

# WYOMING HYDROGRAPHER-COMMISSIONER MANUAL

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# TABLE OF CONTENTS

Introduction	1
Hydrographer-Commissioner, Superintendent, State Engineer and Board of Control	1
Wyoming Constitution and Statutes	4
Court Decrees, Compacts and Treaties	4
Water Rights, Beneficial Use and Permit Applications	5
Administration and Regulation of Surface Water	9
Miscellaneous	18
Administration and Regulation of Groundwater	20
Sample Schematic	25

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#### **GENERAL**

#### Introduction

The State Engineer's Office (SEO) is one of the oldest state agencies, having been in existence since statehood (July 1890) in a somewhat different form than during its territorial days of 1868 through 1890. The SEO is the state agency created by the Wyoming Constitution to have general supervision of the waters of the state through a central office in Cheyenne and four distinct geographic drainage basins known as water divisions. The four water divisions are further divided into water districts. The State Engineer and the four water division superintendents comprise, by Wyoming Constitution, the Board of Control (Board).

#### <u>Purpose</u>

The purpose of this manual is to provide general consistency for Wyoming hydrographer-commissioners in understanding the standards for regulating and administering water rights within the four divisions and many districts throughout the State of Wyoming. Most of the topics discussed herein are governed not only by state statutes and court decisions, but also by promulgated rules such as Regulations and Instructions Part IV of the Wyoming State Board of Control. The requirements of interstate compacts and decrees and local situations may also sometimes vary between water districts. In the event any provision of the manual conflicts with Wyoming water law, Wyoming water law controls. Wyoming hydrographer-commissioners are under the general supervision of the water division superintendents but their regulatory (water right administration) decisions are independent of and appealable to the division superintendents (in writing, see "Appeals From Regulation by the Hydrographer-Commissioner" on page 19). See Wyo. Stat. Ann. § 41-3-603.

### HYDROGRAPHER-COMMISSIONER, SUPERINTENDENT, STATE ENGINEER AND BOARD OF CONTROL

#### Hydrographer-Commissioner

As an appointed and entrusted hydrographer-commissioner, you are assigned to one or more water districts. The reference material included with this manual is intended to supplement and provide information as a basic guideline and ready reference for those appointed in this position. Some of the primary hydrographer-commissioner responsibilities are found in Wyoming Statutes § 41-3-603 and § 41-3-604 which state in part: "as near as may be practicable, divide, regulate and control the use of water of all streams, springs, lakes or other sources of water within his district as will prevent the waste of water or its use in excess of the volume to which the appropriator is lawfully entitled" and "divide the water of the natural stream or streams of his district among the

several ditches and reservoirs taking water therefrom, according to the prior right of each, respectively, in whole or in part, and to shut and fasten, or cause to be shut and fastened, the headgates of ditches and shall regulate or cause to be regulated the controlling works of reservoirs, in times of scarcity of water, as may be necessary by reason of the priorities of right existing from said streams of his district." Other statutory responsibilities and duties of a hydrographer-commissioner are found in Wyoming Statutes §§ 41-3-605 through 41-3-616. You are strongly encouraged to read and become extremely familiar with Articles 5 and 6 of Chapter 3, Title 41 of the Wyoming Statutes to more fully understand the structure of field water administration.

Through statutory changes over the years, water commissioners came to be known as "hydrographer-commissioners" or simply "hydrographers." In addition to their immediate supervisor, they are responsible to both the water division superintendent and, as delegated, to the assistant superintendent in the internal chain of command within a water division. Some water divisions include officials known as "field investigators," "acreage inspectors," "well inspectors," "trib inspectors," "lead hydrographers," "gage readers," "seasonal hydrographers or water commissioners," and "assistant hydrographer or water commissioners," whose duties are prescribed by either statute or the water division superintendent as well as in their Job Content Questionnaire (JCQ).

Water districts are required by statute to include "each stream system of practicable administrative scope...within a single district," and the legislature has provided that the governor "appoint a water commissioner for each water district, if needed...." In some cases, a hydrographer-commissioner may administer several districts with assistant hydrographer-commissioners or seasonal hydrographer-commissioners working under his/her direct supervision. Those hydrographer-commissioners are the local authorities on water administration within their water districts. They must be skilled in the measurement of water and generally are in charge of administration of an entire watershed. Their duties, powers and authorities are well-defined by statute, and their work and decisions must be of the highest integrity. All hydrographer-commissioners are charged to keep comprehensive records of water diversions and flows in their districts and to submit an annual report at the beginning of each calendar year or on some other schedule if required by their superintendent.

Hydrographer-Commissioners are "at-will" employees of the State of Wyoming appointed by the Governor on recommendation of the State Engineer and appropriate division superintendent. They are state employees and paid from state funds.

#### **Division Superintendent**

The responsibilities and duties of the division superintendents are outlined beginning in Wyoming Statute § 41-3-503, which begins: "Said division superintendents shall have general control over the water commissioners of the several districts within his division." Some of these duties include the ability to order construction of waste ditches, authority to close headgates, supervise hydrographer-commissioners, to mark and survey headgates of ditches and canals, and secure the equal and fair distribution of water in accordance with the rights of priority of appropriation. Each division superintendent sits as a member of the Board which, under such regulations as may be prescribed by law, has the supervision of the waters of the state and of their appropriation, distribution, and diversion and of the various officers connected therewith.

Superintendent decisions are usually subject to review by the State Engineer and ultimately the courts of the state.

#### State Engineer

The Governor appoints the State Engineer for a constitutional six year term subject to confirmation by the Wyoming State Senate. State statute requires the State Engineer to be a licensed professional engineer. The State Engineer is directly responsible for the general supervision of the administration of all waters of the State, and the officers connected with its distribution. He also presides as president of the Board. Wyo. Const. art. 8, §5.

#### **Board of Control**

The Board is comprised of the State Engineer and the superintendents of the four water divisions. Wyo. Const. art. 8, §2. They meet four times a year during February, May, August, and November. The superintendents are at-will employees appointed by the Governor. The State Engineer and Board administrative offices are located in Cheyenne. Wyo. Stat. Ann. § 41- 4-201.

The Board handles petitions including any changes in adjudicated water rights, such as a change in point of diversion or change in place of use or location of irrigated lands. In addition, the Board adjudicates all water rights and approves all changes of use regardless of whether those rights to be changed are adjudicated. The Board has exclusive original jurisdiction in water right abandonment proceedings. The State Engineer may provide for exchanges or changes of unajudicated or undeveloped points of diversion points or means of conveyance. The State Engineer may cancel a water right if a Notice of Completion has not been timely filed. Wyo. Stat. § 41-4-506.

The superintendent or the State Engineer must sign final proofs of appropriation after a hydrographer-commissioner takes a specified proof. Before a final proof of appropriation is accepted by the Board for adjudication, the division superintendent or designated hydrographer-commissioner must conduct a field inspection to validate beneficial use, irrigated acreage and actual capacity. Those seeking adjudication must provide evidence of ownership.

Other than to correct some clerical errors, petitions for correction or amendment of lands under a certificate of appropriation, or for change in place of use, the total acreage under the appropriation will be limited to the acreage actually historically irrigated in the recent past. A public hearing may be required on all petitions proposing changes in description of the lands to be irrigated.

If a change in point of diversion and/or means of conveyance is requested, the water diverted at a new point is limited to that amount available at the old point of diversion. Also, in a complete change it will be required that the old diversion be permanently closed off to the satisfaction of the division superintendent. Temporary changes in point of diversion may be granted by the superintendent under certain conditions and are valid for only one season.

In cases of involuntary (or "declarations of") abandonment, a petition can be acted on only if a party can show standing and that there is a reasonable likelihood they will benefit from the abandonment or be injured by the reactivation of the water right, and can prove that the water was voluntarily not diverted and put to use when available to satisfy that appropriation in priority over the last successive five year period. A hearing is required during involuntary abandonment cases. Hydrographer-Commissioners should be aware they may be called to testify in such hearings and cautioned to stay aware and not discuss the principles of the abandonment with the parties involved after the petition is filed. In contrast, voluntary abandonments are deliberate relinquishments of a water right by its owner, and are accomplished by the owner filing a petition with the Board which is ultimately granted. This mechanism is used to voluntarily remove any water right no longer maintained by the owner. In addition, statute and Board rules recognize the automatic abandonment that will occur when lands with appurtenant water rights are inundated by a reservoir. This automatic abandonment of water rights occurs five years after construction of the reservoir has been completed and when no transfer of the underlying right has been filed. Wyo. Stat. Ann. § 41-3-107.

#### WYOMING CONSTITUTION AND STATUTES

#### **Wyoming Constitution**

The Wyoming Constitution sets forth the legal framework by which the State regulates, administers and grants water rights. The Wyoming Constitution has nine provisions directly relating to water. They can be found in Wyo. Const. art. 1, § 31-32; Wyo. Const. art. 8, § 1-5, Wyo. Const. art. 13, § 5; and Wyo. Const. art. 16, § 10.

Article 8 of the Constitution specifically covers irrigation and waters rights. Among other things mentioned earlier, this Article also institutionalizes the doctrine of prior appropriation whereby prior appropriation for beneficial use is the better water right, and new appropriations can be denied as required by the public interest. It also states "the water of all natural streams, springs, lake or other collection of still water, within the boundaries of the state, are hereby declared to be the property of the state."

#### Wyoming Statutes

Chapter 3 of Title 41 of the Wyoming Statutes covers *Water Rights; Administration and Control*. Chapter 4 of Title 41 of the Wyoming Statutes covers the Board: *Adjudication of Water Rights*.

There is a link to water related Wyoming Statutes online at the SEO website: http://seo.wyo.gov.

Hydrographer-commissioners are encouraged to review these statutes and know them well. Cheyenne staff as well as your superintendent and our Attorney General representatives are also available to answer questions about the application of our statutes.

#### COURT DECREES, COMPACTS AND TREATIES

#### **Decrees and Compacts**

The rights of states to the waters of interstate streams may often be settled by decrees of the Courts of the United States, or by interstate compacts that are agreements negotiated between states

allocating the waters of the interstate streams. Wyoming has three court decrees and seven compacts pertaining to interstate streams. Compacts exist on the Yellowstone River tributaries, the Belle Fourche River, the Niobrara River, the Colorado River (which has two – the Colorado River Compact and the Upper Colorado River Basin Compact), the Bear River, and the Snake River. The rights of Colorado and Wyoming to the waters of the Laramie River and the rights of Colorado, Wyoming and Nebraska to the waters of the North Platte River have been established by a United States Supreme Court decree. The rights of Wyoming and Idaho water users on Teton Creek and South Leigh Creek have been settled by a decree of the United States District Court for the District of Wyoming.

International treaties can also affect Wyoming where some of the water that rises in Wyoming eventually finds its way to another country. This is the case with the Colorado River and Mexico, of which the Green River is a major tributary. For further reading on court decrees, compacts and treaties, information can be found on the Interstate Streams page of the SEO website.

Other intrastate court decrees exist on various streams across the State, such as the Crazy Woman Creek Court Decree. The Crazy Woman drainage represents the only court-adjudicated stream in the Powder/Tongue River Basins in northeast Wyoming. In many cases, the court's July 5, 1889 ruling was based on assessment of ditch capacity and what the diversion could carry at that time. The Second Judicial District gave all the diversions priority independent of date, assigning a priority number rather than a priority date. As a result, the 31 diversions affected by the decree have priority numbers while rights adjudicated by the Board since the decree have the priority date and a permit number like those found elsewhere in Wyoming. Hydrographer-commissioners must be aware of how compacts and decrees are regulated and administered in their specifically assigned water districts in order to properly perform their regulatory responsibility.

#### WATER RIGHTS, BENEFICIAL USE AND PERMIT APPLICATIONS

#### Water Rights and Beneficial Use

The principal and fundamental basis of Wyoming Water Law lies with the nature of water rights and beneficial use.

Wyoming Statute § 41-3-101 defines a water right as "a right to use the water of the state, when such use has been acquired by the beneficial application of water under the laws of the state relating thereto, and in conformity with the rules and regulation dependent thereon. Beneficial use shall be the basis, the measure and the limit of the right to use water at all times, not exceeding the statutory limit except as provided by W.S. § 41-4-317."... "Water rights for the direct use of the natural unstored flow of any stream cannot be detached from the lands, place or purpose for which they are acquired, except as provided in W.S. § 41-3-102 and 41-3-103, pertaining to a change to preferred use, and except as provided in W.S. § 41-4-514."

To acquire a new water right, the appropriator must follow several steps and procedures to file the proper documentation to receive a permit to make an appropriation, and then proceed to place the water to the permitted beneficial use. The first step is to apply for a permit. In Wyoming, a water right grants the right to the beneficial use of the State's water as provided in the terms of the permit. This use will be for specific purposes such as irrigation, stock water, municipal, domestic,

recreation, etc. at a specific point or area of use, and must be diverted at a designated point from the stream or groundwater source. The preparation of an application and map which must accompany it may require the services of an engineer or land surveyor licensed in the State of Wyoming (unless the appropriation fits simplified procedures that are provided). The proper forms for use in submitting applications are available from the SEO and are on its website. All communications concerning applications should be addressed to the SEO in Cheyenne, although guidance may be provided by the field offices.

When an acceptable application is filed, a priority date is established and the application is assigned a Temporary Filing Number, or TFN. It is important that the applicant understands that the TFN is not an approved permit, and that construction of any associated facilities still must await final approval of the permit evidenced by the assigning of a permit number.

The notification to the SEO of the date of project completion and the date of application of water for beneficial use shall be filed once those stages of the project are completed. A permit is subject to expiration if timely notices are not filed. In all cases, before a permit expires the applicant is notified by certified mail that the notices have not been filed and if not received by a specified date, the permit will expire. An extension of time may be granted upon written request to the State Engineer, stating the reasons such an extension is needed. Generally, surface water permits may expire up to 5 years after the date of permit approval while groundwater permits may expire up to 3 years after the date of approval. Expired permits may be found where facilities were actually constructed and water was beneficially used prior to their expiration. A process exists where these expired permits may be reinstated through the filing of affidavits which attest to the continued beneficial use of the water under the permit prior to and after its expiration.

Wyoming Statute § 41-4-101 defines the legal standard of measurement of surface water for the State of Wyoming as cubic feet per second of time (cfs). Storage or reservoir water volume is measured in acre-feet (A.F.). Groundwater withdrawals are measured in gallons per minute (gpm).

Water under a direct flow appropriation may only be diverted into storage under specific conditions as outlined in Wyoming Statute § 41-3-305, and the related rules.

#### **Permit Applications**

#### **Surface Water Forms**

S.W. 1	Direct flow or secondary diversion. Simplified temporary application. Simplified for domestic and/or stockwater springs flowing >25 gallons per minute, or for domestic and/or stockwater diversions not to exceed 25 gpm.
S.W. 2	Enlargement or extension of an existing direct flow or secondary diversion.
S.W. 3	Reservoir construction.
S.W. 3-A	Reservoir Supplemental Sheet (simplified Special Application for reservoirs to include storage ≤20 acre-feet and ≤20 ft. in dam height for Fishing Preserves, Wetlands Ponds, Stock Reservoirs; and Floodwater Detention

Reservoirs with  $\ge$ 18-inch uncontrolled outlet and  $\le$ 50 acre- feet,  $\le$ 20 AF inactive,  $\le$ 20 ft. in dam height).

S.W. 4 Stock Reservoir (simplified for in-place stock use  $\leq$ 20 AF,  $\leq$ 20 ft. in dam height).

S.W. 4A Stock Reservoir with multiple points of storage (troughs).

TWUA Temporary Water Use Agreement. (recording of the temporary change in use of a portion of a water right as agreed upon and filed by two parties, as provided for under Wyoming Statute § 41-3-110).

#### **Groundwater Forms**

U.W. 5 Underground Water wells; simplified for domestic or stock uses (to include domestic & stock springs flowing ≤25 gpm).

U.W. 6 Statement of Completion

U.W. 8 Proof of Appropriation

Other sundry forms exist for both surface water and groundwater that may require filing to complete the application or appropriation. Most forms are found on the SEO website: http://seo.wyo.gov

Provisional information on all water rights can be acquired by using the SEO e-Permit online system. A water right "Search" link is provided from the SEO website.

Land easements or other types of access or rights of way are <u>not</u> granted through the permitting or adjudication of water rights. These are matters of civil law and not water law, and require a separate action by the appropriator. Applicants themselves are also responsible to secure any other necessary state and federal permits such as from the U.S. Army Corp of Engineers, the Environmental Protection Agency, the Wyoming Department of Environmental Quality and Bureau of Land Management, to mention a few. Please advise applicants to seek out the necessary clearances or approvals from other state or federal agencies, or other entities. The SEO cannot provide such clearances and is not authorized to represent the views or requirements of those other entities.

The beginning of the process to obtain a right to use water is initially established by permit only and no water right can be acquired by years of use without a permit, diversion at an incorrect location, or use upon lands not described in the permit. A change in point of diversion that occurred before 1965 may be legal but is not protected or honored without being made a matter of record with the Board (see conditions for a simplified BOC procedure).

Except for changes in use, most changes to unadjudicated water rights may be requested by petition to the State Engineer. Generally this will require a petition and a licensed engineer's or surveyor's map depicting the proposed change. Wyoming Statute § 41-3-114 describes changes to a

point of diversion or means of conveyance.

Water rights that are not adjudicated will not be listed in the Tabulation of Adjudicated Water Rights. Information about these unadjudicated rights must be obtained from the SEO or from SEO's relational database known as e-Permit. The only exception is for the recording of stock reservoirs which must pass all permitting requirements, and once inspected for permit compliance, can still be recorded in the Tabulation Book without being adjudicated. If an appropriator requests a certificate of construction, a stock reservoir can be fully adjudicated.

#### **Priority of Appropriation**

Wyoming water law is based upon the priority system which means those appropriations with the earliest priority dates are entitled to receive water up to their full appropriation before junior appropriations may receive water. This same rule of priority applies to all permits, regardless of their use. A ditch or reservoir may have several different priority dates, each for a specified amount of water, and all of the various appropriations are administered in priority.

The priority system provides that in times of shortage the right to the use of water is established by the priority date assigned to each permit. The date and time when an acceptable application for permit is received and recorded in the office of the State Engineer becomes the priority date for that permit. Prior to statehood, territorial appropriations were established by a statement of claim that set forth at least the source of water, the location of the point of diversion and the purpose of use. Statements of claim were filed first at the county clerk's office.

When in need of water, the owner of a surface water appropriation is entitled to request in writing that the district hydrographer-commissioner regulate all upstream appropriations from the same source so that his water supply shall be, as nearly as practical, the same as when the permit was granted, up to the amount of his appropriation. Wyo. Stat. Ann. § 41-3-606. This request is referred to as making a "call."

#### Use of Water for Temporary Purposes

When water for temporary use is to be secured by a present day filing, then a temporary permit (time limited water right) must be obtained from the State Engineer. A copy of the approved permit and map is sent to the appropriate hydrographer-commissioner, for his/her information, as soon as the application is granted.

Under provisions of Wyoming Statutes § 41-3-110 through § 41-3-112, valid water rights with earlier priorities for permanent purposes can be temporarily changed for certain temporary purposes. Application for a temporary change in use must be made to the State Engineer. A form is available entitled Water Agreement for Temporary Use (TWUA). If the request for temporary change in use is found in order, the State Engineer will approve the temporary agreement and issue an order granting the change. A copy of the temporary agreement and the sketch map are furnished to the hydrographer-commissioner to assist when regulating the temporary use. Water use made through a temporary change may be subordinated to any permanent water right, unless it is proven that shutting down the temporary use has no effect on the permanent right. Wyo. Stat. Ann. § 41-3-111.

Use of water for a TWUA can have a marked effect on return flow to the stream when compared to the return flow resulting from the historic use of water under the right. For this reason, in times of shortage regulation the hydrographer-commissioner must assess what this change in return flow may be, as well as any other effects on the stream, resulting from the temporary change in use. The hydrographer-commissioner must then make the appropriate adjustments in either the amount diverted for the temporary Agreement and/or the amount remaining for diversion by the appropriator to minimize the effect on other water appropriators by this temporary change in use. Wyoming Statute § 41-3-110(c) presumes 50% of the amount taken from unstored irrigation flow will be left in the stream for appropriators downstream of these lands unless other, better data is available, and a different amount is approved in the TWUA.

TWUA's usually commence when the temporary user notifies the proper hydrographer-commissioner so that water will then be taken under his/her supervision. The regulating hydrographer-commissioner can also require that temporary user divert its acquired portion of the underlying water right from the record diversion facility, even if initially authorized to withdraw from a different point on the stream, or vice versa (this is helpful when the amount is too difficult to accurately measure or withhold from one point of diversion or the other).

In any case where a hydrographer-commissioner observes that water is being used for temporary purposes, but does not have a copy of the agreement or order authorizing the temporary use, then the hydrographer-commissioner should contact the person in charge of the diversion immediately and request that they produce a copy of the agreement or order. If these are not forthcoming, the hydrographer-commission should contact either the superintendent or SEO for instructions. In any instance where it is clear that the temporary use has not been properly authorized, the diversion, typically a pump, should be closed down and tagged.

In some cases, it may be necessary to request or order that a meter be placed on the diversion to determine the amount of water actually being diverted. This is often done as a matter of course.

# ADMINISTRATION AND REGULATION OF SURFACE WATER

#### Reservoirs (Filling)

A reservoir is entitled to be filled in order of priority once each year if water is available. The water year is defined as from October 1 through September 30 of the following year. If water remains unused in the reservoir at the end of the water year, this water is termed "carry- over storage" and is counted toward providing the water to meet the following year's supply for the appropriation. For example, if a reservoir which has a right to store one thousand acre-feet has two hundred acre-feet remaining in storage which is carried over into the following water year, then this appropriation would be entitled to again accrue only the remaining appropriated capacity (800 A.F.) as the storage right comes into priority on the permitted source of supply. The hydrographer-commissioner has the authority to require the filling of any reservoir whenever practical and water is available for storage. All water which is allowed to flow past the reservoir diversion after receipt of

a notice or order to fill from the hydrographer- commissioner will be chargeable as storage in the reservoir. It is possible and allowable for a reservoir to accrue more than its "one fill" in one year if water is available and not needed by any other appropriator. See the "Free River Condition" discussion on page 15.

A hydrographer-commissioner must consider whether a reservoir has any enlargements as those enlargements will likely be of differing priorities. Generally, senior appropriations within a reservoir are filled first although there may be exceptions. Also, carryover is generally credited to junior appropriations first but whether carryover should be credited to a particular reservoir's junior or senior priorities should be worked out and approved by the superintendent. There are many factors to be considered when assigning new storage and carryover storage to the various appropriations within a reservoir. For example, consideration must be given to the number of owners or users of each appropriation who may or may not have used their stored water during the previous year, whether all ownership within each appropriation filled, any rules or bylaws of the reservoir owner, any interstate compact or decree requirements, as well as the appropriation priority dates and the ability to store water under the differing priorities without causing injury to other appropriators on the system. The better the accounting records are for a reservoir, the easier this process will be. The hydrographer-commissioner is encouraged to discuss all of these considerations with their superintendent.

To determine the amount of storage in a reservoir, it is necessary that a capacity table be secured from the SEO or owner. Then, a measurement may be made from the full or spillway level down to actual water level and, knowing the remaining depth of water in the reservoir, actual storage can be calculated from the table. Some reservoirs will have instrumentation, or staff gages, installed that are already set to measure stored water volume directly.

An on-channel reservoir may present problems in passing upstream flows through the reservoir to senior downstream appropriators. This will involve watching reservoir levels very closely and accounting for withdrawals from or gains to storage. The hydrographer-commissioner has full authority and can insist on being furnished keys to the gates of any on-channel storage facility. In many situations a good working relationship with the reservoir owner's operator could eliminate the need for keys to the gates (see "Use of Bed of Stream" below.) Wyoming Statutes provide that, if needed, the superintendent may order flumes installed in the stream channel no more than 600 feet above and below the reservoir to facilitate regulation. A by-pass ditch can also be installed, which would circumvent inflows around a reservoir and back into the channel below the dam.

When filling off channel reservoirs during a call for regulation, reservoir accrual may be affected by water losses due to seepage through the supply ditch or other phenomena. Measurement gages may be warranted within the system to account for these losses. Consultation with the superintendent may be important to determine how water loss must be measured. The flow rate at which an off-channel reservoir is entitled to divert is measured in cubic feet per second (cfs) when in priority, and is limited at any given time to the available supply and permitted capacity of the supply ditch, so long as this does not exceed the physical capacity for that ditch, in which case the physical capacity shall be the limiting factor as long as the rights of no other appropriators are injured.

#### Reservoirs (Use)

There are three types of permits generally listed in the Tabulation Book in connection with reservoirs: Reservoir permits, supply ditch permits and secondary permits. Unless a secondary permit has been issued for use of stored water on particular land, a reservoir owner may sell, lease, transfer or use stored water in such manner and upon such lands as the owner may desire as long as any use is authorized by the primary reservoir permit. Wyo. Stat. Ann. § 41-3-323. Secondary permits tie the stored water to use upon certain surveyed, mapped and permitted lands. Wyo. Stat. Ann. § 41-3-302. An approved Temporary Water User Agreement may temporarily change the use and delivery of stored water. Once water is stored in priority it may be used at any time that the users of the water may elect. Wyo. Stat. Ann. § 41-3-303. If a secondary exchange is in place on a reservoir, other considerations may come into play prior to use, especially because exchanges must be approved in advance by the Hydrographer-Commissioner before the water is released from storage. Pond impoundments such as pump-sumps not exceeding 1 acre-foot in capacity and associated with an existing water right as necessary and incidental to the operation of that right in some cases may not require a separate reservoir permit (see written policy of the State Engineer dated December 1, 2004.)

#### Use of Bed of Stream

When the owner or manager of any reservoir desires use of the bed of a stream or other water course for the purpose of carrying stored or impounded water to the user, or there is a desire to use any ditch to carry or transmit stored water, they must notify the hydrographer- commissioner in writing of the date of the proposed release, its amount in acre-feet, rate of release in cfs, and the names of persons and ditches entitled to its use and such other matters as may be necessary to properly distribute the water. It shall then be the duty of the hydrographer- commissioner to regulate the headgates of the various diversions which are or are not entitled to its use. If conveyance losses along the stream bed are measurable and considered significant, the hydrographer-commissioner may have to make reductions at the point of re-diversion.

The hydrographer-commissioner shall keep an accurate account of the time spent in the discharge of these duties in the event reimbursement is sought as allowed by law. Wyo. Stat. Ann. § 41-3-304.

#### Regulating Internally for Down-Ditch Distribution

When two or more owners or lessees in an irrigation ditch or reservoir (that is not incorporated) are unable to agree relative to the distribution or diversion of water received through their ditch or from the reservoir, they may apply to the hydrographer-commissioner in writing asking the hydrographer-commissioner to take sole charge of such ditch or reservoir. The hydrographer-commissioner shall, after consulting with the superintendent, take exclusive charge of such ditch or reservoir for the purpose of dividing the water therefrom in accordance with established rights and continuing such work until the necessity shall cease to exist.

Interested water users in proportion to the established water rights of each shall pay for the employment expenses of a hydrographer-commissioner when the time required exceeds three

consecutive days of down-ditch work. Any payments not made for such services, after written demand has been made for payment, the bill for the water commissioner's services shall be a lien upon any land or other property owned by an interested water user refusing to pay and may be collected in any court of jurisdiction. Wyo. Stat. Ann. § 41-6-301.

Engaging in down-ditch distribution can involve civil law issues. Current Board policy derives from the 1916 Opinion of the Attorney General: "I conclude the prevailing rule to be that where the owner of an irrigation ditch or reservoir, or both is an incorporated company, while water officials have jurisdiction over the diverting works leading from the natural resources, they are not required, nor is it their duty, to make any diversion or distribution of the water to be distributed from a ditch or reservoir between the stock-holding consumers." This is also consistent with the wording in Wyoming Statute § 41-3-604 as to where the State has jurisdictional responsibility. Further, the public water right records of the SEO seldom define turnouts of the service distribution laterals for the various lands, which remain the prerogative of the joint owners of the ditch to manage among themselves. See also the Board's pamphlet "Living on a Small Acreage in Wyoming" available on the SEO website and from your superintendent. In general, the opinion quoted above governs our response to down-ditch requests by incorporated ditch or reservoir companies. Unincorporated entities could invite us in or, in extreme cases, we may be compelled to enter if necessary for the proper division of water. In any case, going "down ditch" is usually a last resort and should not be undertaken without prior discussion with each Superintendent.

#### Stock Water

The largest use of water for stock purposes is represented by the numerous stock reservoirs which have been constructed throughout the state. There is typically very little need to regulate these reservoirs as they usually fill during runoff when plenty of water is available, and outlet gates are not always mandatory. However, they must be permitted as any other reservoir. When a reservoir is to be less than 20 acre-feet in capacity and with a dam height of less than 20 feet, the simplified SW-4 application may be used. Adjudication of these small reservoirs is not mandatory, however an inspection is made to insure compliance with the permit. It is generally considered that stock reservoirs, as well as reservoirs for wetland/wildlife/fishery/recreation, are for in-place use, with the landowner considered to be the owner of such a reservoir.

When direct flow appropriations are permitted for stock use, the water must be physically diverted from the stream and the appropriation is subject to same priority regulation as with any other right. However, the hydrographer-commissioner is often able to maintain necessary flows for stock use, when out of priority, by agreement among the appropriators on the stream with careful monitoring to keep the amount diverted down to a minimum for actual stock use. Under extreme conditions and upon request, the State Engineer may require a minimum amount of water remain in a stream for instream stock use. Wyo. Stat. Ann. § 41-3-306.

#### Instream Flow

Since 1986, the preservation of the minimum flow necessary to establish, maintain or improve fisheries has been considered a beneficial use of the waters of the State. Wyoming Statutes §§ 41-3-1001 through 1014 define Wyoming's ability to bestow water right protection on instream flows for fishery purposes without having to divert water from its natural channel. As with all water rights,

these unique rights are subject to water availability under their specific priority. Only the State of Wyoming (through application by the Wyoming Water Development Commission) may own any instream flow water right, and there are special statutory procedures for an instream flow right to call for stream regulation. The Game & Fish Commission may act as petitioner to seek before the Board a change in use from an acquired existing water right to instream flow use, subject to the requirements of Wyoming Statute § 41- 3-104. The Game and Fish Commission shall construct any measuring device the State Engineer considers necessary for the administration of an instream flow right. Wyo. Stat. Ann. § 41-3- 1003. The Board has established general guidance for taking proof on instream flow permits to verify un-gauged flow with one measurement during each permitted flow period within the last 5 years. Any flows not found present are eliminated when the permit is adjudicated.

#### Preferred Use

Certain uses of water including domestic, stock, municipal, water for steam engines and general railway use, and for industrial purposes are defined by law as preferred uses. Water rights for these uses may be obtained through the regular permit and adjudication procedures, or by acquisition of a prior established adjudicated permit appropriated for some other purpose, such as irrigation. In effect, the law allows a preferred use to condemn a lower ranking use through court action. However, compensation is required and a petition for change of use must be submitted to the Board. Condemnation is not required to affect a change, however, a change from a less preferred use to a higher preferred use can occur through the more routine "change of use" petition alone. Wyoming Statute § 41-3-102 sets out the preferred uses and establishes their order of preference. The use of water for irrigation shall be superior and preferred to any use where water turbines or impulse water wheels are installed for power purposes; provided, however, that the preferred use of steam power plants and industrial purposes herein granted shall not be construed to give the right of condemnation.

Preferred use is only as good as its priority date. That is to say, if the preferred use is later in priority, an earlier priority appropriation will still be allowed the water in times of shortage regulation.

#### Supplemental Supply

Often appropriators, under permit, are allowed to divert a "supplemental supply" of water from another water source to supplement their primary (original supply) irrigation appropriation when the primary source cannot furnish an adequate supply. In general, under regulation, the amount of supplemental supply that may be diverted is only that amount in priority on the supplemental source, which is necessary to bring the total available supply to the land up to 1 cfs per 70 acres. The total amount of water to be diverted from the supplemental source at any one time shall not be in excess of 1 cfs per 70 acres, except when the supplemental source is in surplus condition. The total amount of surplus water to be diverted at any one (1) time both under a primary appropriation of water and a supplemental supply appropriation shall not be in excess of one (1) cfs for each 70 acres. This would result in a maximum total diverted allocation of 2 cfs per 70 acres.

Always look at the individual permits or certificates involved for additional conditions that may apply; such as limiting total diversion (including the original and supplemental) to 1 cfs per 70 acres. Case law has established that supplemental supply rights, although generally only needed on a sporadic basis, are subject to abandonment like all other water rights.

#### Surplus Water

Whenever the supply of water in a stream is greater than that needed to fill all appropriations with priority equal to or senior to March 1, 1945, then this stream is said to be in surplus flow condition. When surplus flows are available, this surplus water is to be divided proportionally under an equal March 1, 1945 priority, when in regulation, among these senior adjudicated irrigation rights, up to an additional 1 cfs per 70 acres, or 1 cfs per 35 acres total supply. When in regulation it is the duty of the hydrographer-commissioner to regulate and divide this surplus water proportionately. Post March 1, 1945 rights can be denied water if none is available while trying to satisfy this double appropriation to the senior (pre March 1, 1945) rights. Wyo. Stat. Ann. §§ 41-4-318 through 324. Surplus water is only available for irrigation uses, and the typical duration when regulation is occurring for surplus water is relatively short.

#### **Excess Water**

Whenever the supply of water in a stream is greater than that needed to fill all appropriations with priority senior to March 1, 1945, plus their surplus water right described above, plus all appropriations with priority senior to March 1, 1985, then this stream is said to be in excess flow condition. When excess flows are available, this excess water is to be divided proportionally under an equal March 1, 1985 priority among those irrigation rights with priorities between March 1, 1945 and March 1, 1985, up to an additional 1 cfs per 70 acres, or 1 cfs per 35 acres total supply. When in regulation it is the duty of the hydrographer-commissioner to regulate and divide this excess water proportionately. Post March 1, 1985 rights can be denied water if none is available while trying to satisfy this double appropriation to the senior rights. Wyo. Stat. Ann. §§ 41-4-329 through 331. Once again, the window within which excess flows are available is usually short.

#### Rotation

Wyoming Statute § 41-3-612 provides for rotation of water. A written notice of intention to rotate must be submitted to the hydrographer-commissioner and may involve various appropriations owned by one party, or multiple appropriations owned by different parties.

Forms are provided for the convenience of appropriators in making this request and to furnish necessary information to the hydrographer-commissioner. Conditions that must be met are as follows:

- 1. All appropriations involved must be in priority (able to receive water under the call) and entitled to water during the entire period requested.
- 2. The hydrographer-commissioner must agree to the rotation of water for each appropriation and the rotation period will not exceed ten (10) days unless the hydrographer-commissioner agrees to a longer period.
- 3. The proposed rotation must not result in injury to any other appropriators (and in such case

is revocable by the hydrographer-commissioner).

4. The rotation proposed is limited to one season or portion of a season.

The four rules above have been formulated to avoid abuse of the right of rotation, to see that a rotation occurs, and to protect the rights of other appropriators on a stream. The hydrographer-commissioner should consider any objections to the rotation when raised by appropriators that might be injured by the rotation, and should make sure "bunching" of rotated rights does not occur. Bunching is defined as an appropriator that requests rotation for certain appropriations and diverts the water into one specific ditch and does not follow the rotation.

#### Free River Condition

"Free river" conditions occur when there is a sufficient natural supply of water to satisfy all appropriations and regulation has not been requested and is unnecessary for the protection of existing appropriations. Simply stated, during free river conditions any water right holder can divert, even at a rate that may exceed statutory or decreed limits, so long as the water is put to the proper beneficial use, is not wasted, and no other appropriator is injured. Once a call for regulation is received and honored, free river conditions cease to exist during the duration of the call. Typically, free river diversions are limited by the capacity of diversion and conveyance works. See the effects of "free river" operations on reservoir filling on page 10.

#### **Regulation**

Upon receiving a valid written request for regulation by an appropriator, it is the duty of the hydrographer-commissioner to regulate all upstream appropriations to the extent necessary, by priority, to supply the requesting appropriation its full entitlement if available. A request for storage delivery will usually place the affected segment of the stream under priority regulation for the direct flow rights as well. Priority regulation or storage delivery must be requested in writing and identify the appropriation, priority, amount of storage delivery if applicable and length of time regulation is requested along with the signature of the party making the request. Forms for a "Request for Regulation" are available for the convenience of the appropriator and the hydrographer-commissioner. Wyo. Stat. Ann. § 41-3-304, § 41-3-604, § 41-3-606.

Prior to regulating the source, check the requesting right's point of diversion to verify the shortage of supply. If adequate supply is available at the point of diversion to satisfy the full appropriation, the request shall be denied. It is the responsibility of the owner of that diversion to see that all available water is diverted from the source to fill the appropriation before a request for regulation will be honored. For example, if water is being lost through a leaky diversion dam owned by the appropriator requesting regulation, then regulation will not be made until all water available is reasonably diverted. The calling diversion must have a lockable headgate and an acceptable measuring device. If the full appropriation is not available at the requesting diversion, the hydrographer-commissioner should then proceed to regulate all upstream diversions, including those on the tributaries, by reducing all senior priorities down to their statutory or decreed appropriations and shutting off upstream juniors in order, beginning with the most junior, as necessary to deliver the full appropriation to the requesting point of diversion. As soon as the calling senior right is satisfied, regulation of other rights (even other juniors) should cease until such time as the calling senior is short of their entitlement or at the end of the requested regulation period. If additional

water becomes available during regulation it may be necessary to turn previously regulated rights back on as they come back into priority. When regulating any diversion, it is required to attach a Notice (or tag) to the control device advising appropriators that the diversion is under regulation. Wyo. Stat. Ann. § 41-3-604. When regulation occurs, you should contact the affected appropriators as soon as possible.

If, during regulation, it is shown that the water deprived the upstream junior cannot physically be conveyed to the downstream calling senior, the situation is termed a "futile call" and regulation ceases, allowing the junior to make beneficial use of the water.

#### **Tagging Headgates**

Tags are furnished by the State for posting at headgates which have been regulated. These tags state the date regulated and indicate the penalty for disturbing the regulation, and are required by statute. Once a tag is attached, the hydrographer-commissioner is responsible for enforcement of priority regulation. Also, the hydrographer-commissioner is responsible for removing tags when no longer necessary. Wyo. Stat. Ann. § 41-3-604.

The County Attorney of the County wherein the violation occurs is charged with prosecuting all violations that involve tagged headgates. A complete packet of information, forms, instructions and examples covering our agency arrest (summons) procedures is available from your superintendent. If it appears such a situation is developing, it is advisable for the hydrographer-commissioner to contact the superintendent, who will contact the Attorney General's Office, as early as possible, to begin the process of developing appropriate evidence regarding the violation.

#### **Headgates**

The owner of a ditch shall construct and maintain, to the satisfaction of the superintendent, a substantial headgate at the point of diversion that can be locked and kept closed by the hydrographer-commissioner. Wyo. Stat. Ann. § 41-3-613. In practice it has generally been the procedure to order these installations only where needed. The SEO has also approached the problem by surveying the facilities on each watershed, as time allows, and then issuing, simultaneously, "orders" for needed headgates and measuring flumes on an entire watershed. This procedure treats all water users on a stream the same. Steel gates with regulatable and lockable controls have typically been specified. The hydrographer-commissioner is key in obtaining compliance with orders issued. Frequent contact with the water users while offering assistance results in almost 100 percent compliance. Without good communication between the hydrographer-commissioner and appropriators, poor compliance results and relationships may deteriorate. Orders should be issued with intent to enforce after the appropriator has been given every opportunity to comply with the ordered deadline.

#### Measuring Devices

Appropriators shall construct, when required by the superintendent, flumes or other approved measuring devices at the diversion or along the line of any ditch as necessary for the purpose of assisting the hydrographer-commissioner in determining the amount of water being diverted into a ditch or from the ditch for the different appropriations. Wyo. Stat. Ann. § 41-3-613.

The same procedure as described above for headgates has generally been followed. Parshall or Ramp flumes are generally specified, although various types of weirs are also used. When properly installed, these devices have proven to be adaptable and reliable. Proper installation includes insuring the device is level front to back, and left to right across the stream or ditch line, and sealed or tied in as much as possible underneath and along the sides to prevent water passing around the device. It should be firmly embedded, using concrete or timber revetments, where necessary to avoid movement if high discharges are expected. A tilted (non-level) structure will not be accurate, and will show more or less water in the channel than truly is flowing. Questions on proper device installation can be directed to your superintendent. Although proper installation is the ultimate responsibility of the appropriator, the hydrographer-commissioners may assist in siting and installing measuring devices. All possible fall or drop below these devices should be obtained so that grass and moss conditions do not cause submergence of the measuring device. The velocity of approach should also be considered carefully. Generally, when the flume is set at the highest elevation practical this issue takes care of itself. The Extension Service bulletin "Irrigation Water Measurement" is highly recommended as a handbook for measurement where devices of one type or another are in use. Copies of this document are available through your superintendent or the Chevenne office.

In most cases hydrographer-commissioners have been furnished with a current meter for use where proper measuring devices have not been installed or are not operable. This is a delicate and expensive instrument and deserves the best of care. It should be dried off after each use and carried in a dust and shock proof container. Special oil for use on the vertical axis meters will be furnished and if used even only occasionally they should be regularly cleaned and spin checked. As there is a great deal involved in learning the use and maintenance of a current meter, this is best done by personal instruction and will not be detailed here.

#### Marking Headgates

One way to attach regulation information to a headgate is to use a plate with the following type of information:

#### JONES DITCH

<b>Permit</b>	Appropriator	Owner	<b>Priority</b>	C.F.S.
1796	Joe Jones	John Doe	1-3-1886	4.70
1917E	John Roe	John Doe	1-10-1910	5.06
1806R	Jones Res.	John Doe	1-10-1910	560 a.f.

These plates can be cut from galvanized tin with holes punched in each corner so they may be either nailed on a wood frame or wired to a steel frame. Another method is to have the wording stamped on a plastic strip which has an adhesive back and after being placed on the plate is coated with a marine type of clear varnish. A state of Wyoming decal is also attached if available. You may also devise other ways of reliably attaching such information.

It is generally recommended to tabulate the active appropriations on a stream, commencing at the mouth, before preparation of the plates. This tabulation then becomes useful in actual regulation by reducing the need to refer repeatedly to the Tabulation of Adjudicated Water Rights.

This approach is of great benefit if a hydrographer-commissioner should miss work, or a new hydrographer-commissioner is commencing work. With the continued use of SEO's e- Permit system, all points of diversion now require latitude-longitude or state plane coordinates as part of the record keeping system.

#### Records

An accurate and concise record of daily activity is a must for the hydrographer-commissioner. Forms for diversion records and weekly activity reports for submission to the superintendent are furnished to the hydrographer-commissioner. This report to the superintendent is authorized under Wyoming Statute § 41-3-608 and is a required part of hydrographer-commissioners duties. Automation of the collection and reporting of diversion records in recent years has increased the efficiency of this reporting. Keeping the superintendent informed of diversions through use of these records can often alleviate many problems when irrigators call with questions.

The responsibility placed upon the superintendent in supervising actual water administration and in the accumulation of records of actual water diversion continues to increase. These records are of considerable value in many ways. Good records will often settle controversies that arise concerning administration. Actual diversion records also can be used when various changes are proposed in petitions to the Board. These records can be of great assistance to the Board in determining if the petition should be allowed or not. One of the best means of protecting Wyoming in defending its right to the use of its water from demands by other downstream or upstream states will be a reliable record of past amounts of use. Diversion records are also of great importance in litigation involving the state, or between its appropriators, or as basic information for agencies or consultants investigating water supply and use patterns. Proper and accurate recordkeeping is a crucial part of your job.

As soon as practical after the conclusion of each water year, hydrographer-commissioners are obligated to submit district specific reports on stream diversions, storage and water usage for inclusion in their Division's Annual Hydrographer's Report.

#### **MISCELLANEOUS**

#### Ditch Rights-of-Way

Frequently the hydrographer-commissioner may be called in on problems of rights-of-way to maintain diversion dams and ditches, or because of disagreements as to the rights of landowners and users in a ditch. Changes in points of diversion or means of conveyance of water rights by the State Engineer or the Board do not carry a legal right of way easement nor share ownership in a ditch. This is a civil matter between the property owners and if the problem cannot be negotiated it must be settled by court action. In practice, attempts can be offered to get the parties together and resolve the matter. If a petition to the Board is or has been involved, the Board generally requires written

consent to any change from all affected appropriators before acting on the petition. If this cannot be obtained, a public hearing may be held to satisfy the consent requirement found in Wyoming Statutes § 41-4-104 or § 41-4-114. However, no rights-of-way are established by the granting of a petition. The Board has made available an updated pamphlet discussing "Legal Aspects Relating to Ditch Rights and Easements" which may be obtained online or from your superintendent.

#### Stream Channel Cleaning

Often problems of maintaining a free flow of water in stream channels is encountered due to beaver dams, vegetation encroachment, etc. This can result in heavy water losses to downstream appropriators and sometimes in actual diversion of water from the stream to lands with no appropriation or a junior appropriation.

The statutes make no explicit provision for an appropriator to enter upon the lands of another in order to do channel maintenance. However, the Attorney General's Office has concluded from legal authorities that "an appropriator of water has the right to enter upon lands of another to repair a...stream channel to allow water under his appropriation to reach his headgate" even though the owner of the lands may object (see 1965 Attorney General Opinion 34). However, under civil law, the work must be done within very narrow limitations, must be confined to the actual channel, and no unreasonable damage shall result to the owner of the land. Therefore, it is always best for the appropriator to attempt to negotiate and obtain consent of the landowner. There may be federal regulations which might come into play as well with regards to the cleaning of the channel and how material removed or placed might be handled. Further information can be acquired from your division superintendent. Even with this guidance, all such work remains a decision of the appropriator, and all liabilities for action remain with him/her.

#### Access to Headgates

Wyoming's Constitution and statutes describe the obligations and responsibilities of our duly appointed field staff, and those obligations carry the right of access. The hydrographer-commissioner must be aware that access may be blocked by locked gates, or other impediments, which can force considerable walking or re-routing to reach point of diversion headgates. Attempts should be first made to work the matter out with the party involved. If this cannot be done, the superintendent should be contacted promptly. Regulation of any appropriation involved should not be relaxed or interfered with as a result of such action, even if a law enforcement officer needs to accompany the hydrographer-commissioner.

#### Appeals From Regulation by the Hydrographer-Commissioner

In the event of an appeal by an appropriator of a regulatory action or inaction of a hydrographer-commissioner, the appeal should first be directed to the division superintendent whose ruling may be appealed to the State Engineer. All such appeals must be in writing. Any appeal from the State Engineer's decision is to the district court. This "chain of appeal" represents the chain of responsibility in water administration, and is found in Wyoming Statute § 41-3-603(b).

#### Field Trips-Superintendent

Frequently, the superintendent will make field trips through the Division during the irrigation season, calling on each hydrographer-commissioner and accompanying them in the field. It is suggested that notes be made of any problems encountered in performance of duties, so that these may be discussed during these field trips and appropriate action taken where necessary.

# ADMINISTRATION AND REGULATION OF GROUNDWATER

#### General

The groundwater (or underground water) statutes can be found in Article 9 of Chapter 3 of Title 41, Wyo. Stat. Ann. §§ 41-3-901 through 938.

While the principles of surface water administration and laws generally apply to groundwater, there are differences.

#### Regulation

Wyoming Statutes §§ 41-3-603, -614, -919, and -938, relate to the regulation of groundwater and all other sources, and provide that the hydrographer-commissioner regulate the use of all sources of water within his/her district. The Ground Water (GW) Division does not have the authority to regulate groundwater.

#### **Springs**

Springs which yield 25 gpm or less and which are utilized for Stock and Domestic uses only are considered groundwater. Permits to use water from these springs should be applied for using groundwater procedures and completing an Application for Permit to Appropriate Ground Water, or Form U.W.5. Wyo. Stat. Ann. § 41-3-902.

Springs that yield more than 25 gpm are permitted as surface water using applicable surface water procedures.

#### Approved Permit Required Prior to Drilling a Water Well

Any person who intends to acquire the right to beneficial use of any underground water in the state of Wyoming must obtain an approved permit prior to commencing construction of a well or other means of diversion, or performing any work in connection with construction or proposed appropriation of underground water or any manner utilizing the water for beneficial purposes. Wyo. Stat. Ann. §§ 41-3-930(a) and 41-3-905(a).

A hydrographer-commissioner may enlist the aid of the county sheriff when a water well drilling contractor is observed in the act of drilling without a permit. The sheriff may arrest the

driller on the spot, or issue a citation to the driller. A hydrographer-commissioner may issue a notice of violation or the State Engineer may issue a cease and desist order, the authority for which can be delegated to the Division Superintendent or hydrographer-commissioner.

#### Preferred Rights of Stock and Domestic Appropriations

Stock and domestic groundwater appropriations have a preferred right over all other uses, regardless of their dates of priority. Wyo. Stat. Ann. § 41-3-907. When there is interference between two wells using water for stock or domestic use, the appropriation with the earliest priority has the better right. Wyo. Stat. Ann. § 41-3-911.

If an appropriation is for two or more uses and includes a stock or domestic use, the preferred use is limited to 0.56 cfs (25 gpm) and application on one acre as specified on the permit.

#### Interference

Whenever a well interferes unreasonably with an adequate well developed only for domestic or stock use, the state engineer may, on complaint of the operator of the stock or domestic well, order the interfering appropriator to cease or reduce withdrawals of groundwater unless the appropriator shall furnish, at his own expense, sufficient water at the former place of use to meet the need for domestic or stock use. Wyo. Stat. Ann. § 41-3-911(a). If there is interference between two stock or domestic use wells, the appropriation with the earliest priority has the better right. Interference investigations are conducted in Cheyenne by the GW Division. If an appropriator alleges interference, have them contact the GW Division.

Either a surface or groundwater appropriator can file a written complaint alleging interference with his water right by a junior right (please note: two surface water rights cannot file a complaint of interference against each other). The complaint must be accompanied by a \$100 filing fee. Upon receipt of a written complaint and the filing fee, the State Engineer then undertakes an investigation to determine if there is interference. Following the investigation, the State Engineer will issue a report which may suggest various means of stopping, rectifying, or ameliorating the interference or any damage caused. Wyo. Stat. Ann. § 41-3-911(b). These suggestions can then be administered by field personnel, or appealed to the Board of Control.

#### **Groundwater Control Areas**

The Board of Control, after holding a hearing, may designate a groundwater control area for the following reasons:

- The use of underground water is approaching a use equal to the current recharge rate;
- Groundwater levels are declining or have declined excessively;
- Conflicts between users are occurring or are foreseeable;
- The waste of water is occurring or may occur; or
- Other conditions exist or may arise that require regulation for the protection of the public interest. Wyo. Stat. Ann. §41-3-912(a).

Three control areas currently exist in the State of Wyoming. These are the Laramie County Control Area, the Platte County Control Area, and the Prairie Center Control Area, all in Division I.

For a map showing these control areas, or for information on permit application processing or other administrative decisions affecting these areas, please contact the GW Division.

#### Priority of Rights when One Source of Supply

When groundwater in different aquifers, or between an aquifer and a surface stream, is so interconnected that it constitutes one source of supply, priorities of rights to the use of all such interconnected waters shall be correlated and that single schedule of priorities shall relate to the whole common water supply. Wyo. Stat. Ann. § 41-3-916. Where an investigation finds that there is a direct connection between aquifers or between the underground waters and waters of surface streams, the interconnected waters can be administered as being of a common source on the same priority schedule during regulation, depending on factors such as the relative location of wells and the groundwater gradient, the timing and benefit, or the futility of reaching the calling senior water right. Should questions relating to administration or regulation arise regarding the connectedness of aquifers with each other, or between a local aquifer and streamflow, please contact the GW Division. Ground Water rules provide, "In some cases, this determination may be made without [a] formal interference complaint..." Unless there has already been an investigation and determination, or it is obviously clear to the hydrographer-commissioner (such as with shallow stream bank wells), it is important to involve the Ground Water Section's hydrogeologists when requested to consider whether to include a well in the priority schedule for surface water regulation. While recognizing likely connectivity, Wyoming law presumes non-connectivity for regulation purposes until proven that a well is hydrologically connected and interfering with senior water rights.

#### Change in Location of a Well

An appropriator can change the location of his well to a point within the same aquifer in the vicinity of the original location – without loss of priority – by submitting a successful petition to the Board of Control if the groundwater right has been adjudicated, or if the groundwater right has not been adjudicated but the water has been applied to beneficial use.

In cases involving domestic or stock water wells which are not adjudicated but the water has been applied to beneficial use, a petition can be submitted to the State Engineer who can approve a change of location. If the water right is not adjudicated and water has not been applied to beneficial use, approval for the change in location can also be granted by the State Engineer. Wyo. Stat. Ann. § 41-3-917.

#### Groundwater Levels Not Protected

It is an express condition of each groundwater permit that the right of the appropriator does not include the right to have the water level or artesian pressure higher than that required for maximum beneficial use of the water in the source of supply. Wyo. Stat. Ann. § 41-3-933.

The above will often mean that old homestead or stock wells which, though permitted, were not completed to an adequate depth within the aquifer and may be adversely affected by other wells that are junior in priority. Before any regulation by priority can occur to satisfy the senior appropriation, such a well may have to be deepened to take full advantage of the aquifer. Please contact the GW Division if this situation arises.

#### **Adjudication**

Stock and domestic groundwater permits are usually not adjudicated. Irrigation, industrial, municipal and miscellaneous uses are adjudicated. The GW Division staff reviews the adjudication maps and works with the appropriator and surveyor to ensure the map is acceptable. Once an acceptable map is received, the GW Division conducts the field adjudication inspection, prepares and advertises the proof, and presents the proofs to the Board of Control for approval. Occasionally, the hydrographer-commissioner will be called upon to assist the groundwater staff with the taking of proofs within their assigned area.

An important difference between groundwater and surface water application procedures is that a map prepared by a licensed surveyor or professional engineer is not required to be submitted with a groundwater application. However, at the time of adjudication after development of a well and after application of water to beneficial use, a map prepared by a licensed surveyor or professional engineer is required. This map will show all points of use, means of conveyance, acreage actually irrigated and any other pertinent information.

#### **Technical Assistance**

If you have any groundwater-related questions, please contact the GW Division at (307) 777-6163 who will be happy to assist you with any technical questions.

Additional information is available on the State Engineer's website under, "Ground Water Division", the Ground Water Division's Part II Rules and Regulations, and Part III, Water Well Minimum Construction Standards.

#### Schematics of Ditches and Streams

Many areas of the state have embarked upon a program of preparing schematics of watersheds. A sample is included at the end of this manual. Alternatively, GIS technology can now be utilized to map such representations.

You will note the information given with each ditch includes ownership, priority and amount of appropriation. All gaging stations are also shown and distances up or downstream may not be reflected, but could be of great benefit.

These can be prepared by a person familiar with the ditches and streams in a watershed, and are invaluable to a new hydrographer-commissioner, the superintendent, and the Board Office in understanding the impact of petitions, new applications, complaints and appeals.

## SAMPLE SCHEMATIC ELK HORN CREEK LOST CREEK MUDDY CREEK **GLENDO RESERVOIR** P5998R-800,000 AF P21145-3340cfs (power) SPANISH CREEK COTTONWOOD CREEK **GAGE STATION** HORSESHOE CREEK **NORTH PLATTE RIVER** HOOLEY HIGHLINE PUMP PERMIT 21736-2.27 CFS (HOOLEY) SPAULDING NO. 1 PUMP LIFT. GLENDO INUNDATED 0.19 CFS (SPAULDING DIAMOND A PERMIT 6721, 5903, 6105E 2.14CFS (HOOLEY) EAST SIDE DITCH GLENDO INUNDATED PERMIT 17641, 5625E WEST SIDE DITCH 1.16CFS (SPAULDING) **PERMIT 20958** 0.32 CFS (SPAULDING) **CASSA DITCH HEATON & ROGAN GLENDO** PERMIT 5350 **INUNDATED** 2.44CFS (SPAULDING) 17.01 CFS (JOHNSON RANCH)