



Federal Energy Regulatory Commission Division of Dam Safety and Inspections



Executive Level Owner's Dam Safety Meeting

October 10, 2013

Sacramento Municipal Utility District
Headquarters Conference Center
Sacramento, California

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Why are we having this workshop



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Who We Are

- Independent regulatory agency
- Five Commissioners
- 1,450 employees
- \$300 million budget



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Commission's Hydropower Role

Federal Power Act of 1920 –

Under the Federal Power Act, the Federal Energy Regulatory Commission has regulatory jurisdiction over non-Federal hydroelectric projects that:

- Occupy federal lands;
- Utilize Federal dams;
- Utilize waters of navigable streams; or
- Affect interstate commerce.

- Section 10C "...protection of life, health, and property"



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Mission Statement

D2SI implements the Commission's Dam Safety and Public Safety Programs by developing and implementing policies, programs, and standards for the dam safety and engineering inspection and evaluation of jurisdictional dams and projects to ensure public safety at and around projects.

D2SI takes actions to ensure that jurisdictional projects are inspected and evaluated in their design, construction, operation, and maintenance phases in order to:

(1) protect life, health, property, and the environment; and (2) assess project compliance with the terms and conditions of issued licenses.



Hydro Program Overview

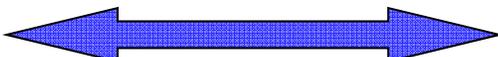
- 2,500 dams under license

975 high or significant hazard potential dams

1,500 low hazard potential dams

- 55,000 MW capacity under license

- 1 kw  2,755 MW

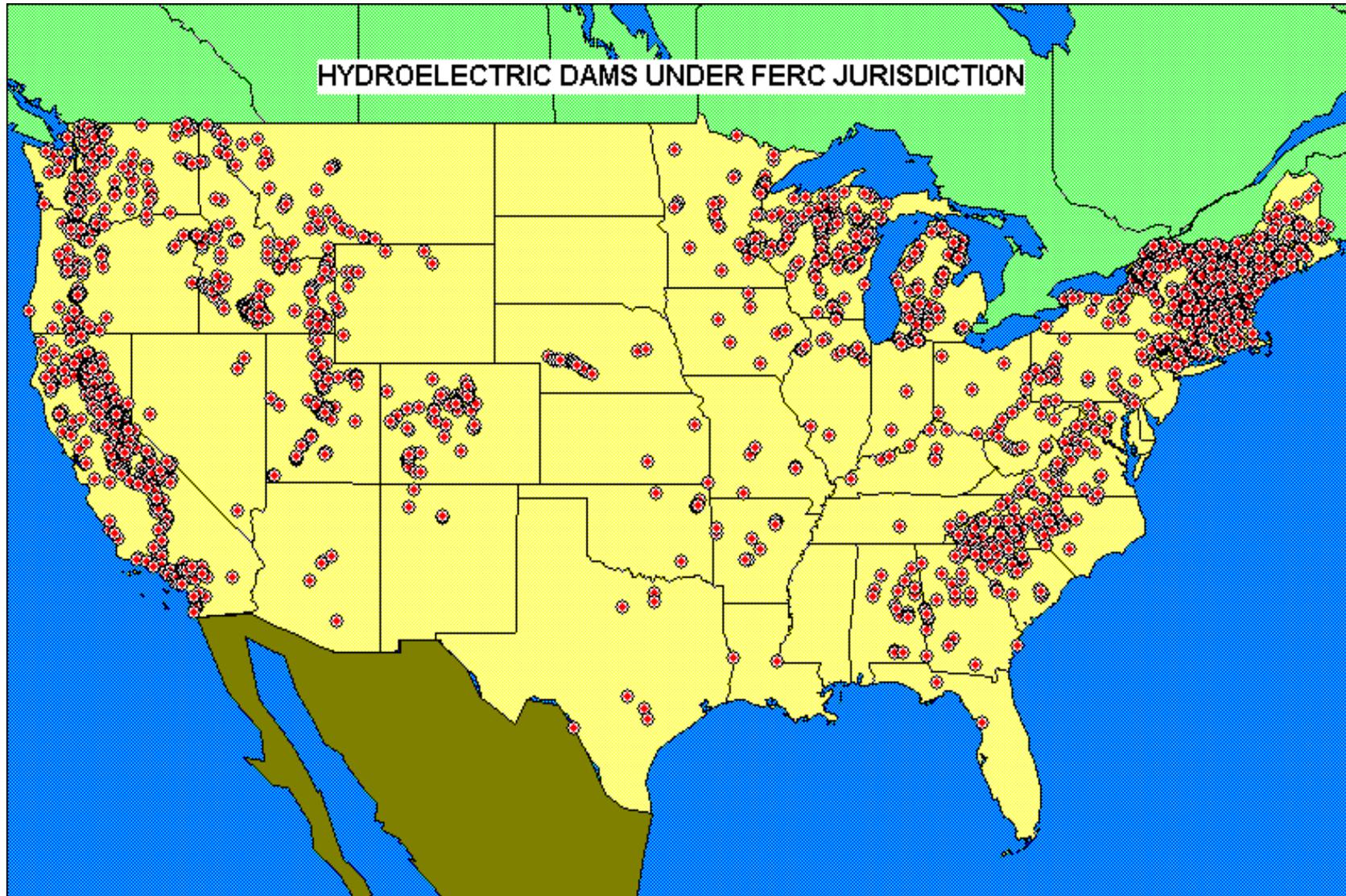
- Individuals  large utilities



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Distribution of FERC Hydropower Projects





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Overview of significant initiatives in the FERC Dam Safety Program

- **Potential Failure Mode Analysis (PFMA) 2002**
- **Dam Safety Surveillance Monitoring Plan/Report (DSSMP-DSSMR)**
- **Owners Dam Safety Program (ODSP)**
- **Risk Informed Decision Making (RIDM) to be issued**



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My Philosophy

Want to expand how we look at dam safety from what has been done in the past to focus more on a systems approach.

Thus, what other factors play a role in making good dam safety decisions.



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Taum Sauk Today

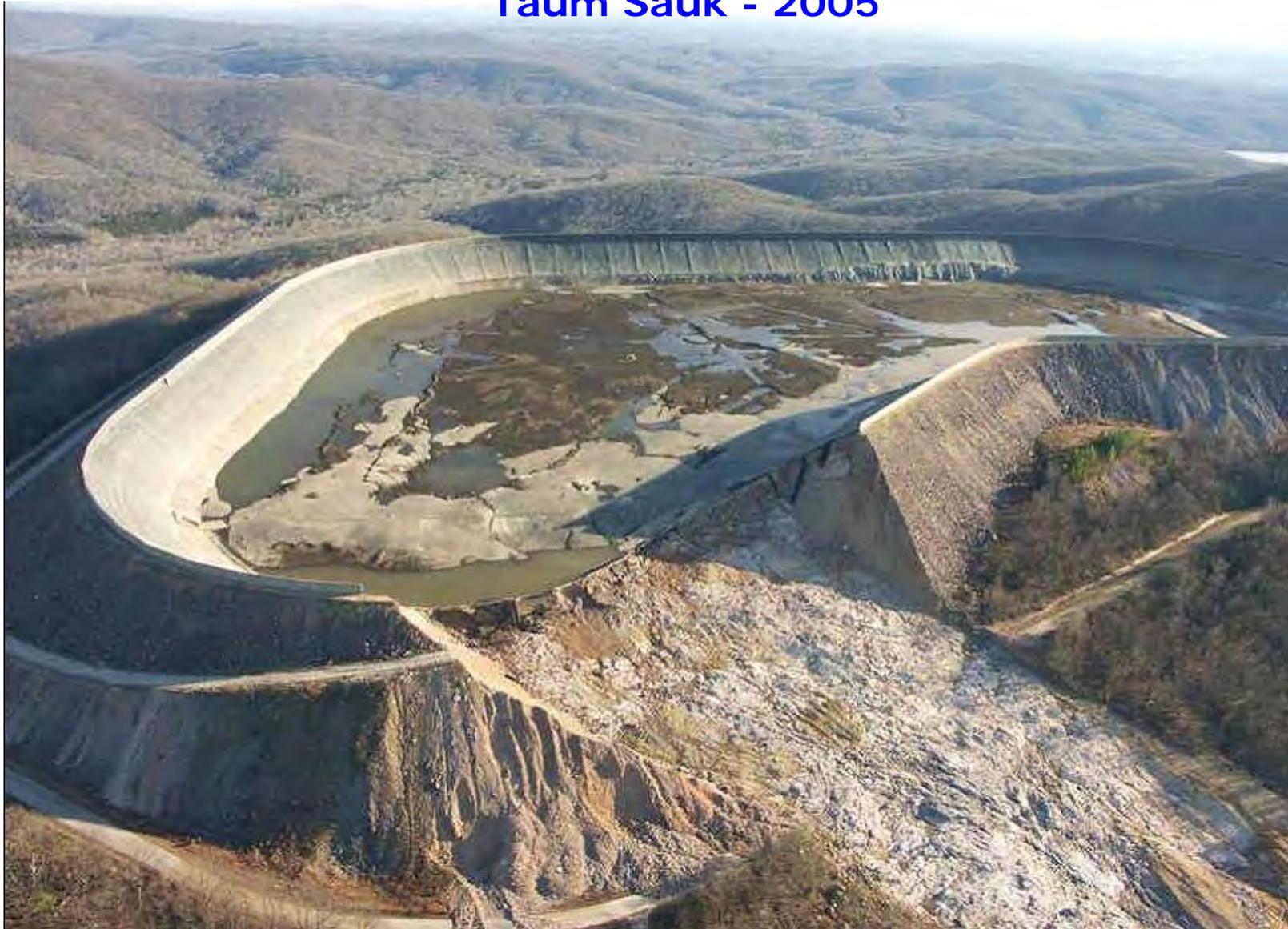




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Taum Sauk - 2005





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Owner's Dam Safety Program



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Components of a Good ODSP

- **Acknowledgment of Dam Safety Responsibilities;**
- **Communication;**
- **Clear Designation of Responsibility;**
- **Allocation of Resources to Dam Safety; and**
- **Learning Organization.**



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**Expanding the ways in how we look at
dam safety based on experience and
lessons learned**

Deterministic

Probabilistic - RIDM



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Example of a Licensee proactively evaluating the safety of their dams which resulted in avoiding a severe consequence.



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Lake Almanor

Butt Valley





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Crane Valley Dam





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Future Concerns

- Do we have the potential hazard ratings properly classified for our low hazard dams?
- Owners who don't fully understand how their projects operate. (Silver Lake)
- Succession planning - Owners who don't properly plan and train staff to take over dam safety responsibilities as employees retire
- Not fully understanding the consequences if a dam failure occurred?
- Remote operation that could result in a sequence of events that leads to dam failure.
- Owners who don't implement good management practices in overseeing the dams that they own and operate



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Closing Note

- There is much more work to be done and the “risk program” will continue to evolve as we learn more. The goal to make sure something bad or catastrophic can be averted.
- As the dams age this effort becomes even more important.
- We all have a stake in dam safety and need to proceed together.