# Drinking Water Nitrate Alert Gilchrist and Alachua Counties





Prepared by Dr. Robert L. Knight Director Florida Springs Institute

- FDEP is conducting a site-specific study of the Santa Fe Springs Restoration Focus Area
- Two years (8 quarters) of ground and surface water sampling are complete
- Nitrate nitrogen levels are elevated in all 20 monitoring wells and in all Santa Fe River springs
- Four wells have consistent nitrate concentrations above the state and federal drinking water standard



Florida Department of Environmental Protection Division of Environmental Assessment and Restoration

Nitrate in Ground Water, Springs, and River Water in the Santa Fe Springs Restoration Focus Area

> Santa Fe River Springs Protection Forum July 24, 2015







### Presented by Brian Katz, FDEP











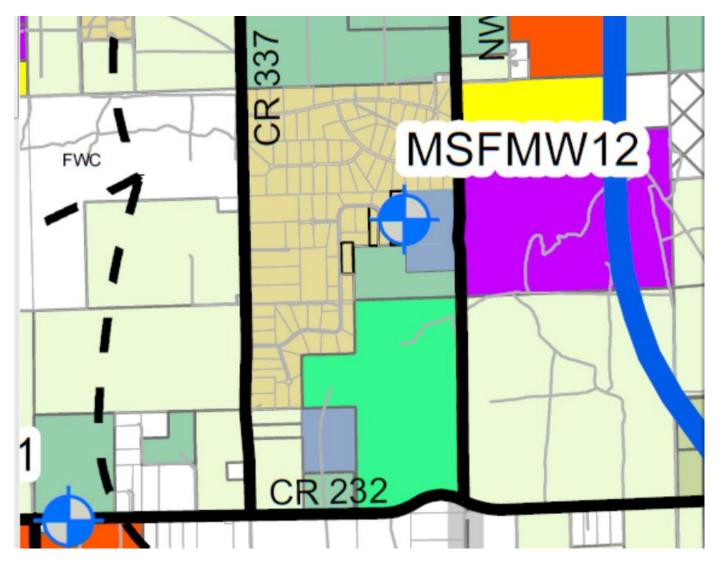


Nitrate Nitrogen in Groundwater Samples (FDEP 2015) Well #12 NO2-NO3-N, mg/L Drinking water standard 11 12 14 15 Monitoring Well Number

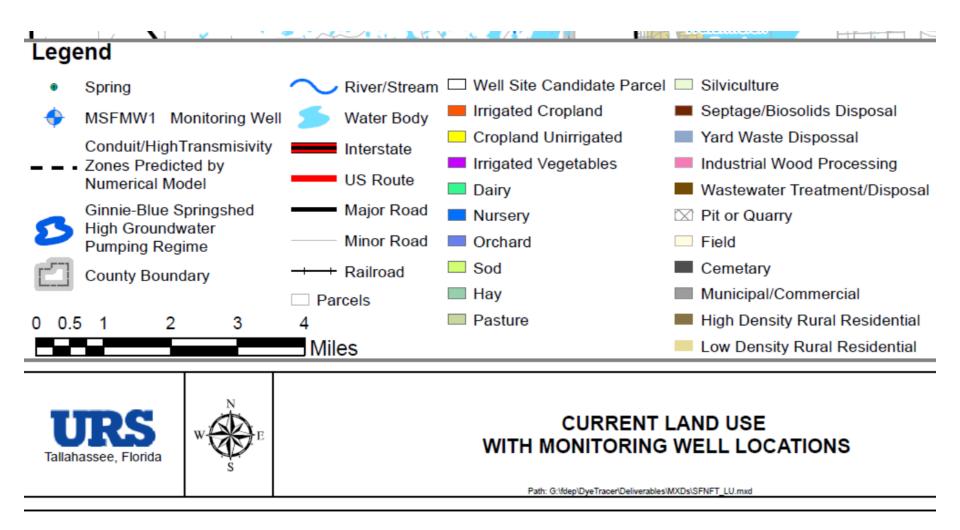
Santa Fe Springs Restoration Focus Area

Jan\_2013 May\_2013 Aug\_2013 Dec\_2013 Mar\_2014 Jun\_2014 Aug\_2014 Oct\_2014

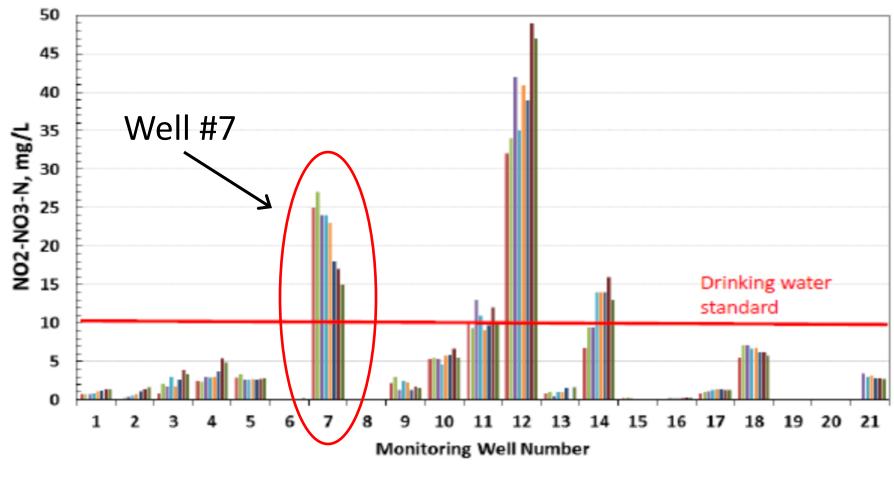
#### Santa Fe Springs Restoration Focus Area Monitoring Well #12 and Surrounding Landuse



#### Land Use legend

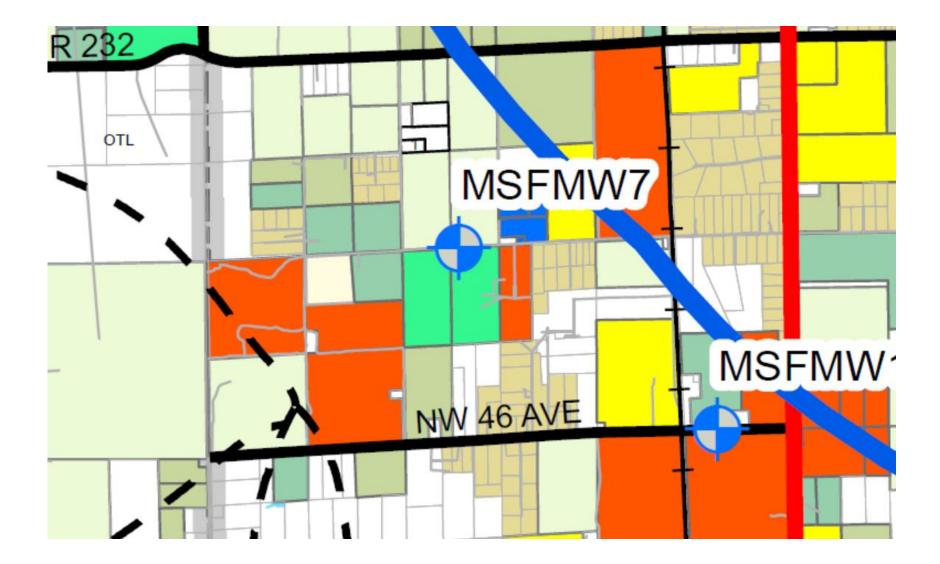


## Nitrate Nitrogen in Groundwater Samples (FDEP 2015)

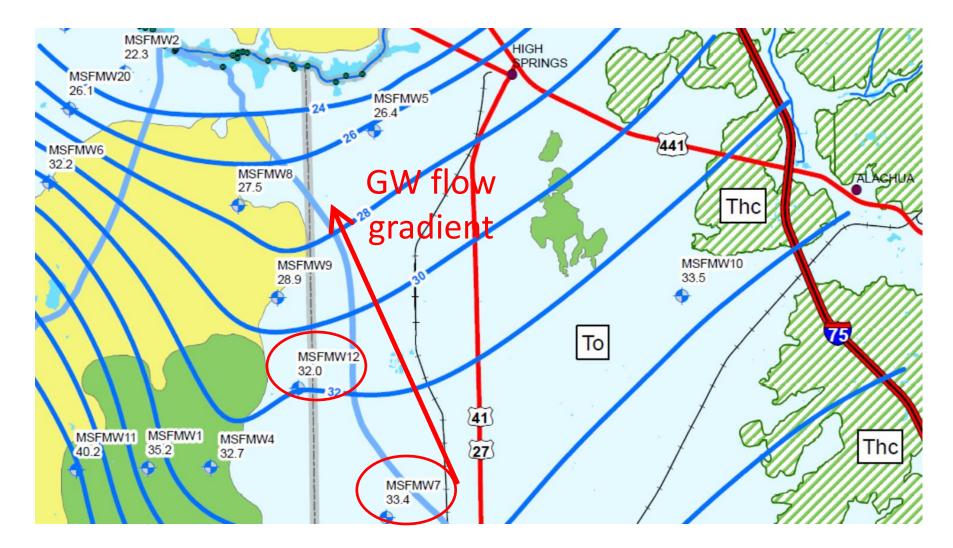


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#### Monitoring Well #7 and Surrounding Landuse



## Potentiometric Surface and Groundwater Flow Directions



- Nitrate levels in two wells downgradient from dairies are consistently higher than the drinking water standard
- There are dozens of private wells in these areas
- The Department of Health, FDEP, and county public health agencies are urged to issue a drinking water advisory for all residents and to take immediate steps to correct this situation