



# SOUTHERN WILLAMETTE VALLEY GROUNDWATER MANAGEMENT AREAS

JANUARY 2017

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## SPECIAL POINTS OF INTEREST:

- Outreach tools
- Updates from partners
- Fertilizer grant info
- Welcoming 2017
- Highlights from 2016

## WELCOME TO OUR FIRST NEWSLETTER

The Southern Willamette Valley Groundwater Management Area represents a diverse group of farmers, small business owners, educators, researchers, environmental councils, natural resource agency staff and others who want to protect and preserve groundwater. This newsletter is a new effort to keep everyone up to speed with developments in the management area. We'd like to thank everyone for hanging in there with us and continuing to provide exceptional input as we address the complex issue of nitrate contamination in our groundwater. We especially want to acknowledge the contributions of Pat Straube who recently retired from the committee after more than 10 years.

We'd also like to reflect on our accomplishments and look forward to 2017.

### Progress Made:

- Attendance at committee meetings increased last year, providing more diverse, nuanced direction on how best to

move forward.

- A review of the Action Plan Draft Addendum by subcommittees provided clearer direction on allocating resources.
- Exploring current trends in monitoring wells was the first step in preparing for on-the-ground outreach to farmers in the management area.
- Jon Edwards, a longtime resident and former Junction City Mayor, joined the committee to fill the vacancy left by Pat Straube.
- Staff from the U.S. Environmental Protection Agency, the Ore-

gon Department of Agriculture, DEQ and committee members are providing updates between meetings.

- TetraTech completed a groundwater contour model for the management area.
- Focused monitoring on two wells with high and variable nitrate concentrations was completed.

### Looking to 2017

- DEQ will continue to work with the Oregon Department of Agriculture and other partners on using the contour model to identify five-year flow paths and rates

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## LOOKING BACK TO LOOK AHEAD

As we move into the new year, I thought it might be good to discuss what we do on the groundwater committee. Thanks to Priscilla Woolverton and Becky Anthony at DEQ for creating this newsletter.

While trying to explain what we do a short time back, I had to review the history. We began as a stakeholder group without many preconceptions and a vast pool of questions about our responsibilities. In the first year we set up sector committees to evaluate what our contribution to groundwater nitrate looked like and to

develop strategies and management practices that could reduce nitrate in the groundwater. The committees met a number of times and reported back to the main committee, to form our first plan. Even though most committee members believed we were dealing with legacy issues in many cases, we hoped that with good outreach and better management strategies, we would turn the tide on our problem wells, and within a couple of years document improving



trends. Then our jobs would be done. Reality set in five or six years in for most of us, and we started to feel that our work may take a generation.

Even though it seems as though we are not seeing instant gratifi-

cation, my sincere belief is that the changes that are occurring over time will deliver results. We are not static. We will continue to see better information over time and to develop better strategies.

—Jerry Marguth

*Committee Chair*

## CAFOS IN THE MANAGEMENT AREA

When the management area was first developed, there were nine permitted Confined Animal Feeding Operations there. In 2016, two operations merged into one and another ceased operations so the total number of permits was reduced to seven. The operations house dairy and beef cows, swine and poultry. Three are large; one is medium and three are small. Oregon Department of Agriculture staff conducted routine and follow-up inspections with

all operators in 2016 and 87.5 percent of the routine inspections resulted in the facility being in compliance with its permit requirements. Operators continue to implement Animal Waste Management Plans. The site-specific plans describe how operations handle, treat, store and use manure and process wastewater. They contain structural and management practices unique to the operations. Operators maintain and

improve water quality through careful implementation of their management plans and permit conditions. To ensure WQ goals are met, ODA employees and operators constantly review technical advances in nutrient management and performance data. Operators adapt management techniques to address changing environmental and operational challenges.

— Wym Matthews and  
Chris Anderson

### EDITOR'S CORNER

#### **We want to hear from you.**

If you have a topic you'd like to read more about or would like to submit an article contact Basin

Specialist Becky Anthony at

541-686-7119 or

anthony.becky@deq.state.or.us.

Please keep cover page articles

to 500 words. All other

submissions should be 200

words or less.

## THE DARKEST DAYS OF WINTER

We are in the dark months of the year, so the real work now is evaluating the last year and planning for next. Perennial crops and winter crops are already in the soil awaiting warmer temperatures and the start of the growing season. Fields slated for annual crops are either resting under the previous season's residue or cover crop. Soil testing is underway to determine how much nitrogen is in the soil and could be available for use by crops, which helps farmers apply fertilizer more efficiently. Plans for spring fertility amendment are being finalized and spring planting schedules determined. Farmers are either working to restore their equipment, or possibly shopping for the next upgrade, as well as attending the never-ending winter meetings to learn what's new in technology and within their industry, how potential legislation locally and nationally may impact them, and hopefully spending time with friends and family they can't see the rest of the year. Technologies will continue to advance the application of fertilizers which will in turn reduce the potential for nitrogen moving below the crop root zone and potentially polluting groundwater. Drones will continue to be more widely adapted and developed to provide more accurate images of fields and crops. That means that over time we will develop field maps that are more representative

of conditions on the ground compared to the old U.S. Geological Survey soil surveys — many of which date back to 1964. And the end result will be field management on a sub-meter scale rather than fence row to fence row. Remember always that inputs are expensive and farmers are generally prudent. So the bottom line for the agriculture sector is that the future holds keys to make us more efficient.

*"Tomorrow is the most important thing in life. Comes into us at midnight very clean. It's perfect when it arrives and it puts itself in our hands. It hopes that we have learned something from yesterday."* John Wayne

—Jerry Marguth



**"The bottom line for the agriculture sector is the future holds keys to make us more efficient."**

## WELCOME, CONT. FROM PAGE 1

of groundwater flow throughout the management area.

- The Oregon Department of Agriculture and other partners will design and initiate a new farmer outreach campaign to address areas of relatively higher and more variable

nitrate concentrations.

- DEQ will work with University of Oregon staff and students on a project to look at focus "neighborhoods" in the management area.

- Becky Anthony has

taken over as DEQ's lead facilitator in the management area. She, Bill Mason and Priscilla Woolverton will work as a team in order to ensure continued progress.

—DEQ Staff





## PARTNERING TO IMPROVE NUTRIENT EFFICIENCY

The Partnership to Improve Nutrient Efficiency works with management area farmers to measure nitrate leaching below the root zone of crops. This work has been conducted as a follow-up study to work done in the 1990s by Oregon State University researchers John Selker and Ross Penhallegon. In 2016 PINE partners including Benton Soil & Water Conservation District used Oregon Department of Agriculture Fertilizer Program grants to host a Nutrient Management Workshop in Monroe. The workshop brought together farmers, fertilizer representatives, agency staff and scientists to identify future agency and research needs. PINE produced factsheets summarizing the workshop's

findings and highlighting project developments, partnership and goals. Sampling continues weekly and PINE continues to give local, regional and national presentations on this work. By this time next year all the sites will be taken down and the last shipment of samples will have been sent to the lab.

—Susanna Pearlstein

## STUDYING THE BENEFITS OF INTERCROPPING

Researchers from the U. S. Environmental Protection Agency in Ada, Oklahoma have partnered with the Partnership to Improve Nutrient Efficiency and researchers from Oregon State University to set up a study at the OSU vegetable farm. The study seeks to find out if interplanting cover crops between corn rows will result in nitrate leaching reductions. The prevailing hypothesis is that cover crops will scavenge and utilize nitrogen left behind in the soil after corn har-

vests. The study complements ongoing local and national research on the efficacy of using cover crops to help reduce nitrate contamination of ground water and surface waters across the U.S.

—Susanna Pearlstein

## ODA FERTILIZER GRANTS HELP MANAGEMENT

The Oregon Department of Agriculture Fertilizer Program registered over 10,500 fertilizer, agricultural amendments, agricultural minerals and lime materials in 2016. Program employees conduct marketplace inspections and sample registered materials to make sure they contain what's on the label and that they meet strict limits for five

heavy metals. Accurately analyzing fertilizer soil amendments ensures that end users have dependable information as they implement their nutrient management plans. The research grant project being conducted in the Southern Willamette Groundwater Management Area

wrapped up in fall 2016. The program has just closed a Request for Proposals for the next round of fertilizer research project proposals and the fertilizer research committee will review the proposals in January 2017. Learn more at [web-page](#).

—Wym Matthews



**“Cover crops will scavenge and utilize nitrogen left behind in the soil after corn harvests.”**

