



ENGINEERING • PLANNING • ENVIRONMENTAL SCIENCES

### *Evaluation of ESA consequences*

*Development of strategic approaches for compliance*

*Habitat conservation plans*

*Biological evaluations and assessments*

*Development and review of 4(d) rules*

*Recovery plan development and review*

*Cooperative conservation agreements*

*Negotiation and development of mitigation agreements and projects*

*Establishment and management of mitigation banks*

*Policy development and permit review*

*Stream inventory assessments*

*Biological surveys*

*Watershed, stream, and risk assessments*

*Watershed management prescriptions*

*TMDL compliance and water quality objectives*

*Stream enhancement and restoration plans*

*Public involvement and voluntary participation strategies*

*NEPA and SEPA compliance*

**Parametrix**

## ESA Compliance

The listing of species under the Endangered Species Act (ESA) requires development of strategic policy, regulatory, scientific, and funding approaches to comply with the ESA. These approaches can include review and adoption of policies and regulations, watershed planning, species planning and assessments, regulatory compliance activities, and grant writing and habitat restoration efforts. Parametrix assists clients in developing and implementing strategic approaches that will work for the needs of each client. Our team includes legal and policy experts, fish and wildlife biologists, water quality scientists, wetland ecologists, soil scientists, surface water hydrologists, geomorphologists, landscape architects, and environmental and land use planners who have the technical expertise and experience to address your ESA needs.

### Project Examples

#### **Snake River Salmon Recovery Plan – WA**

Parametrix developed a salmon recovery plan for a region encompassing Asotin, Garfield, Columbia, and Walla Walla counties and a small portion of Whitman County. This region produces or provides migration and rearing habitat for important salmonid fish species listed under the ESA, including fall, spring, and summer Chinook salmon; sockeye salmon; summer steelhead; and bull trout. The plan addresses all aspects of recovery for these species, including habitat, harvest, hydropower, and hatcheries.

#### **Lower Columbia River Channel Deepening Reconsultation – OR and WA**

Parametrix assisted with this reconsultation process, necessary due to the National Marine Fisheries Service's (NMFS) withdrawal of its' biological opinion (BO) for the original consultation process which was being questioned for scientific and legal issues. We helped to resolve the issues that led to the withdrawal and crafted a new biological assessment that satisfied NMFS's needs and provided a legally defensible basis for a new BO. The new BO has been challenged and was upheld by the federal district courts.

#### **OACES ESA Services – OR**

Parametrix led an effort for the Oregon Association of County Engineers and Surveyors (OACES) to develop road maintenance guidelines that individual counties can adopt for ESA compliance. We developed a form for counties to fill out and submit to the NMFS for application of coverage under Section 4(d) of the ESA. Working cooperatively with the NMFS, we developed an addendum to the existing salmon 4(d) rule addressing best management practices for application of dust palliatives on gravel roads.

#### **Cross Base Highway ESA Compliance – Pierce County, WA**

The Cross Base Highway will provide much needed public transportation across a military base. Parametrix addressed regulatory compliance including NEPA and ESA. We conducted habitat and vegetation assessments to assess the extent and quality of oak woodlands, mixed oak-conifer, and prairie habitats and evaluated habitat for a number of federal candidate and state-listed butterfly and plant species. We provided policy guidance including how to address the Washington ground squirrel, which was a candidate species being considered for listing over the term of the project.

#### **Montana DNRC HCP and EIS – MT**

The purpose of this habitat conservation plan (HCP) and environmental impact statement (EIS) is to develop conservation measures to protect 13 federally listed and sensitive species on over 700,000 acres of forested trust lands in Montana. Parametrix is leading efforts to develop the HCP and associated EIS.

## **Snohomish Watershed Chinook Salmon Recovery Plan – Snohomish County, WA**

Parametrix provided policy and scientific services related to development of a Chinook salmon recovery plan for the Snohomish Watershed. We worked with a steering committee to identify alternative regulatory approaches that local jurisdictions could implement to support salmon recovery. The alternatives were designed to deal with ecological problems in the context of social and economic considerations.

## **Walla Walla Bi-State HCP – WA and OR**

Parametrix is leading a team to develop an HCP for the Walla Walla Basin addressing water quality and quantity for the entire watershed. It focuses on summer steelhead and bull trout, ESA-listed species, but also benefits other fish and wildlife species. This effort involves all affected interests in the watershed—federal, state, local, and tribal governments; irrigation districts; private landowners; and watershed and environmental groups.

## **Mid-Columbia HCP EIS – Chelan and Douglas Counties, WA**

Parametrix prepared a NEPA and SEPA EIS for three anadromous fish agreements and HCPs for hydroelectric projects located in the mid-Columbia River. Alternatives concerned either a Section 7 regulatory process (no action alternative) or an HCP with required performance standards that the applicants must meet. The HCPs were prepared for salmonid species including spring, summer, and fall Chinook; steelhead; sockeye; and coho salmon.

## **Tri-County Model 4(d) Rule Proposal – King County, WA**

Parametrix identified the biological consequences resulting from application of the proposed 4(d) rule developed by three central Puget Sound counties in response to the ESA listings of Puget Sound Chinook salmon and bull trout. The proposed rule also helped to protect the estuary, river, and stream habitats on which the salmon rely. Our analysis concluded that the rule would protect existing habitat and restore lost habitat over the long term, but that all elements of the rule were necessary to achieve its objectives.

## **Statewide Mitigation/Conservation Banking Program – OR**

Parametrix is working with ODOT to develop a comprehensive mitigation/conservation strategy (CMCS), which uses an “ecoprovince priorities” approach to address regional ecological goals. CMCS is addressing ESA-listed wildlife and fish species and other important unlisted species. In coordination with all interested federal and state agencies, we developed a habitat prioritization process that allows resource impacts to be evaluated and mitigated based on measurable ecological values. The CMCS program will establish six to eight mitigation banks within the next two to three years to accommodate mitigation needs for ODOT’s Bridge Delivery Program (over 400 bridges) and future ODOT transportation projects.

## **Middle Rio Grande ESA Collaborative – NM**

The Middle Rio Grande ESA Collaborative Program is a consortium of federal, tribal, state, and local governments and non-governmental agencies working to restore habitat for two federally endangered species: the Rio Grande silvery minnow and the southwestern willow flycatcher. Parametrix is developing reach-specific restoration plans to restore habitat in two different 40-mile reaches of the Middle Rio Grande.

## **Lower Columbia Salmon Recovery Plan Review – Cowlitz County, WA**

Parametrix reviewed the Lower Columbia Salmon Recovery Plan for Cowlitz County to identify actions the recovery plan required of it and therefore potential liabilities and responsibilities. The County is using the report prepared by Parametrix for negotiations with the Lower Columbia Fish Recovery Board, NMFS, USFWS, and others.



### **OFFICE LOCATIONS**

**Colorado**  
Denver

**Idaho**  
Boise

**New Mexico**  
Albuquerque  
Las Cruces

**Oregon**  
Albany  
Portland

**Washington**  
Bellevue  
Bremerton  
Lacey  
Sumner

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