

# Use of Early Agency Coordination to Efficiently Navigate the Permitting Process for Complex Stream- and River-Related Projects

H.R. Arnett, S.E. Lindberg, and D.S. Cherry

## Abstract

Early coordination with regulatory agencies made it feasible to permit a major relocation of a catalogued salmon stream as part of the recently completed Ketchikan International Airport Runway Safety Area (RSA) project. The project was funded by both the Southeast Region of the Alaska Department of Transportation and Public Facilities and the Federal Aviation Administration's (FAA's) Alaska Region to address a congressional mandate to update safety areas at airports nationwide. The project involved shifting the runway 750 feet to the southeast to provide full 1,000-foot long safety areas off either runway end. At the time the project was awarded, it was the FAA Alaska Region's single largest construction project in history.

The project team convened an Interdisciplinary Team (IDT) including the project owner, design and environmental specialists on the project team, and technical specialists from key regulatory agencies. The IDT evaluated multiple options for accommodating the RSA expansion by comparing costs, technical feasibility, and environmental effects of each option. The most feasible alternative for accommodating the runway shift involved a 1,300-foot long relocation of Government Creek—a salmon stream located immediately adjacent to the south end of the runway. The stream relocation provided opportunities to significantly improve habitat compared to the existing stream conditions. The impacts to existing stream and estuarine habitat were mitigated by the ecological improvements made to the newly constructed stream channel and estuary. Through early coordination, regulatory agency concerns were addressed in the initial stages of the design process. This collaboration continued through all phases of design, assuring that permits would be issued without delay for this unprecedented stream relocation project.

Risk and uncertainty associated with the stream relocation were managed effectively by implementing a well-developed adaptive management and monitoring plan. Two phases of stream construction allowed lessons learned on the first phase to immediately apply to and improve the second phase, and minor adjustments to the first phase were facilitated during the construction mobilization for the second phase. The adaptive management plan extended agency coordination through construction and into the post-construction phase, providing multiple opportunities for adjustments to the newly constructed stream to assure project success. The Alaska Department of Natural Resources was so pleased with the results that they featured the project on their website in an article called "Mitigation Done Right." This collaborative approach with regulatory agencies is currently being successfully applied on complex stream and river relocation projects at the Nome and Cordova airports.

---

*Hans Arnett is Senior Hydrologist for USKH Inc., 2515 A Street, Anchorage, Alaska, 99503. Sara Lindberg is Environmental Division Manager for USKH Inc., 544 4<sup>th</sup> Avenue, Suite 102, Fairbanks, Alaska, 99701. Shane Cherry is Principal Geomorphologist at Confluence Environmental Company at 146 N Canal St, Suite 111, Seattle, Washington, 98103. Email: harnett@uskh.com; slindberg@uskh.com; shane.cherry@confenv.com.*