

# FY 2010 RESEARCH PROBLEM STATEMENT

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## TITLE ([more info](#))

**Inventory of fish habitat quality in the Willamette Valley**

## PROBLEM (Description of need) ([more info](#))

The Endangered Species Act (ESA) warrants that threatened species be given special consideration and protection if their population dips low enough. A number of Northwest fish species are either protected under the ESA, or are likely to be listed in the near future. One of the best tools for assisting fish species recovery is the removal of barriers to fish passage. However, without prior knowledge of which areas above fish barriers is most habitable, the removal of fish barriers will not provide maximum benefit for the effort and funding spent.

## PROPOSED RESEARCH, DEVELOPMENT OR TECHNOLOGY TRANSFER ACTIVITY ([more info](#))

Create a GIS data layer inventory of the quality parameters for fish habitat in the Willamette Valley. The inventory will begin with layers of simple, easy to estimate or measure parameters such as flow, summer/winter temperatures, and perhaps dissolved oxygen. If there is a need to add more parameters at a later date, future studies can be performed using other metrics and the results added to the inventory. The data layer could be added to USGS StreamStats.

## BENEFITS ([more info](#))

The resulting GIS layer inventory will be an invaluable tool when attempting to maximize areas of pristine fish habitat by retrofitting, replacing or removing minimal barriers to fish passage. Such a tool will provide valuable insight for compliance with the Endangered Species Act, and could foster future research in the area.

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Problem Statement Number: