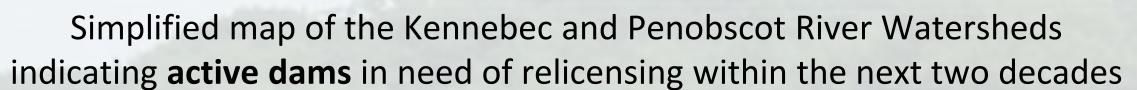
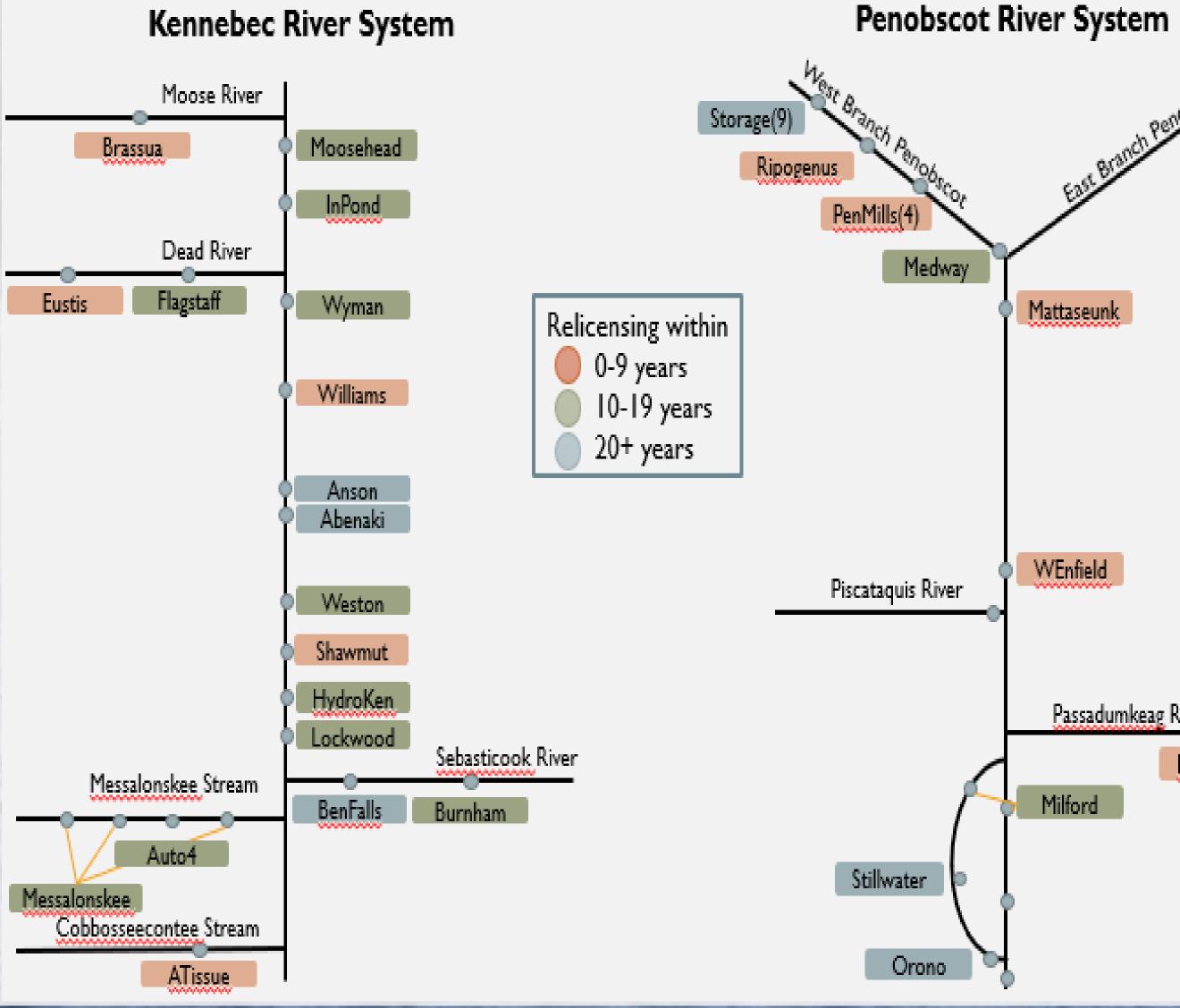
## FERC Relicensing & Fish Passage: An Update Sarah Vogel<sup>1</sup>, Jessica Jansujwicz<sup>1,2</sup>, and Joseph Zydlewski<sup>3,1</sup> **1865** THE UNIVERSITY OF MAINE <sup>1</sup>Department of Wildlife Fisheries and Conservation Biology, University of Maine, Orono, ME 04469

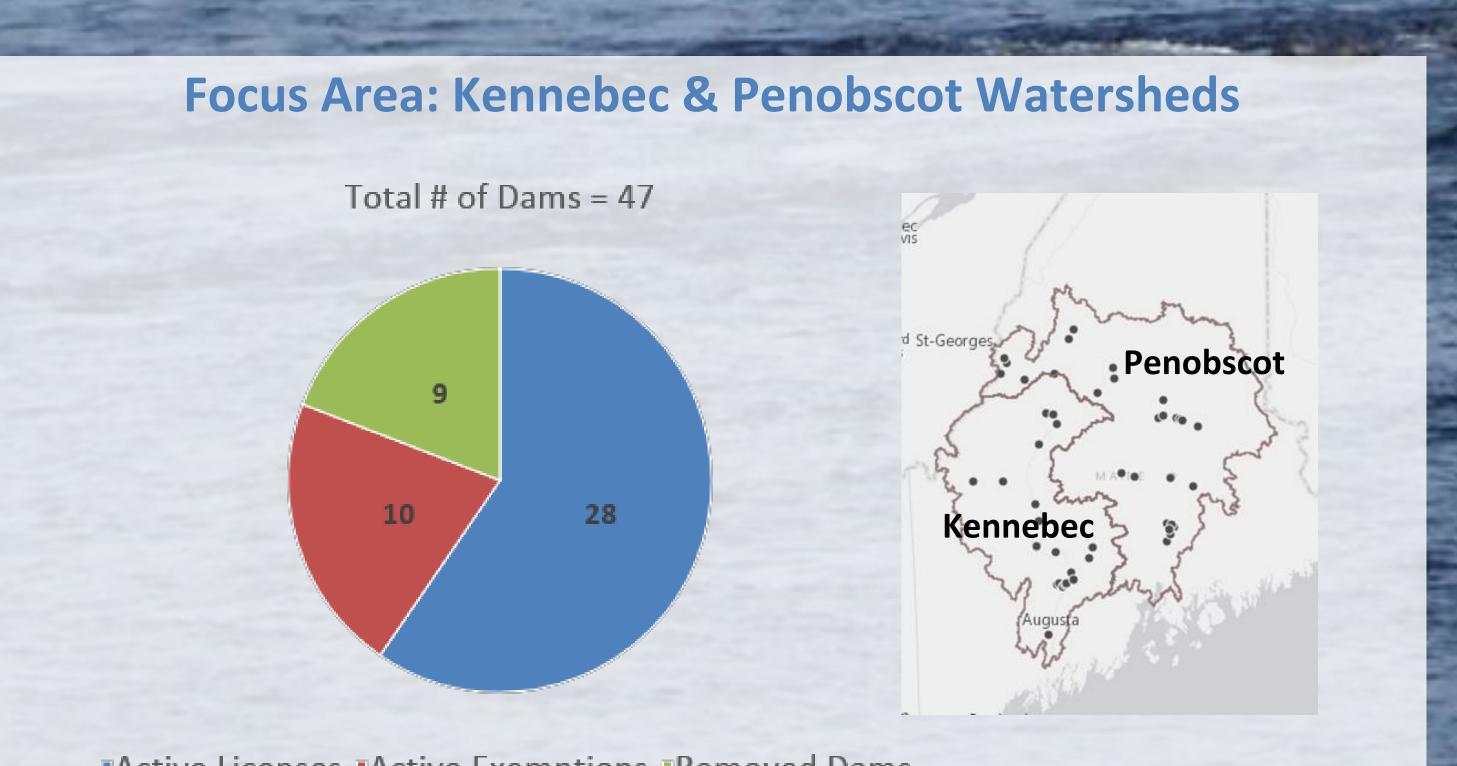
### Background

Hydropower dams can cause negative impacts to fish migration and survival. Most non-federal hydropower dams in the US are regulated by the Federal Energy Regulatory Commission (FERC) which issues 30-50 year licenses (40-year default) for projects. These licenses outline project operations for the license term and must be relicensed regularly. The period of relicensing presents the best opportunity for federal and state resource agencies and tribal entities to influence fish passage prescriptions. However, the process can be complicated and laborious; involving many stakeholders, working under differing timeframes, with different levels of authority, within the bounds of a complex legal system. Understanding past decisions may help inform future regulatory and permitting decisions.









Active Licenses Active Exemptions Removed Dams

<sup>2</sup>Senator George J. Mitchell Center for Sustainability Solutions, University of Maine, Orono, ME 04469 <sup>3</sup>U.S. Geological Survey, Maine Cooperative Fish and Wildlife Research Unit, Orono, ME 04469

Mattaseunk

WEnfield

Passadumkeag River

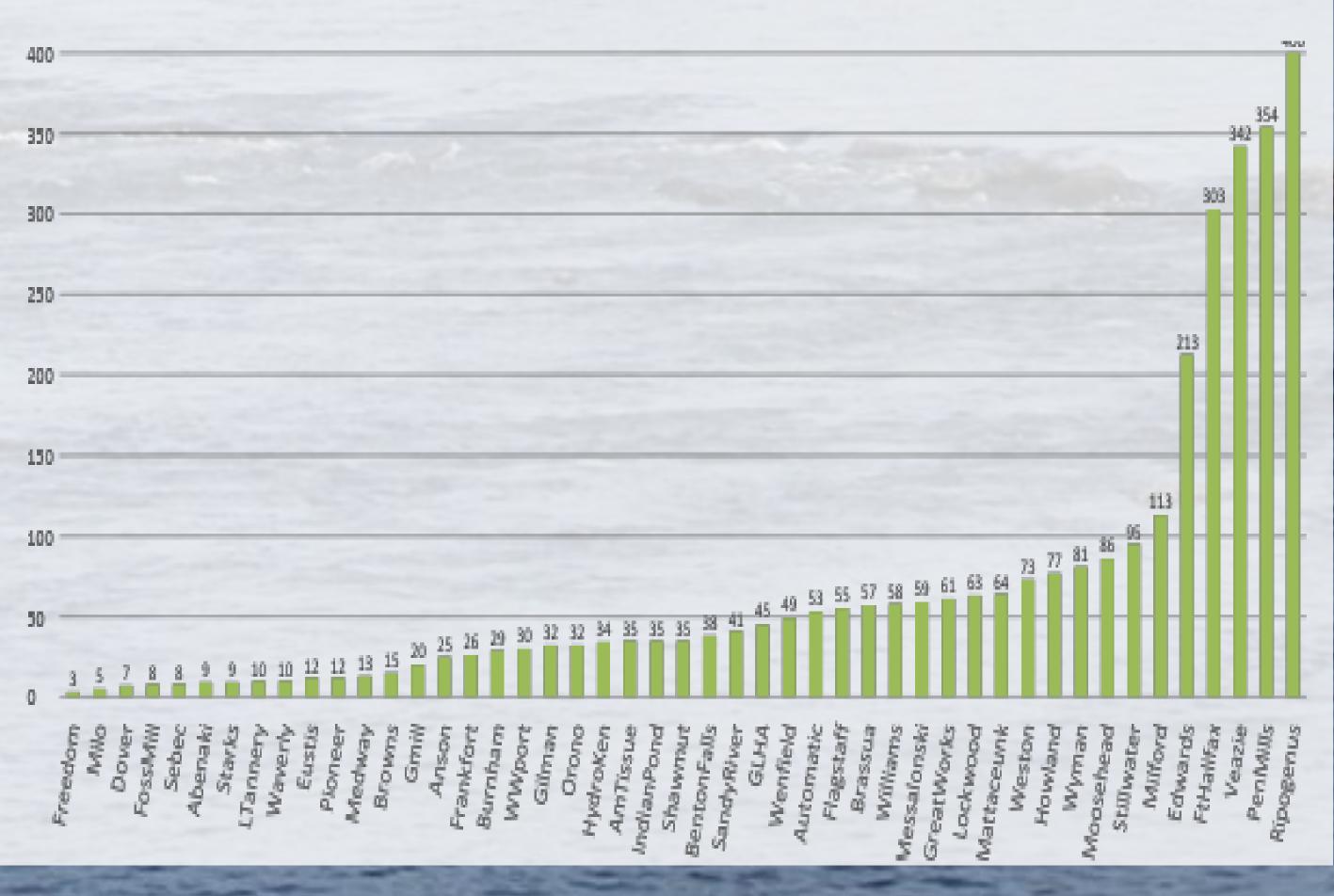


- **Content analysis** research methodology for studying documents, which emphasizes pinpointing, examining, and recording patterns **FERC eLibrary** – publicly available, centralized records database of  $\bullet$
- documents relating to US energy projects
- Kennebec & Penobscot hydropower documents: 33,500

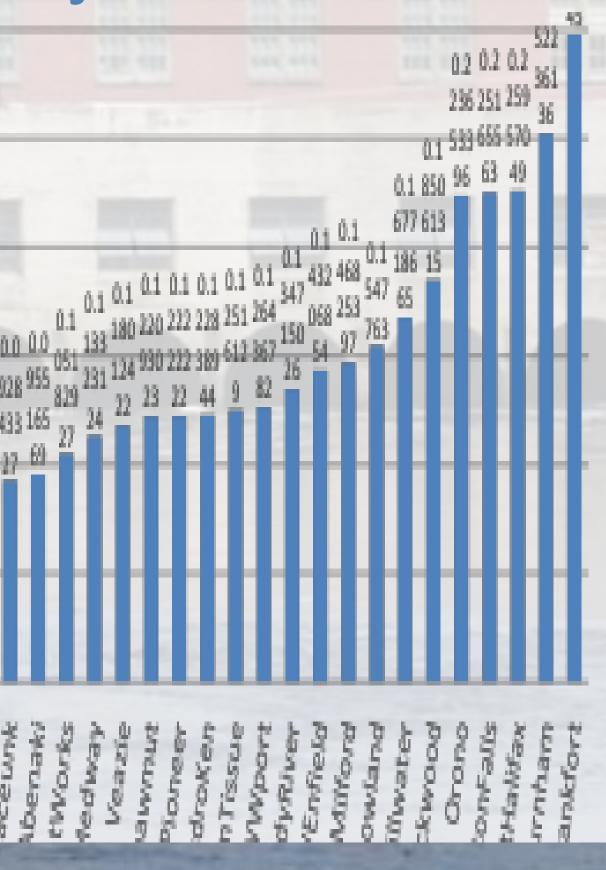
# **Percentage of Documents Addressing Fish Passage by Project** 236 251 259 157

10%	00 00 00 00 00 00 00 00 00 00 00 00 00	0.0 0.0 0.0 0.0 0.0 617 674 209 410 43 0.0 0.0 0.0 0.0 0.0 617 674 209 410 43 433 472 477 481 283 740 3 05 2 666 604 727 554 927 95 48
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# Number of Official Comments by Project



# **FERC eLibrary** & Content Analysis



- actions
- exempt projects
- project outcomes
- anadromous fish and closeness to the estuary
- Explore:

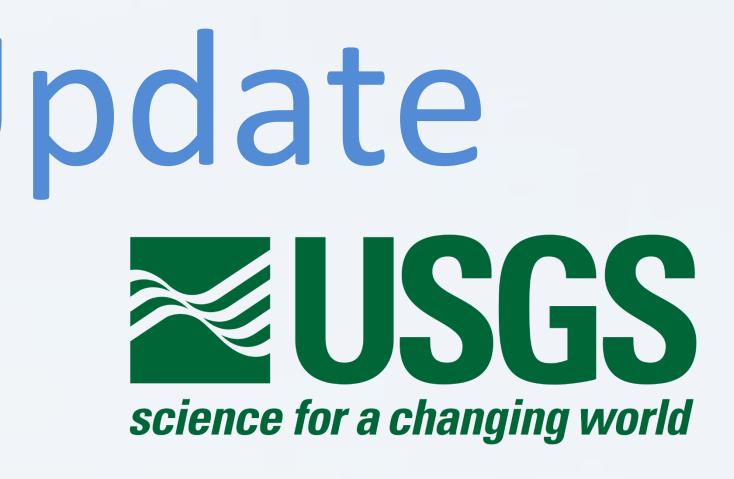
# **Call for Interviews**

- Targeted to lessons learned from content analysis
- Focus on federal, state, and tribal resource agencies and entities
- Involvement in FERC relicensing (e.g. fishway design, endangered species protection, water quality certification, etc.)
- **SIGN UP TODAY!** SARAH.VOGEL@MAINE.EDU

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### **Takeaways**

Content analysis can be used to understand the variation between projects • Categorizing projects by fish passage concern can help prioritize conservation

• Stakeholder engagement is highest at well-publicized projects and lowest at

Public comments make up the bulk of total official comments and can effect

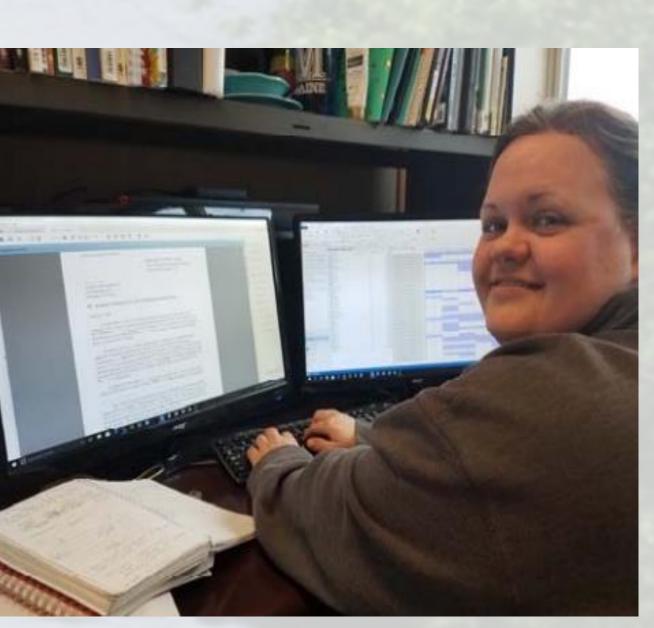
Use of official commenting by resource agencies is higher with presence of

### **Future Directions** Summer 2018 – Spring 2019

Apply text and social network analyses to documents Conduct focused semi-structured interviews of federal, state, and tribal agencies and entities involved in hydropower relicensing

> • Use of science in decision making Use of biological triggers in management Adoption of basin-wide management • Collaborative governance in hydropower relicensing

Enumerate lessons learned for future regulatory and permitting decisions



#### Acknowledgments

