

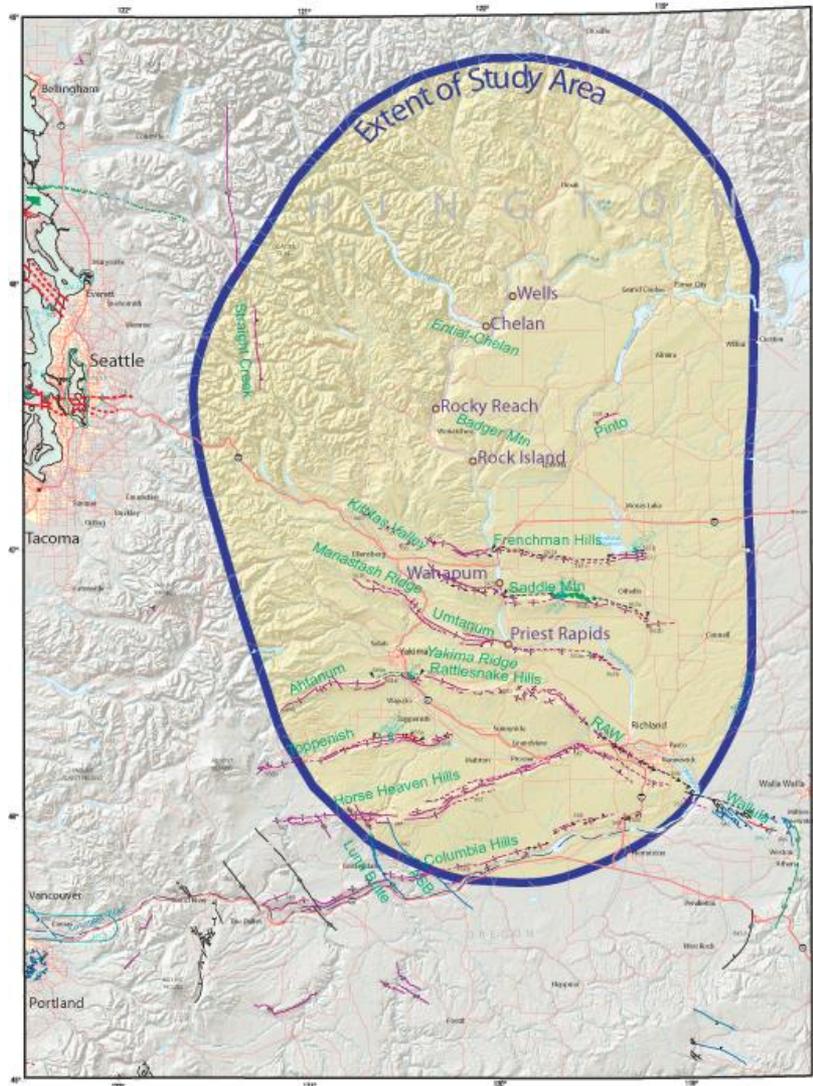
Chelan Hydro Seismicity Exposure Update

October 2012

Risk Informed Approach to Seismicity

- Introduction
- Major points

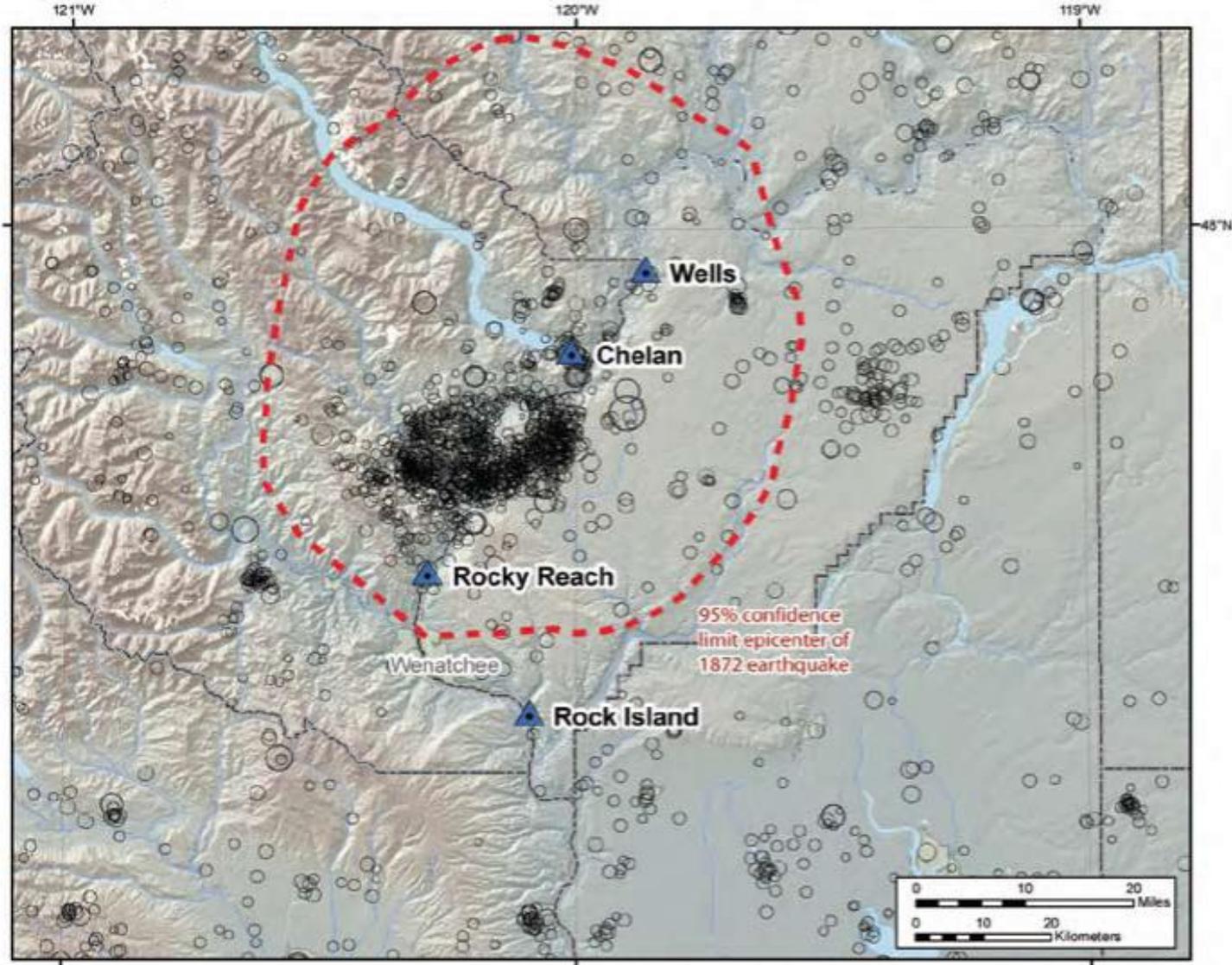
Mid-Columbia Region's seismic setting:



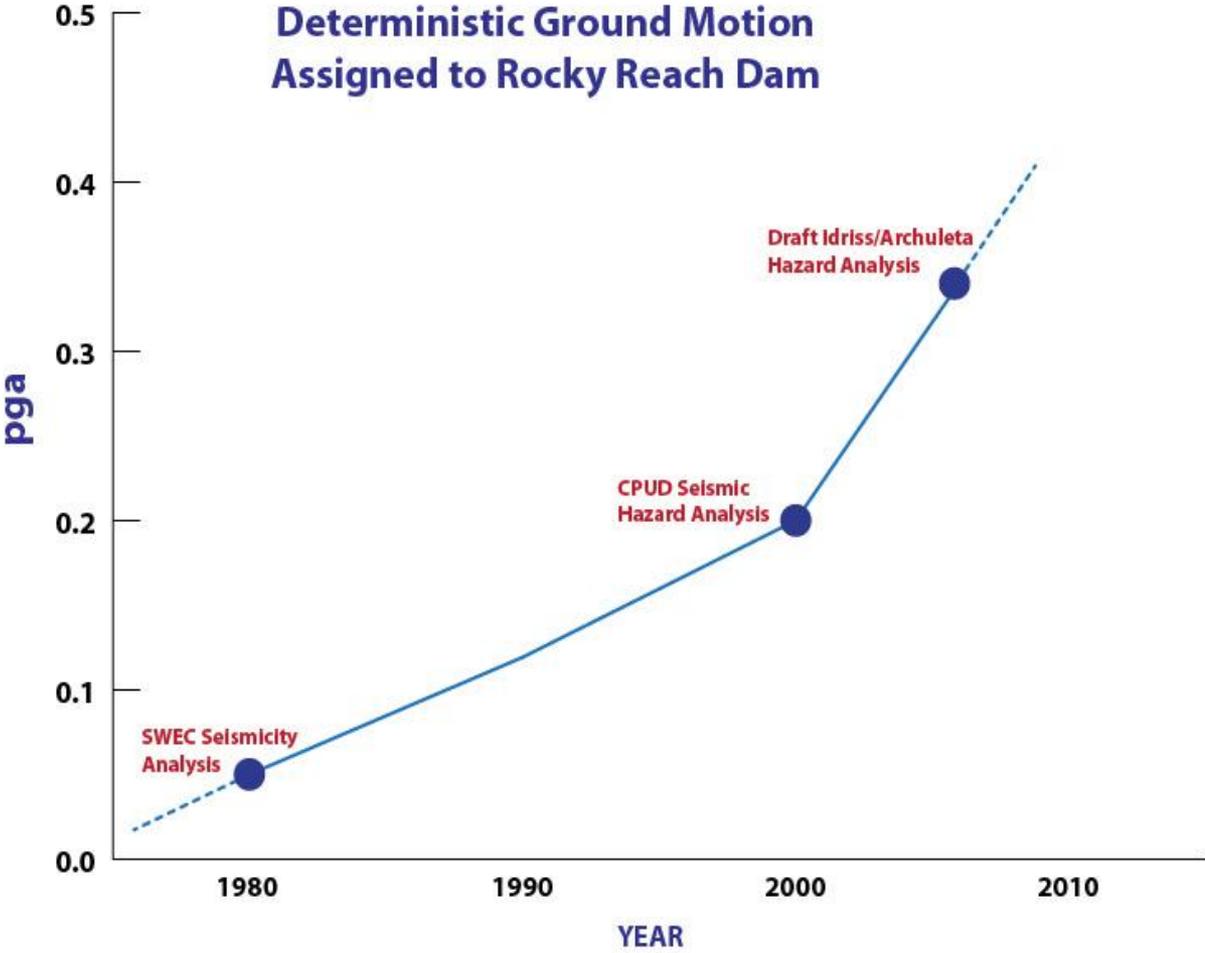
Major points:

- We collaborated with the Federal Energy Regulatory Commission and other stakeholders to perform a Probabilistic Seismic Hazard Assessment (PSHA)
- The PSHA was performed with all of the “informed community” input (including what they knew they knew, and what they thought they might not know)
- This effort occurred over a more than 2-year span
- The PSHA started with the deterministic information as a basis, and expanded upon it with more information and assigning probabilities; produced a very well understood outcome and comprehensively supports of our intent to responsibly discharge our duty-of-care to the public.

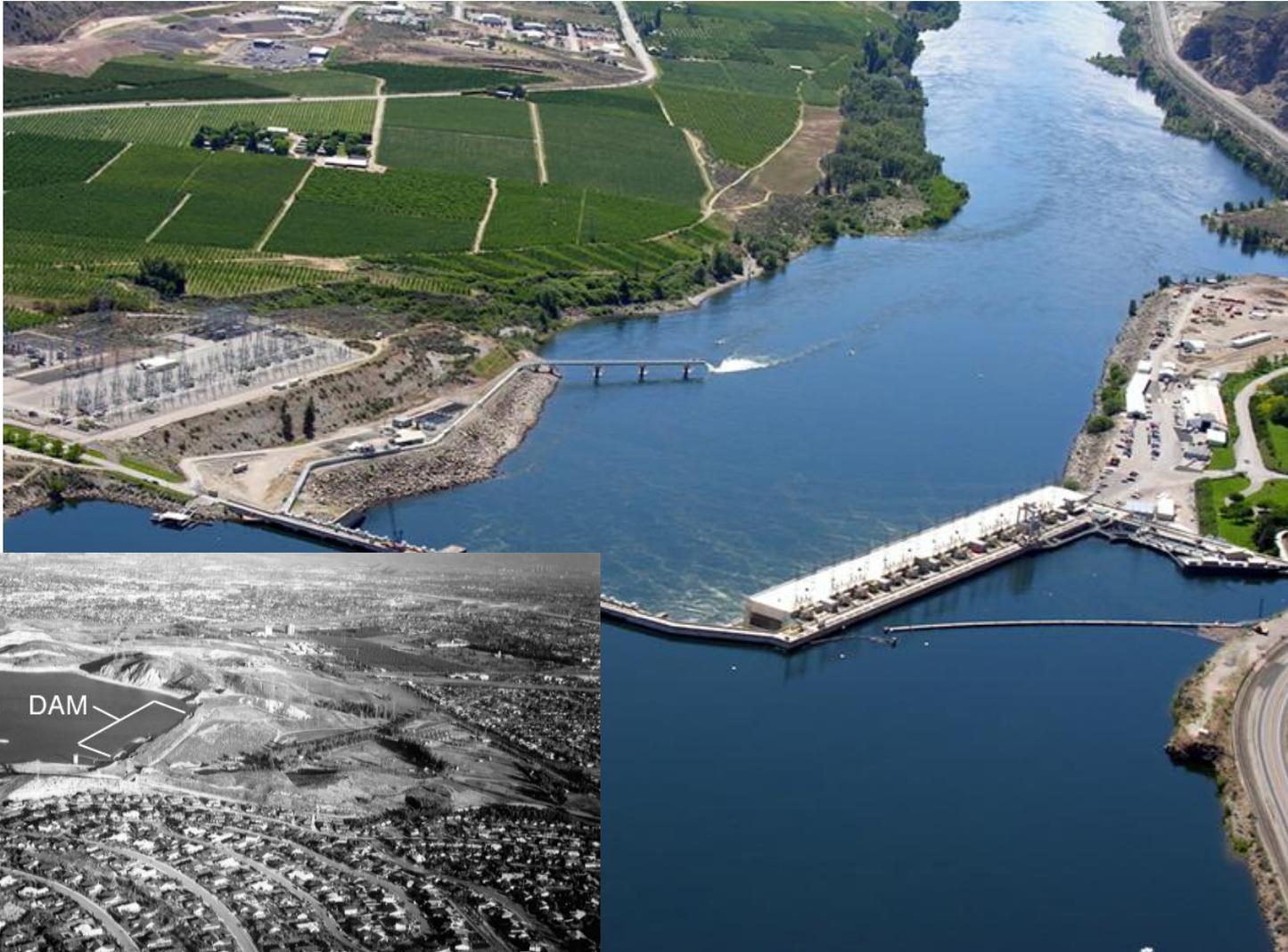
Mid-Columbia Region's seismic setting con't:



Chelan PUD example of employing a Risk-Based approach to evaluating Project Safety for seismic potential:



The “potential consequences” component of risk-assessment:



Small things, Big results



Folsom Dam - 1995



I-35W bridge, Minneapolis 2007









What does this mean for Chelan PUD

- CPUD values risk management, and our regulator is risk averse. Risk assessment, risk-reduction, and risk-based decision-making is a tool to help us recognize where and how to spend resources (money, time, effort...) to reduce risk most effectively.
- This philosophy applies to other types of risk, too. We've used it before (e.g. Chelan Probable Maximum Flood study result) and it works well.
- Although this effort has taken us over five years to get to this point, we firmly believe we:
 1. Have much less chance of our work being outdated by changes in knowledge (e.g. remediation found to be under-designed) since we can now incorporate new knowledge into the PSHA in a pragmatic, well-understood manner. So, much more decision-making certainty. And,
 2. Instead of applying a one-size-fits-all approach across our projects, we'll spend money where it's warranted, spend less money, and continue to be very good stewards of our assets.