



*Ecological Contaminants
biologists help turn
environmental hazards
into healthy wetlands.*

By Brian Spears



Despite its heavy-metals contamination, the Basin continues to be a major stopover for waterfowl migrating along the Pacific Flyway.

(Gap, continued)

To partially compensate the public for resource injuries, EC biologists proposed providing waterfowl feeding areas within the Basin that included sediment below toxic metals concentrations. This meant restoring wetland structure and function, and thus safe feeding areas for tundra swans.

Service EC biologists aren't typically involved in Superfund Record of Decision (ROD) discussions. However, close EC involvement throughout the 1990s proved to be invaluable. They determined early on that the best way to jump start ecological restoration was to get this work included in the EPA's ROD for the lower Basin. Despite the fact that Superfund RODs usually deal with human health rather than wildlife concerns they were able to insert language requiring waterfowl feeding areas in the ROD. The ROD involving the lower Basin was signed in 2002, and specifies cleanup goals within the Basin. The goals provide for 4,500 acres of safe waterfowl feeding areas, which include remediating 3,000 acres of contaminated palustrine and lacustrine habitat, and converting 1,500 acres of agricultural land to wetlands.

Success Stories

A project on private property in the center of the lower Basin quickly became a major success story. Soil sampling in 1999 by EC biologists from the Spokane field office helped identify this farm and ranch as having high quality potential for inclusion in the Superfund remediation program. EC biologists facilitated discussions between the landowners, Ducks Unlimited and EPA to restore 380 of their historic wetland acres drained for farming. These discussions culminated in EPA's purchase of a perpetual conservation easement in April 2006, and an announcement of this innovative approach by EPA, the Service,

the Coeur d'Alene Tribe, the State of Idaho and Ducks Unlimited.

Since then, EC biologists have continued to provide multiple avenues of technical assistance to EPA, including more accurately determining the location and best way to remediate low-level metals contamination; identifying the best sources of clean water for perpetual wetland flooding purposes and technical aspects of long-term wetland function; reducing future wetland operations and maintenance costs; and helping address water rights issues and legalities of Superfund work. The Service has also facilitated pass-through technical assistance agreements from EPA to Ducks Unlimited for help in evaluating the area and providing input on designs for the most efficient, productive wetlands possible.

EC biologists are also helping to identify other areas suitable for wetland remediation and/or restoration in the Basin, with a focus on areas where hydrological alterations or other modifications have destroyed or impaired former wetland habitat. Because these activities are being conducted under the Superfund program, they are funded by EPA. This work helps EPA fulfill its ecological remedial goals, while spending very little Service funding to conduct valuable ecological restoration activities.

In addition, EC biologists are also Trustee representatives for the Service on the Coeur d'Alene Basin Natural Resource Trustee Council, which is proposing to spend NRDA settlement funds on a number of related restoration projects. For example, the Trustees are focusing on finding willing participants in acquiring land preservation agreements for high quality current or historic wetlands that, once restored or remediated, would improve water quality and ecological

diversity. EC biologists continue to lead the Basin NRDA process in developing opportunities to work with local and regional planning groups while coordinating with ecological remediation activities conducted through Superfund.

The Service relies on innovative EC approaches to conduct work in areas like the Coeur d'Alene Basin, where restoring wetlands in the middle of a highly contaminated Superfund site can provide healthy habitats. The vision that perhaps one day their work will help restore the wild spectacle that once astounded visitors to these unique areas is why the Service's EC biologists dedicate their careers to this vital work and help other agencies with public health responsibilities achieve success—for wildlife and people. □

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By The Numbers

1 Number of Federal programs solely charged with ensuring the health of wildlife and the quality of their habitat (Service EC program)

500 Approximate number of hazardous waste cleanups completed on national wildlife refuges

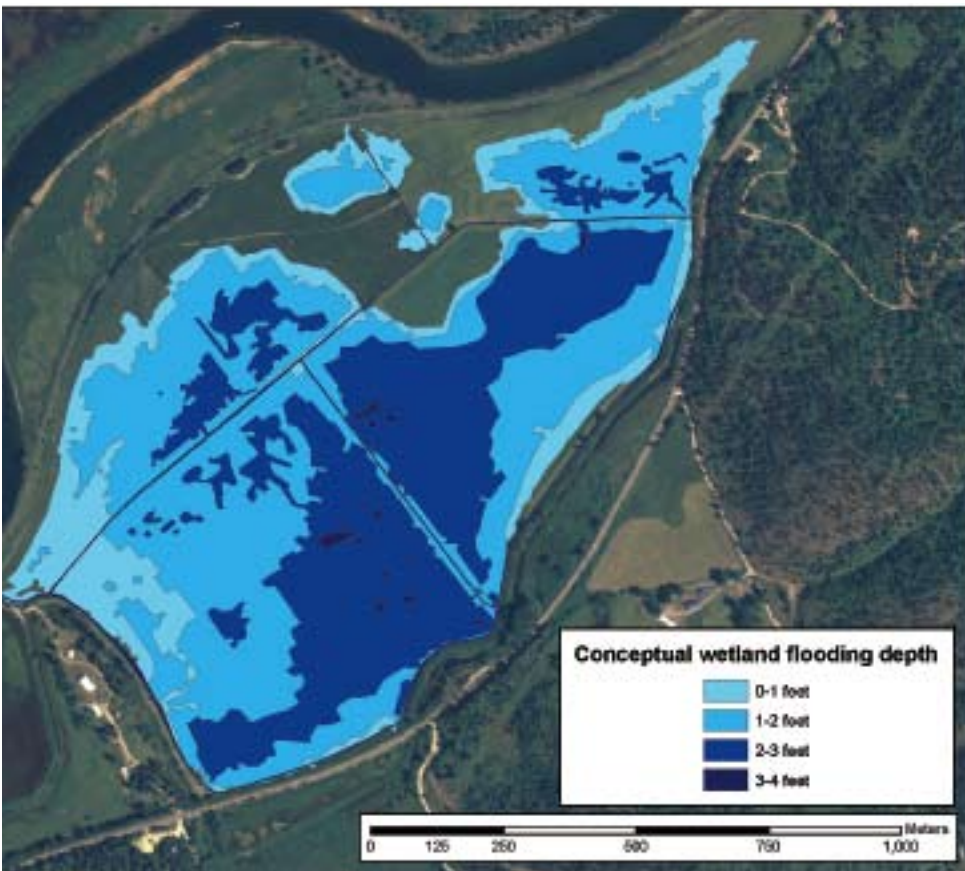
200 Approximate number of sites damaged by oil or hazardous substance spills assessed by EC biologists resulting in Natural Resource Damage Assessment restoration settlements

23,288 Number of wetland acres restored/enhanced by FWS during fiscal years 2004–06 through the EC related Natural Resource Damage Assessment process

58 Percent of FWS EC biologists currently working solely off non-FWS funded reimbursable salaries to accomplish the program's mission



Above: Dead tundra swans collected from a private property in the Coeur d'Alene Basin on April 19, 1997. The DOI estimates that approximately 150 tundra swans die from ingestion of lead contaminated sediment each Spring migration in the Coeur d'Alene Basin, Idaho.



Left: Service EC biologists continue to aid EPA in the cleanup and wetland restoration of a contaminated private property in the Coeur d'Alene Basin, including facilitating negotiations, providing toxicological technical assistance and helping develop conceptual flooding designs.