UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

MEMORANDUM

SUBJECT: Guidance for Review and Approval of State Underground Injection Control (UIC) Programs and Revisions to Approved State Programs. GWPB Guidance #34

FROM: Victor J. Kimm, Director
Office of Drinking Water (WH-550)

TO: Water Division Directors
Regions I - X

PURPOSE

The purpose of this document is to provide guidance to EPA Regional offices on the revised process for the approval of State primacy applications and the process for approving modifications in delegated programs, including aquifer exemptions.

BACKGROUND

On January 9, 1984, the Deputy Administrator announced an Agency policy for a State program approval process placing the responsibility on Regional Administrators to recommend UIC program approval to the Administrator and making Regional Administrators clearly responsible for assuring that good, timely decisions are made. At the same time, we are reaching a point in the UIC program where States are beginning to make revisions to approved programs and we are promulgating amendments to the minimum requirements that the States must adopt within 270 days. We have reviewed the existing approval process and this Guidance spells out the adjustments necessary to comply with the Agency's policy. This new process will take effect on July 5, 1984, and applies to approval of primacy applications and substantial program revisions, which are both rulemaking and cannot be delegated by the Administrator under the Safe Drinking Water Act. This guidance also addresses review and approval of non-substantial program revisions which are the responsibility of the Regional Administrator.

I. REVIEW AND APPROVAL OF APPLICATIONS

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REGIONAL ROLE

The effect of the new Agency policy is to give Regions greater responsibility for managing the delegation of EPA programs. The FY 1984 Office of Water Guidance suggests that Regions develop State-by-State delegation strategies, although formal schedules for submittal and approval of State applications are not required after FY 1984. Regions are to work with States to develop approvable applications. They are to solicit and resolve Headquarters comments, "keep the clock on the formal review period, recommend approval to the Administrator, and are responsible for timely approvals. In this process, the Regions speak for the Agency on approval matters but are advised not to make commitments regarding unresolved major issues raised by Headquarters offices.

Draft applications

The Regions are responsible for working with the States and getting them to submit draft applications so that problems can be identified and resolved in the early stages. The draft applications should be submitted as early as possible to Headquarters for comments, and Headquarters comments discussed with the States. (Guidelines on resolving recurring problems in State applications are included as Attachment 1.)

Final applications

Upon receipt of a final application the Regions will:

1. determine whether the application is complete, and if it is:

2. send copies of the final application to Headquarters for review, accompanied by a staff memorandum explaining how issues raised on the draft application have been resolved; (This should be done as early as possible so that Headquarters comments can be received before the public hearing.)

3. take care of the public participation process including: selecting a date for the public hearing, making the necessary arrangements for holding the hearing and publishing notice in the Federal Register;

4. work with the State to resolve all remaining issues identified either during the public participation process or by Headquarters;

5. when all issues have been resolved, prepare and transmit to Headquarters an Action Memorandum signed by the Regional Administrator recommending approval, explaining the major issues and their resolution, a Federal Register notice of the Administrator's

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decision, and a staff memorandum explaining how all issues have been resolved.

HEADQUARTERS ROLE

The policy specifies that program Assistant Administrators, the General Counsel, and the Assistant Administrator for Enforcement and Compliance Monitoring have the authority to raise issues which must be resolved prior to the approval of the State program. The policy also states that the process should include time limits for completion of reviews by all offices, that new issues should not be raised or old issues reopened unless there are material changes in the application, and that there should be some distinction between major objections which must be resolved before program approval and comments of a more advisory nature. We believe that for the sake of expeditious and consistent reviews, ODW should retain the role of coordinating Headquarters comments.

Draft applications, Final applications.

These and any other material for review by Headquarters should be sent to the Director, State Programs Division (SPD). The SPD will coordinate the review process with Office of General Counsel, Office of Enforcement and Compliance Monitoring and internally within the Office of Water. The Regions will be advised of the issues raised by the Review Team by a conference call between the Review Team and Regional staff. Written comments distinguishing major issues and advisory comments (if necessary) will be sent within 15 working days unless there is voluminous material to be xeroxed, in which case the review period will be extended to 20 working days. (The Region will be notified if such extension is necessary.) Written comments will be signed by the Director, State Programs Division.

Action memorandum and Federal Register Notice of Approval

These should be sent to SPD which will be responsible for obtaining the proper concurrences from all AAs involved and sending the package to AX for signature. The staff memorandum explaining resolution of all issues will be reviewed at the Review Team level within 5 working days. Assuming that all issues have been taken care of the process for obtaining all necessary signatures will take between 30 and 45 days.

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II. PROGRAM REVISIONS

INTRODUCTION

Following EPA approval of a State UIC program, the State will from time to time make program changes which will constitute revisions to the approved program. The UIC regulations address procedures for revision of State programs at 40 CFR §145.32. These regulations direct the State to "keep the Environmental Protection Agency (EPA) fully informed of any proposed modification to its basic statutory or regulatory authority, its forms, procedures, or priorities." The regulations differentiate between "substantial" revisions which are rulemaking and must be approved by the Administrator and "non-substantial" revisions which can be approved by a letter to the Governor.

To date EPA has encountered the following types of revisions to approved State programs:

- Aquifer exemptions;
- Minor changes to the delegation memorandum of agreement;
- Regulatory and statutory changes which resulted in a more stringent program;
- Revisions to State forms which were part of the approved program;
- Transfer of authority from one State agency to another;
- Alternative mechanical integrity tests.

While providing a basic framework for program revisions, the regulations are not specific in defining "substantial" and "non-substantial" program revisions. These categories are defined below.

Definition of Program Revisions

Revisions to State UIC programs require EPA approval or disapproval actions only if they are within the scope of the Federal UIC program. Aspects of the program which are beyond the scope of the Federal UIC regulations are not considered program revisions under §145.32. For example, if a State modifies permitting requirements for Class V wells, this would not be considered a program revision as long as the modified requirement was at least as stringent as the Federal UIC regulations, since the regulations do not require specific permitting of Class V wells.

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"Substantial" versus "Non-substantial" Revisions

The wide range of possible program revisions and varying situations from State to State makes it impossible to establish a firm definition of what constitutes a "substantial" program revision. However, as a general rule, the following types of program revisions will be considered "substantial":

1. Modifications to the State's basic statutory or regulatory authority which may affect the State's authority or ability to administer the program;

2. A transfer of all or part of any program from the approved State agency to any other State agency;

3. Proposed changes which would make the program less stringent than the Federal requirements under the UIC regulations (or the Safe Drinking Water Act, for Section 1425 programs); and

4. Proposed exemptions of an aquifer containing water of less than 3,000 mg/l TDS which is: (a) related to any Class I well; or (b) not related to action on a permit, except in the case of enhanced recovery operations authorized by rule.

Any program revision which requires action by EPA, but which is not considered "substantial", will be a "non-substantial" revision.

REGIONAL ROLE

Substantial Program Revisions

Upon determining that a program revision is substantial, the Regions will:

1. send copies of the proposed revision to SPD;

2. take care of the public participation process;

3. work with the State to resolve problems, if any;

4. prepare an Action Memorandum and a Federal Register notice of Administrator's approval.

Non-substantial Revisions

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The authority for approval of non-substantial revisions is delegated to the Regional Administrator. The Regions will forward a copy of the approval letter and of the approved revision to the State Program Division.

Disapproval of Program Revisions

Disapproval of a proposed State program revision may be accomplished by a letter from the Regional Administrator to the State Governor of his designee.

For all aquifer exemptions, the Regions should fill out and send to the SPD and Aquifer Exemption Sheet (Attachment 2). If the exemption constitutes a substantial program revision, or requires ODW concurrence, as much of the supporting material as feasible should be sent along. (Large maps and logs are difficult to reproduce and may be omitted.) Aquifer exemptions that constitute substantial revisions will be handled as described above. Where ODW concurrence is necessary it will be in the nature of a telephone call from the Director, SPD, because of the potential of the short approval time frames. Approval will be confirmed later by a memorandum. Guidance for the review of aquifer exemptions are included as Attachment 3.

Alternative Mechanical Integrity Tests

The authority to approve alternative mechanical integrity tests has been delegated to the Director, Office of Drinking Water. Therefore, such proposals and appropriate supporting documents should be submitted to the State Program Division. The SPD will transmit them to the UIC Technical Committee for review. If the Committee supports approval of the test, the Director of ODW will inform the Regions and approve the test as a "non-substantial" program revision.

III. RESOLUTION OF DIFFERENCES

The major effect of the Agency policy should be to speed up the resolution of issues. The policy states that the senior managers are responsible for assuring that early consultation takes place so that issues can be identified and resolved internally as early as possible. Regional Administrators are responsible for elevating to top managers those issues upon which there is internal disagreement. Differences can arise within Headquarters and between Headquarters and Regions. They will be handled as follows for both program approvals and substantial program modifications.

Within the Headquarters Review Team

If the Headquarters Review Team cannot agree on whether an issue should be raised, the Review Team memorandum will reflect the majority comments. The dissenting office may send a memorandum signed by its Office Director or equivalent to the Water Division Director explaining its issue. If the Region agrees, it will raise the issue with the State. If not, the issue will be resolved using the process outlines below.

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Between Headquarters and the Region

1. The first step should be a Regional appeal to the "Bridge Team" (Office Directors). This can be accomplished within 10 working days. The Region should notify SPD by telephone that there is disagreement on a given issue. A Bridge Team meeting will be scheduled within 7 - 10 working days. The Region can attend the meeting, send a memorandum explaining its position, or rely on the SPD to present the Regions position. The decision of the Bridge Team will be communicated to the Region by telephone as soon as it is made, and confirmed, for the record, in a memorandum signed by the ODW Office Director with concurrence from other offices involved.

2. If this fails the Agency's "Decision-Brokering" process should be invoked. This process is explained in detail in a February 1, 1984, memorandum from Sam Schulhof (Attachment 4)

IV. IMPLEMENTATION

This guidance takes effect on July 1, 1984. We realize that many applications are now in the review process. For the sake of simplicity and clarity this process will only apply to those pending applications for which a public hearing has not been held or announced by that date.

Attachments

Guidelines for Resolving Recurrent Problems in UIC Applications
Aquifer Exemption Summary Sheet
Guidelines for Reviewing Aquifer Exemption Requests
Sam Schulhof Memorandum of February 1, 1984

PROCESS

Day 1-10 Receive Primacy Application from the State.

Determine whether the submission is complete.

To determine whether a State submission is complete one must determine whether all the elements of submission are included, properly signed, as stringent as the Federal requirements, etc.. In turn, these submitted elements must be looked at individually and determined to cover all points of an acceptable program. For example, the Attorney General's Statement must contain the necessary documentation that the State has the authority to issue permits and set conditions on those permits. As another example, the program

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description must include schedules for issuing permits to all injection wells which are required to have permits, and to establish an inventory of Class V wells. Refer to individual guidances for more detailed information. See paragraph one (1) under State Submission for elements of a program submission.

Begin to make arrangements in the Region for tentative hearing date, location of submission for public inspection, press releases, preparations for public hearing, stenographic services, public comment and public hearing procedures, etc.

NOTE: Under Sec. 1425 guidance, the EPA is required to determine within 10 days whether the State's submission is complete.

Day 10 Send Notice to Federal Register indicating the State's submission is complete.

Send copy(s) of the complete State's submission to EPA Headquarters.

Notify the State that the submission is complete.

NOTE: EPA is given 30 days to review the State's submission to determine its completeness, and to notify the State of its decision. However, the EPA should attempt to determine if the submission is indeed complete in all respects as soon as possible to start the required times for public comment and public notice for hearings.

NOTE: Under Sec. 1425 guidance: if an application has been found to be incomplete and the State insists that EPA proceed with first review of the application as submitted, the review period will begin on@t e date that EPA receives the State's request to proceed in writing.

Federal Register notices to be published and all copies of the State's submission to be submitted to EPA Headquarters should be addressed to:

Mr. Phil Tate[1]
U.S., Environmental Protection Agency
Office of Drinking Water
State Programs Division (WH-550)
401 M Street, SW
Washington, DC 20460
(202) 426-8290

[1]As of April 2000, the contact is:
Mario Salazar//Office of Ground Water and Drinking Water (4606)//401 M. Street, SW//Washington, DC 20460
Phone: 202 260-2363, fax: 202 401-2345, email: salazar.mario@epa.gov

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(Express mail service is recommended)

It is recommended that the Regional Office set up a review team to review the State's submission, and to appoint the Water Supply Branch the lead in establishing the procedures for the review process. The application review team should include representatives from the offices of the Regional Counsel, Solid Waste, Enforcement, and other divisions which have direct responsibility in the UIC regulatory program. The following list is an example of this structure. Headquarters has been set up to review applications as shown below.

REGION: Water Supply Branch (WSB)
Solid Waste Branch
Enforcement Branch
Regional Counsel
Permits Branch

HEADQUARTERS: Ground Water Protection Branch (to Phil Tate for distribution)[2]
Office of Solid Waste
Office of General Counsel
Office of Water Enforcement
Enforcement Division
Permits Division

Day 10-50 EPA Regional and Headquarters Review.

It is presumed that discussions will take place between the Regional and Headquarters staffs during this period.

Day 20 Public notice of the complete submission appears in the Federal Register.

The public notice shall be in accordance with EPA review procedures in 40 CFR 123.54(c) and (d). This Notice shall indicate that a public hearing will be held if sufficient interest is expressed, and that a 30-day comment period will be held. All information pertaining to the public hearing, such as date, time and location of the hearing should be included.

Day 20-50 30-Day public comment period.

The WSB should remain . in close contact with the State during this entire time, and all changes that can be made should be discussed and revised during this time.

[2] Please send revision/primacy packages to the same person in footnote above.

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Day 30 Regional Office (WSB) notifies the State that the State submission is complete (if not done previously at Day 10).

Day 50 Regional office (WSB) determines if sufficient interest exists to warrant a public hearing on the State's submission.

Notify EPA Headquarters of Public Hearing.

NOTE: If the State applying under Sec. 1425 has not held a public hearing, EPA will hold a public hearing in the applying State.

Day 52 Obtain the concurrence/conditional concurrence of the State's application from EPA Headquarters.

EPA Headquarters shall consolidate comments based on the State's submission at this point and send them to the Regional office.

Prepare necessary briefing documentation and transmittal package for Regional Administrator.

Day 55 Hold a Public Hearing (if applicable).
(Headquarters shall be invited)

Day 55-65 Consolidate all comments from EPA, the public comment period and the public hearing.

Send all comments to the State.

The WSB and the State should make as many changes to the submission as soon as appropriate during the public comment period, Day 20-50. Close contact must remain between the State and EPA to do as much of the changes needed as soon as possible.

Day 65-85 Hold meeting with State to revise the State's application, if necessary.

Revise the State's submission to reflect the substantive changes from all parties.

Notify EPA Headquarters of significant meetings between the Region and the State.

Prepare Responsiveness Summary (40 CFR 123.54(d)

The meeting with the State should include all responsible parties for implementing the State's UIC program. The purpose of this meeting is to determine whether the revisions (if any) based on the public comment, public hearing, and the EPA review period can be made during the

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remainder of the review period in time sufficient for the Regional Administrator's determination.

If it is determined that sufficient time does not exist to make the necessary revisions in the State's submission, EPA and the State shall mutually agree on a reasonable extension of the statutory review period.

Day 85 Obtain Concurrence from EPA Headquarters on Final package.

Day 88 Forward State's submission package to Regional Administrator for approval (See Special instructions, pg. 14).

Day 90 Regional Administrator makes his decision on State's application.

NOTE: Regional Administrator must obtain prior concurrence from EPA Headquarters.

Notify the State of the Regional Administrator's decision.

Send notice of determination to Federal Register.

Publish the notice of the rule in accordance with 4UCFR 123.54(a)(1) --- circulated to attract wide attention; i.e* newspapers mailing lists, etc.

If the Regional Administrator decides not to approve the State program or to approve only in part, the notice shall include a concise statement of the reasons for that determination.

Send Responsiveness Summary to those that testified at public hearings and to others on request.

IMPLEMENTATION

The Water Supply Branch (WSB) Chief shall use this guidance in reviewing the State UIC program submission in accordance with established Regional review procedures. The activities listed during the 90 day period do not exhaust all the activities necessary for the Regional Office to accomplish during its review of the State submission. However, this guidance does establish the major mil es that need to be accomplished during this 90-day review period.

EPA Headquarters suggests that the Regional office invite and give adequate notice to Headquarters to attend the meetings with the State concerning the comments from the public comment period, the public hearing, and EPA review (both Regional and Headquarters review). EPA Headquarters should also be notified of matters of discussion between the State and the Region that are of national significance, or in which the results would be of importance to the program as a whole.

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If during the meeting with the State it is determined that the statutory review period must be extended, the Regional Office shall by agreement with the State set interim dates, schedules, and reviews of the revised submission. The length of the extensions shall be by mutual agreement between EPA and the State. EPA Headquarters must be notified of all actions concerning extensions of the review period. Extensions are for the purpose of the State needing additional time to make necessary revisions to the submission.

The WSB Chief should also keep EPA Headquarters informed of: the receipt and status of UIC program submissions; the scheduled dates for public hearings; significant meetings between the State and the Region; and other primacy actions. The Regional Administrator shall also comply with all limitations as defined in the delegation of authority for the UIC program.

SPECIAL INSTRUCTIONS

Sec. 1422(b)(2) of the SDWA states that within ninety days after the State's application, the Administrator shall either approve, disapprove, or approve in part and disapprove in part, the State's underground injection control program. The EPA Headquarters intends to delegate this authority to the Regional Administrator (RA) with prior concurrence by EPA Headquarters. Until this delegation becomes effective, program approvals can only be made by the Administrator.

In the interim, all requests for approval shall be processed by the Regional Water Supply Branch in accordance with this guidance, excluding the procedure delineated at Day 85.

Instead, the Regional Water Supply Branch Chief shall forward the necessary briefing documents and transmittal package to the EPA Headquarters for final approval by the EPA Administrator in accordance with normal Regional clearance procedures. ODW will be responsible for obtaining the Administrator's approval.

All documents sent to Headquarters shall be sent to ~~Mr. Phil Tate~~ the person in footnote 1 above for action.

FILING INSTRUCTIONS

This guidance should be filed as ~~Ground Water Program Guidance No. 15.~~ UIC Program Guidance #34.

ACTION RESPONSIBILITY

For further information on this guidance contact:

A. Roger Anzzolin[3]

[3] Use the person in footnote 1 above as contact person after April 2000.

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U.S. , EPA
Office of Drinking Water (WH-550)
401 M Street, SW
Washington, DC 20460
(202) 426-3934

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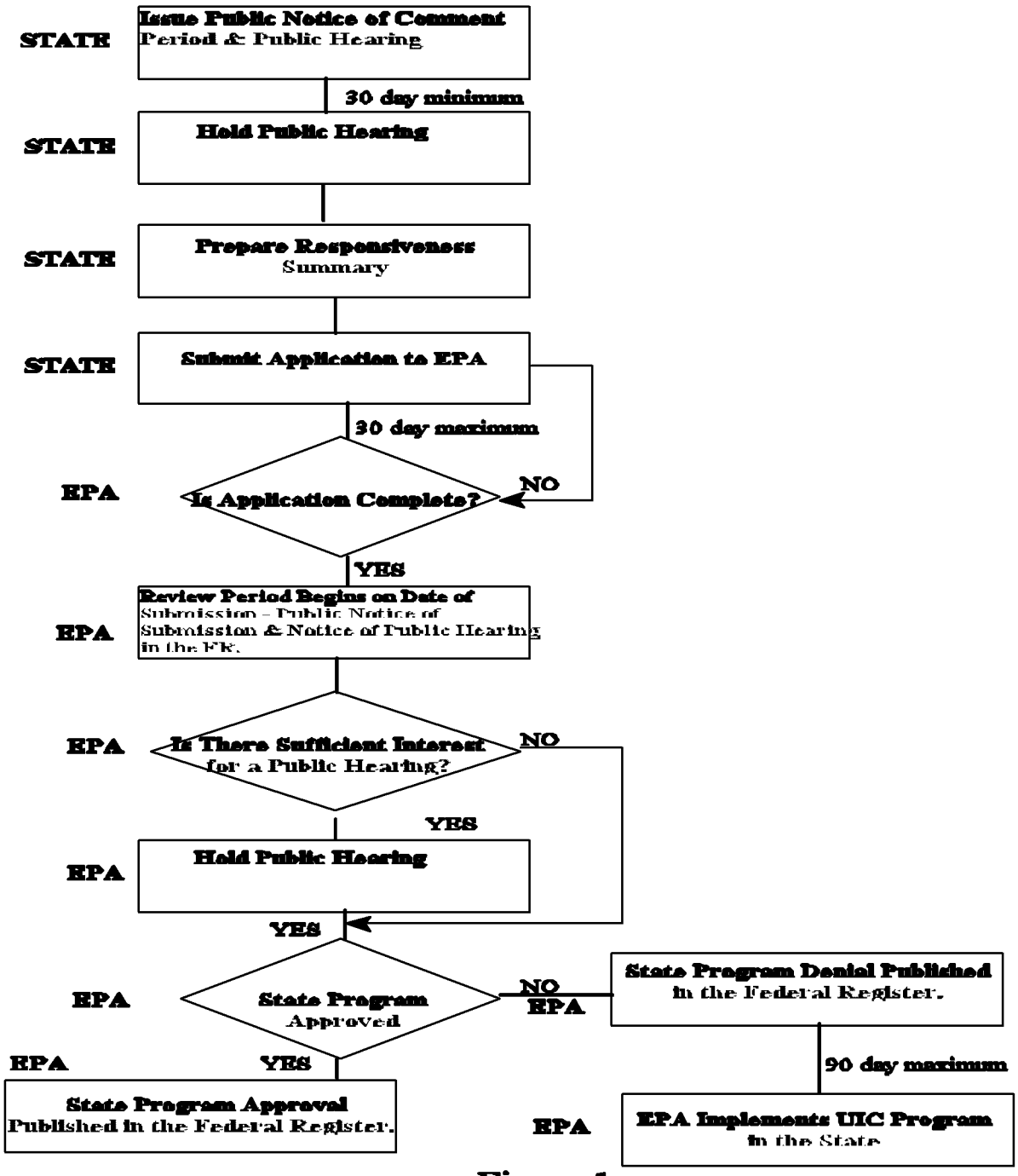

Figure 1
State UIC Program Approval Process

Attachment 1

GUIDELINES FOR RESOLVING RECURRING PROBLEMS IN UIC APPLICATIONS

Inadequate statutory authority

1. Authority to regulate all underground injection.

The regulations require that a State must have the authority to "prohibit any underground injection except as authorized by permit or by rule" 40 CFR §144.11. Many States have not enacted specific statutes parallel to the Safe Drinking Water Act (SDWA), but rely on the authority provided by statutes enacted to comply with RCRA or CWA. In such statutes the State's authority is often keyed to disposal of wastes or the regulation of pollution. If the definitions of these terms are not broad enough the State may not have the authority to regulate all classes of wells. The problem can usually be solved by the Attorney General if in his statement of legal authority he can make a colorable argument that the statutes do, in fact, give the State broad authority to regulate "non-waste" injection.

2. Authority to impose minimum requirements as stringent as the federally prescribed minimum requirements.

Even if a State can demonstrate authority over all injections, the enabling statute may not provide the authority to impose certain specific requirements. For example, a statute which simply mandates non-endangerment or protection of the "beneficial uses" of ground water may not provide the authority to impose construction requirements designed to achieve non-migration of fluids as prescribed by 40 CFR §§146.12, .22, and .32. As above, this issue can be solved by the Attorney General if he can assert that the specific technical requirements to be imposed by the State are within the authority established by the State's statute.

3. Authority on Federal lands and over Federal facilities.
State authority to regulate injection on Federal lands and by Federal agencies and facilities is explicitly required by the Act. Section 1421 (b)(1)(D). Therefore, the State must demonstrate such authority.

Demonstration of authority over Federal agencies can usually be done by assuring that the State's definition of "person" or "owner or operator" includes officers or agencies of the Federal Government. At the very least, these should not be excluded from the definition, and the Attorney General should assert that the definition is broad enough to cover such entities.

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As far as demonstration of authority over Federal lands is concerned, the Attorney General statement should include an explicit finding that the State has the authority to apply its UIC program on Federal lands. Furthermore, because the U.S. Geological Survey regulates some classes of wells on Federal lands, the Program Description should include a section describing the relationship between the State's and the Survey's regulatory activities.

4. Authority over Indian lands.

The UIC regulations assume that implementation on Indian lands is a Federal responsibility unless: 1) the State chooses to assert jurisdiction; and 2) the State demonstrates the necessary legal authority.

Several States which have asserted jurisdiction over Indian lands have relied on the fact that they have regulated non-Indian operators on these lands for years. This does not constitute an acceptable demonstration. There needs to be a discussion in the AG statement explaining the basis for the State's authority. A simple assertion from the Attorney General does not suffice since he is not simply interpreting State law but discussing relationships between State and Federal jurisdictions. The application must include the treaties or Federal statute which grant the State such authority and the text of any opinions in any court case in which the State's authority in this regard was tested.

Inadequate demonstration under 40 CFR §145.21.

Pursuant to 40 CFR §145.21(d), a State need not develop a full regulation for a given class of wells if the State can demonstrate that no wells of the class exist, and that none can legally occur.

The demonstration that no well of a given class exist should be based on a reliable inventory or on geological or hydrological facts, and not be an unsubstantiated assertion.

The determination of whether a class of wells cannot legally occur is a matter of State law, and EPA will rely to a large extent on the interpretation of State law and regulations in determining whether the State has met the standard. Such a demonstration need not be made by any single set of circumstances. In all cases the State must have statutory authority over the class of wells. Where the State has an explicit statutory or regulatory prohibition of the class of well this obviously is an adequate demonstration. Where the State has no regulations the State might make the demonstration by showing that no injection may be authorized without a permit and that under law the State cannot issue permits (even if requested) in the absence of regulations.

Where State does have applicable regulations the state might make the demonstration that no injection may occur without a permit by agreeing with EPA not to issue any permits and by showing that the State has the absolute discretion to make such an agreement. Other types of demonstrations may also be possible if they accurately reflect State law as stated by the Attorney General.

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Inadequate definition of the resource to be protected.

1. Definition of underground sources of drinking water.

The Federal regulations define underground sources of drinking water, (USDWs) explicitly at 40 CFR §144.3. A number of statutes that we have reviewed authorize the State agency to protect "waters of the State" or "fresh water". These terms leave a great deal of discretion to the State agency to define the resource to be protected. The discretion should be tied down in the regulations which should use EPA's definition. If this cannot be done then, at the very least, the State should agree in the MOA to interpret its definition as being as broad or broader than EPA's and the Attorney General's statement should certify that it is within the State's authority to do so.

2. Aquifer exemptions

In some States, Class II and III operations may be taking place in aquifers containing less then 10,000 mg/l TDS. These aquifers must be exempted in accordance with 40 CFR §146.04 in order for these operations to remain legal. All information necessary for EPA to approve the exemptions should be included in the application. This includes a demonstration that the aquifer is not currently used and that it meets one of the criteria of §146.04(b). The aquifer must also be identified in terms of areal extent and depth.

3. EPA role in subsequent exemptions.

There must be a clear agreement on the part of the State that exemptions subsequent to approval of the State program will be treated in accordance with 40 CFR §144.7(b)(3). If this is not clear in the State's regulations, the State should address the question in the MOA. EPA will consider some flexibility in the process for approval of these exemptions and the timing of EPA's actions.

Inadequate permitting process.

So far the major problems that we have encountered with regard to permits have been the level of public participation in the permitting process and the possibility of permits issuing by default.

1. Public participation.

Some State statutes limit the definition of interested parties to such entities as adjacent "landowners" or "mineral rights owners". EPA's regulations require that the general public be informed of permit applications and given the right to comment. This problem can usually be solved by the State agreeing in the MOA to taking whatever additional measures are necessary to assure adequate participation by the public.

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2. Default permits.

Several States have statutes which require permit applications to be acted upon within a stated period of time. These requirements must be scrutinized with care. If the effect of the requirement is that a permit automatically issues at the default deadline, the State would not be able to demonstrate that no injection that could endanger underground sources of drinking water will be authorized. In this case, there is little recourse but to get the State to amend its statutes. If, however, the deadline simply compels the State to act, but the State can still require all necessary permit conditions, and assure adequate public participation before the permit is issued, the deadline may be acceptable.

The Attorney General Statement should explicitly address the effect of such statutory sections and certify that the State can in all cases impose appropriate permit conditions or deny the permit if such action is warranted.

Inadequate authorization by rule.

If any injection wells are in operation in a State at the time the State's UIC program is approved, these wells become illegal unless permitted or authorized by rule. Since all wells cannot be permitted immediately upon the effective date of the State program the State regulations must contain the language of a rule clearly authorizing the wells to continue operation for a given period of time and spelling out the requirements with which an operator must comply. In some cases however, an existing State permit program already submits owners and operators to the requirements of EPA's authorization by rule. If these permits continue in effect until UIC permits are issued, the State need not authorize wells by rule.

Where applicable the Attorney General statement must certify that the State has the authority to authorize injection by rule and to impose the specific requirements. We have reviewed several programs where the statutes seemed to give the State only the authority to require permits. The Attorney General should then explain how the State can authorize by rule. A possibility is to state that rules are a form of permits.

Inadequate enforcement authority.

The State statutes should provide for the enforcement mechanisms and civil and criminal penalties in at least the amounts specified in 40 CFR §145.12. EPA may make an exception to these requirements for: 1) Class I, II or III wells where banned, 2) Class II wells covered under §1425; and 3) Class V wells. Furthermore, the State's authority should not be limited by the use of qualifiers such as “willfully” or “knowingly” in the language of the statutory provisions. If a State statute is lacking in regard to any of these provisions it is very difficult to resolve the problem without legislative changes. It is sometimes possible to find other environmental statutes that could provide the necessary penalty authority. The Attorney General must certify that these authorities can be applied to violations of the UIC program.

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Finally, the State must have the ability to enforce both against violations of the terms of a permit and violations of the statues and regulations in general. If the statutes do not explicitly provide that ability and the Attorney General cannot provide a satisfactory argument that the State somehow has this ability, legislative changes may be necessary.

Problems with incorporation by reference

EPA supports the concept of State incorporation by reference of the Federal regulations where the Attorney General can assert that it is consistent with State law. However, if the Federal regulations were ever amended it would be difficult for operators in the State to locate a definite body of regulations that constitute the regulations legally effective in the State. The State may consider actually printing out the language of the Federal regulations in the State administrative code.

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Attachment 2

AQUIFER EXEMPTION
SUMMARY SHEET

Date application received in
Region:_____

Date application sent
Headquarters:_____

Date action
needed:_____

APPLICANT:_____

HEARING DATE:_____

I.D. NUMBER:_____

EXEMPTION DESCRIPTION (Township, Range, Section, Quarter section and affected area):

FIELD:_____
_____

AQUIFER TO BE
EXEMPTED:_____

JUSTIFICATION FOR EXEMPTION:

( ) Aquifer is not a source of drinking water and will not serve as a source of drinking water in the future because it:

( ) Has a TDS level above 3,000 and not reasonably expected to serve as a source of drinking water

( ) Is producing or capable to produce hydrocarbon

( ) Is producing or capable to produce minerals

( ) Is too deep or too remote

( ) Is above Class III area subject to subsidence

( ) Is too contaminated (name contaminant(s)):

( )
Other:_____

_____

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PURPOSE OF
INJECTION:_____

_____
_____

_____
___

APPLICANT: _____

HEARING DATE: _____

I.D. NUMBER: _____

INJECTED FLUID QUALITY:_____ INJECTION FLUID SOURCE:_____

FORMATION WATER QUALITY:_____

OIL OR MINERAL PRODUCTION HISTORY:_____

_____

_____

_____

_____

ACTIVE INJECTION WELLS INJECTING INTO SAME FORMATION

Field	Location	Injection Interval	Injection Source	Total Depth

WATER USE IN AREA:_____

_____

_____

_____

REMARKS:_____

_____

_____

_____

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Attachment 3

GUIDELINES FOR REVIEWING

AQUIFER EXEMPTION REQUESTS

BACKGROUND

The Consolidated Permits Regulations (40 CFR §§146.04 and 144.7) allow EPA, or approved State programs with Environmental Protection Agency (EPA) concurrence, to exempt underground sources of drinking water from protection under certain circumstances. An underground source of drinking water may be exempted if:

1. It does not currently serve as a source of drinking water and;

2. It cannot now and will not in the future serve as a source of drinking water because:

   (a) It is mineral, hydrocarbon, or geothermal energy producing, or it can be demonstrated by a permit applicant as a part of a permit application for a Class II or III operation to contain minerals or hydrocarbons that considering their quantity and location are expected to be commercially producible;

   (b) It is situated at a depth or location which makes recovery of water for drinking water purposes economically or technologically impractical;

   (c) It is so contaminated that it would be economically or technologically impractical to render that water fit for human consumption; or

   (d) It is located over a Class III well mining area subject to subsidence or catastrophic collapse; or

3. The Total Dissolved Solids content of the ground water is more than 3,000 and less than 10,000 mg/l and it is not reasonably expected to supply a public water system.

Regulations at 40 CFR §144.7(b)(1) state that "The Director may identify (by narrative description, illustrations, maps or other means) and describe in geographic and/or geometric terms (such as vertical and lateral limits and gradient) which are clear and definite all aquifers or parts thereof which the Director proposes to designate as exempted aquifers. . ." If an exemption is proposed under 40 CFR §146.4(b)(1), the applicant for a Class II or III injection well permit must submit information to demonstrate "commercial producibility." To demonstrate producibility the applicant for a Class III injection well permit may provide a map and general description of the mining zone, analysis of the amenability of the mining zone to the proposed mining method, and a production timetable. Applicants for an exemption for a Class II injection well may demonstrate producibility by providing information such as logs, core data, drill stem

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test information, a formation description, and oil data for the well in question or surrounding wells.

Except as listed above, the regulations do not specify technical criteria for the EPA to judge aquifer exemption requests. The EPA therefore developed the following technical criteria. These criteria include general information requirements common to all aquifer exemption requests. These are followed by specific criteria to evaluate each type of exemption request listed above.

EPA will approve aquifer exemptions for only specific purposes. All exemption request approvals will include a description of injection activities allowed and a statement that additional approvals would be needed for other injection activities (e.g., hazardous waste disposal into an aquifer exempted for mineral production).

EVALUATION CRITERIA

General

Applicants requesting exemptions must provide the following general information:

1. A topographic map of the proposed exempted area. The map must show the boundaries of the area to be exempted. Any map which precisely delineates the proposed exempted area is acceptable.

2. A written description of the proposed exempted aquifer including:

    (a) Name of formation of aquifer.

    (b) Subsurface depth or elevation of zone.

    (c) Vertical confinement from other underground sources of drinking water.

    (d) Thickness of proposed exempted aquifer.

    (e) Area of exemption (e.g., acres, square miles, etc.).

    (f) A water quality analysis of the horizon to be exempted.

In addition to the above descriptive information concerning the aquifer, all exemption requests must demonstrate that the aquifer ". . . does not currently serve as a source of drinking water." (40 CFR §146.4(a)). To demonstrate this, the applicant should survey the proposed exempted area to identify any water supply wells which tap the proposed exempted aquifer. The area to be surveyed should cover the exempted zone and a buffer zone outside the exempted area. The buffer zone should extend a minimum of a 1/4 mile from the boundary of the exempted area. Any water supply wells located should be identified on the map showing the proposed exempted area.

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If no water supply wells would be affected by the exemption, the request should state that a survey was conducted and no water supply wells are located which tap the aquifer to be exempted within the proposed area. If the exemption pertains to only a portion of an aquifer, a demonstration must be made that the waste will remain in the exempted portion. Such a demonstration should consider among other factors, the pressure in the injection zone, the waste volume, injected waste characteristics (i.e., specific gravity, persistence, etc.) in the life of the facility.

Specific Information

§146.4(b)(1) It cannot now and will not in the future serve as a source of drinking water because: it is mineral, hydrocarbon, or geothermal energy producing or can be demonstrated by a permit applicant as part of a permit application for a Class II or III operation to contain minerals or hydrocarbons that considering their quantity and location are expected to be commercially producible.

If the proposed exemption is to allow a Class II enhanced oil recovery well or an existing Class III injection well operation to continue, the fact that it has a history of hydrocarbon or mineral production will be sufficient proof that this standard is met. Many times it may be necessary to slightly expand an existing well field to recover minerals or hydrocarbons. In this case, the applicant must show only that the exemption request is for expanding the previously exempted aquifer and state his reasons for believing that there are commercially producible quantities of minerals within the expanded area.

Applicants for aquifer exemptions to allow new in-situ mining must demonstrate that the aquifer is expected to contain commercially producible quantities of minerals. Information to be provided may include: a summary of logging which indicates that commercially producible quantities of minerals are present, a description of the mining method to be used, general information on the mineralogy and geochemistry of the mining zone, and a development timetable. The applicant may also identify nearby projects which produce from the formation proposed for exemption. Many Class III injection well permit applicants may consider much information concerning production potential to be proprietary. As a matter of policy, some States do not allow any information submitted as part of a permit application to be confidential. In those cases where potential production information is not being submitted, it may be necessary for EPA to participate with the State in discussions with the applicant to obtain sufficient evidence to indicate that the ore zone is commercially producible. The information to be discussed would include the results of any R & D pilot project.

Exemptions relating to any new Class II wells which will be injecting into a producing or previously produced horizon should include the following types of information.

a . Production history of the well if it is a former production well which is being converted.

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b. Description of any drill stem tests run on the horizon in question. This should include information on the amount of oil and water produced during the test.

c. Production history of other wells in the vicinity which produce from the horizon in question.

d. Description of the project, if it is an enhanced recovery operation including the number of wells and there location.

§146.4(b)(2) It cannot now and will not in the future serve as a source of drinking water because: It is situated at a depth or location which makes recovery of water for drinking water purposes economically or technologically impractical:

EPA consideration of an aquifer exemption request under this provision would turn on: The availability of alternative supplies, the adequacy of alternatives to meet present and future needs, and a demonstration that there are major costs for treatment and or development associated with the use of the aquifer.

The economic evaluation, submitted by the applicant, should consider the above factors, and these that follow:

1. Distance from the proposed exempted aquifer to public water supplies.

2. Current sources of water supply for potential users of the proposed exempted aquifer.

3. Availability and quality of alternative water supply sources.

4. Analysis of future water supply needs within the general area.

5. Depth of proposed exempted aquifer.

6. Quality of the water in the proposed exempted aquifer.

Costs to develop the proposed exempted aquifer as a water supply source including any treatment costs and costs to develop alternative water supplies. This should include costs for well construction, transportation, and water treatment for each source.

§146.4(b)(3) It cannot now and will not in the future serve source of drinking water because: It is so contaminated that it would be economically or technologically impractical to render that water fit for human consumption.

Economic considerations would also weigh heavily in EPA's decision on aquifer exemption requests under this section. Unlike the previous section, the economics involved are controlled by the cost of technology to render water fit for human consumption. Treatment methods can

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usually be found to render water potable. However, costs of that treatment may often be prohibitive either in absolute terms or compared to the cost to develop alternative water supplies.

EPA's evaluation of aquifer exemption requests under this section will consider the following information submitted by the applicant:

(a) concentrations and types of contaminants in the aquifer.

(b) source of contamination.

(c) whether contamination source has been abated.

(d) extent of contaminated area.

(e) probability that the contaminant plume will pass the through proposed exempted area.

(f) ability of treatment to remove contaminants from ground water.

(g) chemical content of proposed injected fluids.

(h) current water supply in the area.

(i) alternative water supplies.

(j) costs to develop current and probable future water supplies, cost to develop water supply from proposed exempted aquifer. This should include well construction costs, transportation costs, water treatment costs, etc.

(k) projections on future use of the proposed aquifer.

<u>§146.4(b)(4) It cannot now and will not in the future serve as a source of drinking water because: It is located over a Class III mining area subject to subsidence or catastrophic collapse:</u>

An aquifer exemption request under this section should discuss the proposed mining method and why that method necessarily causes subsidence or catastrophic collapse. The possibility that non-exempted underground sources of drinking would be contaminated due to the collapse should also be addressed in the application.

<u>§146.4(c) The Total Dissolved Solids content of the ground water is more than 3,000 and less than 10,000 mg/l and it is not reasonably expected to supply a public water system.</u>

An application under this provision must include information about the quality and availability of water from the aquifer proposed for exemption. Also, the exemption request must analyze the potential for public water supply use of the aquifer. This may include: a description of current

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sources of public water supply in the area, a discussion of the adequacy of current water supply sources to supply future needs, population projections, economy, future technology, and a discussion of other available water supply sources within the area.

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