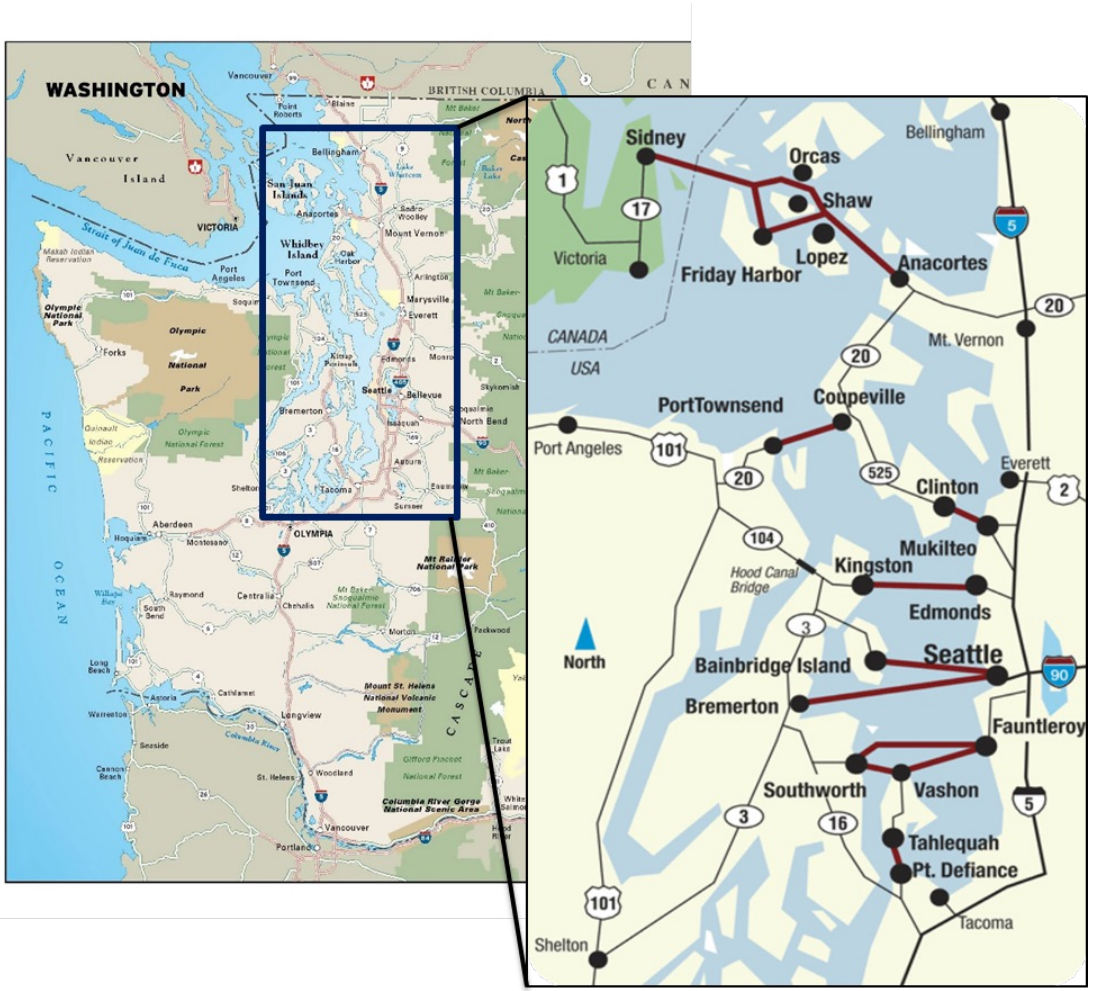
Building a Sustainable Future at Washington State Ferries

Kevin Bartoy, Senior Director, Quality, Health, Safety, & Environment
Interferry 2024
Marrakech, Morocco

Washington State Ferries

WSDOT

WSF Overview



- Largest ferry system in the United States
- 21 auto- passenger ferries
- 10 routes and 20 terminals
- 17.3 million riders (2022)
- 8.6 million vehicles (2022)
- 450 sailings per day
- 1,800 employees
- 145,098 MT of CO_2 emissions

Washington State Ferries

WSDOT

Foundation of a Sustainability Program

Executive Support

A Champion or (hopefully) Champions

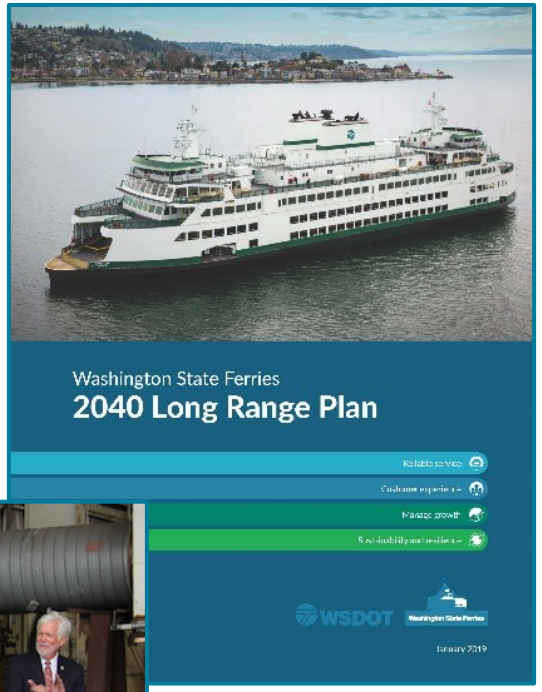
Context

Organic Growth

Washington State Ferries

WSDOT

Executive Support



Washington State Ferries

WSDOT

A Champion

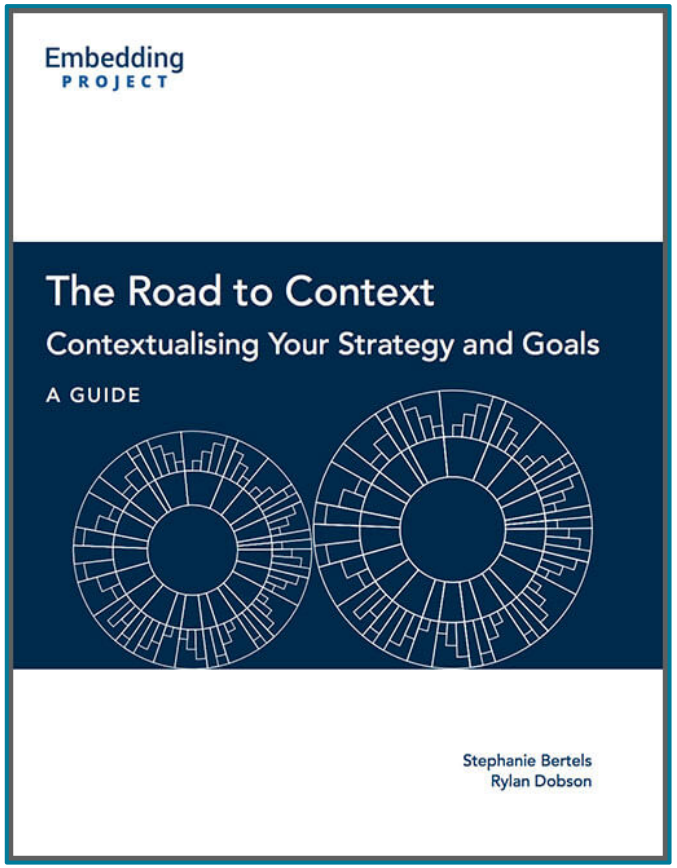
Or

Champions

Washington State Ferries

WSDOT

Context



Washington State Ferries

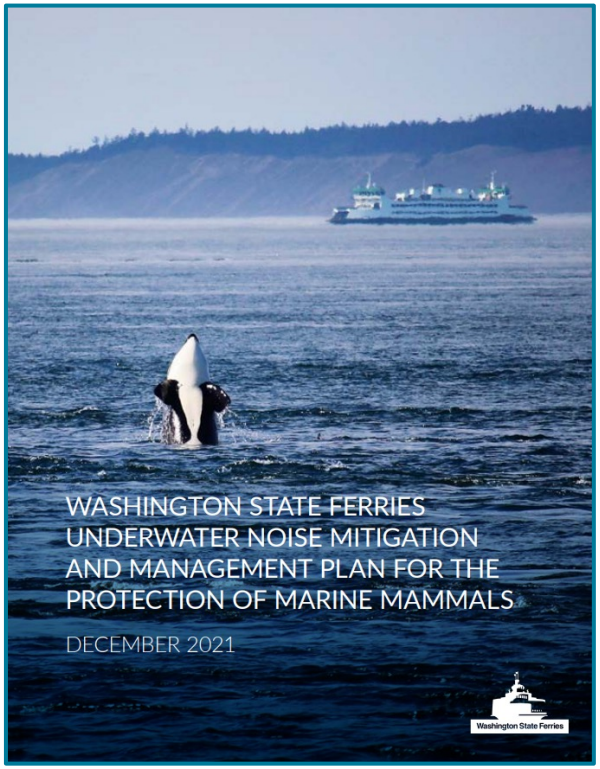
WSDOT

Organic Growth

Washington State Ferries

WSDOT

A Sustainability Program



Washington State Ferries

WSDOT

WSF Sustainability Objectives

- Eliminate GHG and Pollutant Air Emissions
- Clean the Water
- Increase Biodiversity
- Achieve Zero Waste
- Enhance and Support Thriving Communities

Washington State Ferries

WSDOT

Eliminate GHG and Pollutant Air Emissions

Objective

Operate a zero-emission ferry fleet.

Washington State Ferries

WSDOT

System Electrification Program

Convert 6 existing vessels

- Three Jumbo Mark II vessels, one underway
- Three Kwa-di-Tabil class vessels by 2030

Electrify 16 terminals

- Pre-design study for Seattle and Bainbridge terminals nearly complete
- RFI for Vessel Charging System closed April 2024, RFP scheduled for 2024

Build 16 new vessels

- Two hybrid-electric 160-auto vessels by 2028; three more by 2030; seven more by 2037
- Four new hybrid-electric 124-auto vessels by end of program

Washington State Ferries

WSDOT

Environmental Benefits & Emissions Reductions

- **51%** decrease in emissions by converting three Jumbo Mark II vessels and constructing five hybrid-electric 160-auto ferries
- **76%** decrease in carbon emissions by 2040
  - Without shore charging, emissions would decrease 20% by 2040 (not compliant with RCW 70A.45.050)
- Reduce diesel fuel consumption by **75 to 95%** by 2040 (**14-18 million** gallons annually)
- By 2040, WSF anticipates saving over **$23.7 million** per year in energy costs

Washington State Ferries

WSDOT

Sustainability is a Journey

Washington State Ferries

WSDOT

Questions

Kevin Bartoy

Senior Director

Quality, Health, Safety, & Environment

kevin.bartoy@wsdot.wa.gov

Washington State Ferries

WSDOT