R10 Umatilla Petition

Figures from Petition Appendices

RA Briefing, 03 17 2020

Briefing paper attached to agenda.

Slides taken from APPX

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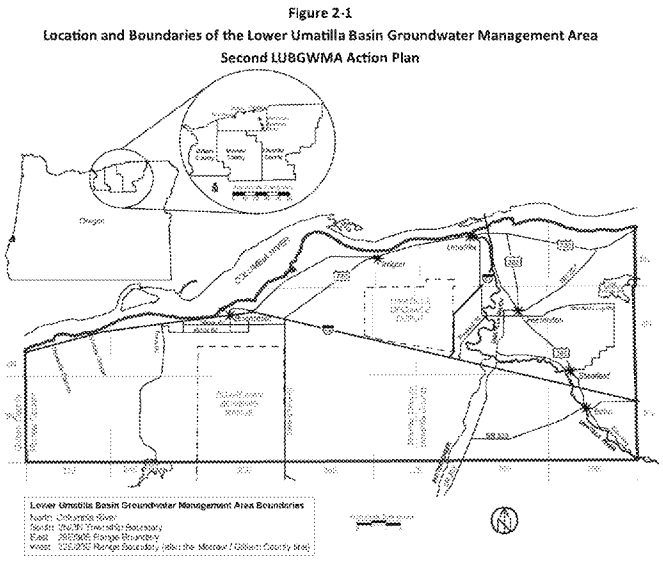

WHO: Food & Water Watch & 8 other entities

What: largely concerned about persistent MCL exceedance of nitrates in GW & CAFOs

LUGWMA includes 562 square miles in Nothern Umatilla & Morrow Counties (communities of Echo, Stanfield, Hermiston, Umatilla, Irrigon & Boardman)

87,062 people in 2 counties.
ODEQ is lead for GWMA, designated ...

Morrow & Umatilla Co Soil and Water Conservation Districts are lead agencies for developing and implementing the Second Local Action Plan, designated by ODEQ

31,490 in LUBGWMA in 6 urban grown boundaries, plus

14,830 est in rural areas GWMA

Summary of Initial Review

- Petitioner concerns: CAFOs & public health risks from persistent, elevated nitrates
  - 30-year history of GWMA activity with well trends increasing in some areas
- EPA initial review: potential for imminent and substantial endangerment of drinking water
  - Looking at current status of: sources of contamination, PWSs, & private wells
- Ex. 5 Deliberative Process (DP) percent of residential drinking water wells in LUBGWMA exceed national primary drinking water standards for public water supply systems. While not enforceable at private wells, the standard for nitrate of 10 ppm is widely accepted as a public health threshold.
- Data from the LUBGWMA (1992-2016) shows domestic well water with 20 to 40 ppm nitrate
  - Unclear if/which wells have treatment, universe of wells & current status.
- The Second Action Plan (2019) for the LUBGWMA includes additional outreach on private wells
  - Should be issued for Public Comment very soon (discussed at Jan 30 GWMA meeting)
  - Ex. 5 DP / Ex. 7(A)
  - Opportunity for changes through public comment process to make it more effective?

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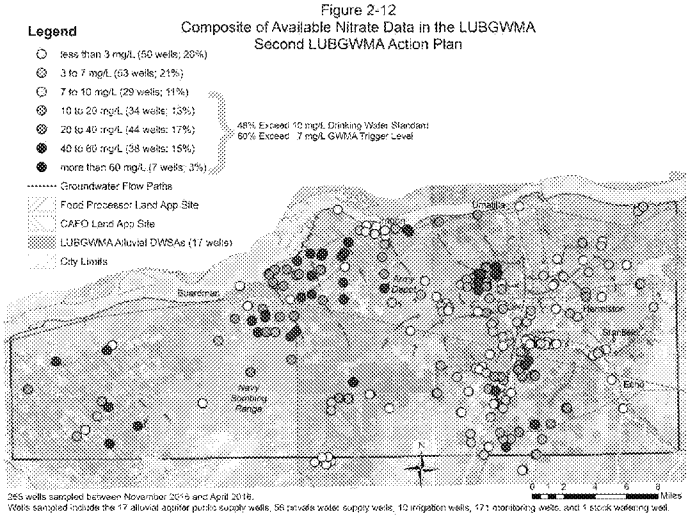
Figure 2-12
Composite of Available Nitrate Data in the LUBGWMA
Second LUBGWMA Action Plan



Petitioner Concerns, incl:
"48%" (high) percentage of private residents exposed to nitrates above safe levels
Proposal by ODA to permit another CAFO in location of former Lost Valley Dairy (exacerbated problems)
30 year problem with no progress

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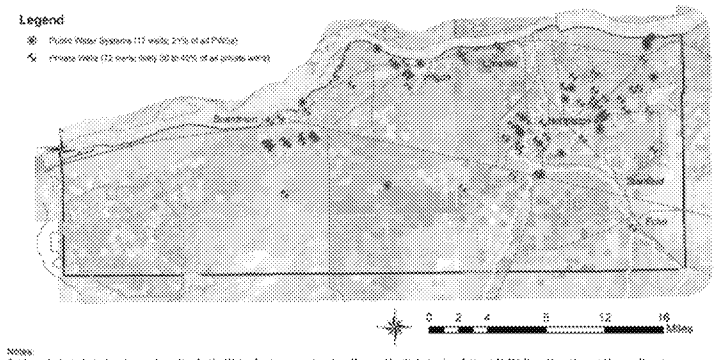
Public and Private Drinking Water Wells that Have Exceeded the Nitrate Drinking Water Standard
Lower Umatilla Basin Groundwater Management Area



Notes:
Public wells include both active and inactive Public Water Systems monitored by Oregon Health Authority. Of the 163 PWSs in Umatilla and Morrow County, 18 (10%) have exceeded the nitrate drinking water standard at least once. 37 of these wells (64%) are within the LUBGWMA. Of the 81 PWSs in the LUBGWMA, 31 (21%) have exceeded the standard at least once. These percentages do not take into account which aquifer these wells tap. Because some PWS wells are likely completed in the basalt aquifer, the percentage of PWS wells with high nitrate that utilize only the alluvial aquifer is likely higher than 21%.

Private wells on this map include 30 wells from the Real Estate Transaction database, 14 wells from the regular LUBGWMA Network wells, 7 domestic wells that were included in the 2009 Synoptic Sampling Event, and the Heavy Sampling Range well. Approximately 17% of the REET results show nitrate values over the standard. Because the REET database is known to contain results from treated samples and bottled water, it is likely not a good indicator of the magnitude or extent of nitrate contamination. Approximately 42% of the domestic wells in the LUBGWMA network show nitrate values over the standard. Approximately 30% of the domestic wells sampled during the 2009 Synoptic Sampling Event showed nitrate values over the standard.

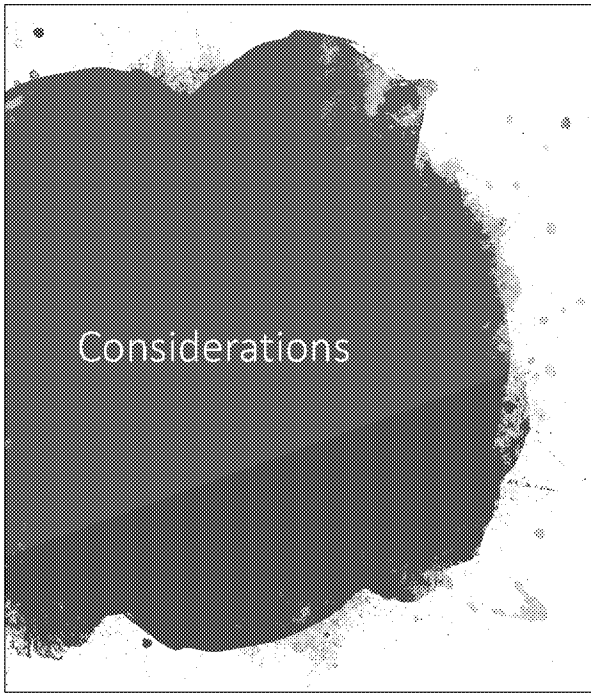
See Footnotes:

Legend: "Private wells (Ex. 5 Deliberative Process (DP) of all private wells)" -- Ex. 5 Deliberative Process (DP) wells? NEED TO CLARIFY...

Approximately 30% of domestic wells sampled during 2009 exceeded MCL

"Approximately 42% of the domestic wells in the LUBGWMA network show nitrate above the standard"

NEED more clarity on universe of domestic wells, treatment, and current unaddressed exposure to high nitrates. NOTE: 2nd Action Plan (2019) has action directed at additional outreach/funding/awareness for private wells.



OECA & OGC national perspective

- Similar petitions elsewhere
- Need to evaluate in timely manner

Level of effort & additional analysis

- **Ex. 5 DP / Ex. 7(A)**

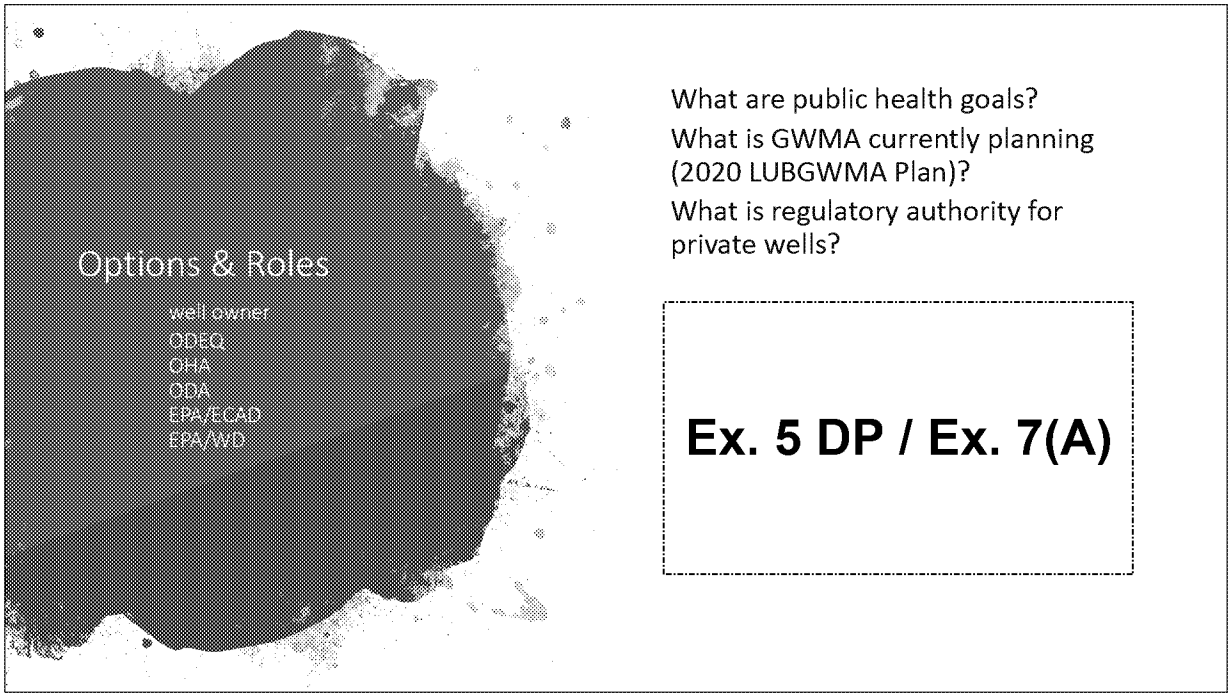
3/18: Meeting w/ODEQ, ODA, OHA

Ex. 5 Deliberative Process (DP)

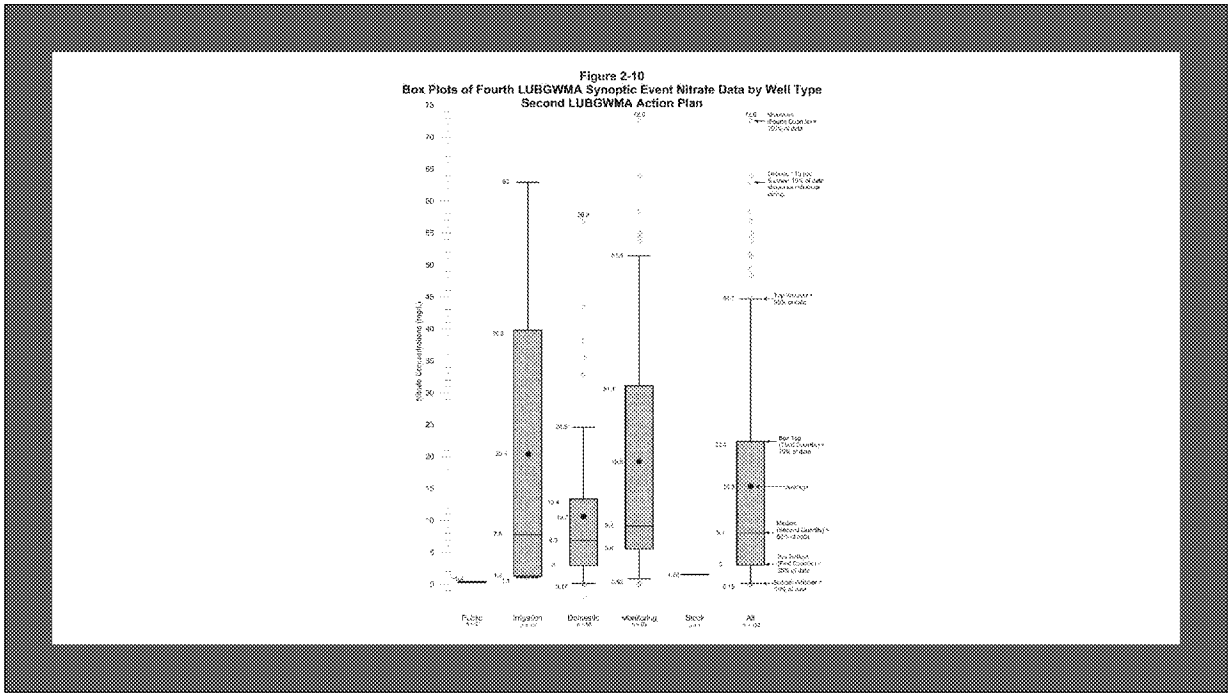
4/2: LUBGWMA Presentations by EPA (re: Yakima Dairies) & Food & Water Watch (petitioners)

TBD: Letters to/from ODEQ, ODA, OHA following 3/18 meeting

TBD: Written response to petitioner


Options & Roles
well owner
ODEQ
OHA
ODA
EPA/ECAD
EPA/WD
What are public health goals?
What is GWMA currently planning (2020 LUBGWMA Plan)?
What is regulatory authority for private wells?
Ex. 5 DP / Ex. 7(A)

end



e.g. of data showing nitrtre exceedances in domestic drinking water wells versus other monitoring wells

Need further clarification on data, information & efforts on private drinking water wells
Universe
# of exceedances
w/treatment
Assessment of unaddressed exposures.

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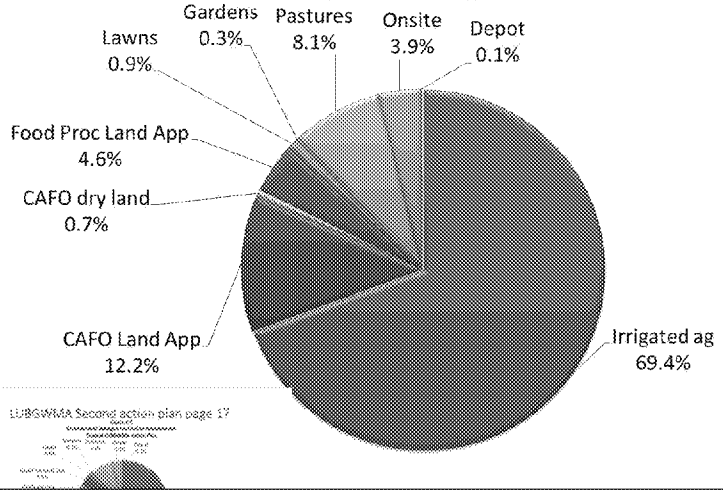
Figure 2-5
Estimation of Nitrogen Leached to Groundwater
Second LUBGWMA Action Plan



Initial Review of Petitioners Claim re: nitrates & CAFOs

Look @ SOURCES, PWSs, & Private wells (w/focus on private wells/exposure)

THIS SLIDE .... Overview of sources .... Note next slide location of sources vs. well exceedances ....

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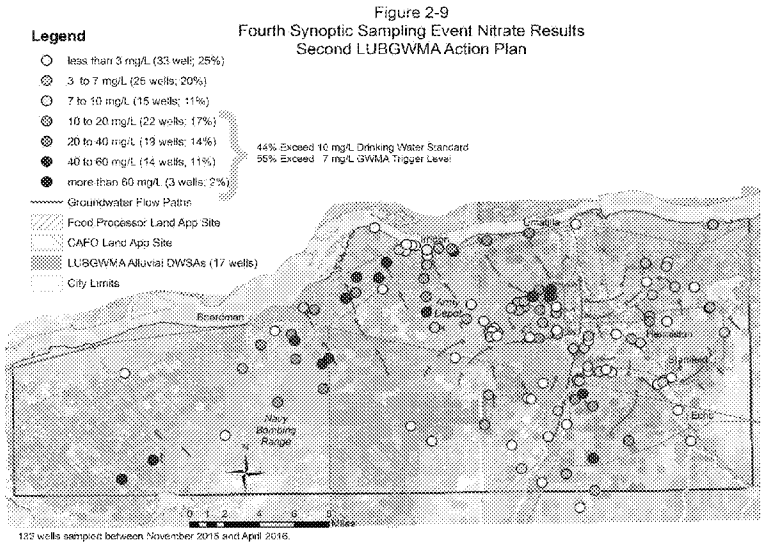

Overview of Sampling .... This slide Fourth Synoptic Sampling Event Nitrates

Previous Sampling ...
198 wells in 1990/1991 (Reconnaissance Sampling)
31 – 38 wells (LUBGWMA Well Network) - selection of wells mostly being private domestic wells, sampled 4-6 times/year
85 of 255 wells Synoptic Sampling Events) -- 1992, 2003, 2009, 2015/6

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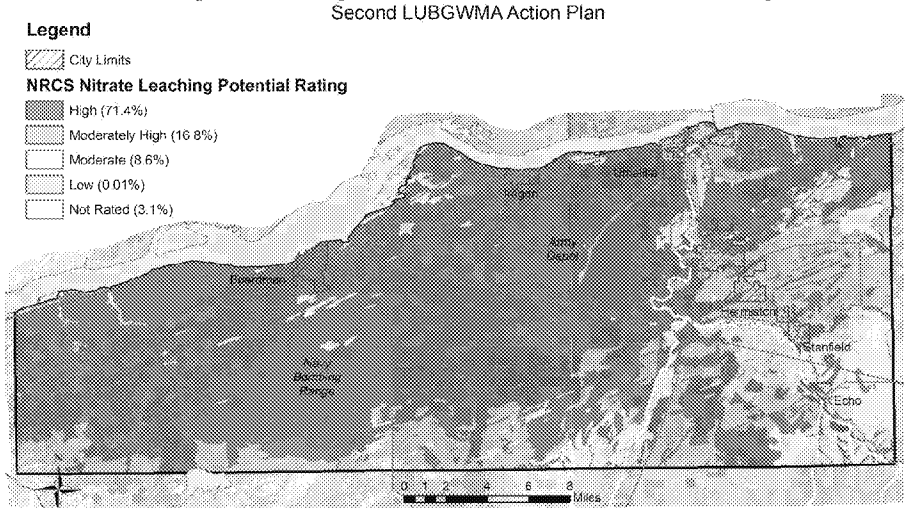
Figure 2-3
Nitrate Leaching Potential Rating of the Lower Umatilla Basin Groundwater Management Area
Second LUBGWMA Action Plan



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