

PHASE 2

Strait of Georgia and Howe Sound Glass Sponge Reef Conservation Initiative

Howe Sound Community Forum Update
April 26, 2019

Deirdre Finn
Fisheries Management Officer



Objective of Presentation

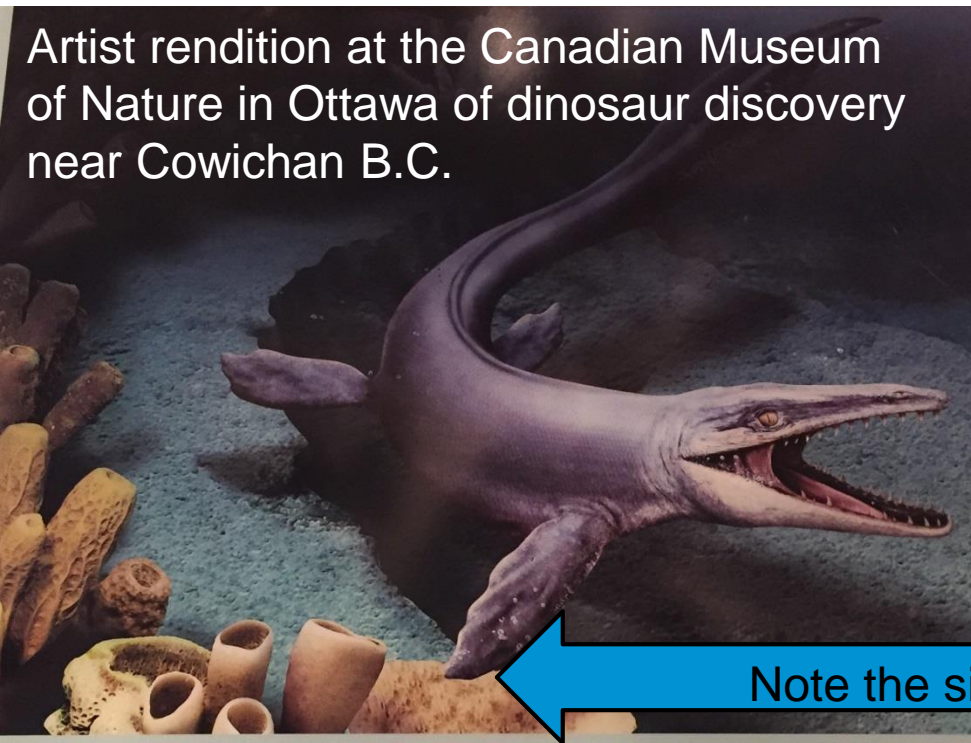
- Why are reefs important?
- Phase 2 progress to date
- New closure areas
- Protection measures & enforcement
- Next steps
- Discussion



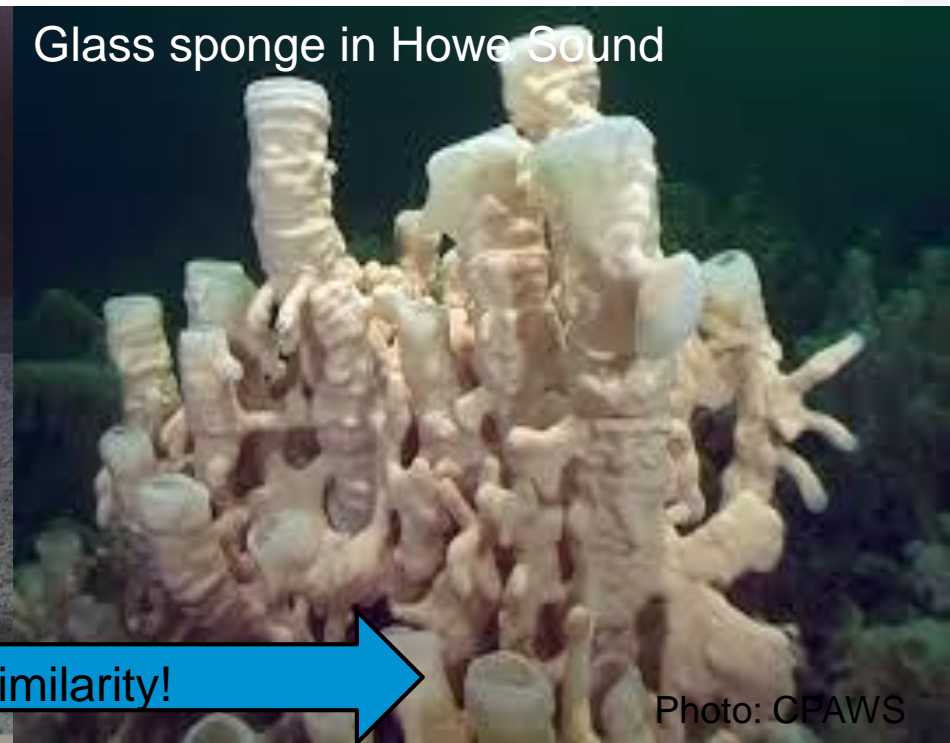
Global Significance

- Glass sponge reefs were thought to have gone extinct 40 million years ago until their discovery by Natural Resources Canada in 1987.
- Although individual glass sponges are found across the world, glass sponge reefs are unique to the Northeast Pacific.
- Scientists have likened their discovery to discovering a herd of living dinosaurs on land!
- Slow growing and extremely fragile, making them particularly sensitive to damage from fishing activities.

Artist rendition at the Canadian Museum of Nature in Ottawa of dinosaur discovery near Cowichan B.C.



Glass sponge in Howe Sound



Note the similarity!

Ecological Significance

Biodiversity Support:

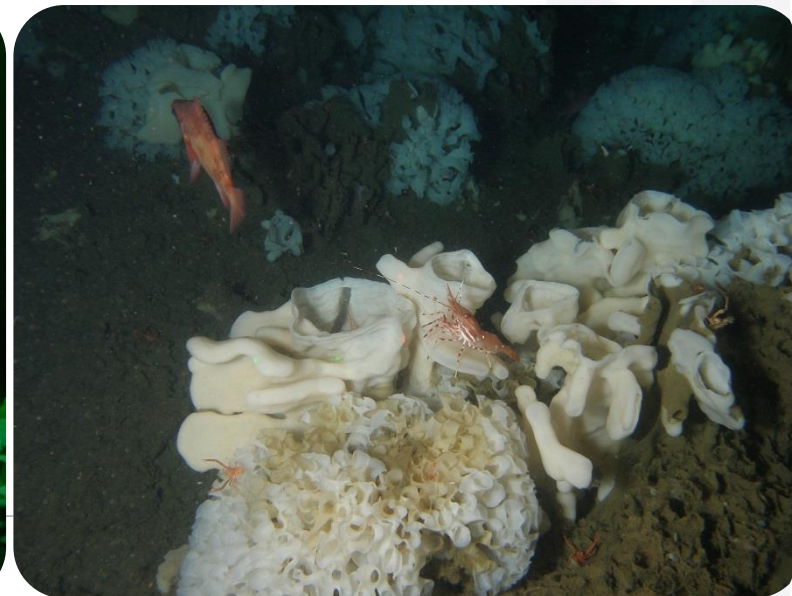
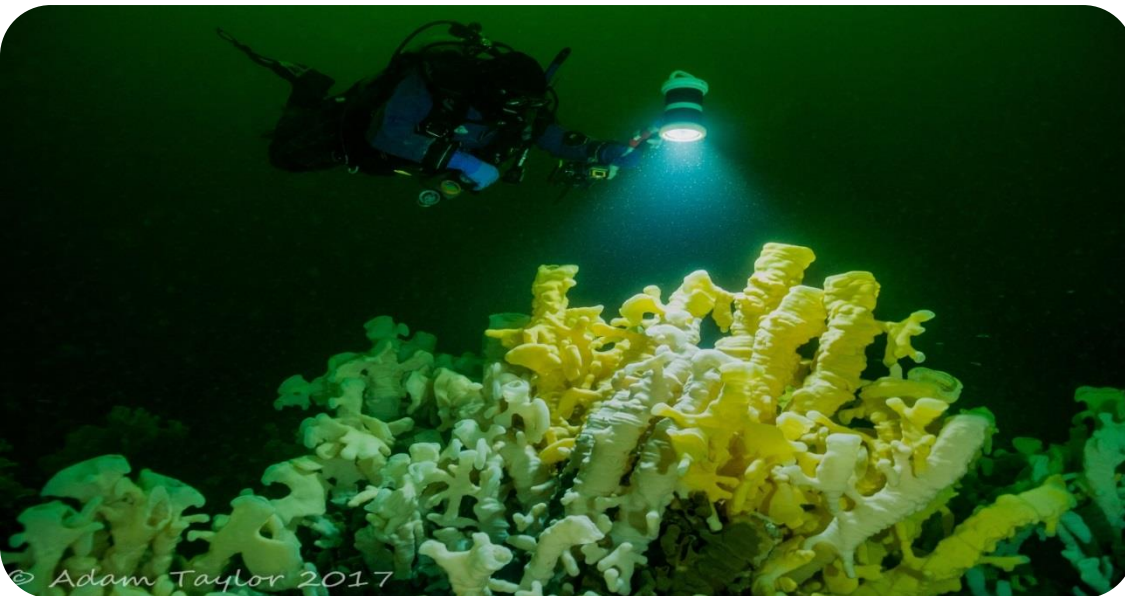
- Provide **habitat for 84+ species** of fish and invertebrates, including rockfish and spot prawns – provide **essential nursery grounds for juvenile finfish**.
- Species richness within reefs 3x higher than outside.
- Howe Sound reefs are some of the **most biologically productive found to date**.

Water Filtration:

- Provide essential service for Howe Sound by **filtering 17+ billion litres** (6,800 Olympic swimming pools) of water every day – would take reefs just two hours to pump the equivalent of Metro Vancouver's daily wastewater volume.

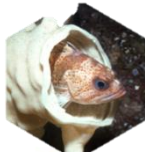
Carbon Removal:

- Remove 436 kg of total organic carbon from the water each day and **act as a buffer against ocean acidification**.



2015-2016

Phase 1 | Strait of Georgia & Howe Sound Closures & Protected Areas



9
Sponge Reef Closures

29.04 km²
Sponge Reef Habitat Protected

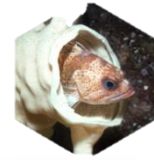
- In 2015, nine glass sponge reefs in the Strait of Georgia and Howe Sound were closed to all bottom-contact commercial and recreational fishing, followed by all bottom-contact Indigenous Food, Social and Ceremonial fishing in 2016.



2017 - 2019 Progress

Sept 2017 – Feb 2019	<ul style="list-style-type: none">• Ongoing First Nations engagement
Sept 2017	<ul style="list-style-type: none">• Voluntary avoidance request issued for possible reef sites in Howe Sound until DFO Science could assess ecological significance
April 2018	<ul style="list-style-type: none">• Ecological significance of eight areas confirmed by DFO Science
Jul 26, 2018	<ul style="list-style-type: none">• Multi-stakeholder workshop held
Jul 2018 - Feb 2019	<ul style="list-style-type: none">• Feedback received from First Nations and stakeholders reviewed• Science advice considered
Jan 17, 2019	<ul style="list-style-type: none">• Stakeholder update teleconference call
Mar 2019	<ul style="list-style-type: none">• Recommendation brought forward for Minister's consideration• Public announcement made by Minister Wilkinson• Condition of Licence, Variation Orders & Fishery Notice issued
Apr 1, 2019	<ul style="list-style-type: none">• Eight new closures in Howe Sound took effect

Phase 2: Howe Sound Closures, Protected Areas & Other Areas Requiring Groundtruthing

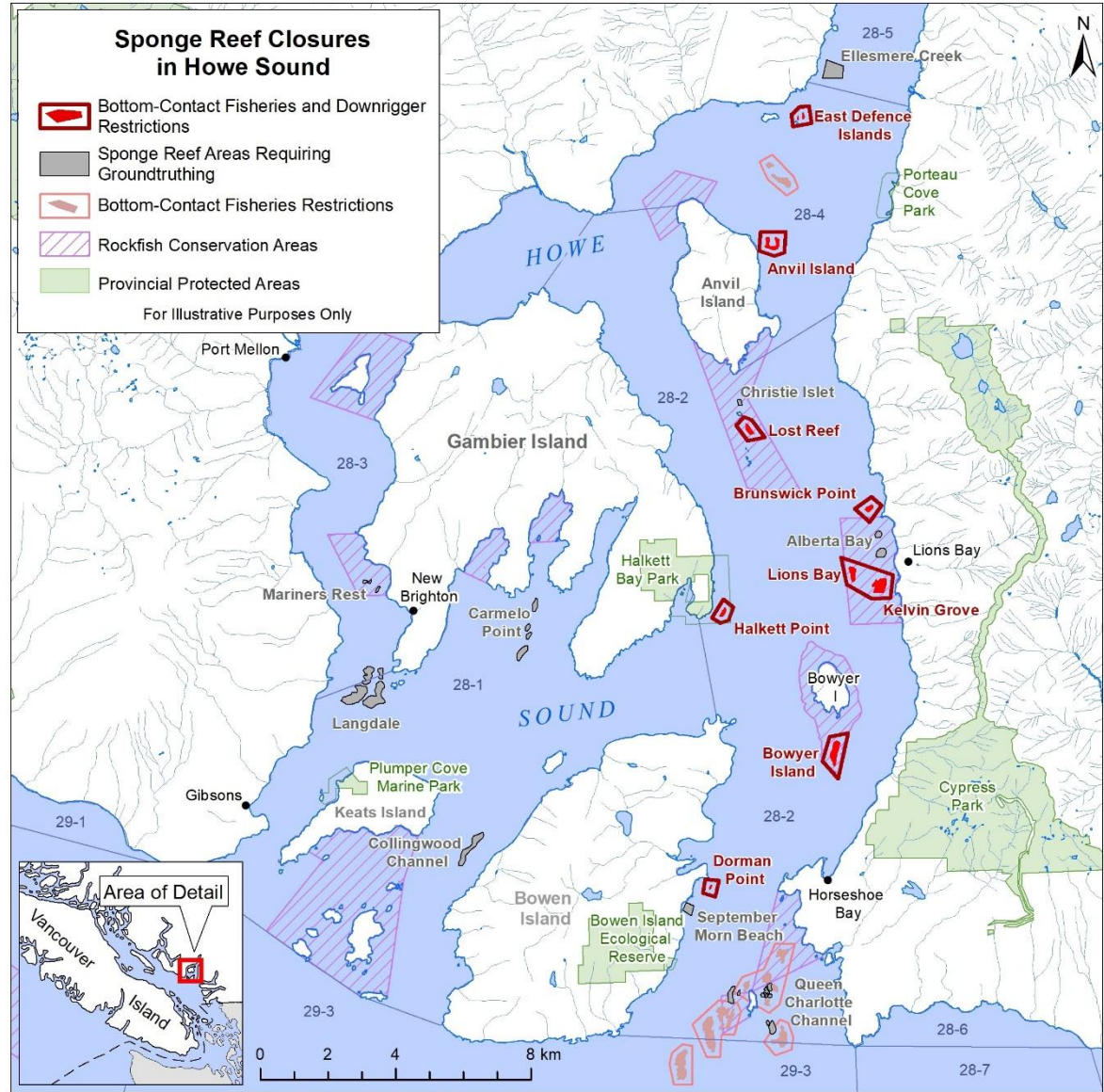


8
Sponge Reef Closures

3.5 km²
Sponge Reef Habitat Protected

9*
Areas to be Groundtruthed

* Areas requiring ground-truthing may contain some live reef and/or sponge gardens and dead reef. Additional surveying required.



Phase 2: Protection Measures

Restricted Fishing: All commercial, recreational and Indigenous Food, Social and Ceremonial bottom-contact fishing activities

- Prawn by Trap
- Crab by Trap
- Shrimp and Groundfish Trawl
- Groundfish by Hook and Line
- **Use of Downriggers in Recreational Salmon Trolling (via Condition of Licence)**

Voluntary Avoidance: DFO requests voluntary avoidance of anchoring in these areas.

Rationale: risk of incidental contact with ancient and fragile glass sponge reefs.

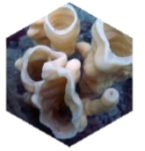


DiReid

DiReid



Enforcement



- Conservation & Protection (C&P) will begin with **gradual enforcement**, requiring a tailored approach to each situation.
- Water & land-based patrols from Squamish and Steveston area offices will be more frequent due to nature of closures.
- Aerial Surveillance Program (ASP) monitoring over Howe Sound.

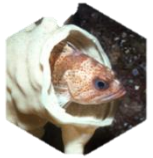
Contact your local C&P Office if you have enforcement related questions.

If you see a fisheries violation, think ORR: Observe, Record, Report

Call DFO's ORR Hotline

1-800-465-4336

Next Steps



1. Develop education / awareness campaign on new closures and prohibition of downrigger gear - **Spring / Summer 2019**
2. DFO Science to survey the additional nine sites in Howe Sound – **Spring/Summer 2019**
3. Pursue options to address some data gaps, explore sponge reef monitoring program options & develop a long-term comprehensive management plan – **2019 – 2020**
4. Pending survey results, conduct consultations on the additional nine sites and consider boundary adjustments pending Science advice - **2020**
5. Pending approval of Bill C-68, establish Marine Refuge Regulations for all SoG & Howe Sound closures – **2021/2022**

For Discussion

1. What educational materials would be useful to inform resource users about these new fishery closures and downrigger restriction?
2. What key elements would you like to see in a glass sponge reef monitoring program?
3. Other factors or pieces of information to consider in the future?



For enquiries regarding this initiative,
please contact:

Deirdre Finn

Fisheries Management Officer
Sustainable Fisheries Framework

Email: Deirdre.Finn@dfo-mpo.gc.ca

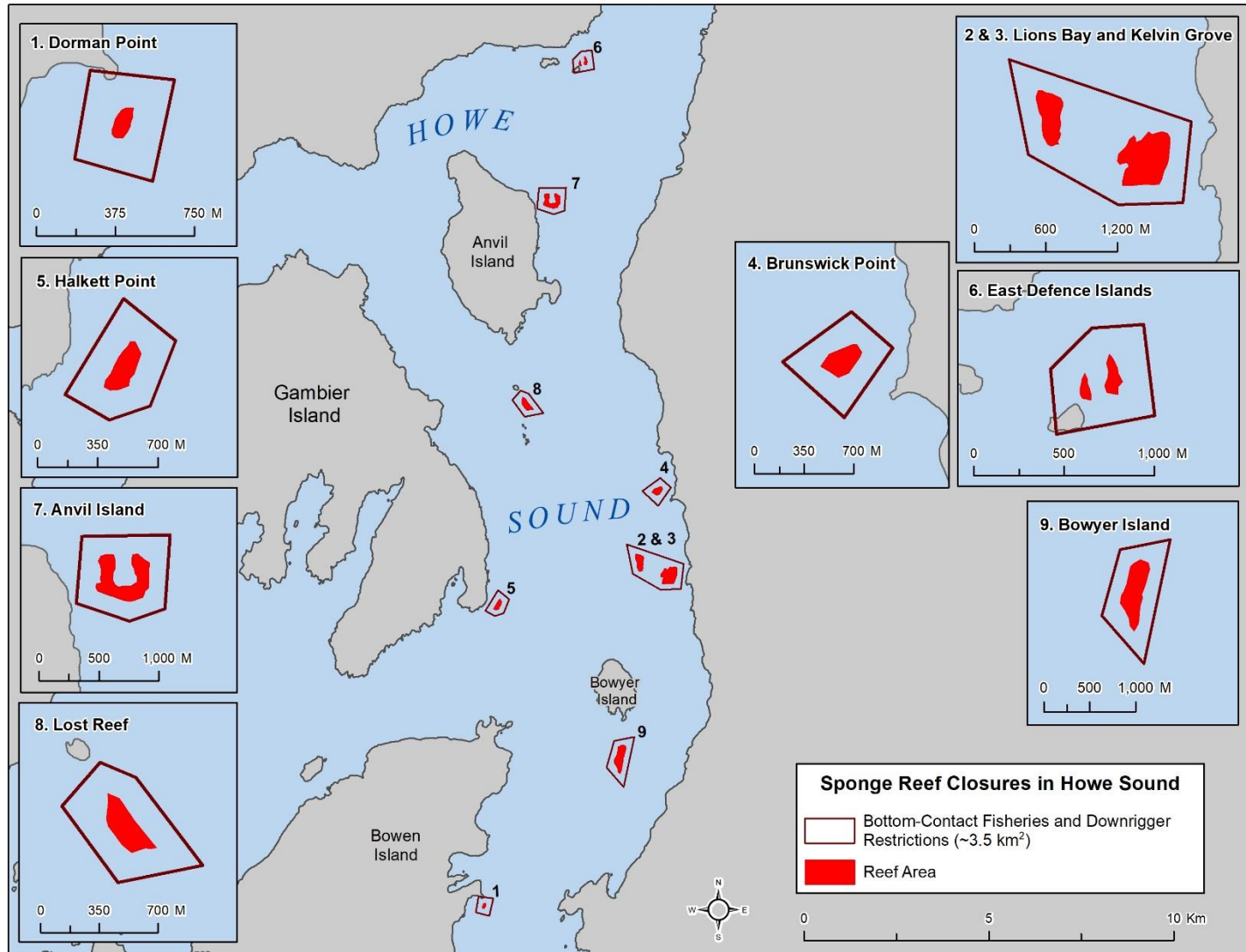
Telephone: 604 666 2606

Website

www.canada.ca/glass-sponge-closures



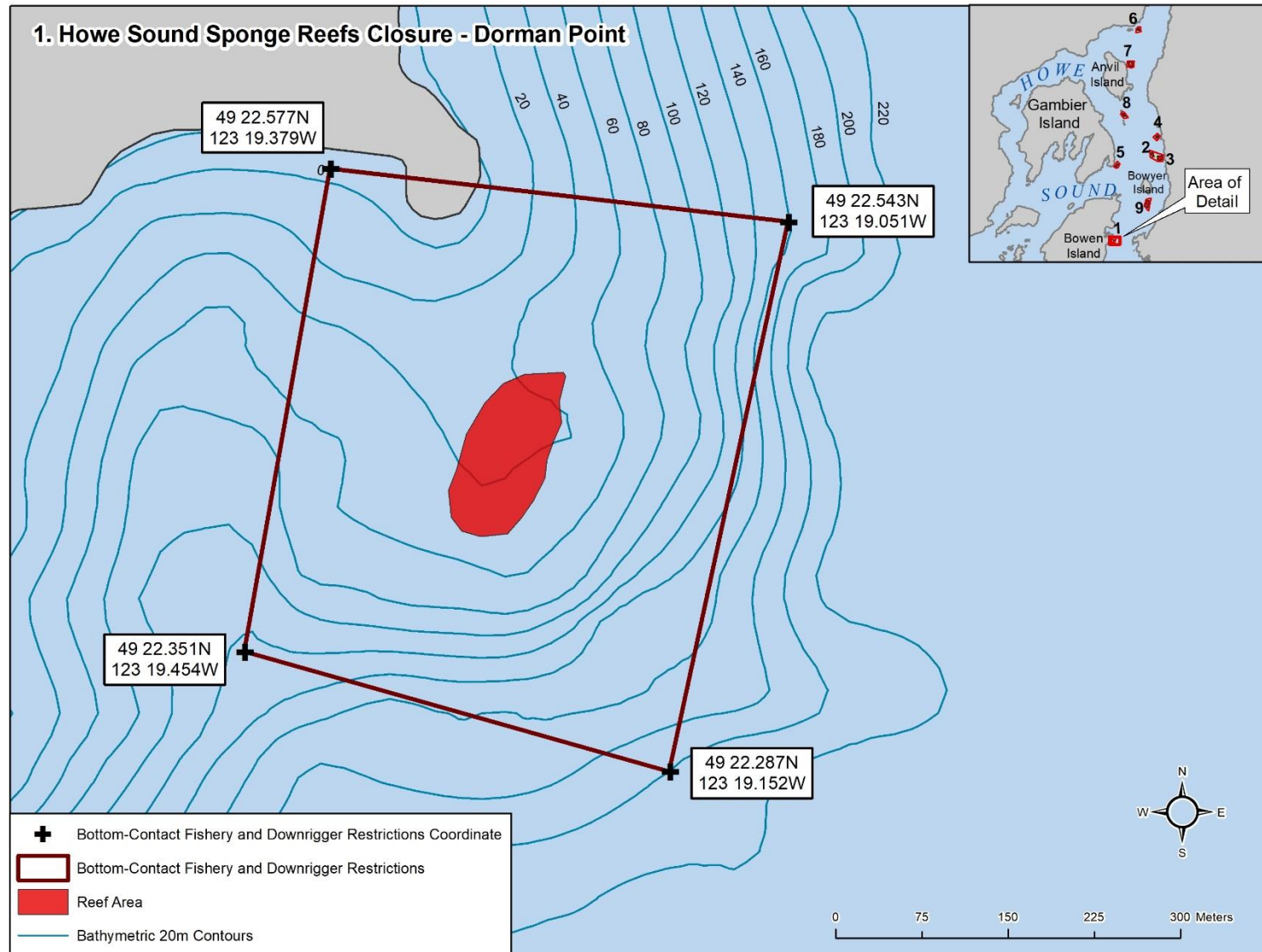
Appendix



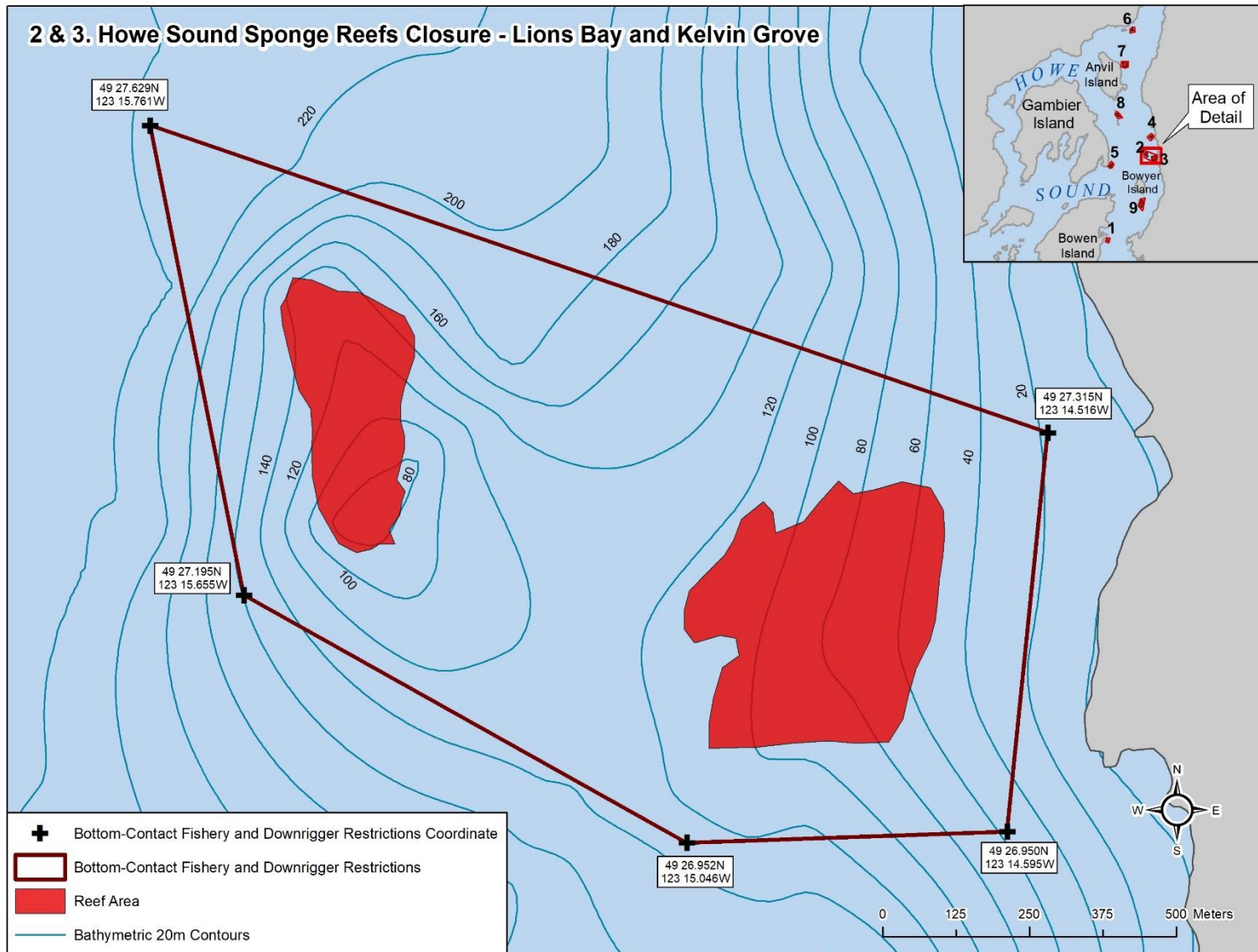
For Illustrative Purposes Only

Produced by Resource Management, Pacific Region, March 19, 2019.

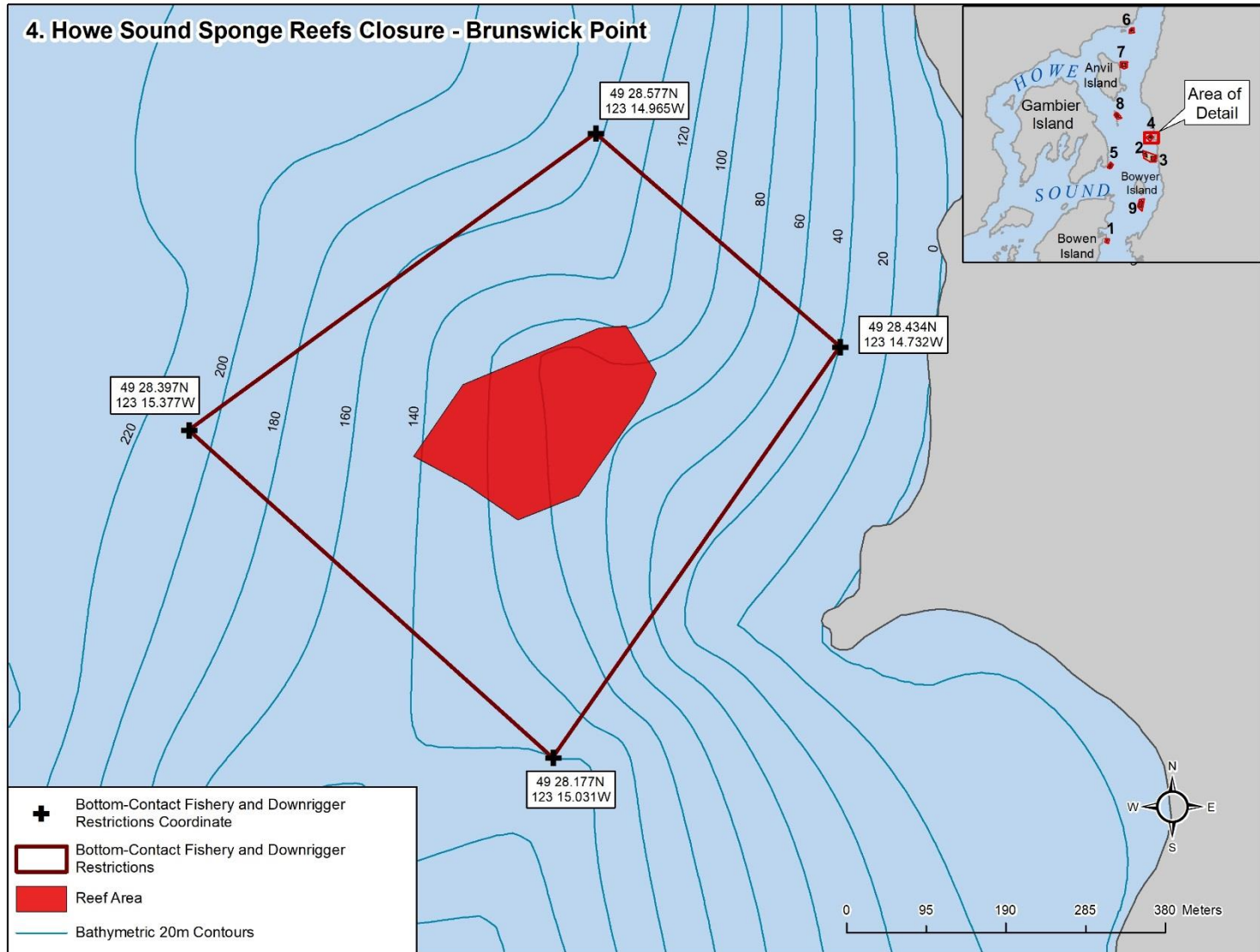
Appendix (cont'd)



Appendix (cont'd)



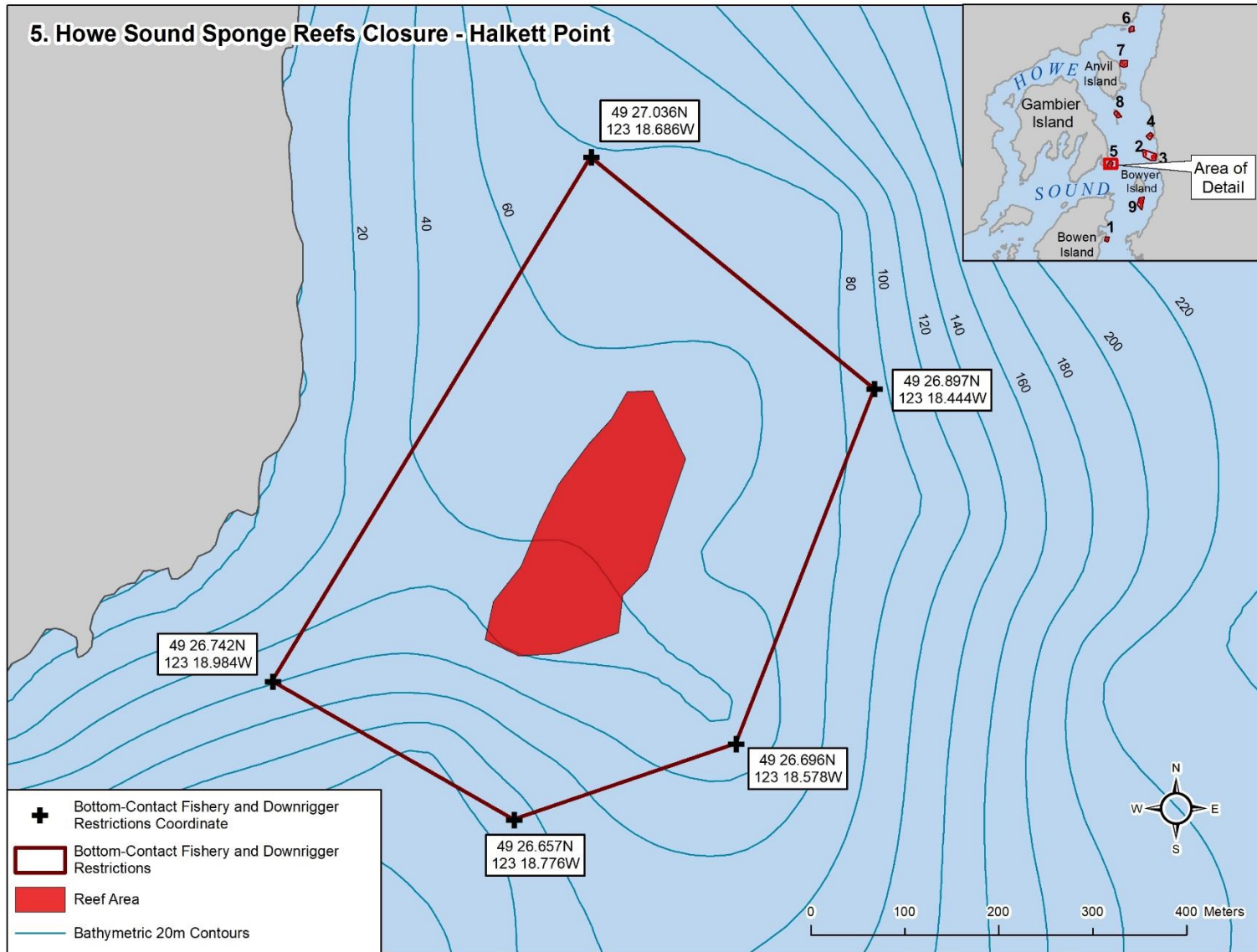
Appendix (cont'd)



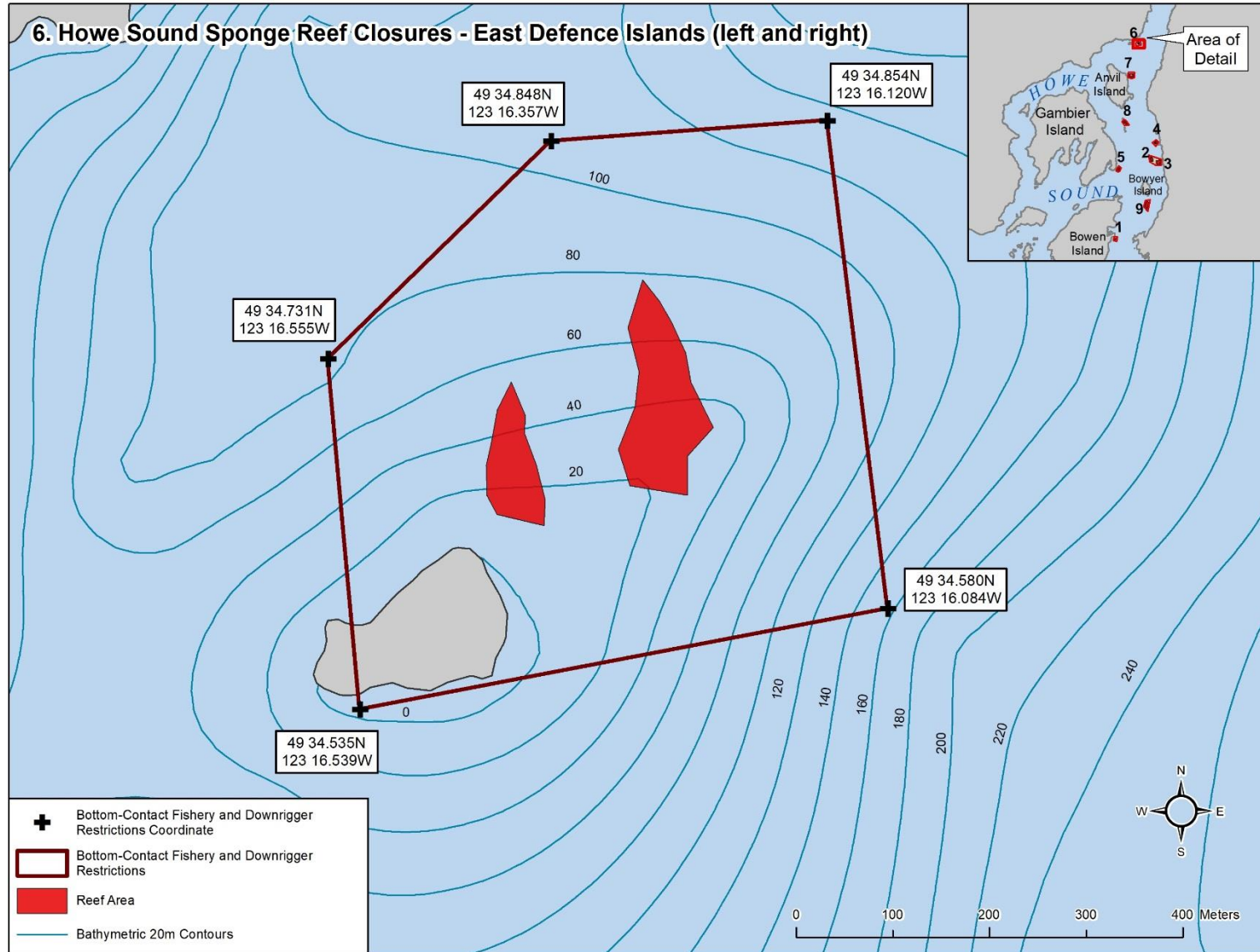
For Illustrative Purposes Only

Produced by Resource Management, Pacific Region, March 19, 2019.

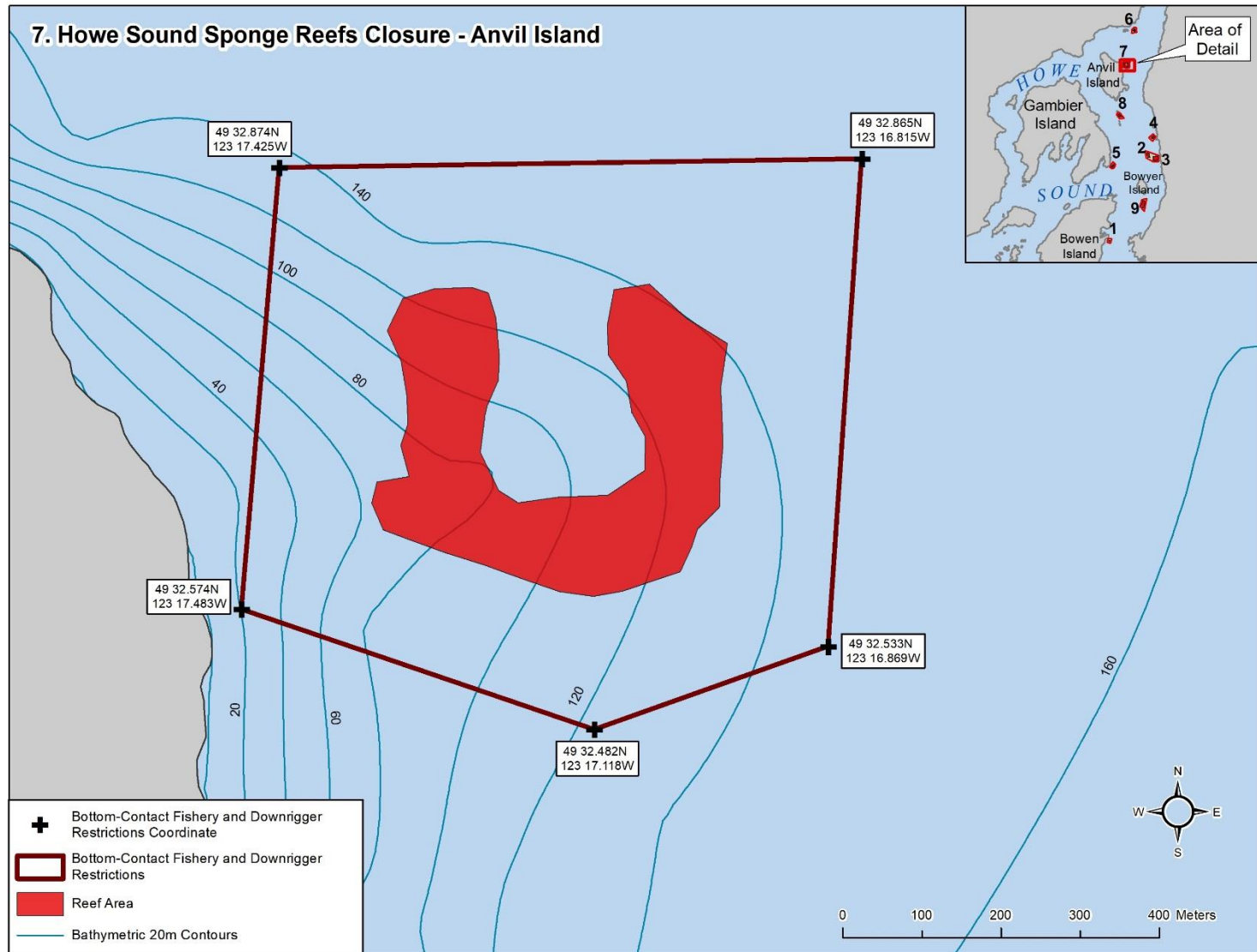
Appendix (cont'd)



Appendix (cont'd)



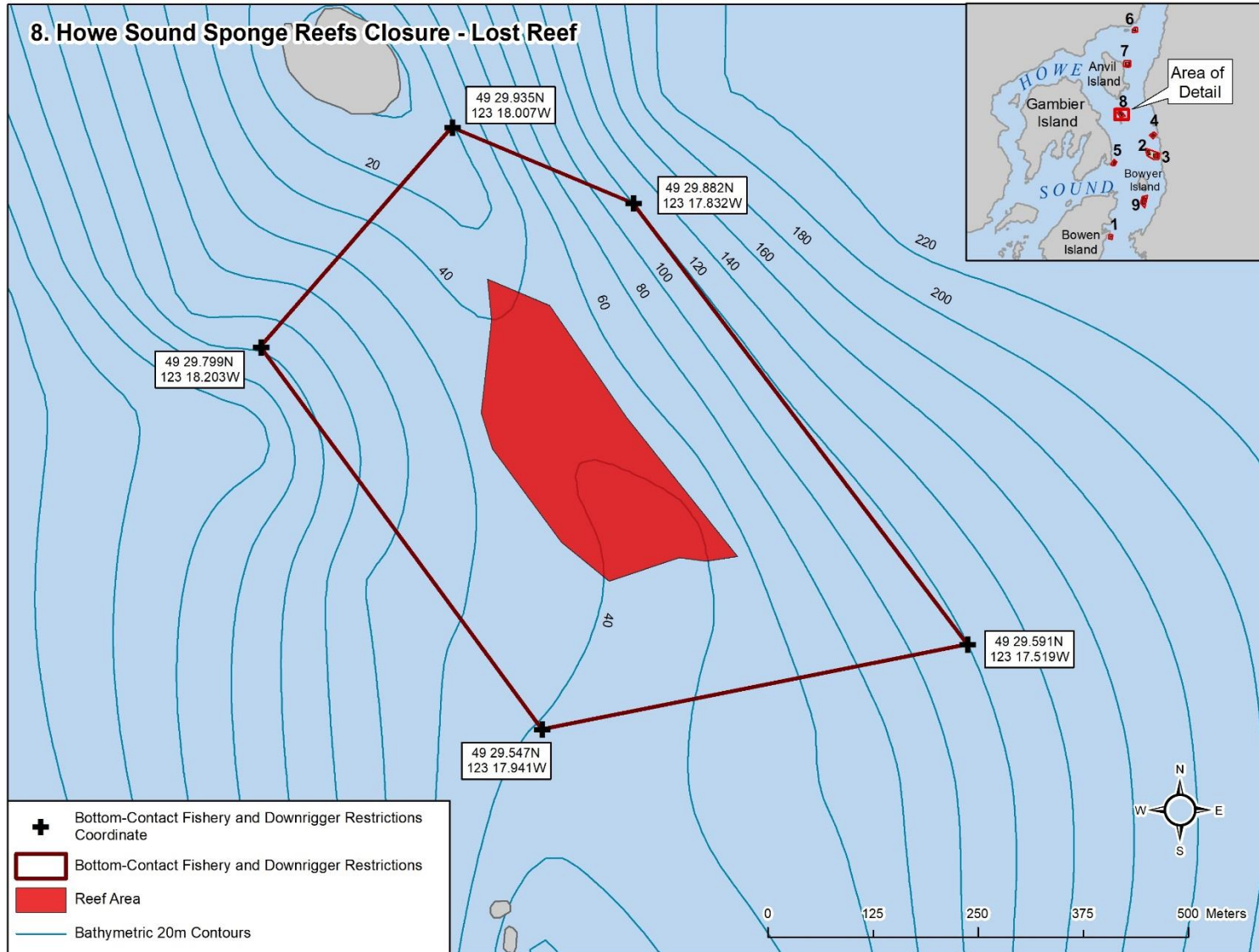
Appendix (cont'd)



For Illustrative Purposes Only

Produced by Resource Management, Pacific Region, March 19, 2019.

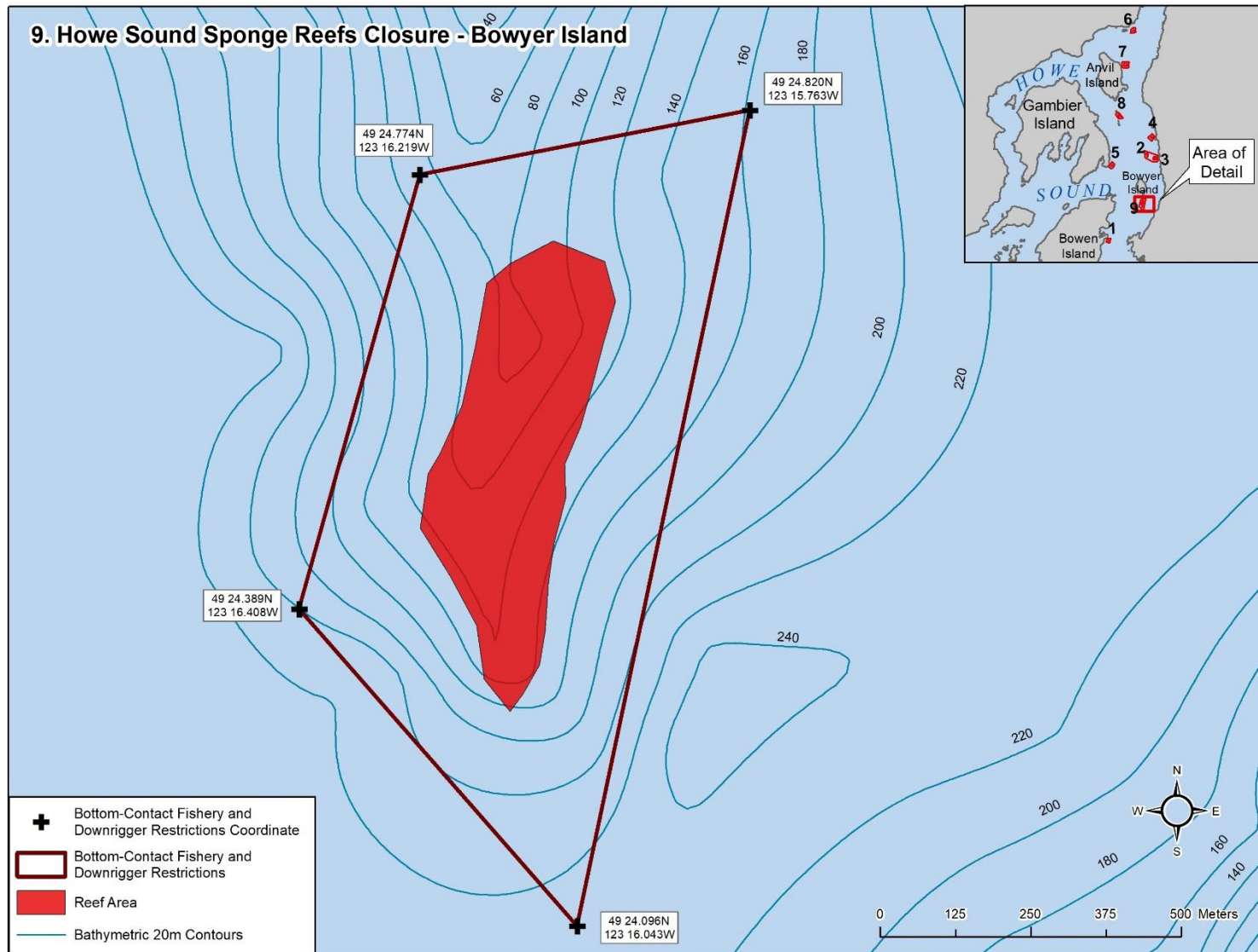
Appendix (cont'd)



For Illustrative Purposes Only

Produced by Resource Management, Pacific Region, March 19, 2019.

Appendix (cont'd)



For Illustrative Purposes Only

Produced by Resource Management, Pacific Region, March 19, 2019.