			"worst-case" and "median" SSPs in the Shelf Zone result in +0–15 dB at/near the 160 dB range. +15 dB SPL would be a very large distance and therefore difference between median and worst case results.
19	D-99	**Sea State.** propagation in sound speed profiles that cause surface sound channels can be quite strongly affected, as sound can be scattered out of the duct.	No actual analysis was performed to assess the variability in model results caused by increasing sea state. All modeling assumes perfect reflectance; however, this statement makes it clear that the long-distance estimates resulting from the presence of sound channels in unrealistic in high sea states, and perhaps moderate, however, no effort is made to quantify this. This should have been quantified and/or a moderate (median) sea state used in all modeling scenarios.
	D-174	Neither mitigation nor aversion are used to adjust take estimates	The DPEIS builds a strong case that some sort of mitigation reduction or aversion effect should be incorporated and would make a considerable difference in the take estimates, but neither well-established phenomenon is taken into account.
	D-162	Stand-off distances	The JASCO Phase I model clearly shows that separation schemes and 'corridors' are most likely not meaningful or used by the animals, and that the effect of such schemes is more likely to increase exposure, especially Level B SEL. We are hopeful that this proposed added mitigation will therefore be removed from consideration.
	K-32	Hypothetical treatment of "lost communication space"	This is a novel and poorly supported idea within the research community and is not well enough developed or supported by data to be treated as a meaningful regulatory concept.
	K-7	Introduction of L_{eq} metric in addition to SEL and SPL	No formula or rationale for use of L_{eq} is provided. L_{eq} is not used in the rest of the PEIS. Introduction of a new, unjustified metric is not warranted.
	K-18	Introduction of the concept of "listening space" and a simplistic approximation of biological de-masking is unwarranted.	This is a novel and scientifically controversial idea; it is not mature enough for regulatory application. A DPEIS is not the place to introduce a radically different concept for UW sound regulation: this should be further developed and vetted as a policy or regulatory rule-making on its own before it is considered solid enough for regulatory application.
	K-22	Introduction of a novel metric, cumulative SEL and L_{eq} for an entire year.	This is not an accepted ISO or ANSI standard, and for good reason. Concepts of hearing recovery, effective quiet and other basic hearing phenomenon would need to be considered and are not, leading to absurd expressions of acoustic energy "accumulation" that are biologically impossible and biologically meaningless even if possible.

ATTACHMENT D