

# Shipbuilding Plan



SUMMER 2018

 **BCFerries**

# Message from the CEO

BC Ferries is delivering an ambitious capital plan to replace vessels approaching the end of their service life. We expect to replace on average one vessel per year for the foreseeable future.

We are also reducing the differing types of vessels in our fleet to increase interoperability. Without standard ships it is challenging to redeploy as needed. Having standard vessels saves money, improves flexibility, provides greater reliability and makes the customer experience more consistent and enjoyable.

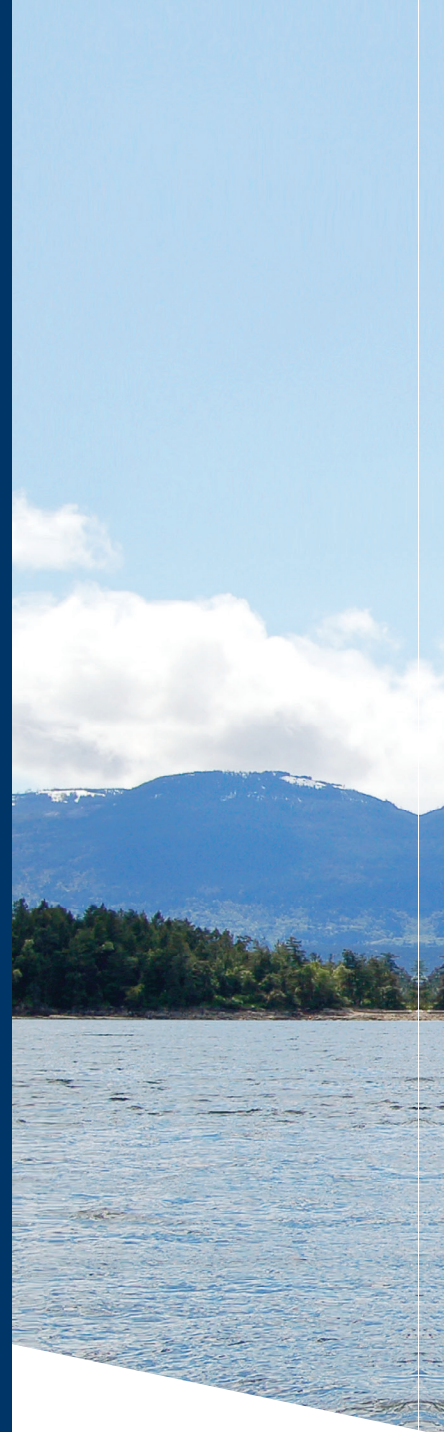
BC Ferries uses global best practices for new vessel procurement. Bidding is open to local, national and international ship builders. Canadian shipyards, including B.C. shipyards, have competitively bid on BC Ferries' new vessels since 1960, the year the company was founded.

Going forward, BC Ferries is introducing measures to make it even more efficient for shipyards to build our vessels. Standardization, for example, means for repeat vessels builders need not develop new designs for each bid, a major procurement process efficiency.

BC Ferries continually seeks the greatest appropriate return on investment for ferry users. We strive for long-term benefits when procuring goods and services. We enhance the marine industrial capabilities of B.C. through technology transfer, training, procurement, high-skill employment and life cycle support activities. We seek maximum economic and community advantage for fare payers as we prioritize a total benefit that is positive for British Columbia.

Affordable, sustainable and modern coastal connectivity is our goal. BC Ferries looks forward to continued positive partnerships with Canadian and international shipyards, as we seek the most competitive choices for coastal travellers in British Columbia.

Mark Collins  
BC Ferries' President & CEO







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# Background

BC Ferries operates a diverse fleet of 36 vessels across coastal British Columbia to deliver safe and reliable ferry service to residents, tourists and commercial enterprises. The planned replacement of vessels is a continuous process. BC Ferries must replace one vessel per year on average to ensure our customers have safe, dependable, sustainable and efficient ferry service now, and in the future.

BC Ferries follows a formal and transparent procurement process to obtain the best possible value for ferry users. Our vessel replacement program uses worldwide best practice to guide our procurement activity.

BC Ferries has a detailed fleet replacement schedule with the forecast retirement date for each vessel. Our capital plan considers growing traffic, sustainability and resiliency for the ferry system. It lays out a strategy to reduce vessel classes, acquire similar vessels in each sized category and reduce classes from the 17 current classes to five or fewer classes of ships in future.

BC Ferries builds vessels when and where it is in the best interest of ferry users to do so. BC Ferries actively supports the local shipbuilding and ship repair industry, spending more than \$1.8 billion since 2004.









# Standard Vessel Strategy

Reducing the number of vessel classes helps BC Ferries gain significant efficiencies by reducing logistical, operational, training and maintenance costs over the 45-year life of a ship. This strategy dramatically improves redundancy and resiliency in the fleet through interoperability and standardization. It improves customer and community service by using identical ships for refit and repair relief. It also reduces barriers to shipyard bidding on new vessel construction.

## STANDARDIZED SHIP CLASSES

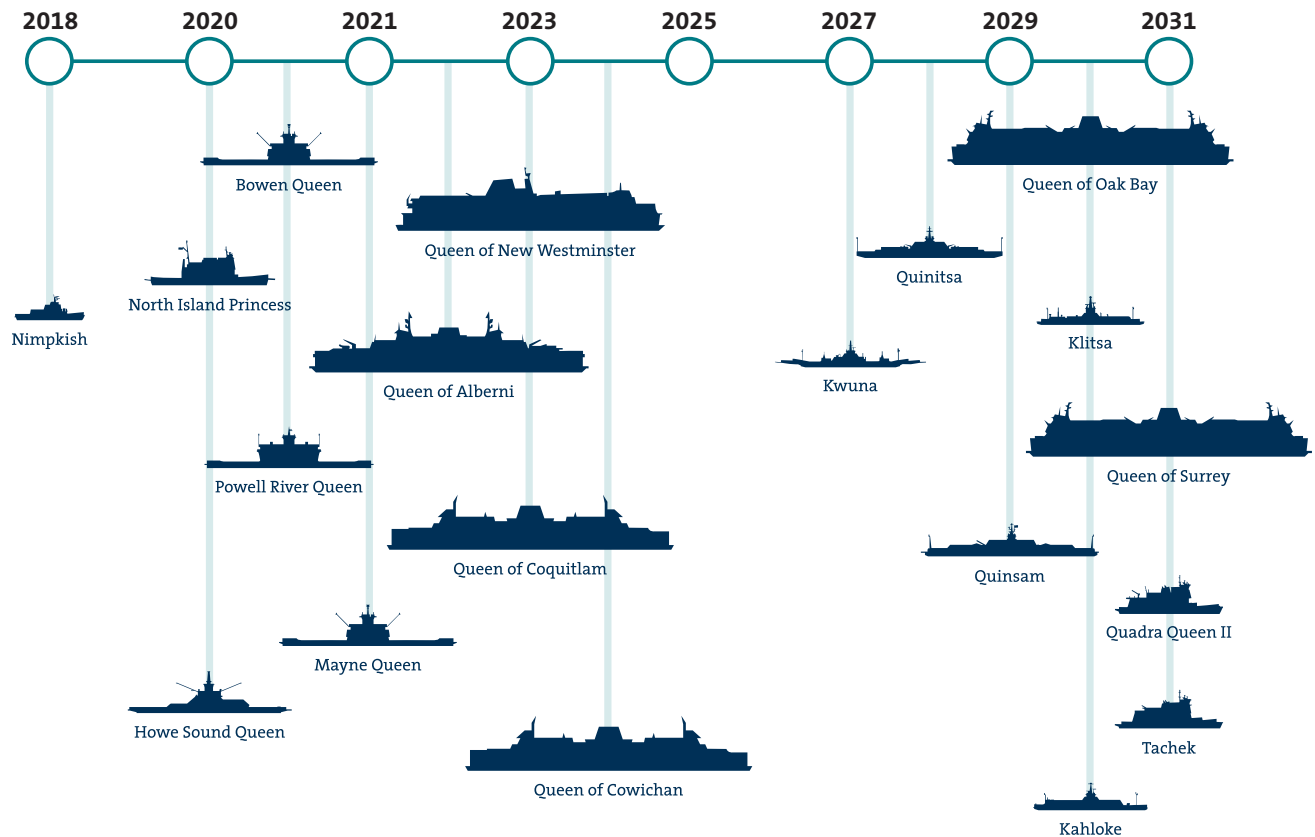
| Replacement Class Proposed  | Vessel Name (Current)        | Year Built | MM-YR Retire | Current Age | Age at Retirement |
|-----------------------------|------------------------------|------------|--------------|-------------|-------------------|
| NORTHERN                    | Northern Sea Wolf            | 2001       | Jun-37       | 17          | 36                |
|                             | Northern Adventure           | 2004       | Oct-43       | 14          | 39                |
|                             | Northern Expedition          | 2009       | Apr-49       | 9           | 40                |
| MAJOR                       | Queen of Alberni             | 1976       | Oct-23       | 42          | 47                |
|                             | Queen of New Westminster     | 1964       | Apr-24       | 54          | 60                |
|                             | Queen of Cowichan            | 1976       | Oct-24       | 42          | 48                |
|                             | Queen of Coquitlam           | 1976       | Sep-25       | 42          | 49                |
|                             | Queen of Oak Bay             | 1981       | Oct-30       | 37          | 49                |
|                             | Queen of Surrey              | 1981       | Feb-31       | 37          | 50                |
|                             | Spirit of Vancouver Island   | 1994       | Feb-44       | 24          | 50                |
|                             | Spirit of British Columbia   | 1993       | Mar-45       | 25          | 52                |
|                             | Coastal Renaissance          | 2007       | Oct-52       | 11          | 45                |
|                             | Coastal Celebration          | 2008       | Apr-53       | 10          | 45                |
|                             | Coastal Inspiration          | 2008       | May-53       | 10          | 45                |
| SALISH                      | Mayne Queen                  | 1965       | May-21       | 53          | 56                |
|                             | Salish Orca                  | 2016       | Dec-61       | 2           | 45                |
|                             | Salish Eagle                 | 2017       | Feb-62       | 1           | 45                |
|                             | Salish Raven                 | 2017       | May-62       | 1           | 45                |
| SHUTTLE                     | Queen of Capilano            | 1991       | Jan-37       | 27          | 46                |
|                             | Queen of Cumberland          | 1992       | Jan-38       | 26          | 46                |
|                             | Skeena Queen                 | 1997       | Feb-42       | 21          | 45                |
|                             | Island Sky                   | 2008       | Oct-47       | 10          | 39                |
| ISLAND                      | Howe Sound Queen             | 1964       | May-19       | 54          | 55                |
|                             | North Island Princess        | 1958       | May-20       | 60          | 62                |
|                             | Bowen Queen                  | 1965       | Dec-20       | 53          | 55                |
|                             | Powell River Queen           | 1965       | Oct-21       | 53          | 56                |
|                             | Quinitsa                     | 1977       | Oct-28       | 41          | 51                |
|                             | Quinsam                      | 1982       | Apr-29       | 36          | 47                |
|                             | Kahloke                      | 1973       | Apr-30       | 45          | 57                |
|                             | Klitsa                       | 1972       | Oct-30       | 46          | 58                |
|                             | Quadra Queen II              | 1969       | Apr-31       | 49          | 62                |
|                             | Tachek                       | 1969       | Jun-31       | 49          | 62                |
|                             | Kuper (1985 lengthened 2006) | 2006       | Oct-50       | 12          | 44                |
| UNIQUE                      | Nimpkish                     | 1973       | Jun-18       | 45          | 45                |
|                             | Kwuna                        | 1975       | Oct-27       | 43          | 52                |
|                             | Baynes Sound Connector       | 2015       | Oct-60       | 3           | 45                |
| 2018 - Average Age of Fleet |                              |            |              | 31          |                   |



# Near Term Replacements

BC Ferries' fleet replacement comprises the major portion of the company's long-term capital budget. Vessel replacement is a long-lead activity that requires careful planning and execution.

The planned vessel replacements over the next 13 years are as follows:





# Vessel Procurement Process

BC Ferries uses a progressive and phased approach to engage interested and qualified proponents to bid on ship procurement projects.

Before working with shipbuilders, BC Ferries consults internal and external stakeholders to develop a detailed Statement of Requirements. These requirements define the scope, operational requirements and limits of the vessel's design, and ultimately form the basis of the contract design specification.

Next, a formal three-step procurement process is widely advertised to ensure that all interested proponents are given the opportunity to participate. The steps are:

- a. Request for Expressions of Interest (RFEI) – Notifies the marine industry of the opportunity and solicits their interest, capacity, and capability for the new procurement. This includes B.C., Canadian and international shipyards.
- b. Request for Pre-Qualification (RFPQ) – Selects proponents to participate in the follow-on RFP process. At this stage, proponents are evaluated on qualitative criteria, including, but not limited to, shipbuilding experience and references, construction capacity, quality and safety management, design capacity, ownership structure and financial stability/background. If the procurement is for a first-of-class vessel, a preliminary concept design must be provided.

Pre-qualification evaluation criteria includes:

- Shipyard ownership structure and financial background
- Shipyard design capacity
- Shipyard current order book situation across all sectors (not just RoPax)
- Shipyard RoPax experience / references
- Shipyard experience with overseas owners (if not Canadian)
- Health and safety certification and records
- Quality control and standards
- Does the shipyard work with a third party design house(s)?
- Yard experience with other energy saving technologies
- Shipyard experience with classification societies and Canadian flag state
- Interior fit out and suppliers
- Experience with LNG propulsion installations (as applicable)
- Experience with battery hybrid propulsion (as applicable).

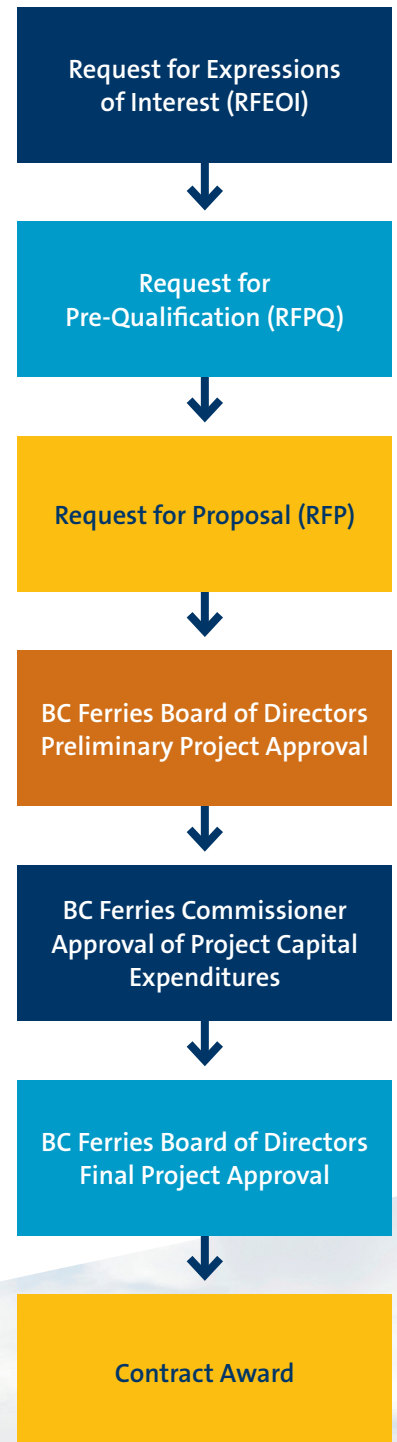
- c. Request for Proposal (RFP) – Asks pre-qualified proponents from the RFPQ stage to submit a proposal that includes a full project plan and firm pricing. If the procurement is for a first-of-class vessel, a detailed design must be provided. Each bid is based on the detailed Statement of Requirements, a technical package, and proforma contract provided by BC Ferries.

BC Ferries evaluates RFP submissions according to a number of key criteria, including those used in the RFPQ, as well as price.

Request for Proposal evaluation criteria includes RFPQ details (as noted above) and:

- Design and technical content;
- Experience, schedule, capacity and build strategy;
- The degree to which material, labour, services or supplies used by shipyards originate or are sourced in British Columbia;
- Delivery dates to BC Ferries at Victoria, British Columbia, Canada;
- Adherence to the form of the BC Ferries Specimen Shipbuilding Contract;
- Price and payment terms including, without limitation:
  - a. capital costs of vessel and any necessary terminal modifications;
  - b. the cost to deliver the vessel to BC Ferries at Victoria, British Columbia, Canada;
  - c. life cycle costs including, without limitation, spare parts, fuel, maintenance and operating costs; and
  - d. financing and payment terms; and
- Financial guarantees and financial strength of the Proponent.

Following the bid evaluation, a shortlist is established with whom BC Ferries will refine the design proposal and negotiate the final price based on the refined design. At that point final RFP selection will be primarily driven by best overall value to BC Ferries and ferry users.



*Spirit of British Columbia*



In the course of its regulatory activities and responsibilities, the Commissioner is required to bear in mind four principles as set out in section 38 of the Act as follows:

1. The primary role of the Commissioner is to balance, in the manner the Commissioner considers appropriate, the interests of ferry users, taxpayers and the financial sustainability of ferry operators;
2. Ferry operators are to be encouraged to adopt a commercial approach to ferry service delivery;
3. Ferry operators are to be encouraged to seek additional or alternative service providers on designated ferry routes through fair and open competitive processes; and
4. Ferry operators are to be encouraged to be innovative and to minimize expenses without adversely affecting their safe compliance with core ferry services.

## Regulatory Approvals

In order to ensure all applicable requirements in the *Coastal Ferry Act* are met, BC Ferries submits an application to the BC Ferries Commissioner for approval of the planned capital expenditures for the vessels and the required related investments in terminals and other infrastructure. If the Commissioner renders a favourable ruling, the project is subject to the results of the procurement process and final approval by the BC Ferries Board of Directors.

## Attaining Best Value for Ferry Users

BC Ferries' objective with ship procurement is safe, affordable, sustainable coastal connectivity for those that pay for the ships: ferry users. We seek competitive procurement that offers lowest total cost of ownership and operation for the full vessel life cycle. Local and international segments of the marine industry help us achieve this for ferry users.

BC Ferries is a major supporter of the B.C. marine industry, spending more than \$1.8 billion locally in the past 14 years. We recognize the life cycle benefits of local marine industry activity. Other things we do are:

- BC Ferries' standardized vessel strategy alleviates the high initial cost of producing a design for the purpose of bidding on new projects.
- Evaluation criteria for selecting final proponents includes local B.C. construction content and through-life support opportunities.
- On a project by project basis, BC Ferries will consider financial support for all proponents that successfully reach the RFP stage for development of their detailed bid package.
- BC Ferries' "Maker's list" includes local suppliers. This introduces shipbuilders to local suppliers' products and services.
- BC Ferries supports the local marine industry at trade shows and events.
- BC Ferries invites industry to consider joint bid submissions, involving a prime contractor and possible partnerships. The concept supports sharing degrees of vessel construction and technology transfer.
- BC Ferries engages the marine industry by proactively communicating new build opportunities. The Association of British Columbia Marine Industries (ABCMI) is a primary portal for BC Ferries' procurement activity.

# In Summary

BC Ferries is focused on affordable, clean, modern connectivity for ferry users in B.C. We employ an open and transparent procurement process to achieve best value for ferry users. All proponents are welcome to submit proposals and are evaluated fairly and equitably. Innovative submissions which reduce life cycle costs and enhance local technical capabilities are encouraged.


There is potential for local marine stakeholders to engage in new build projects in varying degrees: from complete vessel design and build, to supplying equipment and services to the prime contractor, to a hybrid model of partial completion in B.C.

BC Ferries seeks the best value and quality when procuring new ships, and is open to collaborating with the shipbuilding industry.



*The Baynes Sound Connector under construction at Seaspan's Vancouver Shipyards (2015).*





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