

Minimum Stream Flows and Lake Levels in Colorado

By

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IN
COLORADO

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Introduction

General.

Problems associated with the ownership and use of water have existed in Colorado since the early days of development. As population and economic activity have increased, water management has become an increasingly complex problem. The future objectives of water management in Colorado will no doubt present an even greater challenge -- that of preserving the natural environment to a "reasonable degree" and supporting a "desirable rate" of economic growth.

Colorado water law did not afford protection for non-economic values until 1973. In that year, the Colorado State Legislature passed Senate Bill No. 97 which provides the means for protecting the environmental values dependent on water (see appendix A). Through this statutory law, the state has an equal right along with economic-oriented water users to appropriate water to maintain minimum stream flows and lake levels for environmental preservation. The purpose of this paper is to briefly scan the "minimum stream flow-lake level" concept from its beginning to its present status relative to the state of Colorado. However, for those who may think that such a concept had its beginning exclusively in the recent

environmental thrust, a brief account of similar actions by other states and the federal government in past and recent times is included.

Water for non-economic uses -- a historical perspective.

Colorado has been rather slow in initiating actions to preserve environmental, recreational and scenic values associated with water when compared to other western states. In 1915, the Oregon legislature passed a statutory law (Stat. 538.200) reserving specified waters from appropriation.¹ The language used in the above mentioned statute is quite clear in expressing the intent of the lawmakers. The statute contains the names of 23 streams and the water falls they form and states that such waters "are herewith withdrawn from appropriation or condemnation, and shall not be diverted or interrupted for any purpose whatsoever". In 1925, the Oregon lawmakers passed another statutory law preserving an important salmon and steelhead fishing stream (Rev. Stat. 538.270). Unlike Stat. 538.200 which withdraws water from all appropriations and diversions, Rev. Stat. 538.270 does not interfere with future appropriations and diversions of water from the river or its tributaries for such uses related to domestic, stock, irrigation and municipal purposes. Its primary purpose is to prevent the construction of dams in a famous reach of salmon and steelhead water. Thus, Oregon used the statutory

approach to completely and partially reserve water for its environmental significance.²

In 1925, the state of Idaho passed legislation authorizing the governor to appropriate in trust for the people all the unappropriated water of a particular lake (Idaho Code Stat. 67-4301). The purpose of the law was to preserve the water for scenic beauty, health and recreation and to declare such uses as beneficial. In 1971, the State Park Board of Idaho was authorized and directed to appropriate the waters of a number of specified springs which were valued for their scenic beauty and recreational opportunities. The Director of Water Administration was given the authority to establish the historical flow and to make future appropriations only above such flow limits. It was further stated that diversions would not be allowed that would "detract from, or interfere with the geological interpretive value, historical significance, or the scenic attraction for public use" of such waters (Idaho Code Stat. 67-4304 through 67-4312).³ The constitutionality of these statutes under the appropriation doctrine were contested by the Idaho Water Users Association soon after the state began making instream appropriations. A discussion of the ruling by the Idaho Supreme Court on this case is included as appendix B to this report. It is quite possible that Colorado will be faced with a similar court case in the future.

Further comments regarding the constitutionality of Colorado's Senate Bill No. 97 are presented in a latter part of this report.

In 1947, Montana adopted a statute (Montana Rev. Code Stat. 89-890) which authorizes the "state, any political subdivision or agency thereof or the United States, to apply to the Board of Natural Resources and Conservation for a reservation of waters to maintain a minimum flow, level or quality".⁴ The only limitation to such a reservation is that it be in the public interest. In 1969, Montana enacted another statute (Montana Rev. Code Ann. 89-801) which designated 10 trout streams within the State and directed the State Fish and Game Department to file for the amount of water required to maintain the trout fishery. This statute does not prohibit future appropriations and diversions of water for economic uses. However, before an applicant is granted an appropriation, he must convince the State district court that his proposed diversion will be more beneficial than that associated with instream use.⁵

From a federal standpoint, both successful and unsuccessful attempts have been made in the past to enact legislation which would require that water use management include consideration of social uses such as esthetics, recreation, and fish and wildlife. An unsuccessful effort was made in 1946

to amend the Fish and Wildlife Coordination Act of 1934 such that the War Department would have been required to "maintain uniform pool levels and, in any series of pools, uniform levels throughout such series, to prevent the loss of and damage to such fish and other wildlife resources." ⁶ The above amendment was aimed at preventing heavy fish losses during the winter months in the Upper Mississippi River by requiring the Corps of Engineers to operate their navigation and flood control structures in such a way as to maintain minimum pool levels in certain critical reaches. The amendment was defeated because it was considered a threat to navigation and flood control benefits associated with previous operating procedures.⁷

A successful effort to preserve those values associated with maintaining instream water flows resulted in the passage of the federal Wild and Scenic Rivers Act of 1968. The act established a system of free flowing, undeveloped rivers to be protected from uses which would be incompatible with the existing primitive character of the area. Eight rivers were designated by the Act to become immediate components of the system and 27 more were suggested for further study. The addition of a river to the system requires action by Congress or approval by the Secretary of Interior and is subject to review by interested federal agencies.⁸

Since 1968, several states have enacted statutes similar to the federal Wild and Scenic Rivers Act. In 1970, Oklahoma passed its "Scenic Rivers Act" (82 Oklahoma Stat. Ann., 1451-1458) for the purpose of preserving certain designated "scenic river areas". Before a particular river or stream (or reach of a river or stream) can be added to the state's system, its merits must be evaluated and debated in the State legislature.⁹ Several other states have adopted similar acts.

The State of Washington enacted a statute (Washington Rev. Code Ann. 90.22.010) in 1969 which authorizes the administrative withdrawal of water. The act authorizes the Department of Water Resources to establish minimum stream flows or lake levels to preserve water quality and to protect fish and wildlife, recreational and esthetic values of public waters when in the public interest or when requested by the state fish and game department.¹⁰

The State of Colorado accomplished the same result as Montana and Washington through Senate Bill No. 97 (Colorado Rev. Stat. 148-121-3(7)) which authorizes the Colorado Conservation Board to appropriate minimum stream flows or lake levels based on recommendations from the Division of Wildlife and the Division of Parks and Outdoor Recreation. The state must follow the same procedures as private water users when filing for water rights and such rights are junior to all previously adjudicated rights.¹¹

Thus it is evident from the preceding discussion that the concepts of preserving (excluding all economic uses) and reserving (acquiring a water right) water to maintain associated esthetic, recreational and fish and wildlife values have received significant recognition in the last 10 years. This recognition has led some states, such as the ones heretofore mentioned, to seek ways to reform their water laws to include protection for those social values of water. The remainder of this report is devoted to concentrating on Colorado's approach for protecting these non-economic values. This approach will be discussed from its conception to its present status.

Colorado and the Minimum Streamflow-Lake Level Concept

Prior to 1973

The doctrine of "prior appropriation" has been the water law in Colorado since 1882 when the Colorado Supreme Court ruled that the "riparian doctrine" was inapplicable to the State (Coffin v. Left Hand Ditch Company, 1882, 6 Colo. 443).

In rendering its decision, the Court stated the following:

We conclude, then, that the common law doctrine giving the riparian owner a right to the flow of water in its natural channel upon and over his lands, even though he makes no beneficial use thereof, is inapplicable to Colorado. Imperative necessity, unknown to the countries which gave it birth, compels the recognition of another doctrine in conflict therewith. And we hold that,

in the absence of express statutes to the contrary, the first appropriator of water from a natural stream for a beneficial purpose has, with the qualifications contained in the constitution, a prior right thereto, to the extent of such appropriation.¹²

The Colorado Constitution already recognized and confirmed the doctrine of "prior appropriation" as being the water law of the State at the time the above ruling was rendered. The Court simply upheld the qualifications set forth in Sections 5 and 6 of Article XVI of the Constitution which states:

Section 5. Waters of streams public property. The water of every natural stream, not heretofore appropriated, within the state of Colorado, is hereby declared to be the property of the public, and the same is dedicated to the use of the people of the State, subject to appropriation as hereinafter provided.

Section 6. Diverting unappropriated water - priority preference uses. The right to divert the unappropriated waters of any natural stream to beneficial uses shall never be denied. Priority of appropriation shall give the better right as between those using the water for the same purpose; but when the waters of any natural stream are not sufficient for the service of all those desiring the use of the same, those using the water for domestic purposes shall have the preference over those claiming for any other purpose, and those using the water for agricultural purposes shall have preference over those using the same for manufacturing purposes.¹³

Inherent in the appropriation doctrine since its conception is the idea that a water right can only be acquired when an individual has performed two conjunctive acts. They are:

- 1) he must have diverted the water from the watercourse or streambed and
- 2) he must have applied that water to a beneficial

use. In theory, a Colorado water right is established by performing the above mentioned acts. A judicial decree is then obtained which merely registers or assigns a date to the right and establishes its place within the priority system.

Using the above criteria to establish a water right, what are the chances of appropriating water and leaving it in the stream to maintain minimum flows for fish and wildlife, recreation or esthetics? The answer to such a question is easily obtained by reviewing two Colorado court cases, both involving attempts by one party to appropriate instream water flows.

The first case was an attempt (in 1913) by a small resort area known as Cascade located near Colorado Springs to prevent the Empire Water and Power Company from diverting water from Cascade Creek for the purpose of generating electricity by water power. The chief tourist attraction of the resort area was Cascade Canyon which was characterized by water falls and "exceptionally luxuriant growth of trees, shrubbery, and flowers" which was produced by the flow of Cascade Creek in the canyon and the mist and spray from its falls. The power company's proposed diversion would have reduced flow in Cascade Creek such that the water falls and the vegetation dependent on their mist would have ceased to exist.

In rendering its decision, the U.S. 8th Circuit Court of

Appeals stated:

The laws of Colorado are designed to prevent waste of a most valuable but limited resource, and to confine the use to needs. By rejecting the common law rule they deny the right of the landowner to have the stream run its natural way without diminution. He cannot hold to all the water for the scant vegetation which lines the banks but must make the most efficient use by applying it to his land..... The case before us is exceptional, but we think complainant is not entitled to a continuance of the falls for their scenic beauty..... the trial court based its decision...largely upon the artistic value of the falls..... It may be that if the attention of the lawmakers had been directed to such natural objects of great beauty they would have sought to preserve them, but we think the dominant idea was utility and not narrowly regarded, and we are constrained to follow it.¹⁵

Thus the power company was entitled to deplete the water in Cascade Creek before it reached the water falls in the canyon since esthetic value was not considered a beneficial use for which the resort area could establish a water right.

The second case involved an attempt in 1965 by the Colorado River Conservation District to appropriate waters of the South Fork of White River, Wagonwheel Creek, and Buck Creek and their tributaries "to be preserved and kept in the stream to the extent necessary for the preservation of fish life and the propagation of fish".¹⁶ The Conservation District claimed that it had been given the power to make such appropriations by Colorado Rev. Stat. 1963, 150-7-5(10) which, in listing the powers of the District, included the following:

To file upon and hold for the use of the public sufficient water of any natural stream to maintain a constant flow in the amount necessary to preserve fish, and to use such water in connection with retaining ponds for the propagation of fish for the benefit of the public.¹⁷

The Rocky Mountain Power Company contested the District's claim on the grounds that "the purported appropriation of the flow of a stream for fish maintenance and recreational purposes was not an appropriation, and the attempted use thereof was not a beneficial use of water."¹⁸ The Colorado Supreme Court quoted the following language from previous rulings in denying the District's claim:

Further, the rule is elementary that the first essential of an appropriation is the actual diversion of the water with intent to apply to a beneficial use..... Water can be actually diverted only by taking it from a stream..... (City of Denver v. Northern Colorado Water Conservancy District, 130 Colorado 375, 276 P. 2d 992).¹⁹

It should be observed further that as the act of diversion and the act of applying the water diverted to a beneficial use, whether performed by the same or different persons, are both necessary to constitute an appropriation, so the continued existence of the appropriation depends on the continuance of both, diversion and beneficial application..... (Board of County Commissioners v. Rocky Mountain Water Company, 102 Colorado 351, 79 P. 2d 373).²⁰

There is no support in the law of this state for the proposition that a minimum flow of water may be 'appropriated' in a natural stream for piscatorial purposes without diversion of any portion of the water 'appropriated' from the natural course of the stream. By the enactment of C.R.S. 1963, 150-7-5(10) the legislature did not intend to bring about such an extreme departure from well

established doctrine, and we hold that no such departure was brought about by said statute.²¹

This decision clearly confirmed that, under existing Colorado water law, the act of taking water from a stream was necessary to establish a legitimate appropriation. The ruling implied that the State legislature must first establish that instream appropriations of water for the maintenance of minimum flows were desirable and in the best interest of the public before the courts would recognize the same.

In the same year that Colorado laws were restricting protection of social and environmental values of water, federal legislation including the Water Resources Planning Act, the Water Quality Act, and the Water Project Recreation Act, all of 1965 and all pertaining to environmental factors in water resource development, were being enacted. After 1965, federal legislation oriented toward environmental concerns continued to accumulate. This avalanche of federal legislation included the Clean Waters Restoration Act of 1966; the Wild and Scenic Rivers Act (1968); the National Environmental Policy Act of 1968; and the Water Quality Improvement Act of 1970.²² The momentum of this movement soon reached the state level and, as mentioned previously in this report, several states sought to reform their water laws to include protection of social and environmental values of water.

From 1973 to the present - Introduction and adoption of
Senate Bill No. 97.

Certain Colorado legislators were spurred into action when a report submitted to Governor John A. Love on December 20, 1972 revealed that non-economic values of water could not be protected under the then existing state water law. The report further stated that Colorado water law should be made "flexible enough to accommodate the non-economic values which the public may hold."²³

On January 31, 1973, Senate Bill No. 97 (hereafter referred to as S.B. 97) was introduced by Senator Fred Anderson before the Senate Committee on Agriculture, Livestock, and Natural Resources for discussion. S.B. 97 simply redefined the term "appropriation" to mean the application of waters to a beneficial use without making reference to a diversion. It further expanded the definition of "beneficial use" to include minimum stream flows or lake levels appropriated by the state to preserve the natural environment, and it excluded the word divert from the definition of "priority" (see appendix A).

The discussion of S.B. 97 before the Senate Committee did not include the usual arguments on whether or not such a law would be "good" for Colorado. Instead, the discussion was aimed at revealing the logic behind employing a statutory amendment to create a water right which was not recognized in the state constitution. Apparently the Committee members were

aware that a constitutional amendment provided a surer remedy for establishing the legality of an instream water right.

Felix Sparks, Director of the Colorado Water Conservation Board, provided testimony which revealed the strategy for proceeding with a statutory law. Sparks explained that the majority of the members on the Water Board were ranchers and farmers who were very conservative in nature. Because of their conservative nature, the members were leary about suggesting an approach (constitutional amendment) which would firmly "fix" into law a new concept (instream water rights) without knowing the effects such a concept would have on traditional water use in the State. Sparks said that their plan was to "go ahead" with a statutory law in 1973 so that they (the Water Board) could begin classifying streams and filing for instream appropriations (assuming the bill would be enacted by the legislature). It was expected that an early test case would be filed for final determination of the constitutionality of the Act by the Colorado Supreme Court. If the Court found the statute to be unconstitutional, then a constitutional amendment would be presented to the public. Sparks stated that if the public rejected the amendment, it would be a clear mandate for the Water Board to forget the matter of minimum flows.

After Spark's testimony, there were a few comments favoring the statutory approach and its "erasibility" if it presented future problems. Suprisingly there were no environmental

interests present to testify on behalf of the bill. With a minimum amount of discussion, the Senate Committee voted unanimously to send the bill to the House for debate.²⁴

The debate of S.B. 97 before the House was directed more toward its feasibility as a concept than as an approach. The debate on the floor primarily involved two individuals - Representative McNeal who opposed the bill and Representative Richard Lamb who favored it. McNeal took the floor several times during the session to explain his opposition to S.B. 97. He feared that such a law would give the state the authority to seize senior water rights and apply them to the minimum flow theory. Mr. McNeal maintained that the only way the state could preserve minimum flows in over-appropriated streams was by taking water from prior users through exercising eminent domain. However, the last sentence in Section 2 states:

Nothing in this article shall be construed as authorizing any state agency to acquire water by eminent domain, or to deprive the people of the state of Colorado of the beneficial use of those waters available by law and interstate compact.

Representative Lamb took to floor and attempted to explain that the water right made possible by S.B. 97 (if passed) would be junior to all existing rights at the time of its appropriation. As such, the state would not be given any preferential treatment when applying for an appropriation. Lamb also appealed to his fellow legislators to adopt S.B. 97

for another reason - to keep the federal government from interfering in the State's water policy and reserving water rights.

As the debate continued, the question of constitutionality soon surfaced. Lamb stated that the Supreme Court had been asked to give an unofficial opinion on the constitutionality of S.B. 97 but they had refused to comment. He then said that the statutory approach was selected for its strategic significance rather than its legal attributes. Lamb explained that it was too late for a constitutional amendment to be introduced in that legislative session. If required, such an amendment would be introduced in the 1974 session.

During the course of the debate, two amendments to S.B. 97 were proposed. The first amendment specified that minimum stream flow appropriations be made only in waters above 5000 feet mean sea level (m.s.l.). Supposedly, this amendment would have prevented S.B. 97 from interfering with agricultural practices, most of which are located below 5000 feet m.s.l.. However, the amendment failed to consider the San Luis Valley in southern Colorado - a major agricultural belt located above 5000 feet m.s.l.. Therefore another amendment was proposed which designated 8000 feet m.s.l. as the controlling elevation below which minimum flows would be prohibited. Both of the above amendments were defeated. However, the original version of S.B. 97 was adopted by the legislators in a roll call vote

which included 38 ayes and 25 noes. 25

Constitutionality of S.B. 97.*

S.B. 97 became effective on July 1, 1973 and since that time, the Colorado Water Conservation Board has been busy appropriating minimum stream flows and lake levels. The early test case which was expected has not materialized and the constitutional amendment which was drafted to counter a possible judicial rejection is collecting dust in someone's files. The constitutionality question still lingers over S.B. 97.

The constitutionality issue involves one question: "Can a statutory law such as S.B. 97, which has changed the definitions of appropriation and beneficial use stand up to the Colorado Constitution?"

The definition of "beneficial use" has never been clearly defined in Colorado case law nor is it firmly fixed by the Colorado Constitution. In Denver v. Sheriff, the Colorado Supreme Court stated:

The term 'beneficial use' is not defined in the Constitution. What is a beneficial use, after all, is a question of fact and depends upon the

* This discussion on the constitutionality of S.B. 97 is based on a paper written by Mr. Glenn Porzak in March, 1973. To give the reader a better understanding of the subject, this paper is included as appendix C to this report.

circumstances in each case. 105 Colo.193, 96 P.2d 836,842 (1939) (Emphasis added).

Articles 6 and 7 of the Constitution specify that domestic, agricultural, manufacturing and mining uses are beneficial. Throughout the years, Colorado case law has considered other uses as beneficial, including milling (1905); generating power (1909); watering grass in a city park (1913); diversion of water for propagation of fish (1933); and municipal uses (1939). Considering the above, it is evident that neither the Constitution nor the Courts have defined "beneficial use" as being one use exclusive of another. Thus, it appears that S.B. 97 does not violate constitutional or case law in recognizing the maintenance of minimum stream flows and lake levels for the preservation of the natural environment as a beneficial use.

The primary question of S.B. 97's constitutionality hinges on its re-definition of "appropriation". Throughout the years, the terms "diversion" and "appropriation" have usually been considered inseparable concepts when defining a water right under the doctrine of prior appropriation. Therefore when an individual stated that he had appropriated water, the implication was that he had diverted the same, and vice versa. (Application to beneficial use is also a requirement to establish a water right but such is not the concern of the immediate discussion.)

The definition of "appropriation" contained in S.B. 97 does not make reference to the term "diversion". The Colorado Constitution states that the right to divert unappropriated waters shall never be denied. If the Constitution were interpreted to say that the right to appropriate unappropriated waters shall never be denied, then S.B. 97 would appear to be constitutional. Considering previous court rulings, it seems reasonable to assume that such an interpretation could occur.

The Colorado courts have had difficulty in the past in attempting to establish exactly what constitutes a diversion. In Thomas v. Guiraud, 6 Colo. 530 (1883), a dam alone, which caused overflow of a meadow without the aid of ditches or canals was held to be sufficient. In Town of Genoa v. Westfall, 141 Colo. 533, 349 P.2d 370 (1960), natural overflow during high water periods was considered adequate. The Colorado Supreme Court held that "the only indispensable requirements are that the appropriator intends to use the waters for a beneficial purpose and actually applies them to that use." (141 Colo. at 547). However, in Colorado River Conservation District v. Rocky Mountain Power Company, supra., the Court ruled that maintaining minimum stream flows for sustenance of fish life could not be recognized as an appropriation because it did not involve a physical diversion from the stream. Yet in rendering its decision in the above case, the Court stated:

There is no support in the law of this state for the proposition that a minimum flow of water may be 'appropriated' in a natural stream for piscatorial purposes without diversion of any portion of the water 'appropriated' from the natural course of the stream. By the enactment of C.R.S. 1963, 150-7-5(10), the legislature did not intend to bring about such an extreme departure from well established doctrine, and, we hold that no such departure was brought about by said statute. 406 P.2d at 800. (Emphasis added)

The statute referenced in the above ruling gave the Conservancy District the authority to appropriate water in any natural stream within the state to use in connection with retaining ponds for the propagation of fish for the benefit of the public (see p.11 of this report).

It is important to note that the Court did not base its decision on constitutional grounds. Instead, the language clearly reveals that the decision was based on what the judges interpreted as being the intent of the legislature when they enacted C.R.S. 150-7-5(10). It is my opinion that S.B. 97 is specifically intended to provide for instream appropriations of water. Its concept is an intentional departure from past doctrine.

In the case of Empire Water and Power Co. v. Cascade Town Co., supra., the Court's decision contains language suggestive of the point made above. In rendering its decision the Court stated:

Undoubtedly a landowner may rely upon an efficient

application by nature and need do no more than affirmatively to avail himself of it..... If nature accomplishes a result which is recognized and utilized, a change of process by man would seem unnecessary..... It may be that if the attention of the lawmakers had been directed to such natural objects of great beauty they would have sought to preserve them, but we think the dominant idea was utility, liberally and not narrowly regarded, and we are constrained to follow it. (Emphasis added)

There are two important implications in the above ruling which support the notion that S.B. 97 may withstand a judicial test. First, the federal court stated: "If nature accomplishes a result which is recognized and utilized, a change of process by man would seem unnecessary." This clearly implies that if non-economic values of water such as those associated with maintaining a minimum stream flow were specifically recognized as a beneficial use, a change of process (i.e., a manmade diversion) would be unnecessary to establish a valid appropriation.

Secondly, the court stated that if the lawmakers had intended to preserve scenic or esthetic values of water, they would have enacted legislation directed toward that purpose. This language again strongly suggests that a statutory amendment such as S.B. 97, specifically directed toward preserving non-economic values of water, could withstand a constitutional showdown.

The preceding discussion presents only a general

"pro-constitutional" view of S.B. 97. An experienced water law attorney could probably present much more elaborate and documented arguments supporting or opposing its constitutionality. Given the court's historical tendency to base its decisions on its interpretation of the legislature's intent as established in statutory law, it is my opinion that S.B. 97, if challenged, will be found constitutional.

Implementation of S.B. 97.

Appropriation of water to maintain minimum stream flows and lake levels are made by the Colorado Water Conservation Board, based on recommendations prepared by the Colorado Division of Wildlife and the Colorado Division of Parks and Outdoor Recreation. To date, the Division of Wildlife has been the only agency to recommend minimum flows and lake levels. Their recommendations are based primarily on fish and wildlife requirements. Recommendations by the Division of Parks and Outdoor Recreation would be based on boating and other recreational requirements.

As stated above, the recommendations are submitted to the Water Conservation Board where they are reviewed in one of its meetings which are held every two or three months, and are open to all interests. If the Board approves the recommendations, water right applications designating the amount and location of the right are filed in the appropriate

water court. There are seven Division Water Courts in Colorado, one for each of the major drainage basins.

The applications for minimum flows are processed the same as applications for other water uses. Local newspapers carry notices of the proposed appropriations. Anyone who has reason to believe that such appropriations would impair his water right has two months from the date of the public notice to file a statement of opposition. If no opposition occurs, or when conflicts have been resolved, the water judge will decree the water right.²⁵

The Water Conservation Board has been very responsive to the numerous minimum stream flow recommendations made by the Division of Wildlife. Table 1 shows the streams for which minimum flow applications have been made to date. At the last Board meeting on July 9, 1975 in Durango, Colorado, the Division of Wildlife recommended that minimum lake levels be established for the 24 high mountain lakes listed in Table 2. The recommendations met the approval of the Conservation Board and water right applications have been made.

The Division of Wildlife and the Water Conservation Board are presently investing a significant amount of time and effort in the minimum stream flow-lake level concept. According to agency officials, the tempo of such efforts will be increased in the future.

TABLE 1

APPLICATIONS FOR WATER RIGHTS UNDER S.B. 97

Stream	Amount	From	To	County	Approximate Miles
Chapman Gultch	1.5 cfs Oct.-Mar. 3.0 cfs Apr.-Sep.	Confluence with Fryingpan River	Fryingpan-Arkansas Project collection point	Garfield	3.8
Fryingpan River	6.0 cfs Oct.-Mar. 12.0 cfs Apr.-Sep.	Confluence with South Fork of Fryingpan River	Confluence with Martin Creek	Garfield	7.0
	30.0 cfs Oct.-Mar. 100.0 cfs April 150.0 cfs May 200.0 cfs June 100.0 cfs July 75.0 cfs August	Confluence with North Fork of Fryingpan River	Ruedi Reservoir	Garfield	4.3
	39.0 cfs Nov.-Apr. 110.0 cfs May- Oct.	Confluence with Rocky Fork River	Confluence with Roaring Fork River	Garfield	13.8
South Fork Fryingpan River	3.0 cfs Oct.-Mar. 6.0 cfs Apr.-Sep.	Confluence with Fryingpan River	Fryingpan-Arkansas Project collection point	Garfield	4.5
North Fork Fryingpan River	0.5 cfs Oct.-Mar. 1.0 cfs Apr.-Sep.	Confluence with Cunningham Creek	Fryingpan-Arkansas Project collection point	Garfield	3.3

TABLE 1 (cont'd)

APPLICATIONS FOR WATER RIGHTS UNDER S.B. 97

Stream	Amount	From	To	County	Approximate Miles
Ivanhoe Creek	1.0 cfs Oct.-Mar. 2.0 cfs Apr.-Sep.	Confluence with Fryingpan River	Fryingpan-Arkansas Project collection point	Garfield	2.8
Last Chance Creek	1.5 cfs Oct.-Mar. 3.0 cfs Apr.-Sep.	Confluence with North Fork of Fryingpan River	Elevation 10,000 feet m.s.l.	Garfield	5.5
Lime Creek	1.5 cfs Oct.-Mar. 3.0 cfs Apr.-Sep.	Confluence with Fryingpan River	Elevation 10,000 feet m.s.l.	Garfield	7.7
North Cunningham Creek	0.5 cfs Oct.-Mar. 1.0 cfs Apr.-Sep.	Confluence with North Fork of Fryingpan River	Fryingpan-Arkansas Project collection point	Garfield	3.2
Middle Cunningham Creek	0.5 cfs Oct.-Mar. 1.0 cfs Apr.-Sep.	Confluence with Cunningham Creek	Fryingpan-Arkansas Project collection point	Garfield	0.5
Mormon Creek	1.0 cfs Oct.-Mar. 2.0 cfs Apr.-Sep.	Confluence with North Fork of Fryingpan River	Fryingpan-Arkansas Project collection point	Garfield	0.3
Carter Creek	1.0 cfs Oct.-Mar. 2.0 cfs Apr.-Sep.	Confluence with North Fork of Fryingpan River	Fryingpan-Arkansas Project collection point	Garfield	0.2

TABLE 1(cont'd)

APPLICATIONS FOR WATER RIGHTS UNDER SB 97

Stream	Amount	From	To	County	Approximate Miles
Avalanche Creek	10.0 cfs Oct.-April 22.0 cfs May-Sept.	Confluence with Hell Roaring Creek S11, T10S, R88W	Confluence with Crystal River, S28, T9S, R88W	Pitkin	4.5
Brown's Creek	2.0 cfs Oct.-April 5.0 cfs May-Sept.	Headwaters S25, T51N, R7E	Confluence with Arkansas River, S31, T15S, R77W	Chaffee	12.0
North Thompson Creek	3.0 cfs Oct.-April 7.0 cfs May-Sept.	Confluence with Yank Creek, S28, T8S, R89W	Confluence with Thompson Creek, S31, T8S, R88W	Pitkin	5.4
Middle Thompson Creek	3.0 cfs Oct.-April 9.0 cfs May-Sept.	Headwaters S7, T9S, R89W	Confluence with Thompson Creek, S6, T9S, R88W	Pitkin	8.0
South Thompson Creek	2.0 cfs Oct.-April 5.0 cfs May-Sept.	Headwaters S24, T9S, R89W	Confluence with Thompson Creek, S6, T9S, R88W	Pitkin	3.8
Sacramento Creek	3.0 cfs Oct.-April 8.0 cfs May-Sept.	Headwaters S30, T9S, R78W	Confluence with Middle Fork of South Platte, S29, T9S, R77W	Park	9.0

*Instantaneous flow in cubic feet per second, or the natural flow, whichever is less.

TABLE 1 (cont'd)
APPLICATIONS FOR WATER RIGHTS UNDER SB 97

Stream	Amount	From	To	County	Approximate Miles
Beaver Creek (Eagle)	4.0 cfs Oct.-April 12.0 cfs May-Sept.	NW $\frac{1}{4}$, S3, T6s, R82W below Beaver Lake	Confluence with Eagle River	Eagle	7.0
Crystal River (Roaring Fork)	40.0 cfs Oct.-April 80.0 cfs May-Sept.	Confluence with Carbonate Creek	Confluence with Avalanche Creek	Gunnison & Pitkin	15.0
Crystal River (Roaring Fork)	60.0 cfs Oct.-April 100.0 cfs May-Sept.	Confluence with Avalanche Creek	Confluence with Roaring Fork River	Pitkin & Garfield	12.5
Dolores River	78.0 cfs*	Proposed McPhee dam site	Confluence with San Miguel River	Montezuma, Dolores, San Miguel, & Montrose	108.0
Lake Creek (Arkansas)	15.0 cfs	Twin Lakes	Confluence with Arkansas River	Lake	2.0
Gageby Creek (Arkansas)	1.0 cfs	Ft. Lyon Canal crossing	John Martin Reservoir	Bent	5.0

*To protect fish and wildlife releases made under U.S. Bureau of Reclamation criteria and approved by Colorado Division of Wildlife.

TABLE 1 (cont'd)

APPLICATIONS FOR WATER RIGHTS UNDER S.B. 97

Stream	Amount	From	To	County	Approximate Miles
Trout Creek	6.0 cfs all year	NE $\frac{1}{4}$, S3, T14S, R77W	Confluence with Arkansas River	Chaffee	4.5
Willow Creek	15.0 cfs all year	Confluence with Cow Creek	High Water Line in Taylor Park Reservoir	Gunnison	3.5
Texas Creek	25.0 cfs all year	NW $\frac{1}{4}$, S2, T14S, R82W	High Water Line in Taylor Park Reservoir	Gunnison	2.5
Taylor River	55.0 cfs all year	Confluence with Illinois Creek	High Water Line in Taylor Park Reservoir	Gunnison	1.5 ² 8
No Name Creek	3.0 cfs all year	Fryingpan-Arkan- sas Project collection point	Confluence with Hunter Creek	Pitkin	0.7
Midway Creek	2.5 cfs all Year	Fryingpan-Arkansas Project collection point	Confluence with Hunter Creek	Pitkin	0.6
Boulder Creek	15.0 cfs all year	Discharge of Public Service Co. Bridge Hydroelectric Plant	75th Street	Boulder	7.5

TABLE 1 (cont'd)

APPLICATIONS FOR WATER RIGHTS UNDER S.B. 97

Stream	Amount	From	To	County	Approximate Miles
Navajo Creek	37.0 cfs Oct.-Mar. 55.0 cfs Apr.-Sep.	Oso Dam	New Mexico State Line	Archuleta	17.0
Blanco River	20.0 cfs Oct.-Mar. 29.0 cfs Apr.-Sep.	Blanco Diversion Dam(Bureau of Reclamation)	Confluence with San Juan River	Archuleta	11.0
Badger Creek	3.0 cfs all year	Headwaters of Badger Creek	Confluence with Arkansas River	Pitkin	13.5
Hunter Creek	8.5 cfs all year	Fryingpan-Arkansas Project collection point	Confluence with Midway Creek	Pitkin	1.9 ²⁹
	11.0 cfs all year	Confluence with Midway Creek	Confluence with No Name Creek	Pitkin	1.5
	14.0 cfs all year	Confluence with No Name Creek	Confluence with Roaring Fork River	Pitkin	6.2
Arikaree River*	7.0 cfs all year	A point immed. below the west boundary of the SW $\frac{1}{4}$, S2, T4S, R47W, of the 6th Prime Meridian	The centerline S25, T3S, R45W, of the 6th Prime Meridian	Yuma	14.5

*A total of 7.0 cfs is required at the eastern terminus described above. Regardless of the minimum flow at the eastern terminus, 1.5 cfs is required at the west boundary of S5, T4S, R47W of the 6th P.M., and 3.5 cfs at the west boundary of S30, T3S, R46W of the 6th P.M. All of this is claimed absolute.

TABLE 2

APPLICATIONS FOR WATER RIGHTS UNDER SB 97

Lakes	Natural Water Elevation (in feet)	Estimated Capacity (in acre-feet)	Location	County
Upper Hancock	11,770	28.0	S6, T50N, R5E	Chaffee
Lower Pomeroy	12,035	350.0	S19 & S30, T51N, R6E	Chaffee
Upper Pomeroy	12,300	1,572.0	S29, S30, & S31 T51N, R6E	Chaffee
Pass Creek	11,350	33.0	S31, T49N, R7E	Chaffee
Baldwin	12,088	326.0	S21, T51N, R6E	Chaffee
Grissley	11,202	145.0	S17 & S20, T51N, R6E	Chaffee
Ptarmigan	12,147	479.0	S6, T15S, R80W & S1, T15S, R81W	Chaffee
Spout	11,850	40.0	S35, T14S, R81W	Chaffee
Hartenstein	11,432	98.0	S18 & S19, T14S, R80W	Chaffee
Kroenke	11,600	144.0	S4, T14S, R80W	Chaffee
Bear	12,377	540.0	S22, T13S, R80W	Chaffee
Silver King	12,640	89.0	S18, T13S, R80W	Chaffee

TABLE 2 (cont'd)

APPLICATIONS FOR WATER RIGHTS UNDER SB 97

Lakes	Natural Water Elevation (in feet)	Estimated Capacity (in acre-feet)	Location	County
Lower Bushnell	11,120	22.0	S4&5, T47N, R10W	Fremont
Upper Bushnell	11,900	191.0	S8, T47N, R10E	Fremont
Lower Stout Creek	11,800	1,033.0	S5, T47N, R10E	Fremont
Upper Stout Creek	11,500	105.0	S5, T47N, R10E	Fremont
Hunts	11,350	59.5	S25, T48N, R9E	Fremont
West Creek	11,675	74.0	S31, T48N, R10E	Fremont
Waterdog	11,399	300.0	S31, T50N, R6E & S6, T49N, R6E	Chaffee
Grass	11,500	42.7	S32, T50N, R6E	Chaffee
Hunt	11,500	45.0	S30, T50N, R6E	Chaffee
Hunkydory	12,100	50.0	S9, T50N, R6E	Chaffee
Island	11,775	38.0	S5, T50N, R6E	Chaffee
Lower Hancock	11,615	115.0	S1, T50N, R5E & S6, T50N, R5E	Chaffee

Methodology for selecting a minimum stream flow.

The Division of Wildlife has been the sole participant in determining minimum stream flows. Minimum stream flows are defined as those "amounts of water required in specific streams to preserve the fishery, wildlife, aesthetic, water quality and other components of the natural environment to a reasonable degree".²⁷ Minimum flows are considered by some to be the minimum flow of water required for fish to remain alive (i.e., a survival flow). The Division of Wildlife considers a minimum flow as that amount of flow required to maintain a reasonable fishery including fishability and natural reproduction. It is usually assumed that such a flow will also be sufficient to preserve the other components of the natural environment.

Given a particular reach of a stream, what are the specific data which are required for selecting a minimum flow? The personnel responsible for collecting field data first select several "critical riffles" in the reach. "Critical riffles" are those shallow sections of a stream located between pools which frequently dry-up either partially or completely when normal flows are considerably reduced. The riffles must be natural and not interfered with by manmade works such as riprap, bridges, etc.

Once a "critical riffle" has been selected, a cross

section is established by measuring the width and depth (taken at one foot intervals) of the stream. The width measurement is taken from waterline to waterline on each bank in order that flow discharge, hydraulic radius and wetted perimeter can be computed for that particular water surface elevation (stage). Another width measurement is taken from grassline to grassline if the waterline does not represent the same. The grassline on each bank is usually considered the limits to the normal area of flow.

After the above data is collected, a computer is used to provide plots of depth v. percent of wetted perimeter, velocity v. depth and stage v. percent of wetted perimeter with variations in flow discharge. By studying the physical characteristics of the riffle at different discharges, the fish and wildlife authorities can approximate a minimum flow which would maintain the ecological balance within the reach.

It is beyond the scope of this report to present the various biological factors which are considered when a minimum flow is established. However, Division of Wildlife authorities have mentioned two criteria which can be easily comprehended. The first criteria involves water velocity. Velocity is an important factor contributing to the incubation of brown trout eggs and to the maintenance of adequate oxygen levels (through aeration) in the water. According to fish and game

authorities, a velocity of 1.5 feet per second is considered the optimum to maintain these processes.

The velocity criteria does present problems for the minimum flow concept. In streams with steep bed slopes, very little water is required to maintain a velocity of 1.5 feet per second. However, in streams with flat bed slopes, much more water may be required to maintain the desired velocity. Thus it becomes evident that lower sections (in elevation) of a river system may require much more water to maintain satisfactory flow conditions than higher sections.

The wetted perimeter is another criteria considered by fish and wildlife personnel when approximating a minimum stream flow. This criteria is important for two reasons:

- 1) the stream bottom is an important nutrient source and
- 2) the stream bottom serves as a spawning area for fish.

Figure 1 indicates the variation of wetted perimeter which can occur with variation of stream discharge. It is obvious that a small decrease in flow discharge could result in a significant decrease in wetted perimeter.

The preceding discussion presents a very general view of the procedure and criteria by which minimum stream flows are approximated by the Division of Wildlife. Unrevealing as it may seem, its purpose was to show that minimum stream flows are approximated by employing a specific methodology.

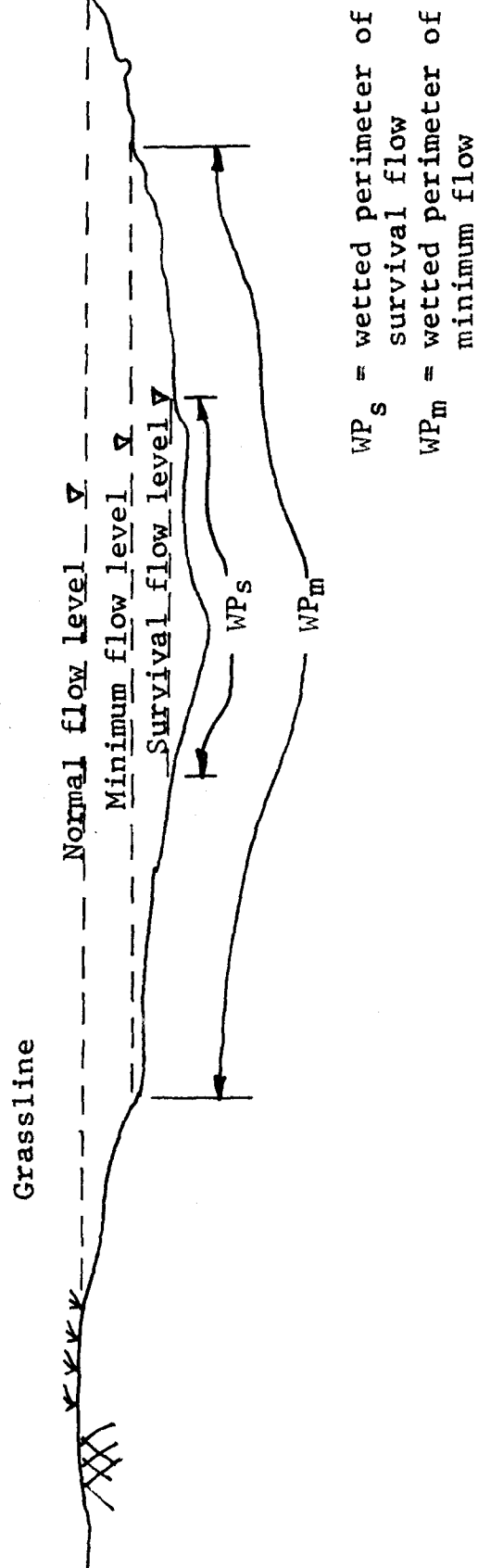


Figure 1

Typical "critical riffle" cross section
(Not to Scale)

Conflict on the Cache la Poudre River.

In February of 1975, the Division of Wildlife submitted a minimum flow recommendation for a segment of the Cache la Poudre River extending from the bridge on Colorado State Hwy. 14 two miles east of Rustic to the bridge on Colorado 14 one-half mile east of Fort Collins. Total length of the reach was approximately 38 river miles.

The Division of Wildlife was prompted to establish minimum flows on the Poudre River when a segment of the river was dried-up in September of 1974. Figures 2 and 3 show the condition of the river on the day of the incident. Although water remained in some portions of the river, approximately 140 trout were killed due to the increase in water temperatures resulting from the drawdown (see appendix D for newspaper articles on this incident).

The minimum flows recommended for the Poudre were 30 cubic feet per second (c.f.s.) for October through April and 65 c.f.s. for May through September. Larger flows are required during the winter months because much of the water freezes.

The Poudre River is similar to most, if not all, eastern slope streams — it has been over-appropriated since the turn of the century. Water right priorities on the Poudre River range from 1 to 199 or more. A review of the water

EDITOR'S NOTE: Photographs of the Poudre River at the Greeley Diversion, Figures 2 and 3, have not been reproduced for this printing.

commissioner's reports on the daily diversions from the Cache la Poudre River show that priority 100 was served only 7 days in the years 1951 through 1961. These records are kept for the 22 weeks of the irrigation season (April 29 - September 30).

Given this information, what is the purpose for desiring a minimum flow water right on a stream which is "grossly" over-appropriated? The Division of Wildlife and Water Conservation Board maintain that there are two major reasons for acquiring appropriations: 1) the mere reality of an instream water right "opens the door" for the state to bargain for water to serve that right and 2) the water right gives the state priority over future appropriations and a voice in future water management schemes on the stream (i.e., change of diversion proposals, etc.).

The notion that a minimum flow appropriation will give the state a right to approve or oppose to water exchange practices on the Poudre River has "upset" some of the traditional water users. Colorado law states — and the courts have held — that the ownership of a water right carries with it the inherent right to change the place or character of use of the original point of diversion. However, a change in point of diversion or an exchange is subject to the approval of other water right holders. This concept is necessary to

protect those water rights which are dependent on return flows from upstream diversions.

The lower section of that segment of the Poudre River recommended for minimum flows by the Division of Wildlife is characterized by a complex water exchange system. Figure 4 shows the many diversions that exist in the vicinity of Fort Collins and support the concept of a complex exchange system.

Opposition by the Cache la Poudre Water Users Association led the Division of Wildlife to withdraw its recommendation for minimum flows on the river. Several meetings were held between the two parties in an attempt to work out the differences which had arisen over the recommended minimum flow. Although both parties expressed their willingness to cooperate in resolving the conflict, a desirable solution was not reached.

After the meetings between the Cache la Poudre Water Users and the Division of Wildlife failed to produce desirable results, a different approach was employed by the Water Users to protect their interests. On April 3, 1975, Senate Bill No. 413 (hereafter referred to as S.B. 413) was introduced before the Senate Agriculture, Livestock and Water Committee (see appendices E and F). This bill was drafted by Mr. Ward Fischer, attorney representing the Cache la Poudre Water Users Association and was sponsored by Senator Fred Anderson

Figure 4

of Loveland, Colorado. S.B. 413 would have amended S.B. 97 by adding the following language:

...Such appropriation of minimum stream flows or lake levels shall not create such a right in this state as may (a) permit it to object to or be protected against any existing or future exchanges of water, whether or not such exchanges are protected by court decree, or as may (b) permit it to be protected against any change in point of diversion.

Ward Fischer presented the major testimony supporting S.B. 413. He stated that minimum flow appropriations on the Poudre River would interfere with existing and future exchanges or changes in points of diversion. He said that existing water exchanges were made on a yearly basis through informal agreements among the various water users. He maintained that S.B. 97 could prohibit such exchanges.

Fischer then addressed the issue that S.B. 97 would interfere with future exchanges or changes in points of diversion. He said that new, more efficient exchanges were being conceived every year. According to Fischer, S.B. 97 would virtually nullify any efforts to develop new exchange systems.

As President of the Fort Collins Water Board, Fischer was also concerned that a minimum flow water right would prohibit future changes in points of diversion. He explained that the City was purchasing water rights which would require future exchanges and/or changes in points of diversion for that water to be used. He maintained that the City would be

forced to abandon such water if not allowed to exchange or change the point of diversion. He said the City might then be forced to condemn agricultural water rights to satisfy municipal demands.

Those presenting testimony in opposition to S.B. 413 were Bob Elliott, Division of Wildlife; Gerald Sjaastad, Department of Natural Resources; and David Harrison, water law attorney from Boulder. Elliott maintained that fish and wildlife interests had always "come out second best" in past conflicts with other users. He said that productive trout water had diminished from approximately 16,000 miles 30 to 40 years ago to less than 8,000 miles at the present. He stipulated that S.B. 97 was the only hope for preserving remaining streams for future generations.

Gerald Sjaastad argued that S.B. 413 would create a "hybrid" water right -- a right that was really not a right at all. He said that S.B. 413, if passed, would create a right so nebulous in value that it would not justify the time and effort invested in acquiring an instream appropriation.

David Harrison agreed with Mr. Sjaastad's testimony-- that S.B. 413 would repeal S.B. 97 and create a water right which could not be defended. The private interests which Harrison represented were interested in acquiring water rights and leaving that water in the stream bed to maintain minimum

flows during times of low flow. (The water would be given to the State in the form of a gift). Harrision maintained that S.B. 413 would make such a strategy useless.

As the discussion continued on S.B. 413, several ideas were mentioned regarding ways to establish minimum flows in the Poudre River. The logical solution was that of acquiring senior water rights for instream use. Some felt that future development should be responsible for maintaining minimum flow conditions. Another suggested that the City of Fort Collins allow its water to flow passed the lower critical reach point and then pump it back upstream for municipal use. All suggestions were subject to various degrees of criticism.

S.B. 413 was held over by the Senate Committee for further discussion on April 7, 1975. The discussion in this session was dominated by Senator Fred Anderson and Felix Sparks, Director of the Colorado Water Conservation Board. Anderson reiterated Ward Fischer's testimony of the previous session. He stated that S.B. 97 was originally intended to apply to the higher reaches of a stream. Anderson said that he had hoped the minimum flow proponents would stay out of the lower sections of a stream to prevent conflicts with agricultural and municipal interests. He maintained that the Poudre River conflict was only the first of many to come unless S.B. 413 were enacted.

Felix Sparks presented the Water Boards view in opposing S.B. 413. He said that the Poudre River water users had failed to go into court and get their exchanges adjudicated. He maintained that it was not the intention of the state -- in implementing S.B. 97 -- to eliminate the efficient water exchange system on the Poudre River. Sparks said that it was the Board's desire to protect the existing exchanges when considering minimum flow appropriations. To do so, he stated that the Cache la Poudre water users needed their exchanges confirmed by the water court so that the Water Board would have a recorded notice of those exchanges requiring protection. Sparks then proposed the following amendment to S.B. 413:

Any such appropriation shall be subject to exchanges of water made pursuant to practices in existence on the appropriation date of such flows or levels as may be confirmed by the court in the decree granting such appropriation.

Sparks further stated that future exchanges could be protected to a degree if the Poudre River water users would submit a plan indicating the various exchange options which might be efficiently utilized at a later date. According to Sparks, this approach would make possible those exchanges which were not consistently used on a yearly basis.²⁸

The Senate Committee adopted the amendment suggested by Sparks and sent the bill on to the House. On May 12, 1975, the House Committee on Agriculture, Livestock and Natural

Resources discussed S.B. 413 as amended. After considerable discussion of the bill's effects on future exchanges or changes in points of diversion, an amendment was introduced to return S.B. 413 to its original form. This amendment was unanimously adopted and S.B. 413 -- in its original version -- was reported favorably to the General Assembly.²⁹

S.B. 413 was not passed by this session of the Colorado State Legislature. The records show that it was layed-over until the 1976 session. At that time it will probably be re-introduced if the conflicts on the Poudre River have not been resolved.

The Boulder Creek Plan.

Is it reasonable to assume that minimum stream flow can be maintained in over-appropriated streams within the state of Colorado? After considering the Poudre River situation, one may wonder if such a concept will ever become a reality. However, progress is already being made on one over-appropriated stream in Colorado -- Boulder Creek.

The Water Conservation Board has already filed for minimum flow rights in Boulder Creek. However, such a right under S.B. 97 will provide little if any water since the stream is already over-appropriated. Recognizing the need for minimum flow water, the Boulder Chapter of Trout Unlimited and other interested citizens set out to investigate ways to

provide such water. They discovered that the International Business Machine Corporation (IBM) owned some water shares in the Colorado-Big Thompson Project which it wasn't using. IBM has since offered to donate some of that water for the maintenance of minimum flows in Boulder Creek.

The action by I.B.M. increased the optimism among the minimum flow proponents in the City of Boulder. At the present, several groups -- The Boulder Chapter of Trout Unlimited, the Colorado Mountain Club and the Colorado Chapter of The Nature Conservancy -- are working with the water department of Boulder to find ways to maintain minimum flows and still provide a sufficient water supply to satisfy municipal demand. On April 22, 1975, the City Council of Boulder passed a resolution demonstrating its support of water management measures which would enhance the environmental values of Boulder Creek. (see appendix G).

In addition to I.B.M.'s donation and Boulder's willingness to operate its exchange program for minimum stream flow purposes, Trout Unlimited and The Nature Conservancy are planning to initiate a fund raising project to acquire additional water rights to support the rehabilitation of Boulder Creek.

Figure 5 shows one water management plan which has been suggested for Boulder Creek. The first step involves acquiring

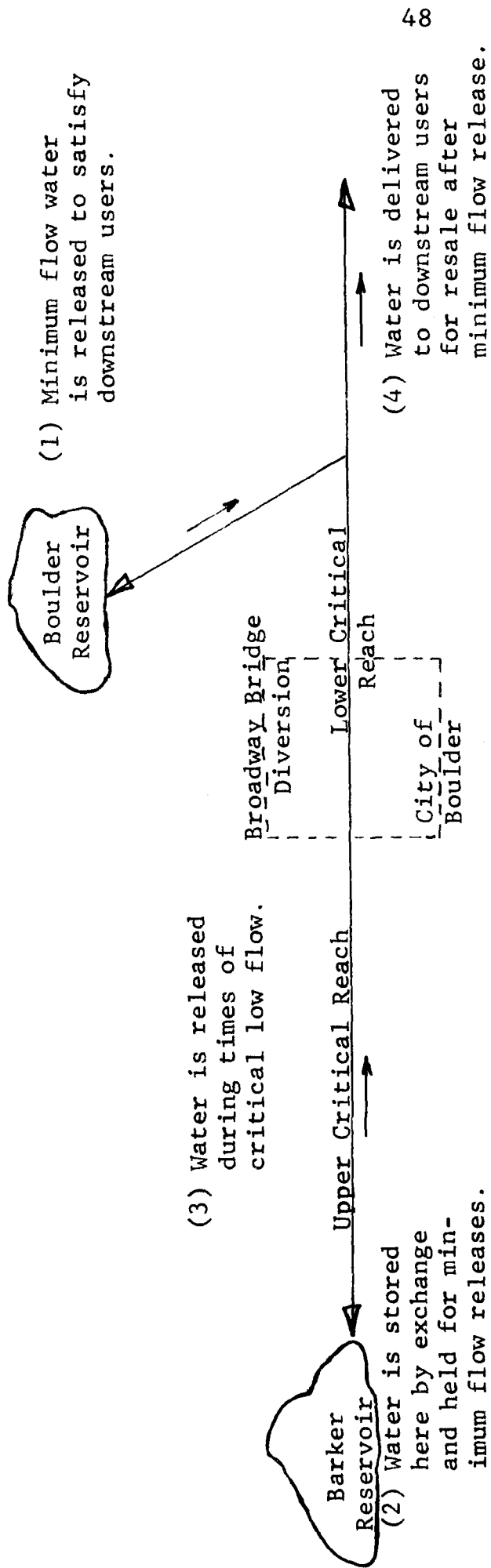


Figure 5
Perpetual-Motion Water Plan
for
Boulder Creek

water rights for minimum flow purpose downstream of the critical reach. This water is then exchanged for water in a reservoir upstream of the critical reach. As the flow in the critical reach approaches an insufficient level, the minimum flow water stored in the upstream reservoir is released. Once this water has passed through the critical reach, it is resold to downstream users.

It is evident that such a plan demands continuous co-operation and positive action by all interests involved. It is my opinion that the Boulder Creek Plan, or a similar version thereof, could be employed to maintain minimum flows in other over-appropriated streams of the state.

Conclusion

This report has been structured to present a general picture concerning the introduction and implementation of the minimum flow concept in the state of Colorado. The major challenge facing minimum flow proponents is that of finding ways to provide minimum flows in over-appropriated streams without adversely affecting existing and future efficient water-use programs on those streams.

It is my opinion that the best way to maintain minimum flows in over-appropriated streams is through acquisition of senior rights for that purpose. The question remains: "Who provides the money to acquire such rights?"

The Colorado Legislature has allocated \$50,000 to the Water Conservation Board to use in their implementation of S.B. 97 but no funds have been allocated to actually buy minimum flow water. The Legislature is not expected to establish such funds in the near future. However, there are other alternatives which exist.

One alternative for acquiring water rights is by donation as indicated by the Boulder Creek case. It is possible that such a transaction can be structured to offer substantial tax advantages to the donor. Good public relations would be an additional benefit for businesses or corporations involved in such an agreement.

Another alternative involves an approach used by The Nature Conservancy which I will call the "pre-acquisition" method. This approach has been used in the past by the Conservancy to buy land for environmental conservation purposes. The Nature Conservancy usually signs an agreement with the appropriate government agency which allows it (the Conservancy) to buy land and resell it to the agency, once that agency has obtained the necessary funds. The Conservancy use its national revolving fund for capital. Such an approach would seem equally useful in acquiring minimum flow water rights.

Once minimum flow rights have been acquired, it is imperative that such rights receive the recognition and protection afforded other water uses within the State.

ENDNOTES

- 1.) Frank J. Trelease, Water Law--Resource Use and Environmental Protection, p. 61.
- 2.) Ibid.
- 3.) Ibid., p. 62.
- 4.) Ibid., p. 63.
- 5.) National Water Commission, Water Policies for the Future, pp. 272-273.
- 6.) U.S. Congress, Senate, "Amendments to the Coordination Act of 1934 (H.R. 6097), 79th Cong., 2d sess., 7 May 1946. Congressional Record, 92:4561.
- 7.) Ibid., p. 10349.
- 8.) National Water Commission, pp. 25-26.
- 9.) Trelease, p. 62.
- 10.) Ibid., p. 63.
- 11.) Ibid., p. 45.
- 12.) Ibid., p. 80.
- 13.) Donald H. Hamburg and C. J. Kuiper, eds., Colorado Statutes Pertaining to Water Resource and Selected Water Cases, p. 1.
- 14.) Trelease, p. 43.
- 15.) Ibid., pp. 44-45.
- 16.) Ibid., p. 39.
- 17.) Ibid.
- 18.) Ibid., p. 40.
- 19.) Ibid.

- 20.) Ibid.
- 21.) Ibid., p. 41.
- 22.) Charles R. Goldman, James McEvory III, and Peter J. Richerson, eds., Environmental Quality and Water Development, p. 65.
- 23.) Holland and Hart, Report to Governor John A. Love on Certain Colorado Law Problems, December 20, 1972, p. 72.
- 24.) Colorado State Archives and Records Service. Senate Committee on Agriculture, Livestock and Natural Resources. Taped Hearings on Senate Bill 97, January 31, 1973.
- 25.) Colorado State Archives and Records Service. House of Representatives. Taped Hearings of Floor Debate on Senate Bill 97, March 13 & April 2, 1973.
- 26.) Duane Helton and Eddie Kochman, "No More Dry Streams", Colorado Outdoors, May-June, 1975, pp. 14-18.
- 27.) Ibid., p. 15.
- 28.) Colorado State Archives and Records Service. Senate Committee on Agriculture, Livestock and Water. Taped Hearings on Senate Bill 413, April 3 & 7, 1975.
- 29.) Colorado State Archives and Records Service. House Committee on Agriculture, Livestock and Natural Resources. Taped Hearings on Senate Bill 413, May 12, 1975.

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Trelease, Frank J. Water Law -- Resource Use and Environmental Protection, second edition, St. Paul, West Publishing Company, 1974.

U. S. Congressional Record, 79th Cong., 2d sess., 1946, vol. 92.

OTHER REFERENCES

The majority of the information in this report was obtained by attending meetings on the minimum flow concept or through personal interviews with persons familiar with the subject. The following is a list of such contacts:

April 22, 1975, Meeting at Colorado State University on Minimum Flows in the Poudre River, Speakers: Duane Helton, Colorado Water Conservation Board and Eddie Kochman, Colorado Division of Wildlife.

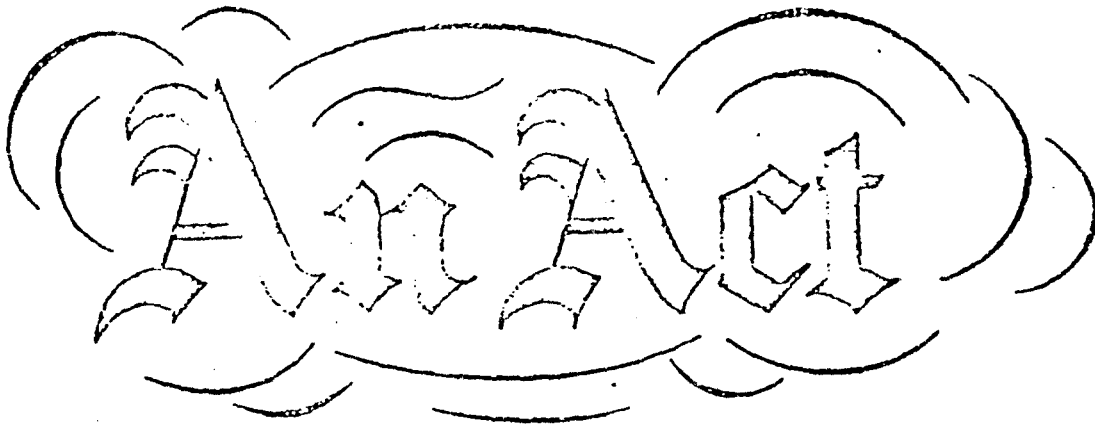
June 25, 1975, Interview with Mr. Ward Fischer, Water Law Attorney, Fort Collins, Colorado.

July 1, 1975, Interviews with Mr. Eddie Kochman, Colorado Division of Wildlife and Mr. Duane Helton, Colorado Water Conservation Board.

July 3, 1975, Interview with Mr. David Harrison, Water Law Attorney, Boulder, Colorado.

APPENDIX A

Senate Bill No. 97



SENATE BILL NO. 97. BY SENATORS Anderson, Kinnie, McCormick, H. Brown, DeBerard, Schieffelin, Noble, Kogovsek, Birmingham, Cisneros, H. Fowler, Carnsey, Kinnie, MacManus, and Plock; also REPRESENTATIVES Strang, Edmonds, Arnold; Baer, Benavidez, Bendelow, Cooper, Gunn, Hayes, Howe, Hybl, Lamm, Ross, Smith, Taylor, Valdez, and Webb.

CONCERNING THE APPROPRIATION OF WATER, AND PROVIDING FOR THE APPROPRIATION OF WATER BY THE STATE OF COLORADO TO PROTECT THE NATURAL ENVIRONMENT.

Be it enacted by the General Assembly of the State of Colorado:

SECTION 1. 148-21-3 (6), (7), and (10), Colorado Revised Statutes 1963 (1969 Supp.), are amended to read:

148-21-3. Definitions. (6) "Appropriation" means the ~~diversion of a certain portion of the waters of the state and the application of the same~~ A CERTAIN PORTION OF THE WATERS OF THE STATE to a beneficial use.

(7) "Beneficial use" is the use of that amount of water that is reasonable and appropriate under reasonably efficient practices to accomplish without waste the purpose for which the diversion APPROPRIATION is lawfully made and, without limiting the generality of the foregoing, shall include the impoundment of water for recreational purposes, including fishery or wildlife. FOR THE BENEFIT AND ENJOYMENT OF PRESENT AND FUTURE GENERATIONS, "BENEFICIAL USE" SHALL ALSO INCLUDE THE APPROPRIATION BY THE STATE OF COLORADO IN THE MANNER PRESCRIBED BY LAW OF SUCH MINIMUM FLOWS BETWEEN SPECIFIC POINTS OR LEVELS FOR AND ON NATURAL STREAMS AND LAKES AS ARE REQUIRED TO PRESERVE THE NATURAL ENVIRONMENT TO A REASONABLE DEGREE.

Capital letters indicate new material added to existing statutes; dashes through words indicate deletions from existing statutes and such material not part of act.

(10) "Priority" means the seniority by date as of which a water right is entitled to divert USE or conditional water right will be entitled to divert USE and the relative seniority of a water right or a conditional water right in relation to other water rights and conditional water rights deriving their supply from a common source.

SECTION 2. 143-21-2, Colorado Revised Statutes 1963 (1969 Supp.), is amended BY THE ADDITION OF A NEW SUBSECTION to read:

148-21-2. Declaration of policy. (5) Further recognizing the need to correlate the activities of mankind with some reasonable preservation of the natural environment, the Colorado water conservation board is hereby vested with the authority, on behalf of the people of the State of Colorado, to appropriate in a manner consistent with sections 5 and 6 of article XVI of the state constitution, or acquire, such waters of natural streams and lakes as may be required to preserve the natural environment to a reasonable degree. Prior to the initiation of any such appropriation, the board shall request recommendations from the division of wildlife and the division of parks and outdoor recreation. Nothing in this article shall be construed as authorizing any state agency to acquire water by eminent domain, or to deprive the people of the state of Colorado of the beneficial use of those waters available by law and interstate compact.

SECTION 3. 143-21-18 (1) (d), Colorado Revised Statutes 1963 (1971 Supp.), is amended to read:

148-21-18. Applications for water rights or changes of such rights - plans for augmentation. (1) (d) The fee for filing an application shall be twenty-five dollars; and for filing a statement of opposition, the fee shall be fifteen dollars. If more than one water right is requested in any application, a fee of five dollars for each additional right shall be assessed. NO FEE SHALL BE ASSESSED TO THE STATE OF COLORADO OR ANY AGENCY OF ITS EXECUTIVE DEPARTMENT UNDER THIS SUBSECTION (1).

SECTION 4. Effective date. This act shall take effect July 1, 1973.

SECTION 5. Safety clause. The general assembly hereby

APPENDIX B

Idaho Water Users Association

v.

Idaho Department of Water Administration

Supreme Court of Idaho

December 31, 1974

96 Idaho 440

In the Matter of Permit Application No. 37-7108 in the Name of the State of Idaho Department of Parks (Malad Canyon Springs).

STATE of Idaho, DEPARTMENT OF PARKS, Respondent,

Idaho Water Users Association et al.,
Respondents and Cross Appellants,

v.

IDAHO DEPARTMENT OF WATER ADMINISTRATION, Appellant and
Cross Respondent.

No. 11455.

Supreme Court of Idaho.

Dec. 31, 1974.

Water users and Department of Water Administration appealed a judgment of the Fifth Judicial District Court, Gooding County, Charles Scoggin, J., appropriating certain waters to Department of Parks for recreation and scenic uses. The Supreme Court, Shepard, C. J., held that for purposes of recreation and preservation of scenic views, the Department of Parks could constitutionally appropriate in trust for people of state certain unappropriated waters of canyon; that such appropriation constituted a "beneficial use"; and that such appropriation could be made without an actual physical diversion of the waters.

Judgment affirmed and case remanded.

Bakes, J., concurred specially and filed opinion in which Donaldson, J., concurred.

McQuade and McFadden, JJ., dissented and filed opinions.

1. Waters and Water Courses ⇨131, 140

Department of Parks could constitutionally appropriate in trust for people of state certain unappropriated waters of canyon, thus obtaining a water right having priority over water rights on the same waters which might have been subsequently appropriated by private parties; overruling State Water Conservation Board v. Enking, 56 Idaho 722, 58 P.2d 779, to the extent of conflict. I.C. § 67-4307; Const. art. 15, § 3.

2. Waters and Water Courses ⇨132

Preservation of aesthetic values and recreational opportunities for citizens of state was, under the circumstances, a "beneficial use" which would support an appropriate water right by Department of Parks. I.C. § 67-4307; Const. art. 15, § 3.

See publication Words and Phrases for other judicial constructions and definitions.

3. Waters and Water Courses ⇨133

For purposes of recreation and preservation of scenic views, Department of Parks could appropriate in trust for people of state certain unappropriated waters of canyon without an actual physical diversion of the waters, despite statutory mandate that location and description of proposed physical diversion of water be given in an application for permit to appropriate water. Const. art. 15, § 3; I.C. §§ 42-103, 42-201, 42-202, 67-4307.

4. Waters and Water Courses ⇨133

Statute directing Department of Parks to appropriate in trust for people of state certain unappropriated natural waters of canyon was intended to dispense with any physical diversion requirement as to the appropriation. I.C. §§ 42-103, 42-201, 42-202, 67-4307.

Nathan W. Higer, Deputy Atty. Gen., for Department of Water Administration, appellant and cross respondent.

John A. Rosholt, Parry, Robertson, Daly & Larson, Twin Falls, for respondents and cross appellants Idaho Water Users Association, Twin Falls Canal Company and North Side Canal Company.

W. Anthony Park, Atty. Gen., and Matthew J. Mullaney, Deputy Atty. Gen., for respondent Department of Parks.

SHEPARD, Chief Justice.

This is an appeal and a cross-appeal from a judgment of the district court in an action wherein the Idaho Department of Parks, pursuant to statute, sought to appropriate in trust for the people of Idaho cer-

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tain unappropriated waters of the Malad Canyon. The case presents for consideration three primary questions:

1. May an agency of the State of Idaho, without express constitutional authority, appropriate waters and obtain a priority water right;

2. Does the appropriation of water for the purposes of recreation and the preservation of scenic views constitute a "beneficial use";

3. In Idaho may there be created a valid appropriative water right in the absence of an actual physical diversion of the water from its natural locus or condition.

In 1971 the Idaho Legislature enacted I.C. § 67-4307.¹ In essence the statute directs the Department of Parks of the State of Idaho to appropriate in trust for the people of Idaho certain unappropriated natural waters of the Malad Canyon in Gooding County, Idaho. Additionally, it declares (1) that the preservation of the waters for scenic beauty and recreation uses is a beneficial use of water; (2) that the public use of those waters is of greater priority than any other use save domestic consumption, and (3) that the unappropriated state land located between the highwater marks on either bank of these

waters is to be used and preserved in its present condition as a recreational site for the people of Idaho.

Pursuant to the statute the Idaho Department of Parks filed an application for a permit to appropriate the waters specified by the statute. The waters in question arise in part at least from springs in the canyon and are natural waters. There appears no argument but that there is unappropriated water available for appropriation.

That application was protested by the Idaho Water Users Association, Twin Falls Canal Company, and the North Side Canal Company under the provisions of I.C. § 42-203. Those parties are cross-appellants herein and are hereafter designated "Water Users." The parties stipulated that the answers to the following legal issues were dispositive of the matter.

1. Is it constitutional for an Idaho State agency to appropriate, without express constitutional authorization, the waters of a natural stream, thereby obtaining a water right having priority over water rights on the same stream which may be subsequently appropriated by private parties?

1. 67-4307. *Malad Canyon—Appropriation of waters in trust for people—Lands devoted to recreational use.*—The state park board [park and recreation board] is hereby authorized and directed to appropriate in trust for the people of the state of Idaho the unappropriated natural spring flow arising upon the area described as follows, to-wit:

The south half ($\frac{1}{2}$) of the southwest quarter ($\frac{1}{4}$), and the south half ($\frac{1}{2}$) of the southeast quarter ($\frac{1}{4}$), of section twenty-five (25), township six (6) south, range thirteen (13) east of the Boise Meridian; and

The north half ($\frac{1}{2}$) of the northwest quarter ($\frac{1}{4}$), and the northwest quarter ($\frac{1}{4}$) of the northeast quarter ($\frac{1}{4}$), of section thirty-six (36), township six (6) south, range thirteen (13) east of the Boise Meridian.

The preservation of water in the area described for its scenic beauty and recreational purposes necessary and desirable for all citizens of the state of Idaho is hereby declared to be a beneficial use of such water.

No fee shall be required in connection with said appropriation by the state park board

[park and recreation board] or the permit issued in connection therewith, but license shall issue at any time upon proof of beneficial use to which said waters are now dedicated.

The park board [park and recreation board], or its successor, shall be deemed to be the holder of such permit, in trust for the people of the state, and the public use of the unappropriated water in the specific area herein described is declared to be of greater priority than any other use except that of domestic consumption.

The unappropriated lands belonging to the state of Idaho between the high water mark on one (1) bank to the high water mark on the opposite bank, of the area described, are hereby declared to be devoted to a public use in connection with the preservation of the area in its present condition as a place of recreation for the citizens of the state of Idaho. [I.C., § 67-4307, as added by 1971, ch. 207, § 1, p. 912].

2. Are the uses described in I.C. § 67-4307 (scenic beauty and recreational purposes) "beneficial uses" which support a water appropriation under the Idaho Constitution?

3. Can there be created in Idaho a valid appropriative water right without an actual physical reduction to possession of the claimed water through an actual diversion of the water from, or artificial control of the water in, the water's natural locus or condition?

The Department of Water Administration issued a decision July 6, 1972 holding that a state agency can lawfully appropriate waters of a natural stream and that recreation and aesthetic uses are beneficial uses of water, but found that in Idaho there can be no valid appropriation of water without at least a proposed physical diversion or reduction of water to possession. Finding that there was no proposed physical diversion or reduction to possession intended on the part of the Department of Parks, the Department of Water Administration refused to issue the permit.

The Department of Parks appealed this decision as to issue 3 to the district court, and the Water Users cross-appealed upon issues 1 and 2. The parties filed motions for summary judgment. The district court held that a valid appropriation can be effected without actual physical diversion or reduction of water to possession and granted the motion of Parks as to issue 3. The motions of the Department of Water Administration and Water Users as to issues 1 and 2 were denied. The Department of Water Administration has appealed the decision of the district court and the Water Users have cross-appealed.

I.

[1] The Water Users are the only parties which assert that the district court erred when it held that a state agency can constitutionally appropriate unappropriated waters of natural streams. The Water Users argue that to allow such an appropriation would eliminate the availability of

that water for appropriation by private parties, thus violating article 15, section 3 of the Idaho Constitution. In pertinent part it is stated therein:

"The right to divert and appropriate the unappropriated waters of any natural stream to beneficial uses, shall never be denied * * *."

Authority for the assertion of the Water Users is not found in the plain language of that constitutional provision since there is no limitation therein to "private parties" as distinguished from the state or a state agency. We deem it common knowledge and it is pointed out in the decision of the Department of Water Administration that in Idaho and throughout the western states, state agencies frequently appropriate water, i. e., the Fish and Game Department appropriates water for pisciculture, state universities appropriate and consume water, the Department of Parks utilizes water to maintain state parks. See also 1 W. A. Hutchins, *Water Rights Laws in the Nineteen Western States*, ch. 7, pp. 250-251 (1971). It is true, as argued, that if a state agency is allowed to appropriate water the quantity of unappropriated water is thereby reduced. Nevertheless, the same is true of any appropriation regardless of the identity of the appropriator. We have not been supplied, nor has our research discovered, any authority from our sister states having constitutional provisions analogous to ours which supports this contention of the Water Users.

The Water Users assert that their position is supported by *State Water Conservation Board v. Enking*, 36 Idaho 722, 58 P. 2d 779 (1936). In *Enking* a state statute creating the State Water Conservation Board and defining its duties and powers was declared unconstitutional. We deem the dispositive issue in that case to be that the act in question had in effect created a corporation and was thus invalid under either article 3, section 19, or article 11, section 2 of the Idaho Constitution. In candor, however, we must state that *Enking* contains language supportive of the Water

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Users position herein. Nevertheless we deem such language to be arguably dictum and only supportive of the court's conclusion that the Water Conservation Board therein was a corporation. Certain of the language from *Enking*, albeit probably dictum, could be construed to indicate that our constitution imposes an absolute prohibition against the state's appropriating water. The Water Users have adopted this view, asserting that the constitution must be amended prior to state agencies being allowed to appropriate water.

It is our opinion that the fears of the *Enking* court which prompted its construction of article 15, section 3, are totally inapplicable to the case at bar. The court in *Enking* speaks of that Board's power "to appropriate any or all the unappropriated public waters of the state" and "the settler [being] thereby forced to ultimately pay arbitrarily fixed water rates for the use of water." The court in *Enking* also expressed considerable alarm at the Board's authority to "condemn private water rights," to "monopolize" water rights, and to "appropriate and sell the unappropriated waters of the state." In contrast with the situation in *Enking* and the fears of the court expressed therein, I.C. § 67-4307, at issue herein, only authorizes the Department of Parks to appropriate, in trust for the public, certain clearly designated waters for nonconsumptive use. We are of the opinion that the legislature in the instant case has not adopted an insidious scheme in an attempt to monopolize the state's unappropriated waters or to condemn already appropriated waters. Only in a geographical sense can there be said to be any interference with a future private appropriative right since the legislatively authorized use is nonconsumptive and once the waters have left the area delineated by the statute they are and will be subject to routine private appropriation.

We hold that I.C. § 67-4307 does not constitute a disobedience of the constitutional mandate that the "right to divert and appropriate the unappropriated waters * * * to beneficial uses, shall never be de-

nied." The only authority contrary to that holding is the language we determine to be arguably dictum in *Enking*, and to the extent that this opinion is inconsistent with that language we overrule the latter.

II.

[2] The Water Users also assert error in the trial court's determination that the preservation of aesthetic values and recreational opportunities for the citizens of this state is a beneficial use in the sense that they will support an appropriative water right under the Idaho Constitution.

The foundation of the Water Users' argument is that the five uses specified in article 15, section 3 of the Constitution, i. e., domestic, agriculture, mining, manufacturing and power are exclusive and thus are the only uses that are consumable beneficial uses under our Constitution. We reject that argument.

We find no support for the position of the Water Users in the discussions reported in II Idaho Constitutional Convention, Proceedings and Debate 1889 (1912), as pertaining to article 15, section 3. It appears that insofar as particular uses were mentioned in the debates, discussion was confined to the establishment of preferences for certain uses over others under certain circumstances. Such establishment of preferences appears to be a common feature of water law in the west. See 1 W. A. Hutchins, *Water Rights Laws in the Nineteen Western States*, *supra*. While it is well established in western water law that an appropriation of water must be made for a "beneficial use," nevertheless in Idaho at least the generic term "beneficial use" has never been judicially or statutorily defined. Our research does not disclose any case in which any court has attempted to define the term "beneficial use." Comment, *Water Appropriation for Recreation*, 1 *Land and Water Law Review* 209, 210 (1966).

Consideration of the statute in question herein indicates clearly that the legislature has declared that "[t]he preservation of

water in the area described for its scenic beauty and recreational purposes necessary and desirable for all citizens of the state * * * is hereby declared to be a beneficial use of such water." We note that numerous other western states have recognized through legislation that utilization of water for scenic or recreational purposes is a beneficial use. 1 W. A. Hutchins, *Water Rights Laws in the Nineteen Western States*, ch. 8, pp. 542 (1971). Such legislation in other states carries no binding effect on this court but, in the absence of persuasive case law to the contrary, it would appear to indicate that the use of water for providing recreational and aesthetic pleasure represents an emerging recognition in this and other states of social values and benefits from the use of water. See *Final Report to the President and to the Congress of the United States by the National Water Commission*, Ch. 7, sec. E, p. 271 et seq. (1973). The statute in question herein recognizes aesthetic and recreational values and benefits which will accrue to the people of the state in respect to the waters of Malad Canyon. We find no basis upon which to disturb that declaration of the legislature that in this instance those values and benefits constitute "beneficial uses." The decision of the district court upon this issue is affirmed.

III.

[3,4] We now reach the final issue as to whether there must be an actual physical diversion of the water in order to support an appropriation. This issue was raised upon appeal by both the Department of Water Administration and the Water Users, both of whom assert error in the trial court's determination that such physical diversion was not necessary.

The precise language of article 15, section 3, does not bear on this question but merely declares "[t]he right to divert and appropriate the unappropriated waters of any natural stream to beneficial use, shall never be denied * * *." Certain language in the late case of *Glenn Dale Ranches, Inc. v. Shaub*, 94 Idaho 585, 494

P.2d 1029 (1972) and the earlier cases of *Sandpoint Water and Light Company v. Panhandle Development Company*, 11 Idaho 405, 83 P. 347 (1905), and *Hutchinson v. Watson Slough Ditch Co.*, 16 Idaho 484, 101 P. 1059 (1909) can be read as suggesting that our constitution requires an actual physical diversion of water in order to claim an appropriative right. However, a close reading of those cases indicates that the actual holdings of the cases insofar as they relate to the necessity of an actual physical diversion are based on statutory requirements.

We hold that our Constitution does not require actual physical diversion. We deem it clear that until the time of the enactment of the statute in question herein Idaho's statutory scheme regulating the appropriation of water has contemplated an actual physical diversion. See I.C. § 42-101, 42-201, 42-202. See *however* Comment, *The Prerequisite of a Man-Made Diversion in the Appropriation of Water Rights—State ex rel. Reynolds v. Miranda*, 83 N.M. 443, 493 P.2d 409 (1972); 13 *Natural Resources J.* 170 (1973).

We note that the Colorado constitution is similar to Idaho's article 15, section 3, and provides:

"Diverting unappropriated water * * *—The right to divert the unappropriated waters of any natural stream to beneficial uses shall never be denied * * *" Article XVI, sec. 6, Constitution of Colorado.

In *Genoa v. Westfall*, 141 Colo. 533, 349 P.2d 370 (1960) the Colorado court held that an actual physical diversion was not necessary to a water appropriation so long as the appropriator intends to apply the waters to a beneficial use and actually applies them to that use. The rationale of *Genoa* became suspect after the decision of the Colorado court in *Lamont v. Riverside Irrigation District*, 498 P.2d 1150 (Colo. 1972), but the matter appears to have been now laid at rest following the 1973 Colorado legislation wherein its statutory law of appropriation was amended so as to permit

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appropriation without actual diversion. 2 Colorado Session Laws, 1973, ch. 442. Further it does not appear that Colorado courts have relied upon their constitution to establish an actual physical diversion requirement.

An examination of the statutory law of Idaho however reveals a different problem. As a general proposition one must set forth the location and description of a proposed physical diversion of water in an application for a permit to appropriate water. I.C. § 42-202. The Idaho legislature in 1971 made compliance with the statutory permit procedure mandatory. Idaho Session Laws, Ch. 177 (1971); See I.C. § 42-103, 42-201.

In the statute before us, I.C. § 67-4307, the Idaho legislature has clearly stated a policy at odds with its previous general statutory scheme of water appropriation. I.C. § 67-4307 directs parks "to appropriate [not 'divert and appropriate'] the unappropriated natural spring flow" of the Malad Canyon and declares the "preservation of water in the area described for its scenic beauty and recreational purposes" is a beneficial use. Furthermore, the statute states that "license shall issue at any time upon proof of beneficial use to which said waters are now dedicated." We deem it clear that the legislature intended no physical diversion of water be required in the appropriation of the subject waters.

It is axiomatic that where a general statute and a specific statute deal with the same subject matter and are in conflict, the provisions of the specific statute must control. *State v. Roderick*, 85 Idaho 80, 375 P.2d 1005 (1962); *State ex rel. Taylor v. Taylor*, 58 Idaho 656, 78 P.2d 125 (1938). It is also clear that where two statutes conflict the latest expression of the legislative will must prevail. *Employment Security Agency v. Joint Class "A" School District No. 151*, 88 Idaho 384, 400 P.2d 377 (1965).

We deem it to be the intent of the Idaho Legislature to dispense with any physical diversion requirement in the case of the

appropriation directed in I.C. § 67-4307. Any other construction would nullify the obvious purpose of I.C. § 67-4307. Courts should if possible in construing a statute give it an interpretation which does not in effect nullify the statute. *DeRousse v. Higginson*, 95 Idaho 173, 505 P.2d 321 (1973).

The judgment of the district court is affirmed and the case is remanded to the Department of Water Administration for further proceedings consistent with the views contained herein. Costs to respondent.

DONALDSON, J., concurring.

BAKES, J., concurs specially in an opinion to follow.

BAKES, Justice (concurring specially):

I concur in the result reached by Chief Justice Shepard in his plurality opinion, although not necessarily everything stated therein. Additionally, I wish to address in a different manner the question of whether or not the preservation of the waters of Malad Canyon in a natural state is a beneficial use that may be appropriated without the means of a diversion. (Parts II and III of that opinion).

[1,2] The first question to be considered is whether any uses other than the uses referred to in Article 15, § 3, of the Idaho Constitution—domestic, mining, agricultural and manufacturing—can be beneficial uses of water under the Idaho Constitution. This section has remained unchanged since the adoption of the Idaho Constitution except for an amendment late in the 1920's which added language that granted the state the right to regulate water use for power purposes. This amendment was of narrow scope and did not affect the structure of the section. For that reason, I do not believe that the amendment was intended to change any restrictions there may have been in the original section regarding the beneficial uses mentioned therein. Given this, the question becomes, did the draftsmen of the Idaho Constitution intend the priority scheme for

the use of water under Article 15, § 3, for domestic, mining, agricultural and manufacturing purposes to be an exclusive listing of all beneficial uses?

The Idaho Constitution does not explicitly answer this question. The debates preceding the adoption of Article 15, § 3, show that uses were listed so that definite priorities between uses would be elevated to constitutional status. Idaho Constitutional Convention, Proceedings and Debates, Vol. II, pp. 1115-48, 1154-66, 1330, 1331-33, 1340-43, 1350-65 (1889). The debates upon the section do not deal with the matter of whether or not these are the only possible beneficial uses; rather, they simply address themselves to the political question of which uses shall be preferred over the others. Neither the language of the section nor the debates concerning adoption of the section show an intent to limit the uses which may be beneficial uses to those the priorities of which are listed in the section. If the question posed is to be answered, the answer must be based

upon considerations not found expressly within the language of the Constitution itself or the constitutional debates.

Article 15 of the Idaho Constitution does not concern itself with abstract notions such as the relationship between the citizenry and their government, but instead concerns itself with the very practical question of water rights. I think we should look to very practical considerations in attempting to construe it. Prior to the time that the Constitution was adopted there were a number of common uses of water which were neither domestic, mining, agricultural nor manufacturing. A community would store water in a tank for use in fighting fires. The operator of a livery stable or a stockyard would water the stock kept there. Logging operations used water both to transport logs and for storage in mill ponds. Communities would use water wagons to settle dust on their dirt streets.¹ The railroad used water for its steam engines and other uses related to the operation of the railroad.² All of

1. Research has not uncovered a case in which the precise point has been presented of whether or not a use other than one explicitly mentioned in Article 15, § 3, may be a beneficial use, but there are cases in which it has apparently been assumed that such uses are beneficial. In *City of Pocatello v. Murray*, 206 F. 72 (D.C. Idaho 1913), affirmed 214 F. 214 (C.A.9, 1914), a case interpreting the contract between the City of Pocatello and the operators of its waterworks franchise, the question of the quantity of water which the franchisees were obligated to deliver was at issue. It was said in that case that the uses to which the water was to be put by the municipality included street sprinkling and protection against fire. The franchisees in the case were claiming that they were not obligated to deliver as much water as the City of Pocatello demanded. If it had been in the general contemplation of the law at that time that a city could not appropriate water for settling the dust on its streets or for storage for fighting fires, the franchisees probably would have argued that the city had no right to put the water to all the uses for which it was putting it, and thus the franchisees were under no obligation to deliver as much water as the city demanded. But the opinion reveals no challenge to the city's right to put water to these uses. Thus, it would seem that street sprinkling and fire-

fighting were recognized as beneficial uses of water by the parties to that 1913 case, even though they were not mentioned in the Constitution.

2. A review of the transcript in the case of *Beus v. City of Soda Springs*, 62 Idaho 1, 107 P.2d 151 (1940), reveals that as early as 1902 a district court in Idaho had adjudicated a water right, with a priority date of 1885 (before the adoption of the Idaho Constitution), which was in part to be used for purposes other than those listed in Article 15, § 3. In the *Beus* case a number of parties were litigating their rights to remove water from Ledge Creek, a small stream near Soda Springs. The Oregon Short Line Railroad Company was made a party to a suit, but all the parties to the suit agreed to the following stipulation with regard to the railroad's rights, as set out in the trial court's Finding of Fact IV:

"It is hereby stipulated [by all the parties] that no controversy exists between the parties with respect to the water right of the Oregon Short Line Railroad Company, and it may be decreed that said Oregon Short Line Railroad Company is the owner and entitled to the use of $\frac{1}{2}$ of a cubic foot per second of waters of Ledge Creek . . . with priority date of April 1, 1885, as decreed to it by Decree of Fifth

these uses were undoubtedly considered beneficial, but none of them were domestic, mining, agricultural or manufacturing. I do not believe that by adopting Article 15, § 3, of the Idaho Constitution that it was intended that uses such as these could no longer be considered beneficial uses. On the contrary, the universal expectation must have been that such uses could continue and could be the subject of an appropriation. Many of those uses still continue today, and the changing needs of our society are generating new uses for water which are neither domestic, agricultural, mining nor manufacturing. As an example, many privately owned public swimming pools or health facilities have applied for and received licenses to drill their own wells to supply their water needs. Natural hot water springs have been extensively developed into health resorts, e. g., Lava Hot Springs, upon the assumption that they have obtained a valid right to the use of the water in their facilities. Such uses could not be considered as domestic, mining, agricultural or manufacturing as used in Article 15, § 3, without unduly broadening the definitions of the terms, yet such uses are no doubt beneficial from a societal point of view in that they contribute to the general welfare of the citizenry; and unless a valid water right could be obtained for such a use, not only would society suffer by the loss of such uses, but a great deal of capital which has been invested in reliance upon the validity of a right to such a use for water would be in jeopardy. I therefore conclude that uses other than those enumerated in Article 15, § 3, can be beneficial uses.

The next question is whether the use at issue in this case is beneficial. The uses enumerated by Article 15, § 3, have been raised to the status of beneficial uses by the Constitution, and they will remain beneficial uses so long as the Constitution is unchanged. But we have before us a use for scenic and recreational purposes. Even though the legislature has declared the use to be beneficial, this Court is the final arbiter of the construction of the Idaho Constitution, and therefore we must determine whether or not the scenic and recreational uses in this case are a "beneficial use" within the meaning of Article 15, § 3, of the Constitution. See *Moyie Springs, Idaho v. Aurora Manufacturing Co.*, 82 Idaho 337, 353 P.2d 767 (1960).

With the exception of those uses elevated to beneficial status by Article 15, § 3, of the Constitution, the concept of what is or is not a beneficial use must necessarily change with changing conditions. For example, if we were now presented with a question of whether or not using water to operate a public swimming pool, a fountain, or to flood a tract to provide ice for a skating rink were beneficial uses, a good argument could be presented that such uses, although not domestic, mining, agricultural or manufacturing uses, were nevertheless beneficial. But we cannot say that such uses will always be beneficial because conditions might so change that these uses would be an unjustifiable use of water needed for other purposes. The notion of beneficiality of use must include a requirement of reasonableness. With the exception of the uses implicitly declared to be beneficial by Article 15, § 3, there is al-

Judicial District Court in and for Bannock County, dated April 6, 1902, [in the case of *Wetzel v. Nichols*]' and which stipulation is hereby approved and adopted by the court; and which water is for use of said Oregon Short Line Railroad Company for the operation of its trains and for the supply of the depot and stockyards of said railroad company" (Clk.Tr. pp. 729-730).

All the parties stipulated to the validity of the railroad's appropriation for water for the

operation of its trains, i. e., water for the steam engines' boilers, and for use in watering stock in transit in its stockyard. At least one, and perhaps both of these uses are non-Article 15, § 3, uses. It must have been assumed by the parties to the suit that these appropriations were unassailable, or such a stipulation would not have been entered into. This is further evidence that non-Article 15, § 3, uses were recognized from the territorial times in Idaho and in the early days of statehood and into the 1930's.

ways a possibility that other uses beneficial in one era will not be in another and *vice versa*. As stated in *Tulare Irrig. Dist. v. Lindsay-Strathmore Irrig. Dist.*, 3 Cal.2d 489, 45 P.2d 972, 1007 (1935):

"What is a beneficial use, of course, depends upon the facts and circumstances of each case. What may be a reasonable beneficial use, where water is present in excess of all needs, would not be a reasonable beneficial use in an area of great scarcity and great need. What is a beneficial use at one time may, because of changed conditions, become a waste of water at a later time."

What we have decided in this case is that the use now before us, although not specifically listed in Article 15, § 3, of the Constitution, is beneficial because, considering today's circumstances, the legislative classification is reasonable based on the record. I would restrict today's holding to the narrow proposition that the use before us is beneficial so long as, and only so long as, the circumstances of water use in the state have not changed to the extent that it is no longer reasonable to continue this use at the expense of more desirable uses for more urgent needs. It should receive the same treatment as all other non-constitutional beneficial uses. The use before us is beneficial when considered in the abstract because a non-consumptive use of water at Malad Canyon to preserve a scenic attraction, both for aesthetic and recreational purposes, is desirable and beneficial, and because the demands upon the water resources of this state are not so severe that this use, which is beneficial when considered alone, becomes unreasonable and not beneficial when considered in conjunction with all of the water resource development needs in the state. This supports the legislative determination that non-consumptive appropriations of water in natural waterways for scenic and recreational purposes, among others, can, under proper circumstances, be a beneficial use; this follows precedents such as similar appropriations by the legislature in 1927 of

the waters of Big Payette Lake, I.C. §§ 67-4301 to 67-4303, and of Priest, Pend Orielle and Coeur d'Alene Lakes, I.C. §§ 67-4304 to 67-4306. Our sister states of Oregon, Texas and California have also provided by statute that water used for recreational purposes is beneficially applied, while New Mexico has reached this result under case law. ORS §§ 536.300(1), 537.170(3)(a), 543.225(3)(a); Tex.Civ.Code Annot., art. 7471 (1970 Supp.); Cal.Water Code § 1243; *State ex rel. State Game Commission v. Red River Valley Co.*, 51 N.Mex. 207, 182 P.2d 421 (N.Mex.1945). The Oregon statutes further provide that use of water to maintain scenic attractions is a beneficial purpose. On this issue I am in agreement with the plurality in this case and with the other states named.

[3, 4] However, in addition to determining whether this is a beneficial use, we must also decide whether or not the Constitution requires that all appropriations be made through the means of a diversion or whether the legislature may, as was done here, provide that an appropriation may be made without a diversion when the beneficial use provided for can be achieved without a diversion. As the plurality opinion points out, there has been no authoritative construction of Article 15, § 3, holding that that section requires a diversion for there to be a valid appropriation; neither does that section of the Constitution explicitly require a diversion for there to be an appropriation. We must again look to other sources for guidance in answering the question.

The common law doctrine of water rights was based upon the riparian system which limited the use of water to the stream, or to lands adjacent to the stream bed and required the water to be returned to the stream's natural drainage, thus preventing any use which effectively diminished or removed the water from the stream channel on a permanent basis. While the riparian system of water use had some support in the early history of

the west,³ it was soon apparent that the most productive use of water in these arid areas could not be accomplished by limiting the use of water to lands adjoining the stream and in the stream's drainage, and requiring return of the water to the stream from which it was taken at a point on the riparian land upon which it was used, and thus a different system of water rights was necessary. Idaho was one of several western states which by adopting the common law of England in 1864 (1864 Idaho Session Laws, p. 527, § 1), had an early history of riparianism which, first by custom and later in 1881 by territorial legislation (1881 Idaho Session Laws, p. 267, §§ 1-20), was supplanted by the appropriation doctrine. See *Drake v. Earhart*, 2 Idaho 750, 23 P. 541 (1890), note particularly dissent of Berry, J.; *Hutchinson v. Watson Slough Ditch Co.*, 16 Idaho 484, 101 P. 1059 (1909). However, riparian rights were not totally rejected (R.S. §§ 3180-3190 (1887)), but only to the extent that the riparian doctrine conflicted with the doctrine of appropriation. Thus, as recently as 1963, this court, in *Weeks v. McKay*, 85 Idaho 617, 382 P.2d 788 (1963), held that where both the riparian doctrine and the appropriation doctrine could co-exist, that the riparian doctrine was still in force in Idaho. In that case, a downstream appropriator sued to enjoin the maintenance of a dam by an upstream riparian owner. The Court held that while the riparian upstream owner could not interfere with the natural flow of the stream to which the downstream appropriator was entitled under his appropriative water right, nevertheless the downstream appropriator could not require the riparian owner to release water impounded in his dam so long as the natural flow was not interfered with.

As I view Article 15, § 3, of the Constitution, which guarantees "[t]he right to di-

vert and appropriate the unappropriated waters of any natural stream to beneficial use" the use of the word "divert" in that section by the Constitutional Convention in 1890 was a constitutional recognition of the supremacy of the prior appropriation doctrine with its concomitant right to remove waters from the stream bed and not return them, over the riparian system which would in effect require water to remain in the stream. In my view the use of the word "divert" was not used with the intention by the framers of the Constitution that no appropriative water right could be obtained without a diversion, but was inserted to guarantee the right of an appropriator to remove the water from the stream and consume it in a beneficial use and not return it. In summary, the word "divert" in Article 15, § 3 was used to mandate the supremacy of the prior appropriation doctrine over the riparian system and not to constitutionally limit the manner in which a prior appropriator could obtain his water right.

Where an appropriative water right does not require a diversion to make it effective and beneficial, in the absence of a statute requiring a diversion there appears to be no practical reason why a diversion should be required. As an example, in a case in which a scenic waterfall had produced a mist which caused unusual growth of attractive vegetation, it was said, "If nature accomplishes a result which is recognized and utilized, a change of process by man would seem unnecessary," and, "Undoubtedly a landowner may rely upon an efficient application by nature, and need do no more than affirmatively to avail himself of it;" *Empire Water & Power Co. v. Cascade Town Co.*, 205 F. 123 (8 Cir. 1913). In *Steptoe Livestock Co. v. Gulley*, 295 P. 772 (Nev. 1931), in a case in which cattle were watered in a natural stream, it was said that "we are not with-

3. J. Hutchins, *Water Rights Laws in the Nineteen Western States*, pp. 130-225; see *Union Mill & Mining Co. v. Dangberg*, 81 F. 73 (C.C.D. Nev. 1897); *Drake v. Earhart*, 2 Idaho

750, 23 P. 541 (Berry, J., dissenting) (1890); *Smith v. Denniff*, 24 Mont. 20, 60 P. 398 (1900); *Vansickle v. Haines*, 7 Nev. 249 (1872).

out authority to support the view that to constitute an appropriation where the statutes require no use of artificial means of diverting water, or where no diversion was required, that such appropriation might be made independent of both or either diversion or the use of artificial means in perfecting such appropriation." 295 P. at 775. *See also* *Stevenson v. Steele*, 93 Idaho 4, 453 P.2d 819 (1969). "I find these decisions to be persuasive for the contention that a diversion is not constitutionally necessary for an appropriation. If a beneficial use can be made of the water in its natural channel, Article 15, § 3, should not require the superfluous effort of construction of a diversion as a precondition for obtaining an appropriation. However, in an appropriation without a diversion, the right acquired is not to the stream flow as was the case under the riparian system, but to the use of a specific amount of water which is the subject of the right.⁴ That amount must be a reasonable and efficient use of the water. *Glavin v. Salmon River Canal Co., Ltd.*, 44 Idaho 583, 258 P. 532 (1927); *Union Grain & Elevator Co. v. McCammon Ditch Co.*, 41 Idaho 216, 240 P. 443 (1925).

Appellant Water Users argue that even if the constitution does not require a diversion, nevertheless the statutes relating to appropriations of water do. Regardless of the requirements of the general appropriations statutes, I concur with Chief Justice

Shepard's conclusion that the clear import of I.C. § 67-407 is to dispense with any physical diversion requirement.

The district court order granting a summary judgment reversing the decision of the Department of Water Administration in denying permit application # 37-7108, should be affirmed.

DONALDSON, J., concurs.

McQUADE, Justice (dissenting).

I join in the dissent of Justice McFadden, but feel compelled to address myself to an issue which was not passed upon in his dissent. I do not agree with the majority's position that there may be created a valid appropriative water right in the absence of an actual physical diversion of the water from its natural location or condition.

A diversion is generally required in order to perfect water rights by appropriation.¹ Hutchins in his treatise on water rights in the western states² quotes with approval the following language from a California case,

"To constitute a valid appropriation of water, three elements must always exist: (1) An intent to apply it to some existing or contemplated beneficial use; (2) an *actual diversion from the natural channel by some mode sufficient for the purpose*; and (3) an application of the water within a reasonable time to some

(1) bank to the natural high water mark on the opposite bank, or of the springs specifically described as they arise upon the lands listed in this act.

"The state park board [park and recreation board] shall apply first for those permits for water arising upon land which, at the time of enactment, the board administers, controls, or owns."

4. With regard to the Malad Canyon appropriation, I.C. § 67-4312 provides:

"67-4312. *Permits for appropriation under sections 67-4307—67-4311.*—The permits for the waters described in this act shall be issued upon the determination by the director of water administration of the historical water flow and he shall issue a permit for only that amount. Any future appropriation of the waters specifically described in this act that are granted above the flow limits set by the director shall not involve any diversion that shall detract from or interfere with the geological interpretive value, historical significance, or the scenic attraction for public use under the administration of the state park board [park and recreation board] of the stream from the natural high water mark on one

1. See S. Wiel, *Water Rights in the Western States* §§ 364-367 (3rd ed. 1911); Hutchins, *Background and Modern Developments in State Water-Rights Law*, in 1 *Waters and Water Rights* § 20.3, § 22.2 (R. Clark ed. 1967).

2. Hutchins, *Water Rights Laws in the Nineteen Western States*, Vol. 1, p. 366 (1971).

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beneficial use. . . ." [Emphasis added]

This Hutchins concludes, expresses the consensus of the western judiciary, not only when the opinion was written but currently.³

I believe the diversion requirement is clear from the statutory and constitutional language of this state. The majority opinion concedes that up until the time of the enactment of I.C. § 67-4307 in 1971, ". . . Idaho's statutory scheme regulating the appropriation of water has contemplated an actual physical diversion." The opinion suggests that in 1971 when I.C. § 67-4307 was enacted, the Legislature made a turnabout, and stated a policy at odds with its previous general statutory scheme of water appropriation. I do not agree with this interpretation. I am not convinced that in enacting I.C. § 67-4307, the Legislature intended to abrogate a long standing requirement that a physical diversion be coupled with an intent to apply the water for a beneficial use before an appropriative right would be recognized.

In the same year I.C. § 67-4307 was enacted, I.C. § 42-103 was amended to read in pertinent part:

"The right to the use of the unappropriated waters . . . within this state shall hereafter be acquired only by appropriation under the application, permit and license procedures as provided for in this title, unless hereinafter in this title excepted." [Emphasis added]

The application, permit and licensing procedures for the appropriation of water all encompass a physical diversion.⁴ There has not been brought to our attention any

exception to the application, permit and licensing requirements of I.C. § 42-103. I.C. § 67-4307 requires that a permit and license be issued in connection with these waters.

Article 15, sec. 3 of the Idaho Constitution reads in pertinent part,

"The right to divert *and* appropriate the unappropriated waters of any natural stream to beneficial uses, shall never be denied, except that the state may regulate and limit the use thereof for power purposes." [Emphasis added]

It is significant that the conjunctive was used when the Constitution was written, i. e., divert *and* appropriate rather than the disjunctive, i. e., divert *or* appropriate. In the absence of any contrary evidence, we should presume that the framers of the Idaho Constitution chose the conjunctive deliberately and that they intended it be accorded its ordinary meaning.

Finally, the constitutional underpinning of the diversion requirement has been recognized by this Court in past decisions. In Glenn Dale Ranches, Inc. v. Shaub,⁵ this Court in passing upon appellant's charge that respondent failed to prove its prior appropriative right stated,

"Indeed, the record fails to show that respondent's predecessor in interest actually diverted the water in question and put it to beneficial use. Absent such a showing, respondent can not claim rights by appropriation antedating its ownership of the property."

The majority opinion is incorrect when it concludes that the actual holding in that case insofar as it relates to the necessity of an actual physical diversion was based on

3. *Id.* There is language in opinions of our sister states where the courts expressed the view that a diversion is necessary to support an appropriation. While this authority is not binding upon us, it is certainly persuasive as indicative of the thought in this area. See State of New Mexico ex rel. Reynolds v. Miranda, 83 N.M. 443, 493 P.2d 409 (1972); Gates v. Settlers' Milling, Canal & Reservoir Co., 19 Okl. 83, 91 P. 836 (1907); Sherlock v. Greaves, 106 Mont. 206, 76 P.2d 87 (1938);

Crawford v. Lehi Irrigation Company, 10 Utah 2d 165, 350 P.2d 147 (1960); McPhail v. Forney, 4 Wyo. 556, 35 P. 773 (1894); Hutchinson v. Stricklin, 148 Or. 285, 28 P.2d 225 (1933); Clough v. Wing, 2 Ariz. 371, 17 P. 453 (1888).

4. See I.C. §§ 42-101, 42-201 et seq.

5. 94 Idaho 585, 587, 494 P.2d 1029, 1031 (1972).

statutory requirements. A careful scrutiny of that case indicates that the Court was relying upon the Idaho Constitution, art. 15, sec. 3 to establish and substantiate the diversion requirement.⁶

McFADDEN, Justice (dissenting).

Article 15, section 3 of the Idaho Constitution in pertinent part provides that:

"The right to divert and appropriate the unappropriated waters of any natural stream to beneficial uses, *shall never be denied*, except that the state may regulate and limit the use thereof for power purposes." (Emphasis added.)

In my view, the so-called "appropriation" authorized by I.C. § 67-4307 constitutes a denial of the constitutional right to appropriate the unappropriated waters of the Malad Canyon Springs.

I recognize that the state, acting in its proprietary capacity, may appropriate water without offending Article 15, section 3; but as in the case of private appropriators, the state's appropriative right depends upon the application of water to a "beneficial use." In this case, however, the state agency is directed to hold unappropriated waters "in trust for the people of the state" for "scenic beauty and recreational purposes." I.C. § 67-4307. If the state were to hold unappropriated waters in trust for these purposes, it certainly would not be acting in a proprietary capacity; it would be doing nothing more than it already had a duty to do in its sovereign capacity. *Poole v. Olaveson*, 82 Idaho 496, 502, 356 P.2d 61 (1960); *Walbridge v. Robinson*, 22 Idaho 236, 241-242, 125 P. 812 (1912); *Idaho Power & Trans. Co. v. Stephenson*, 16 Idaho 418, 429, 101 P. 821 (1909); *Hutchins, The Idaho Law of Water Rights*, 5 Idaho L.Rev. 1, 3 (1968). As the court stated in *Walbridge*:

"[T]he title to the public waters of the state is vested in the state for the use

and benefit of all the citizens of the state * * *. This is not, however, an interest or title in the proprietary sense, but rather in the sovereign capacity *as representative of all the people for the purpose of guaranteeing that the common rights of all shall be equally protected* and that no one shall be denied his proper use and benefit of this common necessity." 22 Idaho at 241-242, 125 P. at 814 (emphasis added).

In water law, the verb "appropriate" means to acquire a right to use "public water." See *Boise Irrigation & Land Co. v. Stewart*, 10 Idaho 38, 49, 77 P. 25 (1904); *Lake Shore Duck Club v. Lake View Duck Club*, 50 Utah 76, 106 P. 309, 310-311 (1917); *Hutchins, The Idaho Law of Water Rights*, 5 Idaho L.Rev. 1, 7 (1968); *Hutchins, Selected Problems in the Law of Water Rights in the West*, U.S. Dept. of Agriculture Misc.Pub. No. 418 (1942). An appropriation may be made for "private" beneficial use or for "public" beneficial use. *Boise Irrigation & Land Co., supra*, 10 Idaho at 48-49, 77 P. 25. However, if the state in its sovereign capacity already has the right to use "public water" for a certain beneficial use, it obviously cannot "acquire" that right—in other words, the state cannot "appropriate" water in such a case, because it cannot "acquire" a right that it already has. See *State ex rel. State Game Comm. v. Red River Valley Co.*, 51 N.M. 207, 182 P.2d 421, 432 (1945). In my view, the in-stream use of a natural stream for recreational purposes and for scenic beauty is a public beneficial use which inheres in the state's sovereign ownership of such water. Therefore, since the state already has the right to so use the water, it cannot acquire the right to "appropriate" the water for these purposes.

Moreover, this purported "appropriation" is objectionable on grounds much more weighty than mere logical inconsistency.

6. *Id.* fn. 6. See also *Sandpoint Water & Light Co. v. Panhandle Development Co.*, 11 Idaho 405, 413, 83 P. 347, 349 (1905); *Neilson v. Parker*, 19 Idaho 727, 730-731, 115 P. 488, 489 (1911); *Hutchinson v. Watson Slough Ditch Co.*, 16 Idaho 484, 493, 101

P. 1059, 1063 (1909); *Cantlin v. Carter*, 88 Idaho 179, 186, 397 P.2d 761, 765 (1964); *Jones v. McIntire*, 60 Idaho 338, 352-353, 91 P.2d 373, 379 (1939); *Hutchins, The Idaho Law of Water Rights*, 5 Idaho L.Rev. 1, 20-21 (1968).

Under Article 15, section 3 of the Idaho Constitution, water held by the state in its sovereign capacity—even though being beneficially used by the general public—is subject to being appropriated for specific private (or proprietary) beneficial uses. Thus, in-stream public use of unappropriated water for recreational purposes and for scenic beauty is subject to diminution by the exercise of the constitutional right to appropriate water for private (or proprietary) beneficial uses. State ex rel. State Game Comm. v. Red River Valley Co., *supra*. The type of “appropriation” authorized here was recognized for what it really is by the author of the following excerpt:

“In Oregon * * * many streams that form beautiful falls or that are famous fishing waters have been reserved from appropriation. In Idaho the governor is authorized to appropriate the water of certain lakes in trust for the people, and the preservation of the lakes for scenic beauty, health, and recreation purposes is declared to be a beneficial use of the water [citing I.C. §§ 67-4301, 4304], although *in reality this is not an appropriation, but like the Oregon laws a reservation of the water to prevent its being appropriated for more mundane purposes.*” Trelease, *The Concept of Reasonable Beneficial Use in the Law of Surface Streams*, 12 Wyo.L.J. 1, 12 (1956) (emphasis added).

Such a reservation by the state of unappropriated waters is completely unauthorized by our Constitution. Unlike the constitutions of some other western states, Idaho’s Constitution does not provide that the right to appropriate “shall never be denied *except when such denial is demanded by the public interest.*”¹ Our Constitution provides that the right to appropriate unappropriated waters “*shall never be denied, except that the state may regulate and limit the use thereof for power purposes.*” Art. 15, sec. 3, Idaho Const. (emphasis

added). The Idaho provision makes an exception only for power purposes—not for the demands of the public interest (and not for the purposes of recreation and scenic beauty). To allow the state to in effect reserve water from appropriation in furtherance of non-proprietary, non-power purposes—when the framers of the Constitution contemplated that private beneficial users could appropriate water being held by the state in its sovereign capacity—amounts to nothing less than a denial of the constitutional right to appropriate the “unappropriated waters” of any natural stream. “In other words, the state cannot by legislative act authorize its own agency to *monopolize or withdraw the very rights that section 3 of article 15 of the Constitution says ‘shall never be denied the people of the state.’*” State Water Conservation Bd. v. Enking, 56 Idaho 722, 732, 58 P.2d 779, 783 (1936). The proper means to authorize such a withdrawal (or “appropriation”) is to amend the Constitution to so provide.

It is beyond dispute that scenic beauty and recreation are both of vital importance to modern day life in Idaho. But this does not ipso facto mean the state has the right to promote these beneficial ends by withdrawing waters from appropriation, given the guarantee contained in the Idaho Constitution. I note, however, that the effect of a proposed appropriation upon scenic beauty and recreation can and should be considered in determining whether the use contemplated is “beneficial” within the meaning of the Constitution. Comment, Water Appropriation for Recreation, 1 Land & Water L.Rev. 209, 221 (1966). In other words, where the benefits of a proposed use are outweighed by the attendant detriment to scenic beauty and recreation, the use is not a “beneficial use,” and the application for a permit to appropriate public waters for that use should be denied. As always, the question of beneficial use must be determined on a case by case

1. Neb.Const. art. XV, § 6; see also Wyo. Const. art. 8, § 3 (“No appropriation shall

be denied except when such denial is demanded by the public interests”).

basis, since the benefits of a particular proposed appropriation may outweigh the detriment to recreation and scenic beauty. Whether a use of water is "beneficial" is a question of fact to be resolved upon a consideration of the circumstances present in a particular case. *City & County of Denver v. Sheriff*, 105 Colo. 193, 96 P.2d 836, 842 (1939). As stated in *Tulare Irrig. Dist. v. Lindsay-Strathmore Irrig. Dist.*, 3 Cal.2d 489, 45 P.2d 972, 1007 (1935):

"What is beneficial use, of course, depends upon the facts and circumstances of each case. What may be a reasonable beneficial use, where water is present in excess of all needs, would not be a reasonable beneficial use in an area of great scarcity and great need. What is a beneficial use at one time may, because of changed conditions, become a waste of water at a later time."

In conclusion, although I believe that recreation and scenic beauty can and should be taken into consideration on a case by case basis, they cannot be used as an excuse to deny all future appropriation of water for other purposes, at least until the Constitution is amended.

APPENDIX C

A Legal Discussion

on the

Constitutionality of S.B. 97

prepared by

Glenn Porzak

MINIMUM STREAMFLOW APPROPRIATION

**Glenn Porzak
March 16, 1973
Gov't. Regulation of
Water Seminar
Mr. Raphael Moses**

I. THE PRESENT STATE OF THE LAW

Ever since the Colorado Supreme Court rendered its landmark decision in Coffin v. Left Hand Ditch Co., 6 Colo. 443 (1882), the doctrine of prior appropriation has been the law in Colorado. Article XVI, Sections 5 and 6 of the Colorado Constitution recognized and confirmed prior appropriation as the fundamental water law of the state, and recognized water rights previously acquired under prior appropriation. The Constitution at Article XVI states:

Section 5. Waters of streams public property. The water of every natural stream, not heretofore appropriated, within the state of Colorado, is hereby declared to be the property of the public, and the same is dedicated to the use of the people of the State, subject to appropriation as hereinafter provided.

Section 6. Diverting unappropriated water - priority preference uses. The right to divert the unappropriated waters of any natural stream to beneficial uses shall never be denied. Priority of appropriation shall give the better right as between those using the water for the same purpose; but when the waters of any natural stream are not sufficient for the service of all those desiring the use of the same, those using the water for domestic

purposes shall have the preference over those claiming for any other purpose, and those using the water for agricultural purposes shall have preference over those using the same for manufacturing purposes.

The theory of the doctrine of prior appropriation rests on the notion that by conjunction of two acts, a water right is created: first, there must be a diversion of the water, and second, there must be an application of the water diverted to a beneficial use. Denver v. Northern Colorado Water Conservancy District, 130 Colo. 375, 276 P.2d 992 (1954). A judicial decree of a water right merely evidences the water right's place within the priority system. Thus, acquisition of a water right does not depend upon compliance with a statutory procedure. In theory, a Colorado water right is acquired by performing the physical acts which constitute the appropriation; namely, diverting water and applying it to a beneficial use. As point out above, the Constitution, in Article XVI, Section 6, states that the right to divert waters for beneficial uses shall never be denied; this language is the sole Constitutional source for elements of an appropriation.

A. DEFINITION OF DIVERSION

The litigation associated with adjudication of water rights has caused the terms "diversion" and "beneficial use" to become terms of art. In particular, just what constitutes a diversion has caused the courts some difficulty over the years. Some early decrees made provisions for stock watering out of flowing streams, with no requirement that the water be mechanically diverted from the stream. Thomas v. Guiraud, 6 Colo. 530 (1883). More recently, natural overflows in times of high water -- a right to be flooded -- have been recognized. U. S. v. Northern Colorado Water Conservancy District, 449 F.2d 1 (10th Cir. 1971); Town of Genoa v. Westfall, 141 Colo. 533, 349 P.2d 370 (1960). But, in Colorado River Water Conservation District v. Rocky Mountain Power Co., 158 Colo. 331, 406 P.2d 798 (1965), the Conservation District, acting pursuant to statutory authorization, was prevented from making an appropriation for in-stream values. There the court held that maintaining a flow of water in a natural stream for sustenance of fish life could not be an appropriation because it did not entail a physical diversion from the stream. In short, the Supreme Court

said that there could be no appropriation without actually taking the water from the stream.

The necessity of a removal, impoundment or a mechanical impact on the flow of water to constitute a diversion was codified by the 1969 Water Rights Act:

'Diversion' or 'divert' means removing water from its natural course or location, or controlling water in its natural course or location, by means of a ditch, canal, flume, reservoir, bypass, pipeline, conduit, well, pump, or other structure or device. §148-21-3(5), C.R.S. '63, as amended.

Therefore, it is quite clear that the present definition of diversion, as fixed by statute and Colorado case law, dictates that the water either be impounded or removed from the stream bed. (Holland & Hart Report to Gov. John A. Love on Certain Colorado Water Law Problems, December 20, 1972, pp. 1-11.)

B. DEFINITION OF BENEFICIAL USE

Beneficial use has not been so firmly defined. The Colorado Supreme Court in Denver v. Sheriff, 105 Colo. 193, 96 P.2d 836 (1939), held that "beneficial use" is not defined in the Constitution, and what is a beneficial

use is a "question of fact." The state Constitution, Article XVI, Section 6 and 7, specifically identifies four beneficial uses: domestic, agricultural, manufacturing and mining. Case law has considered other uses as beneficial, including diversion of water for propagation of fish, Faden v. Hubbell, 93 Colo. 358, 28 P.2d 247 (1933); watering grass in a city park, Denver v. Brown, 56 Colo. 216, 138 P. 44 (1913); municipal uses, Denver v. Sheriff, supra; generating power, Sternberger v. Seaton Mining Co., 45 Colo. 401, 102 P. 168 (1909); and milling, Telluride v. Blair, 33 Colo. 353, 80 P. 1053 (1905).

However, in Empire Water and Power Co. v. Cascade Town Co., 205 F. 126 (8th Cir. 1913), a federal court (applying Colorado law) held that the scenic value of a waterfall was not a beneficial use for which a claimant could acquire a water right. As a result, another appropriation was entitled to deplete the stream before it reached the waterfall.

The 1969 Act adopted a very general definition of beneficial use:

'Beneficial use' is the use
of that amount of water that is
reasonable and appropriate under

reasonably efficient practices to accomplish without waste the purpose for which the diversion is lawfully made and without limiting the generality of the foregoing, shall include the impoundment of water for recreational purposes, including fishery or wildlife. §148-21-3(7) C.R.S. '63, as amended.

Therefore, in general, Colorado water law in defining "beneficial use" has failed to provide recognition and protection for the social "in stream" values of water.

(Holland and Hart Report to the Governor, supra, at p. 12-13.)

Consequently, under present law, no stream in Colorado has a legal right to exist. Under the State Constitution the right to divert the unappropriated waters shall never be denied. The present definition of "diversion" dictates that the water either be impounded or removed from the natural stream bed. Likewise, the courts in defining "beneficial use" have failed to provide recognition and protection for the social values of water.

Faced with such constitutional and statutory provisions, along with the above case law, the question is just what action can be taken and is necessary to allow for the appropriation of water for minimum stream flow so as to ensure

that no Colorado streams be diverted by 100% and thus become dried up.

Two basic approaches have been suggested which attempt to deal with this problem and provide for minimum stream flow appropriation. The first approach calls for the enactment of a statute by the Legislature, while the second would deal with the problem by amending Article XVI, Section 6 of the Colorado Constitution.

II. STATUTORY APPROACH

Under the first approach the definitions of both "diversion" and "beneficial use" would be changed by statute so as to allow for the appropriation of water for minimum stream flow in Colorado. In addition, the State of Colorado, through the Water Conservation Board, would be the party responsible to gain the appropriation of water for the beneficial use of maintaining minimum stream flows. Any such water appropriated by the State would be acquired under the status of a junior appropriator.

More specifically, the statutory approach would expand the definition of "diversion" or "divert" to not only mean removing water from its natural course or location, but also to include "controlling or allowing water to remain in its natural course or location." The statute would also specify that the maintenance of the natural flow of a stream is a "beneficial use".

A. CONSTITUTIONALITY

The question here is whether such a statutory change in the definitions of "diversion" and "beneficial use" will stand up to the Colorado Constitution.

Expanding the present concept of "beneficial use" by

statute seems to present no real problem. As previously pointed out, beneficial use has never been firmly or irretrievably defined. The Colorado Supreme Court in the case of Denver v. Sheriff, supra, stated:

The term 'beneficial use' is not defined in the Constitution. What is a beneficial use, after all, is a question of fact and depends upon the circumstances in each case. 105 Colo. at 204. (Emphasis added.)

Consequently, as the term "beneficial use" is not fixed by the state Constitution, the legislature is free to define it such to provide recognition and protection for the social values of water, especially in light of increased concerns over environmental values.

However, with regard to a statutory change in the definition of "diversion", the question is much more difficult. The state Constitution, Article XVI, Section 6, is clear in stating that the right to divert water shall never be denied. Many contend that the word "divert" as contained in the Colorado Constitution can be taken to mean only a physical or natural impounding or removal of the water from the stream bed. In other words, the word "divert" must be construed in accordance with its more traditional interpretation. Therefore, any attempt, statutory or otherwise, to

change this traditional meaning of the word "divert", short of a Constitutional amendment to redefine same, would be held unconstitutional by our courts.

However, by a close reading of Colorado Supreme Court and federal court decisions (applying Colorado law) in this area, I believe just such a statutory redefinition of "diversion" would be constitutionally upheld.

As previously discussed, exactly what constitutes a diversion has caused the courts some difficulty. In the 1883 case of Thomas v. Guiraud, supra, the Colorado Supreme Court made provision for stock watering out of flowing streams, with no requirement that the water be mechanically diverted from the stream. The thirst of the animals gave rise to the diversion. Also, natural overflows in times of high water -- a right to be flooded -- have been recognized. U. S. v. No. Colorado Water Conservancy Dist., supra.; Town of Genoa v. Westfall, supra. In Town of Genoa v. Westfall, the Colorado Supreme Court held that "the only indispensable requirements are that the appropriator intends to use the waters for a beneficial purpose and actually applies them to that use." 141 Colo. at 547. However, this liberal test was not followed in Colorado River Water

Conservation District v. Rocky Mountain Power Company, supra.

There the Colorado Supreme Court held that maintaining a flow of water in a natural stream for sustenance of fish life could not be an appropriation because it did not entail a physical diversion from the stream. This decision has been the principal impediment to protection of wild or scenic rivers from full appropriation in their upper reaches.

Yet in rendering its decision in the Rocky Mountain Power Company case the court held:

There is no support in the law of this state for the proposition that a minimum flow of water may be 'appropriated' in a natural stream for piscatorial purposes without diversion of any portion of the water 'appropriated' from the natural course of the stream. By the enactment of C.R.S. 1963, 150-7-5(10), the legislature did not intend to bring about such an extreme departure from well established doctrine, and, we hold that no such departure was brought about by said statute. 406 P.2d at 800. (Emphasis added.)

C.R.S. 1963, 150-7-5 (10) was the legislation which gave the Conservancy District the power to file upon and hold for the use of the public sufficient water of any natural stream to maintain a constant stream flow in the amount necessary to preserve fish, and to use such water in connection with retaining ponds for the propagation of fish for the benefit of the public.

The very language of the court's opinion strongly suggests that the legislature could, in fact, bring about a change in the established definition of "diversion" were the intention of the statute clear and specifically geared toward such a purpose. Furthermore, it should be noted that the court in no way predicated its decision in this case upon any constitutional grounds.

Likewise, this same notion that the definition of "diversion" could be changed by legislative enactment is expressed by the 8th Circuit Court of Appeals in the famous case of Empire Water and Power Co. v. Cascade Town Co., supra. In applying Colorado law, the federal court held that the scenic value of a waterfall was not a beneficial use for which a claimant could acquire a water right. As a result, another appropriator was entitled to deplete the stream before it reached the waterfall.

But in articulating its decision, the court stated:

The case before us is exceptional, but we think complainant is not entitled to a continuance of the falls solely for their scenic beauty. The state laws proceed upon more material lines. Complainant also relies upon the distribution by the falls of moisture for the trees and other vegetable growth on its lands, which it has extensively improved.

As we have said, its intent to appropriate the waters has been shown by its expenditures and improvements beyond what is served by its ditches. Has there been that actual application which the law requires? Undoubtedly a landowner may rely upon an efficient application by nature and need do so more than affirmatively to avail himself of it. (Thomas v. Guiraud, 6 Colo. 530; Larimer, etc., Co. v. People, 8 Colo. 614, 9 Pac. 794); but the use in that way should not be unnecessarily or wastefully excessive. If all the water flowing over the falls, directly applied to the lands in the usual way of irrigation, would be required to produce the effect of the distributed mist and spray as now utilized, we think defendants would have no right to divert it for a manufacturing purpose. If nature accomplishes a result which is recognized and utilized, a change of process by man would seem unnecessary. But the trial court based its decision on this branch of the case largely upon the artistic value of the falls, and made no inquiry into the effectiveness of the use of the water in the way adopted as compared with the customary methods of irrigation. In all other respects the conclusions of the court were in accord with the views we have expressed. It may be that if the attention of the lawmakers had been directed to such natural objects of great beauty they would have sought to preserve them, but we think the dominant idea was utility, liberally and not narrowly regarded, and we are constrained to follow it. 205 F. at 129. (Emphasis added.)

In two respects this language of the court opens the door to the statutory approach.

1. Reiterating, the federal court stated:

If nature accomplishes a result
which is recognized and utilized,
a change of process by man would
seem unnecessary.

Clearly, what the court is saying is that if scenic and/or social values of water (i.e., preservation of a minimum stream flow) were specifically recognized as a beneficial use, a change of process (i.e., removal of water from the stream bed) would be unnecessary to create a valid appropriation. This seems totally rational and recognizes that a physical removal of water from the stream bed is inconsistent with the preservation of most scenic and social values of water.

2. Secondly, the court stated:

It may be that if the attention of the lawmakers had been directed to such natural objects of great beauty they would have sought to preserve them, but we think the dominant idea was utility . . . and we are constrained to follow it.

Again, this very language seems to strongly suggest that the legislature could, in fact, bring about a change in the established definition of what constitutes a valid appropriation in order to preserve scenic values. The

statutory approach merely attempts to place stream preservation and its resultant scenic values (non-economic values) on the same plane as utility (economic values) in the doctrine of water appropriation.

Inherent in these arguments on behalf of the statutory approach is the idea that the term "diversion", like "beneficial use", is not constitutionally fixed. No Colorado case to my knowledge has ever held that the state Constitution irretrievably fixed the definition of "diversion" such that water can be actually diverted only by taking from the stream.

Article XVI, Section 6, of the Colorado Constitution states in part:

The right to divert the unappropriated waters of any natural stream to beneficial uses shall never be denied.

Reading this provision as a whole, it should be interpreted such that the right to appropriate unappropriated waters shall never be denied, "diversion" and "beneficial use" being the two integral elements of a perfected appropriation. Both "diversion" and "beneficial use" are terms of art, and as such, they can, and always have been defined either judicially or statutorily. The Guiraud and Westfall cases, supra, are totally consistent with this interpretation.

Therefore, so long as any statutory definition does not destroy the basic notions of water appropriation in Colorado, it should stand.

In short, as a matter of law and logic, there is no compelling reason to conclude that the state legislature is powerless to define "beneficial uses" and "diversions" in new appropriations to accord with the felt necessities of today.

B. PREFERENCE DOCTRINE

At this point the preference doctrine and its impact on minimum stream flow appropriation should be examined. Colorado recognizes a hierarchy of right to use of water. The Colorado Constitution at Article XVI, Section 6, states:

Priority of appropriation shall give the better right as between those using the water for the same purpose; but when the waters of any natural stream are not sufficient for the service of all those desiring the use of the same, those using the water for domestic purposes shall have the preference over those claiming for any other purpose, and those using water for agricultural purposes shall have preference over those using the same for manufacturing purposes.

Although the Colorado Constitution would on a literal reading appear to grant an absolute preference in water to domestic uses, the Colorado cases construing this provision

have limited the preference to a right to condemn for a superior use upon the payment of just compensation. Black v. Taylor, 128 Colo. 449, 264 P.2d 502 (1953); Sterling v. Pawnee Ditch Extension Co., 42 Colo. 421, 94 P. 339 (1908); Montrose Canal Co. v. Loutsenhiger Ditch Co., 23 Colo. 233, 48 Pac. 532 (1896); Armstrong v. Larimer County Ditch Co., 1 Colo.App. 49, 27 Pac. 235 (1891); see the Holland and Hart Report to the Governor, supra, at pp. 26-32 for a thorough discussion of these cases.

As pointed out by the Colorado Supreme Court in Sterling v. Pawnee Ditch Extension Company, supra at 42 Colo. 421, 426:

[The preference for domestic use] does not entitle one desiring to use water for domestic purposes . . . to take it from another who has previously appropriated it for some other purpose, without just compensation. . . . That a city or town cannot take water for domestic purposes which has been previously appropriated for some other beneficial purpose, without fully compensating the owner, is so clear that further discussion seems almost unnecessary.

Yet even under such a limited construction, the preference provision presents at least a theoretical obstacle to a legislative enactment providing for minimum stream flow appropriation. The preference language may provide such

large holes for preferred users that the goal underlying minimum stream flow appropriation could ultimately be thwarted.

In theory, the logical consequence of the preference provision is to permit all the water in a given stream to be acquired and diverted for domestic purposes, regardless of any statutory right to appropriate water for non-economic, esthetic purposes. For example, if the state, in accordance with the statutory approach, acquired a water right for X cfs to preserve the minimum flow of a given stream, a prospective domestic user could at a later date assert a constitutional right, arising from the preference, to use that water right for domestic purposes, and seek to condemn the right if necessary. The ultimate result is that even with a statutory right to appropriate water for minimum stream flow, due to the existence of the preference provision, a stream could still eventually be diverted by 100% and thus become dried up.

C. A "TAKING" OF PRIVATE PROPERTY

Another consideration which should be examined is whether the creation of such a new appropriation would result in any taking of property in violation of the Colorado and U. S. Constitutions. Both Constitutions flatly prohibit the

taking or damaging of property without payment of just compensation. The argument of a "taking" would be based on the contention that appropriation of water for minimum stream flow would restrict the right to make changes in one's water right. In other words, the owner of a water right on a stream which is subject to a minimum stream flow appropriation would probably find his right to make a change in diversion more restricted than might otherwise be the case were there no minimum flow appropriation. As the argument goes, this curtailment or restriction of the right to make changes in the use of private property is a constitutionally protected right, and that any such limitation of that right constitutes a violation of the Constitutions.

However, such an argument seems to be considerably weakened by the fact that the right to make changes in water rights is not now an absolute property right. Colorado water law very early in its history developed a significant limitation on changes in use of water rights. This limitation is that no change in a water right is to be permitted if the change will injuriously affect the rights of other appropriators (junior or senior) on the stream. Ackerman v. City of Walsenburg, 171 Colo. 304, 467 P.2d 267 (1970);

Farmers Highline Canal and Reservoir Co. v. Golden, 129 Colo. 575, 272 P.2d 629 (1954); Colorado Springs v. Yust, 126 Colo. 289, 249 P.2d 151 (1952); Brighton Ditch Co. v. City of Englewood, 124 Colo. 336, 237 P.2d 116 (1951); Hassler v. Fountain Mutual Irrigation Co., 93 Colo. 246, 26 P.2d 102 (1933); Denver v. Colorado Land and Livestock Co., 86 Colo. 191, 279 P. 46 (1929); New Cache La Poudre Irrigating Co. v. Water Supply and Storage Co., 49 Colo. 1, 111 P. 610 (1910); Strickler v. City of Colorado Springs, 16 Colo. 61, 26 Pac. 313 (1891).

Therefore, any limitation on the right to make changes in water rights caused by minimum stream flow appropriation would be no more a limitation than currently exists under present law. The state would be appropriating the water as a junior appropriator, and like every other junior appropriator, it would be entitled to the same conditions on the stream as existed when it made its appropriation.

Thus the statutory approach seems to present no problem with regard to any "taking" of property.

III. CONSTITUTIONAL AMENDMENT APPROACH

While it is possible that confronted with a statute defining diversions to permit in-stream flows, and defining beneficial uses to include in-stream fisheries or other environmental considerations, the court would reverse or distinguish away prior case law, this is very much a matter of conjecture. There is no question that a surer remedy to this problem is a constitutional amendment.

Under this second approach, Article XVI, Section 6 of the Colorado Constitution would be amended to read as follows:

The right to divert the unappropriated waters of this state to beneficial uses in the manner prescribed by law shall never be denied; provided, however, that in order to preserve the natural environment to a reasonable degree, including the preservation of fish and wildlife, for the benefit and enjoyment of present and future generations, no appropriation, diversion or use, or any change of an appropriation, diversion or use initiated hereafter shall be permitted which will deplete any perennial natural stream or lake below a minimum flow or level as shall be established by law between specific points on such natural streams or on natural lakes. Priority of appropriation in the manner prescribed by law shall give the better right as between those using water from a common or related source.

The beauty with this constitutional approach is two-fold; not only does it accomplish the objectives of minimum stream flow appropriation (i.e., it prevents streams from being diverted by 100%), but it also does away with preference rights and the threat they pose to the preservation of stream flow.

However, it should be noted that the language of this proposed amendment does present a possible "taking" problem. Reiterating, the amendment states:

. . . [no] change of any appropriation, diversion or use . . . shall be permitted which will deplete any perennial natural stream or lake below a minimum flow or level . . .

Much like the problem raised with the statutory approach, the question is whether this curtailment of the right to make changes in water rights constitutes a taking of property in violation of the U. S. Constitution. Yet unlike the statutory approach, under the proposed constitutional amendment no one stands in the shoes of a junior appropriator. Accordingly, it would not be the effect on other private rights which would limit changes in water rights; rather any change would be limited or denied on the basis of its effect on the public's property right in water.

While there are no reported cases which indicate that a change of water right may be denied on the basis of its effect on the public's property right in water, such a limitation or restriction of changes in water rights would not appear to violate the Constitution for two reasons:

1. Such a limitation, in actual effect, amounts to no more a limitation than currently exists under Colorado law, wherein no change can be made which injuriously affects another appropriator.

2. Imposing limitations on when and on what type of changes may be made in a water right still leaves untouched the existing use of that water right. In this sense it can be considered neither a taking nor damaging. Furthermore, it is commonplace for property rights in land to be limited in such manner by zoning laws. There is no reason to exalt water rights above other kinds of property rights. As long as any limitation permits continued use along present patterns, and is reasonable and not arbitrary, the limitation of changes in use would appear to be no more unconstitutional, in terms of being a taking or damaging of property without compensation, than are the restrictions imposed by zoning laws.

(See the Holland Hart Water Law Report, supra, at Appendix A, for a discussion of the zoning law cases dealing with this problem.)

IV. CONCLUSION

In conclusion, while present law in Colorado fails to provide recognition and protection for the "in stream" values of water, both the statutory and constitutional amendment approaches effectively deal with this problem. Both approaches would protect the social values of Colorado streams by providing for the preservation of a minimum stream flow. In addition, neither approach appears to present any constitutional violation or other such problem. While either of the solutions would be effective, the constitutional amendment approach would be the more preferable of the two due to its certainty and its deletion of preference rights.

APPENDIX D

Newspaper Articles

on

"the drying-up of the Poudre River"

September, 1974

140 trout killed in section of Poudre River

**Fort Collins Coloradoan
September 11, 1974**

About 140 trout died today in the Poudre river when the water from the Monroe Gravity Canal was temporarily cut off to conserve water for irrigation.

"I didn't know it would hurt the fish," said Colorado Water Commissioner Jack Neutze, who turned the water off.

When he was contacted by the Colorado Division of Wildlife, which discovered the fish dying this morning at about 8:15 a.m., Neutze said he turned the water back on.

The water commissioner predicted there would be water back in the river by this afternoon.

The kill occurred below the Greeley Diversion Dam and above the point where Horsetooth delivers water into the river.

When the dying fish were discovered, 10 men from the Wildlife Division went to the scene and worked for two hours in an attempt to save some of the trout.

But Donald Benson, Fort Collins supervisor for the division, said they were only able to save three trout. All the dead fish were brown trout, except for one rainbow.

"It is possible the District Attorney's Office may file civil action against whoever is responsible," Benson said.

Benson also said the Wildlife Division might seek an injunction against the City of Greeley to get the water back into the river.

But Neutze said the city of Greeley was not involved in the decision.

Greeley not blamed for trout kill

**Fort Collins Coloradoan
September 12, 1974**

The Colorado Division of Wildlife in Fort Collins has ruled out the possibility that the City of Greeley was at fault in Tuesday's water shutoff that killed at least 130 trout in the Poudre River.

"At first we did have the impression it was the City of Greeley, but apparently that (the water) is controlled by the water commissioner," said Gene Cook, regional manager for the division.

State Water Commissioner John Neutze of Fort Collins, in talks with division personnel, said he turned the water off, according to Cook. An investigation is continuing into the situation.

The kill occurred after a watergate was closed off to divert water for Greeley reservoirs. It dried up a one-mile stretch of the Poudre below the shutoff.

The fish, all brown trout except for one rainbow,

were a "minimum of 3 years old," on the average, said Cook. From tests of scales, one appeared to have been 7 years old.

Fall is spawning season for brown trout, and it has been estimated that it could take two to three years for the section to recover, although Cook said other fish may move into the section by winter.

The wildlife official said he hoped that from the investigation, "we can surely avoid such a situation in the future."

"We're going to try to get our communications with the water commissioner straightened out and work more closely with him in the future to try to avoid this," he said.

One of the primary tasks will be to establish minimum stream flows for the Poudre. It hasn't been done before because the division hasn't had time, said Cook.

APPENDIX E

Senate Bill No. 413

BY SENATOR Anderson

A BILL FOR AN ACT

- 1 CONCERNING WATER RIGHTS ACQUIRED BY THE STATE INVOLVING MINIMUM
2 STREAM FLOWS AND LAKE LEVELS.

Bill Summary

(NOTE: This summary applies to this bill as introduced and does not necessarily reflect any amendments which may be subsequently adopted.)

Provides that the right of the state to appropriate water for the beneficial use of maintaining minimum stream flows and lake levels does not create any right in the state to object to any exchanges of water or changes in points of diversion.

-
- 3 Be it enacted by the General Assembly of the State of Colorado:

- 4 SECTION 1. 37-92-103 (4), Colorado Revised Statutes 1973,
5 is amended to read:

- 6 37-92-103. Definitions. (4) "Beneficial use" is the use
7 of that amount of water that is reasonable and appropriate under
8 reasonably efficient practices to accomplish without waste the
9 purpose for which the appropriation is lawfully made and, without
10 limiting the generality of the foregoing, includes the
11 impoundment of water for recreational purposes, including fishery
12 or wildlife. For the benefit and enjoyment of present and future
13 generations, "beneficial use" shall also include the

1 appropriation by the state of Colorado in the manner prescribed
 2 by law of such minimum flows between specific points or levels
 3 for and on natural streams and lakes as are required to preserve
 4 the natural environment to a reasonable degree. *SUCH*
 5 *any such appropriation shall be subject to exchange*
 6 APPROPRIATION OF MINIMUM STREAM FLOWS OR LAKE LEVELS SHALL NOT
 7 *of water made pursuant to practice in existence*
 8 CREATE SUCH A RIGHT IN THIS STATE AS MAY (a) PERMIT IT TO OBJECT
 9 *on the unexpired date of such flows or levels as*
 10 TO OR BE PROTECTED AGAINST ANY EXISTING OR FUTURE EXCHANGES OF
 11 *may be argued in the court in the decision granting*
 12 WATER, WHETHER OR NOT SUCH EXCHANGES ARE PROTECTED BY COURT
 13 *such appropriation*
 14 DECREE, OR AS MAY (b) PERMIT IT TO OBJECT TO OR BE PROTECTED
 AGAINST ANY CHANGE IN POINT OF DIVERSION.

11 SECTION 2. Safety clause. The general assembly hereby
 12 finds, determines, and declares that this act is necessary for
 13 the immediate preservation of the public peace, health, and
 14 safety.

Appropriations

The committee recommends that the following be referred favorably to the Committee of the Whole: S.B. No. 169, and H.B. Nos. 1151 and 1187.

Wildlife,
Parks,
Nat. Res. &
Energy

The committee recommends that the following be referred favorably to the Committee on Appropriations: S.B. No. 299.

Wildlife,
Parks,
Nat. Res. &
Energy

The committee recommends that S.B. No. 213 be amended as follows and, as so amended, be referred to the Committee on Appropriations with favorable recommendation:

Amend printed bill, page 1, line 13, after the word "public", strike the remainder of said line;

strike line 14.

Page 2, strike lines 1 through 4, and substitute the following:

"and should be considered as a state park. Landowners in the proposed twenty-four hundred acre park, including the Denver water board and the bureau of land management, have indicated their willingness to cooperate with the state in its development of a park, and initial planning should commence to investigate possible land acquisition problems.";

line 14, after the word "board," strike the remainder of said line;

strike line 15;

strike lines 18 through 23.

Renumber succeeding section accordingly.

The committee recommends that S.B. No. 413 be amended as follows and, as so amended, be referred to the Committee of the Whole with favorable recommendation:

Amend printed bill, page 2, line 4, strike the word "SUCH";

strike lines 5 through 10, and substitute the following:

"ANY SUCH STATE APPROPRIATION SHALL BE SUBJECT TO EXCHANGES OF WATER MADE PURSUANT TO PRACTICES IN EXISTENCE ON THE APPROPRIATION DATE OF SUCH FLOWS OR LEVELS AS MAY BE CONFIRMED BY THE COURT IN THE DECREE GRANTING SUCH APPROPRIATION.".

APPENDIX F

A Paraphrased Summary
of the
Taped Discussion of S.B. 413
by the
Senate Committee
on
Agriculture, Livestock and Water
April, 1975

SENATE COMMITTEE ON AGRICULTURE
LIVESTOCK AND WATER

April 3, 1975
S.C.R. 320B

S.B. 413

Senator Anderson: S.B. 413 amends S.B. 97 which I sponsored in 1973. S.B. 97 was not intended to interfere with the water exchange systems in operation in the state of Colorado. Exchanges are necessary to maintain efficient use of water. In my area, such exchanges are made almost on a hourly basis.

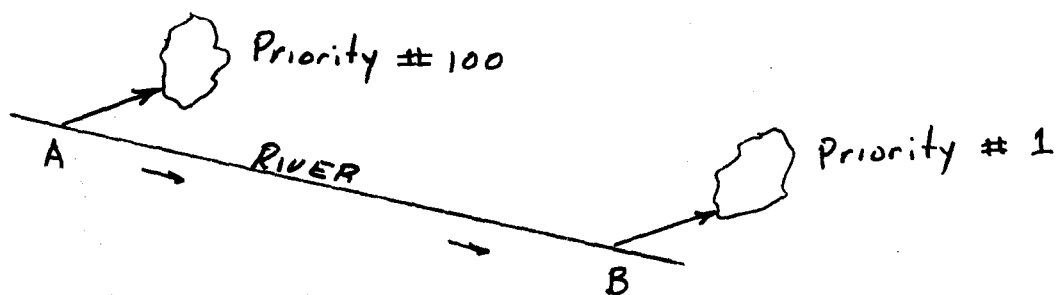
The Water Conservation Board has not abided by the intent (not to interfere with exchange practices) and some ditch companies are subject to being harmed. The Cache la Poudre River recommendation for minimum flows has caused the major concern because of the complex water exchange system which presently exists on the river. The purpose of S.B. 413 is to clearly state that the appropriation of minimum stream flows or lake levels shall not create such a right in this state as may permit it to object to or be protected against any existing or future exchange of water. This is a rather broad statement but my concept of S.B. 97 was that the water for minimum flows would be made up of newly developed water -- not water already appropriated. Above all, I did not want S.B. 97 to create problems as far as the exchange system is concerned.

Mr. Chairman, I would like Mr. Ward Fischer to come forward and testify on the situation on the Poudre River.

Ward Fischer: I am counsel for the Cache la Poudre Water User's Association which includes most of the ditch companies that divert water from the Poudre. The concern we are discussing today is universal along the Front Range where most, if not all, the streams are over-appropriated.

The concept of S.B. 97 is worthy but because of the problems which have arisen, I feel that S.B. 413 is appropriate to protect the economy of the state. Let me explain the dangers of S.B. 97 as it stands.

The original intent of S.B. 97 was to appropriate unappropriated water in streams on the western slope. This is a desirable thing. However, we have the following situation on most front range streams:



Priority #100 doesn't get its water at the appropriate times of the year to irrigate its crops. So, people who own priority #100 build reservoirs and fill them during times of high water. During the summer when priority #1 is due its water,

water is released from the upstream reservoir to fulfill priority #1. Thus priority #1 is converted at the headgate of priority #100. The difficulty with S.B. 97 is that a minimum flow appropriation from point A to point B would prohibit such an exchange. This is because of Colorado law which states that you can exchange only if such an exchange does not injure any other water right -- whether it be senior or junior. Now, if the state appropriates a minimum stream flow of 30 cfs on the Poudre, it matters not that in the summer time there is no such flow --- for there isn't. It does mean that, because of the minimum stream flow right, we can no way interfere with whatever water that may flow through the reach. Thus the exchanges which adversely affect the reach are prohibited.

Before we consider this desirable, let's examine the Poudre River system. At the moment, the plains reservoirs have the decrees in the river or they would be allowed to fill according to priority. Reservoirs now being filled are the high mountain reservoirs such as Chambers Lake, Longdraw, Peterson, etc. If there's plenty of water (during high flows) the plains reservoirs will fill according to priority. If there's not enough water, the high mountain reservoirs, which filled out of priority, will release to fill the lower reservoirs or somehow give credit in our Horsetooth Reservoir of the Colorado-Big Thompson project to make up for the storage out of priority. But right now,

the fact is that there is substantially no flow in the main-stem of the Poudre River because we are taking all the flow we can as high as we can. There are many other examples and I've drawn some charts to indicate these (He displays drawings and presents a detailed discussion of specific important exchanges).

S.B. 97 would not interfere with any existing water rights on the river but it would prohibit the exchanges. There is nothing that the state can or should do in protecting this river for all its esthetic purposes because the river would be dry $11\frac{1}{2}$ months of the year if the ditch companies diverted according to their decrees and did not participate in exchanges. It's only during the last part of May and June that excess water usually exists. The rest of the time the river is dry whether we exchange or not. If we can't exchange, then we lose a lot of flexibility concerning the use of the reservoirs.

It has been suggested that the existing exchanges could be protected by getting court decrees. I suspect we will do that. I still think S.B. 97 should be amended because we are not exchanging today like we were 10 years ago. We have imaginative water users in all the river basins who are continuously coming up with new exchanges to make better use of the water. Secondly, S.B. 97 would interfere with any future changes in points of diversion. Such changes in points of

diversion are economically and socially desirable for the Front Range. As an example, let's consider the City of Fort Collins. The City is acquiring substantial interests in the Arthur Ditch, the Larimer County #2 Canal, the New Mercer Canal and the Pleasant Valley & Lake Canal. Unless, in the future, these ditch rights can be transferred up to the Fort Collins pipeline or some reservoir storage, these waters can never be used and must be abandoned in the Poudre Basin. The same is true of Greeley and agricultural interests. I urge the passage of S.B. 413 to protect the future exchanges and changes in points of diversion.

Senator Darvey: I can understand protecting existing exchanges but giving latitude for all future practices seems much too broad. It's like "throwing out the baby and well as the bath water".

Fisher: The City of Fort Collins has recently purchased the Joe Wright Reservoir. The City plans to increase the storage capacity of the reservoir from 800 acre-feet to approximately 8000 acre-feet. The only way this amount of water can be used by the City is by exchange. Unless future exchanges can be protected, it would be very difficult for Fort Collins to use the increased water supply (Fischer also mentioned the Windy Gap project as another example).

Senator Anderson: If that water were not diverted and stored in the Joe Wright Reservoir at flood stage, what contribution could it conceivably make to the minimum flow after the flood stage had already passed.

Fischer: It could not.

Senator Anderson: It would already be in Nebraska, wouldn't it?

Fischer: Yes sir.

Senator Anderson: This is another reason why we should keep water as high and as long as possible.

Fischer: This is a very good point. The best friend of the conservationist is the reservoir owners because they constantly release water into the Poudre River and keep it flowing.

Senator Darvey: That may be true of the higher reaches of a stream but once it hits the plains, the water is diverted and the stream becomes dry (She mentioned the St. Vrain River as an example).

Fischer: I asked the Division of Wildlife what they hoped to gain by making an appropriation in the lower section of a stream which is dry much of the time. They said that the state could buy water -- say in Joe Wright Reservoir -- and release it into

the Poudre River to maintain a minimum flow. They feared that unless the state had an instream appropriation, some appropriator could claim the water and divert it. This is fine and we (the Water Users) have no objection to that. S.B. 413 would not interfere with that concept at all.

Senator Darvey: You are sure of that?

Fischer: I'm (pause) as sure as I've been able to think it out. I can see no reason why -- I'm sure. Yes, I'm sure.

Bob Elliot: I'm Deputy Director of the Division of Wildlife and opposed to S.B. 413. Concerning Mr. Fischer's comment, I would be interested to know how an instream right could be protected when S.B. 413 states it cannot. (No comment).

We supported S.B. 97 in 1973 because it was the first legislation which provided for instream water rights in this state. When we've come in conflict with other water users in the past, we've always come out second best. We're using S.B. 97 to maintain streams for the people of Colorado. The legislature has not allocated any money to support the minimum flow concept. The Division of Wildlife has re-arranged its job priority list to make such funds available. We have invested a great deal of time and effort in S.B. 97 and we have made recommendations on about 200 miles of stream. If the stream is dry, such an appropriation does not force the

senior water users to provide a minimum flow. We have bought water rights associated with land in the past. This water is usually used in lakes or other impoundments.

The Committee realizes that the Division of Wildlife is nearly always forced to oppose new water developments because of what it does to the streams and the fishery throughout the state. Colorado had approximately 16,000 miles of fishable, productive trout streams about 30 to 40 years ago. Now there are probably less than 8000 miles. This is not due entirely to a decrease in the quantity of water. The decrease in water quality has contributed to stream degradation.

Question: Hasn't the reservoir fishing made up for the decrease in miles of trout stream to some extent?

Elliott: It's difficult to compare fluctuating reservoirs with trout streams. The state is forced to maintain an extensive fish hatchery program because reproduction can not occur in the fluctuating reservoirs. However, I can not deny that the reservoirs provide a great deal of recreation potential.

Gerald Sjaastad: I am Deputy Director of the Department of Natural Resources and opposed to S.B. 413. I will not dwell on S.B. 97 since it has been well covered. I do want to point out that the Division of Wildlife is not the governing board

in administering S.B. 97. The Water Conservation Board has that responsibility based on recommendations by the Division of Wildlife. The Board represents all the water users in the state and it has been very cautious in implementing S.B. 97. The Board has always postponed action when opposition to an instream water right application has occurred. The Board has never filed for a decree in the face of any voiced opposition. Therefore I want to stress that the legislature has put the administration of S.B. 97 in the hands of the Water Board which carefully considers all factors.

In summary, S.B. 413 will create a "hybrid" water right-- a right that is not a right. Such a right would be so nebulous in value that it wouldn't justify the engineering expense, the environmental studies, or the legal fees which it takes in going after water rights under S.B. 97. We request that this Committee continue to rely upon the good judgement and cautious approach of the Board and let them run on their good record.

David Harrison: I am here to represent some private interests concerning the minimum flow concept. I strongly support water exchanges because it's the only way to maximize the use of that resource. At the same time I must oppose S.B. 413 because it is so broad that it repeals S.B. 97 (He reads S.B. 413). This creates a water right which cannot be defended. The minimum

flow water right is a junior right and its only function is to protect the stream in its existing condition. If you can't rely on such conditions, then you don't have any kind of right at all.

I'm particularly concerned with future exchanges. I agree with Senator Darvey that existing exchanges should be protected, whether they are adjudicated or not. I support the idea that the Water Conservation Board can adequately protect these interests. I think they can do it under existing law. You might consider a somewhat less broad version of S.B. 413 -- one which would protect only existing exchanges (He reads a rough version of such an amendment). I personally would let it go at that because I feel differently about future exchanges and changes in points of diversion. But I would be careful not to categorically prohibit the Water Conservation Board from filing a water right which could not be defended against future degradation of stream flows. That's the whole point.

It is my opinion that nothing can be done on the Poudre River until additional water is acquired by the state for instream use. The Poudre system is much too complex. However, there are stream conditions which need to be protected against future degradation as the starting point in minimum stream flow. In addition, many of these streams will require

acquisition of water such that a minimum flow can be provided. But you must start by protecting existing conditions.

When you're talking about additional exchanges for municipal use, in many cases you're talking about growth of the municipality. I think the question can be left with the Water Conservation Board on whether or not that growth should carry along with it a duty to help pay for the stream flow degradation which would result. Please bear in mind that S.B. 97 does not deprive existing water users of their water and it shouldn't. I believe that the existing exchanges should be protected, but I would hate to see S.B. 413 go any further than that.

Question: What about future exchanges which would improve the efficient use of water and the conditions in the river?

Harrison: I think they should be encouraged. I think they can be encouraged on the Poudre River if the state owns some water rights for the purpose of minimum flows. I'm working with a private group who is interested in acquiring water rights and turning such rights over to the state (He explains the Boulder Creek plan). Given some water to work with, I think you can go a long way in maintaining minimum flow conditions through good planning and management. This could be done without prohibiting all future exchanges or changes in points

of diversion. However, you must have a right which can be protected and will be recognized by exchange designers in the future. Without such a right, all is lost.

Bob Wyler: (Wyler presented a historical perspective of S.B. 97 and offered new language to S.B. 413 which would protect existing exchanges. However, Ward Fischer stated that such language was not sufficient to protect his interests.)

Fischer: Let me give you a concrete example of why S.B. 97 should be amended. I guess its a matter of philosophy on what the Senate wishes to do with Colorado's water. The City of Fort Collins owns 25% of the Pleasant Valley & Lake Canal. It will own 100% of it in a few years because the City keeps growing over it. We can do one of two things with the water right. If we can't change the point of diversion, we will abandon it and it will be abandoned. The water would flow into Nebraska.

Another alternative would be to allow a change in point of diversion to the City's pipeline. This exchange is not under contract now because we don't have any water. However, a minimum flow right would prohibit such an exchange in the future. You know that the municipalities of this state aren't going to allow their people to go without water. They will go out and condemn agriculture water rights and thus the

economy of the state will suffer. (He also mentioned the Joe Wright Reservoir and the need for future exchange of its waters.)

Bob Wyler: It is possible that future exchanges of such water can be made if agreements can be worked out between the state and the traditional water users. We must remember that the state would have to show that significant injury would occur before they could prohibit the exchange or change in point of diversion.

Senator Darvey: If the Division of Wildlife acquired water rights in the Joe Wright Reservoir to release in periods of low flow, would that water be protected from diversion by other users?

Fischer: Yes it would -- under S.B. 97 and S.B. 413. We made a suggestion to the Division of Wildlife concerning this very matter. If they are interested in acquiring such rights, we would be glad to help them find the water. We also would help them find a buyer for the water once it has passed the critical reach of the stream. In this way, they could recover some of cost attributed to acquiring the water.

Sjaastad: You have suggested two alternatives for Fort Collins concerning future water use -- the City can abandon or change

the point of diversion. I would like to suggest two additional alternatives. One alternative is to exchange the water downstream. Another alternative would be to pump the water back up after it has passed the minimum flow reach. Such an approach would cost a little money but it may still be within reason.

Fischer: Could you tell me how you could exchange downstream and make any use of that water in the area?

Sjaastad: Well, I've seen examples all day of exchanges between upstream and downstream users. I don't know the full picture of all the ownership on the river.

Fischer: There are plenty of people downstream who would take the water but how could we get it back upstream?

Sjaastad: Well, you might have to involve some other project.

Fischer: Yes, but any project above the lowest point on the minimum flow reach would be prohibited.

Note: Discussion continued on whether or not such an exchange could be made without injuring the minimum flow right. It was finally agreed that such an exchange was theoretically possible. The City of Fort Collins could exchange their water with the South Platte River users who have water in Horsetooth

Reservoir. According to Fischer, this exchange was not practical because all possible exchanges are being utilized.

Bob Wyler: If we provided protection for the existing exchanges, wouldn't that solve a big part of your problem?

Fischer: I will agree that it would solve a big part of the problem but I wouldn't consent to excluding future exchanges or changes in points of diversion.

Duane Helton: I am with the Water Conservation Board and I would like to explain the litigation proceedings in progress on the Fryingpan River. (Senator Anderson had mentioned this issue earlier in the meeting.). The Fryingpan was the first river that we obtained decrees under S.B. 97. Immediately after we got the decrees, a developer -- who wanted to establish a ski development by Ruedi Reservoir -- applied for some changes in points of diversion. Actually what he wanted to do was to obtain a year-round decree from a historical irrigation decree. We were able to file a protest since it would injure the minimum flow right on the river.

Senator Anderson: You said that the developer was trying to expand his water right?

Helton: Right -- through a change in point of diversion. If

the state did not have a right to object to this, then there would be no way of controlling the minimum stream flows on the river.

Senator Darvey: In other words, the developer was trying to take a conditional water right -- one which is good for a few months of the year -- and expand it to a year-round right with the same amount of flow.

Helton: Right. (He gave a more detailed explanation of the Fryingpan case).

Anderson: The original concept of S.B. 97 was not intended to interfere with the water exchange system. If we upset this system, the City of Fort Collins may be forced to condemn water like the City of Thornton. This would be a very undesirable situation.

Note: Discussion continued on what should be done to satisfy both parties. Time ran out for this session and discussion was scheduled to continue the following week.

SENATE COMMITTEE ON AGRICULTURE
LIVESTOCK AND WATER

April 7, 1975
320B

S.B. 413

Senator Anderson: (He reviewed the discussion of the previous meeting and offered an amendment to S.B. 413 which would protect existing exchanges.)

Felix Sparks: Director, Colorado Water Conservation Board.
(The first part of Sparks discussion involved a historical perspective of S.B. 97. He commented on the statutory approach versus the constitutional amendment and briefly explained the legal questions which were associated with S.B. 97.)

The original bill (S.B. 413) introduced here would make our efforts in acquiring decrees for minimum flow rights a worthless proposition. We simply can not afford to invest time and money into obtaining rights which cannot be protected. We think the state is entitled to the same protection as every other appropriator -- and no more. At the present, any appropriator can object to an exchange if he can show injury. We don't think the state should be treated differently from any other appropriator. That is why we oppose S.B. 413.

Anderson: How are you physically trying to accomplish the minimum flow concept?

Sparks: We have already filed and obtained 30 to 40 decrees. We plan to pursue 50 to 100 cases per year. These are all court cases and that's why it's so expensive. Then there is a significant amount of time invested in studying each stream. One stream may have to be divided into 50 segments because of the many varying characteristics which must be considered -- tributary inflow, depth, type of aquatic life, etc. These studies are very time consuming.

Anderson: Where have most of these studies taken place?

Sparks: Most of them are in the high mountain areas where there is still some water left. We must follow the same procedure as anyone else in filing for water rights. They are processed like any other right -- they are advertised in the newspapers and anyone has the opportunity to dispute them. Where there's a controversy, the Board does not act until it has met with the opposing party. In every case to date, the Board has been able to work out these conflicts.

The same is true of the Poudre River. We layed that matter aside until arrangements can be made to work out the conflicts. I'm not sure when we will get to this matter -- probably late this summer or this fall.

Question: Does this concern the Joe Wright Reservoir?

Sparks: No. This simply involves minimum stream flow. The water users on the Poudre River have not gone into court and gotten their exchanges made permanent (adjudicated). Any water user can go into court and get such a decree. The Poudre water users have been making temporary exchanges, usually on a year-to-year basis.

Question: What if the water users want to make changes in points of diversion?

Sparks: If they want to do it on a permanent basis so they would not have to clear it with the water commissioner every year, they would have to go into court and get an alternate change of diversion.

Note: As the discussion continued, several amendments were considered which would have protected existing exchanges.

Sparks stated that such amendments weren't necessary under existing law. The law already protected exchanges which had been adjudicated in court.

Anderson: Let me further explain the issue. S.B. 97 was intended for high mountain streams. The Board has now applied this concept to the lower reach of the Poudre River and the water users are concerned that such a concept will upset the elaborate exchange system which exists.

Someone: But Sparks says the Water Conservation Board does not know about all these exchanges.

Anderson: Well, all they would have to do is check with the water commissioner.

Sparks: But you see, those exchanges are authorized on a yearly basis. No one has the authority to authorize them beyond a yearly basis except the court. We're trying to figure out a way that we can consider these exchanges when we file for a minimum flow decree. We certainly do not want to interfere with existing exchanges.

If the Poudre water users can give us a water exchange plan which we can incorporate in our decree, then we can make sure that no one is harmed. We just don't want to be subject to continuing unknown situations in the future. If we can tie down a specific operating plan, then we can incorporate it into the minimum flow decree.

Anderson: What about the future exchanges? We are still faced with the problem of providing for future exchanges or changes in points of diversion which will be necessary (Refer to the April 3 discussion).

Note: Much discussion followed which concerned the necessity of a permanent record on existing exchanges on the Poudre River.

Some felt that the water users should not be forced into court to obtain permanent decrees. Others maintained that such filings were necessary to make the exchanges official.

Sparks: When we research water records, we go only to the court records because they're the only official records -- everything else are temporary arrangements. The state engineer does not keep such arrangements on file. There's no point in him doing so because he would be burdened with thousands of temporary arrangements.

Senator Darvey: (She was still concerned that S.B. 413 would not protect minimum flow water from other appropriators. Sparks attempted to explain the situation again. There was a great deal discussion on various concepts of S.B. 97 which had already been covered in the previous session.)

Senator Cole: Why don't we ask Sparks to come up here and offer an amendment. I don't think we're getting any place.

Sparks: I was just thinking of something along this line: "Any such appropriation shall be subject to exchanges of water made pursuant to practices in existence on the appropriation date of such flows or levels as may be confirmed by the court in the decree granting such appropriation". In other words, we want the court to confirm what those practices are.

Anderson: At the hearing, the court would recognize these exchanges as being valid?

Sparks: That's right. The minimum flow right would be subject to the practices which the court finds in existence.

Question: How much time and money are you talking about to do this? It seems that such a process would be very burdensome.

Anderson: It will be burdensome as long as these minimum stream flows are applied to the lower reaches of these streams.

Sparks: I'll tell you what we could do. Even though the water users make changes from year to year, we can specify the options they have. For example, we could state that the water users could divert water in Reservoir A to ditches B, C, D, etc. You've got to do that anyway in your annual operating agreements. Otherwise the water commissioner doesn't know what's going on.

Note: The discussion which followed concerned the concept of formalizing the exchange practices in existence. Finally a motion was made to adopt Sparks amendment to S.B. 413.

Then the discussion turned to the problems which could occur when all the existing practices are made known to the public.

Sparks: There could be some controversy concerning the practices which have taken place. I would think such conflicts would be minimal. The Water Conservation Board would simply point out to the court what the existing practices were and such practices would be incorporated into our minimum flow decree. Now this would eliminate the necessity for the water users on the Poudre to go in and get alternate changes in points of diversion. This is what the Poudre water users don't want to do because it would reveal their practices to every water user in the system. I'm a little suspicious that some of the current practices may be illegal. That's the reason they (water users) don't want to go in, to be perfectly frank with you -- because they are opening up their practices to the downstream users or wherever. What we're saying -- as far as the state's concerned -- is that we are willing to recognize those illegal practices. But they (the Poudre water users) will still have to worry about opposition from other people.

Note: Brief remarks were made by various people present concerning the above issue. Then Bob Weaver of the Colorado Rivers Council presented testimony on the bill.

Bob Weaver: The Colorado Rivers Council was strongly opposed to the original version of S.B. 413. But now you are discussing

the amendment which Mr. Sparks suggested and I don't think we would have any problems with that. Of course we were very much involved in supporting S.B. 97. Our essential purpose was to re-define beneficial use so that instream uses of water for environmental purposed could attain a legal status along with other uses.

We have closely followed the controversy on the Poudre River. We think that future exchanges or changes in points of diversion should consider the minimum flow concept because the Poudre River is very important in providing recreation opportunities for the people of the state. I think that any agreement should be flexible enough to assure efficient use of the water. But, included in that flexibility, there should be some consideration of instream values. This has not been done in the past on the Poudre River. (He referred to the situation in September 1973 when a stretch of the Poudre River was dried up.)

Question: What do you think of the bill as amended?

Weaver: As amended, I don't think there will be any problems. The Conservation Board would have to be ~~aware~~ aware of all the exchanges going on.

Note: The session concluded with the adoption of Sparks

amendment. It was generally agreed that the state should have a part in future exchanges -- not to stop such exchanges but in hopes that more of the river could be maintained through better coordinated exchanges.

APPENDIX G

City of Boulder Resolution

concerning

Minimum Stream Flows

for

Boulder Creek

April, 1975



CITY OF BOULDER

KENNETH R. WRIGHT, COUNCILMAN

RECEIVED JUN 2 1975

27 May 1975

The Honorable Richard D. Lamm, Governor
State of Colorado
State Capitol Building
Denver, Colorado 80203

Dear Governor Lamm:

The City Council of Boulder recently passed Resolution No. 180 relating to a Minimum Stream Flow for Boulder Creek upstream of and through our fair City. It is attached.

I am forwarding this resolution because of your demonstrated interest and support of measures which enhance water resources management in harmony with sound environmental efforts.

This resolution was developed and supported by the Colorado Mountain Club, Nature Conservancy, and Trout Unlimited. It also had the support of Boulder's Water Utility because of the benefits which could also be realized by our municipal water resources ongoing program.

It would appear that similar actions by other municipalities in Colorado might achieve similarly anticipated beneficial results.

Very truly yours

KRW:ej

By *Kenneth R. Wright*
Kenneth R. Wright

cc: Colorado Land Use Commission

A RESOLUTION CONCERNING THE UTILIZATION OF BOULDER'S WATER RESOURCES FOR THE MAINTENANCE OF DUE DILIGENCE ON EXCESS WATER RIGHTS AND ENHANCEMENT OF THE TOTAL URBAN SYSTEM; AND, SETTING FORTH DETAILS IN RELATION THERETO.

WHEREAS, it is the policy of the City of Boulder to utilize its natural resources, including particularly its water resources, to the maximum and/or optimum extent; and

WHEREAS, it has long been the policy of the City of Boulder to exercise great prudence in the protection of its water rights, including the maintenance of beneficial water use; and

WHEREAS, when possible and consistent with the foregoing overriding policies, it is the further policy of the City to enhance and preserve the natural and aesthetic values in the region; and

WHEREAS, exchange opportunities exist such as with the Boulder and Whiterock Ditch, and water transported downstream may be sold to ranchers, farmers, and industry;

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF BOULDER:

THAT it is the specific policy of the City to make use of its water resources to assist in the maintenance of a minimum stream and aesthetic flow of water from Barker Reservoir to the 75th Street sewage plant.

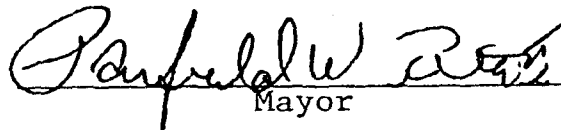
TO IMPLEMENT THE ABOVE, City Council directs City Manager to:

- (1) Petition the Colorado Water Conservation Board to apply for beneficial use water rights for minimum stream flow purposes from Barker Reservoir to Orodell to complement similar past

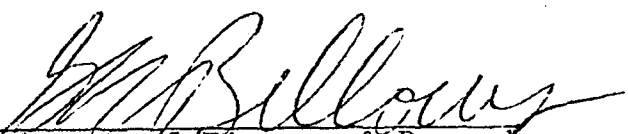
applications in Boulder Creek;

- (2) Determine the current status, and arrange for the acceptance, of the I.B.M. recreation water offer;
- (3) Consult with the County Commissioners to encourage their participation with the City of Boulder in this program;
- (4) Request City staff to meet with the engineer and legal representative of Trout Unlimited, Colorado Mountain Club, and The Nature Conservancy and provide basic data already available.
- (5) Incorporate the minimum stream flow program in the City's overall Plan for Augmentation including exchange filed with Water Court on December 31, 1974, and operate a portion of its exchange program for minimum stream flow purposes.

INTRODUCED, READ, PASSED, AND ADOPTED this 22nd day of April, A.D. 1975.


Mayor

Attest:


Director of Finance & Record
Ex-officio City Clerk

APPENDIX H

Miscellaneous

Newspaper and Magazine Articles

concerning

the

Minimum Flow Concept

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Colorado will use disputed law to make water claims

By United Press International

The state of Colorado—using a law that is virtually certain to be challenged in the courts—will begin making claims on water as early as this summer to try to keep certain streams from running dry.

The state and federal governments already have started mapping out plans to determine where minimum flow requirements should be set and how much they should be.

"Our first job is to determine what these minimum stream flows should be," said Felix Sparks, director of the Colorado Water Conservation Board. "Then we'll worry about whether we're going to purchase water. That's a matter which the Legislature will have to decide after we present each case to them."

Sparks is operating under new water legislation which was approved by the Colorado General Assembly earlier this year and signed into law by Gov. John A. Love.

CHANGES DEFINITION

The law changes the definition of "beneficial use" of water to include minimum flows and levels on natural streams and lakes to preserve the natural environment to a reasonable degree.

Colorado can purchase water rights where necessary under terms of the bill, although no appropriation was included. The Legislature will have to decide where it wants to spend such money.

Many lawmakers expect the bill to be challenged in the courts, as does Sparks. Gov. Love had requested that a constitutional amendment be offered to the people to clear any doubts, but the General Assembly decided to try to accomplish the same end by statute.

Sparks admits the situation has him worried, but he is proceeding under the bill with the hope it will stand up in court. A final court decision on the legality of the measure probably is several years in the future, he said.

Meanwhile, the state is going ahead with the studies and will begin filing on water rights this summer.

ALREADY DONE WORK

"In some areas, we've already done considerable work," Sparks said. "We will start this summer with filing of appropriations. They will be on certain streams where we've already done work."

"I would say we're going to make several appropriations every year from now on. The minute we get a stream finished, we're going to appropriate it. We're not going to wait until we get the whole thing done."

"When we complete the Fryingpan, we're going to make a filing on the Fryingpan. When we complete the Roaring Fork, we'll make a filing on the Roaring Fork."

He said the state would be relying heavily on the Federal Bureau of Sport Fisheries and Wildlife and the Colorado Division of Wildlife to make the studies to establish what minimum flows are necessary for the preservation of fish and aquatic life.

The Colorado Water Conservation Board then will review the recommendations to determine whether or not it thinks they are adequate.

SUFFICIENT WATER

"Many places these minimum flows are there," he said. "We don't have to worry about them. There is sufficient water."

"Those streams which have been dewatered or, let's say, diverted to the extent that minimum flows cannot be met, is a separate matter. The Legislature is going to have to determine whether or not it wants to purchase water rights on those particular streams."

Sparks said the purchasing of water would come about eventually, but the first "and very enormous task—one that will take years—will be to classify the streams."

"We're talking about really an enormous task," he said. "Maybe 10 years."

THURSDAY, FEBRUARY 27, 1975

Board recommends minimum water flow for Poudre

By LARRY STEWARD
Of the Coloradoan

A decision with far-reaching impacts on water users of the Cache la Poudre River is expected to be made by the Colorado Water Conservation Board in May.

The decision to make a decision came Wednesday after hearings in Denver on a Colorado Division of Wildlife recommendation that the Poudre have a minimum water flow requirement imposed on it.

TO GET a minimum standard flow of water in the Poudre, the conservation board would have to file for junior water decree rights to the river.

The decrees would not pre-empt the senior water rights on the water, but would constrict water transfers among users at different points of the river.

Duane D. Helton, environmental and water quality section chief for the Wildlife Division, said the segment of the Poudre involved is "from the bridge on Colorado 14 two miles east of Rustic to the bridge also on Colorado 14 one-half mile east of Fort Collins for a total length of about 23 miles."

The water flow requested is 30 cubic feet per second (CFS) during October through April and 65 cfs during May through September.

The conservation board's May meeting will be in Grand Junction, where the decision is to be announced.

REPRESENTING the Cache la Poudre Water Users Association at the hearing was Ward H. Fischer, the association's attorney and president of the Fort Collins Water Board.

"I can't say enough against it," he said today.

"The cities of Greeley and Fort Collins would be killed . . . on the many water exchanges they make.

"It would completely interfere with water use in this section of the river . . . and many thousands of acre-feet (of water) could not be made useful if they (the conservation board) get their decree," he said.

Fischer said, however, that the water user groups in this area "would love to meet with them (wildlife officials) to work out an agreement.

"They seem to take the position that we're against fish, but that's just not true. We like them just as much if not more than anybody else," he said.

Peter Barrows, a division environmental representative, said it was "regretful" that the division's recommendation met with the reactions it did.

"Pre-supposing it's (the law) constitutional and we're following the intent of the state act, we're going to be doing this with every water course in the state," he said.

He said he felt the division was only doing its job under the state legislation and added that the division will meet with water users on March 18 in an attempt to resolve some of the conflicts.

Fort citizens oppose scheduled Poudre minimum-flow standards

by Gail Anderson
City Editor

Fort Collins Coloradoan
March, 1975

Cache La Poudre River water users have objected to the proposed imposition of minimum flow standards on the river.

They are contesting the Colorado Water Conservation Board's recommendation that the 38-mile stretch of the river from two miles below the Rustic in Poudre Canyon to one-half east of the city have a minimum flow.

Following the recommendations of the Colorado Division of Wildlife, the board is proposing a minimum water flow of 30 cubic feet per second (c.f.s.) from October to April and 65 c.f.s. May to September.

At a board public hearing in Denver last week concerning the minimum flow, the board postponed its decision until the May meeting in Grand Junction.

Ward H. Fischer, attorney for the Cache La Poudre Users Association and president of the Fort Collins Water Board, said he represented the association at the public hearing because "we're (the association) very concerned about it (the proposed minimum flow) because the commission made no study at all on the effects of the standards on the economy of the region."

"Upset" water system

He asserted the imposition of the minimum standards would "upset" the long-established system of water exchanges between municipal and agricultural users.

If a minimum flow is approved the state would file for junior water rights to the river. Although the junior water rights would not supersede the senior water rights, they would obligate the senior water appropriators to leave the amount of state-requested water in the river.

Fischer commented, "Nobody is against the aesthetics of water flow in the river, but it just won't work."

A minimum flow system won't work, Fischer said, because the claims on the river already dry up the river at times.

And, he added, "Nobody objects to a minimum flow for fish, but we do object to a minimum flow because of the costs to the people."

Senate bill explained

The Water Conservation Board is authorized to set minimum flows for Colorado rivers and streams with the assistance of the Division of Wildlife by the Colorado legislature's Senate Bill 97, whose purpose is to "correlate the activities of mankind with some reasonable preservation of the environment."

Gov. Richard Lamm, then a state representative, was one of the bill's supporters.

Ed Kochman, wildlife environmental representative for the division, said the division was prompted to establish a minimum flow for the river after a section of the river dried up above Fort Collins during last September.

After extensive field analysis of the river, the division recommended the suggested standards to the board, Kochman said.

He said controversy over the recommendation has been "far more harsh" than proposed minimum flow warrants.

Natural resource may be "loser"

If the board is "hamstrung" in its efforts to establish minimum flows for streams and rivers by water users, the natural resource of water will be the loser, he commented.

Kochman added the constitutionality of the act may possibly be challenged in court.

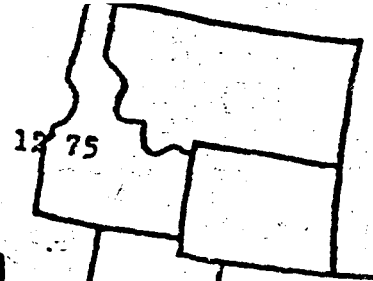
And, he said, the division is simply doing its job of recommending minimum flows for Colorado rivers and streams as outlined in the act.

"We (the state) intend to file for every stream and river in this state for that was the intent of the act," Kochman noted.

The division has recommended minimum flows for almost a dozen Colorado rivers and streams so far, he added.

A meeting between the Cache La Poudre Water Users Association and the division has been set for March 18 to resolve the conflict.

Kochman stated the division is prepared "to bend over backwards" in establishing a minimum flow which would be agreeable to both sides.



The Environmental Bi-Weekly

High Country News

35¢

Vol. 7 No. 6

Lander, Wyoming

Friday, March 14, 1975

Flow reservations — water under the bridge?

by Ken Bovee

When a proposed development is opposed by a group of environmentalists, the complaint that their arguments are emotional and non-objective is invariably raised. If you want to see the developer get emotional and non-objective, however, just raise the subject of flow reservations.

A flow reservation refers to water which must be left in the river. The thought of all that water just running off someplace downstream raises plenty of hackles.

Many people, especially ranchers who depend on river water for irrigation, confuse flow reservations with stream preservation. Stream preservation usually limits or excludes some or all types of development on certain sections of a river. A flow reservation is essentially a water right, filed by the state, for a recommended amount of water, adjusted to seasonal requirements. As a water right, the flow

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reservation will not affect the use of water by ranchers with prior rights.

A flow reservation cannot override or circumvent the water rights of the rancher (provided he has prior rights), even if the stream is over-appropriated. However, these reservations may compete with future industrial water demands. Thus, the water will be "used" one way or another. It will either remain in the river or it will circulate through a wet cooling tower somewhere.

Is water left in its channel considered a beneficial use of that water? Legally, it is if the state legislature says it is. But what of the practical, nuts and bolts, benefits of maintaining minimum streamflows?

RIVER FLOWS & WATER QUALITY

The most economically important reason for maintenance of required streamflows is for water quality. Let's say, for example, that a river basin contains 1,000 people and that the river has a summer low flow of 500 cubic feet per second (cfs). Now suppose we add a big coal gasification and electrical generation complex that attracts 10,000 people to the basin and drops the summer low flow to 50 cfs. All of a sudden we go from no mandatory water pollution control to a required 99.999% coliform

the dam. This problem is so commonplace that most large dams have energy dissipating structures built in to keep the river from under-cutting the dam.

When there is more sediment entering the stream than it can handle, the sediment simply settles out. This process is termed aggradation, and can be caused by an unusually large sediment source (such as a clear cut, landslide, or a strip mine), or by maintaining the same sediment yield but reducing the discharge of the river. Under natural conditions, run-off is synchronized, so that the receiving stream is at high flow at about the same time that the tributaries are.

Now suppose that during the spring run-off, the tributaries are running bank-full, but that the main stem of the river is dewatered down to half of bank-full. The main stem will not have the power and velocity to carry off the sediment supplied by the tributaries. In this manner, the main stem will begin to fill with sediment, and the elevation of the stream channel will be raised.

RIP-RAP WON'T DO

A downcutting, or degradational stream, is probably a greater problem for dams than for anything else. However, an aggradational stream is a headache for everyone. For one reason, an aggrading stream is likely to change its channel; it will become much wider in relation to its depth and the meander pattern may change or break up into divided channels.

Even a dewatered river still has the capacity to flood or at least run a good stream during periods of high precipitation. With the elevation of the streambed raised, the definition of a 10 year or 100 year floodplain becomes a real guessing game.

Bridges may have so much sediment deposited beneath them that they must be raised to allow for periods of higher flow. Or even worse, the stream may change its course and miss the bridge entirely. This is not only embarrassing to the engineer, but it is costly, and all the rip-rap in the world can't help keep the river in its channel. Ranchers who pump irrigation water out of the river may find their pumps silted in or their diversion basins filled with

sediment. The only solution to the problem is dredging — or maintaining enough streamflow to accommodate the sediment load.

WHAT ABOUT THE FISH?

While the fisheries of the Northern Great Plains region are not particularly important on an economic basis, they are important as barometers. If the habitat can be maintained so that there is little change in species composition, diversity, and productivity, then it is probable that expensive problems will be avoided.

In addition, there are several rare species of fish inhabiting the rivers of the Northern Plains. Most notable of these are the paddlefish (*Polyodon spathula*), the pallid sturgeon (*Scaphirhynchus albus*), and the shovelnose sturgeon (*S. platyrhynchus*). The range of these species has been reduced drastically in this country, primarily due to habitat destruction and/or water pollution. The two sturgeon species have been especially affected by the construction of dams on the Missouri River system.

Flow reservations were first established in the Pacific Coast states for the protection of the economically important fish. The application of such reservations to rivers containing sauger, smallmouth bass, and channel catfish might seem unwarranted, compared to a stream with steelhead and salmon. However, the benefits extend far beyond the fishery itself. In addition, the less valuable warm-water fish may be more sensitive to changes in the flow regime than the salmon and steelhead.

There are a good number more species involved in a warm-water fishery. Competition is more intense, food webs are more complex, and the top carnivores eat fish rather than insects, making food chains longer.

When a stream is dewatered, the following changes occur: water velocity decreases, depth over riffles decreases at a higher rate than pool depths, sediment deposition over a given area increases and sediment size decreases, summer water temperatures increase, while dissolved oxygen concentrations decrease. Overall, that means less food for the

A flow reservation cannot override or circumvent the water rights of the rancher, even if the stream is over-appropriated. However, these reservations may compete with future industrial demands.

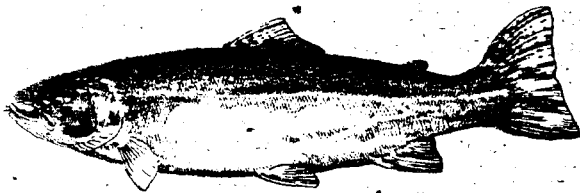
bacteria removal (based on Washington Department of Ecology level 1 model for water quality). And the river will probably still suffer some degradation of water quality. A great deal of the added tax base from the facility will go for a tertiary sewage treatment plant for the additional waste load.

In essence, the cheapest solution to pollution is still dilution. A number of things combine in the above scenario to cause the predicted results. The most obvious is that the ratio of organic waste to water has increased enormously. As water is removed from the system, so is oxygen. And the ability of a river to oxidize organic waste depends on the total amount of oxygen available.

In addition, where a stream is dewatered, the water velocity decreases and summer water temperatures increase. This lowers the rate at which oxygen is added to the water, and also the amount of oxygen which the water can contain in solution. To make matters worse, the rate at which the organic waste is decomposed is not completely dependent on oxygen concentration; it is also a function of the concentration of waste and the temperature of the water. Thus, when a stream has more waste than it can handle, any remaining oxygen is quickly removed from the water. When the system becomes oxygen depleted, the river may become a genuine nuisance.

For one thing, an oxygen-depleted stream may smell bad. Some bacteria are anaerobic. They take the oxygen they require not from air, but from chemical compounds in the water. One of these compounds is sulfate. When oxygen is removed from the sulfates in the water, hydrogen sulfide comes up from the water. Not only is hydrogen sulfide a

In essence, the cheapest solution to pollution is still dilution.



poisonous gas, but it also stinks. While the chances of being poisoned by the gas are probably remote, the smell alone is enough to cause concern.

A further consequence of oxygen depletion is the disruption of the phosphorous cycle. When oxygen is plentiful in water, most of the phosphorous is present in the form of ferric phosphate. This compound is quite insoluble in water. When oxygen is depleted, the ferric (Iron III) phosphate is reduced to ferrous (Iron II) phosphate, which is water soluble. This in turn acts as a fertilizer, promoting the rapid growth of algae and aquatic plants. At this stage, the river is well on its way to becoming a long, narrow swamp.

WATER RIGHTS ASSURES QUANTITY, NOT QUALITY

While the amount of water available for irrigation is assured by the landowner's water rights, its quality is not. Of major concern to the irrigator is the concentration of dissolved solids in the water. As a stream is dewatered, the water temperature increases through several processes.

First, there is less water to heat, so that a given amount of incoming solar energy results in higher temperatures. Secondly, the velocity of the water decreases, so that a block of water originating in the cool mountains takes longer (and therefore spends more days in the sun) to reach its mouth. A third cause of increased temperatures is that decreased streamflows will draw the stream away from its banks and the shade provided by trees along the bank. (Reduced streamflow may even result in the death of the trees).

As the water becomes hotter, it evaporates faster. This increased rate of evaporation tends to concentrate the salts dissolved in the water. Thus, the water used for irrigation will become saltier. This is crucial in areas where many streams already have quite high salinities.

HAULING DIRT

Irrigation, fisheries resources, sewage hauling, and industrial or municipal uses of water are subordinate uses of a river. Geologically speaking, the main job of a river is hauling dirt. Each river system is delicately balanced to provide at any instant, just the discharge required to carry away the sediment provided by the drainage basin.

When something upsets this equilibrium, the river adjusts its sediment carrying capacity to absorb or resist the change. For example, when a new dam is built on a river, the sediment is held back behind the reservoir. Water released below the dam is nearly sediment-free, and gains potential energy from its lightened load. As soon as the river resumes its flow below the dam, it begins cutting down into its channel to pick up the amount of sediment lost at

forage fishes. This results in fewer forage fish, causing in turn fewer fish-eating species such as small-mouth bass, sauger, and northern pike. These conditions favor the production of coarse, bottom-feeding fish, especially carp, buffalo, and river carp-suckers. Because of their large size and deep-bodied shape, these species are probably not suitable as forage for fish-eating species.

While the methods and focus of flow reservations are based mainly on protection of the fisheries resources, the benefits extend far beyond the fishery itself. If the fishery can be protected, it is likely that water quality and sediment problems will be minimized.

AN EXPENSIVE COMPROMISE

Unfortunately, the solution to maintaining a minimum streamflow and supplying water for industrial development at the same time is the construction of storage facilities. At any rate, this is the solution proposed by the Bureau of Reclamation. It should be recognized that this is a very expensive solution, and not entirely satisfactory. Dams and reservoirs will intensify the problem of increased salinity for irrigation water, alter the temperature regime of the river, and cost millions of tax dollars. Yet while dams are likely to be constructed anyway, to supply water for industrial purposes, there is no guarantee that any of the stored water will be set aside as reserved streamflow.

Several alternatives to this solution are available but have not been seriously considered. One is the export of the coal to load centers where excess water is available. This is a completely reasonable alternative, competitive economically and environmentally preferable (see the draft EIS for Colstrip, Mont., Units 3 & 4).

The best alternative would probably be a different form of energy, such as solar or fusion. However, with the coal lease program of the federal government essentially giving away millions of tons of coal to the coal and utility companies, this alternative will probably not be taken seriously until the profits have been made.

On Wright Reservoir

Fort Collins Coloradoan

By JOHN WIGDAHL

May 4, 1975

This statement is in response to requests for written comments made at the public hearing on the environmental assessment of Joe Wright Reservoir construction. It is emphasized that these recommendations and comments are made in the perspective of broad multiple benefits-multiple use and not restricted to impact on trout fishing.

Recommendations

1.) Increase in size of Joe Wright Reservoir is the most desirable option of the alternatives presented, if the recommendations of Carlson and Prewitt in "Fisheries and Limnology Inventory and Related Impacts of Proposed Water Storage Project, City of Fort Collins, Colorado," are essentially adhered to in the construction and operation of the reservoir. These recommendations include:

a. Maintenance of an adequate conservation pool in the reservoir.

b. Environmental disturbance and siltation downstream be minimized during construction by proper planning and construction methods.

c. Minimum flow regimes be maintained and rapid

and drastic flow alterations be avoided.

d. A native cutthroat trout fishery be established by the Division of Wildlife. Access can be designed to require walking to the lake and this combined with special regulations can reduce the effects of human recreational impact on the area, yet provide a high quality recreational experience for those using the resource.

2.) It is further recommended that the City of Fort Collins make a sincere effort to utilize its water in the best interests of all citizens by regulating flows in such a manner to attempt to achieve constant flows in the Poudre River from Chambers Lake through the city.

Comments

The greatest recreational area of most significance to the people of Fort Collins and neighboring communities is the Poudre River and its drainage basin. In the past, recreational values of Poudre River water have been largely ignored in all water development projects. Large sections of the river have been periodically dried up by diversions.

The possibility of coordinating and planning these

diversions so that some minimum flow is maintained at all times has never been seriously considered by the water users. The result is not only a serious detriment to the fisheries, but a loss of esthetic qualities of the river to hikers, sight-seers and outdoor recreation in general.

With increasing population and increasing demands for outdoor recreation, it is unacceptable for public officials to take a restricted and narrow view of water use and totally ignore other values. The concept of multiple use and maximum benefits for all the people must become more than a slogan.

With the completion of Joe Wright Reservoir, the City of Fort Collins will control a considerable amount of water in the Poudre River basin. We believe it is entirely possible that the control of this amount of water can be used to influence other water users of the Poudre River to properly plan and coordinate diversions in such a way that minimum stream flows can be maintained and every water user obtains all the water they are legally entitled to at the same time.

This aspect of municipal water development must be seriously considered and actively pursued with a goal of increasing recreational opportunities in both quantity and quality for the benefit of all of the citizens.

John Wigdahl, of 1540 Adriel Court, is president of the Poudre-Thompson chapter of Trout Unlimited.

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NO MORE DRY STREAMS



The lower reaches of the Crystal River are often dry in summer months due to an over-appropriation of water. The Division has made flow recommendations to the Water Conservation Board in an effort to preserve natural environment and protect fisheries.

By DUANE HELTON and
EDDIE KOCHMAN

THAT title may be somewhat misleading, but now, for the first time, Colorado has a law which allows for the preservation of minimum stream flows—and water levels.

This new law—Senate Bill 97 (37-92-102) for want of a better name—can be an important key to preserving and enhancing the environmental qualities of Colorado's 14,000 miles of streams, 2,200 lakes, innumerable marshlands and other water habitats. We say "can be" because in order to be fully implemented this law must have support from the state's citizens, including hunters and fishermen.

Duane Helton is chief of the Environmental and Water Quality Section of the Colorado Water Conservation Board. Eddie Kochman is a specialist with the Environmental Resources Section of the Division of Wildlife.

Senate Bill 97 was enacted by the Forty-ninth Colorado General Assembly and became law during April 1973. It was supported by state legislators who recognized the serious need for the preservation of minimum natural stream flows and lake levels; its passage was recognized as a milestone by Colorado water administrators, environmentalists and professional wildlife managers. It provides means to achieve objectives that have been sought for years by individuals who were concerned over the degradation of Colorado's water environment, including in some cases the complete drying up of streams.

Because Colorado is an arid state, there is generally not enough water to satisfy all the demands, and the state has developed an elaborate system of

water law called "the doctrine of prior appropriation." Under this system of water law, the first right to use water belongs to whoever first puts the water to beneficial use. Thus, a water right is obtained by actually appropriating water for, or applying water to, a beneficial use. All water rights have appropriation dates, which are the dates water was first applied to beneficial uses, and are awarded priorities

The preservation of Colorado's natural environment has now been designated as a beneficial use of water

on this basis. In other words, water rights with earlier appropriation dates have prior rights and are "senior" to "junior" water rights with later appropriation dates.

Provisions in SB 97 give the state authority to appropriate waters (and thus obtain water rights and establish a legal water use) to preserve minimum stream flows and lake levels through a joint effort of the Colorado Division of Wildlife, the Colorado Division of Parks and Outdoor Recreation and the Colorado Water Conservation Board. This could not be done prior to the enactment of SB 97 because Article XVI of Colorado's Constitution states:

The right to divert the unappropriated waters of any natural stream to beneficial uses shall never be denied.

This meant that an appropriation (or legal use of water) had to be made

by a diversion and, therefore, could not include an instream use. Senate Bill 97 solves this problem by defining appropriation as:

... the application of a certain portion of the waters of the state to a beneficial use.

and further stating that beneficial use shall:

... include the appropriation by the state of Colorado in the manner prescribed by law of such minimum flows between specific points or levels for and on natural streams and lakes as are required to preserve the natural environment to a reasonable degree.

Previously, beneficial uses included domestic, agricultural and manufacturing uses, and the impoundment of water for recreational purposes.

Owners of existing water rights need not be concerned, though, because the appropriations under SB 97 are "junior" to all previous appropriations and, therefore, cannot injure existing water uses or water rights. This is often overlooked by individuals who oppose SB 97. Senate Bill 97 further stipulates:

Nothing in this article shall be construed as authorizing any state agency to acquire water by eminent domain, or to deprive the people of the state of Colorado of the beneficial use of those waters available by law and interstate compact.

Unfortunately, a water right under SB 97 does not in all cases guarantee that the minimum flow will be preserved in a stream.

Minimum stream flows are the amounts of water required in specific streams to preserve the fishery, wildlife, aesthetics, water quality and other components of the natural environment to a reasonable degree. Normally, the amounts of flow are sufficient to maintain reasonable fisheries including both fishability and natural propagation and are more than bare

survival flows. The assumption is usually made that fishery flows will be sufficient to sustain other components of the natural environment.

Many of Colorado's streams are already overappropriated or nearly appropriated — that is, the natural flow of the stream is already allocated or almost allocated to existing water users who have "senior" water rights. Under these conditions, the stream may not satisfy appropriations under SB 97. Therefore, the overall effect of appropriations under SB 97 is to preserve existing conditions on a stream or lake up to the amount of the appropriation and subject to all existing water uses; however, it does provide the means to establish stream flow regimes through the purchase and donation of water rights.

The actual appropriations of water are initiated by the Colorado Water Conservation Board after recommendations have been prepared by the Colorado Division of Wildlife and the Colorado Division of Parks and Outdoor Recreation. The Water Conservation Board is the state's water resource planning and policy making agency. As one would expect, the Division of Wildlife makes recommendations concerning fish, waterfowl and other wildlife requirements; the Division of Parks and Outdoor Recreation's recommendations pertain to boating and other recreational requirements. The recommendations are submitted to the Water Conservation Board for review at one of its meetings, held every two or three months, and are considered carefully by all agencies.

After the recommendations are approved by the Board, the water right applications specifying the amounts of minimum flow and the stream segments or minimum lake levels are made in the appropriate water courts. There are seven Division Water Courts in the state, one in each of the major water drainages. The applications are



Aerial view of the Arikaree River in north-eastern Colorado showing beaver ponds and marshland. SB 97 was used in obtaining a water appropriation on the Arikaree to help preserve this unique wildlife area.

processed the same as applications for other water uses. They are advertised in local newspapers then two subsequent calendar months are allowed for other water users to study the applications and file statements of opposition if they believe their water rights may be impaired. If there is no opposition, or when the differences have been resolved, the water judge will decree the water right. This court process is an integral part of Colorado water law and safeguards the water rights of existing water users. The flowchart shows the key steps in obtaining a minimum stream flow or lake level.

To date, most minimum stream flow recommendations have been made to preserve fisheries; however, other wildlife and environmental values have also been considered. For example, a water right application has been made for minimum flows on the Arikaree River, which supports no significant fishery. The watershed does, however, support a unique riparian wildlife ecosystem and merits protection. Species of wildlife which are not common in Colorado but which frequently can be found along this section of the Arikaree River are the whitetail deer and the Louisiana

jumbo frog. In addition, many species of waterfowl and shorebirds utilize the marshland for nesting.

The table shows the streams for which minimum flow water right applications have been made to date:

APPLICATIONS FOR WATER RIGHTS UNDER SB 97	
STREAM	LENGTH IN MILES
Fryingpan River and tributaries	56.9
Navajo River	17.0
Arikaree River	14.5
Badger Creek	13.5
Blanco River	11.0
Boulder Creek	11.5
Hunter Creek	9.6
Trout Creek	4.5
Willow Creek	3.5
Texas Creek	2.5
Taylor River	1.5
No Name Creek	0.7
Midway Creek	0.6

Future plans of the state call for preparing recommendations and water right applications for virtually every stream, river and natural lake in Colorado, as well as for marshlands and river bottoms.

As mentioned previously, SB 97 does offer some excellent opportunities for the state to improve existing stream flows for environmental purposes through donation or lending of "senior" water rights. A good illustration is Boulder Creek. Boulder Creek is already overappropriated, the existing stream flows will not support fish life, and water rights obtained under SB 97 would provide little if any water. Realizing this, the Boulder citizenry and Trout Unlimited heard about SB 97 and discovered that the International Business Machines Corporation (IBM) had some water it wasn't using through ownership of Colorado-Big Thompson Project shares. By obtaining a water right under SB 97, it will be possible to

utilize water donated by IBM to preserve a minimum fish flow through the city of Boulder. The IBM Corporation, Trout Unlimited and the citizens of Boulder will certainly deserve recognition for their efforts.

In other cases it may be necessary to purchase existing "senior" water rights to improve existing stream flows. When this is necessary, money appropriated by the Colorado General Assembly should be used rather than only money obtained through the sale of hunting and fishing licenses since the benefit will accrue to all the state's citizens rather than just to the hunters and fishermen.

Even though minimum stream flows are desirable, there may be a fly in the ointment. Some of the state's water lawyers believe that SB 97 is unconstitutional and that a constitutional amendment is required to redefine "appropriation" as "the application of water" rather than the "diversion of water." The Division of Wildlife and the Water Conservation Board, however, will operate under the presumption that the law is con-



Water flows and channel profile data are being collected by Division of Wildlife personnel on all streams within the state. Prior to any recommendations by the Division, accurate data must be obtained. The collection of such data will require a major commitment by the Division in money and manpower, and future budget requests must reflect this.

stitutional until a court case establishes otherwise. It is the authors' belief that, if SB 97 is unconstitutional, a constitutional amendment to accomplish the same end will shortly follow and that the work done to date will not be wasted.

It is interesting to note that Colorado's streams would reach more than half way around the earth if laid end to end. Implementation of SB 97 on the 14,000 miles of streams and 2,200 lakes in the state will require a considerable investment of time and

money. Even using optimistic estimates of resources available to accomplish the job, it will probably take a minimum of ten more years.

There was a day when natural flows in Colorado streams and lakes were sufficient to satisfy the human needs. But now with Colorado's unprecedented population growth, SB 97 is needed to preserve and protect a minimum amount of water to maintain desired wildlife, natural environment, and basic life styles for its people and its visitors.
