

Monitoring and Adaptive Management

Monitoring is simply observation – it is used to address specific problems or issues. Monitoring takes place according to a schedule and using methods proposed in a Monitoring and Adaptive Management Plan. PG&E is preparing monitoring and adaptive management plans as part of the Federal Energy Regulatory Commission’s (FERC) pilot license application.

PG&E will monitor the project area:

- Before construction to establish the pre-project baseline conditions
- During construction to ensure that protection and mitigation measures are being carried out properly
- During operation to see if protection measures are working and to adjust them if necessary

Adaptive management is a way of “reducing the risks associated with forward-thinking planning and decision-making under conditions of uncertainty.” It is widely used as an environmental resource management technique for Habitat Conservation Plans, hydropower licensing, and other applications.

Adaptive management involves:

- Monitoring according to a defined protocol to address a particular problem or question
- Adjusting project operation or design if necessary if impacts observed under monitoring are greater than a pre-defined threshold
- Reducing, increasing, or halting the monitoring effort once the monitoring objective is reached.

Example of Monitoring and Adaptive Management: WaveConnect may monitor periodically to determine whether or not seals and sea lions are hauling out on the wave energy converters. This could cause injury to the animals and also increase predation on sensitive species like juvenile salmon that may congregate in the wave farm area. If monitoring determines that this is a problem, the project could adapt by installing barriers to haul-out.

Monitoring and Adaptive Management Flow Chart

