

Project Sheet – PG&E’s Dam Safety Consequence Assessment Program



Nimble Minds Consulting provided program management services on PG&E’s Dam Consequence Assessment program. The scope of the program includes estimating economic consequences and loss of life for hypothetical failure of dams. The scope spans all PG&E watersheds and includes 56 Federal Energy Regulatory Commission (FERC) Part 12D dams that were deemed significant hazard or high hazard dams per FERC’s classification and those that are deemed high hazard potential according to California Department of Water Resources - Division of Safety of Dams (DSOD) classification. The consequence estimates will be used to evaluate the risk of a dam failure as part of Comprehensive Assessment (CA) or Level 2 Risk Analysis (L2RA) workshops and Semi-Quantitative Risk Analysis (SQRA) workshops for risk-based prioritization of projects for execution of remediation measures.

Nimble Minds Consulting assisted with competitive bidding to select engineering consulting firms to work on the projects. The engineering consultants used either of the two methods to evaluate the consequences - US Army Corps of Engineer’s LifeSim or US Bureau of Reclamation’s Reclamation Consequence Estimating Methodology (RCEM). The consequences included loss of life and economic loss that included loss of permanent & recreational structures. The failure scenarios included sunny day failures, failures from a probable maximum flood (PMF), individual dam failures and cascading failures.



Nimble Minds Consulting directed the development of consequence assessment guidance document to create technical consistency across all individual project reports, adhered to best practices and compliance with regulatory standards. This allowed PG&E to streamline workflows improving efficiency in the program execution. We also onboarded an independent peer reviewer to perform quality control on consultant's reports for added measure given the significance of the program.

Nimble Minds Consulting onboarded an environmental consultant to help with occupancy data of recreational facilities within the inundation zones to accurately estimate the transient population at risk. Nimble Minds Consulting created and managed a program-level schedule and project-level schedule to ensure the work is completed ahead of the CAs and SQRA's schedule as well as managed the budgeting, forecasting and long-term planning. We also implemented ways to complete the program sooner but optimizing technical approach, resources and by grouping projects & consultants resulting in schedule reduction by over 40%.

