

# Development of an Environmental Monitoring Program to Advance Tidal Energy in BC

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Environmental impacts and regulatory permitting remain central challenges for advancing tidal energy projects in Canada and internationally. Differing perspectives on risk retirement, regulatory oversight, and community perceptions continue to shape project feasibility and deployment timelines.

This presentation describes the development of the Blind Channel Tidal Energy Demonstration Centre Environmental Monitoring Program, emphasizing how a comprehensive, technology-forward framework based on international best practices was designed to reduce environmental uncertainty and inform regulatory refinement.

The talk will outline the project's permitting pathway and detail the integrated monitoring system, which incorporates optical cameras, imaging sonar, passive hydroacoustic monitoring, vessel-based observations, and AI-enabled data processing. Technical considerations, methodological best practices, and lessons learned through collaboration with regulators, researchers, and project partners will be highlighted.

The session will demonstrate how this monitoring framework can serve as a replicable model to inform future tidal deployments, supporting more efficient permitting, improved environmental understanding, and increased confidence in project risk management.