



## **A Sustainable Marine Company in a Sustainable Port**

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## Seaspan's Rich BC History

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- Marine group dates back to 1886
- Shipyard group dates back to 1902 with Vancouver Shipyards
- 1992 Dennis Washington purchases CH Cates Tug
  - Seven year roll-up of both the shipyard and marine business, including Seaspan in 1996
  - Please don't confuse Seaspan.... for Seaspan
- Currently operate four business lines:
  - Tug & Barges
  - Harbour Tugs
  - Commercial Ferries
  - Shipyards
- Approx. 2,200 employees..... and growing

# The Evolution of Sustainable Practices in the Marine Industry

## Past



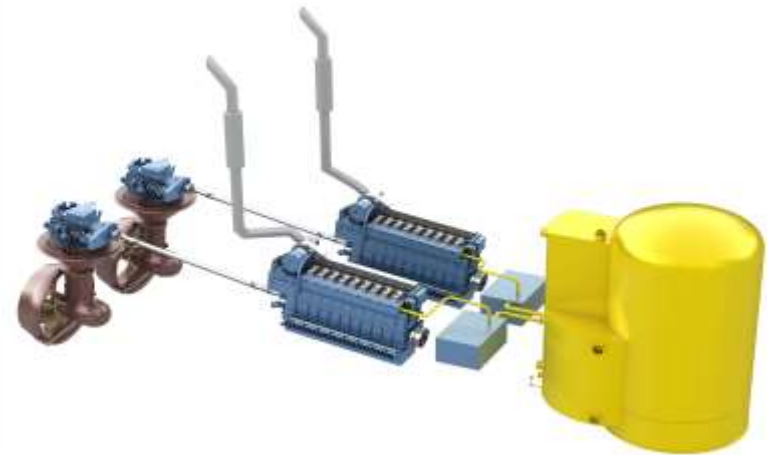
# The Evolution of Sustainable Practices in the Marine Industry

## Present



# The Evolution of Sustainable Practices in the Marine Industry

## Future



## Marine Fleet Waste Management

### Past practice:

- Low level of segregation for any waste types (including hazardous waste)
- No recycling
- High waste generation per boat

### Current practice:

- Mandatory segregation of all waste and recycling types
- Significant dockside recycling programs and composting program
- Improved landfill diversion rates and annual diversion targets set

### Future practices:

- Full accountability for supply chain and purchases for the company taking into account waste generation and life-cycle
- Work with suppliers toward a zero waste objective



## Shipyard Sandblasting

### Past



## **Sandblasting - continued**

### **Present**

- Abrasive blast mediums that have a lower aquatic toxicity.
- Collection and containment of all dock bottom contaminants prior to undocking to ensure zero discharge to the ocean.
- Current grit is one-time use, but 2 out of 3 Seaspan yards recycle the waste grit through local cement manufacturing processes.

### **Future**

- Ability to re-use steel grit in place of abrasive slag during blast work on new construction.
- Continued collection and containment of all contaminants.
- Paint manufactures and ship owners need to produce and use cost effective anti-fouling paint



## Marine Fleet Emissions Reduction

### Past practice:

- Low level of engagement and control with Masters
- No fuel monitoring equipment
- Low awareness of diesel emissions impact

### Current practice:

- Real-time fuel flow scanning equipment on all large vessels
- Shore power
- “Just in time service”/voyage planning between dispatchers and Masters
- Dedicated Fuel Reduction team with regular meetings and engagement with fleet/Masters
- Engine replacement program to higher Tiered equipment

### Future practices:

- Alternative fuelled vessels resulting in significant cost savings and emissions reduction impact vs. conventional vessels

## Green Marine's Role on the West Coast

- Green Marine programs add support, relevance, and credibility to a West Coast marine industry that is committed to continual improvement and leadership
- Green Marine provides a collaborative and action-based framework for participants (Ports, Terminals, Shipyards, Ship/Vessel Owners) and supporters (NGOs, regulatory bodies etc.)
- Green Marine is helping companies like Seaspan to go beyond just regulatory compliance.

