



Port Owen Marina Authority (NPC)

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Weekly dredge monitoring report

Dredge area 3B: Eastern Entrance was dredged between 19 and 23 August 2024 (hereafter referred to as “Week 3”). 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, 7 dredge sessions could occur for Week 3 of August 2024, of which 2 afternoon sessions were cancelled due to too high river level. Dredging to the river occurred 5 times, no dredging to and no discharge from the settling dam occurred (Table 1). For Week 3 of August 2024 a volume of 1969.7 m^3 was dredged from area 3B and no blockages of the suction head occurred.

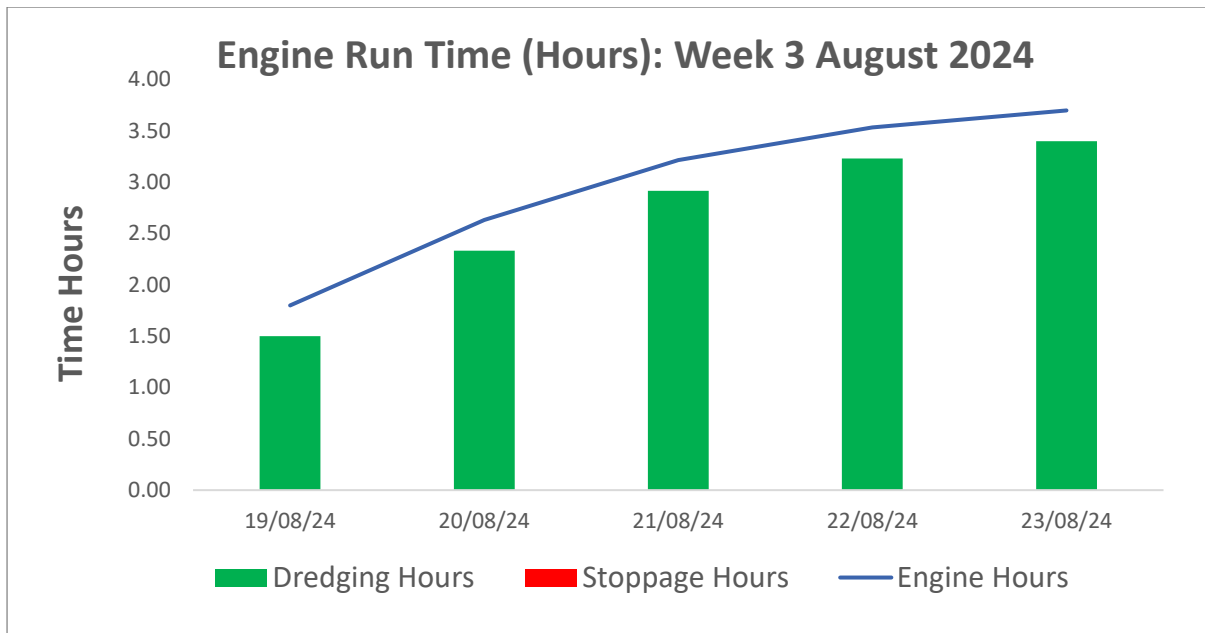
Table 1. Operational dredging variables.

Dredging of Dredge area 3B	Total
Allowable dredge sessions	7
Dredge sessions to river	5
Dredge sessions to settling dam	0
Release from settling dam	0
Dredge volume (m^3)	1969.7
Stop incidents (due to blockage)	0

A total engine run time of 14 hours and 53 minutes was achieved for Week 3 of August 2024 with a mean run time of 2 hours and 58 minutes per dredge session (Table 2). The mean dredge time achieved per session was 2 hours and 40 minutes, indicating 0 stoppage time due to blockages of the suction head (Table 2). The mean volume of dredge material discharged to the river was 393.9 m^3 per session (Table 2).

Table 2. Operational variables and means per dredge session.

Operational variables	Total	Mean (per session)
Engine time (h:min)	14:53	2:58
Dredge time (h:min)	13:23	2:40
Stoppage time (h:min)	0	0
Volume direct to river (m^3)	1969.7	393.9
Volume to dam (m^3)	0	0
Volume from dam to river (m^3)	0	0



Daily discharge from the settling dam

Dam not functional due to being full of settled sediment.

River velocity

Mean river velocity recorded before, during, and after dredging remained within the allowable parameter (above 0.43 m.s⁻¹) for Week 3 of August 2024 dredging (Table 3).

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

River velocity	Mean (m.s ⁻¹)
Before dredging	0.71
During dredging	0.79
After dredging	0.75

