



# Port Owen Marina Authority (NPC)

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## Weekly dredge monitoring report

Dredge area 3B: Eastern Entrance was dredged between 22 and 29 April 2024 (hereafter referred to as “Week 2”). NO DREDGING occurred during week 1 of April due to dredger being moved from area 2 to area 3B and while dredge pipes were being fitted. The stipulated conditions allowing for dredging and discharge from the settling dam include an outgoing current equal to or greater than  $0.43 \text{ m}\cdot\text{s}^{-1}$  (equivalent to site specific  $200 \text{ m}^3\cdot\text{s}^{-1}$ ), 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 to the river. As a result of these parameters, 6 dredge sessions could occur for Week 2 of April 2024. Dredging to the river occurred 6 times, dredging to the settling dam occurred 4 times, and discharge from the settling dam occurred 4 times (Table 1). For Week 2 of April 2024 a volume of  $2035.2 \text{ m}^3$  was dredged from area 3B and blockages of the suction head occurred 3 times due to seaweed (Table 1).

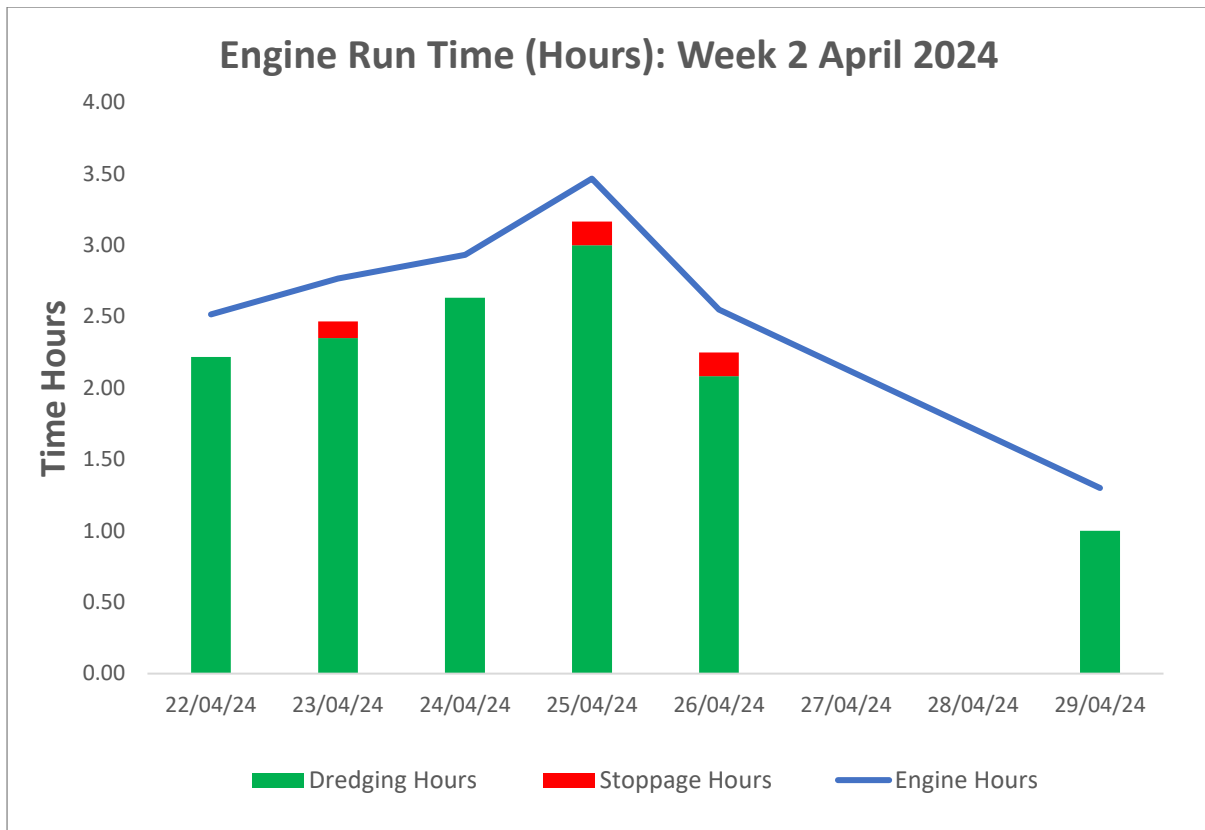
**Table 1. Operational dredging variables.**

Dredging of Dredge area 3B	Total
Allowable dredge sessions	6
Dredge sessions to river	6
Dredge sessions to settling dam	4
Release from settling dam	4
Dredge volume ( $\text{m}^3$ )	2035.2
Stop incidents (due to blockage)	3

A total engine run time of 15 hours and 32 minutes was achieved for Week 2 of April 2024 with a mean run time of 2 hours and 35 minutes per dredge session (Table 2). The mean dredge time achieved per session was 2 hours and 13 minutes, indicating 27 minutes of stoppage time due to blockages of the suction head (Table 2). The mean volume of dredge material discharged to the river and to the settling dam was  $235.5 \text{ m}^3$  and  $155.5 \text{ m}^3$  (respectively) per session (Table 2). The total volume discharged from the settling dam was  $622.1 \text{ m}^3$  and a mean volume of  $155.5 \text{ m}^3$  per discharge (Table 2).

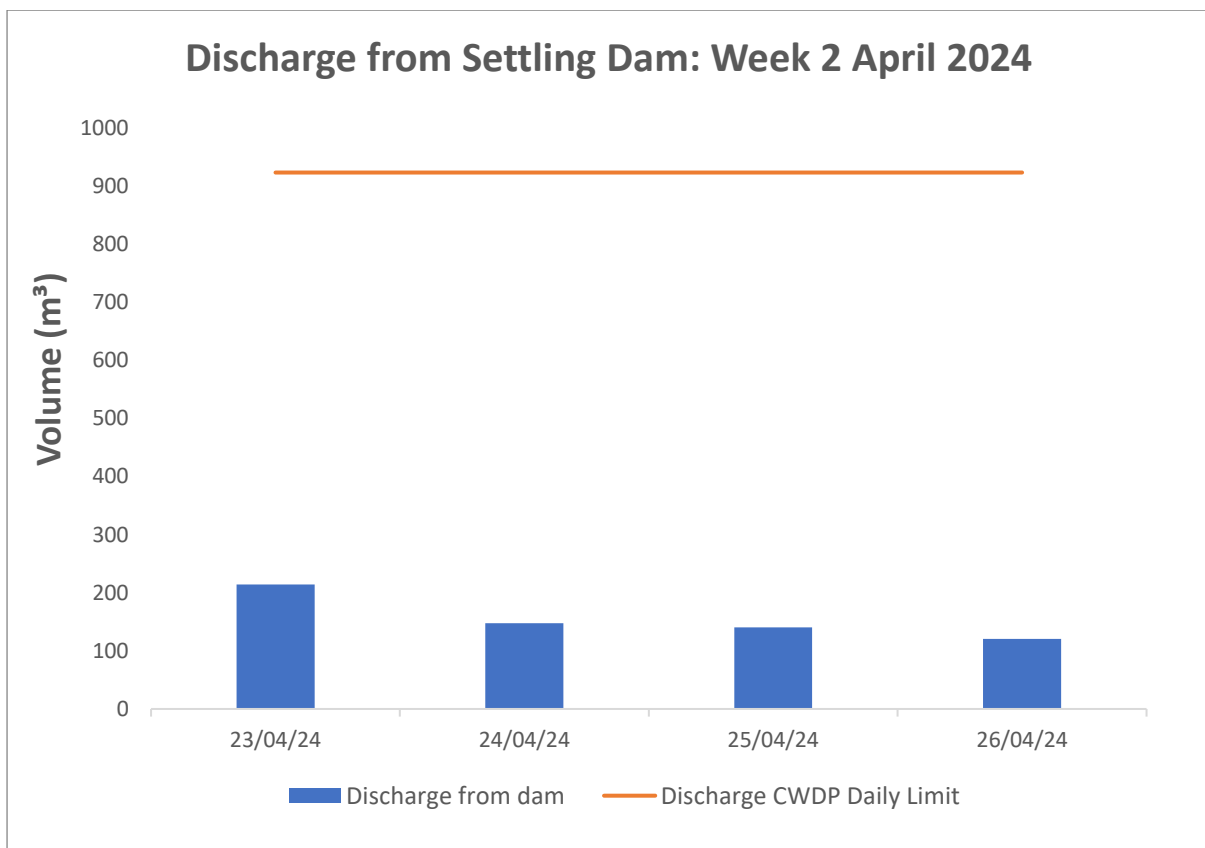
**Table 2. Operational variables and means per dredge session.**

Operational variables	Total	Mean (per session)
Engine time (h:min)	15:32	2:35
Dredge time (h:min)	13:17	2:13
Stoppage time (h:min)	0:27	0:04
Volume direct to river ( $\text{m}^3$ )	1413.1	235.5
Volume to dam ( $\text{m}^3$ )	622.1	155.5
Volume from dam to river ( $\text{m}^3$ )	622.1	155.5



### Daily discharge from the settling dam

Daily discharge from the settling dam did not exceed the CWDP limit of 923 m<sup>3</sup>.



## 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 <sup>-1</sup> )
Before dredging	0
During dredging	0
After dredging	0