

# Save the Waves Cruising and the Environment

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# **Cruising's Business Motivation**

We take our guests to beautiful places to experience thrills of a lifetime. It is in our best interest to protect and have as small an impact as possible. It's also the right thing to do!



# **Global Regulatory Trends**

# International United Nations- IMO

Global cap on Sulfur 2020 (0.5%)

**Ballast Water Management Convention** 

Special Areas: Sewage & Air Emissions (SOx and NOx)

Particularly Sensitive Sea Areas – Marine Protected Areas

#### Area/Regional Specific

**HELCOM** 

**EU Regulations** 

Polar (Artic & Antarctic)

Special Areas: Sewage (Baltic) & Sulfur / NOx Emissions

Ballast Water Management

**Antarctic Treaty Protocols** 

Polar Code

#### National /Port State

Australia New Zealand China

**Sulfur Emission Regulations** Ballast Water Management / Hull Husbandry Wastewater - Sewage

Overall the global trend is towards more regulations particularly focusing on:

- Emissions- SOx and NOx
- Invasive Species Management (Ballast Water & Hull Husbandry)

State/Provincial

**New South Wales** 

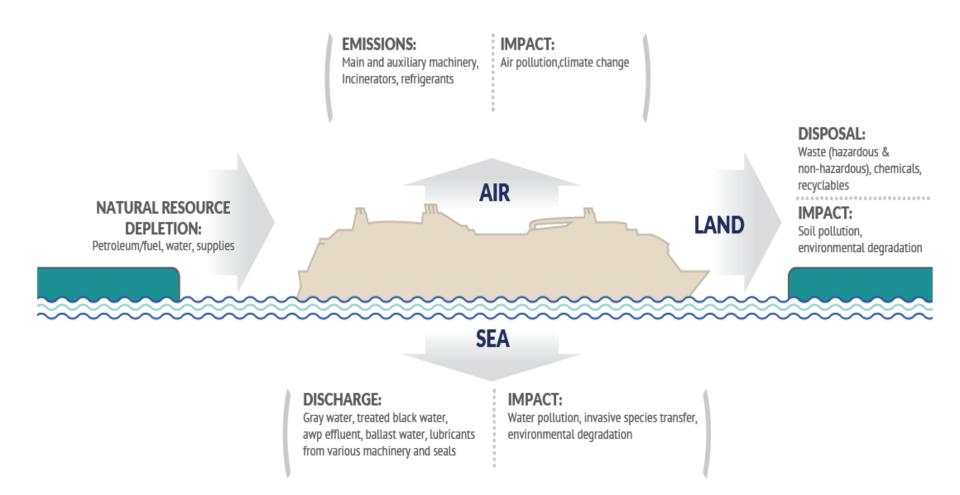
Port Specific

0.1% sulfur fuel while at berth & Sydney UW

**Sulfur Emission Regulations** 

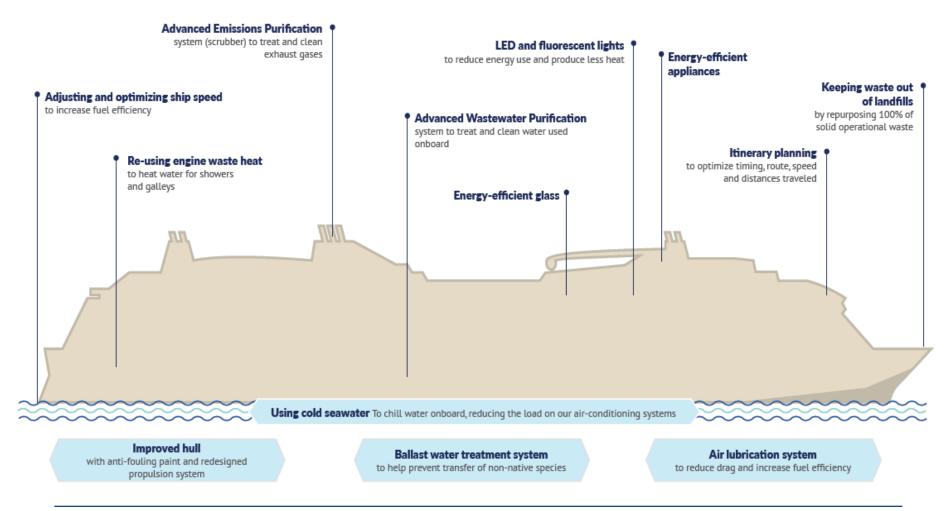


# **Cruising's Footprint!**



# How do we manage these impacts?

### Through technology and operational controls



# Advanced Emission Purification Systems









# Advanced Emission Purification Systems (Scrubbers)



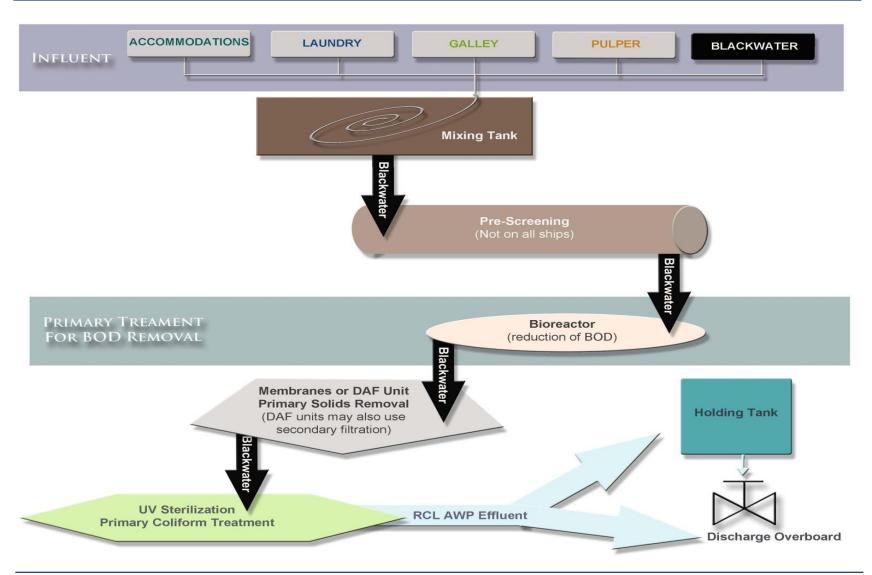




# Advanced Emission Purification Systems (Scrubbers)



# **Advanced Wastewater Purification Systems**



# **Advanced Wastewater Purification Systems**







# **Solid Waste Handling**









# How well is RCL performing?

#### 2014 ENVIRONMENTAL STEWARDSHIP HIGHLIGHTS

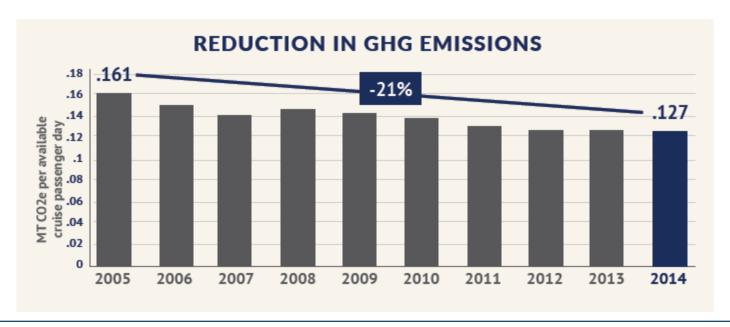
18 years of maintaining ISO 14001 certified operations 21.4%
reduction in greenhouse
gas emissions per
available passenger cruise
day since 2005

**52%** reduction in refrigerants consumption since 2008

full ship installations and fully certified emissions abatement systems

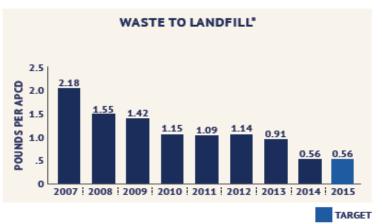
90% better performance than IMO standard for discharged bilge water 32 ships (representing 82% of available berths) covered by advanced wastewater purification systems

100% of operational waste re-purposed on 16 ships



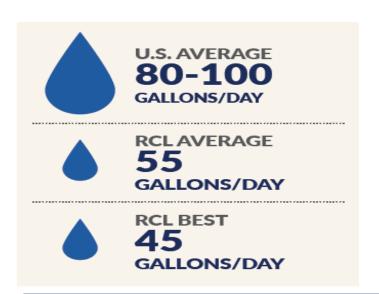
# How well is RCL performing?





16 vessels repurposing 100% of their operational waste

According to Australia 's Bureau of Statistics in 2009 (last reported data) 1,035KG of solid waste was disposed of per person per year, which equates to 6.2 lbs. / person / day



With the majority of our fresh water being produced onboard by desalinating sea water using steam evaporation or reverse osmosis

# Future Opportunities – "From Ship to Shore"

### Destination Stewardship

- A program founded and developed by RCL with our NGO partners Sustainable Travel International that introduces Sustainable Destination Management to tourism destinations
- Strategy
  - Help support development of management plans for sustainable growth
  - Provide support for local conservation and community development

#### Why?

- Destinations are the lifeblood of cruising
- Destinations must plan and act to remain viable
- Mismanagement of destinations may lead to Environmental degradation and dissatisfaction of visitors
- Sustainable destination management has enhanced visitor experiences, improved management of natural and cultural resources



## **Future Opportunities**

Sustainable Destinations Alliance for the Americas (SDAA)

Sustainable Destinations



Alliance for the Americas















- Launched in March 2014
  - •10 total locations in 2 years with a goal to expand to 30 destinations by 2017

South Pacific Destination Alliance (SPDA)









- •Launched in Sept 2014 at the UN SIDS meeting in Apia, Samoa
  - Replicating the Americas model in the South Pacific
  - Expanding partners in the region



# **Global Cruise Challenges**

- Changing the general misperception of cruising and its impact on the environment
- Continued growth of complex regional and/or local regulatory regimes
  - Shipping, including cruise, is an international business and needs international solutions
- Uncertainty of future requirements and their retroactive application to existing ships
  - Generally speaking cruise vessels are 30+ year investments
- Aspirational Regulations
  - Onboard Treatment Standards for sewage discharge in the Baltic (Nutrients)
  - Ballast Water Management Convention (Treatment Systems)



## **Australia Cruise Challenges**

- Emerging local regulatory regimes
  - Recent final version of NSW sulfur limits
    - Oct 2015 alongside 0.1% in Sydney
    - Jul 2016 while inside Sydney port limits
  - Cruise has always been wiling to meet all environmental challenges, but it must not be singled out or impacted disproportionately to it's contribution
  - Environmental advances can not come at the expense of safety
- 1. Uncertainty of future requirements and the impacts on itinerary decisions, local and regional
  - Many factors are considered when making deployment decisions
    - Operational complexity (i.e. fuel suppliers & bunkering needs)
    - Increased fuel costs (MGO vs IFO is around 50-100% more), more in some regions, including Australia



### Thank you

To learn more about RCL's Corporate
Sustainability efforts please visit
www.rclcorporate.com