

Groundwater Quality Management Area Controls

● Phase I Groundwater Quality Management Areas - 0 to 50% of the MCL (0 - 5.0 ppm nitrate-nitrogen)

1. The person or persons responsible for making final decisions on any type of applications of nitrogen fertilizer on a area larger than **one acre** and applying more than 50 pounds per acre of actual nitrogen on any irrigated crop within the UENRD, either commercially or privately, must be certified by the District once every four (4) years. The person or persons will be considered the *certified operator(s)*. The certification requirement will include attending educational classes established by the District with assistance from the County Extension, University of Nebraska Research and Extension personnel, and others. Nitrogen certification from bordering NRDs will be accepted as fulfillment of the UENRD nitrogen certification requirement pending UENRD Board approval. This is possible since most NRDs will be using essentially the same educational program being developed statewide in coordination with the University of Nebraska Cooperative Extension. To address specific issues in the UENRD, additional educational materials may be given to operators certified in other neighboring NRDs.
2. A groundwater analysis for nitrate-nitrogen content in all registered wells used for irrigation of crops must be accomplished by the certified operator once every four (4) years prior to recertification. The results of this analysis must be submitted to the UENRD by the following December 31st report deadline. The sample must be collected and analyzed using UENRD approved methods. A methodology for sample collection and proper analysis procedures will be included as part of the District's educational program. Information from this analysis will give the certified operator knowledge of usable nitrate-nitrogen already present in the groundwater. This information will *not* be used in determining a Phase Area.
3. With the passage of LB 981(1994), all new wells constructed in a control or management area (including a GWQMA) must have a permit from the local NRD prior to construction (see Rule 14). Exceptions include, test holes, dewatering wells with intended use of ninety days or less, and water wells which are designed and constructed to pump fifty gallons per minute or less. A copy of this permit will be retained at the District office and with the Nebraska Department of Natural Resources. The cost of permitting and penalties applied will be consistent with the laws of the state of Nebraska.
4. Certified operators are encouraged to set a realistic yield goal for crops where more than 50 lbs of actual nitrogen fertilizer per acre is to be applied. A realistic goal is based on the last five years actual yield averaged plus five percent.
5. Residents residing in communities within the UENRD who apply nitrogen fertilizer will be encouraged to attend Nitrogen Awareness Programs established by the District with

assistance from the County Extension, University of Nebraska Research and Extension personnel, and others.

6. Fall (*September 23 to December 20*) and Winter (*December 21 to March 1*) applications of commercial nitrogen fertilizer will be discouraged on all soils. Spring (*March 2 to June 20*) applications of commercial nitrogen fertilizer greater than **100 pounds of actual nitrogen fertilizer per acre** will be encouraged through split applications (i.e. preplant, planting, weed and feed, post emergence side-dressing, and, if applicable, through an irrigation distribution system).
7. The District encourages voluntary testing of all domestic and stock wells for nitrate-nitrogen content.
8. The District encourages a deep soil sampling analysis (two or three foot sample if applicable) for nitrate-nitrogen content on each field larger than **40 acres** with more than **50 lbs per acre of actual nitrogen fertilizer** applied. Approved sampling and analysis techniques will be included as part of the educational program. This analysis will give the certified operator knowledge of usable and inaccessible (below the root zone) nitrogen in the soil profile.
9. The District encourages the use of calibration monitors on all applications of fertilizers and pesticides. Proper maintenance of all fertilizer and pesticide equipment is also encouraged.
10. The District encourages producers to use alternative irrigation and fertility management technology as it becomes available to increase efficiency and protect the environment.