

# Groundwater Quality Management Zones



## Phase I Requirements

All operators within the District are subject to the requirements of Phase I.

### **Fall Applied Anhydrous Ammonia**

Application of fall anhydrous ammonia before November 1 is prohibited.

### **Pre-Plant Liquid or Dry Nitrogen Formulations**

Pre-plant nitrogen applications in liquid or dry forms are prohibited before March 1.

### **Exemptions to Items 1 & 2**

- The application of nitrogen fertilizer for any purpose other than fertilizing spring planted crops.
- The application of nitrogen fertilizer for spring planted small grains such as barley, oats, and rye.
- The application of fertilizer that is not considered a “nitrogen fertilizer” as defined in Rule 5 of the District Ground Water Management Rules and Regulations.
- The spreading of manure, sewage, and other by-products conducted in compliance with state laws and regulations.

## Phase II Requirements

All operators of land within the District Management Zones 1, 2, 3, 5, 6 and 11 are subject to the requirements of Phase II. Refer to the map on page 2 for Phase II areas. Phase II operators are required to follow all Phase I requirements in addition to the following:

### **Nitrogen Certification Training**

Farm operators must attend a nitrogen certification training once every 4 years.

### **Irrigation Scheduling**

Irrigation scheduling equipment is required in at least one field in a Phase II area. The equipment should be installed in the largest field you operate. Examples of irrigation scheduling equipment are:

- Capacitance probes
- Resistance blocks
- Other methods approved by the District.

### **Soil Sampling Requirements**

Soil samples are required in years when corn or sorghum will be grown following a non-legume crop and/or when livestock, municipal, or industrial waste has been applied within the last 12 months. A minimum of:

- One (1) composite 0-8” sample per field analyzed for organic matter and residual nitrogen; and
- One (1) composite 8-24” sample per field analyzed for residual nitrogen are required. For soil sampling purposes, a field is defined as one where the crop and irrigation practices are the same.

## Phase III Requirements

All operators of land within the District's Management Zone 5 are subject to the requirements of Phase III. Phase III operators are required to follow all Phase I and II requirements, in addition to the following:

### **Soil Sampling Requirements**

Soil samples are required in years when corn or sorghum will be grown following a non-legume crop and/or when livestock, municipal, or industrial waste have been applied within the last 12 months. A minimum of:

- One (1) composite 0-8" sample per 40 acres, or any portion thereof, analyzed for organic matter and residual nitrogen; and
- One (1) composite 8-24" sample per 40 acres, or any portion thereof, analyzed for residual nitrogen are required.

### **Irrigation Water Sampling**

All irrigation wells must be sampled and tested for nitrates once every 3 years. You are free to use any lab you wish, but the NRD offers nitrate testing free of charge.

### **Fall and Winter Application of Anhydrous Ammonia**

All anhydrous ammonia that is applied between the dates of November 1 and February 29 must be applied with a District approved nitrification inhibitor. The only District approved inhibitor for anhydrous ammonia is N-Serve.

