# **englobe**



### Canadian Consulting Engineering Awards Project Management

#### **Protecting Lobsters and Critical Marine Habitat:** The new Homarus Centre in Shediac, New Brunswick





#### **EXECUTIVE SUMMARY:**

In July 2022, the Town of Shediac, New Brunswick celebrated a major milestone - the new community Homarus Centre opened to welcome the public. A source of pride for residents, the facility was built to honour Shediac's world class lobster fishery and show the enormous impact the lobster has on the region's history, culture, and growth. Replacing the outdated centre, the new two-storey (1,081m2) building includes a high-end coastal fisheries interpretation centre with several exhibition areas, aquariums, live lobster pool, training rooms, a theatre, as well as a research laboratory and related facilities. Everything about the centre is focused on education to protect the future health of the Homarus lobster species, and the thriving fishery and tourism industries it supports.

As lead consultant, Englobe formed a multidisciplinary team of professionals responsible to design, engineer, and construct the cuttingedge facility. By challenging industry standards and encouraging innovation, they helped the client realize their vision of delivering an immersive experience into the Northumberland Strait marine ecosystem.

This project underscores the Town's claim as the 'Lobster Capital of the World" and promotes an industry critical to Shediac's continued economic growth, reinforcing their reputation as one of the best tourist destinations in Atlantic Canada.







#### **OBJECTIVES**

The new Homarus Centre was the feature project for Shediac. It was the client's objective that the facility presents a unique, immersive, and engaging experience of the Shediac Bay ecosystem. The project was to combine exciting hands-on public facing exhibits to educate visitors and foster awareness for the fascinating, but fragile species, with critical research and laboratory space to advance sustainable lobster practices.



Englobe applied creative solutions and advanced engineering to meet all project objectives:

- Phased construction plan to mitigate impact to the tourist season.
- Central lobster 'touch tank' cast in sealed concrete in the shape of a giant lobster designed in close collaboration with the client to blend tourist appeal with functional requirements.
- Building contains/processes approximately 33,000 liters of saltwater requiring all project materials to be specified and designed to withstand saltwater conditions.
- Design creatively integrated the new Homarus Centre with the existing Rotary Park, home of Shediac's famous 90-ton lobster statue.
- Situated 30-meters off the river setback the design accounted for extreme caution for the sensitive environment and constraints presented by the rise in sea level.
- Comprehensive project management plan covering quality control, change management, risk management, scheduling, team organization, resources, and responsibilities.



#### **EXCELLENCE AND INNOVATION**

The new Homarus Centre is a multiuse facility promoting lobster research, development, and sustainability. The facility is open to the public and hosts a full schedule of tourist events making it a central space for visitors to the region. The building is in a unique spot: visible from main street, beside the Scoudouc river, close to Shediac Bay, a sub-basin of the Northumberland Strait, and strategically situated near the town's 90-ton 'World's Largest Lobster' statue which attracts thousands of tourists annually.



Englobe was the prime consultant for the project managing the design and engineering, including electrical, mechanical, and civil aspects, in a manner that supported the client's vision for the project.

Engineering achievements include:

- Design optimization to reduce overall building energy use/cost.
- Original approach to the lobster 'touch pond' and theatre acoustics.
- Proactive approach for mitigating potential impacts of sea level rise.
- Inclusive approach to coordinating design activities with stakeholders.
- Integrated new centre with existing Rotary Park.
- Creatively supported 33,000 liters of saltwater needed for the live exhibits.
- Included advanced electrical, air exchange, duct systems.
- Robust environmental control measures to protect the Scoudouc river from construction debris.
- Rigorous health and safety, including phased construction, to protect busy pedestrian corridor.



#### **SOCIAL & ECONOMIC BENEFITS**

Benefits of the new Homarus Centre for the community of Shediac, and the entire Westmorland County region, cannot be understated. The old centre could no longer accommodate the 600+ bus loads of tourists welcomed by the town annually, it had no room for growth, and it lacked appeal to keep visitors for more than a lobster selfie. Showcasing aquariums, open lobster tanks, and an interactive theatre, the new center offers a unique experience related to the mysterious world of the lobster and the ecosystem flourishing within the nearby Northumberland Strait. Designed as a full experience for visitors, the new center will positively impact tourism as people plan their New Brunswick holiday to include more time in Shediac. By adding advanced research technology to complement the public exhibits, the facility is poised to play a crucial role in the long-term sustainability of the Homarus lobster. By expanding focus to include valuable marine research, the community is protecting the future health of their most valuable natural asset. And local lobster stocks have already benefitted. In 2022, the center in partnership with the Shediac Lobster Festival released 10,000 lobster larvae into the water accounting for the lobsters sold, and eaten, during the festival.





## **DIVERSITY AND INCLUSION**

Uniting the Client and team, providing continuous oversight, creating a shared vision for success, and holding people accountable: inclusion and diversity of opinion was critical to the success of this project. Englobe understands the overall benefit of working across traditional boundaries and favoured a multidisciplinary approach for this project. Start to finish, the team was proactive, working in close collaboration with project partners and members of the local community to ensure all voices were captured through each phase. By first listening to the Client to understand priorities and then developing solutions, project objectives were clearly aligned with desired outcomes. The success of the project hinged on a positive working relationship with all stakeholders and subs: the public and local fisheries contacts, Town of Shediac, Homarus Inc., Design Plus Architecture, JM Giffin Engineering Inc., Acadian Construction etc. Inclusion on this level is only possible when the project managers have a deep understanding of the firm's resources and the needs of the project objectives. As part of the quality control and risk mitigation plan, our team of engineers regularly evaluated resources to make sure the right people were working on the right task at the appropriate time.

