

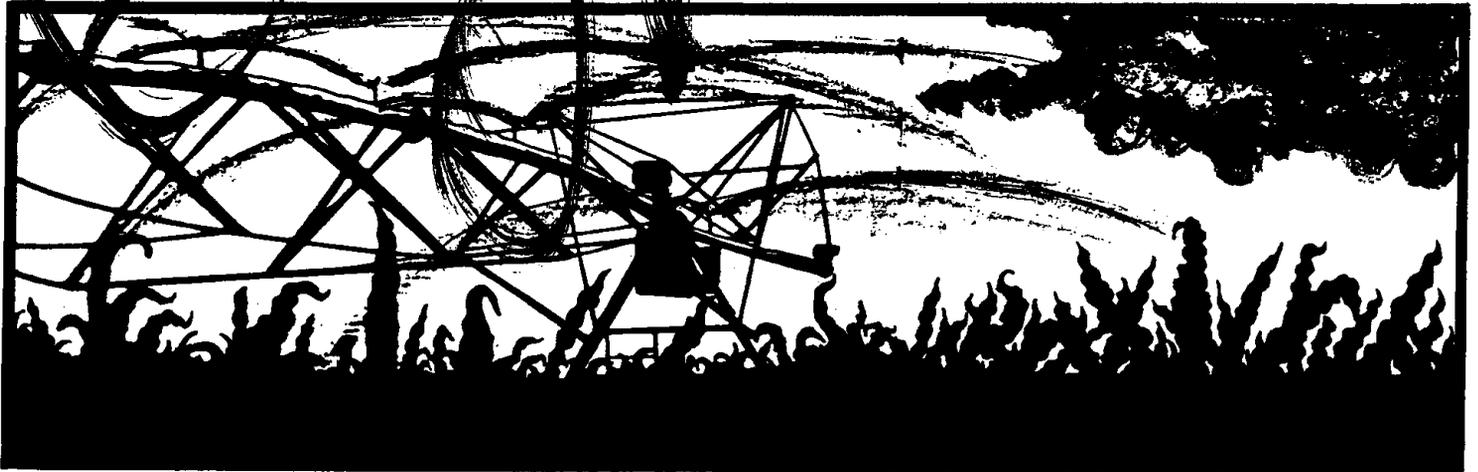
Report # One  
POLICY ISSUE STUDY  
ON SELECTED  
WATER RIGHTS ISSUES



# PREFERENCES IN THE USE OF WATER

State Water Planning and Review Process  
Nebraska Natural Resources Commission

OCTOBER 1981



# STATE OF NEBRASKA

## NATURAL RESOURCES COMMISSION

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### PROGRAMS:

SOIL & WATER CONSERVATION  
WATERSHED PROTECTION  
COMPREHENSIVE PLANNING  
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WATER QUALITY PLANNING  
DEVELOPMENT FUND



The Honorable Charles Thone  
Governor, State of Nebraska  
State Capitol  
Lincoln, NE 68509

Members of the Nebraska Legislature  
Eighty-Seventh Nebraska Legislature  
First Session  
State Capitol Lincoln, NE 68509

Governor Thone and Members of the Legislature:

This report entitled "Preferences in the Use of Water" has been reviewed and approved by the Natural Resources Commission. This is report #1 of the Selected Water Rights Issues Policy Study.

Fifteen alternative courses of action relating to preferences in the use of ground water and surface water are analyzed in this report. The Commission's recommendations on those alternatives are also provided and can be found on the blue pages immediately following the Foreword.

It is the hope of the Natural Resources Commission that this report will be helpful in making policy decisions and, if necessary, statutory changes. The Natural Resources Commission is prepared to answer any further questions you may have.

Sincerely,

A handwritten signature in cursive script that reads "Alvin Narjes".

Alvin Narjes, Chairman  
Natural Resources Commission

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## FOREWORD

This is the first of eight reports to be prepared as part of the Selected Water Rights Issues Policy Study. This first report, which addresses water use preferences for both surface water and ground water, is being forwarded to the Legislature and Governor for consideration and action as deemed appropriate. The Selected Water Rights Issues Policy Study is one of the ten water policy studies being conducted through the State Water Planning and Review Process.

This report was prepared in the same manner as is planned for other policy issue study reports. The base document for this report was prepared by an interagency task force. Members of that task force and the agencies represented are as follows:

Jim Cook, Natural Resources Commission, Leader  
Judy Lange, Department of Environmental Control  
Mike Jess, Department of Water Resources  
Bill Lee, Department of Health  
Darryll Pederson, Conservation & Survey Division - UN-L  
Dave Aiken, Water Resources Center - UN-L  
Karen Langland, Policy Research Office  
Gerald Chaffin, Game & Parks Commission  
John Alloway, Department of Agriculture

A number of individuals other than those on the task force also contributed greatly to the preparation of this report. They are: Norm Thorson, UN-L College of Law; Bob Kuzelka, Ray Bentall, and Dennis Lawton, UN-L Conservation and Survey Division; and Charles Deknatel, UN-L College of Architecture.

Following initial consideration and minor revision of the task force report, the Commission released it for public review on May 29, 1981. During the comment period which concluded July 22, 1981, two public hearings were held, the first in Ogallala on July 14 and the second in Lincoln on July 22. Summaries of those hearings can be found as Appendices A and B in the back of this report.

The Public Advisory Board devoted all of one meeting and part of another to consideration of the task force report and provided the Commission with a number of recommendations for its consideration. Comments were also offered by the Interagency Water Coordinating Committee. In addition, a few written comments were received from members of the public representing either themselves or particular organizations. All such comments are on file at the office of the Commission and are available for review.

Initial responsibility for considering the comments received and for preparing suggested changes in and recommendations on the report was assigned to the Commission's three member committee overseeing the Selected Water Rights Issues Policy Study. Those members are:

Henry Reifschneider, Chairman  
Robert W. Bell  
Rudolph Kokes

The work of these members was utilized by the Commission to refine and supplement the task force report to its present form.

Seven additional reports similar to this one are scheduled to be prepared by the Selected Water Rights Issues task force and transmitted to the Natural Resources Commission in the next several months. The last report is due to be submitted to the Commission by June 30, 1982 with transmittal to the Legislature and the Governor following at least a 90 day public review process. Each of those reports will address one of the following water rights subjects:

- Drainage of Diffused Surface Water
- Beneficial Uses
- Property Rights in Ground Water
- Water Right Adjudications
- Riparian/Appropriative Rights
- Interstate Water Uses and Conflicts
- Transferability of Water Rights

# COMMENTS AND RECOMMENDATIONS OF THE NATURAL RESOURCES COMMISSION

In preparing policy issues study reports like this one, the Natural Resources Commission has two major responsibilities. On the one hand, the Commission is to present in as objective a manner as possible a representative range of policy alternatives for the particular water policy issue being considered. The purpose of all portions of this report following this section is to fulfill that responsibility. Once those alternatives have been arrayed, it is also the responsibility of the Commission to provide the Legislature, the Governor, and the general public with the Commission's opinions on those various alternatives. Fulfillment of that responsibility is the purpose of the remainder of this section of the report. Comments and opinions are offered below on each of the 15 alternatives identified in the report; some alternatives are favored and others are not. In some cases, because of the close relationship with issues being addressed in other studies, partial deferral of a policy decision until a later time is recommended.

One further qualification is in order. Realizing that many of the alternatives are not exclusive of others and that more than one may be selected in the future, the Commission does want to note that opinions offered here on individual alternatives could change when those alternatives are combined with others. It should also be recognized that the present feeling of Commission members on these alternatives may be modified when the results of other studies related to preferences are available.

With that background, the Natural Resources Commission recommends favorable consideration of alternatives #4, #6, #8, #9, #10, #12, #13, #14, and #15.

Alternatives which are not favored by the Commission are alternatives #1, #2, #3, #5, #7, and #11. Further explanation of the Commission's recommendations on each of the alternatives and how those recommendations were arrived at is found in the material which follows.

Alternative #1: Make no change in present policies.

Alternative #1 is an alternative which is mutually exclusive of all the others. Since the Commission is making some recommendations below on adoption of some of the other alternatives, alternative #1 is not favored.

Alternative #2: Abolish preferences systems entirely.

Alternative #3: Abolish all preferences systems except for domestic use.

Alternatives #2 and #3 are not favored by the Commission because they are considered to be negative in nature and do not provide for the constructive management of available water supplies. While it is recognized that current preferences, especially those for surface water, have little effect on water allocation, the effect which they do have is an important one when needed, and opportunity should be sought for enhancing rather than abrogating that effect. This recommendation against adoption of alternative #3, however, should not be interpreted as a slighting by the

Commission of the importance of domestic use. That importance will be thoroughly addressed in the discussion of alternatives #12 and #14 later in this section.

Alternative #4: Modify the preferences systems by adding municipal uses.

The Commission recommends the adoption of this alternative. Municipal uses of water are far too important to not receive recognition in the preferences systems. Exactly where municipal uses ought to be added is the more difficult question. It is recommended that municipal use be divided into two categories: (1) domestic municipal use, and (2) non-domestic municipal use. The domestic portion should be equated with other domestic uses for both surface water and ground water. Assuming no other modifications in the preferences system, the non-domestic portion ought to receive a preference immediately after manufacturing. If it is desired that other uses also be added to the preferences system, the Commission would want to be able to reassess the full list of uses before recommending the preferences ranking for non-domestic municipal uses.

Alternative #5: Make manufacturing, commercial and industrial uses superior to agricultural uses.

This alternative is not favored by the Commission because we believe it is in the best interest of the state to maintain the preference granted agricultural water at the current high level. Also, like our final comment on alternative #4, to isolate alternative #5, without also assessing other possible modifications to the preferences system, seems inappropriate.

Alternative #6: Modify the preferences systems by adding other consumptive uses.

It is recommended that water use for power plant cooling and for other large consumptive energy demands, such as coal gasification, be added to the preferences lists. While closely related to manufacturing and industrial uses, these uses are, by comparison, generally consumptive of such large quantities of water that they require separate treatment in the preferences system. They should be listed after manufacturing and industrial uses. Also, special provisions ought to exist for the initial authorization of such uses. LB 56, relating to large industrial use of ground water and adopted during the 1981 session of the legislature, is a good example of how such uses ought to be addressed. Similar actions ought to be taken for surface water. How this might be accomplished should be addressed as part of the policy issue study on the relationship between water and energy due to be initiated in fiscal year 1983.

Alternative #7: Repeal current preferences and substitute a flexible preferences system.

The flexibility which this alternative would produce is attractive, but problems with administration could be expected. In addition, the alternative is inconsistent with some of the others herein recommended. Accordingly, the Commission recommends against the adoption of alternative #7.

Alternative #8: Allow reservation of water for preferred uses.

Alternative #8 is probably the best example of the alternatives identified for making preferences more meaningful than they are at present. The Commission supports adoption of alternative #8 in at least a limited fashion. For example, if domestic municipal use is added to the preferences system, protection ought to be provided in advance to those uses. Reserving flows or ground water quantities necessary to meet those needs would be in order.

Alternative #9: Utilize preferences as a basis of approval of competing applications.

Alternative #9 will also broaden the usefulness of preferences and is also favored by the Commission. While it is recognized that at least for surface water there will be few opportunities for utilizing this alternative because there are seldom competing applications for the same water, the few opportunities that do exist should be taken. A decision on how this alternative would be implemented for ground water, however, should be delayed until following the completion of the Ground Water Reservoir Management Study.

Alternative #10: Define the water use terms used in preferences provisions.

Limited adoption of this alternative is supported. The Commission recommends adoption of a definition for domestic use of surface water which is the same as that presently in effect for ground water. Municipal use ought to also be defined, with clarification that domestic uses has the same preference whether provided through an individual or municipal system. Non-domestic municipal use should be defined as all other uses provided through a municipal system. The term "manufacturing" should be defined to include industrial and commercial uses. While establishing by definition the point at which livestock watering no longer becomes part of a "normal farm and ranch operation" seems particularly desirable, the many varieties of livestock and the differences in custom and needs across the state make definitions impractical. Retaining the "normal farm and ranch operation" standard and allowing for court interpretation of that standard as necessary, seems to be the all around best solution.

Alternative #11: Clearly authorize or deny the right of private individuals to utilize eminent domain to exercise a preference.

The Commission does not consider the issue addressed by alternative #11 to be significant enough to justify legislative action. It is recommended, therefore, that alternative #11 not be adopted.

Alternative #12: Repeal the requirement that compensation be paid to exercise a preference.

With one exception, the Commission opposes adoption of alternative #12. The uncertainty which overall adoption of alternative #12 would cause for surface water administration would prevent needed investments in water use developments. The exception favored by the Commission is for

domestic use. The necessity of that use so far surpasses all others that special treatment is justified. The Commission accordingly recommends that domestic use of surface water be given an absolute preference, requiring no compensation to inferior users during times of shortage. Whether this alternative could be constitutionally accomplished for existing appropriations cannot be definitively answered, but certainly new appropriations for uses inferior to domestic use could be issued subject to the condition that adequate water would exist for all present and future domestic uses.

Alternative #13: Modify the preferences system by adding instream uses.

At present the Commission recommends only a very limited implementation of alternative #13. It is premature to recommend addition of most instream uses because of the pending nature of the instream flow study. Judgement on the propriety of policy actions of that type is reserved until that study has been completed. However, the Commission does believe that instream uses necessary to satisfy uses which are recognized uses ought to receive protection. For example, we have recommended that alternative #4 to recognize municipal use of water in the preferences system be adopted. If direct diversions from streams for those purposes would be subject to and receive the protection of surface water preferences, the same types of uses should not lose that protection just because the diversion is indirect through induced recharge.

Alternative #14: Make compensation a requirement in the exercise of ground water preferences.

Relating only to ground water, this alternative can be considered a companion to alternative #12 which has application only to surface water. Consistent with our recommendations on alternative #12, we also recommend adoption of alternative #14 with one exception. Again, that exception is for domestic use. Compensation should not be a requirement for the exercise of a domestic ground water preference. We do believe, however, that in times of shortage compensation for damages would be appropriate between other uses.

Alternative #15: Impose reasonable standards on the use of preferences for protecting the means of access to a ground water supply.

This alternative is also recommended. It would temper somewhat the absolute nature of the domestic preference recommended in alternative #14. The domestic user's preference would still be absolute, but he or she would be required to exercise reasonable care in establishing that use if alternative #15 were implemented. We believe that reasonable care to be appropriate.

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# INTRODUCTION

Preferences in the use of water are specified in the constitutions and statutes of many western states, including Nebraska. Among the states, however, substantial differences exist in what is preferred and in the impact upon water allocation. In most cases, that impact is not well understood by the general public.

A preference in the use of water can be broadly defined as any mechanism granting in any respect or in any circumstance favorable treatment to one type of water use over another. Defined in that manner preferences can take many forms and be implemented in a number of different ways. However, the term "preferences" is commonly used in a much narrower sense to describe a legal system for allocating water between different types of uses during times of shortages.

In Nebraska that legal system provides that domestic uses of water shall have preference over all others and that agricultural uses shall have preference over manufacturing.

Preferences in Nebraska are not well understood and are often the subject of debate. Suggestions have been made that uses not presently listed, such as municipal use and maintenance of fish and wildlife, be added. Others have suggested that the order of preferences be altered by reversing manufacturing and agricultural uses. To date no such changes have occurred. Surface water preferences are the same as when enacted in 1895. Groundwater preferences first adopted in 1957 have also remained unchanged except for the addition of a definition for domestic use.

This report was prepared to provide the policy decision makers with information relevant to preferences and how they could be modified by legislation and, in some cases, constitutional amendment. Chapter 1 sets forth what the current Nebraska policy is by summarizing current laws, cases, and administrative practices. Chapter 2 relates the practical affects of these policies on allocation of the state's waters and identifies needs and problems. Some of the opportunities lost because of present policies are also noted in Chapter 2. What other state's preferences policies are is the subject of Chapter 3. This chapter, as well as Chapters 1 and 2, address ground water and surface water separately.

The heart of this report is found in Chapter 4. Chapter 4 identifies fifteen alternatives for legislative consideration. Some are alternatives only for surface water; others are only for ground water. Most, however, have possible application to both resources. Each alternative and how it would be enacted is described. Direct costs for enacting the alternative and for administering it once enacted are also discussed as specifically as the alternative will allow.

The external impacts of adopting such alternatives are also addressed in Chapter 4. Included are the physical/hydrologic/environmental impacts and the socio-economic impacts. The degree of detail possible in these impacts analyses varies greatly from alternative to alternative, with some having fairly apparent impacts, while others are almost impossible to assess.

The final chapter, Chapter 5 is devoted to explaining the relationship between this report and all other policy issue reports produced or to be produced as part of the State Water Planning and Review Process. Relationships are identified for nearly every study being conducted. The value of Chapter 5 to the decision maker is to alert him or her to how other issues can be affected by decisions on preferences.

# SUMMARY

## Background and Present Status

### Surface Water

Section 6, Article XV of the Nebraska Constitution provides in part as follows:

. . . when the waters of any natural stream are not sufficient for the use of all those desiring to use the same, those using the water for domestic purposes shall have preference over those claiming it for any other purpose, and those using the water for agricultural purposes shall have the preference over those using the same for manufacturing purposes. Provided, no inferior right to the use of the waters of this state shall be acquired by a superior right without just compensation therefor to the inferior user.

This provision and several sections of the Nebraska statutes create preferences in the use of water in the state's natural streams. The purpose of these provisions is to allow an exception to the general rule of surface water appropriation that "first in time is first in right." However, the exception thus created is not without limits. Surface water preferences can be exercised only when compensation is paid to the inferior (non-preferred) user and they may be available only to public entities with the power of eminent domain.

Contrary to popular opinion, the preferences provisions do not list domestic, agricultural, and manufacturing uses of water as the first three preferred uses. Domestic use clearly is given preference over all other uses, but the relationship of agriculture and manufacturing is established only with respect to each other and without mention of any relationship to other unlisted uses. Municipal uses are not specifically recognized, but portions of municipal use would be included within the domestic and manufacturing categories.

The exercise of a preference apparently does not result in a permanent transfer of all of the inferior right being acquired. The right to interfere with the senior but inferior right is obtained only for the time necessary to satisfy the water needs of the junior but superior user.

Since surface water preferences apparently have application only to natural flow appropriations, they are not exercisable for the benefit or to the detriment of storage rights or rights to use storage water.

### Ground Water

Nebraska ground water preferences are worded much like those for surface water. Existing only in statute (section 46-613 R.R.S. 1943), however, they provide as follows:

Preference in the use of underground water shall be given to those using the water for domestic purposes. They shall have preference over those claiming it for any other purpose. Those using the water for agricultural purposes shall have the preference over those using the same for manufacturing or industrial purposes.

As used in this section, domestic use of ground water shall mean all uses of ground water required for human needs as it relates to health, fire control, and sanitation and shall include the use of ground water for domestic livestock as related to normal farm and ranch operations.

While no determinations have yet been made on the issue, compensation to the inferior (non-preferred) user is probably not required prior to the exercise of a ground water preference. In fact, in the only Nebraska Supreme Court case in which the ground water preference statute has been an issue, the court required an irrigator (inferior) whose well was interfering with the use of neighboring domestic wells (superior) to compensate the domestic users for the cost of replacing or modifying their wells so that domestic water could continue to be obtained. Since the water supply itself was adequate for all users, the court was using the preferences provisions to protect the domestic users' means of access to that supply. This is a use of preferences different from previous uses of surface water preferences.

Some municipal uses are specifically recognized in the definition of domestic use of ground water, but a number of municipal uses are not recognized at all. And, as noted above for surface waters, domestic use of ground water is the only use specifically preferred over nonrecognized uses.

### Practical Effects

#### Surface Water

The compensation requirement and other limitations on the use of surface water preferences severely restrict the application and effect of those provisions. The only known application of surface water preferences since their original enactment in 1895 are in the Loup River Basin. They involve interference by agricultural users with an appropriate right for hydropower purposes. Economics plays a key role in preventing agricultural users from acquiring manufacturing rights. While economics would present much less of an obstacle for conversion of agricultural rights to those for manufacturing purposes, such conversions cannot be made because the preferences system does not allow inferior uses to acquire superior rights.

These factors often cause surface water preferences to be subjected to criticism that they do little to achieve their objectives or to encourage allocation of water to the most economic uses. Other concerns are expressed about the status of municipal uses and with the possibility

that water users other than those directly involved in a preference action may be adversely affected by the results of that action.

Also often criticized is the inflexibility of current surface water preferences provisions. They make no allowances for changing circumstances or varying situations.

Surface water preferences are presently used only as a means to modify the allocation of surface water supplies during times of shortage. Opportunities exist for use of the preferences in other ways, such as for reserving for future use water for preferred purposes, utilizing preferences as a basis for resolving competing requests for appropriative rights, and using preferences as a guide in long-range comprehensive planning.

#### Ground Water

The practical effects of ground water preferences are likely to be somewhat different than those for surface water. The potential for liability for interfering with a preferred user's access to water may have some limiting effect on ground water development. Such limitations are likely to be felt only in rather isolated areas.

How ground water preferences will be utilized to resolve conflicts when a true shortage of ground water exists is not yet known. As noted earlier, compensation to the inferior user may not be required for the exercise of a ground water preference and this factor could enhance the overall effectiveness of these preferences. Perhaps the greatest effect will occur in conjunction with other legislatively established policies. An example is the Ground Water Management Act where preferences are specifically recognized and may be utilized as a basis for the administrative allocation and management of ground water supplies.

Ground water preferences can be subjected to many of the same criticisms as surface water preferences. They are also inflexible; the most economic uses of water are often discouraged; and problems are created for municipal uses. While the lack of a compensation requirement for exercise of a ground water preference has not yet been authoritatively determined, any such lack will discourage investments which could be rendered worthless because of the later exercise of a preference by a superior user.

Perhaps the greatest obstacle to the use of the ground water preferences provisions are technical and economic in nature. The costs of proving specific ground water effects may be prohibitive and determinations may even be beyond the bounds of technical capabilities.

Frequent concerns have been raised about the application of ground water preferences to protection of the means of access to water when no water shortage exists. These concerns are amplified by the likelihood that relative dates of initiation of use will not be considered in resolving disputes.

## Preferences Policies Elsewhere

### Surface Water

Of the 19 western states, two states have surface water preferences provisions very similar to those for Nebraska, five states have no surface water preferences at all, and 11 states have provisions which differ in at least one significant way from those in effect for Nebraska. Municipal use of water is recognized in several states, usually equal to or immediately after domestic use on the preference list. Some states also recognize recreation and/or wildlife uses of water, but these uses are commonly at the end or near the end of the order. Other uses recognized in one or more state include public water supply, mining, stock watering, water power, evaporative cooling, navigation, pleasure, railway use, refrigeration, steam production, hot water heating, and other beneficial uses.

How surface water preferences provisions are used is similar in most states to Nebraska, with most requiring compensation for interference with a senior but inferior use. However, some states do make additional uses of preferences provision, including the reservation of water for preferred uses and the utilization of preferences as a determining factor when competing applications for appropriative rights are pending.

### Ground Water

In most western states, ground water is subject to appropriation in the same manner as surface water. Several of those states apply the same preferences provisions to ground water as they do to surface water. In those states preferences are used as an exception to the rule of first in time, first in right for both resources.

On the other hand, a total of eight states appear to have no preferences provisions for ground water and a few have special provisions. Some states have specific provisions pertaining to well interference problems between preferred and non-preferred users.

## Alternative Legislative Policy Actions

### Alternatives Identified

A total of fifteen legislative policy alternatives have been identified for consideration in Nebraska. These alternatives present a range of possible policy actions. Additional variations and combinations of alternatives exist. Not all of the alternatives are applicable to both ground water and surface water. Alternatives 1 through 10 could be implemented for either or both resources, but alternatives 11, 12 and 13 are appropriate only for surface water and alternatives 14 and 15 only for ground water. Significant differences do exist in the methods of implementation for many of the alternatives. All ground water alternatives could be implemented by legislative action only. In contrast, alternatives 2, 3, 5, 7, 12, and perhaps 4 and 11 would require a constitutional amendment for surface water.

Alternative #1: Make No Changes in Present Policies. Also described as the "no action" or "maintain the status quo" option, this alternative would leave preferences policies as they are now. Presently unresolved questions about those policies might be resolved by future litigation, but no legislative action would be taken to revise or refine those policies.

Alternative #2: Abolish Preferences Systems Entirely. If not accompanied by changes in the current restrictions on the transferability of surface water rights, this alternative would have the effect of making "first in time, first in right" the only doctrine governing allocation of available surface supplies. In the same fashion, type of use would play at least a lesser role in the allocation of ground water supplies.

Alternative #3: Abolish All Preferences Except for Domestic Use. Without access to some mechanism like the preference system, there would be no way to ensure that domestic needs could be satisfied when shortages occur.

Alternative #4: Modify the Preference System by Adding Municipal Use. This alternative is designed to resolve the present and potential problems created by some municipal uses being superior, others being inferior, and still others not being recognized at all by the present preference systems.

Alternative #5: Make Manufacturing, Commercial, and Industrial Uses Superior to Agricultural Uses. This alternative would more accurately reflect what is in most cases the higher economic value of water for manufacturing, commercial, and industrial uses.

Alternative #6: Modify the Preferences Systems by Adding Other Consumptive Uses. Implementation of this alternative could provide preferences recognition to currently unrecognized uses such as power plant cooling, oil and gas production, mining, and some recreation uses.

Alternative #7: Repeal Current Preferences and Substitute a Flexible Preferences System. This alternative would eliminate the inflexibility of current preferences provisions and would allow a case by case determination of the most preferred use when competition for limited water supplies occurred between different types of users.

Alternative #8: Allow Reservation of Water for Preferred Uses. Implementation of this alternative would allow preferred uses for which water has been reserved to begin without the necessity of compensating inferior uses initiated after the reservation was created.

Alternative #9: Utilize Preferences as a Basis for Approval of Competing Applications. This alternative would expand the purposes of preferences so that they would be utilized not only when shortages of water occur, but also in the initial allocation of water supplies.

Alternative #10: Define the Water Use Terms as Used in the Preferences Provisions. The purpose of this alternative would not be to make substantive changes in preferences law, but to clarify preferences policies and eliminate some potential concerns caused by the present lack of definitions.

Alternative #11: Clearly Authorize or Deny the Right of Private Individuals to Utilize Eminent Domain to Exercise a Preference. Whether preference may be asserted only by public entities and thus cannot be used primarily to benefit private interests would be resolved by this alternative. Resolution could be either in favor of the private interest or contrary to it.

Alternative #12: Repeal the Requirement that Compensation be Paid to Exercise a Preference. This alternative would make surface water preferences more meaningful than they are currently by eliminating the compensation obstacle to exercise.

Alternative #13: Modify the Preferences System by Adding Instream Uses. Potential uses of this nature which could be added include but are not limited to: maintenance of fish and wildlife habitat, instream stock watering, aquifer recharge, recreation, and waste assimilation.

Alternative #14: Make Compensation a Requirement in the Exercise of Ground Water Preferences. This alternative would introduce the doctrine of first in time, first in right into the application of ground water preferences and would require compensation if the inferior damaged use was initiated first.

Alternative #15: Impose Reasonable Standards on Use of Preferences for Protecting the Means of Access to a Ground Water Supply. This alternative would encourage superior ground water users to take present and reasonably anticipated activities into account when developing their water supply systems. If they did not do so, they would be prevented from seeking damages at a later date for interference from an inferior user.

#### Changes in Water Use Patterns

Most of the alternatives identified have relatively little effect upon water usage because of the minor role which preferences now play in that usage and because over ninety percent of the water used in the state is used for agricultural purposes. Preferences have no application to conflicts between users in the same category. For changes which would occur, some of the alternatives would tend to encourage transfers to higher economic uses while others would discourage or prevent such transfers.

Perhaps the most significant surface water changes would be created by alternatives #8 and 13. Alternative #8 would limit development of surface water supplies either directly or indirectly by discouraging investments. By recognizing instream flows, alternative #13 could significantly effect the distribution of remaining unappropriated flows.

The only real effect of current policy on ground water use patterns is that there is at least some level of discouragement for development of inferior use. If implemented for ground water some of the alternatives would decrease or eliminate that consideration; others would increase it. In some cases the degree of discouragement might not change, but might be shifted from one type of user to another. Alternative #5, placing manufacturing and industrial uses ahead of agricultural use, is an example.

Depending upon how it would be implemented, alternative #8 probably has the greatest potential for affecting significantly the amount of ground water development which occurs and the manner in which the ground water supply would be allocated.

#### Physical/Hydrologic/Environmental Impacts

Physical impacts are closely related to changes in water use patterns. Changes in those impacts resulting from implementation of the alternatives would not be significant in most cases. Changes in water use patterns which result from changed allocations may, from a physical standpoint, only result in the substitution of one water use for another. While users may be impacted, the effect on the water supply and the physical/hydrologic/environmental impacts are the same or nearly the same.

#### Socio-Economic Impacts

The primary impacts of the fifteen alternatives would be social and economic in nature. Current preferences policies and those identified as alternatives are essentially economic policies. Their purpose is to identify who pays the cost when demand for water exceeds supply. Many of the alternatives identified have as their primary, and perhaps their only purpose, a redistribution of the burden of that cost. Whether redistribution would be fair is a social and equity question to which individual value judgments must be applied.

In general terms, those alternatives which move away from a fixed order or preferences and towards a more open market system tend to be the more economically efficient as do those which tend to place the order of preferences more in line with economic reality. Alternatives which would thus promote greater economic efficiency are alternatives 4, 5, 14, and 15. Alternatives which would appear to result in lesser economic efficiency than current policies are alternatives 2, 3, and 12. Those alternatives for which socio-economic impacts cannot be determined or would not change are alternatives 1, 6, 7, 8, 9, 10, 11, and 13.

#### Relationship to Other Studies

While water policy issues can be somewhat separated, they cannot be decided in a vacuum. It is important to note how action on one policy issue can affect other water policy issues. Preferences are closely related to many of the water policy issues to be addressed as part of the policy issue study activity of the State Water Planning and Review Process. Relationships between preferences and all other studies except the one on weather modification have been identified. While most of these relationships are fairly indirect, particularly close relationships exist with the Instream Flow Study, the Municipal Water Needs Study, and the beneficial use and transferability of water rights portion of the Selected Water Rights Study.

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# CHAPTER 1

## PREFERENCES IN NEBRASKA: BACKGROUND AND PRESENT STATUS

### Nebraska Preferences for the Use of Surface Water

#### The Basic Law

In 1895, when adopting state administrative authorities for the appropriation of surface water, Nebraska included provisions specifying that certain water uses are favored over others. The statutory law establishing those preferences remains almost exactly the same today as originally enacted.

46-204. The right to divert unappropriated waters of every natural stream for beneficial use shall never be denied except when such denial is demanded by the public interest. Priority of appropriation shall give the better right as between those using the water for the same purposes, but when the waters of any natural stream are not sufficient for the use of all those desiring the use of the same, those using the water for domestic purposes shall have the preference over those claiming it for any other purpose, and those using the water for agricultural purposes shall have the preference over those using the same for manufacturing purposes.<sup>1</sup>

The preferences created by section 46-204 apply only to "natural streams." In 1963 the Legislature subjected drainage ditches and other manmade streams to the jurisdiction of the appropriation system and the preference provisions quoted.<sup>2</sup> That addition was short-lived, however, as legislative action two years later deleted any reference to any waterways other than natural streams.<sup>3</sup>

#### The Compensation Requirement

A reading of section 46-204 provides the reader with only a partial understanding of preferences law in Nebraska and in fact often leads to misunderstanding. Not recognized in the statute is the fact that surface water preferences are not true or absolute preferences. Their only real affect is to provide a procedure for a preferred user to overcome the doctrine of first in time, first in right. A junior preferred water user may exercise his preference only upon payment of compensation to the senior user whose water is being taken. This significant limitation on the preference system is not derived from section 46-204 but from other sections of Nebraska law, the Nebraska Constitution, and decisions of the Nebraska Supreme Court.

Prior to 1920 the Nebraska Constitution made no mention of the allocation or management of the surface waters of the state. In the 1919-1920 Constitutional Convention a decision was made to add to the Constitution a number of basic water provisions either exactly as they existed previously in statute or in slightly modified form.<sup>4</sup> One such

addition related to the preferences already established by statute in 1895 and discussed above. As finally enacted by the voters of the state in 1920, and as it still reads, Section 6, Article XV of the Nebraska Constitution provides as follows:

Section 6 - The right to divert unappropriated waters of every natural stream for beneficial use shall never be denied except when such denial is demanded by the public interest. Priority of appropriation shall give the better right as between those using the water for the same purpose, but when the waters of any natural stream are not sufficient for the use of all those desiring to use the same, those using the water for domestic purposes shall have preference over those claiming it for any other purpose, and those using the water for agricultural purposes shall have the preference over those using the same for manufacturing purposes. Provided no inferior right to the use of the waters of the state shall be acquired by a superior right without just compensation therefore to the inferior user. (emphasis added)

The underscoring above indicates the portion of the constitutional language that is additional to what is in the statute. That underlined sentence establishes the relative importance of preferences to the doctrine of first in time, first in right. It provides that an exception to that first in time, first in right doctrine will be made to a user whose water use is more highly valued by society but only if that more highly valued use can afford to and does compensate a less valued but senior use for all damages sustained. The result is to reduce materially the value of having a preferred use.

The compensation requirement is addressed further in statute and in Nebraska case law. In the statutes relating to public power and irrigation districts, specific provisions address the acquisition for irrigation purposes of water previously appropriated for the production of hydroelectric power. In section 70-668, R.R.S. 1943 the preferences provisions in section 46-204 are repeated almost verbatim but are supplemented with the condition that: ". . . and those using the water for agricultural purposes shall have the preference over those using the same for power purposes, where turbine or impulse water wheels are installed." Section 70-669 restates the language of the Constitution relating to compensation to inferior users and adds: "The just compensation paid to those using water for power purposes shall not be greater than the cost of replacing the power which would be generated in the plant or plants of the power user by the water so acquired." Finally, section 70-672 provides that when the power of eminent domain is exercised to acquire water being used for power purposes, the procedure to condemn is to be the same as that utilized for the acquisition of other forms of property through eminent domain. The scope of the eminent domain authority as it relates to preferences is addressed in additional detail later in this chapter.

Final confirmation of the compensation requirement is in a 1942 Nebraska case resulting from a conflict between irrigation and hydro-power users in the Loup River Basin.<sup>5</sup> In that case, the Loup River Public Power District had obtained an appropriative right for power

purposes with a priority date of September 15, 1932. Shortly thereafter, another entity called the North Loup Public Power and Irrigation District was granted an appropriative right for irrigation purposes with a priority date of March 28, 1933. In 1940, the power user (senior in time) was not able to obtain the full amount of its appropriation and alleged that this was largely because of upstream diversions by the irrigation district (junior in time). As a result, the power district brought suit against the irrigation district and certain officers of the state agency that now is the Department of Water Resources. The issue presented was whether the irrigation district was required to compensate the power district for the water taken. In answering in the affirmative, the Nebraska Supreme Court left no doubt as to the applicable law in Nebraska.

It was clearly the intention of the framers of our Constitution to provide that water previously appropriated for power purposes may be taken and appropriated for irrigation use upon the payment of just compensation therefore. It was never the intention of the framers of the Constitution to provide that water appropriated for power purposes could thereafter arbitrarily be appropriated for irrigation without the payment of compensation. Historically the purpose for which an appropriation was obtained had no bearing upon its priority. Until the advent of constitutional provision and statutory law, priority of appropriation conferred superiority of right without regard to the character of the use. The maxim "He who is first in time is first in right," thus became fundamental doctrine in determining the priorities of appropriators, irrespective of use. A right of appropriation, under our Constitution, whether for irrigation or for power purposes, is a property right which is entitled to the same protection as any other property right. The right of property therein cannot be violated with impunity any more than that of any type of property. This is so fundamental that citations of authority are unnecessary.

Section 6 of Article XV of the Constitution, fixing a priority of uses for which public waters may be appropriated, is a self-executing provision and the court, in the absence of a statutory method would be obliged to provide the means for enforcing its provisions. To hold otherwise, and to permit junior appropriators of water for a superior use to divert it with impunity, would invite uncertainty and chaos into the irrigation laws of this state.<sup>6</sup>

The fact that defendant district may desire the water lawfully appropriated to plaintiff district and to which it has a vested right is unimportant until plaintiff district's right thereto has been lawfully divested and compensation paid. Until plaintiff district's vested rights have been divested by due process of law, its appropriation must be considered as prior to that of the defendant district.<sup>7</sup>

After citing cases reaching the same conclusion in several other jurisdictions, including Colorado and Idaho, the court concluded as follows:

We necessarily come to the conclusion that a senior appropriative right for power purposes may not be destroyed by a superior user except by the employment of formal condemnation proceedings and the tender of compensation prior to interference.

Assuming, as we must in this case, that the allegations of plaintiff district's petition are true, plaintiff district is entitled to have its appropriative rights protected against the wrongful diversions of the defendant district. The defendant state officers are duty bound to enforce all appropriations in accordance with their priorities as to time, unless such appropriations or priorities be divested in the manner provided by law.<sup>8</sup>

#### Other Prerequisites

In addition to the compensation requirement, there are other conditions believed by some authorities to be prerequisites to the operation of the preference doctrine. Those suggested prerequisites have been stated as follows:

(1) The inferior user holds a post-1895 appropriation (the preference doctrine does not operate against riparians or holders of vested pre-1895 appropriations); (2) The preferred user is an appropriator; and (3) The available water supply is being allocated to the exclusion of the preferred user.<sup>9</sup>

If, as suggested, the preferences doctrine does not apply to holders of vested pre-1895 appropriations, it is because this potential exception to the doctrine of first in time, first in right was not enacted until 1895. When rights granted prior to that time became vested, they were not subject to preferences. Although it should be possible to acquire such rights through due process and compensation, the Legislature explicitly provided in both the 1889 and 1895 acts that nothing in those acts shall be "construed as to interfere with or impair the rights to water appropriated and acquired prior to the passage"<sup>10</sup> of those acts. To subject those pre-1895 rights to the preference system now would be to "impair" them.

The same type of rationale can be applied to riparian rights. The riparian system also contains no preferences and all riparian owners are entitled to reasonable use of the water, consistent with like use by all other riparian owners.<sup>11</sup> To subject them to preferences would, arguably at least, be to modify or "impair" the nature of those rights.

An inconsistency in the treatment of riparian rights as they relate to appropriative rights should be noted. In most Nebraska cases involving disputes between riparians and appropriators, the riparian's rights were limited to recovery of damages and injunctions prohibiting use of water by the appropriator were denied.<sup>12</sup> The true effect of these rulings was to give the appropriator a "preference," in the broad sense, over the riparian. If the rights of riparians could be protected through compensation in those cases, it ought to be possible to protect them in the same manner when preferences, in the narrower sense, are exercised.

The second prerequisite suggested above for utilization of the preference doctrine is that the preferred user be an appropriator. According to this theory, neither riparians nor users without a riparian or appropriative right are entitled to exercise the preference system. Doubt has been cast upon the validity of this contention by a 1969 case that required a defendant appropriator to provide water to a plaintiff domestic user. In that case the domestic user did not demonstrate that he was the holder of either an appropriative or riparian right.<sup>13</sup> Whether that case represents a total disapproval of the prerequisite suggested is yet to be determined.

The third and final prerequisite noted above is that to exercise a preference the preferred user must not be receiving the water to which he is entitled. In other words, a preference cannot be exercised only in anticipation of a shortage or simply to deny water to the non-preferred user.

#### Use of Eminent Domain

A presently debatable prerequisite not mentioned above results from eminent domain law rather than water law. What is involved is the necessity to satisfy constitutional requirements that any condemnation be for a public as opposed to a private purpose. It is clear that if a senior non-preferred user voluntarily agrees to the amount of compensation required to reimburse him for his losses, any junior preferred user may divest the senior user of the amount of water desired. Such voluntary arrangements have occurred and were recognized in 1962 by the Nebraska Supreme Court.<sup>14</sup> The procedure for carrying out such a voluntary transfer requires notification to the Department of Water Resources so that the water required can be administered on the basis of the priority date of the senior right.

What is not clear is who is entitled to exercise a preference in the event that the parties cannot agree. Some commentators have indicated that only entities having the authority of eminent domain have the right to exercise the preference against an involuntary senior user.<sup>15</sup> There are some indications, however, that even an individual user has the right to bring an eminent domain action on the strength of the preference system. If individual users do not have that ability, the significance of preference provisions is even further diminished.

The issue has not yet been resolved authoritatively. Support for both positions can be found in Nebraska Supreme Court cases. In 1916, the Court interpreted a statute<sup>16</sup> granting "every person" the right to condemn land for use of a storage reservoir as not applying to an individual owner for the reason that condemnation must be for a public use.<sup>17</sup> While not precisely on point, a 1967 case held that it is not a public purpose for a municipality to develop a new water supply solely to provide a new industry with water.<sup>18</sup> The principles expressed in that case make it questionable that a court would sustain, as a public use, an individual's attempt to use eminent domain to obtain irrigation water.

A number of other Nebraska cases contain implications to the contrary. In the 1942 landmark case on compensation discussed earlier,<sup>19</sup> the Supreme Court referred to the preference section of the Constitution as "a self-executing provision and the courts, in the absence of a statutory method, would be obliged to provide the means for enforcing its provisions."<sup>20</sup> While this statement did not address specifically the exercise of the preference system by individual users, it certainly can be read as a very strong endorsement of the principle of the preference provision and an indication that the court will do what is necessary to carry out that principle.

In 1962 the Court heard another case involving conflicts between an individual junior irrigator and a senior public power user.<sup>21</sup> The case did not arise as a condemnation proceeding, so the issue of the individual irrigator's authority to condemn was not directly addressed in the opinion. Strong implications of such a right to condemn can be found however, in the court's statement that "We point out that (the individual irrigator) has not attempted to condemn any of the waters appropriated by Loup District."<sup>22</sup> Also cited in the same opinion is section 70-672 R.R.S. 1943, which also appears to grant authority of eminent domain to individual users. That section provides as follows:

70-672. Whenever the directors of an irrigation district vote to acquire and appropriate by the exercise of the power of eminent domain any water being used for power purposes, or whenever any person, firm, association, corporation, or organization seeks to acquire any water being used for power purposes and shall be unable to agree with the user of such water for power purposes upon the compensation to be paid to such power user, the procedure to condemn property shall be exercised in the manner set forth in sections 76-704 to 76-724. (emphasis added)

Perhaps if faced directly with the issue, the Court would now decide that section 70-672 represents a legislative decision that individual irrigation is a public purpose for which eminent domain may be exercised.

#### Municipal Use

A number of other aspects about the surface water preferences provisions in Nebraska have not yet been clearly resolved. One of those aspects is the exact status of municipal use of water in the preference provisions. As early as 1903, the Nebraska Supreme Court held that the domestic use protected by the preference provision extends only to that traditionally recognized as a riparian right to individual domestic use and does not extend to large quantity withdrawals through canals, ditches, or pipelines.<sup>23</sup> In the Constitutional Convention of 1919 and 1920, a proposal to include municipal uses as equal or second to domestic uses was extensively discussed and rejected.<sup>24</sup> Although the discussion indicated an assumption that individual domestic uses were given first preference even when obtained through a municipal system, the 1903 Supreme Court case appears to place severe limitations on such uses. The extent to which municipalities can rely upon the preferences system to acquire senior water rights conflicting with the use of water even

for strictly domestic purposes remains unclear today. The need for clarification has been lessened by the fact that municipal reliance upon surface water suppliers always has been rather limited. At present, only Chadron, Crawford, and those communities served by the Metropolitan Utilities District (Omaha and surrounding communities) rely directly upon surface water sources for all or part of their municipal needs.

From the actions taken during the Constitutional Convention non-domestic municipal uses clearly have to stand on their own in the preferences system. In rejecting the proposal to include municipal use, the Constitutional Convention consciously decided that favorable treatment to industry and other non-preferred uses was not appropriate just because the water was being supplied through a municipal system.<sup>25</sup>

### Relative Order

Another issue of importance in considering alternatives for modification of the preference provisions concerns the relative order of all the uses specifically mentioned. It is often stated that domestic, agricultural, and manufacturing uses of water have preferences 1, 2, and 3, respectively. In fact, some of the representatives to the 1919 and 1920 Constitutional Convention referred to the uses in that manner.<sup>26</sup> A careful reading, however, of both the Constitutional and statutory provisions does not require such a conclusion. All that is really stated is that domestic use shall be preferred over all other uses and that agriculture shall have preference over manufacturing. The relative position of agriculture and manufacturing to any other beneficial uses of water is not specified and it might be constitutionally permissible to designate other uses as inferior to domestic uses, but superior to both agriculture and manufacturing uses. Making other uses inferior to agriculture but superior to manufacturing also may be permissible.

### Nature of Right Acquired

Also of some significance in knowing the full impact of the preference provisions is determining precisely what is acquired when a preference is exercised. The question presented is whether the water right itself is acquired or whether all that is obtained is the right to interfere with the inferior users exercise of that water right. The distinction is analogous to that between fee title and easement. When fee simple title to property is acquired, the transfer is of all the seller's rights in the property. Acquisition of an easement on the other hand does not result in a conveyance of the property but of only a right to make some limited use of that property. The property owners' rights remain intact in all respects except as they are inconsistent with the easement conveyed.

The Constitution and most of the relevant statutes imply that the right itself is acquired<sup>27</sup> and many commentators agree.<sup>28</sup> Actual practice to date, however, indicates that if the acquisition is of the right, it is only temporary, making it more in the nature of a right to interfere. For example, the 1942 case discussed earlier between the irrigation district and the power district in the Loup River basin<sup>29</sup> did

not result in a permanent transfer of the power district's water right to the irrigation district. The power district continues to make full utilization of its water right to the extent that water is available to it. The irrigation district interferes with the exercise of the power district's water right only when necessary to satisfy its own needs, and only to the extent necessary. That compensation is required each time the interference occurs also indicates that a permanent transfer of the right has not occurred. Moreover, no transfer of the water right is made in the records of the Department of Water Resources.

The importance of determining what is acquired through exercise of a preference does not relate so much to the relationship between the two parties directly involved as to the affect upon third parties. Further explanation and analysis of this issue is contained in the next chapter.

#### Application to Storage Rights

Preferences are normally associated with natural flow rights to the use of water. In Nebraska, most conflicts between users, whether using the water for the same or different purposes, will be over natural flow rights. While no authoritative determination has been made, it appears that preferences have no application to water rights other than those for natural flow diversions. Rights to store water are granted without any regard to the eventual use of that water. On the rare occasions when it is necessary to administer those storage rights because of an insufficient amount of water to satisfy all storage requirements, they are administered on the basis of first in time, first in right.

Preferences are also believed to be inapplicable to rights to use stored water. These rights to use, which are issued separately from the right to store, are administered on the basis that once the water has been legally stored, its control lies solely with the holder of the storage right and it may be used for any legal purpose and in any legal way. While those ownership rights could be divested constitutionally through due process, the preferences provisions do not grant such authority.

A final question regarding the application of preferences to storage rights is whether the holder of a storage right intending to use the water stored for a preferred use can assert a preference over a senior natural flow appropriator. The response is again in the negative and again at least in part because the use to which storage water is to be put is of no significance in the issuance or administration of storage rights. In this case, however, the answer is even more explicit. Section 46-241 R.R.S. 1943 provides in part that: "The owners or possessors of reservoirs shall not have the right to impound any water whatever in such reservoirs during the time when such water is required in ditches for direct irrigation. . ." In other words, the holders of natural flow irrigation rights have an advantage over even senior holders of storage rights.

#### Summary

Surface water preference provisions can be summarized best by restating the basic principles which govern their application. Some of

those principles are firmly established and some are not. Those not subject to question are as follows:

1. Domestic use of water has preference over all other uses. Agricultural use of water has preference over manufacturing and hydro-power uses of water.
2. Compensation to senior damaged users is required to exercise a preference.
3. Exercise of a preference requires that the superior user must not be receiving the water to which he or she is entitled.
4. Domestic use includes only individual uses of water and excludes many uses served through a typical municipal system.

Still unresolved questions about the use or value of surface water preferences are as follows:

1. Whether entities without eminent domain authority are eligible to exercise a preference against an unwilling senior user.
2. Whether only the right to interfere with a water right is acquired.
3. Whether agricultural, manufacturing, and hydropower use of water have a constitutional preference over non-specified uses.
4. Whether, to exercise a preference, both the superior and inferior users must be appropriators.

### Nebraska Ground Water Preferences

#### The Basic Law

Unlike the provisions relating to preferences in use of surface water, Nebraska law relating to preferences in the use of ground water is fairly new, being first adopted in 1957. The law is also rather unusual. "Preferences generally are associated with a system of prior appropriation, and therefore it was surprising when the Nebraska Legislature enacted the . . . ground water preference law."<sup>30</sup> Changed since their enactment only by addition of the second paragraph defining domestic use, ground water preferences are found in section 46-613, R.R.S. 1943.

46-613. Preference in the use of underground water shall be given to those using the water for domestic purposes. They shall have preference over those claiming it for any other purpose. Those using the water for agricultural purposes shall have the preference over those using the same for manufacturing or industrial purposes.

As used in his section, domestic use of ground water shall mean all uses of ground water required for human needs as it relates to health, fire control, and sanitation and shall include the use of ground water for domestic livestock as related to normal farm and ranch operations.

Unlike surface water law, no reference is made to ground water preferences in the Nebraska Constitution. Also no statutory requirement relates to inferior or superior uses of ground water or the necessity of compensation. Although a definitive conclusion presently cannot be reached, the ground water preference statute probably will operate as an absolute preference statute. In other words, compensation will not be required for interference with inferior ground water uses that were started first. Such a conclusion can be based upon the basic difference between a right to divert surface water and a right to use ground water. The primary value of the property right in a surface water right is the relative priority of that right to other rights. That relative priority is determined, of course, by the doctrine of first in time, first in right. By contrast, the right to use ground water is a right based upon the fact of land ownership, not upon time. The right is the same for all users and is a right to make reasonable beneficial use of the water available. In Nebraska, all those with substantial rights are to share equally in the available supply; consequently no priorities must be overcome in times of shortage.

Since its adoption the ground water preference statute has reached the Nebraska Supreme Court for interpretation only once. The 1978 case of Prather v. Eisenmann<sup>31</sup> involved a conflict between users of water for household domestic purposes and a single irrigator. Each of the domestic users' claimed that his wells were adequate for his purposes until irrigation commenced. Evidence presented in district court indicated that inability to obtain water immediately after initiation of irrigation by the defendant was a direct result of the irrigation withdrawals.

Consequently, the district court decided in favor of the domestic users and required the irrigator to compensate them for all costs necessary to restore dependable domestic water supplies. The irrigator was also enjoined from modifying his system in any way that would cause future interference with the domestic users' access to water.

In affirming the district court's opinion, the Nebraska Supreme Court placed great significance upon the preference statute. Several findings indicated that exercise of the ground water preference statute will suffer from substantially fewer legal restrictions than do the like provisions of surface water law. The opinion implies, but does not definitively hold, that ground water preferences are "true" preferences, requiring no compensation to the damaged inferior user. If the implication is confirmed later, it means that the question as to whether the superior user has the power of eminent domain is irrelevant. Since the damages are not compensable, no reason exists to determine them in a condemnation action.

Other questions about the ground water preferences statute remain unanswered but are similar in nature to surface water questions discussed earlier. For example, it was noted earlier that surface water

preferences may be used only against appropriators whose priority dates are later than April 4, 1895, the date the surface water preference statute became law. Similarly, a court might find that the ground water preference statute applied only to ground water uses initiated after September 20, 1957, the date the groundwater preference statute became law. Questions like this will be resolved only as they are raised and decided in litigation or by the Legislature.

In one other situation analogous to surface water preferences, the court seems to have applied a less restrictive standard for ground water. In surface water law, the superior user actually must be without water before the preference is available to him. In the Prather case, the domestic users were without water only because their means of access to it were no longer adequate, not because the water was unavailable. The court could have adopted a more stringent standard by holding that the preferences statute is operable only when the water supply is insufficient for all users. If the court had, the domestic users in that particular case would not have been compensated for damages.

#### Municipal Use

Ground water preferences also differ from those for surface water in that a specific definition is given for domestic use. The definition given in section 46-613 clearly includes some municipal uses, but also clearly excludes others, such as the supply of water for industrial needs. Not clearly included and probably excluded are uses of water for the watering of lawns, golf courses, city parks, etc. Since these uses are also not agricultural, manufacturing, or industrial uses of water, they apparently are not included within the preference system at all. While there have been no direct court decisions involving preference placement of total municipal water use beyond those defined as domestic uses, it is possible that legislative intent as expressed in other statutory law would become influencing factors in a future decision. Authorities and requirements of municipal owners of water systems include providing water for mechanical (14-1008), industrial (15-528), public use (17-531), or for any person along pipes or conduits without regard for use (16-681). There is little doubt that the domestic preference would permit delivery of water for fire protection which presents the largest instantaneous preference use by the municipal systems. A question remains as to whether or not a portion of the ground water reservoir must be reserved to accommodate this preference use. In event the source must be reserved to provide fire use as a part of domestic service provided by municipal owners the relative position of the cities and villages would be improved in time of shortage. Potential problems that will be faced by municipalities are further addressed in Chapter 2.

#### Administrative Application

The ground water preference statute has been given a role for which no comparable surface water provisions exist. Section 46-671, R.R.S., 1943, a portion of the Ground water Management Act adopted in 1975, provides as follows:

46-671. In the administration of this act, all actions of the director and of the districts shall be consistent with the provisions of section 46-613.

Section 46-613 is of course the ground water preference statute cited earlier. The exact impact of this statute upon administration of the Ground Water Management Act cannot yet be determined, but apparently the Legislature wanted preferences to play a role in the administration of that act. Examples of how section 46-671 could be utilized include spacing requirements providing special protection to preferred uses and different methods of allocation for preferred uses. Municipal uses could be a candidate for either type of preferential treatment, but the problems discussed above regarding the status of municipal uses in the preference system will plague such applications.

Section 46-671 seems to imply that the preference system for ground water is to be an integral part of a comprehensive ground water management system whereas the preference provisions for surface water have application only when a direct conflict between users for different purposes exists. The basic difference is that ground water preferences can be used as a preventive as well as a corrective tool, while the application of surface water preferences are only corrective in nature.

#### Relative Order of Preferences

The Ground Water Preferences Statute and surface water preferences provisions designate the same relative order of preferences for the indicated uses. In both, domestic use is given preference over all other uses, and agriculture is given preference over uses for manufacturing purposes. The language used does not create a 1, 2, and 3 type ranking. Domestic use is clearly the first preference, but the relationship of the other two specified uses to any which may not be specified is not established. Therefore, considerable flexibility is also available for modification of the ground water preference system without changing the relative position of the already established preferences. Since ground water preferences are not created by Constitution, modifications affecting the relative position of present uses would be much easier than for surface water preferences.

#### Summary

The ability to summarize the law pertaining to ground water preferences is limited severely because that law still is largely untested. Thus far only one Nebraska Supreme Court case has addressed the preferences statute and many factual situations remain for judicial analysis. The few definite statements that can be made in summary are as follows:

1. Domestic use is preferred over all other uses and agricultural use is preferred over manufacturing and industrial uses.
2. Municipal uses for health, fire control, and sanitation are included within domestic use.
3. Through recognition in the Ground Water Management Act, the ground water preferences statute has application to more than simply the resolution of conflicts between users when they occur.

The most significant aspect of the ground water preferences statute which has not been definitely determined is whether it is a "true" or "absolute" preference statute requiring no compensation to parties who are damaged when a preference is exercised.

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## References

1. Neb. Rev. Stat. §46-204 (1943) as amended by LB 252, 87th Legislature, 1st Session (1981).
2. 1963 Neb. Laws c. 277.
3. 1965 Neb. Laws c. 271.
4. A history of Neb. Const. art. XV, §§4, 5, 6, and 7 (1920), is reprinted in Proceedings of the Constitutional Convention (1919-1920).
5. North Loup River Pub. Power and Irrigation Dist. v. Loup River Pub. Power Dist., 142 Neb. 141, 5 N.W.2d 240 (1942).
6. Id. at 152, 153, 5 N.W.2d at 248.
7. Id. at 153, 5 N.W.2d at 248.
8. Id. at 156, 5 N.W.2d at 249.
9. Fischer, Harnsberger, & Oeltjen, Rights to Nebraska Streamflows: An Historical Overview with Recommendations, 52 Neb. L. Rev. 313, 357, (1973).
10. 1895 Neb. Laws c. 69, §49; 1889 Neb. Laws. c. 68, §11.
11. Meng v. Coffee, 67 Neb. 500, 93 N.W. 713 (1903).
12. Cline v. Stock, 71 Neb. 79, 102 N.W. 265 (1904) and McCook Inc. and Water Power Co. v. Crews, 70 Neb. 115, 102 N.W. 249 (1903).
13. Brummond v. Vogel, 184 Neb. 415, 168 N.W.2d 24 (1969).
14. Hickman v. Loup River Public Power Dist., 173 Neb. 428, 113 N.W.2d 617 (1962).
15. See Fischer et al., supra note 9, at 357; also see Doyle, Water Rights in Nebraska, 29 Neb. L. Rev. 385, 409 (1950) and Yeutter, A Legal-Economic Critique of Nebraska Watercourse Law, 44 Neb. L. Rev. 11, 44-49, (1965).
16. Neb. Rev. Stat. §46-241 (1943).
17. Vetter v. Broadhurst, 100 Neb. 356, 160 N.W. 109 (1916).
18. Burger v. City of Beatrice, 181 Neb. 213, 147 N.W.2d 784 (1967).
19. North Loup River Pub. Power & Irrigation Dist. v. Loup River Pub. Power Dist., 142 Neb. 141, 5 N.W.2d 240 (1942).

20. Id. at 153, 5 N.W.2d at 248.
21. Hickman v. Loup River Pub. Power Dist., 173 Neb. 428, 113 N.W.2d 617 (1962).
22. Id. at 437, 438, 113 N.W.2d at 623.
23. Crawford Co. v. Hathaway, 67 Neb. 325, 93 N.W. 781 (1903).
24. Proceedings of the Constitutional Convention, Vol. II (1919-1920) at 1924-1931.
25. Id.
26. Id.
27. Neb. Const. art. XV, §6; Neb. Rev. Stat. §46-204 (1943); Neb. Rev. Stat. §70-669 (1943).
28. See for example Oeltjen & Fischer, Allocation of Rights to Water: Preferences, Priorities, and the Role of the Market, 57 Neb. L. Rev. 245, 265 (1978); Trelease, The Concept of Reasonable Beneficial Use in the Law of Surface Streams, Economics and Public Policy in Water Resources Development, 285.
29. North Loup River Pub. Power v. Irrigation Dist. v. Loup River Pub. Power Dist., 142 Neb. 141, 5 N.W.2d 240 (1942).
30. Harnsberger, Oeltjen & Fischer, Groundwater: From Windmills to Comprehensive Public Management, 52 Neb. L. Rev. 179, 231 (1973).
31. 200 Neb. 1, 261 N.W.2d 766 (1978).

# CHAPTER 2

## EFFECTS OF PREFERENCES ON WATER ALLOCATIONS

### Practical Effects of Surface Water Preferences

#### Effect of the Compensation Requirement

The compensation requirement and other limitations discussed in the previous chapter restrict severely the application and effect of the surface water preferences provisions. The only known applications of those provisions since their original enactment in 1895 are in the Loup River Basin. They involve interference with the appropriative right obtained by the Loup Public Power District for hydropower purposes. In those particular instances the economic value of the water for hydropower purposes was less than the economic value of the same water for irrigation purposes. Exercise of the irrigation preference to overcome the hydropower appropriation was therefore economically feasible. In many instances, however, the same result will not be realized. As a general rule, a given quantity of water has a far higher economic value to industry than to agriculture<sup>1</sup> and the dollar value of a senior industrial water right will present an insurmountable obstacle to those desiring to utilize the water for agricultural purposes. In that event, the doctrine of first in time, first in right will continue to prevail and the "preferred" user will not be able to obtain his or her water supply.

As discussed in the previous chapter, the practical effect of the preferences provisions for surface water also may be limited by the fact that many water users do not possess the power of eminent domain. For example, an individual irrigator not relying upon an irrigation district or other public entity for his or her water supply may not be able to obtain water from a senior industrial user if the latter is unwilling to cooperate. The preference system appears to be stifled. This limitation should not, however, be as severe as it appears at first impression. For the preferred user to be able to exercise the preference even with the authority of condemnation requires that his use be of a higher economic value than the non-preferred use being acquired. A preferred user who can meet that criterion ought to be able to entice the inferior user monetarily to relinquish voluntarily his right to the use of water when there is an insufficient supply for both users.

#### Municipal Use

For municipal users of surface water, preferences create a different kind of problem. Being a combination of domestic, industrial and other uses, municipal use has an uncertain status in the preference system. Even the extent to which the domestic portions of that use are preferred is unclear.<sup>2</sup> The concern is not that existing surface water supplies will be acquired by a preferred use, but that the preferences system does not allow the municipality to acquire the surface water it needs during times of shortage.

A municipality would need to acquire a senior use in the following two situations: (1) to provide for an expansion of the municipal system because of increased demand, and (2) to replace surface or groundwater supplies no longer dependable. In either event, the water needs are unlikely to be purely domestic in nature. A court probably would not sustain a use of the preference system to supply those portions of municipal uses that extend beyond that necessary for domestic needs.

#### Industrial Uses

For manufacturing, industrial, power production, and commercial uses of surface water the practical effect of the preference system is clear. There is no ability to acquire a senior water right, at least not one utilized for any of the other recognized beneficial uses of water, all of which are superior. In combination with restrictions on the transfer of water rights either to a new place or for a new use, the preference system prevents what may be a more highly valued water use, at least in the economic sense, from receiving any water already committed to a less valued use. In one respect, both users are losers -- the industrial user because the water is not obtained and the superior user (in most cases agricultural) because he or she is denied the greater economic benefit which could be derived from transfer of the right.

#### Other Uses

For water uses not included within the preference provisions, the practical effect of those provisions on such uses is unclear. For example, if a water right was issued for recreational purposes and no modifications had been made in the preference system to include such a use, it could not be called definitively either inferior or superior to agriculture. A court could conclude that a junior irrigation right could not condemn a senior recreation right and that conversely a junior recreation right could not condemn a senior irrigation right. In other words, since the relative position of the two uses was not established by the preference provisions, no preferences existed and allocation of water between them would be governed solely by priority in time.

#### Summary

The best way to summarize the practical effect of the surface water preferences system is to restate that it is markedly less significant in the allocation of water supplies than commonly is perceived. The common and erroneous understanding is that the preferred uses simply get the water in times of shortage without regard to priorities in time or ability of the preferred user to meet certain conditions and qualifications. This understanding creates a false sense of security and gives the preference system more credit than it deserves in effecting the distribution of water first to the uses most highly valued by society.

To place the importance of the preferences system for surface water in perspective also requires recognition of the present uses of surface water. Of all the surface water appropriations in effect, over ninety-five percent are for agricultural uses. Obviously most conflicts that occur will be between agricultural users. In all such cases, the preferences system will have no application and all decisions will be based on priorities.

In view of all the limitations placed upon application of the surface water preferences provisions, the term "preferences" may have been a poor choice for a word for describing the effect of those provisions. The only practical effect is to make a rather limited exception to the generally accepted rule that the place of use cannot be transferred and the water right cannot be converted from one water use to another. In an exercise of a preference the use is converted and the location of use is changed.

## Needs and Problems: Surface Water Preferences

### Achieving Objectives

The manner in which the surface water preference system is structured creates a number of problems, both real and potential. The conclusion that can be drawn from the preceding section - that these preferences do little to further their objectives - is itself a problem. If those objectives are valid, their realization would be more complete if the preferences were created as true preferences not plagued with the limitations of the present system.

...a true preference exists when the preferred use may be initiated without regard to the fact that the supply is already fully appropriated for other purposes, and the preferred user may take water without paying compensation to persons whose uses are thereby impaired.<sup>3</sup>

With a system of true or absolute preferences, conflicts between users for different purposes would be resolved solely on the basis of preferences. Conflicts between users for the same purposes would continue to be resolved on the basis of priority in time.

### Most Economic Use of the Water

The problem most often associated with surface water preferences is the inability to convert water rights so that less economic uses will give way to those promising a greater economic return. For example, a water right with a value to agriculture of \$40 per acre foot cannot be converted to make that same water available to an inferior industrial use where it has a value of perhaps \$250. However, this particular problem is one for which the rules regarding preferences and marketability of water rights are so intertwined that the blame, if any is due, cannot be placed solely upon preferences. In fact, in Nebraska, if preferences were eliminated the ability of the water allocation system to respond to economic pressures apparently would be more limited than at present. Without the preferences provisions, the conversion of the hydropower rights in the Loup River Basin to agriculture could not have been accomplished.

### Municipal Use

A potential problem resulting from the preferences system as it currently is in effect, relates to the treatment, or rather lack of

treatment, of municipal uses. The problem can be described only as potential now because of the limited reliance presently placed upon surface water by municipal suppliers. This reliance could increase, however, as municipal water needs increase, as streamflows diminish, or as ground water aquifers become unusable for either quantity or quality reasons. In the event of the occurrence of any of these situations, a municipal attempt to acquire a senior water right most likely committed to agricultural uses will encounter a number of serious obstacles.

The first obstacle will be the limitation placed upon the definition of domestic use by the case of Crawford Co. vs. Hathaway.<sup>4</sup> In that case the Nebraska Supreme Court held that the term domestic use included only those uses recognized as domestic uses in the riparian system, that is uses for drinking, cooking and livestock watering. Uses for "general municipal purposes" including water for sprinkling streets, for providing power for a lighting plant, and for flushing sewers were specifically rejected as domestic uses.

To complicate further the application of the preference system to municipal uses, the Crawford court also indicated that there were limitations on the quantities of water which could be diverted, even if all uses would qualify as domestic. The court cited with favor a Colorado court ruling on the meaning of a constitutional reference to domestic uses virtually identical to Nebraska's.

While it is true that...the constitution recognizes a preference in those using the water for domestic purposes over those using it for any other purpose; it is not intended thereby to authorize a diversion of water from the public streams of the state by means of large canals.<sup>5</sup>

It is unlikely that a Nebraska court today would apply such restrictive standards. If it would, the protection granted to municipal use by the domestic use preference would be essentially nil.

If the apparent limitation of the Crawford court on the quantities that can be diverted for domestic purposes can be overcome, the next obstacle to be encountered by a municipality in an attempted preferences action would be to quantify the domestic, industrial and other uses for which the water will be used. It is likely that a court could sustain acquisition of only so much water as is necessary to satisfy domestic purposes, and would deny the portion devoted to commercial and industrial uses. Unless alternative sources of water could be located, the economic base of the community could become stagnant or perhaps even decline.

Partial relief might be obtained by use of means other than the preference system. Nothing prevents a municipality (or any other entity or individual) from paying the holder of a senior water right not to exercise his right. The arrangement might even provide for permanent abandonment of his right. Any such non-exercise will of course make more water available to other appropriators, including the municipality making the payment. What makes this approach different from use of the preference system is that none of the senior user's rights are transferred; they are only relinquished. All other users senior to the municipal use but junior to the relinquished right remain senior to the

municipal use. On the other hand, if the preference system is utilized, the date of priority is obtained. The acquisition of one right thereby results in the attainment of senior status over all previously in-between rights. To attain the same posture by using the "payment not to exercise approach" would require that all other holders of in-between rights also be paid. The obvious possible cost increases to the municipality could easily make such an approach prohibitive.

### Third Party Effects

Where the ability to acquire the priority date through use of preferences would be of unquestionable benefit to the municipality in the example given and is the real benefit of any exercise of the preferences system, potential injustices exist for third parties in preferences applications. This problem can best be illustrated by example.

Assume that A is an industry with a priority date of 1950, B is an irrigator with a priority date of 1960, and C, who has the only other appropriation on the stream is an irrigator with a 1970 date of priority. Because of the nature of its industry, A's water needs are highest during the winter months and the water right held by A is based upon those needs. During the irrigation season, the available water supply normally is sufficient to satisfy only the needs of A and B. C, unable to acquire B's water right because he has no preference over B, decides to and does exercise his preference over A. He then diverts water during the irrigation season in the full amount of A's right, an amount in excess of what was previously diverted during the same time by A. B consequently receives a lesser amount of water and suffers damages although not a party to the preference action.

An even more likely example would exist if A (1950) were a hydro-power appropriator, B (1960) was an irrigator located downstream from A, and C (1970) was an irrigator located upstream from A. Non-consumptive in nature, A's use of water has no adverse impact upon B. Once acquired by C in a preference action, however, A's rights are put to a consumptive use and B no longer obtains the water he previously received.

Nebraska law is silent as to whether in these two examples B would have any recourse for the damages sustained. If he does, it could be based upon the distinction discussed in the previous chapter between acquisition of the right itself or of only the right to interfere with it. If the right itself is acquired, even if only on a temporary basis, B would be without recourse. On the other hand, if only the right to interfere with A's use of his right is acquired, a court could readily conclude that only the relationship between the two principals (A and C) is affected and no right to disadvantage the third party (B) is obtained. Such a determination would entitle B to an injunction or at least some damages.

### Status of Particular Uses

Another surface water preferences problem relates to how particular uses fit into the preferences provisions. Three varieties of this problem stem from inability to determine (1) which of the three specifically

recognized uses a particular use is in, (2) whether the use is included at all within one of the three uses specifically recognized, and (3) the full impact of having a use that is not recognized. The first two are definitional in nature because the legislature has not chosen to define "domestic," "agricultural" or "manufacturing" for surface water purposes. For example, the point at which a cattle feeding operation ceases to be a domestic use and becomes an agricultural use, has not been established to date. Additionally, as discussed earlier in this chapter, a number of questions exist about which municipal uses of water are contained within the term "domestic." Are uses for sanitation and fire fighting included?

Use of water for sanitation and fire fighting can also serve as examples of the second and third forms of this particular problem. If those uses are not domestic in nature, they certainly are not "agricultural" or "manufacturing." And if they are not domestic, agricultural, or manufacturing, what effect do the preferences have on them in times of shortage?

The term "manufacturing" presents a number of similar problems. A large number of industrial and commercial applications of water do not fit within at least a narrow definition of the term manufacturing - meat packing plants, for example, where the product is "processed" rather than "manufactured." Also interesting to note is the fact that the use of water for hydro-power is not recognized specifically in the preferences section of the Constitution. It is recognized in another section as a public use, but its relative position as a preferred use is not designated unless it is considered a use for the "manufacture" of electrical power. The question is somewhat avoided by the legislative enactment. Agriculture is given a preference over manufacturing and also a separate preference over "power purposes, where turbine or impulse water wheels are installed." Use of water for cooling purposes, as is required in many new generating plants, is not included. In addition, no indication is given as to what should occur if the conflict in times of shortage is between a "manufacturing" user and a user for "power purposes."

Closely related to the definition-related versions of this problem is the status of particular uses not included in the preferences system. As noted earlier, whether some uses are included or excluded is unclear; for some other uses, however, no doubt exists that they are excluded.

If a conflict arose between a senior beneficial use not recognized in the preference provisions and a junior recognized use, the Department of Water Resources and eventually the courts would be faced with two preferences options for resolving the conflict: (1) all uses not specifically recognized are inferior to those which are, or (2) the relative position between such uses has not been established and therefore any conflicts between them should be governed by date of priority alone. Depending upon the methods employed for establishing the compensable value for damaged or destroyed unrecognized uses, any action forcing a decision on those two choices could have profound impact on the future allocation of water.

## Rigidity

A final problem attributable to surface water preferences is their rigidity. They are fixed by statute and by constitution for all situations and for all areas of the state. Even ignoring the economic arguments, there may well be locations in the state where society could be served best by utilization of water for what is now an inferior use. For example, a large portion of Nebraska's population is located in the eastern part of the state. Water is sometimes used in considerable quantities by industries upon which large numbers of people depend for their livelihood. In that situation a given quantity of water may have greater social value for that use than for agriculture. This is especially true in the eastern part of the state where, because of the greater average annual precipitation, the value of that water for agriculture is more marginal than in the western part.

The rigidity of the preference system does not take such matters into account, however. In the example given, the industrial use, as an inferior use, does not have the ability to acquire the senior but superior use for agriculture, even if the agricultural user is willing to convey his right and it is determined that third parties are not affected adversely. This rigidity may become an increasing problem in Nebraska as water supplies diminish and/or competition for them increases.

## Surface Water Preferences: Opportunities Forgone

In many instances the opportunities forgone because of present surface water preferences are a direct result of the needs and problems discussed in the previous section. As an example, the inability to convert agricultural use of water to industrial use may be a problem. The opportunity forgone as a result of that problem may be the opportunity to expand or perhaps even maintain the industry involved.

An attempt is made in this section to identify other lost opportunities directly related to the needs and problems already set forth; they are fairly apparent. What are assessed are opportunities to further the distribution of water to preferred uses by making new applications of the preferences system.

## Reservations for Future Uses

At present, surface water preferences have value only as a potential means for resolving conflicts between users as the conflicts occur. That limitation is largely responsible for many of the problems previously discussed. The term "preferences" would be more meaningful if it had a greater impact in the distribution of water supplies. Such an impact would be more apparent if preferences were used as a means to reserve water for future preferred uses.

Reservations for future use could be accomplished in at least two ways. The most direct would simply be to set aside as not available for appropriation amounts of water determined to be reasonably required by a preferred use within a predetermined period of time. Then, when the preferred use is initiated, no other uses have to be displaced. The disadvantage from such a policy is that, in the meantime, water is being allowed to "run to waste."

The second method for accomplishing such reservations would operate much like a true preference system. Future needs for water for preferred uses would be identified as in the first option, but use of the water for other purposes could be made in the interim. Such uses would simply be made subject to the future demands of the preferred use and no compensation would be required for that preferred use to utilize the water. By selecting this option, use could be made of water that otherwise would "run to waste." However, since a high degree of uncertainty and no protection for the interim use would exist, such uses would still be limited by practical considerations. In addition, those persons willing to take the chance would be displaced when the preferred use is actually initiated. Where appropriate, these disadvantages could be partially overcome by granting the interim user a water right for a limited but definite period of time.

### Competing Allocations

The preference system also could serve as the basis for determining how water should be allocated when competing claims for the same water are made. Applications of a policy of this type would be limited considerably because applications in competition for the same water are seldom pending at the same time. However, opportunity for such use would arise occasionally when at least one of the competitors is making application for a large diversion. In such cases, the planning period usually is lengthy and the water right application may be in a pending status for twenty years or more. As the system presently is designed, the water right, once approved, will have the same priority date as the date of application. No consideration is given to the fact that in the interim, applications for uses for preferred purposes have been filed and approved and perhaps even initiated. The use with the earliest date of application will have priority.

If preferences were recognized in the initial water allocation process, such a result could be avoided. As long as a water right application remains pending, an application for the same water for a preferred use could justify the denial or conditioning of the first application. The preferred use would receive the water and at a much lesser cost to it and to society than if the capital investments for the inferior use had been allowed to proceed only to be later condemned by the superior user.

### Long Range Planning

Opportunities also exist but are not presently exercised for using preferences as a guide in the long range planning for use of water supplies. At the local level, different entities plan for the use of water for different purposes. These various planning activities are done almost independent of each other, with little or no consideration given in any of them to surface water preferences. Municipalities plan ahead for their water needs, irrigation and reclamation districts are formed to plan and to implement projects designed largely for irrigation purposes, and public and private power entities plan future power generating facilities that may consume large quantities of surface or ground water. Natural resources districts are also becoming more involved in

project development. To date most of their surface water projects have been for flood control or other non-consumptive purposes, but future projects to provide water for irrigation can be expected.

At the state level, the same lack of preference oriented planning exists, but for different reasons. The Game and Parks Commission is the only state construction agency having significant water needs, and its needs are largely non-consumptive in nature. As a result, state agency level competition for available water supplies is minimal.

The fact that state agencies may contribute little to the problem does not mean, however, that they make any greater contribution to its solution. No state agency has responsibility for developing criteria that spell out for state or local agencies, or for private individuals or corporations, how the state's available water supplies should be allocated. Even if such criteria were developed, the state presently has no method by which it could ensure compliance with them.

If the state chose to modify its approach to water allocation so that it had the responsibility to develop and implement comprehensive water plans, preferences could play a large role in that modified process. The opportunity presented is to structure both individual projects and entire basin developments so that the objectives of the preference provisions may be more nearly attained.

#### Attaining Other Objectives

Finally, the state is forgoing an opportunity to use preferences to attain other desired social objectives. North Dakota affords an example of how this opportunity could be used. The North Dakota Water Conservation Commission, an agency with authority to plan and construct projects, is required to "give preference to the individual farmer or group of farmers or irrigation districts who intend to farm the land themselves."<sup>6</sup> The objective is not water oriented but relates instead to population distribution and other considerations. Nebraska also could utilize preferences to achieve non-water-oriented objectives if it so desired. The list of potential objectives that could be forwarded in this manner is of course endless.

#### Ground Water Preferences: Practical Effects

The previous chapter suggested that legal restrictions on the use of ground water preferences may be fewer than on those for use of surface water. The ground water statute may be operable without the necessity of compensation for inferior damaged users and it apparently also is available to protect both the water and the preferred user's right of access to it. These factors would suggest that the ground water preferences statute will have considerably more impact upon the allocation of the state's ground water supplies than its surface water counterpart has had or will have upon allocation of that resource.

Other factors indicate the same result. The most significant, perhaps, is that the potential for conflict is greater. Surface water

appropriations are almost exclusively for agriculture or hydro-power purposes. Except for major changes in state water allocation policies, such as the issuance of appropriative rights for instream flows, the vast majority of surface water conflicts involving preferences will be between agriculture and power. Perhaps most have already been resolved.

On the other hand, nearly all domestic and municipal uses of water are dependent upon ground water for their supply. As more demands are placed upon the available ground water supplies, and as the effects of these and existing demands are felt, a large number of individual domestic users are likely to find themselves in the same position as the plaintiffs in the Prather case, i.e., unable to obtain water for domestic purposes, at least not without altering or replacing their wells. To the extent that the Prather results are relied upon either formally or informally in these situations, the practical effect will be to shift the loss (cost of altering or replacing the well) from the superior user to the inferior user.

Notwithstanding these factors favoring rather extensive application of the ground water preferences statute in the future, some other factors point to the opposite result. The most apparent is basic economics. For someone to be compensated in court for his damages, he must prove that the other party was responsible for causing those damages. The Prather court did not vary from that basic rule; the domestic users did demonstrate, with court-requested technical assistance from the Conservation and Survey Division of the University of Nebraska - Lincoln, that the irrigator sued was in fact responsible for the losses suffered. It was later estimated, however, that the services provided by the Conservation and Survey Division in making those technical findings had a value of over \$12,000.<sup>7</sup> Since the damages eventually awarded in the Prather case were only \$5,600, the domestic users could hardly have afforded to pursue their case without the University's assistance.

The high cost of studies of the type required in Prather makes impractical the expectation that the University or any other agency, whether federal, state, or local will provide the same type of services in very many future cases. In addition, a technical determination of the cause and effect relationship will be exceedingly more difficult than the Prather case in perhaps a majority of future cases. In many future cases, water withdrawals by multiple irrigators or other large yield users will contribute to the problems, and the effects, especially in unconfined aquifers, are likely to be much less immediate. Whereas, the technical services provided in connection with the Prather case were valued at \$12,000, similar studies of these more complex, but also more common, physical situations could cost much more. In many cases, detailed studies would be needed even before the domestic user could determine whom he should sue.

So long as the burden of proof remains with the damaged user, the types of expenditures noted could impose a severe practical limitation upon use of the ground water preferences system. If the water supply continues to be available and interference with the right of access to that supply is the problem (as in Prather), it normally will be less expensive for the superior user to bear the costs of improving his own system. The practical effect of the ground water preference statute on

the protection of the right of access to ground water supplies accordingly can be expected to be quite limited.

The practical effect of the preferences statute in allocating water where the water supply is not adequate for both inferior and superior uses also is expected to be limited. The most common types of conflicts are likely to be those between individual domestic users and irrigators or operators of other large yield wells. Such conflicts generally can be resolved by deepening the domestic wells and lowering the pumps. Although the additional pumping lift will increase the cost of domestic water supplies, the aquifer should continue to yield the quantities of water needed. Even if large yields will become increasingly difficult to obtain and large-yield wells have to be abandoned, the remaining water should continue to be sufficient for domestic supplies. Thus the preferences system is not likely to operate in most conflicts between domestic users and owners of large-yield wells.

Some application of the ground water preferences statute can be expected in cases of conflict between two or more large capacity users. Perhaps one of the most likely possibilities would be between pumpers for agricultural purposes and pumpers of cooling water for power production. If an aquifer cannot continue to supply cooling withdrawals and also maintain water for agriculture at an economically feasible level, a court might rely on the preferences statute as the basis for prohibiting or limiting withdrawals for cooling purposes. However, as an alternative, and where physically possible, a court might use the Prather approach and require the inferior use (cooling) to compensate the superior use (agriculture) for the costs of obtaining agricultural water from a different source. The practical effect of either approach would be quite significant.

A number of uncertainties prevent specific identification of the practical effects of the preferences statute on municipal use of water. While some municipal uses are clearly defined as domestic, others are just as clearly excluded and are in fact subordinate to agricultural uses. This presents a potentially serious dilemma for a municipality. The implications of the Prather case are that ground water preferences are true preferences, and that no priorities exist on the basis of time. If the implication is correct, that portion of a municipality's use withdrawn for domestic purposes is and will be superior to all present and future agricultural uses. However, that portion withdrawn for uses inferior to agriculture will be inferior to all present and future agricultural uses. The practical effect of such an interpretation could be serious damage to the economic and social base of a community.

Whether the ground water preferences statute will be operable to protect water quality is another unresolved issue. Philosophically speaking, if the purpose of preferences is to provide favorable treatment to the uses valued highest by society, it would seem that the favorable treatment provided would be available when the adequacy of either the quantity or quality of the water supply was being threatened. Consider for example the possibility of a lawsuit brought by a domestic user against one or more irrigators alleging that the use of water for

irrigation (along with the attendant applications of chemical fertilizers) is causing the ground water supply to become unfit for domestic use. The issues faced by the court in such a case would be very similar to those addressed in Prather. Assuming that the allegation could be proven, the bottom line for both factual situations is that irrigation is causing the domestic user to be without "adequate" water.

Whereas the practical effect of the surface water preferences provisions is limited to resolving water shortage problems as they occur, the physical characteristics of ground water will prevent in any great degree the same type of application of the ground water preference statute. By the time ground water has become insufficient for competing uses, immediate restoration of the water supply for superior uses will not be accomplished by prohibiting further use for inferior purposes. Renewal of the depleted resource, while feasible in most instances, will occur at a much slower rate than for surface water. Any real success in using the ground water preference system to allocate short supplies will therefore have to be made not by short term adjustments in allocations when shortages occur (as is done in surface water administration) but by long term planning and allocation designed to prevent the shortages from occurring in the first place. The policy established by the Ground Water Management Act that actions performed pursuant to that Act are to be consistent with the preferences statute<sup>8</sup> is a recognition of the need for such a long range approach. That policy would apparently allow a natural resources district to restrict or deny uses of water in a control area which would eventually cause a shortage of water for preferred uses.

In summary, the ground water preferences statute, if it remains unchanged, will probably have its greatest impact in the following two situations: (1) where necessary to resolve conflicts between users when use for inferior purposes limits or prevents access to the water for a superior use, and (2) when use of the statute in conjunction with other legislatively established policies (such as the Ground Water Management Act) would help to achieve long range allocation and management of ground water supplies. Uses of the statute in both situations will encounter a number of economic, physical, and other limitations but the ground water preferences statute may nevertheless be expected to have a greater effect on the allocation of ground water supplies than surface water preferences will have on the allocation of surface supplies.

#### Ground Water Preferences: Needs and Problems

A number of problems associated with surface water preferences are also common to those for ground water. The ground water preferences statute is also rigid, making no provision for different treatment when situations vary geographically, geologically or otherwise. Problems of definition like those discussed earlier for surface water are encountered in the ground water preferences system, but they are lessened somewhat by two factors: (1) industrial as well as manufacturing use are specifically recognized, and (2) domestic use is defined.<sup>9</sup> Finally, as with surface water, ground water preferences seem to discourage, or at least not encourage, the most economic uses of water.

On the other hand, some surface water preference problems are not shared by ground water preferences. The statutory definition of domestic use of ground water should provide municipalities with a higher level of assurance than they have under surface water law. Many municipally supplied uses are clearly excluded but at least water for "human needs as it relates to health, fire control, and sanitation" is given protection. In addition, there are no apparent limitations like those for surface water on the quantities supplied to meet those needs or on the method used to deliver the water for those needs. The problems for municipal use that do remain are, however, increased in significance by the fact that nearly all municipal needs are met by ground water supplies.

Other differences in the nature of the problems can be noted. An exercise of a ground water preference will not result in the acquisition of a right in the same sense that a surface water right is acquired. Every landowner already has the same right to ground water - i.e., the right to make reasonable and beneficial use of the water beneath his or her land. When a surface water preference is exercised, something specific (the priority date) is acquired from the inferior user at least for the time and to the extent needed. In a ground water preference action the inferior user may be denied something (the right to withdraw) but the superior user will not acquire any property rights he did not already have. The result is that third parties suffer no damage because the legal relationship between the superior user and third parties has not been modified in any respect.

Where the necessity of compensating inferior users of surface water is discussed as a problem earlier in this chapter, the opposite problem, that resulting from the lack of a compensation requirement, may well be present in ground water preferences applications. When no compensation is required, inferior users have no protection for their investments. A superior use could theoretically be initiated at any time and could demand that the inferior uses be terminated or restricted as necessary to assure the superior user of the water supply needed. Agricultural and industrial uses are both potential candidates for hardships of this type. The threat to agricultural users comes of course from domestic uses, including those portions of municipal withdrawals which are devoted to domestic use. On the other hand those portions of the municipal supplies which are consumed by industry are threatened by new agricultural uses, as are all withdrawals solely for industrial purposes. Whether these are real threats depends of course upon whether the courts will continue to hold, as implied in the Prather case, that ground water preferences are true preferences requiring no compensation.

Perhaps the greatest obstacles to use of the ground water preferences provisions will be technical and economic in nature. These obstacles often will prevent a determination as to who is actually responsible for a particular interference with a preferred use of water. Many such interferences will result from the withdrawals by a large number of users, each contributing in a small way to the problems encountered. To determine liability and then apportion damages in such instances will be cost-prohibitive and perhaps even beyond the bounds of technical capabilities. Many legitimate applications of the preferences system will be

prevented by these obstacles. As discussed earlier in this chapter, documenting even reasonably apparent cause and effect relationships will require costly technical analysis.

Considered by some to be a problem is the application of the preference system in resolving disputes where the interference complained of is only with the access to the water and not with its adequacy from a quantity standpoint. Such an application is clearly demonstrated in the Prather case where the court specifically held that there was a protectable property right in artesian pressure. In that case, the defendant was required to replace the plaintiffs' wells with wells not dependent upon maintenance of artesian pressure.

Pumping from wells that tap water under artesian pressure is much more likely to cause immediate and dramatic water level declines in nearby wells than is pumping from wells tapping unconfined aquifers. As a result, conflicts between users may occur more suddenly and are more likely where artesian pressure is involved. Whether protecting a preferred user's reliance upon artesian pressure is a problem depends largely upon the type and extent of protection granted. Use of the preference system to prevent water withdrawals that reduce artesian pressure would severely limit economic use of the available water supply. On the other hand, use of the system to allocate the economic losses resulting from such pressure reductions would present less severe problems. The extent of such problems then will depend upon whether in allocating such costs, any consideration is given to the relative dates of initiation of use by the parties and the suitability of a plaintiff's means for withdrawing water. If a plaintiff's actions in developing his own water supply failed to take reasonable account of present circumstances as well as likely future circumstances, his recovery for damages logically could be prohibited or at least limited.

Several other uncertainties about the legal effect of ground water preferences upon the allocation and utilization of ground water supplies remain to be discussed. Perhaps the greatest uncertainty lies in the "necessity of compensation" question discussed earlier. In the absence of legislative action, that question will be answered only when a junior pumper for a preferred use seeks an injunction or damages from a senior pumper for an inferior use.

More difficult to articulate are uncertainties regarding the relationship of the preference statute to other legal principles. For example the Nebraska law affirmed in the Prather case is that every overlying landowner has the right to make reasonable and beneficial use of the water under his land, with each landowner entitled to a reasonable proportion of the whole if the supply is insufficient for all.<sup>10</sup> In the absence of a shortage what constitutes a reasonable use is "... judged solely in relationship to the purpose of such use on the overlying land. It is not judged in relation to the needs of others."<sup>11</sup> The Prather court also indicated, however, that these rules must be "construed" in light of the preference statute. And as it construed these rules they are to be applied without modification when conflicts arise between users of the same type, but not when the conflict is between users for different purposes. In that event the preferred user is

entitled to protection even if there is a sufficient supply and even if the inferior use of water is reasonable when judged only in relationship to the purpose of such use on the overlying land. What is not clear is whether the court reached this conclusion by determining that the general rules of law (reasonable use etc.) did not apply at all in a preferences action or whether the preferences statute had the effect of modifying what constitutes reasonable use so that it is to be judged in relationship to the needs of others when the others are preferred users.

Specifically how the court reached its conclusion may be of significance only in an academic sense, but the conclusion itself is significant and raises several questions. Does the preferred use have to be reasonable for protection to be given and how is that determination made? How are proportionate shares to be allocated in times of shortage? Will all industrial users have to discontinue use before agricultural users begin sharing among themselves? Will all agricultural users have to be terminated before forced sharing is imposed upon domestic users? Or will the proportional share part of the Nebraska rule be construed so that all users regardless of preferences will have to share but preferred users will just get a little larger proportional share?

Similar questions can be asked about the impact of the preferences statute on administration of the Ground Water Management Act. What weight must or can the Director of Water Resources and Natural Resources Districts give the preference statute when decisions are reached on allocations, well spacing and drilling moratoriums? Legislative resolution of these questions may be appropriate.

#### Ground Water Preferences: Opportunities Forgone

Largely the same opportunities exist for utilization of ground water preferences as do for the similar surface water provisions, especially those opportunities related to long range maintenance of ground water supplies for preferred uses. In fact, at least some steps have been taken toward these long range goals by providing that the preference statute shall play a role in implementation of the Ground Water Management Act.<sup>12</sup>

Long range planning for ground water may in fact be more important from a preferences standpoint than it is for surface water. As noted earlier, ground water preferences will be of little value in the allocation of water once shortages occur. The slower rate of renewal severely restricts the opportunity to use preferences to redistribute the available supplies of ground water to preferred users at the time of shortage. A more farsighted approach will be required to make ground water preferences truly meaningful as a mechanism for long range allocation of ground water supplies.

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## References

1. See the discussion and footnotes in Oeltjen & Fischer, Allocation of Rights to Water: Preferences, Priorities, and the Role of the Market, 57 Neb. L. Rev. 245, 261 (1978).
2. Note the discussion in Chapter 1, pages 1-6 and 1-7.
3. Trelease, Preferences to the Use of Water, 27 Rocky Mtn. L. Rev. 133, 134 (1955).
4. 67 Neb. 325, 93 N.W. 781 (1903).
5. Id. at 372 (citing Montrose Canal Co. v. Loutsenhizer Ditch Co., 48 Pac. Rep. 532).
6. N. D. Cent. Code §61-02-16 (1960).
7. Ground Water Preferences in Nebraska, 59 Neb. L. Rev. 831, 841 n. 75, (1980).
8. Neb. Rev. Stat. §46-671 (1943).
9. Neb. Rev. Stat. §46-613 (1943).
10. 200 Neb. 1, 261 N.W.2d 766 (1978).
11. Id. at 7, 261 N.W.2d at 770.
12. Neb. Rev. Stat. §46-671 (1943).

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## CHAPTER 3 PREFERENCES POLICIES ELSEWHERE

### Surface Water Preferences in Other States

As noted in the introduction to this report, preferences are not unique to Nebraska, especially not for surface water. Most of the nineteen western states have in their constitutions, statutes, or administrative regulations preferences governing in one manner or another the allocation of surface waters.

The preferences that do exist are, however, by no means universal. As is demonstrated in the state-by-state summaries below, substantial differences exist not only in what is recognized as being preferred but in what impact such a preference has. Domestic, agricultural, and industrial uses of water are recognized in most preferences systems but only domestic for human consumption purposes is consistently given a high preference.

Two states, Idaho and Colorado, have preference systems virtually identical to Nebraska's. The uses recognized and the order in which they appear is the same. As in Nebraska each system is used to allocate water during shortages but only if compensation is paid to the senior but inferior user.

Five western states have no preferences provision at all for surface water. Those states are Montana, Hawaii, Oklahoma, New Mexico, and Nevada. It is interesting to note that, until 1967, Oklahoma did have a rather extensive list of preferences for the use of water in conservancy districts. Until repealed in that year, those preferences were: First, domestic and municipal water supply; second, manufacturing processes, production of steam, refrigerating, cooling, condensing, and maintaining sanitary conditions of stream flow; third, irrigation, power development, recreation, fisheries, and other uses.<sup>1</sup>

For the eleven remaining western states preferences provisions are summarized below:

#### Alaska

The only specifically preferred use of water in Alaska is use for a public water supply. It is given preference by the Commissioner of Natural Resources for Water when there are competing applications for water from the same source.<sup>2</sup> Uses for such purposes may also exercise a preference over senior appropriators, but compensation for damages is required as it is in Nebraska.<sup>3</sup>

With regard to competing applications for water from the same source, the Commissioner of Natural Resources is authorized to determine administratively the preferences for other uses. Such a preference may be granted to the use or combination of uses which constitute the most beneficial uses.<sup>4</sup> This authority grants the Commissioner considerable

flexibility as beneficial uses are defined to include, but not be limited to, domestic, agricultural, irrigation, industrial, manufacturing, fish and shellfish processing, navigation and transportation, mining, power, public, sanitary, fish and wildlife, recreational uses, and maintenance of water quality.<sup>5</sup>

### Arizona

In Arizona, specific mention of preferences is made only in regard to issuance of water rights when two or more pending applications are in conflict. The relative values to the public are established as follows: (1) Domestic and municipal uses - domestic to include gardens of one-half acre or less for each family; (2) Irrigation and stock-watering; (3) Power and mining; (4) Recreation and wildlife, including fish.<sup>6</sup>

### California

California has a number of provisions relating to preferences. It is the statutory policy of the state that the use of water for domestic purposes is the highest use and that the next highest use is for irrigation.<sup>7</sup> Applications for water rights are to be guided by this policy.<sup>8</sup> Apparently based upon the strength of this preference for domestic use, an application for municipal use of water is considered "first in right, irrespective of whether it is first in time."<sup>9</sup> Municipalities are also granted an advantage in being able to make application for water for future needs.<sup>10</sup> Temporary use for other purposes may, however, be approved, and somewhat inconsistently, municipalities are required to compensate for the cost of displaced facilities for the temporary uses when the additional water is needed.<sup>11</sup> Finally, case law holds that, based upon a number of other statutes, water rights for non-preferred uses may be conditioned upon the needs of preferred uses at a later date.

### Kansas

The primary difference between Kansas and Nebraska preferences is in the list of preferred uses. Kansas provides the following order: domestic, municipal, irrigation, industrial, recreational and water power uses.<sup>12</sup> In addition, it appears that the list may be used to decide who should receive a water right when conflicting applications are pending. Like Nebraska, though, an approved water right is governed by first in time, first in right, and senior inferior uses may be displaced only if compensation is paid. In fact, Kansas law allows compensation only through use of condemnation.<sup>13</sup>

### North Dakota

North Dakota also has its own version of a preference statute for granting permits when there are competing applications. The following order of "priority" is to be used by the state engineer: (1) domestic use; (2) municipal use; (3) livestock use; (4) irrigation use; (5) industrial use; (6) fish, wildlife, and other outdoor recreational uses.<sup>14</sup> Each of these uses is defined in statute<sup>15</sup> and municipal use includes

only those uses primarily for domestic purposes. That portion of municipal use which is devoted to industry or any of the other listed uses does not benefit from the municipal classification.

Relevant to the preferences issue, but not tied directly to it in North Dakota, is the state engineer's authority to reserve and set aside water for future beneficial uses. The state engineer also is granted the authority to withdraw water from additional appropriation "when sufficient information and dates are lacking to allow for the making of sound decisions."<sup>16</sup> Decisions on such reservations and withdrawals could of course be based upon the anticipated water needs of preferred users.

As mentioned earlier in this report, North Dakota also provides a good example of how preferences can be used to achieve non-water objectives. The state water conservation commission is given the following guidance by state law: "In planning and constructing irrigation projects, it shall be the policy of the Commission to give preference to the individual farmer or groups of farmers or irrigation districts who intend to farm the land themselves."<sup>17</sup>

### Oregon

Oregon has two separate preferences statutes. The first, adopted in 1909 is almost identical to Nebraska's.<sup>18</sup> The second, adopted in 1955, lists preferences in the following order: human consumption, livestock consumption, and thereafter other beneficial purposes in such order as may be in the public interest.<sup>19</sup> An Oregon Appeals Court ruled in 1970 that neither statute has much impact upon water allocation in the state.<sup>20</sup>

### South Dakota

South Dakota law represents a different approach in that it provides only that the use of water for domestic purposes is the highest use.<sup>21</sup> The same statute does however authorize the reservation of waters for municipal purposes. Other uses may be made in the interim of the water reserved, but such uses are subject to the municipal use as and when necessary.

One of the broadest definitions of municipal use is also found in South Dakota law. It includes water provided by a municipality "primarily to promote the life, safety, health, comfort, and business pursuits" of the municipality.<sup>22</sup> Specifically excluded from the definition are uses for irrigation and large recreational uses such as lakes.

### Texas

A unique order of preferences is found in Texas. Domestic and municipal uses of water have first preference, but are followed by industrial uses. These latter uses are defined as "processes designed to convert materials of a lower order of value into forms having greater usability and commercial value, including the development of power by

means other than hydroelectric."<sup>23</sup> In order the remaining uses recognized are: irrigation, mining and recovery of minerals, hydroelectric power, navigation, recreation and pleasure, and other beneficial uses. Thus in Texas, water to be used for cooling purposes in a fossil fueled or nuclear electric generating plant has preference over water for irrigation.

Also unique is a provision that appropriations of water made after May 17, 1931, are subject to the future appropriation of a city or town for domestic or municipal purposes without the necessity of compensation.<sup>24</sup> Domestic and municipal uses are thus given a true preference over all other uses initiated after that particular date.

### Utah

Utah's preferences are different from Nebraska's in three major respects: (1) agricultural use of water is clearly the second most preferred use of water as opposed to being only superior to manufacturing as in Nebraska; (2) manufacturing uses are not mentioned at all; and (3) compensation for interference with senior but inferior uses may not be required.<sup>25</sup> Although this last point has not been confirmed, such intent may be assumed from the fact that a provision requiring compensation was repealed in 1903.

### Washington

The State of Washington's approach to preferences is uncommon to any other state. No order of preferences is established. Any person, including a private individual may simply condemn an inferior use of water for a superior use. The court on each separate action decides which of the two uses would be for the greater public benefit and that use then is designated the superior use. Even the use of water for irrigation can be condemned in part for other irrigation. In that situation, the condemnee must however be allowed to retain sufficient water to continue to irrigate his or her land by the most economical method of artificial irrigation employed in the vicinity where such land is located.<sup>26</sup>

This particular approach can be characterized as a modified market system. Economics plays a great role, obviously, because a condemner will not pay a higher price for the water than it is worth to him. But by requiring the court to determine whether the higher economic use is also the one with the greatest public benefit, the public interest in the resource and its use is also protected.

### Wyoming

Uses are preferred in the following order in Wyoming: (1) water for drinking purposes for both man and beast; (2) water for municipal purposes; (3) water for the use of steam engines and for general railway use, water for culinary, laundry, bathing, refrigerating (including manufacture of ice), for steam and hot water heating plants, and steam power plants, and (4) industrial purposes.<sup>27</sup> Note that irrigation is

not included. In a later subsection of the same statute, irrigation is given a preference over hydroelectric power generation. As in Nebraska, an exercise of the preference system requires compensation.

#### Other Surface Water Preferences Options

Maintenance of preferences in the traditional sense does not find much support among the water law commentators. Most favor a variation of a more flexible system, such as the one in effect in the state of Washington. For example, Clayton Yeutter has stated that "Nebraska would do well to follow Washington's lead, except that the decision should be made by the Department of Water Resources, with appeal to the state Supreme Court."<sup>28</sup> He then suggests that the Department's decisions be based upon economic principles.

In their article published in 1973, Ralph Fischer, Richard Harnsberger and Jarret Oeltjen made a similar recommendation, but suggested that "domestic use be statutorily defined and accorded an 'absolute' preference."<sup>29</sup>

Taking a different approach in 1978, Jarret Oeltjen and Loyd Fischer recommended doing away with the preference system altogether, substituting an open market system whereby water rights could be bought and sold without regard to preference of use. Oversight authority would be exercised by the Department of Water Resources for the benefit of the public interest and third parties.<sup>30</sup>

Literally dozens of additional options and variations of options for dealing with surface water preferences exist. Chapter 4 presents a representative range of those which could be considered for implementation in Nebraska.

#### Ground Water Preferences In Other States

In most western states, ground water is subject to appropriation in the same manner as surface water. In other words, ground water rights also are administered on the basis of first in time, first in right. However, considerable variation exists in how these states apply their respective preferences systems. Some states apply the same appropriation law to both surface water and ground water resources within the state; those states generally apply the same preference provisions for both. In some other states laws and procedures for appropriation of ground water differ from those for appropriation of surface water. Some, but not all, of these states have different preferences provisions for ground water than for surface water. Finally, as with surface water, some states have no preference provisions at all applying to ground water.

The western states that apply the same preferences provisions to both ground and surface water, at least in some circumstances, are Alaska, Colorado, Kansas, North Dakota, Oregon, South Dakota, Utah, and

Wyoming. Reference should be made to the previous section entitled "Surface Water Preferences in Other States" for a discussion of the nature and utilization of those provisions.

In addition both of the Dakotas have statutes relating to some of the problems being faced with regard to ground water preference in Nebraska. In North Dakota a statute enacted in 1977 provides in part as follows:

Priority of appropriation does not include the right to prevent changes in the condition of water occurrence, such as the increase or decrease of streamflow, or the lowering of a water table, artesian pressure, or water level, by later appropriators, if the prior appropriator can reasonably acquire his water under the changed conditions.<sup>31</sup>

A similar statute in Nebraska might have brought about a different result in the Prather v. Eisenmann<sup>32</sup> case discussed earlier. Probably the court would have found that the damaged users in that case could reasonably acquire their water under the changed conditions. No injunction and probably no damages would have been awarded.

On a limited basis, South Dakota has taken somewhat the opposite approach. A statute adopted in 1980 requires ground water users other than those using the water for municipal, domestic, or irrigation purposes to compensate the owner of a domestic or municipal well for increased operating costs or replacement costs resulting from a pumping interference.<sup>33</sup> With one significant exception, this statute would appear to require the same result in South Dakota as the Prather case in Nebraska. The one exception is that use for irrigation is not subject to such requirements. Such use receives neither the protection of the statute nor the liability it creates.

As best as could be ascertained, eight western states have no preferences provisions applicable to ground water. These are Arizona, California, Idaho, Montana, New Mexico, Oklahoma, Texas and Washington. Some of these states are among those also without surface water preferences; others simply do not appear to apply their surface water preferences in the administration of ground water.

Three states have preference provisions for ground water which are at least partially different from those for surface water. A summary of how each deals with ground water preferences follows:

#### Hawaii

Hawaii law provides for the creation of what are called "designated ground water areas." Similar to a Nebraska ground water control area, such an area may be created if any one of the following conditions is found:

- (A) The use of ground water exceeds the rate of recharge;

- (B) Ground water levels are declining or have declined excessively;
- (C) Chloride content of the water is increasing to a level that materially reduces the value of the use to which water is being put;
- (D) Excessive preventable waste of water is occurring;
- (E) Any proposed water development or developments which if constructed would in the opinion of the board lead to one of the above conditions;<sup>34</sup>

When any designated ground water area is created, the state agency responsible for management of the area is given much the same authorization to regulate the use of ground water within the area as Nebraska's NRDs have in a ground water control area. The Hawaii preferences system plays an integral part in any such regulation. It provides that:

- (A) Domestic, municipal and military uses shall always be preferred to other uses;
- (B) Preserved uses shall always be preferred to uses made pursuant to permits; and
- (C) Among permitted uses which are substantially similar, the board shall give preference to uses initiated prior in time unless the board determines that the preference would impair or be detrimental to the public interest in the utilization of water resources;<sup>35</sup>

The preserved uses that are referred to in item (B) of the citation are uses that existed prior to the creation of the designated ground water area. As long as those uses are continued and remain beneficial, they have what is called a preference, but really amounts to a first in time, first in right priority. Note also that the same concept is carried forward in item (C). Permitted uses are those initiated after creation of the designated ground water area. The extent to which they are regulated also is based upon a somewhat modified first in time, first in right concept.

The Hawaii system is more detailed but nonetheless similar at least in intent to section 46-671 of the Nebraska Statutes. That Nebraska statute, discussed in Chapter 1, provides that in administering the Ground Water Management Act, the actions of the Director of Water Resources and the responsible Natural Resources District shall be consistent with the provisions of the Nebraska ground water preferences law, section 46-613.

#### Nevada

The preferences applied to ground water in Nevada are also applied in special management areas called designated ground water basins.

2. In the interest of public welfare, the state engineer is authorized and directed to designate preferred uses of water within the respective areas as designated by him and from which the ground water is being depleted, and in acting on applications to appropriate ground water he may designate such preferred uses in different categories with respect to the particular areas involved within the following limits: domestic, municipal, quasi-municipal, industrial, irrigation, mining and stockwatering uses.<sup>36</sup>

The meaning and intent of this statute is not clear. In one respect it appears to give the state engineer the authority to determine what the order of preference ought to be in any given ground water basin. In another respect it appears to establish the order of preferences itself. Unfortunately this provision has not been interpreted by the Nevada Supreme Court.

If the intent of the Nevada statute is to grant the authority for establishing preferences to the state engineer, a flexible preferences system like that advocated by a number of commentators is in effect.

### Wyoming

Wyoming was identified earlier as a state that applies the same preferences to both surface water and ground water. A clear expression of this intent is provided by the following excerpt from a Wyoming statute:

Rights to underground water shall be subject to the same preferences provided by law for surface waters, and rights not preferred may be condemned and changed to a preferred use in the manner provided by law for surface waters.<sup>37</sup>

However, Wyoming has also enacted some provisions applicable only to ground water and worthy of note here. For example, another section of law provides that appropriations of ground water for stock or domestic use "shall have a preferred right over rights for all other uses regardless of their dates of priority."<sup>38</sup>

A second section provides a mechanism for administrative implementation of this preference. It provides that when use of a well for other than domestic stock purposes interferes unreasonably with an adequate well used only for domestic or stock purposes, the state engineer may "... order the interfering appropriator to cease or reduce withdrawals of underground water, unless such appropriator shall furnish at his own expense, sufficient water at the former place of use to meet the need for domestic or stock use."<sup>39</sup>

This last section provides legislatively for much the same result as the Prather case in Nebraska. Differences in the scope of application could result from the Wyoming requirements that the interference must be an unreasonable interference and that the well being interfered with must be an adequate well.

### Other Ground Water Preferences Options

The application of preferences to ground water is a topic to which very little previous attention has been paid by commentators. Recent articles by Terry L. Uhling<sup>40</sup> and J. David Aiken<sup>41</sup> in the Nebraska Law Review are the only publications identified as being directly on point. Mr. Uhling does not suggest legislative action, but does suggest particular judicial actions in Nebraska as the ground water preferences statute receives consideration in later cases. The suggestions he makes could be adopted legislatively as well as judicially.

Mr. Uhling's first suggestion is that in an insufficient water situation, preferences ought to be exercised only upon payment of compensation to the damaged inferior user. He suggests that requiring compensation would ensure more economic uses of water.<sup>42</sup> Secondly, Mr. Uhling suggests that in sufficient water situations, the preferred user should have an obligation to demonstrate that his or her means of withdrawal of the water was reasonable. To ensure such reasonableness, he suggests that the courts evaluate the following factors when conflicts are litigated:

- (1) Comparable means of diversion in the geographical area,
- (2) physical characteristics of the aquifer, (3) the economic return from the investment, and (4) the individual equities between the parties.<sup>43</sup>

In his article, Professor Aiken also suggests a case by case approach to resolution of well-interference conflicts. He suggests that the decision could be made after consideration of:

- . . . (1) the social utility associated in the respective water uses; (2) the extent of the harm caused by the interference; (3) the relative priorities of the parties; (4) the suitability of the water uses relative to the water supply; and (5) the parties' respective ability to prevent or avoid the harm caused by the interference.<sup>44</sup>

The numerous types of flexible preferences noted earlier in this chapter under the section entitled "Other Surface Water Preferences Provisions" could also have application in ground water administration. Different orders of preference could be established for different portions of the state or the Director of Water Resources or some other responsible party could establish them on a case by case basis as the public interest would be best served.

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### References

1. Okla. Stat. tit. 82, §577 (repealed in 1967).
2. Alaska Stat. §46.15.090 (1971).
3. Alaska Stat. §46.15.150 (1971).
4. Alaska Stat. §45.15.090 (1971).
5. Alaska Stat. §46.15.260 (Supp. 1980).
6. Ariz. Rev. Stat. §45-147 (Supp. 1980).
7. Cal. Water Code §106 (West Supp. 1970).
8. Cal. Water Code §1254 (West Supp. 1970).
9. Cal. Water Code §1460 (West Supp. 1970).
10. Cal. Water Code §1264 (West Supp. 1970).
11. Cal. Water Code §§1462, 1463 (West Supp. 1970).
12. Kans. Stat. §82a-707 (1977).
13. Id.
14. N. D. Cent. Code §61-04-06.1 (Supp. 1979).
15. N. D. Cent. Code §61-04-01.1 (Supp. 1979).
16. N. D. Cent. Code §61-04-31 (Supp. 1979).
17. N. D. Cent. Code §61-02-16 (1960).
18. Or. Rev. Stat. 540.140 (Supp. 1979).
19. Or. Rev. Stat. 536.310 (Supp. 1979).
20. Phillips v. Gardner, 469 Pac. 2d 42 (Or. Ct. App. 1970).
21. S. D. Comp. Laws §46-1-5 (Supp. 1980).
22. S. D. Comp. Laws §46-1-6 (Supp. 1980).
23. Tex. Water Code Ann. §5.024 (Vernon 1970).
24. Tex. Water Code Ann. §5.028 (Vernon 1970).
25. Utah Code Ann. §73-3-21 (Supp. 1980).
26. Wash. Rev. Code §90.03.040 (Supp. 1961).

27. Wyo. Stat. §41-3-102 (1977).
28. Yeutter, A Legal - Economic Critique of Nebraska Watercourse Law, 44 Neb. L. Rev. 11, 50, 51 (1965).
29. Fischer, Harnsberger & Oeltjen, Rights to Nebraska Streamflows: An Historical Overview with Recommendations, 52 Neb. L. Rev. 313, 367 (1973).
30. Oeltjen & Fischer, Allocation of Rights to Water: Preferences, Priorities, and the Role of the Market, 57 Neb. L. Rev. 245 (1978).
31. N. D. Cent. Code §61-04-06.3 (Supp. 1979).
32. 200 Neb. 1, 261 N.W. 2d 766 (1978).
33. S. D. Compiled Laws Ann. §46-6-24 (Supp. 1980).
34. Haw. Rev. Stat. §177-5 (Supp. 1976).
35. Haw. Rev. Stat. §177-33 (Supp. 1976).
36. Nev. Rev. Stat. §534.120 (1979).
37. Wyo. Stat. §41-3-906 (1977).
38. Wyo. Stat. §41-3-907 (1977).
39. Wyo. Stat. §4-3-911 (1977).
40. Casenote, Groundwater Preferences in Nebraska, 59 Neb. L. Rev. 831 (1980).
41. Aiken, Nebraska Ground Water Law and Administration, 59 Neb. L. Rev. 917 (1980).
42. Supra, note 40 at 857.
43. Supra, note 40 at 855.
44. Supra, note 41 at 991.

# CHAPTER 4

## ALTERNATIVE LEGISLATIVE POLICY ACTIONS

### Introduction

#### General

Preceding chapters present a background on water use preferences and how they are used in Nebraska and other states. This chapter is directed at how Nebraska water use preferences could be modified. Fifteen alternatives are presented for consideration. The probable water use pattern changes, if any, resulting from the implementation of each alternative are identified. Also provided are analyses of the physical/hydrologic/environmental impacts and the socio-economic impacts which each alternative would have if enacted.

The water use preference alternatives contained in this chapter are not the only ones possible in Nebraska. However, those listed do constitute a representative range of alternatives. Most additional options, if listed, would appear as variations or refinements of those which are identified. For example, several of the alternatives would require some level of administration by a public entity. Under current preference policies, the courts are the primary public entities involved in the application of preferences. One variation of applicable alternatives would be to continue to use the courts to perform preferences functions. Another would be to assign the responsibilities to an administrative body such as the Department of Water Resources or the natural resources districts. The decision as to which variation would be selected would probably depend upon the particular responsibilities assigned and the extent to which it was desired that preferences be exercised. Generally speaking, exercise should be less costly to the parties involved if litigation could be avoided.

None of the alternatives was included because it was thought to be politically acceptable nor was any alternative excluded because of political unacceptability. The responsibility undertaken was to present as fairly and objectively as possible the full range of alternatives available.

While some of the alternatives, if enacted, would preclude enactment of some of the others, not all are mutually exclusive. In fact, several would lend readily to combinations with others. For example, alternatives 4, 6, and 13 could be combined to produce a lengthy list of water uses, with each being given a preference ranking. Also and as mentioned above, many variations of virtually all of the alternatives are possible. In addition, preferences' policies may not be the only available mechanism to accomplish a particular objective. In some cases alternatives designed to accomplish the same objectives as one or more alternatives identified here will appear in other studies, but will not depend upon preferences as the means for accomplishing those objectives.

## Identification of Alternatives

Of the fifteen alternatives described and discussed in more detail later in this chapter, ten are possible for both ground water and surface water and are presented in that manner. They are:

Alternative #1: Make no change in present policies.

Alternative #2: Abolish preferences systems entirely.

Alternative #3: Abolish all preferences systems except for domestic use.

Alternative #4: Modify the preferences systems by adding municipal uses.

Alternative #5: Make manufacturing, commercial and industrial uses superior to agricultural uses.

Alternative #6: Modify the preferences systems by adding other consumptive uses.

Alternative #7: Repeal current preferences and substitute a flexible preferences system.

Alternative #8: Allow reservation of water for preferred uses.

Alternative #9: Utilize preferences as a basis for approval of competing applications.

Alternative #10: Define the water use terms as used in the preferences provisions.

Three alternatives applicable only to surface water are:

Alternative #11: Clearly authorize or deny the right of private individuals to utilize eminent domain to exercise a preference.

Alternative #12: Repeal the requirement that compensation be paid to exercise a preference.

Alternative #13: Modify the preferences system by adding instream uses.

The last two alternatives, applicable only to ground water, are:

Alternative #14: Make compensation a requirement in the exercise of ground water preferences.

Alternative #15: Impose reasonable standards on the use of preferences for protecting the means of access to a ground water supply.

## Information Presented For Each Alternative

More detailed discussions of the alternatives begin on page 4-4. For each alternative, information is presented under the following headings: Description and Methods of Implementation; Changes in Water Use Patterns; Physical/Hydrologic/Environmental Impacts; and, Socio-Economic Impacts. The information under the first heading, Description and Methods of Implementation, describes the alternative and how it would be implemented. Constitutional issues are addressed and the need for a constitutional amendment is noted when appropriate. For those alternatives which have potential application to both surface water and ground water, factors pertaining only to one or the other are identified. This initial heading also includes information about the direct costs which the state would incur in adopting and implementing the alternative.

The initial attempt to analyze the physical/hydrologic/environmental impacts of the alternatives was hampered by the lack of an explanation of how water uses would change if the alternatives were enacted. The information developed to fulfill that need has been included in the discussions of each alternative under the heading: Changes in Water Use Patterns. While much of the information presented is necessarily somewhat speculative, it will assist the reader in making the necessary correlations between the alternatives and their impacts.

The alternatives identified in this chapter do not lend themselves to detailed descriptions of their probable physical/hydrologic or environmental impacts. For some alternatives, even generalizations about those impacts are difficult or impossible to develop. This problem stems from the nature of these policy level alternatives. There are simply too many potentially intervening variables between the policy alternatives and the impacts. These variables include geographic factors, management, type of use, technology, and others. Notwithstanding these limitations, the physically oriented impacts of each of the fifteen alternatives have been identified in as much detail as felt possible under the heading: Physical/Hydrologic/Environmental Impacts. Although original plans were to treat environmental impacts separately, strong interrelationships with the physical/hydrologic impacts soon became apparent. The two types of impact analysis have been combined therefore in the discussions which follow.

The efficiency and equity effects of implementing each policy alternative are discussed under the heading: Socio-Economic Impacts. The discussion is necessarily theoretical rather than empirical; consequently no attempt is made to quantify the magnitude of any particular effect. In general, however, it can be assumed that changes which prompt efficiency are desirable from an economic standpoint, and presumably a social standpoint as well.

The evaluation of equity impacts is more difficult as equity is essentially a philosophical question, not an economic one. In theory, an efficient alternative should produce the necessary revenues to compensate anyone who suffers an adverse equity affect from the alternative. Whether or not such effects should be compensated for, however, is a

political and social question caught up in personal notions of fairness and justice. Consequently, the equity effects of particular alternatives are noted with no attempt made to evaluate whether those effects are fair or not fair.

Economists commonly distinguish between "productive efficiency" and "allocative efficiency" and those terms are used in the discussions of many of the alternatives. Productive efficiency is achieved when resources are combined to create the most output for the least cost. Thus, a change is productively efficient if it allows society to produce more goods at the same cost or the same amount of goods at a lower cost. Allocative efficiency, in contrast, relates to the distribution of produced goods among the members of society, presently living or yet to be born. A change is allocatively efficient if it will increase the satisfaction of at least one member of society without decreasing the satisfaction of another or if it will increase the satisfaction of some members of society more than it will decrease the satisfaction of other members of society. An economic system is thus said to be efficient if it allocates existing resources so as to maximize the production derived from them and if it distributes the goods provided in a manner that maximizes consumer welfare.

#### Alternatives Applicable to Both Surface Water and Ground Water

##### Alternative #1: Make No Changes in Present Policies

###### Description and Methods of Implementation

Sometimes described as the "no action" or "maintain the status quo" option, this alternative would leave preferences policies as they are now and as discussed in Chapter 1. Presently unresolved questions about those policies might be resolved by future litigation, but no legislative action would be taken to revise or refine those policies.

The direct administrative cost of this alternative is low. Present administrative costs resulting directly from the preferences system are limited to administration of those surface irrigation rights obtained by exercising a preference over hydropower generation. Those costs are estimated by the Department of Water Resources to be \$30,000 to \$35,000 annually. No direct administrative costs can be presently attributed to ground water preferences policies.

###### Changes in Water Use Patterns

Surface Water. If existing policies are maintained, surface water will continue to be allocated and used largely without regard to preferences. First in time, first in right will remain the dominant policy governing use of surface supplies. The potential does exist for converting additional hydropower rights to agricultural use. Continuation of current policy might also result in the occasional assertion of a domestic preference over an agricultural use. Such assertions, however, could be expected to be rather isolated in nature, at least in part because natural flow appropriations have not been issued for domestic stockwatering.

Ground Water. The present preferences provisions for ground water may tend to discourage ground water development. This potential discouragement results from the liability which inferior (less preferred) users have to superior (preferred) users for interfering with a preferred user's withdrawal of water. At present, the development limitations imposed by preferences are assumed to be minimal, largely because problems are still somewhat isolated, because cause and effect relationships are often complex, and because litigation may be more expensive than supply augmentation. The limitations imposed by preferences may become more extensive if ground water levels continue to decline or additional large-yield development occurs in confined aquifers. While any limiting effect will be felt largely by agriculture, ground water preferences could also have a limiting effect on industry relying upon large quantities of ground water. Because industry would appear to be liable to agricultural users for interference in the same way as agricultural users are now liable to domestic users, large industrial withdrawals may interfere with a number of agricultural uses, thus creating a possible preferences action.

Application of the ground water preferences statute to the adequacy of the water supply, as opposed to the means of access to that supply, is still an untested subject. It is likely that use of the preferences statute in inadequacy situations will have little application to disputes between agricultural and domestic uses. In most cases adequate domestic water will remain after large yield withdrawals for agriculture or other purposes are no longer economically feasible. More likely are conflicts between large quantity competitors for the remaining water feasibly available for large-scale use. Again, because of the potential liability to agricultural users, the possibility of such competition could have the effect of limiting some industrial developments.

#### Physical/Hydrologic/Environmental Impacts

Surface Water. This alternative, in itself, would not result in any changes in physical/hydrologic impacts on surface water from the impacts now being experienced. Because irrigation is the major consumptive use of water in the state only increases or decreases of this use would accelerate or decelerate the changes. Locational changes in use of surface water for irrigation could result in corresponding changes in stream flow but primarily as a matter of substitution of diversion points along the stream. Substitution on a large scale of a new major consumptive use for a current non-consumptive use would result in a reduced annual supply.

Environmental impacts could include locational changes of aquatic and possibly riparian habitat due to changes in diversion points; also changes in water quality due to reductions in supply. However, these would be limited.

Ground Water. The alternative by itself would not result in any physical/hydrologic impacts on ground water different from those now experienced. Increased uses of ground water for irrigation could cause continued isolated declines in water levels. Rises of water levels could occur where new or substituted points of diversion result in

additional application of irrigation water. As with surface water the introduction of large scale consumptive uses of ground water could lead to water level declines.

Limited environmental impacts of isolated declines or increases in water levels could be in the form of changes in vegetation, effect on streamflow and on wetlands. These could be locational shifts and changes in rate.

#### Socio-Economic Impacts

Any system of preferences is inherently inefficient. Water is allocated efficiently when it is possessed by those who value it most highly. Thus, to the extent that preferences give preferred users water that is valued more highly by non-preferred users, the preference system is inefficient. Furthermore, to the extent that allocative inefficiency prevents high value users from receiving or retaining water rights, productive efficiency is reduced. Preferred users will tend to use more than the optimal amount of water and non-preferred users will use less than the optimal amount of water in their respective productive processes. Consequently, a greater than optimal amount of a preferred user's product will be produced at a lower price than would exist if there were no preferences. Similarly, a lower than optimal amount of the non-preferred user's product will be produced at a higher price than would exist without the preferences.

The requirement that compensation be paid before a preference can be exercised, at least for surface water preferences, reduces the inefficiency inherent in a preference system. Presumably, a preference will not be exercised unless the preferred user can "afford" to pay the compensation. Thus, the level of compensation required becomes critical. The valuation question is exacerbated by the lack of an active water rights market in Nebraska. If the level of compensation required is less than a non-preferred user would be willing to pay to retain the water right, an inefficient allocation of water will result. To the extent that a preference is absolute and no compensation is required, as may be the existing case with ground water, an inefficient allocation of water is more likely since a preferred user need not consider the "value" of the water to him before he exercises his preference.

The distributive or equity effects of the existing preference system vary depending on whether the preference is absolute or not. If the preference is absolute, wealth equivalent to the value of water given up is transferred from non-preferred users to preferred users. Similarly, even if exercise of the preference requires payment of compensation, a wealth transfer is made to the extent that the required compensation level is less than the fair market value of the right acquired. Whether or not such a redistribution of wealth is desirable depends on individual value judgements and notions of fairness. Finally, it should be noted that wealth given up, measured by the rent earned by water in the non-preferred use, may exceed wealth acquired, measured by the rent of water in the preferred use. The difference, if any, between wealth acquired and wealth given up is wealth lost to society. This

difference is the economic cost of the allocative and productive inefficiencies of the preference system.

## Alternative #2: Abolish Preferences Systems Entirely

### Description and Methods of Implementation

If not accompanied by changes in the current restrictions on the transferability of surface water rights, this alternative would have the effect of making "first in time, first in right" the only doctrine governing allocation of available surface supplies. Constitutional limitations probably would prevent any attempt to make such a policy change applicable to preferences exercised prior to the effective date of the change, such as those currently exercised in the Loup River Basin.<sup>1</sup> It could also be argued that application of such a change to all previously vested preferred water rights would be unconstitutional. Even though the preference granted to such rights had never been exercised, the change would deprive those holding those rights of the ability to exercise them in the future. That could be construed as a taking of property without compensation. If so, application of such a change in surface water preferences would be limited to only those surface water rights perfected after the change became effective.

Because surface water preferences are embodied in constitution as well as in statute, implementation of this change would require the vote of the people as well as the Legislature. Direct costs would be limited to those costs attributable to enactment, i.e. the costs of processing the legislative bill or bills required and the additional election costs incurred because of the required vote on the Constitutional amendment. Some reduction in administrative costs could be anticipated because no additional assertions of surface water preferences would have to be administered.

Implementation of this change for ground water would be less complex. No constitutional changes are required and thus the change could be made by legislative action. Since rights to use ground water do not depend upon dates of initiation of use, no problems could be expected in applying the modification to all uses of ground water. The effect, if not accompanied by other changes, would be to make all users subject to the same rule, i.e., that each ground water user is entitled to make reasonable and beneficial use of the water under his land and that in times of shortage, each is entitled to a reasonable proportion of the whole. In other words, conflicts between users in different categories would be treated the same as conflicts between users in the same category.

For ground water the direct costs of implementation would be limited to the costs of processing the bill or bills necessary to effect the change.

### Changes in Water Use Patterns

Surface Water. This alternative could change water use patterns by preventing or at least making less likely conversion of industrial or hydropower water uses to agricultural uses. The extent of this change

would depend, in part, upon whether additional hydropower facilities are constructed and the economic feasibility of agricultural acquisition of those hydropower rights. Also prevented would be use of preferences to resolve agricultural-domestic disputes.

Ground Water. Changes in the use of ground water might be more significant than those for surface water. Potential liability would be restricted or perhaps even eliminated for interference with what is now a preferred use. Any limitations caused by present policy on that development in either confined or unconfined aquifers would thus be negated by adoption of this alternative. The extent of any change would depend upon the extent to which current practical limitations on the use of preferences could have been overcome.

#### Physical/Hydrologic/Environmental Impacts

Surface Water. There would be no change in physical/hydrologic impact on stream flow due to this alternative since it is assumed that the priority system for surface water rights would remain intact.

No significant environmental impacts were identified.

Ground Water. The use of ground water may be encouraged because of the possible instability of the supply of surface water. Such encouragement could result in accelerated water level declines in some locations.

Increase in use of ground water for irrigation could lead to change in streamflow, particularly in areas of high water levels; change in water quality due to reduced flows in streams; possible change in ground water quality due to increased leaching of agricultural chemicals; possible changes in vegetation related to change in wetlands and other water level changes. Wildlife populations would be affected in accordance with changes in vegetation.

#### Socio-Economic Impacts

This alternative may be more or less efficient than the existing system of preferences depending on how accurately existing preferences reflect the relative value that classes of water users attach to increments of the resource. The result is unclear because of the substantial barriers that exist to the transfer of water rights from individual to individual. No direct mechanism exists to transfer water rights in Nebraska so transfers can only be accomplished by securing covenants not to pump or covenants to abandon existing rights. Given the high cost of securing such agreements, water rights are, for all practical purposes, nontransferrable in the state.

Assuming water rights are generally nontransferrable, abolishing preferences would eliminate one of the few ways in which water rights can be transferred. If existing transfers of water rights from non-preferred users to preferred users is efficient, then eliminating preferences will be inefficient. Conversely, to the extent that preferences currently result in inefficient transfers, eliminating preferences will increase efficiency. It is, of course, entirely possible that transfers

between some preference groups, such as agricultural to domestic, may generally be efficient and transfers between other preference groups, such as industrial to agricultural, may generally be inefficient. In that event, eliminating preferences would be efficient in some respects and inefficient in others.

The elimination of preferences would eliminate those distributive effects which currently are associated with the preference system. If there were no preferences, there would be no forced transfers and hence, no equity issues except those raised by the prior appropriation system itself, arguably a transfer of public wealth into private hands.

### Alternative #3: Abolish All Preferences Except for Domestic Use

#### Description and Methods of Implementation

This alternative will be appealing to those who are concerned that water supplies could become totally committed to non-domestic needs. Without access to some mechanism like the preference system, there would be no way to ensure that domestic needs could be satisfied when shortages occurred. While this alternative is similar to Alternative #2, it is identified separately here because of the somewhat different effects this alternative would have on ground water use patterns.

The effect of this modification would be to abolish the current preference between agricultural and manufacturing/hydropower uses of water. For surface water those uses would thereafter be governed solely by first in time, first in right and for ground water by the reasonable use/correlative rights rule.

Implementation of this alternative for both surface water and ground water would require the same steps and be subject to the same limitations as described in Alternative #2. Direct costs could also be expected to be the same.

#### Changes in Water Use Patterns

Surface Water. For surface water, the limited application of preferences to the protection of domestic uses makes this alternative little different from Alternative #2 and changes in water use patterns would be essentially identical to those discussed for that alternative.

Ground Water. In contrast to the probable surface water use changes resulting from this alternative, the effects of making this change in the ground water preferences statute would be more like those to be expected if current policies are continued (Alternative #1). Since the most frequent conflicts in ground water will involve domestic use, this alternative would therefore continue to create a potential liability and limit in some degree the extent of ground water development which occurs.

#### Physical/Hydrologic/Environmental Impacts

Surface Water. Because only a few communities in the state use surface water, this alternative, would result in negligible physical/hydrologic impacts.

No significant environmental impacts would be anticipated.

Ground Water. There would be little impact on water levels due to the small percent of the state's total ground water withdrawal that is required for domestic use. Any impact would also be minimal due to the likely substitution of one use for another in a specific situation (e.g., industrial for irrigation).

No significant environmental impacts would be anticipated.

#### Socio-Economic Impacts

This alternative is efficient if it is assumed that a domestic user would always be willing to pay more for an additional unit of water than some other class of user, probably a realistic assumption if a narrow definition of domestic use is employed. Thus, the assumption is probably correct if domestic use is limited to human drinking water and sanitation; it may be less credible for other arguably domestic uses such as livestock watering, particularly if domestic use includes water for large commercial livestock operations. Assuming that industry is generally a higher value water user than is agriculture, an additional inefficiency would be removed by eliminating the agricultural preference. Absent a mechanism for transferring existing rights, however, it is impossible to take full advantage of the potential gains in efficiency. For surface waters, potential efficiency gains in the form of voluntary transfers are prohibited by the institutional barrier inherent in a rigid "first in time-first in right" system.

The distributive effect of this alternative would be to continue a system which transfers wealth to domestic users from other users. The size of the transfer depends on whether or not compensation must be paid to exercise the preference. An additional distributive effect of this alternative would be the elimination of potential wealth transfers to agricultural users from less preferred users.

#### Alternative #4: Modify the Preference System by Adding Municipal Use

##### Description and Methods of Implementation

Designed to resolve the present problems created by the fact that some municipal uses are superior (those which are domestic) and some are inferior (manufacturing and industrial uses), this alternative also would resolve those problems caused by the nonrecognition of many municipal uses by the present preference system.

Part of any decision to create a new category called "municipal use" would be the decision of where it should be added in the preferences list. For purposes of the remainder of the discussion of this alternative, it is assumed that municipal use would either be combined with domestic use or placed immediately after that use. Such action would be consistent with that of most other states recognizing municipal use.

Implementation of this alternative would require only legislative action for ground water. For surface water, however, the change may be more difficult. It probably can be argued successfully that the Constitution does not make agriculture second in priority, but only superior to manufacturing uses. If so, it should be constitutionally permissible to grant, without constitutional amendment, preference for a new use between domestic and agricultural use. The problem with municipal use is that it is largely not a new use. Portions of that use are devoted to what is constitutionally an inferior use - manufacturing. As a result, implementation of this alternative for surface water would probably require constitutional amendment as well as legislative action.

As with the other alternatives thus far, the direct costs of making this change would be limited to the costs of processing the legislative bills and conducting the election on the constitutional amendment. No additional administrative costs would be expected because of the revision.

#### Changes in Water Use Patterns

Surface Water. No changes in the behavior of surface water users could be expected unless municipal reliance upon surface water supplies increases or the right to appropriate surface water specifically for recharge of municipal well fields is granted. In either event, the policy change would likely result in some acquisition of agricultural water rights for municipal use.

Ground Water. This alternative would provide industrial users with incentive to obtain their water supplies from municipal systems instead of developing their own. By using municipal systems liability to agricultural users would be less likely. Potential liability would be created for agricultural interference with municipal use. This might have the effect of limiting agricultural development in those areas close to municipal well fields.

#### Physical/Hydrologic/Environmental Impacts

Surface Water. This alternative would have no physical/hydrologic impacts because of the small percent of water consumed by municipal users compared to agriculture. The practical effect would be the substitution of one use for another which would negate any physical impacts. It is possible that reductions in stream flow would continue through the winter when the withdrawal is for these uses as compared to irrigation withdrawals which cease at the end of the growing season.

Environmental impacts of change in type of use from agriculture to municipal could include changes in water quality from agricultural runoff to regulated discharges by municipal systems. Chemical impacts are possible as are thermal effects of these discharges. These effects could be associated with changes in aquatic vegetation and habitat.

Ground Water. This alternative would also have no physical/hydrologic impact on ground water because of the small percent of water consumed by these users. The practical effect would again be the substitution of one use for another. It is possible that "normal" recoveries of water level would not occur in specific locations when withdrawals are continued year around as compared to seasonal withdrawals for agriculture.

Changes in type of use should not have significant environmental impact on ground water quality in that discharges are regulated and not returned to the ground water supply. Continued drawdowns based on full year patterns of use could lead to reduced streamflows, loss of wetlands, changes in water quality, vegetation and habitat as they may be related to changes in ground water level, particularly in areas of high water levels.

#### Socio-Economic Impacts

This alternative would increase efficient use of water only if municipal uses were of higher value than less preferred uses and of lesser value than domestic uses. Again, the definition of municipal use and domestic use is of prime importance. It is probably true that municipal uses as a class have a lower value than domestic uses, at least when domestic use is restrictively defined. It is not clear, however, that municipal use should come before all other uses.

The difficulty with a municipal use category is that it encompasses both high value and low value uses. A preference system is not efficient unless higher value uses are given preference over lower value uses. While an aggregate computation of the value of municipal water might place a municipal preference above all other preferences, the relevant economic variable is the marginal value product of municipal water, or the lowest value municipal use. Clearly, non-preferred uses would be higher value uses of water than the lowest value municipal use in many situations.

An additional problem with a municipal preference results from the potential for disparate treatment of similar activities depending on whether an activity is conducted within a municipality or not. If industrial or even agricultural use is preferred solely by virtue of its use of municipal supply, a strong incentive will exist to locate the activity within a municipality, notwithstanding the fact that it may be more efficient to locate elsewhere as a matter of spatial economics.

The distributive effects of this alternative relate to potential wealth transfers from less preferred users to users located on a municipal system. Conceivably this could result in a transfer from an industrial user located outside a city to an industrial user engaged in the same activity but located inside a city. Such a result would be inefficient, in addition to raising significant equity issues. The other distributive effects would be the same as those discussed for earlier alternatives.

#### Alternative #5: Make Manufacturing, Commercial, and Industrial Uses Superior to Agricultural Uses

##### Description and Methods of Implementation

The practical effects of this amendment would be different for surface water than for ground water. For surface water it would mean that in times of shortage the manufacturing, commercial, and industrial uses of water (or at least those, if any, with eminent domain authority) could condemn senior agricultural uses of water. Compensation for all damages sustained by the agricultural uses would be required.

In most cases such a policy would be more consistent with economic reality than are present policies. As a general rule, a unit of water will have a higher value to industry than to agriculture. In those instances where the water has no greater value to the industry than to the senior agricultural users, the industry would not find it advantageous to exercise its preferences and the agricultural users would maintain his or her rights.

The practical effect for ground water might be substantially different. If ground water preferences are in fact true or absolute preferences and no compensation is required to exercise a preference, any reversals in the order of preferences could have significant impacts on water use. All industrial users, regardless of the date of initiation of use, would have preference over all agricultural uses. Again using economics as the only standard, such a change would place the preference system more in line with reality.

Implementation of this revision would require a constitutional amendment and legislation for surface water. Even with a constitutional amendment, some constitutional complications could be expected in attempts to make the new order applicable to previously vested surface water rights. Legislation only would be necessary for ground water.

Direct administrative costs would include those necessary for processing of the bills and constitutional amendments. The change might also result in an increase in the level of preferences activity, thereby increasing by some amount the costs for administering preferences.

#### Changes in Water Use Patterns

Surface Water. The most critical factor for determining the probable changes in water use patterns caused by this alternative is whether, by constitutional amendment, this change could be made to apply to water rights vested prior to the effective date of the change. If not, the effect of the change would be limited considerably. If, however, application to previously vested rights could be constitutionally accomplished, significant potential would exist for conversion of agricultural rights to those for power generation and other industrial uses. The extent to which these conversions would take place would depend upon numerous economic and other considerations.

Ground Water. For ground water, water use changes would be very similar to those noted for Alternative #4, but would be more likely and could be more pronounced. Under present policies, preference actions between agricultural and industrial uses of water can be expected to be rather infrequent. This is because competition for ground water is primarily between agricultural users, and the inferior industrial use normally represents only a small additional demand on the total supply. It is likely that the agricultural uses, in the aggregate, interfere more with the industrial uses than those uses interfere with agriculture. Current preferences, of course, deny any recourse to those industrial uses. A reversal of those preferences, however, would place industrial use in the same position with respect to agricultural uses as is domestic use currently. An industry interested in fully asserting its right under such preferences could effect a fairly significant limitation on agricultural development of common water supplies.

### Physical/Hydrologic/Environmental Impacts

For both surface water and ground water, it was determined that the physical/hydrologic and environmental impacts would be the same as for Alternative #4. Therefore reference should be made to the discussion of the impacts found in that alternative.

### Socio-Economic Impacts

This alternative would likely enhance economic efficiency assuming that manufacturing, commercial, and industrial uses are generally higher value uses than agricultural uses. This alternative would also create the potential for a redistribution of wealth from agricultural users to manufacturing, commercial, or industrial users if the preference was exercised without paying full compensation to the agricultural user.

### Alternative #6: Modify the Preferences Systems by Adding Other Consumptive Uses

#### Description and Methods of Implementation

There are a large number of uses which could be added to the preferences list and which, in contrast with most municipal uses, are not obviously included within the currently recognized categories. For surface water many of these additional uses are instream in nature. Because of the different impacts which these instream uses can have, they are treated separately in Alternative #13. However, several of the presently unrecognized uses are not instream in nature and require a surface water diversion or ground water withdrawal. Among them are: power plant cooling, oil and gas production, mining, and some recreation uses.

As long as no attempt is made to place any of these uses ahead of domestic use, they could probably be added anywhere on the surface water preference list by legislative action only. In other words, they could be placed between domestic use and agriculture, between agriculture and manufacturing, or after manufacturing. None of these additions would appear to violate current constitutional provisions. Legislative action would also be sufficient for ground water.

Direct administrative costs would include the costs of processing the legislative bills to adopt the expanded list. Some increase in annual administrative costs for surface water could also be expected.

#### Changes in Water Use Patterns

Surface Water. Whether particular uses of water not currently recognized on the preferences list can obtain a natural flow appropriation is still questioned on occasion. The Department of Water Resources has no rule against permitting other uses, but applications for water rights for uses other than those listed has been very infrequent and no record exists of any requests for many possible uses. This alternative would affect water use patterns to the extent that any uses thus recognized would not have otherwise been permitted. Also, if any of such

additions were placed ahead of agricultural or manufacturing uses and such uses had a higher economic value than those inferior to it, those inferior uses could be displaced and their water rights converted to the newly recognized uses.

Ground Water. As discussed elsewhere in this report, the location of any particular use on the preferences list is more significant for ground water than for surface water. Changes in water use patterns could be expected with this alternative, particularly if the new uses were placed ahead of agricultural use. A new potential liability would be created, resulting in additional discouragement for development for inferior uses.

#### Physical/Hydrologic/Environmental Impacts

Surface Water. This alternative could have limited impacts on surface water. The extent and magnitude of the impacts would depend on the number and nature of additional uses and if preferences would be given rank. If a preference is given rank over irrigation there could be a decline in use of surface water for irrigation and therefore an increase in streamflow depending on location. Increased large scale use of surface water for power plant cooling could have significant impact on stream flow and evaporation of surface water. This alternative might encourage additional demands which also would have physical/hydrologic impacts.

Environmental impacts will be related to the type of use, similar to those noted for Alternative #4. Certain activities could have water quality impacts dependent on current water quality regulation. Changes in the amount of use could affect the factors related to change in streamflow.

Ground Water. This alternative would have limited impacts on ground water. The extent and magnitude of the impacts would depend on the number of additional uses and if preferences would be given rank. For instance a preference to use ground water for maintaining wetlands or stream flow could result in water level declines. This alternative might encourage additional demand which also could have physical/hydrologic impacts.

Environmental impacts will depend on any shifts to different types of users and any related change in amount or rate of use. Mining could have significant effects on water quality, for example. Consumptive uses could affect supply and thereby ground water levels and be associated with related effects on streamflow, wetlands and vegetation and habitat, particularly in areas of high water table.

#### Socio-Economic Impacts

Generally speaking, preferences tend to be an inefficient means of allocating scarce resources. Multiple preferences generally contribute to the inefficiency by increasing transaction costs of acquiring water rights. In Nebraska, however, multiple preferences may enhance efficiency if they result in transfers of water to higher value uses.

Lacking an existing transfer mechanism, preferences are one of the few options available to move water to a higher value use. The effectiveness of multiple preferences, however, depends upon the specification and ordering of the preferences. The preferences must be narrow enough to insure some intra-category uniformity as to the value productivity of water. Furthermore, the preferences must be ranked in such a fashion that higher value water uses are preferred over lower value water uses. It should also be noted that if two categories have similar marginal value productivities of water, the costs of exercising a preference may exceed the gain in value from transferring water to a higher use and those transaction costs may prevent an efficient transfer from taking place.

The distributive effects of this alternative are similar to the distributive effects of each of the previous alternatives. Unless adequate compensation is paid to the owner of the right given up, a transfer of wealth will occur from less preferred users to more preferred users.

#### Alternative #7: Repeal Current Preferences and Substitute a Flexible Preferences System

##### Description and Methods of Implementation

The purpose of any preferences system is to establish society's relative order of values for various water uses. In Nebraska, that relative order is presently fixed by Constitution and by statute. Nebraska could follow the example set by the state of Washington by turning to a flexible preferences system where the relative order of values is not fixed but is determined on a case by case basis as each competition for water occurs. In the state of Washington, the determination of the most highly valued use in each case is made by the courts.<sup>2</sup> In Nebraska that decision could be made administratively by the Department of Water Resources.<sup>3</sup> Since the decision in any such case would be one of policy, a water policy board of some sort could also be granted such authority.

A major decision which would have to be made in the development of any such policy involves the criteria that would be used by the courts, the Department of Water Resources, or some other public entity in determining the most highly valued use. The rights of third parties would need to be protected, quality as well as quantity impacts might need to be assessed, and any effects on the long term production of the resource should be identified. If compensation would continue to be required, at least short term economic questions should take care of themselves. Longer range economic goals, however, may not be reflected fully in the willingness to pay the cost of all present damages, and the effects, if any, on such goals might need to be evaluated by the administering agency.

As with most of the other alternatives identified thus far, both constitutional and statutory changes would be required to implement this alternative for surface water. Limitations and possible limitations on

the application of such a revision would be the same as those discussed for Alternative #2. Making the revision for ground water would again be much easier, requiring only legislative action.

Some direct costs other than those necessary for enactment of the policy would be incurred in ongoing administration. Depending upon the criteria to be assessed, a multi-disciplinary staff would need to be available to perform the necessary evaluations if done administratively, rather than judicially. The type of expertise needed, however, would probably be largely available within existing agency structures and the evaluations should not require a personnel commitment greater than the equivalent of one full-time professional. The approximate cost in 1981 dollars would be \$30,000-\$40,000.

Since this change would probably result in an increase in the number of preferences asserted, an increase in the annual costs for administering those assertions approved could also be expected.

#### Changes in Water Use Patterns

Surface Water. Water use pattern changes resulting from this alternative are not predictable because preferences would be established to fit situations as they arose. For a particular situation and point in time, this alternative could have the same effect as any of the alternatives modifying the list or order of preferred uses. Therefore, in particular instances, the effects could be the same as alternatives 3, 4, 5, 6, or 13. Perhaps the most predictable effect is that there would be some instances when agricultural use of water would not be granted preference over manufacturing or industrial uses.

Ground Water. Changes in ground water use would be as unpredictable as those noted earlier for surface water and would be largely subject to the same conditions.

#### Physical/Hydrologic/Environmental Impacts

The possible directions for implementing this proposal for either surface water or ground water are so varied and vast that it is impossible to assess what impacts from a specific direction for implementation might be.

Any specific environmental impacts are also difficult to assess, but could be similar to those for Alternative #6.

#### Socio-Economic Impacts

In theory, a flexible system will enhance efficiency because rigidities of a fixed system are avoided. Thus, if the value productivity of water in one use increases relative to another use over time, flexible preferences would permit water to be transferred to the new preferred use while fixed preferences would not. Furthermore, a particular user of water may achieve greater value productivity with a unit of water than the average member of his preference category. Flexible preferences would permit this more efficient water user to acquire water rights,

perhaps from a less efficient water user in a higher preference category. In fact, the essence of a system of preferences is an attempt to simulate an economically efficient system where water is transferred to the highest value users.

The difficulty with a system of flexible preferences is that a case by case analysis of what constitutes the highest value use would be costly, and probably unpredictable. To the extent these costs are borne by parties attempting to acquire rights, they act as economic barriers to allocative efficiency. High transaction costs make it uneconomic to pursue an efficient transfer. Under such circumstances the initial allocation of water rights becomes critical as there will be substantial economic inertia to further changes. In Nebraska, most water rights have already been allocated, and not necessarily in efficient patterns. Thus, the cost of determining the most highly valued use will determine whether efficient transfers will occur. Another significant transaction cost is uncertainty. Uncertainty arises because ad hoc decisions are likely to be unpredictable and because a favorable determination of a preference claim would not guarantee the preferred party a definite period of tenure over the newly acquired right.

Finally, it may be impossible to determine the most efficient pattern of property rights allocation in an administrative or judicial forum. If the goal is to duplicate a market result, perhaps a market should be employed. If the goal is to avoid limitations of a market, perhaps market determinations of value should serve as a starting point with administrative approval of transfers required to reflect those public costs and benefits that may be external to the economic decisions of individual parties.

As for many of the previous alternatives, distributive effects depend on the amount of compensation that must be paid to exercise a preference. To the extent that a less preferred user of water is fully compensated for the right taken by a more preferred user, there is no immediate redistribution of wealth. To the extent that any existing distributions are inequitable, however, they will remain.

#### Alternative #8: Allow Reservation of Water for Preferred Uses

##### Description and Methods of Implementation

A number of the states discussed in Chapter 3 allow preferred uses to reserve water for the future. Eventually when the water is needed, its use may be initiated without the necessity of condemning some fairly recent but inferior use. The most common example is to allow reservation for future municipal purposes. The ability of other users to make use of the water in the interim may or may not be granted.

Legislative action should be sufficient to authorize such reservations for both surface water and ground water. Since the order of preferences would not be changed by enactment of this alternative alone, problems with current constitutional provisions for surface water would not be anticipated. It is important to note, however, that such a change could be applied only to surface water rights issued after the effective date of the change.

Application to ground water would be somewhat different in nature. Since the ground water preferences may be absolute, preferred uses are already in a favorable position. If, however, current preferences provisions are of value to superior ground water uses only when shortages occur, relief might be too late in coming. This alternative could be used to specify depletion levels below which remaining waters were reserved for the preferred use or uses. Inferior uses which would cause that depletion level to be exceeded would have to be terminated or restricted.

Different types of analysis would be required to apply this alternative to surface water and ground water. The major determination to be made for surface water reservations would be the amount of water which could be realistically needed by the superior use within some predetermined period of time. All future water rights for inferior uses would simply be made subject to the later use of that amount. The same determination would have to be made for ground water, but in addition, the ground water level necessary to provide and maintain those needs would have to be established.

Direct costs in addition to those for processing the necessary legislative bills would be fairly high. For example, projections of municipal needs with any scientific basis could not be made without significant cost. Even more expensive would be the analysis of ground water reservoirs necessary to establish the allowable depletion levels. Actual cost figures would depend upon the degree of scientific accuracy desired, the time frame over which the levels are to be established, and the number of preferred uses involved. Overall costs could easily exceed \$100,000 per year in the initial years when reservation levels are being established. Thereafter, costs would decrease significantly. It should be noted, however, that the analyses thus completed would have value beyond the immediate preferences questions and would be useful in meeting other ground water management needs. Also perhaps some of these costs could be shifted to those desiring and benefiting from any reservation that would be made.

#### Changes in Water Use Patterns

Surface Water. The purpose of this alternative would be to specify, rather than leave to chance, the quantities of water to be utilized in the future for different categories of water use. Few reservations would be needed for municipal use because of the limited reliance upon surface water sources by municipalities in the state. However, this reliance could increase in isolated areas where ground water supplies are inadequate. If reservations were allowed for uses such as hydro-power or industrial uses, some limitations could be expected and would depend on the extent to which additional unappropriated water would be devoted to agricultural use. Reservation could also be used for agricultural uses if the potential existed for large scale competition from uses inferior to that use.

Some uses which would have otherwise been initiated might not be started even if the reservation system allowed interim uses of the water. The short term and perhaps unpredictable nature of such interim uses would discourage investments.

Ground Water. This alternative could place significant limitations upon ground water development. Withholding certain quantities of ground water from use by non-preferred users would modify water use patterns greatly in many areas; the primary effect would be on agriculture.

#### Physical/Hydrologic/Environmental Impacts

Surface Water. The technique used to accomplish the alternative would determine what impacts may occur. Certainly this alternative has the potential to create a climate for speculation which further increases the chances for uncertainty in assessment of impacts.

Environmental impacts would depend on the type of use and any related change in the amount of use. Changes in streamflow and water quality could result.

Ground Water. The alternative could result in a slowing or ceasing or decline in water levels if some uses such as municipal were given preference and were able to create or purchase a buffer zone of land to protect its preference. The major difficulty in assessing impact of this alternative is because of the question of how it would be implemented.

Changes in ground water levels or in rates of decline and associated impacts related to streamflow, wetlands and associated vegetation and habitat could be related to this alternative depending on the type of use and terms of use.

#### Socio-Economic Impacts

Reservation of water for future uses addresses the economic problem of intergenerational allocation of resources. The problem is somewhat different for ground water than for surface water. Efficient use of a stock resource, such as ground water, requires a consideration of the value productivity of the resource at a future date. If a resource will be more valuable in the future than at present, its use should be deferred. Future value is difficult to estimate, however, and common discounting techniques are not entirely satisfactory means of comparing future uses from a present perspective. With surface water, a flow resource, the issue is not whether a resource will be used, but rather how it will be used at any given moment of time. Consequently, reservation of ground water might materially differ from reservation of surface water with differing economic consequences.

To the extent that higher value future uses are accommodated by a reservation scheme, efficiency is enhanced. On the other hand, there seems little reason to limit reservations to certain preferred uses unless there is substantial certainty that a currently non-preferred use will remain a lower value use indefinitely into the future.

With specific reference to surface waters, the reservations contemplated in this alternative are perhaps more properly viewed as prospective appropriations, a softening of the general requirement that appropriated waters must immediately be put to beneficial use. The only

gain in efficiency from such a system would be in the form of notice of an intention to exercise a preference at a future date. Notice may aid current users in their investment decisions. Otherwise, there seems little benefit to reservation since the preferred user could presumably acquire a non-preferred right when the additional source of water was needed.

The distributive effects of the proposed reservation system are significant, however. To the extent that a future user of water acquires a presently vested right to that water at a future date, it has also acquired a right to any future appreciation in the value of the water right that accrues prior to actual use of the right. Consequently, a preferred user would receive economic rent during the period of nonuse. This economic rent is a form of wealth transfer from nonpreferred users who would otherwise be able to acquire rights in the water. Absent reservation, for instance, an agricultural user could acquire a surface water right subject to future divestment by a municipality exercising a domestic use preference. At the time the preference was exercised, however, the agricultural user would be compensated, in theory at a level that would be equivalent to the rent he currently earned by using the resource. With a reservation, no compensation would be paid, and a wealth transfer would be made from the agricultural user to the municipality. The effect is to allow the preferred user to fix the value of a future water right at present market values to the detriment of those who currently hold, or who could hold, the water right. Such a result may or may not be fair, but it is certainly significant.

An alternative version of a reservation theory would reserve surface water rights for future appropriation. This would, in essence, create a current preference for certain natural, or public uses of the stream. Such a result would be efficient if it accurately reflected public value attached to water. The natural flow preference would be limited, however, to unappropriated waters, and may or may not be of sufficient quantity to maximize efficient use of waters. Assuming, however, that the water reserved was not dedicated to natural uses, future appropriations could be considered as needs arose. Similarly, limited duration permits could be authorized. When water was needed in the future, appropriations could be authorized in a manner that considered preferences in existence at that future date. Whether or not such a result would be efficient depends largely on the efficiency of the underlying preference system.

Reservation of ground water rights is essentially a method of controlling or limiting the rate of aquifer depletion. Controlling ground water withdrawals is generally efficient, particularly if the ground water rights system is based on a rule of capture which encourages faster than optimal depletion. Reserving for specific future preferred uses would seem to offer no great efficiency advantage, however, over a system of general reservation or limitation on withdrawals, other than perhaps an identification of additional high value uses that will have to be accommodated in the foreseeable future. The distributive effect of ground water reservations would be limited to transferring wealth from those who might otherwise make a present use of ground water to those who will eventually make a future use of ground water.

Alternative #9: Utilize Preferences as a Basis for Approval of Competing Applications

Description and Methods of Implementation

At present surface water preferences are used in only a very limited way to allocate water when shortages occur. No use of them is made in the issuance of water rights. They could be used as a basis for the denial or conditioning of an inferior use when another application for use of water for a superior use is pending at the same time and there is not enough unappropriated water for both uses.

In ground water control areas, permits for new wells may be obtained only for uses for domestic, agricultural, manufacturing, and industrial purposes. Again, however, no attempt is made to utilize the preferences statute to allocate water among the uses listed.

In its literal form, this alternative would have limited use in surface water allocations and even more limited value for ground water. However, it could be used in the initial allocation of surface waters when one of the competing applications is for a large diversion. In such cases the planning period often is long and consequently the period of time that the application is pending is correspondingly long, thus increasing the likelihood that a competing application will be received.

The limitations upon utilization of this principle for ground water would result from several factors: (1) At present permits to use ground water are required only in ground water control areas; (2) The time frame for issuance of the permits is much shorter than for surface water leaving less opportunity for competing applications to be received; and (3) What constitute competing uses are more difficult to determine for ground water than for surface water - the physical interrelationships are more complex. As a result, this alternative would have virtually no application to ground water unless accompanied by other policy changes such as a state-wide permit system and longer application review periods.

Another method of making this alternative more useful in the allocation of both ground water and surface water would be to give the term "competing" a long-term definition. Withdrawal limits could be established for any particular type of use for any stream reach, ground water aquifer, or portions of such aquifer. If done for all uses, these limits would become the primary basis for allocation of the water available. Once the limit for a particular type of use was reached, no additional uses of that type would be permitted.

To implement this alternative in the manner last described would be to expand considerably the concept in effect in other states. It also makes this alternative nearly indistinguishable from the reservation approach contained in Alternative #8. It does, however, represent one approach for realizing the maximum long-term effect of preferences on water allocation for the state.

This alternative could be implemented for both surface water and ground water by legislative action only. Costs for administration of the alternative would be negligible if used only to allocate water

between then competing applications. Costs of implementing the more effective withdrawal limits approach would be similar to those identified for the reservation method addressed in Alternative #8. In addition, substantial costs for administering that approach, once implemented, would be incurred.

#### Changes in Water Use Patterns

Surface Water. This alternative would have little effect on water use. Since most competition for surface water supplies is between agricultural users, the opportunity for competing applications between users in different categories is limited. Probably the greatest opportunity would exist between large irrigation and hydropower or other energy projects.

Ground Water. This alternative would effect water use patterns only if implemented on a long-term basis, similar to the way in which Alternative #8 would be implemented. In that event, the effects would be similar to those identified for #8.

#### Physical/Hydrologic/Environmental Impacts

Surface Water. This alternative would have such a limited application in reality that its only likely impact would be in changing points of diversion. In addition, if one preference involved a consumptive use and another was a non-consumptive use, there could be some impact.

There could be some shifts in the location of environmental impact and in the type of impact given a shift in the type of user. Water quality and streamflow changes would appear to be the most likely effects.

Ground Water. No physical/hydrologic impacts were identified.

Environmental impacts related to ground water use would result from any significant change in the type of use or the amount of use. Changes in water quality and impacts related to changes in ground water levels particularly in areas of high water table could result.

#### Socio-Economic Impacts

The discussion of economic efficiency in the previous alternatives applies with equal force to this alternative. As a matter of economics, the initial allocation of water rights is as important as subsequent transfers, more important in fact where subsequent transfers are difficult to secure. To the extent that preferences rationally relate to the value productivity of water by preference category, using preferences in the initial allocation decision would be superior to a first come-first served approach.

The distributive effects of this alternative would be somewhat different than for the alternatives discussed previously. An initial allocation of a water right is a transfer of wealth from the general public to a particular person. To the extent that using preferences resulted in denial of some applications and approval of others, the

preferred users would be the recipients of a wealth transfer from the public. Currently, potential water users have an equal claim on the wealth represented by transfer of water rights from public to private hands.

#### Alternative #10: Define the Water Use Terms as Used in the Preferences Provisions

##### Description and Methods of Implementation

At present only "domestic use" is defined for purposes of ground water preferences. No definitions are given for any surface water categories of use. This lack of definitions for the designated categories of use presents some potential problems for municipal and other uses. Any use not fitting clearly within the listed uses is in limbo. The point at which a use like livestock watering moves from one preference (domestic) to another (agricultural) is also unknown. Any definitions would help clarify preferences and would remove some potential concerns. It would seem logical, but would not be necessary, to make such definitions the same for both surface water and ground water.

As long as this alternative was not used to make substantive changes in preferences policies, it would require only legislative action. Direct costs would be limited to costs of processing the legislative bills.

##### Changes in Water Use Patterns

Surface Water. Definitions could be used to effect substantive changes in preferences policy, but such changes are not likely. If no such substantive changes were made, no significant changes in water use patterns could be expected from this alternative.

Ground Water. As with surface water, significant changes in the use of ground water would not be anticipated.

##### Physical/Hydrologic/Environmental Impacts

This alternative would result in no significant physical/hydrologic impact for ground water or surface water because of the low probability of change in use.

No significant environmental impacts would be expected.

##### Socio-Economic Impacts

An efficient system of property rights requires that an individual be able to identify and specify the rights that he possesses. This alternative would presumably aid efficiency by eliminating ambiguities in the current law. Whether or not the practical effect of defining the terms would be to increase or decrease efficiency, however, depends on the definitions used. To the extent that a high preference category is defined to include certain low value uses, efficiency will not be enhanced.

Regardless of whether defining preference categories ultimately enhances efficiency, clear definitions would reduce uncertainty, and hence transaction costs in the event a preference was exercised.

Unless the definitions used lead to a result substantially different than that expected under current law, there would be no distributive effect to this alternative other than a potential loss in wealth by those who have an arguable claim to a higher preference cut off by the definitional clarification.

### Alternatives Applicable Only to Surface Waters

#### Alternative #11: Clearly Authorize or Deny the Right of Private Individuals to Utilize Eminent Domain to Exercise a Preference

##### Description and Method of Implementation

In both Chapters 1 and 2 the ability or inability of a private individual to use condemnation to assert a water preference was discussed. While no final resolution of that issue has occurred, there is authority to suggest that such condemnations cannot be made because the power of eminent domain is reserved only for public purposes and cannot be used primarily to benefit private interests.<sup>4</sup> This question could be resolved either by clearly granting or clearly denying such authority. It is not clear whether the Legislature could adopt this alternative without a constitutional amendment. It could attempt to do so by finding that as a matter of policy the use of water for domestic and agricultural purposes is in the public interest and serves a public purpose, even if the primary direct benefits are to an individual for a private purpose. Unless additional changes were made, the requirement that compensation be paid would remain intact as would all other limitations on the use of surface water preferences.

Direct costs for enacting the alternative would be limited to the costs of processing the legislation and possible constitutional amendment required. Some additional costs for the annual administration of surface water rights could also be expected.

##### Changes in Water Use Patterns

The changes in water use patterns which would result from this alternative depend, of course, upon whether the clarification is to authorize or to deny the condemnation right. If the clarification is to deny the right, little or no change from existing policy would occur. Private individuals presently are not condemning inferior water rights. However, private individuals in the Loup River Basin do, through voluntary contract, exercise a preference over hydropower use. If, in the future, it is clear that individual users cannot force a preference over such hydropower uses, additional voluntary contracts might be more difficult or impossible for individual users to negotiate.

If the clarification is to allow private condemnation, some additional conversions of hydropower or industrial rights to private agricultural rights could be expected. These conversions, however, would,

be limited considerably, as they would take place only if the value of a unit of water for agricultural production exceeded that for the power production or industrial purposes.

#### Physical/Hydrologic/Environmental Impacts

If authorized and if economic situation would encourage increased consumptive uses through this alternative, there could be a reduction in stream flow. If denied, there would be no physical/hydrologic impact.

Increased consumptive uses could lead to reduced streamflow, associated change in water quality, change in aquatic and riparian vegetation and associated change in fish and wildlife. Where denied, these effects would not be likely.

#### Socio-Economic Impacts

This alternative would have no socio-economic impacts if implemented to deny private condemnations. Current practices would continue unchanged. However, if implemented to authorize private condemnations, this alternative would increase efficiency if and only if it resulted in additional transfers of water from lower value users to higher value users. Consequently, if preferences were not reflective of the value of water use, this option would reduce efficiency by permitting more inefficient transfers than would exist under existing law. Given the current position of agricultural preferences before manufacturing, this alternative would be inefficient if compensation reflects value to the preferred user, rather than value to the existing user. On the other hand, if compensation was based on value to the existing user (hypothetically the highest and best use), this alternative would not increase inefficiency since there would be no economic incentive to exercise a preference that would result in an inefficient transfer. While compensation in theory is based on the highest and best use, in practice there is much flexibility in determining a fair level of compensation since an objective market guidepost is not available.

Since compensation is required for the exercise of surface water preferences, the distributive effect of this alternative depends on how accurately the required compensation reflects the fair market value of the water right acquired. To the extent that compensation and fair market value are equivalent, there would be no distributive effect, at least ignoring transaction costs.

#### Alternative #12: Repeal the Requirement that Compensation be Paid to Exercise a Preference

##### Description and Methods of Implementation

The compensation requirement operates as the single greatest impediment to assertion of preferences. Most agricultural users cannot afford to buy out most manufacturing users. More extensive reliance upon preferences could be expected if the compensation requirement was deleted.

Because the compensation requirement is found in both Constitution and statute, a constitutional amendment and one or more legislative bills would be required. Even with a successful attempt to amend the Constitution, the application of this alternative would be limited. Water rights vested before the change became effective could not constitutionally be deprived of their right to compensation for interference from a superior but junior user. In other words the primary application of this change would be only to those rights issued after its effective date.

There is one possible exception to this limitation. In the case of Brummond v. Vogel<sup>5</sup>, the Nebraska Supreme Court held that an appropriator could be prohibited from denying water to a domestic user who did not prove to possess either an appropriative or a riparian right. It can be argued that the court in that case established the domestic preference as an absolute preference not subject to limits imposed by the compensation requirement or other restrictions. On the strength of that case, the court could hold that repeal of the compensation requirement had no effect upon the rights of a domestic user or the user whose rights were being deprived for the benefit of the domestic use.

The costs of processing the constitutional amendment and legislative bill or bills would be the only direct costs of implementing this alternative. A gradual increase in the annual administration costs would also occur as more and more water rights not subject to the compensation requirement were issued and preference assertions became more commonplace.

#### Changes in Water Use Patterns

As noted, the effect of this alternative would be limited because it could not apply to previously vested rights. However, for new water rights, especially those for industrial or hydropower purposes, the effects could be considerable because no protection would be given to inferior but senior users. The knowledge that superior users could utilize water without payment of compensation at any time would prevent many such inferior uses from ever being initiated. Agricultural use of surface water would probably not be significantly affected because of little competition from domestic uses.

#### Physical/Hydrologic/Environmental Impacts

This preference alternative could result in increased consumption and reduced streamflow.

Reduced streamflow could be associated with change in water quality, change in aquatic and riparian vegetation and associated change in fish and wildlife populations.

#### Socio-Economic Impacts

Repeal of the compensation requirement for surface water preferences would definitely be inefficient. The compensation requirement acts as the only objective check on exercising preferences in a manner that

leads to inefficient transfers. A water user will not exercise a preference unless use of the water will earn him a return over and above the amount of compensation required. Whether or not compensation is high enough to eliminate all inefficient transfers is open to question, but any compensation requirement should act to eliminate some inefficient transfers.

Repeal of the compensation requirement would also have significant distributive effects. The exercise of a preference would result in the transfer of wealth from a less preferred user to a more preferred user. Over time, this would result in a redistribution of societal wealth from less preferred users to more preferred users.

### Alternative #13: Modify the Preferences System by Adding Instream Uses

#### Description and Methods of Implementation

As noted earlier, most instream uses of water are not recognized in current surface water allocation policies. There are a number of different ways the Legislature could provide recognition and protection of those uses. The Instream Flow study being conducted as a part of the State Water Planning and Review Process will provide a full evaluation of those several alternative steps.

For the purposes of this study, only this one alternative measure for instream flow - to add one or more instream uses to the preferences list - will be discussed. The potential uses to be added include but are not limited to: maintenance of fish and wildlife habitat, instream stockwatering, aquifer recharge, recreation, and waste assimilation. The effect of adding any such uses would be to authorize the issuance of natural flow rights for the maintenance of flows for such uses. Unless the legislation provided otherwise, such rights would have priority dates and would be subject to the rule of first in time, first in right.

Where any such uses would be inserted in the surface water preferences list is important, but not as important as is often believed. Insertion ahead of agricultural and/or manufacturing uses would not authorize the denial of senior uses for those purposes unless the inferior agricultural or manufacturing user was compensated for all damages. By the same token, insertion following agricultural and/or manufacturing uses would not authorize the denial of senior instream uses in conflict with junior agricultural or manufacturing uses unless the damages to instream uses were paid. Calculation of such damages could be a problem, however, and the Legislature would be well advised to specify a method for assessing them whenever interference with a senior instream use was desired.

As noted in the discussion of Alternative #6, the present constitutional provisions relating to surface water preferences would appear to allow the insertion of additional uses, including those instream in nature, at any point except ahead of domestic use. Constitutional amendment should not therefore be required to implement this alternative. The legislation, however, may have to be fairly complex, providing for the method or methods for quantifying the water needs of

the instream uses to be recognized and for the assessment of damages for any such uses displaced in a preference action.

Costs for simply making the addition of one or more instream uses to the preferences list would be limited to the costs of processing the legislative bills necessary. Costs for implementing and administering a state program for identifying, quantifying, and protecting instream uses would be significant. No attempt is made here to estimate those costs; such estimations will be made as a part of the Instream Flow study.

#### Changes in Water Use Patterns

Implementation of this change would reduce the number of additional diversions from those streams where instream appropriations had been granted. This reduction would occur whether the instream uses were given an inferior or superior preference. If the preference given was a superior one, it could not be acquired by inferior uses. If the preference given was an inferior one, instream uses would still be protected by first in time, first in right, and could be interfered with only upon the payment of compensation. Because it is by far the largest use of surface water, prospective additional agricultural uses would be affected the most.

#### Physical/Hydrologic/Environmental Impacts

Initially this alternative would have little impact on stream flow because the senior rights would continue to exist. Over time the impact would be less depletion of stream flow. The potential for surface water storage would be increased at the end of the preference reaches but could be decreased at the beginning of such reaches.

This alternative could result in improved water quality through increased dilution, possible improvements in ground water recharge capability in losing reaches of streams, maintenance of aquatic vegetation and habitat and related fish and wildlife populations, and improved recreational opportunities.

#### Socio-Economic Impacts

Whether or not this alternative would increase economic efficiency depends on where the preference was placed relative to other preferences. If instream uses constitute a higher economic use of water than less preferred uses, this alternative would enhance economic efficiency. It is, of course, difficult to ascertain the value of water for instream uses, since many of the benefits of instream flows are enjoyed by the public generally, rather than by private individuals. These public benefits are external to the economic system and would be ignored even under a market situation. Consequently, any system which recognizes some value to instream flows is probably economically superior to a system which does not recognize such values.

An additional problem with an instream flow preference is the breadth of the category. A flow required for fish and wildlife habitat may be more or less valuable than a flow required for instream stock

watering. To the extent that a single increment of flow is necessary and sufficient to accommodate all or any combination of instream uses this is not a problem. But if different increments of flow are necessary to accomplish different combinations of instream uses, the value productivity of water for the various combinations of uses becomes important, and as a matter of economic theory, it may be desirable to have more than one category of instream flow preferences.

The distributive effects of this alternative are similar to those discussed for previous alternatives. To the extent that preferences facilitate water transfers at less than fair market value of the water right, a redistribution of wealth takes place from non-preferred users to preferred users. A significant distributive effect of this alternative, however, that is not found in the others, is the potential for transfers of wealth from private individuals to the public generally, depending on the position of the instream preference in the overall scheme and the calculation of compensation.

Finally, it should be noted that an alternative to reserving waters for specific future purposes (Alternative #8) is to reserve waters generally for instream uses. A reservation would limit future appropriations, while this alternative requires that instream uses be satisfied by securing an appropriation, an acquisition process that might proceed by exercising a preference. The economic implications of reservations are similar to those of appropriations with preferences, but not identical. Most differences stem from the fact that a reservation is a withdrawal from use while appropriations create competing uses.

#### Alternatives Applicable Only to Ground Water

##### Alternative #14: Make Compensation a Requirement in the Exercise of Ground Water Preferences

###### Description and Methods of Implementation

If Nebraska ground water preferences are assumed to be absolute, as has been implied earlier in the Prather v. Eisenmann case,<sup>6</sup> no compensation will be required when a preference is exercised during times of shortage to the damage of an inferior ground water user. This would appear to be true without regard to whether the inferior or superior use was initiated first. By introducing the doctrine of first in time, first in right into the application of ground water preferences, compensation could be required if the inferior use was initiated first.

It might be even more consistent with the judicial doctrines for ground water if compensation were required for any assertion of a preference. Legislation of that type would greatly diminish the significance of the preferences concept but would make that concept as compatible as possible with the rule that each overlying landowner is entitled to make reasonable use of the water under his land and that in times of shortage each is entitled to a reasonable proportion of the whole.

Only legislation would be required to effect this modification. Direct costs would be limited to those for processing the legislation.

### Changes in Water Use Patterns

This alternative would have some of the same effects for ground water as Alternative #2. It could be expected to result in some additional ground water development because additional protection would be given to investments for the withdrawal of water for inferior uses. Prospective inferior uses would no longer be discouraged from initiation because they could not be terminated without compensation for the benefit of junior preferred users.

### Physical/Hydrologic/Environmental Impacts

Little impact on ground water would result from this alternative. For instance, if having to compensate makes withdrawals for a given use uneconomic, total withdrawal in some places would be only slightly less.

Reduced withdrawals could lead to increases in ground water levels or reductions in the rate of decline. This could have an effect on vegetation such as phreatophytes, wetland areas and possibly vegetation and habitat related to streamflows.

### Socio-Economic Impacts

This alternative relating to ground water preferences is the mirror image of Alternative 2-12 relating to surface water preferences. Just as it would be inefficient to eliminate the compensation requirement for surface water preferences, it would be efficient to require compensation in the exercise of ground water preferences. This is not to say that a system cannot be efficient without payment of compensation. Whether or not compensation is paid is really only a distributive issue. While compensation itself is not important in an efficiency sense, the requirement that compensation be paid prevents some of the more obviously inefficient transfers from taking place where a hierarchy of preferences does not accurately reflect the relative value productivity of water in alternative uses. Consequently, a compensation requirement acts as a partial check on an economically imperfect system of preferences.

The distributive effects of compensation have been repeatedly stressed in the earlier alternatives. To the extent that exercise of a preference results in the transfer of water at less than fair market value, a transfer of wealth occurs from the less preferred user to the more preferred user.

### Alternative #15: Impose Reasonable Standards on Use of Preferences for Protecting the Means of Access to a Ground Water Supply

#### Description and Methods of Implementation

One of the concerns frequently expressed following Prather v. Eisenmann<sup>7</sup> was that the court's opinion might allow superior users to improve their position at the expense of someone else. For example, a domestic user with a marginal well before the initiation of irrigation might be provided with a newer, more dependable water system. In a sense the domestic user would receive a windfall.

This concern and others could be remedied by legislation. The Legislature could provide that in assessing damages against an inferior user for interference with a superior well, the court should consider the age of the superior well and other factors affecting its adequacy. In the construction of new wells, superior users could be required to take then present and reasonably anticipated developments into account or be barred from seeking damages later by asserting their preference.

Direct costs would be limited to the costs attributable to enactment of the legislation desired.

#### Changes in Water Use Patterns

In comparison with existing policy this alternative would encourage ground water development. Potential liability for interference with superior uses would be limited. The alternative would also encourage more careful construction of wells for preferred uses.

#### Physical/Hydrologic/Environmental Impacts

In small and localized, confined and underdeveloped aquifers this alternative could result in greater ground water withdrawal.

Possible reductions in streamflow, loss of wetlands in areas of high water table could result. There may also be changes in water quality due to leaching of agricultural chemicals and changes in the chemical quality of ground water. Changes in phreatophytes may result as well.

#### Socio-Economic Impacts

This alternative raises economic issues which are exceedingly complex. Ground water preferences would seemingly only apply to the ground water supply, but the Nebraska Supreme Court in Prather v. Eisenmann, 200 Neb. 1, 261 N.W.2d 766 (1978), may have applied the ground water preference to the means of diversion as well. Property rights in water are not the same as property rights in the "means of diversion." The means of diversion may refer to the static water table or to artesian pressure. In either event, maintaining a means of diversion is always at the expense of ground water use. Thus, while the two property rights are separate and distinct, they are obviously closely related.

A preference statute gives the preferred user superior rights to water in the event of a supply inadequate to meet the needs of all users. To the extent the preference is an absolute one, it gives the preferred user a right to acquire the water of a non-preferred user without payment of compensation. But a ground water preference does not logically give a preferred user the right to acquire the means of diversion without payment of compensation as well. To incorporate a preference for the means of diversion into the ground water preference statute greatly expands the scope of the ground water preference because of the interrelationship between the supply of ground water and the means of diversion. With such reading of the preference statute, a

preferred user exercising his preference would acquire not only the amount of water needed to satisfy his consumptive needs, but also the amount of water needed to remain in place to satisfy his "means of diversion" needs. Such a result is very inefficient, and creates the potential for enormous transfers of wealth from non-preferred users to preferred users.

An efficient allocation of water and "means of diversion" would require that the value productivity of the marginal unit of water be equivalent to the value productivity of the marginal "means of diversion." Consequently, if water is more valuable to "A" than lift is to "B," the efficient solution is to give water to A at the expense of lift to B. Thus, a domestic user, for instance may be entitled to water under the preference statute and his acquisition of water may be efficient, but if he is also entitled to have his means of diversion protected, the result is inefficient unless the domestic user would be willing to pay the other users the fair market value of the rights to use water which must be foregone if the domestic user's means of diversion is to be protected.

The problem is further complicated by the fact that one pumper can affect the means of diversion for a host of other water users and conversely, protecting the means of diversion for one user can adversely affect the pumping rights of a host of pumpers. Consequently, the sheer numbers of people involved create high transaction costs which act as an effective barrier to achieving an efficient allocation of resources through negotiation. An external estimate of efficiency must be made with the aim of developing legal and institutional controls designed to foster an efficient state. Examples of such controls include restrictions on ground water mining which preserve a minimum level of diversion, artesian conservancy districts which preserve a predetermined amount of artesian pressure, or reasonable depth regulations which deny the exercise of a preference to preferred users who have not placed a well a reasonable depth into the aquifer.

Given the complexity of the economic situation, it is very difficult to predict the effect of certain changes on efficiency, though seemingly any change restricting the right to a preference in the means of diversion would be desirable. Consequently, requiring a preferred user to have an adequate well before exercising a preference would be desirable from an efficiency standpoint. Furthermore, to the extent that a preferred user is required to consider reasonably anticipated developments in constructing an "adequate" well, efficiency is served. Ultimately, however, it will be impossible to approach truly efficient solutions as long as compensation is not a requirement of exercising ground water preferences since some objective evidence of willingness to pay is probably necessary to a conclusion that a preferred user values water and/or a "means of diversion" more highly than a nonpreferred user.

Finally, any legislation which reduces the right of a preferred user to protect his means of diversion, reduces, but does not eliminate, the transfer of wealth from the non-preferred users to preferred users that accompanies exercise of preferences. The magnitude of the wealth redistribution taking place is, of course, enhanced by the fact that preferred users apparently do not have to pay compensation to less preferred users when a preference is exercised.

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### References

1. See the discussion in Chapter 1, beginning on page 1-2.
2. Wash. Rev. Code §90.03.040 (Supp. 1961).
3. Yeutter, A Legal-Economic Critique of Nebraska Watercourse Law, 44 Neb. L. Rev. 11, 50, 51, (1965).
4. See the discussion in Chapter 1, beginning on page 1-5.
5. 184 Neb. 415, 168 N.W.2d 24 (1969).
6. 200 Neb. 1, 261 N.W.2d 766 (1978).
7. Id.

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## CHAPTER 5

# RELATIONSHIP OF THIS STUDY TO OTHERS

No matter how determined the effort, it is impossible to separate water policy issues into ten, twenty, or fifty separate and distinct issues for analysis purposes. Water policy is complex with many overlaps in issues when any system of categorization is used. In designing the original nine policy issue studies for the State Water Planning and Review Process in 1978, an attempt was made to separate issues in as logical a fashion as possible. Still, numerous problems are encountered because of this separation. For example, the Selected Water Rights Issues Study of which this report is a product was renamed and totally redesigned in 1980 because of overlap problems with other studies. One-half of the subissues originally scheduled for analysis as a part of this study were dropped and several others were added because of refinements in other study designs resulting in either previously unanticipated overlaps or, in some cases, voids.

It is still impossible to specify with any degree of certainty what issues will be addressed in most of the policy issues studies. Only the Water Quality Policy Issue Study has been completed; two of the studies - Interbasin Transfers and Weather Modification - have not yet been started. The other six studies, including the Selected Water Rights Issues Study, are in varying stages of development. Until policy alternatives are finalized for those studies and the impacts of these alternatives are assessed, the full relationship of one study to another will not be known. The relationships which are identified in this chapter are therefore based upon the best information available at the time this report was being prepared.

It is important that the relationships between policy issues be identified. Such identification promotes awareness of the fact that any particular water policy action will have greater impact upon overall water policy than just the resolution of the immediate issue at hand. The result of this awareness should not be to delay automatically what may otherwise appear to be a favorable action, although that may be appropriate in some cases. However, such awareness should at a minimum discourage actions which will prevent consideration of new information at a later date.

Based upon the information available at the time of this writing, significant relationships between preferences and all other policy issue studies except the Weather Modification Study can be identified. In addition, relationships with five of the other seven issues to be addressed in separate reports as part of the Selected Water Rights Study have been noted. A discussion of these relationships for each of the other studies and for each of the other issues in this study follows.

### Study #1: Instream Flows

As noted in the discussion of Alternative #13: Modify the Preferences System by Adding Instream Uses, preferences can play a key role in the

matters addressed by the Instream Flow Study. Implementation of that alternative is not essential to adoption and implementation of an instream flow program for the state, but it would be a natural and appropriate part of any such program. Without it, there would be questions about the relationship of instream uses to uses which were on the preferences list, especially if the program included the issuance of appropriative rights for instream uses. Whether those uses on the list could assert a preference to acquire the instream flow right, or vice versa, would be unknown.

Although in most instances satisfying the water needs of one instream water use will also benefit other instream uses there may be occasional conflicts between instream uses. These could occur on regulated streams where the opportunity exists for managing the amount of stream flow specifically for one or more instream uses. Some instream uses benefit from periodic high flows to scour undesired vegetation. There may be times of the year for these uses when the existence of a flow is not necessary. Other uses may receive more benefit from a small but steady flow on a year round basis. Establishing preferences among the instream uses would be one way of resolving such conflicts.

It has been previously noted that as long as compensation is required to exercise a surface water preference, position on the preferences list is relatively unimportant. If, however, Alternative #12: Repeal the Requirement that Compensation Be Paid to Exercise a Preference were enacted and surface water preferences thus became absolute, position on the preferences list would be of extreme importance to any recognized instream or other uses. The preferred uses, whatever they might be, would receive the water in times of shortage.

At least one additional alternative has a direct relationship to the instream flow issue. Temporary benefits would be realized for instream uses with the adoption of Alternative #8: Allow Reservation of Water For Preferred Uses. If the water reserved for a later consumptive use was not used for an interim use it would remain in the stream where it would help to maintain instream values found there.

#### Study #2: Water Quality

The only policy issue study completed thus far, the Water Quality Policy Issue Study addressed a number of points directly or indirectly related to preferences. Perhaps the most direct also ties very closely with the instream flow study; i.e., the recognition of waste assimilation as a valid water use by including it in the preferences list (Alternative #13).

Preferences, whether in current form or in some modified form, could also be utilized in other ways to protect ground and surface water quality. While preferences have thus far been used only in a water quantity sense, they may have application in the prevention of activities which change the quality of water and make it unusable for preferred uses. A domestic ground water user might be successful in using preferences to prohibit water use which, when combined with fertilizer applications, causes a leaching of nitrates into the aquifer, making the water unfit for domestic consumption.

Water quality goals can also sometimes be in conflict with preferences, at least indirectly. One of the largest contributors to water pollution, at least in terms of quantities of pollutants, is runoff from agricultural land. This sometimes introduces large quantities of sediment and associated chemicals. By constructing or establishing conservation practices or taking other steps designed to reduce this runoff and in turn improve water quality, the quantity of surface water flow also may be reduced. With less water available for use in the streams, more conflicts among users can be expected, thus increasing the likelihood of the need to exercise preferences.

### Study #3: Ground Water Reservoir Management

Preferences are directly related to ground water reservoir management and are in fact part of the present state policy for that management. Prather v. Eisenmann<sup>1</sup> indicates that ground water preferences will have a fairly significant role in that management, at least as related to protection of preferred users' means of access to the water supply. There is no reason to believe that a court would find any less significant role in conflicts involving the adequacy of that water supply. Preferences are also recognized in present statutory mechanisms for the administrative management of ground water.<sup>2</sup>

Since preferences already play such an integral part in the state ground water management policies, any modification in those preferences or in their function will obviously affect that management. The addition of municipal use (Alternative #4) especially with a high preference, could have considerable impact upon the level and management of irrigation development in areas where there was potential conflict with municipal wells. Adopting standards on use of preferences to protect the means of access to the water supply, as is discussed in Alternative #15, could significantly affect that use of preferences and would favor additional ground water development. A pro-development posture would also favor adoption of Alternative #14, to make compensation a requirement for the exercise of ground water preferences. This alternative would reduce the extent to which preferences could contribute to the management of the ground water reservoir.

### Study #4: Water Use Efficiency

The relationship of preferences to the Water Use Efficiency Study is less direct than with some of the other studies, but nevertheless exists. That study is assessing efficiency in water use from a physical standpoint -- how can waste of water be eliminated. Preferences affect efficiency in water use in more of an economic sense. A number of the alternatives would tend to encourage economic efficiency (Alternatives 2a, 4, 5, 7, 11, and 14) by granting a higher preference to uses normally having a higher economic value, or by allowing economics to play a greater role in preferences conflicts. On the other hand, some other Alternatives (2, 3, and 12) would appear to promote economic inefficiency.

Efficiency will probably be measured by more than economics. Alternative #7 (flexible preferences) could be structured to allow

consideration of any desired standard. For example, a user might be prevented from asserting a preference unless he or she could demonstrate that the preferred use was not wasting water.

#### Study #5: Selected Water Rights Issues

Issue #1: Drainage of Diffused Surface Waters. No significant relationship with this issue was identified.

Issue #3: Beneficial Uses. The concepts of preferences and beneficial uses are closely related. It is sometimes argued that present surface water preference provisions operate to define beneficial uses for natural flow surface water rights. If that contention is correct, any modification in surface water preferences would therefore have substantial effect on the meaning of beneficial uses for those purposes.

For some issues, the concept of beneficial use presents policy alternatives which would be options to preference alternatives, e.g., defining beneficial use is another way to address instream flow needs.

Issue #4: Property Rights in Ground Water. A very close relationship has already been established between preferences and the rights of ground water users. The Prather v. Eisenmann case<sup>3</sup> indicates that existence of the ground water preferences statute significantly affects the rights of conflicting users for different purposes. The preferred user's rights are substantially enhanced while those of the inferior user are devalued by an equal amount. In other words, position on the preference list is critical in measuring the extent of the ground water user's rights. Any action to modify ground water preferences would accordingly affect the nature of the rights to the use of that water. For example, a repeal of the ground water preferences statute would mean that each user would have a right to make reasonable and beneficial use, without preference, of the water underlying his land. In times of shortage each user would be entitled to a reasonable proportion of the whole, again without preferences playing a role in determining what constituted a reasonable proportion.

Issue #5: Water Right Adjudications. No significant relationship with this issue was identified.

Issue #6: Riparian/Appropriative Rights. As noted earlier in this report<sup>4</sup> preferences may have no application to riparian rights. However, perhaps on the strength of the overall policy implicit in the preferences provisions, the courts have granted at least some level of protection to riparian rights, especially those used for domestic purposes.<sup>5</sup>

The major item considered in the report on riparian rights will be whether steps should be taken to integrate those rights into the appropriation system. If a decision were made legislatively to require filing and adjudication of riparian claims, those rights, once integrated with all other appropriative rights, would, unless otherwise provided by the Legislature, clearly be subject to preferences the same as the other appropriative rights. Any modification in the preference system would therefore have the same affect on all appropriative rights, no matter what their origin.

Issue #7: Interstate Water Uses and Conflicts. The scope and purposes of the study and report on this issue have not yet been well defined, so the relationship with preferences cannot be fully assessed. A relationship may exist, however, in any attempt to negotiate or litigate interstate water conflicts. The state is likely to be more successful arguing for water to satisfy those uses it treats as preferred uses. Uses not recognized at all or given a low preference are likely to receive similar recognition in the resolution of these interstate disputes.

Issue #8: Transferability of Water Rights. The relationship between preferences and transferability is very direct. In fact, the two issues are difficult to separate for some purposes. In Nebraska, surface waters are generally considered to be nontransferable to another parcel of land or for another use. An exercise of a preference amounts to an exception to this general rule. Transferability can play a key role in preference alternatives, including the total or partial substitution of a free market system for current preferences policies. Because of this close relationship, preferences and transferability policies would ideally be considered at the same time. At a minimum, recognition of the relationship should be maintained during all decision making on either issue.

#### Study #6: Municipal Water Needs

As should be evidenced by the fairly extensive discussion found in numerous portions of this report, preferences also represent one of the key issues to be faced by municipalities in the future. Alternative #4 is directly on point and will undoubtedly also be an alternative in the municipal water needs report. Where municipal use fits into the preference system could greatly affect the municipalities abilities to obtain adequate supplies and will affect the cost of those supplies.

#### Study #7: Supplemental Water Supplies

The objectives of the Supplemental Water Supplies Study include the identification of water short areas (both surface water and ground water), the identification of opportunities for augmenting supplies in those areas, and the analysis of alternative policies to facilitate such augmentation. Among the measures expected to receive consideration are the use of surface waters to recharge inadequate ground water supplies and the use of ground water to supplement streamflows when necessary for instream or out-of-stream uses. Because preferences are an integral part of the state's water allocation policies for both ground water and surface water, policy decisions on preferences will affect the ability to achieve any particular water augmentation objectives. In some cases, surface water preferences might limit the amount of water which could be taken from a stream for recharge purposes. In other cases, perhaps the same preferences would help justify supplementing natural streamflows with available ground water.

The relationship to ground water preferences will be even more direct, especially if those preferences are confirmed to be and remain

absolute in nature. If augmentation of surface supplies would conflict with any preferred ground water use, even one initiated later in time, the augmentation would have to be discontinued or damages paid the preferred user.

#### Study #8: Interbasin Transfers

Because of the recent Nebraska Supreme Court case concerning the application of the Little Blue Natural Resources District for water from the Platte River,<sup>6</sup> the probability that some transbasin diversion projects will be implemented is the highest that it has been for a long time. Preferences should affect transbasin diversion projects in much the same way as in-basin projects. Again using instream uses as the example, if they are given a preference and their needs are quantified, less water would be available for diversion, whether for in-basin or out-of-basin needs.

#### Study #9: Weather Modification

No significant relationships with this study were identified.

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### References

1. 200 Neb. 1, 261 N.W.2d 766 (1978).
2. Neb. Rev. Stat. §46-671 (1978).
3. 200 Neb. 1, 261 N.W.2d 766 (1978).
4. See the discussion in Chapter 1, pages 1-4 and 1-5.
5. See, for example, Wasserberger v. Coffee, 180 Neb. 149, 141 N.W.2d 738 (1966).
6. In re Applications, Little Blue Natural Resources District v. Lower Platte North Natural Resources District, 206 Neb. 535, 294 N.W.2d 598 (1980).

SUMMARY OF HEARING  
REPORT #1, PREFERENCES IN THE USE OF WATER  
7:30 P.M.  
JULY 14, 1981  
Ogallala, Nebraska  
Stagecoach Inn

Persons attending:

Ralph Townsend, Bayard, North Platte NRD  
Allan R. Peterson, Lewellen, North Platte NRD  
John W. Williams, Chadron, Upper Niobrara White NRD  
Virgil E. Enfield, Arthur, Twin Platte NRD  
Roy W. Lilley, Alliance, Nebraska Stockgrowers Association  
Frank J. Myshnski, Ogallala  
Ron Cacek, Scottsbluff, North Platte NRD  
Karyn Stansberg, Rural, North Platte Telegraph  
Bruce Synder, Paxton, Twin Platte NRD  
Lloyd Peterson, Mitchell, Gering Fort Laramie Irrigation District  
Gary Richter, Ogallala  
Robert Richter, Ogallala  
Ray Russell, Mitchell, North Platte Valley Irrigators Association  
Paul Snyder, Scottsbluff, representing Don Steen  
Phillip Hort, Lyman, North Platte Valley Irrigators Association  
Don Steen, Morrill, Public Advisory Board  
Bob Gifford, Harrisburg, NRC  
Henry Reifschneider, Lincoln, NRC  
Steve Gaul, Lincoln, NRC  
Jim Cook, Lincoln, NRC

PUBLIC NOTICE

Legal notice of this hearing and the one on July 22 in Lincoln was published in twelve newspapers across the state. In addition, press releases were sent to every newspaper and radio station in the state.

HEARING PROCEDURE

Henry Reifschneider presided over the hearing. Steve Gaul explained the State Water Planning and Review Process and Jim Cook summarized the contents of the preferences report prior to the receipt of testimony. All present were given an opportunity to testify. An informal question and answer period was then conducted, and opportunity for additional testimony was granted prior to the conclusion of the hearing.

TESTIMONY OFFERED

1. Mr. Ray Russell, President, North Platte Valley Irrigators Association. The primary emphasis of Mr. Russell's testimony was that the position of agriculture in the preference system should remain at least as strong as at present. He explained that many of the users represented by his association received their water from Wyoming, and was concerned that changing Nebraska preferences could jeopardize those user's rights. Mr. Russell also indicated some need for definition of some of the uses, such as industrial, municipal, etc. In later testimony offered after the informal question and

answer period, Mr. Russell offered opinions on a number of the alternatives. He indicated opposition to alternatives #2, 3, 5, 6, 7, 8, and 9. A need to define municipal use was noted for alternative #4; #10 was supported; and #11 was felt to require more study. Mr. Russell felt that #13 should be opposed that instream uses should at least be placed at the bottom of the preferences list.

2. Roy Lilley, Executive Vice President, Nebraska Stockgrowers. Mr. Lilley testified that in the opinion of the stockgrowers, present constitutional policy on preferences is sound in concept. He also stated that the importance of agriculture should be maintained and indicated concern with alternatives #5, 12, and 13. Alternative #14 was supported.

3. Bob Richter, Perkins County Farmer. Mr. Richter's concerns were not so much with preferences specifically, but with declining water tables in his area and the changes in the quality of life that were likely to occur as a result of those declining water tables. He felt that regulations should not be different just because of state lines when a common aquifer was involved. He also indicated that perhaps preferences should relate not only to types of uses, but also to areas, suggesting that irrigation should be encouraged where the water is available, and discouraged where it is not.

4. John Williams, Manager, Upper Niobrara White NRD. Mr. Williams indicated that his district would provide written comments on the report later. He thought the report suffered from some loss in objectivity in emphasizing economic values excessively. He did note that if a preference to industry were to be granted over agriculture, it would be much more appropriate in eastern Nebraska than in western Nebraska. He expressed concerns about the energy related developments which may occur in his natural resource district and in Wyoming.

5. Phillip Hort, Vice president, North Platte Valley Irrigators Association. Mr. Hort testified in support of the statements made previously by Ray Russell and indicated some concern about the notice given of the hearing. He stated that he would have not have known about the hearing had he not be notified by Don Steen. It was explained that notice of the hearing was sent to the Scottsbluff newspaper for publication, but was apparently never published. Mr. Hort also indicated the need for additional time to develop any opinions on the alternatives offered in the report.

The hearing adjourned at 9:07 p.m.

SUMMARY OF HEARING  
REPORT #1, PREFERENCES IN THE USE OF WATER  
7:30 p.m.  
July 22, 1981  
Lincoln, Nebraska  
NRC Conference Room  
Nebraska State Office Building

Persons attending:

William Shreffler, Grand Island City Attorney's Office  
DeLynn Hay, Lincoln, UNL Ag Extension  
Richard Seymour, Clarkson, Lower Elkhorn NRD  
Robert Gifford, NRC Member  
Rudolf Kokes, NRC Member  
Jim Cook, NRC Member  
Don Thompson, NRC Member  
Howard Hardy, NRC Member  
Richard Hahn, NRC Member  
Henry Reifschneider, NRC Member  
Al Narjes, NRC Member  
Warren Patefield, NRC Member  
Wayne Johnson, NRC Member  
Clinton VonSeggern, NRC Member  
Erv Lechner, NRC Member  
Annette Kovar, NRC Staff  
Steve Gaul, NRC Staff  
Dayle Williamson, NRC Staff  
Gayle Starr, NRC Staff  
Tony Vrana, NRC Staff  
Elaine Vrana  
Dick Kennedy, NRC Staff  
Jim Cook, NRC Staff

PUBLIC NOTICE

Legal notice of this hearing and the one on July 14 in Ogallala was published in 12 newspapers across the state. In addition, press releases were sent to every newspaper and radio station in the state.

HEARING PROCEDURE

Henry Reifschneider presided over the hearing. Because of the small attendance, presentations were not given on the State Water Planning and Review Process or on the Preferences Report. All present were given an opportunity to testify. An informal question and answer period was then conducted and opportunity for additional testimony was granted prior to the conclusion of the hearing.

TESTIMONY OFFERED

1. Mr. William Shreffler, Grand Island, Office of the City Attorney. Mr. Shreffler urged a number of changes in preferences designed to provide better protection to municipal uses of water. He felt that municipal use ought to be defined and that it ought to include the generation of electric power through a municipally owned power plant. He noted that without power, Grand Island could not have industry.

A more careful definition of domestic needs was also suggested as was the placement of municipal and industrial uses of water ahead of agricultural uses in the preferences system. Noting that municipal and industrial uses, when combined, account for only a very small percentage of the total water use in the state, Mr. Shreffler gave as reasons for the suggested order of preferences: (1) industrial uses of water are often more economic uses and (2) while farming operations will change, but can continue without irrigation, industries requiring water as a part of their production process cannot continue to operate without it.

Mr. Shreffler noted during his testimony that there are at least three types of water uses in a municipality. They are those necessary for: (1) direct human consumption; (2) economic uses of water; and (3) convenience uses, such as for swimming pools, watering of lawns and gardens, etc. He indicated that it may be appropriate to treat each of those categories differently during times of water shortage.

As one additional comment, Mr. Shreffler suggested that in taking action on preferences (or any other studies) the Commission should be careful not to act in a way which would prevent changes at a later date as other studies demonstrate the need for such changes. He specifically noted the study on Municipal Needs to be completed in the near future.

No additional testimony was offered and the hearing was adjourned at approximately 8:20 p.m.