

Harbour Board 19 August 2014

Management Accounts for Harbour Board: 2014/15 – Projected Outturn at Quarter 1	
F-041-F	
Report Presented by Executive Manager - Finance	Corporate Services

1. Summary

- 1.1 The purpose of this report is to enable the Harbour Board to monitor the financial performance of services within its remit to ensure that Members are aware of the forecast income and expenditure and the impact that this will have with regard to delivering the approved budget. This allows the Board the opportunity to provide early instruction to officers to address any forecast overspends in order that the budget is delivered by the year-end.
- 1.2 This report is on the projected outturn position for the 2014-15 year as at the end of the first quarter for revenue and capital. The forecasts have been determined by Finance Services after consultation with the relevant Budget Responsible Officers.
- 1.3 The projected outturn position for Ports & Harbours Operations is an increase in surplus of £142k on revenue and an underspend of £65k on capital.

2. Decision Required

- 2.1 The Harbour Board is asked to RESOLVE to:
 - review the Management Accounts showing the projected outturn position at Quarter 1.

3. Detail

3.1 On 11 December 2013 (SIC Min Ref: 109/13) the Council approved the 2014/15 revenue and capital budgets for the Council (including the General Fund, Harbour Account, Housing Revenue Account and Spend to Save) requiring a draw from reserves of £14.793m. This is still at an unsustainably high level and therefore it is vital to the economic wellbeing of the organisation that the budget is delivered, as any overspends will result in a further draw on reserves.

Revenue – Overall Forecast: Well on track



3.2 The projected revenue outturn position for Ports & Harbours is an increase in surplus of £142k (6%) which means that they are on course to spend less than their Council approved budget.

Capital – Overall Forecast: Well on track



3.3 The projected outturn position on Ports & Harbours' capital project expenditure is an underspend of £65k (6%) which means that they are on course to spend less than their Council approved budget.

4. Implications

Strategic

4.1 <u>Delivery On Corporate Priorities</u>

There is a specific objective within the Corporate Plan to ensure that the Council is "living within our means" with a range of measures which will enable the Council to achieve financial sustainability over the next four years, and line up spending with priorities and continue to have significant reserves.

The Medium Term Financial Plan also includes a stated objective to achieve financial sustainability over the lifetime of the Council.

4.2 <u>Community /Stakeholder Issues</u> – None.

4.3 Policy And/Or Delegated Authority

Section 2.1.2(3) of the Council's Scheme of Administration and Delegations states that the Board may exercise and perform all powers and duties of the Council in relation to any function, matter, service or undertaking delegated to it by the Council. The Council approved both revenue and capital budgets for the 2014/15 financial year. This report provides information to enable the Board to ensure that the services within its remit are operating within the approved budgets.

4.4 Risk Management

There is a risk that revenue services and capital projects will not be delivered within the approved 2014/15 budget resulting in an additional draw on reserves, which is unsustainable. Failure to deliver the 2014/15 budgets may result in the Council failing to deliver its Corporate Plan and Medium Term Financial Plan.

- 4.5 Equalities, Health And Human Rights None.
- 4.6 Environmental None.

Resources

4.7 Financial

The 2014/15 Council budget is not sustainable because it requires a draw on reserves in excess of the returns that the fund managers can make on average in a year.

For every £1m of reserves spent (in excess of a sustainable level) it will mean that the Council will have to make additional savings of £50,000 each year in the future as a result of not being able to invest that £1m with fund managers to make a return.

It is therefore vital that the Council delivers its 2014/15 budget, as any overspend will result in a further unsustainable draw on reserves which will have the long term consequences as explained above.

- 4.8 <u>Legal</u> None.
- 4.9 <u>Human Resources</u> None.
- 4.10 Assets And Property None.

5. Conclusions

5.1 The projected outturn position for the services under the remit of the Harbour Board is an increase in surplus of £142k on revenue and an underspend of £65k on capital projects.

For further information please contact:

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List of Appendices

Appendix 1 – F-041 – Projected Revenue Outturn Position 2014/15 Appendix 2 – F-041 – Projected Capital Outturn Position 2014/15

Background documents:

SIC Budget Book 2014-15, SIC 11 December 2013

http://www.shetland.gov.uk/coins/submissiondocuments.asp?submissionid=15444

1. Projected Revenue Outturn Position 2014/15

Description	Annual Budget 2014/15 £000	Outturn 2014/15	Proj. Outturn
Ports Management Sullom Voe Scalloway Other Piers Terminals	27 (428) (178) 477 (2,260)	27 (470) (249) 448 (2,260)	0 42 71 29 0
Total Controllable Costs	(2,362)	(2,504)	142

An explanation for the main variances by service is set out below.

1.1 Ports Management – projected outturn breakeven



1.2 Sullom Voe – projected outturn underspend of £42k (10%)



This underspend mainly relates to increased costs on Dunter & Tystie Drydocks (£142k) offset by fuel costs less than budget set by £238k.

1.3 Scalloway – projected outturn underspend of £71k (40%)



This underspend relates to increased income from plant hire for the barge at Scalloway £19k and additional annual dues and storage charge income £50k.

1.4 Other Piers - projected outturn underspend £29k (6%)



This underspend is due to increased income at Cullivoe Pier from annual dues, storage charges and fish landing dues.

1.5 Terminals – projected outturn breakeven



2. Projected Capital Outturn Position 2014/15

Description	Annual Budget 2014/15 £000	Outturn 2014/15	Proj. Outturn Variance (Adv)/ Pos
Ports & Harbours	1,005		
Total Controllable Costs	1,005	940	65

2.1 Ports & Harbours Operations – projected outturn underspend £65k (6%)



The outturn variance relates to underspending on Toft and Ulsta Terminal works £80k, offset by the Tugs for Sellaness project which is projected to be overspent by (£15k) in relation to legal fees which were not budgeted.

Harbour Board 19 August 2014

Pilotage Accounts for Harbour Board: 2014-15 - Quarter 1 (April – June 2014)	
F-040-F	
Report Presented by Executive Manager - Finance	Corporate Services

1.0 Summary

- 1.1 The purpose of this report is to enable the Harbour Board to monitor the financial performance of the pilotage services provided by the Council.
- 1.2 This report is on the projected outturn position for the 2014/15 year as at the end of the first quarter. The forecasts have been determined by Finance Services after consultation with the relevant Budget Responsible Officers.
- 1.3 The projected outturn position shows an overspend of £11k against annual budget resulting in a overall net surplus of £83k.

2.0 Decision Required

- 2.1 The Harbour Board is asked to RESOLVE to:
 - Review the Pilotage Accounts showing the projected outturn position at Quarter 1.

3.0 Detail

- 3.1 There is a requirement to prepare accounts relating to pilotage under Section 14 of the Pilotage Act 1987.
- The details of what must be included in these accounts are set out in regulations (The Statutory Harbour Undertakings (Pilotage Accounts) (Regulations) 1988, SI 1988/2216).

The accounts must show the details of:

- revenue from pilotage charges and details of the use of pilotage exemption certificates; and
- total expenditure incurred in providing the service of a pilot, providing, maintaining and operating any pilot boats and administrative or other associated costs.
- 3.3 These accounts must be available for inspection by the public at the harbour authority's offices. Members of the public shall be able to buy a copy for a reasonable fee.
- 3.4 The Council is also under a duty to keep accounts in respect of the "harbour undertaking" in accordance with section 65 of the Zetland County Council Act 1974, (ZCC Act). Pilotage is part of the harbour undertaking and as such should appear in those accounts. Any surplus on the harbour undertaking is credited to the Reserve Fund set up under Section 67 of the ZCC Act.
- 3.5 The Pilotage Accounts for the period 1 April 2014 to 30 June 2014 are attached as Appendix 1.

4.0 Implications

Strategic

- 4.1 <u>Delivery On Corporate Priorities</u>
 - This report contributes to the Corporate Plan by ensuring that goodquality information is provided regularly.
- 4.2 <u>Community /Stakeholder Issues</u> None.
- 4.3 Policy And/Or Delegated Authority
 - Section 2.1.2(3) of the Council's Scheme of Administration and Delegations states that the Board may exercise and perform all powers and duties of the Council in relation to any function, matter, service or undertaking delegated to it by the Council; more specifically referred to in paragraph 2.7.
- 4.4 Risk Management Failure to keep Pilotage Accounts would place the Council in breach of its legal duties.
- 4.5 Equalities, Health And Human Rights None.
- 4.6 Environmental None.

Resources

4.7 Financial

4.7.1 The Pilotage Accounts for the first three months show an overspend of £6k against year to date budget which mainly relates to the reduction in tanker income offset by minor underspends across expenditure to date.

- 4.7.2 The projected overall outturn position shows an overspend of £11k (11%) against annual budget. This mainly relates to projected additional Marine Officer overtime costs which were not budgeted.
- 4.8 <u>Legal</u> The Council has statutory obligations to keep separate accounts in respect of the harbour undertaking and also separate pilotage accounts. Section 3(1) of the ZCC Act states that the harbour undertaking means "the harbour undertaking for the time being of the Council authorised by this Act". This means that the harbour undertaking must be considered only in terms of what the Council is authorised or duty bound to do under the ZCC Act. Pilotage is part of the harbour undertaking and income and expenditure is accounted for accordingly.
- 4.9 Human Resources None.
- 4.10 Assets And Property None.

5.0 Conclusions

5.1 This report presents the 2014/15 Quarter 1 Pilotage Accounts to the Board for review. The projected outturn position is an overspend of £11k against budget which results in an overall net surplus of £83k.

For further information please contact: Brenda Robb, Management Accountant 01595 744690 brenda.robb@shetland.gov.uk

List of Appendices

Appendix 1 – 2014/15 Quarter 1 Pilotage Accounts

Background documents:

None

END

	Sullom Voe Year to Date				Scalloway Year to Date			Overall ear to Date		Overall Projected Outturn			
	Year to Date Budget	Year to Date Actual	Variance (Adv)/Fav	Year to Date Budget	Year to Date Actual	Variance (Adv)/Fav	Year to Date Budget	Year to Date Actual	Variance (Adv)/Fav	Annual Budget	Projected Outturn	Variance (Adv)/Fav	
Charges in respect of :	£	£	£	£	£	£	£	£	£	£	£	£	
Boarding & Landing	-107,290	-94,849	(12,441)	-2,655	-6,064	3,409	-109,945	-100,913	(9,032)	-458,119	-460,618	2,499	
Pilotage Services provided as authorised by section 10(1) of the Pilotage Act 1987	-249,475	-235,867	(13,608)	-12,069	-13,087	1,018	-261,544	-248,954	(12,590)	-1,095,476	-1,095,476	0	
Use of PEC issued as authorised by section 10(3) of the Pilotage Act 1987	0	0	0	0	0	0	0	0	0	0	0	0	
TOTAL INCOME	-356,765	-330,716	(26,049)	-14,724	-19,151	4,427	-371,489	-349,867	(21,622)	-1,553,595	-1,556,094	2,499	
Boarding & Landing	102,233	100,196	2,037	698	595	103	102,931	100,791	2,140	412,526	412,477	49	
Pilotage	173,048	163,304	9,744	5,634	3,416	2,218	178,682	166,720	11,962	716,206	741,726	(25,520)	
Sub-Total Employee Costs	275,281	263,500	11,781	6,332	4,011	2,321	281,613	267,511	14,102	1,128,732	1,154,203	(25,471)	
Boarding & Landing	2,309	956	1,353	234	3	231	2,543	959	1,584	10,287	10,287	0	
Pilotage	1,122	846	276	30	298	(268)	1,152	1,144	8	4,611	4,916	(305)	
Sub-Total Supplies & Services	3,431	1,802	1,629	264	301	(37)	3,695	2,103	1,592	14,898	15,203	(305)	
Boarding & Landing	19,790	12,330	7,460	2,594	1,746	848	22,384	14,076	8,308	107,876	97,780	10,096	
Pilotage	559	289	270	6	0	6	565	289	276	3,223	2,718	505	
Sub-Total Transport & Mobile Plant	20,349	12,619	7,730	2,600	1,746	854	22,949	14,365	8,584	111,099	100,498	10,601	
Boarding & Landing	1,069	830	239	0	0	0	1,069	830	239	6,527	6,527	0	
Pilotage	162	245	(83)	2	0	2	164	245	(81)	658	632	26 26	
Sub-Total Property & Fixed Plant	1,231	1,075	156	2	0	2	1,233	1,075	158	7,185	7,159	26	
Meeting Liabilities under Part III of the Act	0	0	0	0	0	0	0	0	0	0	0	0	
Boarding & Landing	1,115	17,686	(16,571)	54	10	44	1,169	17,696	(16,527)	126,311	124,969	1,342	
Pilotage	10,941	1,658	9,283	1,379	2,677	(1,298)	12,320	4,335	7,985	71,753	71,207	546	
Sub-Total Admin and Other Costs	12,056	19,344	(7,288)	1,433	2,687	(1,254)	13,489	22,031	(8,542)	198,064	196,176	1,888	
TOTAL EXPENDITURE	312,348	298,340	14,008	10,631	8,745	1,886	322,979	307,085	15,894	1,459,978	1,473,239	(13,261)	
NET TOTAL	-44,417	-32,376	(12,041)	-4,093	-10,406	6,313	-48,510	-42,782	(5,728)	-93,617	-82,855	(10,762)	

19 August 2014

Ports and Harbours Service Plan Performance Report 3 Month / 1 st Quarter 2014/15							
PH-23-14F							
Executive Manager- Ports & Harbours	Infrastructure Services Department						

1.0 Summary

1.1 This report summarises the activity and performance of the Ports and Harbours Service for the reporting period above. Progress reports are submitted to the Harbour Board on a quarterly basis to allow Members to monitor the delivery and progress of the plan.

2.0 Decisions Required

2.1 The Harbour Board should discuss the contents of this report and make any relevant comments on progress against priorities to inform further activity within the remainder of this year, and the planning process for next and future years.

3.0 Detail

- 3.1 Progress against the action plan key aims, objectives and actions, core performance measures and key risk management activities of the Service is set out in Appendices to this report.
- 3.2 The Harbour Board is invited to comment on any issues which they see as significant to sustaining and improving service delivery.

4.0 Implications

<u>Strategic</u>

- 4.1 <u>Delivery On Corporate Priorities</u> Effective Planning and Performance Management are key features of the Council's Improvement Plan.
- 4.2 <u>Community /Stakeholder Issues</u> Consultation with customers and other stakeholders is on-going as an integral part of each aspect of service delivery.
- 4.3 Policy And/Or Delegated Authority -

- 4.3.1 The Council's Constitution Part C Scheme of Administration and Delegations provides in its terms of reference for Functional Committees (2.3.1 (2)) that they:
 - "Monitor and review achievement of key outcomes in the Service Plans within their functional area by ensuring –
 - (a) Appropriate performance measures are in place, and to monitor the relevant Planning and Performance Management Framework.
 - (b) Best value in the use of resources to achieve these key outcomes is met within a performance culture of continuous improvement and customer focus."
- 4.4 Risk Management Embedding a culture of continuous improvement and customer focus are key aspects of the Council's improvement activity. Effective performance management is an important component of that which requires the production and consideration of these reports. Failure to deliver and embed this increases the risk of the Council working inefficiently, failing to focus on customer needs and being subject to further negative external scrutiny.
- 4.5 Equalities, Health And Human Rights None.
- 4.6 Environmental None.

Resources

- 4.7 <u>Financial</u> The actions, measures and risk management described in this report will been delivered within existing approved budgets and are aimed at ensuring delivery of the Council's agreed budget strategy.
- 4.8 <u>Legal</u> None.
- 4.9 <u>Human Resources</u> None.
- 4.10 <u>Assets And Property</u> None.

5.0 Conclusion

5.1 The Ports and Harbours Service Plan is the key performance management document for the Service. It sets out our aims, objectives and actions for the year. This report demonstrates good progress against the priorities identified in the Service Plan.

For further information please contact:

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6 August 2014

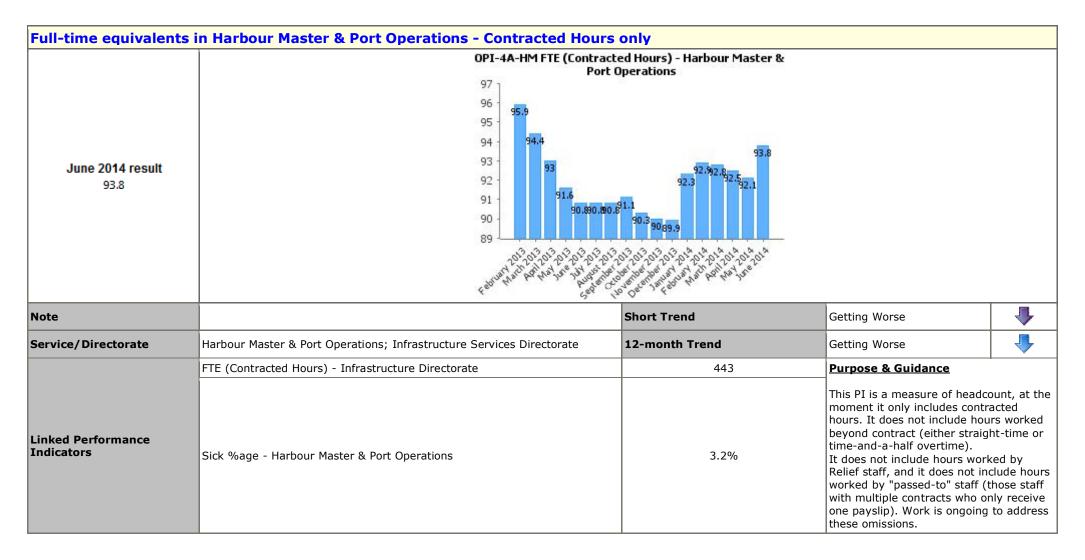
List of Appendices

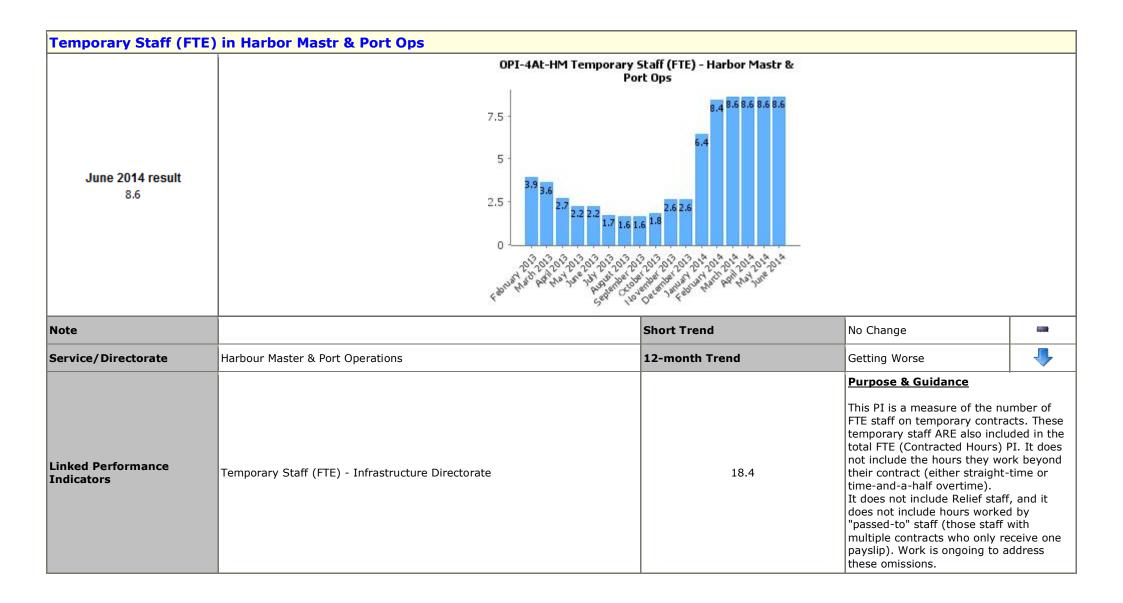
Appendix 1 – Ports and Harbours Service Plan

Monthly Performance Indicators - Harbour Master & Port Operations

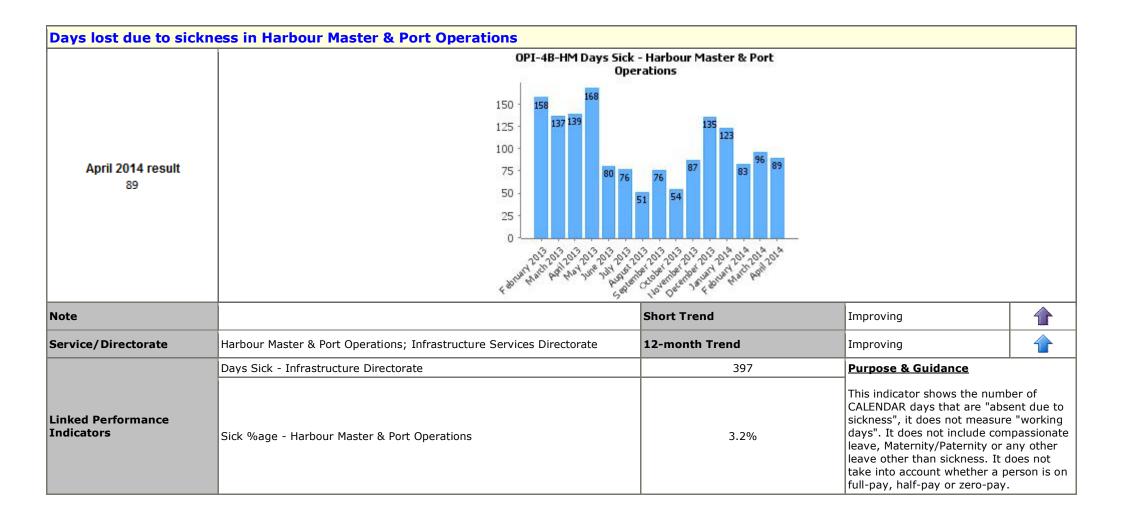


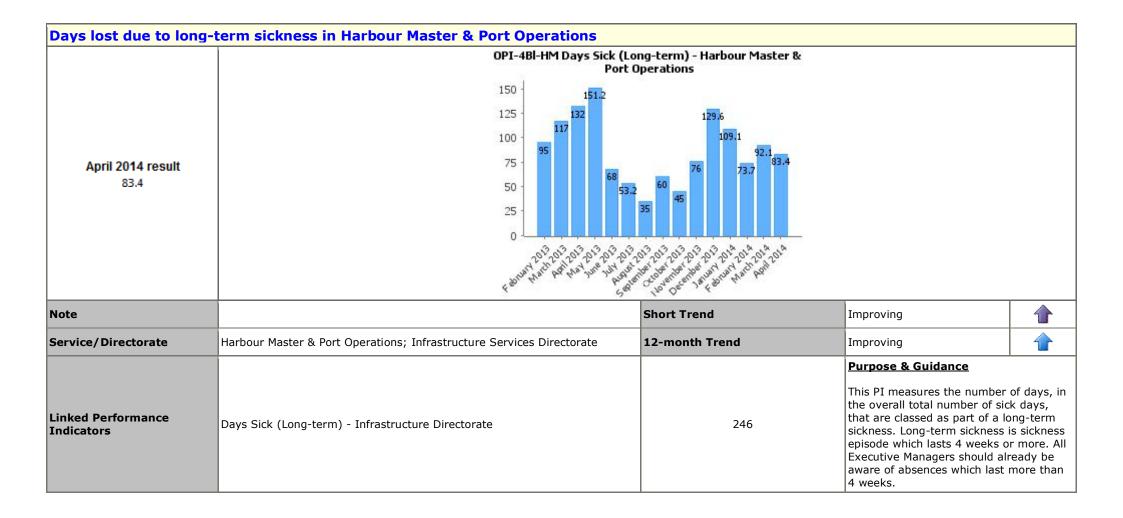
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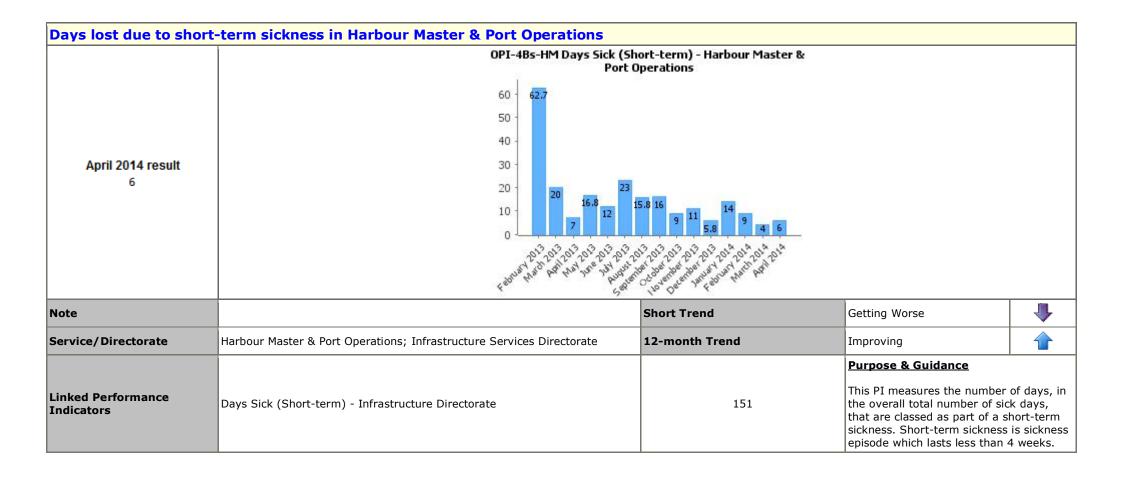


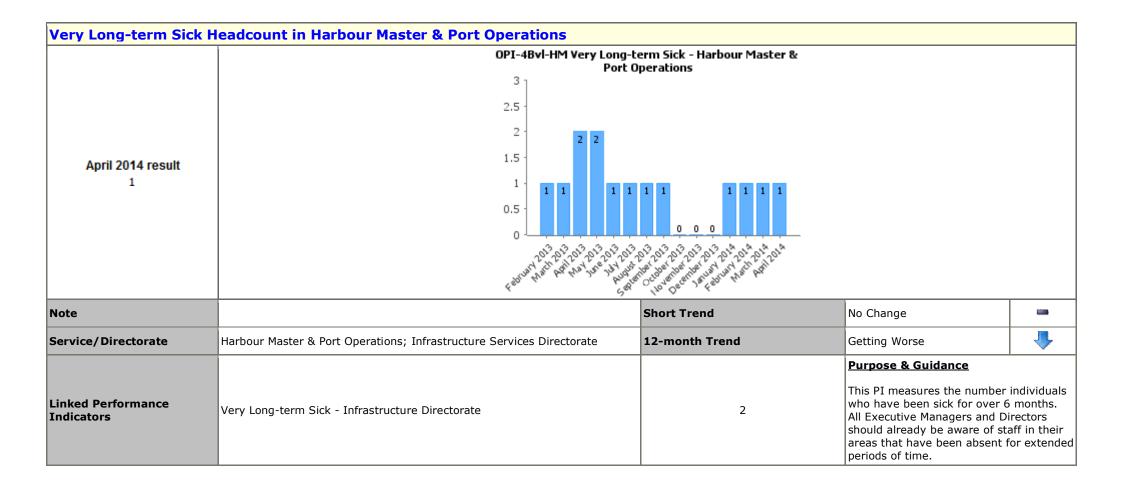


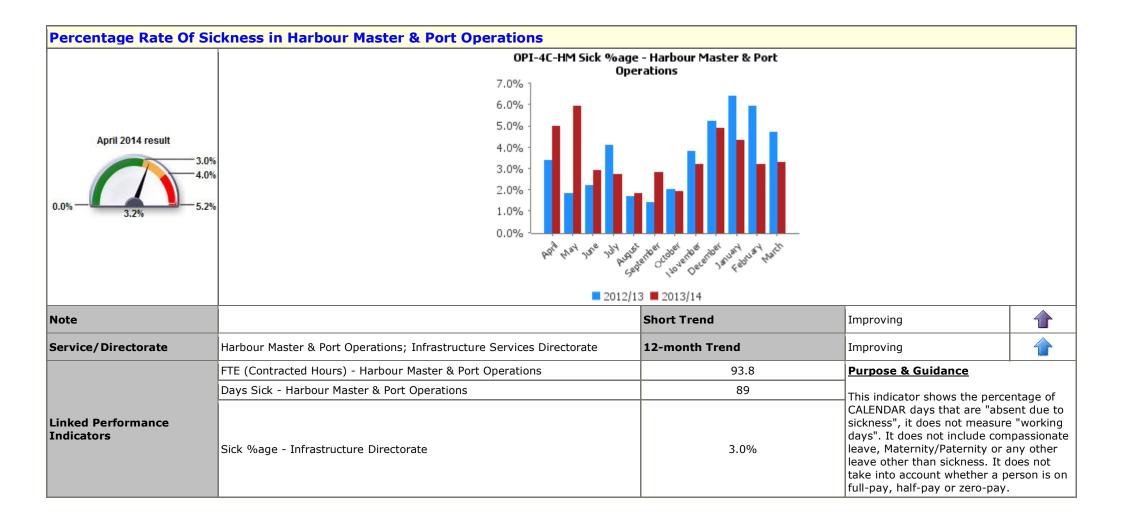
Temp Contracts Endin	g in Harbor Mastr & Port Ops									
	OPI-4Atl-HM Temp Contracts Ending - Harbor Mastr & Port Ops									
July 2015 result 0	4 3.5 - 3 - 2.5 - 2 - 1.5 - 1 - 0.5 - 0									
Note		Short Trend	No Change							
Service/Directorate	Harbour Master & Port Operations	12-month Trend	No Change	-						
Linked Performance Indicators	Temp Contracts Ending - Directorate - Infrastructure Services	0	Purpose & Guidance This PI shows when currer contracts are due to end. temporary staff ARE includents (Contracted Hours) PI	These ded in the total						

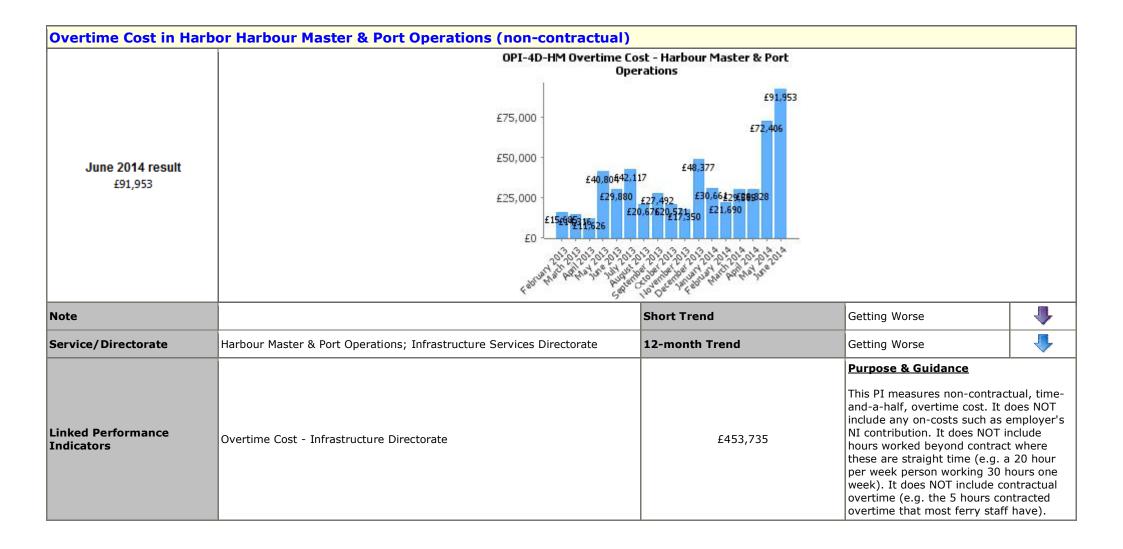


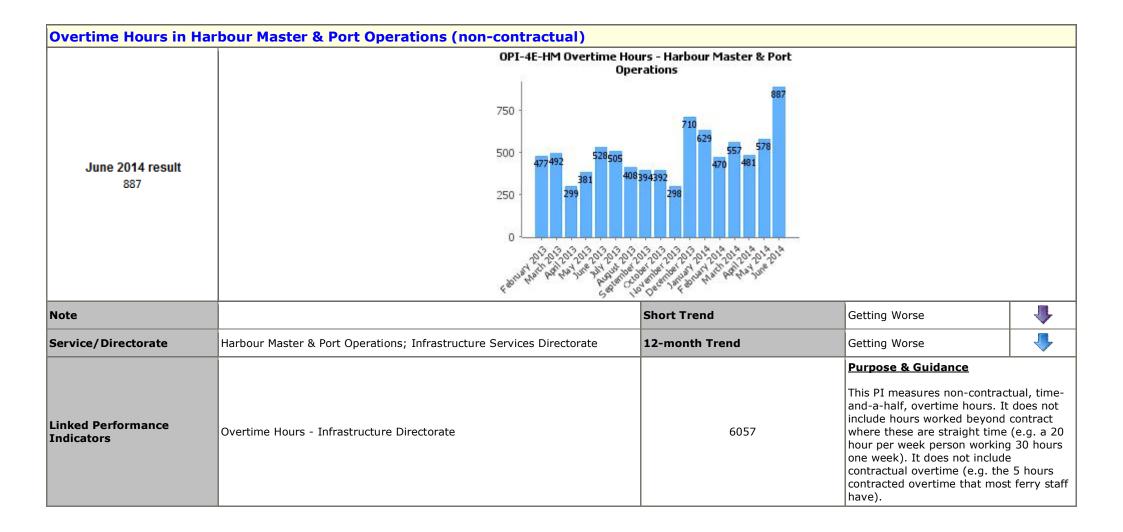


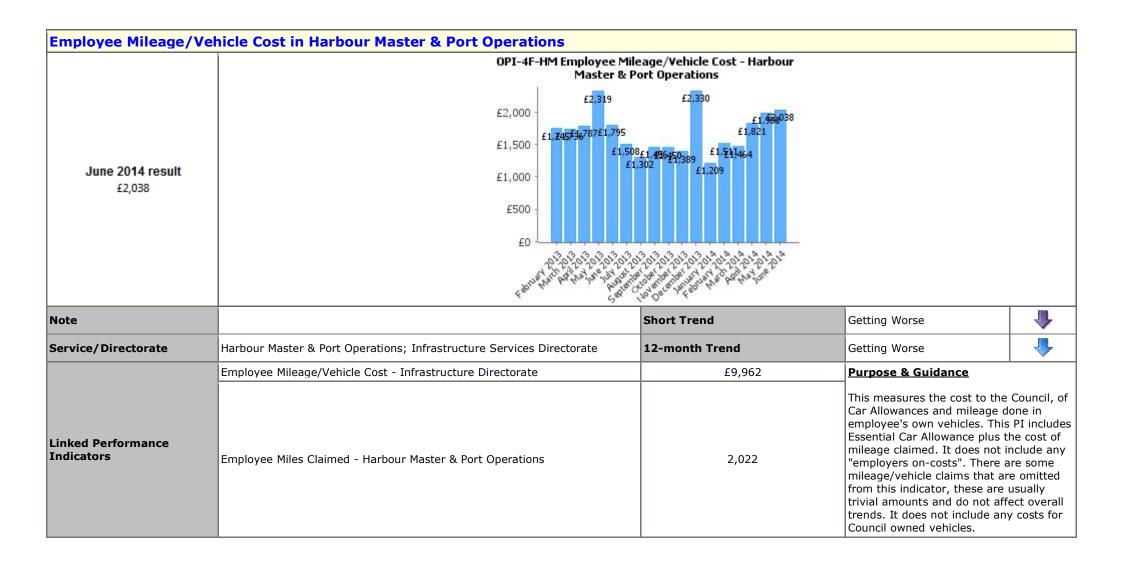


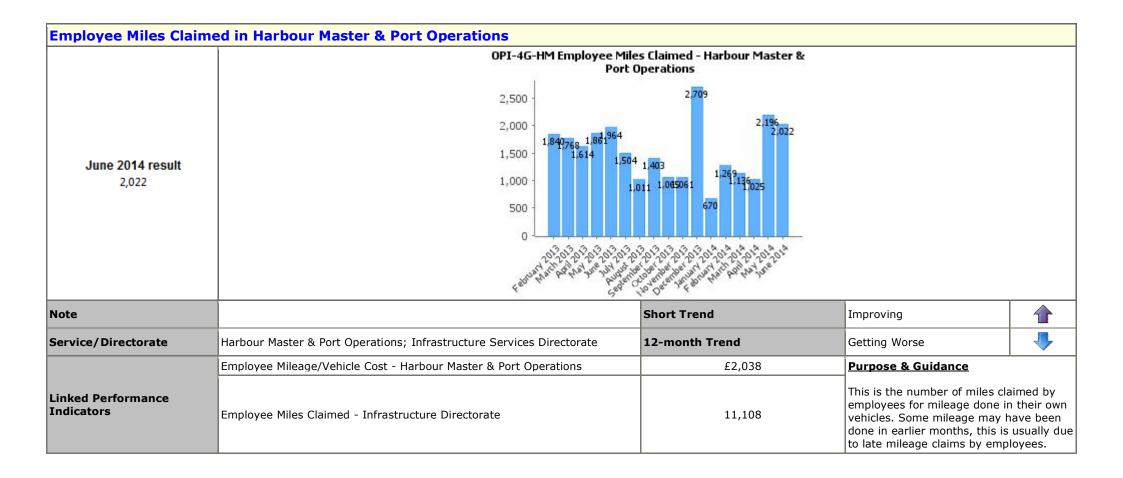












	Service	Ports An	d Harbours														
	Section Purpos	se "Securing	The Best For Shetland" by;	Best Value Toolkits /	Best Value Toolkits / Indicator Guidance Responsible Officers												
	Providing Safe, Con	nplaint and E	efficient Ports and Harbour Service	es Port and Marine Safet	y Code, SOLAS, IMO	Paul Bryant - Executive Manager - Ports and Harbours Colin Reeves - Harbour Master Andrew Inkster - Port Engineering Team Leader tba - Marine Engineering Team Leader Peter Morgan - Deputy Harbour Master/Operations Manager Sheena Summers - Business Support Manager											
Service Action Plan Note each Action/Objective should be SMART e.g. Specific - (says what the team will do/deliver). Measurable - (shows how you are going to measure the achievement). Attainable - (accomplishin and relevant). Time Bound - (specify when the action/objective needs to be completed.								omplishing	the objective is within the teams realm of aut	hority and capabilities).	<u>R</u> ealistic - (I	the objective,	action is p	oractical, re	sults orient	ated, deliverable	
Business Activity Ref	Business Activity	Action Ref	Outcome for the Customer	Objective	Action	Alignmen	with Corpo	orate Plans	Targets	Time Scales	Progress				Resources		
						SOA Ref	IP Ref	CP Ref			Q1	Q2	Q3	Q4	FTE	Budget	
			Port remains safe and compliant with PMSC	To ensure succession planning in view of age profile of existing pilots	Consider training of new pilots				Succession Plan In Place	Jan-15							
PHA1	Pilotage Operations, Sullom Voe		Port remains safe and compliant with PMSC	Provide a reliable service	Provide ongoing Pilotage service on request.				95% of service requests met	Mar-15	g				6.93	-£301,081	
			Port remains safe and compliant with PMSC	Ensure trained and competent Pilots	Undertake VTS and pilotage refresher training				Training completed	Mar-15	g g						
PHA2	Pilotage operations, Scalloway		Port remains safe and compliant with PMSC	Provide a reliable service	Provide ongoing Pilotage service on request.				95% of service requests met	Mar-15	g g				0.07	-£36,132	
PHA3	Towage services, berthing, sailings, push-up, fire and stand-		Adequate resources for customers with appropriate contingency	Bring Solan and Bonxie into full service	Address directional stability issues with Solan and Bonxie.				Vessels Re Introduced	Jun-14	l g				40.83	£2,743,510	
1112	by		Port remains safe and compliant with PMSC	Provide a reliable service	Ensure availability of 4 tugs for harbour operations				95% of service requests met	Mar-15	5 g				40.03	12,743,510	
PHA4	Mooring / pilot boat activities including mooring, unmooring		-	To reduce the difficulties associated with shift change over's	Review System of work to ensure availability of launch service				Improved system of work agreed and implemented	Oct-14	l a				16.00	£230,091	
	and pollution monitoring		Reliable pilotage service	Provide a reliable service	Ensure availability of Launch Service				95% of service requests met	Mar-15	5 g				10.00	1230,031	
PHA5	Operation of Scalloway port, including Fish Market and pilot			Increase Income and safeguard employment opportunities for the future	Implement recommendations of the business development plan for Scalloway				Primary recommendations implemented or reported to Harbour Board / Gateway process as applicable	Mar-15	g g				7.63	-£141,526	
- FIIA3	support			Ensure continued safe and efficient operation in line with PMSC	Conclude and Implement Navigational Risk Assessment and SMS review				Revised SMS and Risk Assessments implemented	Jun-14	l a				7.03	-1141,320	
PHA6	SV Harbour Ops inc VTS		-	Ensure continued safe and efficient operation in line with PMSC	Conclude and Implement Navigational Risk Assessment and SMS review				Revised SMS and Risk Assessments implemented	Jun-14	l a				5.00	.f/ 375 595	
- FIIAO	SV Harbour Opsilic V15		Port remains safe and compliant with PMSC	Provide a reliable service	Ensure Availability of VTS service				100% availability	Mar-15	g g				-£4,325,585		
РНА7	Support services, including accounts and reception		Creditors and Debtors receive a good service	Provide a clear picture of the financial position of the service	Ensure timely processing of financial records				95% of invoices paid within 30 days	Mar-15	g g						
			Reduced cost of operation and employment opportunities maximised.	Increase Income and safeguard employment opportunities for the future	Develop and Commission a long term business development plan for Sullom Voe				Consultants commissioned by Dec 13, Study Completed by May 14 Reported to Harbour Board by July 14	Jul-14	l a						
DUAG	Management function, including Harbourmaster, Port		Port remains safe and compliant with PMSC	Ensure trained and competent management staff (Harbourmaster and Deputy Harbourmaster	Ensure plans are in place to cover retirement of current HM and future retirement of DHM	- 27			New Harbourmaster to be in post to allow appropriate hand-over	Feb-15	5 g						

FIIAO	Engineer, Engineer Superintendent etc		Port is compliant with Council policies on purchasing	All contracts are Council procure		All contracts are let in line with Council procurement procedures				All contracts are compliant		Aug-14	a						
			Customers have easy access to information regarding facilities	Increase use of	facilities	Develop and Implement Marketing strategy using web site and social media where appropriate				Marketing strategy implemented		Mar-15	g						
PHA9	Jetty maintenance		Jetties are operational	Jetties continue required standa		Monitor effectiveness of contract for Jetty Maintenance				Monitor effectiveness of contract Maintenance	for Jetty	Mar-15	g				3.16	£0	
FILAS	Jetty maintenance		Jetties are operational	Jetties continue required standa		undertake life extension works to jetty structures				Life extension works completed or	n jetty 3	Dec-14	g				3.10	10	
PHA10	Maintenance other than tugs			To reduce the n the Service		Review Balta Sound small craft berthing facility				Review recommendations reporte Harbour Board	ed to	Jun-14	a						
PHA11	Maintenance Team		Small ports and piers remain safe and operational where economical and appropriate.		dentified and risks are e with available	Develop a 10 year asset management strategy and programme for small Ports and Piers				Strategy and programme reported	d to Council	Mar-15	g				5.63	£492,079	
PHA 12	Small ports		In the long term this should lead		nd appropriately	Transfer small dock at Symbister to Shetland Amenity Trust				Complete Transfer		Jun-14	r						
PHA13	Building maintenance, SV		effective and Efficient Manner	To Identify syne Infrastructure So effective and ef	Services to deliver	Monitor Building Maintenance				Monitor Building Maintenance		Mar-15	g				3.59	£319,327	
PHA14	Maintenance, other such as nav		Improved reliability in the longer term		with modern LED	Progress discussions with supplier with a view to preparing an application for Capital funding				Complete Gateway process for consideration in a future years capital programme		Nov-14	g				3.77	£453,912	
	aids etc		Improved reliability in the longer term		dar system obsolete Obtain proposals for Complete Gateway process for consi longer manufactured. replacement within next 5 years in a future years capital programme			Dec-14	g										
PHA15	Maintenance, plant and vehicles			To maintain the the vessel	e life expectancy of	Shot Blast and Paint one mooring boat				works completed		Mar-15	g				3.59	£242,550	
PHA16	Sella Ness Kitchen				ff without providing	Ensure that Kitchen operates without subsidy				Kitchen breaks even		Mar-15	g				1.10	£26,589	
Progress Tra	acker:										Total	Red Amber	6	0	0	0			
Actions and	commitments required from oth	ner sections	or partners to deliver improveme	nts								Green	20	0	0	0			
			or partition to active improvement																
Risk Reg	gister (From JCAD)																		
Gross Risk Profile	Uncontrolled Risk Rating	Residual Risk Profile	Current Risk Rating	Risk Ref		Risk			Det	tails	Responsible Officer		Control Measure				% Complete		
High	12	Medium	6	PENE0001 F	Plant/Equipment - bi	reakdown/failure disruption	Non availa	ability of Je	tty moorir	ng gear	A	ndrew Inkster							
	0	Medium	9	PENE0008 F						lation, etc including working have to work excessive hours	А	ndrew Inkster							
	0	High	5	P0001 E	Escape of pollutant		Safety Management System, Vessel Traffic Service, Compulsory pilotage, Qualified and competent staff		C	Colin Reeves									
	0	Medium	9	P0005	Staff number/skills shortage		Service relies on a range of specialist staff with different skills, experience and qualifications		C	Colin Reeves									
	0	Medium	6		Storm, Flood, other etc			C	Colin Reeves										
	0	Medium	8	P0016 E	Budget control failur	е	Loss of inc	come			C	Colin Reeves							

0	Medium	9	P0017	Watercraft	New tugs have directional stability issue.	Colin Reeves	
0	Medium	6	P0022	Loss of IT facilities	ICT link is between Sellaness and Lerwick, and had been known to fail for up to two days. Service relies on ICT link for email, forecasts, etc to deliver service to customers safely, communicate with customers etc	Colin Reeves	
0	Medium	9	P0025	Breach of Legislation - Data Protection, Human Rights, Employment Practice, Health and Safety etc	Service must work within legislation, etc including working time directive. Staff sometimes have to work excessive hours	Colin Reeves	
0	Medium	4	P0026	Fire, lightning, aircraft, explosion	Staff transfer using helicopters, take off and land at Sellaness and work with pilot boats	Colin Reeves	
0	Medium	6	P0027	Loss of IT facilities	ICT link is between Sellaness and Lerwick, and had been known to fail for up to two days. Service relies on ICT link for email, forecasts, etc to deliver service to customers safely, communicate with customers etc	Colin Reeves	
0	Low	3	P0028	Terrorism/Activists	Port services cover a large geographic, dispersed area which cannot have 24 hour security. Ships are often unmanned	Colin Reeves	
0	Medium	6	P0029	Storm, Flood, other weather related, burst pipes etc	Service manages ports, in northerly location which has frequent severe weather	Colin Reeves	
0	Medium	4	P0030	Professional Errors and Omissions	Service requires various certificates of compliance to operate tugs and ports.	Colin Reeves	
0	Medium	9	P0031	Staff number/skills shortage	Port service requires minimum numbers of staff for certain activities and to ensure compliance	Colin Reeves	
0	Medium	9	P0032	Industrial action	Current terms and conditions being reviewed and negotiated for Office, marine and other staff Tugs and pilot staff under review	Colin Reeves	
0	High	5	P0033	Physical - People / Property - Other	Many ships/ vessels use the port, much of the larger area is of special interest or protected	Colin Reeves	
0	Medium	8	P0035	Failure of Key supplier	Port operations rely on various suppliers and services including fuel, key components, sub-contractors	Colin Reeves	
0	Low	3	P0045	Storm, Flood, other weather related, burst pipes etc		Colin Reeves	

19 August 2014

Capital and Revenue Project Progress Report							
PH-19-14F							
Team Leader – Port Engineering	Infrastructure Services Department						

1.0 Summary

1.1 This report updates the Board on progress of capital and revenue projects for Ports & Harbours Operations.

2.0 Decision Required

- 2.1 That the Harbour Board resolves to:
 - 2.1.1 Note the contents of the report and areas of progress made; and
 - 2.1.2 Discuss and highlight any areas of concern.

3.0 Detail

Ports and Harbours currently has an interest in the following projects:

Capital Projects

- 3.1 Walls Pier
 - 3.1.1 The official opening of the pier took place on Saturday 31 May 2014, with a small opening ceremony taking place at 1215 by Councillor Frank Robertson. Following the opening on the pier, further speeches were made at the Walls Public Hall. There was a good turnout at the pier from the local community.
- 3.2 Plant, Vehicles and Equipment
 - 3.2.1 This budget will be utilised to continue major servicing of Harbour vessel engines and the replacement of vehicles, plant and equipment where absolutely necessary.

3.2.2 Two replacement 4x4 Pick-up Trucks have been ordered, to replace existing vehicles which are now ten years old. Vehicles have been procured under the Scottish Excel contract, in line with Council Standing Orders.

3.3 Navigational Aids

- 3.3.1 This budget has been used to continue the upgrade of navigational aids and in particular, the adoption of new LED technology. Incorporation of LED lanterns has already proved to be a complete success, with availability much increased through the dark winter months.
- 3.3.2 The new LED light for Queyfirth has been installed.
- 3.3.3 It is now proposed to replace the LED sector lights at Point of Pund and North Havra in the approaches to Scalloway Harbour.
- 3.3.4 Further delays have been experienced on the Gluss LED project, and it is now unlikely that a new system can be installed this year. Repairs to the existing towers cannot be ignored any longer, and works will be arranged to affect these repairs.
- 3.3.5 Alternative suppliers have been contacted, to see if they can offer an LED solution for Gluss. If this is not possible, replacement using conventional Navigation Light technology will be commenced.

3.4 Ferry Terminal Refendering Contract

- 3.4.1 With effect from 01 April 2014, all ferry terminals became Ports and Harbours assets.
- 3.4.2 A contract to replace badly worn and damaged fenders was won awarded to Tulloch Developments.
- 3.4.3 Works are planned for Lerwick, Bressay, Laxo, Vidlin, Gutcher and Belmont Terminals, with completion programmed for September 2014.
- 3.4.4 Works at this time continue on programme and within the Tendered sum.

Revenue Projects

- 3.4 Sullom Voe Terminal Jetty Maintenance Contract
 - 3.4.1 Malakoff Limited won the three year Contract, and work is progressing well over a number of work areas.
 - 3.4.2 The Contract has now entered year two of three.

- 3.4.3 Works to replace the "slops" drainage system on Jetty Three has commenced, with the installation of access platforms. This element of the works is proceeding within agreed programmes and within agreed budget.
- 3.4.4 Particular emphasis is being placed on the Schiehallion shutdown, and works in 2014 are being directed on Jetty Three to ensure that future delays and disruption to this Jetty are minimised.
- 3.4.5 Works to replace the berthing fenders on Jetty Three continues, and the four original fenders have been removed. The faces of the four berthing dolphins have been prepared, ready to accept the new fenders and supporting steelwork. Works at present are concentrated on assembling the new fenders onto the supporting steelwork, ready for transport by sea, from Sella Ness to Jetty Three.
- 3.4.6 A 400 tonne crane barge is due to arrive from Norway on 19 August, and this will be used to lift and install the new 56 tonne fender units onto each berthing dolphin.
- 3.4.7 Fender and Slops works are programmed to be complete by the end of September 2014, and works are on programme at this time.
- 3.4.8 Jetty Three will remain out of service until fender and slops works are complete.
- 3.4.9 General fabric maintenance on all four jetties also continues in line with agreed work scope, programme and budget.

3.5 Small Ports – Condition Surveys

3.5.1 A separate report on this matter is presented to the Board today.

3.6 Baltasound Small Craft Landing Facility

- 3.6.1 The small craft landing pontoon at Baltasound pier was installed to allow small cruise liners to safely transfer passengers ashore.
- 3.6.2 Despite a comprehensive design specification, the pontoon has been significantly damaged by adverse weather conditions and currently awaits repair. There is little doubt that the position of the pontoon is too exposed to facilitate a year round service.
- 3.6.3 Due to the design of the pontoon, a heavy crane is required to lift the structure into and out of the water. The costs of doing so along with the necessary repairs significantly outweigh the income generated by this facility.
- 3.6.4 Discussions and consultation with the Community on this matter are well advanced, and two meetings have been held with North Isles Councillors and island representatives. One option,

proposed by local representatives, to relocate the pontoon to a more sheltered side of the pier using a conventional mooring is being examined in detail.

3.6.5 Once discussions have concluded, and a way forward agreed with local representatives, a report will be provided to the Board.

4.0 Implications

<u>Strategic</u>

4.1 <u>Delivery On Corporate Priorities</u> – The actions in this report will contribute to the SOA outcomes 1, 3, 13, 14 and 15 in the Council's Action Plan 2012/13 of

"Shetland has sustainable economic growth with good employment opportunities"

"We have financial sustainability & balance across all sectors"

"Our internal and external transport systems are efficient, sustainable, flexible and affordable, meet our individual and business needs and enable us to access amenities and services"

"We live and work in a renowned natural and built environment which is protected and cared for"

"We deliver sustainable services and make decisions, which reduce harmful impacts on the environment"

- 4.2 <u>Community /Stakeholder Issues</u> The community and stakeholders of the Ports and Harbours operation have an interest in ensuring that new capital projects are properly monitored and ensuring that they are completed within budget and on schedule.
- 4.3 <u>Policy And/Or Delegated Authority</u> The Scheme of Administration and Delegations states that the role and authority of the Harbour Board is:
 - 4.3.1 Strategic oversight and direction in all aspects of the operation of the Council's harbour undertaking in accordance with overall Council policy and the requirements of the Port Marine Safety Code:
 - 4.3.2 Act as Duty Holder required by the Port Marine Safety Code and ensure that the necessary management and operational mechanisms are in place to fulfil that function; and
 - 4.4.3 To consider all development proposals and changes of service level within the harbour undertaking, including dues and charges, and make appropriate recommendations to the Council
- 4.4 Risk Management None arising from this report.

- 4.5 Equalities, Health And Human Rights None arising from this report.
- 4.6 <u>Environmental</u> None arising from this report.

Resources

- 4.7 <u>Financial</u> All current projects remain on course to be completed within the approved budget.
- 4.8 <u>Legal</u> There are no known legal issues arising from this report. Governance and Law provide advice and assistance on the full range of Council services, duties and functions including those in this report
- 4.9 <u>Human Resources</u> None arising from this report.
- 4.10 <u>Assets And Property</u> None arising from this report.

5.0 Conclusions

5.1 Projects in this report continue to be monitored in line with Council procedures and guidelines.

For further information please contact:

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6 August 2014

Harbour Board

19 August 2014

Harbourmaster's Report	
PH-21-14F	
Harbour Master, Ports & Harbours Operations	Infrastructure Services Department

1.0 Summary

1.1 The purpose of this report is to brief and inform the Port Marine Safety Code (PMSC) Duty Holder of the professional concerns and current status as reported by the Harbourmaster.

2.0 Decision Required

2.1 That the Harbour Board resolve to consider the content of this report in its role as Duty Holder, and note that the necessary management and operational mechanisms are in place to fulfill that function.

3.0 Detail

3.1 Navigational Risk Assessment / SMS review.

The navigational risk assessments are being put into an electronic version to ease the method of review and change. This has been delayed pending routine renewal of all servers at Sellaness.

3.2 <u>Designated Person</u>. Captain Trevor Auld, appointed as the designated person (Harbour Board Min. ref. 29/12), provides independent assurance directly to the Duty Holder that the marine safety management system, for which the duty holder is responsible, is working effectively. Captain Auld's report is attached as appendix 1.

3.3 <u>Incidents</u>. Four incidents have been reported since 4th May 2014. These are:

Olympic Challenger, 18 June 2014

Vessel departing Scalloway with no pilot on board touched bottom. Investigation showed that electronic chart on board did not show dredged channel. Admiralty advised that they did not consider this a sufficient change to warrant a chart correction. However, they have now advised that they will be issuing a chart correction in due course.

Shalder, 27 June 2014

Winch failure when assisting Navion Oslo. Temporary repair within two minutes, spare part fitted within 24 hours.

Belmar, 27 June 2014

Vessels engaged in fishing impeded departure of Belmar. Fishing vessel agents contacted and advised of requirement to keep channel clear – fishing vessels new to area.

NS Arctic, 12 July 2014

Inner vessel on StS operation parted a mooring line. Line replaced promptly and investigation on-going.

3.4 Audits.

DNV conducted an annual audit of the ports ISO9001 certification on July 8th and 9th 2014. The full report was received on 10th July and contained no non-conformities and four observations. As such there is no requirement to close these out, but it is good management to aim to do so.

No	Detail	Comment
1	Engineering section of manual requires a formal review	On-going
2	Induction procedures and pilotage recertification requires revision	On-going discussions by officials and Pilots, particularly in respect of authorisation procedures for new pilots
3	Navigational risk assessment software to be reviewed once installed	Awaiting installation to be completed
4	Recommended that a formal hand-over log be created for VTS staff	Draft system now in place, to review prior to next DNV audit for effectiveness

4.0 Implications

Strategic

4.1 <u>Delivery On Corporate Priorities</u> – The actions in this report will contribute to the outcomes in the Council's Corporate Plan 2013/17 of:

"Helping build a healthy economy and strong communities"

"To be able to provide high-quality and cost-effective services to people and communities in Shetland, our organisation has to be run properly"

"We are determined that we will be run to the very highest standards"

- 4.2 <u>Community /Stakeholder Issues</u> Community and stakeholders have a vested interest in ensuring that the port operation is managed and operated safely and in accordance with legislation and industry best practice.
- 4.3 <u>Policy And/Or Delegated Authority</u> The Scheme of Administration and Delegations states that the role and authority of the Harbour Board is:
 - 4.3.1 Strategic oversight and direction in all aspects of the operation of the Council's harbour undertaking in accordance with overall Council policy and the requirements of the Port Marine Safety Code; and
 - 4.3.2 Act as Duty Holder required by the Port Marine Safety Code and ensure that the necessary management and operational mechanisms are in place to fulfill that function; and
 - 4.3.3 To consider all development proposals and changes of service level within the harbour undertaking, including dues and charges, and make appropriate recommendations to the Council.
- 4.4 <u>Risk Management</u> Failure to comply with the requirements of the PMSC could lead to regulatory action.
- 4.4 Equalities, Health And Human Rights None.
- 4.5 Environmental None.

Resources

- 4.6 <u>Financial</u> There are no direct financial implications to this report.
- 4.7 Legal None.
- 4.8 Human Resources None.
- 4.9 Assets And Property None.

5.0 Conclusion

5.1 This report is an update of current issues in the operation of Ports and Harbours within Shetland.

For further information please contact: Colin Reeves, Harbourmaster 01806 244 202 colin.reeves@shetland.gov.uk 6 August 2014

List of Appendices

Appendix 1 Designated Person Report – Captain Trevor Auld

Background documents: None



Designated Person Report -19 August 2014

This Designated Person report is provided as an independent view on Shetland Islands Council's (SIC) performance against the requirements and standards under the latest edition of the Port Marine Safety Code (PMSC). The report is submitted to the SIC Harbour Board, and copied to the Harbour Master for information.

Introduction

Since my written and verbal reports to the Harbour Board meeting of 27 May 2014 I have maintained a regular dialogue on marine matters with the SIC's Harbour Master through an exchange of emails. I have also monitored both the SIC's website http://www.shetland.gov.uk/ports for items relating to the reported actions, involvement and decisions taken by the Harbour Board and SIC's appointed officers. Prior to writing this report I had a telephone conversation with SIC's Harbour Master, Deputy Harbour Master and Executive Manager in which we discussed, in accordance with an agreed questionnaire: monitoring measures, assessing measures and effectiveness of the current Marine Safety Management System.

Early notification of the next round of Port Marine Safety Code Compliance Letters

I would bring to the Harbour Board's attention the following extracts from the Port Marine Safety Code, Section 3.23 states:

'Once every three years all authorities and facilities/berths/terminals and marinas that fall under the Code shall undertake a compliance exercise. This will come in the form of a letter, stating they are compliant with the Code, from the duty holder to the MCA.' Section 3.24 states 'The next round of compliance letters is due on or before the **31 March 2015**. Letters should be sent to Navigation Safety, Maritime and Coastquard Agency, Spring Place, Southampton, SO15 1EG.'

Monitoring Measures

Technical Working Group – The draft minutes of the Technical Working Group (TWG) held on 8 May 2014 record the ongoing good practice of bringing together SIC personnel from different disciplines and port stakeholders to discuss a range of safety and operational issues of common interest.

It is noted as evidence of good practice that, when applicable, pilots may obtain hard copies of the revised risk assessments for Solan and Bonxie in VTS prior to boarding a tanker. The availability of the tug specific risk assessments is wholly in accordance with Section 7.6.4 of the Guide to Good Practice on Port Marine Operations, in that masters and pilots, as part of the passage planning process, should exchange information on 'berthing arrangements; use, characteristics and number of tugs; mooring boats and other external facilities'.

Examination Panel – The next meeting of the Examination Panel is planned for 4 August 2014.



Safety Sub-Committee – Ports – The draft minutes of the 63rd meeting of the Safety Sub-Committee – Ports held on 23 July 2014 continue to demonstrate the active involvement of marine personnel in all aspects of port safety.

It is noted from the minutes that a revised paper based defect reporting system has been agreed and implemented. VTS will now log all defect reports received and pass the information to the appropriate manager for action. Whilst it is understood that the revised reporting system is generic in nature, its introduction will ensure that defective Aids to Navigation (fixed and floating) will to be processed in a timely and effective manner and, as such, is evidence of the good practice by the Harbour Authority in its role as a Local Lighthouse Authority. [Section 6: Guide to Good Practice on Port Marine Operations].

It is also noted from the minutes that mooring boats are to be fitted with a particular design of ladder suitable for recovering a conscious person from the water. This action is wholly in accordance with Section 10.3 of the Guide to Good Practice on Port Marine Operations, in that Harbour Authorities have a duty to ensure the safety of those they employ to work on or from their tugs, launches and workboats.

Incidents and Accidents – The following marine incident or accident reports have been submitted formally to the Harbour Master since 4 May 2014.

- 18 June 2014 'Olympic Challenger' grounding at Scalloway
- 27 June 2014 'Shalder' winch failure
- 27 June 2014 'Belmar' impeded departure
- 12 July 2014 'NS Arctic' parted mooring line

In accordance with the requirements of the Safety Management System, all of the incidents have been investigated by the Harbour Master and are agenda items for discussion on the 75th meeting of the Technical Working Group to be held on 31 July 2014.

Audits – Det Norske Veritas (DNV) carried out an audit of the ports ISO:9001 certification on 8 / 9 July 2014. DNV's final audit report identified no non-conformities and made four observations. All these observations have been considered and addressed by the Harbour Master.

Consultation – Active engagement with port and harbour stakeholders by members of the Harbour Board and its appointed officers continues to provide evidence of SIC's commitment to the importance of meaningful and ongoing consultation with local and national organisations. Specific examples being:

The Harbour Master, Deputy Harbour Master and Executive Manager continue good lines of communication with attendance at a range of meetings as a stakeholder and Harbour Authority representative, these include:

o 21 May 14 Shetland Oil Terminal Environmental Advisory Group (SOTEAG)

o 31 May 14 Formal opening of Walls Pier

o 10/11 June 14 British Ports Association (BPA) Scottish Ports Committee.

o 1/2 July 14 Committee for Civil Marine Emergencies (CCME)/SOTEAG International liaison meeting.

R/4093-14 (2) August 2014



Harbour Board Meetings – The public agenda for the Harbour Board meeting of 27 May 2014 and the Decision Note from the same meeting were posted on the website www.shetland.gov.uk in a timely manner.

Training – The three training matrices continue to be reviewed regularly and updated as training courses are completed and qualifications obtained or revalidated.

It should be noted that the training matrices do not include Pier Assistants.

Assessing Measures

Key Performance Indicators (KPI):

Number of completed marine incident/accident reports for Sullom Voe and Scalloway Harbour reviewed by the Technical Working Group expressed as a percentage of all completed marine incident/accident reports.

All incidents and accidents have been reviewed in accordance with the applicable Marine Safety Management System procedure.

KPI = 100%

2 Number of hours in which Sullom Voe's Traffic Organisation Service (TOS) VTS functioned as a fully operational service expressed as a percentage of the total number of operational hours.

VTS has functioned almost continuously as a Traffic Organisation Service (TOS) VTS¹ from 00:00 hours on 1 January 2013 to 00:00 hours on 30 July 2014. Breaks in service occurred on eight occasions (none, to date in 2014) when the service had to revert to an Information Service (INS) VTS² only to accommodate VTS officers unable (through course cancellations) to revalidate their V103/1 certificates.

Total number of operational hours from 00:00 hours 1st January 2013 to 00:00 hours on 30 July 2014 = 13800

Total number of hours within this period that VTS did not function as a TOS = 96

KPI = 99.30%

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¹ TOS = A service to prevent the development of dangerous maritime traffic situations and to provide for the safe and efficient movement of vessel traffic within the VTS area MGN 238 (M+F) Vessel Traffic Services (VTS) and Port Information in the United Kingdom

² INS = A service to ensure that essential information becomes available in time for on-board navigational decision making MGN 238 (M+F) Vessel Traffic Services (VTS) and Port Information in the United Kingdom



3 Number of Marine Risk Assessments for Sullom Voe and Scalloway Harbour exceeding the review date as a percentage of the total number of marine risk assessments.

Installation of the MarNIS Port Assessment Toolkit is ongoing but it has yet to become fully operational. Individual Marine Risk Assessments are held on file, and were last reviewed collectively in December 2012. I have discussed the matter fully with the Harbour Master, Deputy Harbour Master and Executive Manager and remain satisfied that marine safety will not be compromised by a further extension of the risk assessment review dates.

KPI = 100%

4 Number of port marine employees with in date qualifications required for their job role, expressed as a percentage of the total number of employees undertaking port marine activities and requiring job specific qualifications.

The total number of employees undertaking port marine activities and requiring 'essential' job specific qualifications is 39.

VTS and Marine Officers: 15 (3 Marine Managers, 6 Pilots, 5 VTSOs and 1 relief VTSO)

Launch crews: 15 (5 Skippers and 10 Deckhands)

Scalloway/Small Ports: 9 (4 Small Ports Officers (SPOs) and 5 relief SPOs)

The total number of employees from this group with in-date 'essential' job specific qualifications is 38. One recently appointed relief SPO has yet to complete all elements of the required induction programme.

KPI = 97.4%

Availability of Aids to Navigation (in three classification bands) expressed as a percentage of total availability over the three year period 24 July 2011 to 24 July 2014.

KPI	IALA Category 1	Availability	99.99%	Target 99.8%
KPI	IALA Category 2*	Availability	98.97%	Target 99.0%
KPI	IALA Category 3	Availability	99.55%	Target 97.0%

^{*}After addressing issues with bridge lights the availability of Category 2 Aids to Navigation has continued to rise and is now just 0.03% below the target figure set by the Northern Lighthouse Board. It is expected that the availability of Category 2 Aids will attain the required availability in the next reporting period.

Effectiveness of the Marine Safety Management Systems

The monitoring and assessing measures described above provide assurance to the Board (as Duty Holder) that Shetland Islands Council, as Harbour Authority, is functioning safely and efficiently and in



accordance with good practice. This newly published Marine Safety Management System covers the following defined harbours:

- Sullom Voe:
- Scalloway Harbour (also referred to as Blacksness); and
- Small Ports of:
 - West Burrafirth;
 - o Vaila Sound and Gruting Voe, known as Walls;
 - o Mid Yell, Yell;
 - o Cullivoe, Yell;
 - Baltasound, Unst;
 - Housa Voe, Papa Stour;
 - o Hamars Ness, Fetlar:
 - o Uyea Sound, Unst;
 - West Burra (Hamna Voe);
 - o Symbister, Whalsay;
 - o Out Skerries (two separate areas: West Voe and South North-East Mouth); and
 - North Haven, Fair Isle.

As stated in my last Designated Person's report and included in my verbal report to the Harbour Board in May, the aim of a Marine Safety Management System (acknowledged in Section 3.2 of the SIC Marine and Quality Policy) is to ensure that all risks are acceptable and as low as reasonably practicable (ALARP).

Unfortunately, this cannot be completely demonstrated until there is a mechanism in place to review and manage the marine risk assessments. It is acknowledged that it is only a matter of time before the MarNIS Port Assessment Toolkit becomes operational; however at the time of writing this report, this has not been achieved. Consequently, I am unable to give the Harbour Board an assurance about the effectiveness of the new Marine Safety Management Systems in ensuring compliance with the Port Marine Safety Code.

Captain Trevor Auld Designated Person (PMSC)

Harbour Board

19 August 2014

Small Ports – Condition Surveys and Future Major Maintenance		
PH-16-14F		
Team Leader – Port Engineering	Infrastructure Services Department	

1.0 Summary

1.1 This report advises the Board on the current condition of its small ports assets, and indicates where maintenance priorities are considered greatest. Estimated budget requirements are included, but each project will be subject to the Councils Capital Programme Gateway process before funds can be allocated in any particular financial year.

2.0 Decision Required

2.1 That the Harbour Board RESOLVE to approve the prioritisation of repairs as defined in section 7.0 of this report, and approve its formal application to the Councils Capital Gateway, to enable individual works to be considered and placed appropriately on the Asset Investment Plan.

3.0 Detail

- 3.1 Shetland Islands Council has nineteen "Small Ports" facilities across the isles, stretching from Baltasound in the North, to Fair Isle in the South. This excludes the four oil loading jetties on Sullom Voe Oil Terminal, which are maintained under a separate agreement with the Terminal partners.
- 3.2 In 2012/13 a series of detailed condition surveys were carried out by a local civil engineering consultant. The surveys looked at all aspects of each structure including sheet piling, reinforced concrete, surfacing, fendering and other deck furniture.
- 3.3 The resulting information was then passed to Capital Programme Services, where it was considered further, with necessary repairs ranked in order of priority.

Current Small Port Assets 4.0

- 4.1 Shetland Islands Council's nineteen "Small Ports" are of varying sizes in the following locations:
 - Scalloway Harbour
 - Symbister Harbour •
 - Cullivoe Pier
 - Baltasound Pier
 - **Uyeasound Pier** •
 - Mid Yell Pier
 - Toft Pier
 - Collafirth Pier
 - Construction Jetty, Sella Ness
 North Haven, Fair Isle
 - Tug Jetty, Sella Ness

- Garths Pier, Sella Ness
- Billister Pier
- Skerries Pier
- West Burrafirth Pier
- Walls Pier
- Hamnavoe Pier
- Easterdale Pier
- Toogs Pier
- 4.2 Of these nineteen assets, only six are constructed without the use of steel sheet piling, being of mainly concrete construction:
 - Fair Isle
 - Mid Yell
 - Hamnavoe
 - Billister
 - Toogs
 - Easterdale

5.0 **General Implications for Major Maintenance of Small Port Assets**

- 5.1 Major maintenance of marine structures can be divided into five main areas:
 - Adjacent berth depth
 - Structural support elements
 - Fender systems
 - Surfacing
 - Deck furniture and services
 - 5.1.1 Adjacent Berth Depth has not been observed as a problem on any of the assets detailed in this report. The lack of large watercourses discharging silt into coastal areas around Shetland means that the maintenance dredging required in Ports around mainland UK is not necessary. Therefore, once a depth alongside is agreed, further work is generally unnecessary, with exception of identifying and removing occasional obstructions such as old nets and wires.
 - 5.1.2 Structural support elements such as steel sheet piling give rise to the major maintenance requirement on most small port assets. The design of seawater immersed steel sheet piling is based on an average thickness corrosion loss of some 0.1mm per annum. With standard sheet piling thicknesses ranging from 10-22mm, a design life of 50 to 110 years at best can be expected, before the piles reach half thickness, at which point,

their structural ability of perform as designed becomes compromised.

- 5.1.3 In the early 1990s UK port operators noticed an alarming acceleration in the rate at which steel structures such as harbour walls and jetties were deteriorating sometimes up to 25 times faster than normally expected. The phenomenon which became known as "accelerated low water corrosion" (ALWC) was caused by bacteria that were thriving on steel surfaces around low water. More than 90% of UK ports were estimated to be afflicted by the phenomenon, resulting in significant repair costs and operational problems.
- 5.1.4 Since then, it has been proven that the phenomenon does not just occur around the low water mark, and the Team Leader Port Engineering has personally witnessed the problem at all levels, from the surface down to seabed level. This of course can have drastic effects on the operational lifespan of structures, massively reducing the originally expected life at design stage.
- 5.1.5 ALWC is currently widespread within our small ports, but as yet, particularly fast rates of corrosion are not apparent. This could of course change at any time, and spread unless corrective measures are taken.
- 5.1.6 The industry accepted method of arresting any corrosion process on steel piled structures is by the use of "Cathodic Protection" or "CP". Cathodic protection has been proved as being completely effective, and a good example is the tubular steel piles on the Sullom Voe jetties, which have had such a system installed since construction. The wall of these piles is some 18mm thick, and to date, negligible thickness loss has occurred, making the continued operation of the jetties in line with current SVT life projections much more certain.
- 5.1.7 Recent new pier projects including Walls and Uyeasound piers have had cathodic protection systems fitted and these have a twenty year design life.
- 5.1.8 Fender systems on small ports range from those utilising car and lorry tyres, through to systems using purpose made extruded rubber fenders. These fenders can be deemed to be sacrificial at best, and depending on the frequency and type of use involved, a maximum lifespan of twenty years is reasonable. Fender systems are designed to suit typical vessels using a particular structure, but it should be borne in mind that they are primarily to protect the structure from adverse impact, rather than to protect vessels alongside such protection is of course the responsibility of the vessel.
- 5.1.9 The surfacing of piers and adjacent areas varies depending on its typical usage. Reinforced concrete deck slabs make up most of our pier surfaces, and can be considered to be relatively low maintenance. Access roads and lay-down areas will generally be surfaced using bitumen macadam surfacing, or a compacted

hardcore material. Occasional repairs will be needed to these areas on a regular basis, but these can generally be accommodated within existing annual maintenance budgets.

5.1.10 Deck furniture and services can be considered to include items such as bollards, ladders, navigational and street lighting and other services such as fire hydrants. Whilst ongoing maintenance is routine on these items, areas such as street and flood lighting will have a lifespan of approximately 25 years in this environment, and replacement of these items will form part of major maintenance work-scopes.

6.0 Condition Survey Review and Results

- Once the condition survey results were received, they were passed to Marine Civil Engineers within Capital Programme Services for review.
- 6.2 There is no doubt that the corrosion on some of our structures is at an advanced state and detailed information is contained in appendix one.
- 6.3 However, it should also be noted that in some cases, corrosion rates are less than anticipated, and this type of major maintenance has therefore been pushed back into future years.

7.0 Priority Ranking

7.1 From the detailed information attached in appendix one, the following priority ranking and estimate for the installation of cathodic protection systems has been devised. The priorities are based on original material specification, corrosion rate and current condition criteria:

1.	Cullivoe Original Finger Pier	£155k				
2.	Scalloway East Finger Pier	£242k				
3.	West Burrafirth Pier	£101k				
4.	Collafirth Pier	£138k				
5.	Baltasound New Pier	£141k				
6.	Scalloway Fish Market Quay	£134k				
7.	Cullivoe Redevelopment Quay	£110k				
8.	Symbister Breakwater Quay	£178k				
9.	Scalloway South Quay	£244k				
10	10. Skerries Fishing Quay £55k					
11	11. Scalloway Castle Quay £20k					

7.2 It should be noted that these estimates do not include for other major maintenance such as fendering, which may or may not be required at

the time of CP installation. Such costs could increase budget requirements by £25-£100k depending on fender type and extent. The costs for detailed design, tendering and supervision will also need to be incorporated within any budget figure.

7.3 In addition to this priority list, there are three areas where it is felt that the sheet piles have reached a point where cathodic protection will no longer provide any benefit, and substantial repairs will require to be made first:

Toft Old Ferry Terminal Pier

- 7.3.1 This pier was constructed in the early 1970's, utilising steel sheet piling with a low original thickness of 11.7mm. The structure is now significantly weakened with numerous holes, and the sheet piling is beyond economical repair. Vehicular access has been prohibited, and the structure will be closely monitored.
- 7.3.2 There is a very real likelihood that the operational lifespan of this pier is now approximately five years.
- 7.3.3 Once the pier is deemed unsafe to use, it will be barriered off completely, removing all access.
- 7.3.4 Should the Council wish to demolish and remove the structure, an estimate of cost would be in the region of £500-£750k.

Scalloway Old Fish Market Quay

- 7.3.5 This quay is on the West side of the harbour, between the root of the West Pier, and the newly constructed Muckle Yard development.
- 7.3.6 The sheet piling along this quay is in an advanced state of decay, although, no loss of infill material is as yet apparent.
- 7.3.7 Options for the repair or replacement of this quay have been delayed whilst reports on the future of Scalloway Harbour are finalised. Should no new developments arise from these reports, repairs to this quay will have to be considered in the near future at an estimated budget cost of £250k

Baltasound – Original Pier Section

- 7.3.8 The original section of Baltasound Pier was taken over from A.Sandison and Son at the time of construction in 1999. This old section of pier is made up of sheet piles and also a submerged steel hull which makes up the Northern end of the old pier.
- 7.3.9 Again, this section of pier is in an advanced state of decay, and repairs to the faces will be necessary before the installation of a CP system can be considered. Estimated costs for this work are again in the region of £250k.

8.0 Proposed Five Year Maintenance Plan and Anticipated Costs

8.1 Having examined the results of the condition surveys carefully, it is proposed that the following five year plan is adopted for the major maintenance of Council owned small ports:

		Est.	
Year	Location	Budget	Work scope
2015/16	Scalloway Old Fish Market Quay	£250k	Repair existing Sheet Piles
	Baltasound Old Pier		Repair existing Sheet Piles
2016/17	Cullivoe Finger Pier	£250k	Cathodic Protection and Refender
2017/18	Scalloway East Finger	£350k	Cathodic Protection and Refender
2018/19	West Burrafirth	£250k	Cathodic Protection and Refender
2019/20	Collafirth	£250k	Cathodic Protection and Refender

- Whilst this suite of works is taking place, consideration will be given to the following five year plan, which will in turn be reported to the Board for approval in principle. This will likely include significant costs for the repair or removal of the old Toft Ferry Terminal Pier.
- 8.3 It should be noted that this plan relates only to the fabric maintenance of the Small Ports. Other Capital spends may be required on other Port assets within this period, and these will be reported to the Board separately.

9.0 Implications

Strategic

9.1 <u>Delivery On Corporate Priorities</u> – The actions in this report will contribute to the outcomes in the Council's Corporate Plan 2013/17 of:

"Helping build a healthy economy and strong communities"

"To be able to provide high-quality and cost-effective services to people and communities in Shetland, our organisation has to be run properly"

"We are determined that we will be run to the very highest standards"

- 9.2 <u>Community /Stakeholder Issues</u> Community and stakeholders have a vested interest in ensuring that the port operation is managed and operated safely and in accordance with legislation and industry best practice.
- 9.3 <u>Policy And/or Delegated Authority</u> The Scheme of Administration and Delegations states that the role and authority of the Harbour Board is:
 - 9.3.1 Strategic oversight and direction in all aspects of the operation of the Council's harbour undertaking in accordance with overall Council policy and the requirements of the Port Marine Safety Code; and

- 9.3.2 Act as Duty Holder required by the Port Marine Safety Code and ensure that the necessary management and operational mechanisms are in place to fulfill that function; and
- 9.3.3 To consider all development proposals and changes of service level within the harbour undertaking, including dues and charges, and make appropriate recommendations to the Council.
- 9.4 Risk Management There are significant challenges in maintaining the safe and appropriate use of Council Port assets. Failure to effectively maintain these assets could increase risk to both the public and the Council.
- 9.5 Equalities, Health And Human Rights None.
- 9.6 Environmental None.

Resources

- 9.7 <u>Financial</u> There are significant financial implications for the Council contained within this report. Any spend would only be made after projects have satisfied the Capital Gateway procedure, and have been placed onto the Councils Capital Programme.
- 9.8 <u>Legal</u> Any works resulting from this report will be tendered and awarded in strict adherence to Council Standing Orders..
- 9.9 <u>Human Resources</u> Detailed design, Tendering and Supervision of the any works would be carried out in-house by Capital Programme staff.
- 9.10 <u>Assets And Property</u> Failure to maintain its structures in a safe and operational condition could result in further costs to make safe or remove dangerous structures.

10.0 Conclusions

- 10.1 Council owned small ports are now reaching an age where major maintenance and the installation of cathodic protection systems will be necessary if these structures are to remain in a safe and operational condition in the years to come.
- 10.2 The Capital cost of these repairs are greater than the amount currently recovered in charges.
- 10.3 Should the Council decide to defer this maintenance to future years, or ignore it completely, the likelihood of pier closures will become a reality in the not too distant future.

For further information please contact:

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10 June 2014

Background documents:

Appendix one – Review of Existing Survey Information. Glossary

Appendix One

Pier Surveys - Review of Existing Survey Information

- Baltasound
- Pier faces taken over from A Sandison and Sons
 - o Face A: Sheet piles Larssen 2B or 2N and Frodingham 4N
 - Frodingham 4 piles at inner end 2 holes and heavy corrosionno steel thickness results
 - Frodingham 4 original thickness: Flange 14mm, Web 10.4mm
 - Approx area of Frodingham 4 piles: 32m²
 - Larssen 2B or 2N piles .Poor condition- severe corrosion and 34 holes pile section reduced from approx. 9mm on flanges to below 6mm with corresponding loss in strength. The size of some holes would indicate that loss of fill is possible in some areas.
 - Larssen 2B or 2N original thickness: Flange 9.4mm or 8.6m,
 Web 7.1mm
 - Approx area of Larssen 2B or 2 N piles: 165m²
 - Face F: Sheet piles Larssen 3/20 or 2 also concrete face over sunken steel hulk
 - Larssen 2 piles 5 holes with heavy corrosion- steel reduced in places to 3 - 4 mm
 - Larssen 2 original thickness: Flange 10.2mm, Web 7.8mm
 - Approx area of Larssen 2 piles: 12m²
 - Larssen 3/20 piles 8 holes with heavy corrosion
 - Larssen 3/20 original thickness: Flange 11.7mm, Web 8.4mm
 - Approx area of Larssen 3/20 piles: 18m²
 - Concrete face above steel hulk. The outer steel plating of the underlying hulk has holes "in numerous places" but the full extent was not recorded.
 - Face G: Sheet piles Larssen 2
 - Larssen 2 piles, with heavy corrosion- steel reduced in places to
 4.1 mm. Pile ends in old hulk
 - Larssen 2 original thickness: Flange 10.2mm, Web 7.8mm
 - Approx area of Larssen 2 piles: 7m².
- Pier faces constructed by SIC in 1999
 - Face B: Sheet Piles AZ36
 - Piles described in good condition. No metal thickness readings taken.
 - AZ 36 piles Original thickness: Flange 18mm, Web 14mm
 - Area of Sheet piled wall :74m²
 - Face C: Sheet Piles AZ36
 - Piles described in good condition. No metal thickness readings taken
 - AZ 36 piles Original thickness: Flange 18mm, Web 14mm
 - Area of Sheet piled wall :300m²
 - Face D: Sheet Piles AZ36

- Piles described in good condition. No metal thickness readings taken.
- AZ 36 piles Original thickness: Flange 18mm, Web 14mm
- Area of Sheet piled wall :118m²
- o Face E: Sheet Piles AZ36
 - Piles described in good condition. No metal thickness readings taken.
 - AZ 36 piles Original thickness: Flange 18mm, Web 14mm
 - Area of Sheet piled wall :501m²
- Total area of piled faces: 1227m²
- The estimated cost of sacrificial cathodic protection with a design life of twenty years for this pier is £141,105.

Fendering

A large number of fender shackles have failed and need replacement.

Debris

 There are a number of items of debris on the seabed which should be recovered.

Uyeasound

- Pier opened in 2010 constructed with AZ26 S430 sheet piles (155.2kg/m²).
- Cathodic protection system fitted using sacrificial zinc anodes at the time of construction. System designed and supplied by Aberdeen Foundries.
- o Pier Face details
- Face A: Sheet piles AZ26 S430
 - AZ26 piles Original thickness: Flange 13 mm Web 12.2 mm
 - Area of sheet piled wall 307m²
- o Face B: Sheet piles AZ26 S430
 - AZ26 piles Original thickness: Flange 13 mm Web 12.2 mm
 - Area of sheet piled wall 118m²
- o Face C: Sheet piles AZ26 S430
 - AZ26 piles Original thickness: Flange 13 mm Web 12.2 mm
 - Area of sheet piled wall 296m²
- Face D: Sheet piles AZ26 S430
 - AZ26 piles Original thickness: Flange 13 mm Web 12.2 mm
 - Area of sheet piled wall 72m²
- Face E: Sheet piles AZ26 S430
 - AZ26 piles Original thickness: Flange 13 mm Web 12.2 mm
 - Area of sheet piled wall 355m²
- Face F: Sheet piles AZ26 S430
 - AZ26 piles Original thickness: Flange 13 mm Web 12.2 mm
 - Area of sheet piled wall 147m²
- Total area of sheet piles above seabed 1295m², Weight of steel above seabed 201tonnes.
- Piles are currently being effectively protected with anode depletion reported as 15-20% over a three year period.

 The estimated cost of replacing the sacrificial cathodic protection with a design life of twenty years for this pier is £140,875.

Cullivoe

 The current piers at Cullivoe were built in two phases. The first being in 1989 when a finger pier was built. This was followed in 2000 when a larger redevelopment took place.

Finger pier

- Constructed using Larssen 25W sheet piles Original thickness: Flange 12.1mm, Web 10.5mm (167.4kg/m²)
- Face E: Sheet piles Larssen 25W
 - 68 piles. 30 piles described as general surface corrosion. 33 piles described as having Heavy surface corrosion. ALWC is occurring on these piles.
 - Section of pile wall cleaned of marine growth and thickness measurements taken on a grid pattern of 2394 individual readings. The results indicate that 0.96% of readings were below 6mm (loss of thickness > 6mm, loss of thickness 0.265mm/year), 7.73% of readings between 6mm and 8mm (loss of thickness 4mm to 6mm), 91.31% of readings greater than 8mm (loss of thickness < 4mm, loss of thickness 0.178mm/year).
 - Information on the pile section from the piling handbook: the maximum permissible loss of thickness at the point of maximum stress as 6mm. Beyond that the pile will not be able to carry the full design loading.
 - The area of the highest stress on the piles is approximately half way between bottom and top tie rod level. In this zone there are a only five areas where the thickness of steel remaining is less than 6mm. A number of areas are within the 6mm to 8mm zone which indicates that corrosion of the steel is an ongoing issue.
 - Area of sheet piled wall: 673m²
- Face F: Sheet piles Larssen 25W
 - 9 piles. All 9 piles described as heavy surface corrosion.
 ALWC is occurring on these piles.
 - Piles generally described as having heavy surface corrosion.
 - No pile thickness readings taken on this face.
 - Corrosion and failure of fender fixing chains and pads.
 - Area of sheet piled wall: 85m²
- o Face G: Sheet piles Larssen 25W
 - 59 piles. 56 piles reported as having heavy surface corrosion. 3 piles with light surface corrosion. ALWC is occurring on these piles.
 - Section of pile wall cleaned of marine growth and thickness measurements taken on a grid pattern of 2394 individual readings. The results indicate that 0.92% of readings were below 6mm (loss of thickness > 6mm, rate of loss

- 0.265mm/year), 5.64% of readings between 6mm and 8mm (loss of thickness 4mm to 6mm), and 93.44% of readings greater than 8mm (loss of thickness < 4mm, loss of thickness 0.178mm/year).
- Information on the pile section from the piling handbook: the maximum permissible loss of thickness at the point of maximum stress as 6mm. With a greater loss of thickness the pile will not be able to carry the full design loading.
- The area of the highest stress on the piles is approximately half way between bottom and top tie rod level. In this zone there are only five areas where the thickness of steel remaining is less than 6mm. A number of areas are within the 6mm to 8mm zone which indicates that corrosion of the steel is an ongoing issue.
- Two holes in the piles were found in the mid tide to low water zone on the piles.
- Area of sheet piled wall: 650m²
- The estimated cost of sacrificial cathodic protection with a design life of twenty years for this pier is £155,250.

• 2000 Redevelopment

- Constructed using Larssen 6-122kg/m sheet piles Original thickness: Flange 22mm, Web 14mm (290.5kg/m²)
- o Face A: Sheet piles Larssen 6-122
 - 8 piles.
 - 8 Piles generally described as in good condition. No steel thickness readings taken.
 - Area of pile wall: 43m²
- o Face B: Sheet piles Larssen 6-122
 - 26 piles. 13 piles with light surface corrosion. 8 piles with surface corrosion or heavy surface corrosion. ALWC starting on these piles.
 - Area of pile wall:131m²
- o Face C: Sheet piles Larssen 6-122
 - 48 piles.48 piles described as having light surface corrosion.
 Much of this in the form of localised spots indicating the start of ALWC.
 - Piles described as having light surface corrosion with a few piles showing small areas of pitting of 5-8mm depth.
 - Area of pile wall:341m²
- o Face D: Sheet piles Larssen 6-122
 - 60 piles. Generally the piles are described as having light surface corrosion however deep pitting is reported on 23 piles (up to 10mm deep). His indicates that ALWC is underway on these piles although at an early stage.
 - Piles described as having light surface corrosion with a number of pile showing areas of pitting of 10-15mm depth.
 - Area of pile wall:443m²

- The piles on Faces A to D did not have any steel thickness measurements taken so the extent of pitting depth is only an estimate. The depth of pitting reported on face D indicates local attack on the piles that will eventually lead to localised holes forming with the potential for loss of the fill material behind.
- The estimated cost of sacrificial cathodic protection with a design life of twenty years for this pier is £110,170.
- Total area of sheet piling:

o Finger pier: 1350 m²

o 2000 development: 958 m²

Total Area: 2316 m²

• Toft

- Constructed in early 1970's for the ro-ro ferry service to Yell.
- All sheet piles are Frodingham 3N on faces 1 to 9 inclusive. Original thickness: Flange 11.7mm, Web 8.9mm.
- Main finger: Faces 1, 2 and 3
 - Thickness measurements taken on all these faces.
 - All walls extensively holed between mid tide level to below chart datum.
 - All walls weakened considerably with the loss of steel section.
 - Load capacity of the structure compromised.
- Linkspan support structure: Faces 4, 5, 6, 7, 8 and 9
 - No thickness readings were taken on these faces however the survey has found the piles to be holed as per faces 1 to 3.
- Pier is compromised and vehicle access should be denied. Physical barrier to be erected to prevent access.

Collafirth

- Sheet piled pier built circa 1987
- Sheet piles are Larssen 32W. Original thickness: Flange 17.0mm, Web 10.1mm (103.6kg/m²)
- Face A: Sheet piles Larssen 32W
 - 9 Piles. 1 pile described as good. 8 piles described as heavy corrosion.
 - Area of pile wall: 116m²
- Face B: Sheet piles Larssen 32W
 - 39 Piles. 9 piles with light corrosion. 22 piles with heavy corrosion to varying degrees. 8 piles described as good.
 - Area of pile wall: 510m²
- Face C: Sheet piles Larssen 32W
 - 14 Piles some with ALWC. 5 piles with heavy corrosion often the full width of the inpan and extending over a metre in length. 2 piles described as good.
 - Area of pile wall: 89m²
- o Face D: Sheet piles Larssen 32W

- 51 Piles with varying degrees of corrosion. 4 piles with light surface corrosion. 6 piles with corrosion. 1 pile identified with heavy corrosion. 34 piles described as in good condition.
- Area of pile wall: 435m²
- o Face E: Sheet piles Larssen 32W
 - Piles show some corrosion but this is mainly light surface corrosion. Flaking corrosion identified on 4 of the 8 piles.
 - Area of pile wall: 50m²
- Accelerated low water corrosion is present on faces A, B and C in particular. These faces are in a more advanced state of decay than the outer faces D and E where a large proportion of the piles are described as good or having only light surface corrosion.
- Total area of sheet piling: 1200 m²
 - The estimated cost of sacrificial cathodic protection with a design life of twenty years for this pier is £138,000.

Symbister Breakwater Quay

- Sheet piled pier built circa 1993.
- Sheet piles are Larssen 6. Original thickness: Flange 22.0mm, Web 14.0mm.
- Face A: Sheet piles Larssen 6
 - 412 piles: Area of sheet piling:1544 m²
 - ALWC found on the majority of the piles. Found to be more severe near the seabed with an average of 27% of the surface affected. This reduces to about 12% at mid water and less near the surface.
 - Average loss of thickness near the seabed, mid water and at the surface are 0.119, 0.099 and 0.069mm/year respectively
 - Maximum loss was recorded at 11mm however the average loss in thickness was between 1.1 to 2.3mm
- The estimated cost of sacrificial cathodic protection with a design life of twenty years for this pier is £177,560.

Scalloway East side finger Pier

- Sheet piled pier built circa. 1980.
- Sheet piles are Larssen 4/20 Grade 50B. Original thickness: Flange 14.3mm, Web 9.4mm.
- Berthing Face: Part of B, C, D and E.
 - Area of faces

Part B: 380m²

• Face C: 810m²

• Face D: 101m²

• Face E: 810m²

Total Area: 2101m².

- ALWC found to be well established with corrosion of all the piles.
- Average loss of thickness found to be greatest near the surface. The rate of loss was measured at the seabed, mid water and near the surface as 0.100mm/yr, 0.063mm/yr and

- 0.121mm/yr respectively with an average thickness remaining of 11.1mm, 12.3mm and 10.4mm in the three zones.
- An area mid water near the south east corner recorded pitting with a thickness in the inpan of 0.9mm and an average pile thickness in this region of 6.9mm.
- The estimated cost of sacrificial cathodic protection with a design life of twenty years for this section of pier is £241,615.

Scalloway East side fish market quay

- Sheet piled pier built circa. 1982.
- Sheet piles are Larssen 4/20 Grade 50B. Original thickness: Flange 14.3mm, Web 9.4mm. to the original area of the market quay and the return along the north side of the quay.
- o Berthing face: Part of B, Part of A
 - Part B: 860m²
 Part A: 303m²
 - ALWC found to be well established throughout
 - Average loss of thickness found to be greatest near the surface. The rate of loss was measured at the seabed, mid water and near the surface as 0.073mm/yr, 0.068mm/yr and 0.077mm/yr respectively with an average thickness remaining of 12.1mm, 12.3mm and 12.0mm in the three zones.
- Loose tie rods or nuts were found at three locations. These were all in the area of quay directly opposite the south end of the fish market building.
- The estimated cost of sacrificial cathodic protection with a design life of twenty years for this section of pier is £133,745.

Scalloway East side, North face below castle

- o Sheet piled face built circa 1995.
- Sheet piles are Frodingham 5. Original thickness: Flange 17.0mm, Web 11.94mm.
- o Berthing face: Part of A
 - Part A: 170m².
- No diving inspection has been carried out on this face however corrosion rates are expected to be similar to the adjacent fish market quay.
- The estimated cost of sacrificial cathodic protection with a design life of twenty years for this section of pier is £19,550.

Scalloway South Quay

- Sheet piled pier built 1995
- Sheet piles are Larssen 6 122. Original thickness: Flange 22.0mm, Web 14.0mm.
- Area of berthing faces:
 - Face 1: 950 m²
 - Face 2: 931 m²
 - Face 3: 240 m²
 - Total Area: 2121 m²

- ALWC found on the majority of the piles. Found to be more severe near the seabed with 17% of the surface affected. This reduces to about 12% at mid water and less near the surface.
- Average loss of thickness near the seabed, mid water and at the surface are 0.118, 0.080 and 0.058mm/year respectively
- Maximum loss was recorded at 7.2mm however the average loss in thickness was between 1.0 to 2.3mm.
- The estimated cost of sacrificial cathodic protection with a design life of twenty years for this pier is £243,915.

• West Burrafirth Pier

- Sheet piled pier built circa 1986.
- Sheet piles are Larssen 16. Original thickness: Flange 10.5mm, Web 8.6mm
- Area of berthing faces:
 - Face A: 157m²
 - Face B: 270m²
 - Face C: 60m²
 - Face D: 219m²
 - Face E: 13m²
 - Total area: 877m²
- The piles were inspected by diver but no thickness measurements were taken on the piles. Extensive areas of ALWC were seen on approximately 75% of the piles. The rate of loss of thickness cannot be determined from the present survey however it is likely to be similar to what has been observed at other piers around the islands. With the age of the structure, the average loss of thickness is likely to be in the range 1.9 to 3.5mm.
- The piles used to construct this pier were of a lighter section than those used on most of the other piers. A loss of thickness of 3.5mm from the section could be significant with regard to the piers ability to carry the design loads. Further investigation needs to be carried out to establish the thickness of metal remaining. An analysis of the structure with a reduced pile section should then be carried out
- The estimated cost of sacrificial cathodic protection with a design life of twenty years for this section of pier is £100,855.

Skerries Fishing Pier

- Sheet piled pier built circa 1996
- Sheet piles are Larssen 6 122. Original thickness: Flange 22mm, Web 14mm.
- Area of berthing faces:
 - Face A: 380m²
 - Face B: 100m²
- The piles were inspected by diver but no thickness measurements were taken. ALWC was seen to be present over the structure. The rate of loss of thickness cannot be determined from the present survey however it is likely to be similar to what has been observed at other piers around the islands. With the age of the structure, the average loss of thickness is likely to be in the range 1.0 to 2.1mm.

- The estimated cost of sacrificial cathodic protection with a design life of twenty years for this section of pier is £55,200.
- Prioritisation of Sacrificial Cathodic Protection
 - There are three areas where the sheet piling is in very poor condition with loss of fill through substantial holes in the pile wall.
 - Toft old ferry terminal
 - Baltasound old original pier piles
 - Scalloway west side adjacent to Muckle Yard new pier
 - Corrosion of the sheet piling has been taking place at all the pier sites around Shetland with ALWC found at most of the sites. To maintain the existing structures it is recommended that sacrificial cathodic protection is installed to prevent further deterioration of these assets.
 - The following list provides a recommended priority list for a programme of protection based on surveys of the structures and an assessment of their condition.
 - Cullivoe Finger pier
 - Scalloway East side finger
 - West Burrafirth
 - Collafirth
 - Baltasound
 - Scalloway Market quay
 - Cullivoe 2000 redevelopment
 - Symbister Breakwater quay
 - Scalloway south quay
 - Skerries fishing pier
 - Scalloway below castle

Glossary

Advanced Low Water Corrosion (ALWC)

ALWC occurs in marine environments owing to the presence of sulfates, which are converted by sulfate-reducing bacteria (SRB) into hydrogen sulfide (H2S) that causes direct anaerobic corrosion of steel surfaces. The H2S generated in this metabolic process also serves as a food/energy source for sulfide-oxidizing bacteria (SOB), which in turn convert the hydrogen sulphide to sulfuric acid (H2SO4). The oxidation by SOB of hydrogen sulfide generated by SRB serves to promote a continuous electrolysis process at the steel surface. Through this symbiotic action of collocated colonies of SRB and SOB participating in a microbial sulfur cycle, the standard 'rusting' corrosion process is accelerated.

Cathodic Protection (CP) Cathodic protection works by reversing the anodic / cathodic relationship between the structure and its surrounding electrolyte (Seawater), and introduces a more electrochemically active metal to the vulnerable surface (anodes), where it is exposed to an electrolyte. By careful sizing and placing of these anodes, the surface of the vulnerable metal is polarized, or pushed to a negative electrical potential, thereby arresting the flow of electrons into the electrolyte, removing the corrosion process.

Harbour Board 19 August 2014

Harbour Board Business Programme – 2014/15		
GL-13-14-HB-F		
Team Leader – Administration	Governance and Law Corporate Services	

1.0 Summary

1.1 The purpose of this report is to inform the Board of the planned business to be presented to the Board over the remaining quarters of the current financial year to 31 March 2015 and discuss with Officers any changes or additions required to that programme.

2.0 Decision Required

2.1 That the Harbour Board considers its business planned for the remaining quarters of the current financial year to 31 March 2015 and RESOLVE to approve any changes or additions to the Business programme.

3.0 Detail

- 3.1 The Council approved the Council's Meeting Dates and Business Programme 2014/15 at its meeting on 26 March 2014, (Min. Ref. 21/14).
- 3.2 It was agreed that the Business Programme for 2014/15 would be presented by Committee Services to the Council and each Committee/Board, on a quarterly basis, for discussion and approval.
- 3.3 The manner in which meetings have been scheduled is described below:
 - Ordinary meetings have been scheduled, although some have no scheduled business at this stage. Where there is still no scheduled business within 2 weeks of the meeting, the meeting will be cancelled;
 - Special meetings have been called on specific dates for some items other agenda items can be added, if time permits;
 - PPMF = Planning and Performance Management Framework meetings have been called for all Committees and Council once per quarter. These meetings are time restricted, with a specific focus on

PPMF only, and therefore no other business will be permitted on those agendas;

- Budget = Budget setting meetings other agenda items can be added, if time permits, or if required as part of the budget setting process; and
- In consultation with the Chair and relevant Members and Officers, the time, date, venue and location of any meeting may be changed, or special meetings added.
- 3.4 In relation to the planned business for the year ahead, the Director of Infrastructure Services has the following comments or observations to make:

The Harbour Board has standard business items which are reported each meeting. Unforeseen business may arise due to operational matters which need the Board to decide on Policy changes. That business cannot be planned in advance.

4.0 Implications

<u>Strategic</u>

4.1 <u>Delivery On Corporate Priorities</u> – The recommendation in this report is consistent with the following corporate priorities:

Our Corporate Plan 2013-17

- To be able to provide high quality and cost effective services to people in Shetland, our organisation has to be run properly.
- Fully align the timetables, time spans and approaches for financial planning relating to the medium term yearly budgeting with Council, directorate and service planning.
- 4.2 <u>Community /Stakeholder Issues</u> The Business Plan provides the community and other stakeholders with important information, along with the Council's Corporate and Directorate Plans, as to the planned business for the coming year.
- 4.3 Policy And/Or Delegated Authority Maintaining a Business Programme ensures the effectiveness of the Council's planning and performance management framework. The Business Programme supports each Committee/Board's role, as set out in paragraph 2.3 of the Council's Scheme of Administration and Delegations, in monitoring and reviewing achievements of key outcomes within its functional areas, whilst ensuring best value in the use of resources is met to achieve these outcomes within a performance culture of continuous improvement and customer focus.
- 4.4 Risk Management The risks associated with setting the Business
 Programme are around the challenges for officers meeting the timescales required, and any part of the business programme slipping and causing reputational damage to the Council. Equally, not applying the Business Programme would result in decision making being unplanned and haphazard and aligning the Council's Business Programme with the

objectives and actions contained in its corporate plans could mitigate against those risks.

- 4.5 Equalities, Health And Human Rights None.
- 4.6 Environmental None.

Resources

- 4.7 <u>Financial</u> The there are no direct financial implications in this report, but indirect costs may be avoided by optimising Member and officer time.
- 4.8 <u>Legal</u> None.
- 4.9 <u>Human Resources None.</u>
- 4.10 <u>Assets And Property</u> None.

5.0 Conclusions

5.1 The presentation of the Business Programme 2014/15 on a quarterly basis provides a focussed approach to the business of the Board, and allows senior Officers an opportunity to update the Board on changes and/or additions required to the Business Programme in a planned and measured way.

For further information please contact:

Anne Cogle

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11 August 2014

List of Appendices

Appendix 1 – Harbour Board Meeting Dates and Business Programme 2014/15

Background documents:

Report GL-02-F - Presented to Council on 26 March 2014: Titled "Meeting Dates and Business Programme 2014/15"

http://www.shetland.gov.uk/coins/Agenda.asp?meetingid=4317



Shetland Islands Council - Meeting Dates and Business Programme 2014/15 as at Tuesday, 12 August 2014

	Harbour Board D= Delegated			
Quarter 1	Date of Meeting	Business	na n nejerrea	
1 April 2014 to 30 June 2014	Ordinary 30 April 2014 10 a.m.	Cancelled No Business		
		Management Accounts – Quarter 4	D	
		Pilotage Accounts – Quarter 4	D	
		Harbourmaster's Report – Quarter 4	D	
		Capital and Revenue Project Progress Report - Quarter 4	D	
	PPMF & Ordinary	Commercial Report – Quarter 4	D	
	27 May 2014 2 p.m.	Infrastructure Directorate – Performance Overview – Quarter 4	D	
		Tug Charter	D	
		Capital Spending – Solan/Bonxie	D	
		Compliance with Standing Orders – Ports & Harbours	D	
		Harbour Board Business Programme2014/15	D	
	<i>Ordinary</i> 30 June 2014 10 a.m.	Cancelled- No Business		
Quarter 2	Date of Meeting	Business		
1 July 2014 to		Management Accounts – Quarter 1	D	
30 September 2014		Pilotage Accounts – Quarter 1	D	
		Harbourmaster's Report – Quarter 1	D	
	PPMF & Ordinary 19 August 2014 2 p.m.	Capital and Revenue Project Progress Report – Quarter 1	D	
		Commercial Report – Quarter 1	D	
		Infrastructure Directorate – Performance Overview – Quarter 1	D	
		Small Ports Survey	D	
		Harbour Board Business Programme2014/15	D	

Shetland Islands Council - Meeting Dates and Business Programme 2014/15 as at Tuesday, 12 August 2014

	Harbour Board - continued D= Delegate		
Quarter 3	Date of Meeting	Business	.u n-nejerreu
1 October 2014	to Ordinary S October 2014	Business Plan - Sullom Voe Harbours	D
to 31 December		Business Plans – Scalloway	D
2014		Harbour Investment Model (James Gray)	tbc
		Working Patterns and Safe Operations	tbc
		Management Accounts – Quarter 2	D
		Pilotage Accounts – Quarter 2	D
		Harbourmaster's Report – Quarter 2	D
	PPMF & Ordinary 18 November 2014	Capital and Revenue Project Progress Report – Quarter 2	D
	2 p.m.	Commercial Report – Quarter 2	D
		Infrastructure Services Directorate – Performance Overview – Quarter 2	D
		Harbour Board Business Programme2014/15	D
	Budget	2015-16 Budget Proposals and Charges	R Ex 8 Dec
	25 November 2014 10 a.m.	Infrastructure Services Directorate Plan 2015-16	R E&T 25 Nov
Quarter 4	Date of Meeting	Business	
1 January 2015 to	Ordinary 4 February 2015 10 a.m.	tbc	
31 March 2015		Management Accounts – Quarter 3	D
		Pilotage Accounts – Quarter 3	D
	DDA45 0 O //	Harbourmaster's Report – Quarter 3	D
	PPMF & Ordinary 24 February 2015	Capital and Revenue Project Progress Report – Quarter 3	D
	2 p.m.	Commercial Report – Quarter 3	D
		Infrastructure Services Directorate - Performance Overview Q3	D
		Harbour Board Business Programme 2015/16	D

Planned Committee business still to be scheduled - as at Tuesday, 12 August 2014

Shore Power

Harbour Board - END