

DEPARTMENT OF WATER RESOURCES  
OPERATIONS DIVISIONM E M O R A N D U M

TO: HERB DISHLIP *rd*

FROM: BRUCE S. DAVIS AND PAT SCHIFFER *WB*

DATE: NOVEMBER 3, 1993

SUBJECT: DECISION MEMO #3: TERMINATION OF POOR QUALITY GROUNDWATER WITHDRAWAL PERMITS

## BACKGROUND:

A.R.S. §45-516(C) states that:

the director shall monitor withdrawals of groundwater pursuant to a poor quality groundwater permit and shall terminate the permit if the conditions specified in subsection A no longer apply.

The conditions specified in Subsection A of §45-516 include the requirement that "the groundwater to be withdrawn because of its quality has no other beneficial use at the present time."

The Department has issued numerous Poor Quality Groundwater Withdrawal Permits (PQGWWP) for remedial action sites where Environmental Protection Agency (EPA) Maximum Contaminant Levels (MCL's) have been used as the indicator for DWR's definition of poor quality.

Many of these sites have now been pumping and treating groundwater for several years. Some recent water quality reports, submitted pursuant to these permits, are indicating that groundwater beneath some sites will soon be below MCL's and thus, may no longer be considered to be poor quality.

## ISSUE:

Should A.R.S. § 45-516(C) could be enforced to terminate a poor quality groundwater withdrawal permit at the first indication that the water is no longer of poor quality (i.e., no longer exceeding MCL's)?

## ANALYSIS:

First, this action may not be consistent with DEQ's remediation goals for the site. Many of our permits only include the primary water quality contaminants identified at the time of permit application. New contaminants may have been identified after issuance of the permit or other contaminants which may eventually affect groundwater may be of concern to DEQ. DEQ may feel the need to pump groundwater simply as a preventative measure until vadose zone contamination is remediated.

Second, when pumps are turned off, groundwater tends to settle back to its normal level, sometimes carrying with it contaminants previously trapped in the soil. This recontamination of the groundwater may again necessitate the need for a poor quality permit. This is especially true of leaky underground storage tank remediations.

Third, contaminants tend to migrate with the natural groundwater flow or by the influence of other pumping wells nearby. Also, not all chemical constituents travel at the same rate through the soil and groundwater. Thus, new contaminants may be found in wells after long term pumping which were not found in the original analysis, again creating the need for additional remediation.

PROPOSED DECISION:

In order to alleviate these and other concerns which may arise, we propose the following process to guide DWR in the decision-making process for termination of poor quality groundwater withdrawal permits:

1. DWR will continue to review quarterly report water quality data to determine if water quality falls below MCL's.
2. When three (3) consecutive quarterly reports indicate that the groundwater being pumped is no longer poor quality (below MCL's), DWR will send a letter to the applicant and to DEQ asking them to provide justification for allowing the project to continue.
3. DWR will evaluate the justification information provided and make a recommendation through IPR whether to allow the permit to remain in effect or terminate the permit.
4. If the permit is to remain in effect, the permit will be reevaluated thereafter on an annual basis until a decision is made to terminate the permit or new information indicates that the water is again of poor quality.
5. If the decision is made to terminate the permit, the permittee and DEQ will be formally notified of the decision. DWR will seek DEQ's concurrence on all decisions to terminate a permit unless there is clear and convincing evidence to indicate that further pumping and treatment of groundwater would be of no benefit to further remediation at the site.

Upon approval, this policy will be implemented without change.

Approved X Not Approved \_\_\_\_\_  
Herb Dishlip 11/5/93  
Herb Dishlip, Deputy Director Date

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