

# Wave Energy

## *Whitewater and History on the Willamette River in Eugene*

Spring 2021 • 6 Credits • Mon/Wed/Fri from 1:00 – 4:50 pm • Location: Remote with class site visits

Instructor: Jeff Krueger, PLA • UO Landscape Architecture Instructor • JK Environments LLC • [www.jkenvironments.com](http://www.jkenvironments.com)

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### Site History and Studio Overview

The Willamette River, referred to as the Whilamut by the native Kalapuya people, has been a cultural centerpiece for countless generations living in the upper Willamette Valley. The Kalapuya used the river for subsistence and transportation for thousands of years. Eugene Skinner navigated the river in search of a homestead, eventually settling near Skinner Butte where rapids prevented further upstream progress, and the river fueled the city's industrial birth by providing an abundant source of water that was diverted through the Eugene Millrace beginning in 1852. The river remains a cultural and recreational hub of our community.

Our studio will focus on the segment of river near the remnants of the Millrace diversion dam and the surrounding area (pictured below). We begin as a group by evaluating and documenting the area's natural systems, river flows, historical features, current uses, safety issues, and recreational potential. Students will then be developing individual master plans for the area that will consider potential development of a whitewater park, potential safety and functional improvements for general public use, and preservation and interpretation of cultural resources. We will be working closely with the City of Eugene, Willamalane, and Cascadia Wave, a non-profit focused on establishing white water elements in the area.



Photo: Trevor Qualman



Willamette River mill dam ruins viewed from river left



Kayaker on Willamette River near the mill dam (source: Cascadia Wave)



Whitewater Park on the Deschutes River in Bend, Oregon – one of several sites to be used for precedent study

## Instructor

Jeff Krueger is a licensed landscape architect in the state of Oregon and has over twenty-five years of experience providing planning, design, and project management for local governments and non-profit organizations in the Pacific Northwest. He founded JK Environments in 2013. He has previously worked for Lane Council of Governments, the U.S. National Park Service, Massachusetts State Parks, and two private landscape design firms. Jeff has extensive experience in the areas of ecology, natural resources, habitat restoration, parks and open space master planning, recreational trails, land use, and bicycle and pedestrian facilities. Jeff holds a degree in Environmental Design from the University of Massachusetts in Amherst (1987) and a BLA and MLA from the University of Oregon (1991/92) and has been an Instructor with the Department of Landscape Architecture since 2014. Jeff brings local open space and ecological knowledge and real world experience to the studio.

## Learning Outcomes

During this studio, students will have the opportunity to develop an appreciation and understanding for our local reach of the Willamette River and its unique human and natural history while exploring options for enhancing the area for recreational uses and cultural/natural resource interpretation.

By the end of the course, students will be able to:

- Conduct site analysis and mapping of an urban natural area and identify issues and opportunities.
- Gain a basic understanding of river dynamics and water-based recreational uses including paddling.
- Evaluate and document past and present human uses and cultural resources.
- Develop a unique vision to direct site master planning and design.
- Design recreational facilities in a way that preserves and enhances cultural and natural resources while providing an outstanding community amenity.
- Create professional-quality thematic maps, master plan diagrams, photo imaging products, and design details.

## Software

We will primarily use Adobe Illustrator and PhotoShop, Google Earth, PowerPoint, the free-Avenza Maps App. Opportunities to use ArcGIS or AutoCAD for students who have some background and training in the software. Hand drawn maps and illustrations or other design software may be substituted if desired. We will be communicating for much of the term using Zoom (video conferencing).