



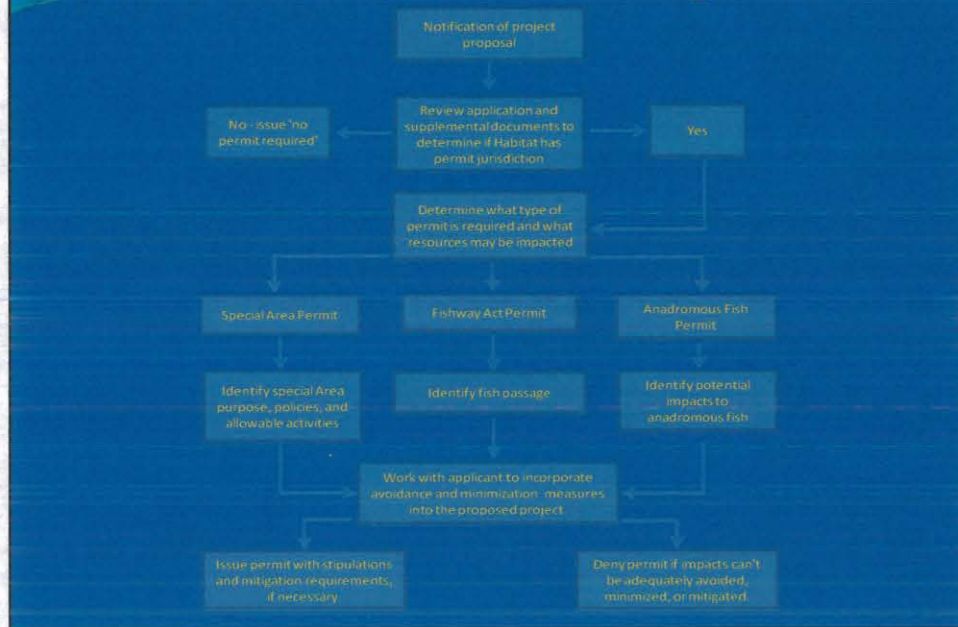
ADF&G's Role in Large Project Review

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ADF&G / Habitat Legal Authority

- **THE FISHWAY ACT - AS 16.05.841**
Fish Habitat Permit required if Habitat determines that activities could represent an impediment to the efficient passage of fish.
- **ANADROMOUS FISH ACT - AS 16.05.871 and 5 AAC 95.011**
All activities that could impact a specified anadromous waterbody, as identified in the Anadromous Waters Catalogue, require approval from Habitat.
- **SPECIAL AREAS – 5 AAC 95 and AS 16.20**
Habitat permits land and water use activities (excluding hunting, trapping, and fishing) in Special Areas. Certain Special Areas also have management plans with established policies regarding allowable activities.

General Habitat Permitting Process



ADF&G's Role in Large Project Evaluation

- Large projects have the potential to result in long-term or permanent change to fish and wildlife habitat.
- ADF&G staff work with the applicant and other agencies to ensure the project is designed to avoid or minimize impacts to resources of the state.
- This requires evaluation of all information available and identification of additional information needs to conduct a thorough analysis of the proposed project and project alternatives.
- There are five phases to large projects:
 - Pre-project scoping and fish and wildlife studies;
 - Permitting;
 - Project construction and monitoring;
 - Project operation and monitoring; and
 - Post-project site reclamation or restoration.

ADF&G's Role in the Pre-Project Phase

- Large projects typically undergo review to define the scope of the project.
- Scoping allows state and federal agencies the opportunity to become familiar with the project purpose/need, timelines, and potential impacts and alternatives.
- By conducting pre-permitting review, the applicant becomes aware of specific information that regulatory agencies need to issue permits and apprises them of possible resource issues.

ADF&G's Role in Pre-Project Phase (cont.)

- The Habitat Division acts as the liaison between the applicant and all potentially affected Divisions within ADF&G.
- Applicant and Habitat coordinate and consult with the Wildlife Conservation, Subsistence, Commercial Fish, and Sport Fish Divisions to avoid and/or minimize impacts to fish, wildlife, and subsistence resources.
- Mitigation means measures which must be undertaken by an applicant to avoid, minimize, rectify, reduce, or compensate for potential adverse impacts to fish or fish habitats resulting from a proposed use or activity.

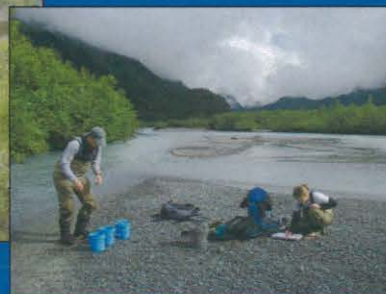
ADF&G's Role - Pre-Project Phase (cont.) Baseline Studies

- Typically large projects require considerable baseline data to characterize the existing conditions at the site.
- Types of data collected specific to fish and game:
 - Fish distribution and abundance;
 - Wetland delineation;
 - Wildlife distribution and migration patterns; and
 - Water quality and quantity.



ADF&G's Role - Pre-Project Phase (cont.)

- Baseline data are compared with the proposed project purpose to identify possible avoidance and minimization measures and to see if further baseline collection is needed.
- ADF&G works with the project proponent to incorporate these measures into the project design.



ADF&G's Role - Pre-Project Phase (cont.)

- Avoidance and minimization measures can include:
 - The use of bridges instead of culverts at fish stream crossings;
 - Development of road corridor alignments that minimize stream crossings;
 - The use of sediment controls to reduce sediment input into streams;
 - The use of native plants to stabilize ground disturbances;
 - Use of timing windows to avoid activities during sensitive life stages of fish and wildlife;
 - Setbacks or buffers from streams or lakeshores;
 - Avoidance of areas identified as being especially sensitive to disturbance; and
 - The use of fish screens on water intakes.

ADF&G's Role - Pre-Project Phase (cont.)



- Baseline studies can also identify mitigation opportunities to offset any project impacts that can not be avoided or minimized.
- Examples of mitigation projects that may be appropriate for large projects include:
 - Construction of wetland complexes;
 - Construction of overwintering habitat;
 - Construction of spawning channels in impacted streams;
 - Construction of off-channel habitat such as backwater habitat and side channels;
 - Riparian planting of native species;
 - Clean-up of old abandoned sites in the area;
 - Removal of stream blockages to enhance fish passage; and
 - Bank stabilization.

Potential ADF&G Permits - Pre-Project Phase (cont.)

- ADF&G may issue permits associated with baseline data collection, including:
 - Division of Habitat Fish Habitat Permits for water withdrawals, stream crossings of equipment, stream gages, etc.; and
 - Fish Resource Permits issued by the Divisions of Sport Fish and Commercial Fish for collection of freshwater and marine fish for development of baseline fisheries data.



ADF&G Project Permitting

- Activities associated with large project development that would typically require permits from the ADF&G include:
 - Fish Habitat Permits from the Division of Habitat addressing:
 - Construction of fish barriers (i.e., dams);
 - Flow reduction;
 - Stream crossings associated with road and pipeline construction (bridges, culverts, buried pipelines, etc.);
 - Water withdrawal and intake structures;
 - Stream re-alignment; and
 - Instream mitigation projects.
 - Fish Resource Permits from the Sport Fish and Commercial Fish Divisions associated with project monitoring.

ADF&G Project Permitting (cont.)

- Habitat is notified of a project typically from the applicant, the ACMP, or OPMP.
- Large Projects within the Coastal Zone require ACMP review. The Coastal Project Questionnaire submitted by the applicant identifies permits required for the project.
- The Division of Habitat participates in an ACMP review by providing comments of whether the project is consistent with ACMP standards and policies.

ADF&G Project Permitting (cont.)

- When evaluating large projects, Habitat must consider project site development, as well as infrastructure that supports site development such as:
 - Roads, runways, power generation and transmission facilities, dock and port facilities, gravel or rock quarries, water sources, and overburden waste rock and solid waste disposal sites.
- Depending on project elements and the affected resources, applicants will need Fish Habitat and/or Special Area Permits with appropriate stipulations to protect fish, wildlife, and their habitats.

ADF&G Involvement in Project Construction and Monitoring

- Once all permits are in place, construction activities begin.
- During construction, site inspections are scheduled, as needed, to ensure that permit stipulations are followed.
- Changes to the project design are discussed to determine if amendments to Fish Habitat or Special Area Permits are necessary.

ADF&G role in Project Monitoring

- Monitoring studies are conducted, as needed, to assess impacts from construction or operations.
- Monitoring studies may also be adaptable as new information becomes available.
- Monitoring studies also inform regulators about compliance with permit stipulations and may identify additional avoidance, minimization, or mitigation measures to integrate into the project.



ADF&G's Role in Reclamation / Restoration Activities

- Reclamation efforts for large projects can begin while the project is still operational.
- Reclamation/restoration may involve water management, erosion control, re-grading and re-vegetation, or site-specific mitigation or restoration projects.
- ADF&G is typically involved in site inspections and monitoring studies to evaluate the effectiveness of the mitigation and restoration.



Conclusion

- ADF&G's involvement in large projects is continuous from project inception through final closure.
- Habitat's role in large project review is to ensure a proposed project is developed, operated, and maintained in such a manner as to avoid, minimize, or mitigate potential impacts to the fish and wildlife resources of the state.
- Habitat monitors large projects during all phases of review to: gather fish and wildlife data; document results in technical reports; and apply lessons learned to new projects.

