ES473 Poster Project - Paper Reading Summaries / Summary Outlines

Due Tuesday May 10 at class time

Each student needs to become an expert on their topic by next Tuesday, so that we can start assembling posters. Key reading assignments are listed below, and posted on the ES473 AEG Project web page:

http://www.wou.edu/las/physci/taylor/g473/ES473_AEG_student_night_sp16.htm

Posters will be organized into the following general sections:

- I. Abstract
 - a. Cut-and-paste of final abstract submission to AEG
- II. Introduction
 - a. Introduction to the problem / topic
 - b. Significance of the topic with respect to environment, health, safety

Introduction should include at least one figure: If a location-based topic, include Fig. 1 Location Map; if general topic: include a key figure, photograph or illustration that identifies the topic

- III. Project Overview
 - a. Key concepts and terminology
 - b. Listing of key components of topic with brief discussion of what they are

This section should include 3-4 key figures or tables that provide an overview of the topic

- IV. Discussion
 - a. Approaches and Solutions
 - b. How key environmental problems are being addressed

This section should include 1-2 key figures or a table illustrating solutions or significance

- V. Summary and Conclusion
 - a. Summary of key points
 - b. Concluding statement emphasizing importance of topic to environment, health, safety

No figures or tables needed for summary

VI. References Cited

See example reference citation method

Instructions: Using MS Word, create summary outlines for each of your papers listed below. Organize your summary outlines into Introduction, Project Overview, Discussion and Summary Sections. Skim read the abstract, the conclusion, and main sections of the papers or reports; derive 4-5 bullets from each paper for each section of your poster. Copy and paste figures from your reports, aligned with your outline.

1. Fish Passage Restoration as a Catalyst for Salmonid Recovery in Western Oregon (Takano)

**Roni et al, 2002, Review of River Restoration in Pacific Northwest (Key Review Paper)

NOAA, 2001, Fish Passage Guidance OWEB, 2000, Watershed Restoration Fundamentals WA Dept. Forestry, 2004, Fish Passage Restoration Guidance WA Dept. Foresty, 2004, Introduction to River Restoration

2. The Role of Beaver Dams in Riparian Habitat of the Pacific Northwest (Collins)

****Gurnell, 1998, Hydrogeomorphic Effects of Beaver Dams (Key Review Paper)**

Butler and Mallanson, 2005, Beavers as Geomorphic Agents / Overview Pollock et al., 2007, Beaver Dam and Salmon Populations John Day River, Oregon Pollock et al., 2011, Beaver Ponds and Coho Salmon Populations, Washington Case Study Pollock et al., 2012, Beaver Restoration and Salmon Population, Bridge Creek, Oregon USFW. 2015, Beavers and Stream Ecosystems / Overview WA Dept. Forestry, 2004, Beaver Reintroduction as Restoration Tool

3. Hydraulic Connectivity of Floodplains and Channels as Restoration Strategy in the Willamette Valley (Edwards)

****Wallick et al., 2013, Willamette River Floodplain Restoration (Key Review Paper)**

OWEB, 2000, Watershed Restoration Fundamentals Roni et al, 2002, Review of River Restoration in Pacific Northwest USACE, 2013, Upper Willamette Floodplain Restoration Assessment WA Dept. Forestry, 2004, Floodplain Channel Restoration

4. Geomorphic Effects of Dams on River Systems in the Western United States (Hubbard)

****Williams and Wolman, 1984, Downstream Effects of Dams (Key Review Paper)**

Brandt, 2000, Geomorphic Effects of Dams Burke et al, 2008, Dam Operations and Streamflow Restoration Draut and Ritchie, 2014, Elwha Dam Removal and Sedimentation Graf, 2001, Dams and River Restoration Larinier, 2000, Dams and Fish Migration Maloney et al., 2008 Dam Breach and Fish Assemblages

5. Dam Removal and River Restoration in the Klamath Basin (Lucas)

****National Geographic, 2008, Klamath Basin Issues / Overview (Key Review Paper)**

Baxter, 1977, Effects of Dams on River Systems Dept. Interior, 2012, Klamath Basin Restoration, Executive Summary Graf, 2001, Dams and River Restoration Hamilton et al., 2004, Dams and Salmon in Klamath Basin Klamath Basin Fact Sheet Larinier, 2000, Dams and Fish Migration

6. The Occurrence of Arsenic in Groundwater Systems of Western Oregon (Solvedt)

**Smedley, 2005, Arsenic and Global Groundwater (Key Review Paper)

Centeno et al., 2007, Geogenic Arsenic Hinkle and Pollette, 1999, Arsenic Groundwater Study in Willamette Basin Naidu, 2003, Arsenic Toxicity Oregon Dept. Public Health, Arsenic Study in Sutherlin Oregon / Southern Willamette Valley Oregon Dept. Public Health, Arsenic Fact Sheet Roman et al., 2010, Arsenic and Hearth Disease Stoner et al., 1977, Oregon Water Quality and Arsenic Occurrence Thornton, 1996, Arsenic Pathways and Human Health

7. The Effects of Forest Roads on Hillslope Hydrology and Sedimentation in the Western Cascades (Pomeroy)

**Beschta, 1978, Forest Roads, Logging and Sedimentation (Key Review Paper)

Jones and Grant, 1996, Hydrology and forest roads Luce and Black, 1999, Forest Roads and Sedimentation Madej, 2001, Sediment Effects from Forest Road Removal Reid and Dunne, 1984, Forest Roads and Sediment Production Wemple et al., 2001, Geomorphic Effects of Forest Roads

8. Geomorphic Response to Forestry Practice in Mountainous Watersheds of Western Oregon (Welter)

****Hicks et al., 1991, Hydrologic Response to Logging Practice (Key Review Paper)**

Harr and Mccorrison, 1979, Effects of Logging on Hydrology Jackson et al, 2001, Timber Harvest and Effects on Headwater Streams Mersereau and Dyrness, 1972, Logging Practice and Mass Wasting Montgomery et al, 2000, Forestry Practice and Landsliding Swanson and Dyrness, 1975, Forestry Practice and Landslide Occurrence

9. The Influence of Timber Harvest on Sediment Transport in the Western Cascades (Higgins) **Grant and Wolff, 1991, The effects of timber harvest on sediment transport (Key Review Paper)

Beschta, 1978, Forest Roads, Logging and Sedimentation Brown and Krygier, 1971, Clear Cut Logging and Sedimentation Response Cromack et al., 1979, Timber Harvesting and Soils Jordan, 2006, Logging and Sediment Budgets Mersereau and Dyrness, 1972, Logging Practice and Mass Wasting Swanson and Dyrness, 1975, Forestry Practice and Landslide Occurrence

10. Debris Flow Hazards in the Central Oregon Coast Range (Inman)

**Iverson, 2014, Debris Flow Hazards Overview (Key Review Paper)

Benda, 1990, Debris Flow Predication in Oregon Coast Range DOGAMI, Landslide Fact Sheet for Oregon Hoffmeister, 2002, Rapidly Moving Landslides in Oregon May and Gresswell, 2004, Debris Flow Occurrence in Central Oregon Coast Range USGS, Debris Flow Hazard Fact Sheet Wiley, 2000, Oregon Debris Flow Threshold

11. Radon-Related Health Issues in Oregon (Childers)

**Appleton, 2007, Radon and Public Health (Key Review Paper)

Appleton, 2005, Radon in Air and Water / Overview EPA, 1995, Oregon Radon Zone Mapping Report EPA, 2012, Citizens Guide to Radon Hazards Hahn et al., 2015, Radon and Lung Cancer Oregon Health Authority, Radon Fact Sheet

12. Public Health and Geology: Case Studies from Oregon (Smith)

**NRC, 2007, Earth Processes and Human Health II (Key Review Paper)

<u>Centeno et al., 2013, Environmental Pathology</u> <u>Donovan et al., 2016, Case Study: Using Moss to Map Cadium Concentrations in Portland</u> <u>Eggers et al., 2015, Case Study of Uranium Health Hazards at Crow Indian Reservation, Montana</u> <u>Gough, 2003, Case Study: Cadmium distribution in Alaska</u> <u>Nordberg and Cherian, 2013, Bioelements and Health</u> <u>NRC, 2007, Earth Processes and Human Health I</u>

13. Seismic Hazards in Willamette Valley (Warren)

****New Yorker Magazine, 2015, The really big one in Pacific Northwest (Key Review Paper)**

USGS, Cascadia Earthquake Fact Sheet USGS, Overview of Cascadia Subduction Zone DOGAMI, Earthquake potential maps of Oregon Rogers and Priest, Earthquake Hazards in Pacific Northwest Vessely, 1996, Willamette Valley Liquefaction Potential Wang, 1999, Earthquake Risk in Oregon Wang and Clark, 1999, Earthquake Damage Assessment in oregon Whelan, 1996, Earthquake Potential and Building Losses in Oregon

14. Tsunami Hazards in Coastal Oregon (Rodgers)

****Priest et al, 2001, Tsunami Hazard Assessment in Oregon (Key Review Paper)**

<u>USGS, Overview of Cascadia Subduction Zone</u> <u>Geist, 2005, Tsunamic Hazards in Pacific Northwest</u> <u>DOGAMI, Tsunamic Fact Sheet</u>

15. Seismic Preparedness in Western Oregon (Rostad)

****Kockelman, 1996, Reducing Earthquake Hazards in PNW (Key Review Paper)**

USGS, Overview of Cascadia Subduction Zone CREW, 2005, Earthquake Recovery Scenarios in PNW Oregon Seismic Upgrade Plan Trahern, 1998, Seismic Safety Program for Oregon Schools Wang, 1997, Earthquake Preparation in Oregon Wang, 1998, Earthquake Risks in Oregon

16. Regional Hydrology and Water Resource Issues in the Umatilla Basin (Cardenas)

****Grondin et al, 1995, Introduction to Umatilla Basin Hydrogeology (Key Review Paper)**

Bauer and Hansen, 2000, Hydrology of Columbia Plateau Region Bureau of Reclamation, 2012, Umatilla Water Supply Study Grondin et al, 1995, Umatilla Hydrogeology