

# Groundwater Quality Management Area Controls

## ● Phase III Groundwater Quality Management Areas - > 95% of the MCL (> 9.5 ppm nitrate-nitrogen)

1. All rules and regulations established for Phases I & II will remain in effect unless modified or negated by Phase III requirements.
2. If the groundwater analysis from Phase I, #2 and reported in Phase II, #3 shows nitrate-nitrogen levels greater than 75% of the MCL, then the groundwater analysis for nitrate-nitrogen in Phase I, #2 must be made annually and results submitted in the report discussed in Phase II, #3. In other words, the groundwater analysis required prior to recertification (once every four years) in a Phase I GWQMA, now must be conducted on an annual basis if the nitrate-nitrogen levels exceed 75 % of the MCL or 7.5 ppm in the case of nitrate-nitrogen.
3. The District will require the use of monitoring equipment (i.e., flow meters, rain gauges, hour meters, etc.) and distribution equipment (i.e. pressure regulators, low pressure nozzles, etc.) for efficient fertilizer and water distribution. A flow test through the irrigation distribution system will be required once every eight (8) years. The first flow test must be completed within the first two (2) years following initial designation of a Phase III Area. The Upper Elkhorn NRD may decide to develop a cost-share program to assist operators in the purchase, installation, and testing of such equipment.
4. If a town, village or city lies within a Phase III Area, will be encouraged to complete a Well Head Protection Area Plan. The Upper Elkhorn NRD will provide assistance to the communities for completing this plan.
5. Certified operators are required to submit an annual **Integrated Crop Management Plan (ICMP)** to the UENRD by **April 1** (prior to planting of crops) on forms provided by the District for all areas larger than **40 acres** where more than **50 lbs per acre of actual nitrogen fertilizer** is applied. This ICMP will emphasize future planning and the establishment of fertility, pest, and irrigation management plans. The required reports from Phase II, #3 will be incorporated into the ICMP to help evaluate past practices and identify areas for improvement. The ICMP will consist of three sections including, but not limited to, the following:

### **Section I. Fertility Management Plan**

- a) Fertility Management Report - from *previous* year (from Phase II, #3).
- b) Evaluation of the Fertility Management Plan - from *previous* year.
- c) Planned fertility management activities - for *upcoming* year.

### **Section II. Pest Management Plan**

- a) Pest Management Report - from *previous* year ( from Phase II, #3).
- b) Evaluation of Pest Management Plan - from *previous* year.
- c) Planned pest management activities - for *upcoming* year.

### **Section III. Irrigation Management Plan**

- a) Irrigation Management Report - from *previous* year (from Phase II, #3).

- b) Evaluation of Irrigation Management Plan - from *previous* year
- c) Planned irrigation management activities - for *upcoming* year.

Each section of the ICMP consists of three subsections. The first subsection is the Management Report (Fertility, Pest, and Irrigation) already required in Phase II, #3. This subsection is a summary of activities and results from the *previous* year. The second subsection is an evaluation of the Management Plan (Fertility, Pest, and Irrigation) from the *previous* year. It compares the activities planned prior to planting with activities and results reported following harvest. For the first ICMP, no evaluation will be required since there will not be any documented planned management activities (Phase III, Section III, c) from the *previous* year. The District will provide guidelines and recommendations during this first year. For following years, the certified operator will need to refer back to the ICMP from the *previous* year for documentation of planned activities. The third and final subsection details planned management activities (fertility, pest, and irrigation) for the upcoming year. Planned activities should be based on the evaluation in subsection c and can change from year-to-year depending upon the ability of activities to produce desired results.

6. The application of commercial nitrogen fertilizer is prohibited on all soils until after **March 1**. Spring (*March 1 to June 20*) application of commercial nitrogen fertilizer at a rate of **over 100 pounds of actual nitrogen per acre** will require split applications (i.e. pre-plant, post emergence side dress, weed and feed, planting time, and through the center pivot, if applicable).
7. The UENRD may choose to allocate groundwater or reduce irrigated acres if the Board of Directors deems it necessary to maintain, enhance, or protect groundwater quality or to address concerns regarding conjunctive use and adverse effects on groundwater quality.