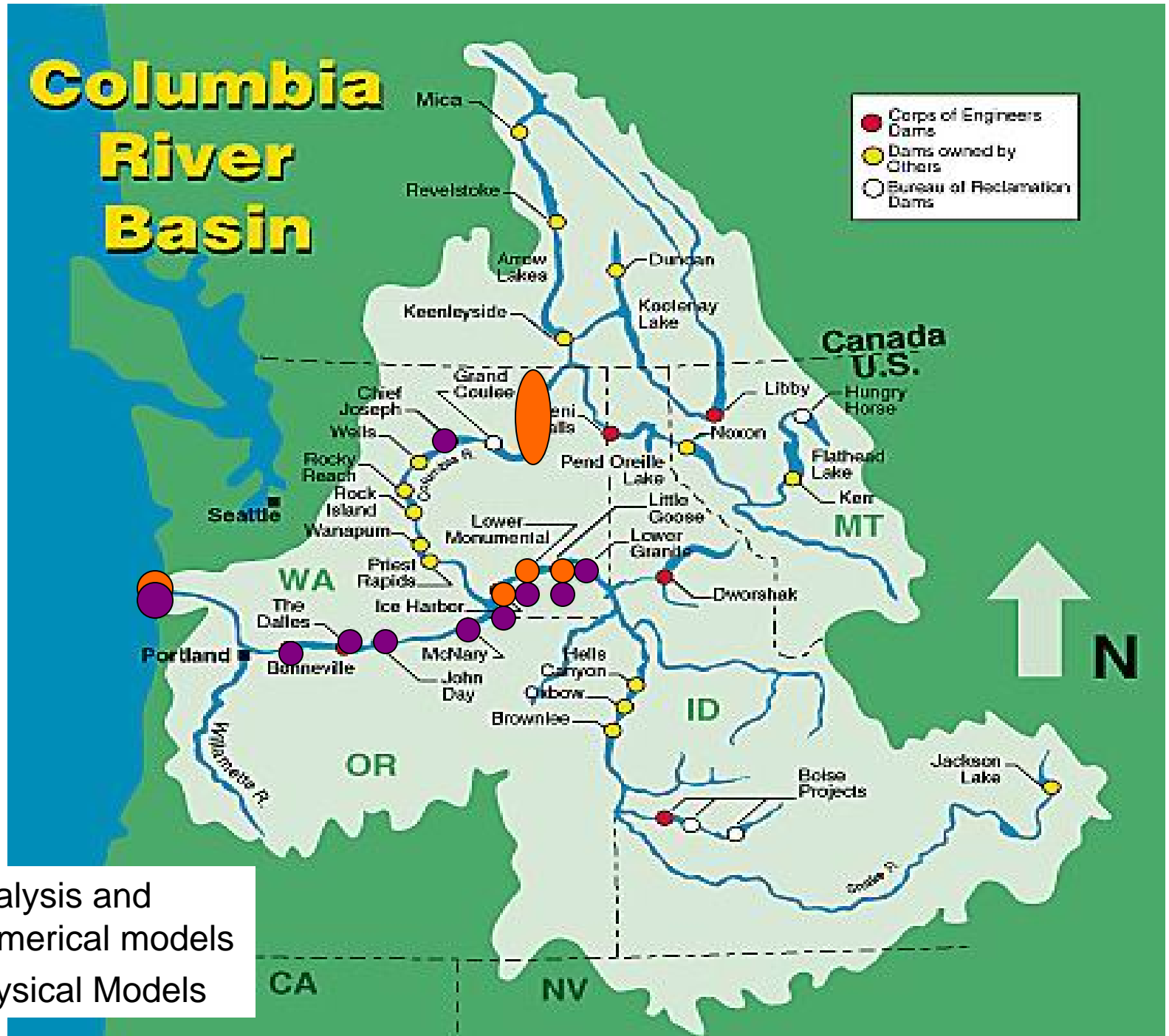


# Columbia River Basin

Jackie S. Pettway, P.E.

Chief, Harbors, Entrances and  
Structures Branch

# Columbia River Basin



# Mouth of the Columbia River



- Demirbilek, Z., Lin, L., and Nwogu, O. G. (2008) "**Wave Modeling for Jetty Rehabilitation at the Mouth of the Columbia River, Washington/Oregon, USA,**" ERDC/CHL-TR-08-3, US Army Engineer Research and Development Center, Coastal and Hydraulics Laboratory, Vicksburg, Mississippi.

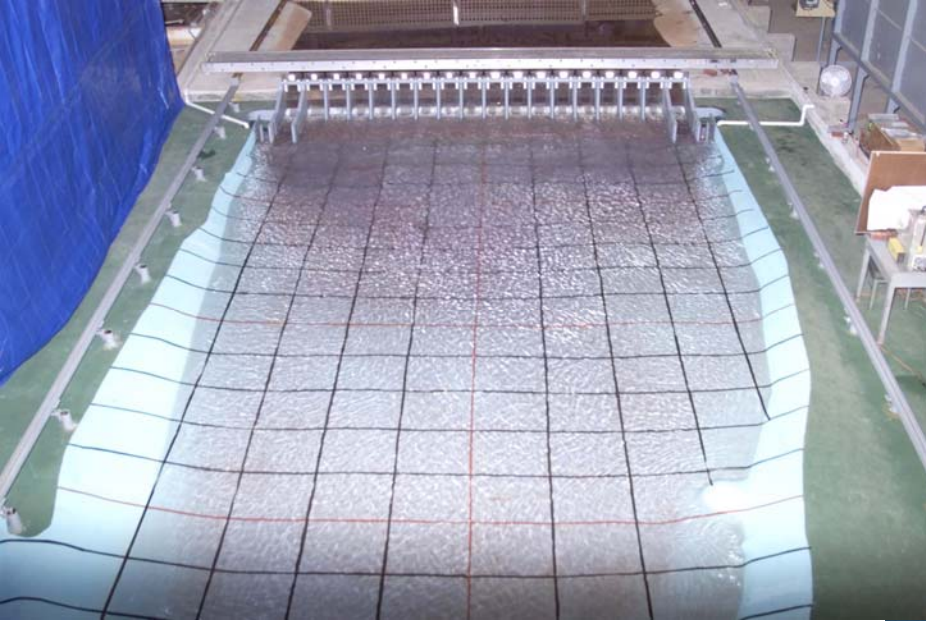
- [Sand Waves That Impede Navigation of Coastal Inlet Navigation Channels](#) **PDF** - [Aug 2006]

- Analysis of Sediment Transport Processes

*Draft Chapter to appear in **Dredged Material Disposal at the Mouth of the Columbia River—Report 2 Technical Report***

By Joseph Z. Gailani, S. Jarrell Smith

# Bonneville

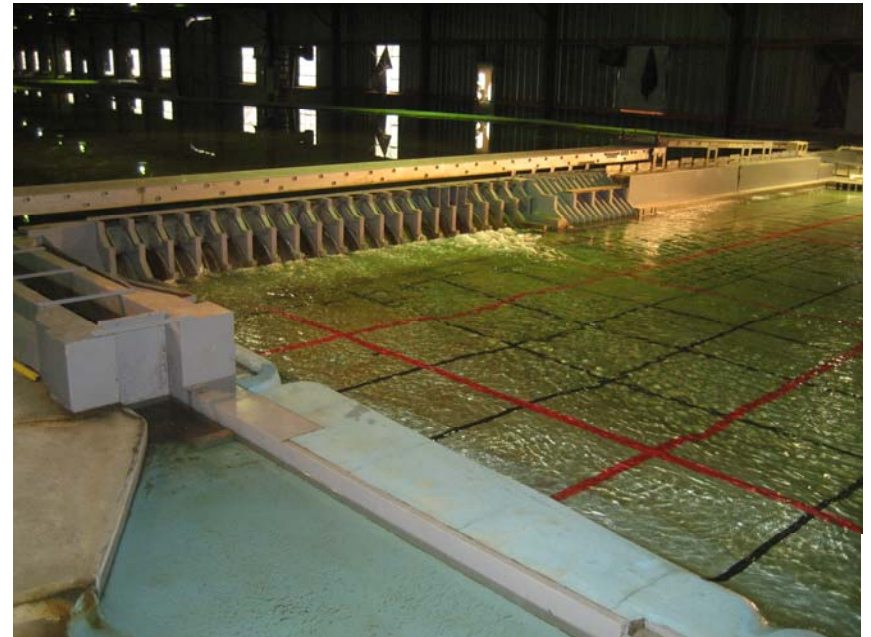




# The Dalles



# John Day





# McNary



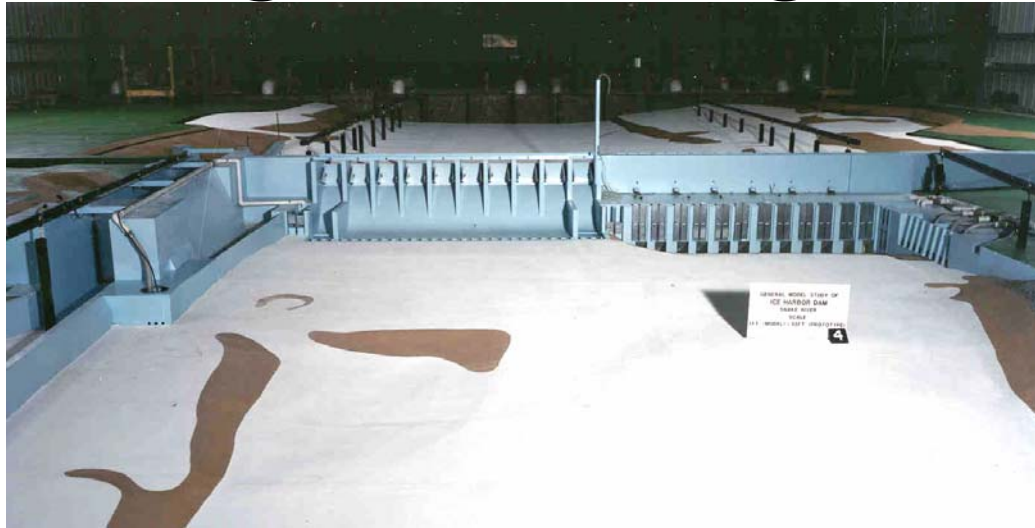
McNary Lock & Dam



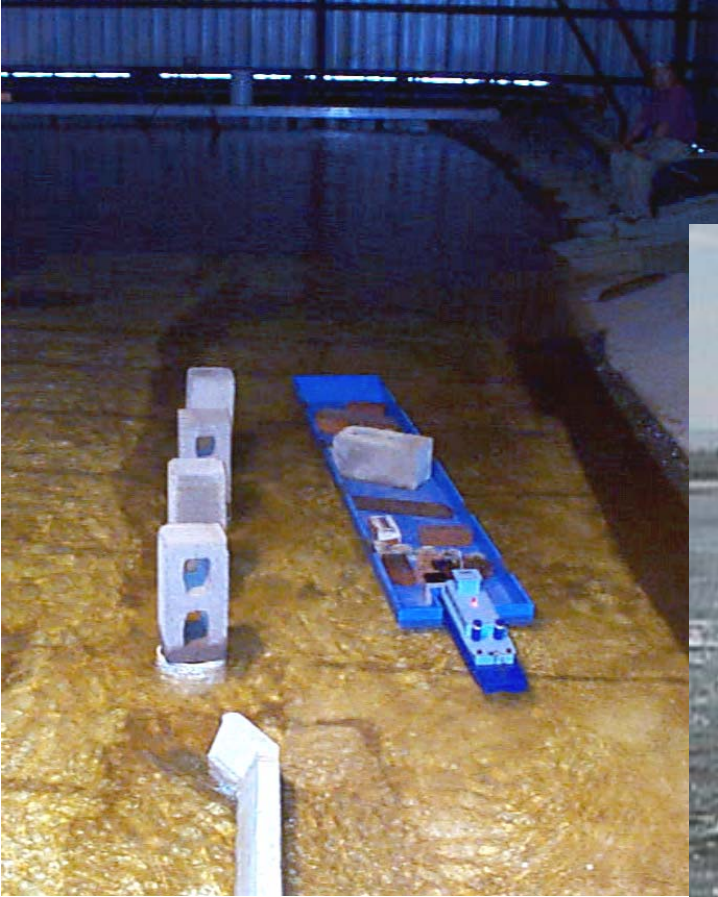
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# ICE HARBOR







# Ice Harbor Demo



US Army Corps  
of Engineers®  
Engineer Research and  
Development Center



ERDC/CHL TR-05-5

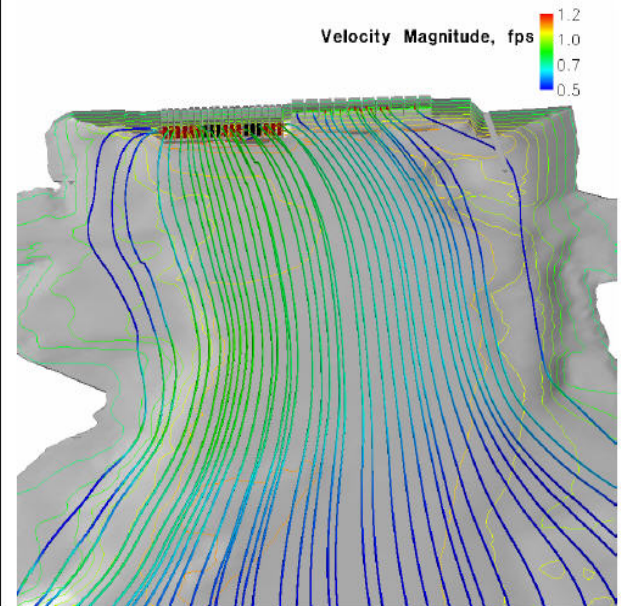
Coastal and Hydraulics Laboratory

Navigation Systems Research Program

## Computational Model of Ice Harbor Forebay, Washington

Richard L. Stockstill, John E. Hite, Jr., and Jane M. Vaughan

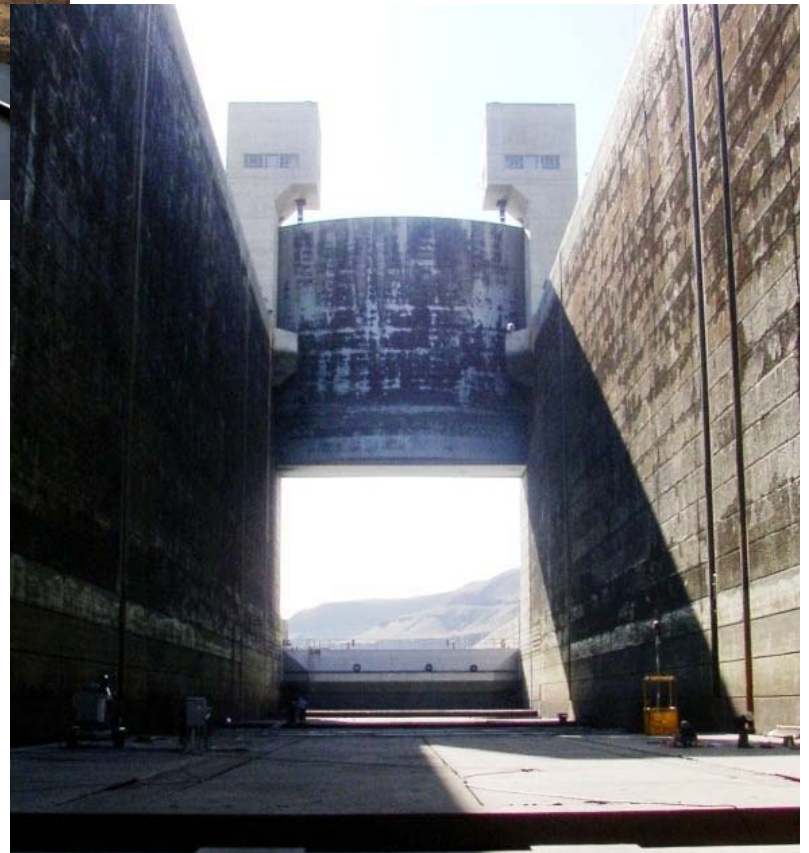
August 2005



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# Lower Monumental





# Lower Monumental Study



ERDC/CHL TR-05-9

Coastal and Hydraulics Laboratory



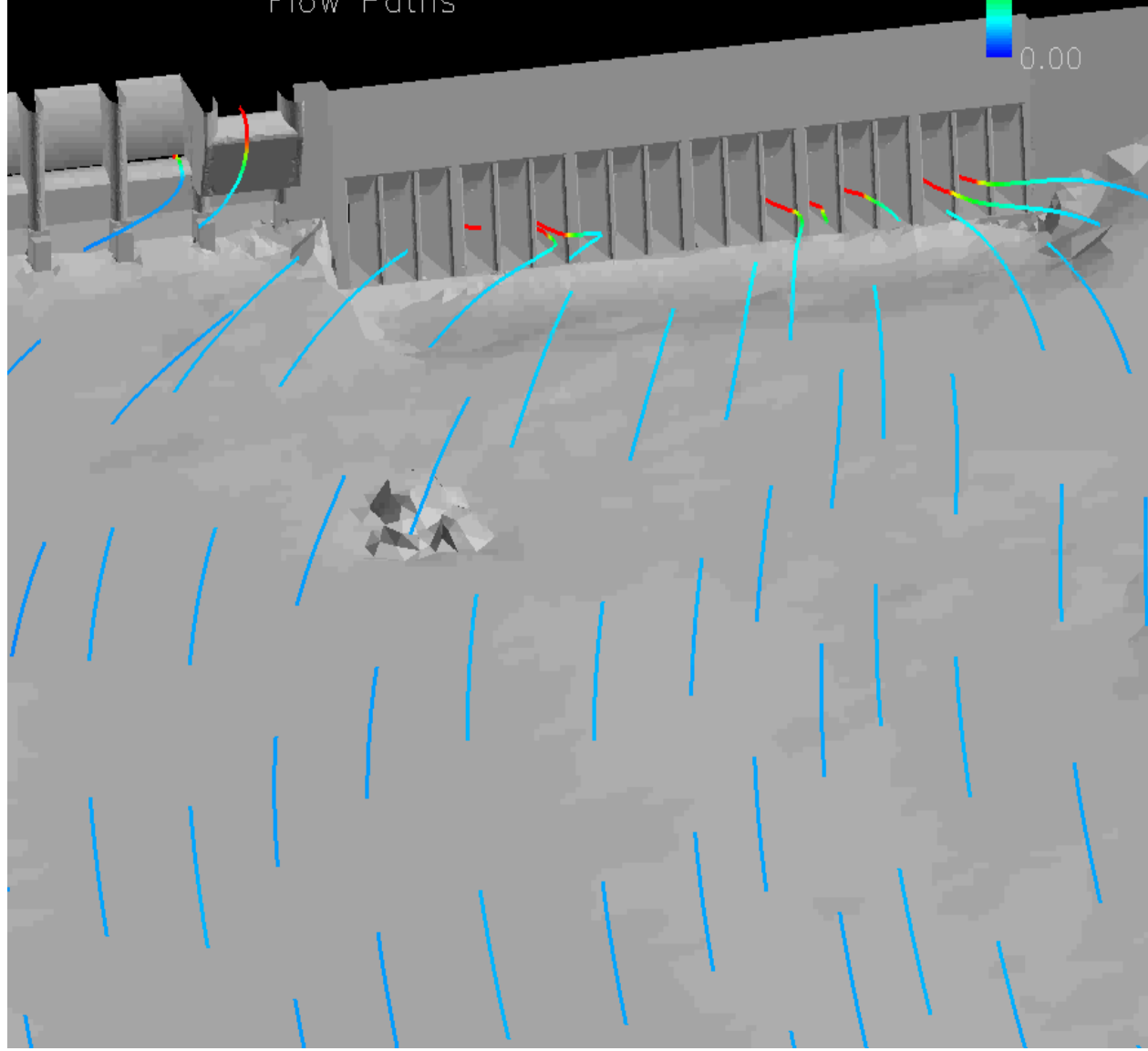
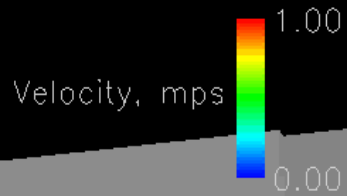
US Army Corps  
of Engineers®  
Engineer Research and  
Development Center

## Computational Model of Lower Monumental Forebay

Richard L. Stockstill, John E. Hite, Jr.,  
and Jane M. Vaughan

September 2005

# Lower Monumental Dam Flow Paths



# Little Goose





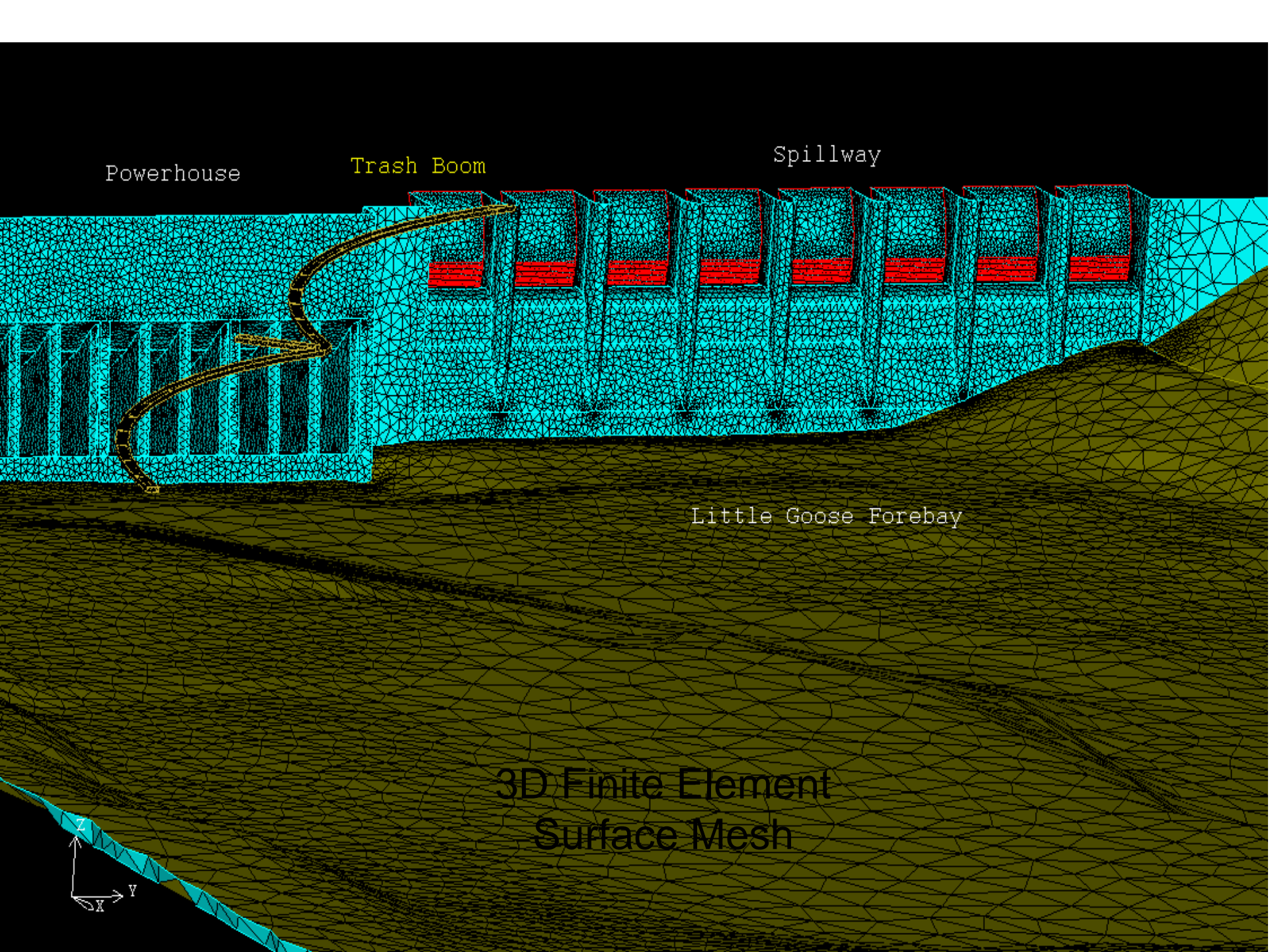
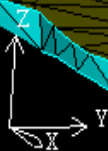
Powerhouse

Trash Boom

Spillway

Little Goose Forebay

3D Finite Element  
Surface Mesh



# Lower Granite

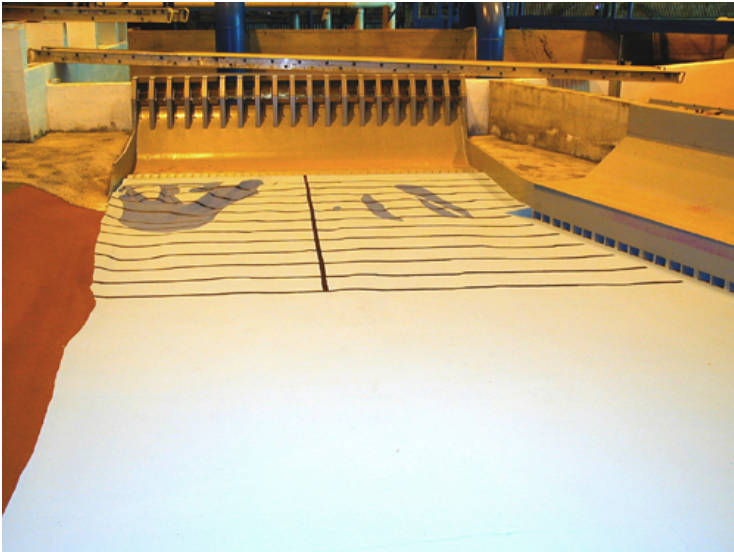


# Fish Barge Docking Issue





# Chief Joseph



# UCR

- EPA (through EL) funds CHL support for sediment transport analysis on the Upper Columbia River (UCR).

# Questions