people (40 people owning 45 parcels started the class). Landowners cited stewardship, care and maintenance of livestock, control of mud and runoff, a desire to explore options for their property, and an interest in starting small commercial farming enterprises as reasons for signing up for the class series.

The fall LOL class series ran from September through the end of November. The syllabus changed slightly from the spring class (Table 3), with removal of one soils class to allow the inclusion of a 1.5 hour presentation on attracting wildlife utilizing native plants. Forty-seven people owning 27 parcels registered, but over the course of the series 12 participants withdrew due to scheduling conflicts and two registrants never showed up to any classes. Attempts to contact these two

Table 3: LOL Fall 2005 Class Syllabus

| Date     | Topic   | Instructor(s)  |
|----------|---|--|
| 9/13/05  | What Do You Have & What Do You Want?<br>Turning Dreams into Reality                         | Doug Stienbarger, WSU Clark County Extension                           |
|          | What Can You Do?  | Doug Stienbarger   |
| 9/20/05  | Clark County Land Use Zoning and Codes<br>Applicable to Small Acreages                      | Scott Melville, Clark County Community Development                     |
| 9/27/05  | Managing Soil to Keep It Productive   | Dr. Craig Cogger, WSU Puyallup   |
| 10/4/05  | Watershed Pollution <i>Hands On Demonstration</i> Clark County Clean Water Program Overview | Cary Armstrong, Clark County, Water<br>Resources - Clean Water Program |
|          | Water Quality: Making the Connection  | Clair Clock, Clackamas Conservation District                           |
| 10/11/0E | The Business of Horticulture  | Charles Brun, WSU Clark County Extension                               |
| 10/11/05 | Attracting Wildlife with Native Plants  | Dean Longrie, Clark Conservation District                              |
| 10/18/05 | So you want to be an animal owner?  | Erin Harwood, WSU Extension Clark County                               |
| 10/25/05 | Pasture Establishment and Renovation  | Gene Pirelli, OSU Extension Polk County                                |
| 11/1/05  | Managing Animals to Avoid Negative Impacts  | Andy Bary, WSU Puyallup  |
| 11/8/05  | Grazing Management  | Gary Fredricks, WSU Extension  |
| 11/15/05 | Protecting Household Drinking Water: Wells &  | Reuel Emory & Joe Ellingson, Clark County                              |
| 11/22/05 | Septics What to Do About Weeds?   | Health Department  Ron Hendrickson, Clark County Weed  Management      |
| 11/29/05 | My Place on a Stream Workshop review & Graduation   | Gary Bock, Watershed Stewards Program                                  |

resulted in no response. Those who withdrew were placed on the waiting list for the 2006 class series. Of the remaining 33 participants, 27 attended at least six classes (Table 4), 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 series, participants cited stewardship and management, mud and manure management, weed control and pasture improvement, grazing management, enhancing wildlife habitat, and a desire to explore options for their property.

| Classes   | Spring | 9   | Fa | all | Total | As % of All         |
|-----------|--------|-----|----|-----|-------|---------------------|
| Attended  | #      | %   | #  | %   | TOtal | <b>Participants</b> |
| 12        | 10     | 30% | 1  | 3%  | 11    | 17%                 |
| 11        | 4      | 12% | 3  | 9%  | 7     | 11%                 |
| 10        | 4      | 12% | 5  | 15% | 9     | 14%                 |
| 9         | 5      | 15% | 10 | 30% | 15    | 23%                 |
| 8         | 2      | 6%  | 5  | 15% | 7     | 11%                 |
| 7         | 2      | 6%  | 1  | 3%  | 3     | 5%                  |
| 6         | 0      | 0%  | 2  | 6%  | 2     | 3%                  |
| 5 or less | 6      | 18% | 6  | 18% | 12    | 18%                 |
| Total     | 33     |     | 33 |     | 66    |                     |

Table 4: LOL attendance

While the spring class participants closely mirrored previous classes in attendance (over 75% attended at least nine classes), only 58% of the fall class participants attended nine or more classes. In speaking informally with participants, no clear reason emerged, other than very busy schedules.

**Profile of LOL Participants.** The following tables list the attributes of participants and their properties from the two LOL class series. Participants manage 770.9 acres of land, 64 septic systems and 53 wells which represents the immediate impact of implementing best management practices.

Classes were held at the Center for Agriculture Science and Environmental Education (CASEE) in Brush Prairie, a central location for a majority of small acreage landowners throughout Clark County. The program reached the target audience of landowners in the suburban fringe and rural areas of the county as indicated in Table 5. Seven Camas area residents participated in 2005, compared to only one in the previous three sessions in 2003 and 2004. Staff connected with a reporter for the Camas/Washougal Post-Record newspaper to send press releases where the program also used paid advertisements.

Participants in the spring class managed more acreage than those in the fall class, despite having fewer participants. Most likely, this results from the greater number of participants originating from north Clark County where parcels tend to be larger. When looking at acreage, 70% of the properties are 10 acres or less, while less than 13% are greater than 20 acres (Table 6).

Participants utilize their land primarily for pasture land, vegetable production and lawn (Table 7). Clearly participants have multiple uses and corresponding goals for their properties.

**Table 5: Geographic Distribution of Participants** 

|         |                         | Fall<br>2003 | Spring<br>2004 | Fall<br>2004 | Spring<br>2005 | Fall<br>2005 | City<br>Totals | Area<br>Totals |
|---------|-------------------------|--------------|----------------|--------------|----------------|--------------|----------------|----------------|
|         | Amboy                   |              | 3              | 4            | 5              | 1            | 13             |                |
|         | La Center               | 6            | 9              | 7            | 6              | 2            | 30             |                |
| North   | Ridgefield              |              | 5              | 5            | 2              | 8            | 20             | 76             |
|         | Yacolt                  |              | 6              |              |                | 1            | 7              |                |
|         | Woodland (Clark County) |              |                | 2            | 2              | 2            | 6              |                |
| Central | Battle Ground           | 8            | 13             | 12           | 8              | 5            | 46             | / 2            |
| Central | Brush Prairie           | 2            | 4              | 7            | 2              | 2            | 17             | 63             |
|         | Camas                   | 1            |                |              | 2              | 5            | 8              |                |
| South   | Vancouver               | 4            | 4              | 3            | 4              | 4            | 19             | 35             |
|         | Washougal               | 2            | 1              | 4            |                | 1            | 8              |                |
|         | Out of County           |              |                | 4            | 2              | 2            | 8              | 8              |
|         | Totals                  | 23           | 45             | 48           | 33             | 33           | 182            | 182            |

**Table 6: Acreage Distribution of Participants** 

|                      | Fall      | Spring       | Total     |
|----------------------|-----------|--------------|-----------|
| # Participants       | 33        | 33           | 66        |
| # Parcels            | 24        | 36           | 60        |
| Total Acreage        | 297.9     | 382.8        | 680.7     |
| Average Ac. / Parcel | 11.9      | 12.3         | 12.1      |
| Range                | 1 - 60 ac | 2.65 - 68 ac | 1 - 68 ac |
| <= 5 ac              | 8         | 12           | 20        |
| >5 ac - 10 ac        | 9         | 10           | 19        |
| >10 ac - 20 ac       | 4         | 6            | 10        |
| > 20 ac              | 4         | 3            | 7         |

**Table 7: Land Use on Participant Properties** 

| Land Use             | Fall  | Spring      | Tota         | ıls |
|----------------------|-------|-------------|--------------|-----|
| Pasture              | 18    | 15          | 33           | 45% |
| acres*               | 55.06 | <i>57.5</i> | 112.56       |     |
| Hay                  | 2     | 8           | 10           | 14% |
| acres*               | 5     | 38          | 43           |     |
| Forest               | 11    | 14          | 25           | 34% |
| acres*               | 28.17 | 30          | <i>58.17</i> |     |
| Vegetable Production | 18    | 16          | 34           | 46% |
| Orchard Production   | 9     | 13          | 22           | 30% |
| Landscape            | 10    | 16          | 26           | 35% |
| Wildlife             | 12    | 15          | 27           | 36% |
| Lawn                 | 18    | 17          | 35           | 47% |

<sup>\*</sup>Understates total since not all participants listed acreage.

Livestock owners made up 60% of participants in the fall class, while only 33% of spring participants had livestock. However, participants in both classes raised nearly the same number of animals with cattle and poultry predominating in the spring class series (Table 8).

Nearly all the participants in both class series have septic tanks, and nearly 70% have wells for a potable water source (Table 9).

| Animal  | Fall* | Spring* | Total |
|---------|-------|---------|-------|
| Horses  | 50    | 11      | 61    |
| Poultry | 39    | 65      | 104   |
| Alpacas | 44    | 19      | 63    |
| Goats   | 15    |         | 15    |
| Cattle  | 9     | 68      | 77    |
| Llamas  | 7     | 4       | 11    |
| Donkeys | 4     | 2       | 6     |
| Total   | 168   | 169     | 337   |

Table 8: Numbers of Livestock Animals Owned

<sup>\*</sup>Understates total since not all participants listed numbers of livestock.

| Table 9: Participants with Wells and |
|--------------------------------------|
| Septic Systems                       |

|                | Fall | Spring | Total |     |  |
|----------------|------|--------|-------|-----|--|
| Septic Systems | 32   | 30     | 62    | 97% |  |
| Wells          | 22   | 22     | 44    | 69% |  |
| (# properties) | 33   | 31     | 64    |     |  |

**Field Trips.** The LOL class sessions usually include three Saturday field trips related to the week's topic and hosted by class members on their properties. From the spring class series, seven participants attended a field trip on April 16<sup>th</sup> at a small alpaca farm in Camas. Participants discussed alpaca care, manure management, pasture management, well and septic maintenance, and soil sampling. The Coordinator cancelled the remaining field trips due to lack of availability of the majority of class participants.

Fall participants failed to express sufficient interest and availability to warrant field trips for the fall class series. One participant even noted on their evaluation of the entire series they "appreciate not tying up weekends."

**LOL Class** Evaluations. Participants from both class sessions evaluated each class and the program as a whole. On a scale of one to five (five being highest), participants from the fall class did not rank any class lower than 3.3 and most sessions ranked between 4.2 and 4.8. In the spring class, no class ranked below 4.2 and the majority of the sessions ranked between 4.5 and 5.0 (Table 10).

When evaluating the series in its entirety, participants thought that the series was about right for length for time (Appendix C). They also thought that they had learned useful information and that they would be utilizing that information to change their practices. Many of them had already started to implement changes on their properties before class had completed. These changes included well water testing, pasture rotation, weed management, composting, mud control and manure management.

**Table 10: LOL Evaluation Summary** 

| Fall 2005             | Inventory<br>1 | Inventory<br>2 | Animals 1 | Water 1 | Business | Wildlife | Soils | Grass<br>1 | Animals<br>2 | Animals<br>3 | Water 2 | Weeds | Water 3 |
|-----------------------|----------------|----------------|-----------|---------|----------|----------|-------|------------|--------------|--------------|---------|-------|---------|
| Current?              | 4.4            | 4.7            | 4.1       | 4.6     | 4.8      | 3.5      | 4.8   | 4.9        | 4.5          | 4.7          | 4.1     | 4.8   | 4.6     |
| Understandable?       | 4.4            | 4.8            | 4.2       | 4.6     | 4.8      | 3.5      | 4.6   | 4.7        | 4.5          | 4.7          | 4.2     | 4.8   | 4.6     |
| Interesting?          | 4.4            | 4.7            | 3.8       | 4.5     | 4.4      | 2.9      | 4.5   | 4.6        | 4.5          | 4.7          | 3.8     | 4.8   | 4.6     |
| Answer questions?     | 3.7            | 4.1            | 3.1       | 4.1     | 4.1      | 3.3      | 4.4   | 4.6        | 4.1          | 4.7          | 4.0     | 4.5   | 4.0     |
| Learn new things?     | 3.9            | 4.1            | 3.2       | 3.9     | 3.7      | 3.0      | 4.4   | 4.6        | 4.3          | 4.6          | 4.4     | 4.8   | 3.9     |
| Use the info learned? | 4.3            | 4.4            | 3.5       | 4.2     | 3.5      | 3.3      | 4.5   | 4.6        | 4.6          | 4.6          | 4.4     | 4.9   | 3.6     |
| Worth your time?      | 4.4            | 4.6            | 3.1       | 4.2     | 4.0      | 3.3      | 4.7   | 4.6        | 4.6          | 4.6          | 4.3     | 4.9   | 4.3     |
| Average               | 4.2            | 4.5            | 3.6       | 4.3     | 4.2      | 3.3      | 4.5   | 4.7        | 4.4          | 4.7          | 4.2     | 4.8   | 4.2     |

|                       | Inventory | Inventory | Business | Animals | Soils 1 | Animals | Soils 2 | Grass | Grass 2 | Weeds | Water 1 | Water 2  | Water 3  |
|-----------------------|-----------|-----------|----------|---------|---------|---------|---------|-------|---------|-------|---------|----------|----------|
| Spring 2005           | 1         | 2         | Buomooo  | 1       | 000     | 2       | 000 2   | 1     | 0.000 2 |       | mate    | Trate. 2 | Trato. c |
| Current?              | 4.4       | 4.5       | 4.8      | 4.4     | 4.4     | 4.5     | 4.9     | 4.9   | 4.7     | 5.0   | 4.6     | 4.9      | 4.8      |
| Understandable?       | 4.4       | 4.6       | 4.7      | 4.5     | 4.1     | 4.6     | 4.6     | 4.9   | 4.9     | 5.0   | 4.8     | 4.9      | 4.7      |
| Interesting?          | 4.3       | 4.6       | 4.8      | 4.5     | 4.4     | 4.6     | 4.6     | 4.9   | 4.8     | 5.0   | 4.7     | 4.7      | 4.7      |
| Answer questions?     | 3.7       | 4.3       | 4.4      | 4.1     | 3.9     | 4.4     | 4.5     | 4.2   | 4.7     | 4.9   | 4.5     | 4.7      | 4.6      |
| Learn new things?     | 3.8       | 4.3       | 4.4      | 4.0     | 3.9     | 4.5     | 4.6     | 4.9   | 4.5     | 4.9   | 4.4     | 4.6      | 4.4      |
| Use the info learned? | 4.4       | 4.5       | 4.2      | 4.1     | 4.4     | 4.6     | 4.6     | 4.6   | 4.4     | 4.9   | 4.5     | 4.8      | 4.4      |
| Worth your time?      | 4.4       | 4.7       | 4.5      | 4.2     | 4.2     | 4.6     | 4.6     | 4.9   | 4.7     | 4.9   | 4.5     | 4.0      | 4.4      |
| Average               | 4.2       | 4.5       | 4.5      | 4.3     | 4.2     | 4.5     | 4.6     | 4.7   | 4.7     | 5.0   | 4.6     | 4.7      | 4.6      |

In general, fall 2005 participants appreciated the information provided by the class series, as indicated in their comments below:

Spring 2005 participants also enjoyed the class and plan to change their management practices based on what they learned:

<sup>&</sup>quot;[I] changed where I turn out [my] horses, planning on seeding and mud management."

<sup>&</sup>quot;This was a very enjoyable class and I would recommend it very much."

<sup>&</sup>quot;I especially appreciated Erin's enthusiasm, passion and availability."

<sup>&</sup>quot;We aren't living on the property yet - currently preparing to build. Lived there years ago & wish we had this information back then."

<sup>&</sup>quot;Doing our best to keep horses off pastures, controlling mud very important to us [and] weed control is now a must."

<sup>&</sup>quot;... fence off creek and plant some friendly plants."

"This was a great class for people just acquiring acreage, but it was also helpful to those who have lived on farms most of their lives."

"[We are] moving our cattle [and] alternating pastures"

"[The classes] helped me plan my property set-up"

"[I will] ultimately fence and improve [the] stream side"

"[I will manage] water runoff, water storage and pasture rotation"

"[will implement] riparian restoration and weed eradication"

"Well worth the time to attend!"

"Great speakers...Erin was a great instructor and very personable!"

The Coordinator also received an e-mail from a couple who attended the fall LOL class series:

"Erin, Thank you for the greatest class. We learned so much and are anxious for spring to get into our many projects. We appreciate all your time and effort and are amazed that there was not a charge! We moved here recently from Oregon and there were never any classes in educating the public in any areas. Thanks for making us feel confident in making our acreage a better place for our animals and for us!"

**Publicity and Promotion**. The program sent press releases to all major newspapers announcing open registration for both class series, resulting in published announcements in *The Reflector*, *The Columbian*, *The Oregonian* and the *Camas/Washougal Post-Record*. For the spring series, staff mailed notices to the property owners in the outreach database which produced the largest response. For the fall class, a two week, paid advertisement in *The Reflector* produced the greatest response followed by an e-mail to the program's listserv. A paid advertisement in the Camas/Washougal Post-Record generated three participants (Table 11). Copies of all published announcements, paid ads, the direct mailing, and flyers can be found in Appendix D.

Table 11: How Participants Heard About the Series

|                             | Fall | Spring |
|-----------------------------|------|--------|
| Reflector                   | 11   | 3      |
| Columbian                   | 2    | 1      |
| Oregonian                   |      | 2      |
| Mailer                      |      | 10     |
| E-Mail                      | 10   |        |
| Camas/Washougal Post-Record | 3    |        |
| Flyer at feed/tack store    | 4    |        |
| Other                       | 11   | 6      |

### Deliverables

The program completed it's the two class series promised, but fell slightly short on the number of graduates by six people, reaching 90% of the predicted attendance.

### Issues and Recommendations

Only one field trip was held for both LOL class series due to lack of participant interest and availability. Field trips will continue to be offered to future classes, but will include more hands-on activities to peak interest and increase the potential for peer-to-peer learning.

# Task 2b – Wells and Septics Maintenance Workshops

Seven Maintenance of Wells and Septics workshops attracted a total of 143 participants (Table 12). Clark County Health Department staff incorporated the LOL PowerPoint presentation on well and septic system maintenance into the workshop curriculum (Table 13). The workshop focuses on systematic septic system inspection and maintenance, well head and drinking water quality protection, preventing pollution, and saving landowners time and money.

**Table 12: Wells & Septics Workshop Attendance & Schedule** 

| Date     | Time         | Location                         | Attendance      |
|----------|--------------|----------------------------------|-----------------|
| Feb 9    | 6:30 – 9pm   | Dollars Corner Fire District #11 | 8               |
| March 15 | 6:30 – 9pm   | Hockinson Fire District #3       | 12              |
| May 5    | 6:30 – 9pm** | CASEE Center                     | 33 <sup>+</sup> |
| July 12  | 6:30 – 9pm   | Amboy Fire District #10          | 28              |
| Sept 15  | 6:30 – 9pm   | Washougal Fire District #1       | 9               |
| Nov 1E   | 3 – 5:30pm   | CASEE Center                     | 30              |
| Nov 15   | 6:30 – 9pm** | CASEE Center                     | 23 <sup>+</sup> |
|          |              |                                  | 143             |

<sup>\*\*</sup> Workshops incorporated into LOL class series; members of the public will be invited, but limited to 15 participants.

Table 13: Wells & Septics Workshop Agenda

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

<sup>†</sup> includes LOL class attendees

The Health Department promotes workshops by placing class schedule inserts into maintenance notices sent to landowners on septic systems while the program places paid advertisements in *The Reflector* newspaper and sends press releases (Appendix E) to local media. As indicated in Table 14, participants learn of these classes primarily through paid advertising, press releases, and Health Department notices.

Table 14: Where Participants Heard About the Workshop (83 of 143)

| E-mail | Reflector | Columbian | Oregonian | Other | Health Dept. Letter |
|--------|-----------|-----------|-----------|-------|---------------------|
| 4      | 31        | 22        | 3         | 3     | 20                  |

In an attempt to make the workshops more attractive to potential attendees, three of the workshops featured free well water testing for arsenic. The free testing attracted more registrants than the classes could accommodate and 32 out of 143 attendees brought water samples. To increase attendance, the Coordinator sent reminders two weeks prior to the class. Due to technical difficulties, Health Department staff ended water testing by the September 15<sup>th</sup> class. Free water testing will not be offered at future workshops until the technical issues have been resolved by the Health Department.

Attendees appreciated the information provided and highly ranked the sessions (Appendix F), with no ranking less than 4.6 (on a scale of 1 to 5 with 5 the highest) (Table 15). Overall participants' comments were positive and many indicated that they would change some of the practices based on the information provided:

**Table 15: Wells & Septics Class Evaluation Summaries** 

| Was this lesson: (scale 1-5 with 5 being most useful) | Average |
|---|---------|
| Current and up to date?                               | 4.6     |
| Understandable?                                       | 4.6     |
| Presented in an interesting way?                      | 4.4     |
| Did the program answer any questions you had?         | 4.5     |
| Learn new things?                                     | 4.6     |
| Will you use the information learned?                 | 4.6     |
| Was this program worth your time?                     | 4.7     |
| Overall average                                       | 4.6     |
| Participants  | 143     |
| Evaluations Completed                                 | 89      |
| % completed evaluations                               | 62%     |

<sup>&</sup>quot;[I will] make sure the well head is clean and slopes away"

<sup>&</sup>quot;Keeping our llamas [off] the drainfield in the winter"

<sup>&</sup>quot;[I will] study and draw out my septic system and have my system checked. [I will] have my water tested and really clean out my well house. Thank you."

"I have never been on either a well or septic system [before]. This class was great! Especially since it helps me to know how little I know and where to get training."

"I will implement LOTS of practices. Specifically [find out] where my septic and drainfield are"

"I will inspect my septic tank more regularly."

"Get a good diagram of our septic system and set up record keeping."

### Deliverables

The program completed the seven workshops proposed in the 2005 scope of work and met the expected overall attendance.

### Issues and Recommendations

Lower than expected attendance occurred at the first two workshops and another in September, likely resulting from a combination of several factors, including the loss of free well water testing, location of the workshops, as well as late advertising for September. The program will consider other incentives to increase attendance at workshops in 2006. Reminder postcards appeared to work well for those who had registered several months in advance and will be continued through 2006.

# Task 2c – Best Management Practices Workshops

The Coordinator completed research for a compost demonstration site in Clark County as part of a BMP workshop for 2006. Creating a manure compost demonstration site will provide small acreage landowners with a place where they can get information and hands on experience with managing manure and bedding materials on their own properties. The demonstration site will be located at the CASEE Center in Brush Prairie, WA on Battle Ground School District property. The site provides immediate access for the Coordinator for maintenance activities as well as being centrally located in the county. The 2006 budget will support development and implementation of this project as well as the proposed associated BMP workshop on composting manure. A report outlining the costs and feasibility of the site can be found in Appendix G.

The program contacted three possible speakers for future workshops on drainage installation and use, composting, and footings for riding arenas to reduce mud and control runoff. The Coordinator added Alex Zimmerman, erosion control specialist with CSI Geosynthetics in Vancouver and speaker at the first BMP workshop, to the speakers list.

Two workshops attracted a total of 49 attendees in 2005 covering topics such as mud control, runoff management, pasture and grazing rotation, fencing, and building location. The program advertised the workshops through press releases sent to local media, an email to the small acreage listsery, and flyers placed at local tack, feed, and grocery stores in outlying areas such as Yacolt, Amboy, and Fargher Lake (Appendix G).

**Mud, Grazing and Fencing.** The first of two Best Management Practices workshops, held on May 21<sup>st</sup>, attracted 23 people. Three presenters spoke on pasture and grazing management, managing mud through the use of sacrifice areas and drainage, proper footing for heavy use areas, and employing proper fencing. Equipment difficulties resulted in the cancellation of the hands-on portion of a fencing demonstration scheduled in the Camas/Washougal area. The hands-on demonstration on fencing installation and maintenance could not be rescheduled due to the speaker's full schedule.

Attendees greatly valued the information provided in the workshop and gave the class an overall average rating of 4.7 on a scale of 1 to 5. Attendees planned to change some of their management practices based on the knowledge gained from the workshop.

"[I plan to] tarp [the manure pile], scoop poop [more often] and apply footing to reduce mud"

"[Will implement] paddock renovation with gravel and driveway fabric."

"[Carry out] improved livestock pasture grazing"

**Beautiful Barns**. The second BMP workshop on Beautiful Barns attracted 26 people on October 20<sup>th</sup>. PCR Construction, a local firm specializing in constructing outbuildings and barns for rural landowners, presented information on placement of buildings for convenience, water quality and aesthetics, types of buildings and architectural design, and controlling runoff from new or existing structures.

Attendees appreciated the information provided and rated the class at 4.3 on a scale of 1 to 5. No PowerPoint presentation was provided and attendees' comments generally suggested this would improve the workshop in the future. The Coordinator discussed this with PCR staff and they will create a presentation to provide a more structured workshop in the future.

Alpaca Landowners BMP Workshop. At the request, and with the assistance of a spring 2005 LOL graduate, the Coordinator set up a small workshop for small acreage alpaca owners on November 17, 2005. The program advertised the workshop via e-mail, word of mouth, and the AlpacaNation website. The meeting included a 2 ½ hour presentation on BMP implementation to reduce mud, manage manure, improve pastures, and control weeds. Staff from the Clark Conservation District discussed cost sharing options available for BMP implementation. The 16 attendees greatly appreciated the information, ranking the class overall a 4.7 on a scale of 1 to 5. Many indicated they would implement several of the BMPs presented, as indicated by their comments:

```
"[plan to] Construct a compost bin [and] Establish a sacrifice area"
```

<sup>&</sup>quot;building a covered area with water diversion"

<sup>&</sup>quot;careful animal rotation"

<sup>&</sup>quot;composting & mud management"

<sup>&</sup>quot;to work out grazing and get better grass"

### Deliverables

The program met its deliverables in all areas and exceeded the number of BMP workshops by one.

### Issues and Recommendations

Based on comments from attendees at the second workshop, PCR staff and the Coordinator are working on creating a presentation to provide a more structured workshop in the future. The Coordinator continues to look for workshop topics that would provide in-depth follow up for LOL graduates.

#### Task 2d - Outreach to Youth

The Coordinator drafted a feasibility study for conducting 4-H youth outreach on the use and implementation of BMPs on small acreages. The initial recommendation suggests implementing a pilot program focusing specifically on 4-H horse youth with several presentations and a poster contest at the Clark County Fair next year. The Coordinator will base the curriculum on a similar program just started in Snohomish County. A copy of the feasibility study can be found in Appendix H.

Staff completed general requirements and judging criteria for the poster contest at the 2006 Clark County Fair, which are included in the feasibility study in Appendix H. Further review and advice will be sought from 4-H staff and volunteers. The program postponed plans to organize the poster competition for 4-H horse club youth at the 2005 Clark County Fair until 2006 since holding the poster contest this year would not provide sufficient time to provide youth with the relevant information on BMPs. The poster contest will be a part of the recommended pilot program discussed above.

The Coordinator spoke to 23 members of a Clark County 4-H horse club at their monthly meeting in May on mud management for horse health and water quality. Participants appreciated the information and handouts provided and asked questions about manure management. Additional presentations on BMPs to other Clark County 4-H horse clubs will occur next year as part of the outreach program.

#### Deliverables

Research on the feasibility and costs associated with implementing a 4-H youth outreach program was completed along with development of a poster contest for 4-H horse youth at the Clark County Fair in 2006.

#### Issues and Recommendations

The poster contest planned for 4-H horse youth in 2005 will occur during the 2006 Clark County Fair.

## Task 2e - Outreach Events and Promotional Activities

Meetings. The Coordinator promoted the program at the monthly meetings of several Clark County horse groups. The Coordinator promoted the program at the May Clark County Executive Horse Council (CCEHC) meeting. CCEHC members expressed interest in the Coordinator writing water quality related BMP articles focusing on horses for their newsletter. Following this meeting, CCEHC's monthly newsletter published an article introducing the Coordinator and promoting the program (Appendix I). The Coordinator also met with the president of the CCEHC to discuss the possibility of a partnership to facilitate water quality related workshops targeting horse owners in Clark County. The Coordinator also attended the July meeting of the local chapter of the Washington Trail Riders Association to promote the program and the model/merit properties program and recognition signage. Several members expressed interest in having their properties assessed in 2006.

**Advertisements.** The program purchased a full page advertisement in the *Equine Services Directory*, the annual publication of the Clark County Executive Horse Council, which distributes the directory to feed and tack stores, boarding facilities, and horse clubs throughout the county (Appendix I). The program purchased CCEHC membership which promotes the program through a business card size ad in their monthly newsletter. The program purchased a half page paid ad (Appendix I) in *The Reflector*'s annual community directory published in March. Lastly, a press release went to local papers announcing the Coordinator's hiring, and the Oregonian published a small story (Appendix I).

**Magazine and Newsletter Articles.** The Coordinator submitted two articles to *Flying Changes* (Appendix I), a Northwest horse magazine based in Clark County. The first article was published in July and focused on implementation of BMPs to control mud, manage manure, and create better pastures. Two readers who have had their farms assessed, contacted staff based on the article and expressed continued interest in the program. A similar article submitted to the CCEHC monthly newsletter appeared in the June issue (Appendix I).

A second article (Appendix I) published in October issue of *Flying Changes*. This article featured one of the program's model properties, GreenGate Farm, owned by Kelly O'Neill. It highlighted her efforts to implement BMPs for mud control, pasture management, weed control, and manure composting. The article coincided with a tour at GreenGate farm in mid-October and attracted two attendees to the tour.

**2005 Clark County Fair.** The program created a static display at the Clark County Fair as part of a booth shared with the *Watershed Stewards* program and the *Clark County Endangered Species Act* (ESA) program (Appendix I). The booth was staffed by *Watershed Steward* volunteers and an intern from the ESA program. The Coordinator created three displays, one on livestock and pet waste management, another on septic maintenance, and a third promoting the program.



Part of the 2005 Clark County Fair display on pet and livestock waste management.

The small acreage portion of the display generated two contacts, one who graduated in the fall LOL series and another who attended a well and septic maintenance workshop.

**SW WA Horse Symposium**. The Horse Symposium was cancelled in 2005 due to organizing difficulties by the CCEHC. For this reason, the program will not be able to use this venue for outreach in 2005. It is unlikely this event will occur in the future as the <u>Mane Event: Equine Education and Trade Fair</u>, a large scale horse expo has been scheduled at the Clark County Fairgrounds in February 2006. Organizers of the horse exposition agreed to let the Coordinator schedule local speakers to provide water quality related workshops during the event. Two speakers will present one workshop on barns and controlling water runoff, and another on fencing. The program will set up a display booth to promote the program and provide information to attendees.

Clark County Small Acreage Exposition. The Coordinator drafted a feasibility study examining organizing a small farm exposition in Clark County (Appendix I). The proposed exposition in April 2006 will serve as a pilot to provide information on the potential for annual or biannual expositions. If successful, the exposition will continue and be coordinated by the Small Acreage Program. The proposed Exposition will take place at Brigands HideOut, a local small farm in Battle Ground. The event will run most of the day and provide workshops on topics such as mud and manure management, pasture and grazing management, small acreage equipment needs, and maintenance and runoff management. Other WSU Extension staff plan on coordinating a larger event in 2007 with the Small Acreage Program assistance.

### Deliverables

The program completed its deliverables.

## Issues and Recommendations

The SW WA Horse Symposium was cancelled for 2005, but the Coordinator visited several local horse clubs and wrote three articles for local horse publications to promote the program and provide outreach on BMP implementation.

## **Model Properties**

# Task 3a - Property Tours

The program revised and combined the criteria for evaluating potential merit and model farms (Appendix J). Stricter model property criteria should provide readily identifiable BMPs valuable to public tours. Three tours conducted during fall 2005 demonstrated to attendees different elements of sound management practices that minimize pollution to surface waters and improve overall property aesthetics. Tours also provide a casual, peer-to-peer learning environment which proved a valuable means for participants to gain information about BMP implementation.

Tours were promoted through press releases to local media, e-mails sent to the Small Acreage listserv, and flyers handed out at other events and posted at local feed and tack stores (Appendix J). The flyers and e-mails attracted the greatest number of participants.

September Tours. Twelve people attended the tour on September 14 at Brigands HideOut. The tour highlighted the farm's use of footing materials to reduce mud, unique rotational grazing using herding dogs, and extensive roof runoff and drainage management being implemented. As a sidelight, participants were also shown sheep herding trials. Attendees greatly enjoyed the tour and appreciated the information provided by the landowner and the Coordinator. This tour was scheduled for a weekday evening and included a farm BINGO game in an effort to entice families to attend. Although attendance was good, few children attended and the shorter time frame limited the tour as the sun set



September 24<sup>th</sup> participants listen to the landowner describe the path that water takes on their property and how they manage runoff.

A second tour on September 24 visited a five acre horse breeding facility, Z & M Ranch,. Twenty-two people registered, but only 10 attended, possibly due to good weather that allowed landowners the opportunity to work on their own properties. The 10 attendees enjoyed the information provided by the landowner about french drains, guttering, footing materials for mud reduction, pasture management, and manure composting.

**October Tour**. The final tour occurred at GreenGate Farm, owned by Kelly O'Neill in Battle Ground. The landowner and Coordinator led participants on a tour showcasing Kelly's efforts to implement BMPs for mud control, pasture management, weed control and manure composting, while keeping costs down and improving chore efficiency. A total of 16 people attended this tour and greatly appreciated the information on cost-effective BMP implementation.

**Evaluation.** Attendees at all tours ranked the tours highly, with no score lower than 4.2 on a scale of 1 to 5, 5 being the highest (Table 16). Attendees indicated they would utilize the

|   | Aver | age Ra | tings |
|---|------|--------|-------|
| Was this lesson: (scale 1-5 with 5 being most useful) | 9/14 | 9/24   | 10/15 |
| Presented in an interesting way?                      | 4.9  | 5.0    | 4.7   |
| Did the program answer any questions you had?         | 4.7  | 4.8    | 4.2   |
| Learn new things?                                     | 4.5  | 4.5    | 4.4   |
| Will you use the information learned?                 | 4.2  | 4.8    | 4.4   |
| Was this program worth your time?                     | 4.9  | 5.0    | 4.6   |
| Overall average                                       | 4.6  | 4.8    | 4.5   |
| Participants  | 12   | 11     | 16    |
| Evaluations Completed                                 | 12   | 6      | 9     |
| % completed evaluations                               | 100% | 60%    | 56%   |

**Table 16: Property Tour Evaluation Summary** 

information provided and implement some changes on their own properties based on the knowledge they gained:

"I learned so much. Thank you."

"Erin let the owner do most of the talking and appeared genuinely interested (and excited) about sharing the information. [I will] plant more native plants."

"It was all great: animal, land management. Time on all events/area's was perfect. [I plan to create a] water runoff ditch system"

"[I will build] swales [and put] gravel in sacrifice areas."

"Lots of good ideas, suggestions and movement from location to another."

### Deliverables

All model farms were identified and three tours completed.

## Issues and Recommendations

The tour held on a weekday evening did not allow sufficient time to see all parts of the farm. Therefore, future tours will occur on Saturday mornings to allow adequate time.

# Task 3b – Signage Recognition

Sign design (Appendix J) and production was completed in February. Forty signs are available for installation on farms deemed to meet criteria. The program sent a media press release announcing the merit and model farm program with a picture of the first couple to receive and install a sign to the local media in April, resulting in one news article (Appendix J) and two requests for property assessments. This picture was also posted to the website to promote the signage recognition program.



Don and Dee Morse and Grady with their Clean Water sign.

The Coordinator contacted 10 properties identified in 2004 and provided them with signs, eight of which have been installed. Other farms were solicited for site visits through the LOL class as well as the listserv, resulting in eleven requests for assessments. Ten new properties were assessed in 2005, seven of which were eligible for signage and two signs have been installed to date. Of the properties provided signage in 2005, four were eligible for merit status and three awarded model status.

#### Deliverables

The program provided signs to all ten properties identified in 2004 and also identified seven new properties for signage in 2005.

Issues and Recommendations

There are none at this time.

#### **Outreach Database**

#### Task 4 - Outreach Database

#### Deliverables

The outreach database was updated prior to the January mailing for the spring 2005 LOL class series, and then updated based on returned mailings.

Issues and Recommendations

The outreach database was originally created in 2003 and may be out of date. It should be updated in 2006 to reflect the rapidly changing housing market in Clark County and to target new small acreage landowners.

# **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 K) and the results utilized to improve workshops and tours as well as come up with new topics for future program events.

**Information Requests**. The Coordinator responded to over 100 requests for information during the year. Requests generally involved livestock owners searching for information on mud, manure, weed and pasture management. The Coordinator sends callers relevant fact sheets, contact information for partner organizations such as the Clark Conservation District and the Natural Resource Conservation Service. If appropriate, invitations or flyers for upcoming workshops and the next LOL class are included. Five people requesting information signed up for the LOL class series offered in 2005.

## **Impact Evaluation**

**Overview.** In the fall of 2004, the Project Director designed a survey 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.** Based on the course content, the Director designed a close ended survey with questions designed to measure self-reported changes from *Living on the Land* from participants. The survey (Appendix L) attempts to measure both changes in knowledge and changes in how participants manage their properties. The first round of surveys was mailed to all graduates of the first two class series in fall 2003 (23) and spring 2004 (45), while the second round was mailed to those who did not respond in the first round, as well as graduates of fall 2004 (35) and spring 2005 (27) classes. The timing allowed potential respondents at least one summer to potentially implement suggested Best Management Practices (BMPs).

After the initial mailing, the staff followed-up with non-responders by email and/or telephone. This resulted in a combined response rate for both survey rounds of 76% (99 respondents) (Table 17). All responses were entered into an Excel spreadsheet, the data checked, and then read into the statistical program, SPSS (Statistical Package for the Social Sciences). All data analysis was done using SPSS.

| Class     | No<br>Response | Returned<br>Evaluation | Total | As<br>% |
|-----------|----------------|------------------------|-------|---------|
| Fall 03   | 4              | 19                     | 23    | 83%     |
| Spring 04 | 11             | 34                     | 45    | 76%     |
| Fall 04   | 10             | 25                     | 35    | 71%     |
| Spring 05 | 6              | 21                     | 27    | 78%     |
| _         | _              | 99                     | 130   | 76%     |

**Table 17: Survey Response Rate** 

**Results.** This report covers the results of the survey, primarily in descriptive statistics and crosstabs. The data clearly show considerable changes in knowledge and the implementation of BMPs. In addition, the data also show that graduates of the *Living on the Land* course helped diffuse what they learned among others in their circle of contacts, whether it be friends, neighbors, or co-workers.

## Respondent Demographics

Respondents' gender was slightly unbalanced, with men comprising a majority at 60% percent of the graduates. Not surprisingly given the cost of land, the respondents tended to be older, with 23% over 60 and 64% between 41 and 60 years of age (Table 18).

**Table 18: Respondents' Age** (n=99)

|                      | No. | %     |
|----------------------|-----|-------|
| 40 Years Old or Less | 9   | 9.1%  |
| 41 - 50 Years Old    | 33  | 33.3% |
| 51 - 60 Years Old    | 30  | 30.3% |
| Over 60 Years Old    | 23  | 23.2% |
| Did Not Respond      | 4   | 4%    |

A surprising number of respondents had college education. Forty-four percent had earned college degrees (a quarter with graduate degrees), while another 44% had some college level education. This compares to only 22.1% of the general Clark County population that have a bachelors degree or higher.

While the program expected more neophyte land owners, Table 19 clearly shows that only 15% of respondents lived on acreage for less than 1 year. Over half lived on acreage for over five years.

#### Course Evaluation

The survey asked five questions related to how respondents rated the Living on the Land course. As evidenced in Table 20, when asked if the LOL course provided the level of information they required, 93% of the respondents agreed, with almost 67% strongly agreeing. While the course content does not meet everyone's needs, it clearly strikes an acceptable balance for most respondents. Almost 96% of the respondents also indicated that they would recommend this course to others.

When asked if they manage their property differently based on what they learned in the course, 78% agreed and almost 30% strongly agreed. This indicates that the majority of respondents changed their behaviors based on the knowledge gained in the LOL course. This data is bolstered by the BMPs respondents implemented, data presented later in this report. Similarly, about 75% of the respondents thought that these changes in management improved their property.

**Table 19: Years Lived on Acreage** (n=99)

|                                | No. | %     |
|--------------------------------|-----|-------|
| 1 Year or Less                 | 15  | 15.2% |
| Over 1 Year, Less Than 5 Years | 29  | 29.3% |
| 5 Years to 10 Years            | 24  | 24.2% |
| Over 10 Years                  | 27  | 27.3% |
| Did Not Respond                | 1   | 1.0%  |

**Table 20: How Respondents Rate LOL Course** (n=99)

|                 |                           | No. | %     |
|-----------------|---------------------------|-----|-------|
|                 | Strongly Disagree         | 1   | 1.0%  |
| Provided        | Somewhat Disagree         | 2   | 2.0%  |
| Information     | Neither Agree or Disagree | 4   | 4.0%  |
| Needed          | Somewhat Agree            | 26  | 26.3% |
|                 | Strongly Agree            | 66  | 66.7% |
|                 |                           |     |       |
|                 | Strongly Disagree         | 1   | 1.0%  |
| Would LOL       | Somewhat Disagree         |     |       |
| Recommend to    | Neither Agree or Disagree | 3   | 3.0%  |
| Others          | Somewhat Agree            | 11  | 11.1% |
|                 | Strongly Agree            | 84  | 84.8% |
|                 |                           |     |       |
|                 | Strongly Disagree         | 3   | 3.0%  |
|                 | Somewhat Disagree         | 3   | 3.0%  |
| Based on Class, | Neither Agree or Disagree | 12  | 12.1% |
| Changed         | Somewhat Agree            | 49  | 49.5% |
| Management      | Strongly Agree            | 29  | 29.3% |
|                 | Unsure/Do Not Know        | 1   | 1.0%  |
|                 | Did Not Respond           | 2   | 2.0%  |
|                 |                           |     |       |
|                 | Strongly Disagree         | 4   | 4.0%  |
| Class is Good   | Somewhat Disagree         | 5   | 5.1%  |
| Use of Clean    | Neither Agree or Disagree | 5   | 5.1%  |
| Water Fee       | Somewhat Agree            | 18  | 18.2% |
|                 | Strongly Agree            | 62  | 62.6% |
|                 | Unsure/Do Not Know        | 5   | 5.1%  |
|                 |                           |     |       |
|                 | Strongly Disagree         | 2   | 2.0%  |
|                 | Somewhat Disagree         | 4   | 4.0%  |
| Changes Made    | Neither Agree or Disagree | 14  | 14.1% |
| Improved        | Somewhat Agree            | 36  | 36.4% |
| Property        | Strongly Agree            | 38  | 38.4% |
|                 | Unsure/Don't Know         | 4   | 4.0%  |
|                 | Did Not Respond           | 1   | 1.0%  |

A surprising 81% thought that the LOL course represented a good investment of Clean Water Fee monies.

#### Information Diffusion

Another measure of positive impact involves the respondent's willingness or enthusiasm to impart what they learned to others around them. Eighty-seven percent (86) of the respondents stated they shared parts of what they learned with others. Over 41% of the respondents (Table 21) shared with six people or more, while 44% shared with up to five people. Only 14% did not share information.

Table 21: No. of People Shared Info With (n=99)

|                | No. | %     |
|----------------|-----|-------|
| 1 - 5 People   | 44  | 44.4% |
| 6 - 10 People  | 21  | 21.2% |
| Over 10 People | 20  | 20.2% |
| Did Not Share  | 14  | 14.12 |

When asked who they shared the course information with, most (62%) indicated that they shared with family and friends (Table 22). When asked about how many people they had an opportunity to share information, they listed a total of at least 1067 people.

**Table 22: Who Shared Class Info With (n=99)** 

|  | No. | %     |
|--|-----|-------|
| Family   | 8   | 8.1%  |
| Friends  | 26  | 26.3% |
| Family & Friends                               | 27  | 27.3% |
| Neighbors                                      | 7   | 7.1%  |
| Family With Friends or Neighbors or Co-workers | 17  | 17.2% |
| Did Not Share                                  | 14  | 14.1% |

## **Knowledge Gained**

A series of eight questions on the survey asked respondents to judge their level of knowledge on different topics taught in the LOL course before they took the course and after they graduated. The topics included: managing weeds, keeping pastures healthy, managing runoff, managing soil, managing animal manure, controlling mud, and how management practices impact clean water.

Respondents rated their knowledge as poor, fair, good, or excellent, but could also choose to say they were unsure or felt this area did not apply (such as manure management for someone who owned no livestock). In order to look at relative gains in knowledge, the data was coded to compute the number of levels (Table 23) the respondents knowledge moved based on what they learned. A level equals a move from one adjacent category to another (e.g., fair to good), while two levels equals a two category move (e.g., from poor to good or fair to excellent) and three levels equals the move from poor to excellent.

On all topics, a majority listed at least one level change in their knowledge due to the LOL course. The least change occurred in respondents' knowledge about runoff management where 35% noted no change, while the most change happened in soil management and weed management where over 77% noted changes in their knowledge levels.

**Table 23: Knowledge Change** (n=99)

|                          | Weeds |     | 1   |     | Pas | tures | Μç  | noff<br>gmt. | Μg  | oil<br>amt. |     | pals | Μç  | nure<br>ımt. | Μç  | lud<br>amt. | Imp | gmt<br>pacts |
|--------------------------|-------|-----|-----|-----|-----|-------|-----|--------------|-----|-------------|-----|------|-----|--------------|-----|-------------|-----|--------------|
|                          | No.   | %   | No. | %   | No. | %     | No. | %            | No. | %           | No. | %    | No. | %            | No. | %           |     |              |
| No<br>Change             | 15    | 15% | 13  | 13% | 35  | 35%   | 14  | 14%          | 27  | 27%         | 27  | 27%  | 21  | 21%          | 26  | 26%         |     |              |
| One<br>Level<br>Change   | 49    | 49% | 25  | 25% | 29  | 29%   | 41  | 41%          | 39  | 39%         | 26  | 26%  | 31  | 31%          | 45  | 45%         |     |              |
| Two<br>Level<br>Change   | 27    | 27% | 34  | 34% | 21  | 21%   | 29  | 29%          | 25  | 25%         | 15  | 15%  | 24  | 24%          | 17  | 17%         |     |              |
| Three<br>Level<br>Change | 2     | 2%  | 8   | 8%  | 5   | 5%    | 7   | 7%           | 2   | 2%          | 4   | 4%   | 1   | 1%           | 4   | 4%          |     |              |
| Unsure<br>Do Not<br>Know | 2     | 2%  |     |     |     |       | 2   | 2%           |     |             |     |      | 3   | 3%           |     |             |     |              |
| Did Not<br>Respond       | 3     | 3%  | 4   | 4%  | 5   | 5%    | 4   | 4%           | 3   | 3%          | 3   | 3%   | 3   | 3%           | 3   | 3%          |     |              |
| Does<br>Not<br>Apply     | 1     | 1%  | 15  | 15% | 4   | 4%    | 2   | 2%           | 3   | 3%          | 24  | 24%  | 16  | 16%          | 4   | 4           |     |              |

Table 24: Average Totals (n=99)

|                       | No.  | %     |
|-----------------------|------|-------|
|                       |      |       |
| No Change             | 22.3 | 22.5% |
| One Level<br>Change   | 35.6 | 36.0% |
| Two Level<br>Change   | 24.0 | 24.2% |
| Three Level<br>Change | 4.1  | 4.2%  |
| Unsure Do<br>Not Know | 0.9  | 0.9%  |
| Did Not<br>Respond    | 3.5  | 3.5%  |
| Does Not<br>Apply     | 8.6  | 8.7%  |

Looking at the averages across all topics in Table 24, over a third of respondents noted one level change in knowledge while a quarter gained two levels and just under a quarter saw no change.

The data clearly demonstrate a marked increase in knowledge levels for almost two-thirds of LOL graduates. This can only help in the program's goals to provide education landowners then use to manage their lands to minimize impacts to water quality.

# **BMP Implementation**

An impressive numbers of respondents indicated that they implemented various management practices based on what they learned from the LOL course. Almost two-thirds noted they tested their soils. As a result of the class, over 50% of those respondents with wells and septic systems stated they had tested their well water

or inspected their septic system (Table 25).

Table 26: Number of BMPs Installed

|                                  |     | 07         |
|----------------------------------|-----|------------|
|                                  | No  | %<br>Crade |
|                                  | No. | Grads      |
| Weed Management                  | 40  | 40%        |
| Pasture Management               | 32  | 32%        |
| Manure Composting                | 23  | 23%        |
| Gutters                          | 20  | 20%        |
| Sacrifice Area                   | 16  | 16%        |
| Rotational Grazing               | 14  | 14%        |
| Rainwater Management             | 13  | 13%        |
| Composting                       | 12  | 12%        |
| Goals / Planning                 | 12  | 12%        |
| Soil Mgmt                        | 11  | 11%        |
| Riparian Area Management         | 9   | 9%         |
| Septic System / Well Maintenance | 8   | 8%         |
| Animal Management                | 6   | 6%         |
| Wildlife                         | 5   | 5%         |
| Erosion Control                  | 4   | 4%         |
| Fencing                          | 1   | 1%         |
| Total                            | 226 |            |

Table 27: BMPs Installed Based on Class (n=99)

|                | No. | %     |
|----------------|-----|-------|
| 1 - 3 BMPs     | 50  | 50.5% |
| 4 BMPs or More | 24  | 24.2% |
| None           | 25  | 25.3% |

Table 25: Tests Performed After Taking Class (n=99)

|                                    | Tested<br>Soil | Inspected<br>Septic<br>System | Tested<br>Well |
|------------------------------------|----------------|-------------------------------|----------------|
| Yes                                | 47             | 48                            | 43             |
| As % of Total Grads                | 47%            | 48%                           | 43%            |
| Do Not Have Well/<br>Septic        |                | 13                            | 21             |
| Yes as % of Grads with Well/Septic |                | 56%                           | 55%            |

Respondents report installing 226 BMPs as outlined in Table 26. Forty percent of the respondents implemented better weed management, 31% implemented pasture management BMPs, and 23% installed manure composting BMPs.

Fifty percent of the respondents installed one to three BMPs, compared to almost a quarter who installed four BMPs or more (highest was 8) and a quarter who did not install any BMPs (Table 27). This implementation rate demonstrates the effectiveness of the intensive LOL course. The respondents who implemented BMPs collectively manage at least 786 acres (there is no acreage data for 21 of the respondents, so presumably the actual number of acres

is larger). In addition, at least 56 of the respondents installing BMPs have some type of waterbody on or adjacent to their property, and 39 raise livestock. This indicates that there is a potentially positive effect on reducing direct negative impacts to water quality on these properties.

Conclusion. The evaluation demonstrates considerable changes in both participant knowledge levels and behaviors. These resulted in the implementation of BMPs that enhance water quality, saves landowners money, protects their resource base, and results in the improved well-being of citizens.

## **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. The impact study was completed by the Director for spring 2005 and fall 2004 LOL participants, as well as previous non-respondents.

#### Issues and Recommendations

There are none at this time.

# Task 5 b - Reporting

Deliverables

All quarterly reports and the 2005 annual report were submitted by the director.

Issues and Recommendations

There are none at this time.

**Table 16: Summary Table for 2005** 

|                                  | Progr  | 2005<br>Goals                                 | Qtr 1    | Qtr 2     | Qtr 3 | Qtr 4 | YTD  | % 2005<br>Goals |      |  |
|----------------------------------|--|---|----------|-----------|-------|-------|------|-----------------|------|--|
|                                  |  | Materials added to reference files            | on-going | 1         | 1     | 1     | 1    | 4               |      |  |
| Best                             | Information                                    | Post links and resources to website           | on-going | 1         | 1     | 1     | 1    | 4               |      |  |
| Management                       | Resources                                      | Web site hits                                 |          | 1         | 1     | 1     | 1    | 4               |      |  |
| Practices                        |  | Web site document downloads                   |          | 1         | 1     | 1     | 1    | 4               |      |  |
| (Task 1)                         |  | Original researched factsheets                | 2        |           |       | 1     | 1    | 2               | 100% |  |
|                                  | Factsheets                                     | Factsheets adapted to Clark Co                | 4        |           | 1     | 2     | 1    | 4               | 100% |  |
|                                  | LOL Class Series                               | LOL sessions                                  | 2        |           | 1     |       | 1    | 2               | 100% |  |
|                                  | LOL Class Series                               | Attendance                                    | 60       |           | 27    |       | 27   | 54              | 90%  |  |
|                                  | Well & Septic                                  | Well & septic workshops                       | 7        | 2         | 1     | 2     | 2    | 7               | 100% |  |
|                                  | Workshops                                      | Attendance                                    | 140      | 20        | 33    | 37    | 53   | 143             | 102% |  |
|                                  |  | BMP Workshops                                 | 2        |           | 1     |       | 2    | 3               | 150% |  |
| Public                           | DMD Werkelsene                                 | Attendance                                    | 40       |           | 23    |       | 42   | 65              | 163% |  |
| Outreach and                     | BMP Workshops                                  | Explore compost demo site feasibility         | 1        |           |       |       | 1    | 1               | 100% |  |
| Education                        |  | Revise & maintain speaker's list              | on-going |           | 1     | 1     |      | 2               |      |  |
| (Task 2)                         | Youth Outreach                                 | Explore feasibility & costs of 4-H activities | 1        |           | 1     |       |      | 1               | 100% |  |
|                                  |  | Develop programming for 2006                  | 1        |           | 1     | 1     |      | 2               | 200% |  |
|                                  | Outreach Events<br>& Promotional<br>Activities | Explore feasibility of Small Farm Expo        | 1        |           |       |       | 1    | 1               | 100% |  |
|                                  |  | SW Washington Horse Symposium                 | 1        |           |       |       | llad |                 |      |  |
|                                  |  | Attendance                                    | 20       | cancelled |       |       |      |                 |      |  |
|                                  |  | Additional Events as identified               |          | 3         | 4     | 3     | 1    | 11              |      |  |
|                                  | Farm Tours                                     | Develop criteria                              | 1        | 1         |       |       |      | 1               | 100% |  |
|                                  |  | Id farms to serve as models                   | 2        | 4         | 3     | 2     | 1    | 10              | 500% |  |
|                                  |  | Conduct tours                                 | 2        |           |       | 2     | 1    | 3               | 150% |  |
|                                  |  | Attendance                                    | 30       |           |       | 22    | 16   | 38              | 127% |  |
| Model Farms                      |  | Develop criteria for recognition              | 1        | 1         |       |       |      | 1               | 100% |  |
| (Task 3)                         |  | Enroll farms from 2004                        | 5        | 5         | 5     |       |      | 10              | 200% |  |
|                                  | Signage<br>Recognition                         | Enroll new farms                              | 5        |           | 4     | 2     | 1    | 7               | 140% |  |
|                                  | Recognition                                    | Install signs (2005)                          | 5        | 0         |       | 2     |      | 2               | 40%  |  |
|                                  |  | Install signs (from 2004)                     | 10       | 2         | 3     | 3     |      | 8               | 80%  |  |
| Outreach<br>Database<br>(Task 4) | Database                                       | Maintain database                             | on-going |           |       |       |      |                 |      |  |
|                                  |  | Workshop evaluations                          | 15       | 2         | 3     | 4     | 6    | 15              | 100% |  |
| Impact<br>Evaluation and         | Evaluation                                     | Requests for assistance                       |          | 25        | 31    | 28    | 24   | 108             |      |  |
|                                  | Evaluation                                     | Impact evaluation of 2003/04 participants     | 1        | 1         |       |       |      | 1               | 100% |  |
| Project                          |  | Impact evaluation of 2005 participants        | 1        |           |       |       | 1    | 1               | 100% |  |
| Reporting                        |  | Reports                                       |          |           |       |       |      |                 |      |  |
| (Task 5)                         | Reporting                                      | Quarterly Reports                             | 3        | 1         | 1     | 1     |      | 3               | 100% |  |
|                                  |  | Annual Report                                 | 1        |           |       |       | 1    | 1               | 100% |  |