SEISMIC SURVEY SAFETY

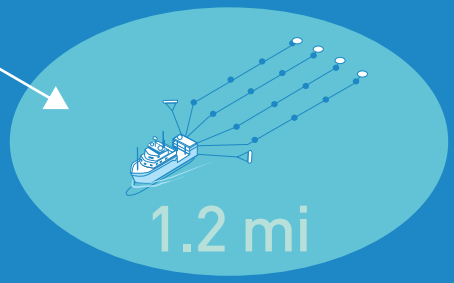
PG&E is committed to conducting the 3-D high-energy offshore seismic study safely and in a manner that results in the least impact to the environment through implementing numerous marine mammal protection measures.

3.8 mi SAFETY ZONE

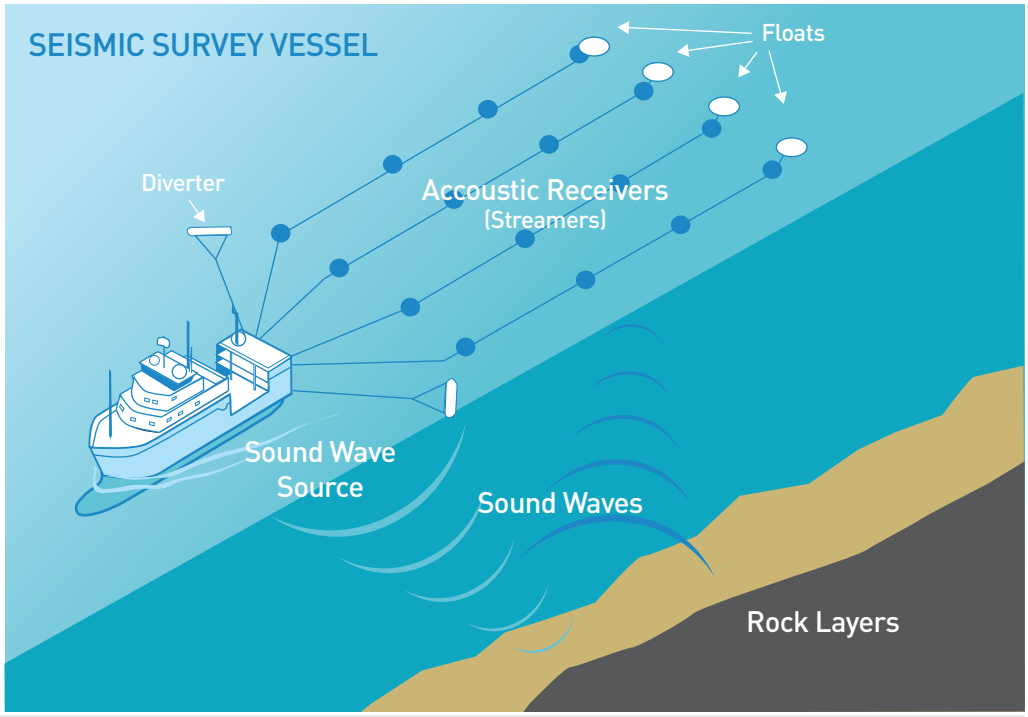
Safety zone audio levels are limited to 160 decibels (dB). The vessel alters course if marine mammals are detected inside this zone.

EXCLUSION ZONE

If a marine mammal appears likely to enter the 180 dB exclusion zone, then protective actions will be taken, including powering down the sounding equipment or a complete shutdown and suspension of work.



SPOTTER AIRCRAFT



MITIGATION:

- Impacts will be minimized through implementation of a Marine Wildlife Contingency Plan (MWCP).

- The MWCP includes stationing trained Protected Species Observers (PSOs) on board the survey and support vessels to watch for and alert operators to the presence of marine mammals.

- The National Marine Fisheries Service (NMFS) and PG&E will also have PSOs in an airplane to conduct aerial surveys for density/distribution of marine mammals approximately one week prior to and during the survey. The survey area could be adjusted based on the results of the aerial survey.

- Acoustical and infrared equipment on the research vessel will monitor for marine mammals.

- Before a survey begins, only one air gun will sound at a low-level to warn marine life, before gradually ramping up to full power.

- The air gun sound source will be managed based on proximity of marine mammals to the survey vessel.
- While conducting the survey, a 180 dB exclusion zone and a larger 160 dB safety zone will be maintained around the vessel to prevent potential impacts to marine mammals.

- If a marine mammal appears likely to enter the 180 dB exclusion zone (the 1.2 mile ring around the vessel) then protective actions will be taken, including powering down the sounding equipment or a complete shutdown and suspension of work.

- Marine mammals that enter the larger 160 dB safety zone, which extends to 3.8 miles around the vessel, will be monitored by trained observers and either changes in vessel speed or course will be taken to avoid them. These zones were established in consultation with the NMFS.

- The survey time period of November through December is the time of year in which there are the fewest number of marine mammals off the Central Coast. It is also a low fish larvae period.