
CURRENT ENHANCEMENTS PG&E Facility Safety Program

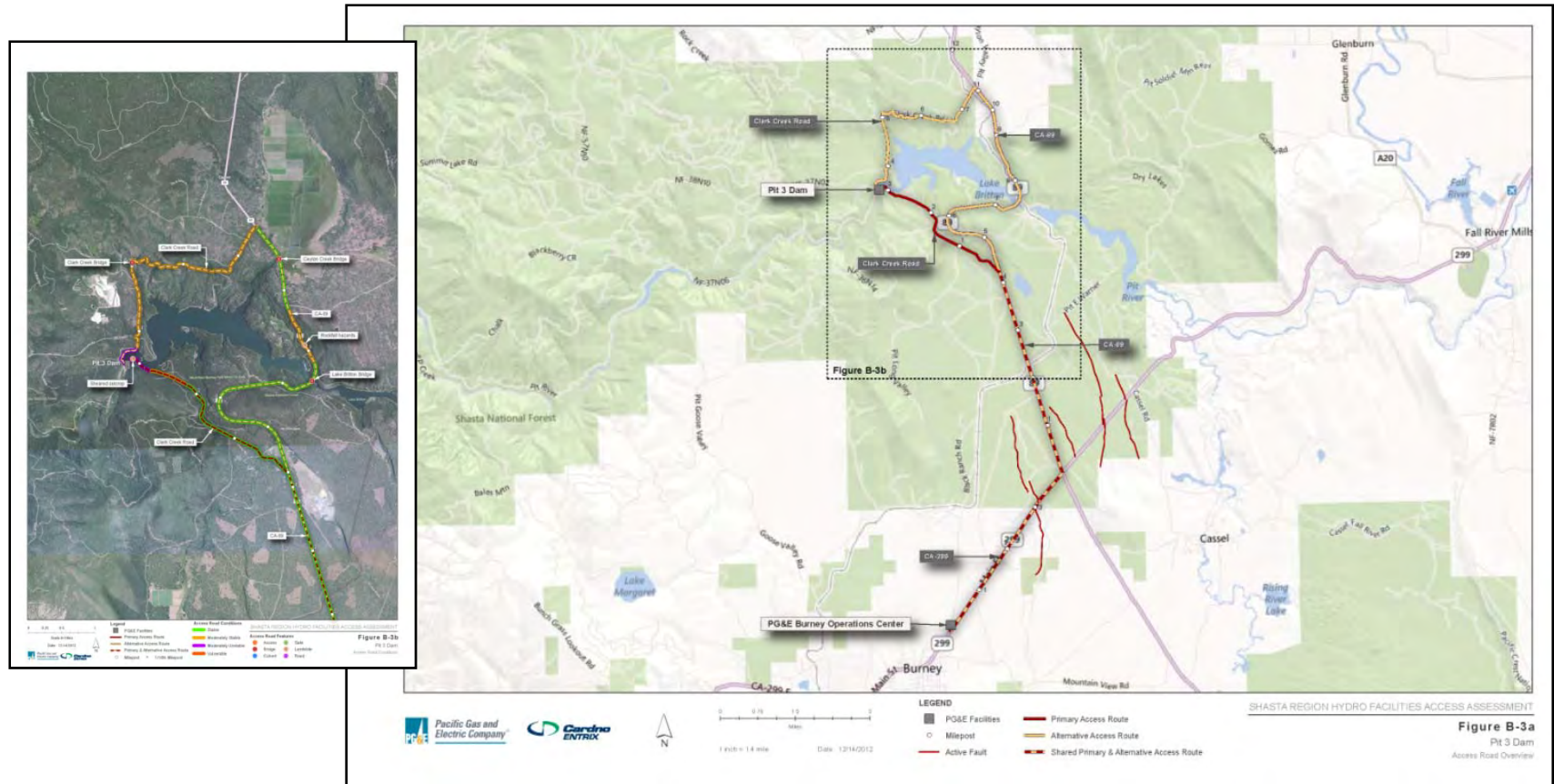


October 10, 2013

Managing Risk at PG&E Beyond the ODSP

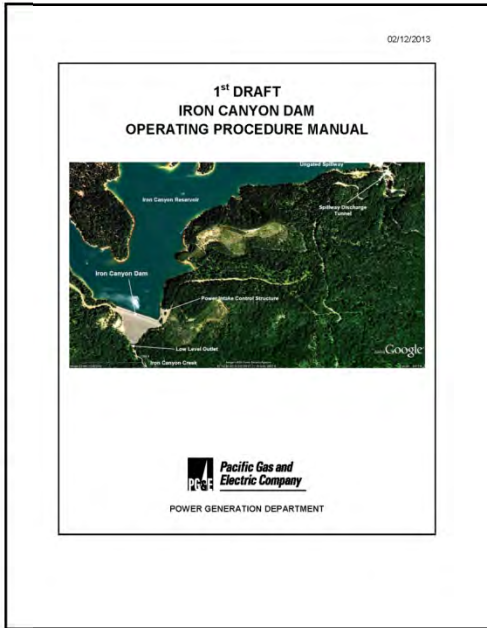
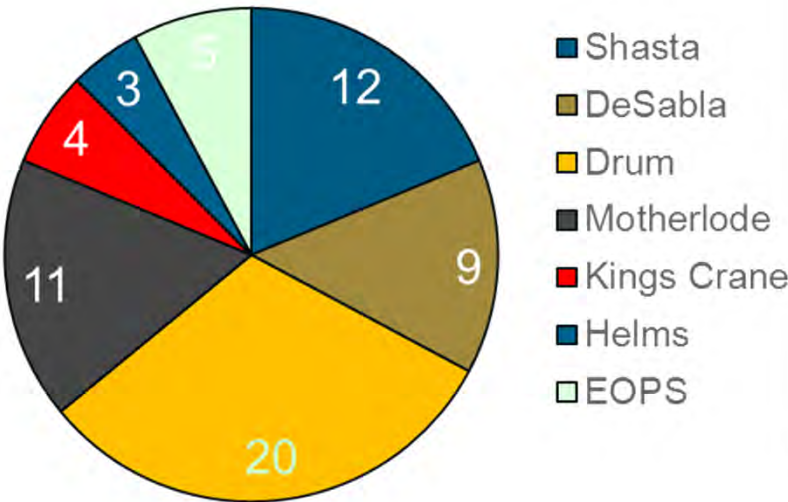
- Continuous improvement effort that goes beyond the existing ODSP.
- Purpose is to identify and mitigate the risks that PG&E's generating assets pose to public safety, employee safety, environmental stewardship, electric reliability and regulatory compliance.
- Focus on reducing risks to acceptable levels, in accordance with the characteristics of the various assets.
- 7 Improvements identified, developed, and implemented.

Improvement 1 – Large Dam: Emergency Access

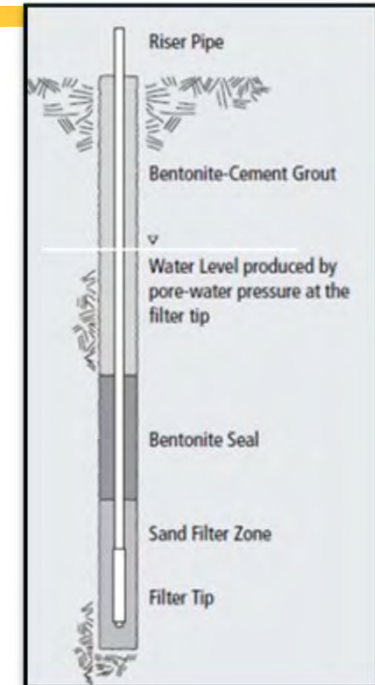
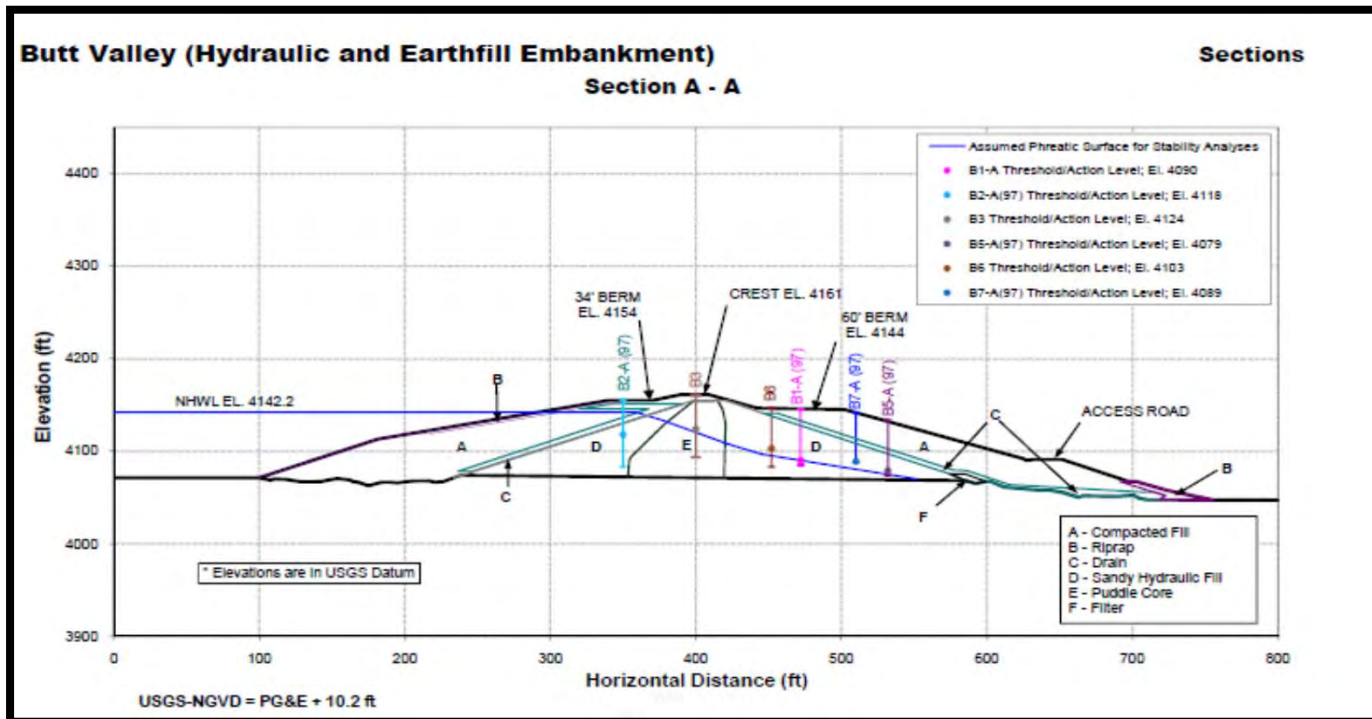


Improvement 2 – Large Dam: Document Normal & Emergency Procedure

Procedures



Improvement 3 – Surveillance and Monitoring Issues



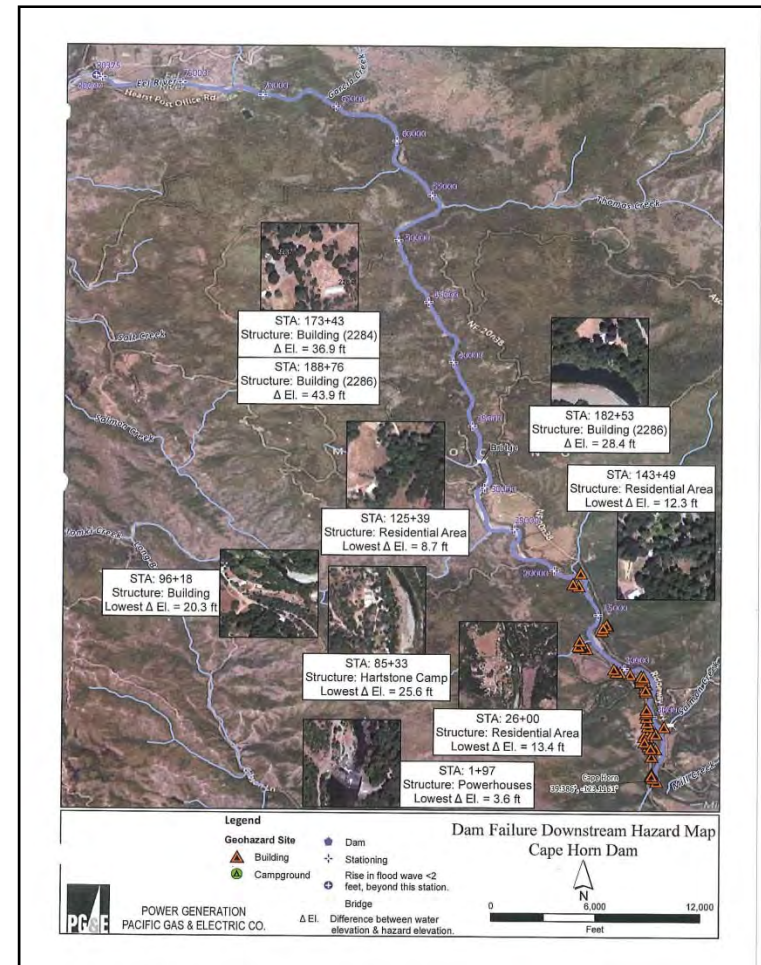
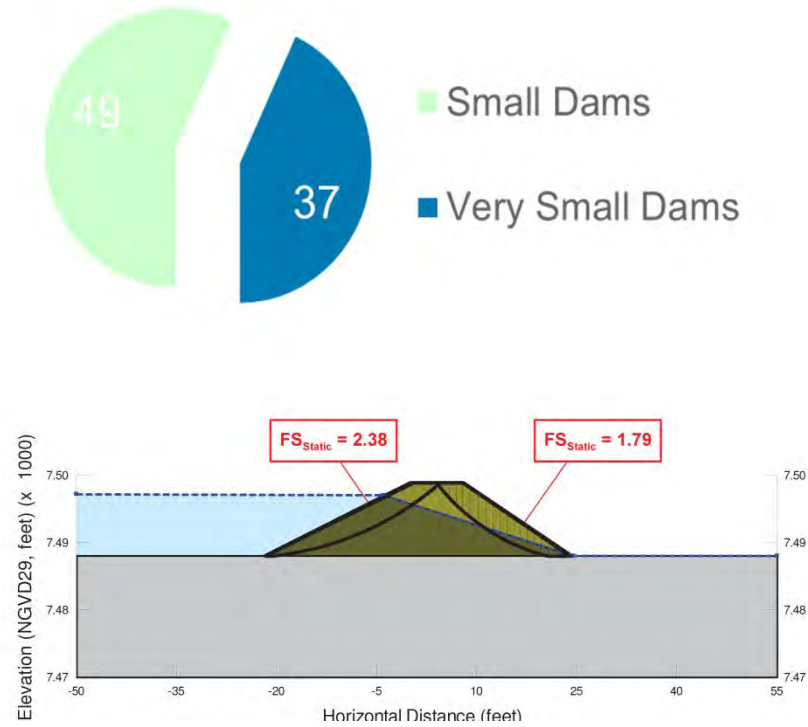
Improvement 3 – Surveillance / Monitoring Audits

- Current DSSMPs and DSSMRs were deemed generally not helpful to the O&M personnel in performing their dam safety surveillance and monitoring duties.
- Threshold and action values for the instruments at some dams were inconsistent with the existing definitions.
- Lack of clear actions to be taken if threshold/action levels are exceeded.
- For some dams, the alarms shown in the DSSMPs were not consistent with those set in the SCADA system.
- The information in some of the DSSMPs and DSSMRs was not consistent with current practices in the watersheds.

Improvement 3 – Implementation

- Prepare field job aids to simplify communication and reporting of monitoring data collected by O&M staff.
- Review and update DSSMPs, if needed, during the preparation of annual DSSMRs. Consolidate DSSMR / P into one volume for easier record keeping and review.
- Identify threshold and action levels for piezometers and leakage weirs on Instrument Data Recording Sheets. Any differences between the PG&E datum and the USGS datum will be documented on the data recording sheets.
- During preparation of annual DSSMRs, meet with generation supervisors and verify that EAPs and Part 12 reports are current and consistent.
- Prepare standards and procedures for setting SCADA alarm levels and performing periodic testing of the SCADA system. Establish a requirement for concurrence from the CDSE before alarm levels are changed.

Improvement 4 – Small Dam Documentation



Improvement 4 - Small Dam Engineering Assessment

- Perform sensitivity analyses for material properties and embankment configurations (e.g., slope inclinations and dimensions).
- Refine inconclusive results with more advanced analyses.
- If the results are still inconclusive, conduct geotechnical investigation and testing to develop more representative material properties and perform surveys to determine actual slope configurations.
- Update dam break analyses and inundation maps for small dams.
- Perform risk-based dam failure analyses to evaluate whether capital improvements are needed.

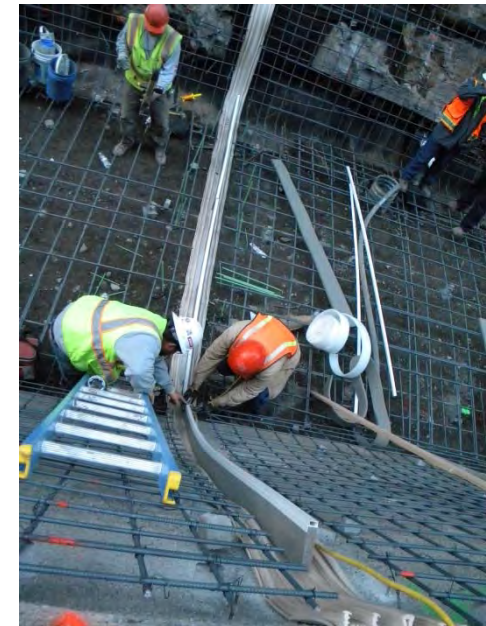
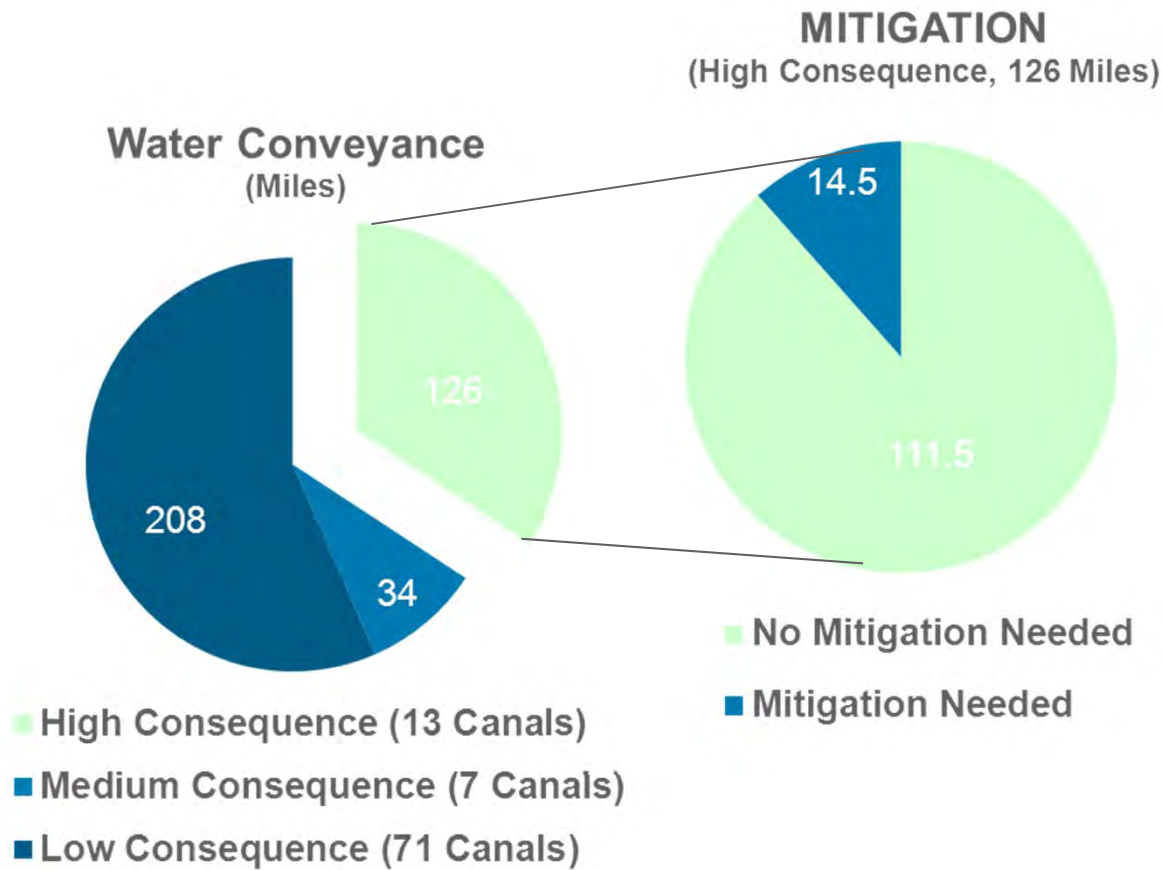
Improvement 5 – Auxiliary Equipment



- Gates and Valves
- Gate and Valve Actuators
- Mobile Gate Operators (“Mules”)
 - Low Level Outlets
 - Back Up Generators
- Communication Buildings



Improvement 5 – Water Conveyance

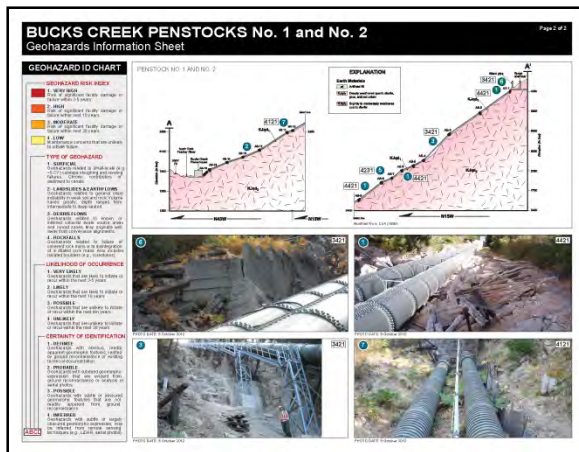
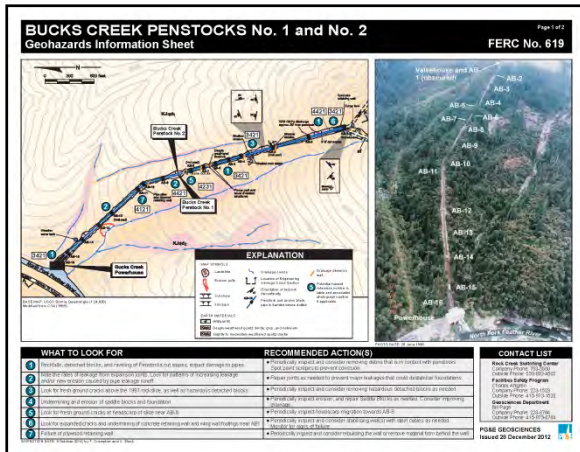


Improvement 5 – Penstocks

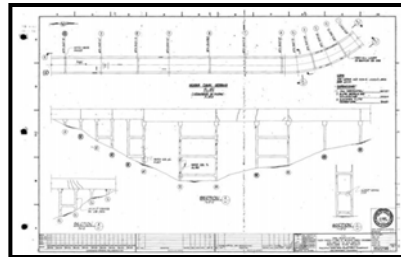
Inspection

Condition Assessment

If Necessary, Operate with Restrictions or Shutdown



Improvement 6 – Documentation



DSSMP Questionnaire
Drum Spaulding Project (FERC No. 2310-GA)

Revised by: Mark A. JMT

DSSMP:

We are working on the Safety Assessment and Monitoring Plan (DSSMP) for the Drum Spaulding Project (FERC No. 2310-GA). The DSSMP is a new requirement which is due to FERC by November 13, 2008. The DSSMP provides the details of how a licensee will monitor and evaluate the performance of a dam or project structure. A DSSMP report will be prepared for each dam on the Drum Spaulding Project and will be included in Section 7 of the Supporting Technical Information Document (STID).

We have compiled the following questionnaire to gather information that is relevant to all dams, which will facilitate the preparation of the DSSMP reports and hopefully help our information requests to a minimum. The data that we need information for are:

Lower Snake: Shown Falls, Shown Falls, Hickey Falls, Hickey Falls, Hickey Falls, Rock Creek, Wier Falls

Upper Snake: Hite Lake, Tule Lake, Bald Lake, Lake Fardale, Lake Spaulding, Lake Tully, Meadow Lake, Bucken Lake, Upper Park

In some cases, we are asking you to verify information that we will use for each dam and provide dam-specific responses. In other cases, we are asking you to provide a description of your current practices. In your responses, please be brief (do more than one on three responses are needed). The intent is to document your current practices to the benefit of satisfying FERC requirements.

Thank you in advance for your help.

Repository Browser

- PGEN
 - Central
 - Guidance Documents
 - P-137-Mokelumne River
 - P-2310-Drum-Spaulding
 - Dam-Culbertson
 - Incident Reporting
 - O+M
 - Projects
 - #7890-Radial Gate Repair
 - Procurement
 - Project Initiation - Approval
 - Dam-Lake Fordyce
 - Dam-Undefined
 - FERC Facility Safety
 - Penstock-Drum 1+2
 - Undefined-Lake Fordyce
 - Undefined-Undefined
 - P-2310-Undefined
 - Undefined-Drum-Spaulding

Content List

Name	Title	Status	Modified	ModR
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Preview

GATE F-2885, F-2891

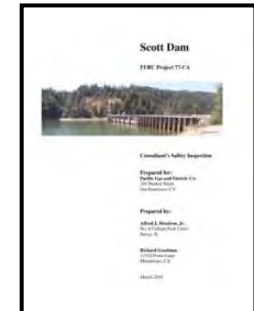
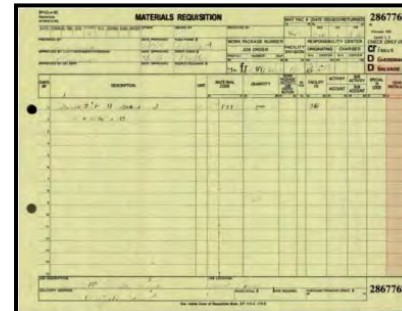
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MELBAIR VALVE

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Favorites
Personal Search

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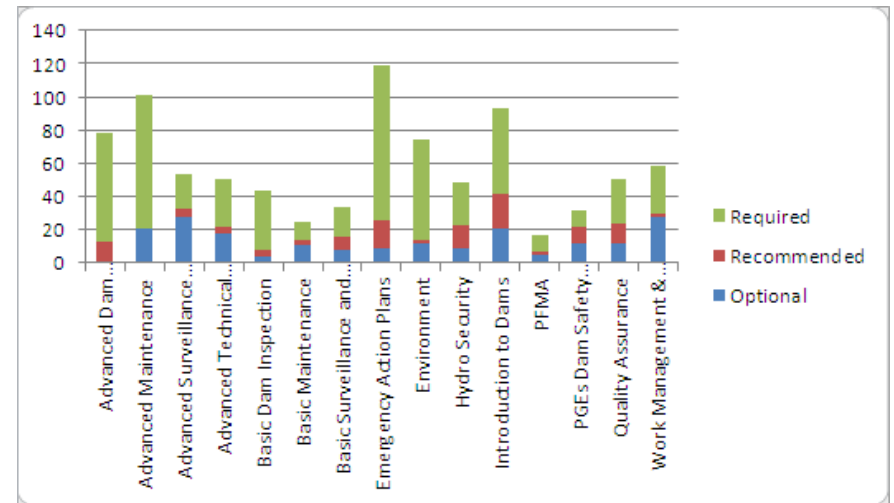
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Improvement 7 – In-House Training

Description	Guidance Documents		Training Modules	
	Original	Expanded	Original	Expanded
Dam Safety Program Governance	2		5	
Dam Inspections	2	11	4	13
Surveillance and Monitoring	1	1	2	5
Dam Maintenance	1	2	1	8
Testing/Exercising Gates and Valves		2		
Incident Reporting and Review		7		
Work Management and Compliance Management Processes	1	1		2
Safety and Emergency Response	6	8	2	3
Hydro Security Program		3		2
DSOD Storage Certificates		2		
Quality Assurance		3		4
Potential Failure Modes Analysis (PFMA)		2		2
Environmental Training				3
Industry Standards		4		7
Totals	13	46	14	49

Training Course Assignments by Priority



Basic Components of Most Dams

