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A GUIDE TO
COLORADO WATER LAW

by

Ward H. Fischer and Steven B. Ray
in cooperation with
Glen D. Rask and Windol L. Wyatt

September 1978



Colorado Water

Resources Research Institute

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A GUIDE TO COLORADO WATER LAW

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April 1, 1978

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by all persons interested in water in Colorado,
especially water for Colorado's Agriculture.
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PREFACE

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The project is directed by Dr. Windol L. Wyatt and Dr. Glen Rask, Associate Professors, Department of Vocational Education, Colorado State University, Fort Collins, Colorado 80523.

April 1, 1978

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Steven B. Ray

March 2, 1978

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A GUIDE TO COLORADO WATER LAW

I. INTRODUCTION TO THE LAW OF WATER

Colorado was the leader in the development of a new concept of water rights, now generally adopted in all of the western states. Even before Colorado was admitted to the Union, it was recognized that the rules of water use developed for England and for the eastern United States would just not work in arid and semi-arid states such as ours. New rules were needed to meet the character of the land and the climate. The result is a comprehensive and very useful body of law, which we call the "appropriation doctrine."

The purpose of this manual is to provide a general guide to the law of the use of water. The rules stated are general ones, and the intent is to give the individual farmer or rancher a basic understanding of a subject which is essential to his operations and his livelihood. Technical terms and lawyer talk are avoided wherever possible. However, certain terms are so commonly used that you often must understand them in order to communicate with others in regard to water matters. Such terms will be defined in the text. While we hope this manual will help you to understand your own rights and also the rights of your neighbor, please remember that there are exceptions to general rules, and that laws change.

This manual is only a general guide, and not a legal textbook. Before asserting any particular right or resolving any water problem, you should consult with a qualified attorney.

II. WHAT IS "THE LAW"?

SUMMARY OF THE CHAPTER

"The law" is the term we use to describe the rules which control our conduct and insure our rights. When we speak of "water law," we are referring to a collection of rules which come from various sources. Taken together, they constitute the law. This chapter discusses the sources of the law regarding water.

- A. The United States Constitution
 - 1. The Bill of Rights
 - 2. Federal Powers
- B. Laws of the United States
- C. The Colorado Constitution
- D. Colorado Statutes
- E. Decisions of the Appellate Courts
- F. Decrees of the Lower Courts
- G. Rules and Regulations
- H. Interstate Compacts
- I. Treaties
- J. Equitable Apportionment

A. THE UNITED STATES CONSTITUTION

The United States Constitution is our supreme legal document. It defines the functions of government, and all

federal governmental power is derived from the Constitution. All powers not given to the federal government were reserved to the states or to the people. The Constitution is applicable to waters for two reasons:

1. THE BILL OF RIGHTS

The Bill of Rights (the first ten amendments to the Constitution) restricts government from actions considered to be improper. Particularly important to the water right owner is the constitutional prohibition against the taking of private property without due process of law. A water right, as we will see, is a property right; and this constitutional provision prohibits the government from taking it unless it does so in the manner required by the Constitution, and pays the owner fair compensation.

2. FEDERAL POWERS

Water rights are also affected by other provisions of the Constitution which define the powers of the United States. For example, Congress has the power to control navigable streams and water sources affecting navigable streams. Under this provision the Congress has passed laws prohibiting the pollution of any stream, whether it is navigable or not. Based on certain other constitutional provisions, the United States claims that it owns certain "reserved rights" in connection with national forests and parks, monuments and the like, as we will discuss in Chapter X. All of our activities, including our use

of water, are subject to the Constitution and to the laws passed under its provisions.

B. LAWS OF THE UNITED STATES

Congress has passed many laws (called "statutes") affecting the rights of water users in Colorado and elsewhere, and many more can be expected. Further, many federal agencies issue rulings which have the effect of law if their issuance is authorized by the federal statutes.

C. THE COLORADO CONSTITUTION

Colorado has the same type of Bill of Rights as the United States Constitution, and it also prohibits the taking of a water right except in the manner specifically allowed under Colorado law, which requires the payment of just compensation to the owner. In addition, Colorado has certain constitutional provisions directly pertaining to the use of the waters of the state. Under our Constitution, all of the waters of the natural streams within Colorado are the property of the people. This includes underground waters tributary to the natural streams. However, even though the Constitution prohibits individuals from "owning" water, it does guarantee the right of an individual to "appropriate" water. It further provides that as between those who use waters from the same source, the one who first beneficially uses the water shall have a preferential right to continue that use. This is the substance of the appropriation doctrine discussed in Chapter III.

No state has stronger or more comprehensive constitutional guarantees as to the use of water than does Colorado.

D. COLORADO STATUTES

Laws passed by the Colorado legislature are also called statutes or acts. As will be seen, we have a great number of laws governing the appropriation and use of water.

E. DECISIONS OF THE APPELLATE COURTS

Much of our law comes from decisions of the appellate courts. These are the courts which hear appeals of trials which are held in the lower courts and which make written decisions announcing the law.

Decisions of the Colorado Supreme Court, our highest appellate court, are binding upon all lower courts within the state; so any rule of law announced by our Supreme Court becomes as much a part of the "law of water" as any statute or constitutional provision. Sometimes these decisions interpret statutes. At other times, there is no statute which exactly fits the situation; and the court announces a rule which it believes to be fair and proper. In either event, the rule becomes a part of the "law." In rare instances, the United States Supreme Court may also announce a rule which directly affects the water rights of Colorado's citizens.

F. DECREES OF THE LOWER COURTS

District Courts in Colorado also render decisions and, in water cases, they are termed "decrees." The important

decisions for our purposes are the decrees which are rendered or given by the District Courts in water adjudication proceedings.

G. RULES AND REGULATIONS

The State Engineer is an official of the State of Colorado who is charged with the administration of waters within the State of Colorado in accordance with the decrees rendered by the courts. He has the power to issue rules and regulations concerning the distribution of water, particularly well water. These rules and regulations, if properly issued, have the force and effect of law. Other state agencies may also, from time to time, issue rules which more indirectly affect the use of water within the state.

H. INTERSTATE COMPACTS

Interstate Compacts are agreements made by two or more states. States can and do make agreements as to the division of waters in rivers and streams that flow from one state into another. Colorado has entered into a number of these compacts; all of which have the force and effect of law.

I. TREATIES

Strange as it seems, treaties made between the United States and other countries may affect streams in Colorado. As an example, a treaty with Mexico controls the salt content of the waters of the Colorado River and, therefore, may affect

the amount of water that may be taken from, and the amount of salinity permitted in, the return flow to that river.

J. EQUITABLE APPORTIONMENT

The United States Supreme Court has jurisdiction in disputes between states. If requested, it may fairly divide the waters of any interstate stream between two or more states. The effect is the same as a compact between the states. The fact that many major rivers have their origin in Colorado does not give Colorado the right to all of the water in those rivers.

III. THE WATER RIGHT

SUMMARY OF THE CHAPTER

A water right is a RIGHT TO USE water. It is acquired by APPROPRIATION, that is, the taking of the water from the natural stream and the application of that water to a BENEFICIAL USE. Water rights are governed by the all-important concept of PRIORITY OF APPROPRIATION which is the cornerstone of all Colorado water law. Its basic concept is expressed as: First in time is first in right.

A water right is real property. It may be sold or given away. As real property, it is protected by the Colorado and the United States Constitutions.

- A. Defined and Discussed
- B. A Real Property Right

A. DEFINED AND DISCUSSED

We speak in terms of "water rights." Water rights are a peculiar kind of property. We cannot own the waters flowing in our streams in the same way that we own an automobile or boat because the ownership or title to all of the waters of the natural streams in this state belong to the people of Colorado. An individual can, however, acquire a right to use the public waters. When he has such a right, we say that he "owns" a water right.

Such a right is obtained by the simple act of "diverting" (taking) waters from the natural stream and applying those waters to a beneficial use. When a person has done this, he is said to have made an "appropriation" of the water.

Waters can only be appropriated for a "beneficial use." The Constitution does not define that term; but it does make reference to "domestic," "irrigation" and "industrial" uses. Domestic uses include drinking, bathing, washing, and irrigation of lawns and shrubs. Agricultural use includes irrigating crops and pastureland and watering livestock. Industrial use includes mining, milling, the production of power, and the making of products.

The courts, in interpreting the Constitution, have expanded the concept of beneficial use to allow municipal uses including not only the domestic uses discussed, but also water for fire fighting, street sprinkling, swimming pools, and other recreational purposes.

Waters can also be appropriated for raising fish, even though this does not fit into any of the specific categories described.

By allowing these beneficial uses, the Supreme Court surely did not mean to restrict the term. Any use which can be shown to be beneficial and not wasteful would be allowed. An attempt to appropriate water for purely aesthetic purposes, however, would probably be considered wasteful. For example, we all enjoy watching the rushing water of streams, but no private individual may appropriate the water in a stream for the sole purpose of insuring the continuance of such flows.

However, under recent legislation, the State of Colorado is allowed to make an appropriation of minimum stream flows, reasonable in amount, for the purpose of maintaining the environment.

Colorado has a limited water supply. As our population increased, it became clear that not everyone could have all the water which he wished all of the time. A system for the orderly and peaceful distribution of a limited supply of waters was needed. The solution was the development of the idea of "priority" of appropriation. The first person to divert the water and apply it to a beneficial use had the right to continue to divert the water for such use in preference to the right of any other person to use the water. Similarly, the person who was the second to divert waters from the same stream and apply it to a beneficial use had a right to continue to do so in preference to the rights of any person other than the first water user. This doctrine of "priority of appropriation" is the backbone of all Colorado water law. Its continuance is specifically required by the Colorado Constitution. It means, literally, "the first in time is the first in right."

The right to appropriate and use water, in preference to later appropriators, is our "water right."

B. A REAL PROPERTY RIGHT

A water right, that is, a right to use waters from the natural streams (or the underground waters tributary to those streams) is a real property right. "Real" property is property

connected with or having the characteristic of land. A farm is real property; so is a house. "Personal" property is property unconnected with the land: an automobile or a bale of hay or a ten dollar bill.

Like other real property, a water right can be used, sold or given away. It is protected, like other real property rights, by the Colorado and United States Constitutions. That is, neither the government nor anyone else can take it from the owner, except for a purpose allowed by law, and then only through condemnation which requires the payment of its fair market value.

The Constitution of the State of Colorado states that

. . .[W]hen the waters of any natural stream are not sufficient. . .those using the water for domestic purposes shall have the preference over those claiming [water] for any other purposes, and those using the water for agricultural purposes shall have the preference over those using the same for manufacturing purposes.

This provision would lead one to the conclusion that agricultural users could take the entire flow of the stream, requiring factories to shut down if necessary; and that cities could take the entire flow of the stream if necessary, requiring irrigators to cease diversions. However, that is not what the Constitution means. All that this provision does is to set forth the policy of the State of Colorado that, if necessary, waters may be condemned from one use for another use. Thus, if a city desires additional water for its inhabitants, it may condemn agricultural or industrial water rights. But it must do

this by condemnation proceeding, and it must pay the reasonable and fair market value for the water right which it takes. Realizing, even under these rules, that the cities could drastically injure the agricultural economy, the state legislature has further required that cities may condemn water only under very unusual and stringent circumstances.

IV. ADJUDICATION OF WATER RIGHTS

SUMMARY OF THE CHAPTER

To protect his water right, a water user must participate in an ADJUDICATION PROCEEDING. The procedure involves submitting a claimed right to a WATER COURT in hopes of being awarded a DECREE and a PRIORITY NUMBER. One unable to immediately complete his appropriation may receive a CONDITIONAL DECREE which will preserve his rights until the appropriation is completed.

TABULATIONS are lists of adjudicated priorities.

- A. Final Decrees
- B. Conditional Decrees
- C. Tabulations of Decrees

A. FINAL DECREES

We have already said that one who takes water from a natural stream and applies it to a beneficial use is an appropriator and that his acts constitute an appropriation. It is in this manner that the "water right" is created.

An appropriator, as a part of his water right, has a preference, or priority, which is a part of his water right. He may take the water to which he is entitled by virtue of his appropriation to the exclusion of any persons who made their appropriations at a later date.

However, there are necessary steps which must be taken to protect that right and to make certain that it is properly recognized. The procedure is called an "adjudication." Court hearings designed to consider the appropriations of water are called "adjudication proceedings." An adjudication is merely a formal court proceeding resulting in a determination by the court (a decree) which recognizes the appropriation. Participation by water users in adjudication proceedings is very much encouraged by law. The Colorado legislature wants to make certain that a complete record of existing water rights on the stream is developed in order that the State Engineer, who has the duty of delivering the water to those entitled to it, has some record upon which he can rely in making his deliveries.

A special court procedure has been established to determine water rights. Prior to the passage of the Water Right Determination and Administration Act of 1969, these adjudication proceedings were held only upon the initiation of a proceeding by an interested water user. Years could pass before appropriations were evidenced by a decree. Whenever one was commenced, however, all persons who had made appropriations since the last adjudication proceeding were required to participate. If they failed to do so, they lost their relative priority as against those who did so participate. The result was that, for example, a person who made his appropriation in 1890 and who failed to participate in an adjudication proceeding which was held, say, in 1910,

lost his relative priorities as against all persons who participated in that 1910 adjudication proceeding, even though some of them may have made their appropriations much later than 1890. In other words, all decrees which were awarded in one adjudication proceeding were superior in time to all decrees which were awarded in a later adjudication proceeding no matter what the true date of appropriation. The person seeking to maintain the true priority of his water right was, in effect, forced to participate in the proceedings. If he did not, he lost his right to have the waters delivered to him under his true appropriation date.

Under the present law, the adjudication proceedings are continuing ones. An application by a water user may be filed and considered at any time. Appropriators must still be diligent in submitting their claims for adjudication because claims filed in any calendar year are given a right superior to any claims which are filed in a subsequent calendar year, no matter what the true date of appropriation. These adjudication proceedings, then, may result in some modifications of the true appropriation doctrine.

The court may establish, in the proceedings, the relative rights of the various water users as against each other based upon the concept "first in time is first in right." The court does this by awarding each water right a "priority" number, which corresponds to the date that the appropriation was made. The court will also establish, as a permanent record, the amount of water diverted, the point in the river

from which the water was diverted, and the means by which the water was taken to the land for beneficial use. Because the court does this, the water user will have a decree recording the amount of water to which he is entitled, the use to which the water may be put, the point on the river at which the water is to be taken, and the date that the water was first taken. Each water user, knowing his priority and knowing the priorities of all other water users on the stream, can then determine when he is, and when he is not, entitled to take water. Of course, he seldom needs to make this determination himself; for, as will be seen in Chapter VI, there are officers of the State of Colorado who are charged with the duty of delivering the available waters to those who are entitled to them.

The present procedure to determine water rights is established by the Water Right Determination and Administration Act of 1969. It created the position of "water judge" for each water division. This judge is the only judge who can act on water matters within that division. Each division water judge is assisted by a water clerk who maintains records of all proceedings and rulings by the water judge. He is also assisted by a referee, who makes many of the rulings, subject to the approval of the water judge.

Any person who desires to obtain a court decree determining that he has acquired a water right must file an application with the division water clerk, stating the facts supporting his claim. Notice is given by a mailing list,

and by publication, to all those who might be interested. Any person desiring to oppose the application must file a statement of opposition with the water clerk within a prescribed time.

Ordinarily, the referee will be the first one to investigate the application. He may decide the matter based upon affidavits submitted with the application, or he may request the applicant to appear in person to present his and other testimony concerning the claim. When the referee is satisfied, he will issue his ruling, a copy of which is furnished to the applicant and to any person in opposition. Either party may protest the referee's ruling in writing within twenty days of its issuance.

All rulings of the referee are then referred to the water judge. If no protests have been filed to the referee's ruling, the water judge will ordinarily adopt the referee's ruling and make it the order of court. If a protest has been filed, the water judge will conduct a trial and may either approve or disapprove of the referee's ruling. The water judge's decision becomes the decree of court. Any person dissatisfied with it must appeal to the Colorado Supreme Court, which has the final say as to all matters of Colorado law.

The final ruling, whatever it is, is then filed in the office of the water clerk as a permanent record. A copy is also furnished to the Division Engineer and to the State Engineer and becomes a part of their permanent records. The

ruling is used by them for purposes of administration of it and all other water rights in the division.

In most water divisions the referees have announced rules requiring specific information to be submitted with any application. The water clerk or the Division Engineer can furnish the rules and forms of application to any interested water applicant.

B. CONDITIONAL DECREES

The decrees which we have been discussing have been those where the water has in fact been taken from the stream and applied to a beneficial use. Since the appropriation has been completed, the decree which awards the priority number for such a right will be a "final" decree. It is final because the appropriation is completed, and nothing is required to be done to complete the appropriation or to obtain the water right. Occasionally, a person wishes to develop a water supply for his lands; but because of the size of the project, and its expense, he cannot do so at once. A means is provided by which he may obtain a decree of court awarding him a priority date now even though the actual taking and use of the water is delayed until some future time. Such decrees are made on condition that reasonable diligence in completing the project be shown, and the decree is accordingly referred to as a "conditional" decree. The advantage of obtaining a conditional decree is that an early priority date may be obtained even though the

water is not actually taken until some future time. Without the ability to obtain the earlier date (which increases his chances of getting his water when he wants it), the developer might be unable to justify the expense of the entire project. The conditional decree resolves this dilemma.

Conditional decrees are often sought for large reclamation projects which take years to build. Anyone holding a conditional decree must, at least every four years, submit to the court a report as to the efforts he has made to complete the project. If the court deems them sufficient, it will enter an order finding that reasonable diligence has been exercised, and that the decree remains conditionally effective. If insufficient effort is shown, the court may cancel the decree.

When the project is completed, and the waters applied to a beneficial use, the court is requested to make the decree final. The court will do so, confirming that it bears the date of appropriation and priority number as first conditionally awarded.

C. TABULATIONS OF DECREES

The Division Engineer, with the approval of the State Engineer, is required to prepare a tabulation of all water rights and conditional rights within his division. The purpose of these tabulations is to summarize the provisions of all water decrees within the division, so that there will be one list for ready reference which contains all of the

information concerning all of the water rights within a particular division. Preliminary or temporary tabulations have been made and are now available from the office of the Division Engineer for each division. The tabulation that is to be prepared in 1978 will, under existing law, be final as to certain matters: the date of adjudication, the date of appropriation, and the volume or amount of water rights listed. Because it is to be final as to these matters, it is very important that each water user determine that the water right owned by him is correctly tabulated. This can be done only by comparing the information from the actual decree with the information as listed in the tabulation. If there is any discrepancy, the Division Engineer should be immediately notified. If he is notified prior to the publication of the 1978 tabulation, he will probably correct it before the 1978 tabulation is prepared and published. If it is incorrectly listed on the 1978 tabulation, then objections must be made. Thereafter, hearings will be held, and upon the completion of the hearings the tabulation will become final. One confusing element, in comparing a water right as shown by the decree with the data in the tabulation, is the priority number. Prior to the 1969 act, each water district had its own list of priorities. The tabulation attempts to change the numbers to show their relative rights within the whole river basin. Thus priority number 20 in water district #3 might be priority #190 in water division one. There is no real way to assure that the priority

number as listed in the tabulation is correct; but one can at least make sure that the priority date, and the date that the priority was adjudicated, are correctly listed.

The location of the water courts within each division are as follows:

Water Division No. 1

Clerk of the Water Court
Water Division No. 1
Post Office Box 789
9th Avenue and 9th Street
Greeley, CO 80631
TELEPHONE: 353-8050,
353-2212, Ex 345

Water Division No. 2

Clerk of the Water Court
Water Division No. 2
308 Judicial Building
Pueblo, CO 81003
TELEPHONE: 542-0311, Ex 53

Water Division No. 3

Clerk of the Water Court
Water Division No. 3
Alamosa County Courthouse
Alamosa, CO 81101
TELEPHONE: 589-4996

Water Division No. 4

Clerk of the Water Court
Water Division No. 4
District Court
Post Office Box 368
Montrose, CO 81401
TELEPHONE: 249-9676

Water Division No. 5

Clerk of the Water Court
Water Division No. 5
District Courthouse
Post Office Box 1300
Glenwood Springs, CO 81601
TELEPHONE: 945-5075

Water Division No. 6

Clerk of the Water Court
Water Division No. 6
District Court
Post Office Box 327
Steamboat Springs, CO 80477
TELEPHONE: 879-0322

Water Division No. 7

Clerk of the Water Court
Water Division No. 7
District Court
Post Office Box 1910
Durango, CO 81301
TELEPHONE: 247-2304

V. THE LOSS OF A WATER RIGHT

SUMMARY OF THE CHAPTER

The right to use water can be lost. The two traps which can claim the water right are ADVERSE POSSESSION, which basically involves a person using another's right for eighteen continuous years or seven years under certain circumstances, and ABANDONMENT, which is the mere failure to use a water right coupled with an intent to never use it again.

A. Adverse Possession

B. Abandonment

A. ADVERSE POSSESSION

Water rights are real property rights; and all real property rights are subject to "adverse possession." The adverse possession of water rights results in the loss of the water right by the one who owns it and the vesting of that right in another person who possesses it. In order for a non-owner to obtain the owner's title to the water right by adverse possession, he must prove: (1) that he actually took the water, (2) that he took it openly, (3) that he took it exclusively, (4) that he took it continuously, and (5) that his taking was notorious and hostile for a continuous period of eighteen years. Thus, a mere claim of right will

not be sufficient; he must actually use the water, and it must be under such circumstances that the owner of the water right knew that his rights were being taken. Further, it must be shown that the owner did not agree or consent to the use. In other words, adverse possession does not arise by the neighborly act of allowing another to use the water. The claimant must take it, not borrow it. The use must be for the full eighteen year period, continued and uninterrupted. Adverse use for a period of five years, followed by a year or two of use by the true owner, and followed again by fifteen years of adverse use, does not result in the loss of the water right by the true owner.

There is one exception to the eighteen year requirement. If a person adversely uses a water right for seven successive years under "color of title" and pays all taxes in connection with the water right for that time, then the title is lost by the owner and acquired by the person using the water and paying the taxes. Taxes are not paid on water rights in Colorado except as they are used in connection with land; therefore, the use of the water on land, and the paying of taxes on those lands, would satisfy the tax-paying requirement. "Color of title" means that the user must have some claim of right, such as a deed, even though it was from someone who had no power to transfer the water right.

B. ABANDONMENT

Abandonment of a water right consists of two things:
1) the failure to use the water right and 2) an intent to

never use it again. When these two things happen, the water right is abandoned.

Ordinarily, of course, no one will ever admit that he had any intent to discontinue the use of the waters. But the courts have held that his intent may be determined from the circumstances. The main circumstance is long, continued, non-use of the right. The courts have considered water rights abandoned, depending upon the circumstances, when they have not been used for many years. On the other hand, if there is some good excuse that can be advanced for non-use of the water right, the court can be convinced that the non-use was due to circumstances other than an intention to abandon. Of course, if the water is not available under the appropriation doctrine because of low priority, non-use cannot be used to prove abandonment. The water must be available before non-use can ripen into a loss of the water. The number of years that need pass for an abandonment to be expected cannot be stated with certainty. The present law provides that non-use of water when available for a period of ten years will create a "presumption" or an inference that the water has been abandoned. The Water Act further provides that the Division Engineer of each division should make a list of all water rights which he thinks have been abandoned and bring them to the attention of the water court who can, after notice and hearing, declare them to be abandoned. In any event, no one except the court can declare

the abandonment of a water right; and that will happen only after the owner of the water right has requested and had a full hearing.

VI. WATER RIGHT ADMINISTRATION

SUMMARY OF THE CHAPTER

This chapter discusses the ADMINISTRATION of Colorado waters and the officials involved in that administration. These officials are: STATE ENGINEER, DIVISION ENGINEER, and the Assistant Division Engineer (more commonly referred to as WATER COMMISSIONER). These officials are charged with the duty of dividing the waters among the many users. Also included in this chapter is a discussion of the measurements of water.

On any particular stream, there may be hundreds, perhaps thousands, of water users who own water rights and who have decrees of court establishing their priorities. Theoretically, these persons should be able to take the water to which they are entitled and to avoid taking them when those having superior rights are entitled to the entire flow. As you can imagine, this was not the way it worked. When each water user made his own judgment as to when he was entitled to use the waters of the stream, he would resolve all doubts in his own favor, resulting in chaos and occasionally bloodshed.

It was primarily to insure the proper division of the state's waters among the many water users that the office of the State Engineer was created. He is the water policeman.

His duty is to "administer" the waters of the state; that is, it is his duty to strictly follow the decrees of the courts and to deliver the waters to those persons entitled to them under the priority system. In addition, it is his duty to make sure that no water user wastes his water. All river headgates, which are structures to divert the water from the stream and are the measuring devices which measure the amount of water diverted, are under his supervision and control; anyone who tampers with the headgates contrary to his orders, or who diverts water by any structure contrary to his orders, is guilty of a crime. He is required to keep a careful record of the use of the waters in the state during each year.

Obviously, no one man could do all of this. The State Engineer has many assistants. The State Engineer's office is located in Denver, but his assistants reside all over the state.

His principal assistants are "Division Engineers" who administer the waters of the major river basins. The boundaries of the irrigation divisions are shown in Appendix A. The location of the office of each Division Engineer is as follows:

Water Division No. 1
Water Division Engineer
Water Division No. 1
Room 208
Eight and Eight Office Bldg.
Greeley, CO 80631
TELEPHONE: 352-8712

Water Division No. 2
Water Division Engineer
Water Division No. 2
1906 West Northern Avenue
Pueblo, CO 81004
TELEPHONE: 542-3368

Water Division No. 3

Water Division Engineer
Water Division No. 3
Post Office Box 269
1015 Fourth Street
Alamosa, CO 81101
TELEPHONE: 589-6683

Water Division No. 4

Water Division Engineer
Water Division No. 4
Post Office Box 456
Montrose, CO 81401
TELEPHONE: 249-6622

Water Division No. 5

Water Division Engineer
Water Division No. 5
Post Office Box 396
Glenwood Springs, CO 81601
TELEPHONE: 945-5665

Water Division No. 6

Water Division Engineer
Water Division No. 6
Post Office Box AE
Steamboat Springs, CO 80477
TELEPHONE: 879-0272

Water Division No. 7

Water Division Engineer
Water Division No. 7
Post Office Drawer 1959
960 East 2nd Avenue
Durango, CO 81301
TELEPHONE: 247-1845

Prior to 1969, the state was divided not only into irrigation divisions but also into irrigation districts. Although the districts were abolished by the 1969 law, they still exist in fact because the old districts constituted the logical regions in which water administration could take place. Within these areas resides an official generally called the "Water Commissioner," although his true title is Assistant Division Engineer.

A capable Water Commissioner will have a very good knowledge of his river or the section of the river which he is required to administer. All of the technical data gathered by the office of the State Engineer is available to him, but equally important is his experienced judgment. His job amounts to a good deal more than the simple matter of ordering headgates opened for priorities Nos. 1, 2, and 3, etc., and requiring the rest to be closed. Rather, he will cause as many priorities as possible to be satisfied by taking into consideration such factors as: (1) the expected demands and calls of the earlier priorities, (2) the runoff expected to occur, and (3) the effects of the return flows from existing irrigation.

In some sections of the state, the Water Commissioner will personally open and close the headgates and lock them into position. In other areas, he will issue directions that headgates be opened or closed, or how much water may be diverted from a partially open headgate. In either event, the headgate is considered under his direct control, and

diversion of water contrary to his orders, or the tampering with the headgate when once placed in accordance with his orders, is, as we have said, a criminal offense. The Water Commissioner is the one primarily responsible for maintaining a record within his particular section of the river as to the water diversions which have occurred on a particular day. He keeps track not only of the ditches which are diverting, but the amount of water which they divert, and enters all of that data into a field book which he maintains on a daily basis. These field books are compiled from time to time and a permanent copy is kept by each Division Engineer as well as by the State Engineer.

In a few areas of the state, particularly on the western slope, few water users have actual headgates although the Division Engineer can always require them. However, if the water supplies are sufficient, the Water Commissioner can do a fairly good job of administering the water even though the water cannot be precisely measured through the headgate. However, the tendency is for headgates to be required in all sections of the state.

When headgates are required, the water is measured through a measuring device. This is commonly referred to as a "weir" although a weir is merely one type of measuring device. Nearly all measurement is now done through a structure developed by Ralph Parshall of Colorado State University some years ago and properly termed a "Parshall flume" although many still call it a "weir." The flume, or any type of weir, measures the water in terms of flow, specifically

in cubic feet of water per second of time. A flow of one cubic foot of water per second of time means that the flow is such that, each second, one cubic foot of water (a body of water one foot long, one foot wide and one foot deep) will pass a given point. You will find that all decrees for ditch diversions award the water right in cubic feet per second (abbreviated c.f.s. and often referred to simply as second feet).

The State Engineer's duties regarding administration extend also to reservoirs. He determines, under the priority system, which reservoirs are eligible to be filled at any particular time. Storage waters are measured not in terms of flow (cubic feet of water per second of time) but in terms of volume. Sometimes the amount of water which can be stored in a particular reservoir is expressed in cubic feet of water and sometimes in acre feet. It requires 43,560 cubic feet of water to equal one acre foot. You may also determine the acre feet, knowing the cubic feet, by multiplying the cubic feet by 0.000022957. A cubic foot of water is, of course, a volume of water measuring one foot in each dimension. An acre foot of water is that amount of water which covers one acre of ground one foot deep. A constant flow of one cubic foot of water per second of time will produce approximately two acre feet of water in a 24 hour period (the exact amount is 1.9835) or about one acre inch per hour.

Some reservoir decrees refer neither to cubic feet or acre feet, but to gauge height. This gauge shows the depth of the water from the outlet tube to the surface of the water. If it is so expressed, a map will have been prepared and will be found on file in the State Engineer's office, showing the amount of water in storage, in cubic feet or acre feet, for each gauge height reading.

In addition to determining the amount of water to be stored in reservoirs, the State Engineer is given the statutory duty to insure the safety of reservoirs. His office maintains a team of dam inspectors who from time to time examine each reservoir in the state. If they conclude that a dam is unsafe, they may restrict, or totally prohibit, the storage of water in that structure until it is repaired to their satisfaction. Further, no reservoir with a dam height of at least ten feet or a surface area in excess of twenty acres can be built without the State Engineer having reviewed and approved the plans and specifications for its construction. All of this is considered by the state to be essential to the safety of those living downstream from these reservoirs and of their property.

In addition to the surface waters, the State Engineer's office is also required to regulate and administer most of the underground waters of the state. His duties in this regard are discussed in the section on Wells, Chapter VII (G).

VII. SPECIFIC STRUCTURES AND SOURCES

SUMMARY OF THE CHAPTER

This chapter discusses the process by which water is actually captured and applied to use.

A water right may utilize waters from various sources and a variety of structures. While the basic law concerning the use of water remains the same no matter what the source or the type of structure, the particular rules as to how the right to use water is acquired and transferred are substantially different depending upon whether the water is on the surface or underground, the means by which the water is captured, and where the water is captured. This chapter concentrates on the varied ways individuals capture water and convey it to their lands.

Specific structures or entities discussed include private ditches, private reservoirs, mutual ditch and reservoir companies, Water Conservancy Districts, Irrigation Districts, public or "common carrier" ditches, and wells.

Waters which are not consumed by a particular use or which escape by that use are called WASTE or SEEPAGE WATERS and require the application of special rules, which this chapter addresses. Finally, a discussion of SPRINGS is included.

- A. Private Ditches
 - B. Private Reservoirs
 - C. Mutual Ditch and Reservoir Companies
 - D. Water Conservancy Districts
 - E. Irrigation Districts
 - F. Public or "Common Carrier" Ditches
 - G. Wells
 - 1. Existing Wells
 - a. Wells Taking Tributary Groundwaters
 - b. Small Domestic Wells
 - c. Wells Located Within a Designated Groundwater Basin
 - d. Wells Capturing Non-tributary Water
 - 2. Non-existing Wells: Permits
 - a. Wells Taking Tributary Groundwater
 - b. Small Domestic Wells
 - c. Wells Capturing Designated Groundwater
 - d. Wells Capturing Non-tributary Waters
 - 3. Conflicts Between Well Users
 - a. Wells in Designated Groundwater Basins
 - b. Wells Outside of Designated Groundwater Basins
 - H. Waste and Seepage Waters
 - I. Springs
-

A. PRIVATE DITCHES

The most common method of connecting the source of surface water to its place of use is by ditches taking water directly from the stream and carrying it to the crop to be irrigated.

Large ditches are generally constructed and operated by mutual ditch companies which are discussed in Section C of this chapter. The present section deals with the ditch privately owned by one or more individuals.

A right-of-way for a ditch or reservoir over or on private lands may be acquired by deed, by contract, or by grant of right-of-way or easement from the landowner. In certain circumstances, the granting of such right may arise in law by implication. That is, the law implies or assumes that the right-of-way was granted whether or not it really was. For example, when one sells a part of his land, and that land is irrigated by a ditch across the land which he does not sell, the law assumes that he meant to give a right-of-way for the existing ditch to the person who purchased the land so served. A right-of-way can be obtained without any written document by consent. For instance, if a landowner allows another to expend money to build a ditch across his land, he will not be allowed to say that he objects to it. One who builds a ditch without permission and maintains it and uses it for eighteen years acquires a right to continue to maintain the ditch in the future by what is termed "prescription."

In some instances, the ditches were constructed by formal contractual agreements between the water user and the owner of the lands crossed by the ditch. Special obligations upon either the landowner or the water user may be expressed in those agreements.

Most ditches are, as we have said, well established; and the water user need do nothing more to obtain, or to retain, his rights to use them. In rare instances, the owner of a water right may have no way to carry the water to his lands. In such an instance, he is given a right, by Colorado statutes, to condemn a right-of-way across the lands of another for the construction of a ditch. Condemnation is a means by which private property can be taken through court action. It exists only to the extent that the Constitution permits and the legislature allows. The fact that such a provision exists for ditches indicates the importance with which water has always been regarded by those who have governed this state. When a right-of-way is condemned, just compensation must be paid, the shortest most direct route must be taken, and no land can be burdened with more than one ditch.

There are responsibilities which accompany the use of a ditch which crosses another's property. The user is responsible for maintaining the embankments so that the waters are not wasted and so that the waters do not flood or otherwise damage the lands or crops of another.

Private ditches and the water rights decreed to them are conveyed by deed. They may be conveyed together with the land which they irrigate, or the water rights may be conveyed separate from the land. If conveyed for other uses, the rules discussed in Chapter IX apply.

If the deed of conveyance specifically describes the water right to be conveyed, there is no question as to its

effectiveness. However, a deed to land may also convey the water used to irrigate that land even though it does not mention the water if that was the intention of the person selling the land. Whether or not this was the intent will be determined from all the circumstances, the most important of which are the usefulness or lack of usefulness of the land without the water and whether the sale price indicates that it was conveyed as an irrigated or dry land farm.

B. PRIVATE RESERVOIRS

Nature is terribly inconsistent in issuing its supply of surface water. Typically, the largest volume of water arrives during spring and early summer due to the melting snows, spring rains, and the seepage from the watershed. Many millions of cubic feet of water may be passed down the rivers without use. Later in the summer, however, stream flow is substantially reduced with many stream beds actually drying up. This situation has been resolved by the storing of water in reservoirs when it is abundant and using the stored water during the summer months when natural flow is low.

The water may be stored consistent with the appropriation doctrine so long as that water will, within a reasonable time, be applied to some beneficial use.

Colorado statutes specifically authorize the construction and maintenance of reservoirs and recognize the right to

store water for future beneficial use. Those statutes further authorize the construction and maintenance of ditches for carrying water to and from the reservoirs. Reservoir owners are allowed to condemn lands as necessary for the construction and maintenance of reservoirs and ditches.

A reservoir can be constructed away from the river or in the bed or channel of the river. It can be completely man-made or it may utilize the natural depression of the land.

The owner of a reservoir is responsible for any damage occurring as a result of dam failure. This is true, under Colorado law, whether or not he is in any way at fault or responsible for the failure.

The construction and use of reservoirs is watched closely by the State and Division Engineers. See Chapter VI.

Colorado statutes encourage the building of small reservoirs on water courses which are normally dry by providing for a property tax reduction of up to 25% of the assessed value of the surrounding acreage owned by the reservoir owner. The reservoir must have more than 1-1/2 acre feet capacity but less than 160 acres total area. Persons wishing to use this tax reduction must submit plans for construction of such reservoir to the State Engineer who, upon completion, will issue a certificate to the Board of County Commissioners of the appropriate county. The County Assessor annually evaluates the reservoir to determine

that it is being kept in a safe condition and used for the purpose of impounding water.

Private reservoirs and their water rights are conveyed by deed as in the case of private ditches. Similarly, a reservoir right may pass as a part of a land deed if that was the intention of the parties even though the right is not specifically mentioned.

C. MUTUAL DITCH AND RESERVOIR COMPANIES

Most of the early settlers in Colorado located near the banks of the rivers. They irrigated lands along the streams and their needs could be satisfied by small individual ditches. The pioneers could afford the expense and produce the labor necessary to construct them. As the population of the state increased, lands more remote from the stream were settled. Water for irrigation was still a necessity; yet from a dollar standpoint, it was no longer feasible for the individual rancher or farmer to build ditches of the length and size necessary to serve his lands.

To resolve this problem, various cooperative efforts were undertaken to allow the construction of large ditches and large reservoirs designated to serve a number of farmers or ranchers.

Some of these companies were organized as private, profit-making businesses. Water was acquired by the ditch company and sold to the farmers and ranchers. This type of company is called a public (or common carrier) company and is discussed in Section F of this chapter. Other organizations

are created under state law as public corporations, such as irrigation districts (Section F) or conservancy districts (Section D). The most common type of company and the one which will be discussed in this section is that which developed as an association of persons. These companies were formed as non-profit corporations for the sole purpose of constructing ditches and reservoirs and conveying water to the lands of those who participated in the endeavor. This type of company is called a mutual ditch or mutual reservoir company.

The members of a mutual company share the costs and expenses of transporting the water, and they share the right to use the water. Their share, or interest, is represented by stock certificates issued by the company to its members. Each share of stock is equal to every other share. The amount of water is delivered in proportion to the number of shares held by each member. Thus, in a mutual company with 100 shares of stock, a person owning 10 shares would be entitled to 10% of the water diverted or stored by the company each year. The expenses of the company, for maintenance of the ditch, division of the water, and administrative expenses, are likewise shared in proportion to stock ownership. The money to pay bills is collected by levying assessments against each share, and ordinarily the company will not deliver a stockholder's share of the water until he has paid his assessments. A continued failure to pay assessments may also result in the stockholder's shares being forfeited or sold, with the proceeds realized from the sale being used to pay the delinquent assessments.

A mutual ditch company is governed by a Board of Directors elected by the stockholders. Directors are charged with the responsibility of the operation of the company and may make reasonable rules and regulations concerning the conduct of its business and the disposition and control of its water.

The water right is carried in the court records and in the office of the Division Engineer in the name of the mutual ditch or reservoir company. However, the stockholders are the real users and owners of the water rights owned by the ditch company; and the company serves, in a sense, as a trustee for all of its stockholders.

The water right is transferred by assignment of the stock certificate, the surrender of that certificate to the ditch or reservoir company, or the issuance by the company of a new certificate in the name of the new owner. Mortgage or deeds of trust are shown on the face of the certificate and must be released on the certificate when the debt is paid. As between the parties to a sale, the water stock may be transferred by describing it in the deed; but anyone buying a farm irrigated by waters of a mutual company should obtain the assigned certificate as well because the company will not issue a new certificate in the name of the buyer until the old certificate is surrendered.

D. WATER CONSERVANCY DISTRICTS

Some irrigation projects are so large and so expensive that it would be impossible to construct them by private means. To meet the need for these larger projects, the

Colorado legislature authorized the creation of "water conservancy districts." These are public corporations organized for the purpose of developing projects to aid in making the greatest beneficial use of the waters within the state.

A conservancy district can be created only by owners of land within the proposed district who petition the court for its organization. After objections are filed and heard, the District Court may create the district and establish its boundaries.

A Board of Directors, appointed by the District Court, manages the business affairs of the district. The Board locates, constructs, and maintains the irrigation works. It acquires the land, obtains water rights, and delivers the water to the water user under allotment contract. It also appoints the officers of the district. The Board has wide powers to make rules and regulations governing the district and the use of the water among the landowners.

There are over 30 conservancy districts in the state and each of them is entitled to adopt its own reasonable rules and regulations concerning its contracts with the water user. The rules vary greatly; but if you have lands located within the district, and are furnished water by the district, you can visit the office of the district and obtain a copy of the rules and regulations which affect you.

In some districts the water is attached to specific irrigated land by permanent contract; and it remains with that land until the landowner, and the district, agree that

it should be transferred from it. In other districts, the water contract is between the district and the large mutual ditch companies which serve the individual water user. The water users' actual contract for the use of water is with the ditch company rather than the conservancy district.

If the works are constructed through construction grants or loans of the United States Bureau of Reclamation, the use of water may be limited by contract, or by United States statutes, to specific purposes. One such statute prohibits the delivery of water to any landowner within the district who farms more than 160 acres. Another section of the statute prohibits the delivery of water to the lands of any person who is not a bona fide resident of the district. Whether or not these or other statutes are applicable to any particular tract depends upon the conservancy district involved, the contract between the United States of America and the district, and the applicable statutes, all of which can be determined by a visit to the conservancy district office.

Any purchaser of the right to use waters supplied through a conservancy district, with or without the land it presently supplies, will want to make sure that he or his attorney fully understands the rules of the district and takes all necessary steps to make certain that the water right transfer is fully and properly accomplished.

E. IRRIGATION DISTRICTS

Like conservancy districts, irrigation districts are established pursuant to Colorado statutes. The purpose of these districts is, again, the construction of works and the delivery of the waters to lands included within the irrigation district boundaries. If the district has contracted with the United States of America, through the Reclamation acts, for the construction of the district's projects, the rights of the irrigator may be governed not only by the terms of the statute, but by the terms of the contract between the district and the United States, and the federal acts. A conversation with officers of the local irrigation districts will give you all of the information you require.

F. PUBLIC OR "COMMON CARRIER" DITCHES

A company organized for the purpose of diverting water from the natural stream and transporting that water for sale to consumers is called a common carrier company. It is operated for the purpose of making a profit.

The consumer is furnished water through a common carrier company by entering into a written contract for the carrying service. It is this contract that establishes the consumer's water right.

Because its business deals with a public resource and because it has a monopoly over that portion of the public owning or occupying land in the vicinity of the canal, a common carrier company is considered to be somewhat of a public servant and, therefore, subject to reasonable sanctions and controls by

the state legislature similar to sanctions placed on gas, telephone, and water companies.

A common carrier company is responsible for keeping a flow of water in its ditch from the 1st of April until the 1st of November sufficient to meet the requirements of all persons entitled to use such water. The company and not the consumer is responsible for maintaining its canal in good repair, including having it ready to receive water by April 1st. It is also the company's responsibility to construct and maintain the necessary outlet in the bank of the canal or ditch for the purpose of delivering to persons who have paid for the company's service.

A person who has purchased or used the water for irrigation of lands occupied by them has the absolute right to continue to purchase the same amount on paying for the company's service in advance. The company is liable in damages to persons wrongfully deprived of the use of the water, and anyone who wrongfully interferes with the proper delivery of the water has committed a criminal act.

The Board of County Commissioners fixes the rate of compensation for delivery of the water. It is illegal for the common carrier company to require compensation above that set by the Board of County Commissioners.

G. WELLS

The waters under the ground, although unseen, form a great part of the flow of every natural stream. However, until a quarter century ago, little was known about this

source of water and its tremendous potential was not realized. For this reason, although a considerable body of statutory regulation developed concerning the flows of natural streams, there was no similar development of the law concerning underground flows. In fact, there was no legislative regulation of either the drilling or use of wells until 1957. The State Engineer long took the position that he had no authority to administer waters diverted by wells. Finally, with the passage of the Water Right Determination and Administration Act of 1969, and the Colorado Ground Water Management Act (1965), and the issuance of rules and regulations by the State Engineer as authorized by those acts, we now have a considerable body of law concerning wells.

The location of the well, the waters which it captures, and the uses to be made of the water all result in different rules. For this reason, it is helpful to discuss the different types of wells.

For organizational purposes, think of four categories of wells. The first includes those wells taking groundwater which is tributary to a natural surface stream. Tributary groundwater is water which, by its own movement, will become part of a natural surface stream or the use of which will adversely affect the flow of the stream. In the second category are wells located within a designated groundwater basin. Wells in these areas are taking groundwater which would not become part of a natural surface stream or whose movement toward the natural surface stream is so slow that it is treated as not being available to the stream. The

third category involves small domestic wells, which are exempted or relieved from the effect of most of the rules which govern the first two categories of wells. The fourth is wells capturing truly non-tributary waters. These are waters held in natural basins underground from which they cannot escape.

To further aid our understanding, we can also divide all wells into two broad classes: existing wells and wells to be drilled. The specific rules relating to these various types of wells are:

1. EXISTING WELLS

- a. WELLS TAKING TRIBUTARY GROUNDWATERS

Wells drawing tributary waters are treated the same as structures diverting surface waters from the streams and are subject to the same general law concerning the doctrine of priority of appropriation. The appropriation is made, and the absolute right to use the water is acquired, when the water has been drawn from the ground and applied to the beneficial use. Since these wells are governed by the appropriation doctrine, the pumping of water from these wells may be prohibited if necessary to insure a full supply to a senior water user, whether that senior user takes his water from the stream to which the underground waters are tributary, or from a well tapping the same underground source.

Although these wells draw upon the same source of water as supplied the surface streams, they were not originally

required to be adjudicated in the proceedings described in Chapter IV. Therefore, when in 1969 the law was changed to clearly allow the water rights of wells to be adjudicated, the law also provided that the true appropriation date of the wells could be awarded provided that applications concerning them were filed prior to July 1, 1972. This is an exception to the rule that water rights applications filed in one year have precedence over applications filed in subsequent years.

One result of the 1969 Act is that most wells used for irrigation have been adjudicated and are accordingly the subject of the court decree. However, since almost all wells have been drilled in relatively recent times, very few wells have priority dates which are senior to most water rights from surface supplies.

Most court decrees concerning wells will award a right to a flow of water measured in gallons per minute or in cubic feet of water per second of time. One cubic foot of water per second of time equals 448.75 gallons per minute.

Since most wells are junior in priority to most surface decrees, the use of the wells can be prohibited if the waters which they pump are necessary to fulfill the rights of prior decrees. This has not been a particular problem in most of Colorado, with the exception of the front range and the San Luis Valley areas. Outside of those areas, a well is allowed to pump without regulation because there are so few of them that their total effect is minimal. In the critical areas, however, the State Engineer has issued rules and regulations which substantially reduce the amount

of pumping which may be allowed. The State Engineer's rules and regulations concerning the operation of the rivers in these areas can change from time to time; but presently their effect is to practically prohibit the pumping for irrigation purposes unless the well is included within one of the many "plans for augmentation" which are available. These plans are discussed more fully in Chapter VIII. Basically, they are a means developed by groups of well users, or others, whereby water rights are acquired and used to satisfy the rights of water users having senior rights. The senior rights being satisfied, the wells are then allowed to pump. Any farmer or rancher using a well for irrigation on the South Platte River or its tributaries, the Arkansas River or its tributaries, or the Rio Grande or Canejos Rivers or their tributaries should make certain that he is included within such a plan before he operates his irrigation well. Wells for household uses only, even in these areas, are not so restricted, as is later discussed.

Well rights, like private ditch rights, are transferred by deed. Ordinarily a deed to the land upon which the well is located will convey the well's water rights although it is always better to specifically describe the well and its water rights as included in the conveyance.

b. SMALL DOMESTIC WELLS

Certain wells are "exempt" or not covered by the strict provisions of the water rights acts and the rules and regulations of the State Engineer. The most common of these are

wells for ordinary household purposes, stock watering, and the irrigation of not over one acre of home gardens and lawns. These wells cannot exceed a production of more than 15 gallons per minute. Such wells do not need to be adjudicated, and few of them are. This type of well may be utilized whenever the water is needed for the exempt purposes, and they are not subject to being shut down by present rules and regulations of the State Engineer. As in the case of other wells, conveyance of the land upon which the well is located, and including the house which is served by the well, conveys the right to use the water it produces. There are special rules concerning these domestic wells located in large subdivisions; but ordinarily the agriculturalist will need not be concerned with the rules relating to subdivisions until he decides to subdivide his property, in which event he should seek competent counsel.

c. WELLS LOCATED WITHIN A DESIGNATED GROUNDWATER BASIN

Waters which actually do not contribute to natural surface flows, or whose contribution is so slow that such waters are not considered to be so contributing, are not governed by the same rules as tributary groundwaters. To regulate the use of wells in these areas, the Colorado legislature enacted the Colorado Ground Water Management Act. The Ground Water Commission, created under this Act, has authority to regulate groundwater in areas known as "designated groundwater basins."

The boundaries of presently existing basins are shown in Appendix B.

The policy of the Ground Water Management Act is to generally adopt the priority doctrine, fully protecting prior appropriators, but modified so as to permit full development of the groundwaters within the designated area. This means that under this Act no appropriator can expect to have the groundwater level maintained at its present height. On the other hand, the reasonable maintenance of groundwater levels is recognized to be essential; and the Ground Water Commission can prohibit the drilling of wells if the effect would be to unreasonably lower the groundwater table with resulting injury to well owners with senior rights. To accomplish all of this the Ground Water Commission is given broad powers concerning spacing of wells, limitations upon the amount of water pumped from the wells, and the like.

Unlike the rights to use surface waters, where the water can be applied to any lands, the right to use water under a well permit from the Ground Water Commission is for use only upon lands designated in the application. In other words, the water right "belongs" to specific land set out in the application and cannot be used to irrigate other lands without first receiving authorization from the Commission. Ordinarily, therefore, conveyance of the land conveys the water right as well.

If the residents of a designated basin wish to do so, they may establish a "groundwater management district." Such a district is governed by a Board of Directors made up of residents of the basin. The Board basically has all the powers and fulfills the function of the Ground Water Commission.

The object of the change is to obtain local control. The Board of Directors consults with the Commission and the State Engineer on all groundwater matters affecting the district.

The Board regulates the use, control and conservation of the groundwater in the district by regulating the spacing of wells and the production from those wells so as to minimize the lowering of the water table. The Board is responsible for insuring that the groundwater is efficiently used, and it develops plans to control and prevent the wasting of the water. It can develop methods to recharge the groundwater reservoir and can prohibit the use of groundwater outside the boundaries of the district where that use affects the water users of land within the district. The Board can require the users to measure and report the amount of water withdrawn from the wells. Finally, the Board of Directors has the authority to protect owners of exempt smaller capacity wells which may be injured by irrigation wells.

The Board's regulatory power is limited by the requirement that there be a public hearing and notice before any control measure is put into effect. If a well user disagrees with the proposal, he has the opportunity to make his objections known.

Further, a person dissatisfied with the decision of the Board can appeal to the courts.

A final control is that any inclusion or exclusion of lands requires approval of the people in the district by election.

The activities of a groundwater management district are financed by taxes based on the value of the property within the district. The tax is collected by the County Treasurer in the same manner as state and county taxes. The Board of Directors can also make special assessments on the water wells themselves based on gallons pumped per minute (not to exceed \$.05 per gallon per minute).

d. WELLS CAPTURING NON-TRIBUTARY WATER

There is a very special circumstance where wells may exist and be subject neither to the Ground Water Act or the Water Rights Act. These are wells taking waters determined to be in fact non-tributary and located outside of a designated groundwater basin. There are very few of these. As with small domestic wells, the mere existence of a well in this area is evidence of the water right; there will be no court order. Transfer of the water right is accomplished with transfer of the land.

2. NON-EXISTING WELLS: PERMITS

No one can drill a well of any kind without obtaining a permit to do so from the State Engineer's office. (See Appendix C for example: Permit Application) Depending upon the location and type of well, the rules as to whether or not the permit will be granted are somewhat different. Considering the four separate categories first discussed, the distinctions are as follows:

a. WELLS TAKING TRIBUTARY GROUNDWATER

An application for a permit to drill a new well is submitted to the State Engineer, who may issue the permit only if he finds that there is unappropriated water available for withdrawal by the proposed well and that the rights of others will not be injured in any material manner. The statutes require that ordinarily no permit will be issued for a well within 600 feet of an existing well. [Note that we are here talking about permits for new wells. If all you are asking for is permission to replace an existing well (because of cave-in or lowered water table, or whatever reason), the permit will ordinarily be granted if the well is for the same amount of water to be used for the same purposes as the original well].

The State Engineer will ordinarily not grant a permit to drill a well in those areas of Colorado east of the Continental Divide because in most areas the streams are fully appropriated; and, therefore, there is no unappropriated water available for the well withdrawal. In other areas of the state, depending upon the location of the well, a well permit may be granted. An exception to the general rule that the State Engineer will refuse to grant a permit for a well in the front range areas arises if the permit is required as a part of a "plan for augmentation." In such case, it may be granted if the State Engineer concludes that the plan will not result in injury to other water users. A plan for augmentation is a rather involved plan which contemplates the determination of the effect of the well on the stream and the

furnishing of water to the stream so as to cancel out such effects. For a discussion of plans for augmentation see Chapter VIII.

b. SMALL DOMESTIC WELLS

We have said that these wells are "exempted" from most of the provisions of the Water Right Act. If domestic wells now exist, they may be pumped for household and garden purposes without regard to the rights of other water users in the basin who may have an earlier priority date. However, if no domestic well exists, none may be drilled without a permit. Ordinarily, the State Engineer will permit a well to be drilled if it is going to be used to supply a home located upon a tract of land owned by the landowner and if the landowner owns no other domestic wells.

c. WELLS CAPTURING DESIGNATED GROUNDWATER

For wells located within designated groundwater basins, the decision as to whether or not a permit will be granted is left up to the Ground Water Commission, rather than to the State Engineer. If the Commission finds that the well will not unreasonably injure existing water rights from the same source, the State Engineer must issue the permit. Whether or not the permit will be issued depends in large part upon the number of other wells in the area, the rate of re-charge into the groundwater basin, and other factors which would influence the yearly water supply.

d. WELLS CAPTURING NON-TRIBUTARY WATERS

Whether or not the State Engineer will issue a permit to capture non-tributary water depends upon his judgment as to the extent of the underground basin and the effect of existing wells on that supply. Generally, he tries to manage the basin so that the water supply will last for 100 years. No permit will in any event be issued except to landowners who own land over the basin and then only for the irrigation of such lands.

3. CONFLICTS BETWEEN WELL USERS

a. WELLS IN DESIGNATED GROUNDWATER BASINS

The Ground Water Management Act gives broad powers to the Ground Water Commission to establish rules for the operation of wells within a particular basin. The Commission will ordinarily attempt to manage the pumping so that re-charges will be sufficient to allow all permitted wells to obtain water. However, in times of great shortage, some of the later wells may have to cease pumping in order to allow the ones with an earlier date of appropriation to continue operation. Any reasonable rules adopted by the Commission will be valid.

b. WELLS OUTSIDE OF DESIGNATED GROUNDWATER BASINS

The rights of a well owner as against the owner of an adjoining well is in a state of some confusion in Colorado. Until 1957, there was no control at all as to the number of wells which might be drilled, or as to their location. Now,

of course, wells may not be drilled without a permit, permits will not be issued unless water is available for appropriation, and wells may not ordinarily be located within 600 feet of each other. But what is the situation if the water table serving your well substantially drops due to the operation of other wells? The answer, as we have said, is not clear. The Supreme Court has not ruled upon this question. When the Supreme Court does consider it, we believe that the rule will probably be as follows:

1. As between two well users, their rights are determined based on the doctrine of priority of appropriation. That is, the one who first drilled his well, and used his water, is first in time and therefore first in right. However, if one of the well owners has failed to submit his well to adjudication, but the other has, the adjudicated well will have the preference because of the statute which so states. Further, if the first well drilled was adjudicated, but was submitted for adjudication in a year later than the year in which the other well was submitted for adjudication, the earlier user will have lost his rights.

2. The senior well is not protected against all drawdowns of the water table. If the reduction of the water table, by the operation of adjoining wells, is not unreasonable, and if the senior well user may, by reasonable construction at reasonable expense, continue to get his full supply of water, he has no cause for complaint.

3. If the drawdown is so substantial that the cost of the deepening of the well, or the like, is great, then the

owner of the junior well will be required to curtail his diversion. This may perhaps be modified by a rule that if the junior water user agrees to pay and does pay for the increased cost of the senior user getting his water, then perhaps the junior well can continue to divert.

H. WASTE AND SEEPAGE WATERS

Ordinarily, a person has a right to divert water and use it for his purposes, after which he must allow the unconsumed water to return to the stream where it is available for use by other appropriators. Few water uses are totally consumptive, and certainly irrigation does not consume all of the water diverted. There is always some waste or seepage waters which return to the river, or to the underground waters which ultimately reach the river.

The appropriator has no right to recapture the seepage waters after his first use. That is, after the waters have irrigated his crops and seeped into the ground, he must allow them to remain a part of the underground water supply if they will ultimately reach the river and be available for use by others.

The rule is somewhat different as to surface waste waters. If these waters leave the property of the irrigator, then they are lost to him. If he recaptures these waters before they leave his land, however, the law allows him to use them. Thus, the construction of a small holding pond at the end of the rows, for the purpose of capturing the surface flows resulting from irrigation, is quite proper. These

waters may be pumped back to the head of the row or they could be distributed by ditch to any other lands under the control of the irrigator.

Waste waters coming from the irrigation of lands above the irrigator may, under certain circumstances, be used by the lower irrigator. The circumstances are important. If the waste waters reach any natural stream, then they are part of the river; and, if the appropriator does not intend to reuse them, they may be taken only by a senior appropriator in order of priority. If they would reach a natural stream if unintercepted, there is no right to intercept them. However, many waste waters which flow over a person's land would never reach a natural stream, except theoretically. While these waters might ultimately seep into the ground and form part of the tributary groundwaters, the present view of the water administrators is that to prohibit the capture and use of such waters would really be of no benefit to anyone. Accordingly, they do not object and have never attempted to prohibit the capture of these waste waters in a reservoir or ditch constructed by the landowner whose lands they cross. This is true only as to those waters which would not flow directly into a natural stream. If they would merely sink into the ground, they may be taken and used by the landowner.

I. SPRINGS

Springs are subject to appropriation in the same manner as any other surface supply. Ordinarily, a spring is tributary to some river, and the waters of it are accordingly

subject to the appropriation doctrine. There is a statute in Colorado which, if read literally, appears to give the owner of lands upon which the spring arises a preferential and exclusive right to take the waters of that spring. However, this statute is misleading. Interpretations of the statute by the Colorado courts have limited the statute only to those springs whose waters would not ultimately reach the river. Such springs are extremely rare. Accordingly, the waters of most springs can be taken by the landowner only to the extent that the waters of those springs have not been appropriated by water users with earlier rights.

VIII. PLANS FOR AUGMENTATION

SUMMARY OF THE CHAPTER

PLANS FOR AUGMENTATION are now playing a major role in the use of water, especially for well users. Although a detailed discussion of plans for augmentation is not feasible or necessary for this manual, the individual treatment given the subject by this chapter is justified to show the reader the concepts behind the plans and methods of obtaining or participating in one.

A "plan for augmentation" is a concept introduced into Colorado water law by the Water Right Determination and Administration Act of 1969. Although it is not limited to wells, its basic intent was to provide a means by which existing wells could continue to pump, while still protecting senior surface water users. Such plans have been used not only to protect wells which existed at the time of the passage of the 1969 Act, but have been utilized to allow the creation of large subdivisions served by wells.

A "plan for augmentation" is defined by statute as:

A detailed program to increase the supply of water available for beneficial use. . .by the development of new or alternate means or points of diversion, by a pooling of water resources, by water exchange projects, by providing substitute supplies of water, by the development of new sources of water, or by any other appropriate means.

This section has proved as confusing to lawyers as it is to farmers and developers. Basically, through decisions of the Colorado Supreme Court, plans for augmentation have been those which recognize and account for the "depletions" which result from the operation of the wells. The concept of depletions involves a consideration of the effect of the well-pumping on the stream. Wells interrupt groundwater which is slowly proceeding to the stream by taking it to the surface. Some of the water applied to the surface seeps back and again becomes a part of the groundwater although there is a delay in the return. Some of the water taken to the surface is consumed, that is, it is completely used up by plant growth or evaporation and is lost to the stream system. The concept of depletion replacement is to obtain other waters which can be delivered to the river at the time and the place that the injury, or lack of water, would otherwise be felt. The fact that the return flow waters could ultimately reach the stream can be taken into account; but the delay in the return must also be considered in determining when, where, and in what amount the replacement water must be provided. Because of the complexity involved in plans for augmentation, we will not include examples in this guide. Anybody contemplating the development of a plan for augmentation must seek the assistance of a qualified water attorney and a qualified water engineer. The possibilities of injury, and the ways in which that injury might be prevented, are so varied and complex that expert assistance will be required.

To be effective, the plan must have the approval of a water judge. One way to handle this is to apply directly to the appropriate water clerk for approval. Statements of opposition can be filed against the approval of the plan, and the water judge ruling can be appealed. The controlling consideration is the injury that will result to other existing rights. A second way to handle the application is to submit the plan to the State Engineer at the same time application is made for approval with the water clerk. The State Engineer will apply the same test as the courts in determining whether or not to approve the plan (that is, is there reasonable assurance that the proposed plan will not injure persons entitled to use water through an existing water right). Many people prefer the second method because the State Engineer's finding can be very persuasive evidence in the water court. Furthermore, the applicant is insured that his plan will not be attacked by the state in the proceeding before the water judge.

IX. CHANGES IN PLACE, CHARACTER AND TIME OF USE, OR IN POINT OF DIVERSION

SUMMARY OF THE CHAPTER

No change in the place, or time, or character of use of water rights may be allowed if the change will injure or adversely affect any other water user. A similar rule applies to any change in the point where the water is diverted. To make a valid change, the user must have approval from the water judge, who will impose whatever conditions might be necessary to avoid injury to others.

The Colorado courts have always held that the owner of a water right may change his place of use or his point of diversion. This is because water rights are considered separate property rights not restricted to the use on any particular tract of land. There are, of course, some exceptions to this rule which might arise by contract; but the general rule is that transfers of water rights are proper. However, equally well established is the principle that junior appropriators have the right to the continuance or maintenance of stream conditions as they existed at the time that they made their appropriations. The result of this rule is that no change of water rights may be allowed if the change would injure or adversely affect any other water user. If injury would occur, the person desiring to make the change may

nonetheless make it if he can propose some conditions which, if adopted, would prevent such injury. So important are these concepts that no change may be made, and none will be recognized by the State Engineer or his officials, unless the change is authorized by the water judge of the appropriate division, upon application to him, and a hearing.

What constitutes "injury" depends upon the circumstances of the case and few general rules can be offered. Some general concepts which are often applicable are the following:

1. Any right to use water is limited by the needs of the land existing at the time that the appropriation is made. Thus, an appropriation of water for the irrigation of 160 acres of land cannot, on a change, be enlarged so as to irrigate 320 acres of land.

2. Any change in the use to be made of the water which results in a higher consumptive use will not be allowed. For instance, one cannot change a use from irrigation of lands, where 50% of the water returns to the river as return flow, to use in a factory where 100% of the water is used for cooling purposes and evaporated because such a change would result in less water flowing in the river.

3. If the headgate of another appropriator is located so that it can capture the return flow waters from the right being transferred, and if the change would result in the return flow being lost to the other ditch, and if this water was essential to the fulfillment of the latter's rights, the change could not be allowed.

4. The time of use may not be extended. For example, waters used for irrigation during the summer irrigation season could not be taken by a city and used year around.

5. Sometimes the original headgate is so located that it may divert its full rights as the result of the return flows from upstream irrigation by junior appropriators. The point of diversion cannot be transferred upstream if the effect of such transfer would be to take the flow which was presently being diverted under one of these junior rights.

This is no exhaustive list--these are only examples of the ways by which legal injury might occur. It is seldom that a change, particularly a change in point of diversion, does not have at least the potential of causing harm to the rights of another water user. Generally, conditions on the transfer can be proposed to avoid the injury that might otherwise occur.

Here are some examples of how this might work:

1. A water right originally awarded for the irrigation of 160 acres, and being transferred to a 320 acre farm, might be restricted in its allowable diversions to that amount of water which had historically been used to irrigate the smaller tract. This amount could be determined from the Water Commissioner's diversion records.

2. If a water right has been used so that 50% of the water was consumed (used up by plant life or evaporation), perhaps only one-half of the whole right could be utilized for a new use which is 100% consumptive.

3. If the return flow from the ditch had always supplied a downstream right, the change might be allowed if sufficient waters were left in the stream to satisfy that right, with only the balance being used at the new point of diversion.

4. Irrigation waters sold to a city might be restricted to being diverted only during the irrigation season.

5. If the location of the headgate after a change would enable the owner of the right to take waters which had historically been diverted by another, the transferring owner might be required to subordinate his right to the other and not take water when the other needed it.

These are only general and most incomplete examples of the types of conditions which a water user seeking to change his right might propose, or the water judge decree. The varieties of possible injury and of possible conditions to avoid them are almost infinite. Anyone contemplating any change in use requiring court approval will find that he must retain not only a qualified water lawyer but also an experienced engineer specializing in water rights.

Although the rule is that no change may be made if it is injurious, there are some changes which can and do occur without court order. These are changes in place of use which occur within a mutual ditch or reservoir system when one farmer sells his water stock to another and the water is thereafter used on another farm under the same ditch or reservoir. As long as no one objects, this change is commonly done and allowed without court order. Similarly, waters of

conservancy districts, irrigation districts, and common carrier ditches are transferred to new lands or different uses without court order, as long as the water continues to be diverted, stored and delivered by the same ditches and reservoirs. But in any of these instances, if the change involves a change in the point of diversion of the water, a court decree is required because Colorado statutes require it and because the State and Division Engineers will not allow the diversion without it.

X. SPECIAL TOPICS

SUMMARY OF THE CHAPTER

The final chapter of this manual addresses certain subjects of general interest which affect and are important to Colorado water users. The subjects discussed are POLLUTION, DRAINAGE, FEDERAL RESERVED RIGHTS, and WEATHER MODIFICATION.

- A. Pollution
 - B. Drainage
 - C. Federal Reserved Rights
 - D. Weather Modification
-

A. POLLUTION

No person has ever had a right to pollute water so that it is rendered unuseful to downstream users. Recent federal and state acts concerning water pollution control have focused attention on pollution problems. Under the law, no person who discharges water back into a natural stream can do so if it contains "pollutants." What is or is not a pollutant varies, from time to time, according to the views of those who are charged with administering the law. Most efforts thus far have been concentrated in removing pollutants from discharges which are made from point sources, that is, from clearly defined places where the water reaches the stream. Such point sources could be a tributary stream, a

ditch, a pipeline, or the like. Municipalities and factories are the ones which have the most observable point source discharges, and it is concerning such discharges that the main pollution control efforts have thus far been directed. In addition, particular emphasis has been given to controlling pollution from feed lots because the pollution discharges from those sources are so concentrated. The present intention of the federal regulation as to return flows from irrigation that are discharged to the river via point sources is that a "general discharge permit" pertaining to large geographic areas, such as entire river basins, may be issued to allow all such discharge within the area. As far as general agriculture is concerned, waters returning to the river in a "diffused" state, whether from irrigation or precipitation, are not includable in any permit program but are subjects of study of various areawide waste treatment plans required by federal legislation. How the law will be administered in the future is one of the unknowns which make farming and ranching so difficult and so interesting.

B. DRAINAGE

Colorado follows the rule that the lower landowner must allow natural drainage of waters from the upper lands. The rule extends only to the waters produced from natural causes, rain or snow, and not from irrigation. However, if the lower landowner has allowed waste and seepage waters from the irrigation of the upper lands to flow across his land for a period of eighteen years, the upper landowner

will, by such conduct, have obtained a right to continue such drainage, in the same quantities as was established for the eighteen year period.

C. FEDERAL RESERVED RIGHTS

Many water rights in Colorado are subject to being lost, or at least reduced, by the claim of the United States Government of the so-called "reserved rights" of the United States Government. The reserved rights doctrine asserts that the United States reserved sufficient waters in every federal reservation to fulfill the purposes of that reservation. These reservations include all types of national parks, national forests, national monuments, and the like. Recent decisions of the United States Supreme Court indicate that the Federal Government does own some kind of right in connection with these reservations; but exactly what the United States does own, and the extent of its ownership, is not now clear. Lawsuits in Colorado are attempting to resolve these questions. The present difficulty faced by the owner of any water right is that his right might be held to be in conflict with some claim of the United States under the reserved rights doctrine. Whether or not this will pose a danger to any particular water right cannot be determined until the present litigation is completed. As a practical guide, most water users involved in agriculture probably will not be greatly affected. However, those who take their water from a point above or particularly within any reservation could be in real danger.

Those who do so should be particularly vigilant in resisting any claims of the United States of America which might affect their rights. The services of an attorney for this purpose are essential.

D. WEATHER MODIFICATION

In recent years there has developed an attempt to establish some control over nature's delivery of water. This effort is called weather modification but is most commonly referred to as "cloud seeding."

The Colorado legislature views weather modification as desirable. Research, experimentation, and development in the field of weather modification are, therefore, encouraged. The legislature recognizes, however, that adverse effects could result from weather modification activities. To minimize those effects, weather modification activities are regulated by statutory safeguards.

Basically, the regulation involves the issuance of licenses and permits by the executive director of the Department of Natural Resources, who is assisted by an advisory committee. To be issued a license or permit, a private enterprise must make application to the executive director and must demonstrate that it is qualified in the field, and that its particular operation is completely planned.

The statute declares that the mere act of cloud seeding is not in itself actionable in court as a nuisance. If an individual can show actual damage resulting from the cloud

seeding operation, however, then he can pursue a cause of action in the courts; and the fact that a person holds a license or permit is not a defense to such a lawsuit. A person who operates without a license and permit is subjecting himself to liability in the event of damages as well as criminal sanctions for violation of the statute.

Presently, all cloud seeding is being done not by private groups, but by the State of Colorado. To protect itself, and all those working for it, the state has passed a law which prevents the state from being held responsible for any resulting damage.

The map displays the following counties and their locations:

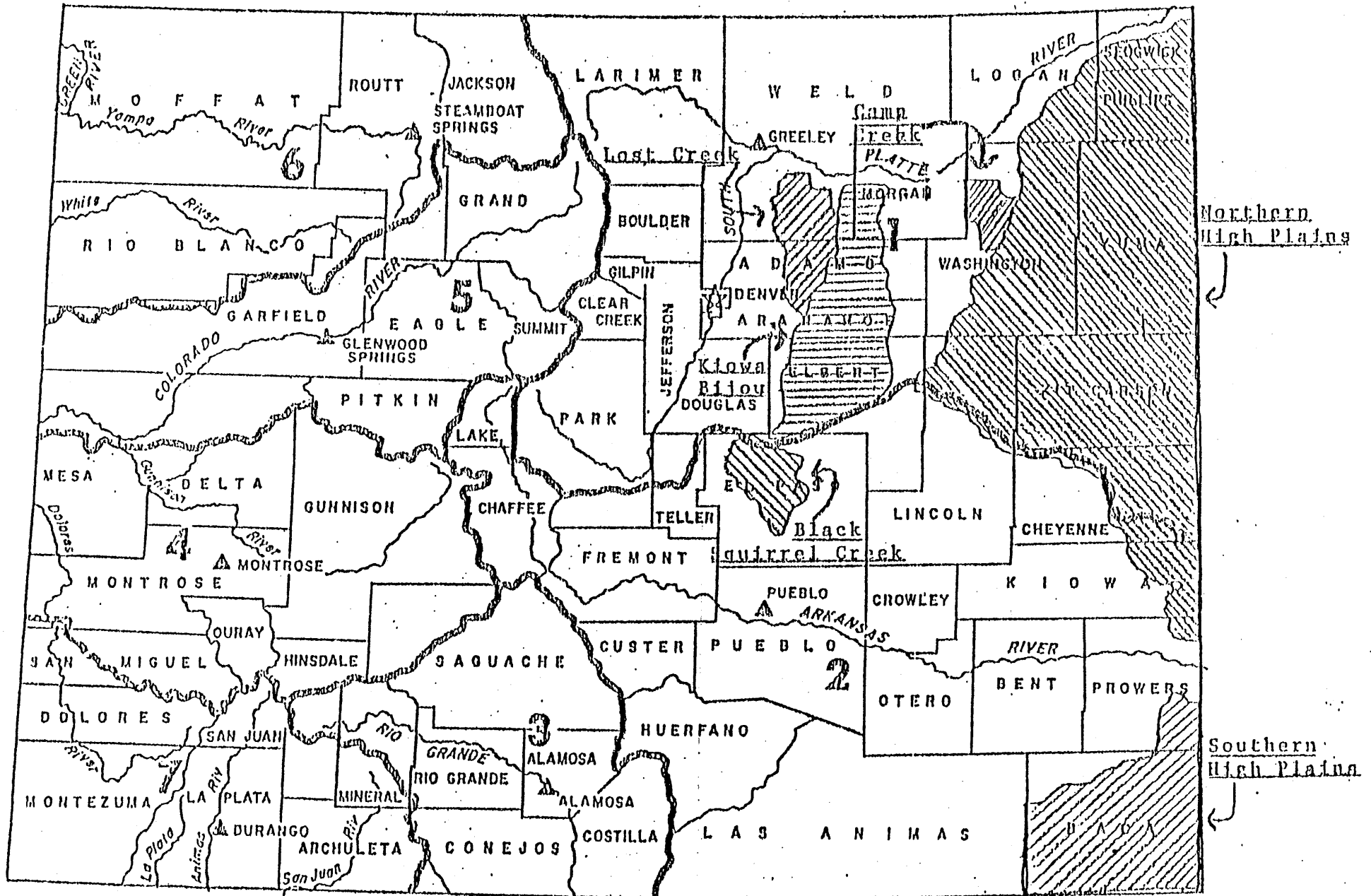
- North:** Routt, Jackson, Larimer, Weld, Logan, Sedgwick, Phillips.
- West:** Moffat, Grand, Boulder, Adams, Washington, Yuma.
- Central:** Garfield, Eagle Summit, Clear Creek, Gilpin, Arapahoe, Elbert, Kit Carson, Cheyenne, Lincoln, Kiowa, Crowley, Bent, Prowers, Baca.
- East:** Platte, Morgan, South, Douglas, Teller, El Paso, Fremont, Custer, Pueblo, Otero, Durango, Archuleta, Conejos, Costilla, Las Animas.
- South:** Mesa, Delta, Montrose, Ouray, San Miguel, Hinsdale, Saguache, Huertano, Alamosa, Mineral, Rio Grande, Alamogosa, Conejos, Costilla, Las Animas, Baca.

Major rivers shown include the Colorado, Rio Grande, Arkansas, and others. Cities like Denver, Colorado Springs, and Pueblo are marked. The map also shows the state's borders with neighboring states: Nebraska, Kansas, Oklahoma, New Mexico, Arizona, and Utah.

WATER DIVISION
BOUNDARY-----

WATER DIVISION OFFICE
WATER CLERK OFFICE

APPENDIX B



COLORADO WATER DIVISIONS

INCLUDING THE DESIGNATED GROUND WATER BASINS

WATER DIVISION
BOUNDARY

WATER DIVISION OFFICE

APPENDIX C

Well Permits

As indicated in the guide, everyone must obtain a permit to drill a new well regardless of whether the well will be taking tributary groundwater, water within a designated groundwater basin, or non-tributary groundwater and regardless of the capacity of the well or the use to be made of the water. Application must also be made whenever you desire to change the location of or capacity of an existing well. The application form in all these instances is the same.

Well permit forms may be obtained from the office of each Division Engineer (see Chapter VI). On the following page is such a form completed for a fictional farmer named Bill Rhoder, who farms a quarter section near Ault, Colorado. We will assume that he has completed a successful test for a new well to irrigate his land. He has the record of the driller's findings from the test and has carefully read the instructions which accompany the form. He may then complete it as indicated.

COLORADO DIVISION OF WATER RESOURCES
818 Centennial Bldg., 1313 Sherman St., Denver, Colorado 80203

PERMIT APPLICATION FORM

Application must be complete where applicable. Type or print in BLACK INK. No overstrikes or erasures unless initialed.

☒ A PERMIT TO USE GROUND WATER
☒ A PERMIT TO CONSTRUCT A WELL
FOR: ☐ A PERMIT TO INSTALL A PUMP

☐ REPLACEMENT FOR NO. _____
☐ OTHER _____
WATER COURT CASE NO. _____

(1) APPLICANT - mailing address

NAME William C. Rhoder
STREET Route 1
CITY Ault Co 80610
(State) (Zip)
TELEPHONE NO. 834-2110

(2) LOCATION OF PROPOSED WELL

County Weld
NW $\frac{1}{4}$ of the SE $\frac{1}{4}$, Section 5
Twp. 7 N, Rng. 65 W, 6th P.M.
(N, S) (E, W)

(3) WATER USE AND WELL DATA

Proposed maximum pumping rate (gpm) 600
Average annual amount of ground water to be appropriated (acre-feet): 72.9
Number of acres to be irrigated: 80
Proposed total depth (feet): 20'

Aquifer ground water is to be obtained from:

Sand and Gravel

Owner's well designation Well #3

GROUND WATER TO BE USED FOR:

☐ HOUSEHOLD USE ONLY - no irrigation (0)
☐ DOMESTIC (1) ☐ INDUSTRIAL (5)
☐ LIVESTOCK (2) ☒ IRRIGATION (6)
☐ COMMERCIAL (4) ☐ MUNICIPAL (8)
☐ OTHER (9) _____

DETAIL THE USE ON BACK IN (11)

(4) DRILLER

Name Jack's Drilling
Street 4001 Mulberry
City Fort Collins Co 80521
(State) (Zip)
Telephone No. 221-4300 Lic. No. 594

FOR OFFICE USE ONLY: DO NOT WRITE IN THIS COLUMN

Receipt No. _____ / _____

Basin _____ Dist. _____

CONDITIONS OF APPROVAL

This well shall be used in such a way as to cause no material injury to existing water rights. The issuance of the permit does not assure the applicant that no injury will occur to another vested water right or preclude another owner of a vested water right from seeking relief in a civil court action.

APPLICATION APPROVED

PERMIT NUMBER _____

DATE ISSUED _____

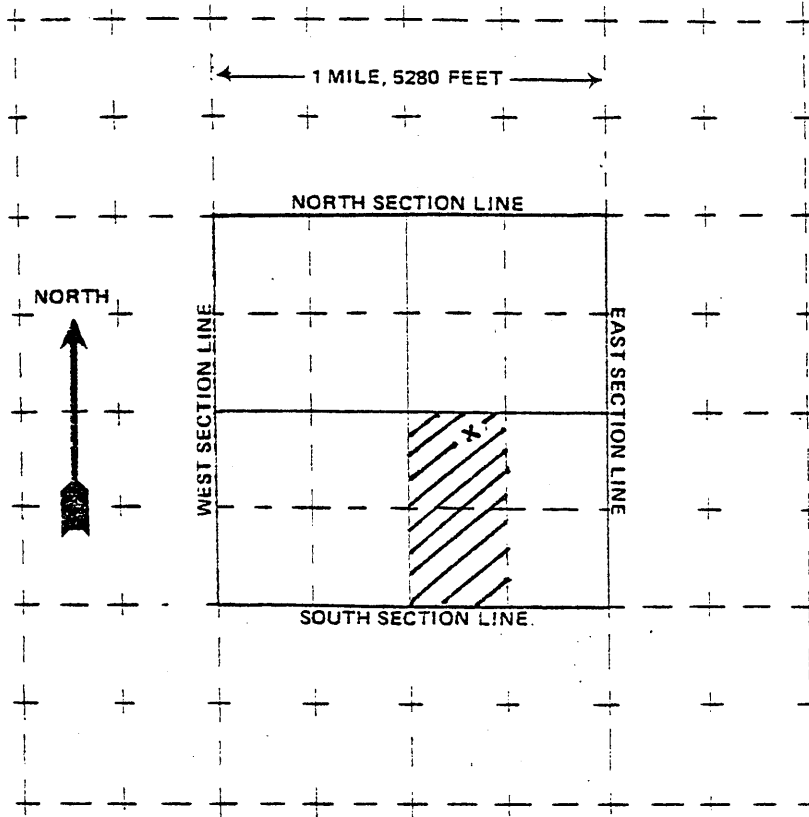
EXPIRATION DATE _____

(STATE ENGINEER)

BY _____

I.D. _____ COUNTY _____

(5) THE LOCATION OF THE PROPOSED WELL and the area on which the water will be used must be indicated on the diagram below. Use the CENTER SECTION (1 section, 640 acres) for the well location.



The scale of the diagram is 2 inches = 1 mile
Each small square represents 40 acres.

WATER EQUIVALENTS TABLE (Rounded Figures)

An acre-foot covers 1 acre of land 1 foot deep
1 cubic foot per second (cfs) . . . 449 gallons per minute (gpm)
A family of 5 will require approximately 1 acre-foot of water per year.
1 acre-foot . . . 43,560 cubic feet . . . 325,900 gallons.
1,000 gpm pumped continuously for one day produces 4.42 acre-feet.

(6) THE WELL MUST BE LOCATED BELOW by distances from section lines.

2330 ft. from South sec. line
(north or south)

1820 ft. from East sec. line
(east or west)

LOT _____ BLOCK _____ FILING # _____

SUBDIVISION N/A

(7) TRACT ON WHICH WELL WILL BE LOCATED Owner: William C Rhoder

No. of acres 80 Will this be the only well on this tract? Yes

(8) PROPOSED CASING PROGRAM

Plain Casing

20 in. from 0 ft. to 15 ft.

_____ in. from _____ ft. to _____ ft.

Perforated casing

20 in. from 15 ft. to 20 ft.

_____ in. from _____ ft. to _____ ft.

(9) FOR REPLACEMENT WELLS give distance and direction from old well and plans for plugging it:

★

(10) LAND ON WHICH GROUND WATER WILL BE USED:

Owner(s): William C. and Helen W. Rhoder No. of acres: 80

Legal description: W 1/2, SE 1/4, Sec. 5, T7N, R65W

(11) DETAILED DESCRIPTION of the use of ground water: Household use and domestic wells must indicate type of disposal system to be used. Irrigation of 80 acres in SE 1/4, Sec. 5, T7N, R65W

(12) OTHER WATER RIGHTS used on this land, including wells. Give Registration and Water Court Case Numbers.

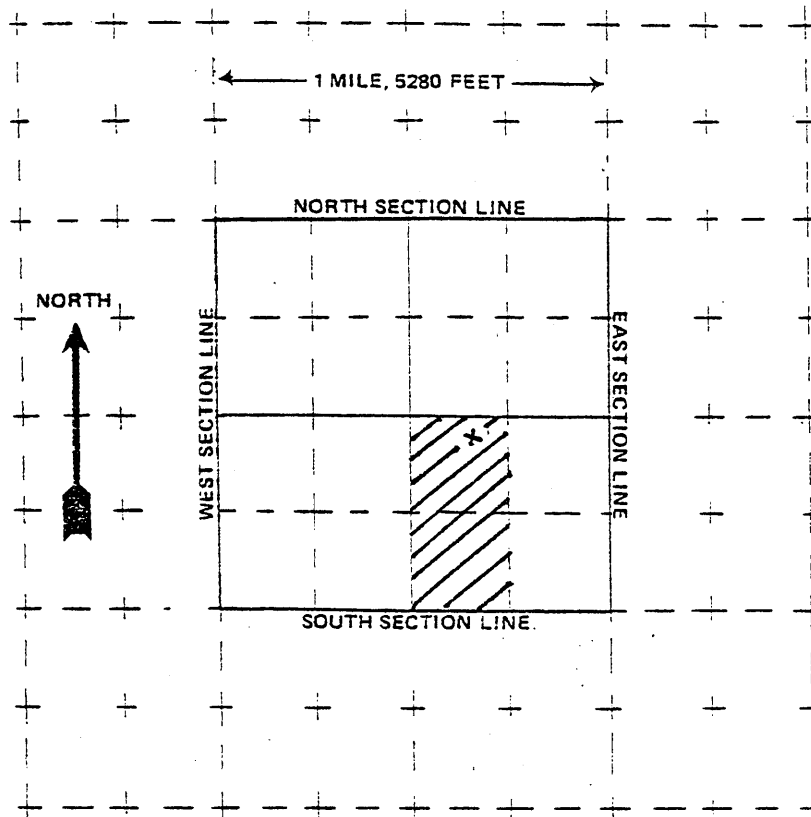
Type or right	Used for (purpose)	Description of land on which used
<u>N/A</u>	<u>N/A</u>	<u>N/A</u>

(13) THE APPLICANT(S) STATE(S) THAT THE INFORMATION SET FORTH HEREON IS TRUE TO THE BEST OF HIS KNOWLEDGE.

William C. Rhoder
SIGNATURE OF APPLICANT(S)

★ Fill in this box only when drilling a new well to replace an old well.

(5) THE LOCATION OF THE PROPOSED WELL and the area on which the water will be used must be indicated on the diagram below. Use the CENTER SECTION (1 section, 640 acres) for the well location.



The scale of the diagram is 2 inches = 1 mile
Each small square represents 40 acres.

WATER EQUIVALENTS TABLE (Rounded Figures)

An acre-foot covers 1 acre of land 1 foot deep
1 cubic foot per second (cfs) . . . 449 gallons per minute (gpm)
A family of 5 will require approximately 1 acre-foot of water per year.
1 acre-foot . . . 43,560 cubic feet . . . 325,900 gallons.
1,000 gpm pumped continuously for one day produces 4.42 acre-feet.

(6) THE WELL MUST BE LOCATED BELOW by distances from section lines.

2330 ft. from South sec. line
(north or south)

1820 ft. from East sec. line
(east or west)

LOT _____ BLOCK _____ FILING # _____

SUBDIVISION N/A

(7) TRACT ON WHICH WELL WILL BE LOCATED Owner: William C Rhoder

No. of acres 80 Will this be the only well on this tract? Yes

(8) PROPOSED CASING PROGRAM

Plain Casing

20 in. from 0 ft. to 15 ft.

_____ in. from _____ ft. to _____ ft.

Perforated casing

20 in. from 15 ft. to 20 ft.

_____ in. from _____ ft. to _____ ft.

(9) FOR REPLACEMENT WELLS give distance and direction from old well and plans for plugging it:

★

(10) LAND ON WHICH GROUND WATER WILL BE USED:

Owner(s): William C. and Helen W. Rhoder No. of acres: 80

Legal description: W 1/2, SE 1/4, Sec. 5, T7N, R65W

(11) DETAILED DESCRIPTION of the use of ground water: Household use and domestic wells must indicate type of disposal system to be used. Irrigation of 80 acres in SE 1/4, Sec. 5, T7N, R65W

(12) OTHER WATER RIGHTS used on this land, including wells. Give Registration and Water Court Case Numbers.

Type or right	Used for (purpose)	Description of land on which used
<u>N/A</u>	<u>N/A</u>	<u>N/A</u>

(13) THE APPLICANT(S) STATE(S) THAT THE INFORMATION SET FORTH HEREON IS TRUE TO THE BEST OF HIS KNOWLEDGE.

SIGNATURE OF APPLICANT(S)

★ Fill in this box only when drilling a new well to replace an old well.

COLORADO DIVISION OF WATER RESOURCES

INSTRUCTIONS FOR COMPLETING PERMIT APPLICATION

Please note that this form must be completed where applicable and typed or printed in black ink (for duplicating purposes). Please indicate at the top, the purpose of the application by placing an (X) mark in the appropriate spaces. Application fees are not refundable. The following is a brief outline for completing the form. The item number corresponds to the number on the application form.

ITEM

- (1) APPLICANT - Complete in full. (Copies of the permit and all correspondence will be sent to this address unless otherwise requested).
- (2) LOCATION OF PROPOSED WELL - Complete each blank. The 1/4 of the 1/4 section, section number, township (twp) and range (rng) each must be designated.
- (3) WATER USE AND WELL DATA - Give: proposed pumping rate, acre-feet (refer to "none," proposed total depth, aquifer if known (this can be sand, sand and gravel, sandstone, granite, etc. or the geological name), and owners well designation if any, such as name or number.
GROUND WATER TO BE USED FOR: One or more of the uses must be indicated. HOUSEHOLD USE ONLY means solely for household purposes with no outside irrigation of lawn or garden. Do not mark "DOMESTIC" for this use. DOMESTIC should be checked for household and/or lawn and garden irrigation of one acre or less. This can also include use for watering of domestic animals. IRRIGATION should be checked when irrigating more than one acre.
- (4) DRILLER - This should be completed in full if a driller has been selected, otherwise "licensed" or "self." All wells must be constructed by a driller licensed in the State of Colorado or by yourself with equipment owned and operated by you.
- (5) THE LOCATION OF THE PROPOSED WELL - The location of the well must be indicated on the diagram by an "X." If the well is used for irrigation purposes the land area to be irrigated must be shaded or crosshatched in the diagram.
- (6) WELL LOCATION - The distance from the section lines MUST be given for all wells. Make sure this corresponds with the 1/4 of the 1/4 section location in item (2).
- (7) TRACT - The number of acres should be given as accurately as possible. "Less than one" is sufficient on small tracts of less than one acre. Also, indicate if this is to be the only well on that given tract and the owner.
- (8) PROPOSED CASING PROGRAM - This is important information to the Division of Water Resources for evaluation of the application. The total depth should correspond with proposed depth stated in item (3). Please indicate any uncased interval anticipated and size of hole. Your well driller can help you with this item, if necessary.
- (9) FOR REPLACEMENT WELLS - Complete as indicated.
- (10) LAND ON WHICH GROUND WATER WILL BE USED - Land owner's (s') name(s) must be indicated for the proposed well. The number of acres and legal description must be given for all proposed wells except for household, domestic or stock wells when located on a tract of land of less than thirty-five (35) acres.
- (11) DETAILED DESCRIPTION of the use of ground water: For Commercial, Industrial and Municipal wells this should give information such as number of people served, number of taps, use of the water area served, etc. Household and domestic wells must indicate type of disposal system. If other than septic tank and leach field, explain how effluent will return to same stream system in which well is located. Use extra space if necessary.
- (12) OTHER WATER RIGHTS - If any, please indicate.
- (13) SIGNATURE - The application must be signed in black ink by applicant or his authorized agent.

Contact a well driller for assistance if necessary.

SOURCE UNIT
IN
COLORADO WATER LAW

Developed by
Charles Johnson
Vocational Agriculture Instructor
Akron, Colorado

In Cooperation With
Colorado State University
Department of Vocational Education
Agriculture Education Division
and
The State Board for Community Colleges
and Occupational Education

1978

INTRODUCTION

The following source unit on Colorado Water Law was prepared as a guide for use by the vocational agriculture teachers in Colorado.

The purpose and intent of this guide is to assist teachers of vocational agriculture analyze and supplement the area of Colorado Water Law and to organize lesson units for instruction in their secondary program, their young farmer program, and their adult farmer program. It is not intended that this guide will be used either as a course of study or as an outline for instruction in any local vocational agriculture department. Strictly speaking, this guide is intended to serve as a source unit for course construction and instructional plans and the local program will be based on local conditions and needs. The thought that a course outline in vocational agriculture for a local community should be planned by any person not familiar with the local community has never been accepted in the past and is not accepted in the present-day thinking.

This source unit is specifically geared to the reference entitled "A Guide to Colorado Water Law." This Guide is the results of a project conducted by Glen D. Rask and Windol L. Wyatt, with Mr. Ward H. Fischer and Mr. Steven B. Ray (Fischer, Brown, Huddleson and Gunn) Attorneys at Law of Fort Collins, Colorado, serving as primary consultants and investigators.

This source unit was prepared in cooperation with Dr. Irving C. Cross, Dr. Ramsey Groves, Dr. Glen Rask and Dr. Windol L. Wyatt of Colorado State University.

ENTERPRISE: Colorado Water Law

JOB:

- I. Determining the Importance of the Law of Water
- II. Becoming Familiar With Water Rights
- III. Protecting Water Rights
- IV. Maintaining the Water Right
- V. Administering the Water Right
- VI. Understanding Private Ditch and Reservoir Laws
- VII. Understanding Mutual Ditch and Reservoir Company Laws
- VIII. Becoming Familiar With the Rights of Existing Well Users
- IX. Becoming Familiar With the Rights of Non-Existing Well Users
- X. Resolving Conflicts Between Well Users
- XI. Becoming Familiar With the Laws Governing Waste Water and Springs
- XII. Becoming Familiar With Plans for Augmentation
- XIII. Changing Water Use
- XIV. Understanding Current Water Problems

ENTERPRISE: Colorado Water Law

JOB I: Determining the Importance of the Law of Water

SITUATION:

OBJECTIVES:

1. Each student will indicate in writing the document used in Colorado to determine water law.
2. Each student will be able to verbally state the body who interprets water law in Colorado.

MOTIVATION:

1. Ask students the importance of water to the community.
2. Discuss the reason streams cannot be dammed by an individual land owner.

STUDY GUIDES:

1. What legal document defines the functions of government at the federal level?
2. How does this document specifically apply to water use?
3. Under the Colorado Constitution who owns the waters of the natural streams in the state?
4. What does the Colorado Constitution say about the users right to water?
5. Who interprets the water law in Colorado?
6. What state official is charged with the administration of waters in the state?
7. What are interstate compacts?
8. What term is applied to agreements between countries concerning water and how do they affect Colorado?
9. Who has jurisdiction in disputes between states?

REFERENCE:

A Guide to Colorado Water Law, Fischer and Ray, pp. 3-8

ANALYSIS:

1. The United States Constitution is our supreme legal document. It defines the functions of government, and all federal governmental power is derived from the Constitution.
2. The Constitution is applicable to waters for two reasons:
 - a. The Bill of Rights (the first ten amendments to the Constitution) restricts government from actions considered to be improper. Particularly important to the water right owner is the constitutional prohibition against the taking of private property without due process of law.
 - b. Federal Powers - Water rights are also affected by other provisions of the Constitution which define the powers of the United States. For example, Congress has the power to control navigable streams and water sources affecting navigable streams.
3. Under our Constitution, all of the waters of the natural streams within Colorado are the property of the people. This includes underground waters tributary to the natural streams.
4. Even though the Constitution prohibits individuals from "owning" water, it does guarantee the right of an individual to "appropriate" water. It further provides that as between those who use waters from the same source, the one who first beneficially uses the water shall have a preferential right to continue that use.
5. Decisions of the Colorado Supreme Court, our highest appellate court, are binding upon all lower courts within the state; so any rule of law announced by our Supreme Court becomes as much a part of the "law of water" as any statute or constitutional provision.
6. The State Engineer is an official of the State of Colorado who is charged with the administration of waters within the State of Colorado in accordance with the decrees rendered by the courts. He has the power to issue rules and regulations concerning the distribution of water, particularly well water.
7. Interstate Compacts are agreements made by two or more states. States can and do make agreements as to the division of waters in rivers and streams that flow from one state into another.

8. Treaties - Strange as it seems, treaties made between the United States and other countries may affect streams in Colorado. As an example, a treaty with Mexico controls the salt content of the waters of the Colorado River and, therefore, may affect the amount of water that may be taken from, and the amount of salinity permitted in, the return flow to that river.
9. The United States Supreme Court has jurisdiction in disputes between states. If requested, it may fairly divide the waters of any interstate stream between two or more states.

ENTERPRISE: Colorado Water Law

JOB II. Becoming Familiar With Water Rights

SITUATION:

OBJECTIVES:

1. Each student will write a definition of a water right to the satisfaction of the instructor.
2. Each student will list the uses for water according to the law.

MOTIVATION;

1. Contrast an individual in a ticket line at a ball game or in a lunch line to the statement "first in time is first in right".

STUDY GUIDES:

1. Define the ownership of water rights.
2. How is the water right obtained?
3. For what purposes can water be appropriated?
4. Define the three main uses of water.
5. What other uses of water can be made?
6. How is the priority of appropriation determined?
7. How can a water right be disposed?
8. Under Colorado law, what is the order of priority for water use?

REFERENCE:

A Guide to Colorado Water Law, Fischer and Ray, pp. 9-13

ANALYSIS:

1. Water rights are a peculiar kind of property. We cannot own the waters flowing in our streams in the same way that we own an automobile or boat because the ownership title to all of the waters of the natural streams in this state belong to the people of Colorado. An individual can, however, acquire a right to use the public waters. When he has such a right, we say that he "owns" a water right.
2. A water right is obtained by the simple act of "diverting" (taking) waters from the natural stream and applying those waters to a beneficial use. When a person has done this, he is said to have made an "appropriation" of the water.
3. Waters can only be appropriated for a "beneficial use". The Constitution does not define that term; but it does make reference to "domestic", "irrigation" and "industrial" uses.
4. The three main uses are domestic, agricultural and industrial. Domestic uses include drinking, bathing, washing, and irrigation of lawns and shrubs. Agricultural use includes irrigating crops and pastureland and watering livestock. Industrial use includes mining, milling, the production of power, and the making of products.
5. Other uses are municipal uses including water for fire fighting, street sprinkling, swimming pools, and other recreational purposes. By allowing these beneficial uses, the Supreme Court surely did not mean to restrict the term. Any use which can be shown to be beneficial and not wasteful would be allowed.
6. The first person to divert the water and apply it to a beneficial use had the right to continue to divert the water for such use in preference to the right of any other person to use the water. Similarly, the person who was the second to divert waters from the same stream and apply it to a beneficial use had a right to continue to do so in preference to the rights of any person other than the first water user. This doctrine of "priority of appropriation" is the backbone of all Colorado water law. Its continuance is specifically required by the Colorado Constitution. It means, literally, "the first in time is the first in right".
7. A water right, that is, a right to use waters from the natural streams (or the underground waters tributary to those streams) is a real property right. "Real" property is property connected with or having the characteristic

of land. Like other real property, a water right can be used, sold or given away. It is protected, like other real property rights, by the Colorado and United States Constitutions.

8. The Constitution of the State of Colorado states that...
"(W)hen the waters of any natural stream are not sufficient. . .those using the water for domestic purposes shall have the preference over those claiming (water) for other purposes, and those using the water for agricultural purposes shall have the preference over those using the same for manufacturing purposes."

ENTERPRISE: Colorado Water Law

JOB III: Protecting Water Rights

SITUATION:

OBJECTIVES:

1. Each student will be able to write the term that applies to the procedure of protecting the priority of water users.
2. Each student will define the steps involved in legally protecting a water right to the satisfaction of the instructor.

MOTIVATION:

1. Ask students to discuss why cars and trucks have registration papers or why houses and land have title papers and then relate the similarities to the registering or adjudication proceeding of a water right.

STUDY GUIDES:

1. How is a water appropriator defined?
2. What right of priority does an appropriator have?
3. What procedure is applied to protect the priority of the appropriator?
4. Who administers the above procedure in Colorado?
5. What steps must the appropriator take to legally protect his water right?
6. What procedure is followed if there is opposition to obtaining the water right?
7. What laws govern the taking of water at a future date and how are they used by appropriators?
8. Who is responsible for keeping records on all water rights?
9. What is the purpose of keeping records of all water rights?

REFERENCE:

A Guide to Colorado Water Law, Fischer and Ray, pp. 14-22

ANALYSIS:

1. A water appropriator is one who takes water from a natural stream and applies it to a beneficial use, and his acts constitute an appropriation.
2. An appropriator, as a part of his water right, has a preference, or priority, which is a part of his water right. He may take the water to which he is entitled by virtue of his appropriation to the exclusion of any persons who made their appropriations at a later date.
3. The procedure is called an "adjudication".
4. Court hearings designed to consider the appropriations of water are called "adjudication proceedings". An adjudication is merely a formal court proceeding resulting in a determination by the court (a decree) which recognizes the appropriation.
5. Any person who desires to obtain a court decree determining that he has acquired a water right must file an application with the division water clerk, stating the facts supporting his claim. Notice is given by a mailing list, and by publication, to all those who might be interested.
6. Any person desiring to oppose the application must file a statement of opposition with the water clerk within a prescribed time. Ordinarily, the referee will be the first one to investigate the application. He may decide the matter based upon affidavits submitted with the application, or he may request the applicant to appear in person to present his and other testimony concerning the claim.
7. Conditional Degrees - Occasionally, a person wishes to develop a water supply for his lands; but because of the size of the project, and its expense, he cannot do so at once. A means is provided by which he may obtain a decree of court awarding him a priority date now even though the actual taking and use of the water is delayed until some future time. Such decrees are made on condition that reasonable diligence in completing the project be shown, and the decree is accordingly referred to as a "conditional" decree. The advantage of obtaining a conditional decree is that an early priority date may be obtained even though the water is not actually taken until some future time.
8. The Division Engineer, with the approval of the State Engineer, is required to prepare a tabulation of all water

rights and conditional rights within his division.

9. The purpose of these tabulations is to summarize the provisions of all water decrees within the division, so that there will be one list for ready reference which contains all of the information concerning all of the water rights within a particular division.

ENTERPRISE: Colorado Water Law

JOB IV: Maintaining a Water Right

SITUATION:

OBJECTIVES:

1. Each student will define in writing two ways in which a water right may be lost.
2. Each student will state five conditions which must be proven to obtain another users water right.

MOTIVATION:

1. Ask students what precautions they might take to prevent the loss of personal property.

STUDY GUIDES:

1. List and define two ways a water right may be lost.
2. What five conditions must be proven by a non-owner to obtain the owner's title to a water right?
3. What is "Color of Title" and how does it affect the loss of a water right?
4. When is a water right considered abandoned?

REFERENCE:

A Guide to Colorado Water Law, Fischer and Ray, pp. 23-26

ANALYSIS:

1. The two traps which can claim the water right are ADVERSE POSSESSION, which basically involves a person using another's right for eighteen continuous years or seven years under certain circumstances, and ABANDONMENT, which is the mere failure to use a water right coupled with an intent to never use it again.
2. In order for a non-owner to obtain the owner's title to the water right by adverse possession, he must prove:
 - a. That he actually took the water
 - b. That he took it openly
 - c. That he took it exclusively
 - d. That he took it continuously
 - e. That his taking was notorious and hostile for a continuous period of eighteen years

Thus, a mere claim of right will not be sufficient; he must actually use the water, and it must be under such circumstances that the owner of the water right knew that his rights were being taken. Further, it must be shown that the owner did not agree or consent to the use. In other words, adverse possession does not arise by the neighborly act of allowing another to use the water.
3. "Color of title" means that the user must have some claim of right, such as a deed, even though it was from someone who had no power to transfer the water right. If a person adversely uses a water right for seven successive years under "color of title" and pays all taxes in connection with the water right for that time, then the title is lost by the owner and acquired by the person using the water and paying the taxes. Taxes are not paid on water rights in Colorado except as they are used in connection with land; therefore, the use of the water on land, and the paying of taxes on those lands, would satisfy the tax-paying requirement.
4. Abandonment of a water right consists of two things:
 - a. The failure to use the water right
 - b. An intent to never use it again

When these two things happen, the water right is abandoned.

ENTERPRISE: Colorado Water Law

JOB V: Administering the Water Right

SITUATION:

OBJECTIVES:

1. Each student will list the state officials who administer water in Colorado.

MOTIVATION:

1. Compare the administration of a school district to that of the duties of the water commissioner in that both are concerned with the smooth operation and attainment of policies set forth by boards of control.

STUDY GUIDES:

1. What officials are involved in the administration of Colorado waters?
2. What are the duties of each official?
3. What waters in Colorado fall under their jurisdiction?
4. In addition to water control what other duty does the State Engineer have?

REFERENCE:

A Guide to Colorado Water Law, Fischer and Ray, pp. 27-33

ANALYSIS:

1. These officials are: State Engineer, Division Engineer, and the Assistant Division Engineer (more commonly referred to as Water Commissioner).
2. These officials are charged with the duty of dividing the waters among the many users:
 - a. The State Engineer is the water policeman. His duty is to "administer" the waters of the state; that is to deliver the waters to those persons entitled to them under the priority system. In addition, it is his duty to make sure that no water user wastes his water. All river headgates, which are structures to divert the water from the stream and are the measuring devices which measure the amount of water diverted, are under his supervision and control; anyone who tampers with the headgates contrary to his orders, or who diverts water by any structure contrary to his orders, is guilty of a crime. He is required to keep a careful record of the use of the waters in the state during each year.
 - b. "Division Engineers" administer the waters of the major river basins.
 - c. Assistant Division Engineer, or "Water Commissioner", will have a very good knowledge of his river or the section of the river which he is required to administer. His job amounts to a good deal more than the simple matter of ordering headgates opened for priorities Nos. 1, 2, and 3, etc., and requiring the rest to be closed. Rather, he will cause as many priorities as possible to be satisfied by taking into consideration such factors as: (1) the expected demands and calls of the earlier priorities; (2) the runoff expected to occur, and (3) the effects of the return flows from existing irrigation. He keeps track not only of the ditches which are diverting, but the amount of water which they divert, and enters all of that data into a field book which he maintains on a daily basis. These field books are compiled from time to time and a permanent copy is kept by each Division Engineer as well as the the State Engineer.
3. The State Engineer's duties regarding administration extend to reservoirs and rivers including all surface waters and he is also required to regulate and administer most of the underground waters of the state.
4. In addition to determining the amount of water to be stored in reservoirs, the State Engineer is given the statutory duty to insure the safety of reservoirs. His office

maintains a team of dam inspectors who from time to time examine each reservoir in the state. If they conclude that a dam is unsafe, they may restrict, or totally prohibit, the storage of water in that structure until it is repaired to their satisfaction. Further, no reservoir with a dam height of at least ten feet or a surface area in excess of twenty acres can be build without the State Engineer having reviewed and approved the plans and specifications for its construction.

ENTERPRISE: Colorado Water Law

JOB VI: Becomming Familiar with Private Ditch and Reservoir Laws

SITUATION:

OBJECTIVES:

1. Each student will define in writing the purpose for private ditches and reservoirs.
2. Each student will define in writing the term condemnation.

MOTIVATION:

1. Ask students to discuss who is responsible for a flooding river or stream and relate that to private ditches or reservoirs.

STUDY GUIDES:

1. What is the purpose of a private ditch?
2. How is a right-of-way obtained for a ditch or reservoir?
3. Can a right-of-way be obtained without permission? Explain.
4. What is condemnation as it relates to water rights?
5. What responsibility does the user have to maintain a private ditch?
6. What is the purpose of a private reservoir?
7. Who is responsible for the private reservoir?
8. What are the tax advantages to constructing a private reservoir?
9. How does the prospective water user apply for the construction of a private reservoir?
10. How is ownership of a private reservoir transferred?

REFERENCE:

A Guide to Colorado Water Law, Fischer and Ray, pp. 35-39

ANALYSIS:

1. The purpose of the private ditch is to take water directly from the stream and carry it to the crop to be irrigated.
2. A right-of-way for a ditch or reservoir over or on private lands may be acquired by deed, by contract, or by grant of right-of-way or easement from the landowner.
3. A right-of-way can be obtained without any written document by consent. For instance, if a landowner allows another to expend money to build a ditch across his land, he will not be allowed to say that he objects to it. One who builds a ditch without permission and maintains it and uses it for eighteen years acquires a right to continue to maintain the ditch in the future by what is termed "prescription".
4. Condemnation is a means by which private property can be taken through court action. It exists only to the extent that the Constitution permits and the legislature allows. When a right-of-way is condemned, just compensation must be paid, the shortest most direct route must be taken, and no land can be burdened with more than one ditch.
5. There are responsibilities which accompany the use of a ditch which crosses another's property. The user is responsible for maintaining the embankments so that the waters are not wasted and so that the waters do not flood or otherwise damage the lands or crops of another.
6. Colorado statutes specifically authorize the construction and maintenance of reservoirs and recognize the right to store water for future beneficial use. Those statutes further authorize the construction and maintenance of ditches for carrying water to and from the reservoirs. Reservoir owners are allowed to condemn lands as necessary for the construction and maintenance of reservoirs and ditches.
7. The owner of a reservoir is responsible for any damage occurring as a result of dam failure. This is true, under Colorado law, whether or not he is in any way at fault or responsible for the failure.
8. Colorado statutes encourage the building of small reservoirs on water courses which are normally dry by providing for a property tax reduction of up to 25% of the assessed value of the surrounding acreage owned by the reservoir owner.

The reservoir must have more than 1-1/2 acre feed capacity but less than 160 acres total area.

9. Persons wishing to use this tax reduction must submit plans for construction of such reservoir to the State Engineer who, upon completion, will issue a certificate to the Board of County Commissioners of the appropriate county. The county assessor annually evaluates the reservoir to determine that it is being kept in a safe condition and used for the purpose of impounding water.
10. Private reservoirs and their water rights are conveyed by deed as in the case of private ditches. Similarly, a reservoir right may pass as a part of a land deed if that was the intention of the parties even though the right is not specifically mentioned.

ENTERPRISE: Colorado Water Law

JOB VII: Becoming Familiar With Mutual Ditch and Reservoir Company Laws

SITUATION:

OBJECTIVES:

1. Each student will define in writing the purpose of a mutual ditch or reservoir company.
2. Each student will state the purpose of a water conservancy district to the satisfaction of the instructor.
3. Each student will list the state body that governs the operation of public ditches.

MOTIVATION:

1. Discuss the costs involved in building a reservoir and convey the idea that few individuals could afford the construction without substantial outside money.

STUDY GUIDES:

1. What is the purpose of a mutual ditch or reservoir company?
2. How is the water divided in the company?
3. How are the expenses for maintenance paid?
4. How is the company governed?
5. Who owns the water rights of a ditch or reservoir company?
6. What is the purpose of a water conservancy district?
7. How is the district created?
8. Who manages the affairs of the district?
9. What is the purpose of public or common carrier ditches?
10. Who governs the operation of public ditches?
11. What responsibilities do the public ditch companies have?

REFERENCE:

A Guide to Colorado Water Law, Fischer and Ray, pp. 40-46

ANALYSIS:

1. Mutual ditch or mutual reservoir companies were formed as non-profit corporations for the sole purpose of constructing ditches and reservoirs and conveying water to the lands of those who participated in the endeavor.
2. The amount of water is delivered in porportion to the number of shares held by each member. Thus, in a mutual company with 100 shares of stock, a person owning 10 shares would be entitled to 10% of the water diverted or stored by the company each year. Each share of stock is equal to every other share.
3. The expenses of the company, for maintenance of the ditch, division of the water, and administrative expenses, are likewise shared in proportion to stock ownership. The money to pay bills is collected by levying assessments against each share, and ordinarily the company will not deliver a stockholder's share of the water until he has paid his assessments. A continued failure to pay assessments may also result in the stockholder's shares being forfeited or sold, with the proceeds realized from the sale being used to pay the delinquent assessments.
4. A mutual ditch company is governed by a Board of Directors elected by the stockholders. Directors are charged with the responsibility of the operation of the company and may make reasonable rules and regulations concerning the conduct of its business and the disposition and control of its water.
5. The water right is carried in the court records and in the office of the Division Engineer in the name of the mutual ditch or reservoir company. However, the stockholders are the real users and owners of the water rights owned by the ditch company; and the company serves, in a sense, as a trustee for all of its stockholders.
6. Some irrigation projects are so large and so expensive that it would be impossible to construct them by private means. To meet the need for these larger projects, the Colorado legislature authorized the creation of "water conservancy districts". These are public corporations organized for the purpose of developing projects to aid in making the greatest beneficial use of the waters within the state.
7. A conservancy district can be created only by owners of land within the proposed district who petition the court

for its organization. After objections are filed and heard, the District Court may create the district and establish its boundaries.

8. A Board of Directors, appointed by the District Court, manages the business affairs of the district. The Board locates, constructs, and maintains the irrigation works. It acquires the land, obtains water rights, and delivers the water to the water user under allotment contract. It also appoints the officers of the district. The Board has wide powers to make rules and regulations governing the district and the use of the water among the landowners.
9. A company organized for the purpose of diverting water from the natural stream and transporting that water for sale to consumers is called a common carrier company. It is operated for the purpose of making a profit.
10. Because its business deals with a public resource and because it has a monopoly over that portion of the public owning or occupying land in the vicinity of the canal, a common carrier company is considered to be somewhat of a public servant and, therefore, subject to reasonable sanctions and controls by the state legislature similar to sanctions placed on gas, telephone, and water companies.
11. A common carrier company is responsible for keeping a flow of water in its ditch from the 1st of April until the 1st of November sufficient to meet the requirements of all persons entitled to use such water. The company and not the consumer is responsible for maintaining its canal in good repair, including having it ready to receive water by April 1st. It is also the company's responsibility to construct and maintain the necessary outlet in the bank of the canal or ditch for the purpose of delivering to persons who have paid for the company's service.

ENTERPRISE: Colorado Water Law

JOB VIII: Becoming Familiar with the Rights of Existing Well Users

SITUATION:

OBJECTIVES:

1. Each student will define in writing tributary and non-tributary groundwater.
2. Each student will be able to determine the difference between groundwater and surface water rights to the satisfaction of the instructor.

MOTIVATION:

1. Begin a discussion indicating the possibility that existing wells may be shut down by state officials. Bring out the importance of knowing this before purchasing land with existing wells.

STUDY GUIDES:

1. Define tributary and non-tributary groundwater.
2. How is appropriation made for existing wells taking tributary groundwater?
3. When can the use of well water be restricted?
4. How are well rights obtained or transferred?
5. What wells are exempt from regulation?
6. What use can be made of these exempt wells?
7. Define a designated ground water basin.
8. Who regulates the water in a designated basin?
9. How do the water rights of a designated basin differ from surface water?
10. How is a groundwater management district established?
11. What is the purpose of such a management district?
12. How would the activities of a district be financed?

REFERENCE:

A Guide to Colorado Water Law, Fischer and Ray, pp. 46-54

ANALYSIS:

1. Tributary groundwater is water which, by its own movement, will become part of a natural surface stream or the use of which will adversely affect the flow of the stream, while non-tributary waters are held in natural basins underground from which they cannot escape.
2. The appropriation is made, and the absolute right to use the water is acquired, when the water has been drawn from the ground and applied to the beneficial use.
3. Since most wells are junior in priority to most surface decrees, the use of the wells can be prohibited if the waters which they pump are necessary to fulfill the rights of prior decrees.
4. Well rights, like private ditch rights, are transferred by deed. Ordinarily a deed to the land upon which the well is located will convey the well's water rights although it is always better to specifically describe the well and its water rights as included in the conveyance.
5. Small domestic wells are "exempt" or not covered by the strict provisions of the water rights acts and the rules and regulations of the State Engineer.
6. The most common uses of these are for ordinary household purposes, stock watering, and the irrigation of not over one acre of home gardens and lawns. These wells cannot exceed a production of more than 15 gallons per minute. Such wells do not need to be adjudicated, and few of them are. This type of well may be utilized whenever the water is needed for the exempt purposes, and they are not subject to being shut down by present rules and regulations of the State Engineer.
7. A designated groundwater basin contains groundwater which would not become a part of a natural surface stream or whose movement toward the natural surface stream is so slow that it is treated as not being available to the stream.
8. To regulate the use of wells in these areas, the Colorado legislature enacted the Colorado Ground Water Management Act. The Ground Water Commission, created under this act, has authority to regulate groundwater in areas known as "designated groundwater basins".
9. Unlike the rights to use surface waters, where the water can be applied to any lands, the right to use water under

a well permit from the Gound Water Commission is for use only upon lands designated in the application. In other words, the water right "belongs" to specific land set out in the application and cannot be used to irrigate other lands without first receiving authorization from the Commission. Ordinarily, therefore, the conveyance of the land conveys the water right as well.

10. If the residents of a designated basin wish to do so, they may establish a "groundwater management district". Such a district is governed by a Board of Directors made up of residents of the basin.
11. The object is to obtain local control. The Board of Directors consults with the Commission and the State Engineer on all groundwater matters affecting the district. The Board basically has all the powers and fulfills the function of the Ground Water Commission.
12. The activities of a groundwater management district are financed by taxes based on the value of the property within the district. The tax is collected by the County Treasurer in the same manner as state and county taxes. The Board of Directors can also make special assessments on the water wells themselves based on gallons pumped per minute (not to exceed \$.05 per gallon per minute).

ENTERPRISE: Colorado Water Law

JOB IX: Becoming Familiar With the Rights of Non-Existing Well Users

SITUATION:

OBJECTIVES:

1. Each student will write the procedure required before drilling a well.
2. Each student will list three factors that affect the granting of permission to drill a well.

MOTIVATION:

1. Ask students if any have heard of "witching" for water to locate a well site. Discuss other ways of locating water for well use.

STUDY GUIDES:

1. What procedure is required before drilling a well?
2. Are new wells permitted for taking tributary groundwater?
3. What procedure is necessary for drilling a domestic well?
4. Who grants permission to drill a well in a designated groundwater basin?
5. What factors affect the granting of permission to drill?
6. Can wells be drilled for non-tributary water?
7. What use must be made for non-tributary water?

REFERENCE:

A Guide to Colorado Water Law, Fischer and Ray, pp. 54-57

ANALYSIS:

1. An application for a permit to drill a new well is submitted to the State Engineer, who may issue the permit only if he finds that there is unappropriated water available for withdrawal by the proposed well and that the rights of others will not be injured in any material manner.
2. The State Engineer will ordinarily not grant a permit to drill a well in those areas of Colorado east of the Continental Divide because in most areas the streams are fully appropriated; and, therefore, there is no unappropriated water available for the well withdrawal. In other areas of the state, depending upon the location of the well, a well permit may be granted.
3. If no domestic well exists, none may be drilled without a permit. Ordinarily, the State Engineer will permit a well to be drilled if it is going to be used to supply a home located upon a tract of land owned by the landowner and if the landowner owns no other domestic wells.
4. For wells located within designated groundwater basins, the decision as to whether or not a permit will be granted is left up to the Ground Water Commission, rather than to the State Engineer. If the Commission finds that the well will not unreasonably injure existing water rights from the same source, the State Engineer must issue the permit.
5. Whether or not the permit will be issued depends in large part upon the number of other wells in the area, the rate of re-charge into the groundwater basin, and other factors which would influence the yearly water supply.
6. Whether or not the State Engineer will issue a permit to capture non-tributary water depends upon his judgment as to the extent of the underground basin and the effect of existing wells on that supply. Generally, he tries to manage the basin so that the water supply will last for 100 years.
7. No permit will in any event be issued except to landowners who own land over the basin and then only for the irrigation of such lands.

ENTERPRISE: Colorado Water Law

JOB X. Resolving Conflicts Between Well Users

SITUATION:

OBJECTIVES:

1. Each student will determine the difference between rights within a groundwater basin and outside a basin to the satisfaction of the instructor.
2. Each student will define in writing how the rights of two well users are determined.

MOTIVATION:

1. Discuss the dilemma of a shallow well that has existed for 25 years and is drying up to a deep well that has been drilled in the past 5 years.

STUDY GUIDES:

1. Who establishes the rules for well operation in a designated groundwater basin?
2. How is the pumping managed in a given basin?
3. How are wells managed outside of designated basins?
4. How are the rights of two well users determined?
5. Are the existing well users protected against a lowering of water level?
6. How can the cost of deepening an existing well be divided?

REFERENCE:

A Guide to Colorado Water Law, Fischer and Ray, pp. 57-59

ANALYSIS:

1. The Ground Water Management Act gives broad powers to the Ground Water Commission to establish rules for the operation of wells within a particular basin.
2. The Commission will ordinarily attempt to manage the pumping so that recharges will be sufficient to allow all permitted wells to obtain water. However, in times of great shortage, some of the later wells may have to cease pumping in order to allow the ones with an earlier date of appropriation to continue operation. Any reasonable rules adopted by the Commission will be valid.
3. The rights of a well owner outside of designated groundwater basins as against the owner of an adjoining well is in a state of some confusion in Colorado. Until 1957, there was no control at all as to the number of wells which might be drilled, or as to their location. Now, of course, wells may not be drilled without a permit, permits will not be issued unless water is available for appropriation, and wells may not ordinarily be located within 600 feet of each other.
4. As between two well users, their rights are determined based on the doctrine of priority of appropriation. That is, the one who first drilled his well, and used his water, is first in time and therefore first in right. However, if one of the well owners has failed to submit his well to adjudication, but the other has, the adjudicated well will have the preference because of the statute which so states.
5. The senior well is not protected against all drawdowns of the water table. If the reduction of the water table, by the operation of adjoining wells, is not unreasonable, and if the senior well user may, by reasonable construction at reasonable expense, continue to get his full supply of water, he has no cause for complaint.
6. If the drawdown is so substantial that the cost of the deepening of the well, or the like, is great, then the owner of the junior well will be required to curtail his diversion. This may perhaps be modified by a rule that if the junior water user agrees to pay and does pay for the increased cost of the senior user getting his water, then perhaps the junior well can continue to divert.

ENTERPRISE: Colorado Water Law

JOB XI: Becoming Familiar With the Laws Governing Waste Water and Springs

SITUATION:

OBJECTIVES:

1. Each student will determine the difference between seep water, waste water and spring water to the satisfaction of the instructor.
2. Each student will define in writing the legal uses of seep water, waste water and spring water.

MOTIVATION:

1. Begin a discussion which leads to the conclusion that few water uses are totally consumptive. There is always some that is not used but eventually will return to the river or underground supply.

STUDY GUIDES:

1. What can the appropriator do to capture seepage water?
2. What can be done about capturing surface waste water?
3. What use can be made of waste water from another irrigator?
4. How is spring water appropriated?
5. How can a spring be used by the landowner?

REFERENCE:

A Guide to Colorado Water Law, Fischer and Ray, pp. 59-61

ANALYSIS:

1. The appropriator has no right to recapture the seepage waters after his first use. That is, after the waters have irrigated his crops and seeped into the ground, he must allow them to remain a part of the underground water supply if they will ultimately reach the river and be available for use by others.
2. The rule is somewhat different as to surface waste waters. If these waters leave the property of the irrigator, then they are lost to him. If he recaptures these waters before they leave his land, however, the law allows him to use them. Thus, the construction of a small holding pond at the end of the rows, for the purpose of capturing the surface flows resulting from irrigation, is quite proper.
3. Waste waters coming from the irrigation of lands above the irrigator may, under certain circumstances, be used by the lower irrigator. The circumstances are important. If the waste waters reach any natural stream, then they are part of the river; and, if the appropriator does not intend to reuse them, they may be taken only by a senior appropriator in order of priority. If they would reach a natural stream if unintercepted, there is no right to intercept them. However, many waste waters which flow over a person's land would never reach a natural stream, except theoretically. While these waters might ultimately seep into the ground and form part of the tributary groundwaters, the present view of the water administrators is that to prohibit the capture and use of such waters would really be of no benefit to anyone.
4. Springs are subject to appropriation in the same manner as any other surface supply. Ordinarily, a spring is tributary to some river, and the waters of it are accordingly subject to the appropriation doctrine.
5. The waters of most springs can be taken by the landowner only to the extent that the waters of those springs have not been appropriated by water users with earlier rights.

ENTERPRISE: Colorado Water Law

JOB XII: Becoming Familiar with Plans for Augmentation

SITUATION:

OBJECTIVES:

1. Each student will define a plan for augmentation to the satisfaction of the instructor.
2. Each student will list the procedure necessary to develop a plan for augmentation.

MOTIVATION:

1. Ask students how a supply of water can be maintained or increased.

STUDY GUIDES:

1. What is a plan for augmentation?
2. How does the term depletion apply to groundwater?
3. Explain the concept of depletion replacement.
4. What procedure must the landowner take to develop a plan for augmentation?

REFERENCE:

A Guide to Colorado Water Law, Fischer and Ray, pp. 62-64

ANALYSIS:

1. A "plan for augmentation" is defined by statute as:
 "A detailed program to increase the supply of water available for beneficial use. . .by the development of new or alternate means or points of diversion, by a pooling of water resources, by water exchange projects, by providing substitute supplies of water, by the development of new sources of water, or by any other appropriate means."
2. The concept of depletions involves a consideration of the effect of the well-pumping on the stream. Wells interrupt groundwater which is slowly proceeding to the stream by taking it to the surface. Some of the water applied to the surface seeps back and again becomes a part of the groundwater although there is a delay in the return. Some of the water taken to the surface is consumed, that is, it is completely used up by plant growth or evaporation and is lost to the stream system.
3. The concept of depletion replacement is to obtain other waters which can be delivered to the river at the time and the place that the injury, or lack of water, would otherwise be felt. The fact that the return flow waters could ultimately reach the stream can be taken into account; but the delay in the return must also be considered in determining when, where, and in what amount the replacement water must be provided.
4. Anybody contemplating the development of a plan for augmentation must seek the assistance of a qualified water attorney and a qualified water engineer. The possibilities of injury and the ways in which that injury might be prevented, are so varied and complex that expert assistance will be required. To be effective, the plan must have the approval of a water judge. One way to handle this is to apply directly to the appropriate water clerk for approval. Statements of opposition can be filed against the approval of the plan, and the water judge ruling can be appealed. A second way to handle the application is to submit the plan to the State Engineer at the same time application is made for approval with the water clerk. The State Engineer will apply the same test as the courts in determining whether or not to approve the plan, (that is, is there reasonable assurance that the proposed plan will not injure persons entitled to use water through an existing water right).

ENTERPRISE: Colorado Water Law

JOB XIII: Changing Water Use

SITUATION:

OBJECTIVES:

1. Each student will explain to the satisfaction of the instructor how water use may be changed.
2. Each student will define in writing examples of injury to another water user.

MOTIVATION:

1. Ask students why you are not allowed to take the license plates from an old car and put them on a new one. Then relate the change to that of changing water diversion points and use of water that has been appropriated for specific use.

STUDY GUIDES:

1. How can the landowner change the use of diversion of his water rights?
2. Give five examples that constitute "injury".
3. How could these "injuries" be resolved?
4. What changes can be made without court order?

REFERENCE:

A Guide to Colorado Water Law, Fischer and Ray, pp. 65-69

ANALYSIS:

1. No change of water rights may be allowed if the change would injure or adversely affect any other water user. If injury would occur, the person desiring to make the change may nonetheless make it if he can propose some conditions which, if adopted, would prevent such injury.
2. Examples that constitute injury are:
 - a. Any right to use water is limited by the needs of the land existing at the time that the appropriation is made. Thus, an appropriation of water for the irrigation of 160 acres of land cannot, on a change, be enlarged so as to irrigate 320 acres of land.
 - b. Any change in the use to be made of the water which results in a higher consumptive use will not be allowed.
 - c. If the headgate of another appropriator is located so that it can capture the return flow waters from the right being transferred, and if the change would result in the return flow being lost to the other ditch, and if this water was essential to the fulfillment of the latter's rights, the change could not be allowed.
 - d. The time of use may not be extended. For example, waters used for irrigation during the summer irrigation season could not be taken by a city and used year around.
 - e. Sometimes the original headgate is so located that it may divert its full rights as the result of the return flows from upstream irrigation by junior appropriators. The point of diversion cannot be transferred upstream if the effect of such transfer would be to take the flow which was presently being diverted under one of these junior rights.
3. Injuries may be resolved by:
 - a. A water right originally awarded for the irrigation of 160 acres, and being transferred to a 320 acre farm, might be restricted in its allowable diversions to that amount of water which had historically been used to irrigate the smaller tract.
 - b. If a water right has been used to that 50% of the water was consumed (used up by plant life or evaporation) perhaps only one-half of the whole right could be utilized for a new use which is 100% consumptive.
 - c. If the return flow from the ditch had always supplied a downstream right, the change might be allowed if sufficient waters were left in the stream to satisfy that right, with only the balance being used at the new point of diversion.
 - d. Irrigation waters sold to a city might be restricted to being diverted only during the irrigation season.

- e. If the location of the headgate after a change would enable the owner of the right to take waters which had historically been diverted by another, the transferring owner might be required to subordinate his right to the other and not take water when the other needed it.
4. These are changes in place of use which occur within a mutual ditch or reservoir system when one farmer sells his water stock to another and the water is thereafter used on another farm under the same ditch or reservoir. As long as no one objects, this change is commonly done and allowed without court order.

ENTERPRISE: Colorado Water Law

JOB XIV: Understanding Current Water Problems

SITUATION:

OBJECTIVES:

1. Each student will list the places where pollution is to be controlled.
2. Each student will define in writing the term weather modification.

MOTIVATION:

1. Pass a glass of water around the room and ask each student to take a drink. When they question the reasoning, relate the pollution of streams and rivers and how downstream users are affected.

STUDY GUIDES:

1. How does the law address water pollution?
2. What efforts are made to remove pollutants?
3. Where are the main pollution control efforts directed?
4. How is agriculture affected by these control efforts?
5. How is drainage affected by Colorado law?
6. What are federal reserved rights?
7. What is included in these reservations?
8. How can the landowner avoid claims from the government?
9. How are attempts at weather modification applied?
10. Who regulates weather modification activities?
11. How can a private enterprise enter the field of weather modification?
12. Who is liable for damage resulting from weather modification activities?

REFERENCE:

A Guide to Colorado Water Law, Fischer and Ray, pp. 70-74

ANALYSIS:

1. No person has ever had a right to pollute water so that it is rendered unuseful to downstream users. Recent federal and state acts concerning water pollution control have focused attention on pollution problems. Under the law, no person who discharges water back into a natural stream can do so if it contains "pollutants".
2. Most efforts thus far have been concentrated in removing pollutants from discharges which are made from point sources, that is, from clearly defined places where the water reaches the stream. Such point sources could be a tributary stream, a ditch, a pipeline, or the like.
3. Municipalities and factories are the ones which have the most observable point source discharges, and it is concerning such discharges that the main pollution control efforts have thus far been directed. In addition, particular emphasis has been given to controlling pollution from feed lots because the pollution discharges from those sources are so concentrated.
4. As far as general agriculture is concerned, waters returning to the river in a "diffused" state, whether from irrigation or precipitation, are not includable in any permit program but are subjects of study of various areawide waste treatment plans required by federal legislation.
5. Colorado follows the rule that the lower landowner must allow natural drainage of waters from the upper lands. The rule extends only to the waters produced from natural causes, rain or snow, and not from irrigation. However, if the lower landowner has allowed waste and seepage waters from the irrigation of the upper lands to flow across his land for a period of eighteen years, the upper landowner will, by such conduct, have obtained the right to continue such drainage, in the same quantities as was established for the eighteen year period.
6. Many water rights in Colorado are subject to being lost; or at least reduced, by the claim of the United States Government of the so-called "reserved rights" of the United States Government. The reserved rights doctrine asserts that the United States reserved sufficient waters in every federal reservation to fulfill the purposes of that reservation.
7. These reservations include all types of national parks, national forests, national monuments, and the like.

8. As a practical guide, most water users involved in agriculture probably will not be greatly affected. However, those who take their water from a point above or particularly within any reservation could be in real danger. Those who do so should be particularly vigilant in resisting any claims of the United States of America which might affect their rights. The services of an attorney for this purpose are essential.
9. In recent years there has developed an attempt to establish some control over nature's delivery of water. This effort is called weather modification but is most commonly referred to as "cloud seeding".
10. Basically, the regulation involves the issuance of licenses and permits by the executive director of the Department of Natural Resources, who is assisted by an advisory committee.
11. To be issued a license or permit, a private enterprise must make application to the executive director and must demonstrate that it is qualified in the field, and that its particular operation is completely planned.
12. A person who operates without a license and permit is subjecting himself to liability in the event of damages as well as criminal sanctions for violation of the statute. Presently, all cloud seeding is being done not by private groups, but by the State of Colorado. To protect itself, and all those working for it, the state has passed a law which prevents the state from being held responsible for any resulting damage.