

#### SOUTHERN GULF ISLANDS HARBOURS COMMISSION

Notice of Meeting on **Thursday, February 29, 2024 at 9:30 a.m.**Saanich Peninsula Wastewater Treatment Plant Meeting Room,
9055 Mainwaring Road, North Saanich, BC

For members of the **public who wish to listen to the meeting** via telephone please call **1-833-353-8610** and enter the **Participant Code 1911461 followed by #.** You will not be heard in the meeting room but will be able to listen to the proceedings.

B. Dearden (Chair), Mayne Island	P. Brent, Electoral Area Director
B. Mabberley (V. Chair), Galiano Island	R. Fenton, South Pender Island
J. Deschenes, North Pender Island	R. Schnurr, Piers Island/Swartz Bay

#### **AGENDA**

#### 1. TERRITORIAL ACKNOWLEDGEMENT

#### 2. ELECTION OF CHAIR

M. Davis, Saturna Island

(Pursuant to Section 7 Bylaw No.2972)

Election conducted by Senior Manager, Real Estate Services and the Southern Gulf Islands Electoral Area with assistance from the Senior Administrative Secretary

#### 3. ELECTION OF VICE CHAIR

(Pursuant to Section 7 Bylaw No.2972)

Election conducted by Senior Manager, Real Estate Services and the Southern Gulf Islands Electoral Area with assistance from the Senior Administrative Secretary

- 4. APPROVAL OF AGENDA
- 5. ADOPTION OF MINUTES ......3

Recommendation: That the minutes of the November 23, 2023 meeting be adopted.

- 6. CHAIR'S REMARKS
- 7. SENIOR MANAGER'S REMARKS

To ensure quorum, advise Aggie Chan, achan@crd.bc.ca if you cannot attend.

#### 8. PRESENTATIONS/DELEGATIONS

The public are welcome to attend Commission meetings in-person.

Delegations will have the option to participate electronically. Please complete the <u>online</u> application for "Addressing the Board" on our website and staff will respond with details.

Alternatively, you may email your comments on an agenda item to the Southern Gulf Islands Harbours Commission at <a href="mailto:docks@crd.bc.ca">docks@crd.bc.ca</a>

Requests must be received no later than 4:30 p.m. two calendar days prior to the meeting.

#### 9. COMMISSION BUSINESS

9.1.	Southern Gulf Islands Harbours Projects and Operations Update – February 202	24
		8

**Recommendation:** That the Southern Gulf Islands Harbours Commission receives the report for information.

#### **10. NEW BUSINESS**

#### 11. MOTION TO CLOSE THE MEETING

That the meeting be closed for contract negotiations in accordance with Section (90)(2)(b) of the Community Charter and that the consideration of information received and held in confidence relating to negotiations between the municipality and a provincial government or the federal government or both, or between a provincial government or the federal government or both and a third party.

#### 12. RISE AND REPORT

#### **13. ADJOURNMENT**

Next Meeting: Thursday, May 30, 2024



MINUTES OF A MEETING OF THE Southern Gulf Islands Harbours Commission, held Thursday, November 23, 2023 at 9:30 a.m., Saanich Peninsula Wastewater Treatment Plant Meeting Room, 9055 Mainwaring Road, North Saanich, BC

PRESENT:

**Commissioners:** B. Dearden (Chair), Mayne Island; B. Mabberley (Vice Chair), Galiano Island; J. Deschenes, North Pender Island (EP); R. Fenton, South Pender Island; M. Davis, Saturna Island; P. Brent, Electoral Area Director; R. Schnurr, Piers Island/Swartz Bay

**Staff:** Stephen Henderson, Senior Manager, Real Estate & SGI Administration; Dan Robson, Manager, Saanich Peninsula and Gulf Islands Operations; Jared Kelly, Manager, Capital Projects, IWS CRD (EP); Kim Vincent, Senior Financial Advisor, Financial Services (EP); Aggie Chan, Senior Administrative Secretary (Recorder)

**Also Present:** P. Binner, Wharfinger Coordinator (EP)

**REGRETS:** N/A

EP = Electronic Participation

The meeting was called to order at 9:28 am.

#### 1. TERRITORIAL ACKNOWLEDGEMENT

#### 2. APPROVAL OF AGENDA

**MOVED** by Commissioner Mabberley, **SECONDED** by Commissioner Davis, That the agenda be approved as amended.

CARRIED

#### 3. ADOPTION OF MINUTES

**MOVED** by Commissioner Brent, **SECONDED** by Commissioner Mabberley, That the minutes of the July 25, 2023 meeting be adopted.

**CARRIED** 

#### 4. CHAIR'S REMARKS

The Chair made the following remarks:

 We have been on a winning streak. Improvements on Mayne Island have been appreciated by the community. According to the budget numbers, the commission is in really good shape.

#### 5. PRESENTATIONS/DELEGATIONS

There were no presentations or delegations.

#### 6. COMMISSION BUSINESS

#### 6.1. 2023 Dock Inspections [Verbal Update]

The inspection occurred during the spring and summer. The final report is not yet available due to family issues on the contract side. Some maintenance works were required at Lyall and Miners Bay and have been completed. No emergency work arises from the inspection.

Plan needed for the outstanding low tide inspections at the remaining facilities in 2024.

#### 6.2. Southern Gulf Islands Harbours Projects and Operations Update Oct 2023

The Commission received the report for information. There is no recommendation.

Staff provided a summary of the project updates and noted the following additional information:

- **19-01 | Anson Road** The guarantee period will expire in February 2024. Any workmanship issue should be reported before the expiry.
- **19-02 | Retreat Cove** To be reassessed when the inspection report is received and reviewed.
- **19-03 | Horton Bay** A new portion of the floats for the WCMRC containers have been installed. The materials supply issue is delaying the quotation for the approach, Float A & Float B. Request-for-quote period was extended. More information on pricing to come. Discussion happened on the pros and cons of various materials (ACCA and ACQ) readily available on the market. Staff relies on engineers to make recommendations in their bids.
- **20-02 | Spanish Hills** Warranty guarantee period expiring end of February 2024. Staff to connect with PIM regarding rectifying problematic elements: the runner for the ramp should be 12 feet instead of 6 feet; screws on Teflon components have all been ripped off.
- **20-04 | Miners Bay Upgrades** Focus was put on mitigating liability issues by replacing most of the rotten plywood of the decking and installing the railing. A weather shelter for community users and two branches have been installed. The next Phase (III) will include reinforcement of the replaced plywood, replacing another additional 15 timbers, and installing angle brackets. All anticipated works have been completed under budget. With the remaining budget, there is potential to add a pavilion.
- **21-03 | Annual Provision** Horton Bay gangway servicing and painting completed in October. Approximately \$60,000 is remaining of the \$100,000 annual budget.
- **21-01 | Port Washington** Guarantee period until April 28th,2024. The proposed relocation of Float C to Horton Bay would not provide much cost savings due to

differences in width/height and the challenge of extending the licence boundary. Wharfinger confirmed low usage of both Float B and Float C. Staff to continue to investigate alternative sites to relocate Float C. Staff to look into amending the licence boundary of Swartz Bay as an option to relocate Float C of Port Washington.

**21-05** | **Piers Island** – Some progress on communicating with the Province. New photos are required of the actual location of where the pilings will go. 90 days for FN to review and consider. The Wharfinger position has been vacant for 8 months. Staff need to ensure an open and transparent process of recruitment.

**22-01** | **Hope Bay** – Warranty will expire on June 8th, 2024. Recent weather events (post report) have caused the loss of some decking boards at the transition between Floats B and A. Staff to coordinate repairs with Wharfinger.

**22-02 | Swartz Bay** – Warranty until February 12<sup>th</sup>, 2024. The approach to Swartz Bay at Land End Road was be reviewed by staff and with the applicable authority.

**21-02 | SGIH Inspections** – Waiting for the formalized report from the consultant.

#### **OPERATIONAL UPDATES**

- Significant efforts responding at Miners Bay to remove the "deadhead" that was out of alignment.
- Staff received a concerned call from the water taxi operator. Staff to direct the operator to connect with Wharfinger regarding maintenance and safety issues. Note to wharfingers to be proactive with salt/sand mixtures when needed.

## 6.3. Southern Gulf Islands Harbours Service 2024 Operating and Capital Budget

Peter leaves the meeting at 10:33 am.

Staff provided an overview of the Operating and Capital Budget.

- Approximately \$31,000 under budget due to lower maintenance costs and compensation to wharfingers
- Late seasonal revenue coming in; Updated revenue spreadsheet provided to the commission.
- Most of the wharfingers except Anson Road get the 50% of revenue to wharfingers. Revenue anticipated for Anson is \$40,000 with actual revenue at \$30,000. Anson Wharfinger received monthly fixed compensation.
- Discussion on moorage rate and potential adjustment in 2025.
- Wharfinger meeting to be rescheduled for Spring 2024, which will provide an opportunity to receive feedback on moorage rates.
- Discussion on the evolution of payment methods and consumers' expectations.
   Staff to investigate adapting more convenient payment methods, such as e-Transfer, for receiving moorage payments from users.
- o Discussion on debts carried and options at maturity dates of the terms.
- o Discussion on parcel tax rate and the CPI (Customer Price Index) as a reference,

- which is not an accurate reflection of the continuously increasing costs of dock operations and maintenance.
- The last dock asset evaluation was done in 2020. A new evaluation is planned for Spring 2024 along with a 20-year plan.

**MOVED by** Commissioner Brent, **SECONDED by** Commissioner Fenton,

To increase parcel tax by 5% from the 2023 budget per lot in 2024 and that the additional revenue to be added to the Capital Reserve Funds.

CARRIED

MOVED by Commissioner Mabberley, SECONDED by Commissioner Fenton,

- Approve the 2024 Operating and Capital Budget as amended and that the 2023 actual operating surplus be balanced on the 2023 Capital Reserve Fund transfer, and
- 2. Recommends that the Electoral Areas Committee recommends that the CRD board approve the 2024 Operating and Capital Budget and five-year Financial Plan for the Southern Gulf Islands Harbours Service as amended.

CARRIED

#### 6.4. Horton Bay [Verbal Update]

Judge agreed on the existing SRW between the road and the dock, which is in favour of the Provincial Government, should include the CRD. The SRW area was re-surveyed by the Federal Government. The land title was updated.

#### 7. NEW BUSINESS

No New business.

#### 8. MOTION TO CLOSE THE MEETING

**MOVED** by Commissioner Mabberley, **SECONDED** by Commissioner Fenton, That the meeting be closed in accordance with the Community Charter, Part 4, Division 3, Intergovernmental Relations under Section 90 (2)(b).

**CARRIED** 

The Commission moved into closed session at 11:09 am.

#### 9. RISE AND REPORT

The Commission rose from its closed session at 11:29 a.m. without report.

#### **10. ADJOURNMENT**

**MOVED** by Commissioner Mabberley, **SECONDED** by Commissioner Davis, That the November 23, 2023 meeting be adjourned at 11:31 a.m.

		CARRIED
CHAIR	SECRETARY	



# REPORT TO SOUTHERN GULF ISLANDS HARBOURS COMMISSION MEETING OF THURSDAY, FEBRUARY 29, 2024

# SUBJECT Southern Gulf Islands Harbours Projects and Operations Update - February 2024

#### **ISSUE SUMMARY**

To provide the Southern Gulf Islands Harbours Commission with capital project status reports and operational updates.

#### **BACKGROUND**

The Southern Gulf Islands Harbours (SGIH) service area is comprised of thirteen dock facilities among six islands. Through the service's five-year capital plan, the Capital Regional District (CRD) executes capital projects to maintain the level of service, improve service, and conduct major repairs. The following is a summary of the projects that are active and recently completed.

#### **CAPITAL PROJECT UPDATE**

#### 19-01 | Anson Road

Project Description: Construction of the Anson Road facility - gravel roadway/parking lot, retaining wall, approach/wharfhead, main float and additional moorage.

Project Completed and Guarantee Period expired on February 12, 2024.

#### 19-02 | Retreat Cove (On Hold)

Project Description: Upgrades to the Retreat Cove Dock Facility to maintain level of service.

Project Rationale: This project includes works to maintain the current level of service as recommended with previous reports provided to Commission in 2015, 2018 and Underwater Inspection report January 2024. Recommended works include repairs to the approach/wharfhead piles, and repairs to the floats.

- Further investigation to the existing condition had staff determine that this project can be deferred until after the 2023 inspections which are now complete.
- Funds were used in April 2022 for flotation repair, in the amount of \$4,869.50, with the remainder to be returned to the Capital Reserve Fund (CRF).
- The 2023 dock inspections have identified a priority of works and activities are being scheduled.

Milestone	Completion Date
Flotation Repair	April 2022
Project Deferred until 2025	

#### 19-03 | Horton Bay Dock Revitalization

Project Description: Horton Bay Dock Revitalization.

Project Rationale: This dock is being maintained for on-going use. With replacement of existing floats and the gangway with similar structures.

#### Project Update and Milestones:

- Transport Canada and the Province have been informed and in agreement to the revised approach.
- The Statutory Right of Way (SRW) that provides the full access rights from the dock to the public road has been updated and completed as per a previous legal decision.
- All piles in the dock have been inspected and satisfactory.
- The gangway has been replaced with funds from the Annual Provisional budget.
- The agreement with Western Canada Marine Response Corp. (WCMRC) is executed and two Transport Canada-certified oil-spill response packages on a new Float C are installed.
   This will assist with the environmental protection of the marine environment in the area.
- New Floats A and B, the main section of the dock are replaced and further maintenance work to the wharfhead was included in the project.
- Staff will be moving Float C from Port Washington, and it will replace the dinghy float at Horton Bay in the shortterm.
- Substantial Completion issued on February 06, 2024 and the contractor can apply for release of holdback no sooner than April 01, 2024
- Guarantee period ends on February 06, 2025

Milestone	Completion Date
Archeological Overview Assessment	July 2019
Aquatic Effects Assessment	July 2019
Gangway maintenance/replacement	Fall 2023
Float C maintenance/replacement	Fall 2023
Floats A and B and wharfhead maintenance/ replacement	January 2024

#### 23-01 | Miners Bay Upgrades

Project Description: Project to replace decking at Miners Bay as well as potentially removing gas lines that are no longer in use.

Project Rationale: Current decking is failing and has been deemed a safety hazard.

- Contractors provided quotes for three scenarios to upgrade the wharfhead decking. Prices received were over budget and a re-scoping of the works was initiated.
- A grant application to the Island Coastal Economic Trust for \$30,000 was successful. The Grant is for a maximum of one-third of the project costs.
- An additional \$30,000 of Community Works Funds has been sourced along with donations from local community groups.
- The works in the grant application include replacement of the decking, as well as adding hand-railings, benches, and a small shelter to benefit the users of the water taxi, float planes, and school taxi. As well as to enable broader community use.

- The re-decking and handrails are complete with additional phases in progress.
- The removal of the decommissioned gas line may be deferred due to budget constraints.
- The works are scheduled for completion in 2023.

Milestone	Completion Date
Float Realignment Interim Report	June 2, 2022
Invitation to Tender (ITT) issued for gas line removal	Not issued
Request for Quotes for 3 Scenarios	September 2022
Request for Quotes Closes	September 2022
Rescoping the project, Pursue Grant Funding &	2023
Procure works	
Island Coastal Economic Trust funds secured (a third	Secured, and funds will be
of the project dollars spent - up to \$30,000)	received as a re-imbursement
Community Works Funds (\$30,000)	Received
Re-decking of wharfhead completed	May 2023
Railings on wharfhead completed	June 2023
Additional works in progress	In progress

#### 21-01 | Port Washington (Substantial Completion)

Project Description: Dock improvements outlined from the 18-01 Inspections project.

Project Rationale: This project includes works to maintain the current level of service as recommended in Stantec's 2018 inspection. Contracted works include approach and float pile replacements; float improvements, including decking, rub boards, bull rails and aluminum transition plates; and gangway works, including replacement of roller bearings, hinges, and guide rails.

#### Project Update and Milestones:

- The Guarantee Period expires on April 28, 2024.
- Through this capital project, staff are considering moving Float C from Port Washington to Horton Bay and being used as a dinghy float. Float C is considered a surplus to the demand for moorage at Port Washington and is causing additional wear on the other parts of the dock.

#### 21-03 | Annual Provisional: Dock Improvements

Project Description: An annual provisional fund is required to address unplanned dock safety issues.

Project Rationale: Funds are required for unplanned and minor repairs such as minor board replacement, painting, emergency repairs, and electrical repairs.

- This is an "as and when needed" project, funds will be utilized when required at each dock facility.
- The Wharfinger Coordinator and Operations Manager are prioritizing small works not covered under existing capital projects for action.
- The remaining funds since the last meeting were utilized to partially fund the replacement of the Horton Bay Floats A and B, and for upgrades to the gangway.

Milestone	Completion Date
Hope Bay - Float A floatation replacement \$10,000 budget	May 31, 2023
Hope Bay - Float B stringer replacements \$20,000 budget	May 31, 2023
Port Washington – Float and deck board replacement \$6,000 budget	June 30, 2023
Horton Bay – Gangway resurfacing and painting \$4,500 budget	October 12, 2023
Horton Bay – Dock float replacement and dock approach maintenance \$59,500 budget with intent to spend the remainder of funds if any are left over.	December 31, 2023

#### 2023 Provisional Budget

-	Opening Budget	\$100,000
-	Allocated amount (to-date)	\$100,000
-	Remaining Balance	\$0

#### 2024 Provisional Budget

-	Opening Budget	\$150,000
-	Allocated amount (to-date)	\$0
-	Remaining Balance	\$150,000

The 2024 funds have not been allocated to a project and are pending the review of the inspection reports.

#### 21-05 | Piers Island Additional Float

Project Description: Installation of an additional float at the Piers Island dock.

Project Rationale: This project is to complete the Piers Island Additional Float replacement. Design, environmental assessment, and majority of permitting is complete. Funds are required to retain a contractor to supply and install an additional float.

- Design and Department of Fisheries and Oceans (DFO) approval complete.
- Ministry of Forests, Lands, Natural Resource Operations (FLNRO) and Rural Development, and Transport Canada First Nation condition is required for the water lease amendment and for Transport Canada approval.
- Cowichan Tribes previously rejected support for the project, in 2019, based on proximity to traditional harvesting area.
- Letter requesting support sent to Cowichan Tribes March 18, 2022.
- Feedback in support received April 7, 2022.
- Invitation to Tender (ITT) for Supply and Installation of new float issued on June 6, 2022.
- ITT for Supply and Installation of new float closed on July 14, 2022.
- Recommendation to Award to Pacific Industrial & Marine Ltd. (PIM) signed August 10, 2022.
- Cowichan Tribes raised concerns about heritage fishing grounds with FLNRO via an email dated August 23, 2022. Waiting to send contract to PIM until this issue is resolved.
- Mitigation measures added included a reduction from 3 piles to a single pile, and the use

- of a bubble-curtain during the installation of the pile.
- New correspondence was sent to the Chief in Council in January 2023 regarding revisions to the dock design to mitigate concerns, and updated information from the biologist. Continue to wait for a response from First Nations.
- Due to the delay in the project, and the additional mitigation measures that have been incorporated, the Province is repeating the First Nations Consultation with an expected response in the Spring of 2024
- In discussion with PIM, February 07, 2024 the float is still available in the yard but may have to incur some small additional costs over the quote that was given in July 2022 for the modifications required to the float.

Milestone	Completion Date
Aquatic Effects Assessment	April 2019
Cowichan Tribes comment on project	June 2019
CRD discussion with Cowichan Tribes on project	July 2019
CRD Re-establishes Project Discussion with Cowichan	March 2022
Tribes	
CRD letter requesting support	March 18, 2022
Feedback from Cowichan Tribes	April 7, 2022
Tender for Supply and Install	June 06, 2022
Tender for Supply and Install Closed	July 14, 2022
Agreement signed (anticipated), waiting for First	March 2023
Nations approval	
Mitigation Measures incorporated and Provincial	April 2024
Consultation restarted	
Installation (anticipated), for fisheries window	ON HOLD

#### 22-01 | Hope Bay (Complete)

Project Description: Dock improvements outlined from the 18-01 Inspections project.

Project Rationale: This project includes works to maintain the current level of service as recommended in Stantec's 2018 inspection. Recommended works include approach decking, bull rail, and handrail repair and replacements, float and gangway repairs. Funds are required for staff to retain a contractor to carry out the works.

Project Update and Milestones:

• Guarantee Period expires on June 8, 2024.

#### 21-02 | SGIH Inspections

Project Description: Dock inspection, including underwater inspections, are conducted as periodic reviews of the facilities to determine repair and maintenance requirements.

Project Rationale: This project includes work of an underwater inspection of the dock facilities to be used to re-evaluate proposed work plans and residual life estimates. Subsequent low tide inspections may be conducted as well if the budget allows. These inspections will be used to reevaluate the Five Year Capital Program.

- Scope of work was revised following the February 24, 2023 Commission meeting, such
  that underwater inspections will only be completed on seven docks that use underwater
  chain anchors, rather than pilings, to secure the floating portions of the docks. For these
  seven docks, anchorage systems, the underside of floats, and pile structures will be
  inspected underwater using the same technique. Provisional items are also included for
  inspecting the underside of approaches and wharfheads.
- The remaining docks will have all the pilings inspected during low tides. This will be completed under a separate contract and is anticipated to be completed from a skiff or by a person on the docks.
- Topside inspection will be considered based on budget availability, following underwater and low tide inspections.
- A request for proposals (RFP), 2023-857, was issued on April 18, 2023, and five proponents responded on May 25, 2023.
- CRD staff completed a technical evaluation of the responses and only three had their financial submissions opened. Upon completion of the technical and financial evaluations, it was determined that Pelagic Technologies (Pelagic) was best qualified to perform the inspections.
- Recommendation to Award was signed by CRD staff on June 23, 2023.
- Contract value with contingency is \$75,000.
- Additional work and inspections were added including the inspection of the piles on the fixed portion of Horton Bay Dock, assisting with the removal of a log jammed under Miners Bay dock, and subsequent inspections of the facility.
- The initial underwater inspections have been completed in the field, and an initial summary
  of the results is attached in Appendix B.

Milestone	Completion Date
RFP Issued	April 18, 2023
RFP Closed	May 25, 2023
Agreement Signed – anticipated	July 15 2023
Inspections completed and draft reports	January 2024
Final Report	March 2024

#### **OPERATIONAL UPDATES**

Detailed maintenance activities for the period November 2023 through January 2024:

#### Swartz Bay:

- Power washing of approach and floats.
- Inspect and tighten bull rail bolts.

#### Spanish Hills:

- Power washing of wharfhead and float.
- o Improvements completed on the gangway roller guides by capital projects contractor

#### • Lyall Harbour:

Power washing of approach and floats.

#### Sturdies Bay:

- o Power washing of approach, gangway and float
- Minor repairs to hand railing and float rub boards.

#### • Montague Harbour:

- o Power washing of approach, gangway, and floats.
- o Replacement of tires on the seaplane float.

#### • Port Washington:

- Power washing of floats.
- o Tighten float A bull rail bolts.

#### Hope Bay:

Power washing of floats.

Bi-monthly dock inspections were completed in February, refer to Appendix A.

#### **RECOMMENDATION**

There is no recommendation. This report is for information only.

Submitted by:	Jared Kelly, P.Eng., Manager, Capital Projects
Submitted by:	Dan Robson, ASc.T, Manager, Saanich Peninsula and Gulf Islands Operations
Concurrence:	Stephen Henderson, BSc., PGDip. Eng., MBA, Senior Manager, Real Estate & SGI Administration

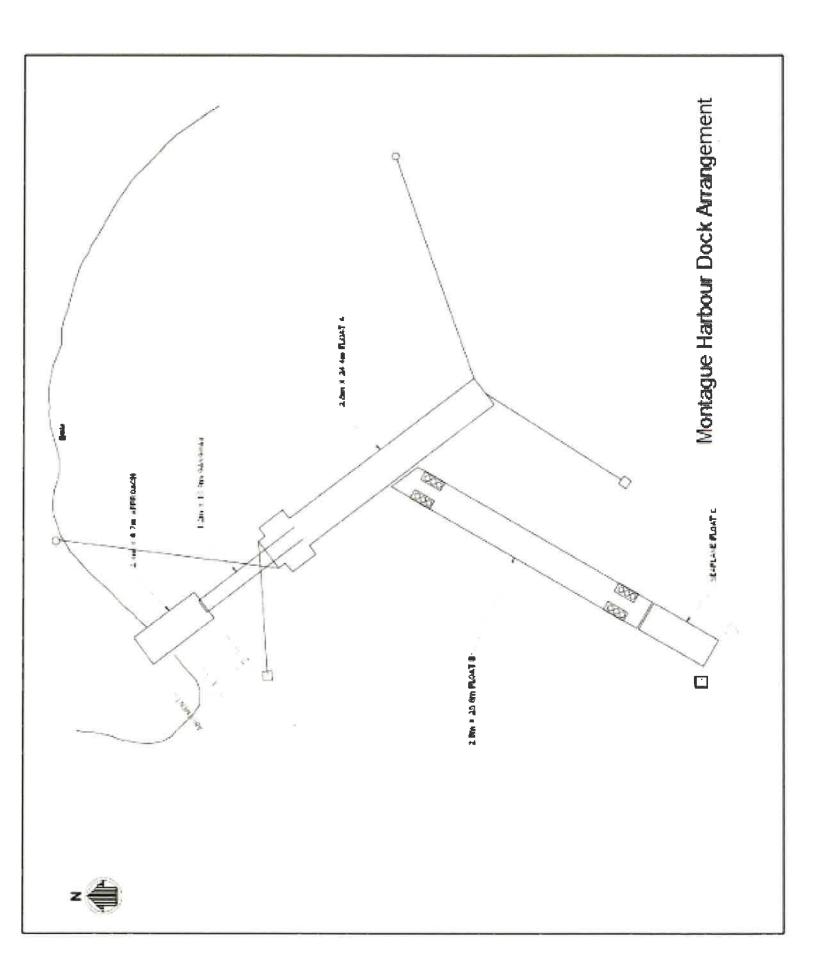
## ATTACHMENT(S):

Appendix A: Dock Inspection Reports – February 2024

Appendix B: Initial Summary of Pelagic's Dock Summary Reports.

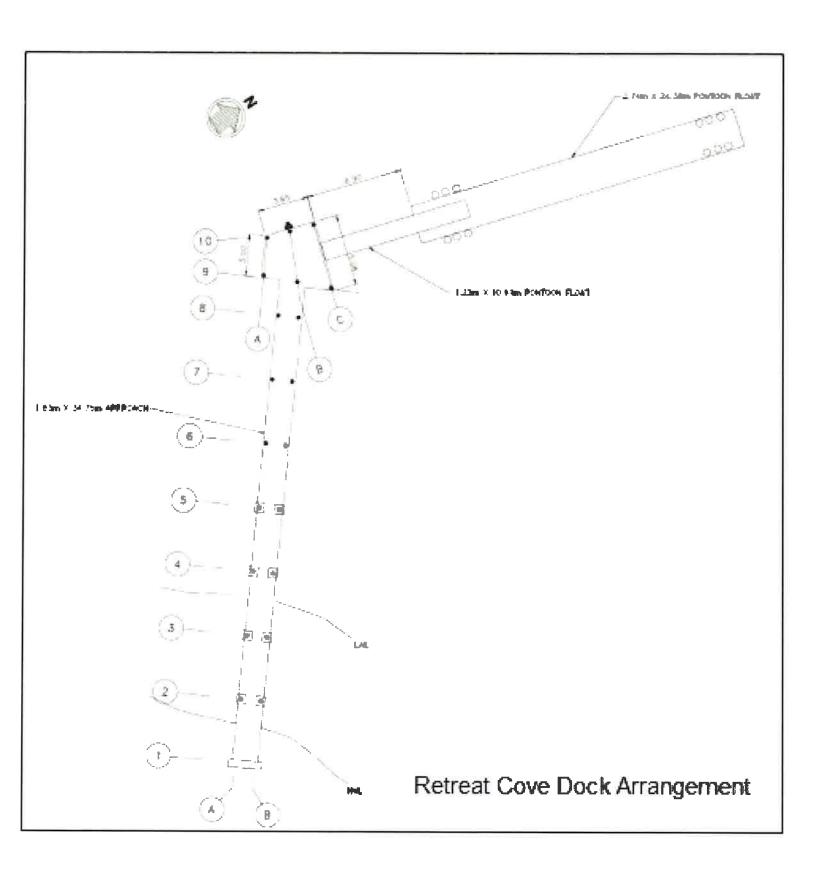


INS		2024 er Binner	WHARFINGER:	Kiyoshi Okuda	rbour Gallano
APPROACH	✓ Signage ✓ The small area h requires minor cl	as painted railings an	✓ Notices Postend bull rails and the		osted pressure washing. The notice board
WHARF HEAD	N/A	Envelope Supply	Notices Poste	d Rates Po	sted
GANGWAY FLOATS	non-skid paint The followed as a start it was installed. The WCMRC float Float A is in good There is a steel piinspection. Float B requires nhave been pressurgood condition with Float C is pressure.	t is in good condition, condition and has be it is in good condition, condition and has be it is in good condition and has be it is in good condition and has be it is in good condition and the flow the minimal wear show the washed and in good pears to be in good condition.	guide rails are in go aluminum gangway no issues to report een pressure washe the gangway and the transition plate otation is good. The ving at the observed condition. The decondition and the an	od condition and f s. It is robust and d and the bull rails is appears to be in The decking and re are 4 pile wells I tide. cking & flotation and	e bottom & top aprons are painted with function well. This design could be has never presented any issues since are tight and the flotation is good. In good condition. The anode requires bull rails are in good condition and with 3 piles / well and they are all in re good and the bull rails are tight. Bection.  been pressure washed. The bull rails
OTHER	Lighting  Extinguishers (expiry dates)	all working Sept & July 2024	<ul><li>✓</li></ul>	Life Rings / Heaving Lines Unpaid Moorage	good 26' sailboat, contact with owner has occurred
COMMENTS/INSTRUCTIONS	> Minor cleaning a	g on the transition pla and or painting the no	tice board is recom		





DAT	E: 8-Feb-2024 PECTOR: <b>Peter Binner</b>	DOCK FACILITY: Retreat Cove Galiano WHARFINGER: Kiyoshi Okuda					
IIVOI	FECTOR. Feter billier	WHARFINGER: Kiyoshi Okuda					
APPROACH	Signage  Envelope Supply  Some pressure washing of the painter and in good condition.	Notices Posted Rates Posted d railings, bull rails and the decking is required. The notice board is painted					
WHARF HEAD	Signage Envelope Supply N/A	Notices Posted Rates Posted					
GANGWAY FLOATS	The railings on the gangway are painted and the wood decking requires pressure washing. Rust is developing on the metal structure and painting is recommended. The roller, pillow blocks and guide rails are rusty but in fair condition and the bearings have been serviced. The bottom apron skid shoe is broken and worn out, removal is required and may not be required if the existing UHMW skid strips are sufficient for the job required.  The float has 2 open pile wells with 3 piles / well next to the gangway. The first 2 piles in the NW well have 15 to 30% wear and the remaining piles are showing minimal wear at the observed tide. The 2 wells with 3 piles / well at the end of the float are in good condition and there is minimal wear with the well and the piles at the observed tide. The bull rails are tight and the decking is in good condition and requires pressure washing.						
OTHER	Lighting N/A  Extinguishers (expiry dates) May 24 2024	Life Rings / Heaving Lines Unpaid Moorage					
COMMENTS/INSTRUCTIONS	> Painting the gangway is recommended	that it will ride properly on the existing UHMW skid strips.					





DAT	E: 8-Feb-2024 PECTOR: Peter Binner	DOCK FACILITY: Spanish Hills Galiano WHARFINGER: Dan White				
_	Signage Envelope Supply  The decking, unpainted railings and b	Notices Poste				
APPROACH	The decking, unpainted railings and b	uli ralis nave been p	ressure washed a	IIU IUUKS AS HEW!		
	✓ Signage ✓ Envelope Supply	✓ Notices Posted				
WHARF HEAD	The small wharfhead area with new ra The aluminum notice board is in good replacement is required.	ilings has also been condition, the life rin	pressure washed g is hung here an	and looks great! d is missing it's throw line,		
	The new aluminum gangway with Min	Mesh decking is in	good condition bu	t there are still design problems with		
GANGWAY FLOATS	the roller and guide rails. The gangwa	y is still jumping the me and the piece of ed up by the large bo ening along the full saybe another design and digging into the d	guide rails and is UHMW skid plate Its that are fasteni pan of the gangw modification is red	now hung up on the guide rail that rubs along the inside of the guide ing the UHMW skid plate to the ay travel with the tide. The anchor		
sNo	Lighting N/A	1	Life Rings / Heaving Lines	new, missing throw line		
OTHER	Extinguishers (expiry dates)		Unpaid Moorage			
COMMENTS/INSTRUCTIONS	> Replace missing life ring throw line. > Resolve gangway issue.					

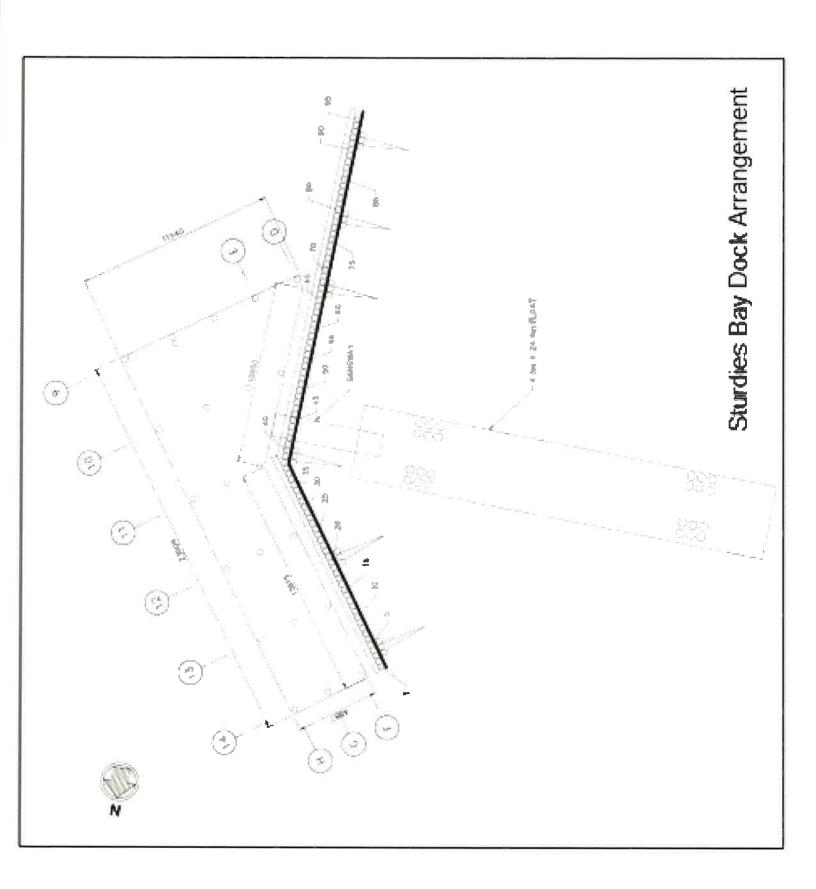


8-Feb-2024

#### Southern Gulf Islands Harbours DOCK INSPECTION REPORT

DOCK FACILITY: Sturdies Bay Galiano

**Peter Binner** WHARFINGER: INSPECTOR: Kiyoshi Okuda Rates Posted **Envelope Supply** Notices Posted Signage N/A **APPROACH** ✓ Notices Posted ✓ Rates Posted √ Signage ✓ Envelope Supply The unpainted railings and bull rails along with the decking have been pressure washed and look like new! The WHARF HEAD bollard is painted. The notice board requires painting and minor maintenance. The electrical breaker box requires repair to the broken door hinge. The heavy old steel gangway has faded paint and numerous areas of rust developing. The wood decking is in poor condition and replacement of the whole gangway with a new aluminum one with Mini Mesh decking is recommended. The access to the roller and pillow blocks along with the guide rails is extremely difficult with the GANGWAY FLOATS weight and the design of this structure. The float has 4 pile wells with 6 piles / well. The wells are in good condition with minimum to some moderate wear on the pilings. The float decking is in fair condition but requires another round of pressure washing. The bull rails are mostly tight except in the middle on the shore facing side. One bolt is likely broken next to the light standard and requires repair. There is a fair amount of flexing of the float with any wave action. Life Rings / good Wharfhead & the float, working Lighting **Heaving Lines** Extinguishers Nov 2025 Unpaid Moorage (expiry dates) > The loose or broken bull rail bolt on the float requires repair. **COMMENTS/INSTRUCTIONS** >The float requires pressure washing. > The gangway wood decking requires replacement. > Replacing the old steel gangway with a new aluminum structure is recommended.





8-Feb-2024

# Southern Gulf Islands Harbours DOCK INSPECTION REPORT

DOCK FACILITY: Anson Rd Mayne

INSF	PECTOR:	Peter Binner	WHARFINGER: F	Richard Jarco		
APPROACH	Signage The aluminus surface that		Notices Posted esh decking is in excellent ached to. What was ap	Rates Poent condition. The plied at Spanish	ne aluminum notice board require	es a
WHARF HEAD	Signage N/A	Envelope Supply	Notices Posted	Rates Po	sted	
GANGWAY FLOATS		m gangway and apron wi			condition, there are no issues.	
OTHER INSPECTIONS	Lighting  Extinguis  (expiry da		<u> </u>	ife Rings / leaving Lines Inpaid Moorage	4 x good	
COMMENTS/INSTRUCTIONS	> A backing recommende		ices on the notice board	I is required. Th	ne material used at Spanish Hills	is

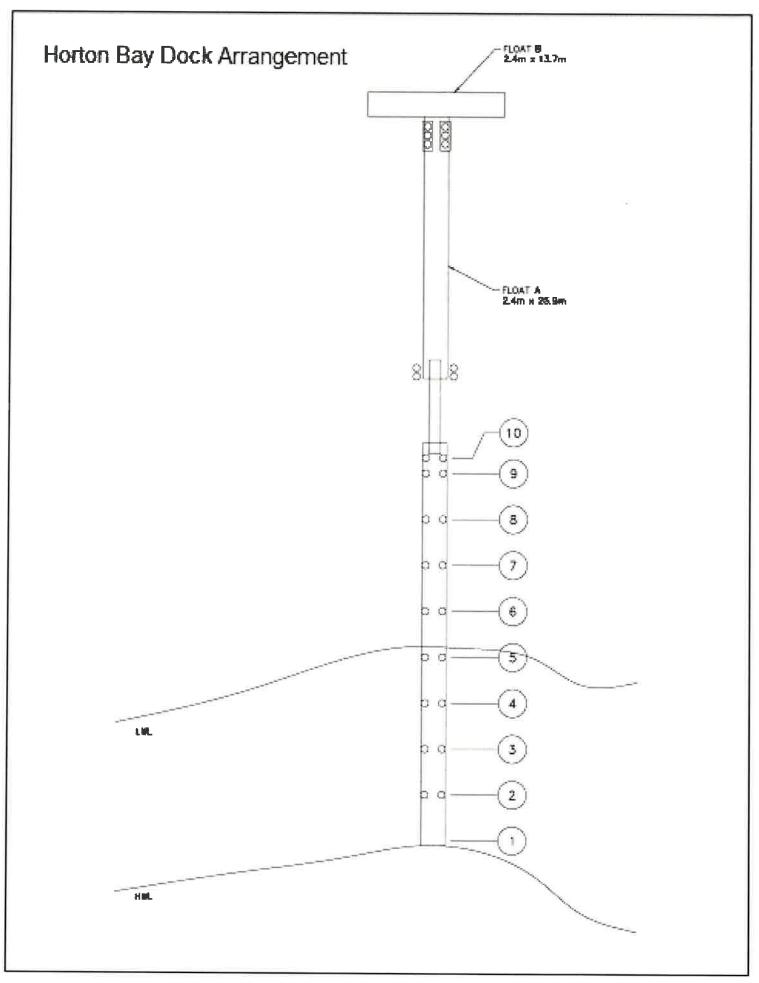


8-Feb-2024

# Southern Gulf Islands Harbours DOCK INSPECTION REPORT

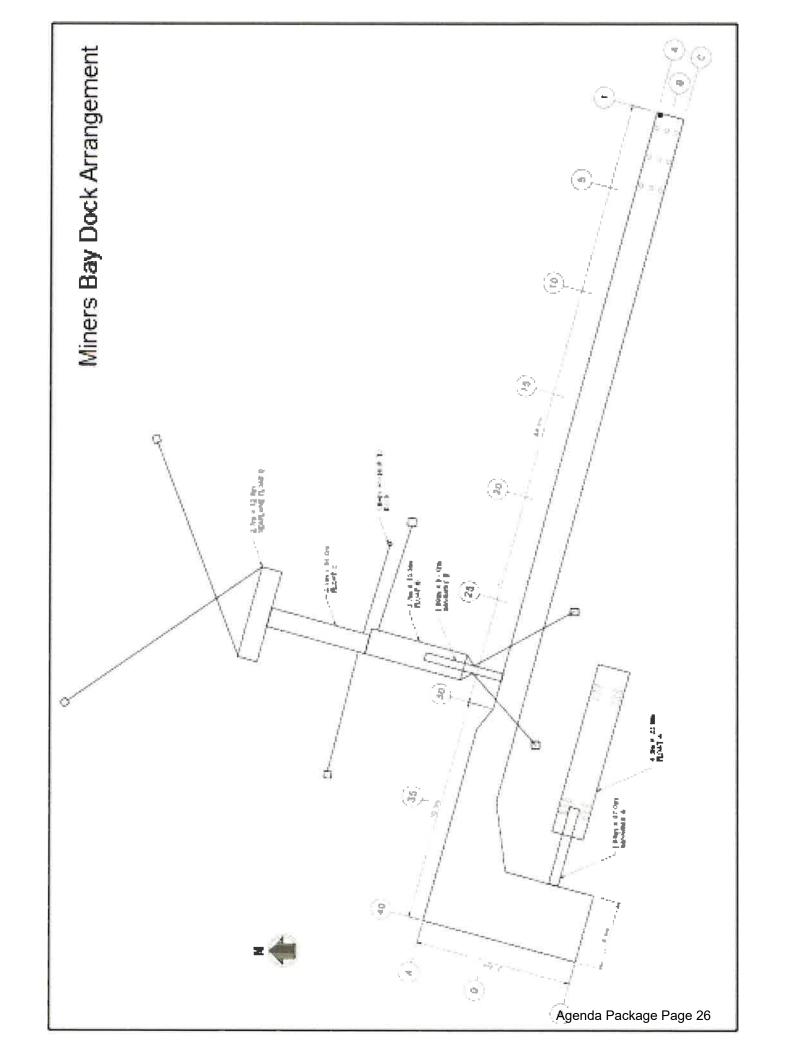
DOCK FACILITY: Horton Bay Mayne

INSF	PECTOR:	Peter Binner	WHARFINGER:	Richard Jarco	
APPROACH	small section	and railings have been re	ainted. The notice b	ing looks great! Th	e new railings are unpainted with a loved and will be remounted along
WHARF HEAD	Signage N/A	Envelope Supply	Notices Poste	d Rates Pos	sted
GANGWAY FLOATS	roller has al a Mini Mesh gangway in	so been replaced along w decking Everything looks	rith the guide rails. Pi s fantastic! The piling	illow blocks are als gs are old but in fa	also with a Mini Mesh surface. The o new. There is also a new float with ir condition, 2 piles / side next to the wCMRC float with 2 containers is
SNO ~	✓ Lighting	at entrance of approach	h / working	Life Rings / Heaving Lines	missing
OTHER	Extinguis	shers Nov 2024, new case re	equired	Unpaid Moorage	
COMMENTS/INSTRUCTIONS	> A life ring > A new cas	is required. se for the fire extinguisher	is required.		



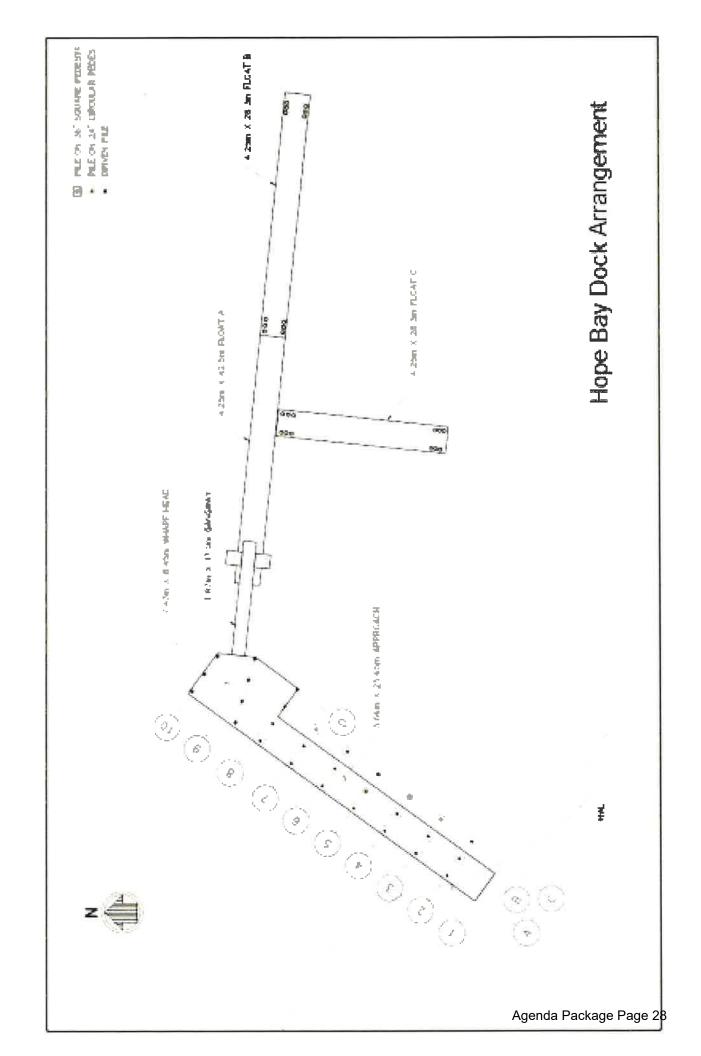


DAT	ΓE:	8-F	eb-2024	DOCK FACILIT	Y:	Miners Bay Ma	ayne
INS	PECTO	DR:	Peter Binner	WHARFINGER	:	Nico Preston	
	-	ignage	Envelope Supp				
APPROACH	recor for re	mmende eplacem	d. The decking is in fa	air condition with a for The notice board is	ew c	deck boards with r	sure washing and painting is ninor developing rot and monitoring repair or replacement is required.
	∏Si	gnage	Envelope Supp	y Notices Po	sted	Rates Pos	sted
WHARF HEAD	The w	vharfhea	d has had roughly 75	% of the decking rep	olace	ed along with a ne rot. Monitoring for	ew railing and there are still a number replacement is recommended.
	Gang	way A h	as painted railings an	d the wood decking	is o	ld and in fair cond	ition. Future replacement with a mini
GANGWAY FLOATS	mesh condi (NE s anoth this w There mostl are in replace	decking tion. The side) has er piece rell. The e is mino y minima fair con cement i	g is recommended. There are 2 pile wells (4 moderate wear and in the Employment of the SW side or wear showing on the last to moderate wear well on the bull rails as recommended.	ne roller, guide rails, total) at each end or requires repair to the wear on the piles adjust the gangway has a pilings at the observith the pilings. The tight and the bull	pillo f the e the ace mino rveo deck rails	w blocks and bea e float with 6 piles e well and an addit nt to the gangway or wear but require tide. The 2 end p king and bull rails s on the SW side h	rings are in reasonably good / well. The well next to the gangway tional UHMW rub board and repair to and minimal wear on the others in es repair to the UHMW rub boards. bile wells are in good condition with are old, showing moderate wear but have considerable wear and future
GAN	guide fair co recon	rails in ondition, numeride	good condition. The p the bull rails are tight	illow blocks are rust	y ar	nd the bearings are	s in good condition with a roller and e serviced. The float seems to be in t nothing broken. Pressure washing is
TIONS	<b>√</b> Li	ighting	Approach, wharfhea	d and floats	<b>/</b>	Life Rings / Heaving Lines	good
OTHER INSPECTIONS		xtinguish expiry dat		4 & Feb 2025		Unpaid Moorage	
OMMENTS/INSTRUCTIONS	> Pile > The > Mor > Gan > A life	well rep notice the nitor the ngway A e ring is	ashing as described.  Pair on Float A is requive repair of decking on the wharfly decking is old and repaired for Float A.  On the approach required for the decking is old and repaired for Float A.	or replacement. head and the bull ra placement is recomi			cement.





DA٦		Feb-2024		lope Bay Pender
INS	PECTOR:	Peter Binner	WHARFINGER: F	eter Binner
	Cianaga	Envelope Cumply	Nations Doctor	Detas Pasted
	Signage		Notices Posted	Rates Posted
APPROACH	bull rails red monitored f	quire pressure washing. T or replacement.	here are roughly 12 dec	and flaking off, painting is required. The decking and ck boards that have developing rot and are being he entrance of the approach.
	Signage	✓ Envelope Supply	✓ Notices Posted	✓ Rates Posted
<del> </del>		uire pressure washing an		nd flaking off, painting is required. The decking and ires painting.
WHARF HEAD				ry rusty and the mounting pole for the light head
품		dification for a proper fit o		
₹				
<				
	The gangwa	ev is in fair condition, the r	ailings were painted se	veral years ago and there is rust developing at the
	bottom end	of the structure. The wood	d decking is in reasonal	ole condition. The roller is new along with the pillow
				re is service still left with them. t to the gangway. There is UHMW in good condition
8	and the piles			ear visible. The float is new and there are no issues
[년	to report. Float B has	been having some minor	issues with the transitio	n with Float A. The right amount of space in the
GANGWAY FLOATS				movement of the connecting chains. The issue is there is minimal wear in the wells and to the piles.
8	The decking	and bull rails have been	pressure washed and th	nere are no issues to report.
A				The 2 plates worked on the old Float A but they are sition plate is recommended.
ا ا	Float C has	4 pile wells with 3 piles / v	vell and all wells and pil	es are in good condition with minimal wear visible.
	The bull rails	and decking are pressur	e washed and the bolts	are tight. All the floats look good!
			700 9	
TIONS	✓ Lighting	Working, requires main		fe Rings / good eaving Lines
OTHER	Extinguis (expiry da		U	npaid Moorage
	(CXPIT) G	Alegy		
SNS		tandard requires maintena rinkler stand pipe requires		or the light head to mount properly.
CTIC	> The approx	ach and wharfhead requir		ne requires testing.
TRU		s described is required.  veloping rot with the deck	ing on the approach an	d wharfhead for future replacement.
SNI/			g on the approach an	- mannoau ioi ialano iopiacomonii
COMMENTS/INSTRUCTIONS				
MME				
S				





4-Feb-2024

# Southern Gulf Islands Harbours DOCK INSPECTION REPORT

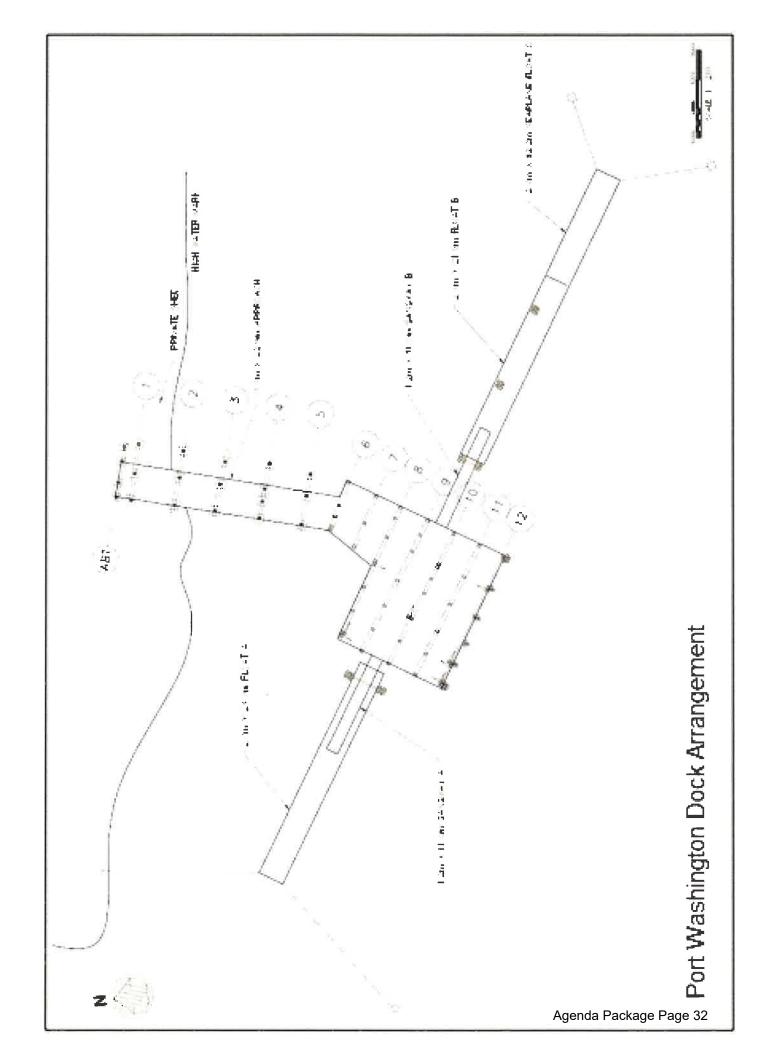
DOCK FACILITY: Port Browning Pender

INS	PECTOR:	Peter Binner	WHARFINGER:	Claude Kennedy	1
APPROACH	pressure replacem	ed railings and bull rails are washing and there are a nu	mber of deck board	nt is flaking off, pain	osted ting is required. The decking requires ot that require monitoring for
WHARF HEAD	Signag N/A	e Envelope Supply	Notices Post	ed Rates Po	sted
GANGWAY FLOATS	area of rolin fair com- Float A ha UHMW in washing. recommer Float B ha minimal w pressure w Float C ha are in fair	at the bottom end. The roll- dition but the bearings requises 2 pile wells with 2 piles / with exemples. The piles appear There is a slight hump and the ded. The decking and bull is 4 wells with 2 piles / well are at the observed tide. The vashing is required.	er is rusty, the guid ire servicing.  well on either side of to have minimal wow wist to the float, the rails are in fair cond and the wells with leedecking and bull to connects to Float tight and the float reservices.	e rails are in fair co of the gangway and ear at the observed ere could be some f dition, bull rail bolts JHMW are in fair con rails are in fair cond B, this condition is equires pressure was	decking is in fair condition with a small ndition and the pillow blocks are also there are old and new pieces of tide. The float requires pressure lotation issues and inspection is are tight. Indition. The pilings are showing dition, bull rail bolts are tight and constant. The decking and bull rails ashing. There are 2 wells with 3piles / wing minimal wear at the observed
OTHER	Lightin  Extings (expiry	ishers Oct 2024	<b>✓</b>	Life Rings / Heaving Lines Unpaid Moorage	good
COMMENTS/INSTRUCTIONS	> Replace	and pressure washing as d rotten notice board. developing rot, for replacem		ards on the approa	ch :

Port Browning Dock Arrangement

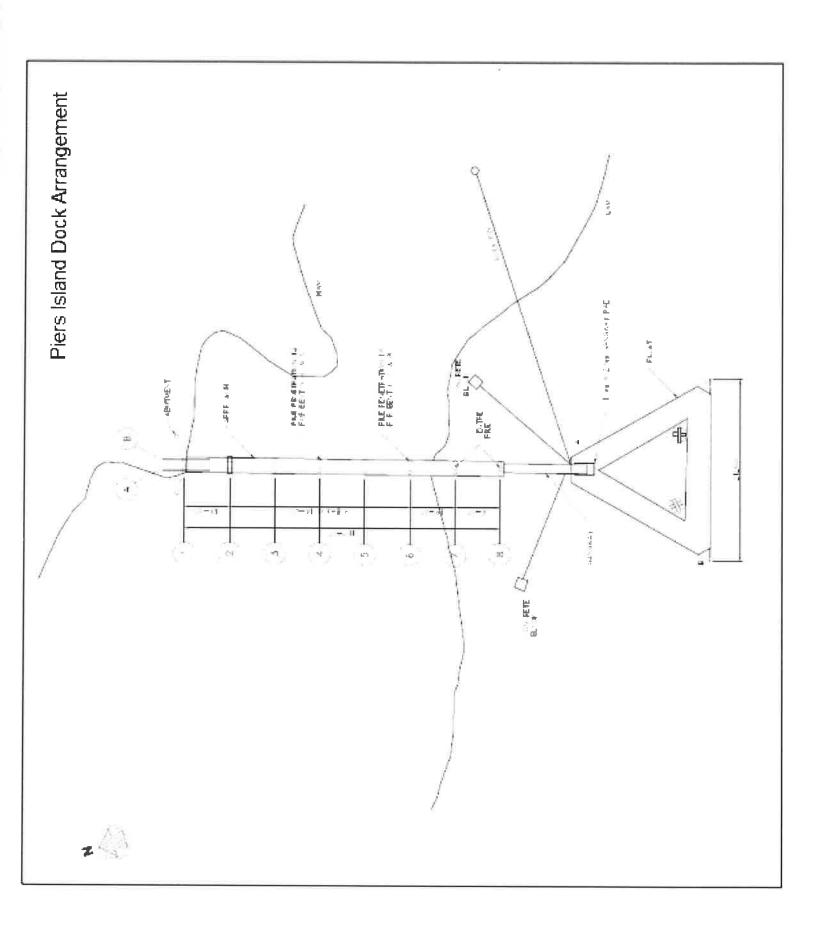


DAT	E: 4-Feb	-2024	DOCK FACILITY:	Port Washing	ton Pender			
INSF	PECTOR: Pet	er Binner	WHARFINGER:	Peter Binner				
APPROACH	✓ Signage ✓ The railings and been pressure was the notice board.	/ Envelope Supply	Notices Postered and along with the nt.	d	good condition. The approach has			
WHARF HEAD								
GANGWAY FLOATS	Gangway A is in reasonably good condition with expected wear for it's age. The railings are freshly painted. The roller and guide rails are in fair condition, the bearings have been serviced. Float A has been pressure washed, the decking looks good along with the bull rails which are all tight. There are 7 missing tires that require replacement in the float plane landing area. Timely replacement is required as this is a safety issue when the plane is landing on the float. The 2 open pile wells, next to the gangway, have 4 piles / well. The UHMW rub boards are in good condition and there is minimal wear or damage on the pilings.  Gangway B is in also in reasonably good condition with age related wear and requires no action. The roller and guide rails are rusty and are providing a reasonable level of service. The pillow block bearings have been serviced. Float B has been pressure washed and looks pretty good for it's age. The bull rails are tight and in fair condition with a few sections with heavy wear and there is a broken bull rail bolt at the shore side end of the float next to the pile well. There are 3 groups of pile wells, the first is at the end the float and straddle either side of the gangway. They are open wells with older UHMW rub boards and there are 2 piles / well. The piles are in fair condition with minimal to moderate wear visible. There are 2 other wells on the float with 4 piles / well and these have older UHMW rub boards. The tide was too high to observe the condition of the piles. Float C is pressure							
٥	7	LED, and all are working		Life Rings /	2 X good			
OTHER	Lighting  Extinguishers (expiry dates)	Nov 2024		Heaving Lines Unpaid Moorage	ZAgood			
OMMENTS/INSTRUCTIONS	> The notice boar	required for the seap rd requires replaceme en bull rail bolt at the	ent.					



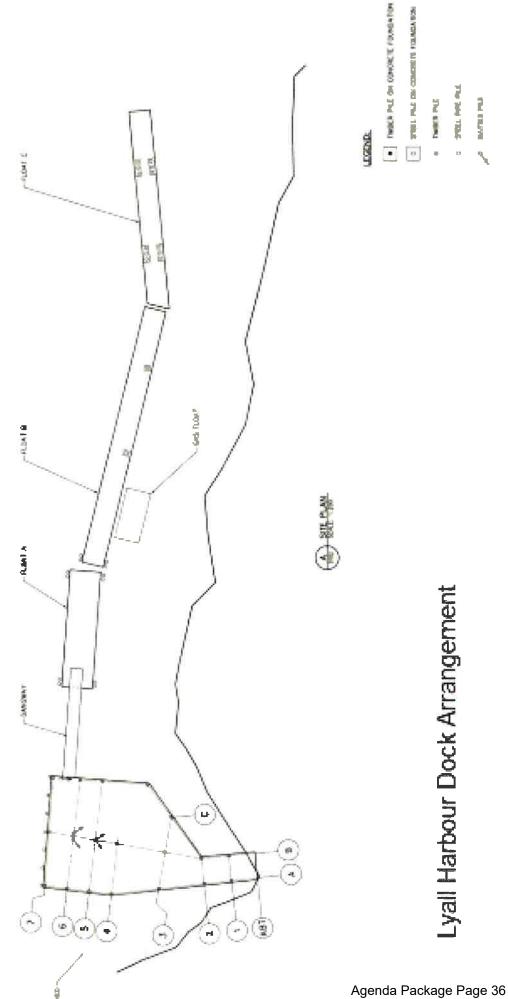


DOCK FACILITY: Piers Island 6-Feb-2024 DATE: **Peter Binner** WHARFINGER: INSPECTOR: Peter Binner **Envelope Supply** Notices Posted Rates Posted Signage The railings and bull rails are unpainted and along with the decking and mud grate, require pressure washing. **APPROACH** There are some minor areas of developing rot with the deck boards and the bull rail. **Notices Posted** Rates Posted Signage **Envelope Supply** N/A WHARF HEAD The gangway is another massive old steel structure with wood decking that is in fair condition with old ladder rungs and the expanded aluminum grating is deteriorating and pieces are breaking off and creating a potential safety hazard. The roller wheels are not serviceable (the bearings are behind the wheels that are welded to the GANGWAY FLOATS axle) but are still functioning. The guide rails are in fair condition. Upgrading the decking with Mini Mesh and or replacing the steel gangway is highly recommended. The float is a one piece triangular structure that is old but is in fair condition. The flotation is very good and the internal open pile wells and pilings have minimal wear visible. The decking is old and in fair condition and has been pressure washed. The bull rails are worn but remain tight. There is a path of expanded aluminum grating providing a non-skid surface on the decking. There are numerous areas that are broken and staples are failing on a regular basis that present a tripping hazard. Mini Mesh decking would resolve this issue. The notice board is located on the float, signage and notices are posted. Life Rings / good Lighting Heaving Lines Extinguishers July 2024 Unpaid Moorage (expiry dates) > Pressure washing as described. **COMMENTS/INSTRUCTIONS** > Upgrading the gangway and the decking on the float is recommended.



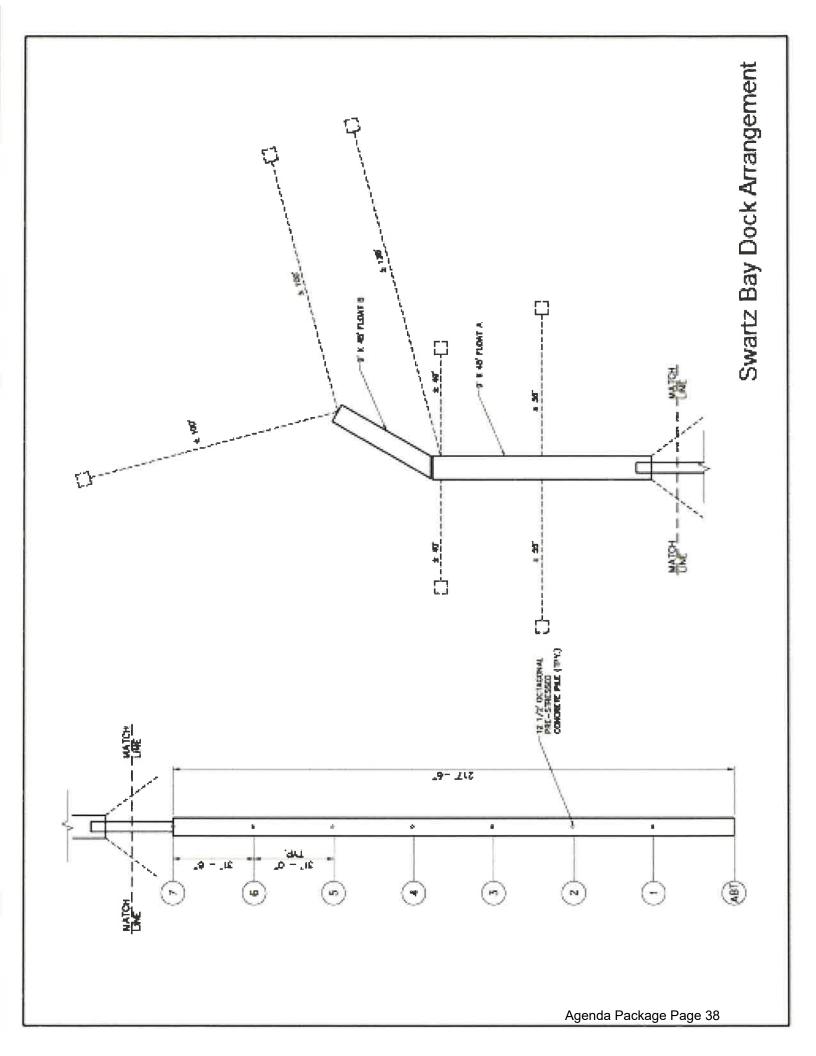


DAT		Feb-2		DOCK FACIL		Lya	II Harbour	Saturna
INSI	PECTOR:	Peter	r Binner	WHARFINGE	R:	Van	essa Verbits	ky
_	Cianogo		Envelope Supply	Notices F	Pooto	٦ ٦	Rates Po	ato d
l _	Signage N/A		Livelope Supply	Ivolices i	OSIC	<u> </u>		sieu
APPROACH	14// \							
§								
ਵ								
₹								
	Signage	<b></b>	Envelope Supply	✓ Notices F	osteo	1 1	✓ Rates Pos	sted
			n good condition with					
HEAD			equires cleaning, pai					
🖫								
WHARF								
₹								
>								
	The transition	n plate	e to the aluminum ga	ingway is rusty	and	requi	res cleaning	and new paint. The gangway is in
85	good conditi	on, the	mini mesh decking,	, bottom transi	tion p	late (	the expanded	d metal grating is orientated in the
GANGWAY FLOATS			effective non-skid) a p of 2 piles in 2 oper					pile in the well next to the kayak float
8								nd group of piles has 3 piles in 2 open e 2 steel pilings appear to be in good
년	condition an	d the a	anodes are about 2 y	ears old. The	float i	s low	in the water	with 5 - 6 inches of rub board
≨			oat has been pressu ed to Float A and a n					n them. The float is low in the water
<u>&amp;</u>	at this point	but ha	s normal height at th	e other end. T	here :	are 2	groups of 3	piles per well (4 total) with all piles
X								V rub boards and replacement of the and rub boards are in good condition.
၂ ဗ	Float C has	a new	transition plate and t	the float has b	een p	ressu	ire washed. 7	The decking and bull rails are in good
	they need to			at plane landin	g are	a and	1 4 tires at the	e end of the float require remounting,
<u> </u>						1.75	D'/	
OTHER	Lighting		Old sodium lights, new LI	ED lights are rec	✓		Rings / ving Lines	2 x good
OTH	Extinguis (expiry da		April 2024			Unpa	aid Moorage	
		/						
NS			requires maintenand transition plate requ		and	DOM:	naint	
Ĕ	> Floats A &	B requ	uire additional flotation	on.	and	iicvv į	Janic.	
]   }			ghts require upgradi ed in the seaplane la		d the	4 tire	s at the end i	require remounting
INS			he old UHMW rub be					
COMMENTS/INSTRUCTIONS								
AME								
ਨੂੰ								





DAT	re: <b>6-Feb-</b>	2024	DOCK FACILITY:	Swartz Bay			
INS	PECTOR: Pete	er Binner	WHARFINGER:	Peter Binner			
APPROACH	The approach is	Envelope Supply a concrete structure versions mended. The aluminu		nd faded red paint that is i	in fair condition. Painting the		
	Signage	Envelope Supply	Notices Poste	Rates Posted			
WHARF HEAD	N/A						
GANGWAY FLOATS	The gangway is the old steel type and is painted. The wood decking is in fair condition but the wooden ladder rungs are in fair to poor condition and the steel expanded metal grating, used as a non-skid, is at the end of it useful life. There are a number of elderly people that use this facility on a regular year round basis and upgrading the gangway surface is highly recommended. The roller and guide rails are rusty but are in fair condition. The pillow blocks are also rusty and the bearings require service. The wood decking has been pressure washed.  Float A is new and is in good condition and has been pressure washed. The lose bull rail bolt has been tightened.  Float B is in reasonably good condition, the decking is in good condition and the bull rails are tight. There is a slight dip at the far end, possibly due to the anchor gear. The metal transition plate between Floats A & B requires new non-skid paint.						
s s	✓ Lighting	working	J	Life Rings / good			
OTHER	Extinguishers (expiry dates)	May 2024	<b>✓</b>		bles chained and locked to the float.		
COMMENTS/INSTRUCTIONS	> The transition pl > Painting the met	angway and the deck ate requires new non tal railings on the app emove the non paying	n-skid paint. proach is recommen	ded.			



# Memorandum Crandum Making a difference...together

**TO:** -- Stephen Henderson

**FROM:** -- Lani O'Dwyer

**DATE:** -- February 12, 2024 **FILE:** 0110-01

2023-857

#### SUBJECT: SUMMARY REPORT FOR RECEIVED INSPECTION REPORTS

#### 1 INTRODUCTION

Pelagic Technologies Inc. was contracted by the Capital Regional District - Integrated Water Services to provide underwater structural inspection services at eight (8) of the CRD Marine facilities. The focus was on the inspection of the mooring systems, and submerged timbers and hardware within the small vessel float substructure and Approaches and Wharf heads. Based upon the inspection findings, a list of recommended repairs and associated costs would be provided.

The inspection was based on Level 1 and 2 (visual & tactile) inspections, backed up by underwater video.

The CRD did change orders to include Miners Bay and Horton Bay Marine facilities inspections, to date the CRD has received 7 final reports, including video. The 7 docks are:

- 1. Port Browing
- 2. Lyall Harbour
- 3. Retreat Cove
- 4. Spanish Hills
- 5. Port Washington
- 6. Piers Island
- 7. Swartz Bay

#### 2 MULTI YEAR FUNDING PLAN (as per reports)

Facility	Year 0-1	Year 1-3	Year 3-5	Total per Facility
Port Browning	\$48,212.00	\$18,353.00	\$9,000.00	\$75,565.00
Lyall Harbour	\$28,925.00	\$38,420.00	\$3,750.00	\$71,095.00
Retreat Cove	\$43,709.00	\$25,000.00	\$3,140.00	\$71,849.00
Spanish Hills	\$ 6,280.00	\$49,140.00	\$3,140.00	\$58,560.00
Port Washington	\$44,842.00 + 3 TBD	\$63,205.00	\$4,500.00 + 1 TBD	\$112,547.00 + 4 TBD
Piers Island	\$ 8,350.00	\$ 5,800.00	\$ 0.00	\$14,150.00
Swartz Bay	\$23,865.00	\$ 1,500.00	\$ 0.00	\$25,365.00
Total	\$204,183.00 + 3 TBD	\$201,418.00	\$23,530 + 1 TBD	\$429,131.00 + 4 TBD

<sup>\*\*</sup> These values only reflect probable costs for materials, not including actual construction costs.

# 3 SUMMARIES OF REPAIRS OR UPGRADES (as per reports)

Facility	Year 0-1	Year 1-3	Year 3-5
Port Browning	Install flange blocks and hardware on all floats.	Replace cross brace on approach/wharf head	Install bearing pile wrap.
Lyall Harbour	Re-install sacrificial anodes on approach/wharf head. Replace flange blocks and hardware on floats and re-install mooring chain.	Replace fender pile on approach/wharf head. Install new flotation on float A, replace flanges and flange hardware on floats.	Review abrasion protection in pile wells and replace flange blocks and hardware on float B
Retreat Cove	Replace bearing and fender piles on approach/wharf head. Replace flange and connection blocks on float A and review abrasion protection	Replace cross bracing on approach/wharf head and install pile wrap on mooring piles.	Replace cross brace on approach/wharf head and reinspect flanges float A.
Spanish Hills	Replace cross brace	Replace 2 piles and wrap piles on approach/wharf head. Replace cross brace and one mooring chain.	Replace cross brace on approach/wharf head.
Port Washington	Repair concrete footings, install pile wrap, replace flange block and hardware, install mooring chain and replace cross brace.	Install pile wrap, replace flange hardware the entire float B and C	Reinspect approach/wharf head and reinspect flange hardware float A.
Piers Island	Wrap pile and replace flange blocks	Replace flange and flange block. Review abrasion protection	Re-inspect
Swartz Bay	Installation of new chains for moorage.	Epoxy crack repair on approach	Nil

# 4 PRIORITIES OF REPAIRS OR UPGRADES (as per reports)

Ranking	Facility	Repairs (0 to 1 year)
1	Retreat Cove	Replace bearing piles on approach/wharf head: Bent 5 Row A – 20% remaining; Bent 5 Row B - 35% remaining; Bent 6 Row A – 35% remaining; Bent 8 Row B – 15% remaining; Bent 10 B-Fender 2 – 10% remaining. Replace flange and connection blocks on float A and review abrasion protection.
2	Lyall Harbour	Re-install sacrificial anodes on approach/wharf head and Float B Group C and D. Replace flange blocks and hardware on float B and re-install mooring chain due to incorrect installation.
3	Port Washington	Concrete footings above water appear to be unstable, should have an engineer review and replace if required. Replace bearing pile at Bent 4 Row A and install pile wrap on mooring piles. Replace cross brace at Bent 3 Row A to B south and Bent 3 Row C to A north. Replace flange and hardware float B and install mooring jump chain on floats A and C.
4	Port Browning	Float A and C replace all flange hardware and install flange blocks.
5	Swartz Bay	Mooring chain Lines 1 to 7 install new chains.
6	Piers Island	Wrap pile and replace flange blocks on float C
7	Spanish Hills	Replace cross braces Bent 2 Row C to A north; Bent 5 Row C to A north.

Ranking	Facility	Repairs (1 to 3 year)
1	Spanish Hills	Replace bearing piles on approach/wharf head: Bent 5 Row A – 50% remaining; Bent 6.9 Row B - 50% remaining. Replace cross brace Bent 9 Row c to A north. Wrap piles. Replace mooring chain line 3.
2	Lyall Harbour	Replace fender pile on approach/wharf head Bent 7 Row B.3. Install new flotation on float A, replace flanges and flange hardware on floats A, B and C.
3	Port Washington	Install pile wrap, replace flange hardware the entire float B and C and some flanges.
4	Retreat Cove	Replace cross brace Bent 4 Row A to B north; Bent 4 Row B to A south; Bent 9 Row A to C south; Bent 9 Row C to A north; Bent 10 Row C to A south. Float A install pile wrap and abrasion protection.
5	Port Browning	Replace cross brace on approach/wharf head Bent 20 A to B east and install wrap Pile A1. Replace flange hardware the entire float B.
6	Piers Island	Replace flange and flange block on float B and C. Treat hole in pile Bent 7 Row C. Review abrasion protection
7	Spanish Hills	Epoxy crack repair on approach.

Ranking	Facility	Repairs (3 to 5 year)
1	Port Browning	Install bearing pile wrap.
2	Port Washington	Reinspect approach/wharf head and reinspect flange hardware float A.
3	Lyall Harbour	Review abrasion protection in pile wells and replace flange blocks and hardware on float B
4	Retreat Cove	Replace cross brace on approach/wharf head and reinspect flanges float A.
5	Spanish Hills	Replace cross brace on approach/wharf head.
6	Piers Island	Re-inspect.
7	Swartz Bay	Nil

For all repairs or replacements similar projects can be put together to form a single project, for example:

- 1. Retreat Cove do all years from 0 to 5 as one project.
- 2. Do all the pile wrapping as one project for all the harbours.
- 3. Some of the repair or replacements may be considered as maintenance and not require a contract to complete the work.

This memo is a brief overview of the inspections that I have received to date and we are anticipating receiving the last of the reports in a timely manner.

Thank you. Lani O'Dwyer Project Technologist