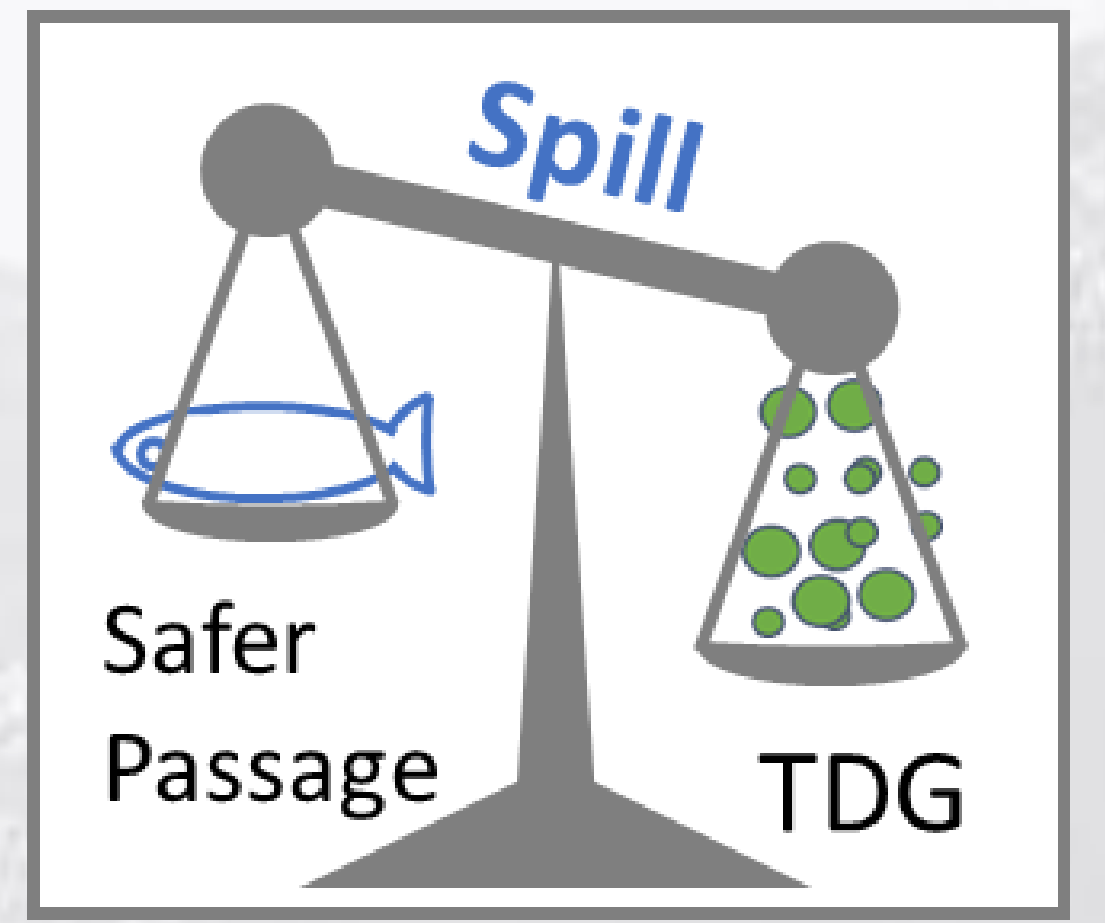
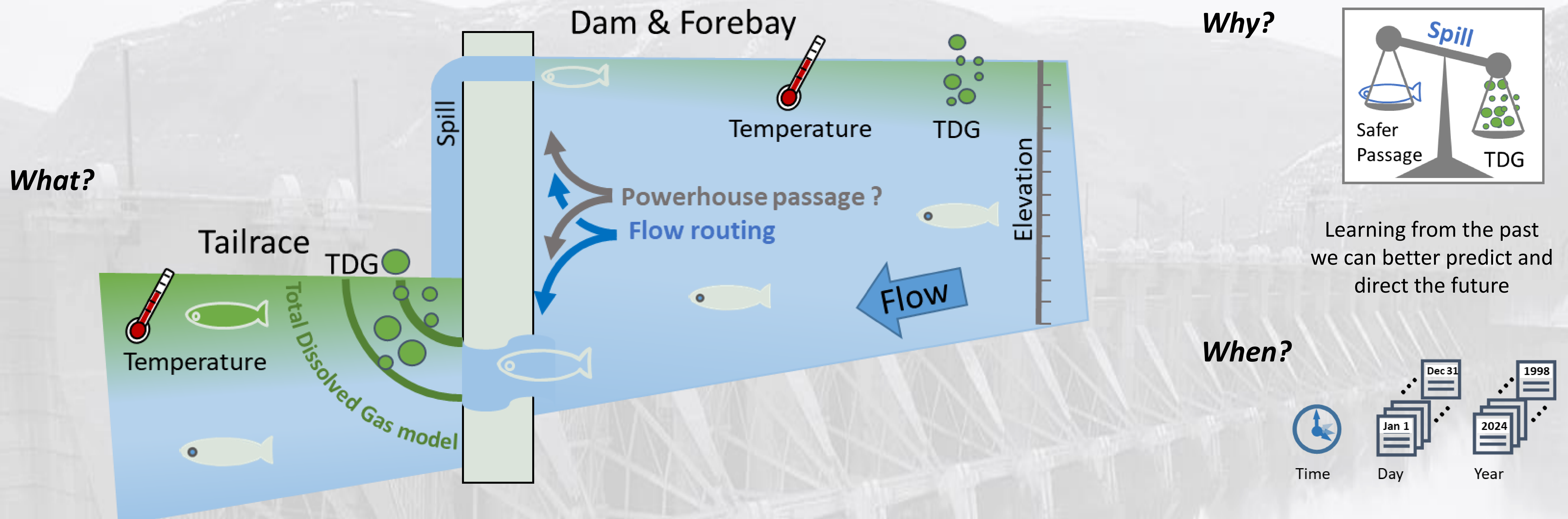


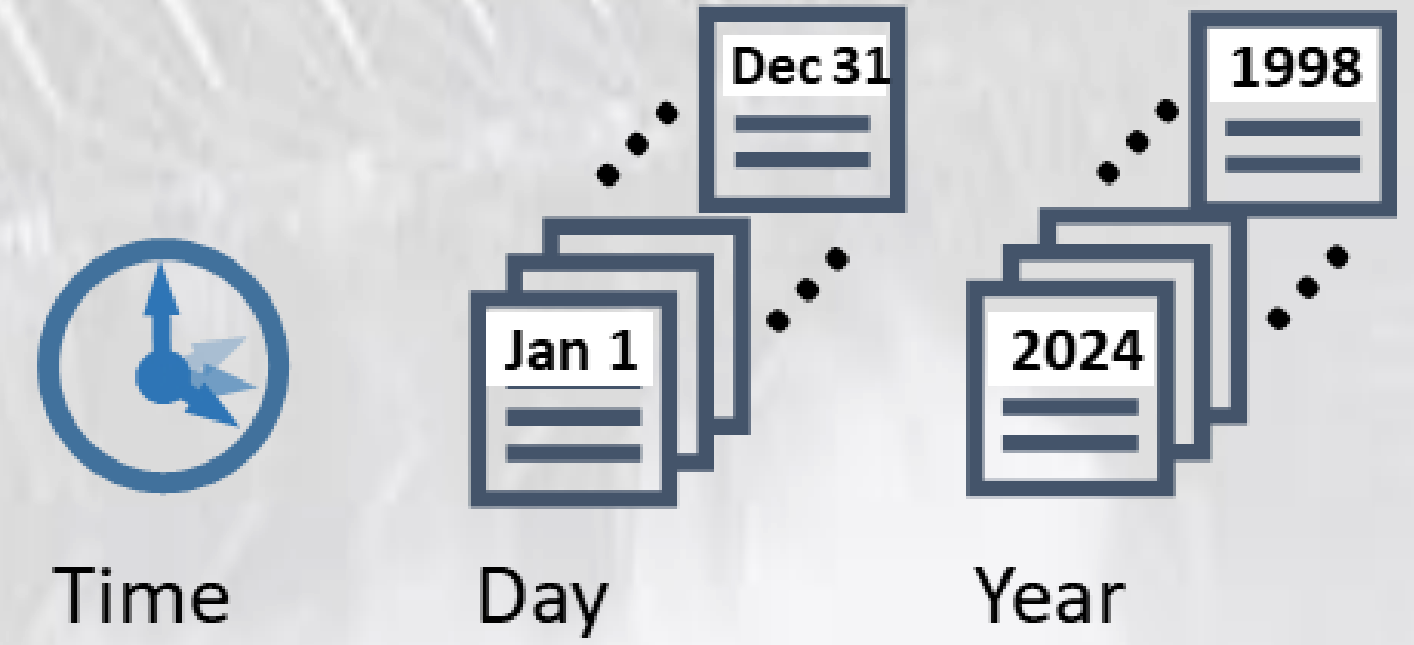
# Visualizing Environmental and Dam-Operation Drivers on Total Dissolved Gas (TDG) and Juvenile Salmon Passage

W. Nicholas Beer and Jennifer Gosselin, School of Aquatic and Fishery Sciences, University of Washington, Seattle, WA



Learning from the past we can better predict and direct the future

When?

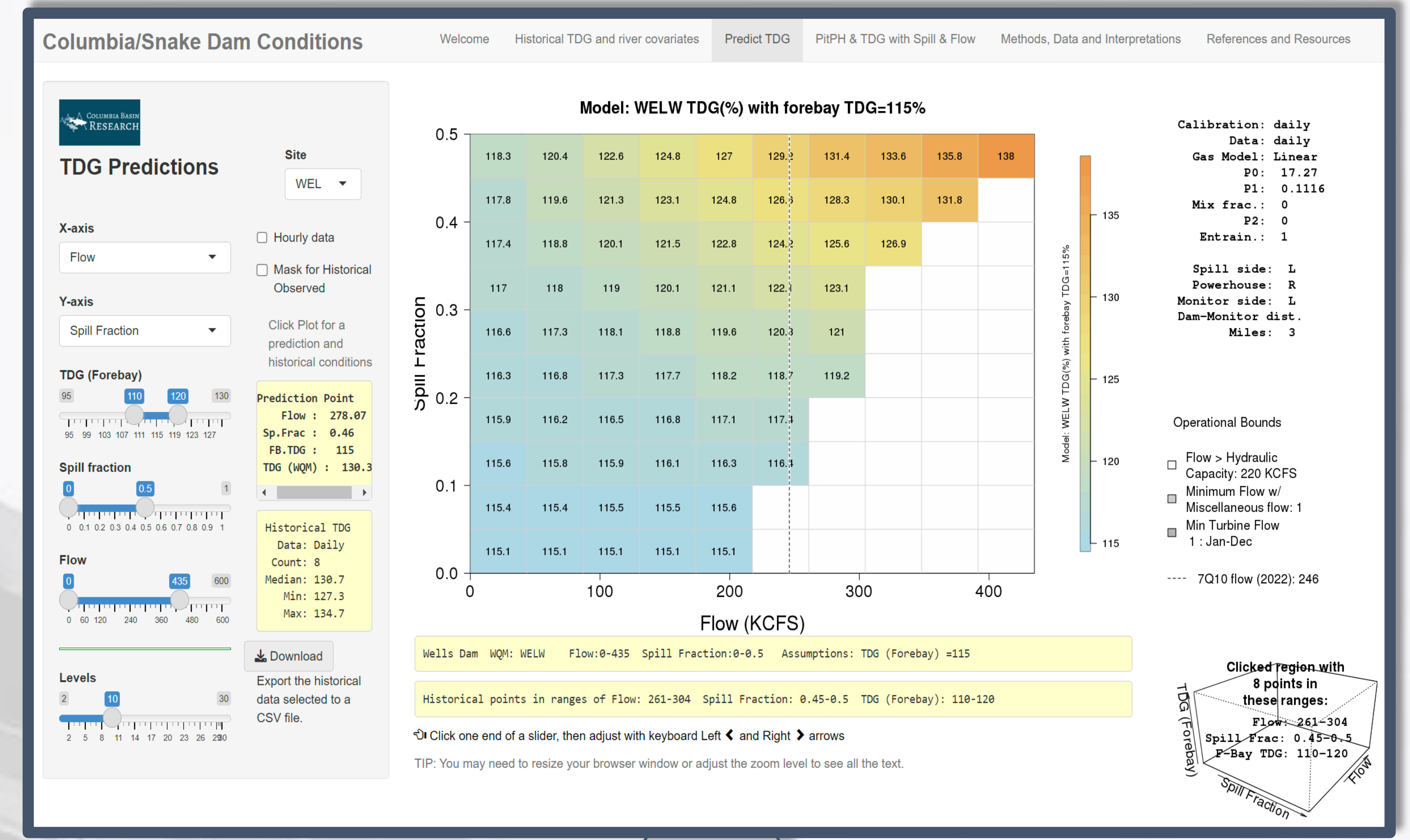
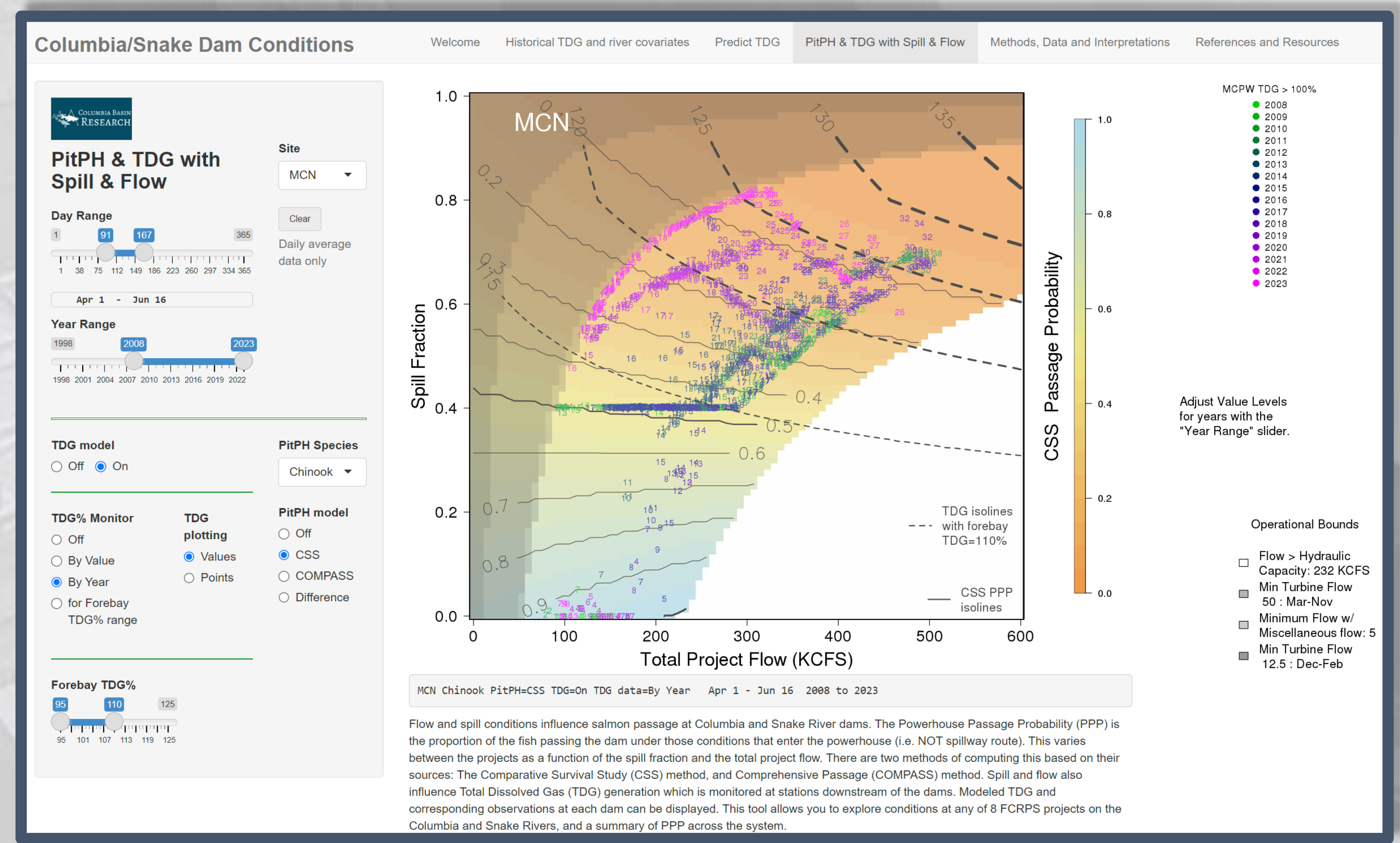


**How?** Interactive App on Dam Conditions web page: [www.cbr.washington.edu/shiny/DAM\\_CONDITIONS/](http://www.cbr.washington.edu/shiny/DAM_CONDITIONS/)

**Where?** Assembles, filters, and illustrates data and predictions of environmental conditions, operations, and juvenile salmon passage at 14 Columbia and Snake river dams in Washington and Oregon.

Spill-influenced trade-offs between powerhouse passage and TDG

Forecast TDG based on dam operations and environmental conditions



Background Image: John Day Dam ©US Army Corps of Engineers <https://www.nwd.usace.army.mil/Media/Images/igphoto/2003015871/>



nickbeer@uw.edu

**Who?** Stakeholders, Rights-holders, Public, Managers  
This work supported by Bonneville Power Administration

each dam is unique  
their data is the model  
and patterns will guide

