

## **Irrigated Ag / Livestock -CAFO Joint Meeting**

**January 9, 2013, 6:30-8:30p**

**KNDA, 121 Sunnyside Avenue, Conf Rm 1, Granger WA 98932**

Present:

Terry Keenhan – Yakima County

Charlie McKinney – Ecology

Steve George – Yakima County Farm Bureau

Stuart Turner – Turner & Co, Inc

Troy Peters – WSU

Kefy Desta – WSU

Jim Trull – RSBOJC

Gary Holwegnor – Port of Sunnyside

Bob Farrell – Port of Sunnyside

Tom Tebb – Dept of Ecology

Jean Mendoza – Friends of Toppenish Creek

Ali Sedighi – Yakima County

Chelsey Durfey – Irrigated Ag

Heather Wendt – Benton CD

Mark Nielson – Benton CD

Jason Sheehan – Yakima County Dairy Federation

Lino Guerra – CHMMET Eng, Inc

Vern Redifer – Yakima County

CM      Joint concerns on data needs for GWMA were expressed in the Irrigated Agriculture and Livestock – today's meeting is to clarify overlaps and data needs and how to get there. Both groups say priority is to KNOW problem first.

ST      Have been working on Washington State enhancement to the NRCS 590 (nutrient (nitrogen) management) National Standard. We had an intern for 6-7 months collecting data out of Spokane NRCS. NRCS is through Federal Register – each state must modify. Farms need to do if receiving federal funds. AFO or CAFO have nutrient plan mandatory.

CM      Need to get specific on the nature of Yakima Valley - site specific investigations needed. Melanie Redding in Olympia at Ecology available for study designs. – background in hydrogeology.

TT      Have program for scientific investigation that can be available to work with County and WSU – define landscape and land use practices. This investigation staff can work with groups, such as County or WSU, that have technical staff. By this approach can generate more money as assemble more specific information and information needs.

SG      Who's going to organize information? Offer our consultant Kevin Linsey to gather information and look at. Consultant has experience from Columbia and Umatilla GWMA's on assembling information. We want to review the data collected.

TP      Looking at an early workshop with speakers with specific related experience in irrigated agriculture – what we learned, what we don't know, sources of variability. Target presentations for combination of technical and layman.

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MN We are veering into information and data needs at this moment. Is this premature (in this meeting)?

TT Yakima County not necessarily the technical lead. \$450k set aside for data acquire / land use / public education.

MN Where is overlap in the 2 committees & coordinators?

TT Look for missing things in the outline, let's look at schedules.

SG What costs a lot of money? Want UC Davis nitrate study people to focus needs. Need early implementation.

MN Cannot get there quickly.

ST Want to go after WQ grants that WSU can pursue by June 30th.

VR Cost dependent on what we are going to do and what information. July 1, 2014 have 450k. We still don't know what you need.

TT \$1.5 million?

CM Have \$750k to write plan and educate.

VR Money is to develop program. No really implementation. \$350k to be spent by June 31, 2013, then have to expend \$450k difference. For early implementation can go for low hanging fruit.

MN Can do sampling early. Establish AG best practices.

VR How much data collection do we do? That needs to be in program. Have to spend for facilitator and county then remainder – we know EPO \$ and we know have to do some monitoring – have already spent money.

ST Want to identify already researched Irrigated Agriculture low hanging fruit (i.e., could adopt the NRCS 590. In 2 years this standard would be more aggressive than Columbia GWMA proposals).

MN Benton County would not support NRCS590– We want to focus on transport versus loading (NRCS 590)

ST Again Hammer versus Nail. We need baseline. Need hot spots. Use for future applications. Also identify other sources.

MN What we see Columbia GWMA is canals diluting the nitrate concentrates since they are not lined.

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SG Not sure if OK with NRCS 590 – need to look at impact. Know cropping patterns and have seen lots of upgrades in last 10 years (i.e., hops are 99% drip irrigation). Better to assess current applications.

MN Benton CD did 10 foot soil samples in individual fields. Observed significant vertical loss of nitrogen through column beyond root zone. Farmers surprised, since fertilized expensive.

TT Conflict between what we are doing now versus what we did before and probably what we could do – not clear where we are and changes in impacts.

SG NCRS590 may come.

CD We will save money by not over-applying.

SG Need to sample what is leaving growth zone.

ST BMP is defined as technically possible/practical/economically feasible. Farms have to stay in business.

MN Agree with TT. Need to go for early implementation items.

VR Deep soil sampling is not in outline. What info do we need to define what we need?

MN Farmers may not want to provide.

TT Do we hold harmless during investigation phase to get information?

JT Make sense to define problem then enter process. Have responsibility to know where problem is in order to relieve others of concern. Easier to sell if we can show how benefit them financially. Demonstrate not wasting nutrients – would like as much testing upfront. Any resistance to wells?

VR We did not directly sample, we used test strips for several hundred wells then ended up as well tests in lab. Yakima County well levels above 10 mg/l about 12%.

ST Stop collecting that data?

VR Don't know how representative that data was – inconsistent responses and approximate methods to address immediate needs. Need to establish consistent timelines. Concerns about legacy that still is to contribute – we need agreement in group on what problem is.

JS Referring to section 2-1-2 water goals should be: 1) Find bad wells work on them first 2) find water contributes to aquifer – believe abandoned wells big problem. FIX NAIL.

MN Disagree about abandoned wells.

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LG Fixing nails is buying water at local store. Have kick of information – by cost.

VR Had only 6 month window – extensive outreach (flyers, meetings) gave free EPA testing. Had \$400k to buy Culligan reverse osmosis filters – had to give back a lot of money to Ecology – owners would not accept – many refusals not consider problem. Public health.

TT Maybe not done for testing and filters. We also must for aquifers. Problem need aquifer testing network.

MN Purpose is groundwater characterization.

TT Decades of sampling says we have problem.

ST 1) Can do nitrate testing with handheld tester; 2) in monitoring wells, not want to repeat EPA mistakes- get more accuracy.

CM We are in agreement that need long term monitoring for baseline.

TT There are lots of wells that are not recorded since before 1970, including abandoned wells.

VR We get more monitoring and data on couple thousand wells – many not have casings or sealed

JM How much cost to better well data?

ST Bring researches in to look at data – California studies show irrigated Ag is 96% of problem. In Yakima, focus on CAFOS has created a blind spot to the real problem.

VR The residential contribution to the problem contribution is probably small. Still need to help them as users. Studies indicate it will take a long time before all wells meet clean water standards. Need to focus on shorter term goals and not yet look beyond 20 years. Need water for people today also.

ST Maybe many wells we cannot fix.

SG Can we summarize now – only 15 minutes left.

TT Desire for studies. Desire for how money prioritized. Whatever we do now need to deal with short term for contaminated wells.

GL Lots of people paying lots of money for bottled water

VR Everybody who wanted filtration systems got one – had more to give.

JS Maybe open again as education in the program progress.

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VR Priority to help people.

JS Separate wells and continue

TT Need early characterization of both soil & water and their interaction.

JS What about amnesty to increase information availability?

TT We did 10 foot samples. We paid and we did not have to share – stayed confidential

JS Look at for amnesty so not lose data like this.

TT How did you handle this issue in Columbia basin MN?

MN We said this issue could be bad for issue capture and asked contributors what would you like to do?

TT Don't want to ignore bad problems.

ST Did calculations to show how bad.

VR Confidentiality important. Not want punishment. All EPA test data is confidential – found problems but it is not available. So mark X where number of bad locations.

ST Not like their data – went back got different results. Still make data collected not threatening.

MN Need data complied versus categories (soil type, crop, etc). Need deep soil program & keep data sources concealed.

JS Legal stuff stopped information sharing.

MN At the end we could not service everybody as the demand outstripped the available resources.

VR I remember a paper from California where they gathered the groundwater with nitrate to re-pump on land & recycle.

TT Conflict or do something now (short term) vs long term needs. Need conversation around volunteering versus enforcement. Use and expand what did Columbia GWMA did. Need academic workshop & hold harmless.

CM Are irrigated crops a source?

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MN We need nitrogen budget balance to establish percentages and volumes of source, application, source and escapement. There are numbers and rates & methodology that can be used with relative confidence with more data and work. Believe EPA did a bad job and not capture this.

CM Need to estimate escapement.

ST Know atmospheric loss.

MN Water management issues need to be identified (hammer).

CD What about use it or lose for use of irrigation water rights?

TT Can bank the water.

MN Data acquisition is critical group for these other 2 groups.

JS Do early action plans to get short term stuff.

MN Took 2 years to get to early implementation.

VR Let's define something we want

HW We want first 1) Agriculture application water management. 2) Deep soil sampling.

MN Need continued water sampling and baseline.

VR Need specifics for our \$ asks.

HW We can give costs for.

SG Third should be outreach and education

SM Think we need long term baseline.

TT WSU meeting with experts should help us move to costs and scientists help define.

MN Hiring USGS and got shotgun approach – not helpful.

SG Define timeline for and with WSU – need characteristics information into the years budget for research grants and other issues– need data characterization in this years budget - need longer term statistics – in fill with labs.

TT What can Irrigated Ag do? How can EPA help?

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SG Doing more innovation (ie slow release nitrogen).

CM May need subcontractor to concentrate on what to do.

VR We have to decide when to go for more money

TK Will NRCS590 soon become mandatory and supercede or contribute to efforts?

MN No -resistance has moved this back.

JS What technical people do we need?

SG Need to focus on funding right away. Put in a form for legislature.

TT Needs to come from agencies (ie Farm Bureau)

CM Need 3 areas for moving forward.

VR We are waiting then for information from Heather and Mark on first 2 items- agriculture water management and deep soil sampling first.