

## IRRIGATION DEVELOPMENT PLANS IN GMD #4

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The Board of Directors of Northwest Kansas Groundwater Management District No. 4 initiated the use of irrigation development plans in its May 1, 1985, Revised Management Program. The development plan policy was written to insure that all new water right applications and all change applications which added land to an existing water right would make the most efficient possible use of the groundwater resource.

The original program, which has changed little since its inception, relied heavily on technical assistance from the County Conservation Districts and SCS. GMD #4 entered into memorandums of agreement with the CCDs from the 10 counties covered. The MOAs outlined the common concerns of the parties involved and were used as the mechanism by which SCS personnel could begin plan formulation and review. The MOAs made possible the combination of the regulatory powers of GMD #4 and the technical expertise of SCS.

All persons who file new irrigation applications or who file changes in place of use to add land to an existing irrigation water right are informed of the need for an irrigation development plan by GMD #4. In most cases, SCS personnel work up the actual plan. Upon completion of the plan, the local conservation board reviews it and makes a recommendation to GMD #4. Once the plan and CCD recommendations are received by GMD #4 they are reviewed and final recommendation to DWR is made. A copy of the plan is supplied to DWR along with the recommendation.

Since the start of the program approximately 125 plans have been developed from GMD #4. Over 90% of these plans have been for center pivot systems. The major parts of the plans that are normally used for application evaluation on the District level are the portions covering system design. This evaluation makes sure that the proposed irrigation system is matched to land slopes, tillage practices, and crop types. In cases, usually involving change applications, the net crop water requirement portion of the plans are also used to determine if the proposed changes can be reasonably irrigated with the existing water rights.

Once an application has been approved based on an irrigation development plan, all components of the plan must be followed. It is the applicant's responsibility to have the plan modified and approved if changes in any part on the system are made. All district required plans have been or will be checked to verify compliance. In the case of non-compliance, normal district enforcement procedures will be used.

To date, GMD #4 has not required retroactive plans on any land except in the case of tailwater violations that are caused by poorly designed systems. With increased emphasis being placed on efficient irrigation water use, especially in areas of severe groundwater declines, there is the possibility that irrigation plans could be used as tools to increase water application efficiency and thereby decrease water pumpage. Other possible future needs for irrigation plans involve the use of new technologies, such as LEPA or drip irrigation, or adapting to irrigation under conditions where well capacities have been diminished.