

Western IPM Center Project Report Form

How to submit: Please submit this completed form electronically, as an attached Microsoft Word file, to Jane Thomas at jmthomas@tricity.wsu.edu. If you have questions, contact Linda Herbst, (530) 752-7010. **Content:** Complete each section below, and include responses to as many of the questions listed in Attachment A as are relevant to your project. *These are guidelines.* Provide your readers with enough detail that someone who is not familiar with your project can understand what you were trying to achieve, how you went about it, and what you accomplished, but please keep it concise.

A. Report Data

Date: December 2010

Reporting Period: January 2010 - Dec 2010

Report Type (please check one):

Progress Report Final Report

B. Grant Data

- Grant Agreement #: 07-001492-ORE19
- Title: Polk County Nutria Control Research Project
- Grant Type: Addressing Western IPM Issues - Research Project
- Lead investigator:
 - Name: Jackie Hastings
 - Title: Polk SWCD District Manager
 - Institution: Polk Soil and Water conservation District
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 - Email: jackie.hastings@oacd.org
- Team members (name, title, institution): Jackie Hastings (District Manager, Polk SWCD), Shawn Woods, (Resource Management Technician, Polk SWCD), Tim Hiller (State Furbearer Coordinator, Oregon Department of Fish and Wildlife), Dr. Julia Burco (District Wildlife Veterinarian, Oregon Department of Fish and Wildlife), Dr. Rob Bildfell (College of Veterinary Medicine, Oregon State University), Mancil Russell (Board Member, Ash Creek Water Control District, Trevor Sheffels (PhD Student, Portland State University / Center for Lakes and Reservoirs), Nathan Slaven (Coordinator, Rickreall Watershed Council), Tom Finegan, District Conservationist, Natural Resource Conservation Service.)
- State(s) involved: OR

C. Nontechnical Summary. An overview of the project, briefly outlining the problem(s), how your project addresses them, and your results, *written to a lay audience.* (500 words)

In Oregon nutria are a non-native invasive species that pollute water, displace native wildlife, cause damage to dikes, crops, and riparian vegetation, and potentially transmit disease to pets, livestock, and humans. Traditional methods of control such as trapping or shooting can effectively reduce isolated populations, but local efforts are worthless because of the reservoir of nutria that move in and repopulate an area. The only way to effectively control nutria in the Northwest is to develop a regional plan, such as those programs that have been successful in Maryland and Louisiana. The purpose of this project is to build the foundation for developing the first Regional Nutria Management Plan in the Pacific Northwest. This plan focuses on collecting data and building alliances with industry and user groups. Data from this project will be used to seek future funding to continue addressing nutria populations and their affects on agriculture, water quality, and human health.

The first year of this program has proven to be extremely successful. Public educational workshops have been well attended and participation in the bounty program has been high. The disease testing program has produced some interesting results and we have continued to gain support from partnering agencies including the Oregon Department of Fish and Wildlife who recently launched their own nutria population study as a direct result of this WIPM funded program. Additional nutria data is being collected through a partnership with Oregon State University and Portland State University. This program is on track to meet all of its objectives including collecting the data and building the partnerships necessary to develop the first regional Nutria Management Plan in the Pacific Northwest.

D. Objectives and Progress. List your objectives and describe your progress for each objective.

Polk Nutria Control Research Project Objectives:

1) Educate the public about nutria through workshops and newspaper articles:

1 Newspaper article appeared in the Polk County Itemizer-Observer Newspaper highlighting the Polk Nutria Control Research Project. (Newspaper Circulation = 5,084). Polk SWCD hosted 2 Polk Nutria Control Research Project Control certification workshops (43 attendees). 1 display at the Polk County Fair (6,500 in attendance). 1 article in the City of Independence Community Newsletter (6,000 residents). Fact Sheets and fliers have been distributed throughout Polk County including Feet Stores, Agricultural Suppliers, local businesses, and sporting goods stores.

2) Develop a protocol for documenting nutria damage:

Worked with project partners to develop a data recording sheet. This includes Nutria activity, damage, location, date, and physical data of captured nutria.

Data recording sheets have been developed based on recommendations from project partners (see attachment)

3) Document nutria damage throughout Polk County:

In 2010 program participants have documented nutria activity throughout Polk County and recorded physical data on more than 150 nutria.

4) Test nutria throughout Polk County for various diseases.

Every nutria captured after November 2010 has undergone an examination by Dr. Julia Burro (District Wildlife Biologist, Oregon Department of Fish and Wildlife) or Dr. Rob Bildfell (College of Veterinary Medicine, Oregon State University). Selected nutria have undergone extensive disease testing including Necropsies, Histopathology, Jones Rt-PCR, Leptospirosis - serology, Toxoplasmosis - serology, giardia, aerobic cultures of intestine, cryptosporidium, salmonellosis, and tularemia. Every nutria in the program has been examined for disease, reproductive status (pregnant / # in each litter), and tooth extraction. The tooth extractions will provide accurate age of each nutria and are paid as additional cash match through the Oregon Department of Fish and Wildlife.

5) Evaluate nutria control measures to determine what methods are most practical and effective.

Participants installed woven wire along pond dikes to evaluate effectiveness against nutria damage. Data is also being collected on additional control methods including hunting, kill trapping, live trapping, and efforts pre bounty program and post bounty program.

6) Work with landowners to record the number, sex, and size of captured nutria.

Data is being collected on every nutria turned in for the bounty. Participants are given a written protocol and trained how to accurately record the nutria's size, weight, sex, and location.

7) Compile all data collected into a final report that will be used to as a foundation for creating the first Regional Nutria Management Plan in the Pacific Northwest.

The data being collected through this program has been the foundation for creating the first Regional Nutria Management Plan in the Pacific Northwest. This data directly fits into studies currently being conducted by a PhD student at Portland State University and a study being conducted through the Oregon Department of Fish and Wildlife. The results for this 2 year program will be available late 2011.

E. Outputs. List your project’s outputs, which might include publications, information, data, meetings held, attendance at meetings held, etc.

1 Newspaper article appeared in the Polk County Itemizer-Observer Newspaper highlighting the Polk Nutria Control Research Project. (Newspaper Circulation = 5,084). Polk SWCD hosted 2 Polk Nutria Control Research Project Control certification workshops (43 attendees). 1 display at the Polk County Fair (6,500 in attendance). 1 article in the City of Independence Community Newsletter (6,000 residents). Fact Sheets and fliers have been distributed throughout Polk County including Feet Stores, Agricultural Suppliers, local businesses, and sporting goods stores.

F. Impacts and Potential Impacts. The “impacts” and “potential impacts” sections of your report will help the Western IPM Center highlight the value of IPM research and education by detailing the real-world impacts of Center-funded projects. We will use the information in news articles, reports, and informational brochures to showcase the impacts of projects that our program supports. *See Attachment A at end of form for questions to assist you in describing the impacts of your project.*

1. Impacts. Describe any impacts of your work. *Impacts* are specific changes in condition for those affected by your work. Impacts include adoption of technology, creation of jobs, reduced cost to the consumer, less pesticide exposure to farmers, access to more nutritious food, and a cleaner environment and healthier communities.

Ash Creek is a mid size tributary of the Willamette River which flows through the city of Independence Oregon. This creek has been listed as critical habitat for juvenile salmon and is monitored by the Oregon Department of Environmental Quality for water quality. A significant health and environmental concern for this area has been the high volumes of bacteria found in the water and the destruction of riparian vegetation. In the past year over 100 nutria have been removed from this ecosystem through this program. The Ash Creek Water Control District and the City of Independence have been strong partners in the nutria control efforts and feel there has been a significant improvement in water quality.

2. Potential impacts. Describe your project’s potential impacts. *Potential impacts* are the ways that your project’s outputs could directly lead to changes in condition that will unfold in the future.

A main objective of this project is to bring natural resource partners together to build a regional Nutria control program. This project has directly resulted in a nutria population study through the Oregon Department of Fish and Wildlife, Disease testing through Oregon State University, and an Environmental damage study through Portland State University. These research efforts may help build support for additional funding sources including H.R 3850 "Nutria Eradication Control Act of 2009" which now includes Oregon as a potential recipient.

G. Leveraged Funds. List *additional funding* you have acquired because of the data and results yielded in this WIPMC-funded project.

Additional Funding Award #1:

Date of Award: Dec 2010
Dollar Amount: 2,600
Grant Period Duration: 2011

Name of Granting Entity: Oregon Department of Fish and Wildlife
Name of Grant Program: ODFW Agency Research Project on nutria captured in Polk County Oregon.

Additional Funding Award #2:

Date of Award:
Dollar Amount:
Grant Period Duration:

Name of Granting Entity:
Name of Grant Program:

Additional Funding Award #3:

Date of Award:
Dollar Amount:
Grant Period Duration:

Name of Granting Entity:
Name of Grant Program:

H. Appendices

1. With your report, please attach *at least two (2) photographs* that illustrate your project. Please describe the photo and indicate the name and institution of the person who took the photo. (If you submit more than two photographs, please include those additional descriptions and photo credits under "I. Additional Information," below.)

Photo #1 description:

This sick nutria was captured near a public park and was found crawling with hundreds of parasitic lice. The lice species has been identified by an Oregon State University Department Entomology professor as Pitrofenquia coypus an exotic S. America species of lice found on nutria.

Photo #1 credit (photographer's name and institution):

Shawn Woods, Polk Soil and Water Conservation District

Photo #2 description:

Data is collected on every nutria turned in for the bounty including length, weight, and sex. This photo shows a Polk SWCD technician and a private citizen examining captured nutria.

Photo #2 credit (photographer's name and institution):

Shawn Woods, Polk Soil and Water Conservation District

2. Also attach any printed fact sheets or other publications resulting from your work that will enhance our understanding of your project and its impacts. Please provide a description of each attached publication below.

Document #1 description:

1 newspaper article in the Polk County Itemizer-Observer highlighting the Polk SWCD Nutria Control Program.

<http://www.polkio.com/archives/Story.aspx/18978/pswcd-to-offer-bounty-for-nutria>

Document #2 description:

Protocol for the Polk SWCD Nutria Control Bounty Program.

Document #3 description:

Polk SWCD Nutria Control Data Sheet

I. Additional Information

Polk SWCD Nutria Trapping Log

***Credit:** Some of the language about impacts and potential impacts was adapted from a PowerPoint presentation by H. Michael Harrington, Executive Director, Western Association of Agricultural Experiment Station Directors, Colorado State University.*

Attachment A

Questions to Help in Reporting Impacts and Potential Impacts

Below are some questions that will guide you in assessing and then describing the impacts and potential impacts of your project. The relevance of each question may vary depending on whether yours is a research or extension project. Please answer as many as you can to the best of your ability, and feel free to describe any additional types of impacts not mentioned below. Remember to identify any potential impacts.

1. Innovations in IPM:

Are there new IPM practices that have been (impacts) or could be (potential impacts) adopted as a direct result of your project? What is the total number of acres (or homes, schools, greenhouses, nurseries) on which these practices could realistically be implemented?

2. Safeguarding human health and the environment:

- a. Has the project reduced risk (or could it potentially do so) by changing the use of pesticides on farms, in homes, in schools, etc.? For example, could it result in fewer sprays per season or a switch to lower-risk pesticides? If possible, quantify the changes in condition. (Since there is no unanimous definition of *high* and *low risk*, investigators selecting this indicator are asked to categorize the pesticides they are reporting on as *high* or *low risk* according to the particular situation [e.g., lower risk to natural enemies]).
- b. Are there any other impacts or potential impacts on human health or the environment as a result of your project?

3. Economic benefits:

- a. What is (or could be) the economic benefit (e.g., dollars saved) for clientele who adopt IPM strategies and systems you studied? Do you envision potential commercialization or mass production of these systems?
- b. How many clients are satisfied with IPM results (such as improved yield, improved quality of yield, reduced pest populations, more effective pest control, greater preservation of nonpest species)?
- c. Are there other financial benefits that might be realized (potential impact) as a result of your project?

4. Implementation of IPM:

- a. How many IPM strategies and systems have been validated through this project (e.g., through on-farm trials, large plot tests, or other methods used to confirm efficacy)?
 - b. How many educational materials were delivered? To whom? And what are the impacts or potential impacts?
 - c. What is the number of growers/personnel trained? And what are the impacts or potential impacts?
 - d. For a Web site, what volume of traffic and type of use has the site experienced? (For example, number of visitors per day or month; number of page views; number of unique user sessions; change in volume during growing season; average viewing time.) And what are the impacts or potential impacts?
 - e. How many more people adopted IPM practices as a direct result of your project, or how many people adopted new IPM practices?
 - f. Are there other ways in which your work will result in improved use or increased implementation of IPM strategies in your region or across the West?
5. Has your project or study increased collaboration among stakeholders interested in the development and implementation of improved IPM strategies and systems?