Modernizing the Salish Sea: The Case for a Next-Generation Shellfish Health Platform

Prepared for: Ocean Idea Challenge Judges & Industry Stakeholders

The Failure of Legacy Tools

The current monitoring infrastructure in British Columbia is fragmented and increasingly unsupported. Legacy mobile applications are no longer receiving critical updates, leaving commercial farmers dependent on web maps that lack real-time biological integration [cite: 2.2.1]. This "monitoring gap" is a primary driver of the year-over-year increase in area closures.

The Coralfil Solution: Anticipatory Monitoring

Coralfil is filling this gap with a dedicated shellfish toxicity monitoring app, integrated with **Reefmaker AI**. Our platform moves the industry from reactive closure responses to **Proactive Biotic Infrastructure**.

Key Platform Features:

- **Real-Time SST & pH Analytics:** Integrating data from ocean sensors to predict *Vibrio* and POMS risk windows before outbreaks occur [cite: 1.3.1].
- **Automated DFO/CSSP Alerts:** Direct integration with federal closure notices to provide farmers with millisecond-accuracy on area status.
- **Economic Resilience Dashboard:** Mapping biological risk against harvest schedules to maximize revenue and minimize seed-purchasing risk [cite: 1.4.2].

> **The Bottom Line:** Losses to the BC aquaculture industry due to acidification and hypoxia are projected to reach hundreds of millions of dollars by 2050 [cite: 1.3.1]. Coralfil's monitoring ecosystem is the tool required to safeguard these coastal resources.

Conclusion

The future of the blue economy rests on our ability to outpace environmental shifts. By modernizing monitoring, Coralfil is ensuring that BC farmers can protect their pocketbooks and their ecosystems simultaneously.