

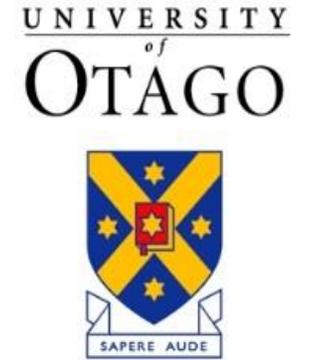


A feasibility study of coastal acidification mitigation strategies for the mussel industry



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Te Whare Wānanga o Otāgo

PVCOTRILL.COM

Sustainable Seas Innovation Fund
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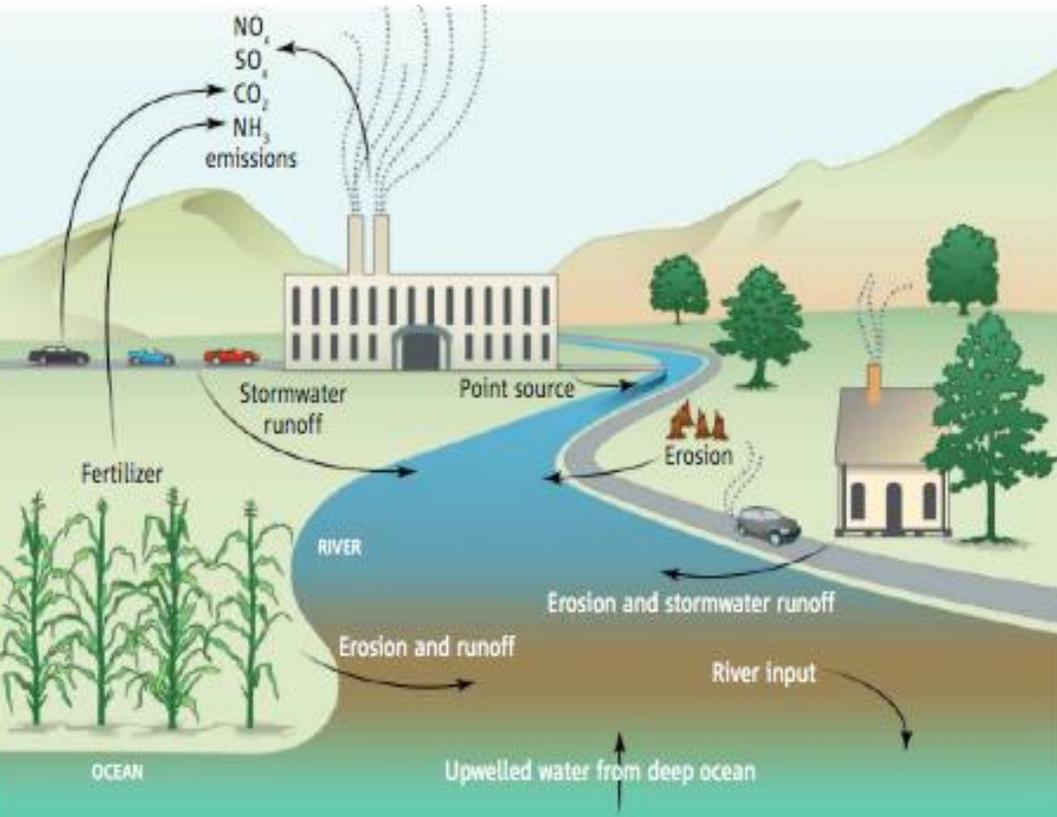
Co-funding
Tasman District Council
Waikato Regional Council



Leverage & Alignment

CARIM (Coastal Acidification: Rate, Impacts & Management)
NZOA-ON (NZ Ocean Acidification - Observing Network)

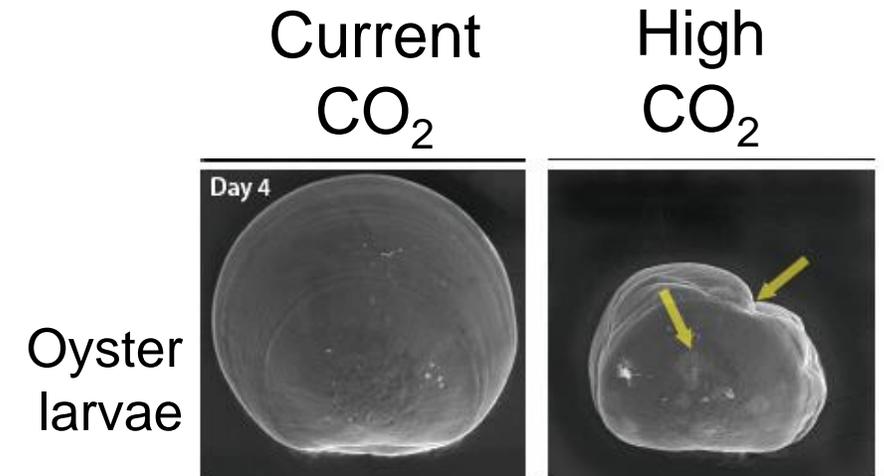
Coastal Acidification.....and its impact on shellfish



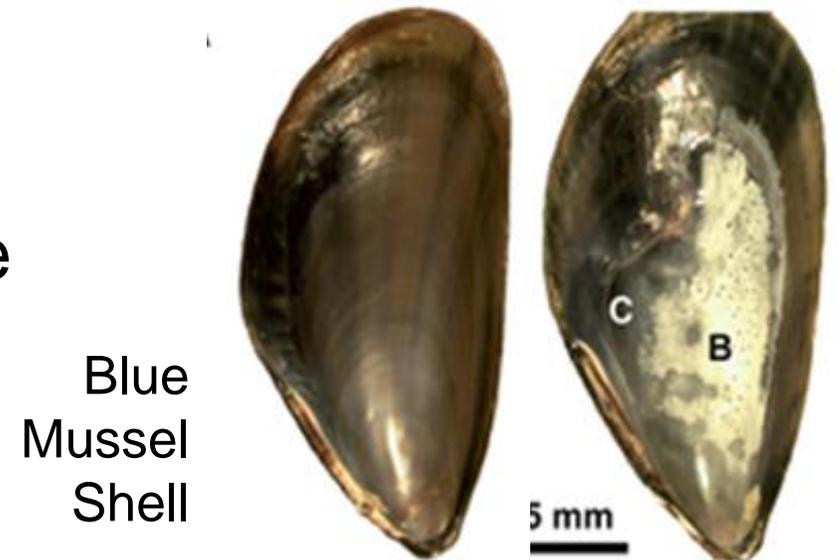
↑ CO_2

↓ pH

↓ Carbonate



Taylor Shellfish Oregon State University OSU College of Earth, Ocean, and Atmospheric Sciences nfcc



Potential mitigation options for mussel farms

Shell dissolution



Testing shell

- age
- size
- treatment
- placement

to optimise shell dissolution



Strategic Aeration



Testing aeration

- rate & volume
- technique
- depth

to optimise CO₂ removal from water

Optimal Shell
Dissolution Technique

Optimal Aeration
Technique



Hydrodynamic modelling in Marlborough
Sound & Firth of Thames



Impacts of techniques
on spat & mussels

Implementation
considerations



Feasibility Report



Field trials

Other applications