



Port Owen Marina Authority (NPC)

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Weekly dredge monitoring report

Dredge area 2: West of bridge was dredged between 22 and 31 January 2024 (hereafter referred to as “Week 4”). The stipulated conditions allowing for dredging and discharge from the settling dam include an outgoing current equal to or greater than 0.43 m.s^{-1} (equivalent to site specific $200 \text{ m}^3.\text{s}^{-1}$), only between sunrise and sunset, and only on weekdays (excluding public holidays). Operational conditions for release require that dredging only occur when these parameters allowed for at least 1 hour of dredging. As a result of these parameters, 9 dredge sessions could occur for Week 4 of January 2024 (2 dredge sessions on the 23rd). No dredging to the river occurred (outstanding permit), dredging to the settling dam occurred 9 times, and discharge from the settling dam occurred 7 times (Table 1). For Week 4 of January 2024 a volume of 3010.9 m^3 was dredged from area 2 and blockages of the suction head occurred 15 times due to seaweed (Table 1).

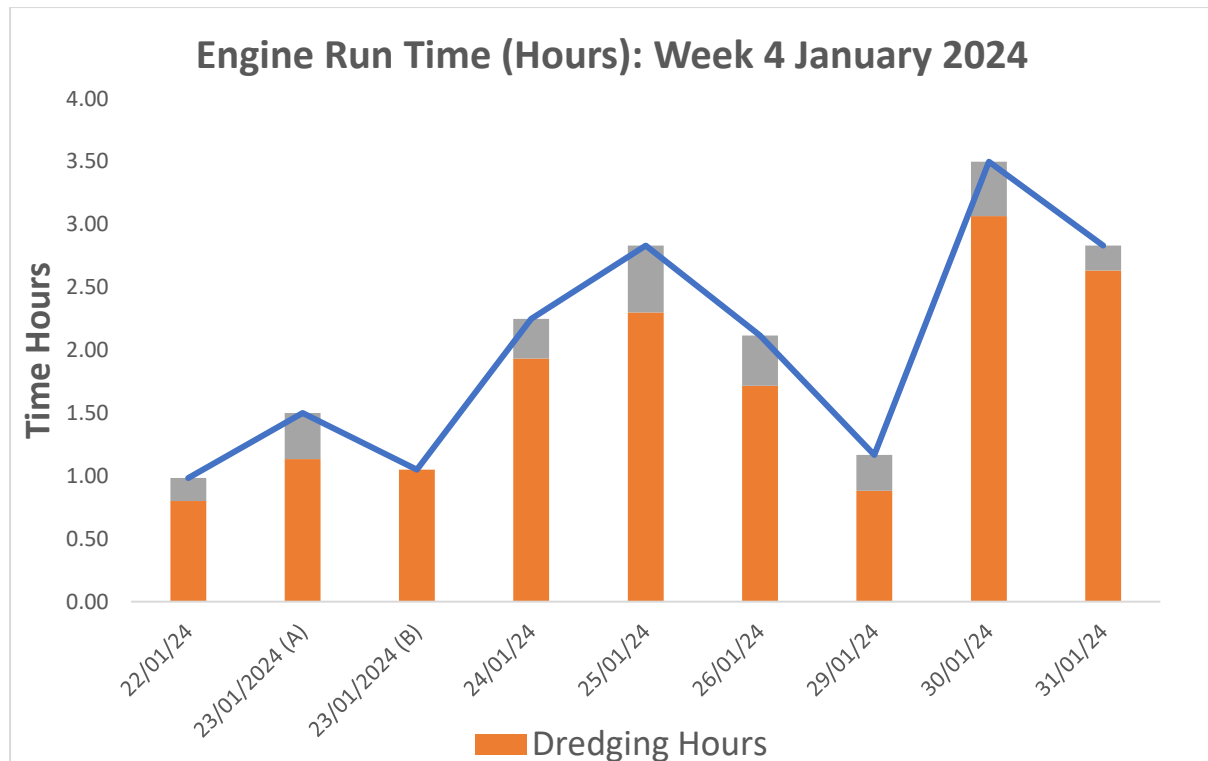
Table 1. Operational dredging variables.

Dredging of Dredge area 1	Total
Allowable dredge sessions	9
Dredge sessions to river	0
Dredge sessions to settling dam	9
Release from settling dam	7
Dredge volume (m^3)	3010.9
Stop incidents (due to blockage)	15

A total engine run time of 18 hours and 14 minutes was achieved for Week 4 of January 2024 with a mean run time of 1 hour and 39 minutes per dredge session (Table 2). The mean dredge time achieved per session was 1 hour and 25 minutes, indicating 18 minutes of stoppage time due to blockages of the suction head (Table 2). The mean volume of dredge material discharged to the settling dam was 334.5 m^3 (respectively) per session (Table 2). The total volume discharged from the settling dam was 1889.5 m^3 and a mean volume of 269.9 m^3 per discharge (Table 2).

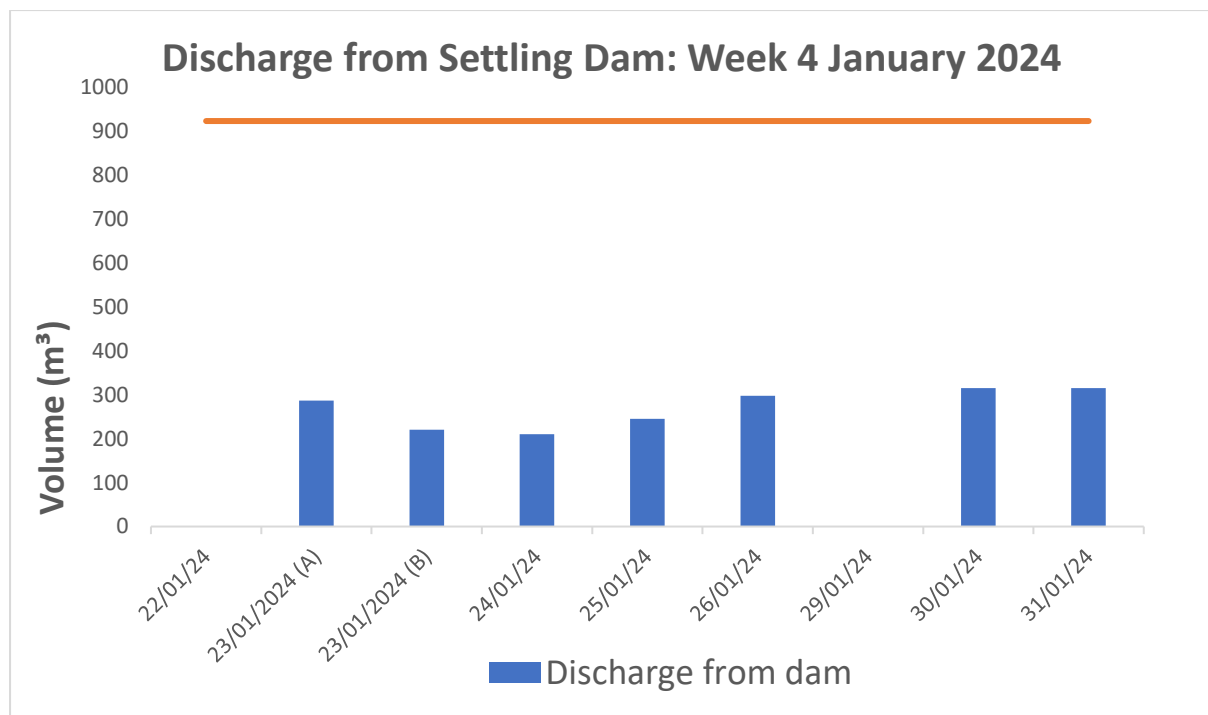
Table 2. Operational variables and means per dredge session.

Operational variables	Total	Mean (per session)
Engine time (h:min)	18:14	1:39
Dredge time (h:min)	15:31	1:25
Stoppage time (h:min)	2:43	0:18
Volume direct to river (m^3)	0	0
Volume to dam (m^3)	3010.9	334.5
Volume from dam to river (m^3)	1889.5	269.9



Daily discharge from the settling dam

Daily discharge from the settling dam did not exceed the CWDP limit of 923 m³.



River velocity

No river velocity recorded. Velocity meter propeller broke off and lost in the Berg river.
Operating strictly according to tides table.

Table 3. Mean river velocity before, during, and after dredging.

River velocity	Mean (m.s ⁻¹)
Before dredging	0
During dredging	0
After dredging	0