



# State Engineer's Office

HERSCHLER BUILDING, 4-E CHEYENNE, WYOMING 82002  
(307) 777-7354 FAX (307) 777-5451  
seoleg@state.wy.us

JIM GERINGER  
GOVERNOR

PATRICK T. TYRRELL  
STATE ENGINEER

## Guidance Memorandum

**TO:** CBM Operators

**FROM:** John Barnes, Surface Water Administrator

**SUBJECT:** WATER ADMINISTRATION PLAN GUIDELINES

**DATE:** May 5, 2004

### Background

Coal bed methane is being developed in an area with ephemeral drainages where the hydrology is flashy. Runoff occurs from early snowmelt and from thunderstorms. The events are usually of short duration and can cause large amounts of runoff to occur. Due to the short duration and flooding that occurs, most water rights facilities are designed to operate without human presence. Reservoirs can store and spreader dike irrigation systems can put water on the lands automatically.

Senior water rights in each drainage, if they exist, are capable of placing a call for regulation. Because regulation during flood runoff is difficult at best, junior on-channel reservoirs must now address in their permitting process how senior downstream rights are to be satisfied and a regulatory call hopefully avoided. Two mechanisms have been identified to accomplish this goal:

1. The applicant can commit to construction of a structure capable of by-passing the computed average annual peak flow, prior to storing water, at the reservoir, or;
2. The applicant can submit for approval a water administration plan for satisfying downstream water rights. The possible contents of an administration plan are discussed below.

Surface Water  
(307) 777-6475

Ground Water  
(307) 777-6163

Board of Control  
(307) 777-6178

## Administration Plan Guidance

Per the State Engineer's Office Revised Interim Policy Memo dated April 26, 2004, a water administration plan may be approved in lieu of the installation of a self-regulating runoff by-pass facility sized for the computed average annual peak flow at the site. These guidelines are not all-inclusive, but are to act as a tool to help operators, consultants and landowners develop a water administration plan which could include:

1. A by-pass design for less than the average-annual peak flow. This requires justification which may include the following: If the facility is located in the upper reaches of a drainage, the water administration plan should show, in acres or square miles, the drainage area above the facility, the runoff volume in acre-feet, the amount of direct precipitation used to develop the flows for the average annual storm event, the existence of other permitted reservoirs in the basin and the total inflow to the reservoir, in acre-feet, from that storm event. The plan should also describe any irrigation rights that exist downstream of the facility. If no irrigation exists, that should also be detailed.
2. Substitute irrigation supplies: The water administration plan could include a plan to drill a well or develop some other method of making up the water that would be lost due to storage in an upstream reservoir.
3. Agreements with the landowners: In some cases, the downstream irrigator has no concern that the upstream reservoir will impact his use of water from the system. In a case such as this, the water administration plan should explain this situation and be accompanied by a letter from the downstream irrigator stating that he has no objection to the construction of the reservoir. In other situations, the land on which the reservoir is located and the land that is being irrigated downstream are under the same ownership. A water administration plan could be written detailing that the landowner has no objection to the construction of the reservoir upstream from his irrigation and understands that he might not get the water that once came to him. Some type of documentation from the landowner, stating the above, should accompany the water administration plan.
4. De minimis drainage area exemption: If the drainage area above the reservoir is minimal, there is little inflow into the reservoir and little or no irrigation exists downstream of the proposed reservoir, the reservoir might be approved with this plan. As an example, if the surface area of the reservoir plus the drainage area are less than 40 acres then this might be approved with this plan.