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**REPORT TO: ECONOMIC DEVELOPMENT AND INFRASTRUCTURE  
SERVICES COMMITTEE ON 21 JUNE 2022**

**SUBJECT: MARINE SAFETY AND OPERATIONAL SUMMARY OF 2021/22  
AND UPDATE FOR Q4 2021-2022**

**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 year 2021/22 and details of Q4 2021/22.
- 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 Holder is held by members of the ED&IS committee. The role requires accountability for ensuring the organisation's compliance with the PMCS.
- 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. **ANNUAL REVIEW 2021/22**

- 4.1 The following sections of the report set out an overview of marine safety performance in 2021/22, with specific details for Quarter 4 2021/22 provided in **APPENDIX 1**.

##### **PMSC Audit**

- 4.2 As defined by the PMSC a Designated Person is required to provide independent assurance directly to Duty Holders that the organisation is compliant with the PMSC. The Designated Person is an independent person or body. For Moray Council, Marex Marine is appointed as Designated Person. This assurance is achieved through the Designated Person carrying out audits, and by contacting the duty holders and management when necessary.
- 4.3 A full audit of Moray Council compliance with PMSC was carried out by Marex Marine within its capacity as Designated Person. This audit was conducted on 12 October 2021 and concluded that the Moray Council harbours are compliant with the PMSC.
- 4.4 The Audit process made observations, which are provided in the table below.

##### *Observations from PMSC Audit:*

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.
Consider cyber security protocols	Addition of cyber security policy to be added to SMS during review cycle.
Risk assessment review required	Annual Risk assessment review carried out in February 2022.
SMS updates, rewording suggestions	Review of SMS with aid from Quality Management Systems officer planned June/July 2022.
Consideration of adding extra safety signs around harbour	In conjunction with ongoing water safety group meetings, considerations for signs required to be discussed.
Increasing drills carried out with external institutions suggested	Plans to be made to include exercises with local fire brigade.

- 4.5 Committee is the Duty Holder for the PMSC and is required to be conversant with the PMSC and its relevant content. Training will be provided through the Designated Person Marex Marine in the coming months.

##### **Annual Accident, Incident and Near Miss Statistics**

- 4.6 The table below summarises the incidents that occurred throughout 2021/22, as previously reported in quarterly reports.

Quarter	Injuries	Incidents	Near Misses
1	1	2	0
2	0	1	0
3	1	1	0
4	0	0	0
Total	2	4	0

4.7 The number of injuries and incidents at Moray Council harbours during 2021/22 is extremely low. There is however room for improvement and the findings from Designated Person will be used to implement safeguards for the coming year. With this in place the target for Accidents, Incidents and Near Misses is 0. Any Accidents, Incidents and Near Misses that do occur will be investigated thoroughly and reported accordingly at quarterly and annual meetings of this committee. Lessons learned and actions arising from the events will be detailed in future reports.

4.8 Details of the injuries, incidents and near misses for the year 2021/22 are provided below. This information was reported in previous quarterly reports to this committee.

4.9 Injuries:

1. During the event of grounding which occurred at Buckie harbour in May 2021, (Q1) a member of crew on board a fishing vessel was injured. The Incidents section below details the outcomes and actions arising from the accident.
2. An eye injury occurred on board MV Selkie on 17th December (Q3). This injury was dealt with by medical professionals and the incident documented.

4.10 Incidents:

1. Q1 May and June 2021 there were two incidents of grounding within the channel at Buckie Harbour. The Investigation found that an uncharacteristic high pressure was present and this had lowered the water level causing the first grounding. The second was caused by a failure of the approaching vessel to communicate appropriately.

An investigation was undertaken into these incidents by the Designated Person (Marex Marine) and the recommendation from this investigation was a new mandatory communication procedure between incoming/outgoing vessels and harbour staff which was implemented in July 2021.

2. There was an incident reported in Burghead during Q2 of accidental damage caused by maintenance work at the harbour. This matter was dealt with by the Council's insurer.
3. During Q3 there was an incident at Burghead harbour involving a spill of hydrocarbons. This spillage was cleaned using appropriate oil spill equipment and disposed of in an appropriate manner. The incident was reported to the coastguard.

## **Aids to Navigation**

- 4.11 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
<b>Moray Council</b>								
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							

- 4.12 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. Given the position of Northern Lighthouse Board, the relative low use of the light, alternative means of reporting the harbour closed and its position being liable to weather damage, there are no immediate plans to fix this light.
- 4.13 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%. An availability of 95% for Cat 2 lights is still below the 97% target however, this will be rectified over the rolling 3 year period after planned improvements (as the figures is a rolling average it will take time to rise). The improvements will be achieved by utilisation of new solar powered lights that once installed will provide more efficiency due to less reliance on unsuitable cabling prone to faults.
- 4.15 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 over time lead to an increase in the availability figures for all navigational aids. This work has been funded by Scottish Government Marine Fund Scotland Scheme and is planned to be completed by end of July 2022.
- 4.16 A risk assessment for changing the lighting system will be prepared and approved by the Northern Lighthouse Board. A Notice to Mariners has been prepared and this will be sent to all harbour users and the U.K Hydrographic Office (UKHO) so visiting vessels can be informed of this change.

## **Pilotage**

- 4.17 Pilotage for vessels at Buckie Harbour is provided on request, in line with the risk assessment required under the Pilotage Act. However, it is not compulsory for a vessel to take a pilot at Buckie Harbour. The number of pilotage acts

carried out in the year 2021/22 was 50, in relation to 94 vessel movements in and out of the harbour.

### **Training and Staffing**

- 4.18 Pilotage training continues for 2 members of staff with 1 member of staff deemed competent to pilot during daylight hours, after an assessment from the authorised Pilot.
- 4.19 The training requirement for all harbour staff is currently being reviewed.
- 4.20 Recent recruitment within the harbours team includes the appointment of two new Assistant Harbourmasters and one Harbour Assistant.
- 4.21 There is still a vacancy for the Master of MV Selkie, as the previous rounds of recruitment have not been successful. In the meantime a competent agency Master is fulfilling the role.

### **Conservancy**

- 4.22 In Buckie the current depth under chart datum is 2.1 Metres with relevant Notice to Mariners promulgated.
- 4.23 There is a target Depth of 3.0 metres to be reached in all areas of the channel and basins 1-3 by the end of year 2022/23. Progress toward this will be reported quarterly as a KPI.
- 4.24 Immediate dredging plans are to prioritise the channel entrance and basin 2. The dredging plan includes provision to continue to dredge at Buckie regularly as the main priority of the dredging programme.
- 4.25 Burghead is attended any time there is a suitable weather window during manned periods and when tidal conditions suit. Currently the depth below chart datum at the entrance of Burghead harbour is 0 metres. The poor condition of Burghead groyne continues to have a negative impact in terms of accumulation of sand in the harbour channel. Plans have been prepared for repairs to the groyne, which are being put forward for consideration as part of the capital plan.
- 4.26 There is a Notice to Mariners published, warning vessels of the fluctuating depths within the entrance channel of Burghead, advising all mariners to contact the Harbourmaster for accurate information.
- 4.27 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.
- 4.28 The priority areas for dredging remain Burghead (sand bank approaching harbour entrance) and Buckie (entrance channel). Other dredging requirements include:
  - Hopeman: a plan is being developed for dredging the inner basin and channel during 2022/23.

- Cullen: a dredging plan for the basin at Cullen is being prepared for implementation in 2022/23.
- Portknockie: there is no need for dredging plans at Portknockie in 2022/23.
- Findochty: Dredging will be targeted at the entrance channel and areas around the middle jetty.

## **Selkie**

- 4.29 MV Selkie has completed works within Buckie, Burghead and Findochty during the year of 2021/22. The table below summarises the work carried out during the year:

Harbour	Total Tonnage removed	Digging Days
Buckie	8,770	49
Burghead	3,700	20
Findochty	1,650	8
Weather Days		62
Maintenance Days		59

- 4.30 During 2021/22 there has been an increase in the total tonnage removed to spoil by MV Selkie compared to the previous year. Over the course of the year the downtime for maintenance also reduced, although this isn't clearly demonstrated in the total figures for the year. There has been an increase in the amount of days the vessel has not been able to work due to adverse weather, particularly over the winter / spring period.

## **Selkie Management Plan**

- 4.31 It is important in fulfilling the duty of conservancy that the council's dredging resource is carefully managed to maximise efficiency of operation. The MV Selkie is currently focussed on internal dredging priorities. Commercial dredging opportunities will only be sought for the Selkie when it is clear that internal dredging priorities have been addressed, or there is clear capacity for that work to be done in a timely fashion.
- 4.32 The table below shows the productivity of the dredger from April 2017 to April 2022. It should be noted that some data was not specifically collated in previous years for reporting and this is marked as n/a.

*Days worked and total tonnage removed 2021/22 vs 2020/21*

Year	Days working - Internal	Weather days	Maintenance	Working days %*	Tonnage Removed	Days Working - External
2017/18	60	n/a	n/a	n/a	14,510	3.5
2018/19	16	n/a	n/a	n/a	6,651	10
2019/20	35	n/a	n/a	n/a	7,671	60
2020/21	38	14	46	39	11,240	
2021/22	77	62	59	39	14,120	

\*Working days % is the percentage of the total crewed days where dredging operations are undertaken, rather than maintenance or standing-by for suitable weather conditions.

4.33 The efficiency of the dredging operation is measured in terms of the following indicators:

- total working days (i.e. vessel crewed);
- % of working days v crewed days;
- tonnage removed from harbours;
- cost of operation and
- depth of water available in each harbour.

4.34 New KPIs measuring the percentage of days working and days of maintenance have been introduced and will be reported moving forward as a measure of the vessels working efficiency with a target of 50% working days and 20% maintenance days set.

4.35 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 further.

4.36 A business case to install marine mammal observation equipment is being investigated. This equipment would allow Selkie to work in more marginal weather conditions above a force 3 at spoil dumping grounds. This would further improve the efficiency of dredging operations.

4.37 The cost of operating Selkie is monitored against the established budget.

Financial Year	Budget	Actual Cost
2019/20	£259,026	£434,635*
2020/21	£252,966	£260,437
2021/22	£273,895	£307,795

\*offset by additional income of £136,374 from Forth Ports

4.38 In 2019/20 there was £176K additional expenditure £64K of agency costs, staff training £5K, additional running costs of £21K and additional Plant maintenance/repairs of £86K, offset by the additional income above of £136,374.

4.39 In 20/21 there was additional legal fees of £7K in relation to the bare boat charter that was considered for the vessel.

4.40 In 21/22 there was £34K additional expenditure, £10K of additional agency costs, £20K of internal fleet recharge and £4K of additional plant repairs. The additional costs were absorbed within the Marine Services budget, which overall presented a balanced out-turn.

4.41 The planned measurable improvement is to see a reduction in running costs with a target of being within budget for 2022/23. This will be achieved through continued improved maintenance of the vessel which is measured both in running costs and in days the vessel is un-operational due to maintenance as well as a reduction in fuel costs which will be achieved when Selkie is able to berth in Burghead as described above. There has already been a trend

toward fewer maintenance days during 2021/22 and current figures for Q1 22/23 continue this pattern.

4.42 The following table provides a summary of actions and targets for Selkie for the coming year:

Action	Progress (next review 30/06/22)	Completion Target Date
<b>Conservancy</b>		
Buckie Channel Depth 3.0M	Current depth 2.2M	31/03/23
Buckie Basin 1/2/3 depth 3.0M	Current depth 2.2M	31/03/23
Provide 0.3M channel Burghead	Current depth 0.0M	31/03/23
<b>Productivity</b>		
Maintenance days less than 20%	Currently 19%	Continuous
Working days greater than 50%	Currently 37%	Continuous
Total tonnage removed above 14,120 Tonnes	2,840 tonnes @ 4/6/22	31/03/23
Total working days above 77	24 days @ 4/6/22	31/03/23
<b>Staffing</b>		
Appoint permanent Master	Q2 recruitment campaign	30/09/22
<b>Safety management/ Maintenance</b>		
SMS review and Update	In progress	31/10/22
Full Risk assessment review & update	In progress	31/10/22
Planned maintenance system implementation	Establish business case – quote received	31/08/22
<b>Financial</b>		
Lower Running costs to within Budget	Monitor	31/03/23

### **Green Harbours**

4.43 There has been continuing work carried out with the focus on lowering carbon emissions and promoting overall environmentally sound practices within the harbours.

## **5. FUTURE PLANS AND ACTIONS**

### **Dredging Plans**

5.1 In 2022/23 it is proposed that MV Selkie continues to fulfil its role in carrying out maintenance dredging across the council's six harbours. Subject to financial approval by Moray Council as part of the capital planning process on 29 June 2022, it is proposed that a specific outsourced dredging campaign is carried out in order to:



- a) provide the necessary depths of water associated with the Moray West Offshore O&M contract at Buckie; and
  - b) to efficiently re-establish the channel at Burghead harbour, which has been diminished through significant sand movement in recent years – exacerbated by the failure of the groyne as described at para 4.16.
- 5.2 At Buckie it is proposed to dredge the channel and basins 2 and 3 to a level of 3.0 metres below chart datum, ready for lease requirements from August 2023. This is calculated at 12,783m<sup>3</sup>. This is a large scale piece of work, specifically related to the requirements of the offshore supply chain for windfarm O&M who have specific depth parameters as part of their contractual arrangements. The O&M contracts are financially generative for the Council, and this work forms part of this wider package. The scale of work is such that it would be inefficient for the council's own dredger to undertake the work, and would also divert the vessel away from its core maintenance dredging programme.
- 5.3 At Burghead Harbour there has been significant sand movement in recent years, exacerbated by the failure of the groyne as described above. Similarly to the position at Buckie, by having a targeted campaign externally resourced this provides an efficient means of re-establishing the desired channel depth at Burghead, which the Council's dredger can then maintain.
- 5.4 The Council's dredger, MV Selkie, was specifically designed to be a small agile vessel that can access all of the council's harbours for routine maintenance, rather than a larger vessel which whilst able to take larger quantities of spoil in one trip, would be too large to access all of the council's harbours.

### **Actions identified for 2022/23**

- 5.5 Detailed review of the Safety Management System (SMS): the SMS will be reviewed during quarter two and three and a revised SMS will be presented to a future meeting of this committee. The review will include emergency response and preparedness, full risk assessment and health and safety MS, including planned implementation of a safety observation card scheme.
- 5.6 Review of the Marine Policy and Harbour Bye-laws to be initiated in Q2.
- 5.7 Review training requirements.
- 5.8 Increase momentum of Pilot training and accreditation leading to two fully competent Pilots within the Harbour team by the end of Q3. At this stage plans will be made to undertake training for a third Pilot.
- 5.9 Continue recruitment drive for Selkie Master.

## **6. 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 Code will have legal implications, which will depend on the nature of the non-compliance.

**(c) Financial implications**

Non-compliance of the Code may have financial implications in terms of any cost of remedial action.

**(d) Risk Implications**

Failure to comply with the Port Marine Safety Code 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), Legal Services Manager, Principal Accountant (P Connor), Committee Services Officer (L Rowan), and Equalities Officer have all been consulted and their comments incorporated into this report.

## **7. CONCLUSION**

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

Author of Report: Stuart Akass, Harbours Development and Operations Manager

Background Papers:

Ref: SPMAN-524642768-746