

THE WILLIAM D. RUCKELSHAUS CENTER

UNIVERSITY OF WASHINGTON

Agricultural Pilots Project

An Interim Report

August 1, 2008



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Overview

1. Introduction

The dual goals of the Agricultural Pilots Project are to “promote innovative ways to enhance farm income” while at the same time “improve natural resource protection”.¹ The Project also seeks to help build bridges among the agriculture and environmental communities.

In recognition of the wide diversity of agriculture, climates, and unique local conditions; the Agriculture Pilots Project seeks to draw upon the practical problem solving skills, imagination, commitment, and collaborative capabilities of Washington State agricultural producers and others. At the same time, the Project draws upon well established agricultural and environmental research in order to help translate innovative ideas into reality by evaluating their feasibility, effectiveness and potential for dissemination.

In the last legislative session, the Governor and Legislature provided \$500,000 for a proof of concept phase for the Agricultural Pilots Project. The funding was provided to fund and evaluate four pilots that best demonstrate the dual goals of the Project.

2. Purpose of Report

This is the first of the deliverables required by the interagency agreement between the Washington State Office of Financial Management (OFM) and Washington State University. Two other interim reports will follow on December 30, 2008 and April 30th, 2009 followed by a final report on June 30th, 2009.

The purpose of this interim report is to provide an update on the Agriculture Pilots Project to date, including a progress report on each of the four selected pilots.

3. Background

In September of 2006, the Ag Pilots Project successfully solicited pre-proposals from Washington State agricultural and environmental communities to be considered. The following month, the Center

“When we started this project, I don’t think we had a real concept of how new and fresh the proposals would be, or how many would be submitted.”

~Deborah Moore, member of the oversight committee

received an astonishing 89 pre-proposal applications for funding. In 2007, the Washington State Legislature provided \$500,000 to fund 4 of the 89 proposed pilots. The Agriculture Pilots Oversight Committee (see Appendix A.) reduced the pre-proposals down to 25 based on specified criteria and pilot innovation (see Appendix B). The remaining 25 were reviewed by Washington State University and University of Washington faculty for scientific soundness, technical feasibility, and potential for high impact. Those pilots that met these criteria were then asked to submit a full proposal to establish the pilot's readiness to implement.

The four pilots chosen are: ***Farming for Wildlife***, a pilot that seeks to support wildlife and agriculture in the Skagit Delta through a voluntary, science based, conservation strategy that includes creating farmland habitat for shorebirds. ***Transition of Insect Pest Management to New Pest Control Technology***, a pilot that seeks to enhance understanding and encourage the wider adoption of environmentally friendly integrated pest management strategies while maintaining acceptable crop protection and profitability, and increasing worker safety. ***Beefing Up the Palouse-An Alternative to the Conservation Reserve Program (CRP)*** is a pilot that seeks to test the feasibility and replicability of converting land coming out of the Conservation Reserve Program (CRP) into a vertically integrated grass-fed beef production system. ***Direct Seed Mentor Program***, a pilot that seeks to increase the use of direct seeding methods in Spokane County through the use of mentors and side-by-side on-farm demonstrations.

4. Agriculture Pilot Evaluation Process and Status

The Center is responsible for the evaluation of the pilots and an overall assessment of the value of the Ag Pilots Project. To meet these responsibilities the Center has employed Dr. William Budd and Kara Whitman, Research Assistant.

Each pilot is required to have its own evaluation method as part of its proposal. The proposed evaluation methods were reviewed by Center staff and technical experts for "appropriateness and feasibility" as part of the pilot selection process. While these evaluations will measure the success of each individual pilot, further evaluation is needed to discern the success of the Ag Pilots Project as a

whole and to make recommendations for the future of the project.

Proposed Method for Measuring the Overall Value of the Project

For the purpose of evaluating the success, value, and overall merits of the Ag Pilots Project a *cluster evaluation* will be used. Cluster evaluations or knowledge-generating evaluations, are used when there are multiple projects or programs, of similar scope that have been implemented in varied ways; in order to “identify general patterns of effectiveness.”² A cluster evaluation groups projects of similar intent into ‘clusters’ and synthesizes the findings from each. Cluster evaluation has been extensively used in the evaluation of grant programs.

The project selection criteria will be used to assess the overall success of the Ag Pilots Project. The evaluation will be a combination of the reviews of project update meetings, interviews, surveys, and a synthesis of each pilots’ outcomes. The interviews and surveys will look at the less tangible outcomes of the Ag Pilots Project, including: sustainability beyond the pilot stage, pilot replicability to other places in Washington State, and conditions by which trust, collaborative relationships, synergy, and leadership are fostered and whether those conditions exist in the Ag Pilot Projects and its link, if any, to project outcomes. Agricultural viability and environmental stewardship will be addressed by synthesizing the results of the individual pilot outcomes.

Timeline:

- June 2008 – October 2008: Evaluation instrument production, including face-to-face interview questions and surveys (**In Progress**)
- June 2008 – June 2009: Project update meetings with pilot leads and affiliated partners, and site visits (**In Progress**)
- November 2008 – April 2009: Conduct interviews and surveys, and synthesize results for pilot and project of individual evaluations (**Future**)
- April 2009 – June 2009– Develop recommendations and write final report (**Future**)

Introduction:

The Ag Pilots were selected by an Oversight Committee made up of stakeholders and approved by the Governor's office. While there were many innovative proposals, ultimately four pilots best met the selection criteria and were funded.

The pilots vary in scope as well as geographical location. Two pilots are located in the Palouse Region of Eastern

"The selected pilots have enormous potential for the State of Washington. This is the type of innovation that embraces economic growth while protecting Washington's precious natural resources. The Conservation Commission is excited to undertake such innovative projects with the partnership of the William D. Ruckelshaus Center."

*~Mark Clark, executive director of the
Washington State Conservation Commission*

Washington, one pilot is located in Central Washington, and the other located is in Skagit County in Western Washington.

See Figure 1 for funding allocation to each of these pilots.

As funding was not available until the end of Spring 2008, the pilots are at varied stages of implementation. Some pilots began work before funding was allocated, while others could not start until contracts were signed and funding was available. The following section gives an overview, progress update, and expenditures for fiscal year 2008 of each of pilot.

Refer to Appendices D and F for a detailed breakdown of each project's expenditures for fiscal year 2008.

Figure 1: Summary of Agriculture Pilots Funding Allocation

Agriculture Pilots Project	
WSU Contract	
\$65,241.00	
<hr/>	
Pilots	
\$409,759.00	
	Farming for Wildlife
\$84,500.00	
	Transition of Insect Pest Management
	\$149,296.00
	Beefing up the Palouse – An Alternative to CRP
\$81,713.00	

	Direct Seeding Mentor Pilot
\$94,250.00	
<hr/>	
<hr/>	
	Conservation Commission Pilot Contract Oversight**
\$25,000.00	
(**The rest is being held TBD, see Appendix C)	
<hr/>	
Total	\$500,000.00

Selected Pilots

1. *Farming for Wildlife, Skagit Delta: The Nature Conservancy*

Pilot Description

The Farming for Wildlife pilot, located in the Skagit Delta of Skagit County, seeks to balance the needs of the agricultural industry with the need for habitat for coastal estuarine wildlife species. The Skagit Delta is a highly human-modified agricultural landscape, and how these lands are managed is crucial to the conservation of coastal wetland habitats. The Skagit Delta is known for growing over 200 different crops as well as being a critical stop along the Pacific Flyway for migratory birds. This pilot is voluntary, science-based, and conservation minded; testing the concept of creating wetland habitat for shorebirds on farmland by implementing "habitat rotations".



View of flooded farm habitat with three growing seasons of growth and flooding at the Hedlan Farm in the Skagit Delta.

The Farming for Wildlife pilot has received prior funding from the EPA, and other sources. Additional help was provided by Ecostudies Institute and Washington Department of Fish and Wildlife with funding from Seattle City Light and others, to look three different farming practices, including: forage harvest, grazing, and flooding all of which could be part of a managed

"habitat rotation". The pilot is evaluating the ecological effects of these different land treatments, by measuring vegetation type and density, shorebird movement patterns, as well as species abundance at two trophic levels (shorebirds and soil macroinvertebrates). They are also measuring the economic viability of these farming practices by measuring ecological characteristics that affect crop yield such as, soil fertility, soil microbiology, and weed abundance. This is a three year project that began in 2006, with one year of pre-treatment data collection, and 2

years of treatment conditions. The project is currently in its 3rd year.

Ag Pilots has provided the Farming for Wildlife with \$84,500 to complete the proof of concept phase of the project including:

1. Completing the economic feasibility study and enterprise business plans for habitat rotations
2. Performing the final soil fertility analysis and macroinvertebrate sampling
3. Initiating research that examines the potential disease and pathogen control benefits associated with habitat rotations/saturated farm fields

Pilot Progress

The pilot is being conducted on three privately owned farms, the Thulen, Mesman, and Hedlan farms. Each farm received the three treatments mentioned above. Measurements have been taken for all variables during three sampling periods each year corresponding to the annual shorebird migration cycles. This project is in its final year of implementation, scheduled to be finished in early 2009 and is currently in the process of conducting the economic feasibility study as well as continues to coordinate the collection of shorebird, invertebrate, soil, water depth, and vegetation data. "The Conservation Commission has gained many insights into the costs and challenges of farming through many hours of contact time, which is allowing for the closer alignment of interests between conservation and farming. Establishing trust, open dialogue, and setting precedence for collaboration are a major component of the work in this project. At this point outcomes are more qualitative than quantitative, and until all data have been collected and analyzed quantitative results will not be conclusive", Kevin Morse, Nature Conservancy.



View of flooded habitat, with 2 seasons of growth, at the Mesman Dairy Farm in the Skagit Delta

Ruckelshaus staff have met with

pilot manager Kevin Morse, and met with 2 of the three participating farmers and visited the sites. More visits are planned during the fall migration season.

Contact Information:

- Kevin Morse, Skagit Delta Project Manager, The Nature Conservancy, kmorse@tnc.org

2. Transition of Insect Pest Management to New Pest Control Technology:

Pilot Description

The Transition of Insect Pest Management to New Pest Control Technology (PMTP) project is an endeavor to proactively move the apple industry in the State of Washington towards new technologies that will decrease or eliminate the use of harmful substances such as the organophosphate (OP) called azinphos-methyl (AZM, which is commonly use to control the codling moth. Regulations from the EPA will phase out the use of AZM by the year 2012, increasing the need for Washington apple growers to find better ways to control the codling moth and other pests. PMTP seeks to increase use and awareness of the pest control strategy called integrated pest management (IPM). The goals of this pilot are threefold. First the pilot seeks to understand the barriers to the adoption of new IPM practices and develop educational and training strategies to encourage IPM adoption. Second, the project seeks to develop metrics to assess new technology adoption, economic viability, and environmental impacts. The final goal of the pilot is to understand perceptions of the environmental and farm labor sectors to more effectively develop education, communication and outreach programs that engage these groups. It is this final goal that forms the Ag Pilots Project pilot.



The codling moth, photo courtesy of the

PMTP received \$500K from the legislature for the project for the FY07-09 biennium. Ag Pilots funding for \$149,296.00 was provided to enhance the project. The Ag Pilots funding is to be used to build the projects capacity to engage the farm labor and environmental communities and to assess and document these efforts.



Pilot Progress

The PMTP project has made a great deal of progress. One of the key components of the PMTP project is outreach to the apple industry. In order to do this, the PMTP project was presented at the

Figure 2 Stars represent implementation units locations. Image courtesy of the PMTP August 2008

Washington Horticultural Association in December of 2007 to approximately 200 people. After this the PMTP encouraged apple producers and affiliates to sign up for an Implementation Unit (IU) through nineteen different industry meetings, with over 3000 contact hours, in the winter of 2008. IU's are units of growers, managers, and crop consultants within the same vicinity who agree to meet on a regular basis to share information and experiences on new IPM technologies. PMTP was able to put together 14 IU's containing approximately 192 participants representing over 42,000 acres of production land. Each unit has had at least 2 meetings each (once a month, for approximately 1.5 hours) having at least 8 participants or more present. An informal survey was handed out at each meeting to get a sense of what products and practices producers are currently using. PMTP currently distributes a newsletter discussing pertinent IPM topics as well as maintains a website with related information about the project and IPM practices. PMTP has also hosted three field days, open to the public, in June of 2008 in Quincy, Prosser, and Brewster. These field days addressed different IPM technology topics and were attended by approximately 120 people.

Another key component to the PMTP project is assessment and documentation. Ag Pilots funding has provided the means to hire an Assessment Specialist, Nadine Lehrer, a post-doctoral associate, who is in charge of education and communication efforts involving the multiple stakeholders in the apple industry as well as the assessment of the PMTP objectives. Currently, the assessment and documentation efforts include: an assessment of IPM adoption, assessment of the needs and perceptions of farm workers, and an assessment of the perceptions of the non-agricultural sector. All of these assessments include a large amount of contact time to understand the perceptions and needs of the different sectors as well as establish trust and build bridges between the sectors.

Dr. Jessica Goldberger and Dr. Raymond Jussaume of WSU department of Rural and Community Sociology have helped to develop a crop consultant and grower/manager survey with the PMTP project in order to document a baseline of pest management practices for the 2007 growing season. These surveys have been distributed, and PMTP is waiting for responses to come in. These survey results will be combined with future follow up surveys to document changes in IPM practices and insecticide use.

Ruckelshaus staff has met with the PMTP pilot team in Wenatchee three times in July 2008 to discuss the pilot.

PMTP will continue to have meetings with each Integrated Unit (IU) every month, and plan to host more field days.

Contact Information:

- Jay Brunner, WSU Tree Fruit Research and Extension Center (TFREC), jfb@wsu.edu
- Jim McPherson, Manager Washington Tree Fruit Research Commission, mcferson@treefruitresearch.com or pmtip.info@wsu.edu
- Or on the web at <http://pmtip.wsu.edu>

3. Beefing Up the Palouse – an Alternative to the Conservation Reserve Program (CRP)

Pilot Description

The Beefing Up the Palouse pilot is exploring several aspects of converting land managed in the Conservation Reserve Program (CRP) to a holistically managed resource using livestock as the principle tool to move towards sustainability. Sustainability is defined as those practices that are economically viable, environmentally sound, and socially responsible. Many lands will be coming out of the CRP program in the next few years, and how these lands are managed will have severe impacts on farming as well as on environmental concerns such as erosion and habitat protection. While no land enrolled in the CRP program was grazed in this study, property adjacent to CRP land with similar biologic communities was used to duplicate the affects of grazing and rest. Some CRP land was used to test different fertilizer affects and inter-seeding techniques. This pilot “seeks to test this holistic management with the implementation of the profitable production of vertically integrated value-added natural or organic, grass-fed beef by becoming part of a production chain based on cooperation of the segments from conception to consumption”³. This pilot also seeks to assess the economic feasibility as well as the environmental benefits and or impacts of utilizing land that is coming out of the CRP programs. This is a highly collaborative pilot including partners from production to consumption in the grass-fed beef industry as well as partnerships with WSU Extension and the WSU BIOAg program.

About half of the pilot is in cropland and half in pasture (1000 acres total). The pilot team anticipates all of the land to be in pasture next year, but there was an opportunity to take advantage of current high grain prices and organic premiums before planting this cropland to pasture.

This pilot seeks to reach 5 goals:

1. Assess the economic feasibility of CRP conversion to a grass-fed natural or organic beef production system
2. Assess and demonstrate agronomic strategies, including over-seeding for enhancing degraded CRP

- stands into productive pasture in the low-to intermediate rainfall areas of Washington
3. Evaluated the environmental effects of transition of CRP using Land EKG
 4. Assess the replicability of the pilot by describing the place-dependent factors likely to affect feasibility by mapping these factors utilizing known parameters as well as GIS (Geographic Information Systems)
 5. Demonstrate that fundamental underlying principles and pilot results can be applied in different environments and situations

Project Progress

This pilot is well under way and has made substantial progress. (**The following is a synthesis of progress to date provided by Beefing up the Palouse, project managers.)



The following is a synthesis of progress to date provided by Beefing up the Palouse, project managers.)

Economic Feasibility of CRP Conversion

The major emphasis of the first year of this pilot is in determining the economic feasibility of converting CRP to a beef operation and what kind of beef operation would be the most economic

alternative. An enterprise budget model has been created to evaluate the economics of each beef cattle production phase (cow-calf, stocker and grass finishing). The budget

From left to right: Dick Coon (in hat), Gregg Beckley, Don Nelson, and Shannon Neibergs at a Ag Pilot Meeting looking at test plots in July

model was reviewed by the pilot group at their June 6, 2008 and July 17, 2008 meetings and then updated.

The budget document has been

submitted to WSU's Extension External Review process for publication. The feasibility study will use the budget model to evaluate alternative production scenarios such as changes in calving date, the feasibility from moving from a grass-fed beef product label to an organic label, and alternative assumptions in seasonal forage availability and lease rates.

Organic certification can have economic advantages with price premiums for crops and livestock and this option was explored and developed. The 1000 acres of cropland and

pastureland was certified organic in May of 2008. Approximately half of this is in organic wheat (spring soft white) and the other half is in transition to full organic certification as pastureland.

Assess Farming Strategies to Enhance CRP

Several varieties of grasses were tested under supervision of John Kugler of WSU, and these tests continue today. Over 30 different kinds of grasses were put into test plots, including some warm season varieties. Results of these tests are ongoing and are expected to give the pilot information about the optimal types of grasses to use for nutritional content as well as the best mix of grasses to plant and graze. Inter-seeding alfalfa into CRP was tried on several sites with several different techniques.

Several attempts were made and are ongoing to obtain permission from NRCS to graze CRP lands under contract with the property owner. It was determined that this would be the very best case comparison and demonstration of impacts, but regulatory standards continue to hamper this progression. Although the USDA had opened grazing between August and November of 2008 (a grazing period that would not be of the most nutritional value) to help ranchers cope with the high feed prices and grain shortages, recent lawsuits have stalled this effort. Infrastructure projects were initiated and partially completed to manage cattle including: electric fence, both permanent and temporary; temporary corrals and loading facilities; and a few water lines. More work is needed for additional corral facilities, water access, and perimeter fencing to complete the minimum requirements for cattle management.

Grazing was scheduled to occur in year two of the pilot, but opportunities developed to start this year and the pilot managers decided to take advantage of the economic benefits and resulting impacts. Livestock were on-site on April 17. 200 yearlings were grazed until July 28.

Evaluate Environmental Transition Effects

Assessing the impacts of grazing to the land is another major objective of this pilot. Several permanent observation sites were developed using Land EKG, a monitoring technology that closely resembles the Jornada process used by NRCS. Baseline data was established on four transects throughout the grazing area. Post grazing impacts will be assessed in the fall of 2008.

Soil tests were also conducted using standard collection and analysis techniques. Likewise several forage samples were collected to compare the nutritional characteristics of improved pasture to CRP grass mixes.

Demonstrate Principles Applicability/Outreach

The second annual BIOAg bus tour of the Palouse included a stop at G&L Farms. Because BIOAg projects are also being conducted at G&L Farms, this was a convenient opportunity to also demonstrate aspects of the pilot. The grazing techniques being used were demonstrated to over 65 people and a short hands-on description of the Land EKG monitoring technique was described. The use of portable electric fence was demonstrated to show how high intensity grazing is implemented. The impacts of this practice are assessed using the Land EKG system and results in a quantifiable description of the affected eco-system processes. Ongoing monitoring and adaptive grazing techniques makes it possible to optimize all eco-system processes. This in turn can increase bio-diversity, cleaner water, better wildlife habitat, and more profitable economic returns.

Contact Information:

- Donald Nelson, WSU Extension Beef Specialist, nelsond@wsu.edu

4. Direct Seed Mentor Pilot: Spokane County Conservation District

Project Description

The Direct Seed Mentor Program pilot seeks to increase the adoption of direct seeding management practices throughout Spokane and Whitman Counties. The pilot plans to accomplish this through a mentoring program and side-by-side on-farm demonstration of direct seeding compared to conventional farming. Direct seeding is a farming method that puts the seed and the fertilizer directly into the ground without the use of conventional tilling. Direct seeding has been shown to increase soil fertility over time, increase water retention capacity, decrease the need for fertilizers and reduce operating costs. Conventional farming generally uses over 8 gallons of fuel per acre, compared to direct seeding that uses approximately 3 gallons of fuel per acre⁴. While direct seeding appears to have many benefits, adoptions of these practices are low.

This pilot seeks to help growers see the benefits of direct seeding without the fear of the high up front cost of direct seeding equipment, through the use of mentors that practice direct seeding and have equipment and the expertise to guide the pilot sites.

The goals of the Direct Seed Mentor Program pilot are threefold:

1. Increase adoption of direct seed operations through the use of a mentoring program.
2. On-farm demonstrations of direct seeding.
3. Case study of side-by-side comparison of direct seeded ground with conventionally tilled ground.

Pilot Progress

This pilot is still in the initial planning stages of the pilot. The Ag Pilot contract was not in place until June of 2008, which has reduced the number of growing seasons that will be covered in the pilot. The pilot team plans to increase the number of participating farms from 4 to 6. Over the summer the mentor program has been presented at a number of direct seeding tours and meetings in order to establish a list of available mentors. Currently the pilot team is working on getting a list of mentors and the participating farms.

The pilot management plan to implement the program in the fall 2008 planting season. The December 2008 interim report will include a list of mentors and participating farms.

Contact Information:

- Ty Meyer, Production Ag Program Manager, Spokane County Conservation District, Ty-meyer@sccd.org

Challenges, Next Steps and Contact Information

Challenges

Everyone involved with Ag Pilots Project has worked hard to assure that Project has the best opportunity for success. This includes the individuals associated with the pilots, state agency personnel and Governor's office. But as is often the case in new innovative endeavors there have been problems associated with "start-up." There have been some significant obstacles in launching the Ag Pilots Project

proof of concept phase. They include the length of time in the final stage of the pilot approval process, challenges in funding flow and difficulties in executing pilot contracts.

The Ag Pilots Project Oversight Committee made its pilot selection recommendations in October 2008. The recommendations were then reviewed by the various interested State agencies and offices. The final approval of the pilots was given the last week of December 2008.

A somewhat protracted period of time was required to finalizing the funding flow to, and contract with, the individual pilots. The end result was that funding was not made available to the pilots until May 2009, leading to the delayed start of three of the four pilots.

Having the funds split across two fiscal years has created its own set of challenges and exasperated the problems caused by the delay of funds to the individual pilots.

Before the pilot projects could receive funding, the Center was requested by OFM to split the amount of funds needed between fiscal years '08 and '09. The Center in turn asked each of the pilots to provide their best estimates of what their project expenses would be each year over the two years. In February of 2008, all the pilots provided their best projection, but their estimates were given with the understanding that they would soon be receiving funding and beginning projects. There was a three-month lapse from the time they provided the fiscal year split budgets to the time they received fully executed contracts. The budgets proposed by three pilots were based on significantly more time to expend their funds in the first fiscal year. Because of the way that the money is allocated by the state, funds that are not spent in the FY08 are not transferable to FY09. The inability to provide extension to the pilots past June 30th for FY08, has created significant problems.

Next Steps

The next steps in the Ag Pilot Project are as follows:

- 1.) Continue monitor and evaluate the individual pilots

- 2.) Work with the governors office to identify an “state agency home” for the Ag Pilots Project (if the Project is deemed successful)
- 3.) Provide other contract deliverables include final report

Contact Information

The Center has assigned Dr. Rob McDaniel as the project manager for the Ag Pilots Project. He can be reached at: 520 Pike St, Suite 1101, Seattle, WA 98101; (206) 219-2426; mcdaniel@wsu.edu

Appendices

Appendix A: Project Oversight Committee

The voluntary agricultural pilots program is overseen by a balanced and independent Oversight Committee (OC) which serves at the invitation of Bill Ruckelshaus, Chair of the Ruckelshaus Center Advisory Board and the Governor. Members were drawn from diverse perspectives, including significant agricultural representation as well as environmental, scientific, tribal leaders, and citizen members. The Committee was chosen for their unique perspective, knowledge and experience. Committee members also needed to have an existing stature as a trusted person, have the ability to effectively interact with constituencies, state agencies, the legislature, and the public, and believe in the possibility of the Ag Pilots dual goals. The responsibilities of the OC members with the support of Ruckelshaus Center staff, in order of their progression, include:

1. Encouraging people to put forth high potential, high-impact pilots from different agricultural sectors and geographic areas of the State **(Done)**;
2. Selecting pilots for funding **(Done)**;
3. Ensuring pilots are evaluated based upon the evidence of individual results as well as aggregate benefits of the Project **(In progress)**;
4. Producing 3 interim reports and a final report on overall progress of the Ag Pilots Project and the individual pilots **(In progress)**;
5. Promoting the Project and encouraging opportunities for replication throughout the state **(In progress)**;
6. Developing recommendations on the future of the Project, and as warranted, recommend to the Governor and Legislature subsequent rounds of solicitations and funding **(Future)**.

The following is a list of the fifteen Agriculture Pilot OC members and their affiliations:

Deborah Moore, Committee Chair – (former) Grant County Commissioner
Ed Adams – WSU Spokane County Extension
George Boggs – Whatcom Conservation District
Fred Colvin – Washington Association of Conservation Districts
Andrea Copping – Pacific Northwest National Laboratory
Jay Gordon – Washington State Dairy Federation
Heather Hansen – Washington Friends of Farms and Forests
Bud Hover – Okanagan County Commissioner
Jim McFerson – Washington Tree Fruit Research Commissioner
Betty Sue Morris – Clark County Commissioner
Mike Petersen – The Lands Council
Joe Ryan – Washington Environmental Council
Don Stuart – American Farmland Trust
David Troutt – Nisqually River Council, Nisqually River Tribe

Appendix B: Selection Criterion of the Ag Pilot Program
Pilots were chosen based on their potential to both hold the promise for real gains to the agricultural producer and the environment, and be sustainable beyond the pilot stage. This was based on how well they meet two sets of criteria: 1) likely pilot results and outcomes and 2) conditions that are likely to yield a successful pilot. Each set of criteria is outlined in more detail below.

Likely Pilot Results and Outcomes:

- Enhanced agricultural viability. Pilots must be designed to measurably benefit agricultural viability.
- Enhanced environmental stewardship. Pilots must be designed to measurably benefit the environment.
- New or improved working relationships and problem solving forums. The pilot creates opportunities for working with other growers, environmental advocates, and regulators toward common goals.
- Innovation, Impact and Replication. The pilot contains innovative ideas or new ways of combining or implementing known techniques which can have a significant impact if scaled up or applied to other geographic areas or agricultural sectors.

Conditions Likely to Yield a Successful Pilot:

- Builds upon acceptable approaches and promising opportunities. The pilot builds upon current or emerging technology, field-tested success elsewhere, or broadly accepted research results and knowledge, or less well-known but credible concepts.
- Low risk of harm. The pilot should outline expected results, but take into consideration the unproven nature of a pilot, and protect against additional cost or unexpected harm to the agricultural operation and the environment.
- Technical feasibility. The needed expertise and technology should be available, along with the organizational capacity to manage the pilot. .

- Supported by affected parties. The pilot should enjoy broad support among local interested and affected agricultural producers, environmentalists, tribes, and local government entities.
- Financial leverage. The pilot should have sufficient resources for success and should have the ability to be financially self-sustaining after the initial investment, with ongoing agricultural and environmental benefits.
- Favorable cost to benefit relationship. The pilot should efficiently leverage the financial or other costs associated with the pilot relative to the potential benefit. The likely agricultural, environmental, and social outcomes, which if replicated, should elicit widespread benefits and impact compared to the cost.
- Realistic goals and benchmarks. The pilot should be expected to deliver meaningful improvements to agricultural and environmental outcomes, and the benefits should be measurable (recognizing that full results might not be available within a 2 to 3 year time frame).
- Readiness to proceed. Applicants should be prepared to implement the pilot soon after funding is granted.

Appendix C: Contract Oversight and TBD Fees

Conservation Commission Oversight Fees	
The commission takes a 3% fee for handling and overseeing the Ag Pilot funding.	
FY 2008-----	-----
-----	-----\$4,650
FY 2009-----	-----
-----	-----\$8,393
<hr/>	
Total:	
\$13,043	
Additional funds (TBD)	
These funds are to be used as a reserve in FY 2009 in case pilots need a few extra dollars to complete their project.	
FY 2008-----	-----
-----	-----\$61

FY 2009-----	-----
-----	-----\$11,692
Total	
\$11,753	

Appendix D: Pilot Budgets

WSU Ag-Pilots Grants July 21,2008				
Project	Recipient	Date Grant signed	Vouchered Amt.	Date Vouchered
Beefing up the Palouse	WA Sustainable Food & Farming Network	6/4/2008	\$15,620.00	6/9/2008
Direct Seed Mentor Project	Spokane Conservation District	5/14/2008	**See Note below	
Note**Direct Seed Mentor Project will not voucher because they didn't start the project, because the main contract took too long to be negotiated. Didn't want to start a project with out a contract in place.				
Farming For Wildlife	The Nature Conservancy	6/20/2008-- Amendment #1 signed 7/18/08** See Note Below	\$42,250.00	7/16/2008
Note**The Nature Conservancy signed their contract on 6/20/08. Amendment #1 consisted of redistributing their funds for each fiscal year.				
Insect Pest Management	WA Horticulture Association w/ WSU Tree Fruit Research Station	5/19/2008-- Amendment #1 signed 06/19/08-- Amendment #2 07/21/08**See Note Below	\$14,732.04	7/18/2008
Note**Amendment #1 changed the fiscal agent to the Washington Tree Fruit Research Commission. Amendment #2 redistributed their funds for each fiscal year.				

Appendix E: Ruckelshaus Center Expenditures, FY08

Salaries and Wages	\$13,932.73
Goods and Services	\$ 3,391.06
Travel	\$ 4,594.69
Benefits	\$

	2,488.45	
Overhead	6,286.47	\$
TOTAL	30,693.40	\$

Appendix F: Itemized Ag Pilots
1. Farming For Wildlife

Project	Recipient	Date Grant Signed	Amount Awarded for FY 08	Total Amount Vouchered	Date Vouchered	Amount Remaining FY 08
Farming For Wildlife	The Nature Conservancy	6/20/2008 - - Amendment #1 signed 7/18/08** See Note Below			7/16/2008	
Intermediate Outcome 1.0	Salaries & Benefits			\$ 0		
Intermediate Outcome 2.0	Hire a resource economist to do an economic feasibility study and enterprise business plans for habitat rotations for three different producers.			\$ 0		
Intermediate Outcome 3.0	Provide WSU macroinvertebrate sampling			\$ 9,368.67		
Intermediate Outcome 4.0	Hire Wilbur Ellis to provide soil fertility tests and analysis.			\$ 3,711.00		
Intermediate Outcome 5.0	Development of experimental design and research that examines the potential disease and pathogen control benefits associated with habitat rotations/saturated farm fields. Farm management costs covered as well.			\$ 29,170.33		
TOTAL			\$42,250	\$ 42,250		\$ 0

Note**The Nature Conservancy signed their contract on 6/20/08. Amendment #1 consisted of redistributing their funds for each fiscal year.

2. Transition of Insect Pest Management to New Pest Control Technology (PMTP)

Project	Recipient	Date Grant Signed	Amount Awarded for FY 08	Total Amount Vouchered	Date Vouchered	Amount Remaining FY 08
PMTP	WA Horticulture Association w/ WSU Tree Fruit Research Station	5/19/2008--Amendment #1 signed 06/19/08--Amendment #2 07/21/08**See Note Below			7/18/2008	
Intermediate Outcome 1.0	Personnel-			\$ 11,923.31		
Intermediate Outcome 2.0	Benefits					
Intermediate Outcome 3.0	Goods and Services-Travel					
	Vehicle plus fuel and maintenance					
Intermediate Outcome 4.0	Equipment			\$ 2,808.73		
	Computer, camera, etc					
Total			\$ 35,400	\$ 14,732.04		\$ 20,667.96

Note**Amendment #1 changed the fiscal agent to the Washington Tree Fruit Research Commission. Amendment #2 redistributed their funds for each fiscal year. Personnel expenses were not separated by salary and benefits, they were billed together.

3. Beefing up the Palouse

Project	Recipient	Date Grant Signed	Amount Awarded for FY 08	Total Amount Vouchered	Date Vouchered	Amount Remaining FY 08
Beefing up the Palouse	WA Sustainable Food & Farming Network	6/4/2008			6/9/2008	
Intermediate Outcome 1.0	Provide project management and personnel to haul cattle, set-up temporary fence, haul water, conduct ecosystem monitoring, etc.--Salaries			\$ 10,001		
Intermediate Outcome 2.0	Travel, communications, and outreach.			\$ 805		
Intermediate Outcome 3.0	Washington Sustainable Food and Farming Network provides administrative services to project.			\$ 4,814		
TOTAL			\$ 15,620	\$ 15,620		\$ 0

4. Direct Seed Mentor Project

Project	Recipient	Date Grant Signed	Amount Awarded for FY 08	Total Amount Vouchered	Date Vouchered	Amount Remaining FY 08
Direct Seed Mentor Project	Spokane Conservation District	5/14/2008	\$33,384.00	**See Note below		33384

Note**Direct Seed Mentor Project will not voucher. They didn't start the project, because the main contract took too long to be negotiated. Didn't want to start a project without a contract in place.

Endnotes

¹ Ag Pilots Report (August 2006).

<http://ruckelshauscenter.wsu.edu/projects/documents/AgPilotsReportFINALAug2006.pdf>

² Patton, Michael (2008). Utilization Focused Evaluation, 4th edition. Sage Publications, Thousand Oaks, CA. pg. 130-149.

³ Beefing Up the Palouse – An Alternative to the Conservation Reserve Program (CRP) Ag Pilot full proposal page 3.

⁴ Information from direct seeders on the WSU Extension BIOAg tour sustainable farming in the Palouse region of Washington State held on May 28, 2008.