## WATER RESOURCES DEPARTMENT

## [DIVISION 74

# STANDARDS FOR CONSIDERATION OF APPLICATIONS INVOLVING HYDROELECTRIC PROJECTS

690-074-0005

## **Purpose**

These rules establish definitions, requirements for information, and standards and criteria which shall be applied by the Water Policy Review Board in the evaluation of applications for permits to appropriate water, preliminary permits and hydroelectric licenses for power development referred to the Board under the provisions of <u>ORS</u> 537.170 or 543.225.

Stat. Auth.: ORS 183, ORS 537 & ORS 543

Stats. Implemented:

Hist.: WRD 8-1983, f. & ef. 12-22-83

690-074-0010

## **Interpretation**

OAR 690-074-0010 to 690-074-0095 shall be interpreted to implement <u>ORS 537.170</u>, 543.220, 543.225 and 543.230 and achieve the purposes of the statutory policies set out in <u>ORS 536.220</u>, 536.300 and 536.310, and adopted basin programs.

Stat. Auth.: ORS 183, ORS 537 & ORS 543

Stats. Implemented:

Hist.: WRD 8-1983, f. & ef. 12-22-83

690-074-0015

**Definitions** 

As used in ORS 537.170 or 543.225 and within the context of these rules, the indicated meanings shall be applied to the fol-lowing terms:

- (1) "Available Water" means water not subject to statutory limitations on use and in excess of the amount necessary to satisfy existing water permits and rights and any applicable minimum perennial streamflows. The determination of available water shall be based on stream gage records or flow estimates using accepted methods of hydrologic analysis if stream gage records are not available.
- (2) "Board" means the Water Policy Review Board.
- (3) "Compensation" means full recovery through payments or enhancement measures of all unavoidable or inadvertent losses of resource values resulting from project construction and operation.
- (4) "Director" means the Water Resources Director.
- (5) "Enhancement" means the improvement of resource values beyond that which previously existed.
- (6) "Maximum Economic Development" means achievement of the greatest net practical economic gain to the people of the state.
- (7) "Minimum Perennial Streamflow" means streamflows established in accordance with ORS 536.310(7), to support aquatic life or minimize pollution. Water rights and permits with subsequent priority dates are subject to maintenance of the minimum perennial streamflow levels.
- (8) "Mitigation" means avoiding or minimizing losses of resource values by implementing structural or operational measures within the project area.
- (9) "Project Area" means all lands and waters required for project facilities or affected by the construction and operation of the project.
- (10) "Project Facilities" means all aspects of the project necessary for or related to power generation. Project facilities shall include but are not limited to; dams, diversion structures, reservoirs, forebays, conveyance structures, penstocks, turbines, tailraces, navigation locks, fish ladders, fish screens, recreation facilities, tunnels, transmission lines, sub-stations and buildings, and structures related to the project.
- (11) "Public Facilities" means lands and structures that provide for transportation, power, communication, water supply, waste treatment, drainage, flood control, recreation and community services to meet the needs for public health, safety and welfare.

- (12) "Significant Adverse Impact" means any impact, re-sulting in degradation of an important resource, that is unacceptable because it cannot be mitigated or because of unacceptable conflicts in the management or use of the impacted resource.
- (13) "Wasteful, Uneconomic, Impracticable or Unreasonable" as used in <u>ORS 537</u>,170 and 543.225 shall have any one of the following meanings:
- (a) A use of water in greater quantities or at greater rates than necessary to achieve proposed project purposes;
- (b) A use of water for which quantifiable public and private economic costs exceed quantifiable public and private economic benefits over the life of the project as demonstrated in the record:
- (c) A use of water which could not reasonably be developed with the available means or methods;
- (d) A use of water which would preclude present beneficial uses or other uses with a reasonable expectation of being developed during the proposed life of the project, which have a greater value to the public.

Stat. Auth.: ORS 183, ORS 537 & ORS 543

Stats. Implemented:

Hist.: WRD 8-1983, f. & ef. 12-22-83

<del>690-074-0020</del>

## Protection of Designated Resource Areas

- (1) Any application for a project located in the following areas shall be rejected by the Board as impairing or being detrimental to the public interest:
- (a) National parks;
- (b) National monuments;
- (c) State parks;
- (d) State wildlife refuges;
- (e) Bureau of Land Management areas of critical environmental concern established under Public Law 94-579;
- (f) Federal research natural areas established under 43 CFR 2070 or 36 CFR 200;

- (g) Scenic waterways designated under ORS Chapter 390;
- (h) Wild and scenic rivers established under Public Law 90 542;
- (i) Wilderness areas established under Public Law 88-577;
- (j) Estuarine sanctuaries established under Public Law 92-583;
- (k) State dedicated natural heritage areas established under ORS Chapter 273.
- (2) All applications for projects not located in but adversely affecting an area specified in section (1) of this rule must be consistent with the designated use as determined by the Board after considering the recommendation of the administrating agency.
- (3) All applications for projects in or adversely affecting any one of the following special management areas must be consistent with the designated use as determined by the Board after considering the recommendation of the landowner or management agency:
- (a) National wildlife refuges;
- (b) State waysides;
- (c) State wildlife management areas;
- (d) State forests;
- (e) County parks;
- (f) City parks;
- (g) Sites designated in the National Register of Historic Places.
- (4) All applications for projects in or adversely affecting the Columbia Gorge as designated in <u>ORS 390</u>.460 shall be consistent with the policy in <u>ORS 390</u>.415 as determined by the Board after considering the recommendation of the Oregon Columbia River Gorge Commission.

[Publications: The publication(s) referred to or incorporated by reference in this rule are available from the age.]

Stat. Auth.: ORS 183, ORS 537 & ORS 543

Stats. Implemented:

Hist.: WRD 8-1983, f. & ef. 12-22-83

## 690-074-0025

# Scope of Evaluation of Preliminary Permit Applications

The Board shall evaluate all applications for preliminary permits referred under ORS 543.225, on the basis of the following information. The applicant shall supply information at a level of detail sufficient to identify interests, issues and areas of concern that will require detailed assessment in the application for a license for hydroelectric development. Information shall be submitted in accordance with OAR 690-050-0025 to 690-050-0035 and this section:

- (1) Description of project features including:
- (a) General description and approximate location of all project facilities;
- (b) Map of the project area;
- (c) Sources of water and proposed appropriations from each source;
- (d) Identification of titles, rights-of-way, easements and conditional or special use permits needed for investigation of the proposed project;
- (e) Proposed mitigation and compensation measures;
- (f) Estimated project life and proposed method of removal.
- (2) Description of the social and environmental considerations in the project area including:
- (a) Naturally occurring hazard conditions such as flooding or ice formation which may affect project facilities or operations;
- (b) The availability of water and the effects of proposed operations on streamflow;
- (c) Water quality and adopted water quality standards;
- (d) Principal fish life and wildlife species present;
- (e) Principal recreation, scenic or aesthetic values;
- (f) Public and private land ownership and public facilities;
- (g) Land uses in the project area and the general compatibility of the proposed project with planned land use;

- (h) Special management areas as defined in OAR 690-074-0020;
- (i) Other social or environmental resources or resource uses of special value to the public which could be affected by the project.
- (3) Description of project economics including:
- (a) Total estimated project costs;
- (b) Estimated cost of power production per kilowatt hour;
- (c) The applicant's intended method of financing for the construction, operation and retirement of the project;
- (d) Proposed use, need or market for power produced by the project.

Stat. Auth.: ORS 183, ORS 537 & ORS 543

Stats. Implemented:

Hist.: WRD 8-1983, f. & ef. 12-22-83

690-074-0030

# Application of Standards to Preliminary Permits

Preliminary permits are issued to enable applicants to make necessary examinations and surveys; prepare maps, plans, specifications and cost estimates; and to make other preparations necessary to carry forward the work if a license is issued. Preliminary permit applications will be approved unless the project is excluded by OAR 690-074-0020 or the Board finds the proposed project would not be in the public interest because of significant adverse impact on other uses of the water involved that are of greater value to the public. Information contained in the application and hearing record will be used to assess the public interest and to formulate conditions to be included in the Boards' order on the preliminary permit application. Approval of a preliminary permit application shall not constitute approval of or assurance of approval for any subsequent application for hydroelectric licenses submitted for the project. Failure to comply with preliminary permit conditions may result in the rejection of the hydroelectric license application.

Stat. Auth.: ORS 183, ORS 537 & ORS 543

Stats. Implemented:

Hist.: WRD 8-1983, f. & ef. 12-22-83

690-074-0035

# Scope of Evaluation of Applications for Permits to Appropriate Water or Applications for Hydroelectric Licenses

Applications for permits referred to the Water Policy Review Board under <u>ORS 537</u>.170, or licenses referred under <u>ORS 543</u>.225 shall be evaluated on the basis of the following information. The level of detail of information shall at minimum meet the requirements of OAR 690 050 0075 and otherwise may range from general characterization to detailed studies depending on the size of the project and its potential social and environmental effects on land and water uses. Information shall be submitted in accordance with the requirements of OAR 690-050-0070:

- (1) Description of project features as required in OAR 690-050-0070 to 690-050-0075 and:
- (a) A map outlining the project area;
- (b) A construction schedule including a separate schedule for any in-water work with estimated dates of beginning and completion of:
- (A) Site access and preparation;
- (B) Project facilities;
- (C) Any compensation measures;
- (c) Project operation schedule;
- (d) Project maintenance schedule;
- (e) Usable project life;
- (f) Planned method of project retirement.
- (2) Social and environmental considerations in the project area including:
- (a) Topographic, geologic, and soil stability factors related to project construction and operation which may adversely affect land and water use;
- (b) Flood plain locations;
- (c) Climatological factors such as flooding and ice formation which may pose hazards to project construction or operation;
- (d) Spoil and borrow areas;

- (e) Sources of water, maximum quantity diverted or used from each source, schedule of diversions, and available water based on annual flow-duration frequencies and monthly occurrence statistics;
- (f) Existing water use in the project area;
- (g) Effects of proposed water diversion, project operations and/or storage on streamflow;
- (h) Project effects on aquatic life, fish life and wildlife including provisions for mitigation and compensation of potential adverse effects;
- (i) Consistency of the project with state and federal fish and wildlife programs;
- (j) Project effects on recreation including any provisions for mitigation and enhancement;
- (k) Project effects during construction and on water quality including measures for protecting, maintaining and enhancing water quality;
- (1) Project effects on scenic and aesthetic resource, including measures for mitigation and enhancement;
- (m) Adverse or beneficial project effects on other beneficial uses of water;
- (n) Ownership of project area lands;
- (o) Compatibility of the project with present and planned uses of all project area lands based on comprehensive land use plans and land use regulations of affected jurisdictions and federal land management policies or programs;
- (p) Provisions for protection of special management areas as defined in OAR 690-074-0020 or areas otherwise restricted from development within the project area;
- (q) Project effects on public facilities including provisions for mitigating and compensating adverse effects;
- (r) Provisions for preserving and protecting known historical and archeological resources or recovering artifacts or the informational content;
- (s) Project effects on other identified social and environmental resources and resource uses including provisions for mitigation and compensation of adverse effects.
- (3) Economic analysis of the project identifying sources or procedures used for determining forecasts, prices and interest rates and including:

- (a) Cost estimate for construction of project facilities;
- (b) Cost of producing power including annualized operating and maintenance costs;
- (c) Projected gross revenues, costs of obtaining an equivalent amount of power from alternate sources and other economic benefits of the project;
- (d) Net operating income over the usable life of the project;
- (e) Provisions for financing construction and operation;
- (f) For multiple purpose projects, the economic relationship between hydropower and other project purposes.

Stat. Auth.: ORS 183, ORS 537 & ORS 543

Stats. Implemented:

Hist.: WRD 8-1983, f. & ef. 12-22-83

#### 690-074-0040

## Welfare and Safety

Approval of an application by the Board shall not constitute any approval required by law to be obtained from the Director on the design, construction or operation of project facilities for the welfare or safety of the people of this state.

Stat. Auth.: ORS 183, ORS 537 & ORS 543

Stats. Implemented:

Hist.: WRD 8 1983, f. & ef. 12 22 83

#### 690-074-0045

#### Water Resources

In order to approve an application, the Board shall have due regard for and enter appropriate findings on the following criteria:

- (1) There is available water to provide for reasonable operation of the proposed project.
- (2) The proposed use will not preclude or interfere with any existing rights or permits for the use of water.

- (3) The proposed use is consistent with the applicable water resources program or in the absence of such a program that the proposed use is consistent with the policies set forth in <u>ORS 536.300 536.350</u>.
- (4) The project is consistent with achieving maximum economic development of the waters involved.
- (5) The project will not constitute wasteful, uneconomic, impracticable or unreasonable use of the waters involved.
- (6) The project, including mitigation, compensation and enhancement measures, is consistent with conserving the highest use of the waters of the state for all beneficial purposes.
- (7) The project is consistent with controlling the waters of the state for all beneficial purposes including, drainage, sanitation and flood control.
- (8) The project, including mitigating, compensating and enhancement measures, will not preclude or cause significant adverse effects on instream uses such as recreation, scenic and aesthetic values, fish life, wildlife or other potential hydropower development of greater value to the public.
- (9) The operation of the proposed project will not violate water quality standards for dissolved oxygen, total dissolved gasses, temperature and turbidity as provided in OAR 340-041-0205 to 340-041-0965.

Stat. Auth.: ORS 183, ORS 537 & ORS 543

Stats. Implemented:

Hist.: WRD 8-1983, f. & ef. 12-22-83

690-074-0050

# Fish Resources

- (1) In order to approve an application the Board shall have due regard for and enter appropriate findings on the following criteria:
- (a) Project facilities and operations are not likely to jeopardize resident or anadromous fish populations;
- (b) Project facilities and operations will not unreasonably interfere with upstream and downstream passage of anadromous fish through the project area except in special cases where those fish resources have been significantly damaged by past activities and the proposed single or multiple purpose project development will improve fish resources;

- (c) Project facilities and operation have been designed to mitigate, to the greatest extent practicable, adverse impacts upon spawning, rearing or other habitat areas necessary to maintain the levels and existing diversity of fish species;
- (d) Unavoidable adverse effects on fish or to fish management programs will be mitigated or compensated;
- (e) Project construction, timing and procedures are designed to minimize fishery impacts and avoid premature or unnecessary land clearing and disturbance;
- (f) All fishery mitigation measures are scheduled to be fully operational at the time the project commences operation;
- (g) The proposed project is consistent with applicable fishery management programs.
- (2) In order to protect important existing natural anadromous fish runs, the Board will reject applications for licenses and permits on the following mainstem streams as being detrimental to the public interest unless the power cannot be obtained at a lower cost through other energy sources in the region, or unless the project location is upstream of all anadromous fish runs:
- (a) Chetco River;
- (b) Illinois River;
- (c) Elk River (Curry County);
- (d) Sixes River (Curry County);
- (e) Middle Fork Coquille River;
- (f) South Fork Coos River;
- (g) Millicoma River;
- (h) East Fork Millicoma River;
- (i) Smith River tributary to the Umpqua River;
- (j) Siuslaw River;
- (k) Lake Creek (tributary to the Siuslaw River);
- (1) Alsea River;

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(m) Drift Creek (tributary to the Alsea River);
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(n) Five Rivers (tributary to the Alsea River);
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(o) Yaquina River;

(p) Elk Creek (tributary to the Yaquina River near Elk City);

(q) Siletz River;

(r) Salmon River (Lincoln County);

(s) Nestucca River;

(t) Trask River;

(u) North Fork Trask River;

(v) East Fork Trask River;

(w) Wilson River;

(x) Kilchis River;

(y) Nehalem River;

(z) Salmonberry River (tributary to the Nehalem River);

(aa) Little North Fork Santiam River;

(bb) Calapooia River;

(cc) John Day River;

(dd) North Fork John Day River;

(ee) Grande Ronde River;

(ff) Imnaha River.

Stat. Auth.: ORS 183, ORS 537 & ORS 543

Stats. Implemented:

Hist.: WRD 8-1983, f. & ef. 12-22-83

## 690-074-0055

# **Wildlife**

In order to approve an application, the Board shall have due regard for and enter appropriate findings on the following criteria:

- (1) The location and operation of project facilities are not likely to jeopardize threatened or endangered species and will minimize inundation of wildlife habitat, adverse impacts on nesting and wintering grounds, interference with wildlife migratory routes and disruption of habitat areas with special value to maintaining local abundance and diversity of wildlife, as defined in consultation with state and federal wildlife agencies.
- (2) Project construction methods and scheduling will minimize disruption of wildlife and avoid premature or unnecessary land clearing, or disturbance in the project area.
- (3) Unavoidable adverse effects on wildlife or wildlife habitat will be mitigated or compensated by methods such as replacement of vegetation, regulation of reservoir levels, creation of aquatic habitat, improvements in wildlife carrying capacity in the project area or acquisition of land or management rights.
- (4) The project is consistent with applicable wildlife management programs.

Stat. Auth.: ORS 183, ORS 537 & ORS 543

Stats. Implemented:

Hist.: WRD 8-1983, f. & ef. 12-22-83

#### 690-074-0060

#### Land Resources

In order to approve an application, the Board shall have due regard for and enter appropriate findings on the following criteria:

- (1) The project facilities and project operations will be designed to protect and preserve archeological sites, recover artifacts of historical significance, or as appropriate, document the site within the project area.
- (2) The construction or operation of the project will not contribute to erosion which would impair other water uses.
- (3) Project facilities which are located in geologically unstable areas are designed with appropriate safeguards.

(4) Project facilities located in areas subject to naturally occurring conditions or hazards such as flooding or ice formation are designed to withstand damage to project facilities and allow reasonable access for project maintenance or operation under such conditions.

(5) The applicant will obtain, prior to any construction, all titles, easements, rights-ofway or permits necessary for the construction, operation and maintenance of the project.

Stat. Auth.: ORS 183, ORS 537 & ORS 543

Stats. Implemented:

Hist.: WRD 8-1983, f. & ef. 12-22-83

#### 690-074-0065

#### **Economics**

In order to approve an application, the Board shall find that the applicant, along with all co-owners, possesses or has reasonable assurance of obtaining the funds necessary to cover estimated construction, maintenance, operating, mitigation and compensation costs.

Stat. Auth.: ORS 183, ORS 537 & ORS 543

Stats. Implemented:

Hist.: WRD 8-1983, f. & ef. 12-22-83

# <del>690-074-0070</del>

## Need for Power

In order to approve an application, the Board shall find:

- (1) There is a need for project power based upon:
- (a) The forecasts of the Regional Conservation and Electric Power Plan of the Pacific Northwest Power Planning Council, or state energy demands under OAR 345-078-0030; or
- (b) Evidence of a contract for the sale of power.
- (2) OAR 690-074-0070(1) shall not apply to the applications for the following types of projects:
- (a) Small facilities intended to supply power for on site uses;

(b) Projects which primarily utilize existing storage, diversion or water conveyance facilities where the operation of the power project will foster reductions in water losses or increases in the efficiency of water use; or

(c) Multiple purpose projects where the project is based pri-marily on other uses and in which power is a compatible project purpose.

Stat. Auth.: ORS 183, ORS 537 & ORS 543

Stats. Implemented:

Hist.: WRD 8-1983, f. & ef. 12-22-83

690-074-0075

## Cumulative Impacts

When several applications are pending for a single river basin, the Board will schedule and consider as many of those applications in the same time frame as is practicable, in order to assist in determining cumulative impacts. The Board will review the adverse impacts of construction or operation of a proposed project when considered in addition to the effects of existing hydroelectric projects and approved applications or pending applications under concurrent consideration within a watershed or a drainage basin. If the Board determines that adverse cumulative impacts exceed project benefits, an application or applications shall be rejected as inconsistent with the achievement of the maximum economic development of the waters involved and detrimental to the public interest.

Stat. Auth.: ORS 183, ORS 537 & ORS 543

Stats. Implemented:

Hist.: WRD 8-1983, f. & cf. 12-22-83

<del>690-074-0080</del>

## **Interim Orders**

If upon review of an application for a permit under <u>ORS 537</u>.170, the Board determines that there is insufficient information to address the criteria of OAR 690 074 0045 to 690 074 0075, the Board may either enter an order rejecting the application, or enter an interim order continuing the hearing and specifying the nature of any studies or information necessary to complete its assessment. An interim order may also contain provisions for coordination or consultation with applicable federal, state or local governmental resource agencies and owners of all lands in the project area.

Stat. Auth.: ORS 183, ORS 536, ORS 537 & ORS 543

Stats. Implemented:

Hist.: WRD 8-1983, f. & ef. 12-22-83; WRD 6-1985, f. & ef. 7-10-85

#### <del>690-074-0085</del>

## Federal Energy Regulatory Commission

The Board, at its discretion, may intervene in the licensing proceedings before the Federal Energy Regulatory Commission on any project application or submit comments in such proceedings to protect the interests of the state or assert state sovereignty in the use and control of the water resources of the State of Oregon.

Stat. Auth.: ORS 183, ORS 537 & ORS 543

Stats. Implemented:

Hist.: WRD 8-1983, f. & ef. 12-22-83

## 690-074-0090

# **Notice of Hearings**

(1) Prior to the scheduling of any hearing, the applicant shall provide the Department with a list of names and addresses of the taxpayers of record for all lands required for project facilities as shown on the assessment rolls of the county. The Department shall notify all listed taxpayers by mailing notices to the addresses shown at least five days prior to the first public hearing. Failure to receive such notice shall not nullify any proceedings under these rules.

(2) The Board, in addition to issuance of notice as provided by ORS Chapters 183 and 543, shall notify the planning department of the affected county(ies) or city(ies) of the hearing on any application for a water appropriation permit, preliminary permit application or hydroelectric license application for the development of hydroelectric power referred to the Board under provisions of ORS 537.170 or 543.225. The Board, through press releases or additional notices, shall also endeavor to provide general notice to individuals or organizations reasonably expected to have an interest in the outcome of the proceedings. In addition, notice will be published under the procedures set forth in ORS 543.220 once each week for at least four successive weeks in a newspaper of general circulation in each county where the project is to be located.

Stat. Auth.: ORS 183, ORS 537 & ORS 543

Stats. Implemented:

Hist.: WRD 8-1983, f. & ef. 12-22-83

## 690-074-0095

# Application of OAR 690-074-0005 to OAR 690-074-0090

OAR 690 074 0005 to 690 074 0090 shall apply to all applications with hearings notices issued after December 16, 1983, except that the provisions for OAR 690-074-0020(1) and 690-074-0050(2), shall not apply to hydroelectric license applications for projects for which preliminary permits or interim orders were issued prior to December 16, 1983.

Stat. Auth.: ORS 183, ORS 537 & ORS 543

Stats. Implemented:

Hist.: WRD 8-1983, f. & ef. 12-22-83]