

HB

176

CS HB 176

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# STATE OF ALASKA

## DEPARTMENT OF FISH AND GAME

OFFICE OF THE COMMISSIONER

JAY S. HAMMOND, GOVERNOR

SUPPORT BUILDING - JUNEAU 99801

January 4, 1978

The Honorable Alvin Osterback, Chairman  
House Resources Committee  
Alaska State Legislature  
Box 71  
Sand Point, Alaska 99661

Dear Mr. Osterback:

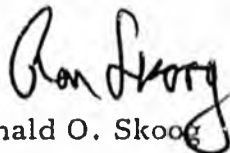
The Board of Fisheries at its December 1977 meeting unanimously adopted the resolutions listed below. Copies of them are being transmitted to you at the direction of the Board.

Resolution #77-29-FB relating to the inclusion of the contiguous marine and coastal waters of the State of Alaska into the definition of anadromous streams and waters; and

Resolution #77-30-FB relating to the passage of House Bill 176 of the 1977 legislative session, relating to the reservation of water.

The Board voiced strong convictions supporting these resolutions, and I am sure any assistance you can give would be appreciated.

Sincerely,



Ronald O. Skoog  
Commissioner

Enclosures

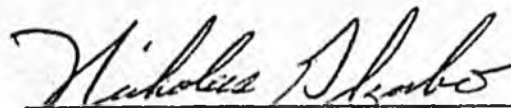
Board of Fisheries

ALASKA BOARD OF FISHERIES

Resolution #77-29-FB

RELATING TO THE INCLUSION OF THE CONTIGUOUS MARINE AND  
COASTAL WATERS OF THE STATE OF ALASKA INTO THE DEFINI-  
TION OF ANADROMOUS STREAMS AND WATERS

- WHEREAS, the marine and anadromous fish resources of Alaska's coastal zone and marine waters are critical to the economic, cultural; and social well-being of the citizens of Alaska; and
- WHEREAS, these resources constitute a major food source not only for other nations of the world, but also for other forms of marine and terrestrial life; and
- WHEREAS, the contiguous marine and coastal waters of the State of Alaska are critical to the spawning and early life history of most of Alaska's commercial fisheries resources including crab, shrimp, herring, smelt, salmon, halibut, and many other pelagic and demersal species of commercial and ecological importance; and
- WHEREAS, these fisheries resources are particularly vulnerable to damage or destruction during their spawning and early life stages; and
- WHEREAS, the nearshore marine and coastal environment itself is particularly susceptible to damage from man's activities in the coastal zone;
- BE IT THEREFORE RESOLVED, that Alaska's contiguous marine and coastal waters, out to three nautical miles, should be declared a fisheries conservation zone and that the provisions of Alaska Statute 16.05.870 pertaining to the protection of waters important to the production of anadromous fish be extended to include this area; and
- BE IT FURTHER RESOLVED, that a copy of this resolution be sent to the Alaska Coastal Policy Council with a recommendation that it be incorporated into the Guidelines and Standards of the Alaska Coastal Management Plan and included when the plan is sent to the Legislature for approval; and that a copy of this resolution be sent to the Alaska Legislature with the recommendation that Alaska Statute 16.05.870 be amended in an appropriate manner during the 1978 Legislative Session.



Nicholas G. Szabo, Chairman  
Alaska Board of Fisheries

ADOPTED: December 18, 1977  
Anchorage, Alaska



Alaska State Legislature  
House

HOUSE RESOURCES COMMITTEE

Alvin Osterback, Chairman

Pouch V, State Capitol  
Juneau, Alaska 99811  
(907) 465-3715

M E M O R A N D U M

25 March 1977

SUBJECT: HB 176, Reservation of Water  
TO: House Resources Committee Members  
FROM: Al Osterback, Chairman

Several people have contacted me concerning HB 176, which we originally considered on March 2, 1977 - see minutes in your files. These people want the bill to be considered by the Committee again.

There was a lot of controversy with the bill at that meeting. Today I met with Sandy Sagalkin, Department of Law and Mike Kaill, Department of Fish & Game. Together we went through the bill and cleaned it up, trying to address all of the controversial items brought up on March 2, 1977. A record of those items is in your minutes. What do you think?

Attached - mark up copy of HB 176.

~~XXXXXXXXXXXX~~ ANALYSIS  
CSHB 176 - RESERVATION OF WATER

*Diann -  
This is in the  
files. Pat Conheady  
brought it by.*

Intent

CSHB 176 provides a mechanism and a process for reserving stream flows and water levels in some streams and bodies of water for purposes of fish and wildlife, recreation, and sanitary and water quality purposes. Without the legislation, State authority to make water reservations for instream uses is unclear and inconsistently administered. All streams and lakes would not be affected. The amount of water reserved would be a percentage of the stream flow and would be based on "instream" requirements.

The procedure established by CSHB 176 follows the intent and mechanisms established in the Alaska Constitution and in the Water Use Act, AS 46.15. Existing water rights are not affected in any way by the provisions of this proposed measure. CSHB 176 utilizes guidelines of the Water Use Act requiring the Commissioner of Natural Resources to follow established procedures in evaluating applications (public notice and comment period) and provides for public hearings. Criteria detailed in the existing Water Use Act are also employed to determine that the proposed reservation is in the public interest. The criteria utilized to review applications include:

- economic effect
- impact on fish and game resources
- public health aspects
- harm to persons
- effect upon access to navigable or public waters

Recommended Revisions to CSHB 176

1. Preference in granting permits

Section 2 of CSHB 176 established a somewhat rigid rule that "when there are competing applications for water from the same source, and the source is insufficient to supply all applicants," that first preference in the granting of permits is given to public water supply and second preference to reservations of water. This provision allows little flexibility and could circumvent thorough analysis of individual cases.

Administration recommendation: Delete section 2 of CSHB 176.

## 2. Public review

CSHB 176 is designed to be implemented under the administrative regulations of the parent law, the Water Use Act (AS 46.15). Generally that law provides that each water use application must be publicly advertised, reviewed comprehensively, and public hearings held where the Commissioner determines it appropriate. CSHB 176 also provides guidelines for use by the Commissioner during his review. These guidelines include: findings that the rights of prior water users are not affected, that a need exists, that there is unappropriated water available, and that the proposed reservation is in the public interest. The Water Use Act includes public interest criteria such as economic effects, effects on fish and game resources and public health, the effect of the loss of alternate uses of water, and harm to other persons.

Administration recommendation: The proposed amendment to AS 46.15.070(c) (Section 2 of the Sponsor Substitute) would direct the Commissioner to conduct public hearings and undertake a more detailed analysis if a municipality affected by the proposed reservation expresses concern regarding the application. The addition to line 11, page 2 of CSHB 176 in the Sponsor Substitute makes direct reference to public interest criteria in the Water Use Act.

## 3. Water Quality

Maintaining sufficient flows to reduce the impact of pollutants can be a significant factor in achieving water quality standards. Page 3, line 5 of CSHB 176 adds "and maintenance of water quality" to the definition of beneficial use. The reference to water quality needs clarification.

Administration recommendation: Page 3, line 5, delete the semi-colon after the word "quality" and add the words "standards as promulgated under AS 46.03.070."

## Summary

### 1. Need for the bill:

Drought conditions in the western United States have resulted in serious damage to fish populations and other instream uses of water. Industries dependent on normal streamflows have been significantly damaged. Alaska is at a stage in its development where such problems can be avoided with positive actions at the present time.

The Water Use Act directs the Commissioner of Natural Resources to take into account many factors before issuing a water use permit. One of the public interest considerations in AS 45.15.080 is "the effect on fish and game resources and on public recreational opportunities". This and other sections of the Alaska Constitution and Water Use Act indicate that water can be reserved through existing law, but clarification of this authority is desirable before undertaking such a program.

### 2. Provisions of the bill:

- \* Establishes a means of reserving water in a stream or lake for purposes such as maintaining sufficient water for fish populations.
- \* Clarifies the Department of Natural Resources' authority to reserve water from further appropriation.
- \* Establishes criteria for the issuance of a certificate.
- \* Is compatible with the Water Use Act (AS.46.15) which recognizes that public water supply is a preferred use of water that shall be granted preference over other appropriators and reservations of water.
- \* Specifies that the Commissioner of Natural Resources shall consider applications for the reservation of water in a manner similar to that used for other water rights applications.

### 3. Impact of the bill:

Passage of HB 176 would allow the State to reserve stream flows and maintain lake levels before competition for the available water resource creates conflict situations. Reservation of water will have a beneficial effect on the future of important renewable resource industries such as commercial fishing and tourism. The bill does not affect existing uses of water. It does provide a mechanism for maintaining quantities of water which are necessary for "instream" uses. As such, the process helps to clarify the availability of surface water by recording reservations of water along with other water appropriations. Development plans can then be formulated with full knowledge of instream water needs.

### 4. Implementation and coordination:

HB 176 is the product of interagency efforts to draft a bill which accomplishes the desired objectives and is administratively workable. Although the process of reserving water would be administered by DNR, significant coordination with the Departments of Fish and Game and Environmental Conservation will continue to occur during the submission and review of applications. In addition, DNR and ADF&G are working on procedures for determining instream flow requirements. This bill is an important part of interagency efforts at state water planning that have recently received new direction and emphasis.

- Thursday - 1/15

ADMINISTRATION SUBSTITUTE FOR HOUSE BILL NO. 176

IN THE LEGISLATURE OF THE STATE OF ALASKA

TENTH LEGISLATURE - FIRST SESSION

A BILL

For an Act entitled: "An Act relating to the reservation of water; and providing for an effective date."

BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF ALASKA:

\*Section 1. AS 46.15.030 is amended to read:

Sec. 46.15.030. WATERS RESERVED TO THE PEOPLE. Wherever occurring in a natural state, the waters are reserved to the people for common use and are subject to appropriation and beneficial use and to reservation of instream flows and levels of water, as provided in this chapter.

\*Section 2. AS 46.15.070(c) is amended to read:

Within 15 days of publication or service of notice of the proposed appropriation or reservation of instream flows or levels of water as provided in sec. 145 of this chapter, an interested person or any general law, home rule or unified municipality, as defined under AS 29, containing all or part of the stream or body of water may file an objection. The commissioner may hold hearings upon giving due notice, however, if requested to do so by an objecting municipality he shall hold a hearing within that municipality. (AND) The commissioner shall grant, deny, or condition the application in whole or in part within 30 days of receipt of the last objection or at the conclusion of the hearing. Notice of the order or decision shall be served personally or mailed to any person or municipality (WHO HAS FILED AN OBJECTION.) filing an objection.

\*Section 3. AS 46.15 is amended by adding a new section to read:

Sec. 46.15.145. RESERVATION OF WATER. (a) The State or any political subdivision or agency of the state may apply to the commissioner to reserve sufficient water to maintain a specified instream flow or level of water at a specified point on a stream or body of water, or in a specified stretch of

stream, throughout the year or for specified times of the year, for protection of fish and wildlife habitat, migration and propagation, for recreation and park purposes, and for sanitary and water quality purposes.

(b) Upon receiving an application, the commissioner shall proceed in accordance with sec. 70 of this chapter.

(c) The commissioner shall issue a certificate reserving the water requested if he finds

(1) the the rights of prior appropriators will not be affected by the reservation;

(2) that a need exists for the reservation;

(3) that there is unappropriated water in the source sufficient for the reservation; and

(4) that the proposed reservation is in the public interest, consistent with criteria in sec. 80(b) of this chapter.

(d) After the issuance of a certificate of reservation, the specified water shall be withdrawn from appropriation and the commissioner shall reject an application for a permit to appropriate the reserved water, except for public water supply.

(e) A reservation under this section does not affect any rights in existence when the certificate reserving water is issued.

\*Section 4. AS 46.15.260(1) is amended to read:

(1) "appropriate" means to divert, impound, or withdraw a quantity of water from a source of water, or, in the case of a public agency, to reserve water in accordance with sec. 145 of this chapter, for a beneficial use;

\*Section 5. AS 46.15.260(2) is amended to read:

(2) "appropriation" means the diversion, impounding or withdrawal of a quantity of water from a source of water, or in the case of a public agency, the reservation of water in accordance with sec. 145 of this chapter, for a beneficial use;

\*Section 6. AS 46.15.260(3) is amended to read:

(3) "beneficial use" means a use of water for the benefit of the appropriator, other persons or the public, that is reasonable and consistent with the public interest, including, but not limited to, domestic, agricultural, irrigation, industrial, manufacturing, fish and shellfish processing, mining, power, public, sanitary, fish and wildlife, (AND) recreational uses, and maintenance of water quality standards as promulgated under AS 46.03.070;

\*Section 7. This Act takes effect immediately in accordance with AS 01.10.070(c).

HB HOUSE BILL NO. 176 by the Rules Committee by request of the  
176 Governor, entitled:

"An Act relating to the reservation of water;  
and providing for an effective date."

was introduced, read the first time and referred to the  
Resources Committee.

"February 4, 1977

The Honorable Hugh Malone  
Speaker of the House  
Alaska State Legislature  
Juneau, Alaska 99811

Dear Mr. Speaker:

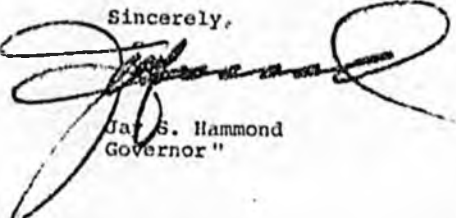
Under the authority of art. III, sec. 18 of the Alaska  
Constitution, and in accordance with AS 24.30.060(b)  
and the Uniform Rules of the Alaska State Legislature,  
I am transmitting a bill to allow a reservation of  
instream flows and levels of water for the benefit of  
fish, wildlife, recreation, and for the maintenance of  
water quality.

This bill is an amendment to the state's Water Use Act,  
AS 46.15, and is designed to permit state agencies and  
political subdivisions to apply for an order reserving  
a certain quantity, level or flow of water, without  
actually diverting it from its source.

The bill does not represent a significant departure from  
existing law. The Alaska Constitution, for example, in  
art. VIII, sec. 13, states that water of the state may  
be appropriated subject to "the general reservation of  
fish and wildlife." Also, secs. 80 and 260 of the  
Water Use Act, dealing with permit issuance and defi-  
nitions, respectively, explicitly recognize the value  
of water for fish and wildlife, recreation, and public  
health. It is our belief that existing law would allow  
such a reservation of water to be made. However be-  
cause of uncertainty caused by case law in other states  
which hold that appropriated water must be diverted  
from its source, a clarification of the Alaska Water  
Use Act is necessary.

The bill would give reservations, after public water  
supply, for fish and wildlife, recreation, or water  
quality a preference over other applications, if there  
are competing applications for use of water from the  
same source. This seems to be implicitly recognized in  
the state constitutional provision mentioned above,  
with respect to fish and wildlife, and it is certainly  
reasonable to assume that recreation and maintenance of  
water quality are public uses which should likewise be  
given some priority.

Sincerely,



Jay S. Hammond  
Governor "

HB  
176

Dept. of Environmental Conservation:

This bill will have minimal fiscal impact on the Dept.

Dept. of Natural Resources (FY 78 Cost Estimates)

1. Land Management Officer III (a) Personal Services Land Management Officer III (6 months)	14,224.0
2. Travel - Adjudication; Hearings etc.	500.0
3. Contractual - Advertisement	200.0
4. Commodities - Office Supplies	200.0
5. Equipment - Desk and Chairs	500.0
	15,624.0

Dept. of Fish and Game (FY 78 Cost Estimates)

1. Travel costs for coordination with Federal and State agencies.	1.0
2. Contractual - Advertisements	1.2
	2.2

HB  
176

FISCAL NOTE

I. REQUEST

Bill/Resolution No. HOUSE BILL NO. 176  
 Title An Act Relating to the Reservation of Water  
 Requested by Office of the Governor Date January 24, 1977

II. FISCAL DETAIL

Agency Affected Depts. Natural Resources, Fish and Game, Environmental Conserv.  
 Program Category Affected Fish and Wildlife, Lands  
 Budget Request Unit(s) Affected Habitat, Land and Water Management

EXPENDITURE: (Thousands of Dollars)

	FY 77	FY 78	FY 79	FY 80	FY 81	FY 82
100 PERSONAL SERVICES		14.2	29.5	32.5	34.1	38.2
200 TRAVEL		1.5	3.0	2.6	2.7	3.4
300 CONTRACTUAL		1.4	2.9	3.2	3.6	3.9
400 COMMODITIES		.2	.2	.1	.4	.4
500 EQUIPMENT		.5		.2		
700 LAND & STRUCTURES						
700 GRANTS, CLAIMS, ETC.						
<b>TOTAL</b>		17.8	35.6	38.8	40.8	45.9

FUNDING (Thousands of Dollars)

	FY 77	FY 78	FY 79	FY 80	FY 81	FY 82
GENERAL FUND		17.8	35.6	38.8	40.8	45.9
FEDERAL FUNDS						
OTHER (Specify)						

POSITIONS

	FY 77	FY 78	FY 79	FY 80	FY 81	FY 82
FULL TIME						
PART TIME						
TEMPORARY						

III. ANALYSIS (See Fiscal Note Preparation Instructions, Section III)

This Fiscal Note represents the combined fiscal impacts on the Depts. of Environmental Conservation, Natural Resources, and Fish and Game.

A. Assumptions

1. Department of Fish and Game will submit no more than 100 applications per year, during first year and no more than 200 during the following two years.
2. Regulations will have to be written/revise and adopted.
3. Measurement and/or determination of levels, quantities, flows, etc., both surface and ground water, will be made.

D. Program Summary -- In addition to reducing backlog, personnel will be required to adjudicate new applications under this act, and to see that regulations are adopted. It is assumed that it will be six months before a person is hired and under way the first year.

Fiscal Note - An Act Reservation of Water (See Attachments)

IV. DATE 1/28/77 PREPARED BY Jin Stey

Original: Legislative Finance  
 Budget and Management  
 Prime Sponsor (First Legislator Named)

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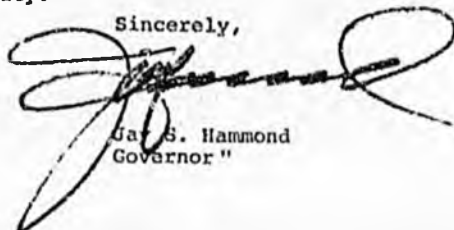
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Fiscal Note - An Act Reservation of Water (See Attachments)

IV. DATE 1/28/77 PREPARED BY [Signature]  
 AGENCY Jim Stey

Original: Legislative Finance PHONE: \_\_\_\_\_  
 Budget and Management  
 Prime Sponsor (First Legislator Named)

STATE OF ALASKA  
THE LEGISLATURE

POUCH Y - STATE CAPITOL  
JUNEAU, ALASKA 99811  
907-465-3800

LEGISLATIVE AFFAIRS AGENCY

MEMORANDUM

February 14, 1977

SUBJECT: An Analysis of HB 176, Relating to the Reservation of Water  
(W.O.# 3383)

TO: The Honorable Sally Smith

FROM: George Utermohle  
Research Analyst *G.U.*

House Bill 176, relating to the reservation of water, was introduced by the governor and contains amendments to the Water Use Act (AS 46.15.010-.270). The effect of the amendments is to provide for the reservation of stream flows or water levels by the Commissioner of Natural Resources at the request of local governments or state agencies.

EXISTING LAW

Article VIII, section 13 of the Alaska Constitution subjects to appropriation all surface and subsurface waters controlled by the state. Any appropriation of water, except for a public water supply, is limited to the use for which the water is appropriated and is also subject to preferences among beneficial uses and a general reservation of water for fish and wildlife. The Water Use Act implements the constitutional provisions relating to water rights.

The right to appropriate (use) water is obtained only by an application to the Commissioner of Natural Resources. When the Commissioner receives an application for water, he must publish a public notice and notify the Departments of Fish and Game and Environmental Conservation to that effect. The Commissioner issues the permit to appropriate water if he determines that:

1. rights of a prior users will not be unduly affected;
2. the proposed means of diversion or construction are adequate;
3. the proposed use of water is beneficial; and
4. the proposed appropriation is in the public interest.

In determining the public interest, the Commissioner shall consider:

1. the benefit to the applicant resulting from the proposed appropriation;
2. the effect of the economic activity resulting from the proposed appropriation;
3. the effect on fish and game resources and on public recreational opportunities;
4. the effect on public health;
5. the effect of loss of alternate uses of water that might be made within a reasonable time if not precluded or hindered by the proposed appropriation;
6. harm to other persons resulting from the proposed appropriation;
7. the intent and ability of the applicant to complete the appropriation; and
8. the effect upon access to navigable or public waters.

When there are competing applications for water from the same source, and the source is insufficient to supply all applicants, the Commissioner shall give preference first to public water supply and then to the use which alone or in combination with other foreseeable uses will constitute the most beneficial use.

When the permit holder has completed construction of the facilities to appropriate water and appropriations have begun, the Commissioner issues a certificate of appropriation if the conditions of the permit are followed.

The use of water for a public water supply is preferred above all other uses, however, a user who exercises his preference right must agree to compensate permit and certificate holders who have established prior rights to the water.

Water rights are attached to the land where the water is used unless the Commissioner has approved the severance of appropriated water from the land where it is used. If the Commissioner does permit the severance, water rights may be sold, leased, or transferred.

The use of less than 1,000 gallons per day for domestic use and the use of water in a remote location which does not affect other uses are exempt from the requirement to apply for a water use permit under regulations

issued by the Commissioner. Those who take advantage of the exemption are generally encouraged to apply for a water use permit because rights to water on the basis of prior use are not recognized unless the prior use has been recorded with the Commissioner.

AMENDMENTS TO THE WATER USE ACT BY HB 176

House Bill 176 amends the Water Use Act as described below.

Section 1 amends AS 46.15.030 to provide for the reservation of stream flows and water levels, as a form of appropriation.

Section 2 amends AS 46.15.090 by giving preference to reservations of stream flows and water levels over other beneficial uses of water when there exists competing applications for water from one source which exceed the amount available. The preference granted to applications for water needed for public water supplies over all other applications is unchanged.

Section 3 amends the Water Use Act by adding a new section which establishes the reasons for which water can be reserved and the procedures by which reservations are granted. Any local government or state agency may apply to the Commissioner of Natural Resources for a reservation of sufficient water at a specified point in a stream or body of water for all or any part of the year, if it is necessary to protect fish and wildlife or it is for park, recreation, sanitary or water quality purposes. The request for a reservation of water is subject to the same procedures as other applications for appropriation. (The only exception is found in section 2 of HB 176.)

The Commissioner is authorized to grant the reservation of water, if he finds that the prior rights of others are not adversely affected, that there exists sufficient unappropriated water, that a need exists, and that it is in the public interest. All existing rights are protected from adverse impacts if a certificate of reservation should be granted.

Section 4 amends the definition of "appropriate" to include reservation of water at the request of a public agency.

Section 5 amends the definition of "appropriation" to include the reservation of water at the request of a public agency. The definition of "beneficial use" is amended to specifically include the maintenance of water quality. Standards for water quality are established by the Department of Environmental Conservation in compliance with the Federal Water Pollution Control Act. Alaska's water quality standards are found in AAC 18.70.

EFFECT OF HB 176 ON EXISTING LAW

House Bill 176 amends the existing law by specifically allowing public agencies to reserve stream flows and water levels for fish and wildlife, parks and recreation, and sanitation and water quality. The application by a public agency to reserve water is treated as all other requests for water. When the application is received, the Commissioner must publish notices in newspapers. If there is any objection, the Commissioner must hold a public hearing. Before the approval of a reservation, the Commissioner must determine that the reservation would not interfere with prior appropriations, that adequate water is available, and that the reservation is needed and is in the public good.

The only difference between the reservation of water and other non-public water supply uses is that when the number of applications for water use is greater than that available, the application for a reservation of water shall have second preference, after public water supplies, but before other applications. All water rights are determined on a first come, first served basis. If valid rights exist to all the water in a stream, no additional rights to use water from that stream is possible. The only exception is that applications for water for public water systems can take precedence over valid existing rights (including reservations of water) but the public water utility must compensate prior users.

It is possible that the reservation of certain stream flows or water levels will preclude other water uses in the future. This bill seeks to make it public policy that reservation of water for permissible uses is as important as appropriations for other purposes. HB 176 makes the existence of flowing water or certain water levels a valid use when such use of water is for wildlife and fish, parks and recreation or sanitation and maintenance of water quality. This bill would make it possible to reserve water for those reasons just listed in order to establish a legal right of priority.

The Alaska Constitution gives a preference for the use of water to fish and wildlife. This bill establishes a formal procedure by which water may be reserved for fish and wildlife. Federal pollution control laws could have the effect of requiring the state to reserve water for sanitary or water quality reasons because certain minimum stream flows may be necessary to insure that pollutants which may arise from industrial or domestic waste are sufficiently diluted. Parks and recreation as a justification for a reservation of water are the uses of water which do not already have a stated or implied existence in state or federal law.

GU:mo



# Alaska State Legislature

## House

JUNEAU ALASKA

Memo to: Rep. Sally Smith

From: Ruth

Date: Feb. 21, 1977

Re: Conversation in office with Phil Holdsworth

HB 156: The issue of agricultural preference for land is "hot" all over the nation. The preference should not exclude other uses that might be determined in the future--determinations made on information not now available, or contemplated. Also, the Committee should keep in mind that the waste heat bill is tied closely to the agricultural use situation.

HB 159: Holdsworth would hate to see resources separated from each other within the state. They are too interdependent. State Departments would end up fighting among themselves. All of the issues relate to land, and should remain together. Instead of consolidating the state, which is the expressed desire of the governor, this would expand state government. Each department would tend to be competing. But--as the bill stands, Holdsworth sees no major problem with it.

HB 176: According to Holdsworth, this bill is dangerous. The reservation for minimum flow could preclude future uses for public water supply. It is "cloudy" as to who would currently have a "claim" on the water --a reservation--at the time the bill would go into affect. What happens to future public water supplies--in situation where they do not now need the water? At that time, who gets the water?

HB 40: The Forestry area should be strengthened by this bill.

HB 2: The homesites could be a good thing, if adequately planned.

HB 211: It is unclear with present wording whether the three commissioners from the state could, or would be state employees. Also, would this commission take effect before the LUPC disbanded? Re. the \$250 per day compensation, Holdsworth says that, from his experience on the LUPC, this is definitely not out of line.



# Alaska State Legislature

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Alaska State Legislature  
House

JUNEAU ALASKA

Memo to: Rep. Sally Smith

From: Ruth

Re: Conversation in office with Rep. Smith, Sharon Lobaugh, Marlys Burnett, Sandy Sagalkin, and Michael Kaill.

Date: Feb. 21, 1977

Subject: HB 176--Reservation of Water

Kaill--Dept. of Fish and Game, Sportfish Division. Fish and Game need to make sure that enough water is available to ensure the survival of the wildlife they officially are mandated to represent. In many instances, the water can't be appropriated legally unless you take it out of the stream. Alaska is one of the states that currently has appropriation only if you take the water out of the stream.

Sagalkin: Most states had laws saying you had to divert water from its source to obtain a water right. This bill is an effort to clarify that "in place water right" is legal. In Alaska, uses for Fish and Wildlife are considered to be "beneficial" uses. But leaving the water in its original stream--in place--for habitat, is better than diverting for a hatchery (Lobaugh comment). Most western states have changed to "in place" beneficial uses, and most of these changes are recent.

Sagalkin: (In response to question from Rep. Smith) There is a problem with Section .90 of the bill. There are now 1800 pending applications for water reservation. There is no intent on the part of the Departments to "bump" these applications. Maybe this Section .90 should be separated into two parts. (Sagalkin will have suggested amendment wordings available by Monday)

Lobaugh: (to Sagalkin) What about allocations r. . being completely used, such as Auke Bay?

Sagalkin: The water would still have to be allocated on an available basis, considering the previously approved uses.

The earliest filed would be considered first. The Dept. of Natural Resources says that prior applications should be considered, but there could be a situation where the Conservationists may not want that. The bill isn't clear.

Kaill--The Dept. of Fish and Game, Sportfish Division, is reviewing existing "flow" technology. However, it gets expensive. An indexing system is necessary. Existing flows must be determined--i.e. low season, high season, width of stream, etc. A water system profile is roughed out on "instream flows", then Alaskan systems are figured in to the profile. Flows are documented within a system and by season. Estimated minimum flows are based on what's required. (Water flow bases include the amount necessary to carry sediment out.)

Kaill--A grant for studying non-point pollution is being contemplated. (Adequate flows minimize the contaminants) It is necessary to:

- Apply existing technology to Alaska
- Relate to what we already know about Alaska
- Apply for appropriations so as to minimize already existing areas of controversy and resolve those conflicts early.

Fish and Game will apply first so that the fish get priority. The Sportfish staff will probably begin work on this issue from the Anchorage area, then branch out.

Fish and Game acts as agent for the fish now. The bill clarifies that right. Under Title 16:

- Protect the resource
- Make sure people get benefit from the resource

Lobaugh: What will Fish and Game request? Will it be on a stream by stream basis?

Kaill--Many streams have small runs--as low as 30 fish--but miles and miles of coastline mean lots of fish are affected. The bill doesn't change much at all--it just clarifies.

Water is a limited resource.



Alaska State Legislature  
House

HOUSE RESOURCES COMMITTEE

Alvin Osterback, Chairman

Pouch V, State Capitol  
Juneau, Alaska 99811  
(907) 465-3715

February 24, 1977

Memo to: Alvin Osterback

From: Resources Subcommittee on  
Parks, Timber and Lands  
Sally Smith, Chairman

Re: HB 176

*Put in  
file*

The Subcommittee on Parks, Timber and Lands has discussed HB 176 - Reservation of Water - and recommends that it be given a Do Pass by the Resources Committee.

Respectfully Submitted,

*Sally Smith*  
Sally Smith, Chairman

*Mike Miller*  
Mike Miller

*Dick Eliason*  
Dick Eliason

STATE OF ALASKA  
THE LEGISLATURE  
LEGISLATIVE AFFAIRS AGENCY

POUCH Y - STATE CAPITOL  
JUNEAU ALASKA 99801  
907-465-3800

MEMORANDUM

April 5, 1977

SUBJECT: Definition of "Public Water Supply" (W.O. #3936)  
TO: The Honorable Sally Smith  
FROM: George Utermohle  
Research Analyst *GU*

The term "public water supply," for the purposes of determining "beneficial use" under the Water Use Act (A.S. 46.15), has not been defined by statute. In order to find a definition one must go to the administrative regulations adopted by the Department of Natural Resources under the authority of the Water Use Act (11 A.A.C. 72.010-.300). Those regulations promulgated by the Department of Natural Resources have adopted by reference the definition used by the Department of Health and Social Services (7 A.A.C. 14.020(1)). Thus, the definition of "public water supply" for the purpose of implementing the Water Use Act is as follows:

A "public water supply" shall mean any water supply and all parts of the collection, treatment, transmission and distribution works of such supply which is officially designated as a "public water supply." Public water supplies shall include but not be necessarily limited to supplies made available to residents of a community such as a municipal corporation, public utility district, village, town, subdivision, or any other area within the jurisdiction of a duly constituted authority which is authorized to provide, operate or control a water supply system or any water distributed, sold, or made available to 25 or more consumers for drinking, culinary or ablutionary purposes.

The above definition of "public water supply" has been used by the Department of Health and Social Services since at least 1959 and by the Department of Natural Resources since 1967.

I have found no court cases which have challenged or refined this definition.

The definition of "public water supply" could be changed at any time in one of three ways: First, the Department of Health and Social Services could amend its regulation which defines the term "public water supply;" second, the Department of Natural Resources could rescind its regulation which adopts the Department of Health and Social Services definition and promulgate a new regulation containing a new definition of "public water supply;" and third, the legislature could amend the Water Use Act by adding a definition of "public water supply."

However, until one of those events occurs, the definition of "public water supply" for the purposes of the Water Use Act and HB 176 is that adopted by the Department of Health and Social Services.

GU:jm

STATE  
of ALASKA

# MEMORANDUM

TO: 

Sally Smith  
House Resources

DATE : April 5, 1977

FROM: 

Pat Conneady  
Legislative Liason  
Dept. of Natural Resources

SUBJECT: Definition of Public Water  
Supply

The Department has finally been able to agree on the most appropriate language for a definition of a "public water supply" if the Resources Committee deems it necessary for inclusion in the committee substitute for HB 176.

A "public water supply" shall mean any water supply and all parts of the collection, treatment, transmission and distribution works of such supply which is officially designated as a public water supply. Public water supplies shall include but not be limited to supplies made available to residents of a community such as a municipal corporation, public utility district, village, town, or any other area within the jurisdiction of a duly constituted authority which is authorized to provide, operate or control a water supply system where water is distributed, sold or made available for drinking, culinary or ablutionary purposes.

Designation of a public water supply is authorized pursuant to 7AAC 14.310.

by law. Leases and permits giving the exclusive right of exploration for these minerals for specific periods and areas, subject to reasonable concurrent exploration as to different classes of minerals, may be authorized by law. Like leases and permits giving the exclusive right of prospecting by geophysical, geochemical, and similar methods for all minerals may also be authorized by law.

Water Rights

SECTION 13. All surface and subsurface waters reserved to the people for common use, except mineral and medicinal waters, are subject to appropriation. Priority of appropriation shall give prior right. Except for public water supply, an appropriation of water shall be limited to stated purposes and subject to preferences among beneficial uses, concurrent or otherwise, as prescribed by law, and to the general reservation of fish and wildlife.

Access to Navigable Waters

SECTION 14. Free access to the navigable or public waters of the State, as defined by the legislature, shall not be denied any citizen of the United States or resident of the State, except that the legislature may by general law regulate and limit such access for other beneficial uses or public purposes.

No Exclusive Right of Fishery

SECTION 15. No exclusive right or special privilege of fishery shall be created or authorized in the natural waters of the State. This section does not restrict the power of the State to limit entry into any fishery for purposes of resource conservation, to prevent economic distress among fishermen and those dependent upon them for a livelihood and to promote the efficient development of aquaculture in the State.

(The amendment to this section was approved by the voters of the State, August 22, 1972. This amendment added the second sentence.)

Protection of Rights

SECTION 16. No person shall be involuntarily divested of his right to the use of waters, his

*Regs.*

*Natural Res.*

*Article VIII*

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Sponsor Analysis  
of HB No. 176  
(Reservation of Water)

Purposes of Bill

This bill--pure and simple--is designed to help the state ensure that streams and other bodies of water contain enough water for fish. It lets the state act like any other person or business and apply for an appropriation for the water it needs. The needs of the private appropriator are strictly his own--personal consumption, water for industrial processes, etc. The needs of the state, on the other hand, are public--everyone benefits. The public purposes for which water can be appropriated are spelled out in the bill--the protection of fish and wildlife habitat, migration and propagation, recreational and park purposes and sanitary and water quality purposes.

Water, Water Everywhere?

Juneau distorts our view of the problem. Since it is difficult to stay dry in Juneau, how, people say, can we possibly have water problems? But here are the facts and they belie the aquarium-like atmosphere of Juneau: The Sag River on the North Slope flows at 10,000 to 20,000 cubic feet per second (cfs) in June; in the winter when most of the water freezes, at 1.6 cfs. Over-wintering fish must then search out under-ice pools to survive; must compete, at times with North Slope drilling and construction camps for a meagre resource. Even south-east Alaska has its distinct

problems. Recently glaciated, southeastern soil has extremely poor water holding abilities and requires steady precipitation to maintain minimum flows to support fish. Extended dry periods in southeastern have in the past prevented normal salmon spawning--fish could not ascend streams to reach the spawning beds.

Even streams having normal flows can run into trouble. In the Matanuska Valley several are so over-appropriated that if all holders of water rights turned on their taps and collected their water simultaneously, the streams would go dry.

#### How Much Water Is Enough Water For Fish and Wildlife?

We know how much water is needed to run a household--human consumption, sanitary, etc.--and we know how much water is needed for irrigation or industrial processes. We also have a good idea of how much water is needed to keep fish alive. The Alaska Departments of Fish and Game or Environmental Conservation would apply for enough water to keep fish alive during critical life stages such as spawning, egg development, and rearing. The following table, for example, shows general spawning needs of salmon:

Water Velocity: (fps)	1.0-3.0
Water Depth: (ft)	.6-.8
Riffle-pool Rates:	near 50:50
Riffle Area Covered by Water:	60% or more
Pool Velocities: (fps)	.3-.8

Knowing these amounts, state biologists and hydrologists can measure streams in stretches where spawning occurs and determine how much water must be reserved from upstream appropriation to guarantee these flows. Downstream of the spawning area fish might need less water--for migration, for example--and sufficient water for that function would then be reserved. The important point is that each section of the stream providing a vital function for fish or wildlife would be separately measured and only the amount of water necessary would be reserved.

#### Why Do We Need A Change In the Law?

The main reason is that under existing law there is no real recognition of the needs of fish and wildlife. Anyone can apply for and obtain an appropriation for almost any other conceivable non-wasteful use, but in-stream appropriation (i.e. leaving sufficient water in the stream) is not a use for which an appropriation can be made under Alaska water law. In granting water rights for these other uses, present law does allow the commissioner to consider the effects of the appropriation on fish and wildlife. But nothing in the law tells him how much weight those considerations should receive or whether to deny an appropriation which might damage fish and wildlife resources.

More basic yet is whether existing law provides a good institutional basis for protecting the water fish and wildlife need? If state agencies had to intervene to protect fish and wildlife and other in-stream values in each appropriation

proceeding brought by a private individual, each application would have to be analyzed, and a determination made on whether the stream would be over-appropriated. In each case the resource agency would be reacting to an appropriation and that reaction would soon appear negative and obstructionist. This has happened in California. Furthermore this strategy would be difficult to budget for and would probably drag out the proceedings much longer than necessary while the state completed its studies.

The bill on the other hand, allows the state to make the case for fish and wildlife and allows the state to prioritize time and money to streams where protection is most needed. Other streams and other appropriators can be left alone. Once the state obtains a water right, the public knows what its rights in the stream are and future private appropriators know what their rights are. Fairness, order, and certainty are the results. Public water supply, of course, always takes precedence over other uses, including reservations for fish and wildlife.

In sum, HB 176 is designed to help the state carry out its responsibilities to the public to protect fish, wildlife and public recreation in an orderly manner, assuring that the wisest use of water will prevail. The bill is needed because under existing law it is highly impractical for the state to try to reserve water from appropriation

case by case, as intervenor in private applications for water rights, and it is highly doubtful that the public interest can be fully protected in that way.



*American Fisheries Society*  
WESTERN DIVISION

ALASKA CHAPTER

<u>ALASKA</u>	<u>MONTANA</u>
<u>ALBERTA</u>	<u>NEW MEXICO</u>
<u>ARIZONA</u>	<u>NEVADA</u>
<u>BRITISH COLUMBIA</u>	<u>OREGON</u>
<u>CALIFORNIA</u>	<u>SASKATCHEWAN</u>
<u>COLORADO</u>	<u>UTAH</u>
<u>HAWAII</u>	<u>WASHINGTON</u>
<u>IDAHO</u>	<u>WYOMING</u>
<u>MANITOBA</u>	

American Fisheries Society  
Alaska Chapter  
February 1977

Resolution Number 2

WHEREAS Fish and Wildlife resources are of paramount importance to the

State of Alaska, and to Alaskan individuals, from aesthetic, commercial, subsistence and recreational points of view, and

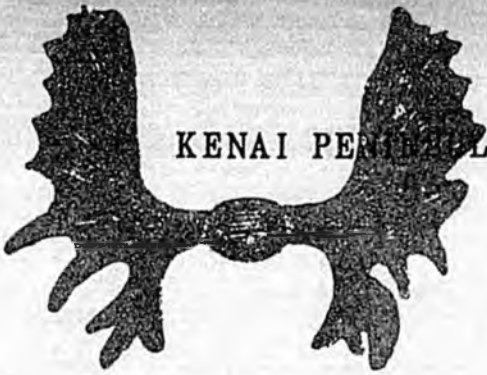
WHEREAS the current Alaska water code (Title 14) does not adequately address the issue of protection of in-stream water resources, as it defines appropriation of water in terms of diversionary (removed from the streambed) use, and as it does not adequately identify in-stream values of fish and wildlife and of recreational values as beneficial uses,

THEREFORE BE IT RESOLVED that the Alaska Chapter of the American Fisheries Society at its annual meeting in Cordova, Alaska, February 1977, hereby endorses the concept of legislation (e. g. HB 176) that recognizes in-stream flow demand as a beneficial use and that the in-stream water resources for fish and wildlife and recreational uses be accorded the highest possible priority, and that copies of this resolution be sent to the Alaska House of Representatives Resources Committee, Alaska Senate Resources Committee, the Governor of the State of Alaska, the Commissioners of Department of Natural Resources and Alaska Department of Fish and Game, and other appropriate agencies.

*resources*

*(beneficial) (use)*

*Fish bill  
(Fish bill)*



KENAI PENINSULA CONSERVATION SOCIETY

P.O. BOX 563  
SOLDOTNA  
ALASKA 99669

*Put in  
HB 176  
files*

February 22, 1977

Mr. Al Osterback, Chairman  
House Resources Committee  
Pouch V  
Juneau, Alaska 99801

Dear Mr. Osterback:

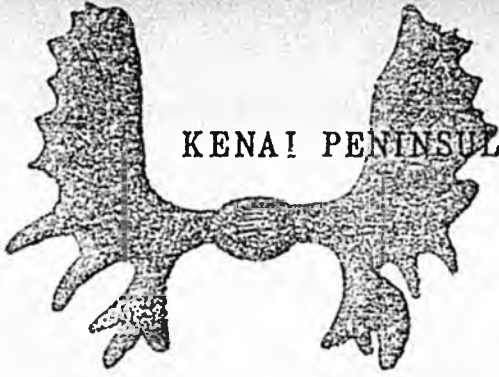
The Kenai Peninsula Conservation Society would like to be put on record as strongly favoring a strong Water Act for the state.

We favor H.B. 176 as proposed by the Governor and would support any means by which this bill could be strengthened to protect the public's uses and the protection of our water resources.

Sincerely,

*Dr. Calvin Fair*  
Calvin M. Fair, D.D.S.

*Put original letter  
in Dianna  
file*



KENAI PENINSULA CONSERVATION SOCIETY

P.O. BOX 563  
SOLDOTNA  
ALASKA 99669

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*Put original letter  
in dianna's  
file*

4041 East 84th  
Anchorage, Alaska 99507  
March 16, 1977

*Put in all  
files -  
HB 176  
Give original  
to me.*

Rep. Richard K. Urion  
House of Representatives  
State of Alaska  
State Capitol Bldg.  
Pouch V  
Juneau, AK 99811

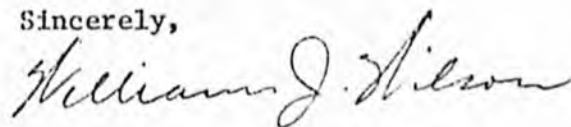
Dear Representative Urion:

I have recently learned that House Bill 176--Reservation of Water was discussed in the House Resources Committee, but that some members of this Committee apparently have not taken this issue seriously. As a fisheries biologist with the University of Alaska's Arctic Environmental Information and Data Center, I support the concept proposed in this bill: recognize that waters of the State must be reserved, after public water supply, for fish and wildlife needs.

I have already expressed my feelings to Representative Sally Smith in a previous letter, to which she responded that this bill will be held in committee until additional information is gathered. My questions to you at this time are: will this bill be seriously considered by you and your fellow Resource Committee members during this legislative session, and if not, specifically why not? Secondly, would you please indicate to me your personal feelings, or reservations, on this bill?

Thank you for taking your time to consider my letter, and I look forward to your response.

Sincerely,



William J. Wilson

/wjw

cc: Rep. Alvin Osterback  
Rep. Sally Smith

4041 East 84th  
Anchorage, Alaska 99507  
March 16, 1977

*Put in a/c*  
*7/6/77*  
*HB 176*  
*Give original*  
*to me.*

Rep. Richard K. Urion  
House of Representatives  
State of Alaska  
State Capitol Bldg.  
Pouch V  
Juneau, AK 99811

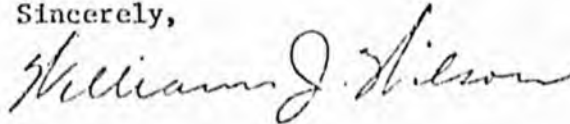
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Thank you for taking your time to consider my letter, and I look forward to your response.

Sincerely,



William J. Wilson

/w/jw

cc: Rep. Alvin Osterback  
Rep. Sally Smith

# Cordova District Fisheries Union

Headquarters: Box 939, Cordova, Alaska



March 25, 1977

Representative A. Osterback, Chairman  
House Resources Committee  
Pouch V  
Juneau, Alaska 99811

*Casper*

Dear Representative Osterback:

We request your support of House Bill #176 amending  
"An act relating to the reservation of water".

These amendments are necessary to preserve and insure  
water quality for human consumption and fish and wildlife.  
With the upcoming development of our coastal areas we feel  
this legislation is very timely.

Sincerely,

*Bob Blake*

Bob Blake  
Chairman

bb/jd

# Cordova District Fisheries Union

Headquarters: Box 909, Cordova, Alaska



March 25, 1977

Representative A. Osterback, Chairman  
House Resources Committee  
Pouch V  
Juneau, Alaska 99811

*Copy*

Dear Representative Osterback:

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Sincerely,

*Bob Blake*

Bob Blake  
Chairman

bb/jd

# Trustees for ALASKA

1026 West 4th Ave., Anchorage, Alaska 99501 (907) 276-4244

March 31, 1977

HB 176

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Harvard University  
Cambridge, Massachusetts

Honorable Alvin Osterback  
Chairman,  
House Resources Committee  
Alaska House of Representatives  
Capitol, Room 118  
Pouch V  
Juneau, Alaska 99811

Re: H.B. 176

Dear Representative Osterback:

Trustees for Alaska is an organization which encourages the use of our state's resources in a manner that assures the right of present and future Alaskan generations to enjoy a rich and varied quality of life. We are therefore highly interested in a bill currently before the House Resources Committee, H.B. 176, which would provide for reservation of in-stream water flows or levels by the state. I write this letter to inform you of our views on this subject.

In brief, the provisions of H.B. 176 are basic to the future health of Alaska's waters and the many important values associated with them -- particularly the fishery resources.

The need to protect stream flows from over-appropriation has already been recognized by a number of other states, including Idaho, Colorado, California, Montana, and Oregon. And the National Water Commission, in its study of water resources and problems, has specifically recommended that: "Public rights should be secured through State Legislation authorizing administrative withdrawal or public reservation of sufficient unappropriated water needed for minimum stream flow in order to maintain scenic values, water quality, fishery resources and the natural stream environment . . . ."

The concern expressed by the Commission and several Western states is very well-founded. Unless adequate water flows are protected in our rivers and streams, there is a real danger that fish which rely on those water courses to spawn will be left, literally, high and dry. (This nearly happened in British Columbia's Goldstream River in 1970, where it took emergency actions by concerned citizens to ensure that sufficient water

Honorable Alvin Osterback  
page two.

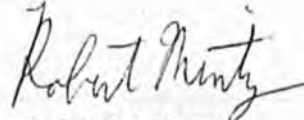
was allowed to flow to permit sa'mon spawning. See Natural Resources Journal, Vol. 16, p. 137 (1976).)

In Alaska, fortunately, this danger has probably not yet materialized in a widespread fashion. But as more and more water is appropriated for out-of-stream use, it will become increasingly difficult to assure the necessary conditions for fish spawning without encroaching on vested property rights. Indeed, fish survival has already been seriously threatened at some North Slope locations due to dewatering of under-ice pools by oil development activities. And in the Matanuska Valley there are now some streams whose total flows have been fully appropriated.

All this simply goes to show that now is the time to provide for protection of Alaska's future fisheries by reservation of the necessary stream flows and water levels.

Thank you for your cooperation.

Sincerely yours,



Robert Mintz  
Staff Member

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TO: CINDY, JNU  
FROM: APRIL, FBX

PLEASE DELIVER THE FOLLOWING MESSAGE:

TO: ALL MEMBERS OF THE LEGISLATURE  
WE, THE MEMBERS OF PLACER MINERS OF ALASKA, OPPOSE THE BILL, CSHB  
176, BECAUSE IT WOULD REPEAL EXISTING GRANDFATHER WATER RIGHTS OF  
ALASKA PLACER MINERS.

SIGNED:

FRED WILKINSON, PO BOX 2702, FBKS

WALT WIGGER, 900 PARK DR., FBKS

SCOTT HASKINS, 206 ROSELLA, FBKS.

GEORGE A. NELSON, BOX 80163, COLLEGE, AK

GARLAND, H. ALLMAN, P.O. BOX 1411, FBKS.

DAVID L. ANDERSON, 2525 19TH AVE, FBKS

LARRY SKELLY, 19TH & PEGER, FBKS.

GEORGE R. HASKINS, 1/2 MILE VAN HORN RD., FBKS.

ROGER BARTLING, BOX 73230, FBKS.

ROBERT AULT, BOX 1596, FBKS

STANLEY C. RYBACHEK, BOX 73069, FBKS.

M. H. OTT, 332, NORTH BOUNDARY, FBKS.

ERNEST N. WOLFF, BOX 80989, COLLEGE, AK

DON DELIMA, MANLEY HOT SPRINGS AK 92756

JOE VOGLER, BOX 7, FBKS.

JIM FUKSA, BOX 60254, FBKS, AK.

GEORGE BAILEY, BOX 2052, FBKS, AK.

BILL LOMERSON, 708 CONTINENTAL LIFE BLDG., FORT WORTH, TEXAS.

DEL BOOTH, RT. 9, BOX 216R, FORT WORTH, TEXAS

JOHN "PAT" RYAN, BOX 34, SRA, ANCHORAGE, AK 99502

LINDA STONE, 206 ROSELLA, FBKS.

TOM STONE, "

RONALD ROSANDER, 713 16TH AVE, FBKS.

ROSE RYBACHEK, BOX 73069, FBKS.

EOM

PLEASE ACK WHEN MESSAGE DELIVERED. THANKS. /A/ EOM

# A Minimum Stream Flow Rationale for Alaska

Mike Kaill

Mention of Alaska often brings to mind visions of huge river systems such as the Yukon and Kuskokwim Rivers. This probably contributes to the unfortunate myth that water is unlimited in Alaska. True, in most areas there is plenty of water, but in many situations low water flow becomes a limiting factor for fish and wildlife populations. For example, the Sagavanirktok River has an abundant flow 10,000 to 20,000 cubic feet per second in June, but it slows to a fraction of that (1.6 cfs) in the winter, when most of the water freezes. Over-wintering fish are then forced into under-ice-pools. In some instances, North Slope drilling and construction camps have completely dewatered these fish refuges (on occasion the water pump intakes are clogged with fish). Another example of low flow problems encountered in Alaska is the system of small coastal streams in Southeastern Alaska. Flows in these streams depend upon Southeast's frequent and abundant rains. Periodically, Southeast may have a week or more of sunny weather producing droughtlike conditions. In some years, this has prevented normal salmon spawning, as fish have inadequate water with which to ascend streams.

Even where streams normally have enough water there may be heavy demands that can produce low flows. Several streams in the Matanuska Valley are presently so over-appropriated that if all owners of water rights simultaneously claimed water due them, these streams would dry up.

All of these examples point to the need for legislation to protect and administer the most basic element of fish habitat — water. Not just water, but water "in place" or to use the current terminology, "minimum in-stream flows." Such terminology is necessary because most states, Alaska included, define appropriation as a diversion or "out-of-stream" use. In other words, the only people that can appropriate water are those that intend to use it outside the stream banks. Examples of such uses are irrigation, industrial needs, and domestic water supplies. A Fish and Game department or other party attempting appropriations on behalf of fish and wildlife has no legal water right. Clearly, in a state as fish-oriented as Alaska, this is an incongruous situation. A portion of a legal decision from Montana is illustrative of this point:

"Testimony and evidence relating to recreational and wildlife uses of Carpenter Lake was not considered. Such *nondiversionary* recreational and wildlife uses are not recognized under Montana Water Law before July 1, 1973 and testimony to their existence is not relevant." (emphasis added).

Legislation providing for water rights for fish and wildlife is necessary to realign Alaska's existing water laws. Once legislation is accomplished, our attention can turn to the establishment of minimum flow administration. Natural flow patterns are affected by precipitation, nature and size of the drainage basin, soil structure, and vegetative cover to name a few influences. How much water will fish and wildlife of a particular stream really need? One thing for sure, we should not interpret the "minimum" in "minimum in-stream flow" too literally. As Don Tennant of the U.S. Fish and Wildlife Service recently wrote:

"Recommending the meager, all-time historic minimum flow would be unthinkable. That would be like prescribing a person's all-time worst health condition as a recommended level for a portion of his future well-being."

Most aquatic animals can "hang on" for short periods of low flow, but in order to establish maintenance levels of stream

flow, it is necessary to study the effect that various flow levels have on fish and wildlife. For example, as flows increase, the "wetted area" of the stream bed also increases, increasing habitat opportunities. Stream riffles produce insect populations that are important sources of food. Undercut banks and overhanging vegetation are important for cover, providing protection from predators, and as sources of eddies in which fish can rest. At low flow, these areas may be outside of the wetted area of the stream. An important (but poorly known) requirement is spawning and rearing habitat. In many streams, the spaces between the gravel particles of the stream bed fill with sand, silt and other "fines" (smothering eggs and reducing insect populations) — unless there is a periodic flushing from high flow rate during freshets. Impairment of periodic cleansing water flows deprives a stream of its inherent energy and therefore its ability to clean itself.

Intensive studies are required to establish minimum flows necessary to support satisfactory populations of fish. Yet, Alaska cannot afford to do intensive studies on all streams, especially since water appropriations are going on all the while.

Is there a "rule of thumb" that can be generated based on the more detailed studies?

Tennant thinks so, and recommends a regime based on percentages of average annual flow. His rule of thumb is that 10 percent of the average annual flow is sufficient only for short-term survival; 20-40 percent is satisfactory, 40-60 percent excellent, and 60-100 percent optimum. On the other hand, Pitney, from Oregon State Fish and Game states that, "Each stream must be physically studied. No pat 'slide rule formula' has been developed as an alternate."

A continuum of possibilities exists for the determination of



Granite Creek, Kenai Peninsula, Alaska

CHARLIE OTT

stream flows for particular systems. With certain basic guidelines for spawning and rearing conditions (Table 1), four basic categories are feasible with increasing credibility as field measurements. They are: (a) the formula method, (b) field observation with application of professional judgement, (c) techniques involving a variety of conversion factors, and (d) evaluation of field measurements. Put in the vernacular, they become: (a) crystal ball, (b) eye ball, (c) slide rule, (d) Gurley (a widely used type of flow meter).

Perhaps the best approach to Alaska stream flow determination with the available resources is to "type" them as to basic nature of the drainage, and evaluate them in terms of index measurements. Feasibility of such an approach is an important area of study yet to be done. Another critical problem is that many generalities developed in other states may not be applicable in Alaska.

The people of Alaska must have the legal right to appropriate water in the stream for preservation of fish and wildlife. As in all allocation problems, trade-offs and compromises will have to be made. Economic analyses are necessary, so that the "most beneficial" use of resources can be made and then substantiated. Biologists and hydrologists must be consulted to assure that the biotic and abiotic systems are protected through use of proper biological criteria and procedure. Finally, workable monitoring systems, smooth administrative procedures,

### A MYTH — (Continued from page 3)

bodies ineffectively. Something, I maintained, was being consumed: respect for animals, my enjoyment, and the seal's sleep, at least.

Item: the newest issue of *Audubon* magazine briefly tells of a new problem birds face: birdwatchers armed with tape recorders. Want to add a rare bird to your life list? Get a recording of the bird's territorial call, march out into the springtime, and play the tape loudly. An answer comes, you check off another bud on your list. Oops! Better check: it might have been another tape recorder. One pair of rare black hawks was disturbed so often by such nonconsumptive shenanigans that they failed to nest successfully in three consecutive years.

Item: in 1975, scientists in Alaska "collected" birds of over 80 species, fish of over 20 kinds, and 20 kinds of mammals. (Nobody kills wildlife: hunters "harvest" it and scientists "collect" it.) Among the birds killed were 79 black-footed kittiwakes, 110 tufted puffins, 224 redpolls, 23 savannah sparrows, and 32 black-capped chickadees. Fish collections included 179,697 three-spined sticklebacks and 2,988 arctic char. Scientists reported taking and killing 1,046 tundra red-backed voles, 5 wolverines, 34 arctic ground squirrels, and 6 arctic fox, among numerous other mammals. All very well justified collections, I'm sure, and undoubtedly within sustained yield limits. But where is the distinction between scientist and hunter, in terms of consumption? The only difference is that scientists kill animals of more species, and more of them in breeding seasons, than hunters.

Item: Christopher Robin likes sand between his toes, and so do millions of other Englishmen. The international journal *Biological Conservation* reported in 1974 that human use of British beaches had eliminated the Kentish plover as a breeding species on the British Isles. The little tern is suffering the same stresses in Sweden. At Chatham on Cape Cod, Massachusetts, a colony of arctic terns plummeted from 40,000 birds to 24 survivors after intensive disturbances over a decade's time by wildlife photographers and beachgoers.

Item: Nonconsumptive users enjoying national parks and forests all over the world have trampled, eroded, and burned thousands of acres of green places and wildlife habitat.

Item: Elementary and high school classes have all but stripped many California beaches bare of the bigger, easily found, and colorful species of tidepool and beach animals.

and effective enforcement of established minimum in-stream flows are needed.

Since water appropriations are being granted every year, timeliness is of the essence. As soon as possible, the people of Alaska must make fish and wildlife, as well as water recreationists, legal beneficial users of water, entitled to appropriation of water for use within the stream banks.

**Table 1**  
**Salmon Spawning Criteria**

Water Velocity: (fps)	1.0 to 3.0
Water Depth: (ft)	0.6 to 0.8
Riffle-pool Ratio:	near 50:50
Riffle Area Covered by Water:	60 percent or more
Pool Velocities: (fps)	0.3 to 0.8

### References

- Pitney, William E., Undated. Determination of Stream Flows for Fish Life unpublished mimeo ms. 8 pp.*  
*Tennant, Don, 1976: In Methodologies for the Determination of Stream Resource Flow Requirements on Assessment. C. B. Stalnaker and J. L. Arnette, Ed., U.S. Fish & Wildlife Service, Office of Biol-Services, by Utah State Univ., Logan.*

Dr. Mike Kail is with the Sport Fish Division, Alaska Dept. of Fish & Game in Juneau.

No fingers are being pointed. My intent, in fact, is to make anyone who has a scornful or accusing finger pointed at anyone else, to realize that we are all consumers of wildlife.

We share the burden and responsibility of being consumers in much more fundamental ways than the leisure-time goofs I sampled just now. Consider, for instance, the consumption involved in hunting moose, versus the consumption involved in eating the same amount of beef. The hunter eats no more meat than the average non-hunter, but he gets it from a different source. Nature produces moose without plowing ground, spreading fertilizers, or spraying pesticides. The energy consumed in transporting a moose home is less than the energy cost of shipping a beef from Colorado to Chicago and up to Anchorage. Who is the consumptive user? When you think about it, the conservationists who ate prime rib at last year's Eartheare Conference undoubtedly consumed more quail and quail habitat than if they had each gone out and shot a brace of bobwhites for dinner. And the money spent in hunting would have lobbied for quail habitat preservation, whereas the money paid for prime rib paid "the enemy."

We are all consumers of wildlife. I consume energy in flying to distant meetings and in heating my home, and that energy comes from strip-mined lands or oilfields and pipelines. I wear clothes made from wool (which commits wildlife forage to domestic sheep), cotton (which replaces oak-pine woodlands of the South), or polyester (which comes from coal or oil). In short, every human, by existing, consumes or displaces wild things.

To continue to make false distinctions between consumptive and nonconsumptive users is to play into the hands of those who don't give a damn about wildlife.

There is no such thing as a nonconsumptive user of wildlife. There are only consumers who care, and consumers who don't care.

**Robert Weeden**

Guest Editor Robert Weeden is Professor of Resource Management, University of Alaska, Fairbanks. Many times a president of ACS, he is the former Director of Policy Development & Planning for Governor Hammond.

PROTECTING INSTREAM FLOWS UNDER STATE LAWS

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I. Introduction

You will forgive me, I trust, if I draw on some experience gained during an earlier part of my life for the introduction to my presentation today. I think this experience is useful to show why, at a rather tender age, I learned to appreciate the necessity of diverting water from the stream to make crops grow, as well as the importance of preserving the watercourse for its environmental and social values.

I was born and raised on the desert of southwestern Utah, where water was scarce and where one naturally developed an appreciation of the vital role of water and the wonders it can perform, whether in or out of the watercourse. Years later, in England, I always enjoyed the rain, because I remembered how important it had been to the needs of the desert, and that there had never been enough, though my companions in England perceived no particular fascination in the daily downpour.

Not all memories associated with water use on the farm were entirely pleasant. I remember irrigating, particularly at night, when the water flooding between the dikes would force the wildlife to seek refuge on the dikes where you had to walk to change the

water settings. It never failed to release a little adrenalin into my system when a snake would wind itself around my boot, or when a pheasant or meadow lark would fly up in front of my face in the dead of night.

Instream uses were quite limited in that area. The primary excitement derived from swimming in the river was waiting to see whether you would get typhoid fever. But we did fish in the river in the summer, and we ice skated in winter when it was frozen over.

That river was the Sevier River, which has its headwaters near Bryce Canyon National Park, and which used to terminate in Sevier Lake, a lake that was about thirty miles long and ten miles wide--before diversions from the stream took their toll. The Sevier River system is probably subject to a more intensive use than any stream system in the United States, and Sevier Lake is now totally dry, as is the main stem of the river for about 20 miles upstream from the lakebed. There are simply so many diversions from the river, and so many impoundments on it, that it no longer has sufficient water to reach the old lakebed.

Sevier Lake and the lower reaches of the river were dry from my earliest recollection, and so I have no first-hand knowledge as to what the social values used to be. Indians used to hunt waterfowl there, and I have found arrowheads and pottery along the shores of the dry bed. And my father used

to tell me that, when he was a boy, he and his friends would hook a team of horses to a wagon and go to Sevier Lake and spend a couple of days, and shoot enough ducks and geese to fill the wagon box. They would then return home and the waterfowl would be bottled, or "canned" if you prefer the euphemism, for winter use. Of course, that was before conservation laws placed limits on the number of ducks and geese you could shoot.

Perhaps even at that time it was improvident to take wildlife in those amounts, even discounting the story a bit to allow for the exaggerations that sometimes creep into our telling of stories about the good old days. Even so, while I don't think that I would have been too interested in eating bottled ducks all winter, I would have enjoyed the opportunity to hunt when waterfowl was present in such abundance. But waterfowl will never return to Sevier Lake.

I think that you have to live in an area where outdoor esthetic values are scarce before you can truly appreciate the importance of preserving and protecting them. In a humid area like Virginia, where I lived for several years, it seemed that the State was blanketed with trees and grass, and so it was not too disturbing to see trees being removed to clear a construction site. But on the desert, where there are virtually no trees, it was a very sad experience to see huge cottonwoods, planted by the early settlers, later destroyed because they were

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considered to be harmful phreatophytes whose roots drew too much water from the stream.

The annual outing that I looked forward to most, as a boy, was the fishing trip that the family would take in June after the hay was cut, hauled and stacked. We always went to Trout Creek, which is in the Deep Creek Mountains of western Utah near the Nevada border. The trip always seemed long across the desert, but it was a rewarding experience, because the stream, though small, was clear and pure, and was loaded with native trout. The banks were lined with willows and birch trees. I did not have a chance to go back to Trout Creek between 1948, when I went away to college, and 1974, when I decided to let my kids experience the same fun I had had in catching those native trout.

But Trout Creek was not the same in 1974. It had been lined with cement, in a rather crude manner, but still effective enough to kill streamside vegetation and fish. The birch trees and willows that had graced the dry bench were gone, no fish could be found, and all that remained was a very long cement trough which carried the water from its canyon source to marginal irrigation uses on the alkali flats below. I am aware of no better illustration of a poorly conceived program to "improve" the use of water resources. It also served as a reminder to me, if I needed one, that you can't go home again.

I have retained an interest in farming, and I still have farm lands and consumptive use water rights. But I realize that the day has not only come, but in fact has long since passed when the public interest demands that environmental and social values of watercourses be considered, preserved and protected in a manner consistent with society's need for orderly economic development.

This brings us, then, to a consideration of the ways in which instream flows may be preserved or protected under state laws. I hope we can prevent this subject from becoming as dry as the bed of Sevier Lake.

## II. Examples of Strategies that may be Employed under State Law to Enhance Instream Uses

### A. Scope of the Analysis

There are various legal concepts that justify regulation of water use by the states and by the Federal Government. Some of these concepts are based on constitutional considerations, some on statutes, and some on judicial doctrines. In many instances there have been, and still are, conflicts between the United States and the states concerning their respective proprietary rights and regulatory powers. I shall refrain from identifying or summarizing these concepts, because I believe they will constitute the substance of Professor Frank Trelease's presentation tomorrow morning.

It should also be noted that the statutory and regulatory regimes for regulation of water resources vary from state to state. While the appropriation states have very much in common, they also have a significant number of differences. And riparian states differ markedly from appropriation states, although some of the Federal programs, such as those created by the 1972 Amendments to the Federal Water Pollution Control Act, are serving to create some degree of uniformity in some state programs. But time does not permit an exploration in this of the differences among the states.

The historic stumbling blocks to protecting instream uses in the western states have been the requirements that water must be (1) physically diverted from the stream and (2) applied to a beneficial use before an appropriation right could be acquired.<sup>1</sup> These trammels are no longer insurmountable, although in some states legislation is required before effective measures can be implemented to protect instream flows. More difficult questions arise, however, when state constitutional provisions provide, in substance, that appropriation for beneficial use shall never be denied. The Idaho Supreme Court has had no difficulty in finding that protection of instream flows is consistent with its constitutional provision;<sup>2</sup> but Colorado,<sup>3</sup> which has a similar provision, has yet to answer this question.

The purpose of this paper is to illustrate various kinds of techniques, approaches and strategies that have been used,

or may be used, under state law to protect streamflows. The material that follows is sort of a laundry list of such strategies. The list is not inclusive, and I suspect that different people would compile the illustrations differently, both with respect to the strategies selected and the sequence of their presentation. Be that as it may, it should be remembered that these examples are intended merely to illustrate techniques, and we shall not pause to evaluate the legal ramifications of each technique. Since the audience is comprised of representatives of various professions and disciplines, the task at hand is to survey the practical utility of the strategies selected.

With the foregoing limitations and caveats, let us proceed to the specific strategies.

## B. Specific Illustrations

### 1. Interstate Compacts

Interstate compacts cannot be created unilaterally by a single state, but they result from state action because they are negotiated by states. The United States need not be involved in the negotiation, but Congress must approve such compacts as a constitutional requirement.<sup>4</sup> These compacts should be distinguished from Federal-Interstate compacts, such as those on the Delaware and Susquehanna Rivers, where the United States actually becomes a party to the compact.

Interstate compacts necessarily have an impact on instream flows, because they provide certain allocations and apportionments to the states, and flows adequate to meet these obligations must be sustained. The Colorado River Compact provides, for example, that an average of 7,500,000 acre-feet of water must flow past <sup>75</sup> Lee Ferry in Arizona each year to satisfy lower basin entitlements. These flows also are regulated to some extent by hydrologic criteria which are designed to optimize generation of hydroelectric power in reservoir releases.

The pertinent point, I suppose, is that the conventional wisdom of earlier years failed to take into account the social and environmental values of instream flows when interstate compacts were negotiated; and, to the extent that minimum flows or stream yields are provided for in such compacts, such results were designed to serve purposes other than instream values. It would be appropriate, I think, for States to plan for the protection and enhancement of instream uses as direct purposes of such a compact, along with the allocation and apportionment of waters for economic and consumptive use purposes. This opportunity, and obligation, should be kept in mind when new compacts are negotiated or when existing compacts are amended.

## 2. Purchases and Contracts

All state wildlife agencies have the authority to enter into contracts to advance and support their statutory missions. With very little imagination, contracts can be negotiated to provide for instream flows. In Utah, for example, the Division of Wildlife Resources has participated financially in the construction of new reservoir facilities, most commonly purchasing conservation pools and public access rights, but in some instances purchasing sufficient water to provide for releases for streamflow augmentation during critical times of the year.

A number of contracts have also been negotiated in reservoirs that were constructed many years ago. In some instances, conservation pools have simply been acquired by buying part of the water rights held by an irrigation company; and in other instances similar rights have been acquired when an older facility has been enlarged or modified. Not all of these arrangements have provided for releases to augment downstream flows, but if such a need had been critical, and if the Division had had sufficient money, such arrangements would have been possible.

There are any number of arrangements that might be consummated through such negotiation. It would be possible in many instances, for example, for a wildlife agency to purchase water shares in a mutual irrigation company and hold such water in storage for release during critical low flow periods, and to sell the released water to users far enough downstream so that the purpose of stream augmentation would have been satisfied. Complications will arise,

of course, but in most cases they can be worked out to accommodate the particular concerns of the parties and the hydrologic features of the watercourse.

In short, this avenue of purchases and contracts derived through negotiation should not be overlooked, and it is important not only for new project construction, but also for existing facilities on watercourses where the entire water supply has been fully appropriated.

### 3. Legislation Protecting Scenic Rivers

Where watercourses have particular scenic and esthetic values, some states have enacted legislation to protect these values. One of the earlier efforts was that of Oklahoma in 1970, known as the Scenic Rivers Act,<sup>6</sup> which provides for protection of certain free-flowing streams which:

possess . . . unique natural scenic beauty, water conservation, fish, wildlife and outdoor recreational values. . . .<sup>7</sup>

The statute also recites that its purpose is to:

. . . preserve these areas for the benefit of the people of Oklahoma . . . as a part of Oklahoma's diminishing resource of free-flowing rivers and streams.<sup>8</sup>

The act identifies specific reaches of particular streams and provides for protective measures to preserve natural scenic values, and further provides for the elimination of pollution in these waters. In essence, the statute seeks to maximize public use and the protection of social values, while, at the same time, protecting private rights.

### 4. Legislative Definition of Navigability

States have regulatory authority over navigation on the navigable waters within their borders. If the waters are navigable waters of the United States, then the state authority is subject to the paramount regulatory authority of the United States; but if the waters are the navigable waters of the states, the state regulatory authority controls the use of the watercourse.<sup>9</sup> Since the public trust over navigable waters extends to all waters that are navigable, a more inclusive test of navigability will extend the public trust to more watercourses.

Many states follow the Federal test of navigability, which requires that the watercourse be capable of supporting commercial navigation.<sup>10</sup> But, for purposes of the public trust, the states are at liberty to declare their own test of navigability, and some have adopted tests much more inclusive than the Federal test. Idaho, for example, has enacted legislation that declares that certain streams are navigable for the purpose of fishing, and, after naming such streams, further provides that every other stream or part thereof will be deemed navigable if:

. . . logs or timber can be floated to market or the place of use during the high water season of the year. For the purpose of this act, logs and timber are defined as any cut timber having a diameter in excess of six (6) inches; high-water is defined as the time of year when the stream normally carries its greatest volume.<sup>11</sup>

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This is, indeed, a very inclusive test. As an aside, it might be worthy of note that a case is now pending before the Idaho Supreme Court which is based in part on this statute, and which involves competing claims for fishery resources. A small inlet on the Snake River was diked and commercial fish ponds were constructed. Since springs flowed into the inlet, a source of fresh water was available to flow through the fish ponds and make it possible to raise trout for sale. An action was filed by private persons, invoking the statute cited above, claiming that the inlet was a navigable water that could not be appropriated for private use to the exclusion of the public. The district court agreed, and ordered that the fish ponds be removed. Since the Idaho Supreme Court has not yet acted on the appeal,<sup>/12</sup> it is too soon to say whether the lower court's decision will be upheld.

#### 5. Judicial Definition of Navigability

In some States, even in the absence of a legislative definition of navigability, the courts have established inclusive tests of navigability, thereby extending the protection of the public trust to all waters falling within the judicial definition. Quite commonly, a "pleasure boat" test of navigability has been applied. Illustrative examples are found in cases decided by the courts of Minnesota,<sup>/13</sup> Wisconsin<sup>/14</sup> and Oklahoma.<sup>/15</sup>

#### 6. State Regulation of Navigation

States have authority to regulate their navigable waters to aid navigation, and, since navigation is an instream use, flows to support navigation might also support wildlife. In the west, where past emphasis has been on diversions and consumptive uses of water, very few efforts have been made to require instream flows sufficient to support navigation. But there is no reason why the states should not now focus more attention on this prospect, particularly in the light of the fact that no compensation would have to be paid to those making diversion from the stream by virtue of the state navigation servitude.<sup>/16</sup>

To keep things in perspective, let me repeat once more that the Federal Government has superior regulatory power on the navigable waters of the United States and their tributaries, and state regulations cannot conflict with Federal regulations on those waters; but states have sole regulatory authority over navigation on the navigable waters of the states.<sup>/17</sup>

#### 7. Instream Reservations by State Agency

Some states authorize an agency of the State to withdraw or reserve instream flows sufficient to satisfy instream needs. This is not to say that instream needs have a priority over consumptive use needs, but is to emphasize that administrative action to withdraw or reserve instream flows against other appropriations or diversions is an important technique. In 1969 the

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State of Washington authorized the Department of Water Resources to reserve minimum flows for fish, game, and other wildlife resources when requested to do so by the wildlife agencies. <sup>/18</sup>

8. Appropriations by State Agency

In 1969 Montana enacted a statute which authorized the Montana Fish and Game Commission to appropriate water from streams named in the statute, "in such amounts as may be necessary to maintain stream flows necessary for the preservation of fish and wildlife habitat." <sup>/19</sup> This procedure is similar to appropriations made for consumptive uses, but the substantive difference, of course, is that the very purpose of such instream appropriations is to protect the streamflow from excessive diversions.

The 1969 statute went on to provide that such appropriations, when made, would have a priority of right over other uses until such time as the state district court should determine that the water was needed for a use "more beneficial" to the public. And so it was possible for the instream appropriations to be divested by changing circumstances and needs. The most curious provision, it seems, is that which placed upon the district judge the responsibility of determining public policies and priorities to assess which uses are more beneficial to the public. <sup>/20</sup> Ordinarily policy questions such as these are determined by the state legislature, or by administrative agencies with delegated authority to establish such policies, and not by the courts.

It might also be noted that in 1973 Colorado enacted a statute, <sup>/21</sup> popularly known as Senate Bill 97, which recited in its title that it was for the purpose of "providing for the appropriation of water by the State of Colorado to protect the Natural Environment." Section 1 of that statute eliminated the "diversion" requirement for appropriations and enlarged the statutory definition of "beneficial use," which already included fishery and wildlife, <sup>/22</sup> to include "the appropriation by the State of Colorado . . . 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." <sup>/23</sup>

Another provision authorizes the Colorado Water Conservation Board to make appropriations, on behalf of the people of the State of Colorado, of waters in natural streams and lakes "as may be required to preserve the natural environment." <sup>/24</sup> Before doing so, however, the Board must request the recommendations of the Division of Wildlife and the Division of Parks and Outdoor Recreation.

9. Statutory Moratorium on Appropriations and New Diversions

State water records do not have the accuracy and reliability that real estate records do, and it is often difficult to determine with any degree of accuracy the extent to which the waters of a stream are appropriated. <sup>/25</sup> Moreover, in some instances

the hydrologic data and flow records for the stream need further supplementation, refinement and evaluation to assess fully the available water supply.

Because of factors such as these, it becomes difficult to determine the amount of unappropriated water that might be available for withdrawal or reservation to protect instream flow needs. As a result, in some instances it might be advisable to declare a moratorium on further appropriations pending a study of present appropriations and prospective needs for diversions and instream flows.

Montana, for example, provided for such a moratorium on the Yellowstone River in 1974, when it enacted a statute which withdrew the waters of that river from further appropriation for a three-year period, during which time a thorough study was to be made of the available water supply and present and prospective water-use needs, including instream flow needs. <sup>26</sup> Applications to appropriate pending at the time of the enactment cannot be acted upon until the study is completed. One of the applications now pending was filed by the Montana Fish and Game Commission on March 4, 1974, and it requests a substantial reservation of flows to preserve instream values. The recommended minimum streamflow would yield an annual discharge at Billings in the amount of 3,800,000 acre-feet, 6,300,000 acre feet at Miles City, and 7,000,000 acre-feet at Sidney.

10. Administrative Moratorium on Appropriations and Diversions

Sometimes states have general legislation which authorizes an administrative withdrawal of unappropriated waters. Some of these statutes were enacted long ago when instream values were of no particular concern, and when diversions and economic uses were paramount concerns. However, the language in a Utah statute seems to be sufficiently broad to permit an administrative withdrawal of water to protect instream values. <sup>27</sup> That statute provides that when the State Engineer and Governor jointly agree that the "welfare of the state demands it," the Governor can preserve the surplus and unappropriated waters of any stream "for any use whatsoever" by suspending "the right of the public to appropriate such surplus or unappropriated waters." It seems plausible that this statute could be dusted off and used to protect instream values.

11. Conditions in Water Use Permits

Another technique is to impose conditions and restrictions when water use permits are issued or when applications to appropriate are approved. These conditions and restrictions could be designed to protect important instream flow needs, and this could be done whether the permit was for the construction of a reservoir or simply for direct diversion from the stream.

In the case of a reservoir, the permit might require that a minimum flow be sustained through reservoir releases as a condition to construction of the reservoir; and, in the case of

direct diversion permits, it could be stipulated that there would be no right to divert when the stream fell to a certain level or to a flow of a specified number of cubic feet per second. California has used this technique, and it seems to hold promise for states that have not yet considered it. <sup>/28</sup>

#### 12. Conditions on Transfers

One feature of an appropriation water right is that it may be sold and transferred, and sometimes the purchaser desires to change the point of diversion, place of use, or nature of use (such as from an irrigation use to a municipal or industrial use). And sometimes the owner of the water right will desire to make such changes without actually selling the water right to another party.

It would seem to be appropriate to consider the impact of any such proposed change or transfer on the natural stream environment, and to approve such changes and transfers only when such impact is not reasonable or unduly harmful. Colorado, <sup>/29</sup> Montana <sup>/30</sup> and Utah, <sup>/31</sup> through differing devices, seem to be taking such an approach.

#### 13. Conditions on Exchanges

Exchanges must be distinguished from transfers and changes. The latter relate to changes and transfers in water use on the same source of supply where the original appropriation was made, whereas exchanges contemplate moving the water right to a separate source of supply. <sup>/32</sup> Most commonly, this arises

when a proposal is made to move the water right from the main stem to a tributary, or from a tributary to the main stem, or from one tributary to another.

There seems to be no reason why the same environmental considerations that might be applied to changes and transfers could not also be applied to applications for exchanges.

#### 14. Prohibitions on Transfers and Changes

Montana seems to have gone the furthest in restricting transfers and changes by enacting a statute in 1975 which prohibits transfers from agricultural to industrial use when the amount involved exceeds 15 cubic feet per second. <sup>/33</sup> While I have refrained from commenting on the legal aspects of the mechanisms discussed, I must say that there are serious questions concerning the constitutionality of this statute. If it is valid, then I suppose that a similar prohibition could be imposed on exchanges.

#### 15. Permits for Limited Periods of Time

Traditionally, appropriation water rights have been acquired in perpetuity, without regard to the period of time that the appropriator actually needs to use the water in order to satisfy the purpose of the appropriation. In many cases it is obvious that the appropriator does not need to use the water in perpetuity. A mining operator will not need the water after the ore body is mined out; a sand and gravel washing

operation might be commenced for the sole purpose of a single construction project, such as a major dam; and many similar illustrations could be cited.

The question, of course, is whether a water right acquired for such purposes should be in perpetuity or only for the period of time required to satisfy the intended use. If awarded in perpetuity, the owner most likely will sell and transfer the right when he no longer has a use for the water; but if awarded only for the period of time required to satisfy the original use, the water would return to the watercourse after expiration of the permit, and would be available to satisfy instream flow needs or other beneficial purposes. And, as a general proposition, such fixed-period permits would give the state water rights administrator a good deal more flexibility in allocating and re-allocating the water resource.

In some states such fixed term permits may be implemented without specific statutory authorization, so long as there is general authority to approve water applications and there is no direct conflict with any other statutory provision. I think, for example, that the Utah State Engineer would have had such authority, but the question is now moot because the Engineer sought and received express legislative authority <sup>734</sup> to approve applications for fixed periods of time--although the farm lobby succeeded in getting agricultural uses exempted from this provision.

Thus, the implication of the statute now is that water rights acquired for agricultural purposes must be in perpetuity, whereas, prior to the statute, there was no such implication, and it is likely that the State Engineer could have imposed fixed periods on all water appropriations, whether for agriculture or otherwise.

It is not entirely clear to me, however, that the exemption for agricultural uses will be an unmitigated boon to farmers. The State Engineer must still evaluate all applications to determine, among other things, whether the proposed use will interfere with the more beneficial use of water and whether it will prove detrimental to the public welfare. It seems quite possible that an application to appropriate water in perpetuity for irrigation purposes might conflict with more beneficial uses of water in the future, and might otherwise prove detrimental to the public welfare--whereas an application to appropriate water for an irrigation use for a fixed period of time, say 20 years, might not. In such an event, the application might be denied, whereas it might have been approved for a limited period of time if the statute had not provided the exemption.

#### 16. Statutory Criteria to Protect Instream Values

Another technique for considering and protecting instream values is realized through statutory criteria which require the administrative officer to reject any application to appropriate when it appears that it would unreasonably interfere with instream flow needs. It is important to visualize

that, under this technique, it is the legislature that requires instream values to be considered, but it is the administrator who actually determines whether any specific proposal to divert water would result in an unacceptable impairment of instream values.

Utah enacted such a statute in 1971,<sup>/35</sup> wherein an additional criterion was added to those previously in effect. The pertinent part of the 1971 amendment provided that any application to appropriate water must be rejected by the State Engineer if, after investigation, he determines that such proposal would "unreasonably affect public recreation or the natural stream environment."

17. Enlightened Administrative Interpretation of Broad Statutory Criteria

Even though, historically, state administrative officers have not been concerned with instream values when acting on applications to appropriate water, it is quite possible that they have had authority to take such values into consideration. The administrative officers almost always have had authority to take the "public interest" into consideration, but they often took a narrow view as to what the public interest was. Most administrative officers have authority to promulgate rules and regulations to implement the statutory authority vested in them, and it seems entirely appropriate for such officers to set forth in their regulations the criteria which will be used to ascertain the public interest. And there is no reason why these criteria cannot embrace instream values.

The Utah State Engineer has distributed for public comment a preliminary draft of rules that contain such provisions, but he has not yet taken any final action to approve and implement them. The pertinent observation is that the Utah State Engineer has been required for many years to determine whether a proposal to appropriate water would interfere with the "more beneficial use" of water or would be "detrimental to the public welfare," but he had never taken any steps to define these broad criteria or to develop any specific criteria by which they could be determined. The new regulations, as proposed in draft form, would require an evaluation of positive and negative impacts on economic, social, recreational and environmental values that would result from the proposed use,<sup>/36</sup> in addition to other specific criteria set forth in the review draft of the regulations.

It might be observed that in 1971 the Utah legislature added an additional statutory criterion, mentioned earlier, which required the State Engineer to reject any application that would have an unreasonable affect on public recreation or the natural stream environment. But the new draft rules now under review, it seems to me, would have been authorized by the earlier legislation.

Some questions might arise under this mechanism when instream flows are preserved and applications to appropriate are denied when there is unappropriated water in the source, and these questions will depend on the particular state. Questions as to the "diversion" requirement and "beneficial use" concept might

-still arise in some states, although the answer seems to be that the instream flow is not an "appropriation" under this strategy. The administrative officer has simply determined that the public interest would be better served by leaving the water in the stream. It must be conceded, however, that where instream values are not "beneficial uses," it would be difficult to sustain administrative action which denies a proposed appropriation that would qualify as a beneficial use, for the purpose of protecting a public value that does not qualify as a beneficial use.

18. Imposing More Stringent Burden of Proof on Large Applications to appropriate

Montana has devised a mechanism, apparently designed to protect instream values, which imposes a more severe burden of proof on those appropriators who seek to appropriate flows in excess of 15 cubic feet per second.<sup>/37</sup> The traditional requirement in most states has been that an applicant must make at least a prima facie showing that there is sufficient unappropriated water in the source to satisfy his proposed appropriation, but the Montana statute goes further by requiring a clear and convincing showing that the appropriation would not interfere with other water rights.<sup>/38</sup> It must be borne in mind that the Montana Fish and Game Commission is authorized to acquire instream rights, and so any applicant who desires to divert 15 cubic feet per second, or more, must make a clear showing that any instream rights so held by the Commission will not be impaired. In many cases, this might be an insurmountable burden.

19. Demanding Increased Efficiency in Existing Uses before Allowing further Stream Depletions

Appropriation law has always required water users to employ a reasonable degree of efficiency in their use of water, so as to avoid waste. Indeed, the very concept of "beneficial" use contemplates that the method of diversion, means of conveyance, and application to use will be reasonable so that quantities of water in excess of those beneficially required will not be diverted from the stream. Courts have generally been quite liberal in construing this requirement, however, and in many cases rather substantial losses--particularly in conveyance systems--have been sustained as being reasonable.<sup>/4</sup>

The time has now come, it seems to me, when we should take a more careful look at the efficiency of use. New technologies have provided new and improved ways of diverting, transporting and using water. Methods that were reasonable a half-century ago, or even ten years ago, might no longer be reasonable in light of potential improvements that are now feasible. It also seems sound, in fact necessary, to consider the increasing demand now being placed on the resource--including demands for instream uses.

I think the possibilities of imposing more stringent requirements on efficiency of use are well illustrated by the decision of an intermediate appellate court in California.<sup>/41</sup> In that case a water district sought to withdraw additional water from the American River, but was met with opposition by an environmen

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organization which claimed (1) that the district could satisfy its need for additional water by reclaiming and recycling its existing supply, and that (2) further stream depletions would have adverse environmental impacts. The court noted that the California constitution <sup>/42</sup> requires that waste, unreasonable use, or unreasonable method of use of water be prevented, and held that to the fullest extent possible all waters within the state should be put to beneficial use. <sup>/43</sup> So holding, the court remanded the case for trial on the merits.

20. Demanding Greater "Diligence" in Completing Appropriations

Under the laws of most western states, when the first step is taken to acquire a water right the appropriator acquires an inchoate right, and he may then complete or perfect his appropriation free from interference by subsequent appropriators, so long as he proceeds with "reasonable" or "due" diligence. In the first instance, the question as to whether there has been reasonable diligence is determined by the administrative officer, with subsequent judicial review.

But administrative officers ordinarily are given wide discretion in deciding what is reasonable, and some have allowed unperfected appropriations to pend for many years. The Utah statute, <sup>/44</sup> for example, allows the State Engineer to keep pending appropriations alive for 50 years, and, even then, if the works are fully constructed additional time may be granted within which to apply the water to beneficial use.

The Utah State Engineer, in his draft rules distributed for review, has indicated a much more demanding position by requiring prompt completion of appropriations, and by indicating that he will consider such things as environmental values and instream flow needs in deciding whether an appropriator should be granted additional time within which to complete the appropriation. <sup>/45</sup>

From the standpoint of instream flow values, it should be noted that waters cannot be reserved or withdrawn for instream use unless there is unappropriated water in the stream. When water is "obligated" by numerous unperfected appropriations, the water is still in the stream but it is not available for allocation to instream uses. In many instances, the old, unperfected appropriations could be lapsed and cancelled for lack of diligence, and there then might be unappropriated water that could be reserved for instream values.

21. Private Instream Appropriations

Another strategy is that of allowing private persons to make appropriations of instream flows. While a number of arguments could be mounted in favor of, and against, this approach, I personally do not favor it because there appear to be so many preferable mechanisms and strategies available. That approach seems similar to the private riparian rights of Eastern states. I confess that I feel that instream flows in natural channels yield public values that should be reserved and protected for and in the name of the public, rather than private parties.

Nevertheless, the State of Washington feels otherwise, and a private appropriation of an instream flow has been recognized as lawful.<sup>/46</sup> Consequently, it appears that this avenue cannot be ignored.

## 22. Additional Strategies and Techniques

Time does not permit a discussion of further strategies and techniques, but I would like briefly to identify some remaining mechanisms and procedures that have important implications for instream flows.

### a. Weather Modification

Many states have operational weather modification programs to augment water supply,<sup>/47</sup> and instream flow needs should be considered along with other needs in deciding how the new supply of water should be allocated.<sup>/48</sup>

### b. Watershed Management

In the western states watershed management is primarily a function of the Forest Service and the Bureau of Land Management, but in some areas significant parts of watersheds are owned by the states, and state and county zoning regulations and other land use controls can play a meaningful role. While the tail cannot wag the dog, the relationship of watershed management practices to instream flow needs should be considered in establishing the criteria and programs for the watersheds.<sup>/49</sup>

### c. Intrastate Transbasin Diversions

It is not uncommon for water to be transported from one basin to another within a particular state. The exporting basin will experience a depletion in its water supply, and the importing basin will experience an augmentation of its supply. The impacts on instream flows in both basins should be evaluated before the diversion is made; and, if made, measures to satisfy instream flow needs in the importing basin should be considered as part of the project purposes.<sup>/50</sup>

### d. Protection of Streambeds

State statutes which protect streambeds from alteration and relocation are now rather common.<sup>/51</sup> While these statutes do not augment, preserve or protect instream flows, they do protect habitat and spawning areas for fish, and are thus of considerable importance to the value of the instream flow. A minimum streamflow is not too significant, from the point of view of the fish, if the bed of the stream has been lined with cement.

### e. Water Quality Control

While many state water quality control programs are prompted, and to some extent controlled, by PL 92-50 other state water quality programs are within the discretion and control of the states. And some states have adopted administrative procedures whereby fish and wildlife needs are considered a part of the water quality planning process.<sup>/52</sup> As such, administrative action can be taken not only to control the quality of water

in the stream, but also to establish minimum flows for fish<sup>/53</sup> and wildlife needs.

f. Planning Programs under Section 208 of PL 92-500

The planning programs under Section 208<sup>/54</sup> of PL 92-500 are just getting under way. These programs are conducted by state and local representatives in the planning process, in accordance with the board mandate of Section 208 and regulations promulgated thereunder. In essence, these programs are state planning processes, and now is the time for advocates of instream flows to take appropriate steps to make sure their views are heard and considered in these planning programs.<sup>/55</sup>

g. Pumping Groundwater to Augment Streamflow

Groundwater can be a valuable source of augmentation for the flow of surface streams, either as part of a water management plan (conjunctive use of surface water and groundwater), or as an isolated operation.<sup>/56</sup> In some cases, particularly on the lower reaches of a stream, groundwater has been pumped to augment the flow of the stream, with benefits to instream needs as well as to downstream users who divert from the stream.

h. Requiring Consideration of State Water Plan

All of the states have developed, or are in the process of developing, state water plans, ordinarily with

financial assistance provided by the Federal Government through the Water Resources Council, under the provisions of the Water Resources Planning Act of 1965.<sup>/57</sup> To the extent that these plans provide for protection of instream flows, it is important that appropriate legislation require the water rights administrator to consider the state plan when deciding whether appropriations should be approved or rejected.<sup>/58</sup>

i. Evolving Water Use Plan to Regulatory Status

If it is deemed desirable to accord regulatory status to the state water plan, then rather formal procedures must be followed to develop and adopt the plan.<sup>/59</sup> I think that this technique has significant potential for placing all water uses, including instream flows, in a proper balance to protect the entire spectrum of the public interest. In the past, there has been far too much "daylight" between the planning process and regulatory procedures.<sup>/60</sup>

j. Water Management Districts

Strange to say, several eastern states have advanced beyond the western states in creating water management districts as integrated entities to plan, administer and regulate water use.<sup>/61</sup> This technique might be the ultimate in water management, and might be a very effective means of protecting instream flows, as well as providing for diversions and economic uses. The primary reluctance of western states to adopt such management districts has stemmed from the resistance of those holding

appropriation rights, who fear that their rights might be jeopardized or diminished by the creation of such districts.

This fear is unfounded. Management districts might well plan and implement programs for augmentation of water supply to the benefit of all. This augmentation might result from weather modification programs,<sup>/62</sup> integrated use of surface water and groundwater to maximize supply,<sup>/63</sup> water savings practices and techniques,<sup>/64</sup> basin imports,<sup>/65</sup> and a variety of other possibilities.

k. Little NEPAs (SEPAs)

Some states have enacted statutes patterned after the National Environmental Policy Act.<sup>/66</sup> These statutes commonly have the effect of requiring a consideration of the environmental values of instream flows before state action is taken to authorize the diminution of depletion of such flows.

1. State Fish and Wildlife Coordination Acts

Some state legislation is patterned, to a considerable extent, after the Federal Fish and Wildlife Coordination Act,<sup>/67</sup> so that fish and wildlife values are to be given equal consideration with economic values when water projects are licensed or constructed by the state.

m. Appropriations held in Trust for other Uses

A statute in Utah authorizes a state agency to acquire water rights for no other purpose than to hold such rights in trust for subsequent assignment to users.<sup>/68</sup> This might

seem to be a rather awkward technique, but it has had the effect of preserving a water supply in some streams that otherwise would have become fully appropriated. And now, when such water rights are assigned to others, environmental and instream values are seriously considered and reasonable protective measures are provided,<sup>/69</sup> even though I am sure the original legislation did not contemplate the protection of such values.<sup>/70</sup>

n. Acquisition and Re-Allocation of Water Rights

If there seems to be no other way to augment a stream flow that already has been severely depleted, and the need for augmentation is substantial with a promise of sufficient benefits, then it would be possible to acquire existing water rights and re-allocate the water for flow augmentation through the critical stretch of the stream. The state could acquire such rights by purchase or condemnation.<sup>/71</sup>

III. Conclusion

In the preceding discussion I have identified 35 separate strategies and techniques that, to varying degrees, might prove useful in preserving, protecting and enhancing instream flows for fish and wildlife purposes. But we have only scratched the surface. Many techniques and strategies can be found, perhaps some more effective than any I have mentioned. The field is fertile for those researchers who are interested in state water law and who believe that a fair share of the water resource must be preserved to protect instream values.

NOTES

1. Dewsnup, Legal Protection of Instream Water Values (National Water Commission, 1971).
2. State Department of Parks v. Idaho Department of Water Administration, 96 Idaho 440, 530 P.2d 924 (1974). The provision construed was Article 15, Section 3, of the Idaho constitution.
3. The similar provision in the Colorado constitution is Article 16, Section 6. A Colorado statute provides for appropriation of water by the state to protect instream flows (Section 37-92-102(3), Colo. Rev. Stat. Ann.), but the Colorado Supreme Court has not had occasion to determine whether the statute violates the constitutional provision. Other states have milder constitutional provisions in support of appropriation (Wyoming constitution, Article 8, Section 3; Nebraska constitution, Article 15).
4. United States Constitution, Article 1, Section 10, para. 4.
5. Colorado River Compact of 1922, Article III(a).
6. Okla. Stat. Ann., Title 82, § 1451-59.
7. Id. at § 1452.
8. Ibid.
9. The Daniel Ball, 10 Wall, 557 (1870).
10. Id. at 563.
11. Idaho Code Ann., § 36-907.
12. Ritter, et al. v. Standal, et al, Case No. 11971, pending in Idaho Supreme Court. See Southern Idaho Fish & Game Ass'n v. Picabo Livestock, Inc., 96 Idaho 360, 528 P.2d 1295 (1974).
13. Lamprey v. State, 52 Minn. 181, 53 N.W. 1139 (1893), as subsequently modified in State v. Adams, 251 Minn. 521, 89 N.W.2d 666 (1958). See also State v. Bollenbach, 241 Minn. 103, 63 N.W.2d 278 (1954).
14. Diana Shooting Club v. Husting, 156 Wis. 261, 145 N.W. 815 (1914).
15. Curry v. Hill, 460 P.2d 933 (Okla. 1969).
16. See, e.g., Colberg, Inc. v. State of California, 67 Cal.2d 408, 62 Cal. Rptr. 401, 432 P.2d 3 (1967); Southern Idaho Fish & Game Ass'n v. Picabo Livestock, Inc., 96 Idaho 360, 528 P.2d 1295 (1974); Commonwealth v. Thomas, 427 S.W.2d 213 (1968).
17. PL 92-500, 33 U.S.C. 1251 et seq., extends federal regulatory authority over water quality to all navigable waters and their tributaries, whether navigable waters of the United States or navigable waters of the states. This jurisdiction apparently is based on general Commerce Clause power and not on the narrower power to regulate navigation. See United States v. Ashland Oil and Transportation Company, 504 F.2d 1317 (C.A. 6, 1974). The United States Supreme Court has not yet ruled on the constitutionality of the broad jurisdictional reach of PL 92-500.
18. Rev. Code Wash. § 90.22.010.
19. Mont. Rev. Code § 89-801(2); repealed in 1973, now see § 89-890.
20. Ibid. The statute provided that instream appropriations for fish and game purposes "shall have a priority of right over other uses until the district court in which lies the major portions of such stream or streams shall determine that such waters are needed for a use determined by said court to be more beneficial to the public." For present provisions see § 89-890.
21. Colo. Rev. Stat. Ann. § 37-92-102(3).
22. Id., § 37-92-103(4).
23. Ibid.
24. Colo. Rev. Stat. Ann. § 37-92-102(3).
25. Dewsnup and Meyers, Improvement of State Water Records (National Water Commission, 1971).
26. Mont. Rev. Code § 89-8-103 (1974).
27. Utah Code Ann. § 73-6-1.
28. California State Water Resources Control Board Decision No. 1379 (1971); Bank of America Nat'l Trust & Savings Ass'n v. State Water Resources Control Board, 42 Cal. App. 3rd 198, 116 Cal. Rptr. 770 (1974); and see Cal. Water Code § 1243 (1975 Supp.).
29. Colo. Rev. Stat. Ann. § 37-92-102(3) authorizes the Colorado Water Conservation Board to appropriate instream flows for fish and wildlife purposes, but the streams of Colorado are fully appropriated. This would seem to mean that the Board will have to appropriate streamflows as they now are, so that there will be no interference with vested rights. But when the owner of a water right desires to transfer the point of diversion, it will be necessary to determine whether such a transfer would interfere with the "junior" instream

- right held by the Board. If so, the transfer would be denied, or adjusted in such a manner as to avoid any interference.
30. Mont. Rev. Code §§ 89-890, 892.
  31. The Utah State Engineer has promulgated draft rules for public review and comment, but has not yet finalized or adopted these rules. These draft rules would require consideration of the natural stream environment when any request for transfer is filed.
  32. Utah Code Ann. § 73-3-20.
  33. Mont. Rev. Code § 89-892(3).
  34. Utah Code Ann. § 73-3-8.
  35. Ibid.
  36. Preliminary Draft of Rules to Supplement Rules of Utah State Engineer Adopted February 8, 1974.
  37. Mont. Rev. Code § 89-885(6).
  38. Ibid.
  39. Dowsnup, Legal Aspects of Water Salvage (National Water Commission, 1971).
  40. Ibid.
  41. Environmental Defense Fund v. East Bay Municipal Utility District, 8 ERC 1535 (Cal. Ct. App. 1975).
  42. California constitution, Article 14, Section 3.
  43. Environmental Defense Fund v. East Bay Municipal Utility District, note 41 supra.
  44. Utah Code Ann. § 73-3-12.
  45. Proposed Rule No. 2; see note 36 supra.
  46. A decision by the Washington Pollution Control Hearing Board has allowed such a private appropriation for research related to raising fish. See the discussion of such decision in Trelease, Water Law, pp. 37-38 (2d ed. 1974).
  47. For a comprehensive discussion of weather modification programs and associated legal implications, see The Legal Implications of Atmospheric Water Resources Development and Management (Bureau of Reclamation, October 1968).
  48. The most practical means of allocation would be through negotiated agreements with water users and funding agencies. See section II.B.2 of this paper, supra. Since most operational programs receive public funds, there would seem to be ample justification to provide for public uses such as instream flows.
  49. See Land Use and Wildlife Resources, pp. 149-180 (Special Problems of Waters and Watersheds) (National Academy of Sciences, 1970).
  50. This is particularly appropriate where public funds are used to aid in construction of the project, as is usually the case. Compare section II.B.22.1 of this paper, infra.
  51. One of the first statutes of significance was passed by Montana in 1963, as Chapter 258, Mont. Sess. Laws 1963, amended in 1965 and codified in Rev. Code Mont. 26-1501 through 1507, and since amended. Now see 26-1501 through 1509, and the 1975 enactment of 26-1510 through 1523.
  52. See section II.B.7 of this paper, supra.
  53. Rev. Code Wash. § 90.22.010.
  54. 33 U.S.C. 1288.
  55. The Section 208 programs necessarily will develop both water use plans and land use plans in order to control water quality, and there inevitably will be conflicts between these plans and state water rights administration.
  56. In some instances irrigation companies have simply filed for underground water permits upstream from the point of intended use, and have drilled wells and pumped water into the watercourse, thus augmenting the instream flow until such pumped water was diverted at the downstream point of use.
  57. 42 U.S.C. 1962 et seq.
  58. Too often water planners proceed to plan and water administrators proceed to administer, with little or no consultation. If water use planning develops useful data or meaningful alternatives for allocation of the water supply, the administrative officer should at least be required to consult the fruits of such planning, even though he is not bound by any recommendations or findings of the planning agency.
  59. See Dowsnup and Jensen, Proposed Procedures for Planning, Allocating and Regulating Use of Water Resources in Utah, Vol. One, Chapter Two (Utah Division of Water Resources, 1975).