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OREGON'S MINIMUM PERENNIAL STREAMFLOWS

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ABSTRACT:

Oregon has had little experience in the public trust doctrine on water resource issues, but has been working with minimum perennial streamflows for more than thirty years.

HISTORY:

Water management, or more specifically water use, increasingly appears to be the subject of litigation and the focus of new legislation directed at water allocation practices and programs. New rules and standards are being developed to govern how society views this scarce resource. It seems unlikely new rules will be retroactive, but as in "Mono Lake" there may be yet undefined limitations on existing rights to use water.

Instream flows and public trust issues may be in the forefront of water discussions in the coming years. Whether these discussions will invoke renewed periods of crisis and conflict for western water codes or signal the beginning of new cooperative efforts to solve very real problems remains to be seen.

Oregon has had little experience with the application of the public trust doctrine in water resource issues. The state attorney general addressed public trust responsibilities pertaining to navigation, recreation, fisheries and public access in a 1971 opinion relating to fills in submerged and submersible lands. The most notable court case also involved filling of inter-tidal areas associated with a planned airport expansion.

Experience with instream flows on the other hand, has been somewhat broader and covers a period of almost 30 years. With the enactment of the water resource planning statutes in 1955, the Oregon legislature provided an administrative process to set minimum flows. Current law directs:

> "The maintenance of minimum perennial streamflows sufficient to support aquatic life, to minimize pollution and to maintain recreational values shall be fostered and encouraged if existing rights and priorities under existing laws will permit."

It wasn't, however, until 1958 that the first minimum flows were set under the then relatively new law.

Despite brief interruptions from time to time to address Northwest-Southwest issues, droughts, and budget problems, the state has made gradual progress in assessing its water resources, formulating water resource policies for most major drainage basins and setting minimum flows. Currently there are 456 minimum flows established at specific points or stream reaches. Most of the major rivers and tributaries have some degree of protection for the benefit of instream uses. In addition to minimum flows, the Water Resources Commission

has also used its other management tools of water use classification and withdrawal to promote or protect instream values. Whatever quantity of water is involved, and estimates vary, Oregon has made a significant commitment toward protection of instream flows and instream flow values.

Although there were few legislative changes in minimum flow concepts between 1955 and 1983, methods, perspectives and criteria used by the Board/Commission tended to change with time. Minimum perennial streamflows established to date are defined as administrative rules rather than water rights. Like water rights, the flows have priority dates and are subject to the same variations in water availability as other appropriations. Like other administrative rules, there are requirements for notice and hearing prior to adoption of minimum flows.

In the late 50's, lacking better criteria, minimum flows established in Oregon tended to reflect physical low flow characteristics of the stream or stream system under consideration. Consequently, most of the flows established during those first efforts were relatively low compared to available flow and were established with little or no seasonal variation. Beginning in the 1960's, the Oregon Department of Fish and Wildlife undertook a statewide study to apply consistent and species specific criteria to identify flow requirements for aquatic life.

The Oregon method includes the physical inspection of stream reaches to determine the locations where passage is limited due to local characteristics. Transects are taken at the identified locations following the shallowest courses from bank to bank. The stream is measured at various flow levels to develop a relationship between depth and velocity for passage

requirements of the fish in question. Stream reaches that are used for spawning and rearing are also analyzed to determine depth and flow requirements. Values are calculated to meet flow requirement for the specific species in question.

Flow values are tabulated by month for a twelve month period. Minimum flows are requested to maintain streamflow at a specific location on the stream. Work from Ft. Collins reflects further refinement of the type of evaluation undertaken.

As in many other western states, precipitation and the water resources are not spread evenly across Oregon. Approximately 5/6 of the average annual runoff occurs in the western 1/3 of the state's land area. Most minimum flows are located on rivers and streams in western Oregon reflecting both the distribution of runoff and an emphasis on anadromous fish. Pollution abatement, another statutorily authorized purpose for establishing minimum flows, is receiving increasing attention. Pollution abatement represents few of the flows set to date. However, in many instances, water quality and other instream purposes may be adequately addressed under the flow levels identified as necessary for aquatic life.

In 1983, the legislature further refined the minimum flow process. New statutes declared the establishment of minimum perennial streamflows as high priority of the Water Policy Review Board/Water Resources Commission and Department.

This new legislation provided a means for Oregon Departments of Fish and Wildlife and Environmental Quality to submit applications for additional

minimum streamflows or to revise existing minimum flows. Applications submitted are given a priority date as of the date they are received by the Department.

The Commission evaluates applications for new or revised minimum flows, then, according to statue:

Adopts the requested minimum perennial streamflow; or,

Adopts a minimum perennial streamflow at some other rate after making a finding that the other rate is more appropriate to support aquatic life and minimize pollution; or,

Rejects the recommended minimum perennial streamflow after making a finding that establishment of the minimum flow is of lesser importance than other uses of the waters of the particular stream.

The 1983 legislature directed the Departments of Fish and Wildlife and Environmental Quality to submit a list of up to 75 of their highest priority streams with applications for minimum streamflows. A list of 75 locations and applications for minimum flows for each were received on November 3, 1983.

The Water Policy Review Board, now Water Resources Commission, held public hearings in each basin in which minimum flows were requested. The Commission completed its consideration of the flows by Janaury 1, 1986, as directed by the 1983 legislature. Forty three (43) of the requested minimum flows were adopted as requested, 22 were adopted after being modified and 10 were rejected. The Board/Commission took other action such as withdrawal of some streams or stream segments for some of the 10 which were rejected.

Authorization for departments of Fish and Wildlife and Environmental Quality to submit applications for minimum flows was effective on January 1, 1986. So far, no applications other than the intial 75 flows included in the legislation have been submitted. 1987 Legislation added recreation to maintenance of aquatic life and minimization of pollution as the only primary purposes for which minimum flows can be set. Under standards for these applications, water availability cannot be the primary factor determining whether or at what level minimum flows are set. Instream flow requirements in some cases have been substantial. As a result, a number of the recently established flows are well in excess of flow levels which can reasonably be expected in the various stream systems during the summer months.

It is unlikely that either these flows or junior appropriators will be fully suppled without substantial changes in the various basins. To some extent the new flows identify additional goals to be addressed through watershed management activities, riparian restoration programs and development of storage projects.

Some of the limitations noted in the current instream flow program are a direct result of water shortage conditions. Few Oregon streams have sufficient summer flows to satisfy all desirable instream and out-of-stream demands. Consequently, while most of the testimony at public hearings tends to support the general concept of minimum flows and protection of instream values, reaction to specific proposals is often more mixed. The program was not intended and certainly does not function as a conflict resolution process. In a few instances, however, true multipurpose projects have been constructed to meet instream flow needs along with more conventional requirements of irrigation, municipal and industrial supplies.

With decreasing field resources and increasing numbers of minimum flows and water rights generally, regulation of the minimum flow system is becomimg more and more difficult. Not all established minimum flow points can be regularly monitored with existing staff. Working with the other resource agencies, the highest priority flows are being identified and monitiored regularly.

Department staff is working with the Oregon Department of Fish and Wildlife staff to develop a list of highest priority minimum flows. It is hoped ODFW field staff can assist by monitoring streamflows at some adopted minimum flow locations.

Regulation of other flows, like distribution for other appropriations is generally on a complaint basis. Maintaining adquate staffing to provide general distriubtion of water between rights and enforcement of minimum flows is likely to become an increasing problem in an era of scarce government resources.

SB 140 was passed by the 1987 Legislature and became effective on September 27, 1987. The purpose of the bill is to provide more protection for instream uses of water such as recreation, pollution abatement and maintenance of aquatic life.

The law provides for three methods to develop instream water rights.

1. The Departments of Fish and Wildlife, Environmental Quality and the Parks and Recreation Division can request instream water rights from the Water Resources Commission.

2. The law allows the purchase, lease or donation of private water rights for conversion to instream water rights.

3. The law requires the conversion of existing minimum perennial streamflows to instream water rights.

The Water Resources Commission is currently developing standards by rule to guide those instream flow requests. Final rules for instream water rights should be completed during the summer of 1988.

All instream water rights will have the same status as all other water rights except future municipal purposes shall have precedence over instream rights.

THE FUTURE:

Increased attention to public values in our waterways will require appropriators and instream users to work together to protect the resource. In the past, large federally financed and constructed projects were the typical solution to water supply problems. Many of the best storage sites have now been developed. Most of the remaining undeveloped sites have significant associated environmental impacts and have consistently failed to show a favorable benefit cost ratio under federal criteria. The apparent growing reluctance of the federal government to participate in water projects suggests that the western states will have to develop new solutions to local and regional water problems.

Water management in many areas is one method which will increase stream flow. This may well depend on a mix of smaller incremental programs. Conservation, watershed restoration, streamside enhancement and smaller off channel storage are being actively explored as part of the solution to current conflicts and to meet future water supply needs.

Some initial work suggests this multifaceted approach will not be inexpensive and will require a broader base of support than that associated with water projects in the past. Flood control, power production and irrigation of new lands or those lands currently experiencing shortages have usually been the basis for water projects. For a number of reasons, the historical federal support is changing.

Agricultural use may actually be decreasing in some areas. The Northwest faces a power surplus projected to last at least until the next decade. Most Oregon communities have enacted flood plain zoning to reduce damages associated with future development in flood prone areas. At the same time, the use of water to maintain fisheries, support recreation and maintain water quality appears to be receiving greater public attention than in the past. These new and expanding interests may provide the incentive and the opportunity to form broad based coalitions to support renewed efforts in water resources management and development. Rather than reallocation of existing shortages, there is support in Oregon for management of the resource with an emphasis on meeting future needs through conservation and more efficient use.