

Expanded Critical Habitats For Bull Trout: Don't Despair, Prepare (Newsletter)*

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On October 12, 2010 the US Fish and Wildlife Service (FWS) issued its final rule on expanded critical habitat designations for bull trout in Idaho, Oregon, Washington, Montana, and Nevada. Approximately 18,975 stream miles and 488,252 lake and reservoir acres are included in the designation. Idaho leads the list with 8,772 stream miles; Nevada has only 72 stream miles in the Jar-bidge River. Montana contains 221,471 acres of lakes or reservoirs listed as critical habitat while Oregon contains 30,256 acres. The final rule has the potential to affect a range of natural resource industries and government-funded infrastructure projects. Current operations and future permit applications for grazing, confined animal feeding operations, logging, mining, transmission/pipeline, and hydroelectric power generation might be affected. These operations and permit applications will be closely examined by regulators, resource agencies, and project opponents. Despite this greatly expanded area future operations can be permitted if the proper approach is taken to address bull trout habitat concerns.

The strategy for continuing and initiating projects and operations within designated bull trout critical habitat units is to demonstrate that the project or operation "is not likely to adversely affect" (that's ESA Biological Opinion language) bull trout populations. This strategy has been successfully applied to renewal of commercial sand and gravel dredging operations in one of the most environmentally-challenging permitting environments: the Lower Columbia River between Oregon and Washington with many ESA-listed anadromous salmonid populations and the anti-development activism of the Portland/Vancouver area.

To implement this strategy use freely-available tools for spatial analyses that integrate terrain, landscapes, hydrology, drainage networks, bull trout behaviors and habitats, and time in a variety of models that identify limiting factors of the fish populations in the basin. The baseline digital data for these analyses are almost always readily available at appropriate scales. These analyses provide the context for the project or operation. In the case of existing

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operations the analyses can determine whether there is direct or indirect effects on the fish and their habitats. For new projects, careful analysis will offer insights on how to avoid jeopardy or provide benefits to the fish.

The use of analytical maps as presentation tools when addressing both technical and non-technical decision-makers enhances statistical and textual descriptions. These maps allow complex relationships to be easily and clearly seen and provide compelling support for the operator and project proponent. For example, a map that relates seasonal distribution of bull trout populations within the drainage basin to terrain characteristics (valley width, slope, and curvature; channel size, gradient and aspect) illustrates water quantity dynamics and water quality parameters (temperature, dissolved oxygen, sediment transport potential). Adding the location of the project or operation supports scientific interpretation of system dynamics.

This strategy was used in the successful renewal permit application for an aggregate operator whose small storage pit on the south bank of the Columbia River limited his business. Demand for the coarse sands he sold far exceeded the capacity of his storage area. By integrating the spatial locations and operating characteristics of the dredging with the spatial, seasonal, and migratory behaviors of juvenile and adult salmon his renewed permit doubled the volume of material he was allowed to remove from the river and waived the in-water work period restrictions established by the Oregon Department of Fish and Wildlife and adopted by the National Marine Fisheries Service. Therefore, while the FWS greatly expanded critical habitats for the bull trout the proper approach can help businesses survive and thrive. Don't despair, prepare.