



REPORT TO: ECONOMIC DEVELOPMENT AND INFRASTRUCTURE SERVICES COMMITTEE ON 15 NOVEMBER 2022

SUBJECT: MARINE SAFETY AND OPERATIONAL UPDATE Q2 2022-2023

BY: DEPUTE CHIEF EXECUTIVE (ECONOMY, ENVIRONMENT AND FINANCE)

1. REASON FOR REPORT

1.1 To inform the Committee on matters of Marine Safety and compliance with the Port Marine Safety Code (PMSC) for the period Q2 year 2022/23.

1.2 This report is submitted to Committee in terms of Section III (F) (25) of the Council's Scheme of Administration relating to the functions of Council as Statutory Harbour Authority (SHA).

2. RECOMMENDATION

2.1 **Committee is asked to consider and note the safety performance, fulfilling its function as Duty Holder under the Port Marine Safety Code.**

3. BACKGROUND

3.1 Under the statutory requirements of the Port Marine Safety Code (PMSC) the organisation (Moray Council) must appoint a duty holder to ensure compliance with the PMSC is achieved. The organisation must provide a report on PMSC performance annually as a minimum.

3.2 The role of Duty Holders is held by Members of the Economic Development & Infrastructure Services committee. The role requires accountability for ensuring the organisation's compliance with the PMSC.

3.3 At a meeting of this committee on 20 March 2018 it was agreed that a report on PMSC would be submitted quarterly (paragraph 6 of the minute refers)

3.4 Moray Council, in its capacity as a Statutory Harbour Authority, is committed to undertaking and regulating marine operations to safeguard all its harbour areas, the users, the public and the environment through its Safety Management System (SMS).

4. **Q2 Review**

4.1 The following sections of the report set out an overview of marine safety performance for Q2 of 2022/23.

PMSC Audit

4.2 A full annual audit of Moray Council compliance with PMSC was carried out by Marex Marine, within their capacity as designated person. The Audit was conducted at Buckie Harbour Office on 12 October 2021 and concluded that the Moray Council harbours are compliant with the PMSC. The Audit process made observations. The open items from this are provided in the table below.

Observation	Progression
Review Harbour Bye-laws with particular regard to continued relevancy	Liaison with legal department required to establish a time to review bye-laws during 2022/23. Target Date completion 31/03/23
Consider cyber security protocols	Addition of cyber security policy to be added to SMS during review cycle including update of IT systems in new harbour office. IT consultation is ongoing with council officers during process of office move. Target Date completion 30/11/22
SMS updates, rewording suggestions	Review of SMS completed. Compilation draft of new document being finalised ready to be presented for consultation and Duty Holder approval at end of quarter 3, Target date completion 31/12/22.
Consideration of adding extra safety signs around harbour	In conjunction with ongoing water safety group meetings and work stream considerations for signs required to be discussed. Signs on order and being produced currently. Target Date for completion 30/11/22
Increasing drills carried out with external institutions suggested	Plans to be made to include exercises with local fire brigade large scale cross council drill to be organised with Aberdeenshire council with Emergency planning officer. Target date TBC no later than 31/03/23

4.3 The 2022/23 Annual Audit conducted by Marex Marine will take place on 6 December with the report and findings brought to this committee at the next scheduled date.

4.4 It should be noted that duty holders are required to be conversant with PMSC and its relevant content. Training for Duty Holders was provided by the designated person on 15 August 2022.

Key Performance Indicators

4.5 Details of the Council's compliance with PMSC are provided below.

Q2 Accident, Incident and Near Miss Statistics

4.6 Incident statistics Summary Table

Quarter	Injuries	Incidents	Near Misses
2	1	1	0

4.7 On 26 September, Harbour Watchman boarded a fishing boat during heavy weather (force 6 North-westerly gales) to replace a mooring line that had broken. The watchman boarded the vessel as the vessel owners were not able to conduct the work themselves in an appropriate time, this action is in line with harbour staff prescribed role and powers. While on board moving forward, a mooring line tightened and a weld on the vessel's mooring bit failed. The mooring bit, as a result, catapulted toward the quayside under tension and struck the watchman on the left side of his rib cage. The injured watchman was assessed and at the time of the accident showed no obvious signs of trauma or injury. Following the incident, the injured Watchman was sent home from work to rest and scheduled to visit the doctor the following morning. On Friday 7 October the watchman was declared fit and no injury or effects identified.

4.8 Moray Council Health and Safety team was advised of the incident and relevant incident reporting was carried out, including the watchman's statement of events.

4.9 Investigation into the event has determined that there was no possible indication that a failure of the weld was going to occur. There was no error in mooring arrangements and the watchman was practicing safe protocols on board, as well as wearing the full personal protective equipment required. The incident was a direct result of adverse weather conditions. The dynamic risk assessment undertaken by the Watchman indicated he should board the vessel rather than waiting for the owner to arrive. This is considered the correct decision as the risk of injury appeared low compared to the risk associated with not attending to the vessel. Communication with the vessel owner has been ongoing to remind them of their responsibilities, with regard to maintaining access and safe mooring whilst in harbour.

Aids to Navigation

4.10 As a Local Lighthouse Authority, Moray Council is required to report the availability of all of its navigational lights to the Northern Lighthouse Board in March of each year. Currently the Port Closed light on the North Pier in Buckie is unavailable, resulting in availability figures being decreased. This has been discussed with the Northern Lighthouse Board and they have noted it is not an urgent requirement as the light is not mandatory and other provisions to communicate any port closures are available.

4.11 New solar powered lights will be installed in Burghead and Buckie. The new solar powered lighting will decrease the number of faults observed and as a result lead to an increase in the availability figures for all navigational aids.

This work has been funded by Scottish Government Marine Fund Scotland Scheme.

4.12 A risk assessment for changing the lighting system is in preparation by Harbourmaster and after completion by end of Nov 22 will be approved by the Northern Lighthouse Board. A Notice to Mariners has been prepared and this will be sent to all harbour users and the UKHO so visiting vessels can be informed of this change.

4.13 The table below summarises the availability of Navigational lights under Moray Council's responsibility.

IALA Category	No Of Aids	Total Hours	No Of Failures	OOS Hours	MTTR	MTBF	Availability	Target Availability
Moray Council								
CAT 1	1	26,304	0	0:00	0:00	0:00	100.00 %	99.80 %
CAT 2	15	394,560	6	31333:58	5222:20	60537:40	92.06 %	99.00 %
CAT 3	4	105,216	1	5222:00	5222:00	99994:00	95.04 %	97.00 %
No Category	0	0	0	0:00	0:00	0:00	0.00 %	0.00 %
Totals		20						

The 'Availability Objective' is calculated over a rolling 3-year period. This means that over this period a Cat 1 Aid to Navigation needs to be functional for 99.8% of the time. Currently Moray Council is meeting this target. The availability of Cat 2 and 3 lights is below the target availability.

4.14 The target for the year 2022/23 is to increase the availability figures of Cat 2 lights to 95% and Cat 3 lights to 97%. This will be achieved by utilisation of new solar powered lights that once installed, planned by end of Feb 23, will provide more efficiency due to less reliance on unsuitable cabling, prone to faults.

Pilotage

4.15 Pilotage is not compulsory at Buckie harbour, therefore, not all cargo movements require the services of a pilot. The number of pilotage acts carried out in the second quarter of 2022/23 was 12, in relation to 38 vessel movements in and out of the harbour. This included 1 act of pilotage in hours of darkness.

Training

4.16 There are currently two members of staff deemed competent to pilot, one unrestricted and one restricted to daylight hours. By end of Q3 it is anticipated that both members of staff will be competent to pilot without restrictions and that a third member of staff will be fully trained. Training will begin for other harbour staff after Q3 with 2 new harbour assistants beginning training.

4.17 During Q2 training was completed for:

- First aid refresher training for 2 members of staff.
- Oil spill level 3 training was completed by 1 member of staff
- Duty Holder PMSC training carried out by designated person (Marex Marine).

Training for Port Facility Security is currently being sourced to be completed by 2 members of staff. Currently harbours are compliant with PMSC and International ship and port facility code (ISPS) however additional trained staff will provide additional resilience and shared responsibilities.

Staffing

- 4.18 One member of staff remains absent from work due to long term sickness and this post is being covered by an agency appointed watchman until Occupational Health recommendations and advice have been confirmed.
- 4.19 Recruitment for MV Selkie staff is ongoing with a new recruitment round for vessel master being undertaken during Q3/4.

Conservancy

- 4.20 Dredging has continued into the quarter 2 of 2022/23, with priority given to Buckie navigational channel and Burghead channel. There has also been significant work undertaken at Findochty.
- 4.21 From 1 July 2022 to 30 September 2022 the total amount of spoil removed to designated spoil grounds was 3260 Tonnes over 24 digging days. This includes the harbours at Findochty, Burghead and Buckie (see table 2 para 4.32).
- 4.22 Burghead groyne is at the end of its serviceable life, which is increasing the deposition of sediment at the harbour channel. A contract has been awarded to undertake significant maintenance work to the groyne. This work is subject to a marine licence which is currently being progressed by Marine Scotland.
- 4.23 In Buckie the current depth under chart datum is officially 2.1 Metres with relevant Notice to Mariners promulgated. There has been significant improvement in the depth of the channel as a result of work carried out in Q1 and Q2. Indication from Selkie and pilot boat sounding is that depth under chart datum exceeds 2.5 metres. These soundings are subject to official bathymetric survey of the channel which is being organised for Q3.
- 4.24 There is a Notice to Mariners published warning vessels of the fluctuating depths within the entrance channel of Burghead advising all mariners to contact Harbourmaster for accurate information and tidal information.
- 4.25 The priority areas for dredging remain Burghead (sand bank approaching harbour entrance) and Buckie (entrance channel). The agreed capital works to undertake outsourced dredging, (agreed on 29 June 2022 paragraph 22 of the minute refers,) is currently progressing with preparation works. Sediment sampling and its analysis is being procured and conducted to satisfy Marine Scotland licencing requirements. The planned works will incorporate work to dredge all harbour basins in Buckie utilising a combination of Selkie and external vessel. Other dredging requirements include:
 - Hopeman: Different options to increase the efficiency of dredging at Hopeman are being considered and a plan detailing these will be developed in 2022/23.
 - Cullen: dredging by the Selkie will focus on the beach side of the basin.

- Portknockie: Work at Portknockie was undertaken in Q1 with a plan for some minor additional work to be carried out during November.
- Findochty: Further dredging is required at the entrance channel to complete work started in Q2.

4.26 There has been an increase in available water under chart datum of 1.0 metre in the west basin and channel at Findochty harbour as a result of the dredging campaign in 2021/22. Dredging in Q2 of 2022/23 has removed 540 tonnes of spoil from the entrance area and approach to the new pontoons, maintaining good access to all vessels.

Selkie

4.27 MV Selkie has completed works within Buckie, Burghead and Findochty during the second quarter of 2022/23. The table below summarises the work carried out during this quarter:

Table 1: Days worked and total tonnage removed Q2 2022/23 vs Q1 2022/23 and Q4 2021/22

Year	Days working	Weather days	Maintenance	Working days %	Tonnage Removed
2022/23 Q2	24	17	14	44	3,260
2022/23 Q1	30	12	20	48	3,460
2021/22 Q4	24	30	9	38	3,330

Table 2: Summary of works carried out per harbour during Q2

Harbour	Cumulative working days	Cumulative weather days	Cumulative maintenance days	Tonnage removed
Buckie	15	13	14	2,000
Burghead	4	4	0	720
Findochty	5	0	0	540
Total (%)	24 (44)	17 (31)	14 (25)	3,260

4.28 During the Q2 of 2022/23 there has been a slight decrease in the total tonnage removed to spoil by MV Selkie (200 tonnes approx. 1 load) compared to the previous quarter (Q1 3,460, see Table 1 para 4.29). This total has been completed over 24 working days which is a decrease in working day percentage from 48% to 44%.

4.29 The updated figures for the current year 2022/23 are now 46% working days 25% weather days and 29% maintenance days (planned and unplanned). This is still below the target KPI of 50% working days (see paragraph 4.35). There has been a decrease in days lost to unplanned maintenance down to 25% however this is still not at the target of 20% or less.

Table 3: Comparison of working days compared to weather and maintenance

Year	Days working %	Weather days %	Maintenance %
2022/23 Total	46	25	29
2022/23 Q2	44	31	25
2022/23 Q1	48	20	32

- 4.30 The plan for increased efficiency moving forward is to maximise the number of days crewed on vessel and continue to work effectively with maintenance to lower the number of maintenance days. A computer based planned maintenance system on board Selkie and throughout the harbours is now delivered and is currently being readied and tested for full use starting in Q3. This system will increase efficiency of auditing maintenance, allow greater ability to scrutinise maintenance and its history and allow remote access monitoring of all maintenance.
- 4.31 The procurement process to install Marine mammal observation equipment is currently underway with a planned date of installation to occur in January 2023. This equipment will allow Selkie to work in more marginal weather conditions above a force 3 at spoil dumping grounds. This will further improve the efficiency of dredging operations.

Environmental Considerations

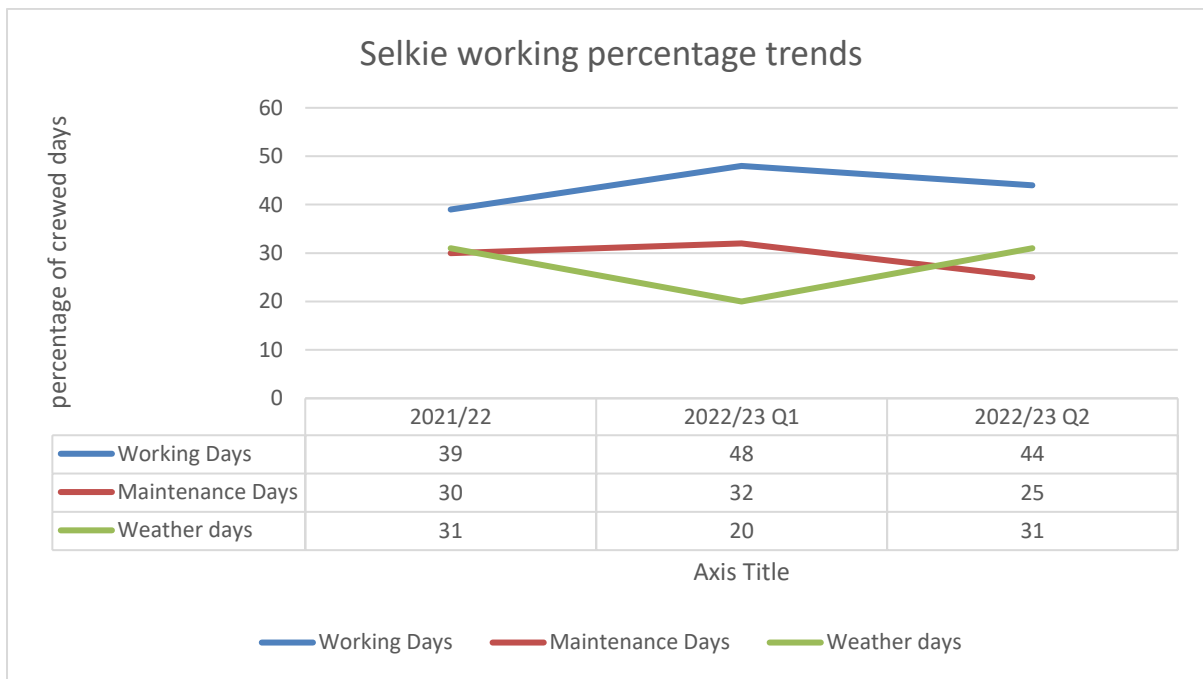
- 4.32 There has been continuing work carried out with the focus on lowering carbon emissions and promoting overall environmentally sound practices within the harbours. This includes plans to upgrade the electrical infrastructure available within Buckie harbour, allowing less reliance on fossil fuel generators for power.

KPI Summary Table

KPI	Progress at the end of Q2	Completion Target Date
Conservancy		
Buckie Channel Depth 3.0M	Current official depth 2.1M (2.5 M sounded by pilot boat)	31/03/23
Buckie Basin 1/2/3 depth 3.0M	Current depth 2.2M	Review of progress 31/03/23 Fully achieved by 31/08/23
Provide 0.3M channel Burghead	Current depth 0.0M	Review of progress 31/03/23 Fully achieved by 31/08/23
Productivity		
Maintenance days less than 20%	Currently 29%	Continuous review
Working days greater than 50%	Currently 46%	Continuous review
Total minimum tonnage removed above 14,120 Tonnes (aspirational target 18,000 Tonnes)	End of Q2 6,720 (annual projection therefore 13,440)	31/03/23
Total working days above 77 (target 100)	54 end of Q2 (currently on target)	31/03/23
Staffing		
Full Time master	Q3/4 recruitment campaign (long term skilled agency worker currently)	30/09/22 postponed due to staffing issues within harbour office and reviewed target 31/12/22
Safety management/ Maintenance		

SMS review and Update	Reviewed and new document being drafted	31/10/22
Full Risk assessment update	In progress annual review completed.	31/10/22
Planned maintenance system implementation	Procured and installed, assets being added to database for complete functionality	31/08/22
Financial		
Lower Running costs to within Budget	To be reviewed	31/03/23

4.34 Graph of Selkie Working availability trends



4.35 The general pattern of Selkie working day availability compared across quarters in 2022/23 vs 2021/22 shows a slight decrease in maintenance days and overall a slight increase in working days. There is however still continued improvement required to reach the desired KPIs highlighted in the table in paragraph 4.34 above. A trend graph will continue to be added in future reports to highlight progress toward KPIs identified for working day and maintenance day targets.

5. General Safety Updates

Safety related works

5.1 There have been a number of jobs completed during Q2 improving safety conditions within all harbours, these works include:

- Repair to wheeled steps
- Repaired small holes on pier 2
- Painting various equipment around harbour
- Created additional ventilation points to aid Ice Machine ventilation

- Removal of various ropes posing a threat to vessel safety navigating harbours
- Repair to concrete slab in the centre channel of pier 3 Buckie
- Installation and removal of handrails on pier 1 Buckie for Lady of Avenal (Tall Ship).
- Lighthouse navigation light reinstated and windows and access cleaned to allow safer/easier access.
- Reattached fairlead on pier 2
- Repair Burghead net store access
- Cleaned tide board Burghead
- Toilet repaired Burghead
- Cleared waste oil drums
- Weeding in Burghead
- Replaced life rings and lines all harbours
- Installed ladder top handrails where required
- Installed additional mooring rings at slipway in Findochty to make berthing safer and easier for bigger boats.
- Portknockie slipway treated with algicide
- Barrier installed at end of west pier in Cullen to prevent persons driving on it whilst quay repairs are being planned and carried out
- Various issues on workboat Pathfinder rectified including the power steering and screenwasher. Mooring lines all replaced and seats removed from internals to create storage space for loose equipment.

Master action List

5.2 *List of safety related jobs required to be completed in all harbours comprising the Master action list:*

Priority category	Number of safety related jobs needing completion at beginning of Q2	Number of safety related jobs still outstanding at end of Q2	Total safety related jobs completed during Q2
1	8	4	4
2	31	15	16
3	44	23	21
4	31	20	11
Totals	112	62	52

5.3 Master action list is a list of all safety related jobs required within the harbours segregated in to 4 categories. Category 1 deemed the most important.

The remaining Priority 1 items are as follows:

- Repair to Pathfinder pilot boat steering. Repair work can be completed without interference to vessel operations.
- Repair works currently being completed to the North pier by a contracted diving team as per capital plans.

- Work being carried out to address outages in lighting on piers in the harbour. This work is being delivered presently by Moray Council street lighting team.

Signage

5.4 The signs listed below have been ordered and will be erected when received.

1. Four signs to restrict general access to the pontoons
2. Harbour operations signs.
3. Designated visitor berths.
4. Operational speed restrictions
5. Keep slipway clear signs.

6. Objectives identified for remaining quarters of 2022/23

- Publishing of updated SMS: the revised SMS will be presented to a future meeting of this committee.
- Undertake further reviews of Marine Policy and Harbour Bye-laws.
- Review training requirements and request necessary training.
- Continue momentum of Pilot training and accreditation leading to 2 fully competent Pilots within the Harbour team by end of Q3.
- 2022/23 PMSC audit 6 December and provide report at end of Q3.

7. SUMMARY OF IMPLICATIONS

(a) Corporate Plan and 10 Year Plan (Local Outcomes Improvement Plan (LOIP))

Sustainable harbours maintained to operate safely and efficiently contribute to the economic development of Moray.

(b) Policy and Legal

Non-compliance with the PMSC will have legal implications.

(c) Financial implications

Non-compliance of the PMSC may have financial implications.

(d) Risk Implications

Failure to comply with the PMSC could result in prosecution of the authority.

(e) Staffing Implications

No staffing implications arise from this report.

(f) Property

There are no property implications arising from this report.

(g) Equalities/Socio Economic Impact

There are no specific equalities matters, however, the Equalities Officer has been consulted and comments incorporated into this report.

(h) Climate Change and Biodiversity Impacts

There are no climate change and biodiversity implications arising from this report.

(i) Consultations

The Depute Chief Executive (Economy, Environment and Finance), Head of Environmental and Commercial Services, Legal Services Manager, Head of Financial Services, Committee Services Officer (L Rowan), and Equalities Officer have all been consulted and their comments incorporated into this report.

8. CONCLUSION

8.1 The Council is currently deemed to be compliant with the PMSC, however, work to maintain a safe environment remains an ongoing matter in a dynamic environment. Diligent staffing and constant monitoring and risk assessing will be utilised to maintain compliance as demands evolve.

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Background Papers:

Ref: SPMAN-524642768-792