

PRESENTATION TO PUGET SOUND TASK FORCE AT SEATTLE, WASHINGTON

THOR C. TOLLEFSON, DIRECTOR
DEPARTMENT OF FISHERIES

September 21, 1967

THE ROLE OF FISHERIES AND ITS RELATED WATER-USE PLANNING

Water is without doubt the most important single resource within the State. In a 1966 publication by Secretary of State, A. Ludlow Kramer, the State of Washington, and careful consideration must be given to each use to which it may be assigned. This must be done, to assure that no one use, or user, acts in such a manner as to negate the value of this resource to others. The multiple use concept subscribes to the principle that all beneficial water use be given consideration to guarantee equity to all users. It is of the utmost importance that the use of water by fisheries resources be recognized by all as a beneficial use, a use which is highly important to the economy of the State.

Fishery resources of Puget Sound, its drainages and adjacent waters are of outstanding value to state, national and international interests. Large populations of anadromous fish support an extensive sport and commercial fishery within the state and along the Pacific Coast from California to Alaska. The Puget Sound Basin is the single most important salmon producing area within the State of Washington and as such its extensive watersheds must be preserved and enhanced to provide maximum production to meet the demands for food and recreation of an ever increasing population. This has occurred despite the debilitating effect resulting from encroachment upon streams by urban and rural development and ever increasing demands for water from agriculture, industry, municipalities and other users.

Over the years, the use of water by fish has been regarded by many as an expendable use or at best a minor secondary benefit, a use that could be

made subservient to other prime uses. State Statutes did not recognize the use of water by fish as a fully beneficial use until the 1967 session of the Legislature. The recreational or sport fishery has been regarded by many in much the same light until very recently.

Benefits derived from water use by fisheries resources are now being recognized as very real and tangible in terms of economic benefit to the State. In a 1966 publication by Secretary of State, A. Ludlow Kramer, the commercial fishery was ranked as third largest among those industries dependent upon the renewable natural resources of the state, being exceeded only by agriculture and forestry. The recreational or sport fishery within the state is now also being interpreted into monetary terms by various agencies.

A survey conducted in 1962, by economists from the University of Washington, found the average outlay per salt water sport fisherman trip on Southern Puget Sound to be \$19.00. Because of fiscal inflation this figure today would be closer to \$23.00. Estimates by the Department of Fisheries based upon this survey would indicate that on an ocean sport salmon fishing trip each fisherman would spend up to twice as much. Almost the total salt water sports fishing emphasis is on salmon and this form of recreation attracts enthusiasts from every state in the union plus many visitors from foreign countries. Preliminary data indicates that sports salmon fishing trips will approximate 1.5 million during 1967, with about one third of these originating from coastal ports. Popularity of this sport has grown over the past 27 years at the rapid pace of over 8% per year expanding from less than 300,000 trips in 1940 to 1.5 million today. Contribution to the economy of the state from this fishery is presently calculated at some 45 million dollars annually and forecasts indicate that within the

next 20 years sports salmon fishermen will be spending 100 million dollars each year in pursuit of this recreation. This, of course, provided salmon stocks are maintained at a level to support such a fishery.

Boating has become a major recreational activity, a "way of life" among all strata of society in Washington. A recent survey by the Department of Commerce and Economic Development determined that there were 222,710 privately owned pleasure crafts within the state. The Department of Fisheries estimates that some 85,000 of these participate regularly in the salmon sport fishery. Many others participate on a more irregular basis. Boating and fishing have become almost synonymous within the state and any increase in numbers of pleasure craft is reflected in a corresponding increase in fishing pressure. Puget Sound is by far the most favored boating area within the state.

An average of 6.0 million salmon are landed by the commercial fishery in Washington annually. Some 11,000 fishermen on 5,000 vessels participate in the salmon fishery to supply 384 wholesale dealers or processing and packaging plants furnishing employment to some 6,000 shoreside workers.

Contribution to the economy of the State of Washington from both the sports and commercial fisheries presently approaches 100 million dollars annually and total capital investment in this combined effort approximates 1.3 billion dollars. This includes watercraft, gear and such shoreside installations as are directly related to the industry. Not included are such enterprises as motels, restaurants, service stations and other activities, many of which are directly oriented to and almost wholly dependent upon this resource. Complete communities such as Ilwaco, Westport, LaPush, Neah Bay, Sekiu and others depend upon the salmon fishery as their primary source of revenue. While this is true in varying degrees in

those communities located on or near salt water, total economic benefit is well distributed throughout Western Washington and the entire state for that matter. This was well illustrated during 1964, the first year salmon punch cards were required. Analysis of the punch cards disclosed that fishermen participated from all of the state's 39 counties, Yakima ranking 9th and Spokane 13th in numbers of cards issued. Counties of the Puget Sound Basin far exceeded all others however.

The importance of these fish for food and recreation must not be underestimated. The people of Washington want their salmon and they want them badly. The intensive competition for the present supply reflects the need for and the value of these fish and the necessity to assure their perpetuation and enhancement in the Puget Sound Basin.

The anadromous fishery resources, wholly dependent upon fresh water habitat during some part of their life cycle may suffer irreparable damage or total destruction if not given adequate consideration during water use planning. The same may occur if hydraulic projects are carried out without fish protective provisions being formulated and adhered to during periods of construction or operation.

Fish production areas have gradually been eliminated, isolated, or depreciated in our rivers and streams over the past fifty years through man's encroachment, alterations and consumptive uses. The present growth in urban residential and industrial developments within Puget Sound is continuing to take its toll of the productive low land streams at an alarming rate. If we rely on the economists forecasts of population growths reaching 2.8 million in the Puget Sound region by 1980 it is inevitable that fisheries production areas will be reduced much further. Therefore, we must plan for the allocation and use of water primarily for

fisheries purposes, rather than assuming our traditional attitude of fighting for the 'conservation residue'.

Water use planning and management are very integral parts of the Fisheries Department future ten-year plan. Programs for environmental management and enhancement within each river basin are of first priority to step up production of anadromous species commensurate with the increasing demands on them. The needs for fisheries in the eleven subregions in Puget Sound vary with the extent of alterations and consumptive drain these river systems have endured in the past.

Loss of complete streams, or segments thereof, to the use of anadromous fish is one of the major problems faced by this department; particular reference is made to the smaller, shorter streams of Western Washington in the Puget Sound area. Dams and other fish blockages, gravel operations, water pollution, channel changes and other types of streambed treatment have taken their toll. The strength of a salmon run in a given stream may be profoundly affected by the number of projects undertaken and the care that has been given to the formulation of provisions under which the work may be accomplished. The increased technological development and surge of population and industry in the Pacific Northwest has brought with it an intensification of old familiar problems and a large number of new problems. Thus fisheries agencies continue to find themselves in conflicts of interest with many associated water and land uses such as forestry, power, flood control, irrigation and municipal and industrial water supplies.

These conflicts have been generated through alterations in the natural river and stream conditions which have impaired their use for fish production. However, through coordinated planning and better liaison and understanding of each others needs, much has been accomplished to create better

relations in recent years between these agencies. Yet the loss of these river systems and estuaries for fish use, as a result of the varied water and related land use projects, must necessarily be halted or reversed before full fisheries benefits can be realized.

The 1967 legislature recognized the value of these resources and the need for strengthening the law to provide adequate protection and enacted several pieces of legislation designed specifically to accomplish this. They are as follows:

1. H.B. 140 allows certain stream flows to be set aside for fisheries use to assure flowing water in the stream at all times. These flows to be retained within stream channels and not subject to appropriation.
2. S.B. 175 clearly defines fishery use of water as a beneficial use along with other prime uses.
3. H.B. 179 created the Water Pollution Control Commission for the purpose of defining and enforcing water quality standards.
4. H.B. 159 amends the Hydraulic Code to better define area of coverage and provide enforcement capability.

In the general picture of water use development that is emerging in the Pacific Northwest, it is becoming increasingly evident that the effects of multiple use on salmon must be measured on the scale of entire river basins, and there is room for much improvement in establishing suitable stream environmental conditions on a basin wide scope.

We find ourselves continually faced with new challenges to maintain or enhance our resource in the face of increasingly intense competition for water and to apply our research knowledge to improvement of the

resource beyond its current capacity. As a means to satisfy these needs, major efforts will be given to research and fishery management aimed toward adequate formulation of water use projects for fisheries purposes. Included in this program will be work on experimental spawning ground improvements, specifications of criteria for minimum and optimum flows, manipulation of storage in headwater reservoirs, and other areas pertinent to local specific situations. There is also need for action in maintaining the status quo, as the increasing inroads of other water uses are continuing.