ALASKA LEGISLATURE COMMITTEE FILES 1991-1992 8672
7166 HOUSE RESOURCES

Gary E. Smith
California Department of Fish and Game
March 4, 1992
House Bill No. 355 Testimony

Good afternoon. I appreciate the opportunity to address the Alaska State Legislature's House Resources Committee and offer my opinion with respect to Representative Cliff Davidson's House Bill No. 355.

My name is Gary E. Smith. I am employed as an Environmental Specialist III by the California Department of Fish and Game in Sacramento. I have been employed by the Department for nearly twenty-three years. Currently (since November 1990), I am responsible for coordinating and directing the Department's activities related to assessing instream and terrestrial needs in the Mono Lake Basin and portions of the Owens River system, and returning water to long desiccated streams in the Mono Basin, to Mono Lake, and to portions of the Owens River. Activities related to Mono Lake and the Basin's streams are at the forefront of establishing instream reservations for fish in California. Prior to assuming regional Mono Basin and Owens River responsibilities, I was the Department's Statewide Instream Flow Coordinator (11/80-10/90). I continue to serve in this capacity on a part time basis.

As I address you, I believe I am in an awkward difficult but opportune position. On one hand, one might ask "California has enough environmental and water problems of its own, so why is someone from California addressing the Alaska Legislature regarding HB 355". On the other hand, one might also look upon this occasion as an opportunity to point out some of the pitfalls that have befallen California as we have developed our water resources. Most certainly, California does have many environmental problems. However, it is because of these problems that I believe there is an opportunity for others to learn from our mistakes.

California, like Alaska today, was once believed to be a land of boundless resources: the golden state, the land of opportunity, generous water supplies (albeit inconveniently distributed), abundant fish and wildlife resources and habitats, and so on. There are numerous historical accounts and antidotes of California's once abundant fishery resources. It is not uncommon to read of or hear of an old timer relating that salmon in one stream or another on California's coast or in the San Joaquin River or Sacramento River system were once "so thick you could walk across the stream on their backs". These stories not only refer to the incidents in the 1800s, but also in the early 1900s. The general feeling was that resources were so abundant that partial or complete loss of one more populations would be insignificant. Unfortunately, this was not the case. The abundant habitats and natural resources we once enjoyed more

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often that naught are now mere shadows of their former selves.

In general, about 95% of California's historic steelhead and salmon habitat has been lost. In response, the states steelhead and salmon populations have dwindled to only 20% and 35-40%, respectively, of their historic numbers. Let me share a dramatic example. Archival antidotes indicate that around 200,000 winter run king salmon returned to the Sacramento River system each year in the 1870s. In the early 1900s, the population continued to be in relatively good shape, and about 100,000 fish returned each year. By contrast, in 1991, only 191 winter run salmon returned to the river. Further, about one-third of these fish were sexually immature males. These fish are now designated as an endangered species by the state of California and a threatened species by the U.S. Fish and Wildlife Service. In addition, the Fish and Wildlife Service is reassessing its designation and considering also designating the winter run salmon as an endangered species. This is but one stark example of the decline in abundance that typifies California's resources.

How has this come about? There are many contributing factors. Water development projects and offstream water diversions without appropriate consideration of instream resource and habitat needs have been instrumental in the decline of California's aquatic resources. Although many of these projects were conceived with the best of intentions, typically insufficient water has been left in streams to maintain habitat, and resource losses have occurred.

California did recognize the value of its fish and wildlife early on and passed various laws with the intent of protecting these resources. However, often these laws were not fully enforced or were simply disregarded in light of other, overriding considerations.

California does not have statewide provisions for designating instream reservations for fish. Under our water law, fish and wildlife are now recognized as beneficial uses of water. However, this does not guarantee that sufficient water will be maintained in a stream for resource purposes. It guarantees that instream needs receive equal consideration with other uses, but they must also compete with those uses for available water. Typically, instream resources have been unable to "compete" with offstream uses for available water, particularly if the evaluation procedure uses a dollar value commodity based approach.

With the advent of the environmental movement of the 1960s public awareness of the plight of the states resources increased substantially. As a result, steps are now being taken to attempt

to reverse the downward spiral. There are several examples which come to mind:

1. California enacted the California Environmental Quality Act to mitigate adverse impacts of new projects.
2. In response to the federal Public Utilities Regulatory Act and the ensuing rush to develop small hydroelectric projects in California, the Department of Fish and Game developed policies and guidelines similar to those included in HB 355 for reviewing proposed projects. These policies and procedures proved to be an effective approach to reviewing the more that 700 project applications the Department received for review, and for ensuring protection of instream resources.
3. Recent legislation authorizes the state to purchase existing appropriative water rights for instream and resource protection uses. This is costly, but often is the only process available in many of our watersheds.
4. Laws which have been on the books for years are now being enforced.

While these factors are helping they are reactive and costly. Further, many of our resources are now on the brink of disaster and in need of very strong intervention.

The activities I am involved with in the Mono Lake Basin typify these points. Streamflow was diverted out of the Mono Lake Basin beginning in 1941. Four tributary streams were essentially dried up and the level of Mono Lake dropped about 40 feet. As a result, instream habitats and resources in the four stream were lost, and Mono Lake's severely threatened. Litigation begun in the early 1980s to restore water to the streams and lake continues today. While water is now flowing down the four streams to the lake, and we are actively restoring the stream's physical habitats, costs have been astounding. To date, costs for these activities are in the millions of dollars. In addition to these known costs, the out-of-basin water users are now faced with the additional task and cost of replacing the water they once had available for use and, indeed, did use. From my perspective, these resource losses and costs could have been avoided if instream needs had been identified and met before water was diverted from the streams. Such a proactive and informed approach would have benefited all parties. In my opinion, the provisions included in HB 355 would have provided avenues for this needed proactive approach.

From my perspective, Alaska is at a fork in the trail. One fork leads down the trail followed by California, with all of its pitfalls, environmental problems, and costs. The other down a trail which I believe would be a proactive, cooperative, and

effective approach to preventing exposing Alaska's abundant natural resources to the many environmental problems California has experienced.

I have reviewed HB 355. The bill appears to me as being a progressive, proactive approach to addressing Alaska's instream needs and streamflow issues. If enacted, HB 355 should encourage development of information needed by decision makers to make informed and considered decisions with respect to water use issues. It should also prove to be an effective tool in the water wars which Alaska's resources will surely face in the future.

Thank you for this opportunity to address this committee. I am available to respond to any questions.

Gary E. Smith
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United States Department of the Interior

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7250 (933)

MAR 4 1992

Representative Cliff Davidson
Chairman, House Resources Committee
State of Alaska
House of Representatives
Box V
Juneau, Alaska 99811

Dear Mr. Davidson:

My staff has reviewed the proposed legislation, House Bills 353, 354 and 355. House Bill 353 concerns the automation and updating of water resource data, House Bill 354 concerns the surface-water data network, and House Bill 355 concerns the reservation of instream flows for fish and wildlife.

The Environmental Protection Agency's (EPA) STORET system has been used successfully nationwide by other Bureau of Land Management (BLM) offices. It has been identified as the best system to track streamflow data. We fully support the completion of the automation process for the State water data base.

We fully support the surface-water data network system proposed in House Bill No. 354. We would like to have a technical representative participate in the cooperative effort to locate new stream gaging sites.

House Bill 355 would guarantee the allocation of instream flow water rights for fish and wildlife. This bill does not specify a formula and procedure for quantifying the amount of water that is reserved for fish and wildlife. This will allow flexibility in the procedure chosen to handle regional variability in flow regimes. It is encouraging that wildlife are also included in this legislation. We support this concept of establishing an instream flow reservation in rivers, lakes and streams important to fish and wildlife.

Thank you for the opportunity to respond to this proposed legislation.

Sincerely,

Edward F. Spang
State Director, Alaska

United States Department of the Interior
FISH AND WILDLIFE SERVICE
NATIONAL ECOLOGY RESEARCH CENTER
4512 McMurry Avenue
Fort Collins, Colorado 80525-3400

In Reply Refer To:
FWS/Region 8/NERC

March 4, 1992

RWEB: 705.02

Representative, Cliff Davidson
State of Alaska
House of Representatives
Box V
Juneau, AK 99811

Dear Mr. Davidson:

I have reviewed the copy of House Bill 355 sent to me by your staff. I am pleased to see that you and the citizens of Alaska are still attempting to bring certainty to the water allocation process. This is essential while you still have an abundance of natural resources in terms of flowing water, fisheries, and wildlife. As I understand the present situation in Alaska, you have perhaps the most progressive legislation for recognition and protection of instream flows for fishes of any State in the nation. This bill as proposed would firmly establish a priority date for instream reservations for fish and wildlife protection and further clarifies that the quantitative analysis must be carried out no later than the time an appropriation request for consumptive use is permitted. This guarantees that some attention is paid to the Fish and Wildlife habitat needs for flowing water before a consumptive use permit is issued. This should in no way impact existing water users and, furthermore, is clearly subordinate to future needs for domestic water supply. Subordinating instream flow rights to future demands for domestic supply is a feature of some other state regulations and statutes.

I can see no threat to carrying out this legislation and would encourage the citizens of Alaska to enact it in order to make very clear to future appropriators that a certain amount of water is reserved for Fish and Wildlife benefits in specified streams around the State. It would be very rare for one single consumptive applicant to make a request that would require all of the water flowing in a stream, however, this is a possibility. This legislation would put on record to future consumptive users that the entire water supply is not available to them and that the amount available will be determined at the time of their application. Just as you have struggled over the last several years searching for a "formula" approach to quantifying the statewide instream flow needs, many of the other States have debated whether or not it is appropriate for the legislature to establish instream flow reservations by formula within the statutes or by a clearly defined process. The latter seems to be the preferred route.

I see House Bill 355 as an excellent compromise while still bringing certainty to the allocation process. By deferring the quantification of the instream flow reservation until such time as an application is made for consumptive use, you spread out the work load over a considerable period of time but future appropriators are forewarned well in advance that all of the water is not going to be available for consumptive use. As you further develop regulations and procedures for quantifying the instream flow reservation, the

future applicants will have a better idea of the amount of water that may be available to them.

Given the probability of the State establishing a water use fee as proposed in House Bill No. 550, it is essential that the stream reaches to be protected for future fishery production be identified with certainty. When so identified and given a priority date of reservations, future generations of Alaskans can be assured that they will not have to spend billions of dollars in purchasing water rights and physically rebuilding fish rearing habitat because the streams have become overappropriated. Tens of millions of taxpayers dollars are now being spent annually in the Colorado, Mississippi, and Missouri river basins trying to restore large river fisheries. This is in addition to the 100's of millions of dollars spent in the Columbia system.

As I stated when reviewing your 1989 bill, I again hope that the Alaska state legislature will enact this bill because it will provide an example and precedent for some of the eastern and southeastern states. These legislatures are now struggling with exactly the same concern as they are approaching real conflicts among instream and desired out-of-stream uses.

Sincerely,

Clair B Stalnaker

Clair B Stalnaker
Chief, Riverine and Wetlands
Ecosystems Branch

TESTIMONY OF

SUZANNE C. WILKINS, DIRECTOR OF RIVER PROTECTION
AMERICAN RIVERS, INC.

CONCERNING HOUSE BILL 355

BEFORE THE HOUSE RESOURCES COMMITTEE
ALASKA STATE LEGISLATURE

MARCH 10, 1992

American Rivers, Inc.
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Chairman Davidson and Members of the Committee:

On behalf of American Rivers, the nation's principal river-saving conservation organization, it is my pleasure to testify today concerning House Bill No. 355, "An Act relating to the reservation of instream flows for fish and wildlife."

My name is Suzanne C. Wilkins and I am the Director of State Programs for American Rivers, Inc. - a national nonprofit conservation organization, which since 1973 has been addressing river protection issues across the country. Our mission is to preserve and restore America's river systems. Our membership numbers over 18,500 nationwide, including 142 persons in Alaska.

American Rivers has a national perspective on river policy. We are frequently called upon to analyze, write and/or testify on state and federal legislation affecting rivers throughout the country. While some might view us as an "outside" organization, American Rivers works closely with local citizens in all 50 states, and our staff has had an opportunity to experience first hand numerous rivers across the country - including many in Alaska.

Since our founding, American Rivers has seen the destruction of fish and wildlife habitats escalate at an alarming rate. Indeed, scientists have become increasingly alarmed as they have begun to document the profound loss of fisheries and other aquatic resources:

* 30% of the native freshwater fish species in North America are threatened, endangered or of special concern;
* 10% of all North American freshwater mussels have become extinct this century and of the remaining, three-fourths are rare or imperiled;
* of the stocks of Pacific salmon, steelhead and sea-run cutthroats, 106 are extinct, 102 face extinction, 58 are at moderate risk and 54 are of concern;
* 10 species of freshwater fish became extinct in the decade 1979-1989; and
* 66% of the continent's crayfish are now rare or imperiled.

While much of this sobering situation can be attributed to water impoundments and diversions, to degraded water quality, to changes in land use and to channelization, scientists are becoming increasingly aware of the importance of water quantity to the health of a watershed and its natural resources. Indeed, decision makers must increasingly consider the need for insured instream flows, if natural river systems are to remain viable and flourish in the future. This point is particularly true in

those states that have a prior appropriations doctrine - those in the West and Alaska.

Fisheries in the state of Alaska are a tremendous economic resource. They are viewed by many as a renewable resource, but if the statistics cited above are any indication, it does not appear to take much to upset the delicate ecosystem of a watershed and thus to threaten the species living there.

The Alaska legislature has an historic opportunity with House Bill 355 - to pass legislation that will place the state of Alaska on the cutting edge of river management nationwide. Many of the Lower 48 are now desperately attempting to undo the damage wrought by years of overappropriation of the water that once flowed in their rivers. Alaska needs to plan now to ensure the future viability of its rivers, so that it will not repeat the mistakes of the Lower 48.

American Rivers strongly supports passage of House Bill 355.

We have reviewed HB 355, the existing state water statutes at issue and the pertinent provisions of the Alaska Constitution. In doing so, we have determined that the existing water statutes do not satisfy the mandate set forth at Article VIII, Section 13

of the Alaska Constitution, that "an appropriation of water shall be . . . subject to . . . the general reservation of fish and wildlife." Specifically, the Alaska Water Use Act does not guarantee that an appropriation of water is balanced by an instream flow reservation for fish and wildlife. Rather, the relevant provision states that the Commissioner shall consider, among other things, "the effect on fish and game resources" when determining whether a proposed appropriation is in the public interest.

Among the other factors that the Commissioner is required to consider in determining whether a proposed appropriation is in the public interest is "the effect of the economic activity resulting from the proposed appropriation." It is easy to envision many scenarios where, on one hand, the applicant would be able to place a dollar amount on the economic activity resulting from the proposed appropriation; while on the other hand, it would be difficult to assign a dollar amount to the long term or cumulative effect on fish and game resources resulting from the proposed appropriation. The result? In most instances, the economic activity factor would probably be given more weight. Indeed, the effect on fish and game resources factor is but one of eight factors that the Commissioner is to consider when determining whether a proposed appropriation is in the public interest.

While it may be true that Alaska's present instream flow laws are among the most progressive in the nation, this is a relative concept. Alaska's water use laws are progressive when compared with other states that either have no such law or that have long since destroyed their river resources and, indeed, wish they had the opportunity to "roll back the clock" and start all over again to insure better balance for instream uses and between agricultural and urban needs. HB 355 would guarantee that every time water is taken out of a stream, enough water is left in that stream for the survival of fish and wildlife, a simple but farsighted concept that achieves the mandate of the Alaska Constitution.

In reviewing HB 355, we believe that it is important to note that applications for appropriation and out of stream appropriations on record before the effective date of the act would receive grandfather rights. Also, the act would not apply to nonconsumptive uses of water or single family domestic uses, nor to groundwater appropriations of 5,000 gallons per day or less that do not have an effect on surface water fish and wildlife habitat. We believe that these provisions make the bill a fair one for all "normal" river activities.

As an organization, American Rivers has recently adopted a new 5 Year Plan, in which "Water Use and Instream Flow" is one of our six part conservation program. The addition of this new program

area was due to a growing concern of ours and of many other river ecologists and policy makers that water quantity was not receiving adequate attention nationwide.

Alaska has an opportunity to protect the future of its resources - something that many other states have already lost. I urge this committee to recommend passage of HB 355, and in so doing take a proactive step towards preserving Alaska's fish and wildlife.

Thank you for your time and consideration.

National Audubon Society

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March 10, 1992

Representative Cliff Davidson
Chairman, House Resources Committee
P.O. Box V
Juneau, AK 99811

Dear Representative Davidison,

On behalf of the National Audubon Society including its 2700 members in Alaska, I would like to urge passage of HB 355 "an Act Relating to the Reservation of Instream Flows for Fish and Wildlife; and Providing for an Effective Date".

It is essential that instream habitat for Alaska's multimillion dollar commercial, recreational and subsistance fishery and wildlife resources be protected from unnecessary damage and inappropriate human activities. Your bill helps assure that this will be the case.

We very much appreciate your sponsorship of this vital legislation.

Sincerely,

David R. Cline

David R. Cline
Regional Vice President

FISCAL NOTE

STATE OF ALASKA
1992 LEGISLATIVE SESSION

BILL NO. HB 355

Revision Date: _____ Department Affected: Natural Resources

Title: An Act relating to the reservation of water for in-stream flow purposes

BRU: Water Management

Components: Water Management

Sponsor: Davidson

Requestor: House Resources

COMPONENT SERIAL NO. 916

EXPENDITURES/REVENUES: (Thousands of Dollars)

OPERATING	FY 93	FY 94	FY 95	FY 96	FY 97	FY 98
PERSONAL SERVICES	191.3	191.3	191.3	191.3	191.3	191.3
TRAVEL	33.7	33.7	33.7	33.7	33.7	33.7
CONTRACTUAL	82.4	82.4	82.4	82.4	82.4	82.4
SUPPLIES	12.0	12.0	12.0	12.0	12.0	12.0
EQUIPMENT	76.0	40.0	40.0	40.0	40.0	40.0
LAND&STRUCTURES						
GRANTS,CLAIMS						
MISCELLANEOUS						
TOTAL OPERATING	*** 395.4	359.4	359.4	359.4	359.4	359.4
CAPITAL						
REVENUE Funding Source:						

FUNDING: (Thousands of Dollars)

GENERAL FUND	395.4	359.4	359.4	359.4	359.4	359.4
FEDERAL FUNDS						
OTHER Funding Source:						
TOTAL	395.4	359.4	359.4	359.4	359.4	359.4

POSITIONS:

FULL-TIME	4.0	4.0	4.0	4.0	4.0	4.0
PART-TIME						
TEMPORARY						

Estimate of Current year impact:

ANALYSIS: (Attach a separate page if necessary)

*** If appropriations for water data in HB 353 and HB 354 do not pass, an additional $481,000 needs to be added to this fiscal note.

If HB 550, water fees passes, the fees collected from the sale of water could offset the costs for data in HB 353 and HB 354.

Prepared by: Gary Prokosch Phone: 762-2571

Division: Division of Water Date: 19-Feb-92

Approved by Commissioner: Harold C. Heinze Date: 19-Feb-92

Agency: Department of Natural Resources

2/19/92

Distribution (by preparer) : Legislative Finance, legislative Sponsor, Requestor, OMB, & Impacted Agency(ies).

REV 10/91

FISCAL NOTE

HB NO. 355 RESERVATION OF INSTREAM FLOWS FOR FISH AND WILDLIFE

HB 355 requires the Department of Natural Resources (DNR), upon receipt of an application for an out-of-stream appropriation or an application to appropriate ground water that would significantly influence the volume of water in a stream or river, to reserve an instream flow reservation to maintain habitat for fish and wildlife.

DNR, Division of Water will receive between 100 and 120 water rights applications for surface water and about 100 applications for ground water in excess of 5000 gallons per day each year. HB355 requires that DNR reserve water for fish and wildlife for each of these surface water applications and evaluate each of the ground water applications to determine if the withdrawal of water will significantly influences the volume of water in a nearby river or stream.

This fiscal note is based on the hydrologic and water management needs of the Division of Water to address the requirements of HB355. This fiscal note assumes that HB353 and HB354 are passed and the funds for the surface-water data * evaluation for Alaska and the STORET system upgrade are approved.

DNR will require a hydrologist who, on a case-by-case basis, will collect existing data and evaluate that data or collect new data in order to estimate stream or river flow conditions on each of the estimated 200 applications that will need to be processed each year under HB355.

The hydrologist will require office space, office supplies and office equipment in addition to stream gaging equipment such as flow meters, wading rods, tag lines, datapods, polycorders and computers to read, store and manipulate data to provide mean annual flows, mean monthly flows, extreme flows as well as other stream flow characteristics needed for instream flow analysis. The hydrologist will also require a travel budget that will allow him or her to establish and maintain gaging sites, or to collect other site specific stream or river characteristics for evaluating instream flow needs or the effect of an appropriation of water on fish and wildlife habitat.

The hydrologist will work closely with ADF&G biologists and water managers in the preparation of the instream flow applications.

In addition to the hydrologist and his office and field needs, 50.0 dollars in contractual funds are being requested for the establishment, operation and maintenance of gaging stations for both site specific and index stations. These funds will be used, if appropriate, as matching funds with USGS for the cooperative establishment of gaging stations. These long-term gaging stations are necessary for both site specific area management and for monitoring of long term affects of out-of-stream appropriations and instream flow reservations.

In addition to the hydrologist, the Division of Water will require a natural resource officer in each of its three regional offices (Anchorage, Fairbanks, and Juneau). These individuals will be required to work with the hydrologist and fish and wildlife biologist in the preparation of applications for the reservation of water and to adjudicate the applications in accordance with AS 46.15.145.

The preparation of the instream flow application will require the coordination of data between the hydrologist and biologist, other water users, and other state and federal agencies. The interpretation and analysis of the data includes stream flow information, either real or estimated, fish and wildlife species and their needs regarding flow, timing of flow and related fish and wildlife activities, and the reliability of the data. The application for a reservation must be prepared in accordance with AS 46.15.145 and 11 AAC 93.141 and 142, which includes identification of river or stream reach where flow are to be reserved, maps, legal description and organization of data into the appropriate application format.

The natural resource officers in each region will adjudicate the instream flow applications in accordance with AS 46.15.145 and 11 AAC 93.145 and 146. This includes file preparation, LAS computer entry, agency notice, public notice, interested party notice, meetings and hearings when required, response to comments or objections and document preparation. It is estimated that each of these natural resource officers will have to prepare applications and adjudicate up to 75 instream flow reservations per year.

Each natural resource officer will need to have office space, office equipment and supplies, and a personal computer and software. In addition, in order to prepare and adjudicate an instream flow application the adjudicator will need to work closely with and assist the hydrologist and biologist in the field. They will also have to have a reasonable travel budget to conduct monitoring, hold meetings and hearings when appropriate during and after the adjudication process.

Position Title	No. of Positions	Range/Step	Barg. Unit
Hydrologist III	1	18A	GGU

Time Status	Staff Months	Location	Election District
PFT	12	Anchorage	

TYPE OF EXPENDITURE		Amount
Salary		
Benefits		
Premium Pay		
Other		
Total Personal Services		55.1
Travel		10
Contractual		56.6
Commodities		3.0
Equipment		49.0
Other		
Total Cost		173.7
FUNDING SOURCE FOR TOTAL COST		
Federal Receipts	1002	
G.F. Match	1003	
General Fund	1004	173.7
I-A Receipts	1007	
CIP Receipts	1061	
Other		

Justification

The Hydrologist III position is needed to conduct field, laboratory, and office work to provide streamflow data and analyses needed to support the instream flow reservations as described in HB 355. Index stations to be used for regional evaluations will be designed, installed, and operated to provide data for ungaged streamflow determinations. The position will work with DLWM water managers and ADFG biologists to provide useful, accurate streamflow data for managing the water and fish resources of Alaska.

Request For New Position

HB355P1

AGENCY Natural Resources

BRU Water Management

COMPONENT Water Management

Page ____ of ____

Revised Date:

FY 93

Position Title	No. of Positions	Range/Step	Barg. Unit
Natural Resource Officer I	1	14A	GGU

Time Status	Staff Months	Location	Election District
PFT	12	Fairbanks	

TYPE OF EXPENDITURE		Amount
Salary		
Benefits		
Premium Pay		
Other		
Total Personal Services		42.8
Travel		6.5
Contractual		8.6
Commodities		3.0
Equipment		9.0
Other		
Total Cost		69.9
FUNDING SOURCE FOR TOTAL COST		
Federal Receipts	1002	
G.F. Match	1003	
General Fund	1004	69.9
I-A Receipts	1007	
CIP Receipts	1061	
Other		

Justification

The Natural Resource Officer I position is needed to adjudicate instream flow reservation applications, conduct field work, hold meetings and hearings, and prepare instream flow applications as required under HB 355. The position will work with division hydrologist, ADF&G biologist to prepare an instream flow application for each river, stream or lake where an out of stream appropriation application was accepted by DNR. The application preparation and adjudication will be done in accordance with AS 46.15.145.

Request For New Position

HB355P2

AGENCY Natural Resources

BRU Water Management

COMPONENT Water Management

Page ____ of ____

Revised Date:

FY 93

Position Title	No. of Positions	Range/Step	Barg. Unit
NRO II	1	16A	GGU

Time Status	Staff Months	Location	Election District
PFT	12	Juneau	

TYPE OF EXPENDITURE		Amount
Salary		
Benefits		
Premium Pay		
Other		
Total Personal Services		46.7
Travel		8.6
Contractual		8.6
Commodities		3.0
Equipment		9.0
Other		
Total Cost		75.9
FUNDING SOURCE FOR TOTAL COST		
Federal Receipts	1002	
G.F. Match	1003	
General Fund	1004	75.9
I-A Receipts	1007	
CIP Receipts	1061	
Other		

Justification

The Natural Resource Officer II position is needed to adjudicate instream flow reservation applications, conduct field work, hold meetings and hearings, and prepare instream flow applications as required under HB 355. The position will work with division hydrologist, ADF&G biologist to prepare an instream flow application for each river, stream or lake where an out of stream appropriation application was accepted by DNR. The application preparation and adjudication will be done in accordance with AS 46.15.145.

Request For New Position

HB355P3

AGENCY Natural Resources

BRU Water Management

COMPONENT Water Management

Page ___ of ___

Revised Date:

FY 93

Position Title	No. of Positions	Range/Step	Barg. Unit
NRO II	1	16A	GGU

Time Status	Staff Months	Location	Election District
PFT	12	Anchorage	

TYPE OF EXPENDITURE		Amount
Salary		
Benefits		
Premium Pay		
Other		
Total Personal Services		46.7
Travel		8.6
Contractual		8.6
Commodities		3.0
Equipment		9.0
Other		
Total Cost		75.9
FUNDING SOURCE FOR TOTAL COST		
Federal Receipts	1002	
G.F. Match	1003	
General Fund	1004	75.9
I-A Receipts	1007	
CIP Receipts	1061	
Other		

Justification

The Natural Resource Officer II position is needed to adjudicate instream flow reservation applications, conduct field work, hold meetings and hearings, and prepare instream flow applications as required under HB 355. The position will work with division hydrologist, ADF&G biologist to prepare an instream flow application for each river, stream or lake where an out of stream appropriation application was accepted by DNR. The application preparation and adjudication will be done in accordance with AS 46.15.145.

Request For New Position

HB355P4

AGENCY Natural Resources

BRU Water Management

COMPONENT Water Management

Page ___ of ___

Revised Date:

FY 93

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FISCAL NOTE

STATE OF ALASKA
1992 LEGISLATIVE SESSION

BILL NO. HB 355

Revision Date: 12/13/91

Department Affected: Fish and Game

Title: Instream Flow

BRU: Habitat

Component: Habitat

Sponsor: Representative Davidson

Requestor: House Resources Committee

COMPONENT SERIAL NO. | | 4 | 8 | 6 |

Expenditures/Revenues: (Thousands of Dollars)

OPERATING	FY 93	FY 94	FY 95	FY 96	FY 97	FY 98
PERSONAL SERVICES						
TRAVEL						
CONTRACTUAL						
SUPPLIES						
EQUIPMENT						
LAND & STRUCTURES						
GRANTS, CLAIMS						
MISCELLANEOUS						
TOTAL OPERATING	0	0	0	0	0	0
CAPITAL	0	0	0	0	0	0
REVENUE FUND SOURCE:	0	0	0	0	0	0

FUNDING: (Thousands of Dollars)

GENERAL FUND						
FEDERAL FUNDS						
OTHER FUND SOURCE:						
TOTAL	0	0	0	0	0	0

POSITIONS:

FULL-TIME	0	0	0	0	0	0
PART-TIME	0	0	0	0	0	0
TEMPORARY	0	0	0	0	0	0

Estimate of current year impact: no impact on current year

ANALYSIS: (Attach a separate page if necessary.)
See Bill Analysis, Fiscal Impact

Prepared By: Kimbal Sundberg

Phone: 267-2334

Division: Division of Habitat

Date: 12/16/91

Approved by Commissioner: Tom Schnabel

Agency: Department of Fish and Game

Date: 12/17/91

Distribution (by preparer): Leg. Fin., Legislative Sponsor, Requestor, OMB/DBR, Gov. Legis. OSC., & Impacted Agency(ies).

Rev 10/7/91

STATE OF ALASKA
DEPARTMENT OF NATURAL RESOURCES
OFFICE OF THE COMMISSIONER

WALTER J. HICKEL, GOVERNOR

400 WILLOUGHBY AVENUE
JUNEAU, ALASKA 99801-1796
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January 22, 1992

The Honorable Cliff Davidson
Chair, House Resources Committee
P.O. Box V
Juneau, AK 99811

Dear Representative Davidson:

We welcome your interest in the management of Alaska's water resources. Alaska's water management statutes and regulations are among the most progressive in the nation, and the abundant salmon runs of the last decade are one illustration of the benefits to be gained from actively managing the state's water resources for maximum beneficial use and the general reservation of fish and wildlife.

We believe the best approach to managing Alaska's water is to build on the success of the present system, rather than create a new approach to water management as HB 355 would do. For this reason, our two departments are supporting the passage of HB 353 and HB 354, but we are not supporting HB 355.

The most pressing needs are for improved water resource data collection and analysis, and updating and completing work connected with the STORET system. The STORET system is the state's computerized database of water data and water appropriations. These needs are addressed by HB 353 and HB 354. It may be advisable to reference a system equal to or compatible with the STORET system in HB 353, rather than referring only to the STORET system, in case newer or better systems for water data management are available.

Thank you for your interest in these issues. Please contact Department of Natural Resources water division director Ric Davidge, or Department of Fish and Game habitat division director Frank Rue for additional information related to these bills.

Sincerely,

Harold C. Heinze
Commissioner,
Department of Natural Resources

Carl L. Rosier
Commissioner,
Department of Fish and Game

cc: Paul Fuhs, Legislative Liaison, Office of the Governor
Ric Davidge, Director, DNR Division of Water
Frank Rue, Director, DF&G Division of Habitat

10-9LH

WHY ALASKA NEEDS PROTECTION OF WATER FOR FISH AND WILDLIFE

-Article VIII, Sec. 13 of *The Alaska Constitution* mandates a general reservation of water for fish and wildlife.

-State law ***does not provide a guarantee that*** water be reserved for fish and wildlife. Alaska's Water Use Act only requires DNR "*consider*" the effect of a proposed appropriation of water on fish and game. My legislation would guarantee that a sufficient flow of water remain "in the stream" for the survival of fish and wildlife

-Requires adequate instream flows for fish and wildlife be reserved *before* additional water is appropriated for other uses.

-Alaskan water law is based on "first in time, first in right'. An applicant who receives a water right first is senior to all subsequent water right applicants, regardless of applicants' future needs. Enactment of my bill would effectively guarantee fish and wildlife have an immediate, legal right to water they use now and forever.

-Guarantees automatic instream flow protection for over 12,000 known fish and wildlife streams.

-To acquire water rights for fish and wildlife an applicant must file an instream flow application -- a complex and costly process. For out-of-stream uses of quantities less than 100,000 gallons, furnishing water data is discretionary and treated on a case by case basis.

-Approximately 4,500 out-of-stream water rights have been granted since statehood. Only 11 instream flow reservations have been granted out of a total 46 applications since 1980. (29 are still pending and 6 were denied).

-Extended into the future, protection for instream flows will not be able to keep up with out-of-stream use. Under current law, it would take over 1000 years and a cost of $96,000,000 to submit applications to reserve water for fish and wildlife. My bill provides guarantees this level of protection in a very cost-effective manner by reserving a water right for fish and wildlife at the time of an application.

-Guarantees automatic instream flow protection for all fish and wildlife streams identified in the future

-Instream flow legislation would also guarantee protection for all fish and wildlife bearing rivers identified in the future.

.....over

-Helps protect important uses of water: navigation, transportation, water quality and sanitation, recreation, tourism, scenery as well as the Public Trust

-Under Alaska's Water Use Act, instream flow can be reserved for protection of fish and wildlife; recreation and park purposes; navigation and transportation; and sanitary and water quality purposes. Guaranteeing instream flows for fish and wildlife, consistent with the Alaska Constitution, benefits these other uses of water.

-Provides a cost-effective approach to water management

-This legislation does not require additional state funds. While improving our state's hydrological and biological data bases is important, instream flows can still be estimated based on the best available and existing data. As our information improves, the quantity of water necessary for survival of fish and wildlife .reserved can be further refined. Until then, the automatic reservation of water is a cost-effective way to prevent the over-appropriation of water.

Prevents the water-management fiascoes now being experienced by the Lower-48

-Western water law was formed when clean fresh water running to the sea was considered wasted unless it was used for irrigation, farming, ranching, and mining. The instream reservation of water was, until recently, not recognized as a beneficial use of water in many western states and could not legally be reserved.

-In the last thirty years, many western states have changed their laws to include instream flow reservations among the beneficial uses of water, But after more than a century of applicants. By now, however, most streams have little or no water left. Water must be leased or purchased back at tremendous expense, or through disruptive court-action, in order to restore stream flows.

..Provides an Insurance Policy for Alaska's future

-Reservation of instream flows are particularly suitable to Alaska because we still have few water conflicts. We have a unique opportunity to legislate intelligent water use and avoid conflicts unlike the west.

-Alaska, with our highly valued subsistence, sport and commercial fish and wildlife uses differs from other western states in that our fisheries and wildlife are indispensable to our health, welfare and economy. My legislation would would preserve, in perpetuity, our natural permanent fund - our fish and wildlife - long after our known oil reserves dry up.

HB 355 LEGISLATION - MAY 21, 1991

EXISTING LEGISLATION & REGULATIONS	
DNR only required to *"consider"* granting instream flows for fish and wildlife despite a general reservation of instream flows for fish and wildlife specified in Article VIII, Section 13 of the Alaska Constitution.	Guarantees consistency with Constitutional mandate by requiring that sufficient water be reserved to maintain fish and wildlife production.
The only procedure to acquire formal instream flow water rights for fish and wildlife is to file an instream flow application. Alaskan water law is based upon *"first in time and first in right"*. Therefore, fish and wildlife are among many resources or uses to be considered by DNR when it, in its own discretion, appropriates water for an out of stream use, unless water rights to acquire instream flows for fish and wildlife were filed first.	Automatically grants instream flow protection and priority date for instream flow water rights for over 12,000 known fish and wildlife streams as the date of bill enactment. Priority date for streams identified as supporting fish and wildlife after bill passage is date of identification. Applications on file and existing out of stream appropriations at time of passage of bill receive grandfather rights.
Public water supplies are granted priority over all other water uses.	No change. Instream flows for fish and wildlife are given priority consideration second only to public water supply, while allowing for other out of stream and instream uses. Single family household uses of water also exempted from provisions of bill. Groundwater appropriations of 5,000 gpd or less that do not have an effect on surface water fish and wildlife habitat are exempted from provisions of the bill.

HB 355 LEGISLATION - MAY 21, 1991

EXISTING LEGISLATION & REGULATIONS

Approximately 4,500 (may be higher) out of stream flow water rights granted since 1966. ~~40~~ 46 instream flow reservation applications filed since passage of legislation in 1980. Of them, eleven have been granted, ~~and six are in process of adjudication.~~ six have been denied and the rest are in the process of adjudication

Automatic guaranteed instream flow protection in more than 12,000 fish and wildlife streams.

No blanket requirement to immediately quantify instream flows for every stream protected by the legislation. Instead, analyses must only be performed for a stream protected by this law after an application to appropriate water for out of stream uses for that individual stream is filed.

Therefore, it is estimated that only 200 to 300 out of stream applications received each year by DNR might be subject to provisions of this bill.

Instream flow applicants must go through extensive data gathering and analysis processes to provide sufficient data to DNR to complete final applications for instream flows. Similar requirements apply to applications for out of stream uses for water quantities of 100,000 gpd or more. Requirements for out of stream quantities less than 100,000 gpd are discretionary and treated on case by case basis.

Instream flow protection guaranteed with no data requirement as provided by constitution.

Instream flow applicants can file applications to receive a priority date before completing all analyses and assembling documentation. Analyses must be completed three to five years after filing. Applicants for out of stream water rights are granted a priority date upon receipt of application with or without supporting documentation. Five years are automatically granted to perfect the amount of water requested.

All fish and wildlife streams receive automatic guarantee of instream flow reservation and priority date effective the date of legislation without expending resources. Quantification of instream flows for an individual stream is not performed or required until an application for an out of stream appropriation application for for that stream is filed. Minimal resources required to quantify the instream flows for individual reservations on case by case basis. Existing quantification procedures apply unless modifications to regulations are made.

EXISTING LEGISLATION & REGULATIONS	HB 355 LEGISLATION - MAY 21, 1991
No mandatory requirements for out of stream water rights applicants to provide hydrologic data to enable DNR to determine whether sufficient water is available for appropriation from a stream and avoid overappropriation unless the quantity requested is 100,000 gpd or greater. No similar requirement for applicant to provide hydrologic data to assist other agencies and the public to evaluate instream flow requirements or impacts of an out of stream appropriation less than 100,000 gpd on other appropriators.	Instream flows must be quantified and protected prior to allocating additional water from a stream or river that is identified as supporting fish and wildlife.
Descriptions of water availability based upon mean annual or mean monthly flow based using best available data or estimate of mean annual flow is required for all instream flow applications and limited to out of stream appropriations equal to or greater than 100,000 gpd (0.15 cfs)	This type of information would still be required to quantify instream flows. It would not be required as a prerequisite to guarantee instream flow protection.
ADF&G, other agencies, or the private sector must apply for individual instream flow regimes. An average of ten instream flow applications are filed each year due to the requirements for data and documentation. Insuffient stream gage data are also limiting. Each, instream flow application, assuming there is no controversy, averages a cost of $8,000 to $10,000 to the applicant. At this present rate it will, at a minimum, take over 1000 years and more than $96,000,000 to file for instream flows for rivers and streams presently identified as supporting fish and wildlife.	All known fish and wildlife streams (over 12,000) and additional streams identified in the future as supporting fish and wildlife are automatically granted instream flow protection on the date of enactment of bill without expending funding. Instream flows are not quantified until an out of stream appropriation is received follow[illegible] adjudication process.

EXISTING LEGISLATION & REGULATIONS

No mandatory requirement for ADNR to determine cumulative effects of multiple appropriations. No automated data base or mechanism in force to know availability of unappropriated water or if streams have been over appropriated.

Requires DNR to reserve adequate instream flows for fish and wildlife before additional water is appropriated for other uses. Public water supply, single family domestic use, small groundwater consumption, and nonconsumptive water uses are exempt from this provision. However, the significance of an automated data base and information system for the proper and cost effective management, monitoring, and enforcement of Alaska's water rights is recognized. Therefore, seperate legislation, HB353, was introduced to fund the completion and implementation of an automated data base and tracking system for the DNR in FY 93. DNR has been requesting funding to complete this system for several years.

DNR has flexibility to determine whether a method is acceptable for calculating instream flows. DNR has discretion to decide the best public interest for uses of water when approving out of stream appropriations and instream flows.

DNR maintains flexibility to determine if a method to calculate instream flows is acceptable. DNR must grant instream flows to protect existing fish and wildlife habitat when appropriating new out of stream water rights.

No gaging station requirements or requirements for additional gages. However, it would benefit all water users and managers to improve the existing gaging system. There is only one gage per 7,000 square miles in Alaska while in the lower 48 states, it's one gage per 400 square miles, yet Alaska has 1/3 of the nation's freshwater.

No Change. This legislation is designed to be implemented using existing data base. Additional hydrological data would refine and improve decisions but is not a requirement of legislation. Recognizing the shortage and need for stream gage data to improve the management of Alaska's waters, separate legislation, HB 354, has been introduced to provide funding to evaluate the effectiveness of the existing stream gage collection network and recommend locations and priorities for future gaging data. The evaluation would also analyze the effectiveness and limitations of models used to predict flows at ungaged sites.

HOW WILL THE BILL AFFECT MINING, OIL AND GAS DEVELOPMENT, HYDROELECTRIC PROJECTS, FISH PROCESSING PLANTS, FISH HATCHERIES, THE LOGGING AND PULP MILL INDUSTRY, COMMERCIAL RECREATIONAL LODGES?

MINING

THE MINING INDUSTRY IS A LARGE CONSUMER OF WATER AND IS CURRENTLY MANAGED BY VARIOUS WATER AND OTHER LAWS AND REGULATIONS.

ALTHOUGH THE BILL GUARANTEES INSTREAM FLOW PROTECTION FOR FISH, IT IS UNLIKELY IT WOULD NEGATIVELY AFFECT MINING ACTIVITIES.

IT MUST BE REMEMBERED THIS BILL AFFECTS WATER QUANTITY AND IS INDEPENDENT OF WATER QUALITY LAWS, ALTHOUGH IT MIGHT HELP TO MEET WATER QUALITY STANDARDS.

THE MINING INDUSTRY'S USE OF WATER IS GENERALLY SEASONAL, WITH MOST OCCURRING DURING THE SUMMER MONTHS WHEN THE HIGHER FLOWS AND ASSOCIATED WATER SURPLUSES ARE AVAILABLE.

IT WOULD BE UNUSUAL FOR THE NECESSARY WATER DEMANDS OF A TYPICAL MINING OPERATION NOT TO BE MET DURING THE SUMMER MONTHS WHEN FLOWS ARE TYPICALLY HIGHEST.

MOREOVER, IF MINING EFFLUENT DISCHARGE PERMITS WERE TO INCORPORATE DILUTION MIXING ZONE REQUIREMENTS, MINING OPERATIONS WOULD BE BENEFITED BY THE GUARANTEED INSTREAM FLOWS THAT WOULD BE REQUIRED BY THIS BILL.

THE PROPOSED LEGISLATION ANTICIPATES THE USE OF LARGE-SCALE MINING OPERATIONS SUCH AS GREENS CREEK AND U.S. BORAX.

ANOTHER PROVISION OF THE BILL EXEMPTS NON CONSUMPTIVE USES OF WATER. A MINER WITH A NON CONSUMPTIVE WATER USE OPERATION WOULD BENEFIT FROM THIS LEGISLATION IF THE POINT OF TAKE WERE IN A FISH STREAM. THIS IS BECAUSE THE GUARANTEED BASE LEVEL OF INSTREAM FLOWS THAT WAS LEFT IN THE STREAM FOR FISH WOULD ALSO BE AVAILABLE FOR NONCONSUMPTIVE USES.

OIL AND GAS INDUSTRY

THE PRINCIPAL OIL AND GAS INDUSTRY USES OF WATER FROM STREAMS UTILIZED BY FISH AND WILDLIFE INCLUDE CAMP WATER SUPPLIES, DRILLING, ICE ROAD CONSTRUCTION, AND DUST SUPPRESSION.

SINCE 1977, A STATE POLICY HAS PROHIBITED THE INDUSTRY ON THE NORTH SLOPE FROM WITHDRAWING WATER FROM FISH BEARING STREAM REACHES DURING THE LOW FLOW WINTER MONTHS BECAUSE LIMITED WATER QUANTITIES ARE ESSENTIAL TO FISH PRODUCTION.

WATER WITHDRAWALS ARE INSTEAD GENERALLY TAKEN FROM EITHER NON-FISH BEARING REACHES OR RESERVOIRS CONSTRUCTED SPECIFICALLY FOR WATER STORAGE. WATER CAN ALSO BE WITHDRAWN FROM FISH BEARING REACHES OURING PERIODS OF HIGHEST FLOWS IN THE SUMMER IF IT WILL NOT NEGATIVELY AFFECT INSTREAM FLOWS REQUIRED BY FISH AND WILDLIFE.

THIS LEGISLATION WOULD HELP TO CODIFY THIS POLICY AND THEREFORE WOULD NOT SIGNIFICANTLY AFFECT CURRENT WATER USE PRACTICES AND SHOULD HAVE MINIMAL EFFECTS ON THE OIL AND GAS INDUSTRY.

REGARDING THE PROPOSED ANWR OIL FIELD EXPLORATION AND DEVELOPMENT, STUDIES ARE PRESENTLY BEING CONDUCTED WHICH WILL EVENTUALLY BE USED TO DETERMINE WATER AVAILABILITY AND REQUIREMENTS FOR BOTH INSTREAM AND OUT OF STREAM USES. THEREFORE, THIS INFORMATION WOULD BE USED TO ESTABLISH INSTREAM FLOW PROTECTION PROVIDED BY HB 355, IF IT WERE ENACTED.

FURTHERMORE, THE FEDERAL GOVERNMENT MAY BE ABLE TO CLAIM FEDERAL RESERVED WATER RIGHTS (FRWR) FOR THE ANWR AREA. FRWR WOULD NOT BE AFFECTED BY THIS LEGISLATION.

HYDROELECTRIC DEVELOPMENT

AS THE MAJOR USER OF WATER, HYDROELECTRIC DEVELOPMENTS WILL BE AFFECTED BY THIS LEGISLATION, BUT NOT ADVERSELY IMPACTED.

THERE ARE TWO CATEGORIES OF HYDROELECTRIC PROJECTS - THOSE THAT MUST BE LICENSED BY THE FEDERAL ENERGY REGULATORY COMMISSION (FERC); AND SMALL HYDROELECTRIC PROJECTS THAT ARE EXEMPT FROM FERC LICENSING.

FERC HYDROELECTRIC PROJECTS

FERC HYOROELECTRIC LICENSING PROCESSES CURRENTLY REQUIRE QUANTIFICATION AND PROTECTION OF INSTREAM FLOWS OR ADEQUATE MITIGATION. A RECENT RULING OF THE U.S. SUPREME COURT HELD THAT ALL FERC LICENSED PROJECTS ARE EXEMPT FROM STATE WATER LAWS. UNTIL THIS RULING IS REVERSED OR MODIFIED, HB 355 WOULD NOT APPLY TO FERC LICENSED HYDROELECTRIC PROJECTS.

HOWEVER, FOR INFORMATIONAL PURPOSES, FERC'S GUIDELINES FOLLOW:

SECTION 4.41, PARAGRAPH 12.041 OF THE FERC REGULATIONS REQUIRES THE APPLICANT TO PROVIDE A REPORT THAT ADDRESSES INSTREAM FLOWS AND THE IMPACTS OF THE PROJECT ON INSTREAM FLOWS. THE REPORT MUST ALSO DESCRIBE IMPACTS ON FISH AND WILDLIFE AND PLANNED ACTIONS FOR MITIGATION OF NEGATIVE IMPACTS. THIS REPORT MUST BE PREPARED IN CONSULTATION WITH STATE AND FEDERAL FISH AND WILDLIFE AGENCIES.

FLOWS ARE NEGOTIATED DURING THE FINAL LICENSING PHASE OF THE PROJECT.

THE PROPOSED LEGISLATION WOULD NOT CHANGE THE WAY FERC HYDROELECTRIC PROJECTS ARE PERMITTED AND LICENSED.

NON FERC PROJECTS

SMALL HYDROELECTRIC PROJECTS LOCATED IN FISH AND WILDLIFE HABITAT THAT ARE EXEMPTED FROM FERC LICENSING ARE REGULATED BY ADF&G TITLE 16 AND ADNR TITLE 46 PROVISIONS AND IN SOME INSTANCES FEDERAL LAW. HOUSE BILL 355 WOULD GUARANTEE INSTREAM FLOW PROTECTION.

FISH PROCESSING INDUSTRY AND HATCHERIES

THE FISH PROCESSING INDUSTRY IS A MAJOR USER OF WATER. PERMITS TO APPROPRIATE WATER FROM FISH BEARING STREAMS WOULD BE SUBJECT TO THE INSTREAM FLOW REQUIREMENTS OF THIS LEGISLATION. HOWEVER, MANY FISH PROCESSING OPERATIONS ALREADY HAVE WATER RIGHTS OR THEIR REQUIREMENTS IN COMBINATION WITH INSTREAM FLOW REQUIREMENTS WOULD NOT EXCEED WATER AVAILABILITY.

MOST FISH HATCHERIES HAVE EXISTING WATER RIGHTS THAT ARE GRANDFATHERED BY THIS LEGISLATION. EXISTING STATUTES AND REGULATIONS REQUIRE NON PROFIT HATCHERIES TO OPERATE IN A MANNER IN WHICH THEY WILL NOT IMPACT INSTREAM FLOWS REQUIRED BY FISH IN THE NATURAL ENVIRONMENT.

BOTH FISH PROCESSING AND HATCHERY WATER VENTURES USUALLY PERFORM DETAILED HYDROLOGICAL EVALUATIONS TO INSURE THAT A WATER SUPPLY IS ADEQUATE BOTH IN QUANTITY AND QUALITY BEFORE INVESTING THEIR MONEY AND RESOURCES INTO THESE VENTURES. THIS SAME INFORMATION COULD BE USED IN AN INSTREAM FLOW ASSESSMENT.

LOGGING INDUSTRY

IF PASSED, NEW APPLICATIONS FOR WATER APPROPRIATIONS WOULD BE SUBJECT TO ITS PROVISIONS. FOR THE LOGGING INDUSTRY, ACTIVITIES THAT COULD BE AFFECTED BY THE LEGISLATION WOULD PRIMARILY INCLUDE WATER SUPPLIES FOR LOGGING CAMPS AND PULP MILL OPERATIONS. HOWEVER THIS PROPOSED LEGISLATION WOULD PROBABLY HAVE MINIMAL IMPACT ON THESE WATER USERS.

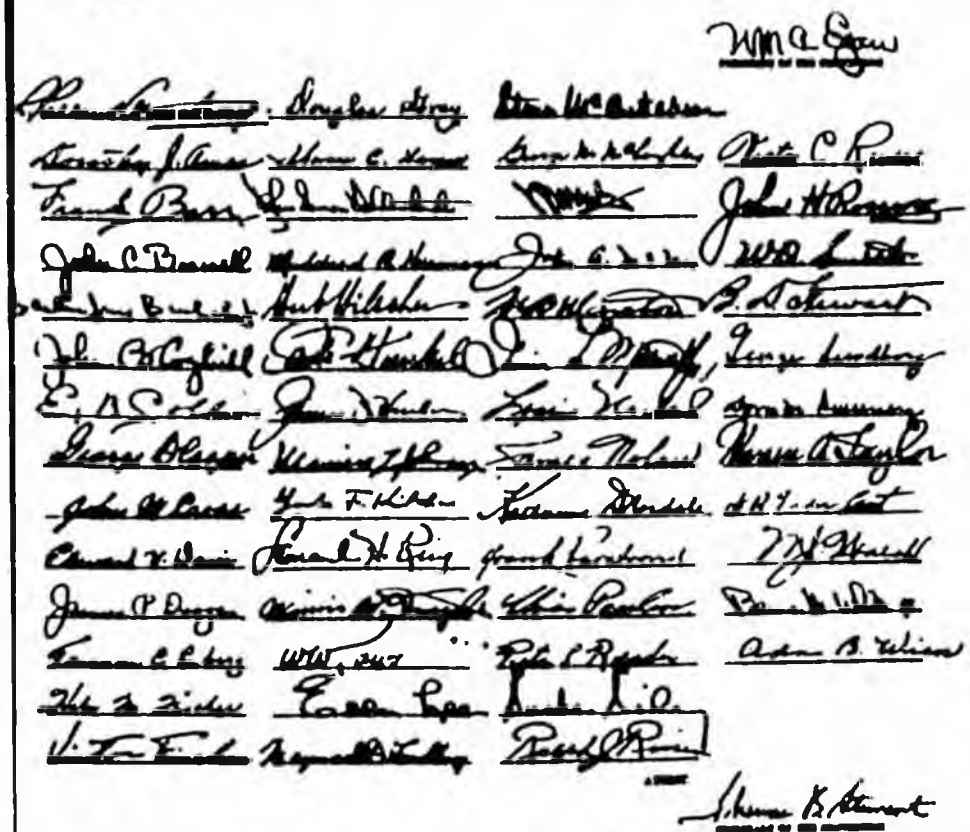
LOGGING CAMPS ARE USUALLY SITUATED IN REMOTE LOCATIONS WHERE THERE IS LITTLE OR NO PRIOR COMPETITION FOR OUT OF STREAM WATER APPROPRIATIONS. THEREFORE, WATER REQUIREMENTS BY LOGGING CAMPS ARE UNLIKELY TO EXCEED THE AVAILABILITY OF WATER FOR INSTREAM FLOWS AND OUT OF STREAM USES DURING THE SUMMER MONTHS.

PULP MILLS ARE LARGE CONSUMERS OF WATER. HOWEVER, WATER RIGHTS FOR THE TWO PULP MILLS IN ALASKA WERE GRANTED SEVERAL DECADES AGO AND ARE GRANDFATHERED BY THIS LEGISLATION. THERE ARE NO KNOWN PLANS FOR ADDITIONAL PULP MILLS IN ALASKA AT THIS TIME.

Alaska's Constitution
A Citizen's Guide

GORDON S. HARRISON

Agreed upon by the delegates in Constitutional Convention assembled at the University of Alaska, this fifth day of February, in the year of our Lord one thousand nine hundred and fifty-six, and of the Independence of the United States the one hundred and eightieth.



$2.00

Section 13. Water Rights

> 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.

This section continues the traditional right to use water on a "first-come-first-served" basis. This method differs from an early method of acquiring water rights used historically on the East Coast. Known as the "riparian method," it allocated water rights to owners of the stream bank. In Alaska and the other western states, however, water rights were traditionally acquired by actual use of the water. Under this constitutional provision, which is further developed in state statute and regulation, a prior user of water has preference to it, but his rights may be withdrawn or limited as necessary to protect public interests.

Section 14. Access to Navigable Waters

> 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.

Citizens have the right to use publicly owned lakes and streams. The state may not deny this use except by a general law that protects a public interest. For example, the state may keep people away from a lake that supplies drinking water to a town, or build a dam on a river, but it may not prevent the public from fishing in a public lake because it wants to protect the interest of nearby private fishing lodges. Disposals of state owned land along navigable waters must reserve a public access easement.

Section 15. No Exclusive Right of Fishery

> 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 second sentence of this section was added in 1972 by amendment. In the mid 1960s, Alaska's major salmon fisheries were in bad shape: too few fish, too many fishermen, and low prices.

Alaska Statutes

Title 46. Water, Air, Energy, and Environmental Conservation.

Chapter 15. Water Use Act.

Article 1. Administration.

Sec.46.15.010. Determination of water rights. The Department of Natural Resources shall determine and adjudicate rights in the waters of the state, and in its appropriation and distribution. (§ 1 ch 50 SLA 1966)

Sec. 46.15.020. Authority and duties of the commissioner. (a) The commissioner shall exercise all those powers and do all those acts necessary to carry out the provisions and objectives of this chapter. The commissioner may

(1) enter into contractual agreements necessary to carry out the provisions of this chapter including agreements with federal, state and local agencies;

(2) apply for, accept, administer and expand grants, gifts, and loans from the federal government and any other public or private sources for the purpose of this chapter, and adopt procedures and do acts not otherwise restricted by law which are necessary to qualify the state to receive grants, gifts and loans;

(3) establish a division of water in the Department of Natural Resources and assign to that division the responsibility for carrying out the provisions of this chapter.

(b) The Commissioner shall

(1) adopt procedural and substantive regulations to carry out the provisions of this chapter, taking into consideration the responsibilities of the Department of Environmental Conservation under AS 46.03 and the Department of Fish and Game under AS 16;

(2) Keep a public record of all applications for permits and certificates and other documents filed in his office; and shall record all permits and certificates and amendments and orders affecting them and shall index them in accordance with the source of the water and the name of the applicant or appropriator;

(3) cooperate with, assist, advise and coordinate plans with the federal, state and local agencies in matters relating to the appropriation, use, conservation, quality, disposal or control of waters and activities related thereto,

(4) prescribe fees or service charges for any public service rendered. (§ 1 ch 50 SLA 1966; am § 6 ch 104 SLA 1971, am § 50 ch 71 SLA 1972)

Legislative committee report. For report on ch. 71, SLA 1972 (HB 988 am H), see 1972 House Journal, p. 898.

Article 2. Appropriation and Use of Water.

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 in-stream flows and levels of water, as provided in this chapter. (§ 1 ch 50 SLA 1966; am § 4 ch 84 SLA 1980)

Effect of amendment. — The 1980 amendment, effective June 19, 1980, inserted "and to reservation of instream flows and levels of water" near the end of the section.

Pursuant to the Alaska Statehood Act, the Submerged Lands Act of 1953 applies to Alaska. Alaska Pub. Easement Defense Fund v. Andrus, 475 F. Supp. 664 (D. Alas. 1977).

Ownership and control of land under navigable waters. — The court takes judicial notice of the fact that Alaska lies westward of the 98th meridian. Thus, under federal law, ownership and control of the land under navigable waters is confirmed in the state. Alaska Pub. Easement Defense Fund v. Andrus, 475 F. Supp. 664 (D. Alas. 1977).

Ownership of ground and surface waters is to be determined according to state law. Under the Alaska Constitution and state law, the right to use such waterways is placed in the people of the state. Alaska Pub. Easement Defense Fund v. Andrus, 475 F. Supp. 664 (D. Alas. 1977).

Purpose of easement along courses of major waterways is to provide a place for docks, campsites and such facilities to service those who are properly using the public waters. This purpose is apparently accommodated by the reservation of such easements under the order of the Secretary of the Interior. Alaska Pub. Easement Defense Fund v. Andrus, 475 F. Supp. 664 (D. Alas. 1977).

INSTREAM FLOW PROTECTION IN THE WEST

Edited by Lawrence J. MacDonnell,
Teresa A. Rice, and Steven J. Shupe

Natural Resources Law Center
University of Colorado School of Law

Natural Resources Law Center

Chapter 8

Appropriation Of Instream Flows In Alaska

Mary Lu Harle

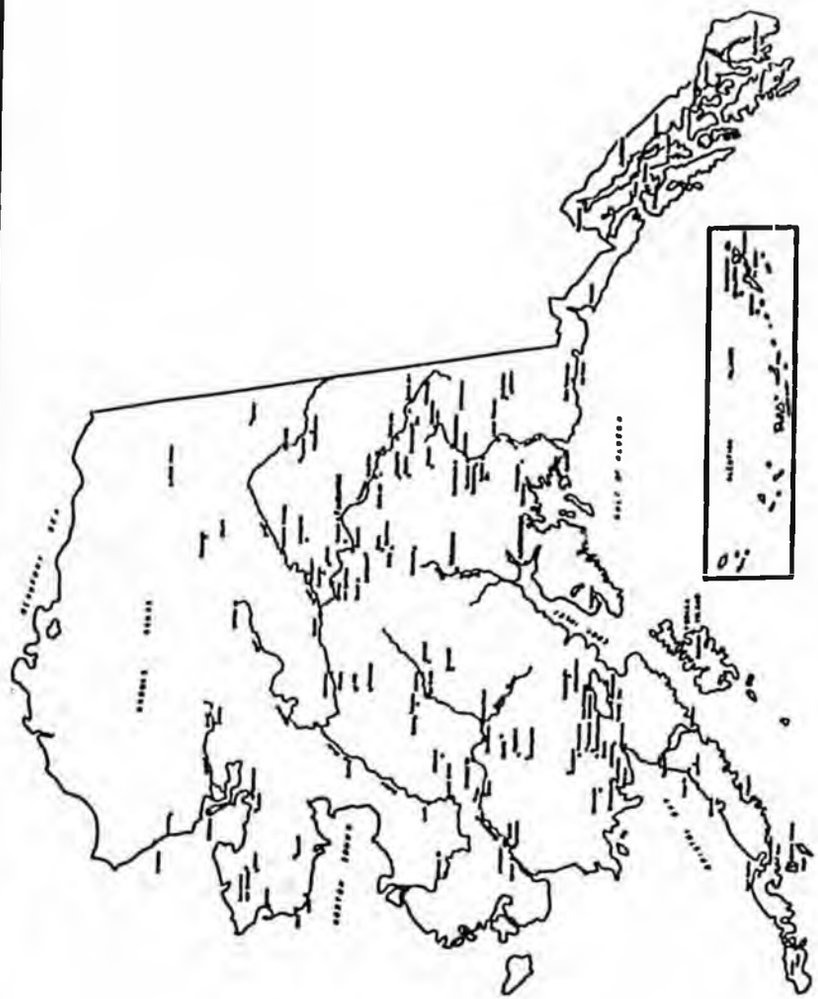
Introduction

Alaska is a water rich state with its abundant and widespread rivers, lakes, snowfields, glaciers, and even muskeg and wet tundra areas. Glacial ice covers 17,000 square miles in Alaska or about five percent of the total area of the state. Seasonal snow covers most of the state for one-half to three-quarters of the year. The Yukon River ranks fifth in size in the United States, and six Alaskan rivers (Yukon, Copper, Stikine, Susitna, Kuskokwim, and Tanana) are among the 30 largest U.S. rivers (See Figure 1). Alaskan lakes are so numerous that they are essentially uncounted. Alaska's largest lake, Lake Illiamna, has a surface area of 1,000 square miles.[1] Although Alaska has abundant stream flow, it is not always distributed evenly in time and space.

Traditionally, instream uses of water have been important to support the state's people and economy. Alaskan natives have depended upon subsistence use of fish and wildlife for their livelihood. Larger rivers have been important transportation corridors for river boats, barges, and paddlewheel boats to move goods and people into the Interior. More recently, float planes are an important mode of transportation using lakes and rivers to land and gain access to remote areas. Frozen rivers are important winter transportation corridors. The state's many streams support numerous species of fish important to the state's commercial and recreational fishing industries. Recreation and tourism are big business in Alaska, for sport fishing and hunting, canoeing, kayaking, rafting, hiking, camping, and sightseeing.

As with other states, however, urbanization and resource development are resulting in conflicts over water use. Water quantity and quality for placer mining operations compete and conflict with recreational boating, fishing, and community water supply systems. Hydroelectric development is sometimes incompatible with fishery needs, and public water supply needs can conflict with habitat needs for fish. The viability of the state's commercial, sport fishing, and other aquaculture industries, petroleum and mining industries, recreation and tourism industries, hydroelectric power projects, and public and domestic water supplies are all dependent on the quality and quantity of the state's water resources.

Figure 1. Geographic Map of Alaska.



Alaska Water Law

Early Doctrines

The doctrine of prior appropriation, developed by the gold miners of California, spread throughout the West and came to Alaska via Oregon, whose laws relating to real estate and water were made applicable to the District of Alaska.[2] In 1917, five years after Alaska became a territory, the territorial legislature enacted a statute embracing an aspect of the riparian doctrine, which gave the locator of mining claims covering both banks of a stream the right to use as much water as necessary for working the claim.[3] In 1953, the English rule of absolute ownership of groundwater was applied to Alaska by a federal district court.[4] The doctrine of prior appropriation, the limited riparian right for miners, and absolute ownership of ground water were the legacy of water law left by the Territory of Alaska to the State of Alaska.[5]

Alaska's Constitution

When Alaska was admitted to the Union in 1959, the importance of Alaska's water resources was not overlooked in the development of its constitutional and statutory law. Alaska's Constitution established that the state's resources are to be managed as a public trust, and that water will be allocated under the doctrine of prior appropriation.[6] The Alaska Constitution, article VIII, section 3 states that "Wherever occurring in their natural state, fish, wildlife, and waters are reserved to the people for common use". Section 13 expands the concept by reserving all surface and subsurface waters to the people for common use, makes them subject to appropriation, and provides that prior appropriation gives prior right. Public water supply is the only constitutionally recognized preferred use. The constitution goes on to state that appropriations are subject to preferences established by law and the general reservation of fish and wildlife. This general reservation of fish and wildlife clause, at a minimum, enables the Alaska Legislature to enact a law to authorize reservation of water for the protection of fish and wildlife. Read most broadly, it is a mandate to reserve waters for fish and wildlife. At present, there has been no court determination as to whether the constitution enables or requires the Alaska Legislature to authorize such a reservation.[7]

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CORRECTION

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HAS BEEN REPHOTOGRAPHED
TO ASSURE LEGIBILITY

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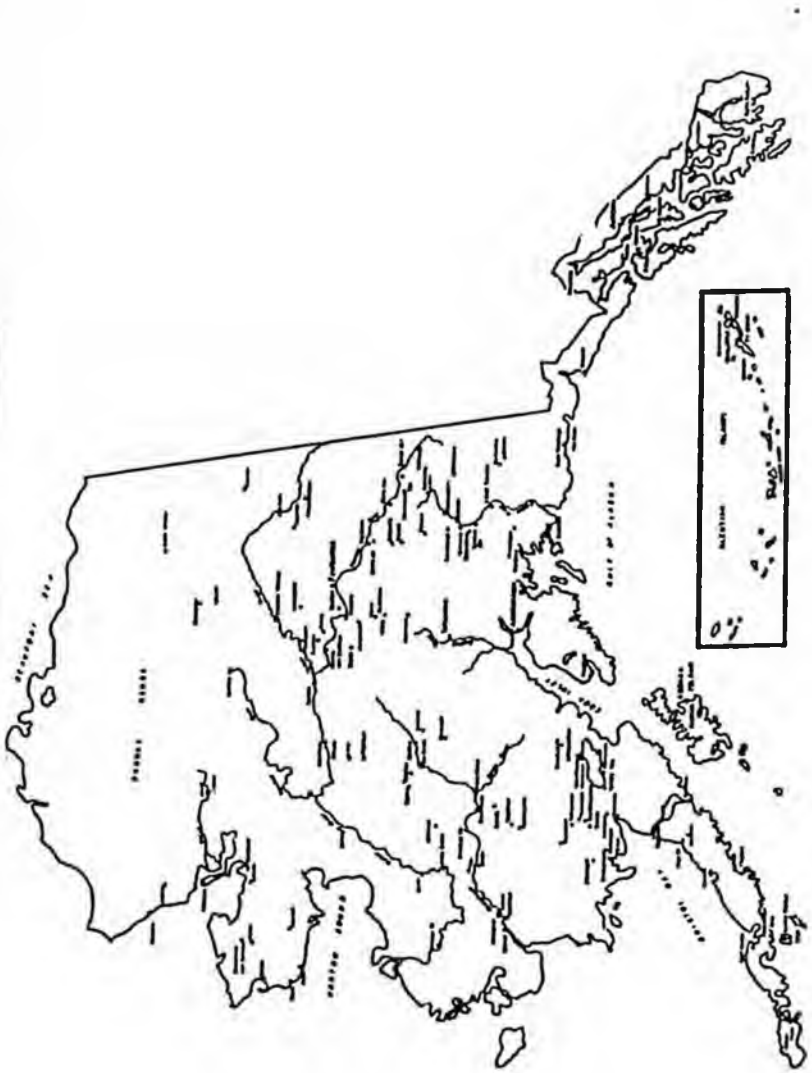

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of the proposed code relating to appropriation and use of water were enacted in 1966 as the Alaska Water Use Act.[8] While the original code contained provisions to reserve minimum flows for instream uses, that portion of the code was not enacted.

The Alaska Water Use Act

The Alaska Water Use Act established procedures to maintain existing rights and to obtain new rights to divert, impound, or withdraw surface and ground waters in the state. The Alaska Department of Natural Resources (DNR) is assigned the responsibility to determine and adjudicate water rights and to administer the act. The statutory procedure for obtaining water rights requires filing an application for water rights with DNR. After public notice, a permit to appropriate may be issued, granting the right to develop a water source and establish beneficial water use. Once water is being beneficially used and the permit conditions have been met, a certificate of appropriation is issued. Water rights may be sold, leased, or transferred with the permission of DNR.

Even though specific provisions to reserve instream flows were not included, the Water Use Act as enacted in 1966 allowed limited protection for instream water uses. The act included sanitary, fish and wildlife, and recreational uses as beneficial uses. The commissioner has clearly defined criteria to follow when adjudicating a water right which includes effects on fish and game resources, recreation, and public health. These criteria, as set forth in the statute, are as follows:

(a) The commissioner shall issue a permit if he/she finds that:
  (1) the rights of a prior appropriator 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.

(b) 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.[9]

Further, a permit may be issued subject to terms, conditions, restrictions and limitations necessary to protect the rights of others and the public interest.[10]

Under this authority DNR occasionally issued permits on a case-by-case basis conditioned to maintain stream flows for fish and wildlife, but the procedure was of limited value as a management tool. The permits were usually conditioned at the request of the Alaska Department of Fish and Game (ADF&G), when supporting data was provided. Frequently, obtaining the basic stream flow and biological data to support a minimum flow was difficult and expensive, and could not be collected and analyzed in time to develop a permit condition. When a flow release condition was included on a permit, DNR was then required to repeat the flow release conditions on subsequent junior permits on that stream. A clearer procedure was needed to legally establish and maintain instream flows.

In 1976, DNR contracted with Frank Trelease to evaluate Alaska's water resources planning and administration of water rights. One of his recommendations was that the Water Use Act be amended to authorize state departments and agencies to apply to DNR for reservations of flows for fish and wildlife and water quality purposes. His report also contained a proposed bill to accomplish this recommendation. Dean Trelease's bill was introduced in the Alaska Legislature in 1977.

Alaska's Instream Flow Law

After considerable debate, instream flow amendments to the Water Use Act were enacted in 1980. Three main issues were important to passage of these amendments:

- the State's need for a clear administrative process to adjudicate instream water rights that might be asserted by the federal government;
- the fishing industry's and fishery management agencies' concern that there was no legal mechanism to establish water rights to maintain stream flows for fish habitat and production, other than by putting conditions on DNR water rights permits; and
- concern that reduced stream flows might affect water quality conditions downstream from municipal treatment plants and mining operations.[11]

The instream flow law amended the Water Use Act in three important ways. First, a reservation of water for instream use was defined as an appropriation. Second, navigation, transportation, and maintenance

of water quality were added as beneficial uses. Finally, a new section was added detailing the process of reserving water for instream uses.[12]

The instream flow statute allows any local, state, or federal government agency or any private person to apply for a reservation of water for one of the recognized instream uses. A reservation of water is a water right to maintain a specified instream flow or level of water at a specific point or part of a stream or water body throughout the year or for specified times. The Alaska instream flow statute is unique among states that have instream flow laws because it allows private citizens and organizations to apply for an instream or lake level reservation. Four instream uses are recognized under Alaskan law:

- protection of fish and wildlife habitat, migration, and propagation;
- recreation and park purposes, which by regulation include contact and secondary recreation and park purposes including scenic, natural, historic, or cultural values;
- navigation and transportation purposes, including by regulation boats or float planes and tracked or wheeled vehicles during the winter; and
- sanitary and water quality purposes.

The statute also provides for quantification of instream water uses, establishment of a priority date, and issuance of a certificate of reservation under the state's existing water rights system.

Procedure For Establishing An Instream Flow

Regulations implementing the instream flow statute require that the following information be included in an application for reservation of water:

- the purpose of the proposed reservation;
- the name of the stream or water body in which water is proposed to be reserved and a map showing the location of the proposed reservation;
- an explanation of the need for the reservation and reasons why the reservation is being requested;
- the quantity of water, stage, or surface water elevation proposed to be reserved;
- the time period during which the reservation is requested; and
- data substantiating the need for and the quantity of water requested for the proposed reservation.

A filing fee is also required. The date and time that a complete application is accepted by DNR establishes the priority date for the application.

After a complete application has been accepted and adjudication has begun, notice must be given by the applicant. Public notice is required once in a newspaper of general distribution in the vicinity of the proposed reservation of water. In addition, individual notice must be served on:

- prior appropriators who may be affected by the proposed reservation of water;
- the Alaska Departments of Fish & Game and Environmental Conservation;
- any federal, state, or local government agency in whose jurisdiction the proposed reservation of water would occur; and
- any other interested parties on file as requesting notice.

Hearings on a proposed reservation of water may be held if determined necessary. Finally, the commissioner must issue a certificate of reservation if four criteria are met. These criteria are: (1) the rights of prior appropriators will not be affected by the reservation; (2) the applicant demonstrate a need for the reservation of water; (3) there is unappropriated water in the stream or water body sufficient for the reservation; and (4) the proposed reservation is in the public interest. The public interest criteria for diversionary water uses is applied to evaluate instream uses of water.[13] The decision by DNR to grant, conditionally grant, or deny an application for reservation of water must be in writing.

Certificates of reservation are, by regulation, issued to the applicant and may be subject to conditions. The applicant is responsible for compliance with the conditions. Regulations specify that two conditions must be included on certificates of reservation. First, the certificate of reservation may not be abandoned, conveyed, transferred, assigned, or converted to another use without the approval of DNR. Second, the certificate holder may not restrict access to, on, or through the reserved water or prohibit the use of the reserved water by other compatible instream uses. Once a reservation of water is granted, the water is withdrawn from diversionary appropriation.

Review Of Instream Reservations

Unlike diversionary water rights, reservations of water for instream uses must be reviewed at least once every ten years but can be reviewed any time within the ten year period if necessary.[14] The review is to determine if:

- the purpose and need for the reservation still apply;
- the reservation affects prior appropriators or the public interest;
- new information is available about the reservation;
- the quantity or level of water reserved is adequate for the purposes of the reservation;

- the time periods still apply; and
- additional data collection or analysis is required to review the reservation.

Notice of the review is given to gather information that may assist in the review. At the conclusion of the review, findings are written and the certificate of reservation is continued, amended, or revoked.

Private Appropriation Of Instream Water Rights

Authority Under State Law

Under Alaska law, the state, a political subdivision of the state, an agency of the United States, or a person may apply for a reservation of water for instream use.[15] The statute defines person to include individuals, partnerships, associations, and public or private corporations.[16] Alaska's law therefore allows direct private sector participation to select, apply for, and maintain instream flows.

Private sector reservation of instream flows was not originally envisioned when the instream flow law was written. Dean Trelease first recommended an instream flow law for Alaska in 1962 and in 1976 drafted an instream flow bill for the State. This proposed bill allowed only the state and its political subdivisions to apply to reserve instream flows. The Governor introduced an instream flow bill in 1977. This and subsequent versions allowed the state, its political subdivisions, and agencies of the United States to apply for instream flows. Agencies of the United States were included to allow the federal government to file for instream water rights under either the state system or to claim a federal reserved water right. During legislative hearings, the placer mining industry lobbied to allow private individuals and companies to apply to reserve instream flows to dilute effluent from placer mining operations. The instream flow legislation enacted in 1980 included a provision to allow private persons to reserve instream flows.[17]

Grantee Of Certificate Of Reservation

Upon passage of the instream flow bill, the Attorney General's office prepared a bill analysis for the Governor which raised the question of to whom the certificate of reservation should be issued. While the bill allowed private parties to apply for reservations of water, it did not address the question of who would receive and be responsible for the reservation if the application was granted. Presumably because of public trust concerns, the Attorney General concluded that a certificate reserving flows should be issued to that government agency which DNR determines is the most appropriate trustee for each reservation.[18]

When DNR began drafting regulations under the instream flow statute, it determined that all certificates of reservation should be granted to DNR, as trustee for the public. However, during public review, this concept was questioned, and DNR considered a variety of options, including:

- granting reservations to DNR as trustee for the public;
- granting reservations to DNR as trustee for the public, then assigning them to an appropriate state agency;
- granting reservations to appropriate state agencies as trustee for the public;
- granting certificates to the applicant as trustee for the public;
- granting certificates jointly to the applicant and DNR as trustees for the public; and
- introducing legislative amendments to limit application for and granting of reservations solely to government agencies.

A number of practical questions were raised when these options were considered. The person or agency granted the reservation might potentially bear fiscal burdens to monitor and comply with certificate conditions and to conduct additional field work and analysis when determined necessary at the certificate review stage. Granting reservations to DNR, or divisions within DNR (such as the Division of Parks and Outdoor Recreation), might raise conflict of interest concerns. State agencies might not want to be responsible for reservations initiated by private groups or persons.

In the end, because the statutory and legislative intent was clearly to allow private parties to apply for reservations for instream flows, the State adopted a regulation granting the reservation of water to the applicant, even if the applicant is a private person or organization.[19]

Alaska's Experience Administering Instream Flows

Applications For Instream Flows

Since adoption of the instream flow regulations in September, 1983, 23 applications have been filed. Table 1 summarizes these applications. Two applications were filed by the Anchorage Audubon Society for instream flows in two Anchorage streams, Rabbit Creek and Little Rabbit Creek. These first two applications were denied because regulations had not yet been adopted. These applications were again filed by the Anchorage Audubon Society once regulations were adopted, but were again denied by DNR, this time because of poor documentation of the requested flows. As a result, however, local and state agencies cooperatively installed gages on these streams and, in 1987, the Alaska Department of Fish and Game (ADF&G) filed applications for these two

Table 1. Summary of Instream Flow Applications, 1983-1988.

Applicant	Use	Water Body	Status
Anchorage Audubon Society	Fish Habitat	Rabbit Creek (Anchorage)	Denied - no regulations
Anchorage Audubon Society	Fish Habitat (Anchorage)	Little Rabbit Creek	Denied - no regulations
Anchorage Audubon Society	Fish Habitat	Rabbit Creek (Anchorage)	Denied - lack of documentation to quantify
Anchorage Audubon Society	Fish Habitat	Little Rabbit Creek (Anchorage)	Denied - lack of documentation to quantify
Private Person	Water Quality	Unnamed Creek (Kenai Peninsula)	Denied - no data provided to quantify
Private Person	Transportation	Mackey Lake (Kenai Peninsula)	Denied - lake level not specified
ADF&G	Fish Habitat	Terror River (Kenai Peninsula)	Granted
ADF&G	Fish Habitat	Rabbit Creek (Anchorage)	Granted
ADF&G	Fish Habitat	Little Rabbit Creek (Anchorage)	Granted
ADF&G	Fish Habitat	Little Survival Creek (Anchorage)	Granted
ADF&G	Fish Habitat	Willow Creek (Matanuska Valley)	Granted
ADF&G	Fish Habitat	Little Susitna River, Upper Reach (Matanuska Valley)	Pending Adjudication
BLM*	Fish & Wildlife Habitat, Recreation, Navigation Water Quality	Beaver Creek Wild & Scenic River (Interior)	Pending Adjudication
ADF&G	Fish Habitat	Lower Chena River Reach A (Fairbanks)	Pending Adjudication
ADF&G	Fish Habitat	Lower Chena River Reach B (Fairbanks)	Pending Adjudication
ADF&G	Fish Habitat	Upper Fish Creek (Matanuska Valley)	Pending Adjudication
ADF&G	Fish Habitat	Lower Fish Creek (Matanuska Valley)	Pending Adjudication
ADF&G	Fish Habitat	Cottonwood Creek (Matanuska Valley)	Pending Adjudication
ADF&G	Fish Habitat	Meadow Creek (Matanuska Valley)	Pending Adjudication
ADF&G	Fish Habitat	Middle Reach Little Susitna River (Matanuska Valley)	Pending Adjudication
ADF&G	Fish Habitat	Lower Campbell Creek (Anchorage)	Pending Adjudication
ADF&G	Fish Habitat	Ketchikan Creek (Ketchikan)	Pending Adjudication
ADF&G	Fish Habitat	Sawmill Creek (Sitka)	Pending Adjudication

* State instream flow reservation application; not a claimed federal reserved water right.

streams.[20] One application was filed by an individual to protect the water quality of the creek that was his domestic water supply. Another application was filed by an individual to maintain a lake level for boating and to protect property values. Both of these applications were denied because they failed to request a specific flow or lake level. The ADF&G has filed 16 applications for fisheries purposes and the Bureau of Land Management has filed one state application to reserve flows in Beaver Creek Wild and Scenic River.

DNR encourages public agencies as well as private persons or organizations to apply for instream water rights. The "State of Alaska Instream Flow Handbook - A Guide to Reserving Water for Instream Use" was published to explain the program, methods that could be used to quantify instream flows, and how to apply. Private recreational organizations have inquired about protecting flows for canoeing and kayaking.

The ADF&G is the most active entity in filing for instream flows. In July, 1986, the ADF&G established an instream flow program and filed applications for six stream reaches during fiscal year 1987, completed ten more reservation applications during fiscal year 1988, and plans to file at least ten applications for reservations in each subsequent year.[21]

Current Problems With Instream Flow Appropriations

There are many reasons believed to contribute to the low number of applications filed for instream flows under Alaska's law, by both the public and private sectors. First, and most importantly, is the lack of baseline hydrologic data in Alaska. There are over 8,400 named streams in Alaska and many more un-named streams. Of them, only 160 have continuous historical flow records of ten or more years, 55 have a record length of five to nine years, and 95 have a record length of one to four years. A few streams have short-term seasonal records. The remaining streams have no continuous record.[22]

Equations to estimate average monthly stream flows have been developed for Southeastern Alaska and for the Cook Inlet Region. Equations to estimate only average annual flows have been developed for the rest of Alaska. Using these equations produces only estimated stream flows, thus using them without field testing could result in instream flow reservations that are either more or less than what is actually needed for particular instream uses.[23]

In Alaska, the burden of proof is on the applicant to provide hydrologic data necessary to support an instream flow application. The use of a specific method to quantify a requested instream flow is not required by either Alaska's instream flow law or regulations. Uncertainty in choosing a particular methodology, then the time and expense

to collect and analyze the data are also likely contributing factors to the paucity of instream flow applications that have been submitted.

Even if a clear quantification method were endorsed by the state, there would still be limited interest in expending the time and resources to quantify instream reservations. Most of Alaska's streams and water bodies are not over-appropriated and have not yet experienced water use competition, as in other western states.

In addition to the lack of basic hydrologic data, there is a lack of fisheries data for many regions of Alaska. Specific data on water depth, velocity, discharge, and substrate for the various life stages of fish species is needed for the more complex, site specific instream flow models.

Finally, concern has been expressed about the establishment of the priority date under the present administrative procedures for adjudicating reservations for instream flows. The law provides that the priority date is established when a complete application is accepted. Regulations presently require that the requested instream flow be fully quantified at the time the application is filed. There is concern that this gives a diversionary water use applicant an unfair advantage in establishing a priority date. The diversionary applicant must only detail his plans, estimate, and justify the requested water use in order to establish a priority date and obtain a permit to develop and begin beneficial water use. This justification is much easier because information exists for water requirements for specific uses. DNR is revising the instream flow regulations to correct this inequity by allowing an instream flow applicant time to complete quantification of the requested reservation after the application has been filed.

Conclusion

Alaska's law allowing the reservation of water for instream uses is a forward looking law. It is unique because it allows private persons and organizations as well as local, state, and federal agencies to participate in the process of reserving flows and lake levels. It is a valuable management tool in Alaska. This is evidenced by increasing interest from local, state, and federal agencies, environmental organizations, and Alaska Native corporations to file applications as well as participate in the public notice process during adjudication. In addition, the Alaska Legislature in May, 1988 enacted a law establishing six recreational river systems in Southcentral Alaska.[24] The bill mandates that instream flow reservations be established on these rivers to protect their flows for recreational purposes. As the hydrologic and biological data base continues to grow and competition for water use increases, the law will be more frequently used and become increasingly more important in managing Alaska's water resources. Finally, because of the time and expense required to submit an instream flow application under the present law, there is some interest in the state to enact a more far-reaching general reservation for all anadromous streams. There is a potential that such legislation will be introduced in the Alaska Legislature in upcoming years.

References

Alaska Bar Association, Natural Resources Law Section, 1986. Natural Resources and the Public Trust. Anchorage, Alaska.

Alaska Department of Natural Resources, Division of Land and Water Management, 1985. State of Alaska Instream Flow Handbook - A Guide to Reserving Water for Instream Use, Anchorage, Alaska.

Alaska Department of Natural Resources, Division of Land and Water Management, 1981. State of Alaska Water User's Handbook, Anchorage, Alaska.

Curran, H. J., and L. P. Dwight, 1979. Analysis of Alaska's Water Use Act and its Interaction with Federal Reserved Water Rights. Institute of Water Resources. University of Alaska, Fairbanks, Alaska.

Estes, C. C., 1984. Evaluation of Methods for Recommending Instream Flows to Support Spawning by Salmon. Unpublished M.S. Thesis, Washington State University, Pullman, Washington.

Estes, C. C., and J. F. Orsborn, 1986. Review and Analysis of Methods for Quantifying Instream Flow Requirements. Water Resources Bulletin (22)3, American Water Resources Association, Bethesda, Maryland.

Estes, C. C., and M. L. Harle, 1987. Alaska's Instream Flow Program. Instream Flow Chronicle, Colorado State University, Fort Collins, Colorado.

Harle, M. L., 1986. Reserving Instream Flows in Alaska. Proceedings of the Third Annual Western States Water Council Water Management Symposium. Western States Water Council, Salt Lake City, Utah.

Ott, A. and K. Tarbox, 1977. Instream Flow, Applicability of Existing Methodologies for Alaskan Waters. Prepared for the Alaska Department of Fish and Game and Alaska Department of Natural Resources, Woodward and Clyde Consultants, Anchorage, Alaska.

Trelease, F. J., 1962. A Water Code for Alaska - A Report to the State of Alaska. University of Wyoming, College of Law, Laramie, Wyoming.

Trelease, F. J., 1976. Recommendations for Water Resources Planning and

Administration - A Report to the State of Alaska Department of Natural Resources. University of Wyoming, College of Law, Laramie, Wyoming.

White, M. R., 1982. Opportunities to Protect Instream Flows in Alaska. U.S. Fish and Wildlife Service, Department of the Interior, Washington, D.C.

Notes

1 ALASKA DEPARTMENT OF NATURAL RESOURCES AND U.S. GEOLOGICAL SURVEY, ALASKA WATER RESOURCES EVALUATION 5-Year Plan, 1985-1989 4(1985).

2 Revenue Mining Co. v. Balderston, 2 Alaska 363 (1905).

3 1917 Alaska Sess. Laws, ch. 57 (codified at ALASKA STAT. § 27.10.080 (Supp. 1962) and § 38.05.260 (Supp. 1965), *repealed by* 1966 Alaska Sess. Laws, ch. 50, § 2.

4 Trillingham v. Alaska Housing Authority, 14 Alaska 202, 203, 109 F.Supp. 924, 925 (1953).

5 H. CURRAN & L. DWIGHT, ANALYSIS OF ALASKA'S WATER USE ACT AND ITS INTERACTION WITH FEDERAL RESERVED WATER RIGHTS 2 (Institute of Water Resources, University of Alaska, 1979).

6 G. HARRISON, A CITIZEN'S GUIDE TO THE CONSTITUTION OF THE STATE OF ALASKA 68 (Institute of Social and Economic Research, University of Alaska, 1982).

7 H. CURRAN & L. DWIGHT, *supra* note 5, at 22.

8 ALASKA STAT. § 46.15.010 to -.270 (1987).

9 ALASKA STAT. § 46.15.080 (1987) (emphasis added).

10 ALASKA STAT. § 46.15.100 (1987).

11 ALASKA DEPARTMENT OF NATURAL RESOURCES, STATE OF ALASKA INSTREAM FLOW HANDBOOK - A GUIDE TO RESERVING WATER FOR INSTREAM USE 6 (1985).

12 ALASKA STAT. § 46.15.145 (1987).

13 *See* ALASKA STAT. § 46.15.080 (1987).

14 ALASKA STAT. § 46.15.145(f)(1987).

15 ALASKA STAT. § 46.15.145 (1987).

16 ALASKA STAT. § 46.15.260(8)(1987).

17 Personal Communications with Brent N. Petrie, Alaska Power Authority (Jan. 13, 1988).

18 Memorandum from Wilson L. Condon, Attorney General, to Governor Jay S. Hammond (Alaska Department of Law, Attorney General's Office, June 16, 1980).

19 11 ALASKA ADMIN. CODE § 93.146(b)(1983).

20 C. ESTES, INSTREAM FLOW, FISHERIES DATA SERIES NO. 23, FEDERAL AID IN SPORTFISH RESTORATION ANNUAL REPORT 6 (Alaska Department of Fish and Game, Division of Sport Fisheries, 1987).

21 Personal Communication with Christopher C. Estes, Alaska Department of Fish and Game, Division of Sport Fisheries (July 8, 1988).

22 Letter from Philip A. Emery to Christopher Estes (U.S. Geological Survey, Water Resources Division, Nov. 9, 1987).

23 Harle, *Reserving Instream Flows in Alaska*, 1986 Western States Water Council 176.

24 1988 Alaska Sess. Laws, ch. 122 (adding ALASKA STAT. § 41.23.200 -.310).

Alaska Legislature Considers Innovative Instream Flow Law

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Members of the Alaska State Legislature are once again gearing up for an attempt to pass the most innovative and protective instream flow legislation in the United States. The proposed legislation (H.B. 355, 17th Leg. 1st Sess. Alaska 1991) was introduced on the last day of the 1991 legislative session and will, thus, be actively considered when the legislature reconvenes in January 1992. Similar legislation was introduced and debated in the 1989-1990 legislative session and proved to be quite controversial (H.B. 210, 16th Leg. 1st Sess. Alaska 1989). It failed to pass on a floor vote in the House of Representatives and was never considered in the Senate. This article focuses on the legislation that was introduced and debated in the 16th Alaska Legislature and briefly compares that proposed legislation with the most recently introduced proposal.

Passage of the instream flow legislation proposed in 1989 would have amended the existing instream flow law (A.S. 46.15.145 et seq.) to guarantee a reservation of instream flows for fish in all fish-bearing waters. Under existing law, before granting a permit to appropriate water, the state is required to consider its effect on fish and game resources, as well as other public interest criteria (A.S. 46.15.080[b][3]). The Alaska Constitution, however, provides that, except for public water supplies, any appropriative water rights are "subject . . . to the general reservation of fish and wildlife [for common use]" (Alaska Const. art. VIII, § 13). The sponsor of the legislation—Representative Cliff Davidson—cited this provision as a "constitutional mandate . . . to reserve water for fish and wildlife" and noted that the proposed law "would bring state law into compliance with [Alaska's] Constitution" (Cliff Davidson, memorandum to House Finance Committee Co-chairs Lyman Hoffman and Ron Larson, 19 February 1990; copy on file with Native American Rights Fund, Anchorage, Alaska).

All parties seem to agree that protection of fish habitat is good and of great importance to Alaska's economic well-being, but opponents fear that the legislation will unduly interfere with the extraction and development of Alaska's other natural resources. To the contrary, such legislation is essential to ward off the seemingly inevitable ruin of anadromous and resident fish populations that has resulted from the withdrawal and impoundment of water in other states. For example, the American Fisheries Society recently published a list of 214 depleted Pacific salmon, steelhead, and sea-run cutthroat stocks from California, Washington, and Idaho. Their depletion has been caused by habitat loss attributable in large part to reservoir construction and out-of-stream diversions (Nehlsen et al. 1991). Massive withdrawals of water and construction of dams in the Columbia and Snake river systems have caused the National Marine Fisheries Service to propose listing the Snake River sockeye salmon under the Endangered Species Act (56 Fed. Reg. 14055). Had those states adopted protective instream flow legislation prior to the wide-scale appropriation of water for hydropower and out-of-stream applications such as agriculture, mining, and various industrial uses, they would not now be in the unfortunate position of attempting to restore instream flows by closing the headgates of irrigators and modifying releases from dams long after the fish populations have been decimated. In California this has led to resurrection of the public trust doctrine

[1] The views expressed in this article are solely those of the author and not necessarily those of the Native American Rights Fund or its clients.

in an attempt to limit the property rights of those who have damaged Mono Lake by diverting inflows to it (*National Audubon Society v. Superior Court*, 658 P.2d 709 [Calif. 1983], *cert. denied*, 464 U.S. 977). If Alaska takes steps to guarantee instream flow protection now, it will never be in the same position as those states that are desperately seeking to limit the property rights of out-of-stream water users to reclaim some fish habitat (Sax 1990).

THE IMPORTANCE OF WATER RESOURCES TO ALASKA

From time immemorial the inhabitants of what is now the state of Alaska have depended on the state's waters for their livelihood. Alaska Natives, as well as newcomers, rely on fishery resources for their physical sustenance, economic well-being, and retention of their culture. Indeed, the one common feature of the 212 Native villages scattered around the state is their proximity to water. Congress took note of this fact when it passed the subsistence provisions of the Alaska National Interest Lands Conservation Act (ANILCA) in 1980, and, thus, accorded the subsistence uses of fish and game by rural residents of Alaska priority over other uses on the public lands (Pub. L. 96-487, Title VIII, 2 December 1980, 94 Stat. 2423). The chief sponsor of the legislation explained that:

> The location of these [Native] villages is no accident. Prior to the intrusion of western culture into Native Alaska in the late 1800s, most Alaska Natives traveled from hunting camp to fish camp, and fish camp to hunting camp, following the natural cycle of the seasons and the migratory patterns of the fish and wildlife in their area . . . . Today, the same social, cultural and economic purposes of these same villages remains (126 Cong. Rec. 29278 [1980] [Cong. Udall]).

When it enacted ANILCA, Congress also placed millions of acres in federal reserved status, often with explicitly stated purposes of providing for subsistence uses and protecting fish habitat (e.g., 16 U.S.C. § 410hh establishing Wrangell-St. Elias National Park). Such reservations surely have a federally reserved water right with a 1980 priority date (*United States. v. New Mexico*, 438 U.S. 696 [1978]), which provides yet another angle for protection of fisheries habitat. Questions regarding the existence and extent of these reserved rights are currently being litigated in *John et al. v. United States and State of Alaska* (No. A90-484 [D. Alaska 1990]), a dispute over subsistence fishing rights.

In addition to subsistence, instream uses of water are important for recreational activities such as sport fishing, rafting, and kayaking. Indeed, what outdoor enthusiast has not dreamed of a vacation to Alaska to pursue the gigantic king salmon or numerous other species that abound throughout the state? The major rivers are also used for transportation by many segments of the population. Rural residents not only travel the state's watercourses regularly in the open-water months, but also make their way along the frozen rivers—the only "highways" in most of rural Alaska—in the winter. Fish-related industries provide the second largest source of income to the state, second only to the oil and gas industry ("Alaska seafood industry study: A technical report," Alaska Sea Grant College Program, Fairbanks, Alaska [unpublished]). Fish, however, will maintain their significant role in the economy of the state long after oil and gas resources have been depleted, so long as there is sufficient water in Alaska's rivers to provide good habitat.

These commercial, recreational, and subsistence uses of Alaska's water resources take place along the state's lakes, streams, and rivers. More than 12,000 rivers and streams have been identified as fish-bearing streams, but only 171 of them have continuous instream flow records of 10 years or longer—the minimum necessary for development of a reliable regional flow analysis (Estes 1990). Of the 30 largest rivers in the United States, 6 are located in Alaska; its lakes are so numerous that they remain uncounted (Harle 1989). Conditions are desert-like in the Arctic, while in some locations of the southeast panhandle rainfall seems to be nearly constant. Relative to the lower 48 states, there is presently little competition for the use of water and almost no streams are

known to be overappropriated (Harle 1989). There is, however, substantial competition for water in Anchorage, Juneau, Kodiak, Sitka, and the North Slope (C. Estes, Alaska Department of Fish and Game, personal communication). Alaska is, therefore, in the enviable position in which most of the northwestern states found themselves before their populations mushroomed. That growth brought the development of hydropower, industrialization, and projects designed to withdraw massive amounts of water for irrigation and other out-of-stream uses. The looming question at present is whether Alaska will take the current opportunity to legislate protection of the valuable, renewable natural resources and uses that depend on instream flow. The time to act is now. There have for years been numerous proposals to siphon Alaska's water to the lower 48 states. Alaska's Governor, Walter J. Hickel, has proposed construction of a pipeline capable of diverting 4 million acre feet of water per year from Alaska to Lake Shasta in California (*Anchorage Times*, p. A-1 [4 June 1991]). Before such a scheme is endorsed, the resources that require instream flows for their survival should be guaranteed protection by statute.

SUMMARY OF PRESENT ALASKA WATER LAW

Alaska follows the usual western water law doctrine of prior appropriation (Alaska Const. Art. VIII, § 13; A.S. 46.15.050; *Paug-Vik, Inc. v. Wards Cove Packing Co.*, 633 P.2d 1015 [Alaska 1981]). As in most other states that follow the doctrine, an individual establishes the right to withdraw, impound, or divert water for a beneficial use by filing an application to appropriate water (11 A.A.C. 93.040). This is followed by the issuance of a permit (11 A.A.C. 93.120) and finally, the issuance of a certificate of appropriation of water (11 A.A.C. 93.130). The water right has a priority as of the date of application and may be accompanied by conditions imposed to protect fish and wildlife habitat and other enumerated elements of the public interest (11. A.A.C. 93.130). Once awarded, however, the water right constitutes an interest in property that may not be taken by the state without payment of just compensation.

Alaska also has an innovative statute that, contrary to nearly every other state, allows private individuals, as well as federal, state, and local governmental agencies, to reserve instream flows for purposes of: "(1) protection of fish and wildlife habitat, migration and propagation; (2) recreation and park purposes; (3) navigation and transportation purposes; and (4) sanitary and water quality purposes" (A.S. 46.15.145). The administrative steps required to obtain a certificate of reservation are roughly the same as those required for obtaining the right to divert, impound, or withdraw water. At this point, however, a major defect in the statutory scheme is revealed. The reserved instream flow right is subject to periodic review (at least every 10 years) by the Alaska Commissioner of Natural Resources to determine, among other things, whether the reservation remains consistent with the public interest (A.S. 46.15.145). This presents no problem so long as the state administration gives preservation of fisheries, and thus instream flows to support fish habitat, top priority. If this were to change, however, the instream flow right could be eliminated by an administrative finding that the public interest requires water previously reserved for instream use to be made available for some out-of-stream use. In effect, this provision could allow the state to give with one hand and take away with the other, based on an administrator's determination that an out-of-stream use is more important to the public than maintaining fish habitat.

In the 11 years since Alaska's instream flow law was adopted, only two private individuals have sought instream flow reservations, and both were denied because of a lack of supporting data (Harle 1989). For most of the rivers and lakes in Alaska such hydrologic data are simply unavailable (Estes 1990). The documentation problem has been alleviated by the adoption of new regulations in 1990 that substantially reduce the initial data submission requirements (11 A.A.C. 93.142). Under these regulations, an application for reservation of instream flows has a priority as of the date of application, and the applicant has 3 years in which to quantify the reservation (11 A.A.C. 93.142). As a practical matter, however, private individuals have little incentive to pursue such

an expensive and time-consuming process on a broad scale. It is fair to say that while the current Alaska instream flow law is the most progressive of the laws in the western states, it has fallen far short of guaranteeing statewide protection of fish habitat.

THE PROPOSED INSTREAM FLOW LEGISLATION

The bill introduced in the state legislature in 1989 took a straightforward approach to accomplishing its goal of protecting fish habitat by reserving instream flows. It provided that upon the receipt of an application "to appropriate water from a river, lake, or stream that is important for the spawning, incubation, rearing, or migration of fish, the commissioner [of the Department of Natural Resources] shall reserve an instantaneous flow in the river, lake, or stream for the instream use of fish and to maintain existing habitat for fish" (H.B. 210, 16th Leg. 1st Sess. Alaska 1989). The amount to be reserved was set at 60% of the mean annual flow for April through October and 30% of the mean annual flow for November through March. The percentages were arrived at through the adoption of the Tennant Method of estimating instream flow needs for fish habitat (Estes and Orsborn 1986). Because over 99% of the state's streams and rivers are ungaged, quantification of instream flows was to be based on mean annual flow. Such flows can be estimated for the majority of Alaska's streams and rivers and tied to fish habitat requirements (Estes 1990). If there were not enough unappropriated water to satisfy the instream flow reservation, any water that was available would have been reserved to the state.

There would have been no impact on existing uses, as the priority date for the instream flow right was to be the date of the act's passage. Nor would the proposed legislation have locked the state into an uncompromising position with respect to allowing other uses. Because the reservation was to be set as a percentage of the mean annual flow, ample water would generally have been available for appropriation. An applicant who wished to appropriate water that was reserved under the proposed instream flow law could have done so by demonstrating that further withdrawals would not harm fish habitat.

Given the tremendous importance of fisheries resources to all segments of Alaskan society, placing the burden on out-of-stream appropriators to demonstrate that their appropriations would not adversely affect those resources was entirely proper. Access to these uses and resources is constitutionally reserved to the people in common; individuals or entities seeking to use water for other purposes should be required to show that their actions will not adversely affect the public's rights. This is especially true because out-of-stream appropriations are typically made as part of an economic venture. Once obtained, the water itself has no cost to the user; mandatory investment in research at the outset would simply be another business cost and would ensure that the user will not be harming the public interest.

As the legislation worked its way through the committee system in the House of Representatives, several charges were leveled at it by development interests. First, they argued that out-of-river appropriations posed no present or foreseeable threat to fisheries habitat and, thus, the law was not needed. This criticism misses a fundamental point apparent to anyone who has reviewed the destruction of fish habitat in the western states. The time to act is when there is no crisis and when the competition for water is at a minimum. Experience in other states demonstrates that efforts to protect instream flows after the waters have been appropriated are at best expensive, difficult, and time-consuming and in most instances, futile (e.g., Gray 1989).

A corollary to the first argument was that under existing law, any permit and certificate to appropriate water could be conditioned to preserve fish habitat and several other broadly stated purposes (11 A.A.C. 93.120), and that accordingly the legislation was unnecessary. Although Alaska's current instream flow law undoubtedly is better than other states', this is hardly a forceful argument against making it even better. The point of the legislation was to *guarantee* a level of instream flows to protect habitat, as opposed to the present situation in which fish habitat is merely a factor that *may* be considered.

Moreover, those experienced with Alaska's current instream flow law have had great difficulty in obtaining reservations for habitat protection. This author worked with a tribal government in rural Alaska that sought an instream flow reservation, but the effort was stymied by the high cost of gathering the data required to support the application. In short, the present law looks great on paper but has not provided significant benefits on a statewide basis.

The second major argument was that as a technological matter, statewide application of the Tennant Method made little sense because of the wide variety of seasonal streamflow conditions across the state. This issue was dealt with by amendments requiring the Department of Natural Resources to adopt regulations that would "establish hydrologic regions within the state, and specify for each hydrologic region the proportion of mean annual or monthly instream flows in rivers and streams that are reserved from further appropriation" (Resource Committee substitute for H.B. 210 [14 February 1990]). A new section of the bill required the regulations to be adopted within 18 months after becoming law, so that Tennant's 60/30 flow regime would only be in place as an interim measure (Resource Committee Substitute for A.B. 210 [14 February 1990]).

Third, the opponents claimed the bill would be unconstitutional in that it would place instream flow protection ahead of public water supplies, which have a constitutionally guaranteed priority (Alaska Const. art. VIII, § 13) Concerns were also raised that domestic uses in rural areas would be harmed. To ensure that the legislation would not adversely affect either domestic water users or municipal supplies, those uses were exempted from the bill's coverage.

TROUBLESOME CHANGES

At the urging of the mining industry, language was added to the bill to provide that instream flows were not reserved from "appropriation," but rather that they were merely reserved from "*consumptive* appropriation" (Finance Committee substitute for H.B. 210 [7 March 1990]). Without a definition of these terms, this change could have significantly diminished the legislation's effectiveness. For example, placer mining operations and hydroelectric projects generally do not "consumptively" use water; they merely remove the water from a river or stream and return most of it after it has served its purpose. The Finance Committee changes appeared to authorize the complete dewatering of a stream so long as the water was not used consumptively after the appropriation. This was a major weakness in the bill as amended. The sponsors were not concerned by this potential problem because the definition of "non-consumptive use" in the regulations (11 A.A.C. 93.970[33]) required that the water be returned at its point of diversion. Though this might have prevented the type of problem discussed above, a court might have found, based on a review of legislative history, that the purpose of the amendment was to exempt out-of-stream diversions that did not actually consume the water. Given that a regulation cannot override a statute, a key class of competitors would have been exempted from the law's application. Thus, the sponsors would have been wise to define "consumptive use" clearly in the statute, to prevent such a loophole. It could have been stated, for example, that a consumptive use is "any impoundment, withdrawal, diversion, or other use of water that changes the naturally occurring rate of flow of a river or stream."

Also troubling was the deletion of the protection provided in the original bill for the quantity of water necessary for fish habitat in lakes. Acquiescence to this change resulted from the difficulty of determining how much water would actually be required. Also, the bill was worded in terms of instream flows, which technically cannot be measured for lakes. The large gap in legislative protection of fish habitat left by the deletion could have been cured by simply adding a section providing for reservation of a particular "stage" or "elevation" of the water in fish-bearing lakes.

THE NEW LEGISLATIVE PROPOSAL

Despite the accommodations made to opponents of the legislation during the committee process, even more changes were sought on the floor of the House of Representatives. It failed to receive enough votes to pass. However, a new proposal has now been introduced (H.B. 355, 17th Leg. 1st Sess. Alaska 1991), which provides that:

> upon receipt by the commissioner of an application to appropriate (1) water from a river or stream that is used by fish for spawning, incubation, rearing or migration, or that is habitat for wildlife; or (2) ground water that significantly influences the amount of water that is used by fish for spawning, incubation, rearing, or migration, or that is habitat for wildlife, the commissioner shall reserve an instream flow in the river or stream from the instream use of fish and wildlife and to maintain habitat for fish and wildlife.

One positive change is that the water would be reserved for wildlife habitat rather than simply for fisheries habitat. The proposal thus tracks the state constitution's reservation language.

Absent from this proposal, however, is the mandate that a fixed percentage of water be reserved as of the date an application to appropriate water is received. Presumably, this would require the State Commissioner of Natural Resources to quantify the amount of water needed for instream flows on a particular watercourse. This would not be a problem so long as the Commissioner were truly concerned with protecting fish and wildlife, rather than with encouraging development dependent on out-of-stream appropriation. The Commissioner would simply be required "to maintain habitat for fish and wildlife" (H.B. 355, 17th Leg. 1st Sess. Alaska 1991). This begs the question as to how much protection would be provided. The legislation could be improved by setting forth the standard of protection required by the law.

The bill exempts single-family uses, public water supplies, and appropriations of groundwater of 5,000 gal/day or less, as well as appropriations for nonconsumptive uses. As noted above, the meaning of the last should be clarified on the face of the statute. Finally, lakes are not covered by the proposal. Although instream flow rights do not technically pertain to lakes, the bill could be made stronger by requiring the Commissioner to reserve a particular level of water in a lake upon receipt of an application to appropriate water from it.

CONCLUSION

The proposed legislation constitutes a positive step toward the protection of fisheries habitat in Alaska. Though other states are doing what they can to preserve their vastly diminished fish habitat, in practicality they are left with little to do beyond speculating what they would do if they had another chance. If Alaska can learn from the mistakes of others, its fish and wildlife resources and associated uses could have statutorily guaranteed protection by as early as May 1992.

ACKNOWLEDGMENTS

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REFERENCES

Estes, C. 1990. Annual summary of statewide instream flow reservation applications. Fishery Data Series No. 90-43. Juneau: Alaska Department of Fish and Game.

Estes, C., and J. F. Orsborn. 1986. Review and analysis of methods for quantifying instream flow requirements. *Water Resources Bulletin* 22(3):389-398.

Gray, B. 1989. A reconsideration of instream appropriation water rights in California. Pages 181–235 *in* L. J. MacDonnell, T. A. Rice, and S. J. Shupe, editors. *Instream flow protection in the West*. Boulder: University of Colorado School of Law, Natural Resources Law Center.

Harle, M. 1989. Appropriation of instream flows in Alaska. Pages 157–171 *in* L. J. MacDonnell, T. A. Rice, and S. J. Shupe, editors. *Instream flow protection in the West*. Boulder: University of Colorado School of Law, Natural Resources Law Center.

Nehlsen, W., J. Williams, and J. Lichatowich. 1991. Pacific salmon at the crossroads: Stocks at risk from California, Oregon, Idaho, and Washington. *Fisheries* 16(2):4–21.

Sax, J. L. 1990. The Constitution, property rights and the future of water law. *University of Colorado Law Review* 61:257–282.

Mexico draining lake dry

By CANDICE HUGHES
ASSOCIATED PRESS

CHAPALA, Mexico — One of Latin America's largest lakes is vanishing, sucked up by a thirsty nation that never imagined something so vast and rich could die.

Lake Chapala holds less than one-third the water it did in 1923, when D.H. Lawrence lived and wrote on its shores.

In "The Plumed Serpent," he described a great "expanse of water, like a sea, trembling, trembling, trembling to a far distance."

A few blocks from the house Lawrence rented, Claudio Cuevas, a third-generation Chapala hotelier, sat in the octagonal dining room of his Gran Hotel Nido, pondering sepia photos on the wall.

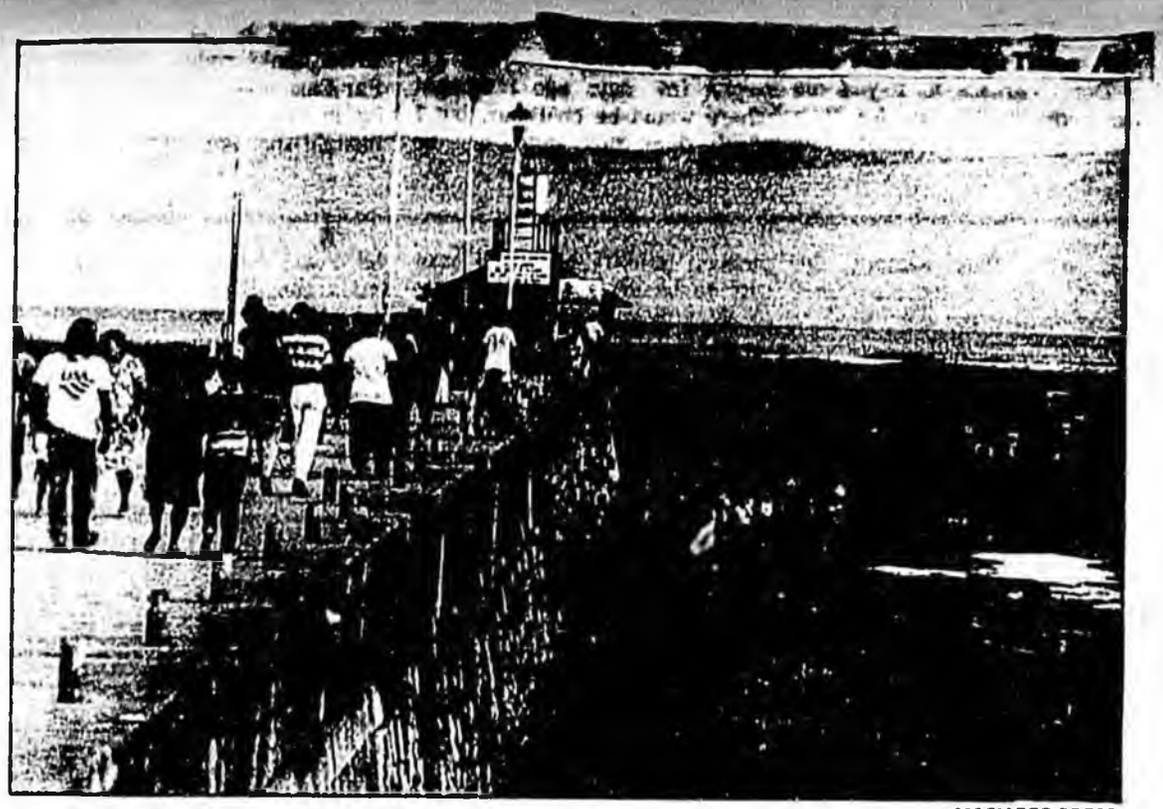
"We won't be able to hold up our heads if we let the biggest lake in Mexico die," he said.

The photos show sail canoes laden with freight, men in straw boaters on the decks of elegant steamers, water lapping at the top of a pier..They capture Lake Chapala's golden age, the early part of the century before the explosive growth of Mexico's cities.

Today, piers jut into space and cattle graze around the exposed piles. The yacht club is stranded, its mooring facilities at least half a mile from the water.

"It's probably the only pier in the world where you have to take a taxi to the boats," said Tony Burton, a British naturalist who lives at Chapala.

When the photos in Cuevas' hotel were taken, the lake was 30 feet deep, teeming with succulent whitefish. It held 8 billion cubic yards of water and covered 465 square miles.



ASSOCIATED PRESS

People walk along a pier that is now about a half-mile from Lake Chapala in Mexico. The lake, one of Latin America's largest, is shrinking as a burgeoning population sucks up its water.

Today, the average depth is about 9 feet. Chapala holds 2.3 billion cubic yards of water and the surface has shrunk to less than 330 square miles. The whitefish are gone.

Cuevas said Chapala, the third largest fresh-water lake in Latin America after Lake Titicaca and Lake Nicaragua, "should be a problem of international concern, but all we hear is talk, talk, talk. We're drowning in words."

The problem is simply described. More water is being taken from Lake Chapala than nature can pour into the rivers, streams and underground aquifers that nourish it. The water quenches the thirst of Mexico City and Guadalajara, Mexico's largest cities, and the farming and ranching country that feeds them.

Jorge Matute Remus has fought to save the lake since he was mayor of Guadalajara in the 1950s, then head of the city water department.

He said Chapala's decline began in the 1940s, but no one noticed.

The Lerma River, which feeds the lake, was diverted to provide drinking water for Mexico City, 300 miles away. Irrigation systems were built and ranchers began gouging out reservoirs, Thousands of wells were dug on farms and in booming communities of the river basin.

Growth eventually became a population explosion. The number of people in Guadalajara, 25 miles from the lake, doubled between 1976 and 1990 to more than 4 million.

Lakeside villages became resorts where thousands of retired Americans settled among the bougainvillea and mango trees of Chapala's eternal spring.

Mexico City became a metropolis of more than 15 million people — equal to the entire country's population when Matute was born 80 years ago.

Through it all, as always, the lake seemed to rise and fall to the rhythm of the rains.

Then came one of the driest years in memory. "The long decline began in 1976 after the rains failed," Matute said. "The lake never recovered."

It took another decade for Chapala to shrink so visibly that the problem could no longer be denied.

In 1989, the federal government and the four states of the Lerma-Chapala basin signed a vague agreement saying the lake should be saved

Guadalajara will draw part of its drinking water from the Calderon River instead of taking more out of the lake. A dam on the river and an aqueduct built with Jalisco state and federal funds began operation last month.

None of the other states has acted, however. Nothing has been done to curb illegal wells and reservoirs that drain the lake's underground aquifer, or to stop such wasteful irrigation practices as flooding fields.

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SECTION B
Sunday, December 15, 1991
The Seattle Times
Seattle Post-Intelligencer

FOR CLIFF DAVIDSON

Northwest

THE DUNGENESS EXPERIMENT

When the rivers run out

Growth forces everyone to terms with water limit

by Eric Pryne
Times staff reporter

SEQUIM, Clallam County – Most of the Dungeness River isn't in the Dungeness River in late summer and early fall.

It's in hundreds of miles of irrigation ditches that trace a watery maze across the scenic prairie separating the Olympic Mountains from the Strait of Juan de Fuca.

Farmers have been drawing water from the Dungeness for nearly a century. Since 1924, they've had the legal right to take every drop.

A Clallam County judge awarded irrigators that privilege on the recommendation of the state's top water official, who stated that "probably no stream in the state of Washington affords such a favorable supply of water ... as the Dungeness River."

He granted irrigators ongoing rights to draw 536 cubic feet – 240 million gallons – from the river each second. Only during spring runoff and floods does the Dungeness run that full.

> 'We're dealing with a stock of fish that we say is very important to us, and yet it isn't as important as watering our lawns.'
> **Bill Graeber, state Fisheries Department**

the river in spite of the 1924 "adjudication." The valley's irrigation districts and irrigation companies never have drawn more than a fraction of what they legally are entitled to take.

"Most farmers are hunters and fishermen," says Dave Cameron, a farmer, irrigator and Clallam County commissioner. "No one wants the river to dry up."

But several of the Dungeness' wild salmon runs are in trouble. Fisheries biologists say it's at There's always been water in least in part because there isn't enough water in the river when the fish need it.

"What we've done to this river is an atrocity," says Dick Goin, a retired logger who has fished the river for half a century.

The Dungeness, just 30 miles long, is a short river that is long on problems, a river that displays in microcosm most of the water-supply challenges that confront Western Washington.

Throughout the region, citizens and policy-makers are just beginning to understand there no longer is enough in the region's rivers to sustain fish and wildlife, support industry and agriculture, and fill the toilet tanks and garden hoses of a burgeoning population.

Who gets how much? Outside the courtroom, there's no process to resolve competing demands. But if one is to be found, it may

"It's a waste of resources to go to court," says Ann Seiter, natural-resources director for the 250-member Jamestown Klallam Tribe, based near Sequim.

Tribal fishermen and farmers, developers and bureaucrats are embarking on a two-year experiment in cooperative water-resource planning on the Dungeness and the neighboring Quilcene River that's intended as a pilot for the region. If it works here, the process could be applied to rivers like the Skagit, the Snoqualmie and the Green.

But on the Dungeness, as elsewhere, the issues are complex, the burden of history heavy.

"It's taken a lot of years for this river to degrade," says Roger Schmidt, a Carlsborg farmer who heads the association of irrigation districts and companies. "I don't believe the answer is very easy."

In the rain shadow

If the Dungeness has an advantage over the rest of Western Washington in addressing its water problems, it's that folks here never had the luxury of taking water for granted.

Sequim, in the rain shadow of the Olympics, gets just 17 inches of precipitation a year, less than half Seattle's total. Pioneers who settled here a century ago quickly found their homesteads were best suited to growing "rocks, dust and grasshoppers," according to one local history.

In the 1890s, the settlers resolved to tap the river to make this semi-desert bloom.

They dug the ditches themselves, with picks and shovels. Some questioned their sanity. But by 1921 nine public irrigation districts and private irrigation companies were in business. The 1924 adjudication sorted out how much each was entitled to, and who had priority in times of drought.

Their resourcefulness and determination transformed the Sequim-Dungeness Valley into one of the state's premier dairying regions. At the industry's peak, there were 9,000 cows within five miles of Sequim. The area led Western Washington in alfalfa hay production.

It only made sense that they take most of their water during the dry season, from July through October. And that put the farmers on a collision course with fish.

Precipitous decline

"A squirming mess of maggots – that's what it looked like," Dick Goin says.

The Dungeness supports coho and chum, chinook and steelhead. But the salmon run that made the river famous was its prodigious migration of pinks. Goin first saw it in the late 1930s. "You couldn't stir the fish with a stick, they were so thick," he remembers.

As recently as 1963, 400,000 spawning pinks were counted in the Dungeness. By the mid-1980s, their number had dropped to just 3,000.

The spring chinook run declined even more precipitously, to just 91 fish in 1987. Now a private

poses to capture some of the few spawners that remain, raise their offspring in captivity and release them back into the wild – a recovery plan not unlike that adopted for the endangered California condor.

Both the spring chinooks and the pinks swim upriver and spawn in late summer and early fall. The Dungeness is already low then. Irrigation diversions draw it even lower.

There's no proof that low flows caused the decline of the salmon. Some blame over-fishing. Others blame flood-control projects or clear-cut logging.

But biologists say low flows can block migration, produce

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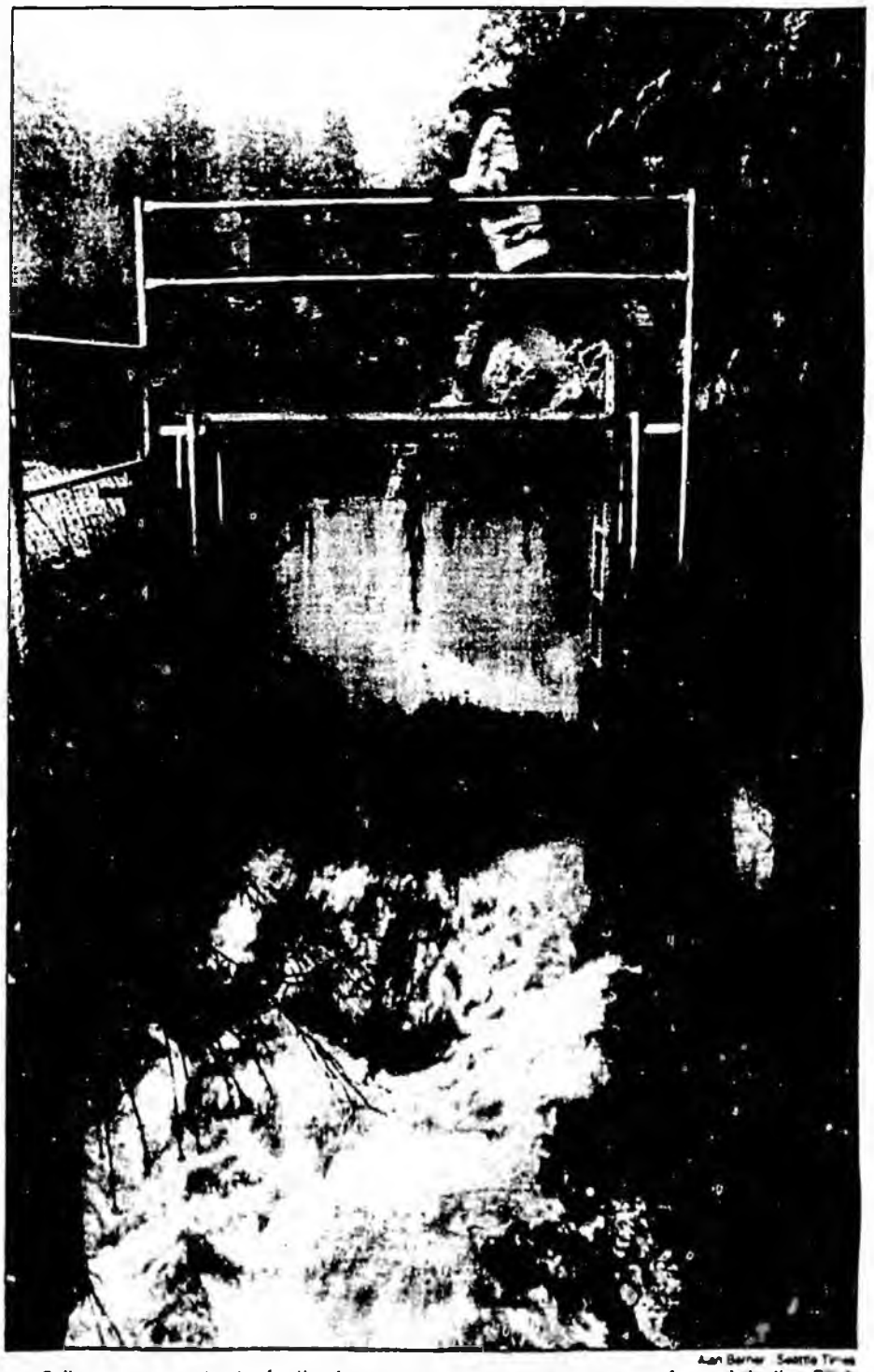
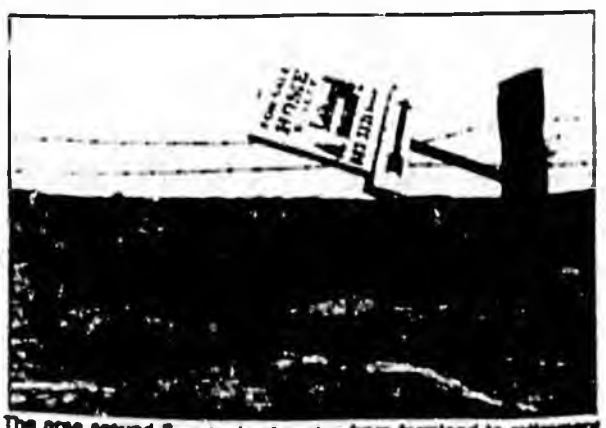


Alan Berner, Seattle Times

Ann Seiter, resources director for the Jamestown Klallam Tribe, crosses the Agnew Irrigation Ditch where it diverts water from the Dungeness River near Sequim. Water companies collectively have legal rights to take more water than the river can provide.



The area around Sequim is changing from farmland to retirement homes. Since 1970 the area population has tripled to more than

Grappling with growth

WATER

continued from B 1

higher water temperatures, increased vulnerability to predators and provide less habitat to spawn. A study published by the Jamestown S'Klallams and U.S. Fish and Wildlife Service last year concluded recent low flows had cut off 94 percent of available chinook spawning habitat in two stretches of the Dungeness.

"We're dealing with a stock of fish that we say is very important for ... " says Bill Graeber of the state Fisheries Department, "and yet wasn't as important as watering our farms."

Low flows weren't all that declined on the Dungeness. So, ironically, did agriculture.

Sequim still celebrates its pioneer heritage each May at the Irrigation Festival, the oldest community celebration in the state. But it's mostly an exercise in nostalgia.

The retirement boom

Today a mini-mall occupies the site of the farmers' cooperative creamery. The old grain elevator is a Mexican restaurant.

Homer Schmidt still grows vegetables to sell in his natural-foods store, but he has moved his beef cattle to Eastern Washington. "This is a retirement area," says Schmidt, one of the few remaining farmers. "It was a farming area."

The number of dairy farms in the area has dropped from more than 100 to less than 30, the irrigated farm acreage from nearly 12,000 to less than 5,000. Since 1970, the population of the Sequim area and neighboring Agnew and Carlsborg has tripled, to more than 17,000.

Many newcomers are retirees, attracted by the same dry climate the pioneers struggled so hard to overcome. Their houses sprout in pastures where cows once grazed.

They use water from the irrigation ditches to wash their cars, fill duck ponds, water gardens and lawns and a golf course. The ditches haven't been forgotten. In fact, they may be more vital to the economy of the Dungeness Valley now than ever.

Almost all those new people draw their water from shallow wells. In 1983, the U.S. Geological Survey found that leakage from the irrigation ditches was the primary source of new water for the underground aquifer those wells tap. If the ditches went dry, an agency study concluded, so could hundreds of wells.

Even in a sense, the old, leaky irrigation ditches have helped fuel Sequim's development boom. "Irrigation is not a farm issue any more," says Schmidt. "You take away the irrigation water and you take away the economic base."

A year of crisis

Fierce competition for a finite resource led to conflict. The low point in the battle for the Dungeness may have come in the drought year 1987.

In early September the river got so low that 100 migrating pinks, stopped just below an irrigation ditch in Dungeness, had to be captured and trucked upstream. "Everybody was pointing fingers at everybody else," says Gary Hanson, then regional water-resources supervisor for the state Department of Ecology.

"Our attitude was, 'The water's ours, and we'll be damned if anyone tells us we can't take it,'" Schmidt remembers.

The Jamestown Klallams and other fish advocates pressed irrigators to cut back. Some did. Some didn't. Some said they were being singled out unfairly, that they were taking far less water than they were entitled to under the 1924 adjudication, that they weren't responsible for the declining numbers of salmon.

The tribe urged the state Department of Ecology to set a minimum ... for the ...

rizes the agency to take. But the department said its hands were tied, that it lacked authority to alter the irrigators' water rights.

At the same time, department officials worried the Jamestown Klallams might sue, using a tool of great potential power that federal courts had provided to Northwest Indians just a few years earlier.

A 'poor case to defend'

Building on the 1974 Boldt fishing-rights decisions, the courts held that 19th-century treaties guaranteeing tribal members the right to fish also implicitly obligated the government to protect salmon and steelhead habitat.

That doctrine hadn't been tested in court then, and still hasn't. But, in internal memoranda in 1987, Ecology Department officials speculated the Dungeness could serve as a test case for the tribes.

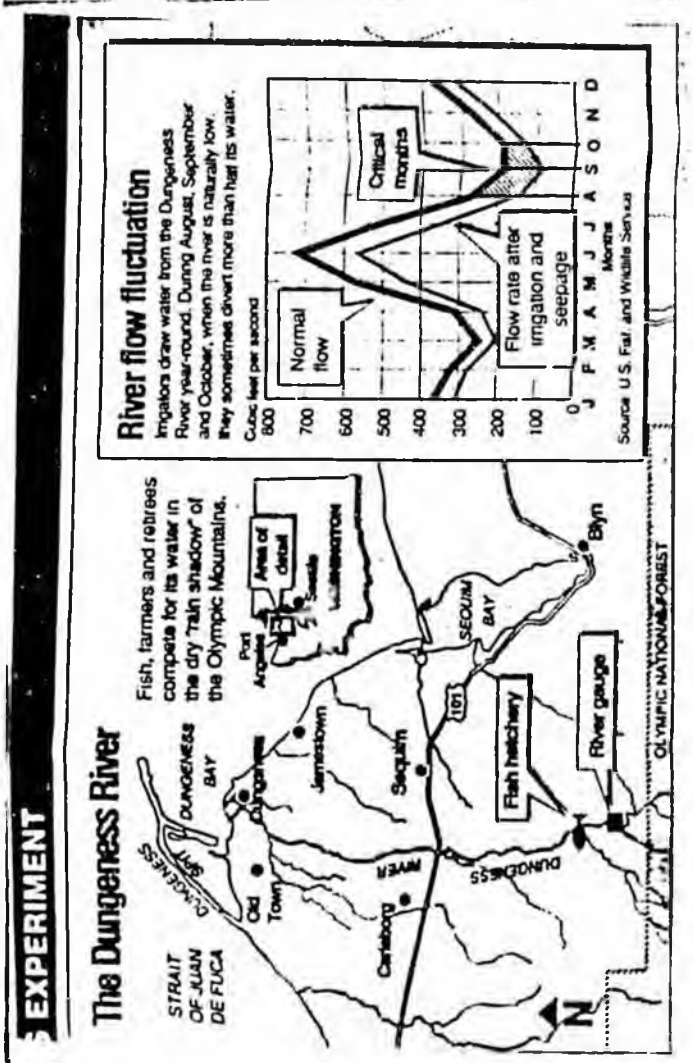
"This would be a poor case to defend from the state's perspective," one official wrote, "because the fish runs have been so obviously damaged by the state's action or inaction. If the state loses such a case, its water laws and the uses established pursuant to those laws would be totally undermined."

That prospect scared irrigators, too. It was against that background that Sequim-area farmer Dave Cameron campaigned for county commissioner in the fall of 1987, calling for a forum where river users could sit down and discuss their problems face to face.

Cameron won. The Dungeness River Management Team formed

Continued on next page

EXPERIMENT



Balancing growth and the limits of rivers

Continued from previous page

in 1988.

"They have probably accomplished more in the past four years than the previous 40 as far as cooperation goes," Cameron says.

Ann Seiter, the Jamestown Klallams' natural-resources director, says Cameron deserves much of the credit, that he had the credibility with his fellow farmers to draw them to the table.

Members include the tribe, county, state and federal officials, irrigation districts and companies, and sport fishermen. Seiter, Schmidt and Goin belong. The team has adopted a flood-control plan. It has sought answers to simple questions that previously had no answers, mapping the ditches, measuring how much water flows through each.

Irrigators, who previously had no central organization, have formed one and hired a "water master" to promote conservation.

"We've seen an awful lot of bridges being built between the parties," says Joe Hiss, a biologist with the U.S. Fish and Wildlife Service.

Improvement has come too slow for Dick Goin. Fish continue to die, he says, but at least antagonists aren't calling each other names any more.

"We've got a head start on the rest of the state," says Cameron.

The rest of the state's water problems aren't really that different from those of the Dungeness. There's open warfare over rivers. The polarization of the parties, the complexity of the issues and the ambiguity of water law have combined to produce bureaucratic paralysis.

The Chelan Agreement

Last year, at a conference at Lake Chelan, competing interests from throughout the state finally agreed to try writing water-resource plans cooperatively, one basin at a time, without resorting to the courts.

The so-called "Chelan Agreement" said the process should be field-tested first in two basins – one east of the Cascades, one west – chosen by the Department of Ecology. The timetable calls for plans to be prepared by December 1993.

The Dungeness, and the neighboring Quilcene, will serve as Western Washington's guinea pigs.

How big a plan?

The first big task, which those involved hope to accomplish by March, may be most daunting: deciding just how ambitious they want to be, how far their plan's scope should extend.

For divvying up the river isn't the only issue on the Dungeness. Roger Schmidt says that in the heyday of agriculture irrigators drew more water from the river – and the river supported more fish. Ann Seiter acknowledges higher flow won't necessarily produce more salmon by itself.

Dikes have pinched the channel in places, eliminating habitat. Elsewhere gravel and sediment from upstream have filled the riverbed, turning the Dungeness into a series of braided rivulets of limited value to salmon.

"It's a synergistic combination of all these things," Seiter says. "Maybe there have been so many other changes on the river that we just can't get by with low flows we used to."

The Dungeness water-resource plan could touch on everything from flood control to forest practices to land use. The only limits are time and money: The state's fiscal woes already have resulted in a budget cut for the project.

It's an enormous undertaking. No one is giving up anything going in. The 1924 adjudication remains on the books. The Jamestown Klallams haven't signed away their right to sue.

Dick Goin is pessimistic. Consensus requires compromise, he says – and the salmon don't have anything left to give.

But the Dungeness has a head start. "We've got everything on the table here now," says Schmidt. "Compromise is progress today."

5 YEAR REPORT

Status of Applications Receiceved from January 1987 thru January 1992.											
	Application Pending		Permit Issued		Certificate Issued		Closed		*Source Totals*		Total
Gallons per Day	*Sur*	*Sub*	*Sur*	*Sub*	*Sur*	*Sub*	*Sur*	*Sub*	*Sur*	*Sub*	Files
500 or Less	31	58	42	18	36	235	16	9	125	320	**445**
500 thru 1,000	4	23	9	12	9	49	9	6	31	90	**121**
1,000 thru 5,000	14	20	25	18	0	10	8	1	47	49	**96**
5,000 thru 10,000	12	6	11	4	1	2	3	2	27	14	**41**
10,000 thru 30,000	9	9	11	18	4	1	6	5	30	33	**63**
30,000 thru 40,000	0	1	2	3	0	0	1	1	3	5	**8**
40,000 thru 100,000	9	3	22	7	0	0	3	0	34	10	**44**
Over 100,000	43	11	178	11	13	0	36	9	270	31	**301**
Total	**122**	**131**	**300**	**91**	**63**	**297**	**82**	**33**	**567**	**552**	**1119**

Notes

*Does not include Temporary Water Permits

*Only includes applications with a priority date 01-01-1987 or later.

*When multiple quantities due to seasonal variation occurs w/in a file, the greatest gpd value was selected.

*When multiple uses occur within a file, quantities were added together for a single gpd value.

Status of Applications Receiceved in 1992											
	Application Pending		Permit Issued		Certificate Issued		Closed		*Source Totals*		Total
Gallons per Day	*Sur*	*Sub*	*Sur*	*Sub*	*Sur*	*Sub*	*Sur*	*Sub*	*Sur*	*Sub*	Files
500 or Less	0	4	0	0	0	0	0	0	0	4	4
500 thru 1,000	0	1	0	0	0	0	0	0	0	1	1
1,000 thru 5,000	0	2	0	0	0	0	0	0	0	2	2
5,000 thru 10,000	0	0	0	0	0	0	0	0	0	0	0
10,000 thru 30,000	0	0	0	0	0	0	0	0	0	0	0
30,000 thru 40,000	0	0	0	0	0	0	0	0	0	0	0
40,000 thru 100,000	0	0	0	0	0	0	0	0	0	0	0
Over 100,000	0	0	0	0	0	0	0	0	0	0	0
Total	0	7	0	0	0	0	0	0	0	7	7

Notes

*Does not include Temporary Water Permits

*When multiple quantities due to seasonal variation occurs w/in a file, the greatest gpd value was selected.

*When multiple uses occur within a file, quantities were added together for a single gpd value.

Status of Applications Receiceved in 1991											
	Application Pending		Permit Issued		Certificate Issued		Closed		*Source Totals*		Total
Gallons per Day	*Sur*	*Sub*	*Sur*	*Sub*	*Sur*	*Sub*	*Sur*	*Sub*	*Sur*	*Sub*	Files
500 or Less	17	57	0	0	0	0	0	0	17	57	74
500 thru 1,000	1	13	0	1	1	4	0	0	2	18	20
1,000 thru 5,000	6	8	1	0	0	0	0	0	7	8	15
5,000 thru 10,000	0	1	0	0	0	0	0	0	0	1	1
10,000 thru 30,000	3	3	2	0	0	0	0	0	5	3	8
30,000 thru 40,000	0	0	0	0	0	0	0	0	0	0	0
40,000 thru 100,000	2	1	1	0	0	0	0	0	3	1	4
Over 100,000	5	7	6	0	0	0	0	0	11	7	18
Total	34	90	10	1	1	4	0	0	45	95	140

Notes

*Does not include Temporary Water Permits

*When multiple quantities due to seasonal variation occurs w/in a file, the greatest gpd value was selected.

*When multiple uses occur within a file, quantities were added together for a single gpd value.

Status of Applications Receiceved in 1990											
	Application Pending		Permit Issued		Certificate Issued		Closed		*Source Totals*		Total
Gallons per Day	*Sur*	*Sub*	*Sur*	*Sub*	*Sur*	*Sub*	*Sur*	*Sub*	*Sur*	*Sub*	Files
500 or Less	17	49	0	0	0	0	0	0	17	49	66
500 thru 1,000	3	5	1	1	2	8	0	0	6	14	20
1,000 thru 5,000	6	3	2	3	0	1	2	0	10	7	17
5,000 thru 10,000	1	3	0	1	0	0	0	0	1	4	5
10,000 thru 30,000	1	3	3	1	0	0	0	0	4	4	8
30,000 thru 40,000	0	0	1	0	0	0	0	0	1	0	1
40,000 thru 100,000	2	0	2	0	0	0	0	0	4	0	4
Over 100,000	20	3	29	0	0	0	4	1	53	4	57
Total	50	66	38	6	2	9	6	1	96	82	178

Notes

*Does not include Temporary Water Permits

*When multiple quantities due to seasonal variation occurs w/in a file, the greatest gpd value was selected.

*When multiple uses occur within a file, quantities were added together for a single gpd value.

Status of Applications Receiceved in 1989											
	Application Pending		Permit Issued		Certificate Issued		Closed		*Source Totals*		Total
Gallons per Day	*Sur*	*Sub*	*Sur*	*Sub*	*Sur*	*Sub*	*Sur*	*Sub*	*Sur*	*Sub*	Files
500 or Less	0	0	24	64	0	0	0	0	24	64	88
500 thru 1,000	0	2	4	4	1	9	2	0	7	15	22
1,000 thru 5,000	1	0	8	5	0	3	1	1	10	9	19
5,000 thru 10,000	11	0	3	1	1	1	0	0	15	2	17
10,000 thru 30,000	2	2	1	1	1	0	0	2	4	5	9
30,000 thru 40,000	0	1	0	1	0	0	0	0	0	2	2
40,000 thru 100,000	3	2	6	3	0	0	0	0	9	5	14
Over 100,000	6	0	37	4	3	0	9	1	55	5	60
Total	23	7	83	83	6	13	12	4	124	107	231

Notes

*Does not include Temporary Water Permits

*When multiple quantities due to seasonal variation occurs w/in a file, the greatest gpd value was selected.

*When multiple uses occur within a file, quantities were added together for a single gpd value.

Status of Applications Receiceved in 1988											
	Application Pending		Permit Issued		Certificate Issued		Closed		*Source Totals*		Total
Gallons per Day	*Sur*	*Sub*	*Sur*	*Sub*	*Sur*	*Sub*	*Sur*	*Sub*	*Sur*	*Sub*	Files
500 or Less	29	49	0	0	0	0	0	0	29	49	**78**
500 thru 1,000	0	0	3	2	2	14	5	1	10	17	**27**
1,000 thru 5,000	1	7	11	5	0	2	2	0	14	14	**28**
5,000 thru 10,000	0	0	2	2	0	0	2	0	4	2	**6**
10,000 thru 30,000	2	0	3	9	3	0	3	3	11	12	**23**
30,000 thru 40,000	0	0	0	1	0	0	0	1	0	2	**2**
40,000 thru 100,000	1	0	6	2	0	0	1	0	8	2	**10**
Over 100,000	8	0	72	3	4	0	11	1	95	4	**99**
Total	41	56	97	24	9	16	24	6	171	102	273

Notes

*Does not include Temporary Water Permits

*When multiple quantities due to seasonal variation occurs w/in a file, the greatest gpd value was selected.

*When multiple uses occur within a file, quantities were added together for a single gpd value.

Status of Applications Receiceved in 1987											
	Application Pending		Permit Issued		Certificate Issued		Closed		*Source Totals*		Total
Gallons per Day	*Sur*	*Sub*	*Sur*	*Sub*	*Sur*	*Sub*	*Sur*	*Sub*	*Sur*	*Sub*	Files
500 or Less	3	6	13	2	12	85	9	6	37	99	136
500 thru 1,000	0	1	1	4	3	14	2	5	6	24	30
1,000 thru 5,000	0	0	4	5	0	4	0	3	4	12	16
5,000 thru 10,000	0	1	5	1	0	1	1	2	6	5	11
10,000 thru 30,000	1	1	2	7	0	1	3	0	6	9	15
30,000 thru 40,000	0	0	1	1	0	0	1	0	2	1	3
40,000 thru 100,000	1	0	7	2	0	0	2	0	10	2	12
Over 100,000	4	0	34	4	6	0	12	6	56	10	66
Total	9	9	67	26	21	105	30	22	127	162	289

Notes

*Does not include Temporary Water Permits

*When multiple quantities due to seasonal variation occurs w/in a file, the greatest gpd value was selected.

*When multiple uses occur within a file, quantities were added together for a single gpd value.

FISHERY DATA SERIES NO. 91-65

ANNUAL SUMMARY OF ALASKA DEPARTMENT OF FISH AND GAME INSTREAM FLOW RESERVATION APPLICATIONS[1]

By

Christopher C. Estes

Alaska Department of Fish and Game
Division of Sport Fish
Anchorage, Alaska

November 1991

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INTRODUCTION

Alaska has abundant and diversified sport fisheries which are of considerable recreational importance to fishermen. In 1990, for example, an estimated 424,873 anglers took 1.9 million household trips and fished 2.5 million angler days (Mills 1991). During this period, they caught 6.0 million fish (fish harvested plus fish released) and harvested 3.0 million. These values represent significant increases over those noted in the late seventies and early eighties.

The continued production of Alaska's valuable fishery resources is, in part, dependent upon maintaining important habitat characteristics such as the quantity and quality of water within fish bearing waters. Private and commercial developments and activities (hydroelectric projects, recreation, subdivisions, mining, water marketing, interstate diversions, agriculture, aquaculture, forestry, manufacturing, oil and gas development, etc.) will contribute to negative changes in both riparian and instream habitats unless sufficient instream flows are legally protected. An instream flow is defined as the quantity of water that flows past a given point within a stream channel during one second.

The Alaska Legislature recognized the importance of instream flow protection by amending the Water Use Act (Alaska Statute, AS, 46) in 1980 (ADNR 1985). The amendments (AS 46.15.03 and AS 46.15.145) provided the opportunity for private individuals, in addition to state, federal, and local government agencies, to legally acquire instream flow water rights in rivers, streams, and lakes for one or a combination of four types of uses:

1) protection of fish and wildlife habitat, migration, and propagation;

2) recreation and parks purposes;

3) navigation and transportation purposes; and

4) sanitary and water quality purposes.

Instream flows can be requested as rates of flow, surface water elevations, or water depths.

Regulations to implement the instream flow law were adopted by the Alaska Department of Natural Resources (ADNR) in September 1983 and modified in 1990. Forms required to apply for instream flows were made available by the ADNR in November 1983.

The Fish and Game Act (AS 16) requires the Alaska Department of Fish and Game (ADFG) to, among other responsibilities, "manage, protect maintain, improve, and extend the fish, game and aquatic plant resources of the state in the interest of the economy and general well-being of the state" (AS 16.05.020). One of the AS 16 provisions enables the ADFG to acquire water rights to further its objectives or purposes (AS 16.05.050). To take advantage of the new opportunities provided by the instream flow legislation and better meet its statutory mandates the Division of Sport Fish (DSF) of the ADFG acquired funding in 1986 to initiate an ongoing program to formally acquire instream flow water rights to protect sport fish resources (Estes 1987).

This report summarizes the fifth year of this program in which the primary objective was to apply for instream flow reservations for the protection of sport fishery resources in a minimum of four Alaskan rivers.

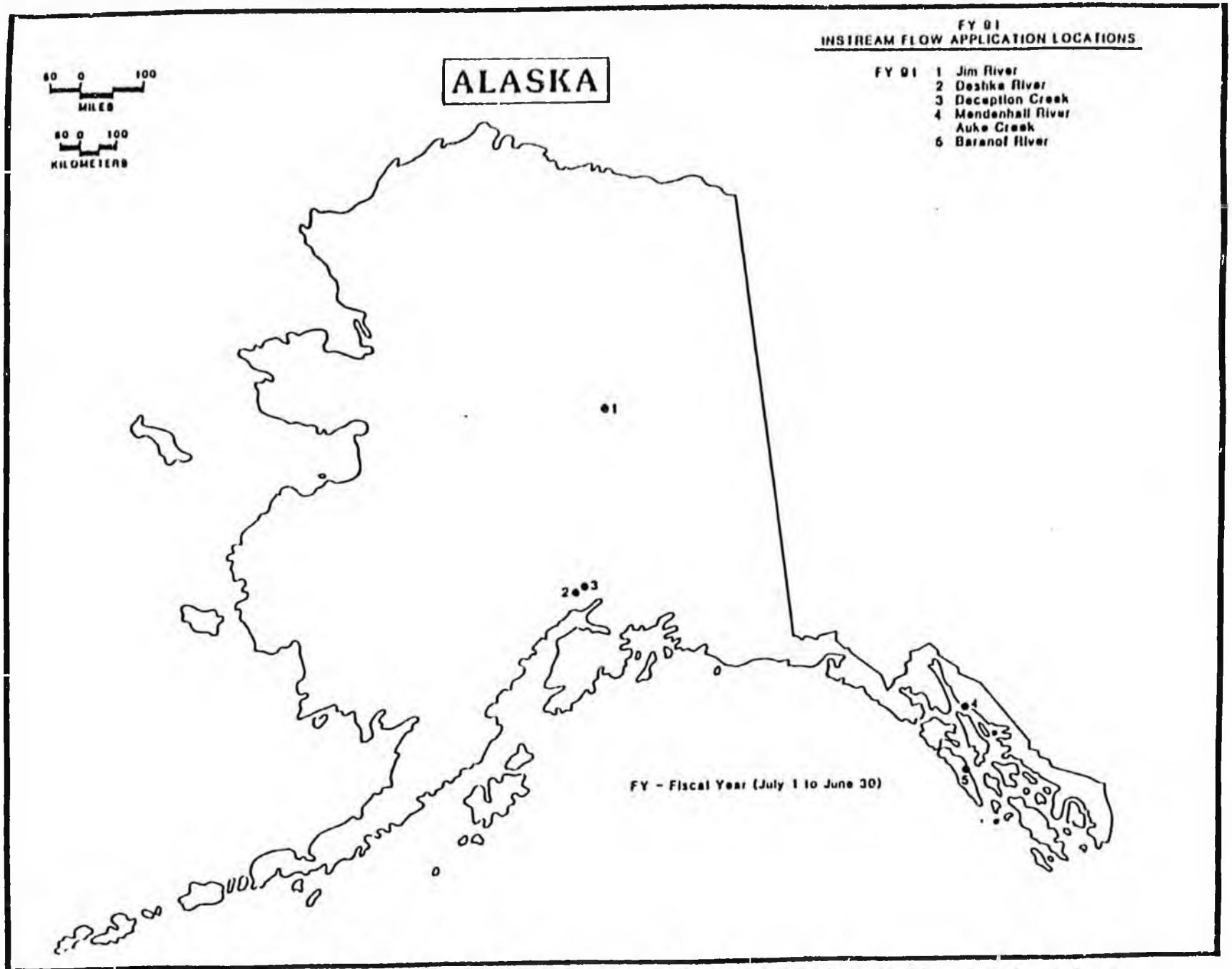

Figure 1. Alaska Department of Fish and Game instream flow reservation application locations, July 1, 1990 to June 30, 1991.

March (Appendix A23) to 3,484 cfs in Mendenhall River-Reach B during August (Appendix A22). Optimum habitat flows ranged from 10-17 cfs for the Auke Creek reach (Appendix A23) to 741-1,235 cfs (Appendix A22) for Mendenhall River-Reach B. Poor habitat flows ranged from 2 cfs for the Auke Creek Reach (Appendix A23) to 124 cfs for Mendenhall River-Reach B (Appendix A22). Flushing flows ranged from 34 cfs for the Auke Creek reach (Appendix A23) to 2,470 cfs (Appendix A22) for Mendenhall River-Reach B.

Instream flow values requested usually ranged from 60% to 100% of the QAA for the spawning and passage seasons, and 10% to 40% of the QAA for incubation and rearing seasons (ADFG 1991a, b, c, d, e, f, g, h, i). Flushing flows could not be formally requested under existing state law and regulations because flows were unregulated in each of the stream reaches. To establish the importance of protecting flushing flows (until a method acceptable to the DNR is developed) a statement was included in each application explaining that flushing flows were required to maintain fish habitat and (at a minimum) must be safeguarded whenever significant flow modifications or a structure capable of controlling flows is planned (Appendix B). Instream flow regimes requested are preliminary and not included in this report because they are subject to modification both while undergoing departmental review prior to submission to the ADNR and during the various stages of the ADNR adjudication process (administrative procedure used by the ADNR to determine whether to approve, modify, or deny an instream flow reservation request). These data will be presented in future reports following the completion of these processes.

DISCUSSION

Nine instream flow applications were completed for FY 91. This is comparable to the previous 4-year average of 10 applications per year (Figure 2; Table 1; Estes 1987-1990). During the 5 years of this program, the ADFG developed a cost effective approach to acquire instream flow protection for fish by using th' Tennant Method as the primary technique for analyzing instream flow needs. Th Tennant Method requires minimal data and is one of the easiest and inexpensive procedures for quantifying instream flows. Supplemental resources were acquired when it was necessary to use the more sophisticated Instream Flow Incremental Methodology, IFIM (Bovee 1982), to evaluate fish habitat suitability for specific increments of water (Estes 1987). The IFIM is the most time consuming, data and analysis intensive, and expensive of the instream flow analytical procedures.

The ADNR has received 46 applications for instream flows since passage of the 1980 enabling legislation (Estes 1987, 1988, 1989, 1990; Harle 1988). Thirty-nine of the applications were submitted by the ADFG (Table 1), one by the U.S. Bureau of Land Management (BLM), four by the Anchorage Audobon Society, and two by private individuals. Only the 39 ADFG applications and 1 BLM application met ADNR requirements and were accepted for adjudication. The other six applications were rejected by the ADNR for a variety of reasons: two had been filed before regulations to process them were adopted in 1983, documentation was insufficient to support the reservation requests in three of

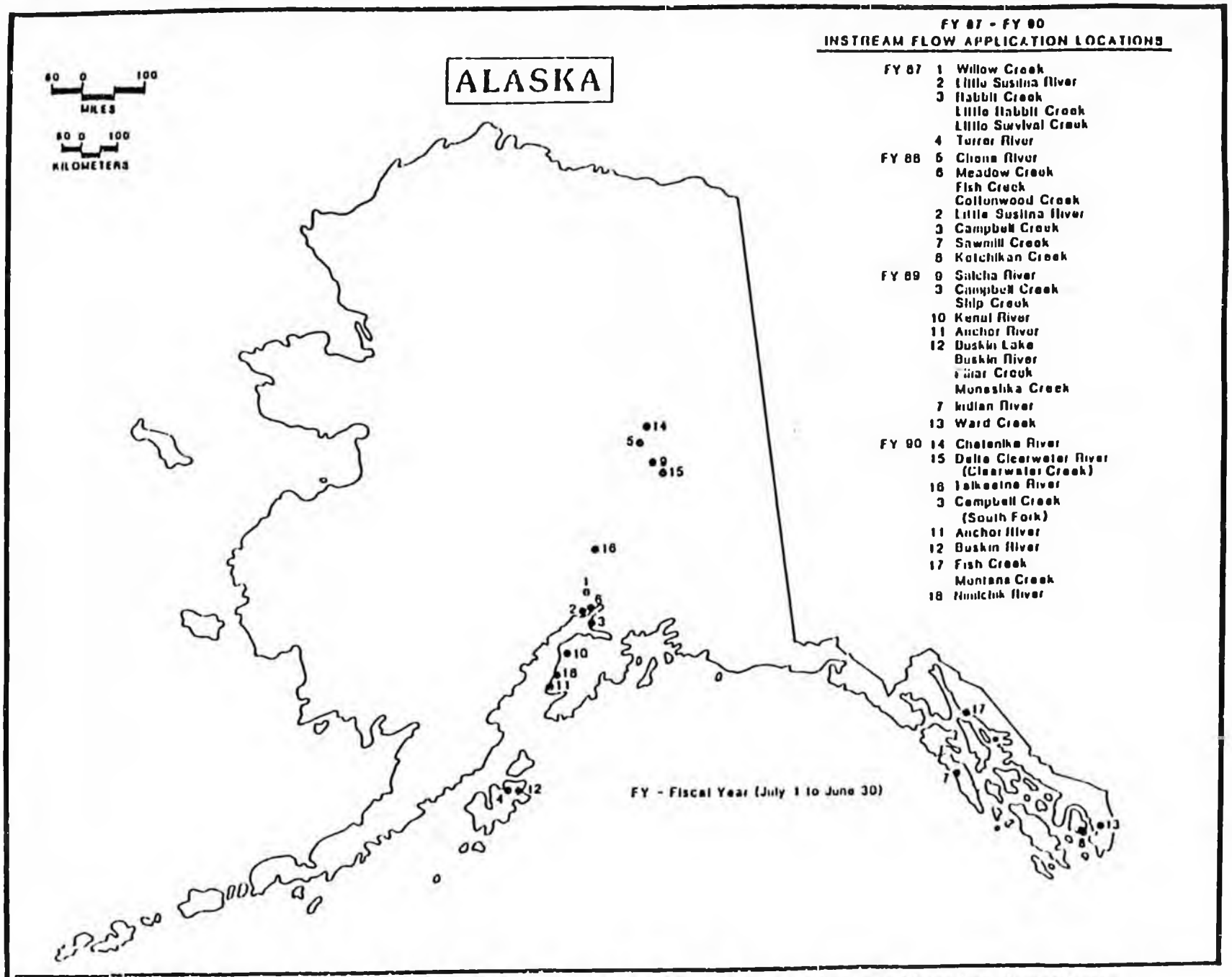

Figure 2. Alaska Department of Fish and Game instream flow reservation application locations, July 1, 1986 to June 30, 1990.

Table 1. Status of Alaska Department of Fish and Game instream flow reservation applications, July 1, 1986 to June 30, 1991.

Instream Flow Application Location	Status
Willow Creek	Granted (July 8, 1988)
little Susitna River	Granted (February 19, 1988)
Rabbit Creek	Granted (February 19, 1988)
Little Rabbit Creek	Granted (February 19, 1988)
Little Survival Creek	Granted (November 1, 1988)
Terror River	Granted (May 20, 1987)
Chena River (Two Reaches)	In Process of Adjudication
Meadow Creek	In Process of Adjudication
Fish Creek (Two Reaches)	In Process of Adjudication
Cottonwood Creek	Granted (May 15, 1991)
Little Susitna River (Upper Reach)	In Process of Adjudication
Campbell Creek (Middle Reach)	Granted (May 15, 1991)
Sawmill Creek	Pending Adjudication
Ketchikan Creek	Pending Adjudication
Salcha River	Pending Adjudication
Campbell Creek (Lower Reach)	Granted (June 28, 1990)
Campbell Creek (North Fork)	Pending Adjudication
Ship Creek	Pending Adjudication
Kenai River (Two Reaches)	Pending Adjudication
Anchor River (Lower Reach)	Pending Adjudication
Buskin Lake	Pending Adjudication
Buskin River (Lower Reach)	Pending Adjudication
Pillar Creek	Pending Adjudication
Monashka Creek	Pending Adjudication
Indian River	Granted (August 6, 1990)
Ward Creek	Pending Adjudication
Chatanika River-Reach A	Pending Adjudication
Chatanika River-Reach B	Pending Adjudication
Delta Clearwater River	Pending Adjudication
(Clearwater Creek)	Pending Adjudication
Talkeetna River-Reach A	Pending Adjudication
Campbell Creek (South Fork)	Pending Adjudication
Buskin River-Reach B	Pending Adjudication
Anchor River-Reach B	Pending Adjudication
Fish Creek (near Juneau)	Pending Adjudication
Montana Creek (near Juneau)	Pending Adjudication
Ninilchik River-Reach A	Pending Adjudication
Jim River	In Preparation
Deshka River	In Preparation
Deception Creek	In Preparation
Mendenhall River-Reach A	In Preparation
Mendenhall River-Reach B	In Preparation
Auke Creek	In Preparation
Baranof River-(three reaches)	In Preparation

the applications, and the instream flow reservation desired was not specified in one of them (Harle 1988).

Instream flow water rights have been granted for 10 of the ADFG applications and the BLM application; the remainder of the ADFG applications are in various stages of the process of adjudication (Table 1).

Although Alaska's instream flow law and regulations are among the most progressive in the country, there is an obvious need for improvement. Considering there are more than 12,000 fish bearing water bodies in Alaska (ADFG 1985, 1989), the significance of fish to recreation, subsistence, and our economy, and that private citizens (in addition to agencies) can request instream flow water rights, one may question why more applications have not been filed. There are several reasons: insufficient hydrologic data, costly and lengthy administrative processes, insufficient public education, and in some instances, application fees.

The dearth of hydrologic data in Alaska is perhaps the most limiting factor governing our ability to define instream flow and other water uses. There are only 316 USGS stream gaging sites in Alaska, an average of one stream gage per 7,000 square miles (Emery 1987). The average is one gage per 400 square miles in the lower forty-eight states. One hundred seventy-one of the Alaskan gages have continuous flow records of 10 or more years, 55 have records of 5 to 9 years, and 90 have records shorter than 4 years (Emery 1989). To apply for instream flow water rights at ungaged stream reaches, one must use regional hydrologic models to estimate flow characteristics. These models limit one's ability to evaluate naturally occurring hydrologic patterns at these sites with confidence[3]. It is also more time consuming to estimate flow characteristics for streams having a limited or non-existent data base as opposed to summarizing data for a stream having an adequate historical record. Therefore, it is obvious that additional gaging stations are required to improve the accuracy of the data base used to define instream flow requirements, as well as improve one's efficiency.

Administrative processes are, in many instances, a deterrent to potential instream flow applicants, including the ADFG. Without additional staffing and financial resources, these processes could hamper the ability of the ADFG to maintain its average production rate of 10 applications per year. The backlog of 29 ADFG applications and the additional FY 91 applications will each require from 1 to 3 weeks of time by ADFG personnel to participate in the various phases of the ADNR adjudication. Additionally, there are no fixed schedules because the ADNR has a backlog of water rights applications[4]. If

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[3] The U.S. Geological Survey (USGS) considers a 10-year record as the minimum data base required to support a statistically reliable regional flow analysis. Reliability of flow estimates calculated with these models is usually best for models developed for regions having a greater concentration of gaging stations.

[4] A priority date and time is assigned to each application at the time it is accepted by the ADNR. This protects applicants by establishing the order of priority for the allocation of water, regardless of when the adjudication process is completed.

too many adjudications were scheduled by the ADNR (at any one time), the added resource and time requirements would overtax existing levels of ADFG resources.

Alaskan law requires the ADNR to review instream flow water rights once every 10 years to evaluate whether flow modifications are warranted. Consequently, proprietors of instream flow water rights must maintain a permanent storage system for the original data and analyses. Documentation must be sufficient to enable original applicants (or representatives) to defend their instream flow water rights if challenged. This data storage requirement is costly in terms of space and serves as an impediment to private applicants with limited resources. It is also unclear whether owners of instream flow water rights must fund their own participation in 10-year reviews. There are no equivalent provisions for automatic reviews of out-of-stream or diversionary water rights.

Formal programs to educate and assist the public to file for instream flow water rights are nonexistent. Procedural and background publications to aid instream flow applicants are inadequate.

Fees charged by the ADNR for instream flow applications are a deterrent to applicants. With the exception of state agencies, all instream flow applicants are charged $500 per application. There is no charge to state agencies. This fee is expensive relative to application fees charged by the ADNR for most other water rights and (unlike other water rights) is not based on the amount of water requested.

The above factors and the complexity of water law all contribute to the low number of applications filed. There also appears to be a legal loop hole which allows diversions of water from a stream without a permit (if the water being diverted is not put to a beneficial use and there are no existing appropriations). Fish, wildlife, and other instream uses could be negatively impacted by non-permitted water diversions.

Some of these and related concerns have been improved or eliminated by modifications to the ADNR water management regulations (Alaska Administrative Code 1990) adopted in November 1990. Others are being addressed by the Alaska Legislature.

Among the beneficial changes is the addition of a new process that allows applicants to file an application for instream flows and acquire a priority date from the ADNR before completing all of their data collection and analyses. To qualify, an applicant must estimate instream flow requirements and is granted 3 years (from the date of filing) to complete data collection and analyses. In spite of the advantages of this provision, a lack of ADNR standards for substantiating estimates might prove to be a stumbling block for applicants.

Another regulatory revision eliminated a stipulation (associated with the mandatory 10-year review) that had granted the ADNR the option to place the burden for collecting and analyzing supplemental instream flow data on owners of instream flow water rights. This is a major improvement.

A new addition to the regulations requires applicants for out-of-stream water rights to quantify baseline seasonal flows when requesting more than 100,000 gallons per day (.05 cfs). A similar requirement for instream flow applicants has been in effect since 1983. This information will assist the ADNR to balance an applicant's request with water availability for other out-of-stream and instream flow needs. It will also help prevent overappropriation from streams that are ungaged.

Three pieces of legislation (House Bills 353, 354, and 355) were introduced in the spring of 1991 by Representative Cliff Davidson of the Alaska Legislature (1991a, b, c) to improve instream protection and water management processes.

House Bill (HB) 353 would provide funding ($239,400) to the ADNR to complete the automation of its water rights data base. The successful completion of this project should improve the management of water resources by the ADNR. Presently, the ADNR must retrieve water rights information on a site by site basis. This is a time consuming process, does not allow for reach specific evaluations, and is subject to error. The automated system should enable the ADNR to retrieve water ownership and status and related information on a stream reach basis in a relatively short period of time.

HB 354 would provide pass through matching funding ($242,000) to the USGS through the ADNR to perform a surface water data network evaluation of the Alaska stream gaging program and data base. The evaluation would address adequacy of the existing stream gage network, data bases, and existing models used to estimate streamflows at ungaged sites. Recommendations and priorities for locating and maintaining existing and future gage sites would also be provided. Several gage sites would also be funded by this legislation. HB 354 should improve the ability of the ADFG and other water data users to evaluate existing water quantity information and prioritize their support and requests for gaging sites.

HB 355 would guarantee the allocation of instream flow water rights for fish and wildlife. This legislation has many similarities to instream flow legislation submitted by Representative Davidson two years ago (HB 210) which failed to pass (Estes 1990). HB 355 would not apply to public water supplies, single family domestic uses of water, non consumptive uses of water, and, in many instances, uses of groundwater of 5000 gallons per day or less. Unlike HB 210, HB 355 does not specify a formula and procedure for quantifying the amount of water that is to be reserved for fish and wildlife. HB 355 also expands guaranteed instream flow protection to wildlife. It appears HB 355 would also provide the legal mechanism for the ADNR to require water use permits for diversions from bodies of water that are fish bearing or used by wildlife.

Based on our experiences, the following five recommendations to improve the instream flow reservation process are provided:

1) Additional staff (fishery biologists and hydrologists) and financial resources should be allocated to the instream flow program to allow for a greater number of applications to be processed.

2) HB 354 or similar legislation should be enacted to improve the USGS stream gaging station network and evaluate the precision and accuracy of hydrologic models used to estimate flow characteristics for ungaged sites in Alaska. Additional data collection sites should be funded based upon the network evaluation to improve flow projection models and estimates and to determine the availability of water for out-of-stream and instream uses.

3) Out-of-stream appropriation certificates should be automatically reviewed by the ADNR once every 10 years, as are instream flow reservations.

4) Legislation similar to HB 355 should be enacted or regulations established that will guarantee a base level of instream flow protection for stream reaches that are classified as supporting fish.

5) An instream flow methods and application handbook should be prepared by the ADFG to provide sufficient guidance for the public and other interested parties to file for instream flow reservations.

In summary, the experiences gained through analysis and preparation of each ADFG application have continually improved our ability to complete the next application. Unfortunately, we are at a stage where both data requirements and lengthy adjudication processes have and will continue to limit the number of reservations completed and submitted. If we are to counter these limitations, additional resources will be required for data collection and analyses, and the preparation and defense of applications.

ACKNOWLEDGMENTS

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PUBLIC OPINION MESSAGE

DEAR: REPRESENTATIVE DAVIDSON

-648 members
-average member residency is 31yrs

NAME: BOB DEWITT/VICE PRESIDENT
TITLE: KETCHIKAN SPORTS AND WILDLIFE CLUB
ADDRESS: P.O. BOX 5122
CITY: KETCHIKAN, AK ZIP: 99901
PHONE: 247-2381
BILL NO: HB 355
SUBJECT: INSTREAM FLOW RESERVATIONS FOR FISH/GAME
MESSAGE: THE BOARD OF DIRECTORS OF THE KETCHIKAN SPORTS AND WILDLIFE CLUB WOULD LIKE TO EXPRESS OUR SUPPORT FOR HB 355. PROTECTION OF OUR STREAM AND RIVER SYSTEMS HAVE ALWAYS BEEN AN OBJECTIVE OF OUR ORGANIZATION AND NEEDS PROTECTION.

POMID: 08181050
DATE: 92/02/18
TIME: 18:10:50
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March 2, 1992

Representative Cliff Davidson
Chairman, House Resources Committee
State of Alaska
House of Representatives
District 27
Box V,
Juneau, Alaska 99811

Re: HB 353, 354, 355

Dear Cliff:

Thank you for the invitation to review these important bills and certain amendments to them. Noticing the deadline of March 4, 1991, I will make brief comments to each separately.

HB 353

Excellent Bill at the cost simply because the need to acquire all data for future performance of upland uses, i.e., mines, mills, hatcheries, etc., could have devastating effects on natural fish habitats. New applicants could be allowed water rights and effects of normal water useage while normal uses in themselves may have to at times be cut back. Definitely a necessary expenditure statewide but definitely Kodiak.

HB 354

Definitely a look into the future. Although the need is not urgent to access stream flow in Kodiak. it appears to be a potentially valuable tool which could midigate the conflicts between timber harvest and stream degredation here.

In fact, this is currently a dilemna in the area where salmon streams are invaded so closely to their edge by timber harvest that both debris and erosion will result in surface flow reduction. The gauging of such abuse would allow a tangible meter in which to stop this intrusion in order to allow the proper and necessary flow of waters in our salmon streams. It is conceivable that even in Kodiak that intrusion to important water sources for community use could be invaded for special purposes such as additional hydropower and specific and appropriate calculations could be made whereby not jeopardizing the existing flow.

HB 355

The Amendment is good since it captures not only existing streams which provide fish related activities but existing and potential tributaries or water sources to that main stream which provides significant flows necessary to sustain ratio in the main river or stream.

The reservation of these in-stream flows are so vital for our natural resources of salmon and drinking watersheds.

Sincerely,

Jack L. McFarland

JLM/mlm

American Rivers

The Honorable Cliff Davidson
Chair, House Resources Committee
P.O. Box V
Juneau, AK 99811

February 20, 1992

Dear Representative Davidson:

American Rivers, Inc., the nation's principal river-saving conservation organization, strongly supports HB 355 to reserve the instream flows of Alaska's rivers. The State of Alaska is to be commended for taking this farsighted step to protect a resource that is vital to your state's economy - before it becomes overcommitted. Many of the Lower 48 wish that they could reverse the clock and undertake this type of advance planning for their rivers.

The provisions in the bill for quantifying instream flow are simple - easy to regulate and comply with - and adequate. They represent an improvement over the current system, which is costly and burdensome to administer. The bill appropriately calls for the holding of water instream, with the "burden of proof" needed when changes from that norm are requested.

American Rivers is pleased that the bill includes all rivers, not just those that sustain anadromous species, and that it requires instream flow protection in more than 12,000 fish and wildlife streams, rather than making instream flow protection a "consideration" as do existing laws.

Alaska holds approximately one-third of the nation's fresh water. Its decision makers should protect this important resource for future generations. American Rivers applauds your efforts on behalf of this bill and urges support of HB 355 in the House Resources Committee, in the full House and in the Senate.

Sincerely,

Suzi Wilkins

Suzanne C. Wilkins
Director of River Protection

hard copy to follow by mail

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To Heather Bradner	From Suzi Wilkins
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