
When high flows occur and stream channel morphology is altered, it may be necessary to use flow modeling techniques to analyze flow conditions and to verify velocity and depth at the desired level of flow. General calibration standards applicable to hydraulic simulation dictate that the amount of error between measured and simulated flows be less than the error in the measured flow, regardless of the simulation technique used.

This type of technique has also been used to synthesize flow data for ungaged streams using the gage data obtained from streamgages located upstream or downstream of the proposed stream segment or located in a stream in an adjacent watershed. However, while this technique can be used to synthesize data it does not substitute for on-site streamflow measurements.

V. SUMMARY

The streamflow data and report submitted to the Department must, at a minimum, include the criteria described in Step 4 (pgs. 3-4) of this guide. Additional data and information may be required depending on the complexity of the stream system, associated uses, and legal issues. To support an instream flow application an applicant must:

- 1) Quantify the amount of streamflow available during the periods of claimed beneficial use, and
- 2) Quantify the relationship between claimed flows and beneficial uses.

Methods to evaluate instream flow and beneficial use flow requirements are divided into two basic categories; standard setting and incremental. These methods, when used in conjunction with adequate hydrologic data, can be used to support an instream flow claim. Standard setting methods are categorized as either "Non-field" (including the Narrative Justification Method) or "Habitat Retention". These methods are generally applicable to streams that are currently not diverted or provide limited consumptive use opportunities. The Narrative Justification Method provides a qualitative description between streamflow and claimed beneficial uses. Habitat Retention methods, such as single and multiple transect, are used to determine the "limiting" factors associated with the claimed stream segment. These methods can be species and/or activity specific, but are limited to determining minimum streamflow requirements.

Another technique, the Interdisciplinary Approach combines elements of other evaluation methods. The intensity of the evaluation is dependent on resource needs and legal issues associated with the particular stream or stream segment.

Incremental methods more completely assess the relationship between streamflow and specified beneficial uses. These techniques, therefore, are the most defensible, yet the most expensive and labor intensive. The IFIM can be used to assess streamflow for several fish species and some recreation activities. Incremental techniques can be applicable to situations where documentation of the affect of multiple flow rates on species habitat or activity quality are necessary. These situations may include heavily diverted streams, streams with regulated flows or flows that are largely supported by effluent discharge.

Fewer incremental techniques have been developed for recreation uses. Valutive judgements developed from techniques, such as the Probability-of-Use or the Recreational Survey Approach, should be based on multiple flow-rate observations by local experts.

Quantification of streamflow depends on streamflow data availability. When twenty or more years of current, continual data are available, streamflow may be quantified utilizing a monthly flow duration analysis. Flow duration evaluations, based on mean daily flows, can provide a reasonable assessment where as little as three years of record are available. Where records provide less than three years of data, the average monthly flows for each calendar month are generally sufficient for an

initial estimate. For gaging stations with a short period of record, it may be preferable to reconstruct a correlated record of monthly flows for the missing portion of the record than to complete a more intensive analysis based on a shorter period of record.

Current, continual flow information does not exist for most Arizona streams. If flow data for a particular stream or stream segment are not available, it is necessary to install a continual flow recorder or to initiate collection of monthly or bi-monthly flow measurements.

A minimum of one year of streamflow data collected on-site on a monthly or seasonal basis is necessary to obtain an instream flow permit. Drought, flood events and diversion activities can substantially affect streamflow. When limited data, particularly instantaneous, are all that is available to quantify streamflow, it is critical that data collection occur when streamflow is "typical" for the month or season in question. To maintain randomness in the data collection more than one monthly measurement or three seasonal measurements should be obtained.

To determine which data collection procedures and data evaluation techniques are most applicable to a particular stream or stream segment, an instream flow applicant should meet with ADWR personnel prior to initiating the streamflow evaluation process.

VI. GLOSSARY

Affidavit of appropriator - A sworn statement affirming the Proof of Appropriation contents.

Affidavit of public notice - A sworn statement affirming the location and date of posting of copies of the Notice of Application for a Permit to Appropriate Public Water.

Application - An Application for Permit to Appropriate Public Water is made to ADWR by anyone intending to acquire the right to beneficially use water.

Appropriation - An instream flow appropriation requires that a specific amount of water flow through a claimed stream reach(es) to protect fish, wildlife, or recreation.

Baseflow - The part of streamflow derived from groundwater discharging to the stream.

Beneficial use - Beneficial uses recognized by the State of Arizona that can be accomplished without diversion are wildlife, including fish, and recreation.

Certificate of Water Right - Issued after an appropriation has been perfected by demonstrating that the streamflow is being put to beneficial use and terms of the permit are being met. Designates the owner of the right, priority date, and extent and purpose of the right.

Consumptive Use - Water which by use (or diversion) is lost to the stream system and other users therein.

Critical reach(es) - Areas of a stream where a species or an activity are particularly sensitive to changes in flow levels. These areas contain micro-habitat that is essential to the survival of a species. They are generally spawning areas or riffles that restrict passage.

Discharge - Represents the volume of water observed flowing in a stream past a specific point over a given period of time.

Flow duration analysis - A representation of the number of times flows are equaled or exceeded during a given period of record.

Habitat suitability curve (criteria) - A component of an IFIM model. The relative value of a specified range of micro-habitat variables (depth, velocity, substrate and cover) for the successful completion of life stage requirements of a selected evaluation species.

Hydraulic properties - Represented by factors such as velocity, depth, width, and substrate of stream.

Incremental methods - Use computer models to relate site-specific hydraulic properties to water requirements of target species and generate data on amount of habitat available for various increments of flow.

Instantaneous flow measurement - The measurement of stream discharge at a specific time using nonrecording methods. Examples of methods include use of a current meter, portable flume, and measurement of stage by reading staff gage height.

Instream flow - Flow that remains in-situ, or "in-stream", and will not be physically diverted or consumptively used.

Mean flow rate - The sum of all streamflow measurements in a sample divided by the number of measurements in the sample.

Median flow rate - The middle value in a distribution of streamflow measurements above and below which lie an equal number of values.

Minimum flow rate - A flow rate that provides enough water to meet the basic needs of a particular species or activity at or near subsistence level. Provides enough water for species survival, but not necessarily enough for good health, optimum growth, vigor or fecundity.

Monitoring Point - The location at which streamflow measurements are taken to support claimed instream flows. Can be the gaging station location or the location of instantaneous flow measurements.

National Wild and Scenic Rivers System - Established by the Wild and Scenic Rivers Act of 1968 to protect rivers and their immediate environments that have outstanding scenic, recreational, geologic, fish and wildlife, historic, cultural and other similar values and are preserved in free-flowing conditions.

Optimum flow rate - Adequate flow is available to meet all the needs of a species or activity. Productivity or use should be high as a result. Health, growth and fecundity will approach the maximum for a given species.

Permit - A Permit to Appropriate Public Water grants authority to begin the appropriation of public surface water. Designates the quantity of water to be appropriated, the source of water, and the appurtenant stream reach.

Pool - Portion of a stream that is deep and slow moving relative to the main current.

Priority Date - The filing date of the original application. It is a means of ranking the water right in relation to all other water rights within a specific watershed.

Proof of appropriation - A series of statements of the appropriator, under oath, supporting that the appropriation has been perfected.

Public notice - The process of giving notice of the application to persons who could reasonably be affected by the appropriation.

Riffle - Shallow rapids where water flows swiftly over partly submerged obstructions.

Riparian area - An aquatic or terrestrial ecosystem that is associated with bodies of water such as streams, lakes, or wetlands or is dependent upon the existence of perennial or intermittent surface or subsurface water drainage.

Riparian National Conservation Area - An area of outstanding riparian, and other resource values, designated by Congress for the protection and enhancement of these values.

Run - A stretch of fast-flowing water with nonturbulent surface flow.

Standard setting methods - Establish flow rates required for a certain (standard) level of habitat quality based on the judgement of experienced professionals.

Stream reach(es) - Any specified length(s) of a stream. For instream flow, the section(s) of stream owned by the applicant and for which an instream flow right is sought.

Unique Waters - In Arizona, streams are designated as unique waters on the basis of one of the following criteria; 1) exceptional recreational or ecological significance, 2) is essential to or provides critical habitat to the maintenance of associated threatened or endangered species. The State of Arizona sets water quality standards for Unique Waters.

Weighted useable area - An index that represents the amount of suitable habitat for a given species and life stage.

Wetted perimeter - The total length of a cross-section at the interface between a channel bed and the stream which occupies it.

Wild and Scenic Study River - Rivers identified in Section 5 of the Wild and Scenic Rivers Act for study as potential additions to the National Wild and Scenic Rivers System.

REFERENCES

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- Jackson, W.L., B. Shelby, A. Martinez, and B.P. Van Haveren. 1989. An interdisciplinary process for protecting instream flows. *Journal of Soil and Water Conservation*, March-April, pp. 121-127.
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- Rantz, S.E. and others. 1982. Measurement and computation of streamflow - Volume 1: Measurement of stage and discharge, Volume 2: Computation of discharge. U.S. Geological Survey Water-Supply Paper No. 2175. 631 pp.
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- U. S. Bureau of Land Management. 1994. Draft - Arizona Statewide Wild and Scenic Rivers legislative environmental impact statement: U.S. Department of the Interior, Bureau of Land Management, Arizona State Office, April 1994 (BLM/AZ/PL-94/004+4333). 143 pp.

APPENDIX A

CURRENT METER MEASUREMENT PROCEDURES

- Sources: Buchanan, T.J, and Somers, W.P., 1969, Discharge measurements at gaging stations. U.S. Geological Survey Techniques Water-Resources Investigations, Book 3, Chap. A8, 65 p.
- Rantz, S. E. and others, 1982, Measurement and computation of streamflow: Volume 1. Measurement of stage and discharge. U.S. Geological Survey Water-Supply Paper 2175, 284 p.

Step 1

Select a section of the stream containing the following:

1. A straight reach with flow parallel to the stream banks.
2. Flow that is relatively uniform (laminar) and free of eddies, slack water and excessive turbulence.
3. A stable streambed free of large rocks, weeds, and protruding obstructions which would create turbulence.
4. A flat streambed profile to eliminate vertical components of velocity.
5. From the selected reach, select the best possible cross-section.

Step 2

At the selected cross-section, do the following:

1. Determine the width of the stream by stringing a measuring tape at right angles to the direction of flow.
2. Determine the spacing of vertical subsections, generally using 25-30. With a smooth cross-section and good velocity distribution, fewer subsections may be used.
3. Space the subsections so that none has more than 10% of the total discharge. Equal width subsections are not recommended unless the discharge is well distributed.
4. Make the width of subsections less as depths and velocities increase.

Step 3

Record the following information for each measurement:

1. Name and agency of collector
2. Date of measurement
3. Type of meter
4. Legal location of measurement
5. Description of stream channel at measuring point such as:
 - a. natural or artificial controls
 - b. streambank conditions
 - c. channel bottom roughness
 - d. streamflow characteristics
6. Any other pertinent information regarding the accuracy of the measurement

Step 4

Perform the discharge measurement.

1. Identify the stream bank by either left edge of water (LEW) or right edge of water (REW), when facing downstream.
2. **Record the start time .**
3. **Record the distance from the initial point to the edge of water.**
4. Measure and **record the depth of water.**
5. After the depth is known, determine the method of velocity measurement (0.6, 0.2- 0.8, etc).
6. After the meter is placed at the proper depth, allow it to become adjusted before starting the measurement.
7. Count the number of revolutions for a period of 40-70 seconds (pygmy) or read the velocity display (Marsh-McBirney).
8. For the pygmy meters, the stopwatch should be started with the first click counting "zero", **not "one"**. After 40 -70 seconds, stop the stopwatch on a **convenient number given in the rating table**. Read the time to the nearest second.
9. **Record the velocity** (Marsh-McBirney) **or the number of revolutions and the time interval** (pygmy).
10. Repeat nos. 3-10 for each vertical subsection until the entire cross-section is traversed.
11. **Record the end time.**

Notes:

For wading measurements:

1. Stand at least 18 inches downstream from the wading rod.
2. Hold the wading rod in a vertical position 1 to 3 inches downstream from the tag line.
3. Keep the meter parallel to the direction of flow.

The 0.6 method

1. The velocity measurement is taken at 0.6 of the depth below the surface (0.4 above the streambed) in each vertical subsection.
2. Recommended for depths between 0.3 and 1.5 feet, when using the pygmy or Marsh-McBirney meters.
3. Recommended for all meters when the stage is changing rapidly and a measurement must be made quickly.

The 0.2- 0.8 method

1. The velocity measurement is taken using the 0.2 & 0.8 method if depths are greater than 1.5 feet, when using the Marsh-McBirney. This method is **not** recommended for the pygmy meter.
2. When using the top-setting wading rod graduated for 0.6, the 0.2 depth setting is obtained by **multiplying** the depth of water by 2. The 0.8 depth setting is obtained by **dividing** the depth by 2.
3. The average of the two observations is taken as the mean velocity in that vertical subsection.

Current meters are **not** recommended for flows with less than 0.2 fps per vertical subsections. Use the volumetric method, Parshall flume or weir plate under these conditions.

APPENDIX B

GUIDE FOR PREPARING A NARRATIVE JUSTIFICATION FOR AN ISF WATER RIGHT

In the narrative justification method the applicant must describe the **beneficial use** for which the instream flow right is sought. Streamflow use must, at a minimum, describe the relationship between requested streamflow and the benefits received by wildlife, including fish, and/or recreation activities. An effort should be made to describe possible **negative effects** if for some reason the flow would decrease below the requested levels. The following is a list of information needed in a narrative justification for a competent and speedy review.

1. Statement of the main objective of the proposed instream flow request.
2. Description of beneficial uses (i.e. wildlife, including fish, or recreation).
3. Description of fish and wildlife resources including inventory and population.
4. Description of any unique habitat.
5. Description of any threatened or endangered species.
6. Description of the relationship between the beneficial uses and the requested instream flows.
7. Description of accessibility to site and type of recreation, if applicable.
8. Description of physical setting.
9. Description of the bed and/or channel morphology of the stream.
10. Description of type and source of streamflow including any groundwater-surface water interactions; include number of rivermiles of claimed reach.
11. Description of data collection methods including, at a minimum, type of meter or gage and legal Description of site.
12. Minimum of one year of streamflow measurements, at least one per month or three per flow season.

13. Submittal of raw field data with discharge calculated; applicants are urged to use the form entitled *Instream Flow Measurement Notes* in the back folder.
14. An assessment of the quantity of water historically available at the location of the proposed instream appropriation. Provide streamflow hydrographs and flow duration curves, if possible.
15. Streamflow analysis and resulting monthly or seasonal streamflow requests as well as the total annual amount requested for appropriation.
16. Description of negative effects on beneficial use if flow falls below requested levels.
17. Description of the potential impact of the instream flow appropriation on existing surface water rights and on the interests and welfare of the public of the State of Arizona.
18. Map of area which includes the following:
 - map scale, Township, Range, Section and north arrow
 - delineation of reach covered by requested appropriation (indicate if perennial or intermittent)
 - watershed boundary
 - location and identification of nearest gage(s); name, #, operated by
 - location of instantaneous measurement
 - land ownership boundaries
19. Pictures of the reach, including at least one of each measuring point would be helpful.

APPLICATION GUIDELINES
Permit to Appropriate Public Water
of the State of Arizona - Instream Flow Maintenance

In accordance with A.R.S. §§ 41-1008 and 1079, the Department of Water Resources, Surface Water Rights Unit, provides the following information regarding the application review process to assist applicants for a Permit to Appropriate Public Water of the State of Arizona - Instream Flow Maintenance.

Steps for Processing Your Application and Obtaining Approval

Before filing your application, the Department encourages you to contact one of the Department personnel indicated at the end of these guidelines to discuss the application process and review criteria. If you wish, a meeting may be scheduled to facilitate this process. To assist you in understanding the substantive requirements for this application, a copy of A.R.S. §§ 45-152, 45-153 and 45-162 is provided for your information.

It is imperative that you complete the application form in its entirety. An incomplete or incorrect application may result in a delay in processing your application. Please send the application to the address indicated on the form, along with any required fees and supporting documentation. The Department suggests that you retain a copy of all documents which are submitted for review. The first step in perfecting a water right is obtaining a Permit to Appropriate - Instream Flow Maintenance. The Licensing Time Frame associated with this process is 581 days. The application fee for this permit is \$50.00 if the quantity of use is less than 50 acre-feet, \$75.00 if the quantity of use is 50 acre-feet or more. If the application is approved and a permit is issued, the permit fee is \$25.00 if the quantity of use is less than 50 acre-feet, \$50.00 if the quantity of use is 50 acre-feet or more. The second step in perfecting a water right is obtaining a Certificate of Water Right. The Licensing Time Frame associated with this process is 207 days. The fee for a Certificate of Water Right is \$50.00. The fees are authorized by Arizona Administrative Code Rule R12-15-151.

I. Time Frames for Review of Your Application.

Within 581 days after receipt of your application, the Department will determine whether your application should be granted or denied, unless this time is extended as described below. In processing your application, the Department will first determine whether the application is administratively complete (administrative completeness review), and then whether the application meets the substantive criteria established by statute or rule (substantive review). Each of these reviews will be completed within the times stated below. The time for the administrative completeness review plus the time for the substantive review is referred to as the overall time frame.

1) Administrative Completeness Review Time Frame

Within 51 days after receipt of your application, the Department will determine whether your application is complete, and will issue a written notice of administrative completeness or deficiencies. After your application is complete, the Department will proceed with substantive review.

information is received. If you do not supply the missing information within 60 days, the Department may deem your application withdrawn and close the file.

2) Substantive Review Time Frame

Within 187 days after the application is complete, the Department will review your application to determine whether it meets the substantive criteria required by statute or rule. By mutual written agreement between you and the Department, the time for substantive review may be extended by up to 51 days.

During the substantive review, the Department may make one written request for additional information. You may also agree in writing to allow the Department to submit supplemental requests for additional information. If additional information is requested by the Department, both the substantive review and overall time frames will be suspended. When the additional information is received, the substantive review and overall time frames will resume.

At the end of the Department's substantive review, the Department will send you a written notice either granting or denying your application. If your application is denied, the notice will include the justification for the denial and an explanation of your right to appeal the denial.

Agency Contact

Please direct any questions, comments or requests for further assistance to Gerry Wildeman or Elizabeth Logan in the Surface Water Rights Unit at (602) 417-2442.

Arizona Revised Statutes §§ 45-152, 45-153 and 45-162

45-152 . Application for permit to appropriate water

A. Any person, including the United States, the state or a municipality, intending to acquire the right to the beneficial use of water, shall make an application to the director of water resources for a permit to make an appropriation of the water. The application shall state:

1. The name and address of the applicant.
2. The water supply from which the appropriation is applied for.
3. The nature and amount of the proposed use.
4. The location, point of diversion and description of the proposed works by which the water is to be put to beneficial use.
5. The time within which it is proposed to begin construction of such works and the time required for completion of the construction and the application of the water to the proposed use.

B. The application also shall set forth:

1. If for agricultural purposes, the legal subdivisions of the land and the acreage to be irrigated.
2. If for power purposes, the nature of the works by which power is to be developed, the pressure head and amount of water to be utilized, the points of diversion and release of the water and the uses to which the power is to be applied.
3. If for the construction of a reservoir, the dimensions and description of the dam, the capacity of the reservoir for each foot in depth, the description of the land to be submerged and the uses to be made of the impounded waters.
4. If for municipal uses, the population to be served, and an estimate of the future population requirements.
5. If for mining purposes, the location and character of the mines to be served and the methods of supplying and utilizing the waters.
6. If for recreation or wildlife, including fish, the location and the character of the area to be used and the specific purposes for which such area shall be used.

C. The application shall be accompanied by maps, drawings and data prescribed by the director.

45-153 . Criteria for approval or rejection of applications; restrictions on approval

A. The director shall approve applications made in proper form for the appropriation of water for a beneficial use, but when the application or the proposed use conflicts with vested rights, is a menace to public safety, or is against the interests and welfare of the public, the application shall be rejected. An administrative hearing may be held before the director's decision on the application if the director deems a hearing necessary.

B. An application may be approved for less water than applied for if substantial reasons exist but shall not be approved for more water than may be put to a beneficial use. Applications for municipal uses may be approved to the exclusion of all subsequent appropriations if the estimated needs of the municipality so demand after consideration by and upon order of the director.

C. If the director approves an application for the appropriation of water for use on land owned by the state of Arizona, a permit or certificate shall be issued as prescribed by section 37-321.01. If the director approves an application for the appropriation of water for use on land

ARIZONA DEPARTMENT OF WATER RESOURCES

SURFACE WATER RIGHTS

MAIL TO: P.O. BOX 458

PHOENIX, ARIZONA 85001-0458

500 North Third Street

Phoenix, Arizona 85004-3903

Telephone (602) 417-2442

Fax (602) 417-2424

Permit No: _____

(For office use only) Date Filed: _____
--

PROOF OF APPROPRIATION OF WATER - INSTREAM FLOW MAINTENANCE

1. Applicant _____ Telephone _____
 Address _____ City _____ State _____ Zip _____

2. Type of water source and name _____
 a tributary to _____ within the _____ watershed.
 (For office use only)

3. a. List the beneficial uses for which the instream flow maintenance is utilized: _____

b. Monthly instream flow as supported by final data submittal to Hydrology Division (cubic feet per second)

JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC

c. Total annual volume _____ acre-feet/year

d. Name of measuring point(s) _____

e. Location of measuring point(s)
 _____ ¼ _____ ¼, Section _____, Township _____ N/S, Range _____ EW
 _____ ¼ _____ ¼, Section _____, Township _____ N/S, Range _____ EW

4. Location of instream flow appropriation: County _____

Describe entire reach to be covered by certificate, utilizing legal land parameters. Attach additional sheet if necessary.

_____ ¼ _____ ¼, Section _____, Township _____ N/S, Range _____ EW

_____ ¼ _____ ¼, Section _____, Township _____ N/S, Range _____ EW

4. Location (continued)

_____ ¼ _____ ¼, Section _____, Township _____ N/S, Range _____ E/W

_____ ¼ _____ ¼, Section _____, Township _____ N/S, Range _____ E/W

_____ ¼ _____ ¼, Section _____, Township _____ N/S, Range _____ E/W

_____ ¼ _____ ¼, Section _____, Township _____ N/S, Range _____ E/W

5. Owner of the land described above: _____

6. **REQUIRED ATTACHMENT:**

Copy of recorded deed showing land ownership. If owned by other than applicant, provide copies of all pertinent leases, grazing permits, allotments, or letter from landowner authorizing the proposed appropriation.

Arizona Department of Water Resources
500 North Third Street
Phoenix, Arizona 85007

NOTICE OF APPLICATION TO APPROPRIATE PUBLIC WATER INSTREAM FLOW MAINTENANCE

In the matter of application assigned number KEYBOARD(). KEYBOARD() has filed an Application for Permit to Appropriate Public Water, dated KEYBOARD().

The application states:

1. Source of Water: KEYBOARD()
2. Proposed use and amount: KEYBOARD()
3. Place(s) of use: KEYBOARD()

A map depicting the proposed place of use is attached to this notice.

KEYBOARD(other conditions)

Objections to the issuance of the Permit to Appropriate Public Water may be filed by any person who alleges that the proposed appropriation conflicts with vested water rights, is a menace to public safety, or is against the interests and welfare of the public. Objections must be submitted either in writing or on a form provided by the Department to the Arizona Department of Water Resources, Surface Water Rights, 500 N. 3rd St., Phoenix, AZ 85004, within sixty (60) days of the date of issuance of the Notice. A copy of the stated objections must also be forwarded to the applicant.

The Notice is issued this day of KEYBOARD(), 19KEYBOARD().

ARIZONA DEPARTMENT OF WATER RESOURCES

One copy sent to the applicant and one to:

KEYBOARD()

AFFIDAVIT OF APPROPRIATOR

STATE OF ARIZONA }
 }ss.
County of _____ }

I, _____, being first duly sworn, state that I have read the attached proof of appropriation of water; that I know the contents thereof, and that the facts therein stated are true.

IN WITNESS WHEREOF, I set my hand this _____ day of _____, 19_____.

Signature of Appropriator

Signature of Appropriator

Subscribed and sworn to me this _____ day of _____, 19_____.

(Notary Seal)

Notary Public

My commission expires _____

AFFIDAVIT OF WITNESS
(Two witnesses required)

STATE OF ARIZONA }
 }ss.
County of _____ }

We, _____ and _____

of _____, being first duly sworn, state that we are acquainted with the facts and conditions set forth in the attached statement relative to proof of appropriation of water under Permit No. _____, that we have inspected each tract described therein, and from such personal inspection have knowledge that all necessary ditches, dams and other diversions and distributing works have been constructed, and water used as stated therein; that we have carefully read the proof of appropriation, and that the statements contained therein are true to the best of our knowledge and belief.

Signature of Witness

Signature of Witness

Subscribed and sworn to me this _____ day of _____, 19_____.

(Notary Seal)

Notary Public

My commission expires _____

STATE OF ARIZONA
DEPARTMENT OF WATER RESOURCES
HYDROLOGY DIVISION

INSTREAM FLOW MEASUREMENT NOTES

ISF No. _____ Date _____

Applicant _____ Weather _____

Stream Name _____ Air Temp _____

Party _____

Topo Quad _____

Cadastral ___ 1/4 of ___ 1/4 of ___ 1/4 of Sec ___ T ___ R ___ or Local ID _____

Latitude _____ Longitude _____

Lat/Long Method: Map, GPS-corrected, GPS-uncorrected

Locality _____

Width _____ Area _____ Total Discharge (from back) _____

Method of measurement: 0.2-0.8, 0.6 Type of meter _____

Standard error _____ Meter No. _____

Date rated _____ Spin: before _____ after _____

Measurement rated excellent (2%), good (5%), fair (8%), poor (>8%); based on field observations

Cross-section _____

Remarks _____

Water Quality: Temp _____ D.O. _____

Comp. by _____

pH _____ Spec. Cond. _____

Checked by _____

ISF No. _____

Date _____

Measure Point	Distance from Initial Point	Interval Width	Depth of Water	Obs. Depth	# of Revol.	Time (secs)	Velocity		Area of Interval	Discharge (cfs)
							@ Point	Mean		
LEW										
1										
2										
3										
4										
5										
6										
7										
8										
9										
10										
11										
12										
13										
14										
15										
16										
17										
18										
19										
20										
									Total Discharge	

California

Appendix One: Attributes of Riparian Rights:

- Riparian rights are of equal priority
- Unless adjudicated, the right is not quantified, rather it extends to the amount of water which can be reasonably and beneficially used on the riparian parcel
- Riparian rights are correlative. During times of water shortage, the riparian proprietors share the shortage
- Water may be used only upon that portion of the riparian parcel which is within the watershed of the water source
- The riparian right does not extend to seasonal storage of water
- The riparian right is part of the riparian land and cannot be transferred for use on other lands
- The riparian rights remains with the land when riparian lands are sold
- When riparian lands are subdivided, parcels which are severed from the adjacent water source lose their riparian rights unless the rights are reserved
- A riparian right is not lost by non-use

Appendix Two: Types of Applications

- Water Right Application Form
- Environmental Information Form
- Notice of Assignment Form
- Agent Assignment Request Form
- Application Protest Form
- Cancellation of Application Form
- Registration Form
- Notice of Assignment Form
- Complaint Form
- Answer to Complaint Form
- Petition for Extension of Time Form
- Petition for Correction Form
- Petition for Change Form
- Petition for Change in Distribution of Storage Form
- Petition for Protest Form
- Notice of Assignment Form
- Request for Revocation Form
- Petition for Temporary Permit Form
- Petition for Temporary Urgency Change Form
- Temporary Transfer
- Long term Transfer
- Wastewater Change Petition Form

CA



California

Appendix One: Attributes of Riparian Rights:

- Riparian rights are of equal priority
- Unless adjudicated, the right is not quantified, rather it extends to the amount of water which can be reasonably and beneficially used on the riparian parcel
- Riparian rights are correlative. During times of water shortage, the riparian proprietors share the shortage
- Water may be used only upon that portion of the riparian parcel which is within the watershed of the water source
- The riparian right does not extend to seasonal storage of water
- The riparian right is part of the riparian land and cannot be transferred for use on other lands
- The riparian rights remains with the land when riparian lands are sold
- When riparian lands are subdivided, parcels which are severed from the adjacent water source lose their riparian rights unless the rights are reserved
- A riparian right is not lost by non-use

Appendix Two: Types of Applications

- | | |
|---------------------------------------|---|
| • Water Right Application Form | • Petition for Change Form |
| • Environmental Information Form | • Petition for Change in Distribution of Storage Form |
| • Notice of Assignment Form | • Petition for Protest Form |
| • Agent Assignment Request Form | • Notice of Assignment Form |
| • Application Protest Form | • Request for Revocation Form |
| • Cancellation of Application Form | • Petition for Temporary Permit Form |
| • Registration Form | • Petition for Temporary Urgency Change Form |
| • Notice of Assignment Form | • Temporary Transfer |
| • Complaint Form | • Long term Transfer |
| • Answer to Complaint Form | • Wastewater Change Petition Form |
| • Petition for Extension of Time Form | |
| • Petition for Correction Form | |

Appendix Three: Steps to Obtain a Permit

<u>Step</u>	<u>Board's Role</u>	<u>Applicant's Role</u>
File Application	If you need assistance Board engineers will help you prepare application forms, small project maps, and other documents. Incomplete applications won't be accepted.	You prepare an application which meets specific requirements, including a filing fee.
Acceptance of Application	Board notifies you within 30 days either that your application is incomplete or that it has been accepted. Acceptance of your application establishes you priority as the date of filing.	Unless you are granted an extension, you must provide any additional information requested by the Board within 60 days of notification. If not, you application may be canceled.
Environmental Review	Your proposed project is assessed to determine to what extent it could alter the environment.	You assume cost for preparation of any required environmental studies.
Public Notice	The Board will send you a public notice describing your proposed project. Copies of the notice also are sent to known interested parties and to post offices in the area of your project for posting.	For small projects, you must post the notice for 40 consecutive days in two conspicuous places near your project site. For large projects, you must publish the notice in a newspaper at least once a week for three consecutive weeks.
Protests	During the noticing period, the Board may receive protests against your proposed project from interested individuals or groups.	If protests are filed against our application, you must respond to them in writing and attempt to reach agreements so that protests can be withdrawn.
Hearings	If protests cannot otherwise be resolved, you and the protestant present your cases at a field investigation or during a hearing conducted by the Board. The Board issues a decision on protested applications based on information gathered at the field investigation or on evidence presented during the hearing.	You prepare testimony and exhibits for presentation at the hearing and cooperate with the Board and protestant toward reaching a satisfactory resolution.
Permit Issuance	A water right permit is issued when protests, if any, are resolved or dismissed or when the Board approves the application by decision following a hearing. In addition, a permit fee must be paid. During this phase the Board determines whether water conservation measures are needed	Prior to issuance of a permit, you must submit a permit fee as directed by the Board. If water conservation measures are required, they will be included as a condition of your permit.

Colorado

Appendix One: Types of Applications

- Application for surface water right
- Application for ground water right
- Motion to Intervene - A legal motion
- Application for change in water right
- Application for approval of plan for augmentation
- Statement of Opposition - A legal motion

CO

Colorado

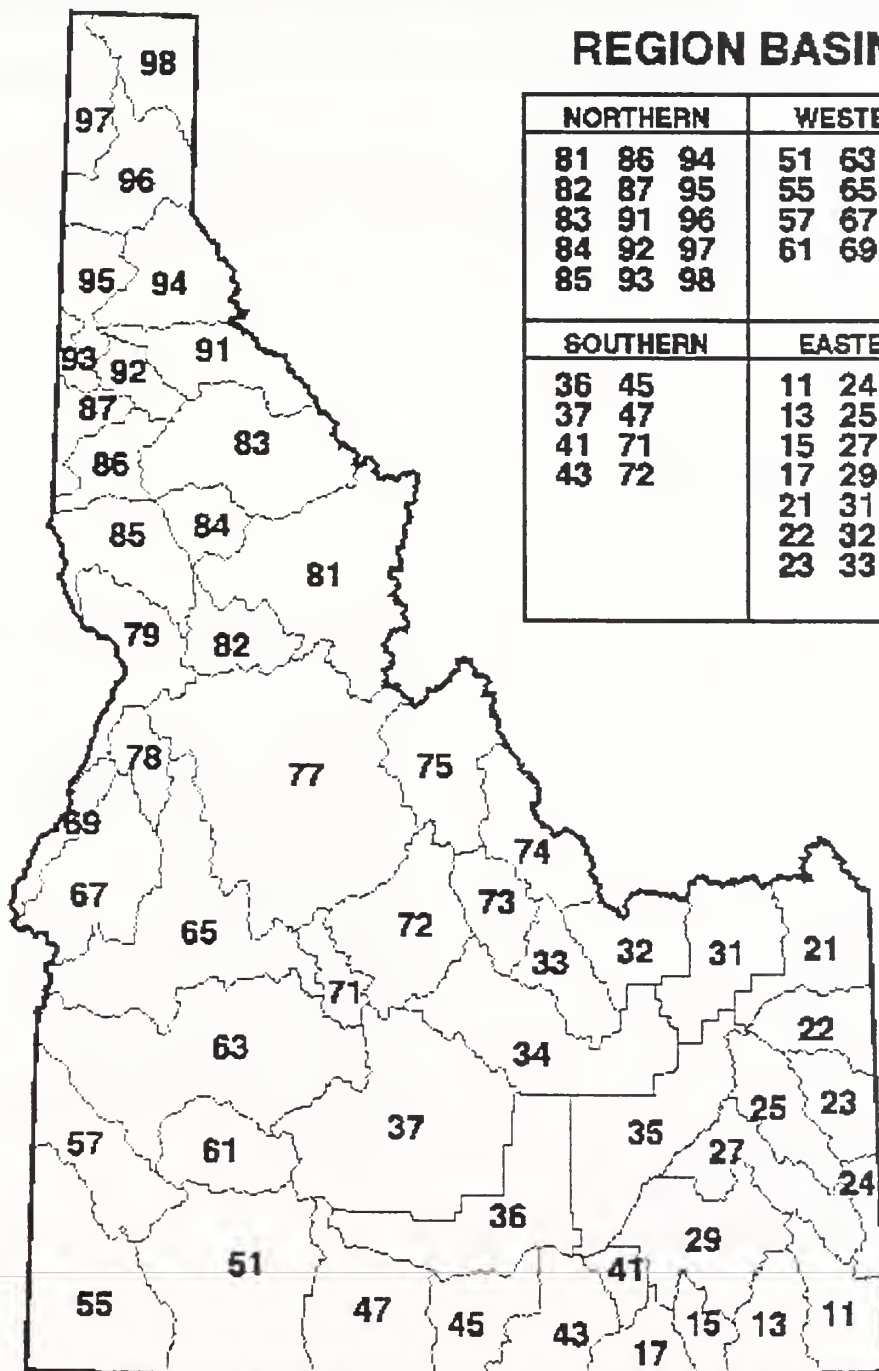
Appendix One: Types of Applications

- Application for surface water right
- Application for ground water right
- Motion to Intervene - A legal motion
- Application for change in water right
- Application for approval of plan for augmentation
- Statement of Opposition - A legal motion

Appendix One: IDWR Administrative Basins

IDWR ADMINISTRATIVE BASINS

IDWR has divided the state into more than 50 administrative basins that are used to help coordinate water management activities. Each basin area has been given its own unique number. The information in the box shows what basins are part of each of the four IDWR regions.



REGION BASINS

NORTHERN			WESTERN		
81	86	94	51	63	77
82	87	95	55	65	78
83	91	96	57	67	79
84	92	97	61	69	
85	93	98			
SOUTHERN			EASTERN		
36	45		11	24	34
37	47		13	25	35
41	71		15	27	73
43	72		17	29	74
			21	31	75
			22	32	
			23	33	

Appendix Two: Criteria Used to Evaluate Water Allocations in the Snake River Basin

In areas of the Snake River Basin held in trust for the Idaho Power Co., the director of IDWR must consider, in addition to his normal considerations, whether or not the new use of water will significantly reduce the flows available for power generation. If it is determined that a significant reduction will occur, the director must consider the following criteria:

1. The potential benefits that the proposed use would provide to the state and local economy
2. The economic impact the proposed use would have upon electric utility rates in Idaho, as well as the availability and cost of alternative energy sources to ameliorate any impact
3. The promotion of the farming tradition
4. The promotion of full economic and multiple use development of Idaho water resources
5. In the Snake River Basin above the Murphy gauge, whether the proposed development conforms to a staged development policy of up to 20,000 acres per year or 80,000 acres in a four year period.

Appendix Three: Types of Applications

Water Right / Water Bank Forms:

- Application for Permit
- Assignment of Application for Permit
- Assignment of Permit
- Application for Amendment of a Permit
- Request for Extension of time for Proof of Beneficial Use
- Proof of Beneficial Use
- Application for Temporary Approval of Water Appropriation
- Application for Transfer of Water Right
- Temporary Change Application
- Application for Extension of Time to Avoid Forfeiture of a Water Right
- Application for Exchange of Water
- Notice of Change of Water Right Ownership
- Application to Sell or Lease a Water Right to the Water Supply Bank
- Application to Rent Water From the Water Supply Bank
- Notice of Protest
- Notice of Instream Diversion
- Stockwater Use of Water
- Affidavit for Water Rights to Be Used for Power Purposes
- Certified Water Rights Examiner Application

Montana

Appendix One:

Montana's Basin Closures and Controlled Groundwater Areas

July 2000

Water Resources Division Water Rights Bureau

**48 North Last Chance Gulch
P.O. Box 201601
Helena, Montana 59620-1601**

<http://www.dnrc.state.mt.us/wrd/home.htm>

For questions call (406) 444-6610

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GENERAL INFORMATION

Montana has authority to control or close river basins and groundwater aquifers to certain types of water appropriations because of water availability problems, water contamination problems, and a concern for protecting existing water rights. There are five different types of closures.

1. Controlled Groundwater Areas — The Department of Natural Resources and Conservation (DNRC) may designate or modify controlled groundwater areas. In addition, another state or local agency can petition for a controlled groundwater area. This is often done when health risks are identified. Water users on the source can petition for a controlled groundwater area as well. The petition must be signed by one quarter or 20 (whichever is less) of the groundwater users in the petition area.

DNRC will publish notice of a hearing on the proposal for three successive weeks in an area newspaper and hold a public hearing at least 90 days after the proposal but not less than 30 days after the notice is published. Each well driller licensed in Montana whose address is within the county where the area in question is located will receive a copy of the notice and petition individually. So will each person who according to DNRC records uses groundwater, the presiding officer of each incorporated municipality located in the groundwater area, and any other person who may be interested or affected by the proposal.

There are nine controlled groundwater areas.

2. Petitioned Surface Water Basin Closures by Rule — DNRC may adopt Administrative Rules to close a drainage basin. To adopt rules, DNRC must receive a petition. The petition can come from the Department of Environmental Quality, or from users of water from the source within the basin. If the petition comes from water users, it must be signed by at least 25% or 10 users (whichever is less).

DNRC will publish notice of a rulemaking hearing for three successive weeks, and hold the hearing at least 30 days after publishing the notice.

There are 10 basins that have been closed by rule.

3. Department Ordered Milk River Closures —

The legislature has given DNRC the authority to order closures within the Milk River basin. There are two DNRC orders closing portions of the basin.

4. Legislative Closures —

By law the legislature can preclude permit applications in a chosen drainage basin. Six basins have been closed by legislative action.

5. Compact Closures —

The Reserved Water Rights Compact Commission has negotiated eight (8) compacts with tribes and federal agencies. Five of these compacts have stipulations in them that close certain sources of water to new appropriations, and regulate groundwater withdrawals. One created a controlled groundwater area. This is the Yellowstone Controlled Groundwater Area. Compact Closures are authorized by the legislature when the compact is ratified.

CONTROLLED GROUNDWATER AREAS

In a controlled groundwater area, anyone wishing to drill a well must first apply for and receive a Permit for Beneficial Water Use (85-2-508, MCA). This applies to any size and type of appropriation, including wells to be used at less than 35 gallons per minute (GPM) and less than 10 acre-feet per year. Some controlled groundwater areas have additional restrictions.

The reasons for ordering a controlled groundwater area include:

- Groundwater withdrawals in the area are greater than recharge of the aquifer,
- Excessive groundwater withdrawals are likely to occur in the near future,
- There are significant disputes regarding groundwater rights in the area,
- Groundwater levels or pressures in the area have been or are declining excessively,
- Excessive groundwater withdrawals would cause contaminant migration,
- Groundwater withdrawals are or will adversely affect groundwater quality, and
- Water quality in the groundwater area is not suited for a specific beneficial use.

South Pine Controlled Groundwater Area

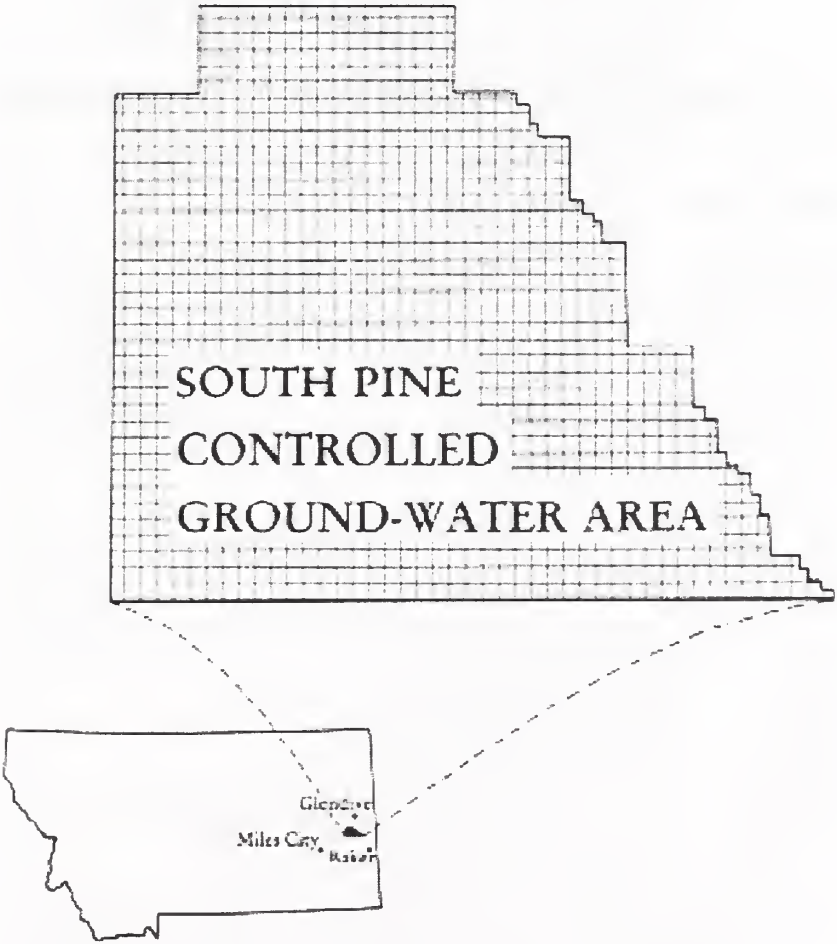
Location: Township 12N Range 55E,
Township 11N Range 55E
Township 11N Range 56E
Township 12N Range 56E, west of Cedar Creek
Anticline,
Township 13N Range 55E
All in Prairie County
Township 11N Range 57E, west of Cedar Creek
Anticline in Fallon and Wibaux Counties

Effective Date: November 1, 1967

Information:

- No new appropriations of groundwater may be made except by permit request (regardless of size).
- No presently inactive well may be used except with the approval of DNRC.
- No presently active well may increase its flow rate except with the approval of DNRC.

South Pine Controlled Groundwater Area



Hayes Creek Controlled Groundwater Area

Location: Woodland Heights Lots 1-12 Block 1,
Lots 1-6 Block 2, and Lots 1-11 Block 3
Woodland Park Lots 1-10
Tracts 1-4 adjacent to original Woodland Heights
NWNE Section 10 Township 12N Range 20W,
Missoula County
NENW Section 10 Township 12N Range 20W,
Missoula County

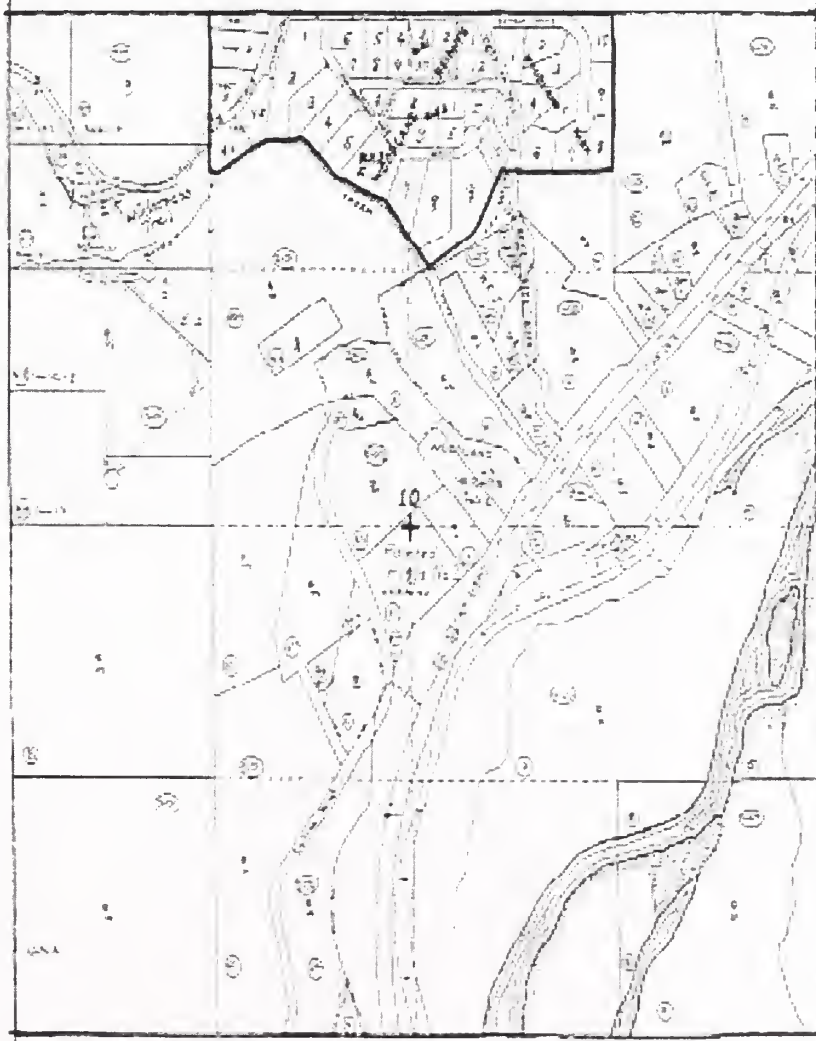
Effective Date: May 25, 1995

Information:

- This is a permanent controlled groundwater area which includes both the shallow alluvial and deep fractured bedrock aquifers.
- All new groundwater appropriations in this permanent controlled groundwater area require a Permit for Beneficial Water Use.
- On December 1, 1998, a final order was approved adopting the remainder of the Hayes Creek drainage as a permanent controlled groundwater area. This is approximately 2,465 acres in the following locations:
 - SWSWSW Section 3
 - S2S2, S2NWSE, S2N2SW Section 4
 - S2, S2NW, W2SWNE Section 5
 - S2, S2N2, S2N2NE Section 6
 - N2, N2NWSW, NESW, N2SE, N2S2SE Section 7
 - N2, N2SW, N2S2SW, NWSE Section 8
 - N2, NENESW, N2N2SE Section 9
 - N2NWSW, NW Section 10all in Township 12N Range 20W, Missoula County.
- DNRC may not grant a permit in the new controlled groundwater area section if the withdrawal would be beyond the capacity of the aquifers to yield groundwater within a reasonable or feasible lift.

- There cannot be more than one well on each lot and new groundwater permits will be conditioned with the possibility of limiting withdrawals in the future.
- DNRC will appoint a “groundwater supervisor” who will monitor groundwater levels, take water samples, administer any water use restrictions, and may require metering if necessary.

Hayes Creek Controlled Groundwater Area



Larson Creek Controlled Groundwater Area

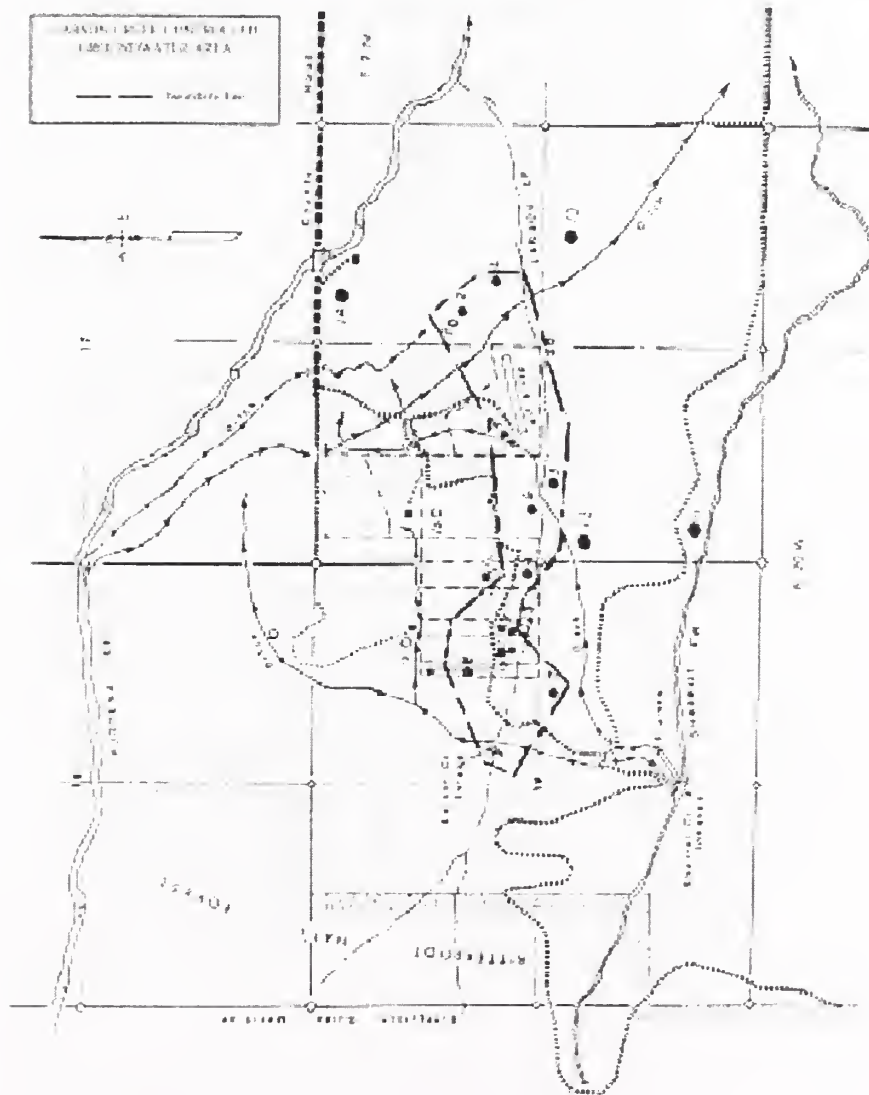
Location: Center East ½ Section 19 Township 9N Range 20W,
Ravalli County
West ½ Section 20 Township 9N Range 20W, Ravalli
County

Effective Date: November 14, 1988

Information:

- This is a controlled groundwater area for the shallow aquifer from the surface of the ground to a depth of 70 feet.
- The shallow aquifer is closed to further appropriations except for applicants for a Permit for Beneficial Water Use who:
 - a. Prove the criteria of Section 85-2-311, MCA by clear and convincing evidence, and
 - b. Submit a plan for water augmentation of Larson Creek or prove that augmentation is not necessary.
- All wells greater than 70 feet deep must be constructed so that the controlled aquifer is sealed off with grout to prohibit leakage from the controlled aquifer to other aquifers.

Larson Creek Controlled Groundwater Area



Warm Springs Ponds Controlled Groundwater Area

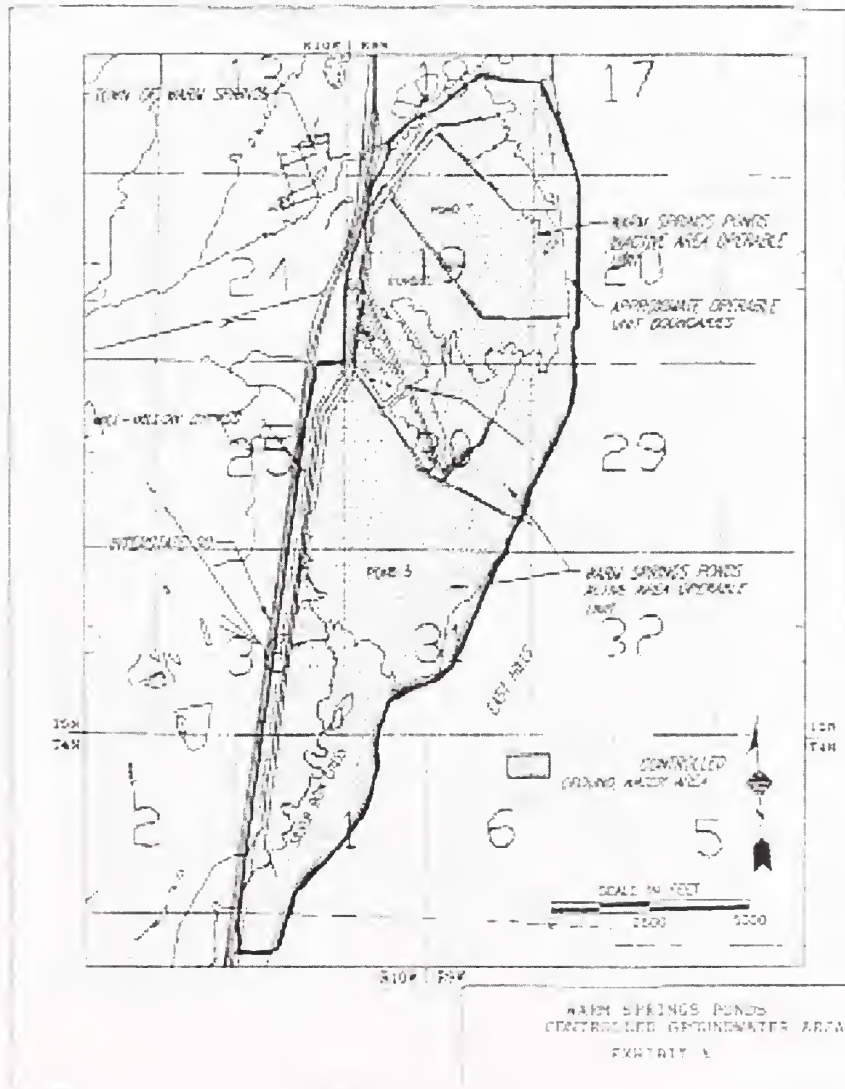
Location: Portions of Sections 1, 11, and 12 Township 4N
Range 10W
Portions of Sections 17-20 and 29-31 Township 5N
Range 9W
Portions of Sections 25 and 26 Township 5N
Range 10W
All in Deer Lodge County

Effective Date: May 25, 1995

Information:

- The reason for establishing this controlled groundwater area was contamination of the shallow aquifer to a depth of 40 feet. Its establishment does not affect remediation or response actions.
- DNRC cannot accept any applications for a Permit for Beneficial Water Use to divert water from 0-40 feet in depth.
- Wells greater than 40 feet deep must be constructed to include a grouted conductor casing maintained to a depth of 40 feet. It must be terminated and sealed in a minimum 6 foot thick clay aquitard.
- This is not a permanent controlled groundwater area. If the Environmental Protection Agency (EPA) rescinds or modifies the Warm Springs Ponds Active Area, that may modify or delete current requirements for a water well ban. In this case, the controlled groundwater area designation may be modified, suspended, or revoked.

Warm Springs Ponds Controlled Groundwater Area



Rocker Controlled Groundwater Area

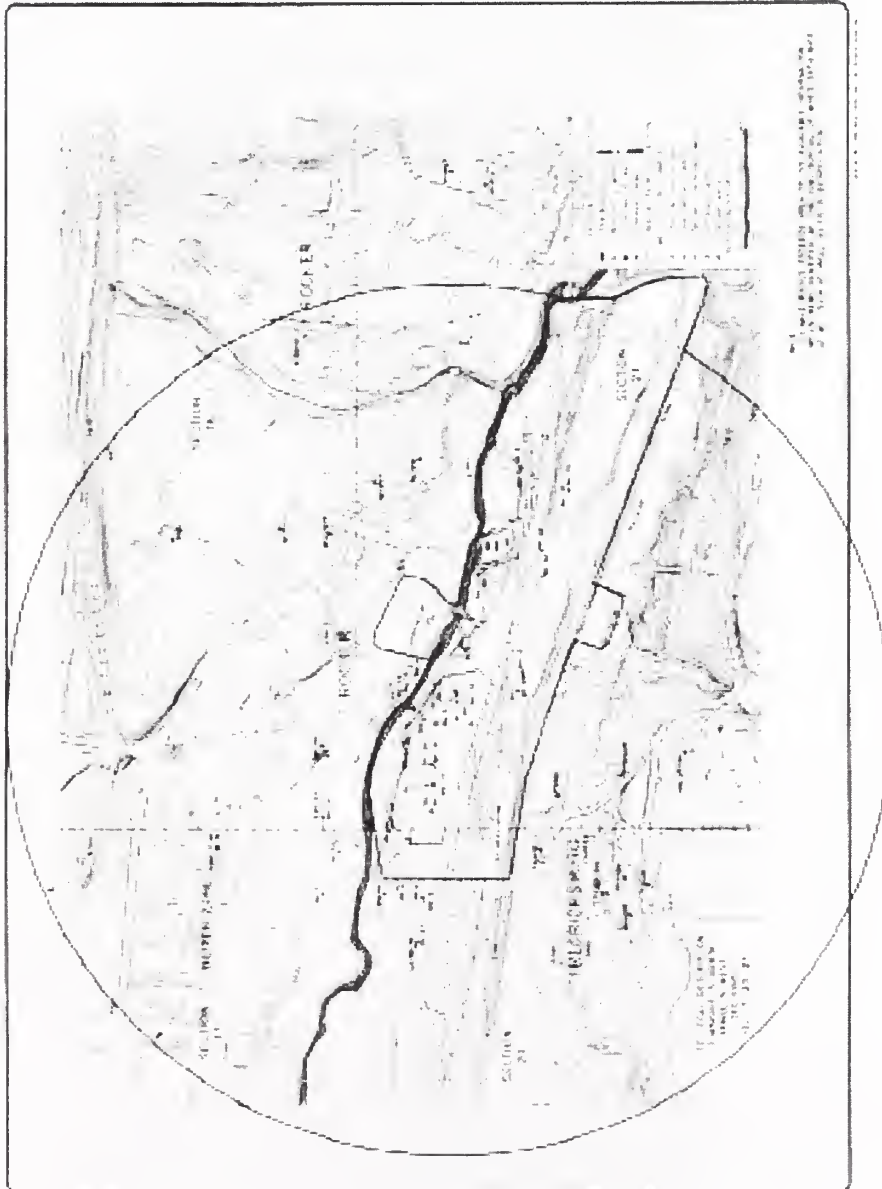
Location: SW Section 16, Township 3N Range 8W
SE Section 17, Township 3N Range 8W
NE Section 20, Township 3N Range 8W
NW Section 21, Township 3N Range 8W
All in Silver Bow County

Effective Date: May 30, 1997

Information:

- The reason for establishing this controlled groundwater area is contamination of the groundwater in three aquifers:
 - a. The Rocker Timber Framing Treatment Plant Operable Unit of the Silver Bow Creek-Butte Area Superfund Site,
 - b. A small portion of the Streamside Tailings Operable Unit Superfund Site, and
 - c. A 1/4 mile buffer zone radius around the contaminated groundwater area.
- This area is closed to all new appropriations of groundwater.
- This is not a permanent controlled groundwater area. During this closure, quarterly monitoring is being done to determine the effectiveness of remediation actions on the groundwater. The results of this monitoring are being reported to DNRC.
- Once the determination is made that the Rocker plume has been effectively mitigated to halt the threat of further migration, the Butte-Silver Bow Health Department will re-petition DNRC to remove the controlled groundwater area designation.

Rocker Controlled Groundwater Area



Bozeman Solvent Site Controlled Groundwater Area

Location: W2NW, SENW, SW, SWSE Section 25; E2 Section 26;
E2 Section 35; Section 36
All in Township 1S Range 5E, Gallatin County
W2, W2E2 Section 1; E2E2 Section 2; E2NE
Section 11; NW, N2SW Section 12
All in Township 2S Range 5E, Gallatin County

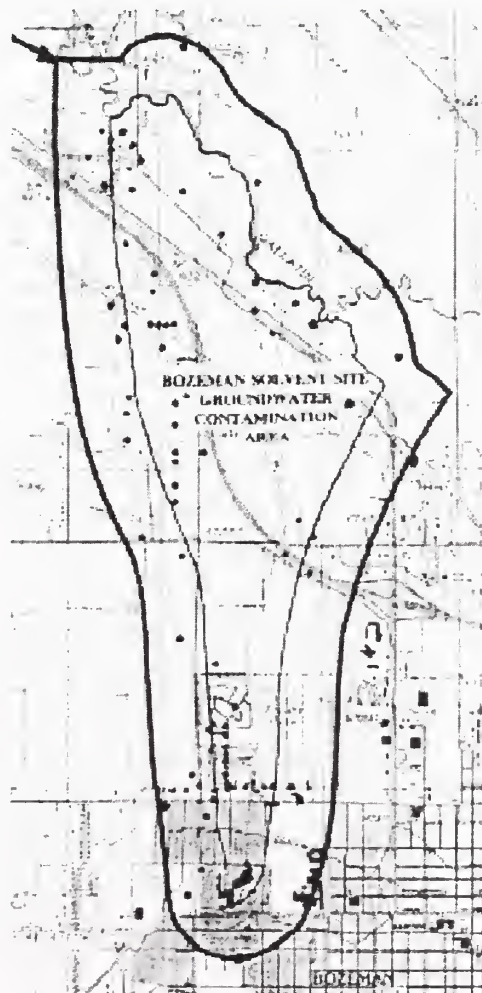
Effective Date: July 20, 1998

Information:

- This controlled groundwater area is generally located from West Main Street between North 20th and North 11th Streets (City of Bozeman) extending north of the East Gallatin River to the Riverside Golf Course.
- Drilling and installing water wells within this controlled groundwater area is prohibited without receiving an interim permit from DNRC first.
- Permits will not be issued by DNRC for the following conditions:
 - a. The proposed well is located within the zone of highest contamination (100 parts per billion or greater of chlorinated solvents in the groundwater).
 - b. Groundwater pumping from the individual well or in combination with nearby wells is likely to induce or redirect contaminated groundwater plume migration.
 - c. Water supply from the City of Bozeman municipal water supply system is or will soon be available.
 - d. The proposed well has a design capacity of 100 gallons per minute or greater.
- DNRC may approve a permit subject to certain conditions such as water treatment requirements.

- Monitor wells used just for monitoring water quality or quantity are excluded from the controlled groundwater area permit requirements.
- If there is ever evidence that part of the controlled groundwater area is not contaminated and will most likely never be contaminated, procedures may be initiated to remove that part from the controlled groundwater area.

Bozeman Solvent Site Controlled Groundwater Area



U.S. National Park Service-Montana Compact Yellowstone Controlled Groundwater Area

Location: North and West of Yellowstone National Park

Effective Date: January 31, 1994

Information:

- The controlled groundwater area was established to regulate groundwater development adjacent to Yellowstone National Park in an effort to preserve its natural hydrothermal features.
- Anyone wishing to appropriate groundwater from this area must apply for a Permit for Beneficial Water Use.
- All permit applications must include a statement of whether the proposed water used will be a temperature of 60° Fahrenheit or more.
- All new appropriations are required to have meters installed to measure the total volume of water used. The meters are provided by DNRC. Measurements must be reported to DNRC annually.
- Special additional requirements must be met based on the temperature of the water in the well:
 - a. Appropriations of groundwater with a temperature of less than 60° F:
 1. An applicant may complete drilling of a 35 GPM or less and 10 acre-feet per year or less well subject to state law but cannot put the water to use until a permit is issued.
 2. Applications for permits for greater than 35 GPM or 10 acre-feet per year must comply with state laws for permit issuance. An applicant may complete drilling of a well for greater than 35 GPM or 10 acre-feet per year once he has received an interim permit, but cannot put the water to use until a provisional permit is issued.

3. A well log must be provided to DNRC within 60 days of drilling a well. The well log must include well location to 2½ acres, or ¼ ¼ ¼ ¼ section, ground elevation at the wellhead, well depth, water level, flow rate or maximum pump rate, water temperature at the wellhead, and specific conductance.
- b. Appropriations of groundwater with a temperature of greater than 60° F.
 1. For appropriations of groundwater between 60° F and 85° F, the proposed appropriation must meet all of these criteria:
 - i. The water temperature is the result of the normal thermal gradient of the earth, plus the mean annual air temperature at the site, plus 14° F,
 - ii. The concentration of soluble chloride is less than 10 ppm,
 - iii. The well does not contain a production zone completed within the Madison Group of formations.
 2. Groundwater with a temperature of 85° F or more is presumed to be hydrothermal discharge water. DNRC will not process or grant an application for a permit unless the application contains credible information that the proposed appropriation does not include contribution by hydrothermal discharge water, is reviewed and approval recommended by the Technical Oversight Committee, and a contested-case hearing is held with the application approved by the hearings officer. If the application is denied, the well must be temporarily or permanently abandoned according to the Montana Board of Water Well Contractors Rules.

Powder River Basin Controlled Groundwater Area

Location: All sections in Township 6N Ranges 45E and 46E
All sections in Township 5N Ranges 40E and 47E
All sections in Township 4N Ranges 38E and 39E, 41 E through 46E, and 48E
All sections in Township 3N Ranges 37E through 49E
All sections in Township 2N Ranges 36E through 50E
All sections in Township 1N Ranges 36E through 50E
All sections in Township 1S Ranges 37E through 50E
All sections in Township 2S Ranges 37E through 51E
All sections in Township 3S Ranges 37E through 51E
All sections in Township 4S Ranges 37E through 51E
All sections in Township 5S Ranges 36E through 50E
All sections in Township 6S Ranges 36E through 51E
All sections in Township 7S Ranges 37E through 51E
All sections in Township 8S Ranges 37E through 51E
All sections in Township 9S Ranges 37E through 51E

The area includes all formations above the Lebo member of the Fort Union Formation.

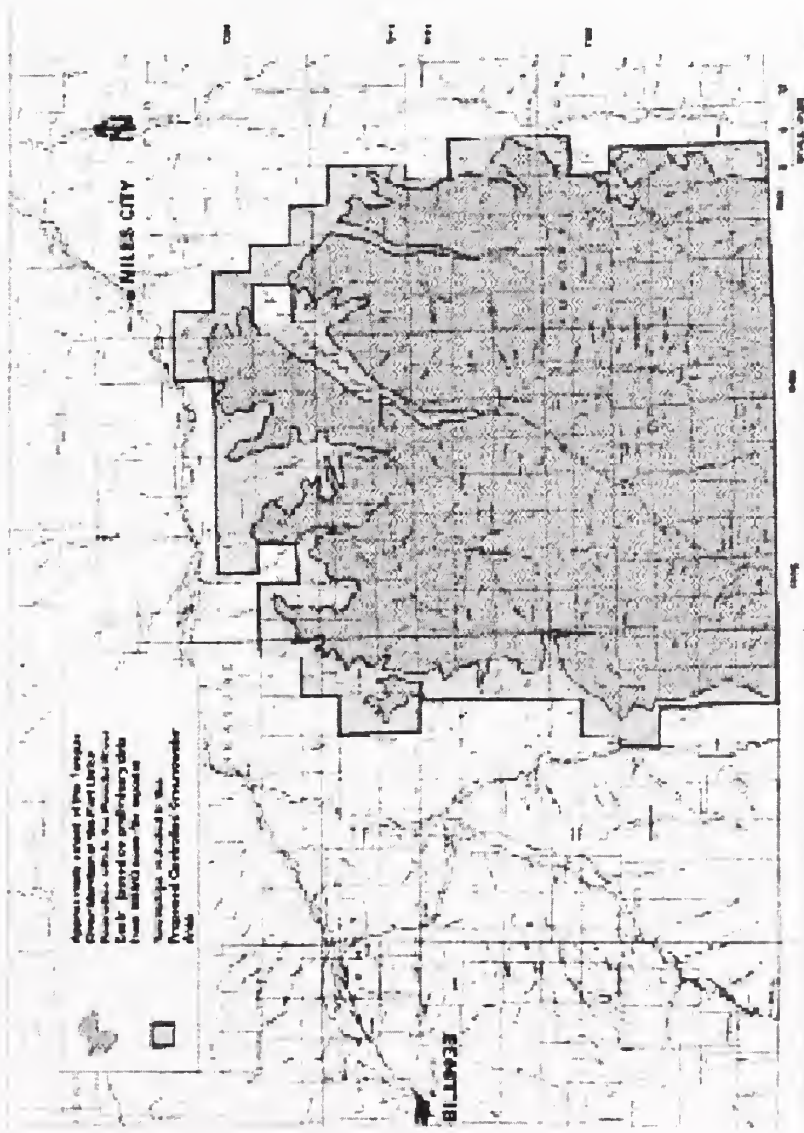
Effective Date: December 15, 1999

Information:

- Applies only to wells designed and installed for the extraction of coalbed methane (CBM).
- CBM development must follow the standards for drilling, completing, testing, and production of CBM wells as adopted by the Board of Oil and Gas Conservation.
- CBM operators must offer water mitigation agreements to owners of water wells or natural springs within one-half mile of a CBM operation or within the area that the operator reasonably believes may be impacted by the CBM operation, whichever is greater. This area will automatically be extended one-half mile beyond any well adversely affected.

- DNRC will designate a Technical Advisory Committee to oversee groundwater characteristics and monitoring, and reporting requirements.

Powder River Basin Controlled Groundwater Area



Old Butte Landfill/Clark Tailings Site Controlled Groundwater Area

Location: S1/2SW1/4 and SW1/4SE1/4 of Section 24 NW1/4, W1/2NE1/4, SW1/4, and W1/2W1/2SE1/4 of Section 25, E1/2SE1/4 and SE1/4SE1/4NE1/4 of Section 26, NE1/4NE1/4 of Section 35, N1/2NW1/4 of Section 26, All in Township 3N Range 8W within the Grove Gulch drainage in Silver Bow County, Montana.

Effective Date: December 17, 1999

Information:

- Drilling and installation of water wells is prohibited without first obtaining a permit from DNRC.
- Wells will be permitted or excluded within the respective zones as follows:
 1. No new wells within zones 1 and 2;
 2. No new wells pumping more than 10 gallons per minute within zone 3; and
 3. No new wells pumping more than 200 gallons per minute within zone 4.
- All new wells must be sampled and analyzed for the following:
 1. Landfill groundwater monitoring analysis list, table 1 constituents;
 2. Volatile organic carbons long list – EPA method 8260 constituents;
 3. Phthalate esters – EPA methods 8270 constituents; and
 4. Chlorinated acid herbicides EPA method 515.1 constituents.
- New wells permitted for human consumption must produce water that meets all applicable WQB-7 water quality standards or other updated human health standards.
- New monitoring wells shall be installed in accordance with EPA-approved Standard Operating Procedure (SOP Groundwater-3) for monitoring well design and construction.

**Old Butte Landfill/Clark Tailings Site
Controlled Groundwater Area**



ADMINISTRATIVE RULE CLOSURES

For DNRC to adopt administrative rules to close a drainage basin, special conditions must exist in the basin (85-2-319, MCA). These conditions are that during certain times of the year: there is no unappropriated water in the source of supply, the rights of prior appropriators would be adversely affected by further appropriation, new uses would interfere with other planned uses, the water quality of an appropriator would be adversely affected by further appropriation, additional new uses would affect water quality so that the source will not meet its classification under 75-5-301(1), MCA (this law provided for the establishment of classification of all state waters in accordance with their present and future most beneficial uses and relates to water quality), and additional new uses would adversely affect the ability of holders of discharge permits to satisfy their effluent limitations.

Grant Creek Basin

Location: Grant Creek is a tributary of the Clark Fork River in Missoula County.

Effective Date: January 26, 1990

Information:

- The entire Grant Creek drainage, from its headwaters to its confluence with the Clark Fork River, including all named and unnamed tributaries, is contained in the closure area.
- No new appropriations of surface water for consumptive use can be made from July 1 - September 30 of each year.
- Permits for nonconsumptive use during the closure period will be conditioned to provide that they will not decrease the source of supply, disrupt stream conditions below the point of return, or adversely affect prior appropriators between the point of diversion and the point of return.

Rock Creek Basin

Location: Rock Creek is a tributary of the Clarks Fork of the Yellowstone River in Carbon County.

Effective Date: February 9, 1990

Information:

- The entire Rock Creek drainage, from its headwaters to its confluence with the Clarks Fork of the Yellowstone River, including Red Lodge, Spring, Dry, Willow, and Clear Creeks, the West Fork of Rock Creek, and all unnamed tributaries, are included in the closure area.
- No new appropriations of surface water for consumptive use can be made from June 1 - September 30 of each year.
- Permits for nonconsumptive uses during the closure period will be conditioned to provide that they will not decrease the source of supply, disrupt stream conditions below the point of return, or adversely affect prior appropriators between the point of diversion and the point of return.

Walker Creek Basin

Location: Walker Creek is a tributary of the Whitefish River in Flathead County.

Effective Date: September 28, 1990

Information:

- The entire Walker Creek drainage, from its headwaters to its confluence with the Whitefish River, is contained in the closure area.
- No new appropriations of surface water for consumptive use can be made from July 1 - March 31 of each year.
- Permits for nonconsumptive use during the closure period will be conditioned to provide that they will not decrease the source of supply, disrupt stream conditions below the point

of return, or adversely affect prior appropriators between the point of diversion and point of return. Permits for nonconsumptive use are also subject to special conditions involving the measuring of inflow and outflow, construction of ponds and conveyance facilities to reduce loss by seepage, and filling of ponds during spring runoff or by June 1 (whichever comes first).

Towhead Gulch

Location: The Towhead Gulch drainage area is a tributary of the Missouri River at Upper Holter Lake in Lewis and Clark County.

Effective Date: January 17, 1992

Information:

- The entire Towhead Gulch drainage, from its headwaters to its confluence with the Missouri River, including Beartooth Creek and all unnamed tributaries, is contained in the closure area.
- Rattlesnake Gulch, McLeod Gulch, and their tributaries are not included in the basin closure.
- No new appropriations of surface water for consumptive use can be made during any time of the year.
- Permits for nonconsumptive use will be conditioned to provide that they will not decrease the source of supply, disrupt stream conditions below the point of return, or adversely affect prior appropriators between the point of diversion and the point of return.

Musselshell River

Location: The Musselshell River, from the headwaters of the North and South Forks (Meagher County), flows through Wheatland, Golden Valley, and Musselshell Counties, and forms an east-west boundary for Petroleum, Garfield, and Rosebud Counties.

Effective Date: June 26, 1992

Information:

- The closure area contains the mainstems of the North and South Forks of the Musselshell River, and the Musselshell River downstream to the mouth of Flatwillow Creek.
- No new appropriations of surface water for consumptive use can be made during the period of July 1 - August 31 of each year.
- During the period of September 1 - September 30, the only applications for consumptive use that will be accepted will be for supplemental irrigation.
- Permits for nonconsumptive use during the closure period will be conditioned to provide that they will not decrease the source of supply, disrupt stream conditions below the point of return, or adversely affect prior appropriators between the point of diversion and the point of return.

Sharrott Creek Basin

Location: Sharrott Creek is a tributary of McCalla Creek and is located in the Bitterroot River hydrologic basin in Ravalli County.

Effective Date: July 16, 1993

Information:

- The closure area is the entire Sharrott Creek drainage from its headwaters to its confluence with McCalla Creek, including all tributaries.

- No new appropriations of surface water for consumptive use can be made at any time of the year.
- Permits for nonconsumptive use will be conditioned to provide that they will not decrease the source of supply, disrupt stream conditions below the point of return, or adversely affect prior appropriators between the point of diversion and the point of return.
- Applicants for groundwater appropriations within the closure area must prove the groundwater is not substantially or directly connected to surface water. Applications for groundwater that would cause a calculable reduction in surface water flow will be rejected.

Willow Creek Basin

Location: Willow Creek is a tributary of the Bitterroot River in Ravalli County.

Effective Date: September 23, 1994

Information:

- The entire Willow Creek drainage from its headwaters to its confluence with the Republican Ditch, including all tributaries, is contained in the closure area.
- No new appropriations of surface water for consumptive use can be made from May 1 - September 30 of each year.
- Permits for nonconsumptive use will be conditioned to provide that they will not decrease the source of supply, disrupt stream conditions below the point of return, or adversely affect prior appropriators between the point of diversion and the point of return.
- Applicants for groundwater appropriations within the closure area must prove that groundwater is not substantially or directly connected to surface water. Applications for groundwater that would cause a calculable reduction in surface water during the closure period will be rejected.

Truman Creek Basin

Location: Truman Creek is a tributary of Ashley Creek in Flathead County.

Effective Date: February 10, 1995

Information:

- The entire Truman Creek drainage from its headwaters to its confluence with Ashley Creek, including Bales Creek, Emmons Creek, Wild Bill Creek, and all unnamed tributaries, is contained in the closure area.
- No new appropriations of surface water for consumptive use can be made from July 15 - August 31 of each year.
- Permits for nonconsumptive use will be conditioned to provide that they will not decrease the source of supply, disrupt stream conditions below the point of return, or adversely affect prior appropriators between the point of diversion and the point of return.
- Applicants for groundwater appropriations within the closure area must prove the groundwater is not substantially or directly connected to surface water. Applications for groundwater that would cause a calculable reduction in surface water flow during the closure period will be rejected.

Sixmile Creek Basin

Location: Sixmile Creek is a tributary of the Clark Fork River in Missoula County.

Effective Date: December 8, 1995

Information:

- The entire Sixmile Creek Drainage, including the West Fork of Sixmile Creek and all unnamed tributaries, is contained in the closure area.
- No new appropriations of surface water for consumptive use can be made from June 1 - September 15 of each year.

- Permits for nonconsumptive use will be conditioned to provide that they will not decrease the source of supply, disrupt stream conditions below the point of return, or not adversely affect prior appropriators between the point of diversion and the point of return.

Houle Creek Basin

Location: The Houle Creek basin is located in Missoula County.

Effective Date: September 20, 1996

Information:

- The entire Houle Creek drainage, from its headwaters to its confluence with the Frenchtown Irrigation District ditch, including all unnamed tributaries, is included in the closure area.
- No new appropriations of surface water for consumptive use can be made during any time of the year.
- Permits for nonconsumptive use will be conditioned to provide that they will not decrease the source of supply, disrupt stream conditions below the point of return, or adversely affect prior appropriators between the point of diversion and the point of return.
- Applicants for groundwater within the closure area must prove the groundwater is not part of, or substantially or directly connected to surface water. Applications for groundwater that would cause a calculable reduction in surface water flow at any time during the year will be rejected.

DEPARTMENT ORDERED MILK RIVER CLOSURES

The legislature gave authority to DNRC to order closures within the Milk River drainage basin in statute 85-2-321, MCA.

The following factors were considered in the DNRC orders: new water use from the source for certain types of applications will adversely affect prior users or developments that are already planned, and significant disputes or enforcement problems regarding the priority of rights or amounts or duration of water in use exist or will arise.

An individual or a public agency can request that DNRC modify or revoke an order. The request must show that the criteria in 85-2-311, MCA can be met by an application or type of application. Also, DNRC can hold a hearing and modify or revoke its order.

Mainstem of the Milk River

Location: The mainstem of the Milk River, from Eastern Crossing (at the Canadian border), through Hill, Blaine, Phillips, and Valley Counties to the Vandalia Diversion Dam.

Effective Date: January 1, 1983

Information:

- This DNRC order closes the area to new appropriations that are direct diversions without storage for irrigation or any other consumptive use.
- The periods of closure for the above type of appropriations are:
 1. Year-round from Eastern Crossing to Fresno Dam,
 2. June 15 - September 30 from Fresno Dam to Dodson Dam,

3. June 15 - September 30 from Dodson Dam to Vandalia Dam.
 - This area is closed because the occurrence of unappropriated water is so infrequent that any new appropriation from the source of the type described above will adversely affect the rights of prior appropriators on the source.
 - This closure is for surface water only and not for any groundwater appropriations, whether or not the water is hydrologically related to surface stream flow.

Southern Tributaries of the Milk River

Location: Miners Coulee, Halfbreed Coulee, Bear Creek, and all their respective tributaries in Toole and Liberty Counties.

Effective Date: September 1, 1991

Information:

- This DNRC order closes the area to new appropriations of surface water that are direct diversions without an on-source storage facility for irrigation or any other consumptive use during any time of the year.
- The area is closed because unappropriated water occurs so infrequently that any new appropriation from the source of the type described above will adversely affect the rights of prior appropriators on the source.
- Applications of up to 3 acre-feet per year for new domestic and stock watering purposes will be accepted.

LEGISLATIVE CLOSURES

Statute 85-2-319, MCA gives the legislature the authority to stop applications for new appropriations and applications for state water reservations in highly appropriated basins. The following closures were enacted by law.

Upper Clark Fork River Basin

Location: The Upper Clark Fork River basin is the drainage area of the Clark Fork River and its tributaries above Milltown Dam.

Effective Date: April 14, 1995

Information:

- DNRC may not process or grant an application for a permit to appropriate water within the Upper Clark Fork River basin.
- There are exceptions where DNRC may process or grant permit applications. These are:
 1. Applications filed before January 1, 2000 for permits to conduct environmental response actions or remedial actions at specially designated sites,
 2. Applications for permits for stock use,
 3. Applications for permits to store water,
 4. Applications for power generation at existing hydroelectric dams, and
 5. Applications for groundwater appropriations.
- Permits for remedial action may not be used for dilution and are limited to the time needed to complete the action. The total flow rate for all permits issued for remediation may not exceed 10 cubic feet per second.
- Applications for permits for groundwater appropriation must meet the criteria in 85-2-311, MCA. They must also contain a report prepared by a professional engineer or hydrologist addressing the hydrologic connection between the

groundwater and surface water. The source of groundwater cannot be part of or connected to surface water. The applicant must also provide an augmentation plan for replacing depletions to senior water rights.

- The legislature also created the Upper Clark Fork River Basin Steering Committee to review the closure every 5 years, and prepare reports on the instream flow pilot program and the relationship between the surface water and groundwater. The steering committee is also involved in water management and planning efforts, dispute resolution, and finding funding for new and expanded water storage sites.

Jefferson-Madison River Basin

Location: The Jefferson River basin is the drainage area of the Jefferson River and its tributaries above the confluence of the Jefferson and Madison Rivers. The Madison River basin is the drainage area of the Madison River and its tributaries above the confluence of the Madison and Jefferson Rivers.

Effective Date: April 1, 1993

Information:

- DNRC may not process or grant applications for permits to appropriate water or applications for state water reservations within the Jefferson River basin or the Madison River basin.
- There are exceptions where DNRC may process or grant permit applications. These are:
 1. Applications for permits for groundwater,
 2. Applications for permits for nonconsumptive use,
 3. Applications for permits for domestic, municipal, or stock use,
 4. Applications to store water during high spring flows, and
 5. Temporary emergency appropriations.

Teton River Basin

Location: The Teton River basin is the drainage area of the Teton River and its tributaries above the confluence of the Teton and Marias Rivers.

Effective Date: April 21, 1993

Information:

- DNRC may not process or grant applications for permits to appropriate water or applications for state water reservations within the Teton River basin.
- There are exceptions where DNRC may process or grant permit applications. These are:
 1. Applications for groundwater appropriations,
 2. Applications for nonconsumptive uses,
 3. Applications for domestic, municipal, or stock use,
 4. Applications to store water during high spring flows, and
 5. Temporary emergency appropriations.

Upper Missouri River Basin

Location: The Upper Missouri River basin is the drainage area of the Missouri River and its tributaries above Morony Dam.

Effective Date: April 16, 1993

Information:

- DNRC may not process or grant applications for permits to appropriate water or applications for state water reservations within the Upper Missouri River basin.
- This closure is temporary until final decrees have been issued for all of the subbasins of the Upper Missouri River basin.

- There are exceptions where DNRC may process or grant permit applications. They are:
 1. Applications to appropriate groundwater,
 2. Applications for nonconsumptive uses,
 3. Applications for domestic, municipal, or stock use,
 4. Applications to store water during high spring flows,
 5. Applications to use water from the Muddy Creek drainage in certain situations, and
 6. Temporary emergency appropriations.
- Applications to appropriate water from the Muddy Creek drainage (Muddy Creek drains into the Sun River) will only be approved if the use will help control erosion in the Muddy Creek drainage.

Bitterroot River Basin

Location: The drainage area of the Bitterroot River and its tributaries above the confluence of the Bitterroot River and Clark Fork of the Columbia River and designed as “Basin 76H”. The subbasins include the following hydrologically related portions of the Bitterroot River basin: mainstem subbasin 76HA; north end subbasin 76HB; east side subbasin 76HC; southeast subbasin 76HD; south end 76HE; southwest subbasin 76HF; west central subbasin 76HG; and northwest subbasin 76HH.

Effective Date: March 29, 1999 Terminates – 2 years after all water rights in the subbasin arising under the laws of the state are subject to an enforceable and administrable decree as provided in 85-2-406(4).

Information:

- DNRC may not process or grant an application for a permit to appropriate water or for a state water reservation.

The exceptions include:

1. An application for a permit to appropriate groundwater.
2. An application for a permit to appropriate water for a municipal water supply.
3. Temporary emergency appropriations as provided in 85-2-113(3).
4. An application to store water during high spring flow in an impoundment with a capacity of 50 acre feet or more.

Clark Fork River Basin

Location: The drainage area of the Clark Fork River and its tributaries above the Noxon Rapids hydropower facility.

Effective Date: April 8, 1999 Terminates - February 28, 2001

Information:

- DNRC may not process or grant an application for a permit to appropriate water for consumptive use or for a reservation to reserve water for consumptive use.
- The exceptions include:
 1. An application for a permit to appropriate groundwater.
 2. An application for a permit to appropriate water for domestic use, stock use, or municipal supply.
 3. Temporary emergency appropriations as provided in 85-2-113(3).
- The provisions of the Bitterroot River subbasin temporary closure, 85-2-344; the Upper Clark Fork basin closure, 85-2-335 through 85-2-337; and all administrative closures in the Clark Fork River basin supersede the provisions of this basin closure.

COMPACT CLOSURES

The State of Montana is negotiating with federal agencies and Indian tribes to determine the extent of the water rights claimed by the federal government and the tribes. The Reserved Water Rights Compact Commission (RWRCC) acts on behalf of the governor of Montana, facilitating the proceedings and participating in the negotiations.

When a compact is reached by RWRCC and the tribe or federal agency involved in negotiations, it must be ratified by the legislature of Montana, the tribal governing body, and the appropriate federal authority. When the compact becomes effective it is binding on all parties. Compacts are included in Montana's adjudication of existing water rights.

U.S. Fish and Wildlife Service - Montana Compact

Location: Benton Lake and Black Coulee National Wildlife Refuges

Effective Date: May 17, 1991

Information:

- DNRC may not issue permits or water reservations for consumptive use in the Lake Creek watershed, including the unnamed tributaries of Benton Lake, or in the Black Coulee watershed, upstream from the refuge.
- DNRC may issue certificates for groundwater wells and developed springs with a maximum appropriation of 35 GPM and 10 acre-feet per year.
- DNRC may issue permits for stock watering ponds and pits with a maximum capacity of less than 15 acre-feet and a maximum appropriation of less than 30 acre-feet per year from a source other than a perennial flowing stream.

Chippewa Cree Tribe of the Rocky Boy's Reservation - Montana Compact

Location: Big Sandy Creek and its tributaries from its headwaters to its confluence with the Milk River, Beaver Creek and its tributaries from its headwaters to its confluence with the Milk River

Effective Date: April 15, 1997

Information:

- DNRC shall not issue permits in the Big Sandy Creek basin and Beaver Creek drainage. Sage Creek and Lonesome Lake Coulee in the Big Sandy Creek basin are not included.
- The moratorium on new permits in the Big Sandy Creek basin and Beaver Creek drainage will be in effect for a minimum of 10 years, effective May 21, 1997. This moratorium may be lifted after 10 years.
- There are exceptions in these areas where DNRC may issue a permit. These exceptions are:
 1. Groundwater wells or developed springs with a maximum appropriation of 35 GPM and 10 acre-feet per year,
 2. Stock watering ponds and pits less than 15 acre-feet in capacity with appropriations of less than 30 acre-feet per year from a source other than a perennial flowing stream,
 3. Groundwater appropriations from any deep aquifer not hydrologically connected to surface water.
- There is also a moratorium of 5 years on development of tribal consumptive uses of surface water in the Beaver Creek drainage, effective May 21, 1997.
- During the 5 year moratorium, a monitoring network of three stations will collect data to determine if Beaver Creek gains or loses flow between the confluence of the East and West Forks and the reservation boundary.

Northern Cheyenne - Montana Compact

Location: All of Rosebud Creek basin from its headwaters to its confluence with the Yellowstone River, in Big Horn and Rosebud Counties.

Effective Date: May 17, 1991

Information:

- There is a moratorium on the issuance of new permits in the entire Rosebud Creek basin. The moratorium does not apply when the applicant has entered into a deferral agreement with the tribe to use Rosebud Creek basin water outside the reservation boundaries.
- The moratorium may be lifted if it is determined that water is available over and above the amount necessary to fulfill the tribal water right.

U.S. National Park Service - Montana Compact

Locations: Yellowstone National Park, Glacier National Park, Bighole National Battlefield, Bighorn Canyon National Recreation Area, and Little Bighorn Battlefield National Monument

Effective Date: January 31, 1994

Information:

A. Yellowstone National Park, Glacier National Park, and Bighole National Battlefield

- This compact set future consumptive use limits in certain areas around Bighole National Battlefield, Glacier National Park and the part of Yellowstone National Park that is in Montana. DNRC may issue permits in these areas, subtracting the new appropriation amounts from the future consumptive use limits. No more new permits may be issued once these limits have been met.

- The following streams will be closed to new appropriations when the future consumptive use limits have been reached:
 1. Bighole National Battlefield
North Fork of the Big Hole River and its tributaries, including Ruby and Trail Creeks (these streams are partially closed under the Jefferson/Madison Basin Closure).
 2. Glacier National Park (significant water remains available for new appropriations) Middle Fork and North Fork of the Flathead River.
 3. Yellowstone National Park (significant water remains available for new appropriations on all but Soda Butte Creek) Bacon Rind, Buffalo, Cottonwood, Coyote, Crevice, Dry Canyon, Hellroaring, Little Cottonwood, Slough, Snowslide, Soda Butte, and Tepee Creeks. Gallatin, Madison, and Yellowstone Rivers.
- Applications for groundwater appropriations of greater than 35 GPM or 10 acre-feet per year must contain a report prepared by a professional qualified in groundwater hydrology verifying the appropriation is not hydrologically connected to surface flow. If the report shows there is a connection and the future consumptive use limit has not been reached, the permit application can be approved but the amount of water will be subtracted from the limit. If the future consumptive use limit has been reached, the permit cannot be issued.
- A groundwater application for 35 GPM or less and 10 acre-feet per year or less does not require a hydrologic report. The application will be approved unless the United States files a valid objection. The amount of water will not be subtracted from the future consumptive use limits.

B. Bighorn Canyon National Recreation Area

- The compact set future consumptive use limits on four (4) streams in this area. They are Dry Head Creek, Deadman Creek, Davis Creek (also known as Medicine Creek), and Layout Creek. DNRC may issue permits on these streams, subtracting the amount of water appropriated from the

future consumptive use limits. Once these limits are met, no more permits may be issued on these streams.

- There are exceptions in this area where DNRC may issue new water rights without considering future consumptive use limits. These exceptions are:
 1. Nonconsumptive uses,
 2. Instream stock watering, and
 3. Stockwater and domestic uses from wells or developed springs with an appropriation of 35 GPM or less and 10 acre-feet per year or less.
- For applications for groundwater appropriations of greater than 35 GPM or 10 acre-feet per year, if the United States shows the proposed appropriation is hydrologically connected to surface water and the Future Consumptive Use limits have not been reached, the permit may be issued, but the amount of water will be subtracted from the limits. If the limits have been reached, the permit will not be granted.

C. Little Bighorn Battlefield National Monument

This is a Legislative closure within the Compact.

- The United States has a reserved right for instream flow from the Little Bighorn River. The amount is 51 cubic-feet per second from January 1 - December 31, and 950 cubic-feet per second for 15 days during the period of May 1 - June 30.
- When flow in the river drops below these amounts, the diversions of junior appropriators upstream from the Little Bighorn Battlefield and to whom the United States is not subordinate may be curtailed so that the flow rate in the river increases back to the reserved amount.
- Water rights with priority dates junior to the United States reserved right that are not subordinate to the United States and not affected by potential curtailment are:
 1. Instream stock use,
 2. Use of groundwater from wells or developed springs that is 35 GPM or less and 10 acre-feet per year or less,
 3. Nonconsumptive use,

4. Use of groundwater from wells that are outside of the Quaternary Alluvium or Quaternary Terrace Deposits of the Little Bighorn River and its tributaries, or the Parkman Sandstone,
5. Use of groundwater from wells that are greater than 35 GPM or 10 acre-feet per year, within the Quaternary Alluvium, Quaternary Terrace Deposits, or Parkman Sandstone, but are not determined to be hydrologically connected to the Little Bighorn River or its tributaries.

Crow Tribe - Montana Compact

Location: Bighorn River Basin, Little Bighorn River Basin, Pryor Creek Basin, Rosebud Creek Basin within the Reservation. Upstream from the point that each of the following streams or its tributaries leaves the Reservation: Youngs Creek drainage, Squirrel Creek drainage, Tanner Creek drainage, Dry Creek drainage, and Spring Creek drainage within Tongue River Basin; Sarpy Creek drainage within Yellowstone River Basin between Bighorn River and Tongue River; Cottonwood Creek drainage, Five Mile Creek drainage, and Bluewater Creek drainage within Clarks Fork Yellowstone River Basin; Sage Creek drainage within Shoshone River Basin; and, Fly Creek drainage, Blue Creek drainage, Dry Creek drainage, and Bitter Creek drainage within Yellowstone River Basin between Clarks Fork Yellowstone River and Bighorn River.

Effective Date: June 16, 1999

Information:

- DNRC shall not process or grant an application for an appropriation in the above locations.

- The exceptions include:
 1. Appropriation of groundwater by means of a well or developed spring with a maximum appropriation of 35 gallons per minute or less, not to exceed 10 acre-feet per year.
 2. An appropriation of water for use by livestock if the maximum capacity of the impoundment or pit is less than 15 acre-feet and the appropriation is less than 30 acre-feet per year and is from a source other than a perennial flowing stream.
 3. Temporary emergency appropriations as provided in 85-2-113(3) MCA.

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Department of Natural Resources and Conservation

Water Resources Division

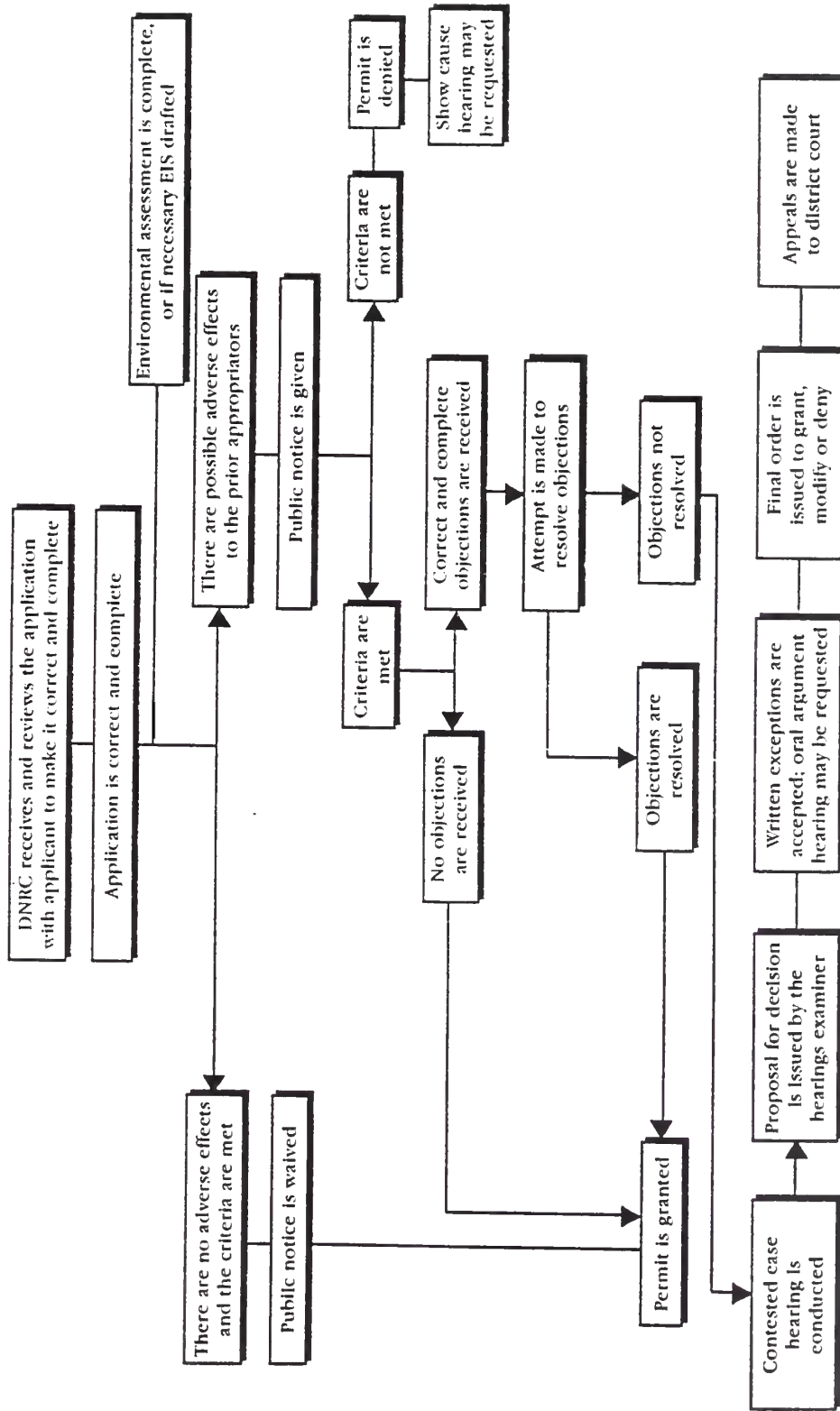
48 North Last Chance Gulch

P.O. Box 201601

Helena, MT 59620-1601

Phone: 406-444-6603/Fax: 406-444-0533/TDD: 406-444-6873

Water Permit Application Process



Appendix Three: Types of Applications

Montana Water Right Forms include:

- Application for Beneficial Water Use Permit
- Notice of Completion of Ground water Development
- Well Log Report
- Application for Provisional Permit for Completed Stockwater Pit or Reservoir
- Application for Change of Appropriation Water Right
- Application for Extension of Time
- DNRC Water Right Ownership Update
- Water Right Dispute Options
- Objection to Application
- Notice of Completion of Permitted Water Development
- Notice of Completion of Change of Appropriation Water Right
- Notice of Water Right

Appendix Four: Montan's Adjudication Status

Adjudication Status

Sorted by drainage basin number

[area map](#)

Basin #	Decree Type	Date Issued	Basin Name
38H	FINAL	840327	BELLE FOURCHE RIVER, ABOVE CHEYENNE RV
39E	TEMPORARY	850201	BOXELDER CREEK
39F	TEMPORARY	850201	LITTLE MISSOURI RIVER, ABOVE LITTLE BEAVER CR.
39FJ	TEMPORARY	850131	LITTLE BEAVER CREEK
39G	PRELIMINARY	850131	BEAVER CREEK, TRIB LITTLE MISSOURI RV.
39H	FINAL	840327	LITTLE MISSOURI, BELOW LITTLE BEAVER CR
40A	TEMPORARY	850507	MUSSELSHELL RIVER, ABOVE ROUNDUP
40B	24.58% examined	-----	FLATWILLOW CREEK, INCL. BOX ELDER CR.
40C	TEMPORARY	900206	MUSSELSHELL RIVER, BELOW ROUNDUP
40D	PRELIMINARY	840928	DRY CREEK
40E	TEMPORARY	850307	MISSOURI RIVER, BETWEEN MUSSELSHELL RV. AND FORT PECK DAM
40EJ	-----	-----	MISSOURI RIVER, BETWEEN BULLWACKER CR. & MUSSELSHELL RV.
40F	100% examined	-----	MILK RIVER, ABOVE FRESNO RESRV.
40G	TEMPORARY	831220	SAGE CREEK
40H	96.09% examined	-----	BIG SANDY CREEK
40I	93.13% examined	-----	PEOPLES CREEK
40J	99.88% examined	-----	MILK RIVER, BETWEEN FRESNO RESRV. & WHITEWATER CR.
40K	TEMPORARY	891121	WHITEWATER CREEK
40L	TEMPORARY	850116	FRENCHMAN CREEK
40M	99.38% examined	-----	BEAVER CREEK, TRIB MILK RV.
40N	PRELIMINARY	850813	ROCK CREEK, TRIB MILK RV.
40O	PRELIMINARY	950524	MILK RIVER, BELOW WHITEWATER INCL. PORCUPINE CR.
40P	FINAL	850522	REDWATER RIVER
NEW! 40Q	PRELIMINARY	991229	• <u>POPLAR RIVER</u>
40R	-----	-----	BIG MUDDY CREEK

NEW! 40S	PRELIMINARY	991229	• <u>MISSOURI RIVER, BELOW FORT PECK DAM</u>
40T	100% examined	-----	ST. MARY RIVER
41A	09.38% examined	-----	RED ROCK RIVER
41B	0% examined	-----	BEAVERHEAD RIVER
41C	TEMPORARY	901114	RUBY RIVER
41D	100% examined	-----	BIG HOLE RIVER
41E	TEMPORARY	850620	BOULDER RIVER, TRIB JEFFERSON RV.
41F	TEMPORARY	840725	MADISON RIVER
41G	TEMPORARY	891017	JEFFERSON RIVER
41H	TEMPORARY	851226	GALLATIN RIVER
41I	TEMPORARY	950308	MISSOURI RIVER, ABOVE HOLTER DAM
41J	-----	-----	SMITH RIVER
41K	TEMPORARY	850514	SUN RIVER
41L	100% examined	-----	CUT BANK CREEK
41M	20.49% examined	-----	TWO MEDICINE RIVER
41N	PRELIMINARY	840706	WILLOW CREEK
41O	1.08% examined	-----	TETON RIVER
41P	-----	-----	MARIAS RIVER
41Q	-----	-----	MISSOURI RIVER, FROM SUN TO MARIAS RVS.
41QJ	-----	-----	MISSOURI RIVER, FROM HOLTER DAM TO SUN RV.
41R	-----	-----	ARROW CREEK
41S	TEMPORARY	840517	JUDITH RIVER
41T	-----	-----	MISSOURI RIVER, FROM MARIAS RV. TO & INCL. BULLWACKER CR.
41U	TEMPORARY	840510	DEARBORN RIVER
42A	78.43% examined	-----	ROSEBUD CREEK
42B	-----	-----	TONGUE RIVER, ABOVE & INCL. HANGING WOMAN CR.
42C	-----	-----	TONGUE RIVER, BELOW HANGING WOMAN CR.
42I	-----	-----	LITTLE POWDER RIVER
42J	-----	-----	POWDER RIVER, BELOW CLEAR CR.
42K	PRELIMINARY	850919	YELLOWSTONE RIVER, BETWEEN TONGUE & POWDER RVS.
42KJ	90.38% examined	-----	YELLOWSTONE RIVER, BETWEEN BIGHORN & TONGUE RVS.
42L	FINAL	850417	O'FALLON CREEK
42M	-----	-----	YELLOWSTONE RIVER, BELOW POWDER RV.

43A	TEMPORARY	880803	SHIELDS RIVER
43B	TEMPORARY	850116	YELLOWSTONE RIVER, ABOVE & INCL. BRIDGER CR.
43BJ	TEMPORARY	850403	BOULDER RIVER, TRIB YELLOWSTONE RV.
43BV	TEMPORARY	841219	SWEET GRASS CREEK
43C	TEMPORARY	851107	STILLWATER RIVER
43D	TEMPORARY	930609	CLARKS FORK YELLOWSTONE RIVER
43E	100% examined	-----	PRYOR CREEK
43N	-----	-----	SHOSHONE RIVER
43O	-----	-----	LITTLE BIGHORN RIVER
43P	-----	-----	BIGHORN RIVER, BELOW GREYBULL RV.
43Q	TEMPORARY	981219	<ul style="list-style-type: none"> • <u>YELLOWSTONE RIVER, BETWEEN CLARKS FORK YELLOWSTONE & BIGHORN RV.</u>
43QJ	PRELIMINARY	850723	YELLOWSTONE RIVER, FROM BRIDGER CR. TO CLARKS FORK YELLOWSTONE
76B	TEMPORARY	840322	YAAK RIVER
76C	TEMPORARY	840228	FISHER RIVER
76D	TEMPORARY	840322	KOOTENAI RIVER
76E	TEMPORARY	840329	ROCK CREEK, TRIB CLARK FORK RV.
76F	-----	-----	BLACKFOOT RIVER
76G	TEMPORARY	850517	CLARK FORK, ABOVE BLACKFOOT RV.
76GJ	TEMPORARY	840329	FLINT CREEK
76H	sub-basins:	-----	BITTERROOT RIVER
76HA	41.33% examined		BITTERROOT RIVER, MAIN STEM
76HB	TEMPORARY	920916	BITTERROOT RIVER, NORTH END
76HE	TEMPORARY	940525	BITTERROOT RIVER, SOUTH END
76HF	PRELIMINARY	980114	<ul style="list-style-type: none"> • <u>BITTERROOT RIVER, WEST SIDE</u>
76I	TEMPORARY	840809	FLATHEAD RIVER, MIDDLE FORK
76J	TEMPORARY	840809	FLATHEAD RIVER, SOUTH FORK
76K	TEMPORARY	840809	SWAN RIVER
76L	-----	-----	FLATHEAD RIVER, BELOW FLATHEAD LK.
76LJ	-----	-----	FLATHEAD RIVER, TO & INCL. FLATHEAD LK.
76M	TEMPORARY	841129	CLARK FORK, BETWEEN BLACKFOOT & FLATHEAD RVS.
76N	TEMPORARY	840228	CLARK FORK, BELOW FLATHEAD RV.

Last updated December 1999

Nevada

Appendix One: Types of Applications

Water Rights Related Forms:

- Water Right Application - New
- Water right Application - Change
- Water Right Application -
Temporary
- Water Right Application -
Environmental
- Proof of Completion of Work
- Proof of Beneficial Use
- Resumption of Use
- Extension of Time
- Extension of Time to Prevent
Forfeiture
- Proof of Use for Stockwater or
Wildlife
- Proof of Appropriation for Irrigation
- Protest Form

STATE OF NEVADA

Department of Conservation and Natural Resources
DIVISION OF WATER RESOURCES

**Summary of Statutory Procedure in
Making Application for a Water
Right and Filing Proofs
of Appropriation
and
Fees Set by Statute**

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SUMMARY OF STATUTORY PROCEDURE IN MAKING APPLICATION FOR A WATER RIGHT AND FILING PROOFS OF APPROPRIATION AND FEES SET BY STATUTE

The water of all sources in Nevada belongs to the public. Water may be appropriated as provided by Nevada Water Law, and not otherwise.

A water right cannot be acquired by adverse possession.

This pamphlet summarizes Nevada requirements concerning proofs of appropriation and water right applications and permits, and is not intended to be a comprehensive explanation of requirements established by Nevada Water Law or by the State Engineer pursuant to Nevada Water Law. A knowledgeable person should be consulted concerning water right requirements. Water right requirements may vary from place to place and from time to time throughout Nevada depending upon site conditions, water availability and water demand. Division of Water Resources staff is available for assistance consistent with other work obligations.

PROOF OF APPROPRIATION OF VESTED RIGHTS

What Is a Vested Right?

Beneficial use is the basis, the measure, and the limit of the right to use water. Some common beneficial uses are irrigation, stockwatering, mining and milling, and domestic. Vested rights to surface waters are those rights for which the work to establish beneficial use was initiated prior to March 1, 1905, the date of adoption of Nevada's Water Law. Vested rights from an underground source are those rights initiated prior to March 22, 1913 for artesian water and prior to March 22, 1939 for percolating water. The process that determines the extent of all vested rights on a water source is called an adjudication. An adjudication is initiated by order of the State Engineer. All claimants to vested rights on a particular source must file their proofs of appropriation and supporting maps in accordance with the State Engineer's order. In the absence of an order, claimants to vested rights may wish to file their proofs and supporting maps in order to inform the State Engineer and any applicant for a permitted right on the same source that the vested right exists. In this case, the supporting map need not be filed until the State Engineer orders the time for taking proofs in an adjudication process.

Filing a Proof of Appropriation

Any claimant to a vested right may file his claim in the Office of the State Engineer by completing and filing a Proof of Appropriation form. The proof must be accompanied by the statutory filing fee of \$50.00 for stockwatering and \$100.00 for all other uses. A supporting map prepared by a State Water Right Surveyor must be submitted by the time ordered by the State Engineer in an adjudication process.

The Adjudication Process

Chapter 533 of the Nevada Revised Statutes governs adjudication proceedings. A brief summary of steps involved in an adjudication proceeding follows:

1. One or more water users on a stream system may petition the State Engineer to begin adjudication proceedings. In the absence of a petition, the State Engineer may initiate the proceedings.
2. The State Engineer investigates facts and conditions concerning the stream system and determines if he will enter an Order granting the petition.
3. If the petition is granted the State Engineer notifies all claimants and has a Notice of Order and Proceedings published for four weeks in a newspaper nearest the stream system.
4. The next step in the process is filing the proofs and title reports by the claimants according to the schedule published in the Notice of Order for taking proofs.
5. From the evidence submitted during the period for taking Proofs, a Preliminary Order of Determination is prepared by the State Engineer. The Preliminary Order allocates the waters of the stream system to claimants having valid vested rights.
6. All evidence submitted during the period for taking Proofs and used in preparing the Preliminary Order is subject to inspection in the office of the State Engineer by any claimant, for a period of 20 days or more.
7. The Preliminary Order of Determination is subject to objections by any of the claimants, and if objections are filed a hearing is held before the State Engineer.
8. Next, an Order of Determination is prepared by the State Engineer and is submitted to all claimants and to the District Court having jurisdiction. All evidence and maps are also forwarded to the District Court.
9. Any claimant may file an exception to the Order of Determination and be heard before the District Judge at a hearing.
10. The District Judge then enters Findings of Fact, Conclusions of Law and the Decree, which determines the water rights on the stream system.

Each claimant must pay his proportionate share of the costs involved in the proceedings such as publications costs, map reproduction costs, court reporter costs, etc. These costs do not include the fee to be paid to a State Water Right Surveyor for the survey and map preparation or the filing fee which is required at the time the proof is filed.

PERMIT TO APPROPRIATE

THE APPLICATION

To acquire a new water right, an application on a form supplied by the Division of Water Resources (DWR) must be filed with the State Engineer. The application must be supported by a map prepared in prescribed form by a State Water Right Surveyor (a Registered Land Surveyor or Registered Professional Engineer duly licensed as a State Water Right Surveyor by the State Engineer). The supporting map must show the point of diversion and place of use within the proper legal subdivisions. These map locations must coincide with the physical locations, so that all interested parties will have accurate information describing the proposed appropriation of water.

Since the State Water Right Surveyor has had the opportunity to become familiar with issues related to the acquisition of a water right, he can usually answer many questions which arise. A complete list of licensed State Water Right Surveyors is available upon request from the DWR.

Once the properly completed application, map and statutory filing fee have been received by the DWR office in Carson City, the application is indexed and processed. As required by law, the division sends a summary copy of the application to a newspaper of general circulation in the county where the proposed point of diversion is located. This notice is published in the newspaper once a week for four consecutive weeks. For 30 days following the last date of publication, any interested person may file a protest with the State Engineer. The protest should set forth with reasonable certainty the grounds on which the protest is being submitted and whether the protestant seeks denial of the application or conditional approval (NRS 533.365).

After 30 days from the last date of publication, the application becomes ready for action. The State Engineer then makes a determination whether to grant or deny the application. The State Engineer may conduct field investigations and/or public hearings to develop a complete record.

ENVIRONMENTAL PERMIT

"Environmental Permit" means a temporary permit to appropriate water to avoid the pollution or contamination of a water source.

The State Engineer may approve an application for an environmental permit without publication of a notice of the application if:

- i. The application is accompanied by the prescribed fees and a copy of a letter or order issued by the Division of Environmental Protection of the State Department of Conservation and Natural Resources requiring the applicant to take steps to protect the environment;
2. The appropriation is in the public interest; and
3. The appropriation does not impair water rights held by other persons.

The State Engineer shall not issue an environmental permit for a period which is longer than the period set forth in the letter or order issued by the Division of Environmental Protection of the State Department of Conservation and Natural Resources requiring the applicant to take steps to protect the environment. Also, the State Engineer shall not change the use for which the environmental permit is issued.

The form for the application is provided by the DWR and is similar to the application to appropriate.

APPLICATION TO CHANGE

The point of diversion and place and manner of use of an existing right or portion thereof (permitted, certified, vested) may be changed subject to statutory criteria.

The statutory criteria for approval includes the proposed change may not impair existing rights or be detrimental to the public interest.

No application to change the point of diversion from one source to a totally different source can be granted, as an example, ground water to surface water.

The form for the application to change is provided by the DWR and is similar to the application to appropriate.

When a permit is issued under an application to change it is granted subject to all terms and conditions under which the original right was granted. The statutes also require that proofs of completion of work and beneficial use be filed under the permit to change.

All applications to change must be supported by a map, prepared by a licensed State Water Right Surveyor, showing the old point of diversions and/or place of use, and the new point of diversion and/or place of use. If the application to change is for irrigation purposes, a cultural map, prepared by a licensed State Water Right Surveyor, may be required to support the proof of beneficial use.

The application to change bears the same date of priority as the right proposing to be changed.

TEMPORARY CHANGES

The State Engineer may approve an application for a temporary change of point of diversion, manner of use, or place of use of water already appropriated without publication of a notice of the application, provided that the prescribed fees are paid and that the temporary change is in the public interest and does not impair water rights held by other persons. A "temporary change" permit may be granted for any period not to exceed one year.

THE PERMIT

Subject to availability of unappropriated water, existing rights and the public interest, water may be appropriated for any beneficial use. Where there is unappropriated water in the source, and where the proposed use or change does not tend to impair the value of existing rights, or to be otherwise detrimental to the public interest, the State Engineer is required by statute to approve the application.

The general policy of the State Engineer is to limit ground water withdrawals from a basin to the average annual recharge to the ground water basin or its "perennial yield." "Perennial yield" of a ground water basin may be defined as the maximum amount of natural discharge that can be salvaged each year over the long term by pumping without bringing about some undesired result. An example of an undesirable result, would be a decline in the static water level beyond a reasonable limit.

However, in basins where an outside source of supply is assured, the State Engineer may allow withdrawals in excess of the perennial yield through the designation of the basin and the issuance of temporary permits subject to revocation at a later date when water becomes available from an outside source. The Las Vegas Artesian Basin and Colorado River Basin are the only designated ground water basins in which "temporary revocable" permits have been issued. The State Engineer may revoke those permits, as provided by statute, when Colorado River water becomes available.

A permit to appropriate water grants the right to develop a certain amount of water from a particular source for a certain purpose and to be used at a definite location. In other words, the consent of the state is given in a manner provided by law to acquire use of waters and gives the holder of the permit a right to protect the water right. This can become a perfected appropriation only upon: (1) completion of the works of diversion; (2) the placing of the water to beneficial use; and (3) filing the proofs required. Such a right may be lost to the holder of the permit if he fails to meet the statutory requirements.

The basis and limit of use of water is beneficial use. Each permit is issued for a specific use of a specific quantity of water—a determination

made on the basis of data and information available to the State Engineer. The water must be put to use as authorized, and proof of that use must be made to the State Engineer within the time limits specified on the permit. In the case of extenuating circumstances such as litigation or large projects requiring long periods of time for planning, financing, and construction, extensions of time may be granted by the State Engineer. The exact amount of time depends on factors such as the manner of use and the amount of water to be used.

When the State Engineer issues a permit he establishes terms and conditions. These terms and conditions consist of general provisions stating that the permit is subject to all prior rights on the source, measuring device requirements and any special limitations or conditions that the State Engineer may impose. Diversion rates and annual duty of water that may be used are also set forth in the permit terms.

The permit terms also reflect the times required for filing proof of completion of work and proof of beneficial use. Perhaps most important of all is the signature of the State Engineer. He or his authorized assistant are the only persons in the state authorized to issue permits to appropriate the waters of the State of Nevada with the exception of Colorado River appropriations.

GENERAL TERMS ON PERMIT

Prior Rights

Since the basis of the water law in Nevada is the prior appropriation doctrine, all rights are issued subject to prior rights on the source. Note this: The date of priority is the date the original application was received by the State Engineer at the Division of Water Resources office in Carson City. All permits bearing an earlier date are "senior" and all permits bearing a later date are "junior."

Measuring Devices

The statutes require that suitable measuring devices be installed at or near the point of diversion.

Flowing Wells

Proposed points of diversion from underground sources in artesian basins must have valves to control flowing wells when they are not in use to prevent waste.

Wells Drilled Near Rivers

In cases where a well is drilled in a river plain the permit terms usually contain the provision that perforations shall not start less than 100 feet from the surface.

Amount of Diversion and Yearly Use

The amount of allowable diversion in cubic feet per second (c.f.s.) is also set out in the permit terms. This amount depends on what the applicant requests and what the State Engineer finds is reasonably necessary for the use sought in the application. Generally, the applicant is allowed the diversion needed to provide a sufficient head of water for distribution, but is limited to a seasonal or annual duty of water. The amount of water the permit holder will be allowed to divert annually (i.e. the duty) is a limitation noted. The State Engineer determines this duty from data and information showing the actual amounts needed in the same geographical area for existing permitted uses of the same type. Or, if the permit is for water to be used on land subject to a court decree, the duty allowed by the court may be used.

When the water appropriated from a source is going to be used to supplement water already supplied from other sources, the duty allowed will be limited to the amount necessary to reasonably fulfill the purpose of the use from all sources. For example, an owner has a parcel of land having a yearly duty of four acre-feet per acre from each of two or more sources for that parcel, will still be limited to a combined total duty of four acre-feet per acre from any and all sources.

Note, too, that every point of diversion for consumptive use, except wells used for "domestic" purposes, as defined in NRS 534.013, must have a permit, even though it may be used to serve the same land or purpose as another right.

Proofs

In several Nevada Supreme Court cases prior to the enactment of the Water Law, it was established that the date of priority of an appropriation "related back" to the beginning of the works of diversion for the appropriation. This rule became known as the Doctrine of Relation. It was also established that in order for an appropriator to maintain this early priority, he had to proceed with the appropriation and place the water to beneficial use within a reasonable time period, consistent with the magnitude of the project, good faith and diligent effort.

These principles were perpetuated by the legislature with the enactment of the Water Law. The date of priority of subsequent appropriations is set as the date of filing of the application with the State Engineer. In order to show that he is proceeding to perfect his water right in a reasonable manner (with due diligence), the permittee must file a Proof of Completion of Work and a Proof of Beneficial Use with the State Engineer, all within time limits specified on the permit.

Proof of Completion of Work

Proof of completion of work must be submitted within the time frame

EXTENSION OF TIME

The State Engineer may grant extensions of time for not more than one year for filing a proof, if the request for extension is based on proper circumstances. Requests must be filed before the time for filing the proof expires, and are not considered if filed prior to 30 days before the due date of the proof.

Generally the criteria for granting extensions includes: (1) court action or other problems incidental to the project making continuance of work under the permit impracticable; (2) when the permit holder has been proceeding with due diligence but is unable to complete the necessary work in time to file the proof; (3) economic conditions; (4) unanticipated natural conditions, etc.

“Due diligence” does not require unusual or extraordinary efforts, but only that which is usual, ordinary and reasonable with men engaged in like enterprises who seek speedy accomplishment of their designs.

CERTIFICATE OF APPROPRIATION

Once the proofs have all been filed and the other terms of the permit complied with, the State Engineer prepares a Certificate of Appropriation describing the use to be made of the water as shown on the Proof of Beneficial Use. The State Engineer records the certificate in the office of the Division of Water Resources, with a copy going to the permit holder. A certificated water right may be lost by forfeiture and/or abandonment.

The State Engineer may grant an extension of time to work a forfeiture, provided a proper request to do so is submitted prior to the five successive years of no use.

PROTESTS

Any interested person, withstanding, may protest the granting of an application within 30 days after the last date of publication. When an application is protested, and the reasons for protest appear to have merit, the DWR may hold a formal field investigation. All interested parties are notified to meet with a representative of the DWR, and are given a opportunity to state their position.

If the State Engineer feels he cannot reach a proper decision on the matter based on the information acquired at the field investigation, he may hold a public administrative hearing for the purpose of developing an additional record of testimony and evidence. It is optional with the applicant or protestant whether or not he shall be represented by “counsel.” The protestant to an application shall be considered as the plaintiff and will be requested to first present his testimony and evidence. The witnesses may be examined orally by and before the State Engineer.

established at the time the permit is issued. Before this proof can be filed the actual works of diversion must be completed—diversion works and/or ditches on a surface source; well, pump and motor on an underground source; a measuring device may be required. This proof may be filed any time after the permit is issued—provided the work is actually complete, but it must be submitted to the State Engineer’s office within 30 days after the due date shown on the permit and/or certified notice.

Proof of Beneficial Use

The proof of beneficial use is the final proof required by the terms of the permit. The filing date depends on the amount of work that the permit holder contemplated when he filed his application and what the State Engineer determines is a reasonable time to accomplish beneficial use.

For example: On irrigation permits, the due date depends on the amount of land the permit holder made application to irrigate. The more land to be irrigated, the longer the time considered for filing the proof. The same criteria hold for permits for other purposes—i.e., more extensive work may have more time for filing proof of beneficial use since at the time of filing the water must actually have been used in the manner for which the permit was granted. Good faith and reasonable diligence are the statutory criteria guiding the State Engineer (NRS 533.395) in considering extensions of time.

The physical conditions must exist as stated. Thus: When a permit holder or his authorized agent files proof of beneficial use, he must state under oath that the amount of water used, and the manner and place of use, are as described on the affidavit.

When the permit is for irrigation purposes, a cultural map prepared by a licensed State Water Right Surveyor, must accompany the beneficial use affidavit. The cultural map shows the kinds of crops and their acreages. A State Water Right Surveyor must also measure the amount of water being diverted, and the name of the surveyor, the date and amount of flow must be entered in the proper place on the Proof of Beneficial Use form. Proof of beneficial maps may be required for uses other than irrigation.

The map and measurement are basically for the permit holder’s protection in case the validity of the appropriation and the placing of water to beneficial use is challenged.

A permit holder may place less water on less land than granted on the permit. But when this occurs, the water right is then limited to that which was actually put to beneficial use. If the permittee has filed his Proof of Beneficial Use and then wants to expand to his originally permitted acreage, or use the water for it at a later date, he must obtain another permit.

Hearings will be conducted in such manner as the State Engineer deems most suitable to the particular case and technical rules of evidence do not apply.

The costs of the transcripts of the testimony are generally borne by the applicant and the protestant on a prorata basis.

APEALS

Should anyone feel he has been aggrieved by any order or decision of the State Engineer, he may appeal it in the District Court of the county in which the order or decision applies. (See NRS 533.450.)

On decreed stream systems, the court having jurisdiction at the time the decree was entered has continuing jurisdiction over matters relating to that Decree.

The appeal must be filed within 30 days following the State Engineer's order or decision. Notice of the appeal must be served personally or by certified mail on the State Engineer at his office in the State Capital, and a similar notice must be served personally or by certified mail on those parties affected by the appeal.

The State Engineer's decision is prima facie correct, and the burden of proof is on the party attacking the decision.

If a stay of the decision or order is requested, the appellant must post bond in an amount fixed by the court, within five days following service of notice of the appeal.

Appeal from judgment of the District Court on the matter may be taken to the State Supreme Court.

ARTIFICIAL GROUND WATER RECHARGE AND RECOVERY PROJECTS

Certain provisions of NRS Chapter 534 (534.250 thru 534.340) allow ground water basins to be utilized for artificial ground water recharge and recovery projects. Generally persons desiring to operate a project must first make application to, and obtain a permit from the Division of Water Resources. NRS 534.270 specifically sets forth the time elements, review and protest process and other guideline criteria that the State Engineer follows in processing and considering projects. Persons desiring to pursue a project or have interest or additional inquiry should contact the Division of Water Resources for assistance.

ASSIGNABILITY OF WATER RIGHTS

Once a permit is granted, the water must be used on the land and for the purpose described in the permit.

A water right is a form of property right and is protected as such. It

can be severed from the land only with the consent of the owner of record as reflected in the record in the DWR office.

Water rights are appurtenant to the land and are conveyed by deed with the land unless the seller specifically reserves all or portions of the water right in the deed. Every water right conveyance document must be filed in the Office of the County Recorder in each county where the water is applied to beneficial use or diverted from the source. Upon transfer of a water right a Report of Conveyance must be filed with the State Engineer. The State Engineer shall confirm the Report of Conveyance upon the proper filing of the report, the payment of the prescribed fees, provided no conflict exists in the chain of title, and the State Engineer is able to determine the rate of diversion and the amount of acre-foot or million gallons from the conveyance document. The water right number should be listed in each document.

"Guidelines for Transferring Ownership of Water Rights" and for filing the Report of Conveyance of title are available from the Division of Water Resources upon request.

DAMS

Any person wishing to construct, reconstruct or alter any dam must notify the Division of Water Resources prior to starting construction. If required by the State Engineer and for any dam which impounds more than 20 acre-feet or which is 20 feet or more in height as measured from the downstream toe to the crest of the dam, must file a dam application on a form provided by the DWR at least 30 days before construction is to begin. This application must be accompanied and supported by three sets of the plans and specifications prepared and signed by a Nevada Registered Professional Engineer.

In addition if the applicant has no valid water right which will be used in conjunction with the waters stored in the reservoir, he must file an application for permission to store the amount of water he will impound. This form is available from the DWR.

When the State Engineer is satisfied that the proposed construction meets proper standards, he notifies the applicant of his approval. The statutes prohibit construction and use of any dam before that official approval—except dams built by the Bureau of Reclamation or the United States Army Corps of Engineers. However, these agencies are still required to file duplicate plans and specifications with the State Engineer.

A publication which contains instructions and sample drawings to assist an applicant in the preparation of the application and plans and specifications for a dam is available in the DWR at Carson City.

WELL DRILLERS AND WELLS

NRS 534.140 provides that every well driller, before engaging in the physical drilling of a well for development of water, shall annually make application to the State Engineer and be granted a license to drill water wells. A fee of \$100 shall accompany each application for a well driller's license and a fee of \$50 shall be paid each year for renewal thereof. In addition, every well driller who is the owner of a well drilling rig, or who has a well drilling rig under lease or rental or who has a contract to purchase a well drilling rig, shall obtain a license as a well driller from the State Contractors Board. *All water wells, including domestic wells, must be drilled by a licensed driller.*

All drillers are required to submit "intent to drill" cards three (3) working days before starting the well, and a well log within 30 days of its completion. These forms are furnished by the DWR.

Regulations for drilling water wells in the State of Nevada are available from the Division of Water Resources upon request. Well drillers and owners of wells should review the regulations before engaging in well drilling operations especially in designated ground water basins.

STATUTORY FEES

The following fees shall be collected by the State Engineer:

- For examining and filing an application for a permit to appropriate water..... \$250.00
This fee includes the \$50 cost of publication.
- For examining and acting upon plans and specifications for construction of a dam, in addition to the actual cost of inspection..... 500.00
- For examining and filing an application for each permit to change the point of diversion, manner of use, or place of use of an existing right..... 150.00
This fee includes \$50 cost of publication.
- For issuing and recording each permit to appropriate water for any purpose, except for generating hydroelectric power which results in nonconsumptive use of the water or watering livestock or wildlife purposes..... 150.00
Plus \$2 per acre-foot approved or fraction thereof.

STATUTORY FEES—Continued

- For issuing and recording each permit to change an existing right whether temporary or permanent for any purpose, except for generating hydroelectric power which results in nonconsumptive use of the water, or for watering livestock or wildlife purposes which change the point of diversion or place of use only..... \$100.00
Plus \$2 per acre-foot approved or fraction thereof.
- For issuing and recording each permit to change the point of diversion or place of use only of an existing right whether temporary or permanent for irrigational purposes..... 200.00
- For issuing and recording each permit to appropriate or change the point of diversion or place of use of an existing right only whether temporary or permanent for watering livestock or wildlife purposes for each second-foot of water approved or fraction thereof..... 50.00
- For issuing and recording each permit to appropriate or change an existing right whether temporary or permanent for water for generating hydroelectric power which results in nonconsumptive use of the water for each second-foot of water approved or fraction thereof..... 100.00
This fee must not exceed \$1,000.
- For examining and filing the application for the environmental permit..... 150.00
- For issuing and recording the environmental permit..... 150.00
Plus \$1 per acre-foot approved or fraction thereof.
- For filing a secondary application under a reservoir permit..... 200.00
- For approving and recording a secondary permit under a reservoir permit..... 200.00
- For reviewing each tentative subdivision map..... 150.00
Plus \$1 per lot.
- For storage approved under a dam permit for privately owned nonagricultural dams which store greater than 50 acre-feet..... 100.00
Plus \$1 per acre-foot storage capacity.
This fee must be paid annually.

STATUTORY FEES—Continued

For filing proof of completion of work.....	\$10.00
For filing proof of beneficial use.....	50.00
For filing any protest.....	25.00
For filing any application for extension of time within which to file proofs.....	100.00
For examining and filing a report of conveyance filed pursuant to paragraph (a) of subsection 1 of sec- tion 3 of this act.....	25.00
Plus \$10 per conveyance document.	
For filing any other instrument.....	1.00
For making copy of any document recorded or filed in this office, for the first page.....	1.00
For each additional page or fraction thereof.....	.20
For certifying to copies of documents, records or maps, for each certificate.....	1.00
For each blueprint copy of any drawing or map, per square foot.....	.50
The minimum charge for a blueprint copy, per print.....	3.00
For examining and filing any character of claim to water (proof of appropriation of water), except for watering livestock or wildlife purposes.....	100.00
For examining and filing a proof of appropriation of water for watering livestock or wildlife purposes.....	50.00
For examining and filing an application for a permit to operate a project for recharge to, storage in, and recovery of water from an underground source.....	2,500.00

Appendix Three: Status of Adjudications

Nevada Division of Water Resources

Adjudication Section

			FEDERAL
SOURCE	COUNTY	STATUS	FILINGS
ALDER CREEK	HUMBOLDT	STATE DECREE	
AMARGOSA DESERT	NYE	PETITION FILED	
ANGEL CREEK AKA MCELANEY CREEK WATERSHED	ELKO	ORDER TAKING PROOFS	
ASH CANYON CREEK (SEE KINGS CANYON)	CARSON	CIVIL DECREE	
BAKER-LEHMAN CREEK	WHITE PINE	STATE DECREE	
BARBER CREEK	DOUGLAS	STATE DECREE	
BARTLETT CREEK	HUMBOLDT	STATE DECREE	
BASSETT CREEK	WHITE PINE	STATE DECREE	
BATTLE CREEK (INCL. BELL MORRELL & UNNAMED CR.)	HUMBOLDT	STATE DECREE	
BIG CANYON CREEK	WASHOE	STATE DECREE	
BIG SPRING & WARM SPRING & TRIBS.	WASHOE	STATE DECREE	
BIRCH CREEK	ELKO	PRELIMINARY ORDER	
BOTTLE CREEK	HUMBOLDT	STATE DECREE	
BOULDER SPRING, ET AL.	WASHOE	PETITION FILED	
BOWERS MANSION OVERFLOW	WASHOE	STATE DECREE	
BROAD CREEK	NYE	ORDER TAKING PROOFS	
BROWNS CREEK	WASHOE	STATE DECREE	YES
BRUNEAU RIVER & JARBIDGE RIVER	ELKO	IN PROGRESS	YES
BRYAN CREEK	WASHOE	STATE DECREE	
BUFFALO CREEK	WASHOE	CIVIL DECREE	
BUFFALO CREEK (SEE McCONNELL)	HUMBOLDT	ORDER OF DETERMINATION	YES
BUSHEE CREEK	PERSHING	IN PROGRESS	
CCC SPRING (SEE BOULDER SPRING)	WASHOE	PETITION FILED	

CALLOWAY WELL	NYE	STATE DECREE	
CAMP CREEK	LINCOLN	STATE DECREE	
CANE SPRING CREEK	HUMBOLDT	STATE DECREE	
BRUNEAU RIVER & JARBIDGE RIVER	LANDER	STATE DECREE	
CARSON RIVER	CARSON, CHURCHILL, DOUGLAS, LYON	FEDERAL DECREE	
CHERRY CREEK, AKA LITTLE CHERRY CREEK	NYE	PETITION FILED	
CHIATOVICH CREEK	ESMERALDA	STATE DECREE	
CLEAR CREEK	PERSHING	STATE DECREE	
CLEAR CREEK	CARSON & DOUGLAS	CIVIL DECREE	
CLEAR CREEK (SEE DEEP HOLE SPRINGS)	WASHOE	PROOFS FILED	
CLEVE CREEK	WHITE PINE	PETITION FILED	
CLOVER VALLEY (SEE RUBY VALLEY)	ELKO	IN PROGRESS	
CLOVER WASH CREEK	LINCOLN	STATE DECREE	
COLD CREEK	LINCOLN	CIVIL DECREE	
COLD SPRINGS CREEK	WHITE PINE	STATE DECREE	
COLD SPRINGS	WASHOE	VACATED	
COLONEL MOORE CREEK	ELKO	PRELIMINARY ORDER	
CONWAY CREEK (SEE RUBY VALLEY)	ELKO	CURRENT ADJUDICATION	
COTTONWOOD CREEK	LANDER	PETITION FILED	
COTTONWOOD CREEK	EUREKA	PETITION FILED	
COTTONWOOD CREEK (SEE DEEP HOLE SPRINGS)	WASHOE	PROOFS FILED	
COYOTE CREEK	PERSHING	PROOFS FILED	
COYOTE SPRING (SEE BOULDER SPRING)	WASHOE	PETITION FILED	
CRAINE CREEK (INCL. COVE, KNOTT, LOVE, CORRAL, CENTER)	HUMBOLDT	STATE DECREE	
CRUM-WILSON	LANDER	STATE DECREE	
CURRENT CREEK	NYE	STATE DECREE	
DAGGETT CREEK, AKA HAINES CREEK & KINGSBURY CREEK	DOUGLAS	STATE DECREE	
DAVIS CREEK	WASHOE	STATE DECREE	

DEADMANS CANYON CREEK	WASHOE	STATE DECREE	
DEEPHOLE SPRS. - CLEAR CR., SQUAW V., LOST, GRASS V.,	WASHOE	PROOFS FILED	
COTTONWOOD, RED MOUNTAIN, & HOT CREEKS			
DESERT CREEK	ESMERALDA	CIVIL DECREE	
DEVILS CREEK	NYE	PROOFS FILED	
DIAMOND VALLEY	EUREKA	ORDER TAKING PROOFS	
DOG CREEK (SEE McCONNELL)	HUMBOLDT	ORDER OF DETERMINATION	YES
DUCK CREEK	WHITE PINE	CIVIL DECREE	
DUCKWATER AND CURRENT CREEKS	NYE	STATE DECREE	
EAGLE VALLEY CREEK	LINCOLN	STATE DECREE	
EAST HORSE CANYON CREEK	PERSHING	STATE DECREE	
EAST HORSE CANYON (SEE WRIGHT CANYON)	PERSHING	STATE DECREE	
EDEN CREEK	HUMBOLDT	PROOFS FILED	
EDGEWOOD (SMALL'S) CREEK	DOUGLAS	STATE DECREE	
EGAN CREEK	WHITE PINE	STATE DECREE	
ESPLINWELL NO. 1	NYE	DISMISSED	
EVANS CREEK (HUFFORD OR JAKES CREEK & WARM SPRING)	HUMBOLDT & ELKO	ABSTRACT OF CLAIMS	
FALLS CREEK (SEE McCONNELL)	HUMBOLDT	ORDER OF DETERMINATION	YES
FISH HATCHERY SPRINGS	WASHOE	STATE DECREE	
FITZHUGH CREEK, AKA MIX CREEK	WHITE PINE	CIVIL DECREE	
FRANKTOWN CREEK	WASHOE	STATE DECREE	
GENOA CEMETERY	DOUGLAS	ORDER FOR PETITION	
GENOA CREEK	DOUGLAS	CIVIL DECREE	
GLENBROOK CREEK	DOUGLAS	STATE DECREE	
GOLCONDA CANYON CREEK	PERSHING	STATE DECREE	
GOOSE CREEK	ELKO	STATE DECREE	
GRANITE CREEK (SEE DEEPHOLE SPRINGS)	WASHOE	PROOFS FILED	
GRASS V. CREEK (SEE DEEPHOLE SPRINGS)	WASHOE	PROOFS FILED	
HAINES CR. (SEE DAGGETT CR.)	DOUGLAS	STATE DECREE	
HARDSCRABBLE CREEK	WASHOE	PROOFS FILED	

HICKS SPRINGS & LONG CANYON & THEIR TRIBUTARIES	NYE	PETITION FILED	
HORSE CANYON CREEK, (SEE SACRAMENTO CANYON CREEK)	PERSHING	STATE DECREE	
HORSE CANYON SPRING (SEE BOULDER SPRING)	WASHOE	PETITION FILED	
HORSE CREEK (SEE McCONNELL)	HUMBOLDT	ORDER OF DETERMINATION	YES
HORSE SPRINGS	WASHOE	STATE DECREE	
HOT CREEK	NYE	PETITION FILED	
HOT SPRING (SEE DEEP HOLE SPRINGS)	WASHOE	PROOFS FILED	
HUMBOLDT RIVER	ELKO, EUREKA, LANDER, HUMBOLDT, PERSHING	STATE DECREE	
HUNTS CREEK	NYE	STATE DECREE	
ILLIPAH CREEK	WHITE PINE	CIVIL DECREE	
INDIAN CREEK AKA MCNETT CREEK	ESMERALDA	STATE DECREE	
INDIAN SPRINGS CREEK	HUMBOLDT	PETITION FILED	
JACKS VALLEY CREEK	DOUGLAS	CIVIL DECREE	
JUMBO CREEK	WASHOE	STATE DECREE	
KALAMAZOO CREEK	WHITE PINE	STATE DECREE	
KELLY CREEK	HUMBOLDT & ELKO	PETITION FILED	
KINGS CANYON CREEK, AKA ASH CANYON	CARSON	CIVIL DECREE	
KINGSBURY (AKA HAINES, DAGGETT) (SEE DAGGETT CREEK)	DOUGLAS	STATE DECREE	
KINGSTON CREEK	LANDER	STATE DECREE	
KING'S RIVER	HUMBOLDT	STATE DECREE	
K.C. (AKA CONWAY, RENSHAW) CREEK	ELKO	CIVIL DECREE	
LAST CHANCE (OPHIR, WISCONSIN, SUMMIT) CREEK	NYE	STATE DECREE	
LAS VEGAS ARTESIAN BASIN	CLARK	STATE DECREE	YES
LEIDY (ROBINSON)	ESMERALDA	STATE DECREE	
LEONARD CREEK	HUMBOLDT	STATE DECREE	
LEWERS CREEK	WASHOE	STATE DECREE	
LITTLE CHERRY CREEK (SEE CHERRY CR.)	NYE	STATE DECREE	

LITTLE HUMBOLDT RIVER	HUMBOLDT & ELKO	STATE DECREE	
LITTLE ROCKY CANYON CREEK, AKA POLE, WRIGHT CANYON CREEK	PERSHING	STATE DECREE	
LODGE SPRING (KINGSTON CANYON) (SEE SLAUGHTERHOUSE)	LANDER	STATE DECREE	
LONG SPRINGS	WHITE PINE	PETITION FILED	
LONGSTREET SPRING	NYE	PETITION FILED	
LUTHER CREEK, AKA FAIRVIEW CREEK	DOUGLAS	CIVIL DECREE	
MAHALA SPRINGS	WASHOE	STATE DECREE	
MANSE SPRINGS	NYE	STATE DECREE	
MARE SPRING & MARE PASTURE SPR. (SEE BOULDER SPRING)	WASHOE	PETITION FILED	
MARLETTE CREEK	WASHOE	PETITION FILED	
MATTIER CREEK	WHITE PINE	PRELIMINARY ORDER	
MCAFFEE CREEK	ESMERALDA	STATE DECREE	
MCCONNELL CREEK	HUMBOLDT	ORDER OF DETERMINATION	YES
MCEWEN CREEK	WASHOE	STATE DECREE	
MCFAUL CREEK	DOUGLAS	STATE DECREE	
MCCNETT CREEK (SEE INDIAN CREEK)	ESMERALDA	STATE DECREE	
MEADOW VALLEY WASH CREEK	LINCOLN	STATE DECREE	
MILL CREEK	WHITE PINE	PETITION FILED	
MONITOR VALLEY	NYE	ORDER OF DETERMINATION	YES
MOTT CREEK, ET AL., (CARSON VALLEY)	DOUGLAS	IN PROGRESS	
MUDDY RIVER	CLARK	STATE DECREE	
MUNCY CREEK	WHITE PINE	WAIVER OF NOTICES	
MUSGROVE CREEK	WASHOE	STATE DECREE	
NEWTON CREEK	WASHOE	STATE DECREE	
NIGGER CREEK	WHITE PINE	CIVIL DECREE	
NORTH AND SOUTH SPRINGS	NYE	STATE DECREE	
NORTH AND SOUTH TWIN RIVERS	NYE	STATE DECREE	
NORTH CANYON CREEK	CARSON & DOUGLAS	CIVIL DECREE	
NORTH CREEK	WASHOE	CIVIL DECREE	

NORTH LOGAN CREEK	DOUGLAS	STATE DECREE	
ODGERS CREEK	WHITE PINE	STATE DECREE	
OLINGHOUSE MINING DISTRICT	WASHOE	PRELIMINARY ORDER	
OPHIR CREEK	WASHOE	STATE DECREE	
OPHIR (SEE LAST CHANCE)	NYE	STATE DECREE	
OVERLAND CREEK	ELKO	STATE DECREE	
OWYHEE RIVER, EAST FORK	ELKO	IN PROGRESS	YES
OWYHEE RIVER, SOUTH FORK & LITTLE	ELKO	IN PROGRESS	YES
PAHRANAGET LAKE	LINCOLN	STATE DECREE	
PASS, BOYD & BIG CREEKS	HUMBOLDT	CIVIL DECREE	
PEAVINE CREEK	NYE	STATE DECREE	
PERRY-AIKEN, AKA SPANISH CREEK	ESMERALDA	CIVIL DECREE	
PETE HANSON, AKA SHIPLEY CREEK	EUREKA	STATE DECREE	
PETERSON CREEK	WASHOE	STATE DECREE	
PIERMONT CREEK	WHITE PINE	STATE DECREE	
PINCHOT CREEK	ESMERALDA	STATE DECREE	
PINE CREEK (SEE McCONNELL)	HUMBOLDT	ORDER OF DETERMINATION	YES
PINENUT CREEK	DOUGLAS	STATE DECREE	
PIUTE CREEK	HUMBOLDT	STATE DECREE	
PLEASANT VALLEY CREEK	PERSHING	PETITION FILED	
POLE CANYON CREEK (SEE WRIGHT CANYON)	PERSHING	STATE DECREE	
PONY CANYON CREEK	LANDER	ORDER ISSUED	
QUINN RIVER	HUMBOLDT	CIVIL DECREE	
REBEL CREEK	HUMBOLDT	STATE DECREE	
RED MOUNTAIN CREEK (SEE DEEPHOLE SPRING)	WASHOE	PROOFS FILED	
REESE RIVER	LANDER	PETITION FILED	
RENSHAW (SEE RUBY VALLEY)	ELKO	IN PROGRESS	
RICE CREEK	ELKO	STATE DECREE	
ROBINSON (AKA LEIDY) CREEK	ESNERELDA	STATE DECREE	
ROCK CREEK	HUMBOLDT	PROOFS FILED	
ROCK CREEK (SEE DEEPHOLE SPRING)	WASHOE	PROOFS FILED	

RODEO CREEK	WASHOE	STATE DECREE	
ROSE CREEK	HUMBOLDT & PERSHING	ORDER TAKING PROOFS	
RUBY VALLEY	ELKO & WHITE PINE	IN PROGRESS	
SACRAMENTO CANYON CREEK	PERSHING	STATE DECREE	
SALMON RIVER	ELKO	STATE DECREE	
SALT MARSH VALLEY HOT SPRINGS ET AL., AKA MCCOY SPRINGS	PERSHING	ORDER OF DETERMINATION	
SANTA ROSA CREEK	HUMBOLDT	STATE DECREE	
SHELL CREEK	WHITE PINE	STATE DECREE	
SCHOOL HOUSE CANYON CREEK	DOUGLAS	PETITION FILED	
SEIGEL CREEK	WHITE PINE	PETITION FILED	
SHADY CREEK (SEE RUBY VALLEY)	ELKO	CURRENT ADJUDICATION	
SIERRA CREEK	DOUGLAS	CIVIL DECREE	
SILVER CREEK	LANDER	STATE DECREE	
SILVER CREEK	WHITE PINE	CIVIL DECREE	
SIMPSON CREEK	EUREKA	ANNULLED STATE DECREE	
SIX MILE CREEK	ELKO	STATE DECREE	
SIX SPRINGS	WHITE PINE	CIVIL DECREE	
SLAUGHTERHOUSE SPRING (INCL. LODGE SPRING & KINGSTON CANYON)	LANDER	ORDER FOR TAKING PROOFS	
SMALLS CREEK (SEE EDGEWOOD)	DOUGLAS	STATE DECREE	
SMITH CREEK	LANDER	ORDER OF DETERMINATION	
SOLDIER CREEK	HUMBOLDT	STATE DECREE	
SONOMA CREEK	HUMBOLDT & PERSHING	STATE DECREE	
SPANISH, AKA PERRY-AIKEN CREEK	ESMERALDA	CIVIL DECREE	
SPEARMINT SPRING	MINERAL	PETITION FILED	
SPRING CANYON CREEK, (SEE ROCK CREEK)	HUMBOLDT	PROOFS FILED	
SQUAW VALLEY CREEK (SEE DEEPHOLE SPRING)	WASHOE	PROOFS FILED	
STAR CANYON CREEK	PERSHING	CIVIL DECREE	
STEELE CREEK, AKA WEEKS (SEE RUBY VALLEY)	ELKO	IN PROGRESS	

STEPTOE CREEK	WHITE PINE	STATE DECREE	
SUNNYSIDE CREEK	NYE	PETITION FILED	
SWALLOW CREEK	WHITE PINE	WAIVER OF NOTICES	
THIRD CREEK, AKA NORTH CREEK (SEE NORTH CREEK)	WASHOE	CIVIL DECREE	
THOUSAND SPRINGS CREEK	ELKO	STATE DECREE	
TONY CREEK	HUMBOLDT	STATE DECREE	
TRAIL CANYON CREEK	ESMERALDA	STATE DECREE	
TRUCKEE RIVER	CHURCHILL, LYON, STORY, WASHOE	FEDERAL DECREE	
TULEDAD CREEK	WASHOE	STATE DECREE	
UNIONVILLE CREEK, AKA BUENA VISTA CREEK	PERSHING	STATE DECREE	
VIRGIN RIVER	CLARK	STATE DECREE	
WALKER RIVER	DOUGLAS & LYON	FEDERAL DECREE	
WARM SPRINGS VALLEY CREEK	WASHOE	STATE DECREE	
WEAVER CREEK	WHITE PINE	CIVIL DECREE	
WHITE RIVER	WHITE PINE	STATE DECREE	
WHITES STREAM	HUMBOLDT	STATE DECREE	
WILLOW CREEK	HUMBOLDT	STATE DECREE	
WILSON CREEK	LINCOLN	STATE DECREE	
WINTERS CREEK	WASHOE	STATE DECREE	
WOOD CANYON CREEK, (SEE ROCK CREEK)	HUMBOLDT	PROOFS FILED	
WOOD GULCH CREEK	ELKO	STATE DECREE	
WOODS CREEK, AKA PRATT CREEK	ELKO	CIVIL DECREE	
WRIGHT CANYON CREEK, AKA POLE, L. ROCKY, EAST HORSE	PERSHING	STATE DECREE	

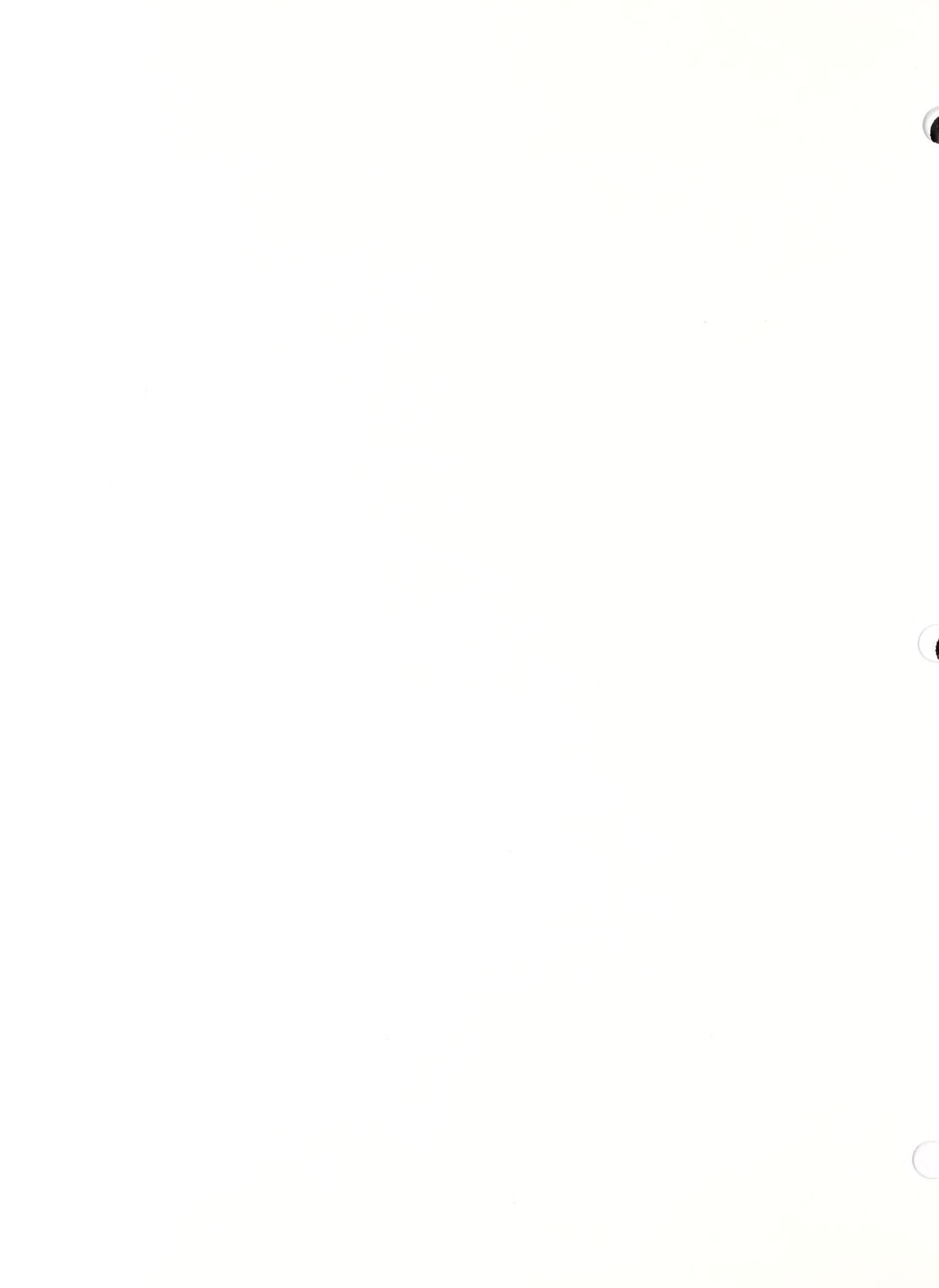
This listing is current as of June 19, 2000.


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Last Updated 06/14/01

NM



New Mexico

Appendix One: Types of Applications

Ground Water Rights Applications:

1.	Declaration of Water Right	\$1.00
2.	Application to Appropriate (Domestic, Stock)	\$5.00
3.	Application to Change Location Domestic Well	\$5.00
4.	Application to Repair or Deepen Domestic Well	\$5.00
5.	Application to Appropriate Irrigation, Municipal, Industrial or Commercial Use	\$25.00
6.	Application for Supplemental Well	\$25.00
7.	Application to Change Place or Purpose of Use	\$25.00
8.	Application to Change Location of Well and Place and/or Purpose of Use	\$50.00
9.	Application for Extension of Time	\$25.00
10.	Proof of Completion of Well and Proof of Beneficial Use	\$25.00
11.	Application to Change Point of Diversion and Place and/or Purpose of Use from Surface to Ground Water	\$50.00

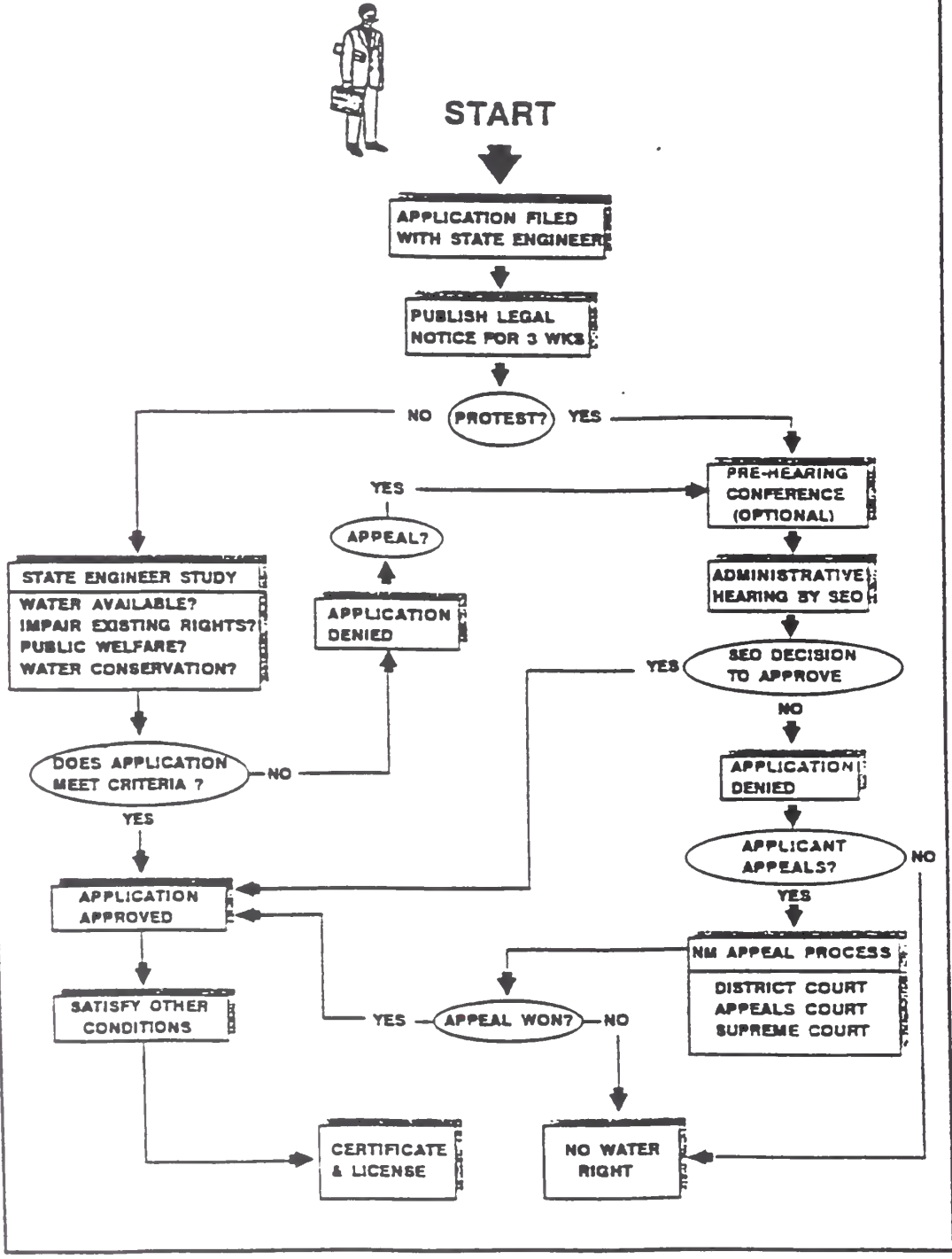
Surface Water Rights Applications:

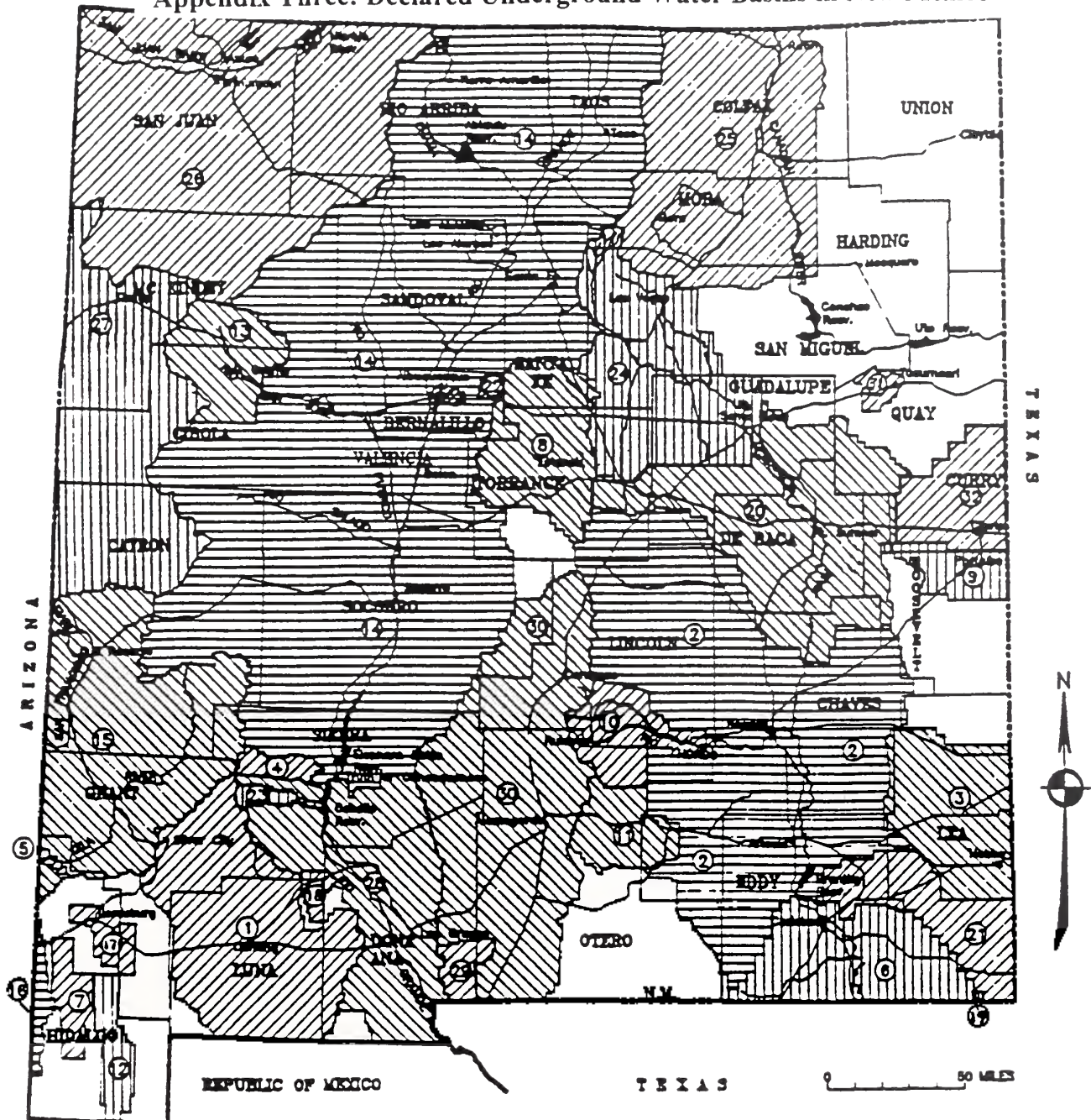
1.	Declaration of Water right	\$1.00
2.	Declaration of Livestock Dam	\$1.00
3.	Application to Appropriate	\$25.00
4.	Application to Change Point of Diversion	\$25.00
5.	Application to Change Place and/or Purpose of Use	\$50.00
6.	Application to Change Point of Diversion and Place and/or Purpose of Use	\$50.00
7.	Application for Extension of Time	\$50.00
8.	Proof of Completion of Well	\$25.00
9.	Proof of Beneficial Use	\$25.00
10.	Certificate of Construction	\$25.00
11.	License to Appropriate	\$25.00
12.	Application to Change Point of Diversion and Place and/or Purpose of Use from Ground to Surface Water	\$50.00

Miscellaneous Applications:

1.	Change of Ownership	\$2.00
2.	Application for Well Driller's License	\$50.00
3.	Application for Renewal of Well Driller's License	\$20.00
4.	Application to Amend Well Driller's License	\$5.00
5.	Hearing Fee	\$25.00

Flow Chart for Water Right Applications





DECLARED UNDERGROUND WATER BASINS IN NEW MEXICO

BASIN	AREA IN SQUARE MILES	BASIN	AREA IN SQUARE MILES
1. MIMBRES VALLEY	4,279	17. LORDSBURG	329
2. ROSWELL	10,779	18. NUTT-HOCKETT	133
3. LEA COUNTY	2,180	19. JAL	15
4. HOT SPRINGS	284	20. FORT SUMNER	4,924
5. VIRDEN VALLEY	19	21. CAPITAN	1,550
6. CARLSBAD	2,347	22. SANDIA	73
7. ANIMAS	426	23. LAS AMINAS CREEK	131
8. ESTANCIA	2,005	24. UPPER PECOS	3,842
9. PORTALES	628	25. CANADIAN RIVER	5,825
10. HONDO	1,101	26. SAN JUAN	9,727
11. PENASCO	903	27. GALLUP	5,424
12. PLAYAS VALLEY	515	28. LOWER RIO GRANDE	3,858
13. BLUEWATER	1,318	29. HUECO	255
14. RIO GRANDE	26,209	30. TULAROSA	6,070
15. GILA-SAN FRANCISCO	5,659	31. TUCUMCARI	177
16. SAN SIMON	263	32. CURRY	1,350

		102,598	

Note: This map was created in 1995. Since then, the Salt Basin has been added as a declared underground water basin. The Salt Basin is located in Southern New Mexico in Otero County, east of Highway 54 and bounded by Texas on the south.

Appendix Four: Cases when the State Engineer is required to issue a permit within an underground water basin:

1. An appropriation of up to three acre-feet per year for a well for water livestock, domestic use, or non-commercial irrigation (trees, lawn, garden, etc.) smaller than one acre.
2. An appropriation of up to three acre-feet for a maximum of one year for water use in prospecting, mining, or constructing public works, if the State Engineer finds that the proposed use will not impair existing water rights.



Oregon

Appendix One: Permit Application “Exempt Uses”

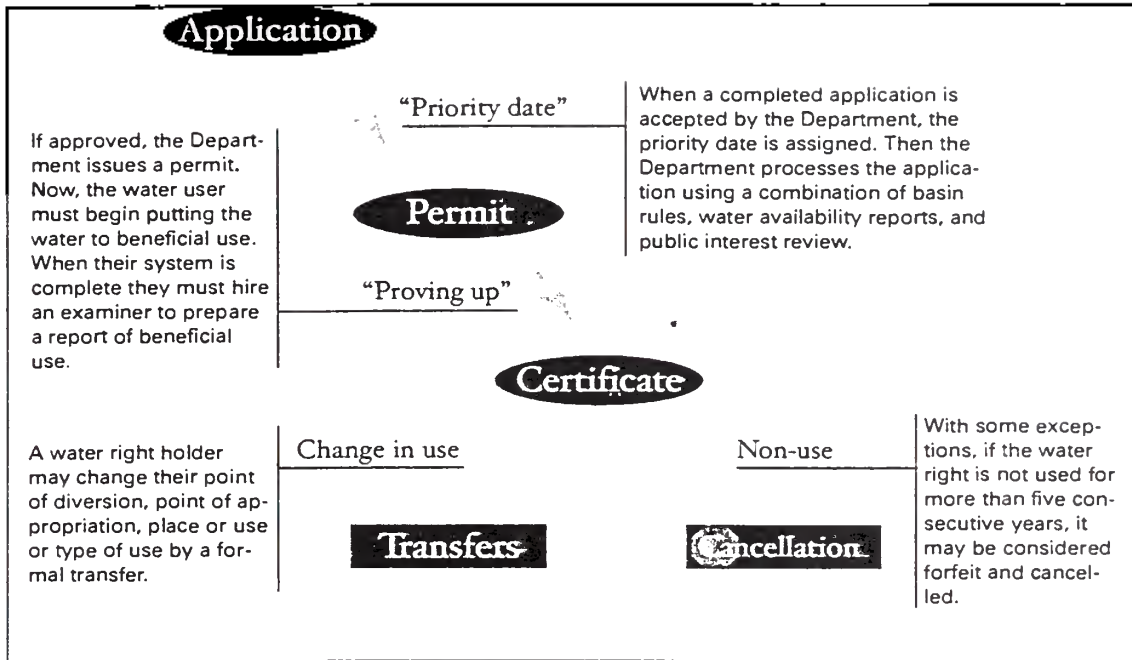
Uses of Surface Water that do not Require a Permit

1. Natural Springs - A landowner’s use of a spring which, under natural conditions, does not form a natural channel and flow off the property where it originates at any time of the year.
2. Stockwatering - Where stock drink directly from a surface water source and there is no diversion or other modification to the source. Also, use of water for stockwatering from a permitted reservoir to a tank or trough, and under certain conditions, use of water piped from a surface source to an off-stream livestock watering tank or trough
3. Salmon - Egg incubation projects under the Salmon and Trout Enhancement Program (STEP) are exempt. Also, water used for fish screens, fishways, and bypass structures.
4. Fire Control - The withdraw of water for use in, or training of, emergency fire fighting.
5. Forest Management - Certain activities such as slash burning and mixing pesticides. To be eligible, a user must notify the Department and the Oregon Department of Fish and Wildlife and must comply with any restrictions imposed by the Department relating to the source of water that may be used.
6. Land Management Practices - Where water use is not the primary intended activity
7. Rainwater - Collection and use of rainwater from an impervious surface (like parking lot or a building’s roof).

Uses of Groundwater that do not Require a Permit

1. Stockwatering
2. Lawn watering or noncommercial gardening of less than one-half acre
3. Limited school ground uses
4. Single or group domestic uses not exceeding 15,000 gallons
5. Down-hole heat exchanges
6. Single industrial or commercial uses not exceeding 5000 gallons per day

Appendix Three: Application Process



Appendix Four: Types of Applications

Water Right Application Forms:

- Application for Surface Water Permits
- Application for Ground Water Permits
- Application to Store Water

Supplemental Application Forms:

- Land Use Form
- Irrigation (Form I)
- Commercial/Industrial (Form Q)
- Mining Use (Form R)
- Municipal/Quasi-Municipal Water Use (Form M)
- Reclaimed Water Use Registration Form
- Water Right Transfer Application

Other Forms:

- Application for Allocation of Conserved Water
- Instream Lease Agreement
- Application for Limited Water Use License

Appendix Five:

State of Oregon Water Rights Requirements: A Quick Reference Key for the BLM

WHEN: you want to use water to support the primary purposes of one of the following federal reservations; AND the purposes of the reservation would be more effectively served through assertion of the federal reserved right;

THEN: use the table below.

When water is needed to support the primary purposes of one of the following federal reservations:	And the use of the water would occur . . .	Then:
<ul style="list-style-type: none"> • Public Water Reserve (PWR) Number 107, and other site-specific PWR withdrawals; • stock driveways; • mineral hot springs; • public oil shale withdrawals; • designated Wild and Scenic Rivers; and • national monuments/national conservation areas with explicit or implied federal reserved water rights. 	<p>in an area where a general stream adjudication has been completed.</p>	<p>Consult the Oregon State Office (OSO). File a Registration Statement of Claim.</p>
	<p>in an area where a general stream adjudication has <u>not</u> been completed.</p>	<p>Consult BLM Manual 7250 and the OSO. Wait for the OWRD to publish a Notice to Submit Claims. Otherwise, the federal government must initiate a lawsuit against the state to quantify federal reserved water rights.</p>

WHEN: your proposed use is not necessary to support the purposes of one of the federal reservations listed above; OR the purposes of the reservation would not be more effectively served through assertion of the federal reserved right;

THEN: use one of the following three tables:

Table 1: Changing Existing Uses of Water and Special Limited Uses Page 2

Table 2: New Uses of Ground Water Page 3

Table 3: New Uses of Surface Water Pages 4-6

TABLE 1. CHANGING EXISTING USES OF WATER AND SPECIAL LIMITED USES.

	You want to . . .	If:	Then:
<p>You want to change an existing use or use water for limited uses, such as road watering.</p>	<p>change the place of use, point of diversion, or type of use (except instream) on an <u>existing</u> water right.</p>	<p>You want to make a permanent change in use.</p>	<p>You must submit an Application for Water Right Transfer.</p>
		<p>You want to make a temporary change in the place of use (and, if necessary, point of diversion) for a period not to exceed five years.</p>	<p>You must submit an Application for Water Right Transfer and check the "temporary transfer" box on the form.</p>
	<p>change an <u>existing</u> water right to an instream water right.</p>	<p>You want to make a temporary change in <u>type</u> of use only.</p>	<p>This change is currently not allowed under Oregon water law. Go to Table 2 (ground water) or Table 3 (surface water).</p>
	<p>use water from an existing well or a surface water development or from a stream for road construction and/or maintenance, reforestation, harvesting, or vegetation management (but not for irrigation).</p>	<p>You want to permanently convert to an instream water right.</p>	<p>You must submit an Application for Water Right Transfer.</p>
		<p>You want to temporarily convert to an instream right for two years or less.</p>	<p>You must submit a Short-term Water Right Lease Agreement Form.</p>
		<p>You want to use the water for only a short time (up to one year, but no longer than five consecutive years).</p>	<p>You must submit an Application for a Limited Water Use License.</p>
		<p>You want to use the water for road maintenance, construction and/or reconstruction on an intermittent basis over the long term.</p>	<p>You must submit a Registration of Water Use for Road Maintenance and Construction.</p>

TABLE 2. NEW USES OF GROUND WATER






You want to begin a new use of ground water.	You want to . . .	If:	Then:
	use the water for emergency firefighting.		This use is exempt. No authorization from the OWRD is required.
	use water in a designated critical ground water area or ground water limited area.		Submit an Application for a Permit to Use Ground Water.
		You want to water livestock	This use is exempt.
		You want to water a lawn or non-commercial garden not exceeding ½ acre in area.	This use is exempt.
		You want to provide water for domestic use or group domestic use of no more than 15,000 gallons per day.	This use is exempt.
	use water that is <u>not</u> in a designated critical ground water area or ground water limited area.	You want to maintain an existing wetland.	You must submit a Registration (ORS 537.017).
		If you want to create a new wetland or enhance (expand) an existing wetland.	You must submit an Application for a Permit to Use Ground Water.
		If you want to use water for fire protection (prescribed fire), irrigation, wildlife, human consumption, recreation, or another beneficial use not listed above.	You must submit an Application for a Permit to Use Ground Water.


References

UT

VY

You want to begin a new use of surface water.	You want to . . .	If:	And If:	Then:
	use the water for emergency firefighting.	☞	☞	This use is exempt. No authorization from the OWRD is required.
	use the water for slash burning operations.	☞	☞	This use is exempt. Submit notice of the proposed use to OWRD and ODFW prior to the use.
	run water through a fish screen or fishway or for an egg incubation project under the Salmon and Trout Enhancement Program.	☞	☞	This use is exempt.
	build a guzzler.	☞	☞	This use is exempt.
	divert the water to water tanks or troughs from a reservoir for a use allowed under an existing water right permit or certificate for that reservoir.	☞	☞	This use is exempt.
	<p>use the water for livestock watering AND</p> <ul style="list-style-type: none"> • the water would be diverted from a stream or other surface water source to a trough or tank through an enclosed delivery system (e.g., pipeline); • the delivery system would either be equipped with an automatic shutoff or flow control mechanism or include a means for returning water to the surface water source through an enclosed delivery system; • the water use would be located on land where the livestock have access to both the use and source of the surface water; and • if the diversion system would be located within or above a state Scenic Waterway, the amount of water being used is no more than 1/10th of 1 cfs per 1,000 head of livestock. 	☞	☞	This use is exempt.

You want to . . .	If:	And If:	Then:
use or to impound surface water to create, restore, or enhance a wetland.			Submit a Registration (ORS 537.017).
divert a stream into a restored channel to improve riparian/aquatic conditions.			Submit a Registration (ORS 537.017).
develop a spring.	The spring does <u>not</u> form a channel and does not flow off of the public lands at any time of the year.		Exempt. Determine whether the spring qualifies as a PWR 107. If yes, go to Page 1.
	The spring flows off of the public lands or forms a channel.	You want to use water only for livestock watering and/or human consumption.	Determine whether the spring qualifies as a PWR 107. If yes, go to Page 1. If no, continue.
		You want to use water for livestock watering and wildlife use outside of riparian areas in order to protect or enhance a riparian area.	Submit a Registration (ORS 537.017).
	You want to use water for purposes other than livestock watering and wildlife use outside of riparian areas in order to protect or enhance a riparian area.		Submit an Application for a Permit to Use Surface Water.

You want to . . .	If:	And If:	Then:
	<p>It would be an off-channel reservoir or a diversion structure which provides water for livestock and wildlife use outside of riparian areas to protect or enhance a riparian area.</p>	<p></p>	<p>Submit a Registration (ORS 537.017).</p>
<p>build a reservoir, water hole or pump chance.</p>	<p>It would be an in-channel reservoir and you would <u>not</u> be diverting water out of the channel.</p>	<p>You want to build a reservoir with a dam height of less than 10 feet OR a reservoir that stores less than 9.2 acre-feet of water.</p>	<p>Submit an Application for a Permit to Store Water under the Alternate Review Process (ORS 537.409)</p>
	<p>It would be an in-channel reservoir or diversion and you want use the water out of the channel.</p>	<p>You want to build a reservoir with a dam height of more than 10 feet OR a reservoir that stores more than 9.2 acre-feet of water.</p>	<p>Submit an Application for a Permit to Use Surface Water.</p>
		<p>You want to the use water for irrigation.</p>	<p>Submit an Application for a Permit to Use Surface Water AND Supplemental Form "I".</p>
		<p>You want to use the water for mining.</p>	<p>If the BLM will hold the water right, submit an Application for a Permit to Use Surface Water AND Supplemental Form "R".</p>
		<p>You want to use the water for purposes other than irrigation or mining.</p>	<p>Submit an Application for a Permit to Use Surface Water.</p>

Utah

Appendix One: Types of Applications

- Application to Appropriate Water - Used to acquire a new water right. These applications can be Permanent, Temporary, or Fixed Time
- Diligence Claim - Filed when it can be shown that a surface water source has been in continuous use since before 1903 or an underground water source has been in continuous use since before 1935
- Application to Segregate a Water Right - Used to divide an unperfected water right into two or more separate and distinct water rights
- Application for Change of Water - Used to change the point of diversion, place, or nature of use of an existing water right. These applications can be Permanent or Temporary (less than one year)
- Application for Temporary Appropriation of Water - Used to appropriate water for a period of time less than one year
- Application for Appropriation for Fixed Time - Used to appropriate water for a specific amount of time when the state engineer feels that water is available for a limited period
- Application for Exchange of Water - Used to exchange points of diversion
- Application for Extension to Resume Use
- Application for Ground Water Recovery
- Application for Ground Water Recharge

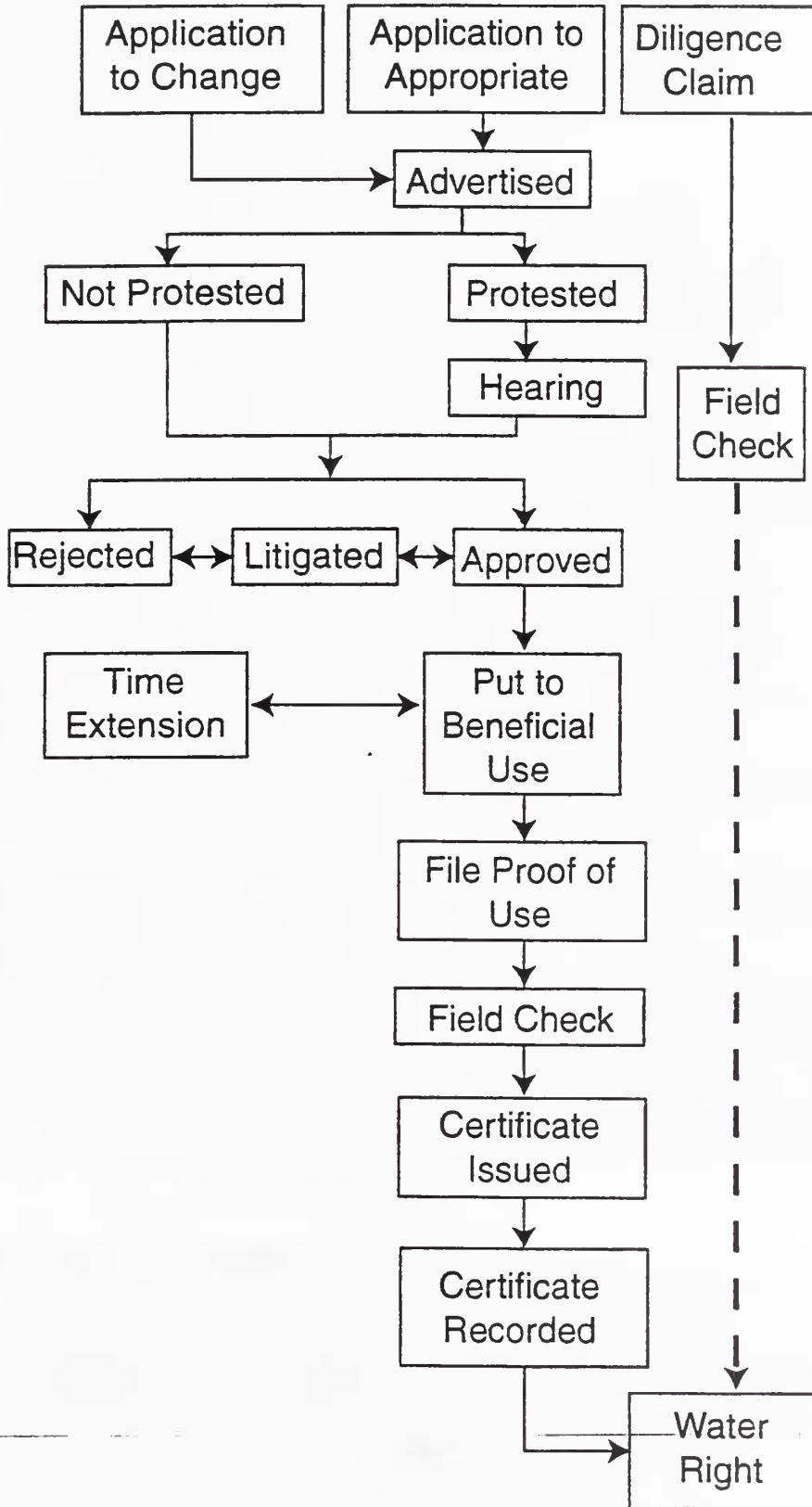
Appendix Two: If an Application is Protested:

- Applicant will receive a copy of any protest and will have the opportunity to submit a response. An application may be protested because of concern for water supply, environment, etc.
- An informal hearing may be held on both protested and unprotested applications. If a hearing is to be held, a date and place will be set. Hearings are held twice a year in each county throughout the state. The elapsed time before a hearing may depend on the schedule.
- Hearings are conducted by division representatives. Both applicant and protestants may state their positions. Each has the opportunity for rebuttal. They may represent themselves or obtain legal counsel.
- After the hearing, the state engineer will review the evidence. He then will approve, reject, or hold the application for further study.
- Applicant and protestants will be notified in writing of the state engineer's decision.
- An aggrieved party may file a Request for Reconsideration with the State Engineer within 20 days, and/or appeal to the District Court within 30 days of the decision.

Appendix Three: Items the State Engineer applies in assessing new application (or change in use or diversion point):

- Is there unappropriated water in proposed source?
- Will the proposed use impair existing rights or interfere with more beneficial uses of the water?
- Is the proposed plan physically and economically feasible?
- Does the applicant have the financial ability to complete the proposed works?
- Was the application filed in good faith and not for purposes of speculation or monopoly?
- Will it unreasonably affect public recreation or the natural stream environment?
- Will it be detrimental to the public welfare? Public welfare is not defined specifically by state law.

FLOW CHART OF WATER RIGHT ACQUISITION



Appendix Five: Beneficial Use Quantification

The quantity of water appropriated for beneficial use is expressed as a flow rate in cfs (cubic feet per second) and/or as a volume in acre-feet to be taken from a well, river, spring, etc. for the required purpose. The depletion figure is the quantity of water consumed which will be lost to the hydrologic system through the said use. Depleted water does not return to the surface water sources or underground aquifers via seepage, drainage, etc. but is consumed in the growth of plants and animals, evaporation, and transmission away from the area. The following figures are used for general quantification.

DOMESTIC (inside use only): Water diversion for a full-time (permanent residence) use is evaluated at 0.45 acre-foot per family. Part-time (seasonal or recreational) use is equated at 0.25 acre-foot per family. Depletion is generally 20% if using a septic tank or drain field system. It varies if the residence is connected to a community sewage system depending on the treatment method used and its distance away from the diverted source.

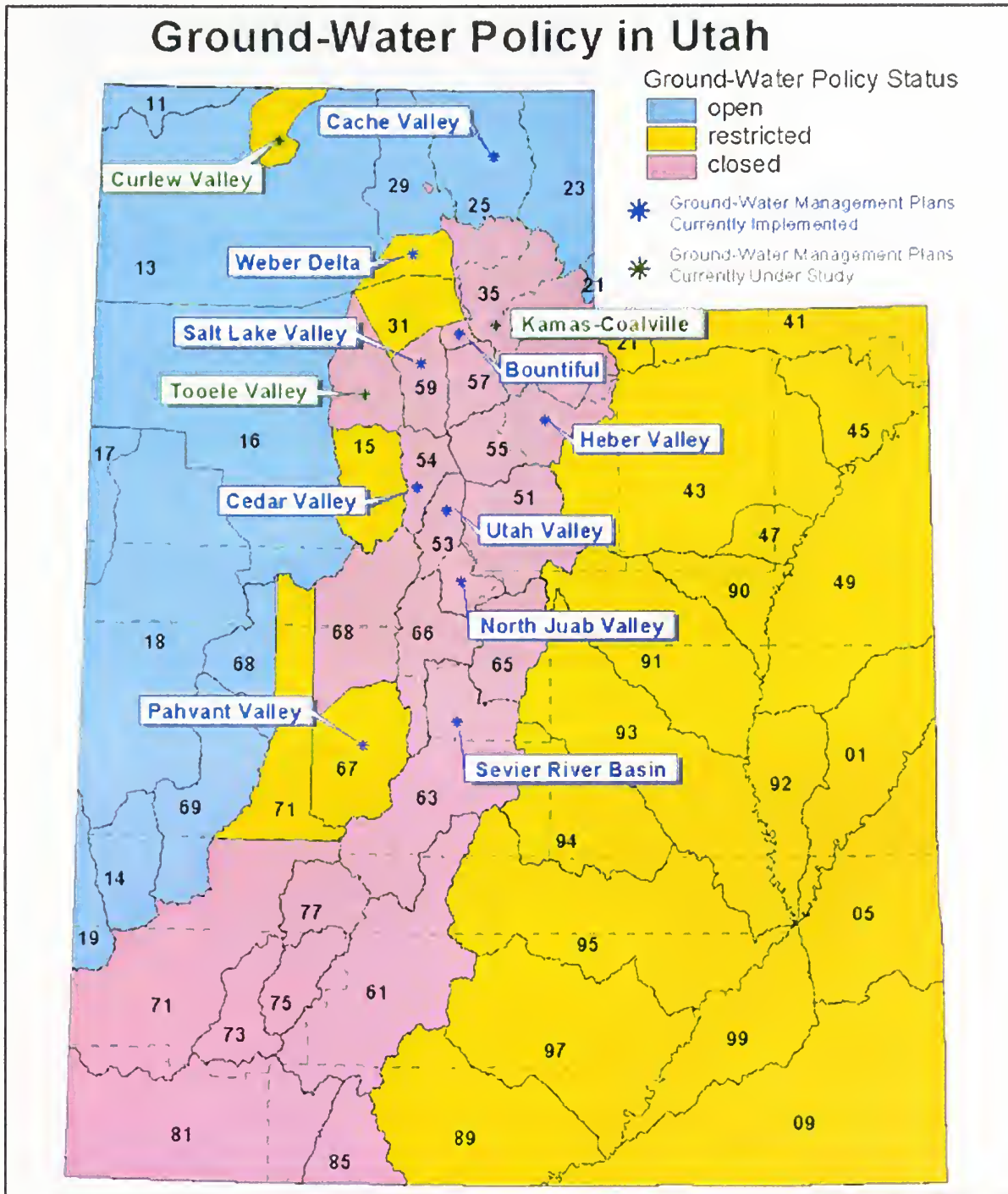
IRRIGATION (any outside watering): This purpose includes watering of crops, lawns, gardens, orchards, and landscaping. The diversion amount (irrigation duty) ranges from 2 acre-feet per acre in cool, mountain meadow areas to 6 acre-feet per acre in low, hot southern areas of the state. Higher, cooler valleys are generally 3 acre-feet per acre, and lower moderate areas 4 or 5 acre-feet per acre. If land is subirrigated or supplemented by other rights or supplies, the diversion rate may be less than average for the area. Generally the irrigation season is described as April 1 to October 31 and/or the general frost free period in the area. Some court decrees and early rights authorize differing periods. Depletion varies considerably due to differing soils, temperatures, wind factors, etc. and can range from about 40% to about 70%. Figures are taken from available studies (particularly "Consumptive Use of Irrigated Crops in Utah", Research Report 145, tables from which are accessible on the internet).

STOCKWATERING: The diversion figures for this purpose are based on year-round watering. Stock operations for lesser or intermittent periods would need adjustment accordingly. Water diverted for this use is generally considered to be 100% depleted by the animal, evaporation, phreatophytes, and/or waste water collection.








cow or horse	0.028	acre-foot
sheep, goat, swine, moose, or elk	0.0056	acre-foot
ostrich or emu	0.0036	acre-foot
llama	0.0022	acre-foot
deer, antelope, bighorn sheep, or mt. goat	0.0014	acre-foot
chicken, turkey, chukar, sagehen, or pheasant	0.00084	acre-foot
mink or fox (caged)	0.00005	acre-foot

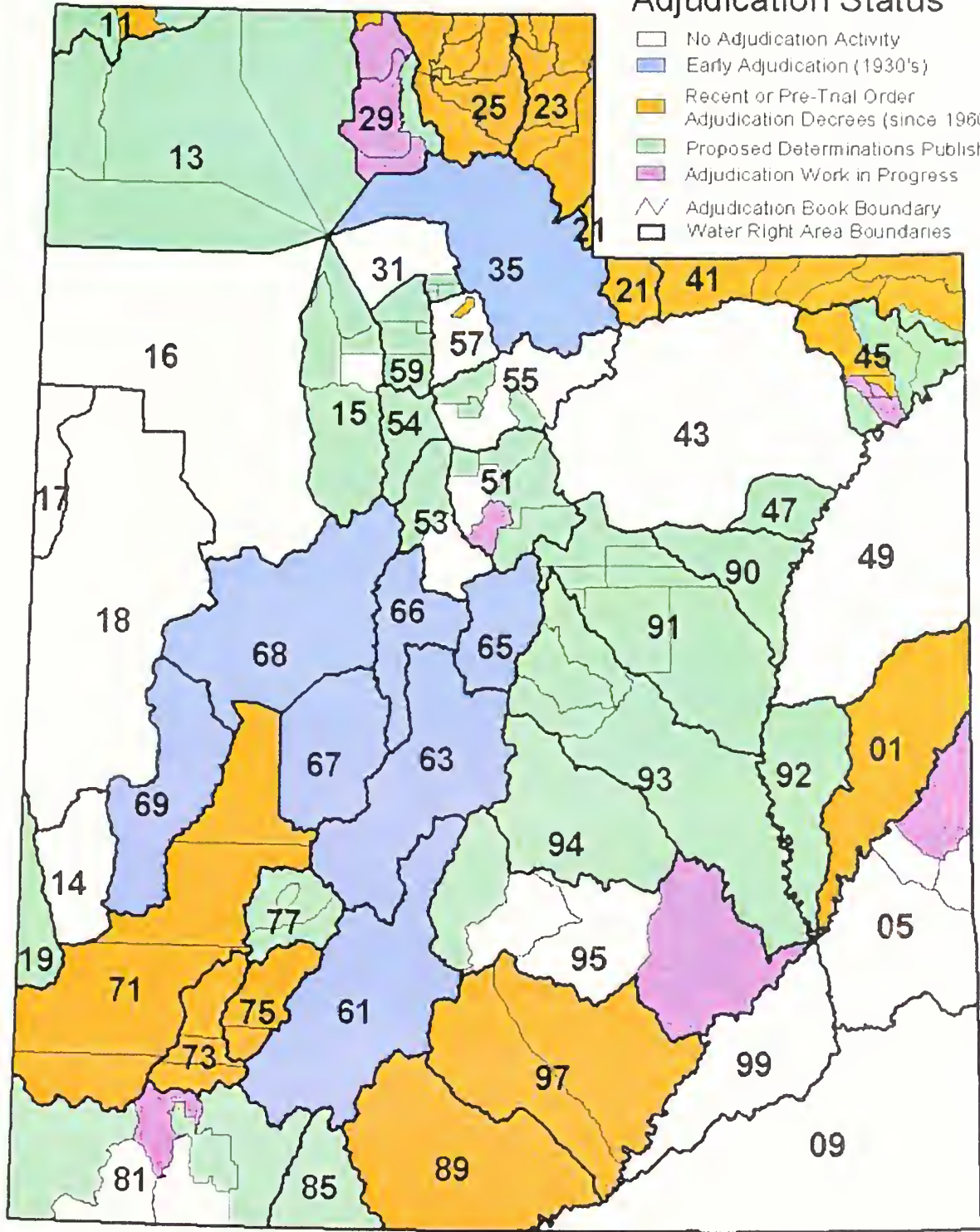
INDUSTRIAL, COMMERCIAL, RECREATIONAL, COMMUNITY AND MINING: Projects are evaluated on an individual basis. Parameters include method of processing or manufacturing, number of employees, length of workshift and period of operation, type of waste processing and/or discharge, and types of employee and/or public facilities (showers, food preparation, etc.). The Utah State Administrative Rules for Public Drinking Water Systems (particularly R309-203) are guidelines for such estimates.

Ground-Water Policy in Utah



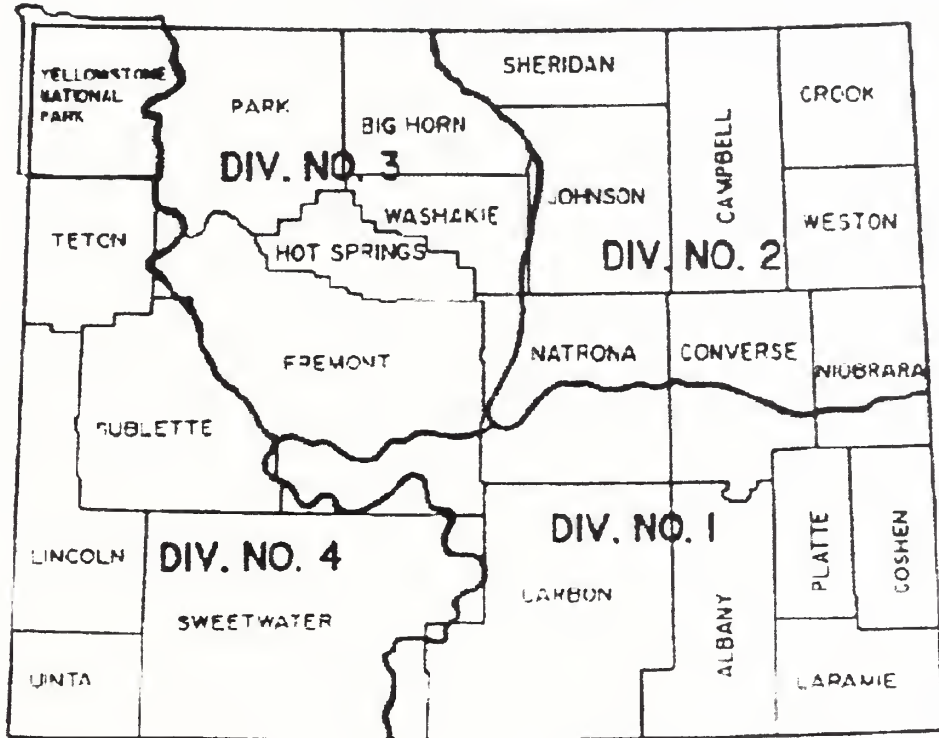
Adjudication Status

-  No Adjudication Activity
-  Early Adjudication (1930's)
-  Recent or Pre-Trial Order Adjudication Decrees (since 1960)
-  Proposed Determinations Published
-  Adjudication Work in Progress
-  Adjudication Book Boundary
-  Water Right Area Boundaries



Wyoming

Appendix One: Wyoming Water Divisions



Wyoming Water Divisions

Appendix Two: Types of Applications

Permits are issued in Wyoming for:

- Transporting water through ditch or pipelines
- Storage in reservoirs
- Storage in smaller (under 20 acre-feet of capacity and a dam height less than 20 feet) reservoir facilities for stockwater or wildlife purposes
- Enlargements to existing ditch or storage facilities
- Instream flow purposes.

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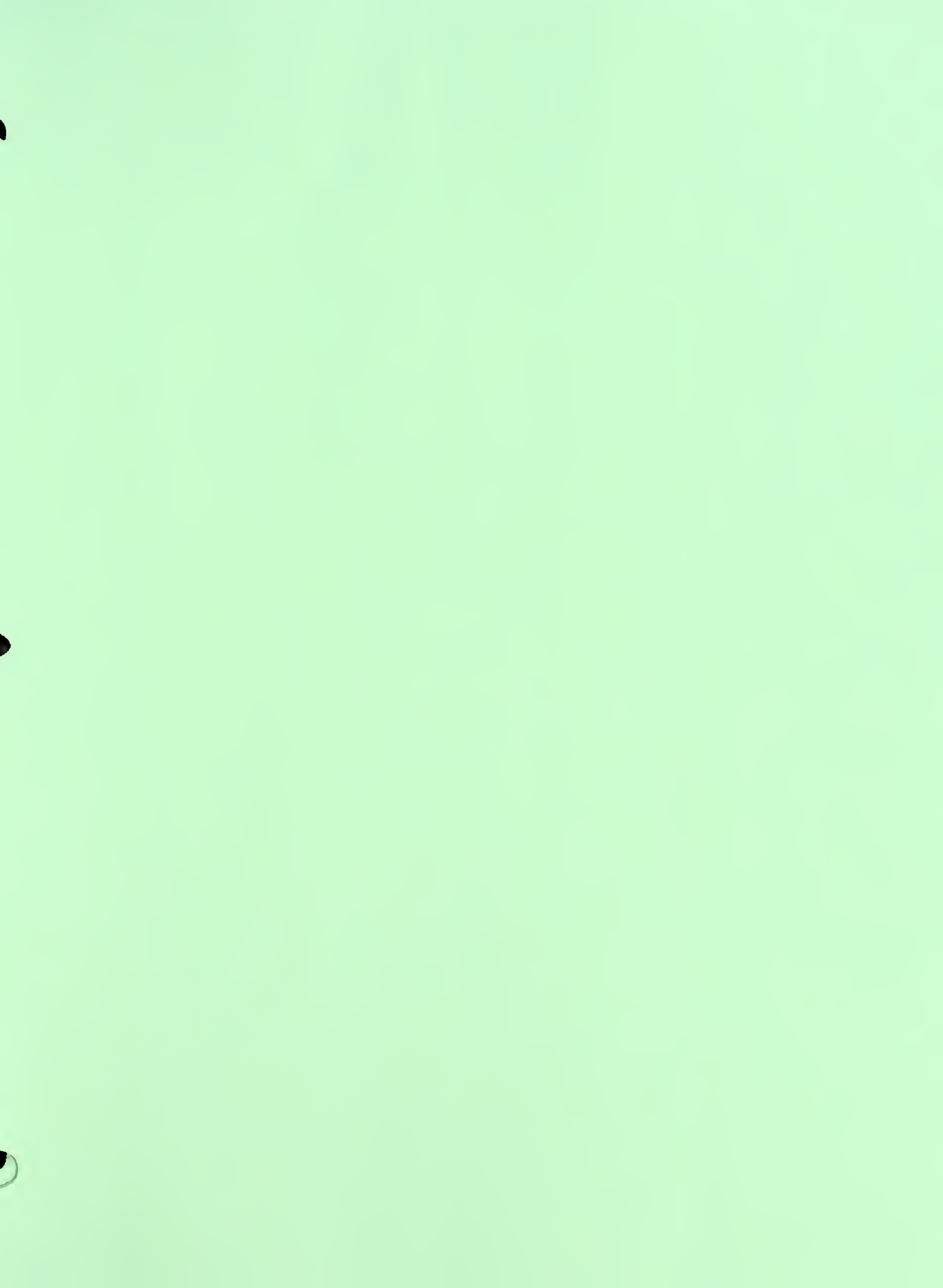
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