

OPENING & WELCOMING REMARKS



Captain Pete DeCola

Superintendent
Stellwagen Bank National Marine Sanctuary

Benjamin Haskell

Deputy Superintendent
Stellwagen Bank National Marine Sanctuary



SAVE Spectacular

Celebrating 50 Years of National Marine Sanctuaries



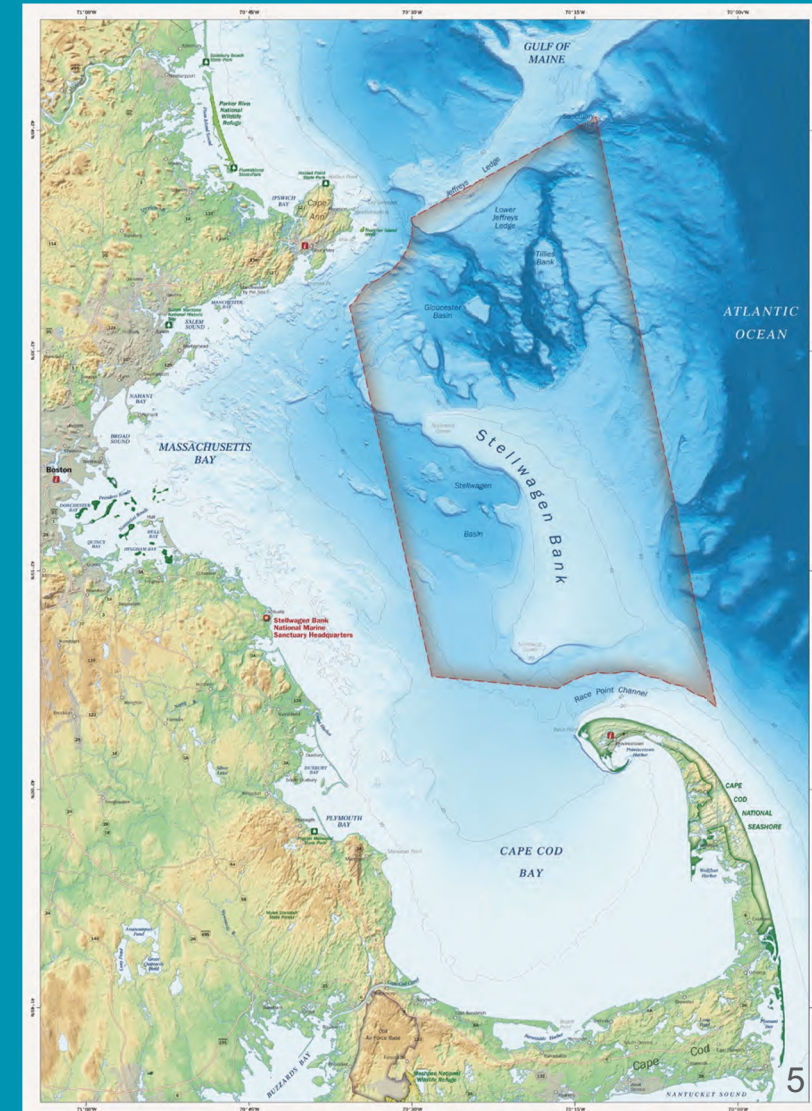
Stellwagen Bank National Marine Sanctuary





Stellwagen Bank National Marine Sanctuary

Captain Pete DeCola
US Coast Guard (Retired)
SBNMS Superintendent

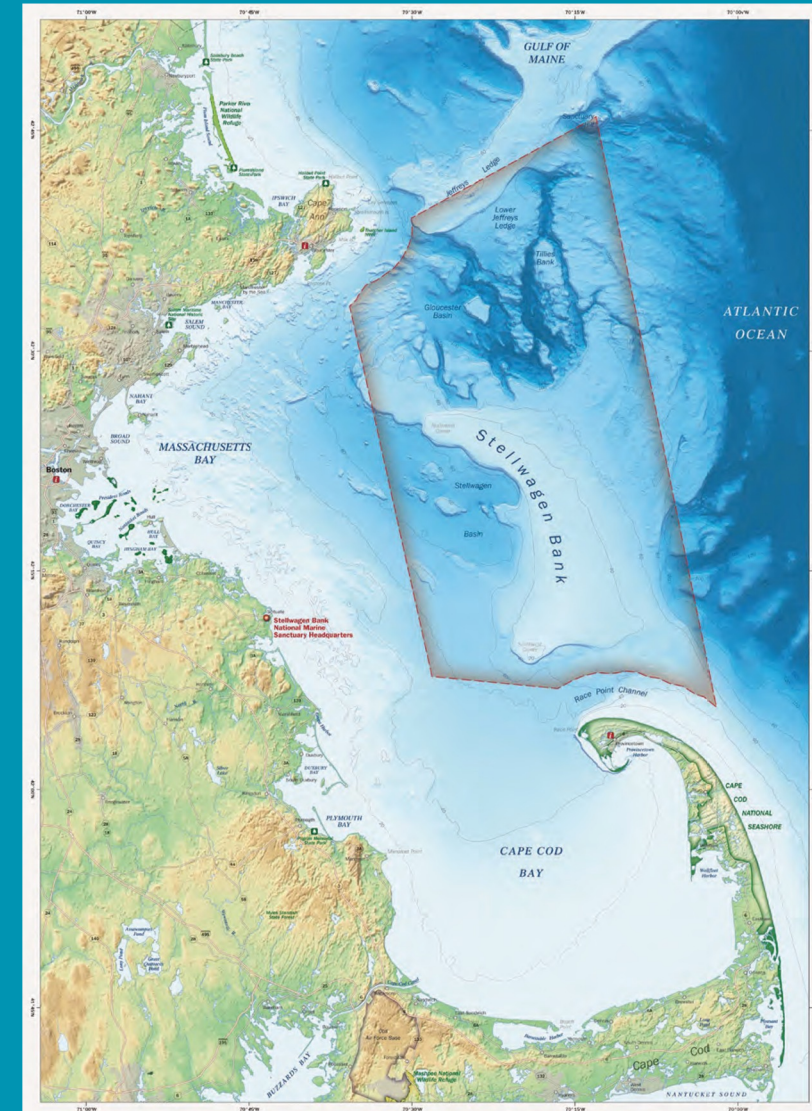


Stellwagen Bank National Marine Sanctuary

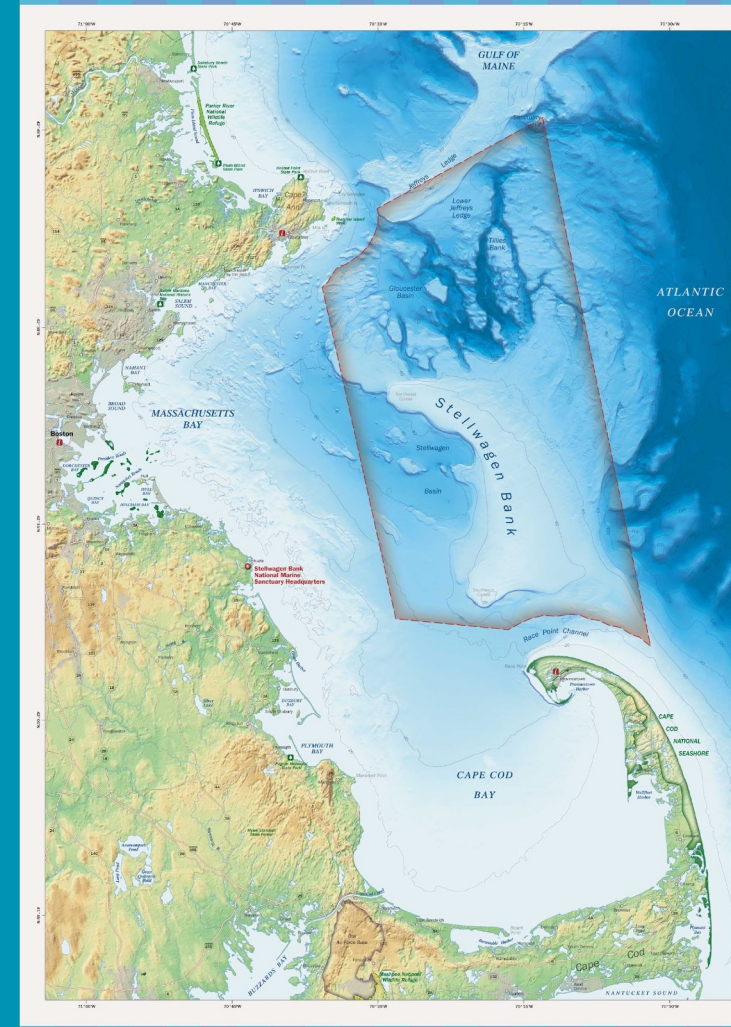
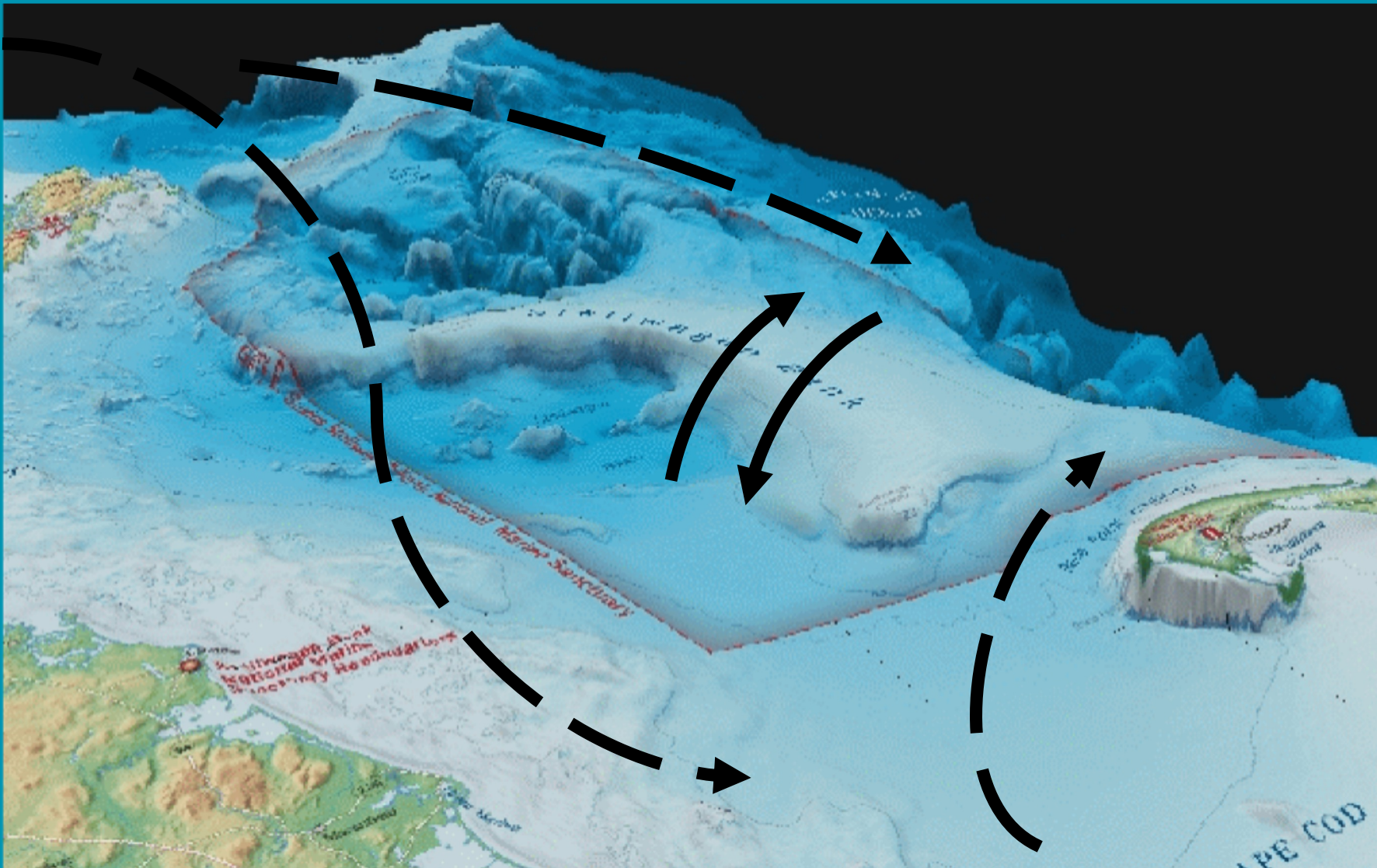


- National Marine Sanctuaries Act passed in 1972
- Oceans Act of 1992 passed by US Congress
 - Designated Stellwagen Bank National Marine Sanctuary
- Underwater extension of Cape Cod
- 682 square nautical miles/842 square miles
- Located in federal waters

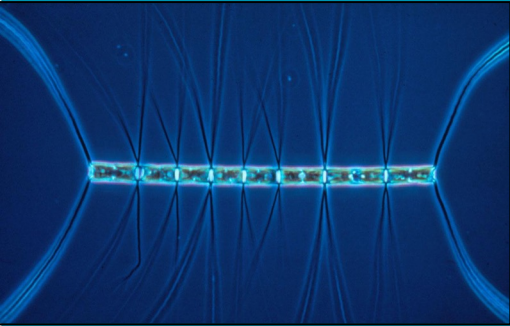
Vision: We strive for a productive sanctuary that protects nature's diversity and bounty, respects sustainable human activities, and advances ocean stewardship.



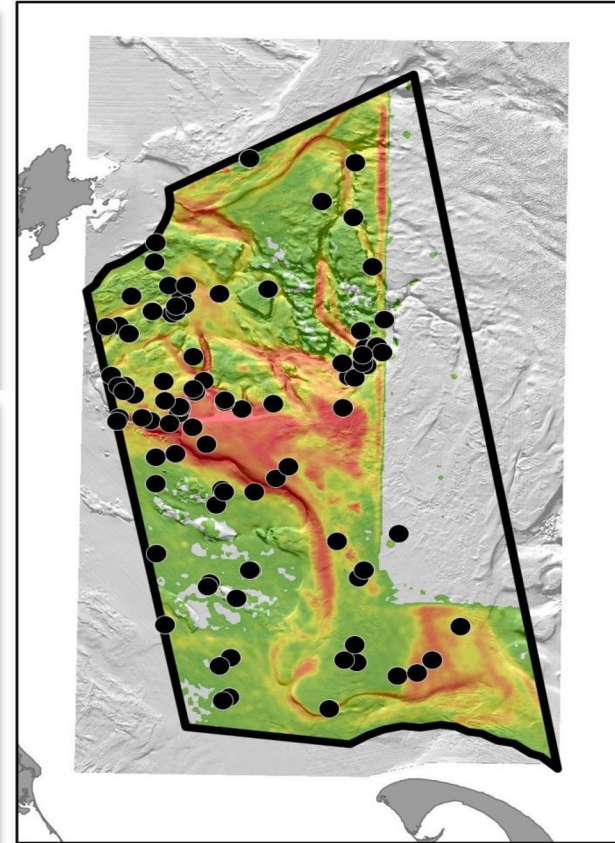
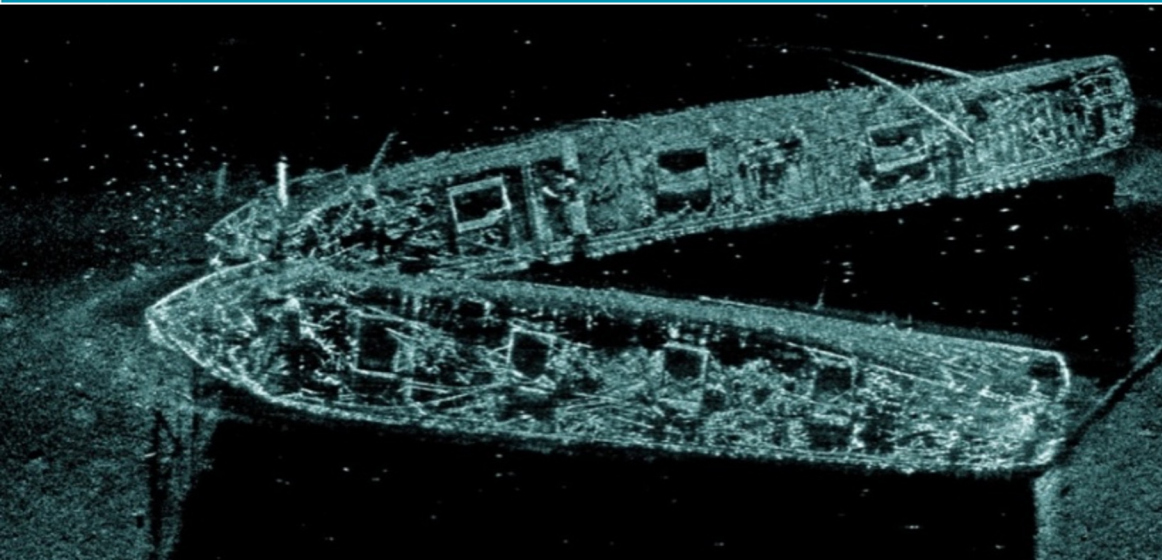
What Makes SBNMS Spectacular?



Biodiversity – Living Resources



Maritime Heritage



Low  High

Overlap of historic and modern shipwrecks with commercial fishing effort, 2008-2016

Human Uses



Ecosystem Services Drive Local Economy: Economic contributions of fisheries and whale watching



700

jobs supported by
commercial fishing

\$66

Million

average annual output from
commercial landings

\$3.9

Million

annual average output
by charter boat fishing

1,400

jobs supported by
whale watching

\$19

Million

value of commercial
landings

90

jobs supported by
recreational fishing

\$7.8

Million

annual average output
by party boat fishing

\$182.1

Million

annual average output
by whale watching
industry

How Do We Manage?



Management Focal Areas:

- **Resource Protection**
 - fisheries coordination
 - permitting
 - interagency consultations
 - enforcement
- **Research and Monitoring**
- **Maritime Heritage**
- **Education and Outreach**
- **Sanctuary Advisory Council**

Staff



Peter DeCola
Superintendent



Ben Haskell
Deputy Superintendent



Elizabeth Stokes
Program Support
Assistant



Alice Stratton
Marine Ecologist / Permit
Coordinator



Caitlin Fitzmaurice
Research Assistant/Outreach
Coordinator



Dave Slocum
Vessel Operations
Coordinator



Amy Meloski
Captain



David Wiley, PhD
Research /Coordinator



Michael Thompson
Geographer



Tammy Silva, PhD
Research Marine Ecologist



Liam Waters
Research Technician



Samantha Tolken
Resource Protection Specialist



Mike Bailey
Skillbridge Intern



TBD
Engagement Coordinator

Camera Shy

Doug Costa
Captain/
Unit Dive Supervisor

Ryan Hayes
Vessel Crew

Dana Cusano
Postdoc / Acoustician

Eric Morgan
Vessel Crew

Stellwagen Bank National Marine Sanctuary



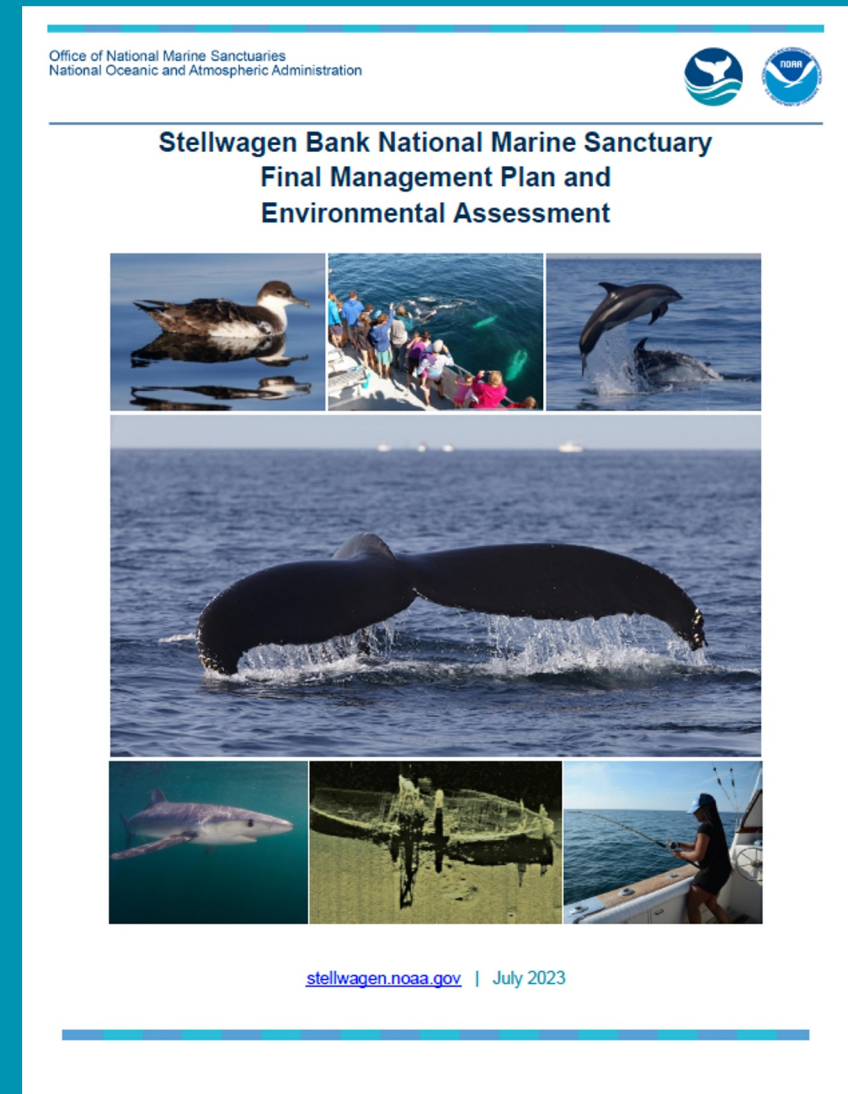
Final Management Plan



Final MP / EA Outline

~226 pages: MP- 75 pages, EA- 64 pages, + front/back matter

- ONMS / SBNMS overview
- 15 Action Plans (70 pages)
 - Goals
 - Strategies
 - Performance indicators
 - Estimated costs
- Environmental Assessment





4 Goals:

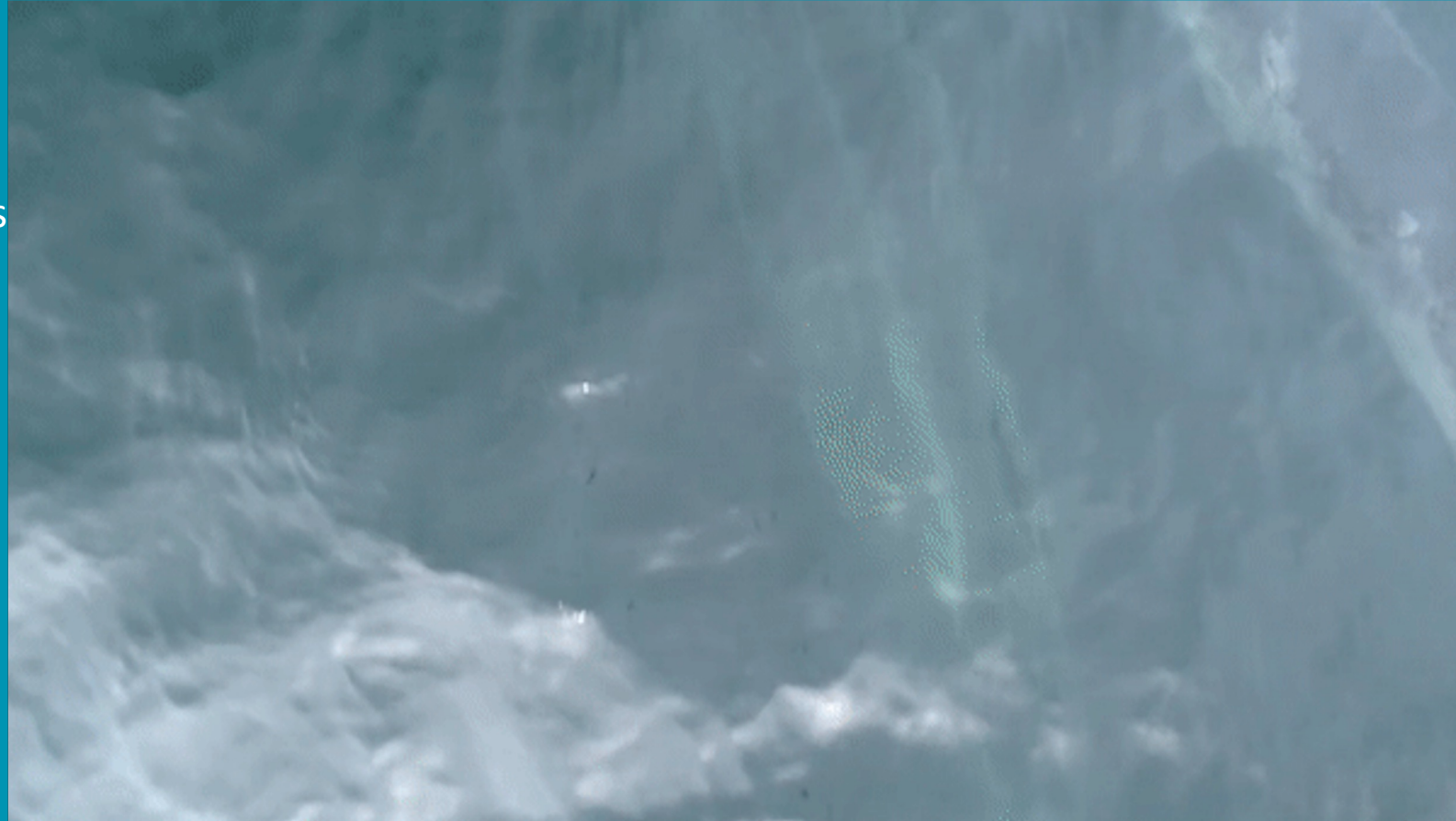
Sanctuary Management Plan Goals	Action Plans to support each goal
Goal 1: Ensure a thriving sanctuary	Marine mammal protection Seabird research Vessel traffic Maritime heritage and cultural landscapes Compatible uses Climate change
Goal 2: Increase support	Education & outreach Interagency/Intergovernmental coordination Sanctuary Advisory Council
Goal 3: Deepen our understanding	Research and monitoring Soundscape Water quality monitoring Habitat Ecosystem services
Goal 4: Ensure coordinated support	Administration and infrastructure

Final Management Plan



- 15 Action Plans

- Marine Mammal Protection
- Seabird Research
- Vessel Traffic Monitoring
- Maritime Heritage and Cultural Lands
- Compatible Use Management
- Climate Change
- Education and Outreach
- Interagency/Intergovernmental Coordination
- Sanctuary Advisory Council (SAC) Management
- Research and Monitoring
- Soundscape
- Water Quality Monitoring
- Habitat Protection
- Ecosystem Services Assessment
- Administration and Infrastructure Capacity



Action Plan Example: Marine Mammal Protection Strategies:

- MP-1: Continue projects to inform ship strike, entanglement and response to noise
- MP-2: Support research into entanglement prevention
- MP-3: Continue to provide guidance to, and involvement with, agencies designed to reduce entanglement and whale strikes
- MP-4: Continue and expand projects designed to understand top predator ecology, including drivers of abundance and distribution of marine mammals
- MP-5: Expand Boater Outreach for Whale Watching (BOWW) program to reach more private boaters.

Prioritization Scheme: Criteria

- **Importance** - Level of urgency for each strategy.
- **Impact** - How much will this strategy positively impact the health of sanctuary resources and/or the well-being of sanctuary users?
- **Feasibility** - Ability to effectively implement strategy based on support from relevant agencies, public audiences, and ONMS
- **Cost** - Expenses for equipment, maintenance, travel and labor

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Scoring Values
0: Minimal Impact
3: Some Impact
6: Moderate Impact
9: High Impact

Prioritization Scheme: Excerpt from table

Strategy/Activity	Priority	Ongoing Strategy?	Funded Internally?	Funded Externally?	Comments
Strategy MP - 3: Continue to provide guidance to, and involvement with, federal and state agencies designed to reduce entanglement and whale strikes.	H	Y	Y	N	Participate in national and international committees & take reduction teams.
Strategy MP - 4 - Continue and expand projects designed to understand top predator ecology, including drivers of abundance and distribution of marine mammals	H	Y	N	Y	Funded by IFAW and The <u>Volgenezau</u> Foundation. Funded thru FY21
Strategy MP - 1: Continue projects to inform ship strike, entanglement and response to noise	M	Y	N	Y	Funded by USN, IFAW and The <u>Volgenezau</u> Foundation. Funded thru FY21
Strategy MP - 5: Expand Boater Outreach for Whale Watching (BOWW) program to reach more private boaters.	M	Y	Y	N	Could be more efficiently conducted with whale tag <u>boat</u> .
Strategy MP - 2: Support research into entanglement prevention	L	Y	N	N	Project cut due to FY 21 budget. We support other entities involved in this work.



Cost Model

- “What will all this cost?”
 - All models are wrong, some are useful
- Full implementation of Action Plans = approx \$6.1M
- Includes supplies, equipment and labor
- Does not include:
 - AUK replacement (\$3M)
 - Visitor Center Construction (\$20M)
 - Maritime Operations Center Renovation (\$10M)

Strategy MP-1 Costs	
Non Labor \$\$ (i.e. costs for supplies, equipment, trave, etc per year)	\$65,000
Labor (Hours per year, 2000 hours = 1 person full time)	1300
Volunteer Labor (Hours per year)	3000
Total Labor	\$175,500
Total Cost (Labor and Non-Labor)	\$240,500
Project Duration (1-10 years)	10
Strategy Totals	\$2,405,000
Strategy Cost Per Year	\$240,500

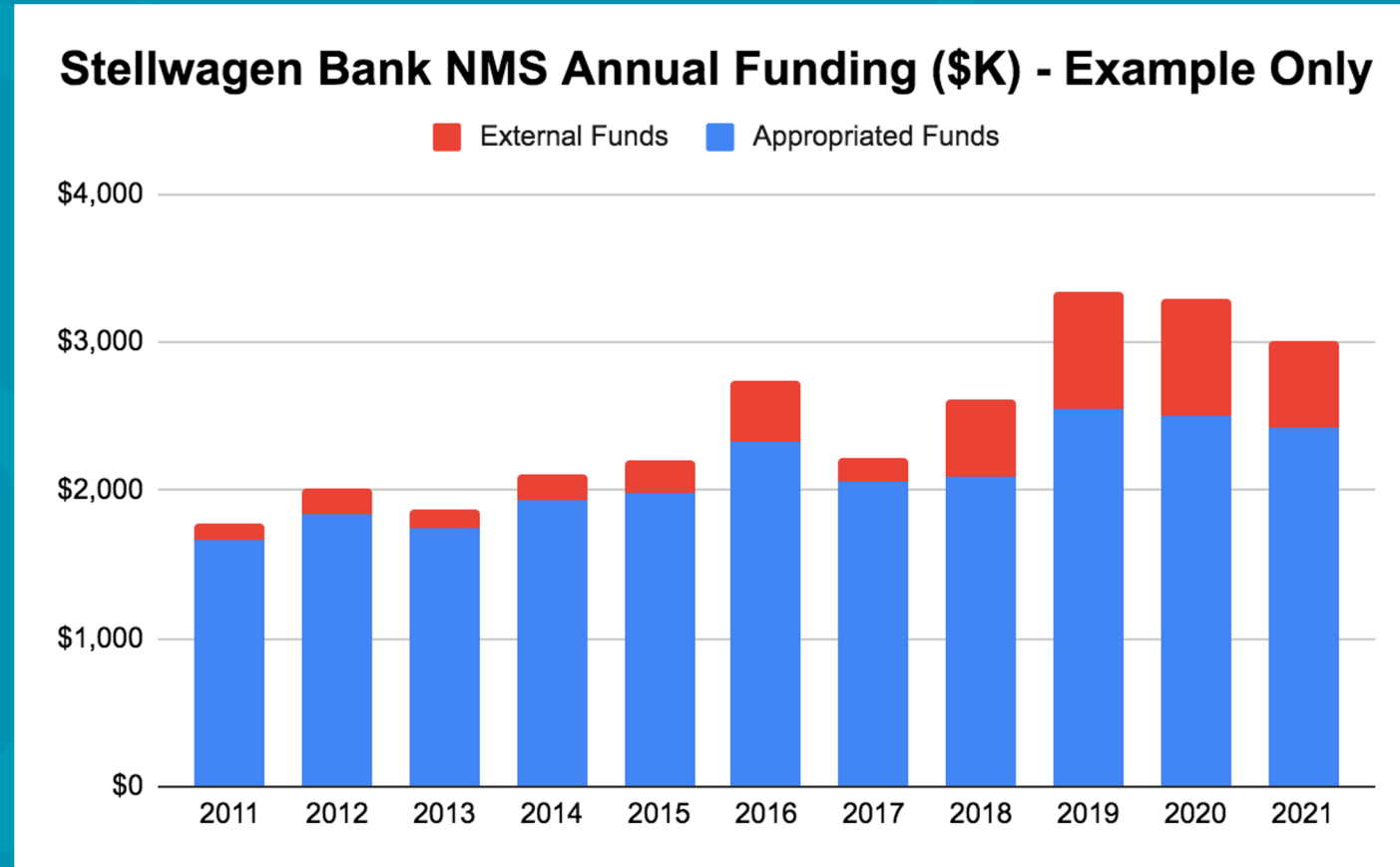
Funding Sources and Limitations

- Federal appropriations provided annually
- External (non-Federal) funding from grants, donations, in-kind through partnerships with other agencies and organizations, and in-kind through volunteer labor
- NOAA/ONMS has sufficient funding to implement 46 of 78 strategies
- 24 of these are funded with current appropriations and are primarily non-discretionary, e.g. operating the facility. The remaining 22 will require additional resources.

Historical Funding

- \$2M-\$3M Range
- External funding primarily covers research projects
- Appropriated funds primarily cover staff salaries & facility/vessel maintenance
- Source of funding impacts ability to address priorities

\$6M



Final Environmental Assessment



- Analyzed impacts of the 15 action plans and associated field activities
- Ensure compliance with Federal authorities
 - Endangered Species Act,
 - Magnuson-Stevens Act,
 - National Historic Preservation Act,
 - Coastal Zone Management Act and others
- Findings:
 - Overall beneficial impacts to physical, biological, cultural, & human environments through better understanding of resources
 - Adverse impacts are negligible due to low intensity/frequency of activity and protocols in place to reduce adverse impacts.



Performance Indicators

- Means of evaluating progress toward desired outcomes
- In many cases, progress is dependent on the actions of other partners; therefore, the role of SBNMS is to track progress and encourage the partner to take action.

Table 3.1. Performance indicators for action plans.

Performance Indicator	Method of Evaluation	Baseline	Timeline	Staff Lead
MP-1: Assessment of large whale vulnerability to human threats	Number of research projects conducted to understand large whale vulnerability to human activity; number of journal papers published and presentations delivered; and number of management actions (NOAA and other agencies) informed by SBNMS research projects	2018	ongoing	Research coordinator
SR-1: Develop plan with GARFO, NEFMC, and FWS to address potential bycatch issues	Bycatch reduction plan developed	Initial bycatch report provided in 2020 condition report	2025	Research coordinator
VT-1: Whale Alert app is 100% funded by appropriated funds and fully integrated into NOAA's Citizen Science Strategy	Percentage of funding for Whale Alert app that is appropriated vs. external	2020 Whale Alert is entirely supported with external funding	2025	Research coordinator
VT-2: Compliance by vessels 300 gross tons or greater with the Seasonal Management Areas	Annual AIS & GIS monitoring conducted	2018 compliance level of 85%	2023 and annually	Research coordinator

Self-Assessment Tool Results



Overall Score

7.8



Management Effectiveness Scores

Marine Management Group Scores

Group	Score	Max Score	%
MPA Management Framework	36	40	90.00%
Addressing Activities & Threats	57	84	67.86%
Research and monitoring	64	79	81.01%
Outreach and engagement	20	28	71.43%
Management effectiveness	29	33	87.88%
Total	206	264	78.03%

Self-Assessment Tool Results



MPA Threats

Section	Score	Max Score	%
Whale, dolphin and sirenian watching	8	15	53.33%
Noise management	11	14	78.57%
Entanglement in fishing gear and other installations	7	8	87.50%
Marine Mammal By-catch (fishing)	13	25	52.00%
Marine mammal collision / strike	18	22	81.82%
Marine mammal strandings (by MPA management or stranding network etc.)	0	0	0%

The Toolkit

The Marine Mammal Twinning has been designed and created a toolkit for the **inclusion of marine mammals** into **MPAs**. The aim of the toolkit is to help develop the **technical capacities** of MPA managers by sharing **knowledge, expertise, and good practices**.

- The Toolkit contains **four** key components:
 - Factsheets
 - Self-Assessment Tool (incl. SAT-LITE)
 - Community of Practice
 - Good Practices
- The components have been designed to work in conjunction with one another, as well as being stand alone resources

