

Cascade Concept

A critical load corresponds to a specific effect (response) to a sensitive resource (receptor) at a specific deposition loading rate. However, that specific effect lies within a cascade of multiple effects along a continuum of loading rates. For example, sub-lethal effects such as nutrient enrichment and changes in diatom community structure might occur before deposition results in episodic acidification. Later in the cascade, mortality and severe impairment of reproduction may be the outcome of chronic deposition. Furthermore, recovery time will usually lengthen as you move through the cascade. Selecting target loads associated with receptors affected earlier in the cascade would help avoid severe effects and lengthy recovery periods for receptors and responses later in the cascade.

