

Lower Elkhorn Natural Resources District

Groundwater Management Area

Triggers & Phase Area Requirements

Phase 2 Triggers

- 20% of wells test 50% to 90% (5 - 9 ppm) of maximum contaminant level (or greater) for nitrates.
- Minimum size for management area: 9 square miles

Phase 2 Requirements

Actions taken in the Phase 2 Area by agricultural producers and the District will help to protect and improve groundwater quality. The following items are requirements for the Phase 2 Area:

- No application of commercial nitrogen fertilizer between October 15 and March 15 (Nitrogen fertilizer is defined as a product in which the percentage of nitrogen is greater than the percentage of other nutrients in the compound, and when applied, results in an average application rate of more than 25 lbs. per acre)
- Operators who apply commercial nitrogen must be certified by the LENRD (CEU's every 4 years).
- Deep soil sampling (24 inches) for residual nitrates for non-legume row crop fields for at least 2 consecutive years (example: corn following corn).
- Irrigation water sampling once every four years.
- Individual application of commercial nitrogen fertilizer greater than 80 pounds per acre is prohibited.
- Require use of LENRD approved nitrogen inhibitor or stabilizer if applying more than 50 pounds of commercial nitrogen in any single application (after March 15) and provide documentation to verify use along with proper application rate.
- Submit annual field reports to district by March 15 (Annual Reporting).

Phase 3 Triggers

- Area previously in Phase 2 for minimum of 5 years
- 50 % of wells test 90% (9 ppm or greater) for nitrates.

Phase 3 Area Requirements

Actions taken in the Phase 3 Area by agricultural producers and the LENRD will help to protect and improve groundwater quality. The following are requirements for the Phase 3 Area:

- Continue all Phase 2 Area requirements
- Deep soil sampling (24 inches) in all fields planted to corn (regardless of crop rotation) (Each sample should represent no more than 80 acres)
- Nutrient Management Plan required
- Utilize irrigation scheduling method that is acceptable to the LENRD.
- Annual irrigation water sampling

Phase 4 Triggers

- Area previously in Phase 3 for minimum of 5 years
- Nitrate concentrations have not declined at acceptable rates as determined by LENRD Board of Directors.

Phase 4 Area Requirements

Actions taken in the Phase 4 Area by agricultural producers and the LENRD will help to protect and improve groundwater quality. The following are requirements for the Phase 4 Area:

- Continue all Phase 3 Area requirements
- Nitrogen application rate not to exceed rate calculated using district methodology.
- Comply with district approved crop rotation plan
- Required use of cover crops.
- Provide receipts, acres treated, and total amount of nitrogen applied.
- Documentation to support year average production history, which is used to determine annual nitrogen budget.